



N E V A D A

AGENDA
Regular Meeting
City Council

Wednesday, July 20, 2022 • 5:00 PM

Mayor
Roy Edgington

City Council
Ward 1 - Raymond Lacy
Ward 2 - Felicity Zoberski
Ward 3 - Stan Lau
Ward 4 - Albert Torres
Ward 5 - Fran McKay

City Manager
Patrick Marsh - Acting

Fernley City Council Chambers, 595 Silver Lace Boulevard, Fernley, NV 89408

Zoom information:

Please click the following link to join the webinar: <https://us02web.zoom.us/j/82966343247>, or one tap mobile: 12532158782, Dial: 669 900 9128, Webinar ID: 829 6634 3247

Public Notice: This agenda has been physically posted in compliance with 241.020 at Fernley City Hall, 595 Silver Lace Blvd. In addition, this agenda has been electronically posted in compliance with NRS 241.020(3) at www.cityoffernley.org and NRS 232.2175 at <https://notice.nv.gov/>. To obtain further documentation regarding posting, please contact the City Clerk's Office at (775) 784-9830 or cityclerk@cityoffernley.org

Public Comment: Those wishing to address the City Council may submit public comment through the online public comment form found at <https://www.cityoffernley.org/forms>, or by sending an email to cityclerk@cityoffernley.org. Comments received prior to 4:00 pm the day of the meeting will be provided to City Council and added to the record but will not be read during the live meeting. Public comments received after 4 pm the day of the meeting will be included in the record but may not reach council members before action is taken. Public comment, whether on action items or public comment, is limited to three (3) minutes per person. Unused time may not be reserved by the speaker, nor allocated to another speaker. The public may comment on any matter that is not specifically included on an agenda as an action item or comment on a specific agenda item. Items not included on the agenda cannot be acted upon other than to place them on a future agenda. Additionally, if you wish you can comment in person at the meeting or use the Raise your Hand feature in Zoom (*9 if you are participating via phone).

Accommodations: City Council and staff will make reasonable efforts to assist and accommodate individuals with disabilities desiring to attend the meeting. Please contact the City Clerk's Office at (775) 784-9830 in advance so that arrangements can be made.

Supporting Material: Staff reports and supporting material for the meeting are available at the City Clerk's Office, and on the City's website at www.cityoffernley.org. Pursuant to NRS 241.020(6), supporting material is made available to the general public at the same time it is provided to the City Council.

Order of Business: The presiding officer shall determine the order of the agenda. The Fernley City Council may combine two or more agenda items for consideration; remove an item from the agenda; or delay discussion relating to an item on the agenda at any time. All items are action items unless otherwise noted. Items scheduled to be heard at a specific time will be heard no earlier than the stated time but may be heard later.

1. INTRODUCTORY ITEMS

1.1. Roll Call

1.2. Public Forum

1.3. (For Possible Action) Approval of Agenda

2. CONSENT AGENDA

(PLEASE NOTE: ALL MATTERS LISTED UNDER THE CONSENT AGENDA ARE CONSIDERED ROUTINE, AND MAY BE ACTED UPON BY THE COUNCIL MEMBERS IN ONE MOTION, AND WITHOUT AN EXTENSIVE HEARING. ANY MEMBER OF THE COUNCIL MAY REQUEST THAT AN ITEM BE TAKEN FROM THE CONSENT AGENDA, DISCUSSED, AND ACTED UPON SEPARATELY DURING THIS MEETING.)

2.1. (Possible Action) Approval of Voucher Report

2.2. (Possible Action) Approval of Minutes from July 6, 2022

2.3. (Possible Action) Approval of Business Licenses

2.4. Possible Action to Approve two Community Development Block Grant Agreements for FY2022/23.

2.5. Possible Action to Approve the Will-Serve for American Battery Metal Corporation Lab/Office TI of 2.48 ERC's for Water and 8.66 ERC's for Sewer for Lyon County Parcel 021-071-45 located at 395 Logan Lane, Fernley, NV 89408.

2.6. Possible action to authorize the execution of the Water Right Banking and Dedication Agreement with Fernley Fremont Investors, LLC, APN 021-311-30, TCID serial number 1056-1-F in the amount of 6.03 acre-feet."

2.7. Possible action to authorize the execution of the Water Right Banking and Dedication Agreement with CRE of Nevada, LLC, APN 020-151-19, TCID serial number 1039-A-2 in the amount of 9.27 acre-feet.

2.8. Possible action to approve the award of the 2022-2023 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc.

2.9. Possible action to approve a contract for on-call inspection services and engineering support services with NCE.

2.10. Possible Action to approve Amendment 2 to the One Nevada Agreement on Allocation of Opioid Recoveries.

2.11. (Possible Action) to authorize the transfer of salary and benefit budget appropriations totaling \$82,552 for the development coordinator position from the planning department to the City manager's department.

2.12. Possible Action to Approve the Will-Serve Request from Genica NV, LLC for 61 ERC's for Water and 61 ERC's for Sewer for 61 homes for Donner Trails Phase 12B for Lyon County Parcel 021-201-57 located in Fernley, NV 89408

2.13. Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Parks Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

2.14. Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Wastewater Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

- 2.15. Possible Action to purchase one (1), Ford F150, 4wd pickup truck from Corwin Ford for the City of Fernley's Water Treatment Facility for an amount of \$36,528.25 plus a 4% contingency of \$1,461.13 for a total of \$37,989.38.
- 2.16. Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Utilities Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.
- 2.17. For Possible Action to Approve the purchase of two new replacement air compressors with appurtenances from Atlas Copco for the City of Fernley's Water Treatment Facility.
- 2.18. Possible action to approve the purchase of eight Hach turbidity analyzers and appurtenances for a total of \$61,930.74 for the water treatment plant operations.
- 2.19. Possible Action to purchase one (1), Elgin Regen X Regenerative Air Sweeper from Velocity Truck Centers for the City of Fernley's Streets and Storm Drains Department for an amount of \$312,960, plus a 3% contingency of \$9,388.80, for a total of \$322,348.80.
- 2.20. Possible action to amend the contract between the City of Fernley and Walther Law Offices PLLC for Public Defender Services not to exceed \$120,000 a year beginning FY2022-23.

3. REPORTS

4. PROCLAMATIONS BY THE MAYOR

5. PUBLIC HEARINGS

- 5.1. Presentation, discussion, and possible action on the 2023-2024 Community Development Block Grant (CDBG) Program update, priorities, and citizen participation process.
- 5.2. Reading and Public Hearing, Bill #309 – ZMA22004 & TSM22003, Continued from 06/01/2022 Consideration and possible action on a Zoning Map Amendment and a Tentative Subdivision Map request for a site consisting of one (1) parcel of land approximately 30.15 acres in size, located at 900 Vonnie Lane, Fernley, NV (021-471-05).
 1. A Zoning Map Amendment request associated with ZMA22004, to change the zoning on a single parcel of land from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size).
 2. A Tentative Subdivision Map request associated with TSM22003, to allow for the development of a 79-lot residential subdivision, located within the SF6 (Single Family, 6,000 sq. ft. minimum lot size zoning district).

6. ORDINANCES

- 6.1. (Possible Action) First Reading, Introduction of Bill #310 (ANX22001) – Consideration and introduction of Bill #310 as an ordinance for an annexation request to annex approximately 685.51 acres into the City of Fernley, generally located southeast of Interstate 80, east of Nevada Pacific Parkway, and west of the Fernley Wildlife Management Area (APN: 021-201-01). Upon annexation, the zoning shall convert from the Lyon County zoning designation of M-1 (General Industrial) to a City of Fernley zoning designation of I (Industrial).
- 6.2. (Possible Action) First Reading, Introduction of Bill #313 (ZMA22005) – Consideration and introduction of Bill #313 as an ordinance for a Zoning Map Amendment request from Mark IV Capital to change the zoning of two parcels of land (APN's 021-211-02 & 021-211-03) from RR1 (Rural Residential, 1-acre minimum lot size) to I (Industrial).

7. STAFF REPORTS

7.1. Possible Action to Discuss and Approve the Owner-Construction Manager At Risk Pre-Construction Agreement for the Community Response & Resource Center to Core Construction, in the amount not-to-exceed \$94,500.00

7.2. Possible action and discussion regarding the recruitment of the City Manager position, including, but not limited to, job description, ordinances, job title, organizational chart, etc.

8. RESOLUTIONS

9. ITEMS REQUESTED BY MAYOR OR CITY COUNCIL MEMBERS:

9.1. For possible action and discussion requesting a future agenda item to schedule a workshop with Verdunity, Inc (Councilwoman McKay)

9.2. For possible action and discussion regarding a future agenda item to explore residential recycling in the City of Fernley. (Councilman Lacy)

10. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

11. PUBLIC FORUM

12. ADJOURNMENT

Next Meeting: August 3, 2022 @ 5 PM

Report Criteria:

Detail report.

Invoice detail records above \$0 included.

Paid and unpaid invoices included.

Vendor.Vendor Number = {<->} 2201

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
A & K EARTH MOVERS, INC.								
304	A & K EARTH MOVERS, INC.	#2	Construction services for green valley park project	06/01/2022	127,144.32		230-575-730 Improve other than Buildings	622
Total 304:					127,144.32			
AECOM TECHNICAL SERVICES, INC.								
8633	AECOM TECHNICAL SERVICES, INC.	2000637512	Surface water conveyanec project engineering services durin	06/20/2022	33,540.93		510-166100 Construction In Progress	622
Total 8633:					33,540.93			
AFLAC								
5690	AFLAC	849436	SUPPLEMENTAL INSURANCE	06/25/2022	318.92		100-217400 AFLAC Insurance Payable	622
Total 5690:					318.92			
ALHAMBRA								
4688	ALHAMBRA	7661929070722	Shop - Bottled Water Service	07/07/2022	282.69		510-810-614 Supplies-Plant/Shop/Maint	722
Total 4688:					282.69			
ALPINE HELICOPTER SERVICE								
2928	ALPINE HELICOPTER SERVICE	22-191	helicopter drop.	06/14/2022	4,730.00	07/07/2022	100-528-322 Prof Serv-Other	622
Total 2928:					4,730.00			
AMERICAN WATER WORKS ASSO.								
9	AMERICAN WATER WORKS ASSO.	DS 00126335	AWWA membership renewal	07/01/2022	141.90		100-529-581 Dues & Memberships	722
9	AMERICAN WATER WORKS ASSO.	DS 00126335	AWWA membership renewal	07/01/2022	47.30		510-840-581 Dues and Memberships	722
9	AMERICAN WATER WORKS ASSO.	DS 00126335	AWWA membership renewal	07/01/2022	118.25		510-810-581 Dues and Memberships	722
9	AMERICAN WATER WORKS ASSO.	DS 00126335	AWWA membership renewal	07/01/2022	165.55		520-810-581 Dues and Memberships	722
Total 9:					473.00			
ARAMARK								
1895	ARAMARK	2591047164	rags and rugs	06/30/2022	107.62	07/07/2022	510-840-420 Contract Services	622
1895	ARAMARK	2591047197	matts	06/30/2022	159.58	07/07/2022	100-417-420 Contract Services	622
1895	ARAMARK	2591047208	mat service	06/30/2022	70.33	07/07/2022	520-810-614 Supplies-Plant/Shop/Maint	622
1895	ARAMARK	5980010109	shirt contract	06/27/2022	45.06	07/07/2022	100-480-600 GENERAL SUPPLIES/TOOLS	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
1895	ARAMARK	5980010112	uniforms	06/27/2022	43.32	07/07/2022	100-475-616 Supplies-Safety	622
1895	ARAMARK	5980011527	pants service	07/04/2022	50.57		510-810-614 Supplies-Plant/Shop/Maint	722
1895	ARAMARK	5980011531	SHIRT CONTRACT	07/04/2022	39.66	07/07/2022	100-480-600 GENERAL SUPPLIES/TOOLS	722
1895	ARAMARK	5980011533	uniforms	07/04/2022	48.30	07/07/2022	100-475-616 Supplies-Safety	722
Total 1895:					564.44			
AT&T								
13	AT&T	98670 JUN 22	775-786-2229 867 0	06/20/2022	2,078.38	07/12/2022	100-417-530 Communications (Internet,Cell)	622
Total 13:					2,078.38			
ATKINS NORTH AMERICA, INC								
8853	ATKINS NORTH AMERICA, INC	1974124	Ongoing easement acquisition services	06/22/2022	2,938.75		100-475-745 RTC REIMBURSABLE EXPENDI	622
Total 8853:					2,938.75			
BIG R OF FERNLEY								
20	BIG R OF FERNLEY	14755/5	tape and canvas	06/27/2022	46.97	07/07/2022	100-575-600 General Supplies	622
20	BIG R OF FERNLEY	14756/5	rope and fasteners for Flag otp	06/27/2022	54.12	07/07/2022	100-575-600 General Supplies	622
20	BIG R OF FERNLEY	14757/5	propane	06/27/2022	84.16	07/07/2022	100-575-623 Propane	622
20	BIG R OF FERNLEY	14764/5	irrigation	06/28/2022	6.36	07/07/2022	100-575-600 General Supplies	622
20	BIG R OF FERNLEY	14766/5	paint thinner black paint, for graffiti	06/28/2022	42.94	07/07/2022	100-575-600 General Supplies	622
20	BIG R OF FERNLEY	14771/5	Hulagan cultivator and keys.	06/28/2022	74.96	07/07/2022	100-475-600 General Supplies	622
20	BIG R OF FERNLEY	14777/5	wrenches	06/29/2022	45.32	07/07/2022	100-575-605 Minor Equipment	622
20	BIG R OF FERNLEY	14783/5	painting supplies	06/30/2022	48.35	07/07/2022	100-417-612 Building Maintenance Supplies	622
20	BIG R OF FERNLEY	14798/5	misc. paint and hose	07/01/2022	89.09	07/07/2022	100-575-600 General Supplies	722
20	BIG R OF FERNLEY	14800/5	yellow spray paint	07/01/2022	7.79	07/07/2022	100-575-600 General Supplies	722
20	BIG R OF FERNLEY	14823/5	Key caddy	07/06/2022	11.99		510-810-613 Supplies-Meter Service	722
20	BIG R OF FERNLEY	14830/5	flex straw	07/07/2022	47.94		100-475-600 General Supplies	722
Total 20:					559.99			
BLUE BEACON INTERNATIONAL								
200	BLUE BEACON INTERNATIONAL	3832026	L HATHWAY TRUCK WASH	06/30/2022	83.60		510-810-610 Automotive Supplies	622
200	BLUE BEACON INTERNATIONAL	3832026	J LASSEN TRUCK WASH	06/30/2022	81.90		520-810-610 Supplies-Automotive	622
Total 200:					165.50			
Board of Regents; College of Business								
1455	Board of Regents; College of Business	PG05565 July 22	JULY 22 CED # PG05565	07/05/2022	1,000.00	07/07/2022	100-413-322 Prof Serv-Other	722
Total 1455:					1,000.00			

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
BOB'S PRINTING AND SIGNAGE								
6970	BOB'S PRINTING AND SIGNAGE	61022-1	City of Fernley Envelopes	06/21/2022	215.25	07/07/2022	100-610-601 Office Supplies	622
6970	BOB'S PRINTING AND SIGNAGE	61722-1	Name Plate; Lopez Martinez	06/28/2022	27.40	07/07/2022	100-413-550 Printing and Postage	622
6970	BOB'S PRINTING AND SIGNAGE	61722-2	Fin Dept window envelopes for AP	06/30/2022	224.75	07/07/2022	100-425-550 Printing and Postage	622
6970	BOB'S PRINTING AND SIGNAGE	62822-1	COF apparel for CCO	06/30/2022	401.31	07/07/2022	100-416-600 General Supplies	622
6970	BOB'S PRINTING AND SIGNAGE	63022-1	Name Plate HR; Moxely	07/05/2022	27.40	07/07/2022	100-413-550 Printing and Postage	722
Total 6970:					896.11			
BOYS & GIRLS CLUB OF TRUCKEE MEADOWS								
8833	BOYS & GIRLS CLUB OF TRUCKEE MEADOWS	APR-JUN22	ARPA Boys & Girls Club Sub Grantee April-June 2022	06/30/2022	32,529.23		220-480-810 ARPA	622
Total 8833:					32,529.23			
BRADY INDUSTRIES OF NEVADA LLC								
8837	BRADY INDUSTRIES OF NEVADA LLC	7393650	cleaning supplies	06/24/2022	480.73	07/07/2022	100-417-612 Building Maintenance Supplies	622
Total 8837:					480.73			
CALIFORNIA INDUSTRIAL RUBBER CO.								
8899	CALIFORNIA INDUSTRIAL RUBBER CO.	S-095174	Chlorine Tank Gasket	06/16/2022	239.88		520-810-614 Supplies-Plant/Shop/Maint	622
Total 8899:					239.88			
CFA INC								
499	CFA INC	25032	Engineering services during construction of green valley park	05/31/2022	900.00		230-575-730 Improve other than Buildings	522
Total 499:					900.00			
CHASE								
8748	CHASE	1428	2020 series bond Sewer-Int	08/01/2022	5,248.34		520-800-860 Interest Expense	822
8748	CHASE	1428	2020 series bond Water-Int	08/01/2022	46,859.36		510-800-860 Interest Expense	822
Total 8748:					52,107.70			
CHASE PAYMENTECH MERCHANT SERVICES								
8637	CHASE PAYMENTECH MERCHANT SERVICES	JUN 2022	Water-CC Processing Fees 6181757	06/30/2022	3,448.81	06/30/2022	510-810-609 Credit Card Fees	622
8637	CHASE PAYMENTECH MERCHANT SERVICES	JUN 2022	Sewer-CC Processing Fees 6181757	06/30/2022	3,448.80	06/30/2022	520-810-609 Credit Card Fees	622
8637	CHASE PAYMENTECH MERCHANT SERVICES	JUN 2022	Finance-Cc Processing Fees 6291057	06/30/2022	604.08	06/30/2022	100-415-609 Credit Card Fees - Govt Svcs	622
8637	CHASE PAYMENTECH MERCHANT SERVICES	JUN 2022	finance-cc processing fees 6291058	06/30/2022	57.87	06/30/2022	100-415-609 Credit Card Fees - Govt Svcs	622
Total 8637:					7,559.56			

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
CITY OF FERNLEY								
32	CITY OF FERNLEY	30.783813	WATER CONVEYANCE; PN# 2019-002-1	07/05/2022	95.29		510-166100 Construction In Progress	722
Total 32:					95.29			
CONSTRUCTION MATERIALS ENGINEERS								
5587	CONSTRUCTION MATERIALS ENGINEERS	12477	Coating inspections for Sage tank recoat	06/30/2022	405.00		510-166100 Construction In Progress	622
5587	CONSTRUCTION MATERIALS ENGINEERS	12478	Inspection and testing services for green valley park project	06/30/2022	4,515.00		230-575-730 Improve other than Buildings	622
Total 5587:					4,920.00			
CUMMING MANAGEMENT GROUP, INC								
8889	CUMMING MANAGEMENT GROUP, INC	112564	JUN2022 Professional Services CRRC	06/30/2022	9,688.00		220-480-810 ARPA	622
Total 8889:					9,688.00			
DENISON AUTO INTERIORS								
6158	DENISON AUTO INTERIORS	119837	repair vactor seat	07/17/2022	225.00		100-475-430 Service-Repair and Maintenance	722
Total 6158:					225.00			
EMPLOYEES, CITY OF FERNLEY								
8639	EMPLOYEES, CITY OF FERNLEY	6/2022	REIMB MILEAGE; 2022 PERS LIAISON TRNG 6/29/22	06/29/2022	63.77	07/07/2022	100-425-580 Training	622
8639	EMPLOYEES, CITY OF FERNLEY	CC1244	REIMB VALVE & HYDRANT MAINT COURSE	07/07/2022	142.00		520-810-580 Training	722
8639	EMPLOYEES, CITY OF FERNLEY	CC-9847	REIMB CERTIFICATION RENEWAL	07/12/2022	130.00		520-810-642 Permits and Licenses	722
Total 8639:					335.77			
FARR CONSTRUCTION								
668	FARR CONSTRUCTION	#5	Surface water conveyance project construction services	05/31/2022	806,550.00		510-166100 Construction In Progress	522
668	FARR CONSTRUCTION	#6	Surface water conveyance project construction services	06/24/2022	507,822.18		510-166100 Construction In Progress	622
668	FARR CONSTRUCTION	FDR Phase 2 Pay request	Materials acquisition for Farm District lift station phase 2 proje	06/30/2022	74,398.32		520-166100 Construction In Progress	622
Total 668:					1,388,770.50			
FARR WEST ENGINEERING								
6275	FARR WEST ENGINEERING	17999	Train Depot Re-roof Project	06/30/2022	229.50		300-425-730 Improve other than Buildings	622
Total 6275:					229.50			
FASTENAL COMPANY								
4860	FASTENAL COMPANY	NVFER45456	steel for streets repair	07/07/2022	7.78		100-475-430 Service-Repair and Maintenance	722
4860	FASTENAL COMPANY	NVFER45496	Safety Vests and Squincher	07/11/2022	42.13		520-810-616 Supplies-Safety	722

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title		GL Period
Total 4860:					49.91				
FERNLEY 4th OF JULY INC									
53	FERNLEY 4th OF JULY INC	R2 FY21-22	FCTA R2 FY21-22	06/30/2022	3,304.00	07/07/2022	225-575-650	Grant Awards	622
Total 53:					3,304.00				
FLYERS ENERGY, LLC									
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - PARKS	06/30/2022	463.89		100-575-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - VECTOR	06/30/2022	31.29		100-528-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - WATER DIST	06/30/2022	1,967.28		510-810-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - SEWER	06/30/2022	1,665.64		520-810-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - STREETS	06/30/2022	1,217.72		100-475-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - ANIMAL CONTROL	06/30/2022	376.55		100-525-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - CDD BUILDING	06/30/2022	292.90		100-605-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - FACILITIES	06/30/2022	254.31		100-417-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - CMO	06/30/2022	74.16		100-413-626	Gasoline	622
18	FLYERS ENERGY, LLC	CFS-3055278	GASOLINE - FLEET	06/30/2022	121.69		100-480-626	GASOLINE	622
Total 18:					6,465.43				
FLYNN GIUDICI GOVERNMENT AFFAIRS LLC									
8869	FLYNN GIUDICI GOVERNMENT AFFAIRS LLC	INV-0030	Jun 22 Lobbyist Contract	06/30/2022	5,800.00	07/07/2022	100-413-322	Prof Serv-Other	622
Total 8869:					5,800.00				
GRANITE CONSTRUCTION CO									
64	GRANITE CONSTRUCTION CO	2268739	hot mix	06/28/2022	1,719.46	07/07/2022	100-475-600	General Supplies	622
64	GRANITE CONSTRUCTION CO	2269807	hot mix	06/30/2022	3,438.62	07/07/2022	100-475-600	General Supplies	622
64	GRANITE CONSTRUCTION CO	2269808	hot mix	06/29/2022	3,061.93	07/07/2022	100-475-600	General Supplies	622
Total 64:					8,220.01				
GRANITE TELECOMMUNICATIONS, LLC									
8838	GRANITE TELECOMMUNICATIONS, LLC	566255367	Jun22 Communications	06/30/2022	188.54	07/07/2022	100-417-530	Communications (Internet,Cell)	622
Total 8838:					188.54				
HACH COMPANY									
406	HACH COMPANY	13036661	Turbidity Cleaning Module	05/14/2022	2,584.36	07/07/2022	510-166100	Construction In Progress	522
406	HACH COMPANY	13122993	Hach calibration service annual agreement	07/01/2022	3,142.00		510-166100	Construction In Progress	722

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 406:					5,726.36			
HANNEMAN SERVICE								
70	HANNEMAN SERVICE	111002	Service Labor	06/21/2022	145.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	111003	Service Labor	06/21/2022	145.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	111004	Service Labor	06/21/2022	145.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	111011	Service Labor	06/27/2022	145.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	12543	2002 Buick Century White NV 98E277	06/21/2022	55.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	12544	1997 Toyota Camry Tan NV121M24	06/21/2022	55.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	12545	200 Ford Explorer Green	06/21/2022	55.00	07/07/2022	100-605-322 Prof Serv-Other	622
70	HANNEMAN SERVICE	12548	1993 Honda Civic 2 Door Blk NV361J57	06/27/2022	55.00	07/07/2022	100-605-322 Prof Serv-Other	622
Total 70:					800.00			
HARRIS INDUSTRIAL GASES								
8630	HARRIS INDUSTRIAL GASES	8838-1880506	welding supplies for fleet	06/30/2022	49.74	07/07/2022	100-480-610 AUTOMOTIVE SUPPLIES	622
Total 8630:					49.74			
HOUSE MORAN CONSULTING, INC.								
8898	HOUSE MORAN CONSULTING, INC.	1346	Impact Fee Feasibility Study	06/30/2022	20,000.00	07/07/2022	100-610-320 Prof Serv-Engineering	622
Total 8898:					20,000.00			
IBEW Local 1245								
83	IBEW Local 1245	JUL 2022-1	UNION DUES, ONE HALF OF MONTH	07/01/2022	804.28	07/01/2022	100-219900 OTHER PAYROLL PAYABLES	722
Total 83:					804.28			
INTERNAL REVENUE SERVICE								
7879	INTERNAL REVENUE SERVICE	JUL 2022-1	FICA TAX PAYABLE, PAYROLL	07/01/2022	331.14	07/01/2022	100-211000 FICA PAYABLE	722
7879	INTERNAL REVENUE SERVICE	JUL 2022-1	MED TAX PAYABLE, PAYROLL	07/01/2022	5,432.54	07/01/2022	100-211000 FICA PAYABLE	722
7879	INTERNAL REVENUE SERVICE	JUL 2022-1	W/HOLD TAX PAYABLE, PAYROLL	07/01/2022	20,468.31	07/01/2022	100-212000 FEDERAL WITHHOLDING PAYAB	722
Total 7879:					26,231.99			
INTERSTATE OIL COMPANY								
4329	INTERSTATE OIL COMPANY	788140-IN	oil and filters	06/28/2022	145.75	07/07/2022	100-480-610 AUTOMOTIVE SUPPLIES	622
4329	INTERSTATE OIL COMPANY	789087-IN	oil and filter for w/d	07/11/2022	509.81		510-810-610 Automotive Supplies	722
Total 4329:					655.56			

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title		GL Period
JOHNSON CONTROLS FIRE PROTECTION LP									
8667	JOHNSON CONTROLS FIRE PROTECTION LP	88885749	fire extinguishers	06/20/2022	127.00	07/07/2022	100-417-420	Contract Services	622
Total 8667:					127.00				
KALBACHER ASSOCIATES, LLC									
8888	KALBACHER ASSOCIATES, LLC	20220702	JUN 22 Comprehensive Grant Serv Contract	06/30/2022	2,250.00	07/07/2022	100-413-322	Prof Serv-Other	622
Total 8888:					2,250.00				
KIMLEY-HORN AND ASSOCIATES, INC.									
8715	KIMLEY-HORN AND ASSOCIATES, INC.	21728107	Access management policy engineering services	05/31/2022	2,957.50		100-475-320	Prof Serv-Engineering	522
Total 8715:					2,957.50				
KONICA MINOLTA BUSINESS									
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	559.66	07/21/2022	100-416-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	270.74	07/21/2022	510-810-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	270.74	07/21/2022	520-810-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	541.48	07/21/2022	100-417-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	541.48	07/21/2022	100-414-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	527.87	07/21/2022	100-425-550	Printing and Postage	622
3811	KONICA MINOLTA BUSINESS	76815542	CONTRACT 500-50118244	06/27/2022	541.48	07/21/2022	100-417-550	Printing and Postage	622
Total 3811:					3,253.45				
LEGISLATIVE COUNSEL BUREAU									
101	LEGISLATIVE COUNSEL BUREAU	2022	2022 Laws Relating to Planning Publication	07/12/2022	30.00		100-414-640	Books and Periodicals	722
Total 101:					30.00				
LOWES CREDIT SERVICES									
7650	LOWES CREDIT SERVICES	02311	2 pop ups for city events	06/29/2022	234.65	07/07/2022	100-575-600	General Supplies	622
7650	LOWES CREDIT SERVICES	023229	Batteries & Swamp Cooler Pulley	06/24/2022	82.46	07/07/2022	510-810-614	Supplies-Plant/Shop/Maint	622
7650	LOWES CREDIT SERVICES	1662	Screen for Tank Vents	07/06/2022	34.75		510-810-614	Supplies-Plant/Shop/Maint	722
7650	LOWES CREDIT SERVICES	16984	misc cleaning supplies	06/30/2022	89.49	07/07/2022	100-417-612	Building Maintenance Supplies	622
7650	LOWES CREDIT SERVICES	18384	Cleaning Supplies	07/07/2022	114.38		520-810-600	General Supplies	722
7650	LOWES CREDIT SERVICES	20746	PVC Parts	07/12/2022	6.65		520-810-600	General Supplies	722
7650	LOWES CREDIT SERVICES	2111	concrete keys misc.	06/28/2022	247.69	07/07/2022	100-475-600	General Supplies	622
7650	LOWES CREDIT SERVICES	2504	drawer guides city hall.	06/30/2022	16.27	07/07/2022	100-417-600	General Supplies	622
7650	LOWES CREDIT SERVICES	2504	trans #17622354, refund tax	06/30/2022	1.08-	07/07/2022	100-417-600	General Supplies	622
7650	LOWES CREDIT SERVICES	2643	Tool Box	07/01/2022	510.41	07/07/2022	100-475-605	Minor Equipment	722
7650	LOWES CREDIT SERVICES	2784	PVC Parts	09/01/2020	17.87		520-810-600	General Supplies	722

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 7650:					1,353.54			
LP INSURANCE SERVICES, INC								
8746	LP INSURANCE SERVICES, INC	675540	NPAIP	07/01/2022	160,447.64	07/07/2022	100-417-520 Insurance	722
8746	LP INSURANCE SERVICES, INC	675540	NPAIP	07/01/2022	36,824.04	07/07/2022	520-810-520 Insurance	722
8746	LP INSURANCE SERVICES, INC	675540	NPAIP	07/01/2022	52,605.78	07/07/2022	510-840-520 Insurance	722
8746	LP INSURANCE SERVICES, INC	675540	NPAIP	07/01/2022	13,151.45	07/07/2022	510-810-520 Insurance	722
Total 8746:					263,028.91			
LUMOS & ASSOCIATES INC								
370	LUMOS & ASSOCIATES INC	113361	Engineering design services and field exploration for existing	06/17/2022	763.00		520-166100 Construction In Progress	622
370	LUMOS & ASSOCIATES INC	113362	Inspection and testing services for pavement maintenance pr	06/17/2022	14,006.00		100-475-430 Service-Repair and Maintenance	622
370	LUMOS & ASSOCIATES INC	113367	engineering services for Red Rock road extension project	06/17/2022	3,201.00		100-475-745 RTC REIMBURSABLE EXPENDI	622
370	LUMOS & ASSOCIATES INC	113375	engineering services for cottonwood reconstruct and rehab pr	06/22/2022	1,692.50		100-475-745 RTC REIMBURSABLE EXPENDI	622
370	LUMOS & ASSOCIATES INC	113375	engineering services for cottonwood lane sewer rehab	06/22/2022	760.00		520-166100 Construction In Progress	622
370	LUMOS & ASSOCIATES INC	113638	EWWTp Monitoring Wells and AOC assistance	06/30/2022	420.00		520-166100 Construction In Progress	622
Total 370:					20,842.50			
LYON COUNTY CLERK/TREASURER								
106	LYON COUNTY CLERK/TREASURER	6/2022	School Tax Payable to Lyon County	06/30/2022	32,000.00		100-227015 School RCT Payble to County	622
106	LYON COUNTY CLERK/TREASURER	6/2022	1% admin fee	06/30/2022	320.00-		100-330-450 ADMINISTRATION FEES	622
106	LYON COUNTY CLERK/TREASURER	6/22	Road Tax Payable to Lyon Co	06/30/2022	404,859.75		100-227010 Road RCT Payable to County	622
106	LYON COUNTY CLERK/TREASURER	TLT Jun 22	Transient Lodging Tax	06/30/2022	3,691.86		225-227010 TLT Payable to County	622
Total 106:					440,231.61			
MARSHALL'S SEPTIC CARE								
8509	MARSHALL'S SEPTIC CARE	I7190	sani-huts	07/01/2022	113.33	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7191	sani-htus	07/01/2022	113.33	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7192	sani-huts	07/01/2022	514.65	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7194	sani-huts	07/01/2022	200.66	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7195	sani-huts	07/01/2022	200.66	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7196	sani-huts	07/01/2022	113.33	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7201	sani-hut	07/01/2022	35.00	07/07/2022	100-575-420 Contract Services	722
8509	MARSHALL'S SEPTIC CARE	I7201R	Sanihuts	07/01/2022	78.33		100-575-420 Contract Services	722
Total 8509:					1,369.29			
MATCO TOOLS								
8529	MATCO TOOLS	117606	tool holder	06/24/2022	37.92	07/07/2022	100-480-600 GENERAL SUPPLIES/TOOLS	622
8529	MATCO TOOLS	118230	under hood light for shop	07/08/2022	229.95		100-480-600 GENERAL SUPPLIES/TOOLS	722

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 8529:					267.87			
MICROSOFT								
8539	MICROSOFT	E0200IZ9EN	Tech Services	06/15/2022	23,460.00	07/07/2022	100-418-342 Tech Services-Other	622
Total 8539:					23,460.00			
MISCELLANEOUS ONE TIME VENDOR								
1111	MISCELLANEOUS ONE TIME VENDOR	02/22/2021	RETURN IRRIGATION LEASE PRG	07/12/2022	25.00		510-228201 Unclaimed Deposit Refund Check	722
1111	MISCELLANEOUS ONE TIME VENDOR	37.000777	BUS LIC OVERPAYMENT ON 6/28/22	06/29/2022	1,277.98	07/07/2022	100-320-100 Business License Fees	622
1111	MISCELLANEOUS ONE TIME VENDOR	5.8867.02	REFUND OVERPAYMENT OF WATER/SEWER	06/22/2022	588.22	07/07/2022	010-115100 Cash Clearing-Utilities	622
1111	MISCELLANEOUS ONE TIME VENDOR	BP22-406	REFUND BP22-406	06/28/2022	80.00	07/07/2022	100-320-200 Building and Civil Permit Fees	622
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-026	REFUND PERMIT & CUT FEE 1468 JENNYS LN	07/05/2022	425.00	07/07/2022	100-320-220 Engineering/Civil Fees	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-026	RELEASE BOND; 1468 JENNYS LN	07/05/2022	500.00	07/07/2022	100-228300 Customer Deposits/Bonds - Dev	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-028	RELEASE BOND; 1472 JENNYS LN	07/05/2022	500.00	07/07/2022	100-228300 Customer Deposits/Bonds - Dev	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-028	REFUND PERMIT & CUT FEE 1472 JENNYS LN	07/05/2022	425.00	07/07/2022	100-320-220 Engineering/Civil Fees	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-032	RELEASE BOND; 1485 JENNYS LN	07/05/2022	500.00	07/07/2022	100-228300 Customer Deposits/Bonds - Dev	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-032	REFUND PERMIT & CUT FEE 1485 JENNYS LN	07/05/2022	425.00	07/07/2022	100-320-220 Engineering/Civil Fees	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-037	RELEASE BOND; 1662 STREAMBEAD DR	07/05/2022	500.00	07/07/2022	100-228300 Customer Deposits/Bonds - Dev	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-037	REFUND OF PERMIT & CUT FEE 1662 STREAMBEAD DR	07/05/2022	425.00	07/07/2022	100-320-220 Engineering/Civil Fees	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-038	RELEASE BOND; 1664 STREAMBEAD DR	07/05/2022	500.00	07/07/2022	100-228300 Customer Deposits/Bonds - Dev	722
1111	MISCELLANEOUS ONE TIME VENDOR	EN2022-038	REFUND OF PERMIT & CUT FEE 1664 STREAMBEAD DR	07/05/2022	425.00	07/07/2022	100-320-220 Engineering/Civil Fees	722
1111	MISCELLANEOUS ONE TIME VENDOR	PE 7 & 8	PE-8 TACHERA; LN:0803737212	07/01/2022	500.00	07/07/2022	100-475-745 RTC REIMBURSABLE EXPENDI	722
1111	MISCELLANEOUS ONE TIME VENDOR	PE 7 & 8	PE-7 VILLAGOMEZ; LN:0803755008	07/01/2022	500.00	07/07/2022	100-475-745 RTC REIMBURSABLE EXPENDI	722
Total 1111:					7,596.20			
MOTOROLA SOLUTIONS, INC.								
6659	MOTOROLA SOLUTIONS, INC.	8281350961	Body / Handheld Radio	06/30/2022	3,596.47	07/07/2022	100-425-322 Prof Serv-Other	622
Total 6659:					3,596.47			
MOUNTAIN ALARM								
8814	MOUNTAIN ALARM	2899451	monitoring otp	07/01/2022	219.00	07/07/2022	100-575-420 Contract Services	722
Total 8814:					219.00			
MR BUBBLES TOUCHLESS CARWASH								
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	23.00		100-417-610 Automotive Supplies	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	15.25		510-810-610 Automotive Supplies	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	15.00		520-810-610 Supplies-Automotive	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	80.75		520-810-610 Supplies-Automotive	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	125.00		510-810-610 Automotive Supplies	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	6.75		100-480-610 AUTOMOTIVE SUPPLIES	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	196.50		100-475-610 Automotive Supplies	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	6.50		510-810-610 Automotive Supplies	622
7487	MR BUBBLES TOUCHLESS CARWASH	311	Vehicle Cleaning	06/30/2022	6.50		520-810-610 Supplies-Automotive	622
Total 7487:					475.25			
MSC INDUSTRIAL SUPPLY CO								
115	MSC INDUSTRIAL SUPPLY CO	91147385	Hard Hat for Don Pogtis	07/12/2022	24.22		520-810-616 Supplies-Safety	722
Total 115:					24.22			
NAPA AUTO & TRUCK PARTS								
58	NAPA AUTO & TRUCK PARTS	371367	PARTS FOR STREETS TRUCK	05/18/2022	135.81	07/07/2022	100-475-610 Automotive Supplies	522
58	NAPA AUTO & TRUCK PARTS	371367	063022 SVC FEE	05/18/2022	2.04	07/07/2022	100-475-610 Automotive Supplies	522
58	NAPA AUTO & TRUCK PARTS	373576	def fluid funnel safety glasses.	06/24/2022	58.26	07/07/2022	100-475-610 Automotive Supplies	622
58	NAPA AUTO & TRUCK PARTS	373796	wrenches	06/29/2022	63.67	07/07/2022	100-575-605 Minor Equipment	622
58	NAPA AUTO & TRUCK PARTS	373797	saw blades	06/29/2022	20.49	07/07/2022	100-575-600 General Supplies	622
58	NAPA AUTO & TRUCK PARTS	373799	PARTS FOR 1301 W/D	06/29/2022	71.64	07/07/2022	510-810-610 Automotive Supplies	622
58	NAPA AUTO & TRUCK PARTS	373877	hydraulics	06/30/2022	21.69	07/07/2022	100-575-610 Automotive Supplies	622
58	NAPA AUTO & TRUCK PARTS	374253	parts for 3008 streets	07/08/2022	126.40		100-475-610 Automotive Supplies	722
58	NAPA AUTO & TRUCK PARTS	374255	parts for 3008	07/08/2022	46.76		100-475-610 Automotive Supplies	722
58	NAPA AUTO & TRUCK PARTS	374282	parts for streets 3008	07/08/2022	61.42		100-475-610 Automotive Supplies	722
58	NAPA AUTO & TRUCK PARTS	374432	parts for 3003	07/11/2022	63.95		100-475-610 Automotive Supplies	722
Total 58:					672.13			
NATIONAL BAND AND TAG CO								
4085	NATIONAL BAND AND TAG CO	INV 130228	Interest on Invoice 130228 dated 8.27.2021	06/30/2022	8.26	07/07/2022	100-525-600 General Supplies	622
Total 4085:					8.26			
NEVADA DEPARTMENT OF TAXATION								
6378	NEVADA DEPARTMENT OF TAXATION	TLT Jun 22	Transient Lodging Tax	06/30/2022	2,215.12		225-227015 TLT Payable to State	622
Total 6378:					2,215.12			
NEVADA DEPT OF BUSINESS & INDUSTRY								
5439	NEVADA DEPT OF BUSINESS & INDUSTRY	AA22-321	Assessment Government Employees FY 2022	07/01/2022	210.00	07/07/2022	100-413-315 Prof Serv-Personnel	722
Total 5439:					210.00			
NEVADA DEPT PUBLIC SAFETY - DPS								
7405	NEVADA DEPT PUBLIC SAFETY - DPS	60414	Compliance	06/30/2022	40.25		510-840-322 Prof Serv-Other	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
7405	NEVADA DEPT PUBLIC SAFETY - DPS	60414	Compliance	06/30/2022	40.25		100-413-322 Prof Serv-Other	622
Total 7405:					80.50			
NEVADA DIVISION OF STATE LANDS								
120	NEVADA DIVISION OF STATE LANDS	19781	Cont No: 4529 Easement for State Lands use of WW Facility	07/01/2022	1,680.00		520-810-642 Permits and Licenses	722
Total 120:					1,680.00			
NEVADA DIVISION OF WATER RESOURCES								
218	NEVADA DIVISION OF WATER RESOURCES	JUL 2022	Proof of completion forms for water rights	07/01/2022	3,600.00	07/07/2022	510-810-698 Water Rights Protection	722
Total 218:					3,600.00			
NEVADA RUBBER STAMP CO INC								
125	NEVADA RUBBER STAMP CO INC	320132	Notary stamp; Swanson CCO	06/24/2022	53.50	07/07/2022	100-416-580 Training	622
Total 125:					53.50			
NEVADA SEAL & PUMP								
4339	NEVADA SEAL & PUMP	NSP4958	Vertical Turbine Pump Vibration Analysis	06/30/2022	1,550.00		510-810-430 Repairs & Maintenance	622
Total 4339:					1,550.00			
NEVADA STATE TREASURER								
127	NEVADA STATE TREASURER	2ND QTR 22	CHILD SUPPORT WITHHOLDING FEES	06/30/2022	14.00		100-219900 OTHER PAYROLL PAYABLES	622
Total 127:					14.00			
OFFICE DEPOT								
133	OFFICE DEPOT	250297675001	Office Supplies; fan	06/20/2022	66.99	07/07/2022	100-605-601 Office Supplies	622
133	OFFICE DEPOT	250298289001	Desk; Bldg Dept	06/23/2022	458.52	07/07/2022	100-605-601 Office Supplies	622
133	OFFICE DEPOT	250298290001	Calculator; tape; rubber bands; labels	06/21/2022	136.06	07/07/2022	100-605-601 Office Supplies	622
133	OFFICE DEPOT	250298291001	File folder labels for DYMO	06/20/2022	47.98	07/07/2022	100-605-601 Office Supplies	622
133	OFFICE DEPOT	250298295001	Office Supplies; pens	06/18/2022	11.98	07/07/2022	100-605-601 Office Supplies	622
133	OFFICE DEPOT	253127538001	Printing	07/01/2022	21.38		100-605-550 Printing and Postage	722
133	OFFICE DEPOT	253128569001	General Supplies	06/28/2022	7.93	07/07/2022	100-413-600 General Supplies	622
133	OFFICE DEPOT	253762182001	General Supplies	07/01/2022	166.01		100-416-600 General Supplies	722
133	OFFICE DEPOT	253762805001	General Supplies	06/30/2022	98.24		100-416-600 General Supplies	622
133	OFFICE DEPOT	253762806001	General Supplies	06/30/2022	25.28		100-416-600 General Supplies	622
133	OFFICE DEPOT	253762807001	Badges	06/30/2022	19.44		100-416-600 General Supplies	622
Total 133:					1,059.81			

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title		GL Period
OPENGOV, INC.									
8657	OPENGOV, INC.	INV00007827	Tech Services FY22-23	07/04/2022	17,455.55		100-418-342	Tech Services-Other	722
Total 8657:					17,455.55				
O'REILLY AUTO PARTS									
6230	O'REILLY AUTO PARTS	3599-200978	BLOCK HEATER FOR GENSET	06/21/2022	137.14	07/07/2022	510-810-610	Automotive Supplies	622
6230	O'REILLY AUTO PARTS	3599-201190	REPAIR PARTS FOR 1003	06/22/2022	35.40	07/07/2022	510-810-610	Automotive Supplies	622
6230	O'REILLY AUTO PARTS	3599-201441	cabin filters for W/D	06/24/2022	24.82	07/07/2022	510-810-610	Automotive Supplies	622
6230	O'REILLY AUTO PARTS	3599-201958	PARTS FOR FIRE DEPT C-602	06/28/2022	99.98	07/07/2022	100-126000	Intergovernmental Receivable	622
6230	O'REILLY AUTO PARTS	3599-201997	PARTS FOR W/D	06/28/2022	26.26	07/07/2022	510-810-610	Automotive Supplies	622
6230	O'REILLY AUTO PARTS	3599-202110	PARTS FOR W/D 1301	06/29/2022	14.96	07/07/2022	510-810-610	Automotive Supplies	622
6230	O'REILLY AUTO PARTS	3599-202130	PARTS FOR W/W	06/29/2022	6.24	07/07/2022	520-810-430	Service-Repair and Maintenance	622
6230	O'REILLY AUTO PARTS	3599-202135	PARTS FOR 2301 VAC-CON	06/29/2022	48.48	07/07/2022	520-810-430	Service-Repair and Maintenance	622
6230	O'REILLY AUTO PARTS	3599-202404	SERVICE PARTS FOR 1006 W/D	07/01/2022	26.12	07/07/2022	510-810-610	Automotive Supplies	722
6230	O'REILLY AUTO PARTS	3599-202439	MORE PARTS FOR W/D 1001	07/01/2022	25.69	07/07/2022	510-810-610	Automotive Supplies	722
6230	O'REILLY AUTO PARTS	3599-202440	PARTS FOR W/D 1001	07/01/2022	96.41	07/07/2022	510-810-610	Automotive Supplies	722
6230	O'REILLY AUTO PARTS	3599-203003	PARTS FOR W/D 1003	07/05/2022	35.40	07/07/2022	510-810-610	Automotive Supplies	722
6230	O'REILLY AUTO PARTS	3599-203023	PARTS FOR W/D 1001	07/05/2022	3.37	07/07/2022	510-810-610	Automotive Supplies	722
6230	O'REILLY AUTO PARTS	3599-203133	oil pump for streets	07/06/2022	90.13		100-475-430	Service-Repair and Maintenance	722
6230	O'REILLY AUTO PARTS	3599-203138	catch can for for fleet	07/06/2022	198.99		100-480-610	AUTOMOTIVE SUPPLIES	722
6230	O'REILLY AUTO PARTS	3599-203790	Squeegee, Fluid and bucket	07/11/2022	24.57		520-810-600	General Supplies	722
Total 6230:					893.96				
PACIFIC STORAGE COMPANY									
8876	PACIFIC STORAGE COMPANY	5114388	Shredding Services	06/28/2022	66.00	07/07/2022	100-416-420	Contract Services	622
8876	PACIFIC STORAGE COMPANY	5114389	Shredding	06/28/2022	16.50	07/07/2022	100-425-322	Prof Serv-Other	622
Total 8876:					82.50				
PORTER'S PLUMBING LLC									
8900	PORTER'S PLUMBING LLC	2921	Plumbing ITP, not done yet	06/30/2022	850.00		100-575-600	General Supplies	622
Total 8900:					850.00				
PUBLIC AGENCY COMPENSATION TRU									
145	PUBLIC AGENCY COMPENSATION TRU	4TH QTR 21/22	WORKERS COMP 4TH QTR 21-22	06/30/2022	31,954.00	07/20/2022	100-219000	WORKERS COMPENSATION PA	622
Total 145:					31,954.00				
PUBLIC EMPLOYEES BENEFITS PROG									
143	PUBLIC EMPLOYEES BENEFITS PROG	6/2022	Retiree Group Insurance	06/25/2022	94.16		100-605-240	Group Insurance	622
143	PUBLIC EMPLOYEES BENEFITS PROG	6/2022	Retiree Group Insurance	06/25/2022	206.95		100-415-240	Group Insurance	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
143	PUBLIC EMPLOYEES BENEFITS PROG	6/2022	Retiree Group Insurance	06/25/2022	261.08		520-810-240 Group Insurance	622
143	PUBLIC EMPLOYEES BENEFITS PROG	6/2022	Retiree Group Insurance	06/25/2022	1.08		510-810-240 Group Insurance	622
143	PUBLIC EMPLOYEES BENEFITS PROG	7/2022	Retiree Group Insurance	07/25/2022	223.42		100-415-240 Group Insurance	722
143	PUBLIC EMPLOYEES BENEFITS PROG	7/2022	Retiree Group Insurance	07/25/2022	261.08		520-810-240 Group Insurance	722
143	PUBLIC EMPLOYEES BENEFITS PROG	7/2022	Retiree Group Insurance	07/25/2022	1.08		510-810-240 Group Insurance	722
143	PUBLIC EMPLOYEES BENEFITS PROG	7/2022	Retiree Group Insurance	07/25/2022	94.16		100-605-240 Group Insurance	722
Total 143:					1,143.01			
PURCHASE POWER								
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - WATER	07/03/2022	10.51	07/31/2022	510-810-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - PLANNING	07/03/2022	10.24	07/31/2022	100-610-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - BUILDING	07/03/2022	.32	07/31/2022	100-605-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - COURT	07/03/2022	25.48	07/31/2022	100-425-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - CITY MANAGER	07/03/2022	.55	07/31/2022	100-413-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - CLERK	07/03/2022	110.20	07/31/2022	100-416-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - FINANCE	07/03/2022	20.32	07/31/2022	100-415-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - PARKS	07/03/2022	.05	07/31/2022	100-575-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - ANIMAL CONTROL	07/03/2022	.05	07/31/2022	100-525-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - CITY ATTORNEY	07/03/2022	2.14	07/31/2022	100-414-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - SEWER	07/03/2022	.47	07/31/2022	520-810-550 Printing and Postage	722
3155	PURCHASE POWER	69812 JUL 22	EQUIP SVC - STREETS	07/03/2022	.06	07/31/2022	100-475-550 Printing and Postage	722
Total 3155:					180.39			
RENO GAZETTE JOURNAL								
152	RENO GAZETTE JOURNAL	4725774	5250622 TRAFFIC SIGNAL	06/01/2022	977.88	07/07/2022	100-475-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5250631 CHEMICAL SUPP	06/01/2022	382.03	07/07/2022	510-810-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5250631 CHEMICAL SUPP	06/01/2022	382.03	07/07/2022	520-810-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5286066 CM JOB RESOLUTIONS	06/01/2022	153.00	07/07/2022	100-413-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5285231 CCR	06/01/2022	170.04	07/07/2022	510-810-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5314449 REZONING	06/01/2022	135.00	07/07/2022	100-610-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	5312767 CM RESOLUTION	06/01/2022	175.00	07/07/2022	100-413-540 Advertising	622
152	RENO GAZETTE JOURNAL	4725774	552932 2022 FISCAL REPORT	06/01/2022	230.98	07/07/2022	100-416-540 Advertising	622
Total 152:					2,605.96			
RESOURCE CONCEPTS								
8602	RESOURCE CONCEPTS	22-1061	Water Rights Protection- WR Engineering Services from 4/30-	06/29/2022	6,192.55	07/07/2022	510-810-698 Water Rights Protection	622
8602	RESOURCE CONCEPTS	22-1062	Water Right Protection- NV Energy Temp Applications	06/29/2022	1,749.50	07/07/2022	510-810-698 Water Rights Protection	622
8602	RESOURCE CONCEPTS	22-1063	Water Rights Protection- WCP revisions for USBR	06/29/2022	1,410.00	07/07/2022	510-810-698 Water Rights Protection	622
Total 8602:					9,352.05			

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
SEVENTYFIVEBLUE WATER AND ENVIRONMENTAL								
8884	SEVENTYFIVEBLUE WATER AND ENVIRONMENTAL	Inv 05	Truckee Canal Water Quality Sampling Event #3	06/12/2022	2,845.63		510-810-320 Prof Serv-Engineering	622
Total 8884:					2,845.63			
SILVER STATE BARRICADE								
170	SILVER STATE BARRICADE	127587	Glass beads	07/05/2022	300.00	07/07/2022	100-475-615 Supplies-Signs and Striping	722
Total 170:					300.00			
SILVER STATE INTERNATIONAL TRUCKS								
265	SILVER STATE INTERNATIONAL TRUCKS	X201080044:01	light switch for the vactor	06/27/2022	382.56	07/07/2022	100-475-430 Service-Repair and Maintenance	622
Total 265:					382.56			
SJC LIMITED								
8580	SJC LIMITED	13598	base dated 2/14/22	06/30/2022	1,674.00	07/07/2022	100-475-600 General Supplies	622
8580	SJC LIMITED	13724	Stock pile for cemetery	06/20/2022	1,042.80		100-576-600 General Supplies	622
8580	SJC LIMITED	13724	Stock pile for streets	06/20/2022	3,481.09		100-575-600 General Supplies	622
8580	SJC LIMITED	13724	Base & DG for OTP	06/20/2022	573.26		100-475-600 General Supplies	622
Total 8580:					6,771.15			
SMITH & LOVELESS, INC								
213	SMITH & LOVELESS, INC	161438	Replacement solenoids	06/06/2022	471.90	07/07/2022	520-810-614 Supplies-Plant/Shop/Maint	622
Total 213:					471.90			
TESTWAVE LLC								
2112	TESTWAVE LLC	22INV0536	Backflow Test Gage Calibration	06/30/2022	100.00	07/07/2022	510-810-614 Supplies-Plant/Shop/Maint	622
Total 2112:					100.00			
THATCHER COMPANY, INC.								
8646	THATCHER COMPANY, INC.	2022400105789	Drinking Water Disinfectant	06/30/2022	5,716.00		510-840-617 Chemicals	622
8646	THATCHER COMPANY, INC.	2022400105790	WWTP Chlorine	06/30/2022	4,218.75	07/07/2022	520-810-617 Supplies-Chemical	622
Total 8646:					9,934.75			
TSK								
8714	TSK	NV_21-058.00_006	JUN22 CRRC Schematic Design	06/30/2022	30,316.00	07/07/2022	220-480-810 ARPA	622
8714	TSK	NV21-058.00-005	MAY22 CRRC Schematic Design	05/18/2022	55,893.75	07/07/2022	220-480-810 ARPA	522

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 8714:					86,209.75			
UNITED CENTRAL INDUSTRIAL SUPPLY								
8676	UNITED CENTRAL INDUSTRIAL SUPPLY	2545730	fire hose for streets	07/08/2022	141.04		100-475-430 Service-Repair and Maintenance	722
8676	UNITED CENTRAL INDUSTRIAL SUPPLY	2546390	fire nozzle for streets water truck	07/11/2022	16.91		100-475-610 Automotive Supplies	722
Total 8676:					157.95			
US BANK								
8510	US BANK	2013808	2017 Series Bond Payment-Water Int	07/01/2022	57,912.50	07/07/2022	510-800-860 Interest Expense	722
8510	US BANK	2013808	2016 Series Bond Payment-Water Int	07/01/2022	130,275.00	07/07/2022	510-800-860 Interest Expense	722
Total 8510:					188,187.50			
USA BLUEBOOK								
464	USA BLUEBOOK	29549	Manhole cover lift	06/29/2022	1,058.44	07/07/2022	510-840-605 Minor Equipment	622
Total 464:					1,058.44			
VERUS ASSOCIATES NEVADA, LLC								
8606	VERUS ASSOCIATES NEVADA, LLC	1994	SCADA Alarm issue review	06/30/2022	.00		510-840-429 Contract Services-SCADA	622
8606	VERUS ASSOCIATES NEVADA, LLC	1995	SCADA Pac32 battery replacements	06/30/2022	2,726.10		520-810-429 Contract Services-SCADA	622
8606	VERUS ASSOCIATES NEVADA, LLC	1996	Replacing batteries in scada packs at all facilities.	06/30/2022	1,801.80		510-810-429 Contract Services-SCADA	622
Total 8606:					4,527.90			
VOYA FINANCIAL								
8591	VOYA FINANCIAL	JUL 2022-1	DEFERRED COMPENSATION, 457	07/01/2022	1,979.00	07/01/2022	100-215000 457 PAYABLE	722
8591	VOYA FINANCIAL	JUL 2022-1	ROTH IRA	07/01/2022	100.00	07/01/2022	100-215000 457 PAYABLE	722
Total 8591:					2,079.00			
WASTE MANAGEMENT								
447	WASTE MANAGEMENT	25001 JUN 22	6-82646-25001	06/30/2022	795.55	07/07/2022	100-475-412 Utility Services-Refuse	622
447	WASTE MANAGEMENT	33001 JUL 22	11-60772-33001	07/07/2022	103.14		100-417-412 Utility Services-Refuse	722
447	WASTE MANAGEMENT	33005 JUL 22	11-60745-33005	07/07/2022	14.39		510-840-412 Utility Service-Refuse	722
447	WASTE MANAGEMENT	33009 JUL 22	11-60774-33009	07/07/2022	84.39		510-810-412 Utility Service-Refuse	722
447	WASTE MANAGEMENT	43003 JUL 22	11-60760-43003	07/07/2022	42.20		520-810-412 Utility Service-Refuse	722
447	WASTE MANAGEMENT	43009 JUL 22	26-83103-43009	07/07/2022	322.50		100-575-412 Utility Service-Refuse	722
447	WASTE MANAGEMENT	63002 JUN 22	11-74239-63002	06/30/2022	1,462.36	07/07/2022	100-575-412 Utility Service-Refuse	622
447	WASTE MANAGEMENT	95009 JUN 22	8-29467-95009	06/30/2022	448.45	07/07/2022	100-575-412 Utility Service-Refuse	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 447:					3,272.98			
WESTERN INDUSTRIAL PARTS, INC.								
8571	WESTERN INDUSTRIAL PARTS, INC.	2206-039497	Safety Glasses	06/30/2022	109.62	07/07/2022	510-810-616 Supplies-Safety	622
8571	WESTERN INDUSTRIAL PARTS, INC.	2207-039911	floor dry and gloves for shop	07/07/2022	54.76		100-480-610 AUTOMOTIVE SUPPLIES	722
Total 8571:					164.38			
WESTERN INSURANCE SPECIALTIES								
881	WESTERN INSURANCE SPECIALTIES	JULY 2022	SUPPLEMENTAL INSURANCE	07/01/2022	188.14		100-218100 Western Insurance Payable	722
881	WESTERN INSURANCE SPECIALTIES	JUN 2022	SUPPLEMENTAL INSURANCE	06/01/2022	188.14		100-218100 Western Insurance Payable	622
Total 881:					376.28			
WESTERN NEVADA SUPPLY CO.								
195	WESTERN NEVADA SUPPLY CO.	19318974	Sensus Flexnet MXUs	06/21/2022	4,525.38	07/07/2022	510-166100 Construction In Progress	622
195	WESTERN NEVADA SUPPLY CO.	19338347	parts not ordered.	06/27/2022	107.80	07/07/2022	100-575-600 General Supplies	622
195	WESTERN NEVADA SUPPLY CO.	19343206	Hydrant Meter Fittings	06/28/2022	338.80	07/07/2022	510-810-613 Supplies-Meter Service	622
195	WESTERN NEVADA SUPPLY CO.	19346698	Meter Adapters	06/28/2022	31.04	07/07/2022	510-810-613 Supplies-Meter Service	622
195	WESTERN NEVADA SUPPLY CO.	19351362	Meter adapter from long body to short body	07/01/2022	279.36		510-810-613 Supplies-Meter Service	722
195	WESTERN NEVADA SUPPLY CO.	cm19338347	credit	06/29/2022	107.80	07/07/2022	100-575-600 General Supplies	622
Total 195:					5,390.18			
WETLAB - WESTERN ENVIRON TESTING LAB								
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22050144	Lab samples	06/27/2022	14.11		510-840-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22050527	lab samples	06/27/2022	696.26		510-840-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22050770	lab samples	06/28/2022	215.60		510-840-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22060019	lab samples	06/28/2022	14.11		510-840-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22060171	Monitoring Well Samples	06/22/2022	493.95		520-810-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22060172	Influent & Effluent Samples	06/28/2022	350.46		520-810-423 Contract Services-ANALYTICAL	622
8709	WETLAB - WESTERN ENVIRON TESTING LAB	22060657	June samples	06/29/2022	175.00		510-810-423 Contract Services-ANALYTICAL	622
Total 8709:					1,959.49			
WSP USA, INC								
8871	WSP USA, INC	8-1184374	Regional travel demand model development and final tech me	06/20/2022	4,791.90		100-475-320 Prof Serv-Engineering	622
8871	WSP USA, INC	9-1191244	regional travel demand model engineering services	07/08/2022	1,832.87		100-475-320 Prof Serv-Engineering	722
Total 8871:					6,624.77			
WTR ELECTRIC, INC								
8650	WTR ELECTRIC, INC	22146	misc electrical work OTP Cemetery, Green Valley	06/30/2022	1,477.50	07/07/2022	100-575-428 Contract Services-ELECTRICAL	622

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Invoice Amount	Date Paid	GL Account and Title	GL Period
Total 8650:					1,477.50			
XPRESS BILL PAY LLC								
2468	XPRESS BILL PAY LLC	JUN 2022	WATER - CREDIT CARD PROCESSING FEES	06/30/2022	1,507.20	06/30/2022	510-810-609 Credit Card Fees	622
2468	XPRESS BILL PAY LLC	JUN 2022	SEWER - CREDIT CARD PROCESSING FEES	06/30/2022	1,507.19	06/30/2022	520-810-609 Credit Card Fees	622
Total 2468:					3,014.39			
Grand Totals:					2,923,120.06			

Dated: _____

Mayor: _____

City Treasurer: _____

Report Criteria:

Detail report.

Invoice detail records above \$0 included.

Paid and unpaid invoices included.

Vendor.Vendor Number = {<>} 2201

**MINUTES OF THE
FERNLEY CITY COUNCIL MEETING
JULY 6, 2022**

Mayor Roy Edgington called the meeting to order at 05:00 PM at Fernley City Hall, 595 Silver Lave Blvd., Fernley, NV 89408.

1. INTRODUCTORY ITEMS

1.1. Roll Call

Present: Mayor Roy Edgington, Councilwoman Zoberski, Councilwoman McKay, Councilman Lau, Councilman Torres, Councilman Lacy, Acting City Manager Patrick Marsh, City Attorney Brandi Jensen, HR Manager Jackie Moxley, Director of Finance Denise Lewis, Planning Director Tim Thompson, Public Works Director Dave Whalen, Building Inspector Michael Moore, City Engineer Derek Starkey, City Clerk Kim Swanson, Administrative Specialist Tiffany Wood.

1.2. Public Forum

Neal McIntire commented that the Fernley little league team won district 3 regions and will be representing Fernley in Las Vegas in a couple weeks.

1.3. (For Possible Action) Approval of Agenda

Acting City Manager Marsh asked for Item 4.1 to be removed from the agenda for a later date.

Motion: MOVE TO APPROVE THE AGENDA WITH ITEM 4.1 REMOVED. **Action:** Approve, **Moved by** Councilman Lau, **Seconded by** Councilman Lacy. **Vote:** Passed, **Summary:** Yes 5. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, Councilwoman McKay.

2. CONSENT AGENDA

2.1. (Possible Action) Approval of Voucher Report

2.2. (Possible Action) Approval of Minutes from June 15th and June 23rd.

2.3. (Possible Action) Approval of Business Licenses

2.4. Possible action to approve a contract with Farr West Engineering for the continued implementation and hosting of the Strategic Asset Management programs (ArcGIS Online and VueWorks) in an amount not to exceed \$50,000.

2.5. Possible Action to Approve the Will-Serve Request from Genica Shadow Hills, LLC for 45.5 ERC's for Water and 66 ERC's for Sewer for 66 townhomes for Lyon County Parcel 021-121-19 located on the corner of Cottonwood Ln. and Hardie Ln. Fernley, NV 89408

2.6. Possible Action to approve a contract for legal services related to water resources to Taggart & Taggart, Ltd. for an amount not to exceed \$160,000 for FY 2022-2023.

2.7. Possible Action to approve a Contract for Water Rights Services to Resource Concepts Inc. (RCI) for an amount not to exceed \$60,000 for FY 2022-2023.

2.8. Possible Action to approve the ratification of expenditures for the emergency rebuild of the Fernley Municipal Well #11 pump and replacement of column for an amount not to exceed \$72,703 to Carson Pump.

2.9. Possible action to Approve award of an annual 2022-2023 Material Supplier Contract to Western Nevada Supply in amount not to exceed the unit pricing listed in the attached inventory pricing list.

2.10. Possible action to Approve the award of 2022-2024 Water Treatment Plant Residuals Solids Removal Contract to Marshall's Sanitation Services LLC. in amount not to exceed 0.39 per gallon.

2.11. Possible action to approve a contract with Shaw Engineering for on-call engineering services.

2.12. Possible action to Approve the award of the 2022-2023 Traffic Signal Maintenance Service Contract to Titan Electrical Contracting, Inc. in an amount not to exceed the unit price for the services listed in the bid document not to exceed \$128,000.

2.13. Possible Action to purchase one (1) Mini Excavator from PAPE Machinery, the City of Fernley's Parks/General Services Department, for an amount not to exceed \$59,478.88.

2.14. Possible Action to purchase one (1) DL142 Low Pro Dump Trailer from Huntley Motor World for the City of Fernley's Parks/Facilities Department for an amount not to exceed \$16,123.25.

2.15. Possible action to approve a request to waive the Liquor License fee for the Annual Fernley 4th of July Celebration to be held at the Out of Town Park.

Motion: MOVE TO APPROVE THE CONSENT AGENDA. **Action:** Approve, **Moved by** Councilwoman McKay, **Seconded by** Councilman Lacy. **Vote:** Passed, **Summary:** Yes 5. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, Councilwoman McKay.

3. REPORTS This item is for various public entity representatives to provide general information to the Council and public. No action will be taken.

Chief Nicholl from North Lyon Fire reported the stats currently for 2022. The department is 3 weeks ahead in call volume this year compared to last year. 3 additional fire fighters have been hired.

Lt. Mitch Brantingham from the Sheriff's Department reported Sergeant Pope transferred to Fernley from Dayton. Lt Brantingham said there was a stat report problem for the month of June and he provided the stats he had. Animal calls have continued to drop. It was relatively calm for the 4th of July.

3.1. Reports by City Staff, City Council, and the Mayor, including but not limited to monthly statistical reports by city departments.

Mayor Edgington spoke about the 4th of July Committee and thanked all of the volunteers who helped and participated in the events. He spoke about the community that showed up and how it went really well and everyone had a lot of fun.

Acting City Manager Marsh announced the City of Fernley's new website has been launched. The redesign will continue to be improved during a brief transition period. He introduced the new HR Manager Jackie Mugsley. The quarterly public safety report will be next Thursday in the chambers.

Michael Moore, Building Inspector, presented the Building Statistics report for the month June.

Councilman Lacy acknowledged all of the City Staff that volunteered for the 4th of July celebration and helped make it a great event. The citizens that volunteered put a lot of work on bringing the event together. He said his grandson helped the committee as well.

Councilwoman Zoberski agreed that it was one of the best 4th of July parades Fernley had in a long time. She thanked all of the responders who made sure it was a safe event. She thanked the 4th of July Committee as well and commented that the new website looked great. Economic Development strategy workshop will be July 19th from 10 to 2.

Councilman Lau spoke about the cottonwood lane project that is estimated at 3 million and will take a couple years to complete.

Councilman Torres thanked Sharon Holley and Thomas Burrous for the Senior Citizen's .

4. STAFF REPORTS

4.1. Possible action to authorize the Interlocal Agreement between the City of Fernley and Lyon County for Personnel Support and means to transport Defendants.

This Item was removed.

4.2. Update and possible action to approve the final schematic design and cost estimate of the Community Response & Resource Center.

Kevin Kemner from TSK presented an updated schematic design of the Center.

Motion: I MOVE TO APPROVE THE FINAL SCHEMATIC DESIGN AND SCHEMATIC DESIGN COST ESTIMATE OF THE COMMUNITY RESPONSE & RESOURCE CENTER. **Action:** Approve, **Moved by** Councilman Torres, **Seconded by** Councilman Lacy. **Vote:** Passed, **Summary:** Yes 4, No 1. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, **No:** Councilwoman McKay.

4.3. Discussion and possible action regarding the recruitment of the City Manager position, including, but not limited to, job description, ordinances, job title, organizational chart, etc.

Mayor Edgington announced that the recruiting agency backed out from working with the city.

Discussion ensued on how to proceed.

Motion: MOVE TO HAVE OUR IN-HOUSE HUMAN RESOURCE MANAGER START THE RECRUITMENT PROCESS SO WE DON'T SPEND THE NEXT YEAR OR MORE TRYING TO GET A CITY MANAGER. **Action:** Approve, **Moved by** Councilwoman Fran McKay, **Seconded by** Councilman Ray Lacy. **Vote:** Passed, **Summary:** Yes 5. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, Councilwoman McKay.

Motion: MOVE TO DISSOLVE THE SUBCOMMITTEE WHICH WAS THE JUSTIFICATION TO HAVE THE

SUBCOMMITTEE AND TO ALLOW THE HR DIRECTOR TO PUT TOGETHER THE WAGES, BENEFITS, THE PROS AND CONS OF HAVING A CONTRACT VS NOT HAVING A CONTRACT, AND TO TAKE THE LEAD IN PUTTING TOGETHER THE CITY MANAGER TESTING JOB DESCRIPTION AND POSTING. **Action:** Approve, **Moved by:** Councilman Torres, **Seconded by:** Councilman Lacy. **Vote:** Passed, **Summary:** Yes 5. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, Councilwoman McKay.

City Attorney Jensen asked for clarification on the course of action for initial screening and interviews.

Mayor Edgington said the HR Manager would bring that back to the council and work with the City Attorney to bring the City Manager's job description into compliance with the ordinance.

Motioner Councilman Torres agreed, and Second Councilman Lacy agreed.

4.4. Presentation, Discussion, and Possible Action regarding a citywide land use fiscal assessment conducted by Verdunity, Inc.

Tim Thompson, Planning Director, introduced Kevin Shepard and the item he would be presenting to council.

A 10 minute break was taken at that time.

Kevin Shephard from Verdunity presented the fiscal assessment for citywide land use and development.

Tim Thompson, Planning Director, clarified that it is not the intention to vilify industrial parks because the city needs those employment uses for economic development. However, this presentation would bring into focus the long term liabilities associated with them. He suggested keeping roads private for new industrial developments to mitigate future long-term maintenance and liabilities for the City.

Motion: MOVE TO ACCEPT THE FISCAL LAND USE ASSESSMENT PROVIDED BY VERDUNITY INC.
Action: Approve, **Moved by** Councilwoman McKay, **Seconded by** Councilman Lacy.
Vote: Passed, **Summary:** Yes 5. **Yes:** Councilman Lacy, Councilwoman Zoberski, Councilman Lau, Councilman Torres, Councilwoman McKay.

5. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

Councilwoman McKay asked to schedule a workshop to digest the Verdunity fiscal study.

Councilman Lacy asked to discuss recycling programs in contracts with waste management.

6. PUBLIC FORUM

Cody Wagner from the Planning Commission said the last presentation was very informative and Fernley needs to have this kind of conversation more.

7. ADJOURNMENT

The next city council meeting would be July 20th at 5pm in the chambers of City Hall.

There being no further business to come before it, the Fernley City Council meeting adjourned at 08:19 PM.

Approved by the Fernley City Council on July 20, 2022 by a vote of:

AYES _____ NAYS: _____ ABSTENTIONS: _____ ABSENT: _____

ATTEST: City Clerk Kim Swanson

Mayor Roy Edgington

Report Criteria:

Business.License status = Active

Business.Orignation Date = 06/30/2022-07/13/2022

Bus Name	Name	Mail Addr1	Mail City	Mail St	Mail Zip	Business Tel	Business Description
Cari Bunyard Independent Color Street Styli	Cari Bunyard	1000 Jenny's Lane	Fernley	NV	89408	775-233-2753	Direct sales of dry nail polish strips
COEH Corporation	Cody R. Ogburn	PO Box 17961	Reno	NV	89521	775-828-3533	Retail, custom window covering
From the Soul Stone Co.	Kaysi Archey	250 E Cedar St	Fernley	NV	89408	775-980-7089	Hobby/Crafter: crystal jewelry
Heart and Hand	Janelle Smith	4342 Roundstone Dr	Sparks	NV	89436	714-679-8850	Hobby/Crafter: repurpose book art, crochet, c
Jenny Ybarra	Jenny Ybarra	3090 Antelope St.	Silver Springs	NV	89408	775-217-5585	Homemade Crafts
Jonell Maple	Jonell Maple	625 Cable Canyon Way	Fernley	NV	89408	916-276-3931	Hobby/Crafter
Majestic Beauty by Marcie	Marcie Vallejo	532 Steven Way	Fernley	NV	89408	775-771-1487	SeneGence Sales
Sacred Stone Message & Reiki, LLC	Maria A Bryant	1501 Wrangler Ln	Fernley	NV	89408	775-404-2587	Massage Therapy & Reiki
Silver Star Development	Anthony Brindis	5380 Coit Dr.	Reno	NV	89408	775-622-1706	Development Contractor #89569
True Real Estate LLC	Cesar Tobar	440 W Main St,	Fernley	NV	89408	775-354-3722	Real Estate Broker
Grand Totals:							
							10



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Trisha Conner, Assistant to the City Manager

FINANCIAL IMPACT:

Yes: X No:

CURRENTLY BUDGETED:

Yes: X No:

FUND/ACCOUNT:

Grants fund. After City Council has approved and accepted the grant award, staff will create a fund/account number.

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to Approve two Community Development Block Grant Agreements for FY2022/23.

AGENDA ITEM BRIEF:

On November 3, 2021 City Council directed staff to submit two applications for the State of Nevada FY2022-2023 Community Development Block Grant (CDBG) program including the installation of an ADA-Compliant Stand Alone Restroom at the Fernley Train Depot and to Continue Beautification and Placemaking Efforts along Main Street, establishing the Depot project as priority. Staff submitted the grant applications and presented both projects to the CDBG to the Advisory Committee April 13, 2022. Staff included a \$45,000 local cash match for the ADA-Compliant Restroom due to increasing costs. Both projects have been awarded the grant. Per the City's Grant Management Policy, each grant award must be formally accepted by the City Council before moving to the next phase.

RECOMMENDED MOTION:

"I move to approve the Community Development Block Grant grant agreement for the ADA-Compliant Restroom Facility at the Fernley Depot with a local cash match of \$45,000 and the Community Development Block Grant grant agreement for the Continued Beautification and Main Street Efforts along Main Street."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which

legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

City Council may ask for more information or choose to not accept the grant award.

BACKGROUND:

On July 21, 2021, staff presented to City Council the availability and program overview of the Community Development Block Grant along with priorities, potential projects, project summary, funding, and requirements and opened up the item for public comment. On September 1, 2021, staff presented to the Council proposed projects with estimated costs and project beneficiaries and allowed for public comment. On November 3, 2021, City Council directed staff to submit two applications for the State of Nevada FY2022-2023 Community Development Block Grant (CDBG) program including the installation of an ADA-Compliant Stand Alone Restroom at the Fernley Train Depot and to Continue Beautification and Placemaking Efforts along Main Street, establishing the Depot project as priority. Staff submitted the grant applications and presented both projects to the CDBG to the Advisory Committee on April 13, 2022. In the applications and presentations, staff included a \$45,000 local cash match for the ADA-Compliant Restroom due to increasing costs. Both projects have been awarded the grant. Per the City's Grant Management Policy, each grant award must be formally accepted by the City Council before moving to the next phase.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

City of Fernley Grant Management Policy

FINANCIAL IMPLICATIONS:

The \$45,000 local cash match has been budgeted for FY2022/23.

ATTACHMENTS:

1. 2022 CDBG Grant Agreements City of Fernley
2. Phase 4 Main Street CDBG Certification Letter
3. Phase 4 Fernley Depot CDBG Certification Letter

ONE HUNDRED ONE NORTH CARSON STREET
CARSON CITY, NEVADA 89701
OFFICE: (775) 684-5670
FAX NO.: (775) 684-5683



555 EAST WASHINGTON AVENUE, SUITE 5100
LAS VEGAS, NEVADA 89101
OFFICE: (702) 486-2500
FAX NO.: (702) 486-2505

Office of the Governor

June 13, 2022

The Honorable Roy Edgington Jr.
Mayor of the City of Fernley
595 Silver Lace Blvd.
Fernley, NV 89408

Dear Mayor Edgington

I am pleased to award \$495,000 from the Nevada Community Development Block Grant (CDBG) Program to the City of Fernley. Recently, rural communities submitted 21 eligible applications requesting \$4,718,652 in funding from the CDBG program. The 2022 HUD allocation was \$3,421,222. Therefore, not all projects were fully funded.

The funds awarded to the City of Fernley are for the:

- Fernley Depot Amenity Building/ADA Compliant Restroom: \$395,000.
- Fernley Main Street Beautification/Placemaking: \$100,000.

Since 1982, CDBG funds have proven beneficial to communities throughout the state. Nevada's rural counties and small cities have been able to improve their quality of life by upgrading infrastructure, constructing facilities, and promoting economic development. Your project continues the worthwhile utilization of CDBG funds.

I wish you success with this project, which I know will benefit the residents of the City of Fernley.

Sincerely,

A handwritten signature in blue ink, appearing to be "Steve Sisolak", written over a circular embossed seal of the State of Nevada.

Governor Steve Sisolak
State of Nevada

June 13, 2022

Congressman Mark Amodei
5310 Kietzke Lane, Suite 103
Reno, NV 89511

Re: Community Development Block Grant Award

Dear Congressman Amodei:

Recently, rural communities submitted 21 eligible applications requesting \$4,718,652 in funding from the Nevada Community Development Block Grant (CDBG) program. We are pleased to award a total of \$2,063,324 from the Nevada Community Development Block Grant (CDBG) Program to the City of Fallon, Douglas County, City of Fernley, City of Wells, Elko County, and Carson City, within your district. The 2022 HUD allocation was \$3,421,222. Therefore, not all projects were fully funded.

The projects awarded are:

- City of Fallon – Court Roadway & Sidewalk ADA Compliance Project: \$405,045
- Douglas County – Douglas Food Closet Vehicle Purchase: \$110,000
- City of Fernley – Fernley Depot Amenity Building/ADA Compliant Restroom: \$395,000
- City of Fernley – Fernley Main Street Beautification/Placemaking: \$100,000
- City of Wells – Wastewater Treatment Headwall Project: \$260,000
- City of Wells – Wells Main Street Retail Center: \$150,000
- City of Wells – Woodhills Trail Feasibility Study: \$80,000
- Elko County – Montello Exploratory Wells: \$85,000
- Elko County – Tuscarora Preliminary Engineering Report: \$65,000
- Carson City – Public Works Desatoya Drive: \$330,000
- Carson City – Ron Family Resiliency Project: \$35,000
- Carson City – Planning & Grant Management: \$48,279

Since 1982, CDBG funds have proven beneficial to communities throughout the state. Nevada's rural counties and small cities have been able to improve their quality of life by

upgrading infrastructure, constructing facilities, and promoting economic development. These projects within your district continue the worthwhile utilization of CDBG funds.

Thank you for your continued support,



Shari Davis
Director, Rural Economic and Community Development
Governor's Office of Economic Development

Cc: Ken Tedford Jr., Mayor of the City of Fallon
Mark Gardner, Douglas County Commission Chair
Roy Edgington Jr., Mayor of the City of Fernley
Layla Walz, Mayor of the City of Wells
Delmo Andreozzi, Elko County Commission Chair
Lori Bagwell, Mayor of Carson City

June 13, 2022

Senator James A. Settelmeyer
2388 Highway 395
Minden, NV 89423-8923

Re: Community Development Block Grant Award

Dear Senator Settelmeyer:

Recently, rural communities submitted 21 eligible applications requesting \$4,718,652 in funding from the Nevada Community Development Block Grant (CDBG) program. We are pleased to award a total of \$1,010,045 from the Nevada Community Development Block Grant (CDBG) Program to the communities of Fallon, Douglas County, and Fernley within your district. The 2022 HUD allocation was \$3,421,222. Therefore, not all projects were fully funded.

The projects awarded are:

- City of Fallon – Court Roadway & Sidewalk ADA Compliance Project: \$405,045
- Douglas County – Douglas Food Closet Vehicle Purchase: \$110,000
- City of Fernley – Fernley Depot Amenity Building/ADA Compliant Restroom: \$395,000
- City of Fernley – Fernley Main Street Beautification/Placemaking: \$100,000

Since 1982, CDBG funds have proven beneficial to communities throughout the state. Nevada's rural counties and small cities have been able to improve their quality of life by upgrading infrastructure, constructing facilities, and promoting economic development. These projects within your district continue the worthwhile utilization of CDBG funds.

Thank you for your continued support,



Shari Davis
Director, Rural Economic and Community Development
Governor's Office of Economic Development

Cc: Ken Tedford Jr., Mayor of the City of Fallon
Mark Gardner, Douglas County Commission Chair
Roy Edgington Jr., Mayor of the City of Fernley

June 13, 2022

Assemblywoman Robin L. Titus
PO Box 377
Wellington, NV 89444-0377

Re: Community Development Block Grant Award

Dear Assemblywoman Titus:

Recently, rural communities submitted 21 eligible applications requesting \$4,718,652 in funding from the Nevada Community Development Block Grant (CDBG) program. We are pleased to award a total of \$900,045 from the Nevada Community Development Block Grant (CDBG) Program to the communities of Fallon and Fernley, within your district. The 2022 HUD allocation was \$3,421,222. Therefore, not all projects were fully funded.

The projects awarded are:

- City of Fallon – Court Roadway & Sidewalk ADA Compliance Project: \$405,045
- City of Fernley – Fernley Depot Amenity Building/ADA Compliant Restroom: \$395,000
- City of Fernley – Fernley Main Street Beautification/Placemaking: \$100,000

Since 1982, CDBG funds have proven beneficial to communities throughout the state. Nevada's rural counties and small cities have been able to improve their quality of life by upgrading infrastructure, constructing facilities, and promoting economic development. These projects within your district continue the worthwhile utilization of CDBG funds.

Thank you for your continued support,



Shari Davis
Director, Rural Economic and Community Development
Governor's Office of Economic Development

Cc: Ken Tedford Jr., Mayor of the City of Fallon
Roy Edgington Jr., Mayor of the City of Fernley

June 10, 2022

The Honorable Roy Edgington Jr.
Mayor of the City of Fernley
595 Silver Lace Blvd.
Fernley, NV 89408

Re: Community Development Block Grant Award

Dear Mayor Edgington:

We are pleased to award a \$ 495,000 grant from the Nevada Community Development Block Grant (CDBG) Program to the City of Fernley to assist with the following projects:

- Fernley Depot Amenity Building/ADA Compliant Restroom: \$395,000; 22/PF/06
- Fernley Main Street Beautification/Placemaking: \$100,000; 22/PF/07

Enclosed please find: (1) the Grant Award agreement and (2) a sample Certification Letter. Please sign the original Grant Award agreement and a Certification Letter. The letter must be printed on City of Fernley stationery. Submit the originals to the CDBG office and retain copies for your grant file.

Please ensure that your grant administrator is familiar with the contents of the grant agreement. This document provides important, but frequently overlooked, requirements of the grant.

The environmental review (ER) requirements need to be met for this 2022 project. All prescribed ER documentation is due September 30, 2022 and must be approved by CDBG staff prior to issuance of the Notice to Proceed and implementation of the project.

Further, please note the following grant conditions:

- 1) Grant funds cannot be spent or otherwise obligated by the grantee until the CDBG Program Administrator issues a Notice to Proceed.
- 2) Any expenses incurred prior to the issuance of the Notice to Proceed may be ineligible for payment from grant funds, unless approved in advance by the CDBG Program Administrator.
- 3) The first draw down of funds must be made within nine months from the date of the grant award (March 31st). Spending grant monies expeditiously is important to CDBG and HUD. Early start-up and timely completion of the project are important and relevant to future grant allocations. As a rule, the funds are only available within the specified grant period unless an extension is requested and received. Approval of an extension depends on the nature of the project delays

Mayor Roy Edgington

Page 2

June 10, 2022

- 4) Please ensure the requirements for Non-Discrimination/Equal Opportunity are met.
- 5) The Minority Business Enterprise Report, the Grantee's Notification of Contracts and Subcontracts Awarded, the Project Benefits Report, Final Financial documents, and Job Creation information are critical components of HUD's reporting requirements and necessary for grant closure. Please ensure that these forms are completed, where appropriate, and submitted to CDBG within 30 days of the completion of the project.

We look forward to working closely with you towards the successful and timely completion of your project. The Rural Community & Economic Development staff members are available for assistance should any problems arise and can be contacted at (775) 687-9900.

Sincerely,



Shari Davis

Director, Rural Economic and Community Development
Governor's Office of Economic Development

Cc: Trisha Conner, Grant Administrator
Leandra Diosa, Director of Administration, GOED Business Office

Encl: Grant Agreement
Sample Certification Letter

Nevada Governor's Office of
ECONOMIC DEVELOPMENT

GRANT AGREEMENT

**Nevada Governor's Office of Economic Development (GOED)
Rural Community and Economic Development Division
808 West Nye Lane, Carson City, Nevada 89703**

1. PARTIES: This agreement is between the Nevada Governor's Office of Economic Development

Community Development Block Grant Program (CDBG): CFDA# 14.228 FAIN# B-22-DC-32-0001

CDBG Grant #: 22/PF/06 Eligible Activity: 105(a)(2) National Objective: LMI- Area Benefit
(Program)

Referred to as STATE, and the following GRANTEE:

City of Fernley

Name

595 Silver Lace Blvd.

Address

Fernley

City

NV

State

89408

Zip Code

880496533

UGLG EIN Number

4V4M5

CCR (CAGE) Number

675 East Main Street

Project Address

Fernley

City

NV

State

89408

Zip Code

Trisha Conner, Asst. to City Manger

Contact Person (Name, Title)

775-784-9851

Phone #

775-784-9828

FAX #

tconner@cityoffernley.org

Contact Person's Email

2. GENERAL PURPOSE OF AGREEMENT:

The purpose of the project is to construct an amenity building and ADA complaint restroom at the Fernley Depot. The project would include the completion of site design/plan, construction, grading, utility installation, and landscaping.

3. AGREEMENT PERIOD: Commencing on **07/01/2022** and terminating on **6/30/2024**.

4. AGREEMENT COSTS: GRANTEE will be paid a maximum of \$395,000 pursuant to the budget attached hereto as Attachment E.

CDBG Use Only Funds by Year:

Year:	2022	\$ 395,000
Year:		\$
Year:		\$

5. ATTACHMENTS:

- ☐ ATTACHMENT A – GENERAL PROVISIONS
- ☐ ATTACHMENT B – PROGRAM TERMS AND CONDITIONS
- ☐ ATTACHMENT C – SCOPE OF WORK
- ☐ ATTACHMENT D – IMPLEMENTATION SCHEDULE
- ☐ ATTACHMENT E – BUDGET
- ☐ ATTACHMENT F – FEDERAL ASSURANCES/CERTIFICATIONS

EXECUTION

IN ACCEPTING THESE FUNDS, IT IS UNDERSTOOD THAT:

1. This award is subject to the availability of appropriate funds.
2. Recipient of these funds agrees to the conditions of this Grant Agreement, including all Attachments which are hereby incorporated by reference.

IN WITNESS WHEREOF, the parties sign and cause this Grant Agreement to be effective as of the date indicated below.

GRANTEE

APPROVED: City of Fernley

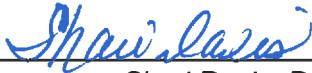
By: _____
Signature of Elected Official

Roy Edgington Jr.
Printed Name

Mayor
Title

STATE

APPROVED: GOED, RURAL COMMUNITY
AND ECONOMIC DEVELOPMENT
DIVISION

By: 
Shari Davis, Director

NV Governor's Office of Economic Development
808 W. Nye Lane, Carson City, NV 89703
sadavis@goed.nv.gov
(775) 687-9911

Execution Date: 7/1/2022

ATTACHMENT A - GENERAL PROVISIONS

1. **AUTHORITY:** Provisions of this Agreement are pursuant to the authority set forth in the Nevada Revised Statutes chapters 231 and 332, and related statutes which permit the STATE to contract with service providers for certain specified services.
2. **CONTRACT JURISDICTION, CHOICE OF LAW AND VENUE:** The provisions of this agreement shall be governed by the laws of the State of Nevada. The parties shall submit to the jurisdiction of the courts of the State of Nevada for any dispute arising out of this Agreement or the breach thereof. Venue shall be in Carson City, in the First Judicial District Court.
3. **LAWS AND REGULATIONS:** The GRANTEE and any and all supplies, services, equipment, and construction proposed and furnished under this Agreement will comply fully with all applicable Federal and State laws and regulations.
4. **PROJECT DESIGN AND COMPLETION:** The GRANTEE will use the grant under this Agreement for the project as detailed in the Grant Application, including any written modifications resulting from the review of the Application by the STATE. The GRANTEE shall complete the project described in Attachment D - Scope of Work within the contract period shown on page 1 of this Agreement.
5. **RECORDS ADMINISTRATION:** The GRANTEE shall maintain, or supervise the maintenance of, all records necessary to properly account for the payments made to the GRANTEE pursuant to this Agreement. These records shall be retained by the GRANTEE for five years after the project has been monitored and closed. The GRANTEE agrees to allow State and Federal auditors, and State Agency Staff, access to all the records related to this Agreement, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.
6. **CONFLICT OF INTEREST:** GRANTEE represents that none of its officers or employees are officers or employees of the State of Nevada, unless disclosure has been made and approval received, in writing, from the STATE.

GRANTEE confirms that no officer, employee or agent of the GRANTEE will participate in the selection or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the officer, employee or agent, any member of his or her immediate family, his or her partner, or an organization that employs or is about to employ any of the above, has a financial or other interest in the firm selected to award. GRANTEE'S officers, employees or agents will neither solicit nor accept gratuities, favor or anything of monetary value from contractors, potential contractors, or parties to sub agreements during office tenure or for one year after the close out of the grant. This stipulation must be included in all other contracts and subcontracts to the grant.

No portion of the grant funds under this Agreement will be used for any partisan political activity, to further the election or defeat of any candidate for public office, or influence the approval or defeat of any ballot issue.
7. **INDEPENDENT CONTRACTOR:** The GRANTEE shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind the STATE to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the STATE, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the GRANTEE by the STATE. The GRANTEE shall be responsible for the payment of all taxes and social security amounts due as a result of payments received from the STATE for services under this Agreement. Persons employed by the STATE and acting under the direction of the STATE shall not be deemed to be employees or agents of the GRANTEE.
8. **INDEMNITY CLAUSE:** The GRANTEE agrees to indemnify, save harmless, and release the STATE of Nevada, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this Agreement which are caused in whole or in part by the negligence of the GRANTEE'S officers, agents, volunteers, or employees, but not for claims arising from the STATE's sole negligence.
9. **EQUAL OPPORTUNITY CLAUSE:** The GRANTEE agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities, or the Nevada Revised Statute (NRS) 613.330 Equal Employment Opportunity.
10. **SEVERABILITY CLAUSE:** A declaration by any court, or any other binding legal source, that any provision of this Agreement is illegal and void shall not affect the legality and enforceability of any other provision of this Agreement, unless the provisions are mutually dependent.
11. **DEBARMENT:** The GRANTEE certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (Agreement), by any governmental department or agency. If the GRANTEE cannot certify this statement, attach a written explanation for review by the STATE. The GRANTEE must notify the State Director of Rural Community and Economic Development within 30 days if debarred by any governmental entity during the Agreement period.
12. **TERMINATION:** This Agreement may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the Agreement may be terminated for cause. This Agreement may be terminated without cause, in advance of the specified expiration date, by either party, upon 90 days prior written notice being given the other party. On termination of this Agreement, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.

13. **NONAPPROPRIATION OF FUNDS:** The GRANTEE acknowledges that the STATE cannot contract for the payment of CDBG funds not provided by the federal government. If funding to the STATE is not provided as initially expected, the STATE may terminate this Agreement or proportionately reduce the services and the amount due from the STATE upon 30 days written notice. In the case that funds are not available or are reduced, the STATE will not be liable for any future commitments, penalties, or liquidated damages.
14. **WARRANTY:** The GRANTEE warrants that (a) all services shall be performed in conformity with the requirements of this Agreement by qualified personnel in accordance with generally recognized standards; and (b) all goods or products furnished pursuant to this Agreement shall be free from defects and shall conform to contract requirements. For any item that the STATE determines does not conform with the warranty, the STATE may arrange to have the services redone as needed, either by the GRANTEE or by a third party at the STATE'S option, at the GRANTEE'S expense.
15. **PAYMENT:** The GRANTEE must begin to draw funds within nine (9) months of the start of this Agreement. Extensions beyond the 9 month deadline will be made at the discretion of the STATE staff. The proportion of CDBG funds paid and applied to a specific activity will not exceed the proportion specified in the final budget as outlined in the approved Grant Application or Application modifications. The approved Application budget or modified budget is binding upon the GRANTEE. Should a budget revision be required after signing this Agreement, the request for revision must be submitted to the appropriate STATE staff for review and approval. Payments to the GRANTEE will normally be made within 30 days following the date completed Draw Requests and supporting documents are delivered to the STATE.
16. **PATENTS, COPYRIGHTS, ETC:** The GRANTEE will release, indemnify and hold the STATE, its officers, agents and employees harmless from liability of any kind or nature, including the GRANTEE'S use of any copyrighted or un-copyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this Agreement.
17. **ASSIGNMENT/SUBCONTRACT:** The GRANTEE will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this Agreement, in whole or in part, without the prior written approval of the STATE.
18. **UNUSED FUNDS:** Any funds authorized by the STATE that are not used in the completion of Attachment D - Scope of Work must be de-obligated and returned to the STATE.
19. **INELIGIBLE EXPENSES:** GRANTEE expenditures under this Agreement determined by audit to be ineligible for reimbursement because they were not authorized by the terms and conditions of the Agreement or that are inadequately documented, and for which payment has been made to the GRANTEE will be immediately refunded to the STATE by the GRANTEE. The GRANTEE further agrees that the STATE shall have the right to withhold any or all subsequent payments under this Agreement to the GRANTEE until the recoupment of overpayments is made.
20. **PUBLIC INFORMATION:** Except as identified in writing and expressly approved by the STATE, GRANTEE agrees that this Agreement and related documents will be public documents, and may be available for distribution. GRANTEE gives the STATE express permission to make copies of the Agreement and related documents.
21. **PROCUREMENT STANDARDS AND ETHICS:** The GRANTEE will adopt procurement standards and code of conduct in keeping with the State of Nevada and Federal procurement standards and rules.
22. **DEFAULT AND REMEDIES:** Any of the following events will constitute cause for the STATE to declare GRANTEE in default of the Agreement: (1) Nonperformance of contractual requirements; or, (2) A material breach of any term or condition of this Agreement. The STATE will issue a written notice of default providing a ten (10) day period in which GRANTEE will have an opportunity to cure. Time allowed for cure will not diminish or eliminate GRANTEE'S liability for damages. If the default remains, after GRANTEE has been provided the opportunity to cure, the STATE may do one or more of the following: (1) Exercise any remedy provided by law; (2) Terminate this Agreement and any related contracts or portions thereof; (3) Impose liquidated damages, if liquidated damages are listed in the Agreement; (4) Suspend GRANTEE from applying for and receiving future grants.
23. **FORCE MAJEURE:** Neither party to this Agreement will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The STATE may terminate this Agreement after determining such delay or default will reasonably prevent successful performance of the Agreement.
24. **CONFLICT OF TERMS:** All Terms and Conditions that apply must be in writing and attached to the Agreement. No other Terms and Conditions will apply to this Agreement. In the event of any conflict in the Agreement Terms and Conditions, the order of precedence shall be: (1) Attachment A: General Provisions; (2) Agreement Signature Page(s); (3) Attachment B: Program Terms and Conditions; (4) Attachment E: Federal Assurances/Certifications.
25. **ENTIRE AGREEMENT:** This Agreement, including Attachments A through E, and documents incorporated hereunder, constitutes the entire agreement between the parties with respect to the subject matter, and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written.
26. **AMENDMENT:** This Agreement may be altered, modified, or supplemented only by written amendment, executed by the parties hereto, and attached to the original signed copy of this Agreement. No claim for services furnished by the GRANTEE, not specifically authorized by this Agreement will be allowed by the STATE. ***Automatic renewals will not apply to this Agreement.***
27. **ACCOUNTING REPORTS:** The governing board of the GRANTEE is responsible to ensure that GRANTEE complies with all accounting reporting requirements in Federal Law and the Nevada Revised Statutes.

- 28. PROHIBITION AGAINST PAYMENT OF BONUS OR COMMISSIONS:** The assistance provided under this Agreement will not be used for payment of any bonus or commission for the purpose of obtaining STATE approval of the Grant Application for such assistance, or STATE approval of applications for additional assistance. However, reasonable fees for consultant, managerial, or other services are eligible as project costs.

ATTACHMENT B - PROGRAM GENERAL CONDITIONS

1. **MONITORING:** The STATE will monitor GRANTEE'S performance in providing services and facilities in accordance with the purposes of this Agreement, and shall conduct at least one site visit during the contract period to inspect said performance. Criteria to be used in monitoring said performance includes compliance with the provisions of this Agreement and the degree to which GRANTEE meets the Federal and State objectives established for the Community Development Block Grant Program as specified in Title I of the Housing and Community Development Act of 1974 as amended from time to time, and as outlined in the CDBG Grant Administration Manual and other program training materials.
2. **CRITERIA DOCUMENTATION:** During the term of this Agreement, the GRANTEE agrees to supply any information to the STATE which the STATE may require. Specifically, the GRANTEE agrees to collect and analyze data pertaining to the manner in which work performed under this Agreement has (or will have) met one or more of the following criteria/HUD National Objectives:
 - benefit low and moderate income families;
 - aid in the prevention or elimination of slums or blight; and/or
 - meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community, and where other financial resources are not available to meet such needs.

Failure by the GRANTEE to fulfill at least one of the HUD National Objectives may result in grant funds being returned to the STATE.

3. **ASSURANCES THAT OTHER SOURCES OF PROJECT FUNDS ARE SECURED:** The GRANTEE, prior to the commencement of expenditures authorized by this Agreement, agrees to provide to the STATE evidence that other sources of funds to be used for work described in the Scope of Work (if any) have been committed to the GRANTEE for the purpose of performing services and/or constructing facilities as described herein. The GRANTEE further agrees that all of the work described in Attachments C and D will be completed in a timely manner.
4. **COST PRINCIPLES AND ADMINISTRATIVE RULES:** The following state and federal requirements apply to the financial management function for local CDBG programs: 24 CFR Part 85 – Administrative Requirements for Grants & Cooperative Agreements to State, Local and Federally Recognized Indian Tribal Governments. This part establishes uniform administrative rules for Federal grants including guidance on financial administration, procedures for control and disposition of property, and retention of records.
5. **REQUIRED REPORTING OF FINANCIAL PERFORMANCE:** In accordance with OMB – Uniform Guidance, 2 CFR 200, *Audits of State, Local Governments and Non-Profit Organizations*, state and local governments or non-profit organizations that expend \$750,000 or more in total federal financial assistance (from all sources) in the recipient's fiscal year shall have a Single Audit completed. Determining the amount of federal funds received shall be based on actual cash spent, not notice of an award or execution of this or any other agreements. Recipients that expend less than the federal assistance threshold are exempt from the Single Audit requirement. However, the recipient's financial records shall be available for review, monitoring or audit by appropriate officials of the federal granting agency, the Governor's Office of Economic Development, or other State of Nevada agency. Likewise, recipients may be asked to confirm in writing that their expenditure of federal funds did not exceed the designated threshold in the appropriate fiscal year. The audit shall be completed and submitted to the Governor's Office of Economic Development no later than nine (9) months after the end of the recipient's fiscal year.
6. **SERVICES AND PROJECT REPORTING REQUIREMENTS:** The GRANTEE agrees to perform those activities as specified in the Scope of Work and in compliance with all relevant Federal regulations pertaining to the Small Cities Community Development Block Grant Program. In performance of said services, GRANTEE further agrees to submit quarterly performance reports to the STATE, and other reports as specified by the STATE in formats designed by the STATE with all information compiled in compliance with paragraph 2 (above).
7. **IMPOSITION OF FEES, GENERATION AND DISPOSITION OF PROGRAM INCOME:** GRANTEE will not impose any fees for services rendered in connection with this Agreement.

Program income generally means gross income received by the GRANTEE, or a sub-grantee of the GRANTEE, that is directly generated from the use of CDBG funds. Disposition of real or nonexpendable personal property acquired with CDBG funds must be handled in accordance with OMB Uniform Guidance. Notwithstanding any other provision of law, GRANTEE may at the STATE'S option retain any program income that is realized from the grant if (1) such income was realized after the initial disbursement of the funds received by GRANTEE, and (2) GRANTEE can satisfactorily demonstrate that the program income received will be applied to continue the activity from which income was derived, and (3) STATE gives explicit permission to retain such and authorizes its distinct usage.

Real property purchased with CDBG funds will be used to meet one of the HUD National Objectives for a minimum of five (5) years after grant close out. If the property is disposed of in less than 5 years, the STATE will be reimbursed in the amount of the current market value less any value of the property attributable to non-CDBG funds. If a change in use occurs within 5 years of close out, the STATE will need to review the change in use and determine appropriate measures to be taken.

8. **PAYMENT WITHHOLDING:** The GRANTEE agrees that the reporting and record keeping requirements specified in this Agreement are a material element of performance and that if, in the opinion of the STATE, GRANTEE'S record keeping practices and/or reporting to the STATE are not conducted in a timely and satisfactory manner, the STATE may withhold

part or all of the payments under this Agreement until such time as in the opinion of the STATE such deficiencies have been remedied. In the event of payment(s) being withheld, the STATE agrees to notify the GRANTEE in writing immediately upon denial of payment of the reasons for the denial and of the actions that the GRANTEE will need to take to bring about the release of withheld payments.

If any areas of non-compliance with CDBG regulations requiring correction on the part of the GRANTEE are noted, the STATE reserves the right to refuse the GRANTEE'S request for final fund draw-down until satisfactory evidence of compliance has been submitted.

9. **PROJECT DURATION:** GRANTEES should take note of the opening page of this Agreement which stipulates the duration of the Agreement. GRANTEES should make every effort possible to complete the project within the allotted time. If funds remain unspent at the end of the project period, but are needed to complete the project, GRANTEES should request an extension of the Agreement termination date in order to allow adequate time for completion of the project and submission of the final Draw Request and supporting information.

The STATE will closely monitor each GRANTEE'S progress according to programmatic and jointly-established deadlines and expectations. If a GRANTEE fails to meet these deadlines and/or expectations, the STATE may declare the GRANTEE in default of this Agreement in accordance with the provisions of paragraph 22 of Attachment A.

10. **RENEWAL:** GRANTEE agrees that the STATE shall unilaterally have the right to determine the basis upon which this Agreement may be renewed, and shall have the right to not renew this Agreement with or without cause.
11. **CHANGES IN PROJECT BUDGET AND DESIGN:** The GRANTEE agrees to notify the STATE and receive STATE'S written approval, as an Amendment to this Agreement, prior to implementing any change in program budget and design (as specified in Attachments C and D). Approval for such changes may be made directly by the STATE or involve action by the CDBG Advisory Committee.

GRANTEE agrees to return (de-obligate) any funds that are unused by the project per Attachment D at the time of project completion.

12. **MULTI-YEAR FUNDING:** GRANTEE understands and agrees that the STATE will not be held liable for funding successive phases of a particular project, and understands and agrees that CDBG funds are always given for one phase only at any given time.
13. **RELATED PARTIES:** The GRANTEE shall not make payments for goods, services, facilities, salary/wages, professional fees, leases, etc. to related parties for Agreement expenses without the prior written consent of STATE. Disbursements by the GRANTEE to related parties made without such prior approval may be disallowed and may result in an overpayment assessment.
14. **LABOR STANDARDS COMPLIANCE:** The GRANTEE agrees to abide by provisions of: (1) the Davis-Bacon Act and shall compile evidence certifying that all laborers and mechanics employed by the GRANTEE'S contractors on construction work assisted under this Agreement are paid wages at rates not less than those prevailing on similar construction in the locality as determined by the U.S. Department of Labor; (2) the Copeland "Anti-Kickback" Act requiring weekly payment of employees and weekly submission of payroll records by the GRANTEE'S contractors to the contracting agency; and (3) the Contract Work Hours and Safety Standard ACT (CSHSSA) requiring that workers receive "overtime" compensation at a rate of 1 ½ times their regular hourly wage after having worked more than 40 hours in one week, or overtime after more than 8 hours per day if mandated by the laws of the State of Nevada, and other Federal and State statutory provisions as enacted and codified, for the purpose of complying with labor standards compliance.
15. **SECTION 3 COMPLIANCE:** The GRANTEE agrees to abide by the provisions of Section 3 of the Housing and Urban Development Act of 1968, if the minimum threshold is met, to ensure that employment and other economic opportunities generated by the Community Development Block Grant program, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low and very low income persons (24 CFR Part 135).
16. **ENVIRONMENTAL REVIEW COMPLIANCE:** The GRANTEE agrees to abide by provisions of the National Environmental Policy Act of 1969 (NEPA) and other provisions of law which further the purposes of such Act as required by Title 1 of the Housing and Community Development Act of 1974 as amended from time to time and in compliance with the Environmental Review Procedures of the Community Development Block Grant Program at 24 CFR Part 58 and any subsequent regulations issued by the U.S. Department of Housing and Urban Development implementing the Housing and Community Development Amendments of 1981.
17. **LEAD BASED PAINT:** The GRANTEE agrees to abide by provisions of 24 CFR Part 35 Lead Based Paint Poisoning Prevention in Certain Residential Structures, and the Residential Lead-Based Paint Hazard Reduction Act of 1992 as amended through 2005. GRANTEE also agrees to abide by the provisions of 40 CFR Part 745.65 – Lead-based Paint Hazards and EPA's Renovation Repair & Painting (RRP) Rule effective April 22, 2010.

18. **PAYMENTS UNDER THIS AGREEMENT** are conditioned upon the GRANTEE'S:

- a) Submission of an appropriate environmental review that demonstrates the required compliance with the National Environmental Policy Act (NEPA) prior to any obligation or commitment of funds (see CDBG Administration Manual);

- b) Submission of acceptable documentation confirming procurement and labor compliance procedures have been followed;
- c) Submission of Draw Requests that are complete and supported by appropriate invoices, payment information, etc.; and
- d) Submission of all the necessary and prescribed project closing information.

- 19. CONTINUING RESOLUTIONS:** In the event that funding for this program is provided through Federal Continuing Resolution, the STATE shall be responsible to expend only those funds actually provided to the STATE by Continuing Resolution and is under no further obligation to GRANTEE or any sub-contracted entity to fulfill the financial obligation until such time as additional funding is provided by a grant appropriation or continuing resolution. The STATE may determine the method for distributing and expending funds provided by Federal Continuing Resolution.
- 20. SUBCONTRACTS:** Subcontract arrangements must be executed in writing and be approved in writing in advance by the STATE. The provisions of this Agreement will be made binding on a sub-grantee or contractor of the GRANTEE. The GRANTEE is responsible for managing the operations of any subcontracted activities. The GRANTEE must monitor subcontracted activities to ensure compliance with the provisions of the subcontract agreement and with this Agreement, as well as with applicable Federal and State requirements and performance objectives.

ATTACHMENT C – SCOPE OF WORK

Final Scope of Work/Project Description as agreed by the CDBG Advisory Committee. The Scope of Work should describe in quantifiable terms the proposed project, including established deadlines and expectations which will be used for the Environmental Review and for monitoring project progress.

The proposed Depot Improvement project is the fourth phase, the installation/construction of the ADA restroom facility for the Depot. The construction will be based on the construction documents developed by Resource Concepts Inc. during Phase II of the Depot community Center project, which was funded by CDBG. The City will contract with a general contractor to coordinate the purchase and installation of a prefabricated ADA compliant restroom, connect utilities to the restroom, and construct ADA-compliant pathways from the Depot to the restroom facility. The project consists of five milestones and the project closeout process.

Milestone One: Milestone one includes establishing an internal project committee to develop/prepare the bidding documents and develop the RFP. Deliverables: RFP will be ready for publication.

Milestone two: Milestone two includes the implementing bidding process, selection, and contract approval for a general contractor to coordinate the project. The deliverables will include an approved Fernley City Council contract with a general contractor.

Milestone three: Milestone three includes mobilization and demobilization, including a kickoff project team meeting. The deliverables in milestone two include required insurance, bonds, contractor permits, permit fees, and possibly the procurement of the selected prefabricated ADA compliant restroom with Public Restroom Company, depending on the supply chain issues that may delay delivery of product.

Milestone four: Milestone four includes site surveying, grading, installation of utilities to the site where the restroom will be installed and preparing the site for the installation of the restroom facility. The deliverable for milestone three is that the site is ready for prefabricated building to be installed. If the procurement of the selected prefabricated ADA compliant restroom is not completed in milestone two, this task will be completed in milestone three.

Milestone five: Milestone five is the shipment, delivery, installation of the prefabricated building at the Depot and the construction of concrete walkways from the Depot to the restroom. Deliverables in milestone four include will the completion of construction, final walk-through inspection and final project construction approval by the Project Engineer and City of Fernley.

Project Closeout: The milestone six, staff will review, complete, and submit closeout documents.

ATTACHMENT D – IMPLEMENTATION SCHEDULE

TASK	Est. Timeline July 1- June 30 th or December 31 st
PROJECT START UP:	
Project Set Up	July 2022
PROCUREMENT OF PROFESSIONAL ASSISTANCE (including professional engineers, architects, community development consultants, etc.)	
Procurement of Professional Assistance	Aug – Oct 2022
PROJECT IMPLEMENTATION:	
Project Implementation	Oct – Dec 2022
Surveying, grading, install utilities	Jan – Mar 2023
Receive, Install prefab building	Mar – Apr 2023
PROJECT CLOSEOUT:	
Project Close out	June 2024

ATTACHMENT E – BUDGET

Final budget as agreed by the CDBG Advisory Committee in the format used in the CDBG Application Form.

Cost Category	CDBG	Local Cash	In-Kind	State	Other Federal	Other	Totals
Mobilization/Demobilization	\$ 5,555.00						\$ 5,555.00
Site Work	\$ 3,695.00						\$ 3,695.00
Paving	\$ 34,960.00						\$ 34,960.00
Utilities	\$ 40,705.00						\$ 40,705.00
Prefabricated building and delivery	\$ 310,085.00	\$ 45,000.00					\$ 355,085.00
Staff Time/Project Coordination			\$ 10,121.00				\$ 10,121.00
							\$ -
							\$ -
							\$ -
Total Costs	\$ 395,000.00	\$ 45,000.00	\$ 10,121.00	\$ -	\$ -	\$ -	\$ 450,121.00

ATTACHMENT F – FEDERAL ASSURANCES/CERTIFICATIONS

In order to meet the specific requirements of the Housing and Urban-Rural Recovery Act of 1983 which amends the Housing and Community Development Act of 1974, the following certifications must be completed by every Grantee.

1. ACQUISITION, RELOCATION AND ANTIDISPLACEMENT

I certify that all real property acquired and all displacements of persons resulting from the proposed CDBG project will be carried out under the provisions of the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 as amended by the Uniform Relocation Act Amendments of 1987 Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987. I further certify that all displacements of persons resulting from the proposed CDBG project will be carried out in accordance with Section 104(d) of the Housing and Community Development Act of 1974, as amended and in conformance with the Residential Anti-displacement and Relocation Assistance Plan and Certification.

2. CIVIL RIGHTS and FAIR HOUSING

I certify that the CDBG grant will be conducted and administered in accordance with Title VI of the Civil Rights Act of 1964 (42 USC 2000d), the Fair Housing Act (42USC 3601-3619), and implementing regulations and that the GRANTEE will affirmatively further fair housing choice.

3. ARCHITECTURAL BARRIERS

I certify that the CDBG program will be conducted in accordance with Architectural Barriers Act of 1968, as amended (42 USC 4151) and Section 504 of the Rehabilitation Act of 1973, as amended (28 USC 792), and the Americans with Disabilities Act of 1991.

4. CITIZEN PARTICIPATION

I certify that I will comply with the STATE Citizen Participation Plan as adopted by GOED: Rural Community and Development/CDBG Division. I certify that opportunities have been provided for citizen participation, hearings, and access to information comparable to the requirements of Title I HCD Act 104(a) (2). Specific information regarding the CDBG GRANTEE requirement (publications, notices) can be found in the GRANTEE'S application file.

5. PROGRAM COSTS RECOVERY

I certify that as a CDBG GRANTEE I will not attempt to recover the costs of any public improvements assisted in whole or in part with CDBG funds by assessing properties owned and occupied by low and moderate income persons unless: (1) CDBG funds are used to pay the proportion of such assessment that relates to non-CDBG funding, or (2) for the purposes of assessing properties owned and occupied by low and moderate income persons who are not very low income that the local government does not have sufficient CDBG funds to comply with the provision of (1) above.

6. EXCESSIVE FORCE CERTIFICATION

I certify that as a CDBG GRANTEE I will adopt and enforce a policy prohibiting the use of excessive force by law enforcement agencies within my jurisdiction against any individuals engaged in nonviolent civil rights demonstrations in accordance with the Armstrong/Walker "Excessive Force" Amendment Section 519 of the Department of Veteran Affairs Public Law 101-144 and Housing & Urban Development & Independent Agencies Appropriations Act of 1990. I will also adopt a policy enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location which is the subject of such non-violent civil rights demonstrations within our jurisdiction.

7. PROHIBITION AGAINST LOBBYING CERTIFICATION

I certify that:

(1) No Federally appropriated funds will be paid, by or on behalf of the undersigned, to any person for the influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal Grant, the making of any Federal loan, extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federally appropriated funds are paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) I certify that I shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each failure.

8. SECTION 3

I certify that the jurisdiction will comply with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), and implementing regulations at 24 CFR Part 135, if the minimum thresholds for Section 3 covered housing and community development assistance are met.

9. STATEMENT OF ASSURANCES

I certify that, in addition to laws, regulations, and Executive Orders noted in this document, the jurisdiction will comply with the following Federal and State regulations:

Federal:

1. Title I of the Housing & Community Development Act of 1974 as amended
2. Federal Fair Labor Standards Act
3. Title VI of the Civil Rights Act of 1964 - Nondiscrimination
4. Title VIII of the Civil Rights Act of 1968 - Nondiscrimination in Housing
5. Age Discrimination Act of 1975
6. Executive Order 12259 - Leadership & Coordination of Fair Housing
7. Section 109, Housing & Community Development Act of 1974 - Nondiscrimination
8. Section 504 of Rehabilitation Act of 1973, as amended
9. Executive Order 11063 - Equal Opportunity in Housing
10. Executive Order 11246 - Nondiscrimination
11. Hatch Act
12. Treasury Circular 1075 regarding drawdown of CDBG funds
13. Single Audit Act of 1984, which has legal precedence over the Uniform Guidance.
14. Section 109 of Public Law 100-202, which restricts awarding contracts for work on public buildings or public works to contractors or subcontractors from foreign countries that deny fair trade practices.

State:

1. NRS 338.010 - 338.130 - Public Works Projects.
2. NRS 613.330 - Equal Employment Opportunity.
3. NRS 118.100 - Equal Housing Opportunity.
4. NRS 332.005 - 332.225 - Local Government Purchasing Act.

10. CHANGE OF USE

I certify that the jurisdiction will comply with all requirements of 24 CFR Part 24. This includes sections 488 and 489 J requiring all assisted housing units maintain affordability standards until 5 years following the date of closeout of this contract by the STATE.

I certify that I have read, am aware of and will comply with all of the forgoing Certification requirements.

By: _____
Signature of Elected Official

Roy Edgington Jr.
Printed Name of Elected Official

Mayor
Title

Date

Nevada Governor's Office of
ECONOMIC DEVELOPMENT

GRANT AGREEMENT

**Nevada Governor's Office of Economic Development (GOED)
Rural Community and Economic Development Division
808 West Nye Lane, Carson City, Nevada 89703**

1. PARTIES: This agreement is between the Nevada Governor's Office of Economic Development

Community Development Block Grant Program (CDBG): CFDA# 14.228 FAIN# B-22-DC-32-0001

CDBG Grant #: 22/PF/07 Eligible Activity: 105(a)(2) National Objective: LMI- Area Benefit
(Program)

Referred to as STATE, and the following GRANTEE:

City of Fernley

Name

595 Silver Lace Blvd.

Address

Fernley

City

NV

State

89408

Zip Code

880496533

UGLG EIN Number

4V4M5

CCR (CAGE) Number

Main St & Hwy US 95A intersection

Project Address

Fernley

City

NV

State

89408

Zip Code

Trisha Conner, Asst. to City Manger

Contact Person (Name, Title)

775-784-9851

Phone #

775-784-9828

FAX #

tconner@cityoffernley.org

Contact Person's Email

2. GENERAL PURPOSE OF AGREEMENT:

The purpose of the project is to contract with a landscaping design firm to create an initial overall concept plan this plan will identify and develop individual site plans and final schematic design. This project will also include the purchase of streetscape items such as benches, bicycle racks, planters, and shade structures.

3. AGREEMENT PERIOD: Commencing on **07/01/2022** and terminating on **6/30/2024**.

4. AGREEMENT COSTS: GRANTEE will be paid a maximum of \$100,000 pursuant to the budget attached hereto as Attachment E.

CDBG Use Only Funds by Year:

Year:	2022	\$ 100,000
Year:		
Year:		

5. ATTACHMENTS:

- ☐ ATTACHMENT A – GENERAL PROVISIONS
- ☐ ATTACHMENT B – PROGRAM TERMS AND CONDITIONS
- ☐ ATTACHMENT C – SCOPE OF WORK
- ☐ ATTACHMENT D – IMPLEMENTATION SCHEDULE
- ☐ ATTACHMENT E – BUDGET
- ☐ ATTACHMENT F – FEDERAL ASSURANCES/CERTIFICATIONS

EXECUTION

IN ACCEPTING THESE FUNDS, IT IS UNDERSTOOD THAT:

1. This award is subject to the availability of appropriate funds.
2. Recipient of these funds agrees to the conditions of this Grant Agreement, including all Attachments which are hereby incorporated by reference.

IN WITNESS WHEREOF, the parties sign and cause this Grant Agreement to be effective as of the date indicated below.

GRANTEE

APPROVED: City of Fernley

By: _____
Signature of Elected Official

Roy Edgington Jr.
Printed Name

Mayor
Title

STATE

APPROVED: GOED, RURAL COMMUNITY
AND ECONOMIC DEVELOPMENT
DIVISION

By: Shari Davis
Shari Davis, Director

NV Governor's Office of Economic Development
808 W. Nye Lane, Carson City, NV 89703
sadavis@goed.nv.gov
(775) 687-9911

Execution Date: 7/1/2022

ATTACHMENT A - GENERAL PROVISIONS

1. **AUTHORITY:** Provisions of this Agreement are pursuant to the authority set forth in the Nevada Revised Statutes chapters 231 and 332, and related statutes which permit the STATE to contract with service providers for certain specified services.
2. **CONTRACT JURISDICTION, CHOICE OF LAW AND VENUE:** The provisions of this agreement shall be governed by the laws of the State of Nevada. The parties shall submit to the jurisdiction of the courts of the State of Nevada for any dispute arising out of this Agreement or the breach thereof. Venue shall be in Carson City, in the First Judicial District Court.
3. **LAWS AND REGULATIONS:** The GRANTEE and any and all supplies, services, equipment, and construction proposed and furnished under this Agreement will comply fully with all applicable Federal and State laws and regulations.
4. **PROJECT DESIGN AND COMPLETION:** The GRANTEE will use the grant under this Agreement for the project as detailed in the Grant Application, including any written modifications resulting from the review of the Application by the STATE. The GRANTEE shall complete the project described in Attachment D - Scope of Work within the contract period shown on page 1 of this Agreement.
5. **RECORDS ADMINISTRATION:** The GRANTEE shall maintain, or supervise the maintenance of, all records necessary to properly account for the payments made to the GRANTEE pursuant to this Agreement. These records shall be retained by the GRANTEE for five years after the project has been monitored and closed. The GRANTEE agrees to allow State and Federal auditors, and State Agency Staff, access to all the records related to this Agreement, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.
6. **CONFLICT OF INTEREST:** GRANTEE represents that none of its officers or employees are officers or employees of the State of Nevada, unless disclosure has been made and approval received, in writing, from the STATE.

GRANTEE confirms that no officer, employee or agent of the GRANTEE will participate in the selection or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the officer, employee or agent, any member of his or her immediate family, his or her partner, or an organization that employs or is about to employ any of the above, has a financial or other interest in the firm selected to award. GRANTEE'S officers, employees or agents will neither solicit nor accept gratuities, favor or anything of monetary value from contractors, potential contractors, or parties to sub agreements during office tenure or for one year after the close out of the grant. This stipulation must be included in all other contracts and subcontracts to the grant.

No portion of the grant funds under this Agreement will be used for any partisan political activity, to further the election or defeat of any candidate for public office, or influence the approval or defeat of any ballot issue.
7. **INDEPENDENT CONTRACTOR:** The GRANTEE shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind the STATE to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the STATE, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the GRANTEE by the STATE. The GRANTEE shall be responsible for the payment of all taxes and social security amounts due as a result of payments received from the STATE for services under this Agreement. Persons employed by the STATE and acting under the direction of the STATE shall not be deemed to be employees or agents of the GRANTEE.
8. **INDEMNITY CLAUSE:** The GRANTEE agrees to indemnify, save harmless, and release the STATE of Nevada, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this Agreement which are caused in whole or in part by the negligence of the GRANTEE'S officers, agents, volunteers, or employees, but not for claims arising from the STATE's sole negligence.
9. **EQUAL OPPORTUNITY CLAUSE:** The GRANTEE agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42 USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities, or the Nevada Revised Statute (NRS) 613.330 Equal Employment Opportunity.
10. **SEVERABILITY CLAUSE:** A declaration by any court, or any other binding legal source, that any provision of this Agreement is illegal and void shall not affect the legality and enforceability of any other provision of this Agreement, unless the provisions are mutually dependent.
11. **DEBARMENT:** The GRANTEE certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (Agreement), by any governmental department or agency. If the GRANTEE cannot certify this statement, attach a written explanation for review by the STATE. The GRANTEE must notify the State Director of Rural Community and Economic Development within 30 days if debarred by any governmental entity during the Agreement period.
12. **TERMINATION:** This Agreement may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the Agreement may be terminated for cause. This Agreement may be terminated without cause, in advance of the specified expiration date, by either party, upon 90 days prior written notice being given the other party. On termination of this Agreement, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.

13. **NONAPPROPRIATION OF FUNDS:** The GRANTEE acknowledges that the STATE cannot contract for the payment of CDBG funds not provided by the federal government. If funding to the STATE is not provided as initially expected, the STATE may terminate this Agreement or proportionately reduce the services and the amount due from the STATE upon 30 days written notice. In the case that funds are not available or are reduced, the STATE will not be liable for any future commitments, penalties, or liquidated damages.
14. **WARRANTY:** The GRANTEE warrants that (a) all services shall be performed in conformity with the requirements of this Agreement by qualified personnel in accordance with generally recognized standards; and (b) all goods or products furnished pursuant to this Agreement shall be free from defects and shall conform to contract requirements. For any item that the STATE determines does not conform with the warranty, the STATE may arrange to have the services redone as needed, either by the GRANTEE or by a third party at the STATE'S option, at the GRANTEE'S expense.
15. **PAYMENT:** The GRANTEE must begin to draw funds within nine (9) months of the start of this Agreement. Extensions beyond the 9 month deadline will be made at the discretion of the STATE staff. The proportion of CDBG funds paid and applied to a specific activity will not exceed the proportion specified in the final budget as outlined in the approved Grant Application or Application modifications. The approved Application budget or modified budget is binding upon the GRANTEE. Should a budget revision be required after signing this Agreement, the request for revision must be submitted to the appropriate STATE staff for review and approval. Payments to the GRANTEE will normally be made within 30 days following the date completed Draw Requests and supporting documents are delivered to the STATE.
16. **PATENTS, COPYRIGHTS, ETC:** The GRANTEE will release, indemnify and hold the STATE, its officers, agents and employees harmless from liability of any kind or nature, including the GRANTEE'S use of any copyrighted or un-copyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this Agreement.
17. **ASSIGNMENT/SUBCONTRACT:** The GRANTEE will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this Agreement, in whole or in part, without the prior written approval of the STATE.
18. **UNUSED FUNDS:** Any funds authorized by the STATE that are not used in the completion of Attachment D - Scope of Work must be de-obligated and returned to the STATE.
19. **INELIGIBLE EXPENSES:** GRANTEE expenditures under this Agreement determined by audit to be ineligible for reimbursement because they were not authorized by the terms and conditions of the Agreement or that are inadequately documented, and for which payment has been made to the GRANTEE will be immediately refunded to the STATE by the GRANTEE. The GRANTEE further agrees that the STATE shall have the right to withhold any or all subsequent payments under this Agreement to the GRANTEE until the recoupment of overpayments is made.
20. **PUBLIC INFORMATION:** Except as identified in writing and expressly approved by the STATE, GRANTEE agrees that this Agreement and related documents will be public documents, and may be available for distribution. GRANTEE gives the STATE express permission to make copies of the Agreement and related documents.
21. **PROCUREMENT STANDARDS AND ETHICS:** The GRANTEE will adopt procurement standards and code of conduct in keeping with the State of Nevada and Federal procurement standards and rules.
22. **DEFAULT AND REMEDIES:** Any of the following events will constitute cause for the STATE to declare GRANTEE in default of the Agreement: (1) Nonperformance of contractual requirements; or, (2) A material breach of any term or condition of this Agreement. The STATE will issue a written notice of default providing a ten (10) day period in which GRANTEE will have an opportunity to cure. Time allowed for cure will not diminish or eliminate GRANTEE'S liability for damages. If the default remains, after GRANTEE has been provided the opportunity to cure, the STATE may do one or more of the following: (1) Exercise any remedy provided by law; (2) Terminate this Agreement and any related contracts or portions thereof; (3) Impose liquidated damages, if liquidated damages are listed in the Agreement; (4) Suspend GRANTEE from applying for and receiving future grants.
23. **FORCE MAJEURE:** Neither party to this Agreement will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The STATE may terminate this Agreement after determining such delay or default will reasonably prevent successful performance of the Agreement.
24. **CONFLICT OF TERMS:** All Terms and Conditions that apply must be in writing and attached to the Agreement. No other Terms and Conditions will apply to this Agreement. In the event of any conflict in the Agreement Terms and Conditions, the order of precedence shall be: (1) Attachment A: General Provisions; (2) Agreement Signature Page(s); (3) Attachment B: Program Terms and Conditions; (4) Attachment E: Federal Assurances/Certifications.
25. **ENTIRE AGREEMENT:** This Agreement, including Attachments A through E, and documents incorporated hereunder, constitutes the entire agreement between the parties with respect to the subject matter, and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written.
26. **AMENDMENT:** This Agreement may be altered, modified, or supplemented only by written amendment, executed by the parties hereto, and attached to the original signed copy of this Agreement. No claim for services furnished by the GRANTEE, not specifically authorized by this Agreement will be allowed by the STATE. ***Automatic renewals will not apply to this Agreement.***
27. **ACCOUNTING REPORTS:** The governing board of the GRANTEE is responsible to ensure that GRANTEE complies with all accounting reporting requirements in Federal Law and the Nevada Revised Statutes.

- 28. PROHIBITION AGAINST PAYMENT OF BONUS OR COMMISSIONS:** The assistance provided under this Agreement will not be used for payment of any bonus or commission for the purpose of obtaining STATE approval of the Grant Application for such assistance, or STATE approval of applications for additional assistance. However, reasonable fees for consultant, managerial, or other services are eligible as project costs.

ATTACHMENT B - PROGRAM GENERAL CONDITIONS

1. **MONITORING:** The STATE will monitor GRANTEE'S performance in providing services and facilities in accordance with the purposes of this Agreement, and shall conduct at least one site visit during the contract period to inspect said performance. Criteria to be used in monitoring said performance includes compliance with the provisions of this Agreement and the degree to which GRANTEE meets the Federal and State objectives established for the Community Development Block Grant Program as specified in Title I of the Housing and Community Development Act of 1974 as amended from time to time, and as outlined in the CDBG Grant Administration Manual and other program training materials.
2. **CRITERIA DOCUMENTATION:** During the term of this Agreement, the GRANTEE agrees to supply any information to the STATE which the STATE may require. Specifically, the GRANTEE agrees to collect and analyze data pertaining to the manner in which work performed under this Agreement has (or will have) met one or more of the following criteria/HUD National Objectives:
 - benefit low and moderate income families;
 - aid in the prevention or elimination of slums or blight; and/or
 - meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community, and where other financial resources are not available to meet such needs.

Failure by the GRANTEE to fulfill at least one of the HUD National Objectives may result in grant funds being returned to the STATE.

3. **ASSURANCES THAT OTHER SOURCES OF PROJECT FUNDS ARE SECURED:** The GRANTEE, prior to the commencement of expenditures authorized by this Agreement, agrees to provide to the STATE evidence that other sources of funds to be used for work described in the Scope of Work (if any) have been committed to the GRANTEE for the purpose of performing services and/or constructing facilities as described herein. The GRANTEE further agrees that all of the work described in Attachments C and D will be completed in a timely manner.
4. **COST PRINCIPLES AND ADMINISTRATIVE RULES:** The following state and federal requirements apply to the financial management function for local CDBG programs: 24 CFR Part 85 – Administrative Requirements for Grants & Cooperative Agreements to State, Local and Federally Recognized Indian Tribal Governments. This part establishes uniform administrative rules for Federal grants including guidance on financial administration, procedures for control and disposition of property, and retention of records.
5. **REQUIRED REPORTING OF FINANCIAL PERFORMANCE:** In accordance with OMB – Uniform Guidance, 2 CFR 200, *Audits of State, Local Governments and Non-Profit Organizations*, state and local governments or non-profit organizations that expend \$750,000 or more in total federal financial assistance (from all sources) in the recipient's fiscal year shall have a Single Audit completed. Determining the amount of federal funds received shall be based on actual cash spent, not notice of an award or execution of this or any other agreements. Recipients that expend less than the federal assistance threshold are exempt from the Single Audit requirement. However, the recipient's financial records shall be available for review, monitoring or audit by appropriate officials of the federal granting agency, the Governor's Office of Economic Development, or other State of Nevada agency. Likewise, recipients may be asked to confirm in writing that their expenditure of federal funds did not exceed the designated threshold in the appropriate fiscal year. The audit shall be completed and submitted to the Governor's Office of Economic Development no later than nine (9) months after the end of the recipient's fiscal year.
6. **SERVICES AND PROJECT REPORTING REQUIREMENTS:** The GRANTEE agrees to perform those activities as specified in the Scope of Work and in compliance with all relevant Federal regulations pertaining to the Small Cities Community Development Block Grant Program. In performance of said services, GRANTEE further agrees to submit quarterly performance reports to the STATE, and other reports as specified by the STATE in formats designed by the STATE with all information compiled in compliance with paragraph 2 (above).
7. **IMPOSITION OF FEES, GENERATION AND DISPOSITION OF PROGRAM INCOME:** GRANTEE will not impose any fees for services rendered in connection with this Agreement.

Program income generally means gross income received by the GRANTEE, or a sub-grantee of the GRANTEE, that is directly generated from the use of CDBG funds. Disposition of real or nonexpendable personal property acquired with CDBG funds must be handled in accordance with OMB Uniform Guidance. Notwithstanding any other provision of law, GRANTEE may at the STATE'S option retain any program income that is realized from the grant if (1) such income was realized after the initial disbursement of the funds received by GRANTEE, and (2) GRANTEE can satisfactorily demonstrate that the program income received will be applied to continue the activity from which income was derived, and (3) STATE gives explicit permission to retain such and authorizes its distinct usage.

Real property purchased with CDBG funds will be used to meet one of the HUD National Objectives for a minimum of five (5) years after grant close out. If the property is disposed of in less than 5 years, the STATE will be reimbursed in the amount of the current market value less any value of the property attributable to non-CDBG funds. If a change in use occurs within 5 years of close out, the STATE will need to review the change in use and determine appropriate measures to be taken.

8. **PAYMENT WITHHOLDING:** The GRANTEE agrees that the reporting and record keeping requirements specified in this Agreement are a material element of performance and that if, in the opinion of the STATE, GRANTEE'S record keeping practices and/or reporting to the STATE are not conducted in a timely and satisfactory manner, the STATE may withhold

part or all of the payments under this Agreement until such time as in the opinion of the STATE such deficiencies have been remedied. In the event of payment(s) being withheld, the STATE agrees to notify the GRANTEE in writing immediately upon denial of payment of the reasons for the denial and of the actions that the GRANTEE will need to take to bring about the release of withheld payments.

If any areas of non-compliance with CDBG regulations requiring correction on the part of the GRANTEE are noted, the STATE reserves the right to refuse the GRANTEE'S request for final fund draw-down until satisfactory evidence of compliance has been submitted.

- 9. PROJECT DURATION:** GRANTEES should take note of the opening page of this Agreement which stipulates the duration of the Agreement. GRANTEES should make every effort possible to complete the project within the allotted time. If funds remain unspent at the end of the project period, but are needed to complete the project, GRANTEES should request an extension of the Agreement termination date in order to allow adequate time for completion of the project and submission of the final Draw Request and supporting information.

The STATE will closely monitor each GRANTEE'S progress according to programmatic and jointly-established deadlines and expectations. If a GRANTEE fails to meet these deadlines and/or expectations, the STATE may declare the GRANTEE in default of this Agreement in accordance with the provisions of paragraph 22 of Attachment A.

- 10. RENEWAL:** GRANTEE agrees that the STATE shall unilaterally have the right to determine the basis upon which this Agreement may be renewed, and shall have the right to not renew this Agreement with or without cause.
- 11. CHANGES IN PROJECT BUDGET AND DESIGN:** The GRANTEE agrees to notify the STATE and receive STATE'S written approval, as an Amendment to this Agreement, prior to implementing any change in program budget and design (as specified in Attachments C and D). Approval for such changes may be made directly by the STATE or involve action by the CDBG Advisory Committee.

GRANTEE agrees to return (de-obligate) any funds that are unused by the project per Attachment D at the time of project completion.

- 12. MULTI-YEAR FUNDING:** GRANTEE understands and agrees that the STATE will not be held liable for funding successive phases of a particular project, and understands and agrees that CDBG funds are always given for one phase only at any given time.
- 13. RELATED PARTIES:** The GRANTEE shall not make payments for goods, services, facilities, salary/wages, professional fees, leases, etc. to related parties for Agreement expenses without the prior written consent of STATE. Disbursements by the GRANTEE to related parties made without such prior approval may be disallowed and may result in an overpayment assessment.
- 14. LABOR STANDARDS COMPLIANCE:** The GRANTEE agrees to abide by provisions of: (1) the Davis-Bacon Act and shall compile evidence certifying that all laborers and mechanics employed by the GRANTEE'S contractors on construction work assisted under this Agreement are paid wages at rates not less than those prevailing on similar construction in the locality as determined by the U.S. Department of Labor; (2) the Copeland "Anti-Kickback" Act requiring weekly payment of employees and weekly submission of payroll records by the GRANTEE'S contractors to the contracting agency; and (3) the Contract Work Hours and Safety Standard ACT (CSHSSA) requiring that workers receive "overtime" compensation at a rate of 1 ½ times their regular hourly wage after having worked more than 40 hours in one week, or overtime after more than 8 hours per day if mandated by the laws of the State of Nevada, and other Federal and State statutory provisions as enacted and codified, for the purpose of complying with labor standards compliance.
- 15. SECTION 3 COMPLIANCE:** The GRANTEE agrees to abide by the provisions of Section 3 of the Housing and Urban Development Act of 1968, if the minimum threshold is met, to ensure that employment and other economic opportunities generated by the Community Development Block Grant program, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low and very low income persons (24 CFR Part 135).
- 16. ENVIRONMENTAL REVIEW COMPLIANCE:** The GRANTEE agrees to abide by provisions of the National Environmental Policy Act of 1969 (NEPA) and other provisions of law which further the purposes of such Act as required by Title 1 of the Housing and Community Development Act of 1974 as amended from time to time and in compliance with the Environmental Review Procedures of the Community Development Block Grant Program at 24 CFR Part 58 and any subsequent regulations issued by the U.S. Department of Housing and Urban Development implementing the Housing and Community Development Amendments of 1981.
- 17. LEAD BASED PAINT:** The GRANTEE agrees to abide by provisions of 24 CFR Part 35 Lead Based Paint Poisoning Prevention in Certain Residential Structures, and the Residential Lead-Based Paint Hazard Reduction Act of 1992 as amended through 2005. GRANTEE also agrees to abide by the provisions of 40 CFR Part 745.65 – Lead-based Paint Hazards and EPA's Renovation Repair & Painting (RRP) Rule effective April 22, 2010.

- 18. PAYMENTS UNDER THIS AGREEMENT** are conditioned upon the GRANTEE'S:

- a) Submission of an appropriate environmental review that demonstrates the required compliance with the National Environmental Policy Act (NEPA) prior to any obligation or commitment of funds (see CDBG Administration Manual);

- b) Submission of acceptable documentation confirming procurement and labor compliance procedures have been followed;
 - c) Submission of Draw Requests that are complete and supported by appropriate invoices, payment information, etc.; and
 - d) Submission of all the necessary and prescribed project closing information.
19. **CONTINUING RESOLUTIONS:** In the event that funding for this program is provided through Federal Continuing Resolution, the STATE shall be responsible to expend only those funds actually provided to the STATE by Continuing Resolution and is under no further obligation to GRANTEE or any sub-contracted entity to fulfill the financial obligation until such time as additional funding is provided by a grant appropriation or continuing resolution. The STATE may determine the method for distributing and expending funds provided by Federal Continuing Resolution.
20. **SUBCONTRACTS:** Subcontract arrangements must be executed in writing and be approved in writing in advance by the STATE. The provisions of this Agreement will be made binding on a sub-grantee or contractor of the GRANTEE. The GRANTEE is responsible for managing the operations of any subcontracted activities. The GRANTEE must monitor subcontracted activities to ensure compliance with the provisions of the subcontract agreement and with this Agreement, as well as with applicable Federal and State requirements and performance objectives.

ATTACHMENT C – SCOPE OF WORK

Final Scope of Work/Project Description as agreed by the CDBG Advisory Committee. The Scope of Work should describe in quantifiable terms the proposed project, including established deadlines and expectations which will be used for the Environmental Review and for monitoring project progress.

The purpose of the project is to continue the Downtown beautification efforts which will allow the City of Fernley to implement beautification strategies that were identified in Phases 1 and 2 of the Downtown Revitalization study and started in Phase 3. The City will contract with a landscape architect/planner to coordinate the purchase and installation of streetscape elements along Main Street from Silver Lace Blvd to the roundabout, at Farm District Road. There are multiple areas throughout this section of the corridor that can be improved to add an attractive and friendly environment for pedestrians.

The project consists of four milestones: the development the schematic landscape design and topographic survey, preliminary design, and construction documents; obtain NDOT permitting to install the streetscape elements; purchase of streetscape materials; and installation/construction of streetscape elements. CDBG will be paying for the following:

- Milestone 1 - the development the schematic landscape design, preliminary design, and construction documents and permitting documents
 - o a schematic design to install streetscape elements and/or micro-plaza(s) on the south side of Main Street from Silver Lace Blvd to Farm District Road, using the streetscape furniture designs in Phase 3. Deliverable – Schematic Design and Topographic Survey.
 - o a preliminary landscape design with an estimate of quantities of materials and labor required to install the streetscape elements and/or micro-plaza(s), and proposed concrete work required for each location. The preliminary design must take into consideration ADA requirements and any drainage issues. Deliverable – Preliminary Landscape Design.
 - o Provide Final Construction Documents for site(s) and provide color-coded improvement plans and documentation pertaining to civil work in accordance with the Nevada Department of Transportation standards (Permit Category Type VII Pavement Widening and/or IX Landscaping). Deliverable – Construction Documents and NDOT Permitting documents.
- Milestone 2 – obtain NDOT permits to install the streetscape elements on Main Street.
 - o the submittal of the NDOT Occupancy Permit will be made by the contractor directly to NDOT on the City's behalf. Deliverable: NDOT Permit(s).
- Milestone 3 – purchase of streetscape elements to be installed on Main Street. Deliverables: delivery of the streetscape furniture.
- Milestone 4 – installation and/or construction of the streetscape elements on Main Street. Deliverable: completion of installation and construction of streetscape furniture.

ATTACHMENT D – IMPLEMENTATION SCHEDULE

TASK	Est. Timeline July 1- June 30 th or December 31 st
PROJECT START UP:	
Develop RFP	July 2022
PROCUREMENT OF PROFESSIONAL ASSISTANCE (including professional engineers, architects, community development consultants, etc.)	
Publish RFP	July – Aug 2022
Review Proposals	Aug 2022
Prepare Contract	Aug 2022
Council Approve Contract	Sept 2022
PROJECT IMPLEMENTATION:	
Meet with Contractor	Sept – Oct 2022
Review/Approve Designs	Dec 2022 – Jan 2023
Purchase Streetscape Item	Mar – Apr 2023
PROJECT CLOSEOUT:	
Closeout documents	June 2024

ATTACHMENT E – BUDGET

Final budget as agreed by the CDBG Advisory Committee in the format used in the CDBG Application Form.

Cost Category	CDBG	Local Cash	In-Kind	State	Other Federal	Other	Totals
Landscape Design	\$ 30,000.00						\$ 30,000.00
Streetscape materials/furniture	\$ 41,752.00						\$ 41,752.00
Labor/Installation	\$ 28,248.00						\$ 28,248.00
Staff Time/Project Coordination			\$ 10,121.00				\$ 10,121.00
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
Total Costs	\$ 100,000.00	\$ -	\$ 10,121.00	\$ -	\$ -	\$ -	\$ 110,121.00

ATTACHMENT F – FEDERAL ASSURANCES/CERTIFICATIONS

In order to meet the specific requirements of the Housing and Urban-Rural Recovery Act of 1983 which amends the Housing and Community Development Act of 1974, the following certifications must be completed by every Grantee.

1. ACQUISITION, RELOCATION AND ANTIDISPLACEMENT

I certify that all real property acquired and all displacements of persons resulting from the proposed CDBG project will be carried out under the provisions of the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 as amended by the Uniform Relocation Act Amendments of 1987 Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987. I further certify that all displacements of persons resulting from the proposed CDBG project will be carried out in accordance with Section 104(d) of the Housing and Community Development Act of 1974, as amended and in conformance with the Residential Anti-displacement and Relocation Assistance Plan and Certification.

2. CIVIL RIGHTS and FAIR HOUSING

I certify that the CDBG grant will be conducted and administered in accordance with Title VI of the Civil Rights Act of 1964 (42 USC 2000d), the Fair Housing Act (42USC 3601-3619), and implementing regulations and that the GRANTEE will affirmatively further fair housing choice.

3. ARCHITECTURAL BARRIERS

I certify that the CDBG program will be conducted in accordance with Architectural Barriers Act of 1968, as amended (42 USC 4151) and Section 504 of the Rehabilitation Act of 1973, as amended (28 USC 792), and the Americans with Disabilities Act of 1991.

4. CITIZEN PARTICIPATION

I certify that I will comply with the STATE Citizen Participation Plan as adopted by GOED: Rural Community and Development/CDBG Division. I certify that opportunities have been provided for citizen participation, hearings, and access to information comparable to the requirements of Title I HCD Act 104(a) (2). Specific information regarding the CDBG GRANTEE requirement (publications, notices) can be found in the GRANTEE'S application file.

5. PROGRAM COSTS RECOVERY

I certify that as a CDBG GRANTEE I will not attempt to recover the costs of any public improvements assisted in whole or in part with CDBG funds by assessing properties owned and occupied by low and moderate income persons unless: (1) CDBG funds are used to pay the proportion of such assessment that relates to non-CDBG funding, or (2) for the purposes of assessing properties owned and occupied by low and moderate income persons who are not very low income that the local government does not have sufficient CDBG funds to comply with the provision of (1) above.

6. EXCESSIVE FORCE CERTIFICATION

I certify that as a CDBG GRANTEE I will adopt and enforce a policy prohibiting the use of excessive force by law enforcement agencies within my jurisdiction against any individuals engaged in nonviolent civil rights demonstrations in accordance with the Armstrong/Walker "Excessive Force" Amendment Section 519 of the Department of Veteran Affairs Public Law 101-144 and Housing & Urban Development & Independent Agencies Appropriations Act of 1990. I will also adopt a policy enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location which is the subject of such non-violent civil rights demonstrations within our jurisdiction.

7. PROHIBITION AGAINST LOBBYING CERTIFICATION

I certify that:

(1) No Federally appropriated funds will be paid, by or on behalf of the undersigned, to any person for the influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal Grant, the making of any Federal loan, extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federally appropriated funds are paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) I certify that I shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each failure.

8. SECTION 3

I certify that the jurisdiction will comply with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), and implementing regulations at 24 CFR Part 135, if the minimum thresholds for Section 3 covered housing and community development assistance are met.

9. STATEMENT OF ASSURANCES

I certify that, in addition to laws, regulations, and Executive Orders noted in this document, the jurisdiction will comply with the following Federal and State regulations:

Federal:

1. Title I of the Housing & Community Development Act of 1974 as amended
2. Federal Fair Labor Standards Act
3. Title VI of the Civil Rights Act of 1964 - Nondiscrimination
4. Title VIII of the Civil Rights Act of 1968 - Nondiscrimination in Housing
5. Age Discrimination Act of 1975
6. Executive Order 12259 - Leadership & Coordination of Fair Housing
7. Section 109, Housing & Community Development Act of 1974 - Nondiscrimination
8. Section 504 of Rehabilitation Act of 1973, as amended
9. Executive Order 11063 - Equal Opportunity in Housing
10. Executive Order 11246 - Nondiscrimination
11. Hatch Act
12. Treasury Circular 1075 regarding drawdown of CDBG funds
13. Single Audit Act of 1984, which has legal precedence over the Uniform Guidance.
14. Section 109 of Public Law 100-202, which restricts awarding contracts for work on public buildings or public works to contractors or subcontractors from foreign countries that deny fair trade practices.

State:

1. NRS 338.010 - 338.130 - Public Works Projects.
2. NRS 613.330 - Equal Employment Opportunity.
3. NRS 118.100 - Equal Housing Opportunity.
4. NRS 332.005 - 332.225 - Local Government Purchasing Act.

10. CHANGE OF USE

I certify that the jurisdiction will comply with all requirements of 24 CFR Part 24. This includes sections 488 and 489 J requiring all assisted housing units maintain affordability standards until 5 years following the date of closeout of this contract by the STATE.

I certify that I have read, am aware of and will comply with all of the forgoing Certification requirements.

By: _____
Signature of Elected Official

Roy Edgington Jr.
Printed Name of Elected Official

Mayor
Title

Date

(submit on letterhead)

CDBG
CERTIFICATION LETTER

Grantee: _____

Grant Number(s)

AUTHORIZED SIGNATURES

Signature of Grant Administrator

Signature of Authorized Official

Signature of Authorized Official

This is to certify that the above are the signatures of

(Name and Title)

(Name and Title)

and that they are authorized to sign the Financial Status Report and Request for Funds.

Signature of Mayor/Chairman

Title

Date



CITY OF FERNLEY
City Manager's
Office

Administration
Human Resources
Budgeting
Risk Management
Contracts

CDBG
CERTIFICATION LETTER

Grantee: City of Fernley

Grant Number(s)

22/PF/07

AUTHORIZED SIGNATURES

Signature of Grant Administrator

Signature of Authorized Official

Signature of Authorized Official

This is to certify that the above are the signatures of

Trisha Conner, Assistant to the City Manager
(Name and Title)

Patrick Marsh, Acting City Manager
(Name and Title)

and that they are authorized to sign the Financial Status Report and Request for Funds.

_____ Signature of Mayor/Chairman	_____ Mayor Title	_____ Date
--------------------------------------	-------------------------	---------------



CITY OF FERNLEY
City Manager's
Office

Administration
Human Resources
Budgeting
Risk Management
Contracts

CDBG
CERTIFICATION LETTER

Grantee: City of Fernley

Grant Number(s)

22/PF/06

AUTHORIZED SIGNATURES

Signature of Grant Administrator

Signature of Authorized Official

Signature of Authorized Official

This is to certify that the above are the signatures of

Trisha Conner, Assistant to the City Manager
(Name and Title)

Patrick Marsh, Acting City Manager
(Name and Title)

and that they are authorized to sign the Financial Status Report and Request for Funds.

_____ Signature of Mayor/Chairman	_____ Mayor Title	_____ Date
--------------------------------------	-------------------------	---------------



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Kari Weitzel

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:X No:	Yes:X No:	510-395-910, 520-395-910

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to Approve the Will-Serve for American Battery Metal Corporation Lab/Office TI of 2.48 ERC's for Water and 8.66 ERC's for Sewer for Lyon County Parcel 021-071-45 located at 395 Logan Lane, Fernley, NV 89408.

AGENDA ITEM BRIEF:

1. American Battery Metal Corporation is seeking a Will-Serve Request for tenant improvement for a lab/office.
2. This project requires 2.48 ERC's for water and 8.66 ERC's for sewer. (2.77AF)
3. American Battery Metal Corporation has 115.235 acre feet left of beneficial interest in water rights banked with the City. A portion of that will be applied towards this Will-Serve.
4. After the issuance of the will-serve commitment American Battery Metal Corporation will have a remaining credit of 112.455 AF that can be applied to future projects.

RECOMMENDED MOTION:

"I move to approve the Will-Serve for American Battery Metal Corporation of 2.48 ERC's for Water and 8.66 ERC's for Sewer for Lyon County Parcel 021-071-45 located at 395 Logan Lane, Fernley, Nv."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

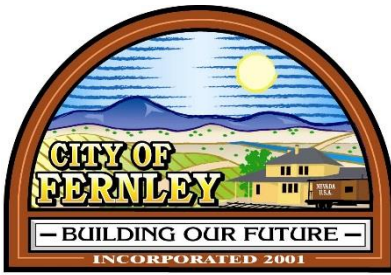
N/A

BACKGROUND:

American Battery Metal Corporation is seeking a will- serve for tenant improvements to lab / office. In their 33,100 SF building space. Apart of BP22-253

RELEVANT LAWS, STATUTES, AND REGULATIONS:**FINANCIAL IMPLICATIONS:****ATTACHMENTS:**

1. 2022.07.20 Will Serve American Battery Lab-Office TI
2. 2022.06.21 Assignment to Will Serve - AMTC Lab-office TI



THE CITY OF FERNLEY
Public Works Department
595 Silver Lace Blvd
Fernley, NV 89408

The City of Fernley hereby certifies that it has adequate water distribution capability and wastewater treatment plant capacity to serve and will serve: American Battery Metals Corporation (Lab/Office) Development/ project or property located at 395 Logan Ln . Fernley, Nevada with 2.48 water connections and/or 8.66 sewer connections for Service to 1 unit, upon the following terms and conditions:

1. All applicable fees and costs must be paid, including the utility connection fees in effect at the time of this will-serve certification, currently \$7,000.00 per unit for water and \$5,000.00 per Equivalent Residential Capacity (ERC) unit for sewer.
2. Applicant must comply with all applicable laws, statutes, ordinances and regulations.
3. Said fees and costs must be paid in full before connections to water/sewer services. **Connections to utility service shall be completed within a reasonable time from the date of original approval of this Will-Serve by the Fernley City Council. Failure to diligently pursue connection to utility service may render this Will-Serve null and void.** Public Works, at its sole discretion, shall have authority to determine whether connection to utility service is being diligently pursued and, with sixty (60) days written notice to the party who requested this Will-Serve, may cancel this Will-Serve for failure to connect to utility service within a reasonable time.
4. Service shall be provided only to the project or site identified above. **This Will-Serve is limited to the project or property described above and is not transferable to any other project or property.**
5. Service shall be provided pursuant to the plans and specifications submitted to and approved by Public Works. Service shall not be provided pursuant to any alterations to or deviation from the same without the express written approval of Public Works Department. **This will-serve is to be considered conditional unless public improvement plans have been approved by Public Works.**
6. This Will-Serve applies to: APN# 021-071-45

Fernley City Council Approved Will-Serve on July 20, 2022

Public Works Director

Mayor – City of Fernley

Applicant

Date

APN: 021-071-45

When Recorded mail to:

City of Fernley

595 Silver Lace Blvd.

Fernley, NV 89408

**ASSIGNMENT OF BENEFICIAL INTEREST IN WATER RIGHTS BANKING AND
DEDICATION AGREEMENT TO WILL SERVE COMMITMENT**

This Assignment of Beneficial Interest in Water Rights to Will Serve Commitments is executed this 20 day of June, 2022, by American Battery Technology Company (ABTC) (hereinafter "Assignor").
formerly American Battery Metals Corporation (ABMC)

1. Assignor is the holder of the beneficial interest in that certain Water Rights Dedication and Banking Agreement (hereinafter the "Banking Agreement") by and between Nancy D. Ausano and the City of Fernley executed on the 26 day of April, 2021.
2. Assignor desires to assign a portion of its beneficial interest in and to 2.77 acre-feet of water dedicated pursuant to the Banking Agreement to the City of Fernley in exchange for 2.48 Equivalent Residential Credits (hereinafter "ERC's") of water utility will-serve commitments for the development of the American Battery Technology Company project located at 395 Logan Lane, Fernley, NV 89408 (hereinafter the "Project").
3. Assignor acknowledges and agrees that the assignment of the beneficial interest transferred herein is for the benefit of the Project. Assignor also acknowledges and agrees that the will-serve commitments issued pursuant to this Agreement shall be an appurtenance to the parcel(s), lot(s), or portion of the Project that will receive water service under said will-serve commitment. In the event that said parcel(s), lot(s), or portion of the project is encumbered by a mortgage, deed of trust, or other similar encumbrance, Assignor agrees that said mortgage, deed of trust, or other similar encumbrance shall also encumber the will-serve commitments issued pursuant to this Agreement in the same manner and to the same extent as it encumbers the parcel(s), lot(s), or portion of the project.
4. Assignor acknowledges and agrees that by assigning its beneficial interest in the water rights under this Agreement in exchange for the will-serves commitments described in Section 2 herein, that Assignor is forever relinquishing all of its right, title, and interest in and to the beneficial interest assigned herein and that the terms of this Agreement shall, to the extent applicable, replace and supersede the terms of the Banking Agreement identified in Section 1 herein, as well as any amendments or assignments of said Banking Agreement, with respect to the assigned water rights. Assignor further acknowledges and agrees that upon execution of this Agreement it shall have no further claim, right, title, or interest in or to the beneficial interest assigned herein.

5. Assignor agrees to indemnify and hold harmless the City of Fernley from any with respect to any claims, damages, or losses (including, without limitation, attorney's fees and costs), whether known or unknown, disclosed or undisclosed arising from, by reason of, or in connection with any part or portion of this Agreement.
6. Assignor hereby represents and warrants it has not sold, assigned, transferred, conveyed, hypothecated, pledged, or otherwise disposed of or encumbered the beneficial interest transferred herein, or the water right underlying said beneficial interest, except as provided in this Agreement, the Banking Agreement, or any amendments or assignments of the Banking Agreement. Assignee acknowledges and agrees that the City makes no representation or warranty as to the title of the water rights underlying the beneficial interest transferred herein, and that in the event that any claim or dispute relating to said title renders such water rights unusable within, or unavailable to, the City's water delivery system, the City may, at its sole discretion and in addition to any other remedies provided for by law, rescind the Banking Agreement and withhold the will-serve commitments provided for therein. In the event that such will-serve commitments have already been issued, the City, in addition to any other remedies provided by law, may require Assignor to immediately acquire and dedicate to the City the same quantity and quality of water rights as the water rights rendered unusable within, or unavailable to, the City's water delivery system and/or the City may assign any other banked or reserved water rights in which Assignor has a beneficial interest, and that remain uncommitted to will-serve commitments, to the will-serve commitments already issued pursuant to this Agreement or the Banking Agreement.
7. This Agreement shall be governed, interpreted and construed by, through and under the laws of the State of Nevada in the district courts of Lyon County, Nevada.
8. All costs incurred by the City of Fernley in enforcing this Agreement including, without limitation, reasonable attorneys' fees through any court proceedings shall be paid by Assignee.
9. This Agreement shall inure to the benefit of and be binding upon the parties hereto as well as their successors and assigns, heirs and personal representatives.

[Signature pages follow]

ASSIGNOR.

Company Name American Battery Technology Company

Ryan Melsert

Ryan Melsert
CEO

Signatory Name and Title

Date: June 20, 2022

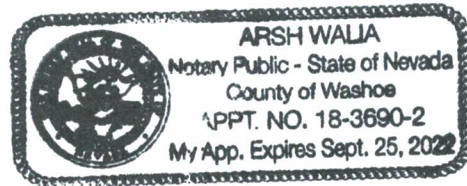
STATE OF Nevada

) ss.

COUNTY OF Washoe

This instrument was acknowledged before me on the 20th day of June, 2022, by Ryan Melsert.

Arsh Wallia
NOTARY PUBLIC





CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Kari Weitzel

FINANCIAL IMPACT:

Yes:X

No:

CURRENTLY BUDGETED:

Yes: X

No:

FUND/ACCOUNT:

510-810-698

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to authorize the execution of the Water Right Banking and Dedication Agreement with Fernley Fremont Investors, LLC, APN 021-311-30, TCID serial number 1056-1-F in the amount of 6.03 acre-feet."

AGENDA ITEM BRIEF:

Staff is seeking Council approval to authorize the execution of the Water Right Banking and Dedication Agreement with Fernley Fremont Investors, LLC, APN 021-311-30, TCID serial number 1056-1-F in the amount of 6.03 acre feet.

RECOMMENDED MOTION:

"I move to authorize the to authorize the execution of the Water Right Banking and Dedication Agreement Fernley Fremont Investors, LLC, APN 021-311-30, TCID serial number 1056-1-F in the amount of 6.03 acre-feet."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The City Council could choose to reject the dedication of water rights. This alternative is not recommended by

staff and would be contrary to existing city policies.

BACKGROUND:

Project Summary:

1. This dedication of Water Rights will assist in Fernley's quest to protect our most valuable resource and support the City's economic development goals.

BACKGROUND:

It is policy for the City of Fernley to have City Council approve all water right dedication agreements provided that city staff has confirmed that: (1) the water rights are valid, in good standing, and can be readily converted for municipal use in the City's water system, and (2) the Dedicator holds clear and unencumbered legal title to the rights.

Fernley Fremont Investors, LLC is proposing to dedicate 6.03 acre-feet of water rights appurtenant to APN 021-311-30 (TCID Serial Number 1056-1-F) to the City of Fernley. The deed and dedication package was reviewed and approved by Taggart and Taggart, Ltd. The water will be used to support future development.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

FMC 32.09.035 requires developers to dedicate sufficient water rights to support their proposed development projects. Water dedicated to the City and banked under a banking agreement such as the one proposed here may be used to meet that requirement.

FINANCIAL IMPLICATIONS:

This dedication is being made to support future will serve commitment requests. Pursuant to prior Council direction on December 3, 2014, the City will cover all legal and engineering costs associated with the dedication.

ATTACHMENTS:

1. FFI Dedication Agreement
2. FFI Draft Deed

**WATER RIGHTS BANKING
AND DEDICATION AGREEMENT**

This Water Rights Banking and Dedication Agreement made as of the ____ day of _____, 2022 (this “Agreement”), by and between Fernley Fremont Investors, LLC, a Nevada limited liability company, (the “Dedicator”) and the City of Fernley, a political subdivision of the State of Nevada (the “City”), for the purpose of dedicating and banking certain water rights.

R E C I T A L S

WHEREAS, the City owns and operates a water distribution system located in the City of Fernley, Lyon County; and

WHEREAS, the Dedicator desires to transfer certain water rights to the City as described in Section 2 of this Agreement (the “Water Rights”), to be reserved and credited towards future water utility service requirements; and

WHEREAS, the City is willing to accept the Water Rights to be utilized by the Dedicator for future development requirements within the City’s water utility service area, as it may change from time to time; and

WHEREAS, the Dedicator may desire to assign its rights to apply the Water Rights towards future water utility service requirements to an assignee (the “Assignee”); and

WHEREAS, the City will accept the Water Rights in lieu of the provision of new water rights when an application for water utility service is made in the future by the Dedicator or the Assignee, thereby satisfying one of the pre-conditions for water utility service (i.e. the provision of a water right).

NOW, THEREFORE, it is hereby agreed between the Dedicator and City as follows:

1. **Dedication of Water Rights and Facilities.** The Dedicator hereby agrees to dedicate the Water Rights to the City. The Dedicator and the Assignee agree and understand that dedication of the Water Rights is a condition precedent to receiving a will-serve commitment for water utility service from the City. The parties further agree that:
 - (a) The quantity of surface or ground water rights reasonably necessary to insure an adequate water supply to the subject property is independently determined by the City. The Dedicator and Assignee understand and agree that the determination of the quantity of surface or ground water rights necessary to serve any proposed development will be made at such time as the Dedicator or Assignee request a will serve commitment for the development in accordance with the ordinances, resolutions, statutes, standards, and policies in effect at the time the request for a

will serve commitment is made. In addition, the parties agree and understand that the City has no obligation to independently obtain the necessary water rights to fulfill a will-serve commitment;

- (b) Any facilities for water treatment, supply, storage, transmission and distribution, treatment and disposal, and appurtenances (such as wells, pipelines, pumps and storage tanks), located within or outside of the property for which future will-serve commitments are sought, that are requested and which are reasonably necessary to insure an adequate water supply to the property, will be constructed by the Dedicator or the Assignee, and dedicated to the City; and
- (c) Any easement or legal access reasonably necessary to insure an adequate water supply to the property will also be dedicated from the Dedicator or the Assignee to the City as part of the grant of will-serve commitments.

2. **Dedicated Water Rights.** The Water Rights dedicated by this Agreement are described as follows:

six and three one-hundredths (6.03) acre-foot/annually portion of Truckee-Carson Irrigation District Serial Number 1056-1-F. Said water rights are appurtenant to that certain real property located in Lyon County, State of Nevada described as Lyon County Assessor Parcel Number 021-311-30 and further described in Exhibit "A" of that certain Grant, Bargain, and Sale Deed recorded in the official records of Lyon County on September 13, 2021 as Document No. 644270.

3. **Revegetation Requirements.** As a condition of receiving water right dedications in exchange for utility service, any lands which are being irrigated within the existing place of use of the Dedicated Water Rights, and which will no longer be a place of use of the Dedicated Water Rights, must be re-vegetated pursuant to a re-vegetation plan approved by the City. The intent of this requirement is to prevent formerly irrigated lands from becoming dust and erosion hazards when the land is no longer irrigated. This requirement does not apply to land which is the existing place of use if that land will become a subdivision, or other use that will maintain ground cover.

- (a) As part of any dedication, the City will determine whether revegetation of formerly irrigated land is required, and if re-vegetation is required, the Dedicator of the water rights, or its assignee, will submit a plan for re-vegetation that will be reviewed and approved by the City.
- (b) A re-vegetation plan must be prepared by a qualified agricultural engineer or the equivalent, and must outline the method by which permanent ground cover will be established. The re-vegetation plan shall provide for the application of a suitable seed mixture susceptible to natural germination in the climatic conditions existing

on the formerly irrigated land. The re-vegetation plan shall be deemed fully performed upon the first to occur of the following:

- (i) The City's written confirmation that the re-vegetation plan has been fully performed or
 - (ii) The Dedicator or its assignee, as the case may be, diligently and in compliance with the re-vegetation plan causes not less than two applications of the approved seed mixture to be placed upon the formerly irrigated land without success during a period of thirty (30) months following the date of dedication of the applicable water rights.
 - (c) The goal of a re-vegetation plan is to establish natural ground cover that will limit dust and erosion and can be sustained in Fernley's climatic conditions without human assistance.
 - (d) For each water right that is dedicated to the City of Fernley from land that it is determined by the City to require re-vegetation, the City of Fernley will hold back a portion of the water right, in an amount equal to ten (10) percent of the total water right, from the issuance of will serve commitments until the City of Fernley has approved the actual re-vegetation of the property at issue. Once the City of Fernley has approved the actual re-vegetation on a former place of use for a dedicated water right, the ten (10) percent portion of the Water Right held back pursuant to this section will be made available for future will serve commitments.
4. **Annexation.** If water utility service is requested by the Dedicator or the Assignee from the City outside the city limits of the City, and the Dedicator or the Assignee desires to use the Water Rights to satisfy the water right dedication requirements for water utility service, the City will determine whether it is appropriate to annex that property, and will only provide water utility service if the area is annexed into the City.
- (a) If annexation is necessary, the Dedicator or the Assignee is responsible for any and all annexation costs and fees in the same manner as any other person or entity requesting that property be annexed to the City.
 - (b) If annexation is necessary, all line extensions, water distribution systems and upgrades shall be constructed to the standard required by the City, and the Dedicator or Assignee shall pay all hook-up fees and complete all required improvements that the City determines are reasonably necessary to service the property.
5. **Banking.** The Water Rights dedicated to the City under this Agreement shall be available for use in the satisfaction of the water right dedication requirement that is a pre-condition to receiving water utility service from the City. Once the water rights have been dedicated

to the City, the City will maintain those rights in an account as a credit for the Dedicator for the term of this agreement, including any renewal period.

- (a) During the term of this agreement, including any renewal period, the Dedicator and the Assignee may request will-serve commitments for water utility service from the City. The Water Rights that are held by the City pursuant to this Agreement may be used to satisfy the water dedication requirement that exists at the time of the request for the will-serve commitments.
 - (b) **Place of Will-Serve Commitments.** The Dedicator and the Assignee may request will-serve commitments for water utility service from the City anywhere within the City's water utility service area. Will-serve commitments may be requested for property to which the Water Rights are not appurtenant.
 - (c) **Assignment of Banked Credits.** The Dedicator's banked credits that are held in an account with the City may be assigned to an Assignee. Upon the execution of an assignment agreement with the Assignee, the City will allow the Assignee to receive the credits as satisfaction of the water right dedication requirement in existence when the Assignee applies for will-serve commitments from the City for water utility service.
 - (d) **City Consent to Assignment.** The assignment of banked credits includes the assignment of all rights and obligations under this Agreement, and requires the consent of the City. An assignment of banked credits created by this Agreement is invalid without the City's consent. Consent may only be withheld by the City if the Assignee does not agree to comply with the terms of this Agreement. All fees and costs assessed against banked water rights, if any, shall be paid to the City prior to any assignment of banked credits. No assignment agreement will be valid unless and until such costs are reimbursed.
 - (e) **Reduction in Banked Credits.** The City will file an application to change the manner of use and place of use of the Water Rights to municipal uses in the City's water utility service area. If the State Engineer determines, or if appeal from such a ruling by the State Engineer determines, that the total number of acre-feet that can be used by the City for municipal uses in its water utility service area is less than the amount of Water Rights that are dedicated under this Agreement, the City will reduce the credits that are accounted to the Dedicator by the amount of the reduction in the State Engineer's ruling, or in the appeal from such a ruling.
6. **Change Applications.** Dedicator recognizes that the manner of use and place of use of the Water Rights must be changed to allow for municipal use in the City. Change applications that change the points of diversion, manner and place of use of the Water Rights will be prepared so that the Water Rights may be utilized for municipal purposes

within the City's water utility service area as its boundaries are currently set and as they may be expanded through annexation.

- (a) At the option of the Dedicator, the City may prepare all required change applications.
 - (b) If the Dedicator elects to prepare the required change applications, they must be completed, along with appropriate maps and documentation, to the City's satisfaction and delivered to the City for submittal to the State Engineer by and on behalf of the City.
 - (c) The City shall pay all associated statutory fees relating to the filing and approval of the Change Application, including but not limited to the application filing fees, permit fees, and certificate fees.
7. **Use of Dedicated Water Rights.** Dedicator and Assignee agree and acknowledge that the City receives the dedication of Water Rights that are the subject of this agreement free and clear of any encumbrances or liens and that as a result of such dedication the City shall be the sole holder of legal title to such Water Rights. Accordingly, the City may perform any action that a holder of such Water Rights is legally allowed to perform including, without limitation, hypothecation, rental, or lease of the dedicated Water Rights to a third party; and any revenue collected pursuant to such agreements may be utilized by the City at its sole and complete discretion. The parties agree that the City may, by contract or written agreement, permit the use of the Water Rights by other governmental entities, public or private utilities, or any other person or entity, including those engaged in providing water, storm drainage or sewer service. The Parties agree that in exchange for the dedication of Water Rights pursuant to this Agreement, the Dedicator or Assignee shall have the ability, pursuant to Section 5, to use the dedicated Water Rights to satisfy the water right dedication requirement that is a pre-condition to receiving water utility service from the City, however, nothing in this agreement shall be construed as creating an encumbrance or lien on the title of the dedicated Water Rights in favor of Dedicator or Assignee. The Parties further agree that the City reserves the right to satisfy its obligation to provide water service to Dedicator or Assignee in any manner that the City, at its sole discretion and consistent with Nevada Law and the Fernley Municipal Code, determines best serves the interests of the City water system.
8. **Facilities Standards.** Any facilities that are subject to this Agreement shall be designed and constructed in accordance with standards and other requirements prescribed by the City as a condition to provision of water utility service.
9. **Approval of Service Conditional.** Every will-serve notification and administrative approval of applications for water utility service is conditioned upon the acceptance of the dedication, and the satisfaction of all other service requirements that are established by local ordinance or state law. Any application or renewal, including applications for extension of will-serve commitments is subject to the provisions herein. The parties agree that:

- (a) The City is the final authority in determining the number of will-serve commitments which may be granted by the City; and
 - (b) The City is the final authority regarding the number of will serves that may be serviced by the Water Rights for any development. Such determination shall be based on the criteria established by the City and further established by the State Engineer.
10. **Term of Agreement.** The term of this Agreement shall be for a period of twenty-five (25) years and shall be renewable for one successive twenty-five (25) year period upon application of the Dedicator or the Assignee, and the approval of the City.
- (a) It is further understood and agreed between the City and the Dedicator that the Parties must agree to renew this agreement for the subsequent twenty-five year period. The City's decision to approve or reject a renewal of this agreement must be made pursuant to a vote by the Fernley City Council.
 - (b) The City may reject approval of a renewal of this Agreement **only** if:
 - (i) The City sends notice of the expiration of the initial twenty-five year term to the record owner of the Water Rights and receives no response within thirty (30) days of such notice; and
 - (ii) The Dedicator has not complied with the obligations included in this Agreement or does not agree to comply with the obligations of this Agreement during the renewal term of this Agreement.
 - (c) In the event that this Agreement is terminated, or expires pursuant to the provisions of this section, the City shall retain the title to the Water Rights, regardless of whether the Water Rights have been credited to an existing will-serve commitment.
11. **Notice.** Any notice required pursuant to this Agreement shall be sent via certified mail to the address listed below. Each Party is responsible for informing the other Party of any change in address. Notices from the City, including but not limited to notice of expiration of the 25-year term of this Agreement, shall be made to the address listed below, or to an updated address provided by the Dedicator or Assignee.

Dedicator

Stephen Kromer .

1150 Matley Lane

Reno, NV 89509

City of Fernley

Department of Public Works

595 Silver Lace Boulevard

Fernley, NV 89408

12. **General Conditions.**

- (a) **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute but one and the same instrument.
- (b) **Governing Law.** This Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the laws of the State of Nevada applicable to agreements made and to be performed wholly within the State of Nevada.
- (c) **Venue.** Any action or proceeding concerning the rights or responsibilities of the parties to this Agreement shall be heard and entertained in the State district court in Lyon County, Nevada.
- (d) **Entire Agreement.** This Agreement (including any exhibits attached hereto) constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior understandings with respect thereto, including without limitation, that certain memorandum of understanding between the parties. This Agreement may not be modified, changed or supplemented, nor may any obligations hereunder be waived, except by written instrument signed by the party to be charged or by its agent duly authorized in writing or as otherwise expressly permitted herein. The parties do not intend to confer any benefit hereunder on any person, firm or corporation other than the parties hereto.
- (e) **Survivability.** The parties' rights and responsibilities under this Agreement shall survive the conveyance of the Water Rights by the Dedicator to the City.
- (f) **Waivers; Extensions.** No waiver of any breach of any agreement or provision herein contained shall be deemed a waiver of any preceding or succeeding breach thereof or of any other agreement or provision herein contained. No extension of time for performance of any obligations or acts shall be deemed an extension of the time for performance of any other obligations or acts.
- (g) **Non-Waiver of Rights.** No failure or delay of either party in the exercise of any

right given to such party hereunder shall constitute a waiver thereof unless the time specified herein for exercise of such right has expired, nor shall any single or partial exercise of any right preclude any other or further exercise thereof or of any other right. The waiver of any breach hereunder shall not be deemed to be a waiver of any other or any subsequent breach hereof.

- (h) **Further Assurances.** The parties agree to do such further acts and things and to execute and deliver such additional agreements and instruments as the other may reasonably require to consummate, evidence or confirm the dedication of the above reference water rights or any other agreement contained herein in the manner contemplated hereby.
- (i) **Successors and Assigns: Assignment.** This Agreement shall be binding upon and shall inure to the benefit of each of the City and the Dedicator and to their respective heirs, successors and assigns.
 - (i) The City shall have the right to assign its interest in this Agreement in whole or in part to any successor agency, subsidiary, or entity with jurisdiction to supply water service to customers within the City of Fernley, in which case, the references to the City herein shall include such assignee, and provided that such assignee assumes all of the obligations of the City under this Agreement by written instrument.
 - (ii) Any such assignment shall not relieve any party of its obligations under this Agreement. Any attempt to transfer, convey or assign this Agreement other than as provided herein shall be null and void.
- (j) **Time.** Time is of the essence in respect to each and every particular of this Agreement. Any time period to be computed pursuant to this Agreement shall be computed by excluding the first day and including the last. If the last day falls on a Saturday, Sunday or holiday, the last day shall be extended until the next business day that the City is open for business, but in no case will the extension be for more than four (4) days.
- (k) **Severability.** The determination that any covenant, agreement, condition or provision of this Agreement is invalid shall not affect the enforceability of the remaining covenants, agreements, conditions or provisions hereof and, in the event of such determination, this Agreement shall be construed as if such invalid covenant, agreement, condition or provision were not included herein.
- (l) **Delivery of Deed and Warranty.** The Dedicator shall deliver a Water Rights Grant Bargain and Sale Deed conveying and dedicating the Water Rights to the City at the time of the execution of this Agreement. Further, the Dedicator shall warrant that it is the legal owner of the Water Rights.

- (m) **Indemnification.** The Dedicator and the Assignee agree, jointly and severally, to indemnify the City at all times and hold the City harmless in respect of any claims, damages or losses (including, without limitation, attorney's fees and costs), whether known or unknown, disclosed or undisclosed, arising from, by reason of or in connection with any part or portion of this Agreement. Dedicator hereby represents and warrants it has not sold, assigned, transferred, conveyed, hypothecated, pledged, or otherwise disposed of or encumbered the water rights transferred herein except as provided in this Agreement. Dedicator acknowledges that in the event that any claim or dispute relating to the title of the water rights renders such water rights unusable within, or unavailable to, the City's water delivery system, the City may, at its sole discretion and in addition to any other remedies provided for by law, rescind this Agreement and withhold the will-serve commitments provided for herein. In the event that such will-serve commitments have already been issued, the City, in addition to any other remedies provided by law, may require Dedicator or Assignee, jointly or severally, to immediately acquire and dedicate to the City the same quantity and quality of water rights as the water rights rendered unusable within, or unavailable to, the City's water delivery system and/or the City may assign any other banked or reserved water rights in which Dedicator or Assignee have a beneficial interest, and that remain uncommitted to will-serve commitments, to the will-serve commitments already issued pursuant to this Agreement.
- (n) **Attorney's Fees.** In the event of any litigation between the parties hereto arising out of this Agreement, or if one party seeks to judicially enforce the terms of this Agreement, the prevailing party shall be reimbursed for all reasonable costs, including, but not limited to, reasonable attorney's fees.

[signature page follows]

Agreed upon the date set forth above between the following parties:

City of Fernley

Mayor of Fernley

Date:

Attested:

City Clerk

Dedicator

Gary W. Kromer, Manager
Fernley Fremont Investors, LLC

Date:

The undersigned hereby affirms that there is no Social Security number contained in this document

LYON CO. APN: 021-311-30

RECORDING REQUESTED BY:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

AFTER RECORDATION RETURN TO:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

SPACE ABOVE THIS LINE FOR RECORDER'S USE

WATER RIGHTS GRANT, BARGAIN, & SALE DEED

THIS WATER RIGHTS DEED is made and entered into this ____ day of _____, 2022, to convey the below-mentioned water rights from FERNLEY FREMONT INVESTORS, LLC, a Nevada limited liability company, (hereinafter referred to as "GRANTOR") to the CITY OF FERNLEY, a political subdivision of the State of Nevada (hereinafter referred to as "GRANTEE")

WITNESSETH:

That said GRANTOR, for and in consideration of the sum of Ten Dollars (\$10.00) lawful money of the United States of America, and for other good and valuable consideration, the receipt of which is hereby acknowledged, does hereby grant, bargain, sell, and convey to the GRANTEE, and to their successors, heirs, and assigns forever, all of GRANTOR's right, title, and interest in and to those certain waters and water rights situate in Lyon County, State of Nevada, as described as follows, to wit:

A six and three one-hundredths (6.03) acre-foot/annually portion of Truckee-Carson Irrigation District Serial Number 1056-1-F. Said water rights are appurtenant to that certain real property located in Lyon County, State of Nevada described as Lyon County Assessor Parcel Number 021-311-30 and further described Exhibit "A" of that certain Grant, Bargain, and Sale Deed recorded in the official records of Lyon County on September 13, 2021 as Document No. 644270

TOGETHER WITH all and singular the tenements, hereditaments, and appurtenances thereunto belonging or in anywise appertaining, and any reversions, remainders, rents, issues, or profits thereof.

TO HAVE AND TO HOLD, all and singular, the said water rights and the appurtenances, unto the said GRANTEE, and to their successors and assigns forever.

IN WITNESS WHEREOF the GRANTOR has hereunto executed this WATER RIGHTS GRANT, BARGAIN, & SALE DEED the day and year first written above.

DATED this ____ day of _____, 2022.

GRANTOR:

BY: _____
Grady W. Kromer, Manager
Fernley Fremont Investors, LLC

STATE OF _____)
 : ss.
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2022, by Gary W. Kromer.

WITNESS my hand and official seal.

NOTARY PUBLIC



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Kari Weitzel

FINANCIAL IMPACT:

Yes:X

No:

CURRENTLY BUDGETED:

Yes:X

No:

FUND/ACCOUNT:

510-810-698

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to authorize the execution of the Water Right Banking and Dedication Agreement with CRE of Nevada, LLC, APN 020-151-19, TCID serial number 1039-A-2 in the amount of 9.27 acre-feet.

AGENDA ITEM BRIEF:

Staff is seeking Council approval to authorize the execution of the Water Right Banking and Dedication Agreement with CRE of Nevada, LLC, APN 020-151-19, TCID serial number 1039-A-2 in the amount of 9.27 acre feet.

RECOMMENDED MOTION:

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The City Council could choose to reject the dedication of water rights. This alternative is not recommended by staff and would be contrary to existing city policies.

BACKGROUND:

It is policy for the City of Fernley to have City Council approve all water right dedication agreements provided that city staff has confirmed that: (1) the water rights are valid, in good standing, and can be readily converted for municipal use in the City's water system, and (2) the Dedicator holds clear and unencumbered legal title to the rights.

CRE of Nevada, LLC is proposing to dedicate 9.27 acre-feet of water rights appurtenant to APN 020-151-19 (TCID Serial Number 1039-A-1) to the City of Fernley. The deed and dedication package was reviewed and approved by Taggart and Taggart, Ltd. The water will be used to support future development projects.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

FMC 32.09.035 requires developers to dedicate sufficient water rights to support their proposed development projects. Water dedicated to the City and banked under a banking agreement such as the one proposed here may be used to meet that requirement.

FINANCIAL IMPLICATIONS:

This dedication is being made to support future will serve commitment requests. Pursuant to prior Council direction on December 3, 2014, the City will cover all legal and engineering costs associated with the dedication.

ATTACHMENTS:

1. CRE Dedication Agreement
2. CRE Draft Deed

WATER RIGHTS BANKING AND DEDICATION AGREEMENT

This Water Rights Banking and Dedication Agreement made as of the ____ day of _____, 2022 (this “Agreement”), by and between CRE OF NEVADA, LLC, a Nevada limited liability company (the “Dedicator”) and the CITY OF FERNLEY, a political subdivision of the State of Nevada (the “City”), for the purpose of dedicating and banking certain water rights.

R E C I T A L S

WHEREAS, the City owns and operates a water distribution system located in the City of Fernley, Lyon County; and

WHEREAS, the Dedicator desires to transfer certain water rights to the City as described in Section 2 of this Agreement (the “Water Rights”), to be reserved and credited towards future water utility service requirements; and

WHEREAS, the City is willing to accept the Water Rights to be utilized by the Dedicator for future development requirements within the City’s water utility service area, as it may change from time to time; and

WHEREAS, the Dedicator may desire to assign its rights to apply the Water Rights towards future water utility service requirements to an assignee (the “Assignee”); and

WHEREAS, the City will accept the Water Rights in lieu of the provision of new water rights when an application for water utility service is made in the future by the Dedicator or the Assignee, thereby satisfying one of the pre-conditions for water utility service (i.e. the provision of a water right).

NOW, THEREFORE, it is hereby agreed between the Dedicator and City as follows:

1. **Dedication of Water Rights and Facilities.** The Dedicator hereby agrees to dedicate the Water Rights to the City. The Dedicator and the Assignee agree and understand that dedication of the Water Rights is a condition precedent to receiving a will-serve commitment for water utility service from the City. The parties further agree that:
 - (a) The quantity of surface or ground water rights reasonably necessary to insure an adequate water supply to the subject property is independently determined by the City. The Dedicator and Assignee understand and agree that the determination of the quantity of surface or ground water rights necessary to serve any proposed development will be made at such time as the Dedicator or Assignee request a will serve commitment for the development in accordance with the ordinances, resolutions, statutes, standards, and policies in effect at the time the request for a will serve commitment is made. In addition, the parties agree and understand that

the City has no obligation to independently obtain the necessary water rights to fulfill a will-serve commitment;

- (b) Any facilities for water treatment, supply, storage, transmission and distribution, treatment and disposal, and appurtenances (such as wells, pipelines, pumps and storage tanks), located within or outside of the property for which future will-serve commitments are sought, that are requested and which are reasonably necessary to insure an adequate water supply to the property, will be constructed by the Dedicator or the Assignee, and dedicated to the City; and
- (c) Any easement or legal access reasonably necessary to insure an adequate water supply to the property will also be dedicated from the Dedicator or the Assignee to the City as part of the grant of will-serve commitments.

2. **Dedicated Water Rights.** The Water Rights dedicated by this Agreement are described as follows:

A Nine and Twenty-Seven One-Hundredths (9.27) acre-foot/annually portion of Truckee-Carson Irrigation District Serial Number 1039-A-2.

Said water rights are appurtenant to that certain real property located in Lyon County, State of Nevada described as Lyon County Assessor Parcel Number 02-151-19 and further described as follows:

All that certain real property situate in the County of Lyon, State of Nevada, described as follows:

All that certain real property being a portion of the SE ¼ of the NE ¼ of Section 15, T 20 N, R 24 E, M.D.B.&M., Lyon County, Nevada, described as follows:

Parcel 1, as shown on Parcel Map for Robert S. and Denise L. Robertson, recorded in the Official Records of Lyon County, Nevada on March 11, 1998 as Document No. 216063.

3. **Revegetation Requirements.** As a condition of receiving water right dedications in exchange for utility service, any lands which are being irrigated within the existing place of use of the Dedicated Water Rights, and which will no longer be a place of use of the Dedicated Water Rights, must be re-vegetated pursuant to a re-vegetation plan approved by the City. The intent of this requirement is to prevent formerly irrigated lands from becoming dust and erosion hazards when the land is no longer irrigated. This requirement does not apply to land which is the existing place of use if that land will become a subdivision, or other use that will maintain ground cover.

- (a) As part of any dedication, the City will determine whether revegetation of formerly irrigated land is required, and if re-vegetation is required, the Dedicator of the water rights, or its assignee, will submit a plan for re-vegetation that will be reviewed and approved by the City.
 - (b) A re-vegetation plan must be prepared by a qualified agricultural engineer or the equivalent and must outline the method by which permanent ground cover will be established. The re-vegetation plan shall provide for the application of a suitable seed mixture susceptible to natural germination in the climatic conditions existing on the formerly irrigated land. The re-vegetation plan shall be deemed fully performed upon the first to occur of the following:
 - (i) The City's written confirmation that the re-vegetation plan has been fully performed or
 - (ii) The Dedicator or its assignee, as the case may be, diligently and in compliance with the re-vegetation plan causes not less than two applications of the approved seed mixture to be placed upon the formerly irrigated land without success during a period of thirty (30) months following the date of dedication of the applicable water rights.
 - (c) The goal of a re-vegetation plan is to establish natural ground cover that will limit dust and erosion and can be sustained in Fernley's climatic conditions without human assistance.
 - (d) For each water right that is dedicated to the City of Fernley from land that it is determined by the City to require re-vegetation, the City of Fernley will hold back a portion of the water right, in an amount equal to ten (10) percent of the total water right, from the issuance of will serve commitments until the City of Fernley has approved the actual re-vegetation of the property at issue. Once the City of Fernley has approved the actual re-vegetation on a former place of use for a dedicated water right, the ten (10) percent portion of the Water Right held back pursuant to this section will be made available for future will serve commitments.
4. **Annexation.** If water utility service is requested by the Dedicator or the Assignee from the City outside the city limits of the City, and the Dedicator or the Assignee desires to use the Water Rights to satisfy the water right dedication requirements for water utility service, the City will determine whether it is appropriate to annex that property and will only provide water utility service if the area is annexed into the City.
- (a) If annexation is necessary, the Dedicator or the Assignee is responsible for any and all annexation costs and fees in the same manner as any other person or entity requesting that property be annexed to the City.

- (b) If annexation is necessary, all line extensions, water distribution systems and upgrades shall be constructed to the standard required by the City, and the Dedicator or Assignee shall pay all hook-up fees and complete all required improvements that the City determines are reasonably necessary to service the property.
5. **Banking.** The Water Rights dedicated to the City under this Agreement shall be available for use in the satisfaction of the water right dedication requirement that is a pre-condition to receiving water utility service from the City. Once the water rights have been dedicated to the City, the City will maintain those rights in an account as a credit for the Dedicator for the term of this agreement, including any renewal period.
- (a) During the term of this agreement, including any renewal period, the Dedicator and the Assignee may request will-serve commitments for water utility service from the City. The Water Rights that are held by the City pursuant to this Agreement may be used to satisfy the water dedication requirement that exists at the time of the request for the will-serve commitments.
 - (b) **Place of Will-Serve Commitments.** The Dedicator and the Assignee may request will-serve commitments for water utility service from the City anywhere within the City's water utility service area. Will-serve commitments may be requested for property to which the Water Rights are not appurtenant.
 - (c) **Assignment of Banked Credits.** The Dedicator's banked credits that are held in an account with the City may be assigned to an Assignee. Upon the execution of an assignment agreement with the Assignee, the City will allow the Assignee to receive the credits as satisfaction of the water right dedication requirement in existence when the Assignee applies for will-serve commitments from the City for water utility service.
 - (d) **City Consent to Assignment.** The assignment of banked credits includes the assignment of all rights and obligations under this Agreement, and requires the consent of the City. An assignment of banked credits created by this Agreement is invalid without the City's consent. Consent may only be withheld by the City if the Assignee does not agree to comply with the terms of this Agreement. All fees and costs assessed against banked water rights, if any, shall be paid to the City prior to any assignment of banked credits. No assignment agreement will be valid unless and until such costs are reimbursed.
 - (e) **Reduction in Banked Credits.** The City will file an application to change the manner of use and place of use of the Water Rights to municipal uses in the City's water utility service area. If the State Engineer determines, or if appeal from such a ruling by the State Engineer determines, that the total number of acre-feet that can be used by the City for municipal uses in its water utility service area is less than the amount of Water Rights that are dedicated under this Agreement, the City will

reduce the credits that are accounted to the Dedicator by the amount of the reduction in the State Engineer's ruling, or in the appeal from such a ruling.

6. **Change Applications.** Dedicator recognizes that the manner of use and place of use of the Water Rights must be changed to allow for municipal use in the City. Change applications that change the points of diversion, manner and place of use of the Water Rights will be prepared so that the Water Rights may be utilized for municipal purposes within the City's water utility service area as its boundaries are currently set and as they may be expanded through annexation.
 - (a) At the option of the Dedicator, the City may prepare all required change applications.
 - (b) If the Dedicator elects to prepare the required change applications, they must be completed, along with appropriate maps and documentation, to the City's satisfaction and delivered to the City for submittal to the State Engineer by and on behalf of the City.
 - (c) The City shall pay all associated statutory fees relating to the filing and approval of the Change Application, including but not limited to the application filing fees, permit fees, and certificate fees.
7. **Use of Dedicated Water Rights.** Dedicator and Assignee agree and acknowledge that the City receives the dedication of Water Rights that are the subject of this agreement free and clear of any encumbrances or liens and that as a result of such dedication the City shall be the sole holder of legal title to such Water Rights. Accordingly, the City may perform any action that a holder of such Water Rights is legally allowed to perform including, without limitation, hypothecation, rental, or lease of the dedicated Water Rights to a third party; and any revenue collected pursuant to such agreements may be utilized by the City at its sole and complete discretion. The parties agree that the City may, by contract or written agreement, permit the use of the Water Rights by other governmental entities, public or private utilities, or any other person or entity, including those engaged in providing water, storm drainage or sewer service. The Parties agree that in exchange for the dedication of Water Rights pursuant to this Agreement, the Dedicator or Assignee shall have the ability, pursuant to Section 5, to use the dedicated Water Rights to satisfy the water right dedication requirement that is a pre-condition to receiving water utility service from the City, however, nothing in this agreement shall be construed as creating an encumbrance or lien on the title of the dedicated Water Rights in favor of Dedicator or Assignee. The Parties further agree that the City reserves the right to satisfy its obligation to provide water service to Dedicator or Assignee in any manner that the City, at its sole discretion and consistent with Nevada Law and the Fernley Municipal Code, determines best serves the interests of the City water system.
8. **Facilities Standards.** Any facilities that are subject to this Agreement shall be designed and constructed in accordance with standards and other requirements prescribed by the City as a condition to provision of water utility service.

9. **Approval of Service Conditional.** Every will-serve notification and administrative approval of applications for water utility service is conditioned upon the acceptance of the dedication, and the satisfaction of all other service requirements that are established by local ordinance or state law. Any application or renewal, including applications for extension of will-serve commitments is subject to the provisions herein. The parties agree that:
- (a) The City is the final authority in determining the number of will-serve commitments which may be granted by the City; and
 - (b) The City is the final authority regarding the number of will serves that may be serviced by the Water Rights for any development. Such determination shall be based on the criteria established by the City and further established by the State Engineer.
10. **Term of Agreement.** The term of this Agreement shall be for a period of twenty-five (25) years and shall be renewable for one successive twenty-five (25) year period upon application of the Dedicator or the Assignee, and the approval of the City.
- (a) It is further understood and agreed between the City and the Dedicator that the Parties must agree to renew this agreement for the subsequent twenty-five year period. The City's decision to approve or reject a renewal of this agreement must be made pursuant to a vote by the Fernley City Council.
 - (b) The City may reject approval of a renewal of this Agreement **only** if:
 - (i) The City sends notice of the expiration of the initial twenty-five year term to the record owner of the Water Rights and receives no response within thirty (30) days of such notice; and
 - (ii) The Dedicator has not complied with the obligations included in this Agreement or does not agree to comply with the obligations of this Agreement during the renewal term of this Agreement.
 - (c) In the event that this Agreement is terminated, or expires pursuant to the provisions of this section, the City shall retain the title to the Water Rights, regardless of whether the Water Rights have been credited to an existing will-serve commitment.
11. **Notice.** Any notice required pursuant to this Agreement shall be sent via certified mail to the address listed below. Each Party is responsible for informing the other Party of any change in address. Notices from the City, including but not limited to notice of expiration of the 25-year term of this Agreement, shall be made to the address listed below, or to an updated address provided by the Dedicator or Assignee.

Dedicator

City of Fernley

Department of Public Works

595 Silver Lace Boulevard

Fernley, NV 89408

12. **General Conditions.**

- (a) **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute but one and the same instrument.
- (b) **Governing Law.** This Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the laws of the State of Nevada applicable to agreements made and to be performed wholly within the State of Nevada.
- (c) **Venue.** Any action or proceeding concerning the rights or responsibilities of the parties to this Agreement shall be heard and entertained in the State district court in Lyon County, Nevada.
- (d) **Entire Agreement.** This Agreement (including any exhibits attached hereto) constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior understandings with respect thereto, including without limitation, that certain memorandum of understanding between the parties. This Agreement may not be modified, changed or supplemented, nor may any obligations hereunder be waived, except by written instrument signed by the party to be charged or by its agent duly authorized in writing or as otherwise expressly permitted herein. The parties do not intend to confer any benefit hereunder on any person, firm or corporation other than the parties hereto.
- (e) **Survivability.** The parties' rights and responsibilities under this Agreement shall survive the conveyance of the Water Rights by the Dedicator to the City.
- (f) **Waivers; Extensions.** No waiver of any breach of any agreement or provision herein contained shall be deemed a waiver of any preceding or succeeding breach thereof or of any other agreement or provision herein contained. No extension of time for performance of any obligations or acts shall be deemed an extension of the time for performance of any other obligations or acts.
- (g) **Non-Waiver of Rights.** No failure or delay of either party in the exercise of any

right given to such party hereunder shall constitute a waiver thereof unless the time specified herein for exercise of such right has expired, nor shall any single or partial exercise of any right preclude any other or further exercise thereof or of any other right. The waiver of any breach hereunder shall not be deemed to be a waiver of any other or any subsequent breach hereof.

- (h) **Further Assurances.** The parties agree to do such further acts and things and to execute and deliver such additional agreements and instruments as the other may reasonably require to consummate, evidence or confirm the dedication of the above reference water rights or any other agreement contained herein in the manner contemplated hereby.
- (i) **Successors and Assigns: Assignment.** This Agreement shall be binding upon and shall inure to the benefit of each of the City and the Dedicator and to their respective heirs, successors and assigns.
 - (i) The City shall have the right to assign its interest in this Agreement in whole or in part to any successor agency, subsidiary, or entity with jurisdiction to supply water service to customers within the City of Fernley, in which case, the references to the City herein shall include such assignee, and provided that such assignee assumes all of the obligations of the City under this Agreement by written instrument.
 - (ii) Any such assignment shall not relieve any party of its obligations under this Agreement. Any attempt to transfer, convey or assign this Agreement other than as provided herein shall be null and void.
- (j) **Time.** Time is of the essence in respect to each and every particular of this Agreement. Any time period to be computed pursuant to this Agreement shall be computed by excluding the first day and including the last. If the last day falls on a Saturday, Sunday or holiday, the last day shall be extended until the next business day that the City is open for business, but in no case will the extension be for more than four (4) days.
- (k) **Severability.** The determination that any covenant, agreement, condition or provision of this Agreement is invalid shall not affect the enforceability of the remaining covenants, agreements, conditions or provisions hereof and, in the event of such determination, this Agreement shall be construed as if such invalid covenant, agreement, condition or provision were not included herein.
- (l) **Delivery of Deed and Warranty.** The Dedicator shall deliver a Water Rights Grant Bargain and Sale Deed conveying and dedicating the Water Rights to the City at the time of the execution of this Agreement. Further, the Dedicator shall warrant that it is the legal owner of the Water Rights.

- (m) **Indemnification.** The Dedicator and the Assignee agree, jointly and severally, to indemnify the City at all times and hold the City harmless in respect of any claims, damages or losses (including, without limitation, attorney's fees and costs), whether known or unknown, disclosed or undisclosed, arising from, by reason of or in connection with any part or portion of this Agreement. Dedicator hereby represents and warrants it has not sold, assigned, transferred, conveyed, hypothecated, pledged, or otherwise disposed of or encumbered the water rights transferred herein except as provided in this Agreement. Dedicator acknowledges that in the event that any claim or dispute relating to the title of the water rights renders such water rights unusable within, or unavailable to, the City's water delivery system, the City may, at its sole discretion and in addition to any other remedies provided for by law, rescind this Agreement and withhold the will-serve commitments provided for herein. In the event that such will-serve commitments have already been issued, the City, in addition to any other remedies provided by law, may require Dedicator or Assignee, jointly or severally, to immediately acquire and dedicate to the City the same quantity and quality of water rights as the water rights rendered unusable within, or unavailable to, the City's water delivery system and/or the City may assign any other banked or reserved water rights in which Dedicator or Assignee have a beneficial interest, and that remain uncommitted to will-serve commitments, to the will-serve commitments already issued pursuant to this Agreement.
- (n) **Attorney's Fees.** In the event of any litigation between the parties hereto arising out of this Agreement, or if one party seeks to judicially enforce the terms of this Agreement, the prevailing party shall be reimbursed for all reasonable costs, including, but not limited to, reasonable attorney's fees.

[Signature Page Follows]

Agreed upon the date set forth above between the following parties:

City of Fernley

Mayor of Fernley

Date

Attested:

City Clerk

Dedicator

Erika Culter, Trustee of the Erika Cutler
Family Trust, Manager

Date

Edward King, Trustee of the King Family
Trust, Manager

Date

Jaynee King, Trustee of the King Family
Trust

Date

Assignee

Dedicator assigns a one-half (1/2) undivided interest in the forgoing agreement to the Assignee identified below who by executing this document agrees to jointly assume all obligations of Dedicator hereunder.

WESTERN HIGHLAND FUND II, LLC

Kelly Krolicki, Managing Member of Edward & Lea Inv.
Manager of Western Highland Fund II, LLC

Date:

The undersigned hereby affirms that there is no Social Security number contained in this document

LYON CO. APN: 020-151-19

RECORDING REQUESTED BY:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

AFTER RECORDATION RETURN TO:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

SPACE ABOVE THIS LINE FOR RECORDER'S USE

WATER RIGHTS GRANT, BARGAIN, & SALE DEED

THIS WATER RIGHTS DEED is made and entered into this ____ day of _____, 2022, to convey the below-mentioned water rights from CRE OF NEVADA, LLC, a Nevada limited liability company (hereinafter referred to as "GRANTOR") to the CITY OF FERNLEY, a political subdivision of the State of Nevada (hereinafter referred to as "GRANTEE")

WITNESSETH:

That said GRANTOR, for and in consideration of the sum of Ten Dollars (\$10.00) lawful money of the United States of America, and for other good and valuable consideration, the receipt of which is hereby acknowledged, does hereby grant, bargain, sell, and convey to the GRANTEE, and to their successors, heirs, and assigns forever, all of GRANTOR's right, title, and interest in and to those certain waters and water rights situate in Lyon County, State of Nevada, as described as follows, to wit:

A Nine and Twenty-Seven One-Hundredths (9.27) acre-foot/annually portion of Truckee-Carson Irrigation District Serial Number 1039-A-2.

Said water rights are appurtenant to that certain real property located in Lyon County, State of Nevada described as Lyon County Assessor Parcel Number 02-151-19 and further described as follows:

All that certain real property situate in the County of Lyon, State of Nevada, described as follows:

All that certain real property being a portion of the SE ¼ of the NE ¼ of Section 15, T 20 N, R 24 E, M.D.B.&M., Lyon County, Nevada, described as follows:

Parcel 1, as shown on Parcel Map for Robert S. and Denise L. Robertson, recorded in the Official Records of Lyon County, Nevada on March 11, 1998 as Document No. 216063.

This legal description appeared previously in Document No. 652479, recorded on February 7, 2022, Official Records of Lyon County, Nevada.

TOGETHER WITH all and singular the tenements, hereditaments, and appurtenances thereunto belonging or in anywise appertaining, and any reversions, remainders, rents, issues, or profits thereof.

TO HAVE AND TO HOLD, all and singular, the said water rights and the appurtenances, unto the said GRANTEE, and to their successors and assigns forever.

[signature pages follow]

IN WITNESS WHEREOF the GRANTOR has hereunto executed the foregoing WATER RIGHTS GRANT, BARGAIN, & SALE DEED the day and year first written above.

GRANTORS:

BY: _____
Erika Cutler, Trustee of the Erika Cutler Family
Trust, Manager

STATE OF _____)
: ss.
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2022, by
Erika Cutler.

WITNESS my hand and official seal.

NOTARY PUBLIC

BY: _____
Edward King, Trustee of the King Family Trust,
Manager

STATE OF _____)
: ss.
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2022, by
Edward King.

WITNESS my hand and official seal.

NOTARY PUBLIC

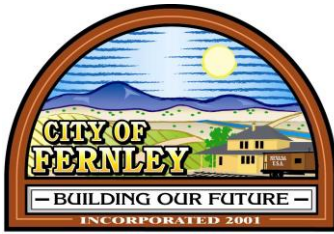
BY: _____
Jaynee King, Trustee of the King Family Trust,
Manager

STATE OF _____)
: ss.
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2022, by
Jaynee King.

WITNESS my hand and official seal.

NOTARY PUBLIC



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:

Yes:x No:

CURRENTLY BUDGETED:

Yes:x No:

FUND/ACCOUNT:

510-810-617
520-810-617
510-840-617

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to approve the award of the 2022-2023 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc.

AGENDA ITEM BRIEF:

This is an annual contract award for Chemical Supplies to various Public Works facilities. This contract is renewed on an annual basis and helps the City to lock in prices for the year and allow for more accurate budgeting. This contract was advertised for bid in accordance with NRS and one responsible bid was received.

RECOMMENDED MOTION:

"I move to approve the award of the 2022-2023 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc. for an amount not to exceed the bulk price per gallon listed in the submitted bid document for each chemical supplied."

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The city council may deny the award and instruct the City Manager for alternatives.

BACKGROUND:

This is a contract award for the supply of chemicals to the Public Works Department. The scope of this contract will include the supply and delivery of various chemicals to the Public Works facilities.

Chemicals are required for the treatment of water and wastewater. Wastewater uses sodium hypochlorite as a final disinfectant for treating effluent leaving the plant. Water distribution uses sodium hypochlorite at the wellheads to begin the treatment process for drinking water. The Water Treatment Plant uses sodium hypochlorite, ferric chloride, sodium hydroxide, and citric acid in its treatment process and operation.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Statutes: NRS 332.039 Advertisements or Requests for Bid on Contract.

Public Works advertised for bids on the City of Fernley website, in the Reno Gazette Journal, and the Lyon County News Leader on 04/06, 04/13, and 4/27/2022 with a closing date of 5/3/2022. No bids were received. The item was re-advertised on 5/11, 5/18, and 5/25/2022. The City received four (4) bid proposals. The apparent low responsible bidder is Thatcher Company of Nevada. The bid summary is as follows:

1. Thatcher Company of Nevada, Inc.

Sodium Hypochlorite: \$2.9029/gallon

Ferric Chloride: \$4.3200/gallon

Sodium Hydroxide: \$2.2919/gallon

Citric Acid: \$19.5426/gallon

Total Price/gallon: \$29.6845

Thatcher Company of Nevada, Inc. was the lowest responsible bid received for the Annual Chemical Supplier Contract.

FINANCIAL IMPLICATIONS:

Chemicals are budgeted for in the appropriate enterprise fund general ledgers (GLs). Contracting the service should help stabilize the escalating costs of chemicals to run the enterprise operations. Supply chain issues have impacted the cost of chemicals significantly and are reflected in the FY22-23 budget.

ATTACHMENTS:

1. Annual Contract 2022-2023 Chemical Supplier-Thatcher
2. BID Opening Table
3. 2022-2023 Annual Chemical Contract Bid Specifications



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT THRU: Patrick Marsh, Acting City Manager

REPORT FROM: Barry Williams, Deputy Public Works Director

REVIEWED BY: Brandi Jensen, City Attorney

REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

510-810-617
520-810-617
510-840-617

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: (Possible action) Approve the award of the 2022-2023 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc. in an amount not to exceed the bulk price per gallon listed in the submitted bid document for each chemical supplied.

Agenda Item Brief: This is an annual contract award for Chemical Supplies to various Public Works facilities. This contract is renewed on an annual basis and helps the City to lock in prices for the year and allow for more accurate budgeting. This contract was advertised for bid in accordance with NRS and one responsible bid was received.

Recommended Motion:

"I move to approve the award of the 2022-2023 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc. in an amount not to exceed the bulk price per gallon listed in the submitted bid document for each chemical supplied."

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

BACKGROUND:

This is a contract award for the supply of chemicals for the Public Works Department. The scope of this contract will include the supply and delivery of various chemicals to various Public Works facilities.

Chemicals are required for the treatment of water and wastewater. Wastewater uses sodium hypochlorite as a final disinfectant for treated effluent leaving the plant. Water distribution uses sodium hypochlorite at the wellheads to begin the treatment process for drinking water. The Water Treatment Plant uses sodium hypochlorite, ferric chloride, sodium hydroxide, and citric acid in its treatment process and operation.

PRIOR COUNCIL ACTION

August 4, 2021, Possible Action to award 2021-2022 Annual Chemical Supplier Contract to Thatcher Company of Nevada, Inc. in an amount not to exceed the bulk price per gallon listed in the submitted bid document for each chemical supplied. **Motion Passed.**

June 20, 2018, Possible award of 2018-2020 bi-Ennial chemical supplier contract to Thatcher Company of Nevada, Inc. **Motion passed.**

LEGAL IMPLICATIONS:

Nevada Statutes: NRS 332.039 Advertisements or Requests for Bid on Contract.

Public Works advertised for bids on the City of Fernley website, in the Reno Gazette Journal, and the Lyon County News Leader on 04/06, 04/13, and 4/27/2022 with a closing date of 5/3/2022. No bids were received. Item was re-advertised on 5/11, 5/18, and 5/25/2022. We received four (4) bid proposals. The apparent low responsible bidder is Thatcher Company of Nevada. The bid summary is as follows:

- 1. Thatcher Company of Nevada, Inc.**
 - Sodium Hypochlorite: \$2.9029/gallon
 - Ferric Chloride: \$4.3200/gallon
 - Sodium Hydroxide: \$2.2919/gallon
 - Citric Acid: \$19.5426/gallon
 - Total Price/gallon: \$29.6845

Thatcher Company of Nevada, Inc. was the lowest responsible bid received for the Annual Chemical Supplier Contract.

ATTACHMENTS:

- 1.) City of Fernley Standard Contract
- 2.) Bid Opening Table
- 3.) Bid Specifications

CONTRACT
A Contract for Annual Chemical Supplier 2022-2023

A Contract Between
City of Fernley
595 Silver Lace Blvd
Fernley NV 89408

and

Thatcher Company of Nevada, Inc.
ATT: Craig N. Thatcher, President
P.O Box 27407
Salt Lake City, UT 84127-0407

WHEREAS Nevada Revised Statutes (“NRS”) chapter 266 authorizes the City of Fernley, Nevada (the “City”) to engage services of persons as independent contractors; and

WHEREAS it is deemed that the services of Thatcher Company of Nevada, Inc., (the “Contractor”) are both necessary and in the best interests of the city; and

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. **REQUIRED APPROVAL.** This Contract for Services of Independent Contractor (this “Contract”) is contingent upon Fernley City Council approval.

2. **DEFINITIONS.**

- a. “City” means City of Fernley, County of Lyon, State of Nevada.
- b. “Independent Contractor” means a person or entity that performs services and/or provides goods for the City under the terms and conditions set forth in this Contract.
- c. “Fiscal Year” is defined as the period beginning July 1 and ending June 30 of the following year.

3. **CONTRACT TERM.** This Contract shall be effective from the 20th day of July 2022, to the 30th day of June 2023 subject to appropriation.

4. **NOTICE.** All notices or other communications required or permitted to be given under this Contract shall be in writing and shall be deemed to have been duly given if delivered personally in hand, or by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address specified above.

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

Notice for the City shall be sent to:

City Manager
City of Fernley
595 Silver Lace Blvd.
Fernley, NV 89408

Notice for the Contractor shall be sent to:

Thatcher Company of Nevada, Inc.
ATTN: Craig N. Thatcher, President
P.O Box 27407
Salt Lake City, UT 84127-0407

5. **SCOPE OF WORK:** Scope of Work shall be set forth in Attachment A.
6. **CONSIDERATION.** The parties agree that Contractor will provide the services specified in paragraph (5) at a Fee Schedule outlined in Attachment A.
7. **ATTACHMENTS:** This Contract also incorporates the following attachments (the "Attachments"):

ATTACHMENT A: Bid Submission/Fee Schedule

Should a conflict arise between the terms of the attachment(s) and this contract, the contract term(s) prevails unless specifically addressed in a document separate from the contract and attachments and signed by all parties.

8. **TIMELINESS OF BILLING SUBMISSION.** The parties agree that timeliness of billing is of the essence to this Contract and recognize that the City is on a fiscal year. All billings for dates of service prior to July 1 must be submitted to the city no later than the first Friday in August of the same year.
9. **INSPECTION & AUDIT.**
 - a. **Books and Records.** Contractor agrees to keep and maintain under general accepted accounting principles (GAAP) full, true, and complete records, contracts, books, and documents as are necessary to fully disclose to the City, the State of Nevada or the United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all state and federal regulations and statutes. Contractor agrees to provide a copy of the file within a reasonable time upon being requested by the City.

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

- b. **Inspection & Audit.** Contractor agrees that the relevant books, records (written, electronic, computer related or otherwise), including, without limitation, relevant accounting procedures and practices of Contractor or its subcontractors, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location of Contractor where such records may be found, with or without notice by the City, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives. All subcontracts shall reflect the requirements of this paragraph.
- c. **Period of Retention.** All books, records, reports, and statements relevant to this Contract must be retained a minimum three years and for five years if any federal funds are used under this Contract. The retention period runs from the date of payment for the relevant goods or services by the City, or from the date of termination of this Contract, whichever is later. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. CONTRACT TERMINATION.

- a. **Termination Without Cause.** Any discretionary or vested right of renewal notwithstanding, this Contract may be terminated without cause by (1) written mutual consent of both parties, or (2) unilateral termination by either party after service of formal Thirty Day (30) written notice as specified in paragraph (4).
- b. **Termination for Non-Appropriation.** The continuation of this Contract beyond the current fiscal year is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the City. The City may terminate this Contract, and Contractor waives any and all claim(s) for damages, effective immediately upon receipt of written notice (or any date specified therein) if for any reason the City's funding from State and/or federal sources is not appropriated or is withdrawn, limited, or impaired.
- c. **Default or Breach.** A default or breach may be declared with or without termination. The following shall constitute a default or breach:
 - i. If Contractor fails to provide or satisfactorily perform any of the conditions, work, deliverables, goods, or services called for by this Contract within the time requirements specified in this Contract or within any granted extension of those time requirements; or
 - ii. If any state, county, city or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - iii. If Contractor becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court; or

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

- iv. For any other good or sufficient reason, including, but not limited to, dishonesty, fraud, ethical violations, bribery, or other similar acts.
- d. **For Cause Termination and Time to Correct.** This Contract may be terminated by the non-defaulting party upon a declared default or breach only after service of formal written notice as specified in paragraph (4), and the subsequent failure of the defaulting party within 15 calendar days of receipt of that notice to provide evidence, satisfactory to the non-defaulting party, showing that the declared default or breach has been corrected.
- e. **Winding Up Affairs Upon Termination.** In the event that this Contract is terminated for any reason, the parties agree that the provisions of this paragraph survive termination:
 - i. The parties shall account for and properly present to each other all claims for fees and expenses and pay those which are undisputed and otherwise not subject to set off under this Contract. Neither party may withhold performance of winding up provisions solely based on nonpayment of fees or expenses accrued up to the time of termination.
 - ii. Contractor shall satisfactorily complete work in progress at the agreed rate (or a pro rata basis if necessary) if so requested by the City.
 - iii. Contractor shall execute any documents and take any actions necessary to effectuate an assignment of this Contract if so requested by the City; and
 - iv. Contractor shall preserve, protect, and promptly deliver possession to the City of all proprietary information in accordance with paragraph (21).
 - v. In the event that dispute(s) arise during the winding up of affairs upon termination, the parties agree to meet and negotiate in good faith to resolve any such dispute(s).

11. REMEDIES. Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, actual damages exclusive of lost profits.

12. ATTORNEYS' FEES, COSTS, AND EXPENSES. Unless otherwise stated herein, the Parties will bear their own attorneys' fees, costs, and expenses in connection with the negotiation, execution, and performance of this Agreement.

13. LIMITED LIABILITY. Contract liability of both parties shall not be subject to punitive damages. Liquidated damages shall not apply unless otherwise specified in the Attachments. Damages for any default or breach by the City shall never exceed the amount of funds appropriated for payment under this Contract, but not yet paid to Contractor, for the fiscal year budget in existence at the time of the default or breach.

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

14. FORCE MAJEURE. Neither party shall be deemed to be in violation of this Contract if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of this Contract after the intervening cause ceases.

15. INDEMNIFICATION.

A. As respects negligent acts, errors or omissions in the performance of professional services, the Contractor agrees to indemnify and hold harmless the City, including their elected officials, officers, employees, and agents from and against reasonable defense costs, including reasonable attorney fees, liability or claims arising directly out of the Contractor's negligent acts, errors or omissions in the performance of its work under the terms of this Agreement, to the extent the liabilities are determined to have been proximately caused by the negligent acts, errors or omissions of the Contractor, its Sub-CONTRACTORS or Sub-Contractors (hereafter "Subs"), their employees, agents, or representatives. City shall provide notice to Contractor of the City's receipt of a written demand/claim or lawsuit arising from Contractor's work.

B. The CONTRACTOR agrees to hold harmless, indemnify, and defend the City, including their elected officials, officers, employees, and agents from loss or liability resulting from any claim, demand, suit, action, or cause of action based on bodily injury, including death, or property damage, caused by any negligent or intentional acts, errors or omissions, either direct or passive, on the part of the Contractor, its Subs, their employees, agents, or representatives, arising from the performance of work under this Agreement. The collective group to be indemnified shall hereinafter be referred to as "Indemnitees." If an "Indemnitees" is found to be liable in the proceeding, then Contractor's obligation here under shall be limited to the proportional share of the liability attributed to the Contractor.

16. INDEPENDENT CONTRACTOR. Contractor is associated with the City only for the purposes and to the extent specified in this Contract, and in respect to performance of the contracted services pursuant to this Contract, Contractor is and shall be an independent contractor and, subject only to the terms of this Contract, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Contract. Nothing contained in this Contract shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the City whatsoever with respect to the indebtedness, liabilities, and obligations of Contractor or any other party. Contractor shall be solely responsible for, and the City shall have no obligation with respect to: (1) withholding of income taxes, FICA or any other taxes or fees; (2) industrial insurance coverage; (3) participation in any group insurance plans available to employees of the City; (4) participation or contributions by either Contractor or the Public Employees Retirement System; (5) accumulation of vacation leave or sick leave; or (6) unemployment compensation coverage provided by the City. Contractor shall indemnify and hold the City harmless from, and defend the City against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

respect to any such taxes or fees. Neither Contractor nor its employees, agents, or representatives shall be considered employees, agents, or representatives of the City.

17. INSURANCE Unless expressly waived in writing by the City, Contractor, as an independent contractor and not an employee of the City, must carry those policies of insurance which have been agreed to by the parties as evidenced by the parties initials in the signature spaces provided in the amounts specified below and pay all taxes and fees incident hereunto. The City shall have no liability except as specifically provided in this Contract. Contractor shall not commence work before:

- a. Contractor has provided the required evidence of insurance to the City, and
- b. The City has approved the insurance policies provided by Contractor. Prior approval of the insurance policies by the City shall be a condition precedent to any payment of consideration under this Contract and the City's approval of any changes to insurance coverage during the course of performance shall constitute an ongoing condition subsequent this Contract. Any failure of the City to timely approve the insurance policies or any changes to the insurance coverage shall not constitute a waiver of the condition.

Insurance Coverage: Contractor shall, at Contractor's sole expense, procure, maintain, and keep in force for the duration of this Contract the following insurance conforming to the minimum requirements specified below. Unless specified herein or otherwise agreed to by the City, the required insurance shall be in effect prior to the commencement of work by Contractor and shall continue in force as appropriate until the latter of:

- 1) Final acceptance by the City of the completion of this Contract; or
- 2) Such time as the insurance is no longer required by the City under the terms of this Contract.

Any insurance or self-insurance available to the City shall be in excess of, and non-contributing with, any insurance required from Contractor. Contractor's insurance policies shall apply on a primary basis. Until such time as the insurance is no longer required by the City, Contractor shall provide the City with renewal or replacement evidence of insurance no less than thirty (30) days before the expiration or replacement of the required insurance. If at any time during the period when insurance is required by this Contract, an insurer or surety shall fail to comply with the requirements of this Contract, as soon as Contractor has knowledge of any such failure, Contractor shall immediately notify the City and immediately replace such insurance or bond with an insurer meeting the requirements.

COF

CTR

Workers' Compensation and Employer's Liability Insurance:

INDUSTRIAL INSURANCE. Contractor further agrees, as a precondition to the performance of any work under this Contract and as a precondition to any obligation of the City to make payment under this Contract, to provide the City with a work certificate issued by a qualified insurer in accordance with NRS 616B.627. Contractor agrees, prior to commencing any work under this Contract, to complete and to provide the following written request to the qualified insurer:

_____ has entered into a contract with Owner to perform work from _____
to _____ and requests that an industrial insurance provider qualified and licensed

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

to offer such insurance within the State of Nevada, provide to The City of Fernley, Nevada 1) a certificate of coverage issued pursuant to NRS 616B.627 and 2) notice of any lapse in coverage or nonpayment of coverage that Contractor is required to maintain. The certificate and notice should be mailed to:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

Contractor agrees to maintain required workers compensation coverage throughout the entire term of this Contract. If Contractor does not maintain coverage throughout the entire term of this Contract, Contractor agrees that the City may, at any time the coverage is not maintained by Contractor, order Contractor stop work, suspend this Contract, or terminate this Contract.

Contractor may, in lieu of furnishing a certificate of an insurer, provide an affidavit indicating that Contractor is a sole proprietor and that:

- 1) In accordance with the provisions of NRS 616B.659, Contractor has not elected to be included within the terms, conditions, and provisions of NRS chapters 616A to 616D, inclusive; and
- 2) Contractor is otherwise in compliance with those terms, conditions, and provisions.

COF	CTR
-----	-----

Commercial General Liability Insurance:

- 1) Minimum Limits required:

<u>\$1,000,000</u>	General Aggregate
<u>\$1,000,000</u>	Products & Completed Operations Aggregate
<u>\$1,000,000</u>	Personal and Advertising Injury
<u>\$1,000,000</u>	Each Occurrence
- 2) Coverage shall be on an occurrence basis and shall be at least as broad as ISO 1996 form CG 00 01 (or a substitute form providing equivalent coverage); and shall cover liability arising from premises, operations, independent contractors, completed operations, personal injury, products, civil lawsuits, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

COF	CTR
-----	-----

Business Automobile Liability Insurance:

Minimum Limit required: **\$100,000** Each Occurrence for bodily injury and property damage. Coverage shall be for "any auto" (including owned, non-owned and hired vehicles). The policy shall be written on ISO form CA 00 01 or a substitute providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.

COF	CTR
-----	-----

Professional Liability Insurance:

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

- 3) Minimum Limit required: \$1,000,000 Each Claim, \$2,000,000 Aggregate.
- 4) Retroactive date: Prior to commencement of the performance of this Contract
- 5) Discovery period: Three (3) years after the termination date of this Contract.
- 6) A certified copy of this policy may be required.

COF

CTR

Umbrella or Excess Liability Insurance:

- 1) May be used to achieve the above minimum liability limits.
- 2) Shall be endorsed to state it is "As Broad as Primary Policy"

COF

CTR

Commercial Crime Insurance:

- 1) Minimum Limit required: **\$10,000** Per Loss for Employee Dishonesty
- 2) This insurance shall be underwritten on a blanket form amending the definition of "employee" to include all employees of the Vendor regardless of position or category.

COF

CTR

Performance Security:

- 1) Amount required: \$ **0.00**
- 2) Security may be in the form of surety bond, Certificate of Deposit or Treasury Note payable to the city only.
- 3) The security shall be deposited with the City no later than ten (10) working days following award of this Contract to Contractor.
- 4) Upon successful completion of this Contract, the security and all interest earned, if any, shall be returned to Contractor.

General Requirements:

- 1) Additional Insured: By endorsement to the general liability insurance policy evidenced by Contractor, ***The City of Fernley, its officers, employees, and immune contractors*** shall be named as additional insureds for all liability arising from this Contract.
- 2) Waiver of Subrogation: Each liability insurance policy shall provide for a waiver of subrogation as to additional insureds.
- 3) Cross-Liability: All required liability policies shall provide cross-liability coverage as would be achieved under the standard ISO separation of insureds clause.
- 4) Deductibles and Self-Insured Retentions: Insurance maintained by Contractor shall apply on a first dollar basis without application of a deductible or self-insured retention unless otherwise specifically agreed to by the City. Such approval shall not relieve Contractor from the obligation to pay any deductible or self-insured retention. Any deductible or self-insured retention shall not exceed \$5,000 per occurrence, unless otherwise approved by the City.
- 5) Policy Cancellation: Except for ten days' notice for non-payment of premium, each insurance policy shall be endorsed to state that; without thirty (30) days prior

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

written notice to the City, the policy shall not be canceled, non-renewed or coverage and/or limits reduced or materially altered and shall provide that notices required by this paragraph shall be sent by certified mail to the address shown below.

- 6) Approved Insurer: Each insurance policy shall be:
- a. Issued by insurance companies authorized to do business in the State of Nevada or eligible surplus lines insurers acceptable to the City and having agents in the State of Nevada upon whom service of process may be made, and
 - b. Currently rated by A.M. Best as “A- VII” or better.

Evidence of Insurance: Prior to the start of any work, Contractor must provide the following documents to the City:

- 1) Certificate of Insurance: The Acord 25 Certificate of Insurance form or a form substantially similar must be submitted to the City to evidence the insurance policies and coverages required of Contractor.
- 2) Additional Insured Endorsement: An Additional Insured Endorsement (CG20 10 or C20 26), signed by an authorized insurance company representative, **must** be submitted to the City to evidence the endorsement of the City as an additional insured per General Requirements, Subsection 1) above.
- 3) Schedule of Underlying Insurance Policies: If an Umbrella or Excess insurance policy is evidenced to comply with minimum limits, a copy of the Underlyer Schedule from the Umbrella or Excess insurance policy may be required.

Review and Approval: Documents specified above must be submitted for review and approval by the City prior to the commencement of work by Contractor. Neither approval by the City nor failure to disapprove the insurance furnished by Contractor shall relieve Contractor of Contractor’s full responsibility to provide the insurance required by this Contract. Compliance with the insurance requirements of this Contract shall not limit the liability of Contractor or its sub-contractors, employees or agents to the City or others, and shall be in addition to and not in lieu of any other remedy available to the City under this Contract or otherwise. The City reserves the right to request and review a copy of any required insurance policy or endorsement to assure compliance with these requirements.

Required Mailing: Contractor will mail all required insurance documents to the City at the address identified in section 4 of this Contract.

18. COMPLIANCE WITH LEGAL OBLIGATIONS. Contractor shall procure and maintain for the duration of this Contract any state, county, city or federal license, authorization, waiver, permit, qualification, or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract. Contractor will be responsible to pay all taxes, assessments, fees, premiums, permits, and licenses required by law. Real property and personal property taxes are the responsibility of Contractor in accordance with NRS 361.157 and 361.159. Contractor agrees to be responsible for payment of any such government obligations not paid by its subcontractors during performance of this Contract.

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

19. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of this Contract or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other default or breach.

20. SEVERABILITY OF PARTS. If any portion, provision, or part of this Agreement is held, determined, or adjudicated by any court of competent jurisdiction to be invalid, unenforceable, or void for any reason whatsoever, each such portion, provision, or part shall be severed from the remaining portions, provisions, or parts of this Agreement, and such determination or adjudication shall not affect the validity or enforceability of such remaining portions, provisions, or parts.

21. ASSIGNMENT/DELEGATION. To the extent that any assignment of any right under this Contract changes the duty of either party, increases the burden or risk involved, impairs the chances of obtaining the performance of this Contract, attempts to operate as a novation, or includes a waiver or abrogation of any defense to payment by the City, such offending portion of the assignment shall be void, and shall be a breach of this Contract. Contractor shall neither assign, transfer nor delegate any rights, obligations, or duties under this Contract without the prior written consent of the City.

22. CITY OWNERSHIP OF PROPRIETARY INFORMATION. Any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under this Contract), or any other documents or drawings, prepared or in the course of preparation by Contractor (or its subcontractors) in performance of its obligations under this Contract shall be the exclusive property of the City and all such materials shall be delivered into the possession of the City by Contractor upon completion, termination, or cancellation of this Contract. Contractor shall not use, willingly allow, or cause to have such materials used for any purpose other than performance of Contractor's obligations under this Contract without the prior written consent of the City. Notwithstanding the foregoing, the City shall have no proprietary interest in any materials licensed for use by the City that are subject to patent, trademark, or copyright protection.

23. PUBLIC RECORDS. Pursuant to NRS 239.010, information or documents received from Contractor may be open to public inspection and copying. The City will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests. Contractor may label specific parts of an individual document as a "trade secret" or "confidential," provided that Contractor thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any document that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the records.

24. FEDERAL FUNDING. In the event federal funds are used for payment of all or part of this Contract:

- a. Contractor certifies, by signing this Contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

or agency. This certification is made pursuant to the regulations implementing Executive Order 12549, Debarment and Suspension, 28 C.F.R. pt. 67, § 67.510, as published as pt. VII of the May 26, 1988, Federal Register (pp. 19160-19211), and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.

- b. Contractor and its subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.
- c. Contractor and its subcontractors shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, P.L. 93-112, as amended, and any relevant program-specific regulations, and shall not discriminate against any employee or offeror for employment because of race, national origin, creed, color, sex, religion, age, disability, or handicap condition (including AIDS and AIDS-related conditions.)

25. LOBBYING. The parties agree, whether expressly prohibited by federal, state, or local law, or otherwise, that no funding associated with this contract will be used for any purpose associated with or related to lobbying or influencing or attempting to lobby or influence for any purpose the following:

Any federal, state, county or local agency, legislature, commission, counsel or board;

Any federal, state, county or local legislator, commission member, counsel member, board member, or other elected official; or

Any officer or employee of any federal, state, county, or local agency; legislature, commission, counsel, or board.

26. GENERAL WARRANTY: Contractor warrants that all services, deliverables, and/or work product under this Contract shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry; shall conform to or exceed the specifications set forth in the incorporated attachments; and shall be fit for ordinary use, of good quality, with no material defects.

27. PROPER AUTHORITY. The parties hereto represent and warrant that the person executing this Contract on behalf of each party has full power and authority to enter into this Contract. Contractor acknowledges that as required by statute or regulation this Contract is effective upon signing and only for the period of time specified in this Contract. Any services performed by Contractor before this Contract is effective or after it ceases to be effective are performed at the sole risk of Contractor.

28. GOVERNING LAW; VENUE. This Agreement will be interpreted, and the rights and liabilities of the Parties determined, in accordance with the laws of the State of Nevada, excluding its conflict of laws rules. In any action or proceeding arising under this Agreement, each Party to this Agreement hereby (a) consents to the jurisdiction of Nevada Courts, and of the pertinent appellate courts, and consents to the venue of such action or proceeding in Lyon County, Nevada courts, (b) irrevocably agrees that all actions or proceedings arising out of or relating to this

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

Agreement shall be litigated in such courts, and (c) consents to personal jurisdiction within Lyon County, Nevada. Each Party to this Agreement accepts for itself, generally and unconditionally, the exclusive jurisdiction and venue of the aforesaid courts and waives any defense of lack of personal jurisdiction, improper venue or inconvenient forum or any similar defense, and irrevocably agrees to be bound by any non-appealable judgment rendered thereby in connection with this Agreement.

29. INTEGRATED AGREEMENT. This Agreement contains the entire agreement and understanding among the Parties regarding the matters set forth herein and supersedes all previous negotiations, discussions, and understandings regarding such matters. The Parties acknowledge and represent that they have not relied on any promise, inducement, representation, or other statement made in connection with this Agreement that is not expressly contained herein. The terms of this Agreement are contractual and not a mere recital.

30. COUNTERPARTS. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, and all of such counterparts together shall constitute one and the same instrument.

31. ADVICE OF COUNSEL. Each Party hereto represents and agrees that it has had the opportunity to seek and has sought from attorneys any such advice as it deems appropriate with respect to signing this Agreement or the meaning of it. Each party has undertaken such independent investigation and evaluation as it deems appropriate and is entering into this Agreement in reliance on that and not in reliance on any advice, disclosure, representation, or information provided by or expected from any other Party or Party's attorneys. This is an agreement of settlement and compromise, made in recognition that the Parties may have different, disputed, or incorrect understandings, information, and contentions, as to facts and law, and with each Party compromising and settling any potential correctness or incorrectness of its understandings, information, and contentions as to the facts, law, claims, duties, disclosures, and conduct occurring before or during the entry into this Agreement. No conduct, failure, misunderstanding or misinformation and no claim of fraud or fraudulent inducement occurring prior to or in connection with the execution hereof shall be a ground for rescission hereof or for recovery of damages, except as otherwise expressly provided herein.

32. MODIFICATION; NO WAIVER. The provisions of this Agreement, including this paragraph, may be modified, or waived only in writing signed by all Parties. No waiver with respect to any portion of this Agreement shall apply to any other portion of the Agreement, and a waiver on one occasion shall not be deemed to be a waiver of the same or any other breach on a future occasion. No course of dealing by any Party, and no failure, omission, delay, or forbearance by any Party in exercising such Party's rights or remedies shall be deemed a waiver of any such rights or remedies or a modification of this Agreement.

33. INTERPRETATION OF AGREEMENT. This Agreement shall be construed without regard to the Party or Parties responsible for its preparation and shall be deemed to have been prepared collectively by the Parties. Any ambiguity or uncertainty arising herein shall not be

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

interpreted or construed against any Party hereto on the basis that a Party prepared or drafted a particular provision of this Agreement.

34. COOPERATION OF PARTIES. The Parties agree to cooperate to accomplish the purpose of this Agreement and to execute any and all supplementary documents and to take all additional actions not inconsistent with the terms set forth in this Agreement that are necessary and appropriate to give full force and effect to the terms and intent of this Agreement.

35. NON-DISCRIMINATION. In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without limitation, apprenticeship. The contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

36. ACKNOWLEDGMENT AND EXECUTION. In witness whereof, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby:

ACTING CITY MANAGER

City of Fernley

Patrick Marsh

Telephone: 775-784-9900

PATRICK MARSH

DATED this _____ day of _____, 20__.

CITY ATTORNEY

City of Fernley

Brandi Jensen, Esq.

Telephone: 775-784-9861

Fax: 775-784-9868

I have reviewed this Contract and approve as to its legal form.

BRANDI JENSEN

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

DATED this ____ day of _____, 20__.

CITY'S ORIGINATING DEPARTMENT:

City of Fernley Department: Public Works Department

DAVE WHALEN, Department Director

DATED this ____ day of _____, 20__.

CONTRACT ACCEPTANCE AND EXECUTION:

The City Council of Fernley, Nevada, at their publicly noticed meeting of _____, 20__, approved the acceptance of this Contract. Further, the City Council authorizes the Mayor of Fernley, Nevada to set his hand to this document and record his signature for the execution of this Contract in accordance with the action taken.

FERNLEY:

ROY EDGINGTON, MAYOR

DATED this ____ day of _____, 20__.

ATTEST:

KIM SWANSON, CITY CLERK

DATED this ____ day of _____, 20__.

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

Craig N. Thatcher, President, Thatcher Company of Nevada, Inc., being first duly sworn, deposes and says: That Thatcher Company of Nevada, Inc. is the Contractor; that Craig N. Thatcher has read the foregoing Contract; and that Craig N. Thatcher, President, Thatcher Company of Nevada, Inc. understands the terms, conditions, and requirements thereof.

CONTRACTOR

BY: _____

TITLE: _____

FIRM: _____

BUSINESS LICENSE #: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ / Fax #: _____

E-mail Address: _____

(Signature of Contractor)

DATED this _____ day of _____, 20__.

STATE OF _____)

) ss

County of _____)

On this _____ day of _____, in the year 20__, before me, _____ / Notary Public, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that he executed it.

WITNESS my hand and official seal.

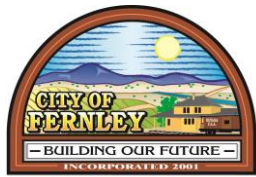
Notary's Signature

My Commission Expires: _____

CONTRACT

A Contract for Annual Chemical Supplier 2022-2023

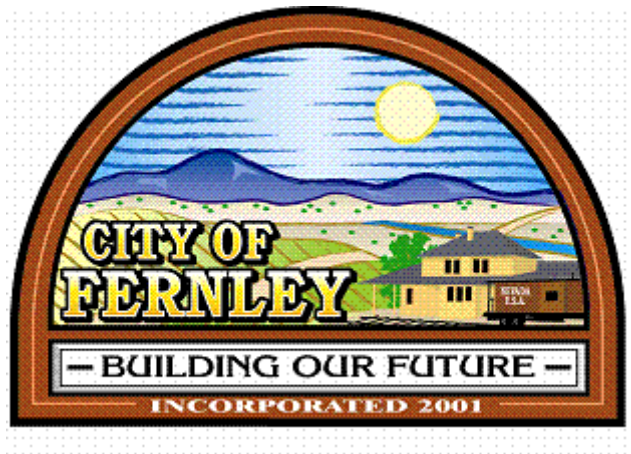
ATTACHMENT A



**2022-2023 Annual Chemical Supplier Contract
City of Fernley – Public Works Department
Re-Bid Opening June 7, 2022, 10:00 AM**

Name of Bidders	Total / gallon	Sodium Hypochlorite	Ferric Chloride	Sodium Hydroxide	Citric Acid	Total Annual
Univar Solutions	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid
Thatcher Company	\$11.4048	\$2.9029	\$4.3200	\$2.2919	\$19.5426	\$29.6845
Pencco, Inc	\$4.70	No Bid	\$4.70	No Bid	No Bid	\$4.70
USALCO	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid

The amounts identified on this bid opening table represent the City's understanding of the bid amounts at the time of the opening of bids. The City is not responsible for any miscalculations or errors in transferring amounts to this table and any low bidder remains the "apparent" low bidder until a full review of the bid submittals and a recommendation for award is made to, and acted upon by, the City Council of the City of Fernley.



**2022-2023
CHEMICAL SUPPLIER
CONTRACT**

BID DUE: May 3, 2022

BID OPENING: May 3, 2022 at 10:00 am

To Supply Service from July 1, 2022 – June 30, 2023

TABLE OF CONTENTS

<u>ADVERTISEMENT FOR PROPOSALS</u>	<u>3</u>
<u>INFORMATION FOR BIDDERS</u>	<u>4</u>
<u>PREPARATION OF BID</u>	<u>4</u>
<u>SUBMISSION OF BIDS:</u>	<u>4</u>
<u>NO BID-NO RESPONSE:</u>	<u>4</u>
<u>WITHDRAWAL OF BIDS</u>	<u>5</u>
<u>LATE BIDS</u>	<u>5</u>
<u>AWARD OF CONTRACT</u>	<u>5</u>
<u>DEFAULT OF CONTRACT</u>	<u>5</u>
<u>APPEAL OF UNSUCCESSFUL BIDDER</u>	<u>5</u>
<u>APPENDIX A SPECIFICATIONS</u>	<u>7</u>
<u>APPENDIX B CONTRACT</u>	<u>10</u>

ADVERTISEMENT FOR BIDS

For CITY OF FERNLEY (OWNER):

Sealed bids will be received by the CITY OF FERNLEY PUBLIC WORKS DEPARTMENT for the 2021-2022 **ANNUAL** Chemicals Supplier Contract at 595 Silver Lace Blvd, Fernley, NV 89408. Bids must be **received** by **May 3, 2022**, Bids will be opened at 10:00 AM.

The contract consists of supplying the City with the Sodium Hypochlorite (NaOCl) 12.5% Solution, Ferric Chloride (FeCl₃) 40-42% Solution, Sodium Hydroxide (NaOH) 20-25% Solution, Citric Acid 50% Solution, from July of 2022 until June of 2023.

Bids will be accepted on a **bulk rate** (i.e., \$ per gallon) basis. Bulk rate shall include any miscellaneous charges such as minimal hourly charges, travel charges and/or mobilization/demobilization charges. The bids shall be reviewed and selected based on the bulk rate and annual cost.

No proposal will be accepted from a Supplier who is not licensed for this type of work in accordance with the applicable Nevada Revised Statutes. A Statement of Qualifications shall be included with the bid packages.

Terms and conditions regarding this proposal as well as bid packages shall be obtained from the City of Fernley, Public Works Department via mail or e-mail by calling 775-784-9914.

The OWNER reserves the right to reject any or all bids and to waive minor irregularities in any bid or in the bidding process. No bidder may withdraw their bid within **thirty (30) days** after the actual date of the opening thereof.

*Please note the length of contract has changed.

Barry Williams, Deputy Public Works Director

Publish: 4/6; 4/13; 4/20; 4/27 in RGJ, RGJ.COM and Lyon County News Leader

INFORMATION FOR BIDDERS

1 PREPARATION OF BID

- a. Bidders are expected to examine the specifications and all instructions. Failure to do so will be at the bidder's risk.
- b. Any irregularities or lack of clarity in the invitation should be brought to the attention of the Public Works Department as soon as possible so that corrective addenda may be furnished to all bidders.
- c. The bidder shall sign, print or type the bidding firm's name on his bid and each continuation sheet on which he makes an entry. The person signing the bid must be a properly authorized representative of the bidding firm.
- d. The signer of the bid must initial erasures or other changes.
- e. Alterations, modifications or variations to this bid may not be considered unless authorized by the invitation or by addendum.
- f. When a unit price is requested such unit price shall be shown and shall include packing unless otherwise specified.
- g. Bidders are urged to proofread their bids carefully for any errors.
- h. In the event of an error in extension, unit price shall prevail.
- i. The price(s) and amount of this bid must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, bidder or potential bidder. Complementary bids are illegal and prohibited.
- j. No attempt may be made at any time to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid. All bids must be made in good faith and without collusion.
- k. Bidders understand and acknowledge that the representations above are material and important and shall be relied on by the City of Fernley in awarding the contract(s) for which this bid is submitted. Any misrepresentation hereinabove is and shall be treated as fraudulent concealment from the City of Fernley of the true facts relating to the submission of bids for this contract.
- l. All day references are calendar days.

2. SUBMISSION OF BIDS

- a. Bids from employees of the City of Fernley shall NOT be considered.
- b. Bids and addenda thereto shall be enclosed in sealed envelopes, marked as indicated in the invitation to bid, addressed to the City of Fernley Public Works Department, 595 Silver Lace Blvd, Fernley, NV 89408 with the name and address of the bidder, date of opening on the face of the envelope. Telegraph, telephone, facsimile bids, or bids post marked after the bid date, will NOT be considered.

3. NO BID-NO RESPONSE

- a. Three "No Bids/No Responses" will automatically remove your name from any mailing list.

4. WITHDRAWAL OF BIDS

- a. Bids may be withdrawn only by written notice, received prior to the bid opening time.
- b. Withdrawals received after the bid opening time shall not be considered.

5. LATE BIDS

- a. Bids received after the advertised bid deadline shall not be considered.

6. AWARD OF CONTRACT

- a. The contract shall be awarded to that responsible bidder whose bid conforms to the Invitation and whose bid is most advantageous to the City, price and other factors considered.
- b. The City reserves the right to reject any and all bids.
- c. The City may accept any item or group of items of any bid unless the bidder qualifies his bid by specific limitations.
- d. Successful bidder must sign and enter into a General Services Contract (Exhibit B) with the City of Fernley for a period not less than one year.
- e. Invoices issued as a result of this bid shall be processed for payment as each service and/or material is supplied to the City of Fernley.

7. DEFAULT OF CONTRACT

- a. In case of default of the contractor, the City may procure the articles or service from other sources and hold the contractor responsible for any excess cost occasioned thereby.
- b. If public necessity requires that use of materials or supplies not conforming to the specifications, they may be accepted, and payment therefore shall be made at a proper adjustment in price.
- c. Default by the bidder in any manner including failure or refusal to furnish any item or items at the price AND/OR TIME specified in the bid shall be considered cause for the Council, to remove the bidder from the approved bidders list for not less than 6 months not more than one year.

8. APPEAL BY UNSUCCESSFUL BIDDER

- a. Any unsuccessful bidder may file a notice of appeal within 10 days of award as entered on the bid record by post bond with good and solvent surety in an amount equal to 25 percent of the successful bid submitted. A bond must be furnished by a surety authorized to do business in the State of Nevada. The notice of appeal must include a written statement of the issues to be addressed on appeal. Within 20 days after receipt of the notice of appeal, the Fernley City Council shall hold an informal hearing on the appeal and may cancel the award based on the finding that the bid was incorrectly awarded. Any such cancellation requires re-advertising for bids and new award under the provisions of NRS Chapter 332. Notice of the hearing on the appeal shall be provided to both the successful bidder and the unsuccessful bidder filing the protest by mailing a certified letter to each party at least 10 days prior to the scheduled date of the hearing. The time and place for the meeting shall be at the sole discretion of the City Council. The format for the council meeting to hear the appeal shall be conducted in a manner satisfactory to the chair of the City Council. The successful bidder and the

unsuccessful bidder as well as City staff will be allowed to be heard and present information as directed by the chair.

- b. The City Council may withhold an amount from the bond posted by the unsuccessful bidder to cover the costs incurred by the Council in hearing the appeal if the original decision to award is upheld. The amount is at the discretion of the City Council. If the appeal is upheld and the award is canceled, the bond posted with the notice of appeal will be returned to the person who posted the bond.
- c. The decision and finding of the City Council is final and all further disputes regarding the matter of the award or amount withheld from the bond to cover the costs of hearing the appeal shall be resolved in a court of competent jurisdiction.
- d. Any notice of appeal under the provisions of this section operates as a stay of action in relation to any contract under such award until a determination is made by the City Council following the informal hearing prescribed herein. Such stay of action will be lifted if the Council rejects the appeal and upholds the award. Any further stay of action must be pursued by the unsuccessful bidder through an action brought in a court of competent jurisdiction.

APPENDIX A: SPECIFICATIONS

The work consists of supplying the City of Fernley with the chemicals described below on an as-needed basis through one of the following two methods:

- 1) Suppliers will provide chemical stocking as directed by the Public Works Department. The estimated chemical quantities and historical usage are listed below. Due to any unforeseen circumstances Public Works will not guarantee a minimum chemical usage or frequency.
- 2) Supplier will provide chemicals on an as-needed basis when contacted by the Public Works Department. Supplier will provide chemicals within three (3) business days from being contacted by Public Works. The minimum and maximum quantities will be provided by Public Works.

The City's Chemical Inventory to be supplied will consist of the following:

Sodium Hypochlorite (NaOCl) at 12.5% Solution	
Site Breakdown:	Site Capacity:
Well 4	500 gallons
Well 11	500 gallons
Well 13	405 gallons
Well 14	405 gallons
NE Booster	500 gallons
EWWTTP	1,300 gallons
Water Treatment Plant	20,000 gallons
<i>WTP summary of historical usage: approximately 10 deliveries annually, average of 2000 gallons per delivery</i>	
Ferric Chloride (FeCl₃) at 40-42% Solution	
Site Breakdown:	Site Capacity:
Water Treatment Plant	20,000 gallons
<i>Summary of historical usage: approximately 7 deliveries annually, 4200 gallons per delivery</i>	
Sodium Hydroxide (NaOH) at 20-25% Solution	
Site Breakdown:	Site Capacity:
Water Treatment Plant	20,000 gallons
<i>Summary of historical usage: Approximately 2000 gallons per year average</i>	
Citric Acid at 50% Solution	
Site Breakdown:	Site Capacity:
Water Treatment Plant	20,000 gallons
<i>Summary of historical usage: 1 delivery annually, 3000 gallons for delivery</i>	

Chemical Usage and Frequency may decline during off-peak months and may increase during on-peak months.

**Additional chemicals may be added to this list at any time.

***Site location map is attached.

Bids will be accepted on a **bulk rate** (i.e., \$ per gallon) basis. Bulk rate shall include any miscellaneous charges such as minimal hourly charges, travel charges and/or mobilization/demobilization charges. The bids shall be reviewed and selected based on the bulk rate.

No proposal will be accepted from a Chemical Supplier who is not able to provide at the frequencies listed within the specifications of this advertisement.

All bids must be submitted on the below bid tab, signed and dated by the bid preparer.

Chemical Supplied	Bulk Price Per Gallon
Sodium Hypochlorite (NaOCl) at 12.5% Solution	\$_____ per gallon
Ferric Chloride (FeCl ₃) at 40-42% Solution	\$_____ per gallon
Sodium Hydroxide (NaOH) at 20-25% Solution	\$_____ per gallon
Citric Acid at 50% Solution	\$_____ per gallon
Total	\$_____ per gallon

I certify I/We the undersigned can guarantee the above quoted prices for a period of one year, starting July 2020 until June 2021.

Signature of Bid Preparer

Company Name

Date

Chemical Delivery Locations for the City of Fernley Public Works Department



APPENDIX B- Fernley Standard Contract for Services of Independent Contractor

Notice for the City shall be sent to:

City Manager
City of Fernley
595 Silver Lace Blvd.
Fernley, NV 89408

Notice for the Contractor shall be sent to:

5. **SCOPE OF WORK:** Scope of Work shall be set forth in Attachment A.
6. **CONSIDERATION.** The parties agree that Contractor will provide the services specified in paragraph (5) at a Fee Schedule outlined in Attachment B.
7. **ATTACHMENTS:** This Contract also incorporates the following attachments (the "Attachments"):
ATTACHMENT C: (fill in with description or list N/A)
ATTACHMENT D: (fill in with description or list N/A)

Should a conflict arise between the terms of the attachment(s) and this contract, the contract term(s) prevails unless specifically addressed in a document separate from the contract and attachments and signed by all parties.

7. **CONSIDERATION.** The parties agree that Contractor will provide the services specified in paragraph (5) at a Fee Schedule outlined in Attachment B.
8. **TIMELINESS OF BILLING SUBMISSION.** The parties agree that timeliness of billing is of the essence to this Contract and recognize that the City is on a fiscal year. All billings for dates of service prior to July 1 must be submitted to the City no later than the first Friday in August of the same year.
9. **INSPECTION & AUDIT.**
 - a. **Books and Records.** Contractor agrees to keep and maintain under general accepted accounting principles (GAAP) full, true and complete records, contracts, books, and documents as are necessary to fully disclose to the City, the State of Nevada or the United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all state and federal regulations and statutes. Contractor agrees to provide a copy of the file within a reasonable time upon being requested by the City.

- b. **Inspection & Audit.** Contractor agrees that the relevant books, records (written, electronic, computer related or otherwise), including, without limitation, relevant accounting procedures and practices of Contractor or its subcontractors, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location of Contractor where such records may be found, with or without notice by the City, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives. All subcontracts shall reflect the requirements of this paragraph.
- c. **Period of Retention.** All books, records, reports, and statements relevant to this Contract must be retained a minimum three years and for five years if any federal funds are used under this Contract. The retention period runs from the date of payment for the relevant goods or services by the City, or from the date of termination of this Contract, whichever is later. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. **CONTRACT TERMINATION.**

- a. **Termination Without Cause.** Any discretionary or vested right of renewal notwithstanding, this Contract may be terminated without cause by (1) written mutual consent of both parties, and (2) unilateral termination by either party after service of formal Thirty Day (30) written notice as specified in paragraph (4).
- b. **Termination for Non-Appropriation.** The continuation of this Contract beyond the current fiscal year is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the City. The City may terminate this Contract, and Contractor waives any and all claim(s) for damages, effective immediately upon receipt of written notice (or any date specified therein) if for any reason the City's funding from State and/or federal sources is not appropriated or is withdrawn, limited, or impaired.
- c. **Default or Breach.** A default or breach may be declared with or without termination. The following shall constitute a default or breach:
 - i. If Contractor fails to provide or satisfactorily perform any of the conditions, work, deliverables, goods, or services called for by this Contract within the time requirements specified in this Contract or within any granted extension of those time requirements; or
 - ii. If any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - iii. If Contractor becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court; or

- iv. For any other good or sufficient reason, including, but not limited to, dishonesty, fraud, ethical violations, bribery, or other similar acts.
- d. **For Cause Termination and Time to Correct.** This Contract may be terminated by the non-defaulting party upon a declared default or breach only after service of formal written notice as specified in paragraph (4), and the subsequent failure of the defaulting party within 15 calendar days of receipt of that notice to provide evidence, satisfactory to the non-defaulting party, showing that the declared default or breach has been corrected.
- e. **Winding Up Affairs Upon Termination.** In the event that this Contract is terminated for any reason, the parties agree that the provisions of this paragraph survive termination:
 - i. The parties shall account for and properly present to each other all claims for fees and expenses and pay those which are undisputed and otherwise not subject to set off under this Contract. Neither party may withhold performance of winding up provisions solely based on nonpayment of fees or expenses accrued up to the time of termination.
 - ii. Contractor shall satisfactorily complete work in progress at the agreed rate (or a pro rata basis if necessary) if so, requested by the City.
 - iii. Contractor shall execute any documents and take any actions necessary to effectuate an assignment of this Contract if so, requested by the City; and
 - iv. Contractor shall preserve, protect and promptly deliver possession to the City of all proprietary information in accordance with paragraph (21).
 - v. In the event that dispute(s) arise during the winding up of affairs upon termination, the parties agree to meet and negotiate in good faith to resolve any such dispute(s).

11. REMEDIES. Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, actual damages exclusive of lost profits.

12. ATTORNEYS' FEES, COSTS, AND EXPENSES. Unless otherwise stated herein, the Parties will bear their own attorneys' fees, costs, and expenses in connection with the negotiation, execution, and performance of this Agreement.

13. LIMITED LIABILITY. Contract liability of both parties shall not be subject to punitive damages. Liquidated damages shall not apply unless otherwise specified in the Attachments. Damages for any default or breach by the City shall never exceed the amount of funds appropriated for payment under this Contract, but not yet paid to Contractor, for the fiscal year budget in existence at the time of the default or breach.

14. FORCE MAJEURE. Neither party shall be deemed to be in violation of this Contract if it is prevented from performing any of its obligations hereunder due to strikes, failure of public

transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of this Contract after the intervening cause ceases.

15. INDEMNIFICATION.

A. As respects negligent acts, errors or omissions in the performance of professional services, the Contractor agrees to indemnify and hold harmless the City, including their elected officials, officers, employees, and agents from and against reasonable defense costs, including reasonable attorney fees, liability or claims arising directly out of the Contractor's negligent acts, errors or omissions in the performance of its work under the terms of this Agreement, to the extent the liabilities are determined to have been proximately caused by the negligent acts, errors or omissions of the Contractor, its Sub-CONTRACTORS or Sub-Contractors (hereafter "Subs"), their employees, agents, or representatives. City shall provide notice to Contractor of the City's receipt of a written demand/claim or lawsuit arising from Contractor's work.

B. The CONTRACTOR agrees to hold harmless, indemnify, and defend the City, including their elected officials, officers, employees, and agents from loss or liability resulting from any claim, demand, suit, action, or cause of action based on bodily injury, including death, or property damage, caused by any negligent or intentional acts, errors or omissions, either direct or passive, on the part of the Contractor, its Subs, their employees, agents, or representatives, arising from the performance of work under this Agreement. The collective group to be indemnified shall hereinafter be referred to as "Indemnitees." If an "Indemnitees" is found to be liable in the proceeding, then Contractor's obligation here under shall be limited to the proportional share of the liability attributed to the Contractor.

16. INDEPENDENT CONTRACTOR. Contractor is associated with the City only for the purposes and to the extent specified in this Contract, and in respect to performance of the contracted services pursuant to this Contract, Contractor is and shall be an independent contractor and, subject only to the terms of this Contract, shall have the sole right to supervise, manage, operate, control, and direct performance of the detail's incident to its duties under this Contract. Nothing contained in this Contract shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the City whatsoever with respect to the indebtedness, liabilities, and obligations of Contractor or any other party. Contractor shall be solely responsible for, and the City shall have no obligation with respect to: (1) withholding of income taxes, FICA or any other taxes or fees; (2) industrial insurance coverage; (3) participation in any group insurance plans available to employees of the City; (4) participation or contributions by either Contractor or the Public Employees Retirement System; (5) accumulation of vacation leave or sick leave; or (6) unemployment compensation coverage provided by the City. Contractor shall indemnify and hold the City harmless from, and defend the City against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes or fees. Neither Contractor nor its employees, agents, or representatives shall be considered employees, agents, or representatives of the City.

17. INSURANCE Unless expressly waived in writing by the City, Contractor, as an independent contractor and not an employee of the City, must carry those policies of insurance which have been agreed to by the parties as evidenced by the parties' initials in the signature spaces provided in the amounts specified below and pay all taxes and fees incident hereunto. The City shall have no liability except as specifically provided in this Contract. Contractor shall not commence work before:

- a. Contractor has provided the required evidence of insurance to the City, and
- b. The City has approved the insurance policies provided by Contractor. Prior approval of the insurance policies by the City shall be a condition precedent to any payment of consideration under this Contract and the City's approval of any changes to insurance coverage during the course of performance shall constitute an ongoing condition subsequent this Contract. Any failure of the City to timely approve the insurance policies or any changes to the insurance coverage shall not constitute a waiver of the condition.

Insurance Coverage: Contractor shall, at Contractor's sole expense, procure, maintain and keep in force for the duration of this Contract the following insurance conforming to the minimum requirements specified below. Unless specified herein or otherwise agreed to by the City, the required insurance shall be in effect prior to the commencement of work by Contractor and shall continue in force as appropriate until the latter of:

- 1) Final acceptance by the City of the completion of this Contract; or
- 2) Such time as the insurance is no longer required by the City under the terms of this Contract.

Any insurance or self-insurance available to the City shall be in excess of, and non-contributing with, any insurance required from Contractor. Contractor's insurance policies shall apply on a primary basis. Until such time as the insurance is no longer required by the City, Contractor shall provide the City with renewal or replacement evidence of insurance no less than thirty (30) days before the expiration or replacement of the required insurance. If at any time during the period when insurance is required by this Contract, an insurer or surety shall fail to comply with the requirements of this Contract, as soon as Contractor has knowledge of any such failure, Contractor shall immediately notify the City and immediately replace such insurance or bond with an insurer meeting the requirements.

Workers' Compensation and Employer's Liability Insurance:

INDUSTRIAL INSURANCE. Contractor further agrees, as a precondition to the performance of any work under this Contract and as a precondition to any obligation of the City to make payment under this Contract, to provide the City with a work certificate issued by a qualified insurer in accordance with NRS 616B.627. Contractor agrees, prior to commencing any work under this Contract, to complete and to provide the following written request to the qualified insurer:

_____ has entered into a contract with Owner to perform work from _____ to _____ and requests that an industrial insurance provider qualified and licensed to offer such insurance within the State of Nevada, provide to The City of Fernley, Nevada 1) a certificate of coverage issued pursuant to NRS 616B.627 and 2) notice of any lapse in coverage or nonpayment of coverage that Contractor is required to maintain. The certificate and notice should be mailed to:

City of Fernley

595 Silver Lace Blvd
Fernley, NV 89408

Contractor agrees to maintain required workers compensation coverage throughout the entire term of this Contract. If Contractor does not maintain coverage throughout the entire term of this Contract, Contractor agrees that the City may, at any time the coverage is not maintained by Contractor, order Contractor stop work, suspend this Contract, or terminate this Contract.

Contractor may, in lieu of furnishing a certificate of an insurer, provide an affidavit indicating that Contractor is a sole proprietor and that:

- 1) In accordance with the provisions of NRS 616B.659, Contractor has not elected to be included within the terms, conditions, and provisions of NRS chapters 616A to 616D, inclusive; and
- 2) Contractor is otherwise in compliance with those terms, conditions and provisions.

COF	CTR
-----	-----

Commercial General Liability Insurance:

- 1) Minimum Limits required:

<u>\$1,000,000</u>	General Aggregate
<u>\$1,000,000</u>	Products & Completed Operations Aggregate
<u>\$1,000,000</u>	Personal and Advertising Injury
<u>\$1,000,000</u>	Each Occurrence
- 2) Coverage shall be on an occurrence basis and shall be at least as broad as ISO 1996 form CG 00 01 (or a substitute form providing equivalent coverage); and shall cover liability arising from premises, operations, independent contractors, completed operations, personal injury, products, civil lawsuits, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

COF	CTR
-----	-----

Business Automobile Liability Insurance:

Minimum Limit required: **\$100,000** Each Occurrence for bodily injury and property damage. Coverage shall be for "any auto" (including owned, non-owned and hired vehicles). The policy shall be written on ISO form CA 00 01 or a substitute providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.

COF	CTR
-----	-----

Professional Liability Insurance:

- 3) Minimum Limit required: \$1,000,000 Each Claim, \$2,000,000 Aggregate.
- 4) Retroactive date: Prior to commencement of the performance of this Contract
- 5) Discovery period: Three (3) years after the termination date of this Contract.
- 6) A certified copy of this policy may be required.

COF	CTR
-----	-----

Umbrella or Excess Liability Insurance:

- 1) May be used to achieve the above minimum liability limits.
- 2) Shall be endorsed to state it is "As Broad as Primary Policy"

COF

CTR

Commercial Crime Insurance:

- 1) Minimum Limit required: **\$10,000** Per Loss for Employee Dishonesty
- 2) This insurance shall be underwritten on a blanket form amending the definition of "employee" to include all employees of the Vendor regardless of position or category.

COF

CTR

Performance Security:

- 1) Amount required: \$ **0.00**
- 2) Security may be in the form of surety bond, Certificate of Deposit or Treasury Note payable to the City only.
- 3) The security shall be deposited with the City no later than ten (10) working days following award of this Contract to Contractor.
- 4) Upon successful completion of this Contract, the security and all interest earned, if any, shall be returned to Contractor.

General Requirements:

- 1) Additional Insured: By endorsement to the general liability insurance policy evidenced by Contractor, ***The City of Fernley, its officers, employees and immune contractors*** shall be named as additional insureds for all liability arising from this Contract.
- 2) Waiver of Subrogation: Each liability insurance policy shall provide for a waiver of subrogation as to additional insureds.
- 3) Cross-Liability: All required liability policies shall provide cross-liability coverage as would be achieved under the standard ISO separation of insureds clause.
- 4) Deductibles and Self-Insured Retentions: Insurance maintained by Contractor shall apply on a first dollar basis without application of a deductible or self-insured retention unless otherwise specifically agreed to by the City. Such approval shall not relieve Contractor from the obligation to pay any deductible or self-insured retention. Any deductible or self-insured retention shall not exceed \$5,000 per occurrence, unless otherwise approved by the City.
- 5) Policy Cancellation: Except for ten days notice for non-payment of premium, each insurance policy shall be endorsed to state that; without thirty (30) days prior written notice to the City, the policy shall not be canceled, non-renewed or coverage and/or limits reduced or materially altered and shall provide that notices required by this paragraph shall be sent by certified mail to the address shown below.
- 6) Approved Insurer: Each insurance policy shall be:
 - a. Issued by insurance companies authorized to do business in the State of Nevada or eligible surplus lines insurers acceptable to the City and having agents in the State of Nevada upon whom service of process may be made, and
 - b. Currently rated by A.M. Best as "A-VII" or better.

Evidence of Insurance: Prior to the start of any work, Contractor must provide the following documents to the City:

- 1) Certificate of Insurance: The Acord 25 Certificate of Insurance form or a form substantially similar must be submitted to the City to evidence the insurance policies and coverages required of Contractor.
- 2) Additional Insured Endorsement: An Additional Insured Endorsement (CG20 10 or C20 26), signed by an authorized insurance company representative, **must** be submitted to the City to evidence the endorsement of the City as an additional insured per General Requirements, Subsection 1) above.
- 3) Schedule of Underlying Insurance Policies: If an Umbrella or Excess insurance policy is evidenced to comply with minimum limits, a copy of the Underlyer Schedule from the Umbrella or Excess insurance policy may be required.

Review and Approval: Documents specified above must be submitted for review and approval by the City prior to the commencement of work by Contractor. Neither approval by the City nor failure to disapprove the insurance furnished by Contractor shall relieve Contractor of Contractor's full responsibility to provide the insurance required by this Contract. Compliance with the insurance requirements of this Contract shall not limit the liability of Contractor or its sub-contractors, employees or agents to the City or others, and shall be in addition to and not in lieu of any other remedy available to the City under this Contract or otherwise. The City reserves the right to request and review a copy of any required insurance policy or endorsement to assure compliance with these requirements.

Required Mailing: Contractor will mail all required insurance documents to the City at the address identified in section 4 of this Contract.

18. COMPLIANCE WITH LEGAL OBLIGATIONS. Contractor shall procure and maintain for the duration of this Contract any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract. Contractor will be responsible to pay all taxes, assessments, fees, premiums, permits, and licenses required by law. Real property and personal property taxes are the responsibility of Contractor in accordance with NRS 361.157 and 361.159. Contractor agrees to be responsible for payment of any such government obligations not paid by its subcontractors during performance of this Contract.

19. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of this Contract or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other default or breach.

20. SEVERABILITY OF PARTS. If any portion, provision, or part of this Agreement is held, determined, or adjudicated by any court of competent jurisdiction to be invalid, unenforceable, or void for any reason whatsoever, each such portion, provision, or part shall be severed from the remaining portions, provisions, or parts of this Agreement, and such determination or adjudication shall not affect the validity or enforceability of such remaining portions, provisions, or parts.

21. ASSIGNMENT/DELEGATION. To the extent that any assignment of any right under this Contract changes the duty of either party, increases the burden or risk involved, impairs the chances of obtaining the performance of this Contract, attempts to operate as a novation, or includes a waiver or abrogation of any defense to payment by the City, such offending portion of the assignment shall be void, and shall be a breach of this Contract. Contractor shall neither assign, transfer nor delegate any rights, obligations or duties under this Contract without the prior written consent of the City.

22. CITY OWNERSHIP OF PROPRIETARY INFORMATION. Any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under this Contract), or any other documents or drawings, prepared or in the course of preparation by Contractor (or its subcontractors) in performance of its obligations under this Contract shall be the exclusive property of the City and all such materials shall be delivered into the possession of the City by Contractor upon completion, termination, or cancellation of this Contract. Contractor shall not use, willingly allow, or cause to have such materials used for any purpose other than performance of Contractor's obligations under this Contract without the prior written consent of the City. Notwithstanding the foregoing, the City shall have no proprietary interest in any materials licensed for use by the City that are subject to patent, trademark or copyright protection.

23. PUBLIC RECORDS. Pursuant to NRS 239.010, information or documents received from Contractor may be open to public inspection and copying. The City will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests. Contractor may label specific parts of an individual document as a "trade secret" or "confidential," provided that Contractor thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any document that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the records.

24. FEDERAL FUNDING. In the event federal funds are used for payment of all or part of this Contract:

- a. Contractor certifies, by signing this Contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. This certification is made pursuant to the regulations implementing Executive Order 12549, Debarment and Suspension, 28 C.F.R. pt. 67, § 67.510, as published as pt. VII of the May 26, 1988, Federal Register (pp. 19160-19211), and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.
- b. Contractor and its subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.
- c. Contractor and its subcontractors shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, P.L. 93-112, as

amended, and any relevant program-specific regulations, and shall not discriminate against any employee or offeror for employment because of race, national origin, creed, color, sex, religion, age, disability or handicap condition (including AIDS and AIDS-related conditions.)

25. LOBBYING. The parties agree, whether expressly prohibited by federal, state or local law, or otherwise, that no funding associated with this contract will be used for any purpose associated with or related to lobbying or influencing or attempting to lobby or influence for any purpose the following:

Any federal, state, county or local agency, legislature, commission, counsel or board.

Any federal, state, county or local legislator, commission member, counsel member, board member, or other elected official; or

Any officer or employee of any federal, state, county or local agency; legislature, commission, counsel or board.

26. GENERAL WARRANTY: Contractor warrants that all services, deliverables, and/or work product under this Contract shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry; shall conform to or exceed the specifications set forth in the incorporated attachments; and shall be fit for ordinary use, of good quality, with no material defects.

27. PROPER AUTHORITY. The parties hereto represent and warrant that the person executing this Contract on behalf of each party has full power and authority to enter into this Contract. Contractor acknowledges that as required by statute or regulation this Contract is effective upon signing and only for the period of time specified in this Contract. Any services performed by Contractor before this Contract is effective or after it ceases to be effective are performed at the sole risk of Contractor.

28. GOVERNING LAW; VENUE. This Agreement will be interpreted, and the rights and liabilities of the Parties determined, in accordance with the laws of the State of Nevada, excluding its conflict of laws rules. In any action or proceeding arising under this Agreement, each Party to this Agreement hereby (a) consents to the jurisdiction of Nevada Courts, and of the pertinent appellate courts, and consents to the venue of such action or proceeding in Lyon County, Nevada courts, (b) irrevocably agrees that all actions or proceedings arising out of or relating to this Agreement shall be litigated in such courts, and (c) consents to personal jurisdiction within Lyon County, Nevada. Each Party to this Agreement accepts for itself, generally and unconditionally, the exclusive jurisdiction and venue of the aforesaid courts and waives any defense of lack of personal jurisdiction, improper venue or inconvenient forum or any similar defense, and irrevocably agrees to be bound by any non-appealable judgment rendered thereby in connection with this Agreement.

29. INTEGRATED AGREEMENT. This Agreement contains the entire agreement and understanding among the Parties regarding the matters set forth herein and supersedes all previous negotiations, discussions, and understandings regarding such matters. The Parties acknowledge and represent that they have not relied on any promise, inducement, representation, or other statement made in connection with this Agreement that is not expressly contained herein. The terms of this Agreement are contractual and not a mere recital.

30. COUNTERPARTS. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, and all of such counterparts together shall constitute one and the same instrument.

31. ADVICE OF COUNSEL. Each Party hereto represents and agrees that it has had the opportunity to seek and has sought from attorneys any such advice as it deems appropriate with respect to signing this Agreement or the meaning of it. Each party has undertaken such independent investigation and evaluation as it deems appropriate and is entering into this Agreement in reliance on that and not in reliance on any advice, disclosure, representation or information provided by or expected from any other Party or Party's attorneys. This is an agreement of settlement and compromise, made in recognition that the Parties may have different, disputed or incorrect understandings, information and contentions, as to facts and law, and with each Party compromising and settling any potential correctness or incorrectness of its understandings, information and contentions as to the facts, law, claims, duties, disclosures and conduct occurring before or during the entry into this Agreement. No conduct, failure, misunderstanding or misinformation and no claim of fraud or fraudulent inducement occurring prior to or in connection with the execution hereof shall be a ground for rescission hereof or for recovery of damages, except as otherwise expressly provided herein.

32. MODIFICATION; NO WAIVER. The provisions of this Agreement, including this paragraph, may be modified or waived only in writing signed by all Parties. No waiver with respect to any portion of this Agreement shall apply to any other portion of the Agreement, and a waiver on one occasion shall not be deemed to be a waiver of the same or any other breach on a future occasion. No course of dealing by any Party, and no failure, omission, delay, or forbearance by any Party in exercising such Party's rights or remedies shall be deemed a waiver of any such rights or remedies or a modification of this Agreement.

33. INTERPRETATION OF AGREEMENT. This Agreement shall be construed without regard to the Party or Parties responsible for its preparation and shall be deemed to have been prepared collectively by the Parties. Any ambiguity or uncertainty arising herein shall not be interpreted or construed against any Party hereto on the basis that a Party prepared or drafted a particular provision of this Agreement.

34. COOPERATION OF PARTIES. The Parties agree to cooperate to accomplish the purpose of this Agreement and to execute any and all supplementary documents and to take all additional actions not inconsistent with the terms set forth in this Agreement that are necessary and appropriate to give full force and effect to the terms and intent of this Agreement.

35. NON-DISCRIMINATION. In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without limitation, apprenticeship. The contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

36. ACKNOWLEDGMENT AND EXECUTION. In witness whereof, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby:

CITY MANAGER

City of Fernley
Daphne Hooper
Telephone: 775-784-9900

DAPHNE HOOPER
DATED this ____ day of _____, 20__.

CITY ATTORNEY

City of Fernley
Brandi Jensen, Esq.
Telephone: 775-784-9861
Fax: 775-784-9868
I have reviewed this Contract and approve as to its legal form.

BRANDI JENSEN
DATED this ____ day of _____, 20__.

CITY'S ORIGINATING DEPARTMENT:

City of Fernley Department: Public Works Director

DAVE WHALEN, PUBLIC WORKS DIRECTOR
DATED this ____ day of _____, 20__.

CONTRACT ACCEPTANCE AND EXECUTION:

The City Council of Fernley, Nevada, at their publicly noticed meeting of _____, 20__, approved the acceptance of this Contract. Further, the City Council authorizes the Mayor of Fernley, Nevada to set his hand to this document and record his signature for the execution of this Contract in accordance with the action taken.

FERNLEY:

ROY EDGINGTON, MAYOR
DATED this ____ day of _____, 20__.

ATTEST:

KIM SWANSON, CITY CLERK
DATED this ____ day of _____, 20__.

_____, being first duly sworn, deposes and says: That _____ is the Contractor; that _____ has read the foregoing Contract; and that _____ understands the terms, conditions, and requirements thereof.

CONTRACTOR

BY: _____

TITLE: _____

FIRM: _____

BUSINESS LICENSE #: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ / Fax #: _____

E-mail Address: _____

(Signature of Contractor)

DATED this _____ day of _____, 20____.

STATE OF _____)

) ss

County of _____)

On this _____ day of _____, in the year 20____, before me, _____ / Notary Public, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that he executed it.

WITNESS my hand and official seal.

Notary's Signature

My Commission Expires: _____



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Kari Weitzel

FINANCIAL IMPACT:

Yes:X

No:

CURRENTLY BUDGETED:

Yes:X

No:

FUND/ACCOUNT:

100-529-322

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to approve a contract for on-call inspection services and engineering support services with NCE.

AGENDA ITEM BRIEF:

This agenda item will renew a contract with NCE so that the engineering department can continue to utilize its services for on-call quality assurance inspections and other engineering services. The City has contracted with NCE for these on-call inspection services since March of 2017.

RECOMMENDED MOTION:

"I move to approve a contract with NCE for on-call inspection services."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

City Council could choose to not approve of the contract. The Council could direct staff to advertise a request for qualifications in order to select a new firm to cover the quality assurance inspections or they could elect to not have the inspections performed and direct staff to make the necessary changes to the City of Fernley Design Standards and other documents to reflect the new policies.

BACKGROUND:**Project SUMMARY:**

This contract will renew a contract with NCE to perform on-call quality assurance inspections on projects that are installing new public infrastructure. The contract will also allow the engineering department to utilize NCE for additional support services such as:

- Assisting the City with inspection on smaller City capital projects
- Assistance with a plan review or a constructability review for a City capital project
- Providing an assessment of a current infrastructure problem like ADA issues, pavement preservation recommendations, or drainage issues.
- Assisting with our ongoing wide crack monitoring program for Newlands Drive and other streets in the City
- Reviewing the City's existing standards and providing recommendations and corrections for the City to use to update its design standards

Staff has budgeted \$20,000 for engineering support and other assistance related to City projects or issues. It is budgeted in the *Professional Services-Engineering* line item of the engineering department budget.

Projects that will be constructing infrastructure that will be dedicated to the City or will affect existing City infrastructure needs to be inspected for compliance with local and state regulations, including, but not limited to: the Nevada Revised Statutes, Nevada Administrative Code, Standard Specifications for Public Works Construction, American Water Works Association Standards, 10 State Standards for Wastewater Facilities, City of Fernley Design Standards, and others.

The ongoing increase in permit submittals and construction in Fernley has stretched the limited staff resources of the engineering department and outside help is needed in order to meet demands of development and to comply with the standards referenced above.

NCE has worked with the City on multiple projects and staff is comfortable with their level of experience and familiarity with our local standards and requirements. They are currently being used to perform quality assurance inspections and staff has found their performance to be very good. They are also mindful of project budgets and do not spend unnecessary time on projects, which was a concern voiced by the City Council.

Ensuring that infrastructure is built according to plan and in compliance with the local and State regulations is critical to the long-term financial stability of the City. Substandard infrastructure only serves to be a drain on City funds and resources as it will need to be repaired more frequently and replaced sooner than properly installed infrastructure.

BACKGROUND:

Historically, the City has contracted with a consultant to complete these types of inspections. 2010 was the final year that the City used a consultant to perform inspections for the public infrastructure portion of development projects. Prior to 2010, the City utilized CIA Inspection Services as the City's quality assurance inspector. This contract was eliminated due to budget issues and the economic downturn affecting the nation and the region. The responsibility to perform these inspections was then written into the job description of the City Engineer.

With development increasing within the City, having the City Engineer perform these duties is not practical as the number of inspections has increased and the inspections often consume a large amount of time. Having someone either employed by the City or under contract with the City, available to perform these inspections and focus on each project help to ensure that the infrastructure the City is taking ownership of is built to standard.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

FINANCIAL IMPLICATIONS:

The fees for inspecting development projects will be paid by developers. Costs for City tasks will be paid out of the Professional Services-Engineering line item of each budget.

ATTACHMENTS:

1. 2022.07.20 NCE 2022 On Call Inspection Services Contract
2. 2022.06.23 NCE Fee Schedule FY22-23 Attachement A

CONTRACT

A Contract For On Call Inspection Services

A Contract Between
City of Fernley
595 Silver Lace Blvd
Fernley NV 89408

and

NCE
1885 South Arlington Avenue, Suite 111
Reno, NV 89509

WHEREAS, Nevada Revised Statutes (“NRS”) chapter 266 authorizes the City of Fernley, Nevada (the “City”) to engage services of persons as independent contractors; and

WHEREAS, it is deemed that the services of NCE, (the “Contractor”) are both necessary and in the best interests of the City; and

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. **REQUIRED APPROVAL.** This Contract for Services of Independent Contractor (this “Contract”) is contingent upon Fernley City Council approval.

2. **DEFINITIONS.**

- a. “City” means City of Fernley, County of Lyon, State of Nevada.
- b. “Independent Contractor” means a person or entity that performs services and/or provides goods for the City under the terms and conditions set forth in this Contract.
- c. “Fiscal Year” is defined as the period beginning July 1 and ending June 30 of the following year.

3. **CONTRACT TERM.** This Contract shall be effective from the 1st day of July, 2022, to the 30th day of June, 2023, subject to appropriation.

4. **NOTICE.** All notices or other communications required or permitted to be given under this Contract shall be in writing and shall be deemed to have been duly given if delivered personally in hand, or by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address specified above.

CONTRACT

A Contract For On Call Inspection Services

Notice for the City shall be sent to:

City of Fernley
Engineering Department
595 Silverlace Blvd.
Fernley, NV 89408

Notice for the Contractor shall be sent to:

NCE
Angie Hueftle
1885 South Arlington Avenue, Suite 111
Reno, NV 89509

5. **SCOPE OF WORK:** Scope of Work shall be set forth in Attachment A.
6. **CONSIDERATION.** The parties agree that Contractor will provide the services specified in paragraph (5) at a Fee Schedule outlined in Attachment A.
7. **ATTACHMENTS:** This Contract also incorporates the following attachments (the "Attachments"):
ATTACHMENT C: N/A
ATTACHMENT D: N/A

Should a conflict arise between the terms of the attachment(s) and this contract, the contract term(s) prevails unless specifically addressed in a document separate from the contract and attachments and signed by all parties.

8. **TIMELINESS OF BILLING SUBMISSION.** The parties agree that timeliness of billing is of the essence to this Contract and recognize that the City is on a fiscal year. All billings for dates of service prior to July 1 must be submitted to the City no later than the first Friday in August of the same year.

9. **INSPECTION & AUDIT.**

- a. **Books and Records.** Contractor agrees to keep and maintain under general accepted accounting principles (GAAP) full, true and complete records, contracts, books, and documents as are necessary to fully disclose to the City, the State of Nevada or the United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all state and federal regulations and statutes. Contractor agrees to provide a copy of the file within a reasonable time upon being requested by the City.
- b. **Inspection & Audit.** Contractor agrees that the relevant books, records (written, electronic, computer related or otherwise), including, without limitation,

CONTRACT

A Contract For On Call Inspection Services

relevant accounting procedures and practices of Contractor or its subcontractors, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location of Contractor where such records may be found, with or without notice by the City, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives. All subcontracts shall reflect the requirements of this paragraph.

- c. **Period of Retention.** All books, records, reports, and statements relevant to this Contract must be retained a minimum three years and for five years if any federal funds are used under this Contract. The retention period runs from the date of payment for the relevant goods or services by the City, or from the date of termination of this Contract, whichever is later. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. CONTRACT TERMINATION.

- a. **Termination Without Cause.** Any discretionary or vested right of renewal notwithstanding, this Contract may be terminated without cause by (1) written mutual consent of both parties, or (2) unilateral termination by either party after service of formal Thirty Day (30) written notice as specified in paragraph (4).
- b. **Termination for Non-Appropriation.** The continuation of this Contract beyond the current fiscal year is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the City. The City may terminate this Contract, and Contractor waives any and all claim(s) for damages, effective immediately upon receipt of written notice (or any date specified therein) if for any reason the City's funding from State and/or federal sources is not appropriated or is withdrawn, limited, or impaired.
- c. **Default or Breach.** A default or breach may be declared with or without termination. The following shall constitute a default or breach:
 - i. If Contractor fails to provide or satisfactorily perform any of the conditions, work, deliverables, goods, or services called for by this Contract within the time requirements specified in this Contract or within any granted extension of those time requirements; or
 - ii. If any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or

CONTRACT

A Contract For On Call Inspection Services

- iii. If Contractor becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court; or
- iv. For any other good or sufficient reason, including, but not limited to, dishonesty, fraud, ethical violations, bribery, or other similar acts.
- d. **For Cause Termination and Time to Correct.** This Contract may be terminated by the non-defaulting party upon a declared default or breach only after service of formal written notice as specified in paragraph (4), and the subsequent failure of the defaulting party within 15 calendar days of receipt of that notice to provide evidence, satisfactory to the non-defaulting party, showing that the declared default or breach has been corrected.
- e. **Winding Up Affairs Upon Termination.** In the event that this Contract is terminated for any reason, the parties agree that the provisions of this paragraph survive termination:
 - i. The parties shall account for and properly present to each other all claims for fees and expenses and pay those which are undisputed and otherwise not subject to set off under this Contract. Neither party may withhold performance of winding up provisions solely based on nonpayment of fees or expenses accrued up to the time of termination;
 - ii. Contractor shall satisfactorily complete work in progress at the agreed rate (or a pro rata basis if necessary) if so requested by the City;
 - iii. Contractor shall execute any documents and take any actions necessary to effectuate an assignment of this Contract if so requested by the City; and
 - iv. Contractor shall preserve, protect and promptly deliver possession to the City of all proprietary information in accordance with paragraph (21).
 - v. In the event that dispute(s) arise during the winding up of affairs upon termination, the parties agree to meet and negotiate in good faith to resolve any such dispute(s).

11. REMEDIES. Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, actual damages exclusive of lost profits.

12. ATTORNEYS' FEES, COSTS, AND EXPENSES. Unless otherwise stated herein, the Parties will bear their own attorneys' fees, costs, and expenses in connection with the negotiation, execution, and performance of this Agreement.

13. LIMITED LIABILITY. Contract liability of both parties shall not be subject to punitive damages. Liquidated damages shall not apply unless otherwise specified in the

CONTRACT

A Contract For On Call Inspection Services

Attachments. Damages for any default or breach by the City shall never exceed the amount of funds appropriated for payment under this Contract, but not yet paid to Contractor, for the fiscal year budget in existence at the time of the default or breach.

14. FORCE MAJEURE. Neither party shall be deemed to be in violation of this Contract if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of this Contract after the intervening cause ceases.

15. INDEMNIFICATION.

A. As respects negligent acts, errors or omissions in the performance of professional services, the Contractor agrees to indemnify and hold harmless the City, including their elected officials, officers, employees, and agents from and against reasonable defense costs, including reasonable attorney fees, liability or claims arising directly out of the Contractor's negligent acts, errors or omissions in the performance of its work under the terms of this Agreement, to the extent the liabilities are determined to have been proximately caused by the negligent acts, errors or omissions of the Contractor, its Sub-CONTRACTORS or Sub-Contractors (hereafter "Subs"), their employees, agents, or representatives. City shall provide notice to Contractor of the City's receipt of a written demand/claim or lawsuit arising from Contractor's work.

B. The CONTRACTOR agrees to hold harmless, indemnify, and defend the City, including their elected officials, officers, employees, and agents from loss or liability resulting from any claim, demand, suit, action, or cause of action based on bodily injury, including death, or property damage, caused by any negligent or intentional acts, errors or omissions, either direct or passive, on the part of the Contractor, its Subs, their employees, agents, or representatives, arising from the performance of work under this Agreement. The collective group to be indemnified shall hereinafter be referred to as "Indemnitees." If an "Indemnitees" is found to be liable in the proceeding, then Contractor's obligation here under shall be limited to the proportional share of the liability attributed to the Contractor.

16. INDEPENDENT CONTRACTOR. Contractor is associated with the City only for the purposes and to the extent specified in this Contract, and in respect to performance of the contracted services pursuant to this Contract, Contractor is and shall be an independent contractor and, subject only to the terms of this Contract, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Contract. Nothing contained in this Contract shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the City whatsoever with respect to the indebtedness, liabilities, and obligations of Contractor or any other

CONTRACT

A Contract For On Call Inspection Services

party. Contractor shall be solely responsible for, and the City shall have no obligation with respect to: (1) withholding of income taxes, FICA or any other taxes or fees; (2) industrial insurance coverage; (3) participation in any group insurance plans available to employees of the City; (4) participation or contributions by either Contractor or the Public Employees Retirement System; (5) accumulation of vacation leave or sick leave; or (6) unemployment compensation coverage provided by the City. Contractor shall indemnify and hold the City harmless from, and defend the City against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes or fees. Neither Contractor nor its employees, agents, or representatives shall be considered employees, agents, or representatives of the City.

17. INSURANCE Unless expressly waived in writing by the City, Contractor, as an independent contractor and not an employee of the City, must carry those policies of insurance which have been agreed to by the parties as evidenced by the parties initials in the signature spaces provided in the amounts specified below and pay all taxes and fees incident hereunto. The City shall have no liability except as specifically provided in this Contract. Contractor shall not commence work before:

- a. Contractor has provided the required evidence of insurance to the City, and
- b. The City has approved the insurance policies provided by Contractor. Prior approval of the insurance policies by the City shall be a condition precedent to any payment of consideration under this Contract and the City's approval of any changes to insurance coverage during the course of performance shall constitute an ongoing condition subsequent this Contract. Any failure of the City to timely approve the insurance policies or any changes to the insurance coverage shall not constitute a waiver of the condition.

Insurance Coverage: Contractor shall, at Contractor's sole expense, procure, maintain and keep in force for the duration of this Contract the following insurance conforming to the minimum requirements specified below. Unless specified herein or otherwise agreed to by the City, the required insurance shall be in effect prior to the commencement of work by Contractor and shall continue in force as appropriate until the latter of:

- 1) Final acceptance by the City of the completion of this Contract;
or
- 2) Such time as the insurance is no longer required by the City under the terms of this Contract.

Any insurance or self-insurance available to the City shall be in excess of, and non-contributing with, any insurance required from Contractor. Contractor's insurance policies shall apply on a primary basis. Until such time as the insurance is no longer required by the City, Contractor shall provide the City with renewal or replacement evidence of insurance no less than thirty (30) days before the expiration or replacement of the required insurance. If at any time during the period when insurance is required by this Contract, an insurer or surety shall fail to comply with the requirements of this Contract, as soon as Contractor has knowledge of any such failure, Contractor shall immediately notify the City

CONTRACT

A Contract For On Call Inspection Services

and immediately replace such insurance or bond with an insurer meeting the requirements.

COF

CTR

Workers' Compensation and Employer's Liability Insurance:

INDUSTRIAL INSURANCE. Contractor further agrees, as a precondition to the performance of any work under this Contract and as a precondition to any obligation of the City to make payment under this Contract, to provide the City with a work certificate issued by a qualified insurer in accordance with NRS 616B.627. Contractor agrees, prior to commencing any work under this Contract, to complete and to provide the following written request to the qualified insurer:

_____ has entered into a contract with Owner to perform work from _____ to _____ and requests that an industrial insurance provider qualified and licensed to offer such insurance within the State of Nevada, provide to The City of Fernley, Nevada 1) a certificate of coverage issued pursuant to NRS 616B.627 and 2) notice of any lapse in coverage or nonpayment of coverage that Contractor is required to maintain. The certificate and notice should be mailed to:

City of Fernley
595 Silver Lace Blvd
Fernley, NV 89408

Contractor agrees to maintain required workers compensation coverage throughout the entire term of this Contract. If Contractor does not maintain coverage throughout the entire term of this Contract, Contractor agrees that the City may, at any time the coverage is not maintained by Contractor, order Contractor stop work, suspend this Contract, or terminate this Contract.

Contractor may, in lieu of furnishing a certificate of an insurer, provide an affidavit indicating that Contractor is a sole proprietor and that:

- 1) In accordance with the provisions of NRS 616B.659, Contractor has not elected to be included within the terms, conditions, and provisions of NRS chapters 616A to 616D, inclusive; and
- 2) Contractor is otherwise in compliance with those terms, conditions and provisions.

COF

CTR

Commercial General Liability Insurance:

- 1) Minimum Limits required:

<u>\$1,000,000</u>	General Aggregate
<u>\$1,000,000</u>	Products & Completed Operations Aggregate
<u>\$1,000,000</u>	Personal and Advertising Injury
<u>\$1,000,000</u>	Each Occurrence

CONTRACT

A Contract For On Call Inspection Services

2) Coverage shall be on an occurrence basis and shall be at least as broad as ISO 1996 form CG 00 01 (or a substitute form providing equivalent coverage); and shall cover liability arising from premises, operations, independent contractors, completed operations, personal injury, products, civil lawsuits, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

COF

CTR

Business Automobile Liability Insurance:

Minimum Limit required: **\$100,000** Each Occurrence for bodily injury and property damage. Coverage shall be for "any auto" (including owned, non-owned and hired vehicles).

The policy shall be written on ISO form CA 00 01 or a substitute providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.

COF

CTR

Professional Liability Insurance:

- 3) Minimum Limit required: \$1,000,000 Each Claim, \$2,000,000 Aggregate.
- 4) Retroactive date: Prior to commencement of the performance of this Contract
- 5) Discovery period: Three (3) years after the termination date of this Contract.
- 6) A certified copy of this policy may be required.

COF

CTR

Umbrella or Excess Liability Insurance:

- 1) May be used to achieve the above minimum liability limits.
- 2) Shall be endorsed to state it is "As Broad as Primary Policy"

COF

CTR

Commercial Crime Insurance:

- 1) Minimum Limit required: **\$10,000** Per Loss for Employee Dishonesty
- 2) This insurance shall be underwritten on a blanket form amending the definition of "employee" to include all employees of the Vendor regardless of position or category.

COF

CTR

Performance Security:

- 1) Amount required: \$ 0
- 2) Security may be in the form of surety bond, Certificate of Deposit or Treasury Note payable to the City only.
- 3) The security shall be deposited with the City no later than ten (10) working days following award of this Contract to Contractor.
- 4) Upon successful completion of this Contract, the security and all interest earned, if any, shall be returned to Contractor.

CONTRACT

A Contract For On Call Inspection Services

General Requirements:

- 1) Additional Insured: By endorsement to the general liability insurance policy evidenced by Contractor, ***The City of Fernley, its officers, employees and immune contractors*** shall be named as additional insureds for all liability arising from this Contract.
- 2) Waiver of Subrogation: Each liability insurance policy shall provide for a waiver of subrogation as to additional insureds.
- 3) Cross-Liability: All required liability policies shall provide cross-liability coverage as would be achieved under the standard ISO separation of insureds clause.
- 4) Deductibles and Self-Insured Retentions: Insurance maintained by Contractor shall apply on a first dollar basis without application of a deductible or self-insured retention unless otherwise specifically agreed to by the City. Such approval shall not relieve Contractor from the obligation to pay any deductible or self-insured retention. Any deductible or self-insured retention shall not exceed \$5,000 per occurrence, unless otherwise approved by the City.
- 5) Policy Cancellation: Except for ten days notice for non-payment of premium, each insurance policy shall be endorsed to state that; without thirty (30) days prior written notice to the City, the policy shall not be canceled, non-renewed or coverage and/or limits reduced or materially altered, and shall provide that notices required by this paragraph shall be sent by certified mail to the address shown below.
- 6) Approved Insurer: Each insurance policy shall be:
 - a. Issued by insurance companies authorized to do business in the State of Nevada or eligible surplus lines insurers acceptable to the City and having agents in the State of Nevada upon whom service of process may be made, and
 - b. Currently rated by A.M. Best as "A- VII" or better.

Evidence of Insurance: Prior to the start of any work, Contractor must provide the following documents to the City:

- 1) Certificate of Insurance: The Acord 25 Certificate of Insurance form or a form substantially similar must be submitted to the City to evidence the insurance policies and coverages required of Contractor.
- 2) Additional Insured Endorsement: An Additional Insured Endorsement (CG20 10 or C20 26), signed by an authorized insurance company representative, **must** be submitted to the City to evidence the endorsement of the City as an additional insured per General Requirements, Subsection 1) above.
- 3) Schedule of Underlying Insurance Policies: If an Umbrella or Excess insurance policy is evidenced to comply with minimum limits, a copy of the Underlying Schedule from the Umbrella or Excess insurance policy may be required.

Review and Approval: Documents specified above must be submitted for review and approval by the City prior to the commencement of work by Contractor. Neither

CONTRACT

A Contract For On Call Inspection Services

approval by the City nor failure to disapprove the insurance furnished by Contractor shall relieve Contractor of Contractor's full responsibility to provide the insurance required by this Contract. Compliance with the insurance requirements of this Contract shall not limit the liability of Contractor or its sub-contractors, employees or agents to the City or others, and shall be in addition to and not in lieu of any other remedy available to the City under this Contract or otherwise. The City reserves the right to request and review a copy of any required insurance policy or endorsement to assure compliance with these requirements.

Required Mailing: Contractor will mail all required insurance documents to the City at the address identified in section 4 of this Contract.

18. COMPLIANCE WITH LEGAL OBLIGATIONS. Contractor shall procure and maintain for the duration of this Contract any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract. Contractor will be responsible to pay all taxes, assessments, fees, premiums, permits, and licenses required by law. Real property and personal property taxes are the responsibility of Contractor in accordance with NRS 361.157 and 361.159. Contractor agrees to be responsible for payment of any such government obligations not paid by its subcontractors during performance of this Contract.

19. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of this Contract or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other default or breach.

20. SEVERABILITY OF PARTS. If any portion, provision, or part of this Agreement is held, determined, or adjudicated by any court of competent jurisdiction to be invalid, unenforceable, or void for any reason whatsoever, each such portion, provision, or part shall be severed from the remaining portions, provisions, or parts of this Agreement, and such determination or adjudication shall not affect the validity or enforceability of such remaining portions, provisions, or parts.

21. ASSIGNMENT/DELEGATION. To the extent that any assignment of any right under this Contract changes the duty of either party, increases the burden or risk involved, impairs the chances of obtaining the performance of this Contract, attempts to operate as a novation, or includes a waiver or abrogation of any defense to payment by the City, such offending portion of the assignment shall be void, and shall be a breach of this Contract. Contractor shall neither assign, transfer nor delegate any rights, obligations or duties under this Contract without the prior written consent of the City.

22. CITY OWNERSHIP OF PROPRIETARY INFORMATION. Any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps,

CONTRACT

A Contract For On Call Inspection Services

data, system designs, computer code (which is intended to be consideration under this Contract), or any other documents or drawings, prepared or in the course of preparation by Contractor (or its subcontractors) in performance of its obligations under this Contract shall be the exclusive property of the City and all such materials shall be delivered into the possession of the City by Contractor upon completion, termination, or cancellation of this Contract. Contractor shall not use, willingly allow, or cause to have such materials used for any purpose other than performance of Contractor's obligations under this Contract without the prior written consent of the City. Notwithstanding the foregoing, the City shall have no proprietary interest in any materials licensed for use by the City that are subject to patent, trademark or copyright protection.

23. PUBLIC RECORDS. Pursuant to NRS 239.010, information or documents received from Contractor may be open to public inspection and copying. The City will have the duty to disclose unless a particular record is made confidential by law or a common law balancing of interests. Contractor may label specific parts of an individual document as a "trade secret" or "confidential," provided that Contractor thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any document that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the records.

24. FEDERAL FUNDING. In the event federal funds are used for payment of all or part of this Contract:

- a. Contractor certifies, by signing this Contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. This certification is made pursuant to the regulations implementing Executive Order 12549, Debarment and Suspension, 28 C.F.R. pt. 67, § 67.510, as published as pt. VII of the May 26, 1988, Federal Register (pp. 19160-19211), and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.
- b. Contractor and its subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.
- c. Contractor and its subcontractors shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, P.L. 93-112, as amended, and any relevant program-specific regulations, and shall not discriminate against any employee or offeror for employment because of race, national origin, creed, color, sex, religion, age, disability or handicap condition (including AIDS and AIDS-related conditions.)

25. LOBBYING. The parties agree, whether expressly prohibited by federal, state or local law, or otherwise, that no funding associated with this contract will be used for any

CONTRACT

A Contract For On Call Inspection Services

purpose associated with or related to lobbying or influencing or attempting to lobby or influence for any purpose the following:

Any federal, state, county or local agency, legislature, commission, counsel or board;

Any federal, state, county or local legislator, commission member, counsel member, board member, or other elected official; or

Any officer or employee of any federal, state, county or local agency; legislature, commission, counsel or board.

26. GENERAL WARRANTY: Contractor warrants that all services, deliverables, and/or work product under this Contract shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry; shall conform to or exceed the specifications set forth in the incorporated attachments; and shall be fit for ordinary use, of good quality, with no material defects.

27. PROPER AUTHORITY. The parties hereto represent and warrant that the person executing this Contract on behalf of each party has full power and authority to enter into this Contract. Contractor acknowledges that as required by statute or regulation this Contract is effective upon signing and only for the period of time specified in this Contract. Any services performed by Contractor before this Contract is effective or after it ceases to be effective are performed at the sole risk of Contractor.

28. GOVERNING LAW; VENUE. This Agreement will be interpreted, and the rights and liabilities of the Parties determined, in accordance with the laws of the State of Nevada, excluding its conflict of laws rules. In any action or proceeding arising under this Agreement, each Party to this Agreement hereby (a) consents to the jurisdiction of Nevada Courts, and of the pertinent appellate courts, and consents to the venue of such action or proceeding in Lyon County, Nevada courts, (b) irrevocably agrees that all actions or proceedings arising out of or relating to this Agreement shall be litigated in such courts, and (c) consents to personal jurisdiction within Lyon County, Nevada. Each Party to this Agreement accepts for itself, generally and unconditionally, the exclusive jurisdiction and venue of the aforesaid courts and waives any defense of lack of personal jurisdiction, improper venue or inconvenient forum or any similar defense, and irrevocably agrees to be bound by any non-appealable judgment rendered thereby in connection with this Agreement.

29. INTEGRATED AGREEMENT. This Agreement contains the entire agreement and understanding among the Parties regarding the matters set forth herein and supersedes all previous negotiations, discussions, and understandings regarding such matters. The Parties acknowledge and represent that they have not relied on any promise, inducement, representation, or other statement made in connection with this Agreement that is not expressly contained herein. The terms of this Agreement are contractual and not a mere recital.

CONTRACT

A Contract For On Call Inspection Services

30. COUNTERPARTS. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, and all of such counterparts together shall constitute one and the same instrument.

31. ADVICE OF COUNSEL. Each Party hereto represents and agrees that it has had the opportunity to seek and has sought from attorneys any such advice as it deems appropriate with respect to signing this Agreement or the meaning of it. Each party has undertaken such independent investigation and evaluation as it deems appropriate and is entering into this Agreement in reliance on that and not in reliance on any advice, disclosure, representation or information provided by or expected from any other Party or Party's attorneys. This is an agreement of settlement and compromise, made in recognition that the Parties may have different, disputed or incorrect understandings, information and contentions, as to facts and law, and with each Party compromising and settling any potential correctness or incorrectness of its understandings, information and contentions as to the facts, law, claims, duties, disclosures and conduct occurring before or during the entry into this Agreement. No conduct, failure, misunderstanding or misinformation and no claim of fraud or fraudulent inducement occurring prior to or in connection with the execution hereof shall be a ground for rescission hereof or for recovery of damages, except as otherwise expressly provided herein.

32. MODIFICATION; NO WAIVER. The provisions of this Agreement, including this paragraph, may be modified or waived only in writing signed by all Parties. No waiver with respect to any portion of this Agreement shall apply to any other portion of the Agreement, and a waiver on one occasion shall not be deemed to be a waiver of the same or any other breach on a future occasion. No course of dealing by any Party, and no failure, omission, delay, or forbearance by any Party in exercising such Party's rights or remedies shall be deemed a waiver of any such rights or remedies or a modification of this Agreement.

33. INTERPRETATION OF AGREEMENT. This Agreement shall be construed without regard to the Party or Parties responsible for its preparation, and shall be deemed to have been prepared collectively by the Parties. Any ambiguity or uncertainty arising herein shall not be interpreted or construed against any Party hereto on the basis that a Party prepared or drafted a particular provision of this Agreement.

34. COOPERATION OF PARTIES. The Parties agree to cooperate to accomplish the purpose of this Agreement and to execute any and all supplementary documents and to take all additional actions not inconsistent with the terms set forth in this Agreement that are necessary and appropriate to give full force and effect to the terms and intent of this Agreement.

35. NON-DISCRIMINATION. In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age, including, without limitation, with regard to employment,

CONTRACT

A Contract For On Call Inspection Services

upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without limitation, apprenticeship. The contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

36. ACKNOWLEDGMENT AND EXECUTION. In witness whereof, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby:

CITY MANAGER

City of Fernley

Telephone: 775-784-9900

DATED this _____ day of _____, 20__22__.

CITY ATTORNEY

City of Fernley

Brandi Jensen, Esq.

Telephone: 775-784-9861

Fax: 775-784-9868

I have reviewed this Contract and approve as to its legal form.

BRANDI JENSEN
DATED this _____ day of _____, 20__22__.

CITY'S ORIGINATING DEPARTMENT:

City of Fernley Department: ENGINEERING

DEREK STARKEY, Department Director
DATED this _____ day of _____, 20__22__.

CONTRACT

A Contract For On Call Inspection Services

CONTRACT ACCEPTANCE AND EXECUTION:

The City Council of Fernley, Nevada, at their publicly noticed meeting of _____, 20__22__, approved the acceptance of this Contract. Further, the City Council authorizes the Mayor of Fernley, Nevada to set his hand to this document and record his signature for the execution of this Contract in accordance with the action taken.

FERNLEY:

ROY EDGINGTON JR, MAYOR

DATED this _____ day of _____, 20__22__.

ATTEST:

KIM SWANSON, CITY CLERK

DATED this _____ day of _____, 20__22__.

CONTRACT

A Contract For On Call Inspection Services

_____, being first duly sworn, deposes and says: That _____ is the Contractor; that _____ has read the foregoing Contract; and that _____ understands the terms, conditions, and requirements thereof.

CONTRACTOR

BY: _____

TITLE: _____

FIRM: _____

BUSINESS LICENSE #: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ / Fax #: _____

E-mail Address: _____

(Signature of Contractor)

DATED this _____ day of _____, 20__.

STATE OF _____)
) ss
County of _____)

On this _____ day of _____, in the year 20__, before me,
_____/ Notary Public, personally appeared, personally known to me or
proved to me on the basis of satisfactory evidence to be the person whose name is
subscribed to this instrument, and acknowledged that he executed it.

WITNESS my hand and official seal.

Notary's Signature

My Commission Expires: _____

June 22, 2022

Derek W. Starkey, P.E.
City Engineer
City of Fernley Public Works
595 Silver Lace Blvd.
Fernley, NV 89408

Subject: City of Fernley On-Call Inspection and Support Services

Dear Mr. Starkey:

NCE is pleased to submit this proposal to provide miscellaneous inspection and engineering support services to the City of Fernley.

Project Understanding: The City of Fernley is interested in having NCE provide miscellaneous inspection and engineering support services for fiscal years 2022-2023 & 2023-2024.

Pursuant to our discussions, it is our understanding we will have two main tasks under one contract. One task will be for construction inspection and field support. The second task will be for engineering and office support.

We understand your needs may include, but are not limited to: providing quality assurance inspection (QAI) services including office and field support for Development and Capital Improvement Projects as well as other field or construction inspection support requested by the City.

Task 1: Construction Inspections and Field Support: Services including inspections typically conducted by the engineering division for new and existing sub-divisions and new development, including but not limited to the installation of water distribution improvements, sewer infrastructure improvements, street and public right-of way excavation, roadway construction, surface treatments, drainage improvements, driveway, sidewalk and curb ramp improvements, preconstruction and construction meetings and other miscellaneous office and field support services requested by the City.

Task 2: Engineering and Office Support: Services including review of plans, specifications and submittals, third party constructability plan review, attend meetings for proposed projects within the public right-of-way, engineering and AutoCAD support, GIS support, providing cost effective recommendations for improving existing conditions of the City's infrastructure, including drainage issues and surface improvements, and other miscellaneous office support requested by the City.

Reno, NV

1885 S. Arlington Ave., Suite 111
Reno, NV 89509
(775) 329-4955

Proposed Schedule: NCE will work with the City on the schedule for each project and can generally respond within twenty-four (24) hours of a request from the City.

Compensation: NCE proposes to provide our services on a time and expense basis in accordance with our Standard Schedule of Charges, included as Attachment 1. All services will be on-call per request by the City. The City can choose to redefine tasks as needed in this proposal. It is also understood that funds can be moved between tasks if requested by the City.

Task 1 will be funded through development fees collected by the City. Compensation amounts will vary and will be determined based on the type of project. Individual task order authorizations will be provided by the City for each Project.

Task 2 will be funded by either a separate not-to-exceed contract or through a task order authorization issued by the City to be allocated between tasks or sub-tasks as determined by the City.

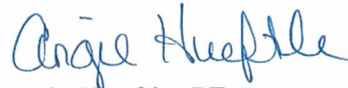
We appreciate the opportunity to submit this proposal and look forward to continuing to work with the City. If you have any questions about this proposal or would like additional information, please feel free to call the undersigned at 775.329.4955.

Sincerely,

 NCE



Dick Minto
Senior Construction Manager



Angie Hueftle, PE
Principal Engineer

Attachment 1 – NCE FY 2022 Schedule of Charges

SCHEDULE OF CHARGES 2022

PROFESSIONAL SERVICES

Principal	\$285/hour
Associate.....	\$225/hour
Senior II.....	\$195/hour
Senior I.....	\$185/hour
Project II.....	\$175/hour
Project I.....	\$165/hour
Staff II.....	\$155/hour
Staff I.....	\$145/hour

TECHNICAL SERVICES

Senior Construction Manager*.....	\$150/(\$175-PW)/hour
Construction Inspector*	\$130/(\$155-PW)/hour
Senior Designer.....	\$160/hour
CADD Designer	\$140/hour
CADD Technician	\$125/hour
Senior Field Scientist.....	\$125/hour
Field Scientist	\$105/hour
Senior Technician*	\$130/(\$155-PW)/hour
Field/Engineering Technician*	\$105/(\$130-PW)hour
Project Administrator	\$115/hour
Technical Editor.....	\$105/hour
Clerical.....	\$95/hour

CONTRACT LABOR

From time to time, NCE retains outside professional and technical labor on a temporary basis to meet peak workload demands. Such contract labor will be charged at regular Schedule charges.

LITIGATION SUPPORT

Engineer/Scientist	\$345/hour
Court Appearances & Depositions	\$575/hour

EQUIPMENT

Plotter Usage	(separate fee schedule)
Truck	\$105/day
Automobile	IRS Standard Mileage Rate+15%
Falling Weight Deflectometer Testing	\$4,000/Day
Coring.....	\$5,000/Day
Environmental Equipment.....	(separate fee schedule)

OUTSIDE SERVICES

Rental of equipment not ordinarily furnished by NCE and all other costs such as special printing, photographic work, travel by common carrier, subsistence, subcontractors, etc. cost + 15%

COMMUNICATION/ REPRODUCTION

In-house costs for postage, printing and copying.....
.....project labor charges x 5%

TERMS

Billings are payable upon presentation and are past due 30 days from invoice date. A finance charge of 1.5% per month, or the maximum amount allowable by law, will be charged on past-due accounts. NCE makes no warranty, either expressed or implied, as to its findings, recommendations, specifications, or professional advice except that they are prepared and issued in accordance with generally accepted professional practice.

*A surcharge of \$25/hour applied for technicians and construction inspectors to comply with Prevailing Wage (PW) per requirements of California Department of Industrial Relations.



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Brandi Jensen, City Attorney

FINANCIAL IMPACT:

Yes: No:

CURRENTLY BUDGETED:

Yes: No: x

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to approve Amendment 2 to the One Nevada Agreement on Allocation of Opioid Recoveries.

AGENDA ITEM BRIEF:

The Nevada Attorney General's office is requesting the approval of Amendment 2 to the distribution procedure of funds received as part of the Opioid settlement.

RECOMMENDED MOTION:

I move to Approve Amendment 2 to the One Nevada Agreeemnet on Allocation of Opioid Recoveries.

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Negotiate with the Attorney general on different distribution methods.

BACKGROUND:

Previously the Council approved the One Nevada Agreement on Allocation of Opioid Recoveries. This

amendment provides:

Unless otherwise directed by court order, the State of Nevada shall receive any Recoveries described in Paragraph 2, divide the Recoveries in accordance with the percentages and terms of the One Nevada Agreement and all Amendments thereto, calculate payments to the Local Governments, calculate attorney's fees for all Local Governments pursuant to the Local Governments' applicable contingency fee agreements with their Counsel or in accordance with Amendment No. 1 where it applies, and remit payments to Local Governments and attorneys' fees to the appropriate Counsel on behalf of the Local Governments.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

N/A

FINANCIAL IMPLICATIONS:

The City will receive funds under the agreement. These funds will be a restricted use pursuant to the agreement (used for opioid mitigation).

ATTACHMENTS:

1. Amendment 2 to One Nevada Agreement

AMENDMENT NO. 2

TO ONE NEVADA AGREEMENT ON ALLOCATION OF OPIOID RECOVERIES

This Amendment No. 2 shall amend Section B Paragraph 3 of the One Nevada Agreement on Allocation of Opioid Recoveries regarding the receipt, division, and allocation of Recoveries as follows:

3. Unless otherwise directed by court order, the State of Nevada shall receive any Recoveries described in Paragraph 2, divide the Recoveries in accordance with the percentages and terms of the One Nevada Agreement and all Amendments thereto, calculate payments to the Local Governments, calculate attorney's fees for all Local Governments pursuant to the Local Governments' applicable contingency fee agreements with their Counsel or in accordance with Amendment No. 1 where it applies, and remit payments to Local Governments and attorneys' fees to the appropriate Counsel on behalf of the Local Governments.

I have all necessary power and authorization to execute this Amendment No. 2, on behalf of the Governmental Entity listed below, which shall have an effective date of June 15, 2022.

Name of Governmental Entity:

Signature:

Name:

Title:

Date:



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Denise Lewis, Finance Director

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes: No: x	Yes:x No:	100.610

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

(Possible Action) to authorize the transfer of salary and benefit budget appropriations totaling \$82,552 for the development coordinator position from the planning department to the City manager's department.

AGENDA ITEM BRIEF:

Salaries and benefits for the development coordinator position were budgeted for in the planning department's budget even though the City Manager is the supervisor of this position.

As per NRS 354.598005 (5)(b)(1)(2), the person designated to administer the budget may transfer appropriations between functions or programs within a fund, if:

City Council is advised of the transfer of budget appropriations at the next scheduled meeting; and the action is recorded in the official minutes of the meeting.

RECOMMENDED MOTION:

I move to authorize the transfer of salary and benefit budget appropriations totaling \$82,552 for the development coordinator position from the planning department to the City manager's department.

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Keep the budget as is and not approve the transfer of appropriations.

BACKGROUND:

City Council approved salary and benefit budget appropriations for a development director position for fiscal year 2022-2023. These appropriations were originally budgeted in the planning department. Staff believes it is more appropriate and recommends moving the \$82,552 in salary and benefit appropriations to the City Manager's budget given the City Manager is the supervisor for this position. This action does not increase total appropriations. It simply moves them from one department in the general fund to another department in the general fund.

It is allowed by NRS 354.598005 (5)(b) that the person designated to administer the budget may transfer appropriations between any function within a fund. It is required by NRS 354.598005 (5)(b)(1)(2) that City Council is advised of such actions and that it is recorded in the official minutes of the meeting.

NRS 354.529 "Function" defined. "Function" means a group of related activities aimed at accomplishing a major service or regulatory program for which a governmental unit is responsible, including, without limitation, general government, public safety, public works, health, welfare, culture and recreation, conservation of natural resources, urban redevelopment and housing, economic development and assistance, economic opportunity and activities relating to the judiciary.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 354.598005

FINANCIAL IMPLICATIONS:

There is no increase in appropriations.

ATTACHMENTS:

None



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Kari Weitzel

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:X No:	Yes:X No:	510-395-910, 520-395-910

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to Approve the Will-Serve Request from Genica NV, LLC for 61 ERC's for Water and 61 ERC's for Sewer for 61 homes for Donner Trails Phase 12B for Lyon County Parcel 021-201-57 located in Fernley, NV 89408

AGENDA ITEM BRIEF:

1. Genica NV, LLC for Donner Trails phase 12B is seeking a Will-Serve for 61 homes in Fernley, Nv.
2. This project requires 61 ERC's of water, which is equal to 68.32 acre-ft, for water and 61 ERC's for sewer for 61 homes.
3. Genica NV, LLC and Genica Shadow Hills, LLC has 90.84-acre-feet of beneficial interest in water rights.

RECOMMENDED MOTION:

"I move to approve the Will-Serve Request from Genica NV, LLC for 61 ERC's for Water and 61 ERC's for Sewer for 61 home for Donner Trails Phase 12B for Lyon County Parcel 021-201-57 located in Fernley, NV 89408."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

N/A

BACKGROUND:

Genica NV, LLC is seeking a will-serve for 61 ERC's for Water and 61 ERC's for Sewer for 61 homes for Lyon County Parcel 021-121-19 located in Fernley, NV 89408.

Water and sewer connection fees will be paid at the time of building permit issuance of \$570,174.00.

As of July 2022, Genica NV, LLC has a combined beneficial interest of 90.84 AF that they have acquired from multiple parties. A portion of that is going to be used for 61 homes for phase 12B of Donner Trails for Lyon County Parcel 021-201-57 located in Fernley, NV 89408

After the issuance of this will serve Genica NV, LLC will have 22.52 AF of water left for future development.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

FINANCIAL IMPLICATIONS:

ATTACHMENTS:

1. 2022.06.24 Assignment to Will Serve Donner Trails 12B
2. 2022.07.20 Will Serve -Genica DTPH12b

APN: 021-201-57

When Recorded mail to:

City of Fernley

595 Silver Lace Blvd.

Fernley, NV 89408

**ASSIGNMENT OF BENEFICIAL INTEREST IN WATER RIGHTS BANKING AND
DEDICATION AGREEMENT TO WILL SERVE COMMITMENT**

This Assignment of Beneficial Interest in Water Rights to Will Serve Commitments is executed this 29 day of June, 2022, by LARRY LES (hereinafter "Assignor").

1. Assignor is the holder of the beneficial interest in that certain Water Rights Dedication and Banking Agreement (hereinafter the "Banking Agreement") by and between Geniva NV, LLC + Geniva Shadow Hills "C" and the City of Fernley executed on the ____ day of _____.
2. Assignor desires to assign a portion of its beneficial interest in and to 68.32 acre-feet of water dedicated pursuant to the Banking Agreement to the City of Fernley in exchange for 666 Equivalent Residential Credits (hereinafter "ERC's") of water utility will-serve commitments for the development of the Donner Trail Estates 12B project located at Donner Trails - Fernley, NV. (hereinafter the "Project").
3. Assignor acknowledges and agrees that the assignment of the beneficial interest transferred herein is for the benefit of the Project. Assignor also acknowledges and agrees that the will-serve commitments issued pursuant to this Agreement shall be an appurtenance to the parcel(s), lot(s), or portion of the Project that will receive water service under said will-serve commitment. In the event that said parcel(s), lot(s), or portion of the project is encumbered by a mortgage, deed of trust, or other similar encumbrance, Assignor agrees that said mortgage, deed of trust, or other similar encumbrance shall also encumber the will-serve commitments issued pursuant to this Agreement in the same manner and to the same extent as it encumbers the parcel(s), lot(s), or portion of the project.
4. Assignor acknowledges and agrees that by assigning its beneficial interest in the water rights under this Agreement in exchange for the will-serves commitments described in Section 2 herein, that Assignor is forever relinquishing all of its right, title, and interest in and to the beneficial interest assigned herein and that the terms of this Agreement shall, to the extent applicable, replace and supersede the terms of the Banking Agreement identified in Section 1 herein, as well as any amendments or assignments of said Banking Agreement, with respect to the assigned water rights. Assignor further acknowledges and agrees that upon execution of this Agreement it shall have no further claim, right, title, or interest in or to the beneficial interest assigned herein.

5. Assignor agrees to indemnify and hold harmless the City of Fernley from any with respect to any claims, damages, or losses (including, without limitation, attorney's fees and costs), whether known or unknown, disclosed or undisclosed arising from, by reason of, or in connection with any part or portion of this Agreement.
6. Assignor hereby represents and warrants it has not sold, assigned, transferred, conveyed, hypothecated, pledged, or otherwise disposed of or encumbered the beneficial interest transferred herein, or the water right underlying said beneficial interest, except as provided in this Agreement, the Banking Agreement, or any amendments or assignments of the Banking Agreement. Assignee acknowledges and agrees that the City makes no representation or warranty as to the title of the water rights underlying the beneficial interest transferred herein, and that in the event that any claim or dispute relating to said title renders such water rights unusable within, or unavailable to, the City's water delivery system, the City may, at its sole discretion and in addition to any other remedies provided for by law, rescind the Banking Agreement and withhold the will-serve commitments provided for therein. In the event that such will-serve commitments have already been issued, the City, in addition to any other remedies provided by law, may require Assignor to immediately acquire and dedicate to the City the same quantity and quality of water rights as the water rights rendered unusable within, or unavailable to, the City's water delivery system and/or the City may assign any other banked or reserved water rights in which Assignor has a beneficial interest, and that remain uncommitted to will-serve commitments, to the will-serve commitments already issued pursuant to this Agreement or the Banking Agreement.
7. This Agreement shall be governed, interpreted and construed by, through and under the laws of the State of Nevada in the district courts of Lyon County, Nevada.
8. All costs incurred by the City of Fernley in enforcing this Agreement including, without limitation, reasonable attorneys' fees through any court proceedings shall be paid by Assignee.
9. This Agreement shall inure to the benefit of and be binding upon the parties hereto as well as their successors and assigns, heirs and personal representatives.

[Signature pages follow]

ASSIGNOR.

Company Name

[Signature] LARRY LES.
MANAGER

Signatory Name and Title

Date: _____, 20__

STATE OF NV)

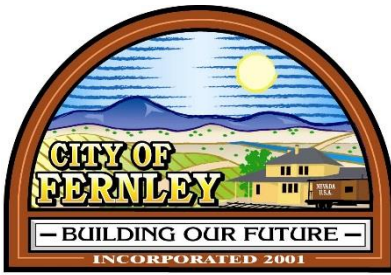
) ss.

COUNTY OF Lyon)

This instrument was acknowledged before me on the 27 day of June,
2022, by Larry Les.

[Signature]
NOTARY PUBLIC





THE CITY OF FERNLEY
Public Works Department
595 Silver Lace Blvd
Fernley, NV 89408

The City of Fernley hereby certifies that it has adequate water distribution capability and wastewater treatment plant capacity to serve and will serve: Genica Nv, LLC (Donner Trails 12B) Development/ project or property located at APN 021-201-57 Fernley, Nevada with 66 water connections and/or 66 sewer connections for Service to 66 unit, upon the following terms and conditions:

1. All applicable fees and costs must be paid, including the utility connection fees in effect at the time of this will-serve certification, currently \$7,000 per unit for water and \$5,000 per Equivalent Residential Capacity (ERC) unit for sewer.
2. Applicant must comply with all applicable laws, statutes, ordinances and regulations.
3. Said fees and costs must be paid in full before connections to water/sewer services. **Connections to utility service shall be completed within a reasonable time from the date of original approval of this Will-Serve by the Fernley City Council. Failure to diligently pursue connection to utility service may render this Will-Serve null and void.** Public Works, at its sole discretion, shall have authority to determine whether connection to utility service is being diligently pursued and, with sixty (60) days written notice to the party who requested this Will-Serve, may cancel this Will-Serve for failure to connect to utility service within a reasonable time.
4. Service shall be provided only to the project or site identified above. **This Will-Serve is limited to the project or property described above and is not transferable to any other project or property.**
5. Service shall be provided pursuant to the plans and specifications submitted to and approved by Public Works. Service shall not be provided pursuant to any alterations to or deviation from the same without the express written approval of Public Works Department. **This will-serve is to be considered conditional unless public improvement plans have been approved by Public Works.**
6. This Will-Serve applies to: APN# 021-201-57

Fernley City Council Approved Will-Serve on July 20, 2022

Public Works Director

Mayor – City of Fernley

Applicant

Date



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:x No:	Yes:x No:	100-575-742

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Parks Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

AGENDA ITEM BRIEF:

This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Parks Department to be utilized in the day to day operations of the City's parks and facilities repair and maintenance operations.

RECOMMENDED MOTION:

I move to Approve the purchase of one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for an of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the

current price of the vehicle.

BACKGROUND:

This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS:

This purchase was budgeted at \$52,800 using G.L number 100-575-742 within the Parks Department portion of the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: Barry Williams, Deputy Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

100-575-742

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Parks Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

Agenda Item Brief: This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Parks Department to be utilized in the day to day operations of the City's parks and facilities repair and maintenance operations.

Recommended Motion:

"I move to Approve the purchase of one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for an of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25".

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

PROJECT SUMMARY: If approved, this vehicle will be assigned to the Parks Department to be utilized in day to day operations. The Department typically relies on vehicles and equipment for 24-hour emergency response relating to the City's parks repair and maintenance operations.

If approved, this equipment will replace one of the aged and problematic Vehicles that is currently assigned to the Department which is beyond the service miles and age recommended for vehicle replacement per the City of Fernley Fleet Management Program (PMP) Policy, Table 4.1 Appendix 8, Replacement Standard. If approved, Staff anticipates disposal of the current asset per the FMP Policy.

Staff has chosen a Ford, F250 pickup truck with utility body from Corwin Ford because this vehicle meets the desired specifications needed for the Departments operations. Corwin Ford participates in the Sourcewell State Purchasing Program (formerly NJPA). This program allows the City of Fernley to obtain better vehicle pricing and better vehicle availability.

BACKGROUND: This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

ALTERNATIVES: Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle.

LEGAL IMPLICATIONS: NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS: This purchase was budgeted at \$52,800 using G.L number 100-575-742 within the Parks Department portion of the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



Invoice # 06/28/22

Corwin Ford
RENO

Sales • Service • Used Cars & Trucks

3600 KIETZKE LANE
RENO, NV 89502

P.O. BOX 12970
RENO, NV 89510

775-829-3206 Direct

Customer #City of Fernley

Sold to:

Address:

City, State &
Zip Code

VIN	Year	Make	Model
	2023	Ford	F250
Salesperson	Deal #		PO #
Dennis Tagliarino			

2023 F250 REG CAB XL UTILITY BODY W/BOXES

**STANDARD V8 GAS ENGINE, POWER LOCKS AND
WINDOWS, TILT, CRUISE, SPARE**

\$37,209

REAR CAMERA PREP KIT \$515

ROYAL BODY WITH OPEN TOP LIDS+ RACK \$12,790

TOTAL \$50,514 PLUS \$29.25 TITLE

***Thank you for your
business!***

MAJOR PRODUCT CHANGES

OVERVIEW

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers. With three Ford designed and built powertrains, an aggressive appearance and class exclusive features, the Super Duty® will continue to dominate the over 8500 lbs. segment for many years to come.

To learn more about the features on this vehicle, go to www.fordsourcebook.com

MODEL/SERIES/AVAILABILITY

- XL, XLT, Lariat, King Ranch®, Platinum, Limited

MECHANICAL

- ★ **New/Changed**
 - King Ranch® and Platinum changed to 4x4 standard
 - 3.55 Electronic-Locking Rear Axle (X3J) available on F-250 with 6.7L Power Stroke® Diesel engine (99T) without High Capacity Trailer Tow Package (535/53Q)
- **Deleted**
 - King Ranch® and Platinum 4x2 drivetrain

EXTERIOR

- ★ **New/Changed**
 - Platform Running Boards (18B) changed from standard to optional – XLT DRW
 - 20" Bright Machined Cast Aluminum Wheels changed to standard on King Ranch® SRW
 - Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals (54K) – Included in XL Power Equipment Group (90L)
- **Deleted**
 - 18" Wheels on King Ranch® (647/64C)
- ★ **New Colors**
 - Atlas Blue (B3)
- **Deleted Paint Colors**
 - Lithium Gray
 - Velocity Blue

INTERIOR/COMFORT

- ★ **New/Changed**
 - Baja Interior – Lariat only
 - Navy Pier / Light Slate – Limited Interior only
 - Center armrest storage with 40/20/40 split bench front seat – XL

INTERIOR/COMFORT (continued)

- **Deleted**
 - Medium Light Camel – XLT

SAFETY/SECURITY

- ★ **New/Changed**
 - None
- **Deleted**
 - Underhood Service Light

FORD CO-PILOT360™ TECHNOLOGY

- ★ **New/Changed**
 - None

FUNCTIONAL

- ★ **New/Changed**
 - SYNC® 4 with 12" LCD Capacitive Touchscreen – standard on Lariat, King Ranch®, Platinum and Limited
 - SiriusXM® with 360L – standard on Lariat, King Ranch®, Platinum and Limited
 - 360-Degree Dual Beacon LED Warning Strobes replaced the 4-Corner LED Warning Strobes (91S/91G)
 - Tailgate Step – changed to standard on King Ranch®
- **Deleted**
 - None

PACKAGES

- ★ **New/Changed**
 - Lariat Sport Appearance Package (17K)
- **Deleted**
 - None

Product Changes and Features Availability

Features, options and package content subject to change. Please check www.fmcdealer.com for the most current information.

MAJOR PRODUCT SUMMARY

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers.

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

XL	XL ¹	Lariat
MECHANICAL - Brakes – Four-Wheel Disc Anti-Lock Brake System (ABS) - Electronic-Shift-On-the-Fly (ESOF) (4x4 only) - Engine - F-250/F-350 – 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel) - F-450 – 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 - Transmission - TorqShift®-G six-speed automatic w/SelectShift® (F-250 w/6.2L gas) - TorqShift® ten-speed automatic w/Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA F-250 w/6.2L gas engine) EXTERIOR - Bumpers – front & rear, black painted - Fender vents – front - Glass – solar-tinted - Grille – black painted - Handles – door & tailgate, black - Jack 2-Ton mechanical (250/350 SRW) 4-Ton hydraulic (350 DRW/450) - Splash Guards/Mud Flaps – Front (F-450 only) - Tailgate – Removable w/key lock “Three-Blink” lane change signal - Tow hooks – front, two (2) - Trailer Sway Control - Trailer Tow Package – 7-wire harness w/relays & 7/4 pin connector - Wheels - F-250/F-350 SRW – 17” Argent Painted Steel w/painted hub covers/center ornaments - F-350 DRW – 17” Argent Painted Steel (hub covers/center ornaments not included) - F-450 – 19.5” Forged Polished Aluminum w/bright hub covers/center ornaments - Manual Locking Hubs (4x4) - Spare tire, wheel, lock & carrier - Windshield wipers – intermittent INTERIOR/COMFORT 2.3” Productivity Screen in IP Cluster - Air conditioning – manual, single zone - Cabin Air Particulate Filter - Door-trim – armrest/grab handle & reflector - Floor covering – Black, full length vinyl - Instrumentation – Multi-Function switch message center w/Ice Blue® Lighting - Mirror – rearview 11.5” day/night - Outside Temperature Display - Overhead console w/dual storage bins and map lights (NA Regular Cab) - Powerpoint – auxiliary two (2) in instrument panel - Scuff plates – front, color-coordinated - Seats – Front, HD vinyl, 40/20/40 split bench w/center armrest, cupholder and storage (manual lumbar – driver’s side), front center-seat w/integrated restraint - Steering wheel – black urethane with tilt and telescoping steering wheel/column; includes three (3) button message control - Sun visors – color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror - Window – Rear, fixed SAFETY/SECURITY - AdvanceTrac® with RSC® (Roll Stability Control™) - Belt-Minder® (front safety belt reminder) - Chime & flashing warning light on I/P if belts not buckled - Center High-mounted Stop Lamp (CHMSL) - Driver and passenger frontal airbag; passenger side deactivation Switch - Engine Only Traction Control (DRW only) - Headlamps – Quad beam jewel effect halogen - Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only - Mirrors – manually telescoping two-way fold trailer tow with manual glass - Rear View Camera - Safety belts – w/height adjustment D-ring - Safety Canopy® System (incl. side-curtain airbags) - SecuriLock® Passive Anti-Theft System; includes MyKey® owner controls feature (PATS) - SOS Post-Crash Alert System™ - Stationary Elevated Idle Control FORD CO-PILOT360™ TECHNOLOGY - AutoLamp (Auto On/Off Headlamps) - Hill Start Assist FUNCTIONAL - Audio – AM/FM stereo/MP3 Player (four (4)) - FordPass Connect™ (4G) 4G LTE Wi-Fi hotspot connects up to 10 devices¹ - Remotely start, lock and unlock vehicle² - Schedule specific times to remotely start vehicle - Locate parked vehicle² - Check vehicle status - Note: Ford Telematics™ and Data Services Prep included for Fleet Only; FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-Ford or 833-327-3673. - Rear axle - Non-Limited-Slip (F-250 and F-350) 4.30 Limited-Slip (F-450) - SYNC® - Enhanced Voice Recognition Communication and Entertainment System 911 Assist® 4.2” LCD Center Stack screen - AppLink® - Smart-Charging USB-C port – one (1)	<i>All XL content, plus:</i> EXTERIOR - BoxLink™ (includes four (4) premium locking cleats) - Bumper – front & rear, chrome - Grille – two bar, bright chrome - Wheels – F-250/F-350 SRW – 18” Sparkle Silver Painted Cast Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 4.2” LCD Productivity Screen in Cluster 110V/400W outlets; one (1) dash mounted and one (1) in rear console - Air conditioning vents – black w/chrome ring - Door-trim – soft armrest, grab handle, power window/lock switches, molded upper applique and reflector (applique and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab - Floor covering – color-coordinated, full carpet - Floor mats – color-coordinated carpet - Power Equipment Group – 1st row (front-seat) windows w/one-touch up/down, power 2nd row (rear-seat) windows (Crew Cab only); power door-locks w/backlit switches & accessory delay; power tailgate lock - Seats, Front - Front, high-series cloth 40/20/40 split bench – 20% center under-seat storage, w/center armrest, cupholder and storage - Two-way adjustable driver/passenger headrests - Sun visors – Color-coordinated, Cloth, both driver and passenger w/covered mirrors - Windows – rear, fixed privacy glass SAFETY/SECURITY - Advanced Security Pack - Mirrors – manually telescoping/folding, trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals - Remote keyless entry FORD CO-PILOT360™ TECHNOLOGY - Automatic High Beam - BLIS® (Blind Spot Information System) w/ Cross-Traffic Alert and Trailer Tow (BLIS® sensor in tailamp) - Pre-Collision Assist with Automatic Emergency Braking (AEB) and Forward Collision Warning FUNCTIONAL - Audio – AM/FM MP3 player & five (5) speakers - SiriusXM® Radio - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - Trailer Brake Controller (incl. Smart Trailer Tow Connector) - SYNC® 3 - Enhanced Voice Recognition Communications and Entertainment System 8” LCD Capacitive Touchscreen in Center Stack with Swipe Capability - Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System - AppLink® 911 Assist® - Apple CarPlay™ and Android Auto™ Capability - Smart-Charging USB-C Ports – two (2)	<i>All XLT content, plus:</i> MECHANICAL - None EXTERIOR 6” Angular chrome step bar (F-350 DRW/F-450) - Fog Lamps - Grille – two (2) bar, chrome (includes chrome inserts) - Handles – body-color, door, tailgate - Wheels - F-250/F-350 SRW – 18” Bright Machined Cast Aluminum w/bright hub covers/center ornaments - F-350 DRW – 17” Forged Polished Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 8” LCD Productivity Screen; includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications - Air conditioning – Dual-Zone Electronic Automatic Temperature Control (DEATC) - Air conditioning vents – silver metallic with chrome ring - Door-trim – soft armrest grab handle, power window/lock switches and reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab - Seats, Front - Leather seating surfaces 40/Console/40 10-way power driver & 8-way power passenger seats (six-way power-adjustable-track, two-way power recline and two-way power lumbar) - Seats, Rear - Armrest with cupholders (Crew Cab) - Steering Wheel – leather-wrapped, color-coordinated with five (5) button control - Sun visors – color-coordinated cloth; both driver and passenger w/covered illuminated visor vanity mirrors - Window – rear, power-sliding with privacy glass and defrost SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Body-color skull caps) - Mirror – rearview, electrochromic self-dimming - SecuriCode™ keyless entry keypad FORD CO-PILOT360™ TECHNOLOGY - AutoLock, Auto Unlock - Reverse Sensing System FUNCTIONAL - Audio - Premium AM/FM MP3 player - B&O Sound System by Bang & Olufsen – (ten (10) speakers including subwoofer) - SiriusXM® Radio w/ 360L★ - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - SYNC® 4 with Enhanced Voice Recognition★ 12” LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner’s Manual - Conversational Voice Command Recognition - Connected Navigation³

Please see Standard Equipment pages for more details.

¹ Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford.

² FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot.

³ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™ subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

Product Features Availability

Features, options and package contents subject to change.

★ = New for this model year

MAJOR PRODUCT SUMMARY

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

King Ranch®	Platinum	Limited
All Lariat content, plus: EXTERIOR 4x4 Crew Cab only - Accent-color wheelcap moldings (SRW only) - Accent-color illuminated angular running boards - Bumper – Accent-color front and rear - Grille – 2-Bar Chrome w/Carbon Inserts - LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL)) - Lower accent two-tone paint (See Color & Trim Availability page for details) - Remote Tailgate Release - Tailgate Step - Unique King Ranch® fender badges - Wheel Well Liner, Rear (F-250 and F-350 SRW only) - Wheels – SRW – 20" Bright Machined Cast Aluminum w/ Unique King Ranch® center cap INTERIOR - Ambient Lighting – Fixed Color - Door-trim – Unique panels w/King Ranch® Leather insert and woodgrain applique - Easy Entry/Exit Memory Driver's Seat Feature - Floor mats – Unique front and rear w/King Ranch® logo - Memory Power-Adjustable Pedals - Seats, Front - Unique King Ranch® Kingsville Antique Affect Leather Bucket Seating Surfaces - Front Heated/Ventilated Seating - Memory 10-way power-adjustable driver's & 8-way power-adjustable passenger seat - Steering Wheel – Unique King Ranch® Kingsville Antique Affect Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls FORD CO-PILOT360™ TECHNOLOGY - Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL - Intelligent Access with Push-button Start (PEPS) - Remote Start System - Universal Garage Door Opener (UGDO) - Rain-Sensing Windshield Wipers - Wireless Charging Pad	All King Ranch® content, plus: EXTERIOR - Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) - Bumper – Body-color front and rear - Chrome exhaust tip - Grille – Unique Satin Aluminum - Handles – door and tailgate, chrome w/body-color surround - LED Fog Lamps - LED Tailamps - Remote Tailgate Release - Satin Chrome Tailgate appliqué - Tailgate Step - Tow hooks – chrome front, two (2) - Wheels – SRW – 20" Polished Aluminum INTERIOR/COMFORT - Ambient Lighting – Fixed Color - Door-trim – soft armrest/grab handle, upper appliqué, upper & lower map pockets & reflector - Easy Entry/Exit Memory Driver's Seat Feature - Memory Power-Adjustable Pedals - Seats, Front - Unique Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console - Front Heated/Ventilated Seating - Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest - Steering Wheel – Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Chrome skull caps) - Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY - Adaptive Cruise Control and Collision Warning with Brake Support FUNCTIONAL - SYNC® 4 with Enhanced Voice Recognition* 12" LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner's Manual - Conversational Voice Command Recognition - Connected Built-In Navigation¹	MECHANICAL - Brakes – Four-Wheel Disc Anti-lock Brake System (ABS) - Electronic Shift-On-the-Fly (ESOF) - Engine 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 EXTERIOR 4x4 Crew Cab only - Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) - Bumper – Body-color front and rear - Chrome exhaust tip - Grille – Unique Satin Finish - Handles – door and tailgate, satin w/body-color surround - LED Fog Lamps - LED Tailamps - Moonroof, Power (Twin Panel) - Remote Tailgate Release - Satin Chrome Tailgate Applique - Tailgate Step - Tow hooks – chrome front, two (2) - Wheels – 20" Polished Aluminum INTERIOR/COMFORT - Ambient Lighting – Fixed Color - Dark ash swirl wood trim on armrests and center console - Door-trim – upper & lower map pockets & reflector - Easy Entry/Exit Memory Driver's Seat Feature - Leather wrapped instrument panel toppers and door arm rollovers "Limited" applique on center console with serial number - Illuminated Scuff Plates w/Limited Logo - Memory Power-Adjustable Pedals - Miko suede headliner - Seat, Front - Unique Limited Navy Pier/ Light Slate Two-tone Premium Luxury Leather Bucket Seating Surfaces - Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console - Front Heated/Ventilated Seating - Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest - Steering Wheel – Unique Navy Pier Premium Luxury Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and body-color skull caps) - Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY - Adaptive Cruise Control and Collision Warning with Brake Support - Adaptive Steering - Automatic High Beam - BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in tailamp) - Lane-Keeping Alert - Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL - Audio - Premium AM/FM MP3 player - B&O Sound System by Bang & Olufsen (ten (10) speakers including subwoofer) - FordPass Connect™ (4G) 4G LTE Wi-Fi hotspot connects up to 10 devices² - Remotely start, lock and unlock vehicle³ - Schedule specific times to remotely start vehicle - Locate parked vehicle³ - Check vehicle status Note: Ford Telematics™ and Data Services Prep included for Fleet Only. FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673. 332 Amp Alternator - Intelligent Access with Push-button Start (PEPS) - Remote Start System - SYNC® 4 with Enhanced Voice Recognition* 12" LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner's Manual - Conversational Voice Command Recognition - Connected Built-In Navigation - Upfitter Switches; six (6) - Universal Garage Door Opener (UGDO) - Rain-Sensing Windshield Wipers - Wireless Charging Pad

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate. Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

Product Features Availability

Features, options and package content subject to change.

★ = New for this model year

STANDARD EQUIPMENT

The following features are standard on every 2022 MY SUPER DUTY® F-SERIES vehicle:

MECHANICAL

- Brakes – Power four-wheel Disc Brakes with Anti-Lock Brake System (ABS)
- Engine
 - F-250/F-350: 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel)
 - F-450: 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20
- Transmission
 - TorqShift®-G Six-Speed Automatic with SelectShift® (F-250 w/6.2L gas)
 - TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA w/ F-250 w/6.2L gas)

EXTERIOR

- Doors
 - Two (Regular Cab only)
 - Four (SuperCab/Crew Cab only)
- Glass
 - Solar-Tinted, complete (Std. XL)
 - Privacy (Std. XLT, Lariat, King Ranch®, Platinum and Limited; NA front-seat windows)
- Jack
 - Two ton mechanical (F-250/F-350 SRW)
 - Four ton hydraulic (F-350 DRW/F-450)
- Lamps – pickup box and cargo area
- Manual Locking Hubs (4x4)
- Moldings – tailgate and box-rail
- Spare tire, wheel, lock & frame mounted carrier
- Tailgate – removable w/key lock, black handle
- "Three-Blink" lane change signal
- Tie-down hooks – pickup box, four (4)
- Tow hooks – front, two (2)
- Trailer Tow Package (F-250/F-350) – 7 wire harness w/relays and 7/4 pin connector
- Trailer Tow Package (F-450) – 7/4 pin connector, 4.30Ls rear-axle and GCWR (Reg Cab – 45,300 lbs, Crew Cab 4x4 42,000lbs, Crew Cab 4x2 43,400 lbs)

INTERIOR/COMFORT

- Convenience
 - Coat hooks – LH/RH color-coordinated
 - Dash top tray
 - Dome Lamp – LH/RH door activated & I/P switch operated w/delay
 - Handles, grab – driver & front-passenger
 - Handles, roof ride – front-passenger (also over rear-doors on Crew Cab)
 - Map lights – dual (front and rear w/Crew Cab)
 - Powerpoint, auxiliary
- Door-Trim – color-coordinated, molded w/armrest/grab handle & reflector
- Headliner – color-coordinated cloth
- Hood release
- Horn – dual electric

INTERIOR/COMFORT (continued)

- Instrument panel – color-coordinated w/ glove box, 4 air registers w/positive shut off, powerpoint
- Instrumentation – Multi-function switch message center w/Ice Blue® Lighting® (three (3) button message control on steering wheel for XL; five (5) button control for XLT, Lariat, King Ranch®, Platinum and Limited)
- Scuff plates – front, color-coordinated; Illuminated w/logo on Limited
- Steering – power
- Steering damper
- Windshield wipers – intermittent

SAFETY/SECURITY

- AdvanceTrac® with RSC® (Roll Stability Control™)
- Airbags
 - Driver and Passenger frontal and side airbag/curtain
 - Passenger side airbag deactivation switch
- Center High-mounted Stop Lamp (CHMSL)
- Child tethers (Regular Cab, front-passenger and all rear-seating positions)
- Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only
- Safety Belts
 - Belt-Minder® front safety belt reminder – chime and flashing warning light on instrument cluster if belts not buckled
 - Color-coordinated w/height adjustment (front-outboard seating positions only)
- SecuriLock® Passive Anti-Theft System (PATS); includes MyKey® owner controls feature
- SOS Post-Crash Alert System™
- Stationary Elevated Idle Control (SEIC)

FUNCTIONAL

- Alternator
 - 157 Amp (Std. XL)
 - 200 Amp (Std. XLT, Lariat, King Ranch® and Platinum)
 - 332 Amp (Limited)
- Axle
 - Twin I-beam front axle w/coil spring suspension (narrow front track) – 4x2 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (narrow front track) – 4x4 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (wide front track) (F-450)
 - Rear – Non-Limited-Slip (F-250/F-350)
 - Rear – 4.30 Limited-Slip (F-450)
- Battery
 - Gas engine – 650-CCA, 72-AH (XL only)
 - Gas engine – 750-CCA, 78-AH, single (NA XL)
 - Diesel engine – 750-CCA, 78-AH, dual (6.7L Power Stroke® Diesel engine)
- Intelligent Oil-Life Monitor® (6.7L Power Stroke® Diesel engine)
- Oil minder system (6.2L Gas engine)
- Shock absorbers – heavy-duty gas
- Stabilizer bar – front

The following features are standard on select 2022MY SUPER DUTY® vehicles:

MECHANICAL	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Four-Wheel Disc Anti-Lock Brake System (ABS) – Roll Stability Control™ (RSC®)/Traction Control/Trailer Sway Control	•	•	•	•	•	•
2.5" Built Ford Tough® Trailer Hitch Receiver						
F-250 (less HD Trailer Tow (535))	•	•	•	•	•	•
F-350 SRW – 6.2L and 7.3L Gas engine	•	•	•	•	•	•
F-350 SRW – Diesel (All 4x2 and 4x4 Regular Cab and Super Cab. Excludes 164" WB Crew Cab only)	•	•	•	•	•	•
F-350 DRW – 6.2L Gas Engine	•	•	•	•	•	•

STANDARD EQUIPMENT

MECHANICAL (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
3" Built Ford Tough® Trailer Hitch Receiver						
F-250 – Diesel with HD Trailer Tow (535)	•	•	•	•	•	•
F-350 SRW – Diesel (4x4 164" WB and Crew Cab only)	•	•	•	•	•	•
F-350 DRW (7.3L Gas and 6.7L Diesel) and F-450						
Note: To find the maximum trailer weight allowed for your vehicle, consult your authorized dealer (or the RV and Trailer Towing Guide provided by your authorized dealer)	•	•	•	•	•	•
4x4 Only						
Electronic-Shift-On-the-Fly (ESOF)	•	•	•	•	•	•
Drivetrain						
4x2	•	•	•	•	•	•
4x4	•	•	•	•	•	•
Fuel Tanks						
29 Gallon (Diesel Engine) – 142" or 148" Wheelbase	•	•	•	•	•	•
34 Gallon (Diesel Engine) – 160" or 164" Wheelbase	•	•	•	•	•	•
34 Gallon (Gas Engine) – NA 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Gas Engine) – 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Diesel Engine) – 176" Wheelbase	•	•	•	•	•	•
KEY EXTERIOR FEATURES						
Bumper – Front						
Black painted steel w/grained MIC top cover and black lower air dam	•					
Chrome w/grained top cover and black lower air dam		•	•			
Accent-color				•		
Body-color					•	•
Bumper – Rear						
Black painted	•					
Chrome		•	•			
Accent-color				•		
Body-color					•	•
Grille						
Black MIC	•					
Bright Chrome – two (2) bar		•				
Chrome – two (2) bar (includes chrome inserts)			•			
Chrome – two (2) bar w/Caribou Inserts				•		
Satin Aluminum					•	
Unique Satin Finish						•
Rear Quarter Panel						
Decal – 4x4 only	•	•	•	•	•	•
Handles – Door and Tailgate						
Black	•	•				
Body-color			•	•		
Chrome w/body-color surround					•	
Satin Chrome w/body-color surround						•
Headlamps/Taillamps/Lamps						
Quad beam halogen jewel effect	•	•	•	•		
Quad Beam LED					•	•
LED Taillamps					•	•
AutoLamp (Auto On/Off Headlamps)	•	•	•	•	•	•
Automatic High Beam		•	•	•	•	•
Center High-mounted Stop Lamp (LED on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
Fog lamps (LED on Platinum and Limited)			•	•	•	•
LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))				•	•	•
LED Roof Marker/Clearance Lamps (F-350 DRW/F-450)	•	•	•	•	•	•
Utility Lighting System (LED Side-mirror Spotlights) (see mirror descriptions below)			•	•	•	•

STANDARD EQUIPMENT

KEY EXTERIOR FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Mirrors						
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp)		•	•	•	•	•
Manually telescoping/folding trailer tow with manual glass	•					
Manually telescoping/folding trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals		•				
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights)			•			
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, Memory, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (Body-Color skull caps on King Ranch® and Limited; Chrome on Platinum)				•	•	•
Power Equipment						
Remote Tailgate Release				•	•	•
Wheels (SRW)						
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments (F-250/F-350)	•					
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments (4) (F-250/F-350)		•				
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and bright hub covers/center ornaments (F-250/F-350)			•			
20" Bright Machined Cast Aluminum Wheel				•		
20" Polished Aluminum Wheel					•	
20" Polished Aluminum Wheel						•
Wheels (DRW)						
17" Argent Painted Steel (hub covers/center ornaments not included) (F-350)	•	•				
17" Forged Polished Aluminum w/bright hub covers/center ornaments (F-350, front and rear outer; steel inner wheels)			•	•	•	•
19.5" Forged Polished Aluminum w/bright hub covers/center ornaments (F-450, front and rear outer; steel inner wheels)	•	•	•	•	•	•
Windows and Glass						
1 st Row (front-seat) – Manual	•					
1 st Row (front-seat) – Power w/one-touch up/down		•	•	•	•	•
2 nd Row (rear-seat) – Manual	•(2,3)					
2 nd Row (rear-seat) – Fixed	•(2)					
2 nd Row (rear-seat) – Power		•(2,3)	•(2,3)	•(2,3)	•(2,3)	•(2,3)
Rear (backlight) – Fixed	•	•				
Rear (backlight) – Power-sliding w/defrost			•	•	•	•
Solar-tinted glass (complete)	•					
Privacy Glass (rear backlight on all cabs; 2 nd Row (rear-seat) windows on SuperCab and Crew Cab. Other glass is solar-tinted.)		•	•	•	•	•
Functional						
BoxLink™ (includes four (4) premium locking cleats)		•	•	•	•	•
KEY INTERIOR/COMFORT FEATURES						
Air Conditioning						
Manual, Single Zone	•	•				
Dual-Zone Electronic Automatic Temperature Control (DEATC)			•	•	•	•

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Audio						
AM/FM stereo MP3 player (four (4) speakers)	•					
AM/FM stereo MP3 player (speakers; five (5) with Regular Cab, seven (7) with SuperCab and Crew Cab)		•				
B&O Sound System by Bang & Olufsen (10 speakers including subwoofer)			•	•	•	•
SiriusXM® Radio (speakers; adds one (1) I/P mounted center speaker on XLT only) Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc		•				
★ SiriusXM® Radio w/ 360L Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc			•	•	•	•
SYNC® – Enhanced Voice Recognition Communication and Entertainment System – 911 Assist® – 4.2" LCD Screen in Center Stack – AppLink® – Smart-Charging USB-C port – one (1)	•					
SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – AppLink® – 911 Assist® – Apple CarPlay® and Android Auto™ Capability – Smart-Charging USB-C ports – two (2)		•				
KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited

STANDARD EQUIPMENT

★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Navigation ¹				•	•		
★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Built-In Navigation ¹						•	•
FordPass Connect™ (4G) – 4G LTE Wi-Fi hotspot connects up to 10 devices ² – Remotely start, lock and unlock vehicle ³ – Schedule specific times to remotely start vehicle ³ – Locate parked vehicle ³ – Check vehicle status ³ Note: Ford Telematics™ and Data Services Prep included for Fleet Only: FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673.	•	•	•	•	•	•	•
Cupholders							
Dual, instrument panel-mounted		•	•	•	•	•	•
Integrated w/armrest on rear-seat			•(3)	•	•	•	•
Door-Trim							
Armrest, grab handle and reflector	•						
Soft armrest, grab handle, power window/lock switches, molded upper appliqué, reflector (appliqué and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab		•					
Soft armrest, grab handle, power window/lock switches, upper appliqué, reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab			•	•	•	•	•
Floor Covering							
Black vinyl	•						
Color-coordinated carpet and carpeted floor mats (includes rear mats on SuperCab & Crew Cab)		•	•	•	•	•	•

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features.

FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the Ford Pass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

★ = New for this model year

• = Available

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Instrument Center						
2.3" Productivity Screen display includes menus for Multi-function switch message center w/Ice Blue® Lighting (three (3) button message control on steering wheel)	•					
4.2" LCD Productivity screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel (included with the SYNC® 3)		•				
8.0" Productivity Screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel			•	•	•	•
Manual door-locks and windows	•					
Overhead Console – with dual storage bin and map lights (NA Regular Cab)	•(2,3)	•	•	•	•	•
Power Equipment						
Accessory delay		•	•	•	•	•
Door-locks w/backlit switches		•	•	•	•	•
Windows w/backlit switches		•	•	•	•	•
Powerpoint and 110V/400W Outlet						
One (1) Powerpoint in front center under-seat storage		•				
Two (2) Powerpoints in instrument panel	•	•	•	•	•	•
Two (2) Powerpoints in rear side of Flow-through Console			•	•	•	•
110V/400W Outlet dash mounted		•	•	•	•	•
110V/400W Outlet in rear side of Flow-through Console		•	•	•	•	•
Reverse Sensing System			•	•	•	•
Rear View Camera						
Display in center-stack screen	•	•	•	•	•	•
Rearview Mirror						
11.5" Day/Night	•	•				
Electrochromic self-dimming			•	•	•	•
Remote Start System				•	•	•
Seats (Front)						
HD vinyl, 40/20/40 split bench w/center armrest and cupholder	•					
Cloth, 40/20/40 split bench, 20% center locking under-seat storage, w/center armrest, cupholder and storage		•				
Leather seating surfaces, 40/Console/40			•			
Unique King Ranch® Kingsville Antique Affect Leather seating surfaces, 40/Console/40				•		
Unique Platinum Leather seating surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)					•	
Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)						•
Manual lumbar support, driver's side	•	•				
10-way power driver seat (six-way power-adjustable track, two-way power recline and two-way power lumbar)			•	•	•	•
8-way power-adjustable front passenger seat			•	•	•	•
Two-way adjustable driver/passenger headrests	•	•	•			
Four-way adjustable driver/passenger headrests				•	•	•
Easy Entry/Exit Memory Driver's Seat Feature				•	•	•
Front center-seat-integrated restraints (SIR)	•	•				
Seats (Rear) SuperCab						
Vinyl, 60/40 fold-up bench seat	•					
Cloth, 60/40 fold-up bench seat		•				
Premium vinyl seating surfaces, 60/40 fold-up bench seat			•			

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
<u>Seat (Rear) Crew Cab</u>						
60/40 bench w/flip-up/fold-down w/two (2) outboard head restraints and a center head restraint	•	•				
60/40 bench w/flip-up seats & fold-down backrests, w/under-seat partitioned lockable fold-flat storage, two (2) outboard head restraints and a center head restraint. Dual integrated cupholders in armrest			•	•	•	•
Vinyl	•					
Cloth		•				
Leather			•			
King Ranch® Kingsville Antique Affect Leather seating surface				•		
Platinum Leather seating surface					•	
Limited Navy Pier/Light Slate Leather seating surface						•
<u>Steering Wheel</u>						
Urethane – Black w/redundant audio and SYNC® controls	•	•				
Leather-wrapped – (Lariat, color-coordinated; King Ranch®, Unique King Ranch® Kingsville Antique Affect; Platinum; Limited Navy Pier Leather)			•	•	•	•
Heated Steering Wheel				•	•	•
Cruise Control (steering wheel-mounted)		•	•	•	•	•
Tilt and Telescoping steering wheel/column (Manual on XL, XLT and Lariat; Power with heat and memory on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
<u>Sun visors</u>						
Color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror	•					
Color-coordinated cloth; both driver and passenger w/covered mirrors		•				
Color-coordinated cloth; both driver and passenger w/illuminated visor vanity mirrors			•	•	•	•
<u>SAFETY/SECURITY</u>						
AdvanceTrac® with RSC® (Roll Stability Control™)	•	•	•	•	•	•
Autolock, Auto unlock, Rainlamp Wiper Activated Headlamps		•	•			
Advanced Security Pack (incl. Inclinometer / Intrusion Sensors)		•	•	•	•	•
Autolock, Auto unlock, High-Beam with Rainlamp Wiper Activated Headlamps, Intelligent Access with Push-button Start (PEPS)				•	•	•
Driver and Passenger frontal and side airbag/curtain	•	•	•	•	•	•
Intelligent Access with Push-button Start (PEPS)				•	•	•
Remote Keyless-Entry		•	•			
Trailer Sway Control and Hill Start Assist	•	•	•	•	•	•

FUNCTIONAL EQUIPMENT

AXLE AVAILABILITY

Series	Engine	Transmission	Non-Limited-Slip			Limited-Slip				Electronic-Locking			
			3.31	3.55	3.73	3.55	3.73	4.10	4.30	3.31	3.55	3.73	4.30
			X31	X35	X37	X3K	X3L	X4N	X4L	X3H	X3J	X3E	X4M
F-250	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O ¹	—	—	—	—	—	O	O ^{2, 3}	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic (F-250 only)	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	—	—	—	—	—	O	—	O ²
F-350 SRW	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O	—	—	—	—	—	O	O ²	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	—	—	—	S	O ²
F-350 DRW	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	O	—	O	—	—	—	—	—
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
F-450	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—

¹ Requires Trailer Tow Upgrade (535/53Q)² Standard with Tremor Off-Road Package (17Y)³ NOTE: Adding 3.55 Electronic-Locking Axle (X3J) on F-250 w/ 6.7L Power Stroke® Diesel increases GVWR to 10,400 lb.

2022 SUPER DUTY® PICKUP (F-250 / F-350 / F-450) FUNCTIONAL EQUIPMENT

			2022MY (F-250 / F-350) Super Duty		Alternators					
			6.2L Gas - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	
F250 & F350	6.2L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	67D (STD)	67D (STD)	67D (STD)	67D (STD)	
			(66S)	6 Upfitter Switches	67D	67D	67D	67E	67E	
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67E	67E	67E	
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67E	67E	67E	
			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67E	67E	67E	
SRW & DRW			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67D	67E	67E	67E	
			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67E	67E	67E	67E	67E	
							(STD) Standard @ 157 Amp			
				(STD or 67D) @ 200 Amp						
				(67E) @ 240 Amp						

			2022MY (F-250 / F-350) Super Duty		Alternators					
			7.3L Gas - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	
F250 & F350	7.3L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	STD	STD	STD	STD	
			(66S)	6 Upfitter Switches	STD	STD	STD	STD	STD	
			(473 or 47B)	Snow Plow Pkg.	STD	STD	STD	STD	STD	
			(43C & 66S)	Inverter & Upfitter Switches	STD	STD	STD	STD	STD	
(43C & 473 or 47B)			Inverter & Snow Plow	STD	STD	STD	STD	STD		
SRW & DRW			(66S & 473 or 47B)	Upfitters Switches & Snowplow	STD	STD	STD	STD	STD	
			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	STD	STD	STD	STD	STD	
			86M	Dual Batteries	67B	67B	67B	67B	67B	
								(STD) 240 Amp		
					(67B) 397 Amp					

			2022MY (F-250 / F-350 / F-450) Super Duty		Alternators					
			6.7L Diesel - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	Limited
					STD	STD (67D)	STD (67D)	STD (67D)	STD (67D)	STD (67A)
F-250 & F-350 F-450	6.7L Diesel 4 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	67D	67D	67D	67D	67D	STD (67A)
			(66S)	6 Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67D	67D	67D	STD (67A)
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)
SRW & DRW			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67D	67D	67D	STD (67A)
			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67A	67A	67A	67A	STD (67A)
			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67A	67A	67A	67A	67A	STD (67A)
			(41A)	Rapid Heat*	67B	67B	67B	67B	67B	67B
					(STD) 175 Amp					
					(STD or 67D) 240 Amp					
					(67A) #1 @ 332 Amp					
					(67B) #2 @ 397 Amp					

FUNCTIONAL EQUIPMENT**WHEEL AVAILABILITY – SRW ONLY**

17" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Std. on XL) – 64A



18" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Opt. on F-350 XL) – 64F

WHEEL AVAILABILITY – SRW ONLY (Continued)

18" Sparkle Silver Painted
Cast Aluminum w/Bright
Hub Cover/Center
Ornament
(Included w/STX Pkg. (17S)
on F-250/F-350 SRW; Std.
on XLT) – 648



18" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets
and Bright Hub
Cover/Center Ornament
(Std. on Lariat) – 64C



18" Chrome PVD Aluminum
(included in XLT Premium
Pkg. (17P), Chrome Pkg. –
(17C)) – 647

FUNCTIONAL EQUIPMENT



18" Low-Gloss Black
Painted Aluminum Wheel
(incl. Tremor Off-Road Pkg
(17Y)) – 64E



20" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets and Bright
Hub/Cover Center
Ornament
(Opt. on 4x4 F-250 and F-
350 SRW Lariat) – 642



20" Bright Machined Cast
Aluminum w/Light Caribou
Painted Pockets; Light
Caribou Wheel Ornament
with King Ranch® Logo
(Std. on F-250 and F-350
SRW King Ranch®) – 643



20" Chrome PVD Aluminum
(Opt. on 4x4 F-350 SRW
Chrome Pkg. (17C) –
(Chrome Pkg. has unique
center ornament on King
Ranch®) – 649



20" High-Gloss Black
Premium Painted Aluminum
(Included in Lariat Black
Appearance Package
(17L)) – 646



20 " Polished Aluminum
(Std. on F-250 F-350 SRW
Platinum) – 64U



20" Polished Aluminum
(Std. on Limited F-250/F-
350 SRW) – 64L

FUNCTIONAL EQUIPMENT

WHEEL AVAILABILITY – DRW ONLY



17" Argent Painted Steel
(hub cover/center ornament
not included) (Std. on XL
and XLT F-350) – 64K



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-350 DRW; Std. on
Lariat and Platinum
F-350; Opt. on XL and XLT
F-350) – 64J



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Std. on King Ranch® F-
350) – 64J



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-450) – 64D



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament;
Light Caribou wheel
ornament with King Ranch®
Logo – 64D



17" Stainless Steel Wheel
Covers (Front & Rear) (Opt.
on XL and XLT) – 945

OPTIONAL EQUIPMENT

		XL				XLT				Lariat					
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450		
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A	
BODYSTYLE & WHEELBASES															
Regular Cab 4X2 – 8' Box	142"	F2A	F3A	F3C	F4C	F2A	F3A	F3C	F4C	—	—	—	—		
Regular Cab 4X4 – 8' Box	142"	F2B	F3B	F3D	F4D	F2B	F3B	F3D	F4D	—	—	—	—		
SuperCab 4X2 – 6 ¾' Box	148"	X2A	X3A	—	—	X2A	X3A	—	—	X2A	X3A	—	—		
SuperCab 4X2 – 8' Box	164"	X2A	X3A	X3C	—	X2A	X3A	X3C	—	X2A	X3A	X3C	—		
SuperCab 4X4 – 6 ¾' Box	148"	X2B	X3B	—	—	X2B	X3B	—	—	X2B	X3B	—	—		
SuperCab 4X4 – 8' Box	164"	X2B	X3B	X3D	—	X2B	X3B	X3D	—	X2B	X3B	X3D	—		
Crew Cab 4X2 – 6 ¾' Box	160"	W2A	W3A	—	—	W2A	W3A	—	—	W2A	W3A	—	—		
Crew Cab 4X2 – 8' Box	176"	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C		
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—		
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D		
ENGINE/TRANSMISSION															
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996/44 S	S	P-96G	P-96G	—	S	—	—	—	S	—	—	—		
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996/44 G	—	S	S	—	—	S	S	—	—	S	S	—		
7.3L 2V DEVCT NA PFI V8 Gas/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N/4 4G	O	O	O	—	O	O	O	—	O	O	O	—		
6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 with manual push-button Engine-Exhaust Braking/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T/44 G	O	O	O	S	O	O	O	S	O	O	O	S		
WHEELS															
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.															
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64A	S	S	—	—	—	—	—	—	—	—	—	—		
17" Argent Painted Steel (Hub Covers/Center Ornaments not included)	64K	—	—	S	—	—	—	S	—	—	—	—	—		
17" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64J	—	—	O P-17S P-96G/P96H	—	—	—	O	—	—	—	S	—		
18" Chrome PVD Aluminum Wheel	647	—	—	—	—	P-17P	P-17P	—	—	P-17C	P-17C	—	—		
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments	64C	—	—	—	—	—	—	—	—	S	S	—	—		
18" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64F	—	O	—	—	—	—	—	—	—	—	—	—		
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments	648	P-17S	P-17S	—	—	S	S	—	—	—	—	—	—		
18" Low-Gloss Black Painted Aluminum Wheel	64E	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—		
19.5" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S		
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	—	—	—	—	—	—	—	—	P-17C	O-17C	—	—		
20" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments (4X4 only)	642	—	—	—	—	—	—	—	—	O	O	—	—		
20" High-Gloss Black Premium Painted Aluminum Wheel (4x4 only; req. Lariat Black Appearance Package (17L))	646	—	—	—	—	—	—	—	—	P-17L	P-17L	—	—		
TIRES															
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.															
LT245/75Rx17EBSW A/S	TD8	S	S	S	—	—	—	S	—	—	—	S	—		
LT245/75Rx17EBSW A/T	TBM	O	O	O	—	—	—	O	—	—	—	O	—		
LT245/75Rx17E OWL A/T(4)	TBL	—	—	—	—	—	—	O	—	—	—	O	—		
LT265/70Rx17E OWL A/T	TCD	O	O	—	—	—	—	—	—	—	—	—	—		
LT275/65Rx18EBSW A/S	TCH	P-17S	O P-17S	—	—	S P-17P	S P-17P	—	—	S	S	—	—		
LT275/70Rx18EBSW A/T, 4x4	TDX	P-17S	O P-17S	—	—	O	O	—	—	O	O	—	—		
LT275/70Rx18E OWL A/T, 4x4	TDU	P-17S	P-17S	—	—	O	O	—	—	O	O	—	—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire. (continued)													
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
LT275/65Rx20E OWL A/T, 4x4 – (NA 142" WB on XLT)	TCW	—	—	—	—	—	—	—	—	O	O	—	—
Spare Tire, Wheel, Carrier and Jack (req. Pickup Box Delete (66D); NA w/F-450)	512	O	O	O	O	O	O	O	O	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions pages for complete content and restrictions)													
XL Value Package	96V		O				—				—		
STX Appearance Package	17S		O				—				—		
Power Equipment Group	90L		O				S				S		
XLT Value Package	17V		—				O				—		
XLT Premium Package	17P		—				O-2,3				—		
Chrome Package	17C		—				—				O		
Lariat Black Appearance Package – F-250/F-350 4x4 SRW only; NA w/Camper Package (471) or Snowplow/Camper Package (47B)	17L		—				—				O-3		
★ Lariat Sport Appearance Package (NA w/ DRW)	17K		—				—				O		
Lariat Value Package	96L		—				—				O		
Lariat Ultimate Package	96U		—				—				O-3		
FX4 Off-Road Package	17X		O				O				O		
Tremor Off-Road Package – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box or F-450	17Y		—				O-3				O-3		
Snow Plow Prep Package (w/6.7L Power Stroke® Diesel engine includes 240 Amp Alternator (67D))	473		O				O				O		
Camper Package	471		O				O				O		
Snowplow/Camper Package	47B		O				O				O		
F-250 Trailer Tow Package – High Capacity (req. 6.7L Power Stroke® Diesel engine; req. Trailer Brake Controller (TBC) (52B) on XL SRW; NA w/10,000 GVWR/9,900 GVWR Pkg. (68D) or Pickup Box Delete (66D)	535		O				O				O		
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine; NA w/Pickup Box Delete (66D))	53Q		O				O				O		
F-350 Gas Heavy-Duty Payload Package (req. 6.2L Gas Engine (996) and 4x2; NA w/ Pickup Box Delete (66D))	96G		O-1				—				—		
F-350 Diesel Heavy-Duty Payload Package (req. 6.7L Diesel Engine (99T), DRW and 4x2)	96H		O-1				—				—		
Heavy-Service Front Suspension Package	67H		O				O				O		
Heavy-Service Package for Pickup Box Delete	63R		O				O				—		
Pickup Box Delete (NA F-450; NA F-250 Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System; NA w/ 7.3L Gas Engine (99N) or Pro Trailer Backup Assist Package (53Q); req. Long Wheelbase Variants)	66D		O				O				—		
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only; 9,900 GVWR Pkg. avail. on F-250 only; NA w/Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	68D		O				O				O		
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L		O				O				O		
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F		O				O				O		
FUNCTIONAL													
Skid Plates – Transfer Case and Fuel Tank (4x4 only) (incl. in FX4 Off-Road Pkg. (17X) and Tremor Off-Road Pkg (17Y))	41P		O				O				O		
Engine Block Heater	41H		O				O				O		
Transmission Power Take-Off Provision (req. Ten-Speed Transmission; includes Transmission mounted live drive and stationary mode PTO; NA 4x2 142" WB; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R		O				O				O		
Engine Idle Shutdown – 5 minute	86A		O				O				—		
Engine Idle Shutdown – 10 minute	86B		O				O				—		
Engine Idle Shutdown – 15 minute	86C		O				O				—		
Engine Idle Shutdown – 20 minute	86D		O				O				—		
Operator Commanded Regeneration (OCR) (req. 6.7L Power Stroke® Diesel engine)	98R		O				O				—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

		XL				XLT				Lariat			
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A
FUNCTIONAL (continued)													
Dual Battery (Dual 78 AH; req. 6.2L or 7.3L Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M	O				O				O			
BoxLink™ (includes four (4) premium locking cleats; includes Interface Brackets on XL; Brackets are std when spray-in-bedliner (85S) is ordered on XL; feature is removed when Pickup Box Delete (66D) is ordered on XLT)	66B	O				S				S			
Adaptive Steering (req. Ultimate Trailer Tow Camera System w/Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	60A	—				—				O			
Adaptive Cruise Control and Collision Warning with Brake Support (optional availability requires 96U Lariat Ultimate Pkg.)	527	—				—				O-96U			
Audible Lane Departure Warning (req. 66D Pickup Box Delete and Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning (94P) on XL; NA w/F-450)	60C	O				O				—			
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp) (Reqs. Power Equipment Group (90L) on XL; N/A with Pickup Box Delete (66D))	60B	O				S				S			
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W	O				O				O			
Power-Adjustable Pedals	62M	—				O				S			
Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning	94P	O				S				S			
Alternators (*Refer to alternator charts for further details)													
200 Amp Alternator – w/6.2L engine; 240 Amp w/6.7L Power Stroke® Diesel engine (required w/Snow Plow Pkg.(473), Upfitter Switches (66S) or 110V/400W Outlet(43C); on XL and XLT NA w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67D	S				S				S			
240 Amp Alternator (req. 6.2L engine; 240 Amp; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67E	S/O				S/O				S/O			
332 Amp Alternator (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A	S				S				S			
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine (99N) only; NA w/6.2L Gas engine (996); required w/41A Rapid-Heat Supplemental Heater)	67B	S/O				S/O				S/O			
Trailer Towing Equipment													
Manually Telescoping, Folding Trailer Tow Mirrors with Power/Heated Glass, Heated Convex Spotter Mirror, Integrated Clearance Lamps/Turn Signals	54K	P-90L				S				—			
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights)	54F	—				O				S			
LED Box Lighting (Incl. LED Center High-Mounted Stop Lamp (CHMSL); NA 66D Pickup Box Delete)	66L	O				O				O P-96L P-96U			
Quad Beam LED Headlamps and LED Fog Lamps, and LED Taillamps; optional availability requires Lariat Ultimate Pkg. (96U); LED Fog Lamps and LED Center High-Mounted Stop Lamp (CHMSL))	59Q	—				—				O-96U			
Trailer Brake Controller (TBC) (Verified to be compatible w/select electric over hydraulic brakes; 7 & 4-way combo trailer tow socket and bracket deleted w/66D Pickup Box Delete; Std. on DRW; includes Smart Trailer Tow Connector)	52B	S/O				S				S			
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat or Pickup Box Delete 66D; std on F-450)	53W	O				O				O			
Cab Steps and Running Boards													
Platform Running Boards	18B	O				O				—			
6" Angular Chrome Step Bar (Std. on Lariat F-350 DRW and F-450; XL reqs. STX Appearance Pkg. (17S))	18C	O-17S,2,3				O-2,3				S/O			

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
 ★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Cab Steps and Running Boards (continued)													
Extended Running Board, 6" Angular Chrome	18D	—				O-2,3				O			
Power-Deployable Running Boards; requires Lariat Ultimate Pkg. (96U) or Lariat Value Package (96L); Not available with Lariat Interior Trims 6J or 6B, SuperCab, Lariat Chrome Package (17C), Lariat Black Appearance Package (17L) or Lariat Sport Appearance Package (17K) (unless 17L pr 17K is ordered with Tremor Off-Road Pkg (17Y))	18E	—				—				O -96U, 96L			
KEY EXTERIOR OPTIONS													
Center High-mounted Stop Lamp (CHMSL) (F-350 only; CHMSL is deleted from vehicles over 10,000 lbs. GVWR with 66D Pickup Box Delete; replaced with a black cover; to add CHMSL with 66D Pickup Box Delete, select 59H. CHMSL is standard under all other conditions.)	59H	S/O				S/O				S			
Front License Plate Bracket Note: See "Emissions" section for additional information	153	O				O				O			
Rear View Camera and Prep Kit (includes loose camera, wiring bundle and electrochromic mirror; req. 66D Pick Up Box Delete; required on 10,000 GVWR or less)	872	O				O				—			
Rain-Sensing Windshield Wipers and Heated Steering Wheel	60W	—				—				O			
Halogen Fog Lamps (req. XL Décor Group (17F) on XL)	595	O				O				—			
Rear CHMSL Camera (display in center stack screen; includes LED Center High-mounted Stop Lamp (CHMSL) with Cargo Light and Rear Video Camera; NA w/Pickup Box Deleted (66D), Individual Trailer TPMS/Customer/Placed Trailer Camera (653) or Customer/Placed Trailer Camera (65B))	873	O				O				O			
Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package (NA w/ Pickup Box Delete (66D))	53R	O				O				O			
LED Roof Marker/Clearance Lamps (Std. on F-350 DRW & F-450)	592	S/O				S/O				S/O			
Tailgate Step (includes step and handle; NA w/66D Pickup Box Delete)	85G	O				O				O			
Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts; NA w/66D Pickup Box Delete)	85S	O				O				O			
Paint													
Lower Accent Two-Tone Paint (includes accent two-tone paint on SRW wheel-lip moldings; NA on F-350 DRW and F-450 wheel-lip moldings)	954	—				—				O			
Rear-windows													
Defrost with Fixed and Privacy Glass (Privacy Glass is standard on XLT; XL req. Privacy Glass (924) and Power Equipment Group (90L))	43B	O				O				—			
Power-Sliding Glass with Defrost and Privacy Glass (XL req. 90L Power Equipment Group; 924 Privacy Glass is standard on XLT)	435/924	O-2,3				O-2,3				S			
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel on Crew Cab; optional availability on XLT req. 17P XLT Premium Pkg.; includes map lights and Moonroof switches; NA w/Pickup Box Delete (66D))	43V	—				O-3				O-3			
Universal Garage Door Opener (UGDO)	85D	—				—				O			
110V/400W Outlet (with 40/20/40 seats, there is one in-dash mounted outlet; 2 nd outlet in the console req. 40/Console/40 seats; req. 200 Amp Alternator (67D))	43C	O				S				S			
Floor Covering, color-coordinated full carpet with floor mats (reqs. STX Appearance Pkg. (17S))	16F	O-17S				—				—			
Floor Mats, All-Weather (Doesn't include carpet floor mats; req. Super Cab or Crew Cab, 4x2 or 4x4 w/ESOF when Carpet Delete (166) is ordered)	16T	—				O				O			
Carpet Delete (XLT & Lariat replaced w/black flooring)	166	S				O				O			
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O				O				O			
Remote Start System (req. 90L Power Equipment Group)	76S	O				O				O P-96U P-96L			
Reverse Sensing System (NA w/66D Pickup Box Delete)	76R	F				O				S			
Upfitter Switches; (6) (Located in overhead console; req. 200 Amp Alternator (67D))	66S	O				O				O			

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
KEY INTERIOR OPTIONS (continued)													
Audio SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – 4.2" productivity screen in IP cluster – AppLink® – 911 Assist® – Apple CarPlay™ and Android Auto™ Capability – Smart-Charging USB-C ports – two (2) – Includes 110V/400W Outlet (43C) Reqs. Power Equipment Group (90L) on XL only	913		O				S				—		
SiriusXM® Radio Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc - adds one (1) I/P mounted center speaker on XL and XLT only Voice-Activated Navigation with HD and SiriusXM Traffic and Travel Link®	39S		O				S				—		
Note: SiriusXM Traffic and Travel Link® includes a 5-year prepaid subscription. Services are not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by SiriusXM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc	21N		—				O				—		
Front-Seats (See Color & Trim Availability page for additional information)													
Cloth, 40/20/40 Split Bench	1		O				—				—		
Vinyl, 40/Mini-Console/40	L		O				—				—		
Cloth, 40/Mini-Console/40	4		O				—				—		
Cloth, 40/Console/40	2		—				O-2,3				—		
Leather, 40/20/40 Split Bench	6		—				—				O		
Rear-Seats													
Heated Seats (req. 40/Console/40 front-seat; req. 96L Lariat Interior Pkg. or 96U Lariat Ultimate Pkg.)	90R		—				—				O-3		
LPO/FLEET OPTIONS (Requires Valid FIN Code)													
XL Décor Group	17F		F				—				—		
Cruise Control (steering wheel-mounted)	525		F, P-17S, P-96V				—				—		
Daytime Running Lamps (DRL) (the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942		F				F				F		
Spare Wheel and Tire Delete (also deletes jack and frame-mounted carrier)	51X		F				—				—		
Speed Limitation – 65-mph governed top speed	926		F				F				—		
Speed Limitation – 75-mph governed top speed	927		F				F				—		
Individual TPMS Delete (optional on F-350 SRW over 10K GVWR; NA w/68D 10,000 GVWR Package; NA on F-250; Individual Trailer TPMS/Customer/Placed Trailer Camera Package (653) or Customer/Placed Trailer Camera (65B) – F-350 SRW only)	18L		F				F				F		
Upfitter Interface Module	18A		F				F				F		
FORD ACCESSORIES, PRE-INSTALLED													
Aluminum Crossbed Toolbox by Weather Guard (Defender Series) – NA w/Pickup Box Delete (66D)	62X		O				O				O		
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year													
S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option													

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02) – NA w/ Pickup Box Delete (66D)	62Y		O				O				O		
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E		O				O				O		
Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873))	65B		—				O				O		
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A		—				O				O		
Individual Trailer TPMS/Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	653		—				O				O		
Wheel Locks (reqs. 20" wheels)	94W		—				—				O		
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. second unit body)	52R		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber (req. Center High-Mounted Stop Lamp)	91S		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber-White (req. Center High-Mounted Stop Lamp)	91G		O				O				O		
Hood Deflector – Black Molded	87H		O				O				O		
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete)	85L		O				O				O		
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D		O				O				O		
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E		O				O				O		
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J		O				O				O		
Wheel Well Liner, Front	61L		O				O				O		
Wheel Well Liner, Rear (avail. on F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61M		O				O				O		
Wheel Well Liner, Front/Rear (avail. On F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61N		O				O				O		
Bed Step (NA w/ Pickup Box Delete (66D) or F-450)	87B		O				O				O		
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete, 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M		O				O				O		
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on F-450 or 66D Pickup Box Delete)	61S		O				O				O		
Splash Guards/Mud Flaps Rear (NA w/66D Pickup Box Delete; reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S		O				O				O		
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40/console/40)	21X		—				O				O		
Exterior Backup Alarm	76C		O				O				O		
Gooseneck Hitch Kit – 15J (req. 53W 5" Wheel/Gooseneck Hitch Prep Package; Available F-250/F-350 only; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15J		O				O				O		
5" Wheel Hitch Kit-15L – includes 19k rated hitch for SRW. (req. 53W 5" Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L		O				O				O		
FORD ACCESSORIES, PRE-INSTALLED (continued)													
5" Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5" Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K		O				O				O		
Stainless Steel Wheel Covers – Front & Rear (F-350 DRW only; req. 64K 17" Argent Painted Steel Wheel)	945		O				O				—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

★ = New for this model year

2022 SUPER DUTY® PICKUP
(F-250 / F-350 / F-450)
OPTIONAL EQUIPMENT

		King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 0 SRW	F-350 DRW	F-450
		Order Code	700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A
BODYSTYLE & WHEELBASES													
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D
ENGINE/TRANSMISSION													
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996 / 44S	S	—	—	—	S	—	—	—	—	—	—	—
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996 / 44G	—	S	S	—	—	S	S	—	—	—	—	—
7.3L 2V DEVCT NA PFI V8 Gas Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N / 44G	O	O	O	—	O	O	O	—	—	—	—	—
6.7L 4 Valve OHV Power Stroke®V8 Turbo Diesel B20/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T / 44G	O	O	O	S	O	O	O	S	S	S	S	S
WHEELS (King Ranch® wheels have unique King Ranch® logo center ornaments)													
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.													
17" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64J	—	—	S	—	—	—	S	—	—	—	S	—
18" Low-Gloss Black Painted Aluminum Wheel	64E	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
19.5" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S
20" Bright Machined Cast Aluminum (req. TCW tire)	643	S	S	—	—	—	—	—	—	—	—	—	—
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	P-17C	P-17C	—	—	—	—	—	—	—	—	—	—
20" Polished Aluminum	64U	—	—	—	—	S	S	—	—	—	—	—	—
20" Polished Aluminum	64L	—	—	—	—	—	—	—	—	S	S	—	—
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.													
LT245/75Rx17EBSW A/ S	TD8	—	—	S	—	—	—	S	—	—	—	S	—
LT275/65Rx20E OWL A/T, 4x4	TCW	S	S	—	—	S	S	—	—	S	S	—	—
LT245/75Rx17EBSW A/T	TBM	—	—	O	—	—	—	O	—	—	—	O	—
LT245/75Rx17E OWL A/T (DRW inner rear are LT245/75Rx17E)	TBL	—	—	O	—	—	—	O	—	—	—	O	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions page for complete content and restrictions)													
Chrome Package (req. 85G Tailgate Step)	17C	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Monochromatic Paint Package (req. Chrome Package (17C))	96M	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Ultimate Package	96K	O	O	O	O	—	—	—	—	—	—	—	—
FX4 Off-Road Package	17X	O	O	O	O	O	O	O	O	O	O	O	O
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine	53Q	O	—	—	—	O	—	—	—	O	—	—	—
Tremor Off-Road Pacakge – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box	17Y	O	O	—	—	O	O	—	—	—	—	—	—
Snow Plow Prep Package (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	473	O	O	O	O	O	O	O	O	O	O	O	O
Camper Package	471	—	—	O	O	—	—	O	O	—	—	—	—
Snowplow/Camper Package	47B	—	—	O	O	—	—	—	—	—	—	—	—
Heavy-Service Front Suspension Package	67H	O	O	O	O	O	O	O	O	O	O	O	O
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only. 9,900 GVWR Pkg. avail. on F-250 only; NA w/F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q)	68D	O	O	—	—	O	O	—	—	O	O	—	—
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L	—	O	O	—	—	O	O	—	—	O	O	—
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F	O	O	O	—	O	O	O	—	—	—	—	—
FUNCTIONAL													
Dual Battery (req. 6.2L. or 7.3L Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M	O	O	O	—	O	O	O	—	—	—	—	—
Engine Block Heater	41H	O	O	O	O	O	O	O	O	O	O	O	O

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
 ★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F350 0 SR W	F-350 DR W	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
FUNCTIONAL (continued)													
Transmission Power Take-Off Provision (includes Transmission mounted live drive and stationary mode PTO capability; req. Ten-Speed Transmission (F-250 NA w/6.2L engine; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R	O	O	O	O	O	O	O	O	O	O	O	O
332 Amp Alternators (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A	S	S	S	S	S	S	S	S	S	S	S	S
240 Amp Alternator (req. 6.2L engine; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) when ordered together)	67E	S/O	S/O	S/O	S/O	S/O	S/O	S/O	S/O	—	—	—	—
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine(99N); NA w/6.2L Gas engine (996))	67B	O	O	O	O	O	O	O	O	O	O	O	O
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat)	53W	O	O	O	S	O	O	O	S	O	O	O	S
Adaptive Steering	60A	O	O	O	O	O	O	O	O	S	S	S	S
Skid Plates, Transfer Case & Fuel Tank (4x4 only)	41P	O	O	O	O	O	O	O	O	O	O	O	O
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W	O	O	O	—	O	O	O	—	O	O	O	—
KEY EXTERIOR OPTIONS													
Quad Beam LED Headlamps, LED Fog Lamps and LED Taillamps	59Q	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Extended Running Board, 6" Angular Chrome	18D	O	O	O	O	—	—	—	—	—	—	—	—
Front License Plate Bracket	153	O	O	O	O	O	O	O	O	O	O	O	O
Note: See "Emissions" section for additional information													
LED Roof Clearance Lights	592	O	O	S	S	O	O	S	S	O	O	S	S
Power-Deployable Running Boards (includes Front Splash Guards/Mud Flaps on F-350 DRW)	18E	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Tough Bed® (spray-in bedliner) (includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)	85S	O	O	O	O	O	O	O	O	O	O	O	O
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel; includes map lights and Moonroof switches)	43V	O – P-96K	O – P-96K	O – P-96K	O – P-96K	O	O	O	O	S	S	S	S
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O	O	O	O	O	O	O	O	O	O	O	O
Upfitter Switches; six (6) located in overhead console (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	66S	O	O	O	O	O	O	O	O	S	S	S	S
Floor Covering – Vinyl (incl. all-weather Floor Mats and carpeted floor mats) Note: Vinyl Flooring replaces carpet flooring	16P	O	O	O	O	O	O	O	O	O	O	O	O
Adaptive Cruise Control and Collision Warning with Brake Support	527	O	O	O	O	S	S	S	S	S	S	S	S
Floor Mats, All-Weather (includes carpet floor mats)	16S	O	O	O	O	O	O	O	O	O	O	O	O
2 nd Row Heated Seat	90R	O	O	O	O	S	S	S	S	S	S	S	S
LPO/FLEET OPTIONS (Requires Valid FIN Code)													
Daytime Running Lamps (DRL) the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942	F	F	F	F	F	F	F	F	F	F	F	F
Upfitter Interface Module	18A	F	F	F	F	F	F	F	F	F	F	F	F
FORD ACCESSORIES, PRE-INSTALLED													
Aluminum Crossbed Toolbox by Weather Guard (Defender Series)	62X	O	O	O	O	O	O	O	O	O	O	O	O
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02)	62Y	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E	—	—	—	O	—	—	—	O	—	—	—	O
FORD ACCESSORIES, PRE-INSTALLED (continued)													
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A	O	O	O	O	O	O	O	O	O	O	O	O
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option													

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 SRW	F-350 DRW	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
Customer-Placed Trailer Camera	65B	O	O	O	O	O	O	O	O	O	O	O	O
Individual Trailer TPMS/Customer-Placed Trailer Camera (NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452" diameter valve stem	653	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Locks (reqs. 20" wheels)	94W	O	O	—	—	O	O	—	—	O	O	—	—
Hood Deflector – Black Molded	87H	O	O	O	O	O	O	O	O	O	O	O	O
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. Second unit body)	52R	O	O	O	O	O	O	O	O	O	O	O	O
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40-20 Bridge-40)	21X	O	O	O	O	O	O	O	O	O	O	O	O
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K))	85L	O	O	O	—	O	O	O	—	O	O	O	—
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Well Liner, Front (DRW only)	61L	—	—	O	O	—	—	O	O	—	—	O	O
Wheel Well Liner, Front/Rear (SRW only; Rear is already standard)	61N	O	O	—	—	O	O	—	—	O	O	—	—
Bed Step	87B	O	O	O	—	O	O	O	—	O	O	O	—
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M	O	O	O	O	O	O	O	O	O	O	O	O
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on 450)	61S	O	O	O	—	O	O	S	—	O	O	S	—
Splash Guards/Mud Flaps Rear (reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S	O	O	O	O	O	O	O	O	O	O	O	O
Exterior Backup Alarm	76C	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Hitch Kit (req. 53W 5 th Wheel/Gooseneck Hitch Prep Package; NA w/85L Drop-in Bedliner)	15J	O	O	O	—	O	O	O	—	O	O	O	—
5 th Wheel Hitch Kit-15L – includes 19k rated hitch for SRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L	O	O	—	—	O	O	—	—	O	O	—	—
5 th Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K	—	—	O	O	—	—	O	O	—	—	O	O

COLOR & TRIM AVAILABILITY

		Interior and Seat Color
INTERIOR COLOR		Medium Earth Gray
XL	• HD Vinyl 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only) • Cloth 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only) • Vinyl 40/Mini-Console/40, manual lumbar (driver's side only) • Cloth 40/Mini-Console/40, manual lumbar (driver's side only)	AS
		1S
		LS ¹
		4S ¹
XLT	• Cloth 40/20/40 split bench, 20% locking center under-seat storage, w/center armrest, cupholder and storage, two-way adjustable driver/passenger headrests, manual lumbar (driver's side only) • Cloth 40/Console/40; two-way adjustable driver/passenger headrests, manual lumbar (driver's side only); Flow-through Console with 110V/400W outlet in rear (SuperCab & Crew Cab only; 4x4 req. ESOF – 213)	3S
		2S
EXTERIOR COLOR		Monotone
XL		Availability
Agate Black Metallic		•
Antimatter Blue Metallic		•
★Atlas Blue Metallic		•
Carbonized Gray Metallic		•
Iconic Silver Metallic		•
Oxford White		•
Race Red		•
Stone Gray Metallic		•
XLT		
Agate Black Metallic		•
Animatter Blue Metallic		•
★Atlas Blue Metallic		•
Carbonized Gray Metallic		•
Iconic Silver Metallic		•
Oxford White		•
Race Red		•
Rapid Red Metallic Tinted Clearcoat ²		•
Stone Gray Metallic		•
FLEET ONLY EXTERIOR COLOR – (REQUIRES VALID FIN CODE) ^{3,4}		Monotone
		Availability
XL		
Green		•
Green Gem		•
Orange		•
School Bus Yellow		•
Vermillion Red		•
Yellow		•
XLT		
Green		•
Green Gem		•
Orange		•
School Bus Yellow		•
Vermillion Red		•
Yellow		•

¹ Fleet Only² Extra Charge Paint³ Fleet only exterior colors will be priced as VSO colors.⁴ Not available with DRW or XLT Premium Package (17P), or Tremor Off-Road Package (17Y)

COLOR & TRIM AVAILABILITY (cont.)

		Interior and Seat Color				
		Baja	Black Onyx	Black Onyx / Dark Marsala	Java	Navy Pier / Light Slate
LARIAT	• Front Leather Seating Surfaces 40/Console/40; 10-way power driver and 8-way power front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, Flow-through Console with 110V/400W outlet in rear	5J	5B	—	—	
	• Front Leather Seating Surfaces 40/20/40 Split Bench; 10-way power driver and 8-way front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint	6J	6B	—	—	
KING RANCH®	• Unique King Ranch® Kingsville Antique Affect Leather Seating Surfaces Front 40/Console/40 w/matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, dual integrated cupholders in armrest and 2 outboard head restraints; 10-way power driver and 8-way power passenger (includes power lumbar), memory, easy-entry/exit driver's seat, and heated/ventilated driver and passenger seating. Flow-through Console with 110V/400W outlet in rear.	—	—	—	SP	
PLATINUM	• Unique Platinum Multi-contour Driver and Passenger Leather 40/console/40 Seats; 10-way power driver and 8-way power front passenger heated/ventilated seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	7B	BB	—	
LIMITED	• Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, Multi-contour Driver and Passenger 40/console/40 Seats; 10-way power driver and 8-way power front passenger, heated/ventilated driver and passenger seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	—	—	—	TT

COLOR & TRIM AVAILABILITY (cont.)

		Two-Tone						
EXTERIOR COLOR	Monotone	Stone Gray (D1)	Carbonized Gray (M7)	Availability				
LARIAT								
Agate Black Metallic	UM	—	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	—	•	•	—	—	—
★Atlas Blue	B3	—	—	•	•	—	—	—
Carbonized Gray Metallic	M7	—	—		•	—	—	—
Iconic Silver Metallic	JS	—	—	•	•	—	—	—
Oxford White	Z1	—	—	•	•	—	—	—
Race Red	PQ	—	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	•	•	—	—	—
Stone Gray Metallic	D1	—	—	•	•	—	—	—
★ LARIAT BLACK APPEARANCE PACKAGE (17L)								
Agate Black Metallic	UM	—	—	—	•	—	—	—
Antimatter Blue Metallic	HX	—	—	—	•	—	—	—
★Atlas Blue	B3	—	—	—	•	—	—	—
Carbonized Gray Metallic	M7	—	—	—	•	—	—	—
Iconic Silver Metallic	JS	—	—	—	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	—	—	—
LARIAT TWO-TONE (954) ¹								
Agate Black Metallic	UM	D1	—	•	•	—	—	—
Agate Black Metallic	UM	—	M7	—	•	—	—	—
★Atlas Blue	B3	—	M7	—	•	—	—	—
Antimatter Blue Metallic	HX	D1	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	M7	—	•	—	—	—
Iconic Silver Metallic	JS	—	M7		•	—	—	—
Oxford White	Z1	—	M7	—	•	—	—	—
Oxford White	Z1	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	M7	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	D1	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	M7	—	•	—	—	—
KING RANCH®								
Agate Black Metallic	UM	D1	—	—	—	—	•	—
Antimatter Blue Metallic	HX	D1	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	—	—	—	•	—
Oxford White	Z1	D1	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	D1	—	—	—	—	•	—
KING RANCH® W/MONOCROMATIC PAINT PACKAGE (96M)								
Agate Black Metallic	UM	—	—	—	—	—	•	—
Antimatter Blue Metallic	HX	—	—	—	—	—	•	—
★Atlas Blue	B3	—	—	—	—	—	•	—
Oxford White	Z1	—	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	•	—
Stone Gray Metallic	D1	—	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	•	—
PLATINUM								
Agate Black Metallic	UM	—	—	—	•	•	—	—
Antimatter Blue Metallic	HX	—	—	—	•	•	—	—
★Atlas Blue	B3	—	—	—	•	•	—	—
Carbonized Gray Metallic	M7	—	—	—	•	•	—	—
Iconic Silver Metallic	JS	—	—	—	•	•	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	•	—	—
LIMITED								
Agate Black Metallic	UM	—	—	—	—	—	—	•
★Atlas Blue	B3	—	—	—	—	—	—	•
Carbonized Gray Metallic	M7	—	—	—	—	—	—	•
Iconic Silver Metallic	JS	—	—	—	—	—	—	•
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	—	•
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	—	•
Stone Gray Metallic	D1	—	—	—	—	—	—	•

¹ NA w/ Lariat Sport Package (17K)

★ = New for this model year

• = Available

PACKAGED OPTIONS/EMISSIONS

STX APPEARANCE PACKAGE (17S)**Availability:**

- Optional on XL

Not available with:

- XL Value Package (96V)

Includes:

- Bright Chrome Grille
- High Airflow Grille (std w/6.7L Diesel DRW only)
- Bright Hub Covers
- Chrome Front and Rear Step Bumpers
- Cruise Control (steering wheel-mounted)
- STX Fender Vent Badge
- 18" Sparkle Silver Painted Cast Aluminum Wheels (648) (F-250/F-350 SRW)
- LT275/65Rx18EBSW A/S (TCH)
- 17" Forged Polished Aluminum Wheels (F-350 DRW)
- 19.5" Forged Polished Aluminum Wheels (F-450)

Options Available:

- LT275/70Rx18EBSW A/T, 4x4 (TDX)
- LT275/70Rx18EOWL A/T, 4x4 (TDU)
- Floor Covering, color-coordinated full carpet with floor mats (16F)
- 6" Angular Chrome step bars (NA to Regular Cab)

XL VALUE PACKAGE (96V)**Availability:**

- Optional on XL

Not available with:

- STX Appearance Package (17S)

Includes:

- Bright chrome hub covers and center ornaments (SRW Only)
- Chrome front and rear step bumper
- Cruise Control (steering wheel-mounted)

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

XL DÉCOR GROUP (17F)**Availability:**

- Optional on XL (Fleet only)

Includes:

- Bright chrome hub covers and center ornaments (SRW and 64J DRW Wheel only)
- Chrome front and rear step bumper

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

POWER EQUIPMENT GROUP (90L)**Availability:**

- Optional on XL
- Standard on XLT and Lariat

Includes:

- Accessory delay
- Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass and heated convex spotter mirror, integrated clearance lamps/turn signals (54K) (XL & XLT)
- Advanced Security Pack (Incl. SecuriLock® Passive Anti-Theft System (PATS) and Inclination / Intrusion Sensors)
- Power locks
- Power Tailgate Lock
- Power 1st row (front-seat) windows w/one-touch up/down
- Power 2nd row (rear-seat) windows (SuperCab and Crew Cab)
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (Lariat only)
- Remote keyless-entry
- Upgraded door-trim panel on XL

Deletes:

- Passenger-side lock cylinder

Options Available:

- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (XLT only)

XLT VALUE PACKAGE (17V)**Availability:**

- Optional on XLT

Not available with:

- XLT Premium Package (17P)

Includes:

- Autolock/Auto unlock
- Fog Lamps
- Power Driver's Seat (eight-way)
- Rear under-seat storage (NA w/ Regular Cab; fixed/non-locking on SuperCab; foldable/locking on Crew Cab)
- Reverse Sensing System (76R) (not included when ordered w/Pickup Box Delete (66D))
- SecuriCode™ keyless entry keypad (driver's side)

PACKAGED OPTIONS/EMISSIONS

XLT PREMIUM PACKAGE (17P)**Availability:**

- Optional on XLT SuperCab and Crew Cab

Not available with:

- Pickup Box Delete (66D)
- XLT Value Package (17V)

Requires:

- 17" Forged Polished Aluminum (64J) (F-350 DRW only)
- PowerScope® Trailer Tow Mirrors (54F)
- Fixed Rear-window w/Privacy Glass and Defrost (43B) or Power-Sliding w/Privacy Glass and Defrost (435)

Includes:

- 6" Angular Chrome step bars
- 18" Chrome PVD Aluminum Wheel (647) (SRW only)
- LT275/65Rx18EBSW A/S (TCH) (standard on SRW only)
- Autolock/Auto unlock
- Chrome exhaust tip
- Chrome tailgate handle; body-color door handles with chrome insert
- Chrome tow hooks – front, two (2)
- Fog Lamps
- Power Driver seat w/heat (8-Way)
- Rear under-seat storage (fixed/non-locking on Super Cab; foldable/locking on Crew Cab)
- Passenger seat w/heat (2-Way)
- Reverse Sensing System (76R)
- SecuriCode™ keyless entry keypad (driver's side)
- Unique chrome mirror caps

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D)
- LT275/70Rx18EBSW A/T 4x4 (TDX)
- LT275/70Rx18E OWL A/T 4x4 (TDU)

LARIAT BLACK APPEARANCE PACKAGE (17L)**Availability:**

- Optional on Lariat Crew Cab

Not available with:

- Camper Package (471)
- Snowplow/Camper Package (47B)

Requires:

- 4x4
- F-250 or F-350 SRW

Includes:

- 6" Ebony Black Angular – Running Boards
- 20" Ebony Black Painted Premium Aluminum Wheel
- LT275/65R 20E OWL A/T (TCW)
- Body-color front and rear bumper
- Ebony Black Fender Vent Surround
- Ebony Black Painted front Grille Bars
- Ebony Black Painted Mirror Caps
- Headlamps – Black out surrounds, LED only
- Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)
- Wheel Well Liner, Rear (61M)

LARIAT VALUE PACKAGE (96L)**Availability:**

- Optional on Lariat

Not available with:

- Lariat Ultimate Package (96U)

Includes:

- Easy Entry/Exit Memory Driver's Seat Feature
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System

CHROME PACKAGE (17C)**Availability:**

- Optional on Lariat SuperCab and Crew Cab
- Optional on King Ranch® 4x4

Not available with:

- Power-Deployable Running Boards (18E) on Lariat

Includes:

- 6" Angular Chrome step bars (replaces Accent-color Illuminated tubular cab steps on King Ranch®)
- 18" Chrome PVD Wheels (647) (Lariat SRW only)
- 20" Chrome PVD Aluminum Wheels (643) (King Ranch® SRW Only)
- Body-color door handles with chrome insert
- Chrome exhaust tip
- Chrome tow hooks – front, two (2)
- LT275/65Rx18EBSW A/S (TCH) (standard on Lariat SRW only)
- Unique Chrome mirror caps
- Chrome front and rear bumpers – King Ranch®
- Chrome rear tailgate appliqué – King Ranch®
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights) (54F)

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D) (when King Ranch® Ultimate Pkg. 96K is ordered you will get Power-Deployable Running Boards)
- LT275/70Rx18EBSW A/T, 4x4 (TDX) (Lariat SRW only)
- LT275/70Rx18E OWL A/T, 4x4 (TDU) (Lariat SRW only)
- LT275/65Rx20E OWL A/T, 4x4 (TCW) (SRW only; includes 20" Chrome PVD Aluminum wheel (649))

LARIAT ULTIMATE PACKAGE (96U)**Availability:**

- Lariat Crew Cab

Not available with:

- Lariat Value Package (96L)

Includes:

- Ambient Lighting – Fixed Color
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Easy Entry/Exit Memory Driver's Seat Feature
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- Intelligent Access with Push-button Start (PEPS)
- Power Telescoping/Tilt Steering Wheel/Column, memory and audio controls
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System
- Remote Tailgate Release
- Tailgate Step
- Wireless Charging Pad (only included when 40/console/40 seat is ordered)

LARIAT SPORT APPEARANCE PACKAGE (17K)**Availability:**

- Optional on Lariat

Not available with:

- DRW
- 4x2
- Lariat Two-Tone Paint (954)

Includes:

- Chrome exhaust tip
- Body-color front and rear bumpers
- Exterior mirror – body-color
- Painted body-color grille
- Platform running boards
- Unique Sport 4x4 box decal

PACKAGED OPTIONS/EMISSIONS

KING RANCH® ULTIMATE PACKAGE (96K)**Availability:**

- Optional on King Ranch®

Includes:

- LED Fog Lamps
- LED Taillamps
- Quad LED Headlamps
- Moonroof (Twin Panel)
- Multi-contour Seats
- Power-Deployable Running Boards

KING RANCH® MONOCHROMATIC PAINT PACKAGE (96M)**Availability:**

- Optional on King Ranch®

Requires:

- Chrome Package (17C)

Includes:

- Chrome front and rear bumpers
- Monochromatic Paint
- Monotone fender flares (F-450 DRW only)

Deletes:

- Accent-color Wheelip moldings (SRW)

NOTE: If combined with Tremor Off-Road Package (17Y) body-color Wheelip moldings will be included

FX4 OFF-ROAD PACKAGE (17X)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- Pickup Box Delete (66D)

Requires:

- 4x4
- All-Terrain Tires (F-250 and F-350)
- 225/70Rx19.5G BSW Traction Tires (F-450)
- Electronic-locking differential on SRW
- Limited-slip rear-axle DRW

Includes:

- Hill Descent Control™
- Off-Road Specifically tuned front/rear shock absorbers
- Transfer case and fuel tank skid plates
- Unique "FX4 Off-Road" box decal

TREMOR OFF-ROAD PACKAGE (17Y)**Availability:**

- Optional on XLT, Lariat, King Ranch® and Platinum

Not available with:

- 8' Box
- Dual Rear Wheel (DRW)
- Pickup Box Delete (66D)
- Rear Stabilizer Bar (DZLAB)

Requires:

- 4x4
- 7.3L DEVCT Gas engine (99N)
- 6.7L Power Stroke® Diesel engine (99T)
- F-250 w/ 6.7L Diesel Engine req. F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System and **Pro Trailer Backup Assist** Package (53Q) or F-250 Trailer Tow Package – High Capacity (535)
- Crew Cab

Includes:

- 4.30 Electronic Locking Final Drive Ratio (X4M) (7.3L Gas Engine only (99N))
- 3.55 Electronic Locking final Drive Ratio (X3J) (6.7L Diesel Engine only (99T))
- 35" Off-Road Tire – LT285/75R18 (TFW)
- 18" Low-Gloss Black Painted Wheel (64E)
- Lane Departure Warning
- Unique Front Springs – Ride Height Increase
- Rear Electronic Locking Differential
- Front Limited Slip Differential
- Performance Front & Rear Shock Absorb
- Power Driver seat (8-Way) w/ rear under-seat storage (XLT only)
- Off-Road Running Boards – Textured Matte Finish
- Skid Plates – Transfer Case and Fuel Tank (41P)
- Unique Front Air Dams – Approach Angle Improvement
- Water Fording Vent Tubes – Transfer Case & Axle
- Rock Crawl Mode
- Trail Control Mode
- Tremor Off-Road Decal
- Spare – Conventional Road Wheel
- LT285/75R 18E BSW Spare Tire
- Wheelip Molding – Body-Color

Options Available:

- Power-Deployable Running Boards (18E) – NA w/ XLT or interior trims 6J or 6B

F-250 TRAILER TOW PACKAGE – HIGH CAPACITY (535)**Availability:**

- Optional on XL, XLT, and Lariat F-250

Not available with:

- 10,000 GVWR/9,900 GVWR Pkg. (68D)
- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Trailer Brake Controller (TBC) (52B) – XL SRW

Includes:

- Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.
- Upgraded axle

NOTE: Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.

PACKAGED OPTIONS/EMISSIONS

F-250 TRAILER TOW HIGH CAPACITY W/ ULTIMATE TRAILER TOW CAMERA SYSTEM PACKAGE AND PRO TRAILER BACKUP ASSIST (53Q)**Availability:**

- Optional on F-250

Not available with:

- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:

- Lane Departure Warning
- F-250 Trailer Tow Package – High Capacity (535)
 - Upgraded Axle
 - Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.

★Pro Trailer Backup Assist – std on King Ranch®, Platinum and Limited

- Ultimate Trailer Tow Camera System – std on King Ranch®, Platinum and Limited
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

NOTE: *Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.*

ULTIMATE TRAILER TOW CAMERA SYSTEM W/ PRO TRAILER BACKUP ASSIST PACKAGE (53R)**Availability:**

- Optional on XL, XLT, and Lariat
- Standard on King Ranch®, Platinum, and Limited

Not available with:

- Pickup Box Delete (66D)

Requires:

- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:**★ Pro Trailer Backup Assist**

- Lane Departure Warning
- Ultimate Trailer Tow Camera System
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

SNOW PLOW PREP PACKAGE (473)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- ★Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)

Options Available:

- 240 Amp Alternator (67E) with 6.2L Gas Engine

NOTE 1: *Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

CAMPER PACKAGE (471)**Availability:**

- Optional on XL, XLT, Lariat and King Ranch® (DRW only), Platinum (DRW)

Not available with:

- 20" Wheels and Tires
- Pickup Box Delete (66D)
- Heavy-Service Front Suspension Package (67H)
- ★Tremor Off-Road Package (17Y)

Includes:

- Extra heavy-service front springs (4x2) (2 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with camper*

PACKAGED OPTIONS/EMISSIONS

SNOWPLOW/CAMPER PACKAGE (47B)**Availability:**

- Optional on XL, XLT, Lariat, and King Ranch® (DRW only)

Not available with:

- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)
- Pickup Box Delete (66D)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details. Expect firmer ride when vehicle is not equipped with snowplow and/or camper.

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow and/or camper*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

HEAVY-SERVICE FRONT SUSPENSION PACKAGE (67H)**Availability:**

- Optional on all Pickups

Usage:

- Recommended only on vehicles which will permanently utilize aftermarket equipment such as heavy-duty winches, brush guards or other apparatus which loads the front axle to the specified Gross Axle Weight Rating (GAWR)

Not available with:

- Tremor Off-Road Package (17Y)
- Snow Plow Package (473), Camper Package (471) or Heavy-Service Package for Pickup Box Delete (63R)

Includes:

- Heavy-service front springs (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)

NOTE 1: *Vehicle ride height will increase w/the addition of this package.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with front end utility attachment.*

HEAVY-SERVICE PACKAGE FOR PICKUP BOX DELETE (63R)**Availability:**

- Optional on XL and XLT
- F-250 and F-350 SRW

Not available with:

- 20" Wheels and Tires, Snow Plow Prep Package (473) or Heavy-Service Front Suspension Package (67H)
- Moonroof (Twin Panel) (43V)

Requires:

- Pickup Box Delete (66D)

Includes:

- Heavy-service front springs (200 lbs. Upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment).
- Rear stabilizer bar
- Rear auxiliary springs (F-250 only; Std. on 350)

NOTE: *Salesperson's Source book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

10,000/9,900 GVWR PACKAGE (68D)**Availability:**

- Optional on F-250 and F-350 SRW

Not available with:

- Trailer Tow Pkg. – High Capacity (535)
- F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System Package and **Pro Trailer Backup Assist** (53Q)

Includes:

- 9,900 lbs. Gross Vehicle Weight Rating (F-250 SRW)
- 10,000 lbs. Gross Vehicle Weight Rating (F-350 SRW)

F-350 GAS HEAVY-DUTY PAYLOAD PACKAGE (96G)**Availability:**

- Optional on XL
- F-350
- Regular Cab

Not available with:

- 4x4
- Pickup Box Delete (66D)

Requires:

- 6.2L Gas engine (996) with 3.73 Non-Limited-Slip final drive ratio (X37) – SRW only
- 6.2L Gas engine (996) with 4.30 Limited-Slip final drive ratio (X4L) – DRW only

Includes:

- TorqShift®-G Six-Speed Automatic Transmission (44S) – 6.2L Gas engine (996) only
- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel) – DRW only

NOTE: *Package increases payload by reducing base curb weight*

PACKAGED OPTIONS/EMISSIONS

F-350 DIESEL HEAVY-DUTY PAYLOAD PACKAGE (96H)**Availability:**

- Optional on XL
- F-350
- Regular Cab
- DRW

Not available with:

- 4x4
- 6.2L Gas engine (996)
- 7.3L DEVCT Gas engine (99N)

Requires:

- 6.7L Power Stroke® Diesel engine (99T) with 3.55 (X3K) or 4.10 (X4N) Limited-Slip final drive ratio

Includes:

- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel)

NOTE: *Package increases payload by reducing base curb weight*

11,400 (SRW)/13,000 (DRW Only) GVWR PACKAGE (68L)**Availability:**

- Optional on F-350 SRW:
 - 4x4 with 6.2L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 7.3L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x2 with 6.7L Power Stroke® Diesel engine and 18" A/S Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any 18" or 20" tires
 - Regular Cab 142" WB (8' box)
 - SuperCab 148" WB (6 3/4' box)
 - SuperCab 164" WB (8' box)
 - Crew Cab 160" WB (6 3/4' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any size tires
 - Crew Cab 176" WB (8' box)
- Optional on F-350 DRW

Not available with:

- F-350 DRW w/Box Delete and 6.7L Diesel

Includes:

- 11,400 lbs. Gross Vehicle Weight Rating
 - Available w/F350 SRW Pickups or Box Deletes w/:
 - 6.2L GAS (996) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 7.3L GAS (99N) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x2 & w/18" A/S Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x4 & w/any 18" or 20" Tires w/:
 - PU REG CAB LONG BOX 142" WB
 - PU SUPERCAB SHORT BOX 148 WB
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB SHORT BOX 160 WB
 - 6.7L DIESEL (99T) w/4x4 & w/All Size Tires w/:
 - PU CREW CAB LONG BOX 176 F WB
- 13,000 lbs. Gross Vehicle Weight Rating (F-350 DRW)

PICKUP BOX DELETE (66D)**Availability:**

- Optional XL and XLT: F-250, F-350 SRW and F-350 DRW Pickups with long wheelbases
- Regular Cab 142" WB (8 ft. box)
- SuperCab 164" WB (8 ft. box)
- Crew Cab 176" WB (8 ft. box)

Usage:

- Incomplete vehicle package – req. further manufacture and certification by a final stage manufacturer. In addition, Ford urges manufacturers to follow the recommendations of the Ford Incomplete Vehicle Manual and the Ford Truck Body Builder's Layout Book (and applicable supplements).

Not available with:

- 7.3L Gas Engine (99N)
- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Moonroof (Twin Panel) (43V)
- Short Wheelbase Variants
- FX4 Off-Road Package (17X)

Deletes:

- Pickup Box and Tie-down hooks
- Tailgate
- Rear bumper
- Rearview Camera
- Spare wheel, tire, carrier and jack
- 7/4 Pin Connector
- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)

Options Available:

- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)
- Rear View Camera and Prep Kit (872)

5TH WHEEL/GOOSENECK HITCH PREP PACKAGE (53W)**Availability:**

- Optional on XL, XLT, Lariat, King Ranch® Platinum and Limited
- Standard on F-450

Not available with:

- Drop-in Bedliner (85L)
- Pickup Box Delete (66D)

Includes:

- Five (5) pickup bed attachment points w/plugs
- One (1) frame under-bed cross member
- One (1) integrated 7-pin connector on driver's side pickup bed wall

5th Wheel Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible w/the factory orderable 5th Wheel Hitch Kits (15K and 15L) and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part #BC3Z-19D520-A (8 ft. box only). The prep package is also compatible w/Reese Signature Series 5th wheel hitch kits updated w/a new Leg Service Kit – Part# BC3Z-A00A25-A (8 ft. box only)
- The 5th Wheel Hitch Kit-15K, 5th Wheel Hitch Kit-15L and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part # BC3Z-19D520-A is not released to the short box (6.75 ft. box)

NOTE: *The short pickup box provides less clearance between the cab and 5th wheel trailer compared to "long box" pickups. The receiver centerline of the hitch should be mounted at least two inches forward from the rear-axle of the truck chassis. When selecting a trailer and tow vehicle, it's critical that this combination provide clearance between the cab and tow vehicle for turns up to and including 90 degrees. Failure to follow this recommendation could result in the trailer contacting the cab of the tow vehicle during tight turns.*

Gooseneck Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible only w/the factory orderable Gooseneck Hitch Kit-15J, Gooseneck Dual Hitch Kit-15E or Dealer-installed Ford Customer Accessories Gooseneck hitch by Reese – part # BC3Z-19F503-A (8 ft. box and 6.75 ft. box)

PACKAGED OPTIONS/EMISSIONS

CNG/Propane GASEOUS ENGINE PREP PACKAGE (98F)

Availability:

- Optional on all F-250 and F-350

Requires:

- 6.2L Gas Engine (996)

Includes:

- Hardened Engine Intake Valves and Valve Seats
- Bi-Fuel manifold

NOTE: This package does not include CNG/Propane fuel tanks, lines, etc. Vehicle will be equipped w/the standard factory gasoline fuel system. Additional equipment combined w/Certified calibration reflash is required, from an external upfitter, to convert the vehicle to a CNG/Propane fueled vehicle. See Alternative Fuel Buyers Guide: www.ford.com/altfuelbuyersguide

Ford Motor Company does not provide an exhaust or evaporative emissions certificate w/this option when converted to use CNG or Propane fuel. Ford does not represent that a vehicle converted to use CNG or Propane will comply w/all applicable U.S. or Canadian safety standards. It is the responsibility of the final stage manufacturer (body-builder, installer, alterer or subsequent stage manufacturer) to determine that any vehicle converted to use CNG or Propane complies w/U.S. Federal, California or Canadian exhaust and evaporative emission requirements, Federal fuel economy standards, U.S. and Canadian safety standards, labeling and any other requirements

REAR VIEW CAMERA AND PREP KIT (872)

Availability:

- Optional on XL and XLT

Requires:

- Pick Up Box Delete (66D)

Pre-installed Content Includes:

- Cab Wiring
- Frame Wiring to the rear most cross member
- Video Display
 - 4" display when ordered
 - 8" display when ordered with SYNC@3

Upfitters kit Includes:

- Camera with mounting bracket
- 20' jumper wire
- Camera mounting and aiming instructions

Vehicle Special Order (VSO)

FLEET ONLY. See www.fmcdealer.com for current VSO Order Guide. This live guide includes VSO option codes, descriptions and pricing. Email vsomail@ford.com or call 1.800.34.FLEET, menu 4 w/any VSO questions you may have.

High Sulfur Diesel Fuel Usage

Vehicles for intended usage w/diesel fuel sulfur content greater than 15ppm require Euro II (>500ppm sulfur) or Euro III (<500ppm sulfur) packages to avoid engine functionality issues.

Packages are available through Export Order Guide w/the appropriate US EPA exemption or verifiable export usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

NOTE: JP8 fuel is supported and compatible w/these packages

Leaded Fuel Capable

Package is available through Export Order Guide w/the appropriate US EPA exemption or verifiable market usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

European Certified Headlamps

European certified headlamp package is available for export usage through Export Order Guide.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

MISCELLANEOUS OPTIONS

COV req.....	79V
Priced DORA	C09

EMISSIONS STANDARD/OPTIONAL EQUIPMENT

50-STATE EMISSIONS SYSTEM	425
Standard on all Vehicles	

FRONT LICENSE PLATE BRACKET

.....	153
Standard in states requiring two license plates and optional to all others.	

POWERTRAIN**ENGINE HORSEPOWER AND TORQUE RATINGS***

ENGINE	TRANSMISSION	NOMINAL COMPRESSION RATIO	50-STATE	
			HORSEPOWER	TORQUE
			H.P. @ RPM*	FT. LBS. @ RPM
ALL				
6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed SelectShift® Automatic	TBD	TBD	TBD
7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD
6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD

(1) 10,000 lbs. GVWR and Under

(2) 10,001 lbs. GVWR and above

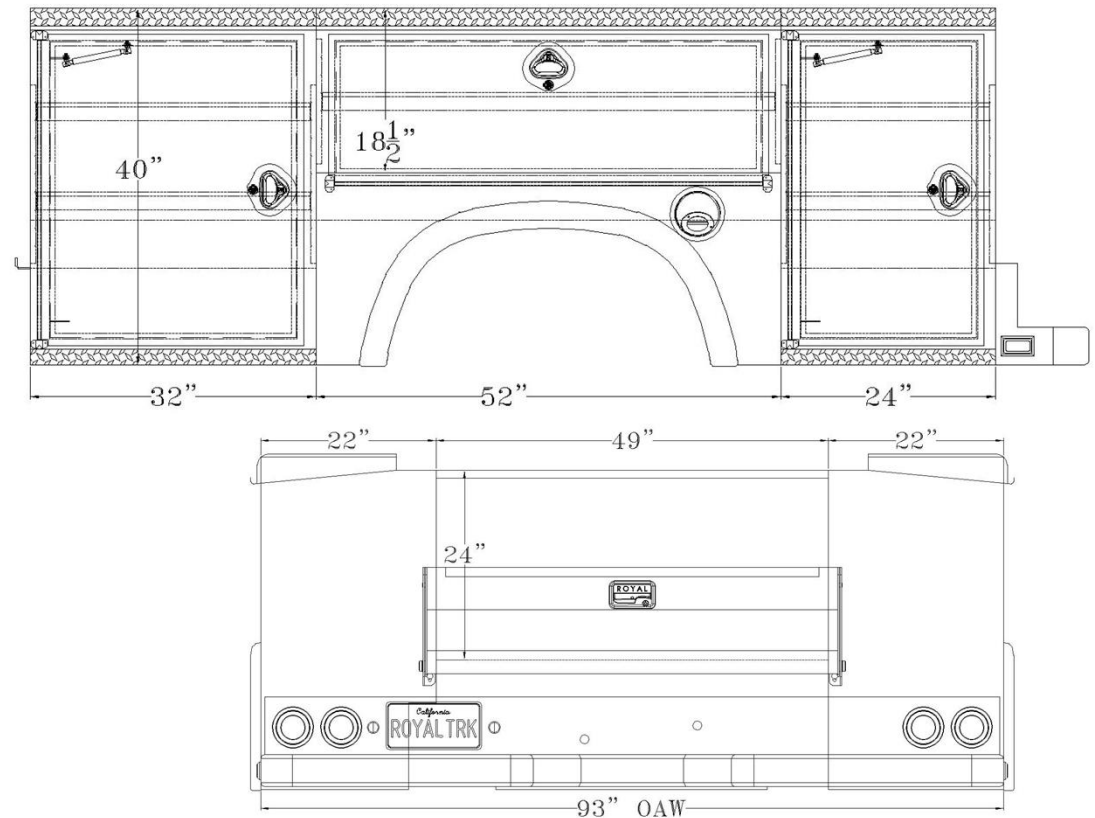
FUEL ECONOMY

TRUCKS W/GROSS VEHICLE WEIGHT RATINGS OVER 8,500 POUNDS ARE NOT INCLUDED IN THE EPA FUEL ECONOMY RATING SYSTEM. FUEL ECONOMY INFORMATION ON THESE MODELS IS GENERALLY NOT AVAILABLE BECAUSE OF WIDE VARIANCES IN VEHICLE LOADING AND OPERATIONAL CONDITIONS BETWEEN VARIOUS CUSTOMER APPLICATIONS.

9' DRW SERVICE UTILITY BODY

For 60" CA DRW Chassis

- Full Width Shelf up to 22"
- Ready for Dual Rear Wheel Chassis
- Designed for Storage Capacity and the Ability to Carry Heavy Loads
- Complete Offering of Royal Accessories
- Ideal for:
GM , Ford, and Ram



40-VDO-108

© 2019 SPARTAN MOTORS, INC. | PROPRIETARY AND CONFIDENTIAL

33



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:x No:	Yes:x No:	520-165100

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Wastewater Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

AGENDA ITEM BRIEF:

This purchase was approved by the Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Wastewater Department to be utilized in the day to day operation of the wastewater repair and maintenance operations as well as 24-hour emergency response.

RECOMMENDED MOTION:

"I move to Approve the purchase of one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Wastewater Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25."

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle.

BACKGROUND:

This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS:

This purchase was budgeted at \$52,800 using G.L number 520-16500 within the Wastewater Enterprise Fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: Barry Williams, Deputy Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

520-165100

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Wastewater Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

Agenda Item Brief: This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Wastewater Department to be utilized in the day to day operation of the Wastewater repair and maintenance operations as well as 24-hour emergency response.

Recommended Motion:

"I move to Approve the purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Wastewater Department for an of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25."

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

PROJECT SUMMARY: If approved, this vehicle will be assigned to the Wastewater Department to be utilized in day to day operations. The Department typically relies on vehicles and equipment for 24-hour emergency response relating to the City's wastewater, repair and maintenance operations.

If approved, this equipment will replace one of the aged and problematic Vehicles that is currently assigned to the Department which is beyond the service miles and age recommended for vehicle replacement per the City of Fernley Fleet Management Program (PMP) Policy, Table 4.1 Appendix 8, Replacement Standard. If approved, Staff anticipates disposal of the current asset per the FMP Policy.

Staff has chosen a Ford, F250 pickup truck with utility body from Corwin Ford because this vehicle meets the desired specifications needed for the Departments operations. Corwin Ford participates in the Sourcewell State Purchasing Program (formerly NJPA). This program allows the City of Fernley to obtain better vehicle pricing and better vehicle availability.

BACKGROUND: This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

ALTERNATIVES: Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle

LEGAL IMPLICATIONS: NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS: This purchase was budgeted at \$52,800 using G.L number 520-16500 within the Wastewater Enterprise Fund for the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



Invoice # 06/28/22

Corwin Ford
RENO

Sales • Service • Used Cars & Trucks

3600 KIETZKE LANE
RENO, NV 89502

P.O. BOX 12970
RENO, NV 89510

775-829-3206 Direct

Customer #City of Fernley

Sold to:

Address:

City, State &
Zip Code

VIN	Year	Make	Model
	2023	Ford	F250
Salesperson	Deal #		PO #
Dennis Tagliarino			

2023 F250 REG CAB XL UTILITY BODY W/BOXES

**STANDARD V8 GAS ENGINE, POWER LOCKS AND
WINDOWS, TILT, CRUISE, SPARE**

\$37,209

REAR CAMERA PREP KIT \$515

ROYAL BODY WITH OPEN TOP LIDS+ RACK \$12,790

TOTAL \$50,514 PLUS \$29.25 TITLE

***Thank you for your
business!***

MAJOR PRODUCT CHANGES

OVERVIEW

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers. With three Ford designed and built powertrains, an aggressive appearance and class exclusive features, the Super Duty® will continue to dominate the over 8500 lbs. segment for many years to come.

To learn more about the features on this vehicle, go to www.fordsourcebook.com

MODEL/SERIES/AVAILABILITY

- XL, XLT, Lariat, King Ranch®, Platinum, Limited

MECHANICAL

- ★ **New/Changed**
 - King Ranch® and Platinum changed to 4x4 standard
 - 3.55 Electronic-Locking Rear Axle (X3J) available on F-250 with 6.7L Power Stroke® Diesel engine (99T) without High Capacity Trailer Tow Package (535/53Q)
- **Deleted**
 - King Ranch® and Platinum 4x2 drivetrain

EXTERIOR

- ★ **New/Changed**
 - Platform Running Boards (18B) changed from standard to optional – XLT DRW
 - 20" Bright Machined Cast Aluminum Wheels changed to standard on King Ranch® SRW
 - Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals (54K) – Included in XL Power Equipment Group (90L)
- **Deleted**
 - 18" Wheels on King Ranch® (647/64C)
- ★ **New Colors**
 - Atlas Blue (B3)
- **Deleted Paint Colors**
 - Lithium Gray
 - Velocity Blue

INTERIOR/COMFORT

- ★ **New/Changed**
 - Baja Interior – Lariat only
 - Navy Pier / Light Slate – Limited Interior only
 - Center armrest storage with 40/20/40 split bench front seat – XL

INTERIOR/COMFORT (continued)

- **Deleted**
 - Medium Light Camel – XLT

SAFETY/SECURITY

- ★ **New/Changed**
 - None
- **Deleted**
 - Underhood Service Light

FORD CO-PILOT360™ TECHNOLOGY

- ★ **New/Changed**
 - None

FUNCTIONAL

- ★ **New/Changed**
 - SYNC® 4 with 12" LCD Capacitive Touchscreen – standard on Lariat, King Ranch®, Platinum and Limited
 - SiriusXM® with 360L – standard on Lariat, King Ranch®, Platinum and Limited
 - 360-Degree Dual Beacon LED Warning Strobes replaced the 4-Corner LED Warning Strobes (91S/91G)
 - Tailgate Step – changed to standard on King Ranch®
- **Deleted**
 - None

PACKAGES

- ★ **New/Changed**
 - Lariat Sport Appearance Package (17K)
- **Deleted**
 - None

Product Changes and Features Availability

Features, options and package content subject to change. Please check www.fmcdealer.com for the most current information.

MAJOR PRODUCT SUMMARY

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers.

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

XL	XL ¹	Lariat
MECHANICAL - Brakes – Four-Wheel Disc Anti-Lock Brake System (ABS) - Electronic-Shift-On-the-Fly (ESOF) (4x4 only) - Engine - F-250/F-350 – 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel) - F-450 – 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 - Transmission - TorqShift®-G six-speed automatic w/SelectShift® (F-250 w/6.2L gas) - TorqShift® ten-speed automatic w/Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA F-250 w/6.2L gas engine) EXTERIOR - Bumpers – front & rear, black painted - Fender vents – front - Glass – solar-tinted - Grille – black painted - Handles – door & tailgate, black - Jack 2-Ton mechanical (250/350 SRW) 4-Ton hydraulic (350 DRW/450) - Splash Guards/Mud Flaps – Front (F-450 only) - Tailgate – Removable w/key lock “Three-Blink” lane change signal - Tow hooks – front, two (2) - Trailer Sway Control - Trailer Tow Package – 7-wire harness w/relays & 7/4 pin connector - Wheels - F-250/F-350 SRW – 17” Argent Painted Steel w/painted hub covers/center ornaments - F-350 DRW – 17” Argent Painted Steel (hub covers/center ornaments not included) - F-450 – 19.5” Forged Polished Aluminum w/bright hub covers/center ornaments - Manual Locking Hubs (4x4) - Spare tire, wheel, lock & carrier - Windshield wipers – intermittent INTERIOR/COMFORT 2.3” Productivity Screen in IP Cluster - Air conditioning – manual, single zone - Cabin Air Particulate Filter - Door-trim – armrest/grab handle & reflector - Floor covering – Black, full length vinyl - Instrumentation – Multi-Function switch message center w/Ice Blue® Lighting - Mirror – rearview 11.5” day/night - Outside Temperature Display - Overhead console w/dual storage bins and map lights (NA Regular Cab) - Powerpoint – auxiliary two (2) in instrument panel - Scuff plates – front, color-coordinated - Seats – Front, HD vinyl, 40/20/40 split bench w/center armrest, cupholder and storage (manual lumbar – driver’s side), front center-seat w/integrated restraint - Steering wheel – black urethane with tilt and telescoping steering wheel/column; includes three (3) button message control - Sun visors – color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror - Window – Rear, fixed SAFETY/SECURITY - AdvanceTrac® with RSC® (Roll Stability Control™) - Belt-Minder® (front safety belt reminder) - Chime & flashing warning light on I/P if belts not buckled - Center High-mounted Stop Lamp (CHMSL) - Driver and passenger frontal airbag; passenger side deactivation Switch - Engine Only Traction Control (DRW only) - Headlamps – Quad beam jewel effect halogen - Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only - Mirrors – manually telescoping two-way fold trailer tow with manual glass - Rear View Camera - Safety belts – w/height adjustment D-ring - Safety Canopy® System (incl. side-curtain airbags) - SecuriLock® Passive Anti-Theft System; includes MyKey® owner controls feature (PATS) - SOS Post-Crash Alert System™ - Stationary Elevated Idle Control FORD CO-PILOT360™ TECHNOLOGY - AutoLamp (Auto On/Off Headlamps) - Hill Start Assist FUNCTIONAL - Audio – AM/FM stereo/MP3 Player (four (4)) - FordPass Connect™ (4G) 4G LTE Wi-Fi hotspot connects up to 10 devices¹ - Remotely start, lock and unlock vehicle² - Schedule specific times to remotely start vehicle - Locate parked vehicle² - Check vehicle status - Note: Ford Telematics™ and Data Services Prep included for Fleet Only; FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-Ford or 833-327-3673. - Rear axle - Non-Limited-Slip (F-250 and F-350) 4.30 Limited-Slip (F-450) - SYNC® - Enhanced Voice Recognition Communication and Entertainment System 911 Assist® 4.2” LCD Center Stack screen - AppLink® - Smart-Charging USB-C port – one (1)	<i>All XL content, plus:</i> EXTERIOR - BoxLink™ (includes four (4) premium locking cleats) - Bumper – front & rear, chrome - Grille – two bar, bright chrome - Wheels – F-250/F-350 SRW – 18” Sparkle Silver Painted Cast Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 4.2” LCD Productivity Screen in Cluster 110V/400W outlets; one (1) dash mounted and one (1) in rear console - Air conditioning vents – black w/chrome ring - Door-trim – soft armrest, grab handle, power window/lock switches, molded upper applique and reflector (applique and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab - Floor covering – color-coordinated, full carpet - Floor mats – color-coordinated carpet - Power Equipment Group – 1st row (front-seat) windows w/one-touch up/down, power 2nd row (rear-seat) windows (Crew Cab only); power door-locks w/backlit switches & accessory delay; power tailgate lock - Seats, Front - Front, high-series cloth 40/20/40 split bench – 20% center under-seat storage, w/center armrest, cupholder and storage - Two-way adjustable driver/passenger headrests - Sun visors – Color-coordinated, Cloth, both driver and passenger w/covered mirrors - Windows – rear, fixed privacy glass SAFETY/SECURITY - Advanced Security Pack - Mirrors – manually telescoping/folding, trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals - Remote keyless entry FORD CO-PILOT360™ TECHNOLOGY - Automatic High Beam - BLIS® (Blind Spot Information System) w/ Cross-Traffic Alert and Trailer Tow (BLIS® sensor in tailamp) - Pre-Collision Assist with Automatic Emergency Braking (AEB) and Forward Collision Warning FUNCTIONAL - Audio – AM/FM MP3 player & five (5) speakers - SiriusXM® Radio - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - Trailer Brake Controller (incl. Smart Trailer Tow Connector) - SYNC® 3 - Enhanced Voice Recognition Communications and Entertainment System 8” LCD Capacitive Touchscreen in Center Stack with Swipe Capability - Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System - AppLink® 911 Assist® - Apple CarPlay™ and Android Auto™ Capability - Smart-Charging USB-C Ports – two (2)	<i>All XLT content, plus:</i> MECHANICAL - None EXTERIOR 6” Angular chrome step bar (F-350 DRW/F-450) - Fog Lamps - Grille – two (2) bar, chrome (includes chrome inserts) - Handles – body-color, door, tailgate - Wheels - F-250/F-350 SRW – 18” Bright Machined Cast Aluminum w/bright hub covers/center ornaments - F-350 DRW – 17” Forged Polished Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 8” LCD Productivity Screen; includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications - Air conditioning – Dual-Zone Electronic Automatic Temperature Control (DEATC) - Air conditioning vents – silver metallic with chrome ring - Door-trim – soft armrest grab handle, power window/lock switches and reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab - Seats, Front - Leather seating surfaces 40/Console/40 10-way power driver & 8-way power passenger seats (six-way power-adjustable-track, two-way power recline and two-way power lumbar) - Seats, Rear - Armrest with cupholders (Crew Cab) - Steering Wheel – leather-wrapped, color-coordinated with five (5) button control - Sun visors – color-coordinated cloth; both driver and passenger w/covered illuminated visor vanity mirrors - Window – rear, power-sliding with privacy glass and defrost SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Body-color skull caps) - Mirror – rearview, electrochromic self-dimming - SecuriCode™ keyless entry keypad FORD CO-PILOT360™ TECHNOLOGY - AutoLock, Auto Unlock - Reverse Sensing System FUNCTIONAL - Audio - Premium AM/FM MP3 player - B&O Sound System by Bang & Olufsen – (ten (10) speakers including subwoofer) - SiriusXM® Radio w/360L★ - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - SYNC® 4 with Enhanced Voice Recognition★ 12” LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner’s Manual - Conversational Voice Command Recognition - Connected Navigation³

Please see Standard Equipment pages for more details.

¹ Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford.

² FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot.

³ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™ subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

Product Features Availability

Features, options and package contents subject to change.

★ = New for this model year

MAJOR PRODUCT SUMMARY

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

King Ranch®	Platinum	Limited
All Lariat content, plus: EXTERIOR 4x4 Crew Cab only - Accent-color wheelcap moldings (SRW only) - Accent-color illuminated angular running boards - Bumper – Accent-color front and rear - Grille – 2-Bar Chrome w/Carbon Inserts - LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL)) - Lower accent two-tone paint (See Color & Trim Availability page for details) - Remote Tailgate Release - Tailgate Step - Unique King Ranch® fender badges - Wheel Well Liner, Rear (F-250 and F-350 SRW only) - Wheels – SRW – 20" Bright Machined Cast Aluminum w/ Unique King Ranch® center cap INTERIOR - Ambient Lighting – Fixed Color - Door-trim – Unique panels w/King Ranch® Leather insert and woodgrain applique - Easy Entry/Exit Memory Driver's Seat Feature - Floor mats – Unique front and rear w/King Ranch® logo - Memory Power-Adjustable Pedals - Seats, Front - Unique King Ranch® Kingsville Antique Affect Leather Bucket Seating Surfaces - Front Heated/Ventilated Seating - Memory 10-way power-adjustable driver's & 8-way power-adjustable passenger seat - Steering Wheel – Unique King Ranch® Kingsville Antique Affect Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls FORD CO-PILOT360™ TECHNOLOGY - Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL - Intelligent Access with Push-button Start (PEPS) - Remote Start System - Universal Garage Door Opener (UGDO) - Rain-Sensing Windshield Wipers - Wireless Charging Pad	All King Ranch® content, plus: EXTERIOR - Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) - Bumper – Body-color front and rear - Chrome exhaust tip - Grille – Unique Satin Aluminum - Handles – door and tailgate, chrome w/body-color surround - LED Fog Lamps - LED Tailamps - Remote Tailgate Release - Satin Chrome Tailgate appliqué - Tailgate Step - Tow hooks – chrome front, two (2) - Wheels – SRW – 20" Polished Aluminum INTERIOR/COMFORT - Ambient Lighting – Fixed Color - Door-trim – soft armrest/grab handle, upper appliqué, upper & lower map pockets & reflector - Easy Entry/Exit Memory Driver's Seat Feature - Memory Power-Adjustable Pedals - Seats, Front - Unique Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console - Front Heated/Ventilated Seating - Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest - Steering Wheel – Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Chrome skull caps) - Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY - Adaptive Cruise Control and Collision Warning with Brake Support FUNCTIONAL - SYNC® 4 with Enhanced Voice Recognition* 12" LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner's Manual - Conversational Voice Command Recognition - Connected Built-In Navigation¹	MECHANICAL - Brakes – Four-Wheel Disc Anti-lock Brake System (ABS) - Electronic Shift-On-the-Fly (ESOF) - Engine 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 EXTERIOR 4x4 Crew Cab only - Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) - Bumper – Body-color front and rear - Chrome exhaust tip - Grille – Unique Satin Finish - Handles – door and tailgate, satin w/body-color surround - LED Fog Lamps - LED Tailamps - Moonroof, Power (Twin Panel) - Remote Tailgate Release - Satin Chrome Tailgate Applique - Tailgate Step - Tow hooks – chrome front, two (2) - Wheels – 20" Polished Aluminum INTERIOR/COMFORT - Ambient Lighting – Fixed Color - Dark ash swirl wood trim on armrests and center console - Door-trim – upper & lower map pockets & reflector - Easy Entry/Exit Memory Driver's Seat Feature - Leather wrapped instrument panel toppers and door arm rollovers "Limited" applique on center console with serial number - Illuminated Scuff Plates w/Limited Logo - Memory Power-Adjustable Pedals - Miko suede headliner - Seat, Front - Unique Limited Navy Pier/ Light Slate Two-tone Premium Luxury Leather Bucket Seating Surfaces - Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console - Front Heated/Ventilated Seating - Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest - Steering Wheel – Unique Navy Pier Premium Luxury Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and body-color skull caps) - Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY - Adaptive Cruise Control and Collision Warning with Brake Support - Adaptive Steering - Automatic High Beam - BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in tailamp) - Lane-Keeping Alert - Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL - Audio - Premium AM/FM MP3 player - B&O Sound System by Bang & Olufsen (ten (10) speakers including subwoofer) - FordPass Connect™ (4G) 4G LTE Wi-Fi hotspot connects up to 10 devices² - Remotely start, lock and unlock vehicle³ - Schedule specific times to remotely start vehicle - Locate parked vehicle³ - Check vehicle status Note: Ford Telematics™ and Data Services Prep included for Fleet Only. FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673. 332 Amp Alternator - Intelligent Access with Push-button Start (PEPS) - Remote Start System - SYNC® 4 with Enhanced Voice Recognition* 12" LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner's Manual - Conversational Voice Command Recognition - Connected Built-In Navigation - Upfitter Switches; six (6) - Universal Garage Door Opener (UGDO) - Rain-Sensing Windshield Wipers - Wireless Charging Pad

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate. Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

Product Features Availability

Features, options and package content subject to change.

★ = New for this model year

STANDARD EQUIPMENT

The following features are standard on every 2022 MY SUPER DUTY® F-SERIES vehicle:

MECHANICAL

- Brakes – Power four-wheel Disc Brakes with Anti-Lock Brake System (ABS)
- Engine
 - F-250/F-350: 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel)
 - F-450: 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20
- Transmission
 - TorqShift®-G Six-Speed Automatic with SelectShift® (F-250 w/6.2L gas)
 - TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA w/ F-250 w/6.2L gas)

EXTERIOR

- Doors
 - Two (Regular Cab only)
 - Four (SuperCab/Crew Cab only)
- Glass
 - Solar-Tinted, complete (Std. XL)
 - Privacy (Std. XLT, Lariat, King Ranch®, Platinum and Limited; NA front-seat windows)
- Jack
 - Two ton mechanical (F-250/F-350 SRW)
 - Four ton hydraulic (F-350 DRW/F-450)
- Lamps – pickup box and cargo area
- Manual Locking Hubs (4x4)
- Moldings – tailgate and box-rail
- Spare tire, wheel, lock & frame mounted carrier
- Tailgate – removable w/key lock, black handle
- "Three-Blink" lane change signal
- Tie-down hooks – pickup box, four (4)
- Tow hooks – front, two (2)
- Trailer Tow Package (F-250/F-350) – 7 wire harness w/relays and 7/4 pin connector
- Trailer Tow Package (F-450) – 7/4 pin connector, 4.30Ls rear-axle and GCWR (Reg Cab – 45,300 lbs, Crew Cab 4x4 42,000lbs, Crew Cab 4x2 43,400 lbs)

INTERIOR/COMFORT

- Convenience
 - Coat hooks – LH/RH color-coordinated
 - Dash top tray
 - Dome Lamp – LH/RH door activated & I/P switch operated w/delay
 - Handles, grab – driver & front-passenger
 - Handles, roof ride – front-passenger (also over rear-doors on Crew Cab)
 - Map lights – dual (front and rear w/Crew Cab)
 - Powerpoint, auxiliary
- Door-Trim – color-coordinated, molded w/armrest/grab handle & reflector
- Headliner – color-coordinated cloth
- Hood release
- Horn – dual electric

INTERIOR/COMFORT (continued)

- Instrument panel – color-coordinated w/ glove box, 4 air registers w/positive shut off, powerpoint
- Instrumentation – Multi-function switch message center w/Ice Blue® Lighting® (three (3) button message control on steering wheel for XL; five (5) button control for XLT, Lariat, King Ranch®, Platinum and Limited)
- Scuff plates – front, color-coordinated; Illuminated w/logo on Limited
- Steering – power
- Steering damper
- Windshield wipers – intermittent

SAFETY/SECURITY

- AdvanceTrac® with RSC® (Roll Stability Control™)
- Airbags
 - Driver and Passenger frontal and side airbag/curtain
 - Passenger side airbag deactivation switch
- Center High-mounted Stop Lamp (CHMSL)
- Child tethers (Regular Cab, front-passenger and all rear-seating positions)
- Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only
- Safety Belts
 - Belt-Minder® front safety belt reminder – chime and flashing warning light on instrument cluster if belts not buckled
 - Color-coordinated w/height adjustment (front-outboard seating positions only)
- SecuriLock® Passive Anti-Theft System (PATS); includes MyKey® owner controls feature
- SOS Post-Crash Alert System™
- Stationary Elevated Idle Control (SEIC)

FUNCTIONAL

- Alternator
 - 157 Amp (Std. XL)
 - 200 Amp (Std. XLT, Lariat, King Ranch® and Platinum)
 - 332 Amp (Limited)
- Axle
 - Twin I-beam front axle w/coil spring suspension (narrow front track) – 4x2 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (narrow front track) – 4x4 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (wide front track) (F-450)
 - Rear – Non-Limited-Slip (F-250/F-350)
 - Rear – 4.30 Limited-Slip (F-450)
- Battery
 - Gas engine – 650-CCA, 72-AH (XL only)
 - Gas engine – 750-CCA, 78-AH, single (NA XL)
 - Diesel engine – 750-CCA, 78-AH, dual (6.7L Power Stroke® Diesel engine)
- Intelligent Oil-Life Monitor® (6.7L Power Stroke® Diesel engine)
- Oil minder system (6.2L Gas engine)
- Shock absorbers – heavy-duty gas
- Stabilizer bar – front

The following features are standard on select 2022MY SUPER DUTY® vehicles:

MECHANICAL	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Four-Wheel Disc Anti-Lock Brake System (ABS) – Roll Stability Control™ (RSC®)/Traction Control/Trailer Sway Control	•	•	•	•	•	•
2.5" Built Ford Tough® Trailer Hitch Receiver						
F-250 (less HD Trailer Tow (535))	•	•	•	•	•	•
F-350 SRW – 6.2L and 7.3L Gas engine	•	•	•	•	•	•
F-350 SRW – Diesel (All 4x2 and 4x4 Regular Cab and Super Cab. Excludes 164" WB Crew Cab only)	•	•	•	•	•	•
F-350 DRW – 6.2L Gas Engine	•	•	•	•	•	•

STANDARD EQUIPMENT

MECHANICAL (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
3" Built Ford Tough® Trailer Hitch Receiver						
F-250 – Diesel with HD Trailer Tow (535)	•	•	•	•	•	•
F-350 SRW – Diesel (4x4 164" WB and Crew Cab only)	•	•	•	•	•	•
F-350 DRW (7.3L Gas and 6.7L Diesel) and F-450						
Note: To find the maximum trailer weight allowed for your vehicle, consult your authorized dealer (or the RV and Trailer Towing Guide provided by your authorized dealer)	•	•	•	•	•	•
4x4 Only						
Electronic-Shift-On-the-Fly (ESOF)	•	•	•	•	•	•
Drivetrain						
4x2	•	•	•	•	•	•
4x4	•	•	•	•	•	•
Fuel Tanks						
29 Gallon (Diesel Engine) – 142" or 148" Wheelbase	•	•	•	•	•	•
34 Gallon (Diesel Engine) – 160" or 164" Wheelbase	•	•	•	•	•	•
34 Gallon (Gas Engine) – NA 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Gas Engine) – 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Diesel Engine) – 176" Wheelbase	•	•	•	•	•	•
KEY EXTERIOR FEATURES						
Bumper – Front						
Black painted steel w/grained MIC top cover and black lower air dam	•					
Chrome w/grained top cover and black lower air dam		•	•			
Accent-color				•		
Body-color					•	•
Bumper – Rear						
Black painted	•					
Chrome		•	•			
Accent-color				•		
Body-color					•	•
Grille						
Black MIC	•					
Bright Chrome – two (2) bar		•				
Chrome – two (2) bar (includes chrome inserts)			•			
Chrome – two (2) bar w/Caribou Inserts				•		
Satin Aluminum					•	
Unique Satin Finish						•
Rear Quarter Panel						
Decal – 4x4 only	•	•	•	•	•	•
Handles – Door and Tailgate						
Black	•	•				
Body-color			•	•		
Chrome w/body-color surround					•	
Satin Chrome w/body-color surround						•
Headlamps/Taillamps/Lamps						
Quad beam halogen jewel effect	•	•	•	•		
Quad Beam LED					•	•
LED Taillamps					•	•
AutoLamp (Auto On/Off Headlamps)	•	•	•	•	•	•
Automatic High Beam		•	•	•	•	•
Center High-mounted Stop Lamp (LED on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
Fog lamps (LED on Platinum and Limited)			•	•	•	•
LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))				•	•	•
LED Roof Marker/Clearance Lamps (F-350 DRW/F-450)	•	•	•	•	•	•
Utility Lighting System (LED Side-mirror Spotlights) (see mirror descriptions below)			•	•	•	•

STANDARD EQUIPMENT

KEY EXTERIOR FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Mirrors						
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp)		•	•	•	•	•
Manually telescoping/folding trailer tow with manual glass	•					
Manually telescoping/folding trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals		•				
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights)			•			
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, Memory, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (Body-Color skull caps on King Ranch® and Limited; Chrome on Platinum)				•	•	•
Power Equipment						
Remote Tailgate Release				•	•	•
Wheels (SRW)						
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments (F-250/F-350)	•					
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments (4) (F-250/F-350)		•				
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and bright hub covers/center ornaments (F-250/F-350)			•			
20" Bright Machined Cast Aluminum Wheel				•		
20" Polished Aluminum Wheel					•	
20" Polished Aluminum Wheel						•
Wheels (DRW)						
17" Argent Painted Steel (hub covers/center ornaments not included) (F-350)	•	•				
17" Forged Polished Aluminum w/bright hub covers/center ornaments (F-350, front and rear outer; steel inner wheels)			•	•	•	•
19.5" Forged Polished Aluminum w/bright hub covers/center ornaments (F-450, front and rear outer; steel inner wheels)	•	•	•	•	•	•
Windows and Glass						
1 st Row (front-seat) – Manual	•					
1 st Row (front-seat) – Power w/one-touch up/down		•	•	•	•	•
2 nd Row (rear-seat) – Manual	•(2,3)					
2 nd Row (rear-seat) – Fixed	•(2)					
2 nd Row (rear-seat) – Power		•(2,3)	•(2,3)	•(2,3)	•(2,3)	•(2,3)
Rear (backlight) – Fixed	•	•				
Rear (backlight) – Power-sliding w/defrost			•	•	•	•
Solar-tinted glass (complete)	•					
Privacy Glass (rear backlight on all cabs; 2 nd Row (rear-seat) windows on SuperCab and Crew Cab. Other glass is solar-tinted.)		•	•	•	•	•
Functional						
BoxLink™ (includes four (4) premium locking cleats)		•	•	•	•	•
KEY INTERIOR/COMFORT FEATURES						
Air Conditioning						
Manual, Single Zone	•	•				
Dual-Zone Electronic Automatic Temperature Control (DEATC)			•	•	•	•

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Audio						
AM/FM stereo MP3 player (four (4) speakers)	•					
AM/FM stereo MP3 player (speakers; five (5) with Regular Cab, seven (7) with SuperCab and Crew Cab)		•				
B&O Sound System by Bang & Olufsen (10 speakers including subwoofer)			•	•	•	•
SiriusXM® Radio (speakers; adds one (1) I/P mounted center speaker on XLT only) Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc		•				
★ SiriusXM® Radio w/ 360L Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc			•	•	•	•
SYNC® – Enhanced Voice Recognition Communication and Entertainment System – 911 Assist® – 4.2" LCD Screen in Center Stack – AppLink® – Smart-Charging USB-C port – one (1)	•					
SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – AppLink® – 911 Assist® – Apple CarPlay® and Android Auto™ Capability – Smart-Charging USB-C ports – two (2)		•				
KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited

STANDARD EQUIPMENT

★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Navigation ¹				•	•		
★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Built-In Navigation ¹						•	•
FordPass Connect™ (4G) – 4G LTE Wi-Fi hotspot connects up to 10 devices ² – Remotely start, lock and unlock vehicle ³ – Schedule specific times to remotely start vehicle ³ – Locate parked vehicle ³ – Check vehicle status ³ Note: Ford Telematics™ and Data Services Prep included for Fleet Only: FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673.	•	•	•	•	•	•	•
Cupholders							
Dual, instrument panel-mounted		•	•	•	•	•	•
Integrated w/armrest on rear-seat			•(3)	•	•	•	•
Door-Trim							
Armrest, grab handle and reflector	•						
Soft armrest, grab handle, power window/lock switches, molded upper appliqué, reflector (appliqué and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab		•					
Soft armrest, grab handle, power window/lock switches, upper appliqué, reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab			•	•	•	•	•
Floor Covering							
Black vinyl	•						
Color-coordinated carpet and carpeted floor mats (includes rear mats on SuperCab & Crew Cab)		•	•	•	•	•	•

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features.

FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the Ford Pass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

★ = New for this model year

• = Available

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Instrument Center						
2.3" Productivity Screen display includes menus for Multi-function switch message center w/Ice Blue® Lighting (three (3) button message control on steering wheel)	•					
4.2" LCD Productivity screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel (included with the SYNC® 3)		•				
8.0" Productivity Screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel			•	•	•	•
Manual door-locks and windows	•					
Overhead Console – with dual storage bin and map lights (NA Regular Cab)	•(2,3)	•	•	•	•	•
Power Equipment						
Accessory delay		•	•	•	•	•
Door-locks w/backlit switches		•	•	•	•	•
Windows w/backlit switches		•	•	•	•	•
Powerpoint and 110V/400W Outlet						
One (1) Powerpoint in front center under-seat storage		•				
Two (2) Powerpoints in instrument panel	•	•	•	•	•	•
Two (2) Powerpoints in rear side of Flow-through Console			•	•	•	•
110V/400W Outlet dash mounted		•	•	•	•	•
110V/400W Outlet in rear side of Flow-through Console		•	•	•	•	•
Reverse Sensing System			•	•	•	•
Rear View Camera						
Display in center-stack screen	•	•	•	•	•	•
Rearview Mirror						
11.5" Day/Night	•	•				
Electrochromic self-dimming			•	•	•	•
Remote Start System				•	•	•
Seats (Front)						
HD vinyl, 40/20/40 split bench w/center armrest and cupholder	•					
Cloth, 40/20/40 split bench, 20% center locking under-seat storage, w/center armrest, cupholder and storage		•				
Leather seating surfaces, 40/Console/40			•			
Unique King Ranch® Kingsville Antique Affect Leather seating surfaces, 40/Console/40				•		
Unique Platinum Leather seating surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)					•	
Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)						•
Manual lumbar support, driver's side	•	•				
10-way power driver seat (six-way power-adjustable track, two-way power recline and two-way power lumbar)			•	•	•	•
8-way power-adjustable front passenger seat			•	•	•	•
Two-way adjustable driver/passenger headrests	•	•	•			
Four-way adjustable driver/passenger headrests				•	•	•
Easy Entry/Exit Memory Driver's Seat Feature				•	•	•
Front center-seat-integrated restraints (SIR)	•	•				
Seats (Rear) SuperCab						
Vinyl, 60/40 fold-up bench seat	•					
Cloth, 60/40 fold-up bench seat		•				
Premium vinyl seating surfaces, 60/40 fold-up bench seat			•			

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
<u>Seat (Rear) Crew Cab</u>						
60/40 bench w/flip-up/fold-down w/two (2) outboard head restraints and a center head restraint	•	•				
60/40 bench w/flip-up seats & fold-down backrests, w/under-seat partitioned lockable fold-flat storage, two (2) outboard head restraints and a center head restraint. Dual integrated cupholders in armrest			•	•	•	•
Vinyl	•					
Cloth		•				
Leather			•			
King Ranch® Kingsville Antique Affect Leather seating surface				•		
Platinum Leather seating surface					•	
Limited Navy Pier/Light Slate Leather seating surface						•
<u>Steering Wheel</u>						
Urethane – Black w/redundant audio and SYNC® controls	•	•				
Leather-wrapped – (Lariat, color-coordinated; King Ranch®, Unique King Ranch® Kingsville Antique Affect; Platinum; Limited Navy Pier Leather)			•	•	•	•
Heated Steering Wheel				•	•	•
Cruise Control (steering wheel-mounted)		•	•	•	•	•
Tilt and Telescoping steering wheel/column (Manual on XL, XLT and Lariat; Power with heat and memory on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
<u>Sun visors</u>						
Color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror	•					
Color-coordinated cloth; both driver and passenger w/covered mirrors		•				
Color-coordinated cloth; both driver and passenger w/illuminated visor vanity mirrors			•	•	•	•
<u>SAFETY/SECURITY</u>						
AdvanceTrac® with RSC® (Roll Stability Control™)	•	•	•	•	•	•
Autolock, Auto unlock, Rainlamp Wiper Activated Headlamps		•	•			
Advanced Security Pack (incl. Inclinometer / Intrusion Sensors)		•	•	•	•	•
Autolock, Auto unlock, High-Beam with Rainlamp Wiper Activated Headlamps, Intelligent Access with Push-button Start (PEPS)				•	•	•
Driver and Passenger frontal and side airbag/curtain	•	•	•	•	•	•
Intelligent Access with Push-button Start (PEPS)				•	•	•
Remote Keyless-Entry		•	•			
Trailer Sway Control and Hill Start Assist	•	•	•	•	•	•

FUNCTIONAL EQUIPMENT

AXLE AVAILABILITY

Series	Engine	Transmission	Non-Limited-Slip			Limited-Slip				Electronic-Locking			
			3.31	3.55	3.73	3.55	3.73	4.10	4.30	3.31	3.55	3.73	4.30
			X31	X35	X37	X3K	X3L	X4N	X4L	X3H	X3J	X3E	X4M
F-250	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O ¹	—	—	—	—	—	O	O ^{2, 3}	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic (F-250 only)	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	—	—	—	—	—	O	—	O ²
F-350 SRW	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O	—	—	—	—	—	O	O ²	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	—	—	—	S	O ²
F-350 DRW	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	O	—	O	—	—	—	—	—
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
F-450	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—

¹ Requires Trailer Tow Upgrade (535/53Q)² Standard with Tremor Off-Road Package (17Y)³ NOTE: Adding 3.55 Electronic-Locking Axle (X3J) on F-250 w/ 6.7L Power Stroke® Diesel increases GVWR to 10,400 lb.

2022 SUPER DUTY® PICKUP (F-250 / F-350 / F-450) FUNCTIONAL EQUIPMENT

			2022MY (F-250 / F-350) Super Duty		Alternators					
			6.2L Gas - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	
F250 & F350	6.2L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	67D (STD)	67D (STD)	67D (STD)	67D (STD)	
			(66S)	6 Upfitter Switches	67D	67D	67D	67E	67E	
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67E	67E	67E	
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67E	67E	67E	
			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67E	67E	67E	
SRW & DRW			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67D	67E	67E	67E	
			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67E	67E	67E	67E	67E	
							(STD) Standard @ 157 Amp			
				(STD or 67D) @ 200 Amp						
				(67E) @ 240 Amp						

			2022MY (F-250 / F-350) Super Duty		Alternators				
			7.3L Gas - Pickups						
Series	Engine	Drive	Option Code	Description	XL	XLT	Lariat	King Ranch	Platinum
F250 & F350	7.3L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	STD	STD	STD	STD
			(66S)	6 Upfitter Switches	STD	STD	STD	STD	STD
			(473 or 47B)	Snow Plow Pkg.	STD	STD	STD	STD	STD
			(43C & 66S)	Inverter & Upfitter Switches	STD	STD	STD	STD	STD
			(43C & 473 or 47B)	Inverter & Snow Plow	STD	STD	STD	STD	STD
			(66S & 473 or 47B)	Upfitters Switches & Snowplow	STD	STD	STD	STD	STD
(43C & 66S & 473 or 47B)			Invert. & Upfit Switch & Snowplow	STD	STD	STD	STD	STD	
86M			Dual Batteries	67B	67B	67B	67B	67B	
				(STD) 240 Amp					
				(67B) 397 Amp					

			2022MY (F-250 / F-350 / F-450) Super Duty		Alternators						
			6.7L Diesel - Pickups								
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	Limited	
F-250 & F-350 F-450	6.7L Diesel 4 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	67D	67D	67D	67D	67D	STD (67A)	
			(66S)	6 Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)	
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67D	67D	67D	STD (67A)	
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)	
			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67D	67D	67D	STD (67A)	
			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67A	67A	67A	67A	STD (67A)	
SRW & DRW			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67A	67A	67A	67A	67A	STD (67A)	
			(41A)	Rapid Heat*	67B	67B	67B	67B	67B	67B	
					(STD) 175 Amp						
					(STD or 67D) 240 Amp						
					(67A) #1 @ 332 Amp						
					(67B) #2 @ 397 Amp						

FUNCTIONAL EQUIPMENT**WHEEL AVAILABILITY – SRW ONLY**

17" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Std. on XL) – 64A



18" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Opt. on F-350 XL) – 64F

WHEEL AVAILABILITY – SRW ONLY (Continued)

18" Sparkle Silver Painted
Cast Aluminum w/Bright
Hub Cover/Center
Ornament
(Included w/STX Pkg. (17S)
on F-250/F-350 SRW; Std.
on XLT) – 648



18" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets
and Bright Hub
Cover/Center Ornament
(Std. on Lariat) – 64C



18" Chrome PVD Aluminum
(included in XLT Premium
Pkg. (17P), Chrome Pkg. –
(17C)) – 647

FUNCTIONAL EQUIPMENT



18" Low-Gloss Black
Painted Aluminum Wheel
(incl. Tremor Off-Road Pkg
(17Y)) – 64E



20" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets and Bright
Hub/Cover Center
Ornament
(Opt. on 4x4 F-250 and F-
350 SRW Lariat) – 642



20" Bright Machined Cast
Aluminum w/Light Caribou
Painted Pockets; Light
Caribou Wheel Ornament
with King Ranch® Logo
(Std. on F-250 and F-350
SRW King Ranch®) – 643



20" Chrome PVD Aluminum
(Opt. on 4x4 F-350 SRW
Chrome Pkg. (17C) –
(Chrome Pkg. has unique
center ornament on King
Ranch®) – 649



20" High-Gloss Black
Premium Painted Aluminum
(Included in Lariat Black
Appearance Package
(17L)) – 646



20 " Polished Aluminum
(Std. on F-250 F-350 SRW
Platinum) – 64U



20" Polished Aluminum
(Std. on Limited F-250/F-
350 SRW) – 64L

FUNCTIONAL EQUIPMENT

WHEEL AVAILABILITY – DRW ONLY



17" Argent Painted Steel
(hub cover/center ornament
not included) (Std. on XL
and XLT F-350) – 64K



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-350 DRW; Std. on
Lariat and Platinum
F-350; Opt. on XL and XLT
F-350) – 64J



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Std. on King Ranch® F-
350) – 64J



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-450) – 64D



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament;
Light Caribou wheel
ornament with King Ranch®
Logo – 64D



17" Stainless Steel Wheel
Covers (Front & Rear) (Opt.
on XL and XLT) – 945

OPTIONAL EQUIPMENT

		XL				XLT				Lariat					
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450		
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A	
BODYSTYLE & WHEELBASES															
Regular Cab 4X2 – 8' Box	142"	F2A	F3A	F3C	F4C	F2A	F3A	F3C	F4C	—	—	—	—		
Regular Cab 4X4 – 8' Box	142"	F2B	F3B	F3D	F4D	F2B	F3B	F3D	F4D	—	—	—	—		
SuperCab 4X2 – 6 ¾' Box	148"	X2A	X3A	—	—	X2A	X3A	—	—	X2A	X3A	—	—		
SuperCab 4X2 – 8' Box	164"	X2A	X3A	X3C	—	X2A	X3A	X3C	—	X2A	X3A	X3C	—		
SuperCab 4X4 – 6 ¾' Box	148"	X2B	X3B	—	—	X2B	X3B	—	—	X2B	X3B	—	—		
SuperCab 4X4 – 8' Box	164"	X2B	X3B	X3D	—	X2B	X3B	X3D	—	X2B	X3B	X3D	—		
Crew Cab 4X2 – 6 ¾' Box	160"	W2A	W3A	—	—	W2A	W3A	—	—	W2A	W3A	—	—		
Crew Cab 4X2 – 8' Box	176"	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C		
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—		
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D		
ENGINE/TRANSMISSION															
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996/44 S	S	P-96G	P-96G	—	S	—	—	—	S	—	—	—		
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996/44 G	—	S	S	—	—	S	S	—	—	S	S	—		
7.3L 2V DEVCT NA PFI V8 Gas/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N/4 4G	O	O	O	—	O	O	O	—	O	O	O	—		
6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 with manual push-button Engine-Exhaust Braking/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T/44 G	O	O	O	S	O	O	O	S	O	O	O	S		
WHEELS															
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.															
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64A	S	S	—	—	—	—	—	—	—	—	—	—		
17" Argent Painted Steel (Hub Covers/Center Ornaments not included)	64K	—	—	S	—	—	—	S	—	—	—	—	—		
17" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64J	—	—	O P-17S P-96G/P96H	—	—	—	O	—	—	—	S	—		
18" Chrome PVD Aluminum Wheel	647	—	—	—	—	P-17P	P-17P	—	—	P-17C	P-17C	—	—		
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments	64C	—	—	—	—	—	—	—	—	S	S	—	—		
18" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64F	—	O	—	—	—	—	—	—	—	—	—	—		
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments	648	P-17S	P-17S	—	—	S	S	—	—	—	—	—	—		
18" Low-Gloss Black Painted Aluminum Wheel	64E	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—		
19.5" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S		
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	—	—	—	—	—	—	—	—	P-17C	O-17C	—	—		
20" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments (4X4 only)	642	—	—	—	—	—	—	—	—	O	O	—	—		
20" High-Gloss Black Premium Painted Aluminum Wheel (4x4 only; req. Lariat Black Appearance Package (17L))	646	—	—	—	—	—	—	—	—	P-17L	P-17L	—	—		
TIRES															
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.															
LT245/75Rx17EBSW A/S	TD8	S	S	S	—	—	—	S	—	—	—	S	—		
LT245/75Rx17EBSW A/T	TBM	O	O	O	—	—	—	O	—	—	—	O	—		
LT245/75Rx17E OWL A/T(4)	TBL	—	—	—	—	—	—	O	—	—	—	O	—		
LT265/70Rx17E OWL A/T	TCD	O	O	—	—	—	—	—	—	—	—	—	—		
LT275/65Rx18EBSW A/S	TCH	P-17S	O P-17S	—	—	S P-17P	S P-17P	—	—	S	S	—	—		
LT275/70Rx18EBSW A/T, 4x4	TDX	P-17S	O P-17S	—	—	O	O	—	—	O	O	—	—		
LT275/70Rx18E OWL A/T, 4x4	TDU	P-17S	P-17S	—	—	O	O	—	—	O	O	—	—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire. (continued)													
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
LT275/65Rx20E OWL A/T, 4x4 – (NA 142" WB on XLT)	TCW	—	—	—	—	—	—	—	—	O	O	—	—
Spare Tire, Wheel, Carrier and Jack (req. Pickup Box Delete (66D); NA w/F-450)	512	O	O	O	O	O	O	O	O	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions pages for complete content and restrictions)													
XL Value Package	96V		O					—				—	
STX Appearance Package	17S		O					—				—	
Power Equipment Group	90L		O					S				S	
XLT Value Package	17V		—					O				—	
XLT Premium Package	17P		—					O-2,3				—	
Chrome Package	17C		—					—				O	
Lariat Black Appearance Package – F-250/F-350 4x4 SRW only; NA w/Camper Package (471) or Snowplow/Camper Package (47B)	17L		—					—				O-3	
★Lariat Sport Appearance Package (NA w/ DRW)	17K		—					—				O	
Lariat Value Package	96L		—					—				O	
Lariat Ultimate Package	96U		—					—				O-3	
FX4 Off-Road Package	17X		O					O				O	
Tremor Off-Road Package – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box or F-450	17Y		—					O-3				O-3	
Snow Plow Prep Package (w/6.7L Power Stroke® Diesel engine includes 240 Amp Alternator (67D))	473		O					O				O	
Camper Package	471		O					O				O	
Snowplow/Camper Package	47B		O					O				O	
F-250 Trailer Tow Package – High Capacity (req. 6.7L Power Stroke® Diesel engine; req. Trailer Brake Controller (TBC) (52B) on XL SRW; NA w/10,000 GVWR/9,900 GVWR Pkg. (68D) or Pickup Box Delete (66D)	535		O					O				O	
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine; NA w/Pickup Box Delete (66D))	53Q		O					O				O	
F-350 Gas Heavy-Duty Payload Package (req. 6.2L Gas Engine (996) and 4x2; NA w/ Pickup Box Delete (66D))	96G		O-1					—				—	
F-350 Diesel Heavy-Duty Payload Package (req. 6.7L Diesel Engine (99T),DRW and 4x2)	96H		O-1					—				—	
Heavy-Service Front Suspension Package	67H		O					O				O	
Heavy-Service Package for Pickup Box Delete	63R		O					O				—	
Pickup Box Delete (NA F-450; NA F-250 Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System; NA w/ 7.3L Gas Engine (99N) or Pro Trailer Backup Assist Package (53Q); req. Long Wheelbase Variants)	66D		O					O				—	
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only; 9,900 GVWR Pkg. avail. on F-250 only; NA w/Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	68D		O					O				O	
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L		O					O				O	
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F		O					O				O	
FUNCTIONAL													
Skid Plates – Transfer Case and Fuel Tank (4x4 only) (incl. in FX4 Off-Road Pkg. (17X) and Tremor Off-Road Pkg (17Y))	41P		O					O				O	
Engine Block Heater	41H		O					O				O	
Transmission Power Take-Off Provision (req. Ten-Speed Transmission; includes Transmission mounted live drive and stationary mode PTO; NA 4x2 142" WB; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R		O					O				O	
Engine Idle Shutdown – 5 minute	86A		O					O				—	
Engine Idle Shutdown – 10 minute	86B		O					O				—	
Engine Idle Shutdown – 15 minute	86C		O					O				—	
Engine Idle Shutdown – 20 minute	86D		O					O				—	
Operator Commanded Regeneration (OCR) (req. 6.7L Power Stroke® Diesel engine)	98R		O					O				—	

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

		XL				XLT				Lariat					
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450		
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A	
FUNCTIONAL (continued)															
Dual Battery (Dual 78 AH; req. 6.2L or 7.3L. Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M	O				O				O					
BoxLink™ (includes four (4) premium locking cleats; includes Interface Brackets on XL; Brackets are std when spray-in-bedliner (85S) is ordered on XL; feature is removed when Pickup Box Delete (66D) is ordered on XLT)	66B	O				S				S					
Adaptive Steering (req. Ultimate Trailer Tow Camera System w/Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	60A	—				—				O					
Adaptive Cruise Control and Collision Warning with Brake Support (optional availability requires 96U Lariat Ultimate Pkg.)	527	—				—				O-96U					
Audible Lane Departure Warning (req. 66D Pickup Box Delete and Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning (94P) on XL; NA w/F-450)	60C	O				O				—					
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp) (Reqs. Power Equipment Group (90L) on XL; N/A with Pickup Box Delete (66D))	60B	O				S				S					
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W	O				O				O					
Power-Adjustable Pedals	62M	—				O				S					
Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning	94P	O				S				S					
Alternators (*Refer to alternator charts for further details)															
200 Amp Alternator – w/6.2L engine; 240 Amp w/6.7L Power Stroke® Diesel engine (required w/Snow Plow Pkg.(473), Upfitter Switches (66S) or 110V/400W Outlet(43C); on XL and XLT NA w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67D	S				S				S					
240 Amp Alternator (req. 6.2L engine; 240 Amp; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67E	S/O				S/O				S/O					
332 Amp Alternator (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A	S				S				S					
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine (99N) only; NA w/6.2L Gas engine (996); required w/41A Rapid-Heat Supplemental Heater)	67B	S/O				S/O				S/O					
Trailer Towing Equipment															
Manually Telescoping, Folding Trailer Tow Mirrors with Power/Heated Glass, Heated Convex Spotter Mirror, Integrated Clearance Lamps/Turn Signals	54K	P-90L				S				—					
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights)	54F	—				O				S					
LED Box Lighting (Incl. LED Center High-Mounted Stop Lamp (CHMSL); NA 66D Pickup Box Delete)	66L	O				O				O P-96L P-96U					
Quad Beam LED Headlamps and LED Fog Lamps, and LED Taillamps; optional availability requires Lariat Ultimate Pkg. (96U); LED Fog Lamps and LED Center High-Mounted Stop Lamp (CHMSL))	59Q	—				—				O-96U					
Trailer Brake Controller (TBC) (Verified to be compatible w/select electric over hydraulic brakes; 7 & 4-way combo trailer tow socket and bracket deleted w/66D Pickup Box Delete; Std. on DRW; includes Smart Trailer Tow Connector)	52B	S/O				S				S					
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat or Pickup Box Delete 66D; std on F-450)	53W	O				O				O					
Cab Steps and Running Boards															
Platform Running Boards	18B	O				O				—					
6" Angular Chrome Step Bar (Std. on Lariat F-350 DRW and F-450; XL reqs. STX Appearance Pkg. (17S))	18C	O-17S,2,3				O-2,3				S/O					

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
 ★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Cab Steps and Running Boards (continued)													
Extended Running Board, 6" Angular Chrome	18D	—				O-2,3				O			
Power-Deployable Running Boards; requires Lariat Ultimate Pkg. (96U) or Lariat Value Package (96L); Not available with Lariat Interior Trims 6J or 6B, SuperCab, Lariat Chrome Package (17C), Lariat Black Appearance Package (17L) or Lariat Sport Appearance Package (17K) (unless 17L pr 17K is ordered with Tremor Off-Road Pkg (17Y))	18E	—				—				O -96U, 96L			
KEY EXTERIOR OPTIONS													
Center High-mounted Stop Lamp (CHMSL) (F-350 only; CHMSL is deleted from vehicles over 10,000 lbs. GVWR with 66D Pickup Box Delete; replaced with a black cover; to add CHMSL with 66D Pickup Box Delete, select 59H. CHMSL is standard under all other conditions.)	59H	S/O				S/O				S			
Front License Plate Bracket Note: See "Emissions" section for additional information	153	O				O				O			
Rear View Camera and Prep Kit (includes loose camera, wiring bundle and electrochromic mirror; req. 66D Pick Up Box Delete; required on 10,000 GVWR or less)	872	O				O				—			
Rain-Sensing Windshield Wipers and Heated Steering Wheel	60W	—				—				O			
Halogen Fog Lamps (req. XL Décor Group (17F) on XL)	595	O				O				—			
Rear CHMSL Camera (display in center stack screen; includes LED Center High-mounted Stop Lamp (CHMSL) with Cargo Light and Rear Video Camera; NA w/Pickup Box Deleted (66D), Individual Trailer TPMS/Customer/Placed Trailer Camera (653) or Customer/Placed Trailer Camera (65B))	873	O				O				O			
Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package (NA w/ Pickup Box Delete (66D))	53R	O				O				O			
LED Roof Marker/Clearance Lamps (Std. on F-350 DRW & F-450)	592	S/O				S/O				S/O			
Tailgate Step (includes step and handle; NA w/66D Pickup Box Delete)	85G	O				O				O			
Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts; NA w/66D Pickup Box Delete)	85S	O				O				O			
Paint													
Lower Accent Two-Tone Paint (includes accent two-tone paint on SRW wheel-lip moldings; NA on F-350 DRW and F-450 wheel-lip moldings)	954	—				—				O			
Rear-windows													
Defrost with Fixed and Privacy Glass (Privacy Glass is standard on XLT; XL req. Privacy Glass (924) and Power Equipment Group (90L))	43B	O				O				—			
Power-Sliding Glass with Defrost and Privacy Glass (XL req. 90L Power Equipment Group; 924 Privacy Glass is standard on XLT)	435/924	O-2,3				O-2,3				S			
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel on Crew Cab; optional availability on XLT req. 17P XLT Premium Pkg.; includes map lights and Moonroof switches; NA w/Pickup Box Delete (66D))	43V	—				O-3				O-3			
Universal Garage Door Opener (UGDO)	85D	—				—				O			
110V/400W Outlet (with 40/20/40 seats, there is one in-dash mounted outlet; 2 nd outlet in the console req. 40/Console/40 seats; req. 200 Amp Alternator (67D))	43C	O				S				S			
Floor Covering, color-coordinated full carpet with floor mats (reqs. STX Appearance Pkg. (17S))	16F	O-17S				—				—			
Floor Mats, All-Weather (Doesn't include carpet floor mats; req. Super Cab or Crew Cab, 4x2 or 4x4 w/ESOF when Carpet Delete (166) is ordered)	16T	—				O				O			
Carpet Delete (XLT & Lariat replaced w/black flooring)	166	S				O				O			
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O				O				O			
Remote Start System (req. 90L Power Equipment Group)	76S	O				O				O P-96U P-96L			
Reverse Sensing System (NA w/66D Pickup Box Delete)	76R	F				O				S			
Upfitter Switches; (6) (Located in overhead console; req. 200 Amp Alternator (67D))	66S	O				O				O			

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat				
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A	
KEY INTERIOR OPTIONS (continued)														
Audio SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – 4.2" productivity screen in IP cluster – AppLink® – 911 Assist® – Apple CarPlay™ and Android Auto™ Capability – Smart-Charging USB-C ports – two (2) – Includes 110V/400W Outlet (43C) Reqs. Power Equipment Group (90L) on XL only	913		O				S					—		
SiriusXM® Radio Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc - adds one (1) I/P mounted center speaker on XL and XLT only Voice-Activated Navigation with HD and SiriusXM Traffic and Travel Link® Note: SiriusXM Traffic and Travel Link® includes a 5-year prepaid subscription. Services are not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by SiriusXM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc	39S		O				S					—		
	21N		—				O						—	
Front-Seats (See Color & Trim Availability page for additional information)														
Cloth, 40/20/40 Split Bench	1		O				—						—	
Vinyl, 40/Mini-Console/40	L		O				—						—	
Cloth, 40/Mini-Console/40	4		O										—	
Cloth, 40/Console/40	2		—				O-2,3						—	
Leather, 40/20/40 Split Bench	6		—				—						O	
Rear-Seats														
Heated Seats (req. 40/Console/40 front-seat; req. 96L Lariat Interior Pkg. or 96U Lariat Ultimate Pkg.)	90R		—				—						O-3	
LPO/FLEET OPTIONS (Requires Valid FIN Code)														
XL Décor Group	17F		F				—						—	
Cruise Control (steering wheel-mounted)	525		F, P-17S, P-96V				—						—	
Daytime Running Lamps (DRL) (the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942		F				F						F	
Spare Wheel and Tire Delete (also deletes jack and frame-mounted carrier)	51X		F				—						—	
Speed Limitation – 65-mph governed top speed	926		F				F						—	
Speed Limitation – 75-mph governed top speed	927		F				F						—	
Individual TPMS Delete (optional on F-350 SRW over 10K GVWR; NA w/68D 10,000 GVWR Package; NA on F-250; Individual Trailer TPMS/Customer/Placed Trailer Camera Package (653) or Customer/Placed Trailer Camera (65B) – F-350 SRW only)	18L		F				F						F	
Upfitter Interface Module	18A		F				F						F	
FORD ACCESSORIES, PRE-INSTALLED														
Aluminum Crossbed Toolbox by Weather Guard (Defender Series) – NA w/Pickup Box Delete (66D)	62X		O				O						O	
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year														
S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option														

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02) – NA w/ Pickup Box Delete (66D)	62Y		O				O				O		
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E		O				O				O		
Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873))	65B		—				O				O		
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A		—				O				O		
Individual Trailer TPMS/Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	653		—				O				O		
Wheel Locks (reqs. 20" wheels)	94W		—				—				O		
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. second unit body)	52R		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber (req. Center High-Mounted Stop Lamp)	91S		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber-White (req. Center High-Mounted Stop Lamp)	91G		O				O				O		
Hood Deflector – Black Molded	87H		O				O				O		
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete)	85L		O				O				O		
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D		O				O				O		
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E		O				O				O		
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J		O				O				O		
Wheel Well Liner, Front	61L		O				O				O		
Wheel Well Liner, Rear (avail. on F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61M		O				O				O		
Wheel Well Liner, Front/Rear (avail. On F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61N		O				O				O		
Bed Step (NA w/ Pickup Box Delete (66D) or F-450)	87B		O				O				O		
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete, 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M		O				O				O		
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on F-450 or 66D Pickup Box Delete)	61S		O				O				O		
Splash Guards/Mud Flaps Rear (NA w/66D Pickup Box Delete; reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S		O				O				O		
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40/console/40)	21X		—				O				O		
Exterior Backup Alarm	76C		O				O				O		
Gooseneck Hitch Kit – 15J (req. 53W 5" Wheel/Gooseneck Hitch Prep Package; Available F-250/F-350 only; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15J		O				O				O		
5" Wheel Hitch Kit-15L – includes 19k rated hitch for SRW. (req. 53W 5" Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L		O				O				O		
FORD ACCESSORIES, PRE-INSTALLED (continued)													
5" Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5" Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K		O				O				O		
Stainless Steel Wheel Covers – Front & Rear (F-350 DRW only; req. 64K 17" Argent Painted Steel Wheel)	945		O				O				—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

★ = New for this model year

OPTIONAL EQUIPMENT

		King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 0 SRW	F-350 DRW	F-450
		Order Code	700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A
BODYSTYLE & WHEELBASES													
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D
ENGINE/TRANSMISSION													
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996 / 44S	S	—	—	—	S	—	—	—	—	—	—	—
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996 / 44G	—	S	S	—	—	S	S	—	—	—	—	—
7.3L 2V DEVCT NA PFI V8 Gas Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N / 44G	O	O	O	—	O	O	O	—	—	—	—	—
6.7L 4 Valve OHV Power Stroke®V8 Turbo Diesel B20/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T / 44G	O	O	O	S	O	O	O	S	S	S	S	S
WHEELS (King Ranch® wheels have unique King Ranch® logo center ornaments)													
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.													
17" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64J	—	—	S	—	—	—	S	—	—	—	S	—
18" Low-Gloss Black Painted Aluminum Wheel	64E	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
19.5" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S
20" Bright Machined Cast Aluminum (req. TCW tire)	643	S	S	—	—	—	—	—	—	—	—	—	—
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	P-17C	P-17C	—	—	—	—	—	—	—	—	—	—
20" Polished Aluminum	64U	—	—	—	—	S	S	—	—	—	—	—	—
20" Polished Aluminum	64L	—	—	—	—	—	—	—	—	S	S	—	—
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.													
LT245/75Rx17EBSW A/ S	TD8	—	—	S	—	—	—	S	—	—	—	S	—
LT275/65Rx20E OWL A/T, 4x4	TCW	S	S	—	—	S	S	—	—	S	S	—	—
LT245/75Rx17EBSW A/T	TBM	—	—	O	—	—	—	O	—	—	—	O	—
LT245/75Rx17E OWL A/T (DRW inner rear are LT245/75Rx17E)	TBL	—	—	O	—	—	—	O	—	—	—	O	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions page for complete content and restrictions)													
Chrome Package (req. 85G Tailgate Step)	17C	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Monochromatic Paint Package (req. Chrome Package (17C))	96M	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Ultimate Package	96K	O	O	O	O	—	—	—	—	—	—	—	—
FX4 Off-Road Package	17X	O	O	O	O	O	O	O	O	O	O	O	O
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine	53Q	O	—	—	—	O	—	—	—	O	—	—	—
Tremor Off-Road Pacakge – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box	17Y	O	O	—	—	O	O	—	—	—	—	—	—
Snow Plow Prep Package (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	473	O	O	O	O	O	O	O	O	O	O	O	O
Camper Package	471	—	—	O	O	—	—	O	O	—	—	—	—
Snowplow/Camper Package	47B	—	—	O	O	—	—	—	—	—	—	—	—
Heavy-Service Front Suspension Package	67H	O	O	O	O	O	O	O	O	O	O	O	O
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only. 9,900 GVWR Pkg. avail. on F-250 only; NA w/F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q)	68D	O	O	—	—	O	O	—	—	O	O	—	—
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L	—	O	O	—	—	O	O	—	—	O	O	—
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F	O	O	O	—	O	O	O	—	—	—	—	—
FUNCTIONAL													
Dual Battery (req. 6.2L. or 7.3L Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M	O	O	O	—	O	O	O	—	—	—	—	—
Engine Block Heater	41H	O	O	O	O	O	O	O	O	O	O	O	O

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F350 0 SR W	F-350 DR W	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
FUNCTIONAL (continued)													
Transmission Power Take-Off Provision (includes Transmission mounted live drive and stationary mode PTO capability; req. Ten-Speed Transmission (F-250 NA w/6.2L engine; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R	O	O	O	O	O	O	O	O	O	O	O	O
332 Amp Alternators (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A	S	S	S	S	S	S	S	S	S	S	S	S
240 Amp Alternator (req. 6.2L engine; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) when ordered together)	67E	S/O	S/O	S/O	S/O	S/O	S/O	S/O	S/O	—	—	—	—
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine(99N); NA w/6.2L Gas engine (996))	67B	O	O	O	O	O	O	O	O	O	O	O	O
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat)	53W	O	O	O	S	O	O	O	S	O	O	O	S
Adaptive Steering	60A	O	O	O	O	O	O	O	O	S	S	S	S
Skid Plates, Transfer Case & Fuel Tank (4x4 only)	41P	O	O	O	O	O	O	O	O	O	O	O	O
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W	O	O	O	—	O	O	O	—	O	O	O	—
KEY EXTERIOR OPTIONS													
Quad Beam LED Headlamps, LED Fog Lamps and LED Taillamps	59Q	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Extended Running Board, 6" Angular Chrome	18D	O	O	O	O	—	—	—	—	—	—	—	—
Front License Plate Bracket	153	O	O	O	O	O	O	O	O	O	O	O	O
Note: See "Emissions" section for additional information													
LED Roof Clearance Lights	592	O	O	S	S	O	O	S	S	O	O	S	S
Power-Deployable Running Boards (includes Front Splash Guards/Mud Flaps on F-350 DRW)	18E	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Tough Bed® (spray-in bedliner) (includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)	85S	O	O	O	O	O	O	O	O	O	O	O	O
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel; includes map lights and Moonroof switches)	43V	O – P-96K	O – P-96K	O – P-96K	O – P-96K	O	O	O	O	S	S	S	S
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O	O	O	O	O	O	O	O	O	O	O	O
Upfitter Switches; six (6) located in overhead console (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	66S	O	O	O	O	O	O	O	O	S	S	S	S
Floor Covering – Vinyl (incl. all-weather Floor Mats and carpeted floor mats) Note: Vinyl Flooring replaces carpet flooring	16P	O	O	O	O	O	O	O	O	O	O	O	O
Adaptive Cruise Control and Collision Warning with Brake Support	527	O	O	O	O	S	S	S	S	S	S	S	S
Floor Mats, All-Weather (includes carpet floor mats)	16S	O	O	O	O	O	O	O	O	O	O	O	O
2 nd Row Heated Seat	90R	O	O	O	O	S	S	S	S	S	S	S	S
LPO/FLEET OPTIONS (Requires Valid FIN Code)													
Daytime Running Lamps (DRL) the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942	F	F	F	F	F	F	F	F	F	F	F	F
Upfitter Interface Module	18A	F	F	F	F	F	F	F	F	F	F	F	F
FORD ACCESSORIES, PRE-INSTALLED													
Aluminum Crossbed Toolbox by Weather Guard (Defender Series)	62X	O	O	O	O	O	O	O	O	O	O	O	O
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02)	62Y	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E	—	—	—	O	—	—	—	O	—	—	—	O
FORD ACCESSORIES, PRE-INSTALLED (continued)													
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A	O	O	O	O	O	O	O	O	O	O	O	O
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option													

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

2022 SUPER DUTY® PICKUP
(F-250 / F-350 / F-450)
OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 SRW	F-350 DRW	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
Customer-Placed Trailer Camera	65B	O	O	O	O	O	O	O	O	O	O	O	O
Individual Trailer TPMS/Customer-Placed Trailer Camera (NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452" diameter valve stem	653	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Locks (reqs. 20" wheels)	94W	O	O	—	—	O	O	—	—	O	O	—	—
Hood Deflector – Black Molded	87H	O	O	O	O	O	O	O	O	O	O	O	O
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. Second unit body)	52R	O	O	O	O	O	O	O	O	O	O	O	O
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40-20 Bridge-40)	21X	O	O	O	O	O	O	O	O	O	O	O	O
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K))	85L	O	O	O	—	O	O	O	—	O	O	O	—
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Well Liner, Front (DRW only)	61L	—	—	O	O	—	—	O	O	—	—	O	O
Wheel Well Liner, Front/Rear (SRW only; Rear is already standard)	61N	O	O	—	—	O	O	—	—	O	O	—	—
Bed Step	87B	O	O	O	—	O	O	O	—	O	O	O	—
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M	O	O	O	O	O	O	O	O	O	O	O	O
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on 450)	61S	O	O	O	—	O	O	S	—	O	O	S	—
Splash Guards/Mud Flaps Rear (reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S	O	O	O	O	O	O	O	O	O	O	O	O
Exterior Backup Alarm	76C	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Hitch Kit (req. 53W 5 th Wheel/Gooseneck Hitch Prep Package; NA w/85L Drop-in Bedliner)	15J	O	O	O	—	O	O	O	—	O	O	O	—
5 th Wheel Hitch Kit-15L – includes 19k rated hitch for SRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L	O	O	—	—	O	O	—	—	O	O	—	—
5 th Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K	—	—	O	O	—	—	O	O	—	—	O	O

COLOR & TRIM AVAILABILITY

		Interior and Seat Color
INTERIOR COLOR		Medium Earth Gray
XL	• HD Vinyl 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only) • Cloth 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only) • Vinyl 40/Mini-Console/40, manual lumbar (driver's side only) • Cloth 40/Mini-Console/40, manual lumbar (driver's side only)	AS
		1S
		LS ¹
		4S ¹
XLT	• Cloth 40/20/40 split bench, 20% locking center under-seat storage, w/center armrest, cupholder and storage, two-way adjustable driver/passenger headrests, manual lumbar (driver's side only) • Cloth 40/Console/40; two-way adjustable driver/passenger headrests, manual lumbar (driver's side only); Flow-through Console with 110V/400W outlet in rear (SuperCab & Crew Cab only; 4x4 req. ESOF – 213)	3S
		2S
EXTERIOR COLOR		Monotone
XL		Availability
Agate Black Metallic		•
Antimatter Blue Metallic		•
★Atlas Blue Metallic		•
Carbonized Gray Metallic		•
Iconic Silver Metallic		•
Oxford White		•
Race Red		•
Stone Gray Metallic		•
XLT		
Agate Black Metallic		•
Animatter Blue Metallic		•
★Atlas Blue Metallic		•
Carbonized Gray Metallic		•
Iconic Silver Metallic		•
Oxford White		•
Race Red		•
Rapid Red Metallic Tinted Clearcoat ²		•
Stone Gray Metallic		•
FLEET ONLY EXTERIOR COLOR – (REQUIRES VALID FIN CODE) ^{3,4}		Monotone
		Availability
XL		
Green		•
Green Gem		•
Orange		•
School Bus Yellow		•
Vermillion Red		•
Yellow		•
XLT		
Green		•
Green Gem		•
Orange		•
School Bus Yellow		•
Vermillion Red		•
Yellow		•

¹ Fleet Only² Extra Charge Paint³ Fleet only exterior colors will be priced as VSO colors.⁴ Not available with DRW or XLT Premium Package (17P), or Tremor Off-Road Package (17Y)

COLOR & TRIM AVAILABILITY (cont.)

		Interior and Seat Color				
		Baja	Black Onyx	Black Onyx / Dark Marsala	Java	Navy Pier / Light Slate
LARIAT	• Front Leather Seating Surfaces 40/Console/40; 10-way power driver and 8-way power front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, Flow-through Console with 110V/400W outlet in rear	5J	5B	—	—	
	• Front Leather Seating Surfaces 40/20/40 Split Bench; 10-way power driver and 8-way front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint	6J	6B	—	—	
KING RANCH®	• Unique King Ranch® Kingsville Antique Affect Leather Seating Surfaces Front 40/Console/40 w/matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, dual integrated cupholders in armrest and 2 outboard head restraints; 10-way power driver and 8-way power passenger (includes power lumbar), memory, easy-entry/exit driver's seat, and heated/ventilated driver and passenger seating. Flow-through Console with 110V/400W outlet in rear.	—	—	—	SP	
PLATINUM	• Unique Platinum Multi-contour Driver and Passenger Leather 40/console/40 Seats; 10-way power driver and 8-way power front passenger heated/ventilated seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	7B	BB	—	
LIMITED	• Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, Multi-contour Driver and Passenger 40/console/40 Seats; 10-way power driver and 8-way power front passenger, heated/ventilated driver and passenger seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	—	—	—	TT

COLOR & TRIM AVAILABILITY (cont.)

		Two-Tone						
EXTERIOR COLOR	Monotone	Stone Gray (D1)	Carbonized Gray (M7)	Availability				
LARIAT								
Agate Black Metallic	UM	—	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	—	•	•	—	—	—
★Atlas Blue	B3	—	—	•	•	—	—	—
Carbonized Gray Metallic	M7	—	—		•	—	—	—
Iconic Silver Metallic	JS	—	—	•	•	—	—	—
Oxford White	Z1	—	—	•	•	—	—	—
Race Red	PQ	—	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	•	•	—	—	—
Stone Gray Metallic	D1	—	—	•	•	—	—	—
★ LARIAT BLACK APPEARANCE PACKAGE (17L)								
Agate Black Metallic	UM	—	—	—	•	—	—	—
Antimatter Blue Metallic	HX	—	—	—	•	—	—	—
★Atlas Blue	B3	—	—	—	•	—	—	—
Carbonized Gray Metallic	M7	—	—	—	•	—	—	—
Iconic Silver Metallic	JS	—	—	—	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	—	—	—
LARIAT TWO-TONE (954) ¹								
Agate Black Metallic	UM	D1	—	•	•	—	—	—
Agate Black Metallic	UM	—	M7	—	•	—	—	—
★Atlas Blue	B3	—	M7	—	•	—	—	—
Antimatter Blue Metallic	HX	D1	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	M7	—	•	—	—	—
Iconic Silver Metallic	JS	—	M7		•	—	—	—
Oxford White	Z1	—	M7	—	•	—	—	—
Oxford White	Z1	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	M7	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	D1	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	M7	—	•	—	—	—
KING RANCH®								
Agate Black Metallic	UM	D1	—	—	—	—	•	—
Antimatter Blue Metallic	HX	D1	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	—	—	—	•	—
Oxford White	Z1	D1	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	D1	—	—	—	—	•	—
KING RANCH® W/MONOCROMATIC PAINT PACKAGE (96M)								
Agate Black Metallic	UM	—	—	—	—	—	•	—
Antimatter Blue Metallic	HX	—	—	—	—	—	•	—
★Atlas Blue	B3	—	—	—	—	—	•	—
Oxford White	Z1	—	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	•	—
Stone Gray Metallic	D1	—	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	•	—
PLATINUM								
Agate Black Metallic	UM	—	—	—	•	•	—	—
Antimatter Blue Metallic	HX	—	—	—	•	•	—	—
★Atlas Blue	B3	—	—	—	•	•	—	—
Carbonized Gray Metallic	M7	—	—	—	•	•	—	—
Iconic Silver Metallic	JS	—	—	—	•	•	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	•	—	—
LIMITED								
Agate Black Metallic	UM	—	—	—	—	—	—	•
★Atlas Blue	B3	—	—	—	—	—	—	•
Carbonized Gray Metallic	M7	—	—	—	—	—	—	•
Iconic Silver Metallic	JS	—	—	—	—	—	—	•
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	—	•
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	—	•
Stone Gray Metallic	D1	—	—	—	—	—	—	•

¹ NA w/ Lariat Sport Package (17K)

PACKAGED OPTIONS/EMISSIONS

STX APPEARANCE PACKAGE (17S)**Availability:**

- Optional on XL

Not available with:

- XL Value Package (96V)

Includes:

- Bright Chrome Grille
- High Airflow Grille (std w/6.7L Diesel DRW only)
- Bright Hub Covers
- Chrome Front and Rear Step Bumpers
- Cruise Control (steering wheel-mounted)
- STX Fender Vent Badge
- 18" Sparkle Silver Painted Cast Aluminum Wheels (648) (F-250/F-350 SRW)
- LT275/65Rx18E BSW A/S (TCH)
- 17" Forged Polished Aluminum Wheels (F-350 DRW)
- 19.5" Forged Polished Aluminum Wheels (F-450)

Options Available:

- LT275/70Rx18E BSW A/T, 4x4 (TDX)
- LT275/70Rx18E OWL A/T, 4x4 (TDU)
- Floor Covering, color-coordinated full carpet with floor mats (16F)
- 6" Angular Chrome step bars (NA to Regular Cab)

XL VALUE PACKAGE (96V)**Availability:**

- Optional on XL

Not available with:

- STX Appearance Package (17S)

Includes:

- Bright chrome hub covers and center ornaments (SRW Only)
- Chrome front and rear step bumper
- Cruise Control (steering wheel-mounted)

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

XL DÉCOR GROUP (17F)**Availability:**

- Optional on XL (Fleet only)

Includes:

- Bright chrome hub covers and center ornaments (SRW and 64J DRW Wheel only)
- Chrome front and rear step bumper

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

POWER EQUIPMENT GROUP (90L)**Availability:**

- Optional on XL
- Standard on XLT and Lariat

Includes:

- Accessory delay
- Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass and heated convex spotter mirror, integrated clearance lamps/turn signals (54K) (XL & XLT)
- Advanced Security Pack (Incl. SecuriLock® Passive Anti-Theft System (PATS) and Inclination / Intrusion Sensors)
- Power locks
- Power Tailgate Lock
- Power 1st row (front-seat) windows w/one-touch up/down
- Power 2nd row (rear-seat) windows (SuperCab and Crew Cab)
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (Lariat only)
- Remote keyless-entry
- Upgraded door-trim panel on XL

Deletes:

- Passenger-side lock cylinder

Options Available:

- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (XLT only)

XLT VALUE PACKAGE (17V)**Availability:**

- Optional on XLT

Not available with:

- XLT Premium Package (17P)

Includes:

- Autolock/Auto unlock
- Fog Lamps
- Power Driver's Seat (eight-way)
- Rear under-seat storage (NA w/ Regular Cab; fixed/non-locking on SuperCab; foldable/locking on Crew Cab)
- Reverse Sensing System (76R) (not included when ordered w/Pickup Box Delete (66D))
- SecuriCode™ keyless entry keypad (driver's side)

PACKAGED OPTIONS/EMISSIONS

XLT PREMIUM PACKAGE (17P)

Availability:

- Optional on XLT SuperCab and Crew Cab

Not available with:

- Pickup Box Delete (66D)
- XLT Value Package (17V)

Requires:

- 17" Forged Polished Aluminum (64J) (F-350 DRW only)
- PowerScope® Trailer Tow Mirrors (54F)
- Fixed Rear-window w/Privacy Glass and Defrost (43B) or Power-Sliding w/Privacy Glass and Defrost (435)

Includes:

- 6" Angular Chrome step bars
- 18" Chrome PVD Aluminum Wheel (647) (SRW only)
- LT275/65Rx18EBSW A/S (TCH) (standard on SRW only)
- Autolock/Auto unlock
- Chrome exhaust tip
- Chrome tailgate handle; body-color door handles with chrome insert
- Chrome tow hooks – front, two (2)
- Fog Lamps
- Power Driver seat w/heat (8-Way)
- Rear under-seat storage (fixed/non-locking on Super Cab; foldable/locking on Crew Cab)
- Passenger seat w/heat (2-Way)
- Reverse Sensing System (76R)
- SecuriCode™ keyless entry keypad (driver's side)
- Unique chrome mirror caps

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D)
- LT275/70Rx18EBSW A/T 4x4 (TDX)
- LT275/70Rx18E OWL A/T 4x4 (TDU)

LARIAT BLACK APPEARANCE PACKAGE (17L)

Availability:

- Optional on Lariat Crew Cab

Not available with:

- Camper Package (471)
- Snowplow/Camper Package (47B)

Requires:

- 4x4
- F-250 or F-350 SRW

Includes:

- 6" Ebony Black Angular – Running Boards
- 20" Ebony Black Painted Premium Aluminum Wheel
- LT275/65R 20E OWL A/T (TCW)
- Body-color front and rear bumper
- Ebony Black Fender Vent Surround
- Ebony Black Painted front Grille Bars
- Ebony Black Painted Mirror Caps
- Headlamps – Black out surrounds, LED only
- Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)
- Wheel Well Liner, Rear (61M)

LARIAT VALUE PACKAGE (96L)

Availability:

- Optional on Lariat

Not available with:

- Lariat Ultimate Package (96U)

Includes:

- Easy Entry/Exit Memory Driver's Seat Feature
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System

CHROME PACKAGE (17C)

Availability:

- Optional on Lariat SuperCab and Crew Cab
- Optional on King Ranch® 4x4

Not available with:

- Power-Deployable Running Boards (18E) on Lariat

Includes:

- 6" Angular Chrome step bars (replaces Accent-color Illuminated tubular cab steps on King Ranch®)
- 18" Chrome PVD Wheels (647) (Lariat SRW only)
- 20" Chrome PVD Aluminum Wheels (643) (King Ranch® SRW Only)
- Body-color door handles with chrome insert
- Chrome exhaust tip
- Chrome tow hooks – front, two (2)
- LT275/65Rx18EBSW A/S (TCH) (standard on Lariat SRW only)
- Unique Chrome mirror caps
- Chrome front and rear bumpers – King Ranch®
- Chrome rear tailgate appliqué – King Ranch®
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights) (54F)

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D) (when King Ranch® Ultimate Pkg. 96K is ordered you will get Power-Deployable Running Boards)
- LT275/70Rx18EBSW A/T, 4x4 (TDX) (Lariat SRW only)
- LT275/70Rx18E OWL A/T, 4x4 (TDU) (Lariat SRW only)
- LT275/65Rx20E OWL A/T, 4x4 (TCW) (SRW only; includes 20" Chrome PVD Aluminum wheel (649))

LARIAT ULTIMATE PACKAGE (96U)

Availability:

- Lariat Crew Cab

Not available with:

- Lariat Value Package (96L)

Includes:

- Ambient Lighting – Fixed Color
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Easy Entry/Exit Memory Driver's Seat Feature
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- Intelligent Access with Push-button Start (PEPS)
- Power Telescoping/Tilt Steering Wheel/Column, memory and audio controls
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System
- Remote Tailgate Release
- Tailgate Step
- Wireless Charging Pad (only included when 40/console/40 seat is ordered)

LARIAT SPORT APPEARANCE PACKAGE (17K)

Availability:

- Optional on Lariat

Not available with:

- DRW
- 4x2
- Lariat Two-Tone Paint (954)

Includes:

- Chrome exhaust tip
- Body-color front and rear bumpers
- Exterior mirror – body-color
- Painted body-color grille
- Platform running boards
- Unique Sport 4x4 box decal

PACKAGED OPTIONS/EMISSIONS

KING RANCH® ULTIMATE PACKAGE (96K)**Availability:**

- Optional on King Ranch®

Includes:

- LED Fog Lamps
- LED Taillamps
- Quad LED Headlamps
- Moonroof (Twin Panel)
- Multi-contour Seats
- Power-Deployable Running Boards

KING RANCH® MONOCHROMATIC PAINT PACKAGE (96M)**Availability:**

- Optional on King Ranch®

Requires:

- Chrome Package (17C)

Includes:

- Chrome front and rear bumpers
- Monochromatic Paint
- Monotone fender flares (F-450 DRW only)

Deletes:

- Accent-color Wheelip moldings (SRW)

NOTE: If combined with Tremor Off-Road Package (17Y) body-color Wheelip moldings will be included

FX4 OFF-ROAD PACKAGE (17X)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- Pickup Box Delete (66D)

Requires:

- 4x4
- All-Terrain Tires (F-250 and F-350)
- 225/70Rx19.5G BSW Traction Tires (F-450)
- Electronic-locking differential on SRW
- Limited-slip rear-axle DRW

Includes:

- Hill Descent Control™
- Off-Road Specifically tuned front/rear shock absorbers
- Transfer case and fuel tank skid plates
- Unique "FX4 Off-Road" box decal

TREMOR OFF-ROAD PACKAGE (17Y)**Availability:**

- Optional on XLT, Lariat, King Ranch® and Platinum

Not available with:

- 8' Box
- Dual Rear Wheel (DRW)
- Pickup Box Delete (66D)
- Rear Stabilizer Bar (DZLAB)

Requires:

- 4x4
- 7.3L DEVCT Gas engine (99N)
- 6.7L Power Stroke® Diesel engine (99T)
- F-250 w/ 6.7L Diesel Engine req. F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System and **Pro Trailer Backup Assist** Package (53Q) or F-250 Trailer Tow Package – High Capacity (535)
- Crew Cab

Includes:

- 4.30 Electronic Locking Final Drive Ratio (X4M) (7.3L Gas Engine only (99N))
- 3.55 Electronic Locking final Drive Ratio (X3J) (6.7L Diesel Engine only (99T))
- 35" Off-Road Tire – LT285/75R18 (TFW)
- 18" Low-Gloss Black Painted Wheel (64E)
- Lane Departure Warning
- Unique Front Springs – Ride Height Increase
- Rear Electronic Locking Differential
- Front Limited Slip Differential
- Performance Front & Rear Shock Absorb
- Power Driver seat (8-Way) w/ rear under-seat storage (XLT only)
- Off-Road Running Boards – Textured Matte Finish
- Skid Plates – Transfer Case and Fuel Tank (41P)
- Unique Front Air Dams – Approach Angle Improvement
- Water Fording Vent Tubes – Transfer Case & Axle
- Rock Crawl Mode
- Trail Control Mode
- Tremor Off-Road Decal
- Spare – Conventional Road Wheel
- LT285/75R 18E BSW Spare Tire
- Wheelip Molding – Body-Color

Options Available:

- Power-Deployable Running Boards (18E) – NA w/ XLT or interior trims 6J or 6B

F-250 TRAILER TOW PACKAGE – HIGH CAPACITY (535)**Availability:**

- Optional on XL, XLT, and Lariat F-250

Not available with:

- 10,000 GVWR/9,900 GVWR Pkg. (68D)
- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Trailer Brake Controller (TBC) (52B) – XL SRW

Includes:

- Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.
- Upgraded axle

NOTE: Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.

PACKAGED OPTIONS/EMISSIONS

F-250 TRAILER TOW HIGH CAPACITY W/ ULTIMATE TRAILER TOW CAMERA SYSTEM PACKAGE AND PRO TRAILER BACKUP ASSIST (53Q)**Availability:**

- Optional on F-250

Not available with:

- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:

- Lane Departure Warning
- F-250 Trailer Tow Package – High Capacity (535)
 - Upgraded Axle
 - Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.

★Pro Trailer Backup Assist – std on King Ranch®, Platinum and Limited

- Ultimate Trailer Tow Camera System – std on King Ranch®, Platinum and Limited
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

NOTE: *Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.*

ULTIMATE TRAILER TOW CAMERA SYSTEM W/ PRO TRAILER BACKUP ASSIST PACKAGE (53R)**Availability:**

- Optional on XL, XLT, and Lariat
- Standard on King Ranch®, Platinum, and Limited

Not available with:

- Pickup Box Delete (66D)

Requires:

- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:**★ Pro Trailer Backup Assist**

- Lane Departure Warning
- Ultimate Trailer Tow Camera System
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

SNOW PLOW PREP PACKAGE (473)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- ★Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)

Options Available:

- 240 Amp Alternator (67E) with 6.2L Gas Engine

NOTE 1: *Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

CAMPER PACKAGE (471)**Availability:**

- Optional on XL, XLT, Lariat and King Ranch® (DRW only), Platinum (DRW)

Not available with:

- 20" Wheels and Tires
- Pickup Box Delete (66D)
- Heavy-Service Front Suspension Package (67H)
- ★Tremor Off-Road Package (17Y)

Includes:

- Extra heavy-service front springs (4x2) (2 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with camper*

PACKAGED OPTIONS/EMISSIONS

SNOWPLOW/CAMPER PACKAGE (47B)**Availability:**

- Optional on XL, XLT, Lariat, and King Ranch® (DRW only)

Not available with:

- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)
- Pickup Box Delete (66D)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details. Expect firmer ride when vehicle is not equipped with snowplow and/or camper.

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow and/or camper*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

HEAVY-SERVICE FRONT SUSPENSION PACKAGE (67H)**Availability:**

- Optional on all Pickups

Usage:

- Recommended only on vehicles which will permanently utilize aftermarket equipment such as heavy-duty winches, brush guards or other apparatus which loads the front axle to the specified Gross Axle Weight Rating (GAWR)

Not available with:

- Tremor Off-Road Package (17Y)
- Snow Plow Package (473), Camper Package (471) or Heavy-Service Package for Pickup Box Delete (63R)

Includes:

- Heavy-service front springs (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)

NOTE 1: *Vehicle ride height will increase w/the addition of this package.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with front end utility attachment.*

HEAVY-SERVICE PACKAGE FOR PICKUP BOX DELETE (63R)**Availability:**

- Optional on XL and XLT
- F-250 and F-350 SRW

Not available with:

- 20" Wheels and Tires, Snow Plow Prep Package (473) or Heavy-Service Front Suspension Package (67H)
- Moonroof (Twin Panel) (43V)

Requires:

- Pickup Box Delete (66D)

Includes:

- Heavy-service front springs (200 lbs. Upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment).
- Rear stabilizer bar
- Rear auxiliary springs (F-250 only; Std. on 350)

NOTE: *Salesperson's Source book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

10,000/9,900 GVWR PACKAGE (68D)**Availability:**

- Optional on F-250 and F-350 SRW

Not available with:

- Trailer Tow Pkg. – High Capacity (535)
- F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System Package and **Pro Trailer Backup Assist** (53Q)

Includes:

- 9,900 lbs. Gross Vehicle Weight Rating (F-250 SRW)
- 10,000 lbs. Gross Vehicle Weight Rating (F-350 SRW)

F-350 GAS HEAVY-DUTY PAYLOAD PACKAGE (96G)**Availability:**

- Optional on XL
- F-350
- Regular Cab

Not available with:

- 4x4
- Pickup Box Delete (66D)

Requires:

- 6.2L Gas engine (996) with 3.73 Non-Limited-Slip final drive ratio (X37) – SRW only
- 6.2L Gas engine (996) with 4.30 Limited-Slip final drive ratio (X4L) – DRW only

Includes:

- TorqShift®-G Six-Speed Automatic Transmission (44S) – 6.2L Gas engine (996) only
- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel) – DRW only

NOTE: *Package increases payload by reducing base curb weight*

PACKAGED OPTIONS/EMISSIONS

F-350 DIESEL HEAVY-DUTY PAYLOAD PACKAGE (96H)**Availability:**

- Optional on XL
- F-350
- Regular Cab
- DRW

Not available with:

- 4x4
- 6.2L Gas engine (996)
- 7.3L DEVCT Gas engine (99N)

Requires:

- 6.7L Power Stroke® Diesel engine (99T) with 3.55 (X3K) or 4.10 (X4N) Limited-Slip final drive ratio

Includes:

- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel)

NOTE: *Package increases payload by reducing base curb weight*

11,400 (SRW)/13,000 (DRW Only) GVWR PACKAGE (68L)**Availability:**

- Optional on F-350 SRW:
 - 4x4 with 6.2L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 7.3L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x2 with 6.7L Power Stroke® Diesel engine and 18" A/S Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any 18" or 20" tires
 - Regular Cab 142" WB (8' box)
 - SuperCab 148" WB (6 3/4' box)
 - SuperCab 164" WB (8' box)
 - Crew Cab 160" WB (6 3/4' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any size tires
 - Crew Cab 176" WB (8' box)
- Optional on F-350 DRW

Not available with:

- F-350 DRW w/Box Delete and 6.7L Diesel

Includes:

- 11,400 lbs. Gross Vehicle Weight Rating
 - Available w/F350 SRW Pickups or Box Deletes w/:
 - 6.2L GAS (996) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 7.3L GAS (99N) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x2 & w/18" A/S Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x4 & w/any 18" or 20" Tires w/:
 - PU REG CAB LONG BOX 142" WB
 - PU SUPERCAB SHORT BOX 148 WB
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB SHORT BOX 160 WB
 - 6.7L DIESEL (99T) w/4x4 & w/All Size Tires w/:
 - PU CREW CAB LONG BOX 176 F WB
- 13,000 lbs. Gross Vehicle Weight Rating (F-350 DRW)

PICKUP BOX DELETE (66D)**Availability:**

- Optional XL and XLT: F-250, F-350 SRW and F-350 DRW Pickups with long wheelbases
- Regular Cab 142" WB (8 ft. box)
- SuperCab 164" WB (8 ft. box)
- Crew Cab 176" WB (8 ft. box)

Usage:

- Incomplete vehicle package – req. further manufacture and certification by a final stage manufacturer. In addition, Ford urges manufacturers to follow the recommendations of the Ford Incomplete Vehicle Manual and the Ford Truck Body Builder's Layout Book (and applicable supplements).

Not available with:

- 7.3L Gas Engine (99N)
- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Moonroof (Twin Panel) (43V)
- Short Wheelbase Variants
- FX4 Off-Road Package (17X)

Deletes:

- Pickup Box and Tie-down hooks
- Tailgate
- Rear bumper
- Rearview Camera
- Spare wheel, tire, carrier and jack
- 7/4 Pin Connector
- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)

Options Available:

- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)
- Rear View Camera and Prep Kit (872)

5TH WHEEL/GOOSENECK HITCH PREP PACKAGE (53W)**Availability:**

- Optional on XL, XLT, Lariat, King Ranch® Platinum and Limited
- Standard on F-450

Not available with:

- Drop-in Bedliner (85L)
- Pickup Box Delete (66D)

Includes:

- Five (5) pickup bed attachment points w/plugs
- One (1) frame under-bed cross member
- One (1) integrated 7-pin connector on driver's side pickup bed wall

5th Wheel Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible w/the factory orderable 5th Wheel Hitch Kits (15K and 15L) and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part #BC3Z-19D520-A (8 ft. box only). The prep package is also compatible w/Reese Signature Series 5th wheel hitch kits updated w/a new Leg Service Kit – Part# BC3Z-A00A25-A (8 ft. box only)
- The 5th Wheel Hitch Kit-15K, 5th Wheel Hitch Kit-15L and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part # BC3Z-19D520-A is not released to the short box (6.75 ft. box)

NOTE: *The short pickup box provides less clearance between the cab and 5th wheel trailer compared to "long box" pickups. The receiver centerline of the hitch should be mounted at least two inches forward from the rear-axle of the truck chassis. When selecting a trailer and tow vehicle, it's critical that this combination provide clearance between the cab and tow vehicle for turns up to and including 90 degrees. Failure to follow this recommendation could result in the trailer contacting the cab of the tow vehicle during tight turns.*

Gooseneck Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible only w/the factory orderable Gooseneck Hitch Kit-15J, Gooseneck Dual Hitch Kit-15E or Dealer-installed Ford Customer Accessories Gooseneck hitch by Reese – part # BC3Z-19F503-A (8 ft. box and 6.75 ft. box)

PACKAGED OPTIONS/EMISSIONS

CNG/Propane GASEOUS ENGINE PREP PACKAGE (98F)

Availability:

- Optional on all F-250 and F-350

Requires:

- 6.2L Gas Engine (996)

Includes:

- Hardened Engine Intake Valves and Valve Seats
- Bi-Fuel manifold

NOTE: This package does not include CNG/Propane fuel tanks, lines, etc. Vehicle will be equipped w/the standard factory gasoline fuel system. Additional equipment combined w/Certified calibration reflash is required, from an external upfitter, to convert the vehicle to a CNG/Propane fueled vehicle. See Alternative Fuel Buyers Guide: www.ford.com/altfuelbuyersguide

Ford Motor Company does not provide an exhaust or evaporative emissions certificate w/this option when converted to use CNG or Propane fuel. Ford does not represent that a vehicle converted to use CNG or Propane will comply w/all applicable U.S. or Canadian safety standards. It is the responsibility of the final stage manufacturer (body-builder, installer, alterer or subsequent stage manufacturer) to determine that any vehicle converted to use CNG or Propane complies w/U.S. Federal, California or Canadian exhaust and evaporative emission requirements, Federal fuel economy standards, U.S. and Canadian safety standards, labeling and any other requirements

REAR VIEW CAMERA AND PREP KIT (872)

Availability:

- Optional on XL and XLT

Requires:

- Pick Up Box Delete (66D)

Pre-installed Content Includes:

- Cab Wiring
- Frame Wiring to the rear most cross member
- Video Display
 - 4" display when ordered
 - 8" display when ordered with SYNC@3

Upfitters kit Includes:

- Camera with mounting bracket
- 20' jumper wire
- Camera mounting and aiming instructions

Vehicle Special Order (VSO)

FLEET ONLY. See www.fmcdealer.com for current VSO Order Guide. This live guide includes VSO option codes, descriptions and pricing. Email vsomail@ford.com or call 1.800.34.FLEET, menu 4 w/any VSO questions you may have.

High Sulfur Diesel Fuel Usage

Vehicles for intended usage w/diesel fuel sulfur content greater than 15ppm require Euro II (>500ppm sulfur) or Euro III (<500ppm sulfur) packages to avoid engine functionality issues.

Packages are available through Export Order Guide w/the appropriate US EPA exemption or verifiable export usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

NOTE: JP8 fuel is supported and compatible w/these packages

Leaded Fuel Capable

Package is available through Export Order Guide w/the appropriate US EPA exemption or verifiable market usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

European Certified Headlamps

European certified headlamp package is available for export usage through Export Order Guide.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

MISCELLANEOUS OPTIONS

COV req.....	79V
Priced DORA	C09

EMISSIONS STANDARD/OPTIONAL EQUIPMENT

50-STATE EMISSIONS SYSTEM	425
Standard on all Vehicles	

FRONT LICENSE PLATE BRACKET

.....	153
Standard in states requiring two license plates and optional to all others.	

POWERTRAIN**ENGINE HORSEPOWER AND TORQUE RATINGS***

ENGINE	TRANSMISSION	NOMINAL COMPRESSION RATIO	50-STATE	
			HORSEPOWER	TORQUE
			H.P. @ RPM*	FT. LBS. @ RPM
ALL				
6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed SelectShift® Automatic	TBD	TBD	TBD
7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD
6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD

(1) 10,000 lbs. GVWR and Under

(2) 10,001 lbs. GVWR and above

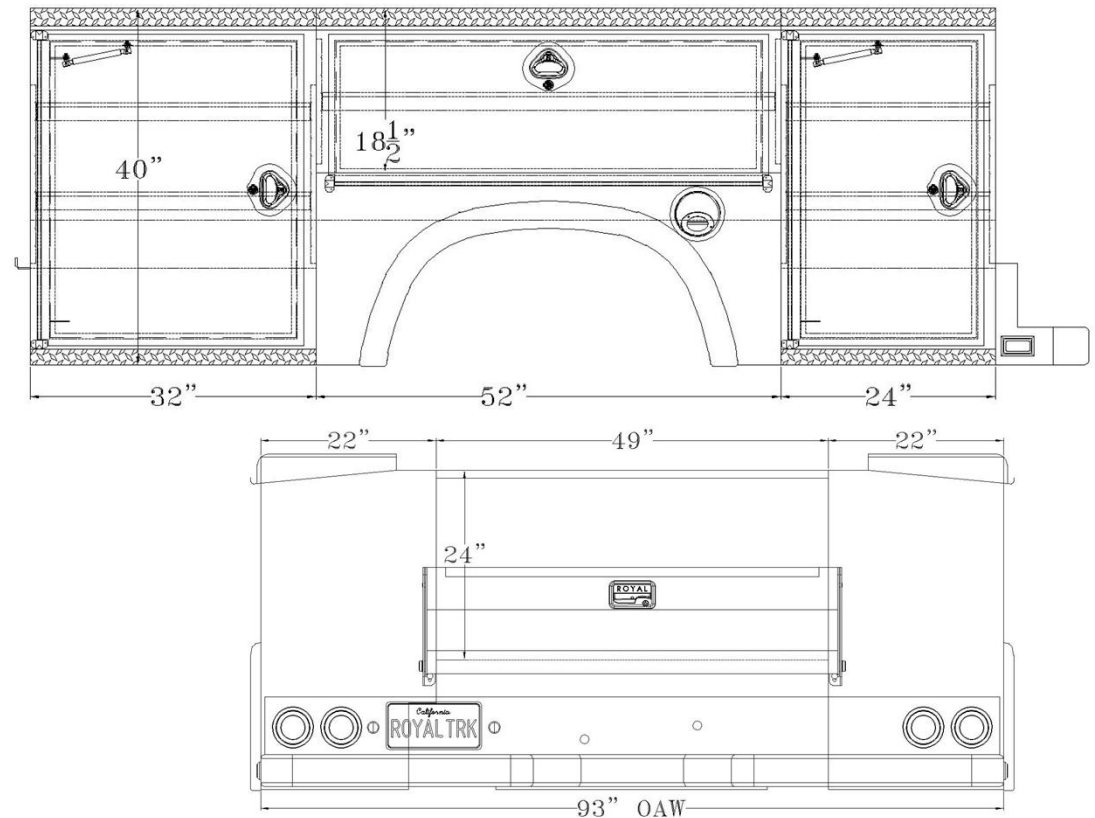
FUEL ECONOMY

TRUCKS W/GROSS VEHICLE WEIGHT RATINGS OVER 8,500 POUNDS ARE NOT INCLUDED IN THE EPA FUEL ECONOMY RATING SYSTEM. FUEL ECONOMY INFORMATION ON THESE MODELS IS GENERALLY NOT AVAILABLE BECAUSE OF WIDE VARIANCES IN VEHICLE LOADING AND OPERATIONAL CONDITIONS BETWEEN VARIOUS CUSTOMER APPLICATIONS.

9' DRW SERVICE UTILITY BODY

For 60" CA DRW Chassis

- Full Width Shelf up to 22"
- Ready for Dual Rear Wheel Chassis
- Designed for Storage Capacity and the Ability to Carry Heavy Loads
- Complete Offering of Royal Accessories
- Ideal for:
GM , Ford, and Ram



40-VDO-108

© 2019 SPARTAN MOTORS, INC. | PROPRIETARY AND CONFIDENTIAL

33



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:x No:	Yes:x No:	510-165100

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to purchase one (1), Ford F150, 4wd pickup truck from Corwin Ford for the City of Fernley's Water Treatment Facility for an amount of \$36,528.25 plus a 4% contingency of \$1,461.13 for a total of \$37,989.38.

AGENDA ITEM BRIEF:

This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Water Treatment Facility to be utilized in the day to day operations of the City's Water Treatment Facilities as well as grounds maintenance operations.

RECOMMENDED MOTION:

"I move to Approve the purchase of one (1), Ford F150, 4wd pickup from Corwin Ford for an amount of \$36,528.25 plus a 4% contingency of \$1,461.13 for a total of \$37,989.38".

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle

BACKGROUND:

This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS:

This purchase was budgeted at \$45,000 using G.L number 510-165100 within the Water Enterprise Fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: Barry Williams, Deputy Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

510-165100

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible Action to purchase one (1), Ford F150, 4wd pickup truck from Corwin Ford for the City of Fernley's Water Treatment Facility for an amount of \$36,528.25 plus a 4% contingency of \$1,461.13 for a total of \$37,989.38.

Agenda Item Brief: This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Water Treatment Facility to be utilized in the day to day operations of the City's Water Treatment Facilities as well as grounds maintenance operations.

Recommended Motion:

"I move to Approve the purchase of one (1), Ford F150, 4wd pickup from Corwin Ford for an amount of \$36,528.25 plus a 4% contingency of \$1,461.13 for a total of \$37,989.38".

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

PROJECT SUMMARY: If approved, this vehicle will be assigned to the Water Treatment Facility to be utilized in day to day operations. The Department typically relies on vehicles and equipment for 24-hour emergency response relating to the City's water treatment and maintenance operations.

If approved, this equipment will replace one of the aged and problematic Vehicles that is currently assigned to the Department which is beyond the service miles and age recommended for vehicle replacement per the City of Fernley Fleet Management Program (PMP) Policy, Table 4.1 Appendix 8, Replacement Standard. If approved, Staff anticipates disposal of the current asset per the FMP Policy.

Staff has chosen a Ford, F150 pickup truck with utility body from Corwin Ford because this vehicle meets the desired specifications needed for the Water Treatment Facility operations. Corwin Ford participates in the Sourcewell State Purchasing Program (formerly NJPA). This program allows the City of Fernley to obtain better vehicle pricing and better vehicle availability.

BACKGROUND: This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

ALTERNATIVES: Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle.

LEGAL IMPLICATIONS: NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS: This purchase was budgeted at \$45,000 using G.L number 510-165100 within the Water Enterprise Fund of the FY 22-23 Budget.

ATTACHMENTS:

Corwin Ford State Purchasing Price Quote



Invoice # 06/27/22

Corwin | Ford
RENO

Sales • Service • Used Cars & Trucks

3600 KIETZKE LANE
RENO, NV 89502

P.O. BOX 12970
RENO, NV 89510

775-829-3206 Direct

Customer #City Of Fernley

Sold to:

Address:

City, State &
Zip Code

VIN	Year	Make	Model
	2023	Ford	F150
Salesperson	Deal #		PO #
Dennis Tagliarino			

2023 F150 SUPERCAB LONGBED 4x4

STANDARD EQUIPMENT INCLUDED:

101A POWER GROUP

POWER WINDOWS AND LOCKS

SYNC

CRUISE CONTROL

**WHITE EXTERIOR WITH CLOTH BLACK/MED DARK SLATE
INTERIOR**

TOW HITCH

\$36,500 PLUS \$28.25 TITLE FEE

*****2023 MY F150 price subject to change when ordering opens**

***Thank you for your
business!***



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:x No:	Yes:x No:	510-165100

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Utilities Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

AGENDA ITEM BRIEF:

This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Utilities Department to be utilized in the day to day operations of the City's meter reading, repair and maintenance operations

RECOMMENDED MOTION:

"I move to Approve the purchase of one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Utilities Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25."

BUSINESS IMPACT (per NRS Chapter 237):

N/A

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle

BACKGROUND:

This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS:

This purchase was budgeted at \$52,800 using G.L number 510-16500 within the Water Enterprise Fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: Barry Williams, Deputy Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

510-165100

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible Action to purchase one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Utilities Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25.

Agenda Item Brief: This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Utilities Department to be utilized in the day to day operations of the City's meter reading, repair and maintenance operations.

Recommended Motion:

"I move to Approve the purchase of one (1), Ford F250, 4wd pickup truck with utility body from Corwin Ford for the City of Fernley's Utilities Department for an amount of \$50,543.25 plus a 4% contingency of \$2,112 for a total of \$52,655.25."

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

PROJECT SUMMARY: If approved, this vehicle will be assigned to the Utilities Department to be utilized in day to day operations. The Department typically relies on vehicles and equipment for 24-hour emergency response relating to the City's meter reading, repair and maintenance operations.

If approved, this equipment will replace one of the aged and problematic Vehicles that is currently assigned to the Department which is beyond the service miles and age recommended for vehicle replacement per the City of Fernley Fleet Management Program (PMP) Policy, Table 4.1 Appendix 8, Replacement Standard. If approved, Staff anticipates disposal of the current asset per the FMP Policy.

Staff has chosen a Ford, F250 pickup truck with utility body from Corwin Ford because this vehicle meets the desired specifications needed for the Departments operations. Corwin Ford participates in the Sourcewell State Purchasing Program (formerly NJPA). This program allows the City of Fernley to obtain better vehicle pricing and better vehicle availability.

BACKGROUND: This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State accepts bids from dealerships around Nevada for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by local government agencies. Using the results of the State's competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Corwin Ford will oversee the manufacturing and delivery of this truck for the City of Fernley. This vehicle is available under the State of Nevada's purchasing contract.

ALTERNATIVES: Council can deny the purchase of this vehicle and direct staff to assemble bid specifications for the vehicle purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the vehicle

LEGAL IMPLICATIONS: NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS: This purchase was budgeted at \$52,800 using G.L number 510-16500 within the Water Enterprise Fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Corwin Ford State Purchasing Price Quote
2. Superduty Specification Sheet
3. Utility Body Specification Sheet



Invoice # 06/28/22

Corwin Ford
RENO

Sales • Service • Used Cars & Trucks

3600 KIETZKE LANE
RENO, NV 89502

P.O. BOX 12970
RENO, NV 89510

775-829-3206 Direct

Customer #City of Fernley

Sold to:

Address:

City, State &
Zip Code

VIN	Year	Make	Model
	2023	Ford	F250
Salesperson	Deal #		PO #
Dennis Tagliarino			

2023 F250 REG CAB XL UTILITY BODY W/BOXES

**STANDARD V8 GAS ENGINE, POWER LOCKS AND
WINDOWS, TILT, CRUISE, SPARE**

\$37,209

REAR CAMERA PREP KIT \$515

ROYAL BODY WITH OPEN TOP LIDS+ RACK \$12,790

TOTAL \$50,514 PLUS \$29.25 TITLE

***Thank you for your
business!***

MAJOR PRODUCT CHANGES

OVERVIEW

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers. With three Ford designed and built powertrains, an aggressive appearance and class exclusive features, the Super Duty® will continue to dominate the over 8500 lbs. segment for many years to come.

To learn more about the features on this vehicle, go to www.fordsourcebook.com

MODEL/SERIES/AVAILABILITY

- XL, XLT, Lariat, King Ranch®, Platinum, Limited

MECHANICAL

- ★ **New/Changed**
 - King Ranch® and Platinum changed to 4x4 standard
 - 3.55 Electronic-Locking Rear Axle (X3J) available on F-250 with 6.7L Power Stroke® Diesel engine (99T) without High Capacity Trailer Tow Package (535/53Q)
- **Deleted**
 - King Ranch® and Platinum 4x2 drivetrain

EXTERIOR

- ★ **New/Changed**
 - Platform Running Boards (18B) changed from standard to optional – XLT DRW
 - 20" Bright Machined Cast Aluminum Wheels changed to standard on King Ranch® SRW
 - Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals (54K) – Included in XL Power Equipment Group (90L)
- **Deleted**
 - 18" Wheels on King Ranch® (647/64C)
- ★ **New Colors**
 - Atlas Blue (B3)
- **Deleted Paint Colors**
 - Lithium Gray
 - Velocity Blue

INTERIOR/COMFORT

- ★ **New/Changed**
 - Baja Interior – Lariat only
 - Navy Pier / Light Slate – Limited Interior only
 - Center armrest storage with 40/20/40 split bench front seat – XL

INTERIOR/COMFORT (continued)

- **Deleted**
 - Medium Light Camel – XLT

SAFETY/SECURITY

- ★ **New/Changed**
 - None
- **Deleted**
 - Underhood Service Light

FORD CO-PILOT360™ TECHNOLOGY

- ★ **New/Changed**
 - None

FUNCTIONAL

- ★ **New/Changed**
 - SYNC® 4 with 12" LCD Capacitive Touchscreen – standard on Lariat, King Ranch®, Platinum and Limited
 - SiriusXM® with 360L – standard on Lariat, King Ranch®, Platinum and Limited
 - 360-Degree Dual Beacon LED Warning Strokes replaced the 4-Corner LED Warning Strokes (91S/91G)
 - Tailgate Step – changed to standard on King Ranch®
- **Deleted**
 - None

PACKAGES

- ★ **New/Changed**
 - Lariat Sport Appearance Package (17K)
- **Deleted**
 - None

Product Changes and Features Availability

Features, options and package content subject to change. Please check www.fmcdealer.com for the most current information.

MAJOR PRODUCT SUMMARY

The 2022 Super Duty® reinforces the tough image of the F-Series and continues to meet the needs of both commercial and personal use customers.

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

XL	XL ¹	Lariat
MECHANICAL - Brakes – Four-Wheel Disc Anti-Lock Brake System (ABS) - Electronic-Shift-On-the-Fly (ESOF) (4x4 only) - Engine - F-250/F-350 – 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel) - F-450 – 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 - Transmission - TorqShift®-G six-speed automatic w/SelectShift® (F-250 w/6.2L gas) - TorqShift® ten-speed automatic w/Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA F-250 w/6.2L gas engine) EXTERIOR - Bumpers – front & rear, black painted - Fender vents – front - Glass – solar-tinted - Grille – black painted - Handles – door & tailgate, black - Jack 2-Ton mechanical (250/350 SRW) 4-Ton hydraulic (350 DRW/450) - Splash Guards/Mud Flaps – Front (F-450 only) - Tailgate – Removable w/key lock “Three-Blink” lane change signal - Tow hooks – front, two (2) - Trailer Sway Control - Trailer Tow Package – 7-wire harness w/relays & 7/4 pin connector - Wheels - F-250/F-350 SRW – 17” Argent Painted Steel w/painted hub covers/center ornaments - F-350 DRW – 17” Argent Painted Steel (hub covers/center ornaments not included) - F-450 – 19.5” Forged Polished Aluminum w/bright hub covers/center ornaments - Manual Locking Hubs (4x4) - Spare tire, wheel, lock & carrier - Windshield wipers – intermittent INTERIOR/COMFORT 2.3” Productivity Screen in IP Cluster - Air conditioning – manual, single zone - Cabin Air Particulate Filter - Door-trim – armrest/grab handle & reflector - Floor covering – Black, full length vinyl - Instrumentation – Multi-Function switch message center w/Ice Blue® Lighting - Mirror – rearview 11.5” day/night - Outside Temperature Display - Overhead console w/dual storage bins and map lights (NA Regular Cab) - Powerpoint – auxiliary two (2) in instrument panel - Scuff plates – front, color-coordinated - Seats – Front, HD vinyl, 40/20/40 split bench w/center armrest, cupholder and storage (manual lumbar – driver’s side), front center-seat w/integrated restraint - Steering wheel – black urethane with tilt and telescoping steering wheel/column; includes three (3) button message control - Sun visors – color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror - Window – Rear, fixed SAFETY/SECURITY - AdvanceTrac® with RSC® (Roll Stability Control™) - Belt-Minder® (front safety belt reminder) - Chime & flashing warning light on I/P if belts not buckled - Center High-mounted Stop Lamp (CHMSL) - Driver and passenger frontal airbag; passenger side deactivation Switch - Engine Only Traction Control (DRW only) - Headlamps – Quad beam jewel effect halogen - Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only - Mirrors – manually telescoping two-way fold trailer tow with manual glass - Rear View Camera - Safety belts – w/height adjustment D-ring - Safety Canopy® System (incl. side-curtain airbags) - SecuriLock® Passive Anti-Theft System; includes MyKey® owner controls feature (PATS) - SOS Post-Crash Alert System™ - Stationary Elevated Idle Control FORD CO-PILOT360™ TECHNOLOGY - AutoLamp (Auto On/Off Headlamps) - Hill Start Assist FUNCTIONAL - Audio – AM/FM stereo/MP3 Player (four (4)) - FordPass Connect™ (4G) 4G LTE Wi-Fi hotspot connects up to 10 devices¹ - Remotely start, lock and unlock vehicle² - Schedule specific times to remotely start vehicle - Locate parked vehicle² - Check vehicle status - Note: Ford Telematics™ and Data Services Prep included for Fleet Only; FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-Ford or 833-327-3673. - Rear axle - Non-Limited-Slip (F-250 and F-350) 4.30 Limited-Slip (F-450) - SYNC® - Enhanced Voice Recognition Communication and Entertainment System 911 Assist® 4.2” LCD Center Stack screen - AppLink® - Smart-Charging USB-C port – one (1)	<i>All XL content, plus:</i> EXTERIOR - BoxLink™ (includes four (4) premium locking cleats) - Bumper – front & rear, chrome - Grille – two bar, bright chrome - Wheels – F-250/F-350 SRW – 18” Sparkle Silver Painted Cast Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 4.2” LCD Productivity Screen in Cluster 110V/400W outlets; one (1) dash mounted and one (1) in rear console - Air conditioning vents – black w/chrome ring - Door-trim – soft armrest, grab handle, power window/lock switches, molded upper applique and reflector (applique and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab - Floor covering – color-coordinated, full carpet - Floor mats – color-coordinated carpet - Power Equipment Group – 1st row (front-seat) windows w/one-touch up/down, power 2nd row (rear-seat) windows (Crew Cab only); power door-locks w/backlit switches & accessory delay; power tailgate lock - Seats, Front - Front, high-series cloth 40/20/40 split bench – 20% center under-seat storage, w/center armrest, cupholder and storage - Two-way adjustable driver/passenger headrests - Sun visors – Color-coordinated, Cloth, both driver and passenger w/covered mirrors - Windows – rear, fixed privacy glass SAFETY/SECURITY - Advanced Security Pack - Mirrors – manually telescoping/folding, trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals - Remote keyless entry FORD CO-PILOT360™ TECHNOLOGY - Automatic High Beam - BLIS® (Blind Spot Information System) w/ Cross-Traffic Alert and Trailer Tow (BLIS® sensor in tailamp) - Pre-Collision Assist with Automatic Emergency Braking (AEB) and Forward Collision Warning FUNCTIONAL - Audio – AM/FM MP3 player & five (5) speakers - SiriusXM® Radio - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - Trailer Brake Controller (incl. Smart Trailer Tow Connector) - SYNC® 3 - Enhanced Voice Recognition Communications and Entertainment System 8” LCD Capacitive Touchscreen in Center Stack with Swipe Capability - Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System - AppLink® 911 Assist® - Apple CarPlay™ and Android Auto™ Capability - Smart-Charging USB-C Ports – two (2)	<i>All XLT content, plus:</i> MECHANICAL - None EXTERIOR 6” Angular chrome step bar (F-350 DRW/F-450) - Fog Lamps - Grille – two (2) bar, chrome (includes chrome inserts) - Handles – body-color, door, tailgate - Wheels - F-250/F-350 SRW – 18” Bright Machined Cast Aluminum w/bright hub covers/center ornaments - F-350 DRW – 17” Forged Polished Aluminum w/bright hub covers/center ornaments INTERIOR/COMFORT 8” LCD Productivity Screen; includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications - Air conditioning – Dual-Zone Electronic Automatic Temperature Control (DEATC) - Air conditioning vents – silver metallic with chrome ring - Door-trim – soft armrest grab handle, power window/lock switches and reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab - Seats, Front - Leather seating surfaces 40/Console/40 10-way power driver & 8-way power passenger seats (six-way power-adjustable-track, two-way power recline and two-way power lumbar) - Seats, Rear - Armrest with cupholders (Crew Cab) - Steering Wheel – leather-wrapped, color-coordinated with five (5) button control - Sun visors – color-coordinated cloth; both driver and passenger w/covered illuminated visor vanity mirrors - Window – rear, power-sliding with privacy glass and defrost SAFETY/SECURITY - Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Body-color skull caps) - Mirror – rearview, electrochromic self-dimming - SecuriCode™ keyless entry keypad FORD CO-PILOT360™ TECHNOLOGY - Autolock, Auto unlock - Reverse Sensing System FUNCTIONAL - Audio - Premium AM/FM MP3 player - B&O Sound System by Bang & Olufsen – (ten (10) speakers including subwoofer) - SiriusXM® Radio w/ 360L★ - Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii - Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com. All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc. - SYNC® 4 with Enhanced Voice Recognition★ 12” LCD Capacitive Touchscreen with Swipe Capability - Information On Demand Panel - Wireless Phone Connection - Cloud Connected - AppLink® w/ App Catalog 911 Assist - Apple CarPlay® and Android Auto™ Compatibility - Digital Owner’s Manual - Conversational Voice Command Recognition - Connected Navigation³

Please see Standard Equipment pages for more details.

¹ Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford.

² FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot.

³ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™ subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

Product Features Availability

Features, options and package contents subject to change.

★ = New for this model year

MAJOR PRODUCT SUMMARY

The following equipment is standard as indicated. Each series includes the standard equipment of the previous series, except where otherwise noted:

King Ranch®	Platinum	Limited
All Lariat content, plus: EXTERIOR • 4x4 Crew Cab only • Accent-color wheelcap moldings (SRW only) • Accent-color illuminated angular running boards • Bumper – Accent-color front and rear • Grille – 2-Bar Chrome w/Carbon Inserts • LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL)) • Lower accent two-tone paint (See Color & Trim Availability page for details) • Remote Tailgate Release • Tailgate Step • Unique King Ranch® fender badges • Wheel Well Liner, Rear (F-250 and F-350 SRW only) • Wheels – SRW – 20" Bright Machined Cast Aluminum w/ Unique King Ranch® center cap INTERIOR • Ambient Lighting – Fixed Color • Door-trim – Unique panels w/King Ranch® Leather insert and woodgrain applique • Easy Entry/Exit Memory Driver's Seat Feature • Floor mats – Unique front and rear w/King Ranch® logo • Memory Power-Adjustable Pedals • Seats, Front — Unique King Ranch® Kingsville Antique Affect Leather Bucket Seating Surfaces — Front Heated/Ventilated Seating — Memory 10-way power-adjustable driver's & 8-way power-adjustable passenger seat • Steering Wheel – Unique King Ranch® Kingsville Antique Affect Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls FORD CO-PILOT360™ TECHNOLOGY • Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL • Intelligent Access with Push-button Start (PEPS) • Remote Start System • Universal Garage Door Opener (UGDO) • Rain-Sensing Windshield Wipers • Wireless Charging Pad	All King Ranch® content, plus: EXTERIOR • Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) • Bumper – Body-color front and rear • Chrome exhaust tip • Grille – Unique Satin Aluminum • Handles – door and tailgate, chrome w/body-color surround • LED Fog Lamps • LED Tailamps • Remote Tailgate Release • Satin Chrome Tailgate appliqué • Tailgate Step • Tow hooks – chrome front, two (2) • Wheels – SRW – 20" Polished Aluminum INTERIOR/COMFORT • Ambient Lighting – Fixed Color • Door-trim – soft armrest/grab handle, upper appliqué, upper & lower map pockets & reflector • Easy Entry/Exit Memory Driver's Seat Feature • Memory Power-Adjustable Pedals • Seats, Front — Unique Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console — Front Heated/Ventilated Seating — Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest • Steering Wheel – Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY • Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and Chrome skull caps) • Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY • Adaptive Cruise Control and Collision Warning with Brake Support FUNCTIONAL • SYNC® 4 with Enhanced Voice Recognition* — 12" LCD Capacitive Touchscreen with Swipe Capability — Information On Demand Panel — Wireless Phone Connection — Cloud Connected — AppLink® w/ App Catalog — 911 Assist — Apple CarPlay® and Android Auto™ Compatibility — Digital Owner's Manual — Conversational Voice Command Recognition — Connected Built-In Navigation¹	MECHANICAL • Brakes – Four-Wheel Disc Anti-lock Brake System (ABS) • Electronic Shift-On-the-Fly (ESOF) • Engine — 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 EXTERIOR • 4x4 Crew Cab only • Power deployable running board (includes Front Splash Guards/Mud Flaps on F-350 DRW) • Bumper – Body-color front and rear • Chrome exhaust tip • Grille – Unique Satin Finish • Handles – door and tailgate, satin w/body-color surround • LED Fog Lamps • LED Tailamps • Moonroof, Power (Twin Panel) • Remote Tailgate Release • Satin Chrome Tailgate Applique • Tailgate Step • Tow hooks – chrome front, two (2) • Wheels – 20" Polished Aluminum INTERIOR/COMFORT • Ambient Lighting – Fixed Color • Dark ash swirl wood trim on armrests and center console • Door-trim – upper & lower map pockets & reflector • Easy Entry/Exit Memory Driver's Seat Feature • Leather wrapped instrument panel toppers and door arm rollovers • "Limited" applique on center console with serial number • Illuminated Scuff Plates w/Limited Logo • Memory Power-Adjustable Pedals • Miko suede headliner • Seat, Front — Unique Limited Navy Pier/ Light Slate Two-tone Premium Luxury Leather Bucket Seating Surfaces — Multi-Contour Driver/Passenger Leather Bucket with Flow-through Console — Front Heated/Ventilated Seating — Memory 10-way, power-adjustable, driver's seat and 8-way power-adjustable passenger seat and second row armrest • Steering Wheel – Unique Navy Pier Premium Luxury Leather-wrapped – Power Tilt/Telescoping with heat, memory and audio controls SAFETY/SECURITY • Mirrors – Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights and body-color skull caps) • Quad Beam LED Headlamps FORD CO-PILOT360™ TECHNOLOGY • Adaptive Cruise Control and Collision Warning with Brake Support • Adaptive Steering • Automatic High Beam • BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BUS® sensor in tailamp) • Lane-Keeping Alert • Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package FUNCTIONAL • Audio — Premium AM/FM MP3 player — B&O Sound System by Bang & Olufsen (ten (10) speakers including subwoofer) • FordPass Connect™ (4G) — 4G LTE Wi-Fi hotspot connects up to 10 devices² — Remotely start, lock and unlock vehicle³ — Schedule specific times to remotely start vehicle — Locate parked vehicle³ — Check vehicle status Note: Ford Telematics™ and Data Services Prep included for Fleet Only. FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673. • 332 Amp Alternator • Intelligent Access with Push-button Start (PEPS) • Remote Start System • SYNC® 4 with Enhanced Voice Recognition* — 12" LCD Capacitive Touchscreen with Swipe Capability — Information On Demand Panel — Wireless Phone Connection — Cloud Connected — AppLink® w/ App Catalog — 911 Assist — Apple CarPlay® and Android Auto™ Compatibility — Digital Owner's Manual — Conversational Voice Command Recognition — Connected Built-In Navigation • Upfitter Switches; six (6) • Universal Garage Door Opener (UGDO) • Rain-Sensing Windshield Wipers • Wireless Charging Pad

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate. Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the FordPass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

Product Features Availability

Features, options and package content subject to change.

★ = New for this model year

STANDARD EQUIPMENT

The following features are standard on every 2022 MY SUPER DUTY® F-SERIES vehicle:

MECHANICAL

- Brakes – Power four-wheel Disc Brakes with Anti-Lock Brake System (ABS)
- Engine
 - F-250/F-350: 6.2L 2 Valve Gas SOHC EFI NA V8 (Flex-Fuel)
 - F-450: 6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20
- Transmission
 - TorqShift®-G Six-Speed Automatic with SelectShift® (F-250 w/6.2L gas)
 - TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery (NA w/ F-250 w/6.2L gas)

EXTERIOR

- Doors
 - Two (Regular Cab only)
 - Four (SuperCab/Crew Cab only)
- Glass
 - Solar-Tinted, complete (Std. XL)
 - Privacy (Std. XLT, Lariat, King Ranch®, Platinum and Limited; NA front-seat windows)
- Jack
 - Two ton mechanical (F-250/F-350 SRW)
 - Four ton hydraulic (F-350 DRW/F-450)
- Lamps – pickup box and cargo area
- Manual Locking Hubs (4x4)
- Moldings – tailgate and box-rail
- Spare tire, wheel, lock & frame mounted carrier
- Tailgate – removable w/key lock, black handle
- "Three-Blink" lane change signal
- Tie-down hooks – pickup box, four (4)
- Tow hooks – front, two (2)
- Trailer Tow Package (F-250/F-350) – 7 wire harness w/relays and 7/4 pin connector
- Trailer Tow Package (F-450) – 7/4 pin connector, 4.30Ls rear-axle and GCWR (Reg Cab – 45,300 lbs, Crew Cab 4x4 42,000lbs, Crew Cab 4x2 43,400 lbs)

INTERIOR/COMFORT

- Convenience
 - Coat hooks – LH/RH color-coordinated
 - Dash top tray
 - Dome Lamp – LH/RH door activated & I/P switch operated w/delay
 - Handles, grab – driver & front-passenger
 - Handles, roof ride – front-passenger (also over rear-doors on Crew Cab)
 - Map lights – dual (front and rear w/Crew Cab)
 - Powerpoint, auxiliary
- Door-Trim – color-coordinated, molded w/armrest/grab handle & reflector
- Headliner – color-coordinated cloth
- Hood release
- Horn – dual electric

INTERIOR/COMFORT (continued)

- Instrument panel – color-coordinated w/ glove box, 4 air registers w/positive shut off, powerpoint
- Instrumentation – Multi-function switch message center w/Ice Blue® Lighting® (three (3) button message control on steering wheel for XL; five (5) button control for XLT, Lariat, King Ranch®, Platinum and Limited)
- Scuff plates – front, color-coordinated; Illuminated w/logo on Limited
- Steering – power
- Steering damper
- Windshield wipers – intermittent

SAFETY/SECURITY

- AdvanceTrac® with RSC® (Roll Stability Control™)
- Airbags
 - Driver and Passenger frontal and side airbag/curtain
 - Passenger side airbag deactivation switch
- Center High-mounted Stop Lamp (CHMSL)
- Child tethers (Regular Cab, front-passenger and all rear-seating positions)
- Individual Tire Pressure Monitoring System (TPMS) – SRW/F-350 DRW only
- Safety Belts
 - Belt-Minder® front safety belt reminder – chime and flashing warning light on instrument cluster if belts not buckled
 - Color-coordinated w/height adjustment (front-outboard seating positions only)
- SecuriLock® Passive Anti-Theft System (PATS); includes MyKey® owner controls feature
- SOS Post-Crash Alert System™
- Stationary Elevated Idle Control (SEIC)

FUNCTIONAL

- Alternator
 - 157 Amp (Std. XL)
 - 200 Amp (Std. XLT, Lariat, King Ranch® and Platinum)
 - 332 Amp (Limited)
- Axle
 - Twin I-beam front axle w/coil spring suspension (narrow front track) – 4x2 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (narrow front track) – 4x4 (F-250 and F-350)
 - Mono-beam front axle w/coil spring suspension (wide front track) (F-450)
 - Rear – Non-Limited-Slip (F-250/F-350)
 - Rear – 4.30 Limited-Slip (F-450)
- Battery
 - Gas engine – 650-CCA, 72-AH (XL only)
 - Gas engine – 750-CCA, 78-AH, single (NA XL)
 - Diesel engine – 750-CCA, 78-AH, dual (6.7L Power Stroke® Diesel engine)
- Intelligent Oil-Life Monitor® (6.7L Power Stroke® Diesel engine)
- Oil minder system (6.2L Gas engine)
- Shock absorbers – heavy-duty gas
- Stabilizer bar – front

The following features are standard on select 2022MY SUPER DUTY® vehicles:

MECHANICAL	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Four-Wheel Disc Anti-Lock Brake System (ABS) – Roll Stability Control™ (RSC®)/Traction Control/Trailer Sway Control	•	•	•	•	•	•
2.5" Built Ford Tough® Trailer Hitch Receiver						
F-250 (less HD Trailer Tow (535))	•	•	•	•	•	•
F-350 SRW – 6.2L and 7.3L Gas engine	•	•	•	•	•	•
F-350 SRW – Diesel (All 4x2 and 4x4 Regular Cab and Super Cab. Excludes 164" WB Crew Cab only)	•	•	•	•	•	•
F-350 DRW – 6.2L Gas Engine	•	•	•	•	•	•

STANDARD EQUIPMENT

MECHANICAL (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
3" Built Ford Tough® Trailer Hitch Receiver						
F-250 – Diesel with HD Trailer Tow (535)	•	•	•	•	•	•
F-350 SRW – Diesel (4x4 164" WB and Crew Cab only)	•	•	•	•	•	•
F-350 DRW (7.3L Gas and 6.7L Diesel) and F-450						
Note: To find the maximum trailer weight allowed for your vehicle, consult your authorized dealer (or the RV and Trailer Towing Guide provided by your authorized dealer)	•	•	•	•	•	•
4x4 Only						
Electronic-Shift-On-the-Fly (ESOF)	•	•	•	•	•	•
Drivetrain						
4x2	•	•	•	•	•	•
4x4	•	•	•	•	•	•
Fuel Tanks						
29 Gallon (Diesel Engine) – 142" or 148" Wheelbase	•	•	•	•	•	•
34 Gallon (Diesel Engine) – 160" or 164" Wheelbase	•	•	•	•	•	•
34 Gallon (Gas Engine) – NA 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Gas Engine) – 176" Wheelbase	•	•	•	•	•	•
48 Gallon (Diesel Engine) – 176" Wheelbase	•	•	•	•	•	•
KEY EXTERIOR FEATURES						
Bumper – Front						
Black painted steel w/grained MIC top cover and black lower air dam	•					
Chrome w/grained top cover and black lower air dam		•	•			
Accent-color				•		
Body-color					•	•
Bumper – Rear						
Black painted	•					
Chrome		•	•			
Accent-color				•		
Body-color					•	•
Grille						
Black MIC	•					
Bright Chrome – two (2) bar		•				
Chrome – two (2) bar (includes chrome inserts)			•			
Chrome – two (2) bar w/Caribou Inserts				•		
Satin Aluminum					•	
Unique Satin Finish						•
Rear Quarter Panel						
Decal – 4x4 only	•	•	•	•	•	•
Handles – Door and Tailgate						
Black	•	•				
Body-color			•	•		
Chrome w/body-color surround					•	
Satin Chrome w/body-color surround						•
Headlamps/Taillamps/Lamps						
Quad beam halogen jewel effect	•	•	•	•		
Quad Beam LED					•	•
LED Taillamps					•	•
AutoLamp (Auto On/Off Headlamps)	•	•	•	•	•	•
Automatic High Beam		•	•	•	•	•
Center High-mounted Stop Lamp (LED on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
Fog lamps (LED on Platinum and Limited)			•	•	•	•
LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))				•	•	•
LED Roof Marker/Clearance Lamps (F-350 DRW/F-450)	•	•	•	•	•	•
Utility Lighting System (LED Side-mirror Spotlights) (see mirror descriptions below)			•	•	•	•

STANDARD EQUIPMENT

KEY EXTERIOR FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Mirrors						
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp)		•	•	•	•	•
Manually telescoping/folding trailer tow with manual glass	•					
Manually telescoping/folding trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals		•				
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights)			•			
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, Memory, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (Body-Color skull caps on King Ranch® and Limited; Chrome on Platinum)				•	•	•
Power Equipment						
Remote Tailgate Release				•	•	•
Wheels (SRW)						
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments (F-250/F-350)	•					
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments (4) (F-250/F-350)		•				
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and bright hub covers/center ornaments (F-250/F-350)			•			
20" Bright Machined Cast Aluminum Wheel				•		
20" Polished Aluminum Wheel					•	
20" Polished Aluminum Wheel						•
Wheels (DRW)						
17" Argent Painted Steel (hub covers/center ornaments not included) (F-350)	•	•				
17" Forged Polished Aluminum w/bright hub covers/center ornaments (F-350, front and rear outer; steel inner wheels)			•	•	•	•
19.5" Forged Polished Aluminum w/bright hub covers/center ornaments (F-450, front and rear outer; steel inner wheels)	•	•	•	•	•	•
Windows and Glass						
1 st Row (front-seat) – Manual	•					
1 st Row (front-seat) – Power w/one-touch up/down		•	•	•	•	•
2 nd Row (rear-seat) – Manual	•(2,3)					
2 nd Row (rear-seat) – Fixed	•(2)					
2 nd Row (rear-seat) – Power		•(2,3)	•(2,3)	•(2,3)	•(2,3)	•(2,3)
Rear (backlight) – Fixed	•	•				
Rear (backlight) – Power-sliding w/defrost			•	•	•	•
Solar-tinted glass (complete)	•					
Privacy Glass (rear backlight on all cabs; 2 nd Row (rear-seat) windows on SuperCab and Crew Cab. Other glass is solar-tinted.)		•	•	•	•	•
Functional						
BoxLink™ (includes four (4) premium locking cleats)		•	•	•	•	•
KEY INTERIOR/COMFORT FEATURES						
Air Conditioning						
Manual, Single Zone	•	•				
Dual-Zone Electronic Automatic Temperature Control (DEATC)			•	•	•	•

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Audio						
AM/FM stereo MP3 player (four (4) speakers)	•					
AM/FM stereo MP3 player (speakers; five (5) with Regular Cab, seven (7) with SuperCab and Crew Cab)		•				
B&O Sound System by Bang & Olufsen (10 speakers including subwoofer)			•	•	•	•
SiriusXM® Radio (speakers; adds one (1) I/P mounted center speaker on XLT only) Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc		•				
★ SiriusXM® Radio w/ 360L Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc			•	•	•	•
SYNC® – Enhanced Voice Recognition Communication and Entertainment System – 911 Assist® – 4.2" LCD Screen in Center Stack – AppLink® – Smart-Charging USB-C port – one (1)	•					
SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – AppLink® – 911 Assist® – Apple CarPlay® and Android Auto™ Capability – Smart-Charging USB-C ports – two (2)		•				
KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited

STANDARD EQUIPMENT

★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Navigation ¹				•	•		
★ SYNC® 4 with Enhanced Voice Recognition – 12" LCD Capacitive Touchscreen with Swipe Capability – Information On Demand Panel – Wireless Phone Connection – Cloud Connected – AppLink w/ App Catalog – 911 Assist® – Apple CarPlay® and Android Auto™ Compatibility – Digital Owner's Manual – Conversational Voice Command Recognition – Connected Built-In Navigation ¹						•	•
FordPass Connect™ (4G) – 4G LTE Wi-Fi hotspot connects up to 10 devices ² – Remotely start, lock and unlock vehicle ³ – Schedule specific times to remotely start vehicle ³ – Locate parked vehicle ³ – Check vehicle status ³ Note: Ford Telematics™ and Data Services Prep included for Fleet Only: FordPass Connect™ (4G) Wi-Fi Modem provides data to support telematics and data services including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics and maintenance alerts. Device enables telematics services through Ford or authorized providers. Activate at www.fleet.ford.com or call 833-FCS-FORD or 833-327-3673.	•	•	•	•	•	•	•
Cupholders							
Dual, instrument panel-mounted		•	•	•	•	•	•
Integrated w/armrest on rear-seat			•(3)	•	•	•	•
Door-Trim							
Armrest, grab handle and reflector	•						
Soft armrest, grab handle, power window/lock switches, molded upper appliqué, reflector (appliqué and armrest are accent-color); front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab		•					
Soft armrest, grab handle, power window/lock switches, upper appliqué, reflector; front map pockets on SuperCab; front and rear map pockets on Crew Cab			•	•	•	•	•
Floor Covering							
Black vinyl	•						
Color-coordinated carpet and carpeted floor mats (includes rear mats on SuperCab & Crew Cab)		•	•	•	•	•	•

¹ Navigation services require SYNC®4 and FordPass Connect (optional on select vehicles), complimentary connect service and the FordPass app (see FordPass Terms for details). Customer receives a complimentary 90-day trial of navigation services when an eligible vehicle is added to a member's FordPass account. Trial period begins on the new vehicle warranty start date. At the end of the complimentary period, navigation service will terminate.

Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features.

FordPass App, compatible with select smartphone platforms, is available via a download. Message and data rates may apply. Ford Telematics™ and Ford Data Services™, subscription services available only for fleet customers, provide access to manufacturer-grade data including but not limited to vehicle location, speed, idle time, fuel, vehicle diagnostics, and maintenance alerts. Ford Telematics Drive mobile app for drivers is also available for Ford Telematics subscribers. FordPass Connect™ 4G Wi-Fi Modem enables Ford Telematics service directly from Ford or Ford Data Services through authorized providers. Learn more at commercialsolutions.ford.com or activate by calling 833-FCS-Ford. (833-327-3673).

² Wi-Fi hotspot includes wireless data trial that begins upon AT&T activation and expires at the end of 3 months or when 3GB of data is used, whichever comes first, but cannot extend beyond the trial subscription period for remote features. To activate, go to www.att.com/ford

³ FordPass Connect™ (optional on select vehicles), the Ford Pass App., and Complimentary Connected Services are required for remote features (see FordPass Terms for details). Connected Service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Connected services excludes Wi-Fi hotspot

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

★ = New for this model year

• = Available

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
Instrument Center						
2.3" Productivity Screen display includes menus for Multi-function switch message center w/Ice Blue® Lighting (three (3) button message control on steering wheel)	•					
4.2" LCD Productivity screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel (included with the SYNC® 3)		•				
8.0" Productivity Screen display includes menus for Gauge Setup, Trip Computer, Fuel Economy and Towing/Off-Road applications; five (5) button message control on steering wheel			•	•	•	•
Manual door-locks and windows	•					
Overhead Console – with dual storage bin and map lights (NA Regular Cab)	•(2,3)	•	•	•	•	•
Power Equipment						
Accessory delay		•	•	•	•	•
Door-locks w/backlit switches		•	•	•	•	•
Windows w/backlit switches		•	•	•	•	•
Powerpoint and 110V/400W Outlet						
One (1) Powerpoint in front center under-seat storage		•				
Two (2) Powerpoints in instrument panel	•	•	•	•	•	•
Two (2) Powerpoints in rear side of Flow-through Console			•	•	•	•
110V/400W Outlet dash mounted		•	•	•	•	•
110V/400W Outlet in rear side of Flow-through Console		•	•	•	•	•
Reverse Sensing System			•	•	•	•
Rear View Camera						
Display in center-stack screen	•	•	•	•	•	•
Rearview Mirror						
11.5" Day/Night	•	•				
Electrochromic self-dimming			•	•	•	•
Remote Start System				•	•	•
Seats (Front)						
HD vinyl, 40/20/40 split bench w/center armrest and cupholder	•					
Cloth, 40/20/40 split bench, 20% center locking under-seat storage, w/center armrest, cupholder and storage		•				
Leather seating surfaces, 40/Console/40			•			
Unique King Ranch® Kingsville Antique Affect Leather seating surfaces, 40/Console/40				•		
Unique Platinum Leather seating surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)					•	
Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, 40/Console/40 with Multi-Contour Seats (Driver and Passenger)						•
Manual lumbar support, driver's side	•	•				
10-way power driver seat (six-way power-adjustable track, two-way power recline and two-way power lumbar)			•	•	•	•
8-way power-adjustable front passenger seat			•	•	•	•
Two-way adjustable driver/passenger headrests	•	•	•			
Four-way adjustable driver/passenger headrests				•	•	•
Easy Entry/Exit Memory Driver's Seat Feature				•	•	•
Front center-seat-integrated restraints (SIR)	•	•				
Seats (Rear) SuperCab						
Vinyl, 60/40 fold-up bench seat	•					
Cloth, 60/40 fold-up bench seat		•				
Premium vinyl seating surfaces, 60/40 fold-up bench seat			•			

STANDARD EQUIPMENT

KEY INTERIOR/COMFORT FEATURES (continued)	XL	XLT	Lariat	King Ranch®	Platinum	Limited
<u>Seat (Rear) Crew Cab</u>						
60/40 bench w/flip-up/fold-down w/two (2) outboard head restraints and a center head restraint	•	•				
60/40 bench w/flip-up seats & fold-down backrests, w/under-seat partitioned lockable fold-flat storage, two (2) outboard head restraints and a center head restraint. Dual integrated cupholders in armrest			•	•	•	•
Vinyl	•					
Cloth		•				
Leather			•			
King Ranch® Kingsville Antique Affect Leather seating surface				•		
Platinum Leather seating surface					•	
Limited Navy Pier/Light Slate Leather seating surface						•
<u>Steering Wheel</u>						
Urethane – Black w/redundant audio and SYNC® controls	•	•				
Leather-wrapped – (Lariat, color-coordinated; King Ranch®, Unique King Ranch® Kingsville Antique Affect; Platinum; Limited Navy Pier Leather)			•	•	•	•
Heated Steering Wheel				•	•	•
Cruise Control (steering wheel-mounted)		•	•	•	•	•
Tilt and Telescoping steering wheel/column (Manual on XL, XLT and Lariat; Power with heat and memory on King Ranch®, Platinum and Limited)	•	•	•	•	•	•
<u>Sun visors</u>						
Color-coordinated vinyl, driver w/pocket, passenger w/uncovered mirror	•					
Color-coordinated cloth; both driver and passenger w/covered mirrors		•				
Color-coordinated cloth; both driver and passenger w/illuminated visor vanity mirrors			•	•	•	•
<u>SAFETY/SECURITY</u>						
AdvanceTrac® with RSC® (Roll Stability Control™)	•	•	•	•	•	•
Autolock, Auto unlock, Rainlamp Wiper Activated Headlamps		•	•			
Advanced Security Pack (incl. Inclinometer / Intrusion Sensors)		•	•	•	•	•
Autolock, Auto unlock, High-Beam with Rainlamp Wiper Activated Headlamps, Intelligent Access with Push-button Start (PEPS)				•	•	•
Driver and Passenger frontal and side airbag/curtain	•	•	•	•	•	•
Intelligent Access with Push-button Start (PEPS)				•	•	•
Remote Keyless-Entry		•	•			
Trailer Sway Control and Hill Start Assist	•	•	•	•	•	•

FUNCTIONAL EQUIPMENT

AXLE AVAILABILITY

Series	Engine	Transmission	Non-Limited-Slip			Limited-Slip				Electronic-Locking			
			3.31	3.55	3.73	3.55	3.73	4.10	4.30	3.31	3.55	3.73	4.30
			X31	X35	X37	X3K	X3L	X4N	X4L	X3H	X3J	X3E	X4M
F-250	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O ¹	—	—	—	—	—	O	O ^{2, 3}	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic (F-250 only)	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	—	—	—	—	—	O	—	O ²
F-350 SRW	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	S	O	—	—	—	—	—	O	O ²	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	S	—	—	—	—	—	—	O	O
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	—	—	—	S	O ²
F-350 DRW	6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—
	6.2L 2V Gas SOHC EFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	S	—	O	—	O	—	—	—	—	—
	7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	S	—	O	—	—	—	—
F-450	6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift® Automatic	—	—	—	—	—	—	S	—	—	—	—

¹ Requires Trailer Tow Upgrade (535/53Q)² Standard with Tremor Off-Road Package (17Y)³ NOTE: Adding 3.55 Electronic-Locking Axle (X3J) on F-250 w/ 6.7L Power Stroke® Diesel increases GVWR to 10,400 lb.

2022 SUPER DUTY® PICKUP (F-250 / F-350 / F-450) FUNCTIONAL EQUIPMENT

			2022MY (F-250 / F-350) Super Duty		Alternators					
			6.2L Gas - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	
F250 & F350	6.2L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	67D (STD)	67D (STD)	67D (STD)	67D (STD)	
			(66S)	6 Upfitter Switches	67D	67D	67D	67E	67E	
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67E	67E	67E	
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67E	67E	67E	
			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67E	67E	67E	
SRW & DRW			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67D	67E	67E	67E	
			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67E	67E	67E	67E	67E	
							(STD) Standard @ 157 Amp			
				(STD or 67D) @ 200 Amp						
				(67E) @ 240 Amp						

			2022MY (F-250 / F-350) Super Duty		Alternators				
			7.3L Gas - Pickups						
Series	Engine	Drive	Option Code	Description	XL	XLT	Lariat	King Ranch	Platinum
F250 & F350	7.3L Gas 2 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	STD	STD	STD	STD
			(66S)	6 Upfitter Switches	STD	STD	STD	STD	STD
			(473 or 47B)	Snow Plow Pkg.	STD	STD	STD	STD	STD
			(43C & 66S)	Inverter & Upfitter Switches	STD	STD	STD	STD	STD
			(43C & 473 or 47B)	Inverter & Snow Plow	STD	STD	STD	STD	STD
			(66S & 473 or 47B)	Upfitters Switches & Snowplow	STD	STD	STD	STD	STD
(43C & 66S & 473 or 47B)			Invert. & Upfit Switch & Snowplow	STD	STD	STD	STD	STD	
86M			Dual Batteries	67B	67B	67B	67B	67B	
				(STD) 240 Amp					
				(67B) 397 Amp					

			2022MY (F-250 / F-350 / F-450) Super Duty		Alternators					
			6.7L Diesel - Pickups							
Series	Engine	Drive	Option Code	Description	XL	XL T	Lariat	King Ranch	Platinum	Limited
F-250 & F-350 F-450	6.7L Diesel 4 Valve V8	4x2 & 4x4	(43C)	110V/400W Inverter	STD	STD (67D)	STD (67D)	STD (67D)	STD (67D)	STD (67A)
			(66S)	6 Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)
			(473 or 47B)	Snow Plow Pkg.	67D	67D	67D	67D	67D	STD (67A)
			(43C & 66S)	Inverter & Upfitter Switches	67D	67D	67D	67D	67D	STD (67A)
			(43C & 473 or 47B)	Inverter & Snow Plow	67D	67D	67D	67D	67D	STD (67A)
			(66S & 473 or 47B)	Upfitters Switches & Snowplow	67D	67A	67A	67A	67A	STD (67A)
SRW & DRW			(43C & 66S & 473 or 47B)	Invert. & Upfit Switch & Snowplow	67A	67A	67A	67A	67A	STD (67A)
			(41A)	Rapid Heat*	67B	67B	67B	67B	67B	67B
					(STD) 175 Amp					
					(STD or 67D) 240 Amp					
					(67A) #1 @ 332 Amp					
					(67B) #2 @ 397 Amp					

FUNCTIONAL EQUIPMENT**WHEEL AVAILABILITY – SRW ONLY**

17" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Std. on XL) – 64A



18" Argent Painted Steel
w/Painted Hub
Cover/Center Ornament
(Opt. on F-350 XL) – 64F

WHEEL AVAILABILITY – SRW ONLY (Continued)

18" Sparkle Silver Painted
Cast Aluminum w/Bright
Hub Cover/Center
Ornament
(Included w/STX Pkg. (17S)
on F-250/F-350 SRW; Std.
on XLT) – 648



18" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets
and Bright Hub
Cover/Center Ornament
(Std. on Lariat) – 64C



18" Chrome PVD Aluminum
(included in XLT Premium
Pkg. (17P), Chrome Pkg. –
(17C)) – 647

FUNCTIONAL EQUIPMENT



18" Low-Gloss Black
Painted Aluminum Wheel
(incl. Tremor Off-Road Pkg
(17Y)) – 64E



20" Bright Machined Cast
Aluminum w/Magnetic
Painted Pockets and Bright
Hub/Cover Center
Ornament
(Opt. on 4x4 F-250 and F-
350 SRW Lariat) – 642



20" Bright Machined Cast
Aluminum w/Light Caribou
Painted Pockets; Light
Caribou Wheel Ornament
with King Ranch® Logo
(Std. on F-250 and F-350
SRW King Ranch®) – 643



20" Chrome PVD Aluminum
(Opt. on 4x4 F-350 SRW
Chrome Pkg. (17C) –
(Chrome Pkg. has unique
center ornament on King
Ranch®) – 649



20" High-Gloss Black
Premium Painted Aluminum
(Included in Lariat Black
Appearance Package
(17L)) – 646



20 " Polished Aluminum
(Std. on F-250 F-350 SRW
Platinum) – 64U



20" Polished Aluminum
(Std. on Limited F-250/F-
350 SRW) – 64L

FUNCTIONAL EQUIPMENT

WHEEL AVAILABILITY – DRW ONLY



17" Argent Painted Steel
(hub cover/center ornament
not included) (Std. on XL
and XLT F-350) – 64K



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-350 DRW; Std. on
Lariat and Platinum
F-350; Opt. on XL and XLT
F-350) – 64J



17" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Std. on King Ranch® F-
350) – 64J



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament
(Included on STX Pkg.
(17S) F-450) – 64D



19.5" Forged Polished
Aluminum w/bright hub
cover/center ornament;
Light Caribou wheel
ornament with King Ranch®
Logo – 64D



17" Stainless Steel Wheel
Covers (Front & Rear) (Opt.
on XL and XLT) – 945

OPTIONAL EQUIPMENT

		XL				XLT				Lariat					
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450		
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A	
BODYSTYLE & WHEELBASES															
Regular Cab 4X2 – 8' Box	142"	F2A	F3A	F3C	F4C	F2A	F3A	F3C	F4C	—	—	—	—		
Regular Cab 4X4 – 8' Box	142"	F2B	F3B	F3D	F4D	F2B	F3B	F3D	F4D	—	—	—	—		
SuperCab 4X2 – 6 ¾' Box	148"	X2A	X3A	—	—	X2A	X3A	—	—	X2A	X3A	—	—		
SuperCab 4X2 – 8' Box	164"	X2A	X3A	X3C	—	X2A	X3A	X3C	—	X2A	X3A	X3C	—		
SuperCab 4X4 – 6 ¾' Box	148"	X2B	X3B	—	—	X2B	X3B	—	—	X2B	X3B	—	—		
SuperCab 4X4 – 8' Box	164"	X2B	X3B	X3D	—	X2B	X3B	X3D	—	X2B	X3B	X3D	—		
Crew Cab 4X2 – 6 ¾' Box	160"	W2A	W3A	—	—	W2A	W3A	—	—	W2A	W3A	—	—		
Crew Cab 4X2 – 8' Box	176"	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C	W2A	W3A	W3C	W4C		
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—		
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D		
ENGINE/TRANSMISSION															
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996/44 S	S	P-96G	P-96G	—	S	—	—	—	S	—	—	—		
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996/44 G	—	S	S	—	—	S	S	—	—	S	S	—		
7.3L 2V DEVCT NA PFI V8 Gas/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N/4 4G	O	O	O	—	O	O	O	—	O	O	O	—		
6.7L 4 Valve OHV Power Stroke® V8 Turbo Diesel B20 with manual push-button Engine-Exhaust Braking/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T/44 G	O	O	O	S	O	O	O	S	O	O	O	S		
WHEELS															
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.															
17" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64A	S	S	—	—	—	—	—	—	—	—	—	—		
17" Argent Painted Steel (Hub Covers/Center Ornaments not included)	64K	—	—	S	—	—	—	S	—	—	—	—	—		
17" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64J	—	—	O P-17S P-96G/P96H	—	—	—	O	—	—	—	S	—		
18" Chrome PVD Aluminum Wheel	647	—	—	—	—	P-17P	P-17P	—	—	P-17C	P-17C	—	—		
18" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments	64C	—	—	—	—	—	—	—	—	S	S	—	—		
18" Argent Painted Steel w/Painted Hub Covers/Center Ornaments	64F	—	O	—	—	—	—	—	—	—	—	—	—		
18" Sparkle Silver Painted Cast Aluminum w/Bright Hub Covers/Center Ornaments	648	P-17S	P-17S	—	—	S	S	—	—	—	—	—	—		
18" Low-Gloss Black Painted Aluminum Wheel	64E	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—		
19.5" Forged Polished Aluminum w/Bright Hub Covers/Center Ornaments (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S		
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	—	—	—	—	—	—	—	—	P-17C	O-17C	—	—		
20" Bright Machined Cast Aluminum w/Magnetic Painted Pockets and Bright Hub Covers/Center Ornaments (4X4 only)	642	—	—	—	—	—	—	—	—	O	O	—	—		
20" High-Gloss Black Premium Painted Aluminum Wheel (4x4 only; req. Lariat Black Appearance Package (17L))	646	—	—	—	—	—	—	—	—	P-17L	P-17L	—	—		
TIRES															
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.															
LT245/75Rx17EBSW A/S	TD8	S	S	S	—	—	—	S	—	—	—	S	—		
LT245/75Rx17EBSW A/T	TBM	O	O	O	—	—	—	O	—	—	—	O	—		
LT245/75Rx17E OWL A/T(4)	TBL	—	—	—	—	—	—	O	—	—	—	O	—		
LT265/70Rx17E OWL A/T	TCD	O	O	—	—	—	—	—	—	—	—	—	—		
LT275/65Rx18EBSW A/S	TCH	P-17S	O P-17S	—	—	S P-17P	S P-17P	—	—	S	S	—	—		
LT275/70Rx18EBSW A/T, 4x4	TDX	P-17S	O P-17S	—	—	O	O	—	—	O	O	—	—		
LT275/70Rx18E OWL A/T, 4x4	TDU	P-17S	P-17S	—	—	O	O	—	—	O	O	—	—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire. (continued)													
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	—	—	—	—	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
LT275/65Rx20E OWL A/T, 4x4 – (NA 142" WB on XLT)	TCW	—	—	—	—	—	—	—	—	O	O	—	—
Spare Tire, Wheel, Carrier and Jack (req. Pickup Box Delete (66D); NA w/F-450)	512	O	O	O	O	O	O	O	O	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions pages for complete content and restrictions)													
XL Value Package	96V		O					—				—	
STX Appearance Package	17S		O					—				—	
Power Equipment Group	90L		O					S				S	
XLT Value Package	17V		—					O				—	
XLT Premium Package	17P		—					O-2,3				—	
Chrome Package	17C		—					—				O	
Lariat Black Appearance Package – F-250/F-350 4x4 SRW only; NA w/Camper Package (471) or Snowplow/Camper Package (47B)	17L		—					—				O-3	
★ Lariat Sport Appearance Package (NA w/ DRW)	17K		—					—				O	
Lariat Value Package	96L		—					—				O	
Lariat Ultimate Package	96U		—					—				O-3	
FX4 Off-Road Package	17X		O					O				O	
Tremor Off-Road Package – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box or F-450	17Y		—					O-3				O-3	
Snow Plow Prep Package (w/6.7L Power Stroke® Diesel engine includes 240 Amp Alternator (67D))	473		O					O				O	
Camper Package	471		O					O				O	
Snowplow/Camper Package	47B		O					O				O	
F-250 Trailer Tow Package – High Capacity (req. 6.7L Power Stroke® Diesel engine; req. Trailer Brake Controller (TBC) (52B) on XL SRW; NA w/10,000 GVWR/9,900 GVWR Pkg. (68D) or Pickup Box Delete (66D)	535		O					O				O	
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine; NA w/Pickup Box Delete (66D))	53Q		O					O				O	
F-350 Gas Heavy-Duty Payload Package (req. 6.2L Gas Engine (996) and 4x2; NA w/ Pickup Box Delete (66D))	96G		O-1					—				—	
F-350 Diesel Heavy-Duty Payload Package (req. 6.7L Diesel Engine (99T),DRW and 4x2)	96H		O-1					—				—	
Heavy-Service Front Suspension Package	67H		O					O				O	
Heavy-Service Package for Pickup Box Delete	63R		O					O				—	
Pickup Box Delete (NA F-450; NA F-250 Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System; NA w/ 7.3L Gas Engine (99N) or Pro Trailer Backup Assist Package (53Q); req. Long Wheelbase Variants)	66D		O					O				—	
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only; 9,900 GVWR Pkg. avail. on F-250 only; NA w/Trailer Tow Package – High Capacity (535) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	68D		O					O				O	
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L		O					O				O	
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F		O					O				O	
FUNCTIONAL													
Skid Plates – Transfer Case and Fuel Tank (4x4 only) (incl. in FX4 Off-Road Pkg. (17X) and Tremor Off-Road Pkg (17Y))	41P		O					O				O	
Engine Block Heater	41H		O					O				O	
Transmission Power Take-Off Provision (req. Ten-Speed Transmission; includes Transmission mounted live drive and stationary mode PTO; NA 4x2 142" WB; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R		O					O				O	
Engine Idle Shutdown – 5 minute	86A		O					O				—	
Engine Idle Shutdown – 10 minute	86B		O					O				—	
Engine Idle Shutdown – 15 minute	86C		O					O				—	
Engine Idle Shutdown – 20 minute	86D		O					O				—	
Operator Commanded Regeneration (OCR) (req. 6.7L Power Stroke® Diesel engine)	98R		O					O				—	

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

		XL				XLT				Lariat			
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450
		Order Code	600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A
FUNCTIONAL (continued)													
Dual Battery (Dual 78 AH; req. 6.2L or 7.3L Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M		O				O			O			
BoxLink™ (includes four (4) premium locking cleats; includes Interface Brackets on XL; Brackets are std when spray-in-bedliner (85S) is ordered on XL; feature is removed when Pickup Box Delete (66D) is ordered on XLT)	66B		O				S			S			
Adaptive Steering (req. Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q))	60A		—				—			O			
Adaptive Cruise Control and Collision Warning with Brake Support (optional availability requires 96U Lariat Ultimate Pkg.)	527		—				—			O-96U			
Audible Lane Departure Warning (req. 66D Pickup Box Delete and Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning (94P) on XL; NA w/F-450)	60C		O				O			—			
BLIS® (Blind Spot Information System) with Cross-traffic Alert and Trailer Tow (BLIS® sensor in taillamp) (Reqs. Power Equipment Group (90L) on XL; N/A with Pickup Box Delete (66D))	60B		O				S			S			
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W		O				O			O			
Power-Adjustable Pedals	62M		—				O			S			
Pre-Collision Assist with Automatic Emergency Braking (AEB), Automatic High Beam and Forward Collision Warning	94P		O				S			S			
Alternators (*Refer to alternator charts for further details)													
200 Amp Alternator – w/6.2L engine; 240 Amp w/6.7L Power Stroke® Diesel engine (required w/Snow Plow Pkg.(473), Upfitter Switches (66S) or 110V/400W Outlet(43C); on XL and XLT NA w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67D		S				S			S			
240 Amp Alternator (req. 6.2L engine; 240 Amp; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) is ordered together)	67E		S/O				S/O			S/O			
332 Amp Alternator (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A		S				S			S			
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine (99N) only; NA w/6.2L Gas engine (996); required w/41A Rapid-Heat Supplemental Heater)	67B		S/O				S/O			S/O			
Trailer Towing Equipment													
Manually Telescoping, Folding Trailer Tow Mirrors with Power/Heated Glass, Heated Convex Spotter Mirror, Integrated Clearance Lamps/Turn Signals	54K		P-90L				S			—			
Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights)	54F		—				O			S			
LED Box Lighting (Incl. LED Center High-Mounted Stop Lamp (CHMSL); NA 66D Pickup Box Delete)	66L		O				O			O P-96L P-96U			
Quad Beam LED Headlamps and LED Fog Lamps, and LED Taillamps; optional availability requires Lariat Ultimate Pkg. (96U); LED Fog Lamps and LED Center High-Mounted Stop Lamp (CHMSL))	59Q		—				—			O-96U			
Trailer Brake Controller (TBC) (Verified to be compatible w/select electric over hydraulic brakes; 7 & 4-way combo trailer tow socket and bracket deleted w/66D Pickup Box Delete; Std. on DRW; includes Smart Trailer Tow Connector)	52B		S/O				S			S			
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat or Pickup Box Delete 66D; std on F-450)	53W		O				O			O			
Cab Steps and Running Boards													
Platform Running Boards	18B		O				O			—			
6" Angular Chrome Step Bar (Std. on Lariat F-350 DRW and F-450; XL reqs. STX Appearance Pkg. (17S))	18C		O-17S,2,3				O-2,3			S/O			

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
 ★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Cab Steps and Running Boards (continued)													
Extended Running Board, 6" Angular Chrome	18D	—				O-2,3				O			
Power-Deployable Running Boards; requires Lariat Ultimate Pkg. (96U) or Lariat Value Package (96L); Not available with Lariat Interior Trims 6J or 6B, SuperCab, Lariat Chrome Package (17C), Lariat Black Appearance Package (17L) or Lariat Sport Appearance Package (17K) (unless 17L pr 17K is ordered with Tremor Off-Road Pkg (17Y))	18E	—				—				O -96U, 96L			
KEY EXTERIOR OPTIONS													
Center High-mounted Stop Lamp (CHMSL) (F-350 only; CHMSL is deleted from vehicles over 10,000 lbs. GVWR with 66D Pickup Box Delete; replaced with a black cover; to add CHMSL with 66D Pickup Box Delete, select 59H. CHMSL is standard under all other conditions.)	59H	S/O				S/O				S			
Front License Plate Bracket Note: See "Emissions" section for additional information	153	O				O				O			
Rear View Camera and Prep Kit (includes loose camera, wiring bundle and electrochromic mirror; req. 66D Pick Up Box Delete; required on 10,000 GVWR or less)	872	O				O				—			
Rain-Sensing Windshield Wipers and Heated Steering Wheel	60W	—				—				O			
Halogen Fog Lamps (req. XL Décor Group (17F) on XL)	595	O				O				—			
Rear CHMSL Camera (display in center stack screen; includes LED Center High-mounted Stop Lamp (CHMSL) with Cargo Light and Rear Video Camera; NA w/Pickup Box Deleted (66D), Individual Trailer TPMS/Customer/Placed Trailer Camera (653) or Customer/Placed Trailer Camera (65B))	873	O				O				O			
Ultimate Trailer Tow Camera System w/ Pro Trailer Backup Assist Package (NA w/ Pickup Box Delete (66D))	53R	O				O				O			
LED Roof Marker/Clearance Lamps (Std. on F-350 DRW & F-450)	592	S/O				S/O				S/O			
Tailgate Step (includes step and handle; NA w/66D Pickup Box Delete)	85G	O				O				O			
Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts; NA w/66D Pickup Box Delete)	85S	O				O				O			
Paint													
Lower Accent Two-Tone Paint (includes accent two-tone paint on SRW wheel-lip moldings; NA on F-350 DRW and F-450 wheel-lip moldings)	954	—				—				O			
Rear-windows													
Defrost with Fixed and Privacy Glass (Privacy Glass is standard on XLT; XL req. Privacy Glass (924) and Power Equipment Group (90L))	43B	O				O				—			
Power-Sliding Glass with Defrost and Privacy Glass (XL req. 90L Power Equipment Group; 924 Privacy Glass is standard on XLT)	435/924	O-2,3				O-2,3				S			
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel on Crew Cab; optional availability on XLT req. 17P XLT Premium Pkg.; includes map lights and Moonroof switches; NA w/Pickup Box Delete (66D))	43V	—				O-3				O-3			
Universal Garage Door Opener (UGDO)	85D	—				—				O			
110V/400W Outlet (with 40/20/40 seats, there is one in-dash mounted outlet; 2 nd outlet in the console req. 40/Console/40 seats; req. 200 Amp Alternator (67D))	43C	O				S				S			
Floor Covering, color-coordinated full carpet with floor mats (reqs. STX Appearance Pkg. (17S))	16F	O-17S				—				—			
Floor Mats, All-Weather (Doesn't include carpet floor mats; req. Super Cab or Crew Cab, 4x2 or 4x4 w/ESOF when Carpet Delete (166) is ordered)	16T	—				O				O			
Carpet Delete (XLT & Lariat replaced w/black flooring)	166	S				O				O			
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O				O				O			
Remote Start System (req. 90L Power Equipment Group)	76S	O				O				O P-96U P-96L			
Reverse Sensing System (NA w/66D Pickup Box Delete)	76R	F				O				S			
Upfitter Switches; (6) (Located in overhead console; req. 200 Amp Alternator (67D))	66S	O				O				O			

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
KEY INTERIOR OPTIONS (continued)													
Audio SYNC® 3 – Enhanced Voice Recognition Communications and Entertainment System – 8" LCD Capacitive Touchscreen in Center Stack with Swipe Capability – Pinch-to-Zoom capability included with available Voice-Activated Touchscreen Navigation System – 4.2" productivity screen in IP cluster – AppLink® – 911 Assist® – Apple CarPlay™ and Android Auto™ Capability – Smart-Charging USB-C ports – two (2) – Includes 110V/400W Outlet (43C) Reqs. Power Equipment Group (90L) on XL only	913		O				S				—		
SiriusXM® Radio Note: Includes a three (3)-month prepaid subscription. Service is not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by Sirius XM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc - adds one (1) I/P mounted center speaker on XL and XLT only Voice-Activated Navigation with HD and SiriusXM Traffic and Travel Link® Note: SiriusXM Traffic and Travel Link® includes a 5-year prepaid subscription. Services are not available in Alaska and Hawaii. Note: SiriusXM audio and data services each require a subscription sold separately, or as a package, by SiriusXM Radio Inc. If you decide to continue service after your trial, the subscription plan you choose will automatically renew thereafter and you will be charged according to your chosen payment method at then-current rates. Fees and taxes apply. To cancel you must call SiriusXM at 1-866-635-2349. See SiriusXM Customer Agreement for complete terms at www.siriusxm.com . All fees and programming subject to change. Sirius, XM and all related marks and logos are trademarks of Sirius XM Radio Inc	39S		O				S				—		
	21N		—				O				—		
Front-Seats (See Color & Trim Availability page for additional information)													
Cloth, 40/20/40 Split Bench	1		O				—				—		
Vinyl, 40/Mini-Console/40	L		O				—				—		
Cloth, 40/Mini-Console/40	4		O				—				—		
Cloth, 40/Console/40	2		—				O-2,3				—		
Leather, 40/20/40 Split Bench	6		—				—				O		
Rear-Seats													
Heated Seats (req. 40/Console/40 front-seat; req. 96L Lariat Interior Pkg. or 96U Lariat Ultimate Pkg.)	90R		—				—				O-3		
LPO/FLEET OPTIONS (Requires Valid FIN Code)													
XL Décor Group	17F		F				—				—		
Cruise Control (steering wheel-mounted)	525		F, P-17S, P-96V				—				—		
Daytime Running Lamps (DRL) (the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942		F				F				F		
Spare Wheel and Tire Delete (also deletes jack and frame-mounted carrier)	51X		F				—				—		
Speed Limitation – 65-mph governed top speed	926		F				F				—		
Speed Limitation – 75-mph governed top speed	927		F				F				—		
Individual TPMS Delete (optional on F-350 SRW over 10K GVWR; NA w/68D 10,000 GVWR Package; NA on F-250; Individual Trailer TPMS/Customer/Placed Trailer Camera Package (653) or Customer/Placed Trailer Camera (65B) – F-350 SRW only)	18L		F				F				F		
Upfitter Interface Module	18A		F				F				F		
FORD ACCESSORIES, PRE-INSTALLED													
Aluminum Crossbed Toolbox by Weather Guard (Defender Series) – NA w/Pickup Box Delete (66D)	62X		O				O				O		
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year													
S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option													

OPTIONAL EQUIPMENT

	Order Code	XL				XLT				Lariat			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450
		600 A	610 A	620 A	670 A	603 A	613 A	623 A	673 A	608 A	618 A	628 A	678 A
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02) – NA w/ Pickup Box Delete (66D)	62Y		O				O				O		
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E		O				O				O		
Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873))	65B		—				O				O		
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A		—				O				O		
Individual Trailer TPMS/Customer-Placed Trailer Camera (req. Ultimate Trailer Tow Camera System; w/ Pro Trailer Backup Assist Package (53R) or F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q); NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	653		—				O				O		
Wheel Locks (reqs. 20" wheels)	94W		—				—				O		
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. second unit body)	52R		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber (req. Center High-Mounted Stop Lamp)	91S		O				O				O		
★360-Degree Dual Beacon LED Warning Strobes – Amber-White (req. Center High-Mounted Stop Lamp)	91G		O				O				O		
Hood Deflector – Black Molded	87H		O				O				O		
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete)	85L		O				O				O		
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D		O				O				O		
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E		O				O				O		
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J		O				O				O		
Wheel Well Liner, Front	61L		O				O				O		
Wheel Well Liner, Rear (avail. on F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61M		O				O				O		
Wheel Well Liner, Front/Rear (avail. On F-250 and F350 SRW only; NA w/66D Pickup Box Delete)	61N		O				O				O		
Bed Step (NA w/ Pickup Box Delete (66D) or F-450)	87B		O				O				O		
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 66D Pickup Box Delete, 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M		O				O				O		
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on F-450 or 66D Pickup Box Delete)	61S		O				O				O		
Splash Guards/Mud Flaps Rear (NA w/66D Pickup Box Delete; reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S		O				O				O		
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40/console/40)	21X		—				O				O		
Exterior Backup Alarm	76C		O				O				O		
Gooseneck Hitch Kit – 15J (req. 53W 5 th Wheel/Gooseneck Hitch Prep Package; Available F-250/F-350 only; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15J		O				O				O		
5 th Wheel Hitch Kit-15L – includes 19k rated hitch for SRW. (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L		O				O				O		
FORD ACCESSORIES, PRE-INSTALLED (continued)													
5 th Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K		O				O				O		
Stainless Steel Wheel Covers – Front & Rear (F-350 DRW only; req. 64K 17" Argent Painted Steel Wheel)	945		O				O				—		

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

★ = New for this model year

2022 SUPER DUTY® PICKUP
(F-250 / F-350 / F-450)
OPTIONAL EQUIPMENT

		King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 0 SRW	F-350 DRW	F-450
		Order Code	700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A
BODYSTYLE & WHEELBASES													
Crew Cab 4X4 – 6 ¾' Box	160"	W2B	W3B	—	—	W2B	W3B	—	—	W2B	W3B	—	—
Crew Cab 4X4 – 8' Box	176"	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D	W2B	W3B	W3D	W4D
ENGINE/TRANSMISSION													
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift®-G Six-Speed Automatic w/SelectShift® Automatic	996 / 44S	S	—	—	—	S	—	—	—	—	—	—	—
6.2L 2 Valve Gas SOHC EFI NA V8 (Flex Fuel)/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	996 / 44G	—	S	S	—	—	S	S	—	—	—	—	—
7.3L 2V DEVCT NA PFI V8 Gas Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99N / 44G	O	O	O	—	O	O	O	—	—	—	—	—
6.7L 4 Valve OHV Power Stroke®V8 Turbo Diesel B20/TorqShift® Ten-Speed Automatic with Selectable Drive Modes: Normal, Tow/Haul, Eco, Deep Sand/Snow & Slippery	99T / 44G	O	O	O	S	O	O	O	S	S	S	S	S
WHEELS (King Ranch® wheels have unique King Ranch® logo center ornaments)													
4-Wheels (SRW); 6 Wheels (DRW). Spare Wheel included with Spare Tire.													
17" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64J	—	—	S	—	—	—	S	—	—	—	S	—
18" Low-Gloss Black Painted Aluminum Wheel	64E	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
19.5" Forged Polished Aluminum (4 aluminum outer and 2 steel inner)	64D	—	—	—	S	—	—	—	S	—	—	—	S
20" Bright Machined Cast Aluminum (req. TCW tire)	643	S	S	—	—	—	—	—	—	—	—	—	—
20" Chrome PVD Aluminum (4x4 only; req. Chrome Package (17C))	649	P-17C	P-17C	—	—	—	—	—	—	—	—	—	—
20" Polished Aluminum	64U	—	—	—	—	S	S	—	—	—	—	—	—
20" Polished Aluminum	64L	—	—	—	—	—	—	—	—	S	S	—	—
TIRES													
4 Tires (SRW); 6 Tires (DRW). Spare may not be the same as the road tire.													
LT245/75Rx17EBSW A/ S	TD8	—	—	S	—	—	—	S	—	—	—	S	—
LT275/65Rx20E OWL A/T, 4x4	TCW	S	S	—	—	S	S	—	—	S	S	—	—
LT245/75Rx17EBSW A/T	TBM	—	—	O	—	—	—	O	—	—	—	O	—
LT245/75Rx17E OWL A/T (DRW inner rear are LT245/75Rx17E)	TBL	—	—	O	—	—	—	O	—	—	—	O	—
225/70Rx19.5G BSW Traction	TGL	—	—	—	S	—	—	—	S	—	—	—	S
35" Off-Road Tire (LT285/75R18EBSW A/T)	TFW	P-17Y	P-17Y	—	—	P-17Y	P-17Y	—	—	—	—	—	—
GROUPS/PACKAGES (see Packaged Options/Emissions page for complete content and restrictions)													
Chrome Package (req. 85G Tailgate Step)	17C	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Monochromatic Paint Package (req. Chrome Package (17C))	96M	O	O	O	O	—	—	—	—	—	—	—	—
King Ranch® Ultimate Package	96K	O	O	O	O	—	—	—	—	—	—	—	—
FX4 Off-Road Package	17X	O	O	O	O	O	O	O	O	O	O	O	O
F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (req. 6.7L Power Stroke® Diesel engine	53Q	O	—	—	—	O	—	—	—	O	—	—	—
Tremor Off-Road Pacakge – req. 4x4 and 6.7L Diesel or 7.3L Gas Engine; NA w/8' Box	17Y	O	O	—	—	O	O	—	—	—	—	—	—
Snow Plow Prep Package (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	473	O	O	O	O	O	O	O	O	O	O	O	O
Camper Package	471	—	—	O	O	—	—	O	O	—	—	—	—
Snowplow/Camper Package	47B	—	—	O	O	—	—	—	—	—	—	—	—
Heavy-Service Front Suspension Package	67H	O	O	O	O	O	O	O	O	O	O	O	O
10,000 GVWR/9,900 GVWR Package (10,000 GVWR Pkg. avail. on F-350 SRW only. 9,900 GVWR Pkg. avail. on F-250 only; NA w/F-250 Trailer Tow High Capacity w/Ultimate Trailer Tow Camera System and Pro Trailer Backup Assist Package (53Q)	68D	O	O	—	—	O	O	—	—	O	O	—	—
11,400 (SRW Only)/13,000 (DRW Only) GVWR Package (see Packaged Options/Emissions page for availability)	68L	—	O	O	—	—	O	O	—	—	O	O	—
CNG/Propane Gaseous Engine Prep Package (avail. on F-250/F-350 w/6.2L gas engine only)	98F	O	O	O	—	O	O	O	—	—	—	—	—
FUNCTIONAL													
Dual Battery (req. 6.2L. or 7.3L Gas engine; reqs. 397 Amp Alternator (67B) when 7.3L engine (99N) is ordered)	86M	O	O	O	—	O	O	O	—	—	—	—	—
Engine Block Heater	41H	O	O	O	O	O	O	O	O	O	O	O	O

1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only
 ★ = New for this model year

S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option

OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SR W	F-350 DR W	F-450	F-250	F-350 SR W	F-350 DR W	F-450	F-250	F350 0 SR W	F-350 DR W	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
FUNCTIONAL (continued)													
Transmission Power Take-Off Provision (includes Transmission mounted live drive and stationary mode PTO capability; req. Ten-Speed Transmission (F-250 NA w/6.2L engine; NA F-450 142" WB; 6.2L engine req. 4.30 Final Drive Ratio)	62R	O	O	O	O	O	O	O	O	O	O	O	O
332 Amp Alternators (requires 6.7L Power Stroke® Diesel engine, Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C))	67A	S	S	S	S	S	S	S	S	S	S	S	S
240 Amp Alternator (req. 6.2L engine; required w/Snow Plow Pkg. (473), Upfitter Switches (66S) and 110V/400W Outlet (43C) when ordered together)	67E	S/O	S/O	S/O	S/O	S/O	S/O	S/O	S/O	—	—	—	—
397 Amp Alternator (req. Dual Battery (86M) on 7.3L Gas engine(99N); NA w/6.2L Gas engine (996))	67B	O	O	O	O	O	O	O	O	O	O	O	O
5 th Wheel/Gooseneck Hitch Prep Package (NA w/85L Drop-in Bedliner, 85M Bed Mat)	53W	O	O	O	S	O	O	O	S	O	O	O	S
Adaptive Steering	60A	O	O	O	O	O	O	O	O	S	S	S	S
Skid Plates, Transfer Case & Fuel Tank (4x4 only)	41P	O	O	O	O	O	O	O	O	O	O	O	O
12,000 lb. Ford Performance Parts winch by Warn (Incl. wireless and wired remote controls; 70-foot high-tensile strength, abrasion-resistant synthetic line; requires 4x4; 7.3L Gas engine (99N) requires Dual Battery (86M); 6.7L Power Stroke® Diesel engine (99T) requires 397 Amp Alternator (67B); NA w/ F-450 or F-350 DRW w/ 4.10 Final Drive Ratio (X4N))	15W	O	O	O	—	O	O	O	—	O	O	O	—
KEY EXTERIOR OPTIONS													
Quad Beam LED Headlamps, LED Fog Lamps and LED Taillamps	59Q	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Extended Running Board, 6" Angular Chrome	18D	O	O	O	O	—	—	—	—	—	—	—	—
Front License Plate Bracket	153	O	O	O	O	O	O	O	O	O	O	O	O
Note: See "Emissions" section for additional information													
LED Roof Clearance Lights	592	O	O	S	S	O	O	S	S	O	O	S	S
Power-Deployable Running Boards (includes Front Splash Guards/Mud Flaps on F-350 DRW)	18E	O – P-96K	O – P-96K	O – P-96K	O – P-96K	S	S	S	S	S	S	S	S
Tough Bed® (spray-in bedliner) (includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)	85S	O	O	O	O	O	O	O	O	O	O	O	O
KEY INTERIOR OPTIONS													
Moonroof, Power (Twin Panel; includes map lights and Moonroof switches)	43V	O – P-96K	O – P-96K	O – P-96K	O – P-96K	O	O	O	O	S	S	S	S
Rapid-Heat Supplemental Cab Heater (Optional in all states with 6.7L Power Stroke® Diesel engine)	41A	O	O	O	O	O	O	O	O	O	O	O	O
Upfitter Switches; six (6) located in overhead console (6.7L Power Stroke® Diesel engine req. 240 Amp Alternator (67D))	66S	O	O	O	O	O	O	O	O	S	S	S	S
Floor Covering – Vinyl (incl. all-weather Floor Mats and carpeted floor mats) Note: Vinyl Flooring replaces carpet flooring	16P	O	O	O	O	O	O	O	O	O	O	O	O
Adaptive Cruise Control and Collision Warning with Brake Support	527	O	O	O	O	S	S	S	S	S	S	S	S
Floor Mats, All-Weather (includes carpet floor mats)	16S	O	O	O	O	O	O	O	O	O	O	O	O
2 nd Row Heated Seat	90R	O	O	O	O	S	S	S	S	S	S	S	S
LPO/FLEET OPTIONS (Requires Valid FIN Code)													
Daytime Running Lamps (DRL) the non-controllable 942 Daytime Running Lamps (DRL) replace the standard Daytime Running Lamps (DRL) (On/Off Cluster Controllable)	942	F	F	F	F	F	F	F	F	F	F	F	F
Upfitter Interface Module	18A	F	F	F	F	F	F	F	F	F	F	F	F
FORD ACCESSORIES, PRE-INSTALLED													
Aluminum Crossbed Toolbox by Weather Guard (Defender Series)	62X	O	O	O	O	O	O	O	O	O	O	O	O
Premium Aluminum Crossbed Toolbox by Weather Guard (model # 127-0-02)	62Y	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Dual Hitch Kit-15E – F-450 only (includes one (1) 2 5/16" Gooseneck ball, one (1) 3" Gooseneck ball and two (2) safety chain tie-down bars; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15E	—	—	—	O	—	—	—	O	—	—	—	O
FORD ACCESSORIES, PRE-INSTALLED (continued)													
Individual Trailer TPMS (Includes four (4) TPMS sensors) Note: Trailer TPMS sensors only compatible on wheels with a .452' diameter valve stem	65A	O	O	O	O	O	O	O	O	O	O	O	O
1 = Regular Cab only, 2 = SuperCab only, 3 = Crew Cab only ★ = New for this model year													
S = Standard, O = Optional, P = Packaged Option, F = Fleet Only Option													

OPTIONAL EQUIPMENT

	Order Code	King Ranch®				Platinum				Limited			
		F-250	F-350 SRW	F-350 DRW	F-450	F-250	F-350 SRW	F-350 DRW	F-450	F-250	F350 SRW	F-350 DRW	F-450
		700 A	710 A	720 A	770 A	703 A	713 A	723 A	773 A	708 A	718 A	728 A	778 A
Customer-Placed Trailer Camera	65B	O	O	O	O	O	O	O	O	O	O	O	O
Individual Trailer TPMS/Customer-Placed Trailer Camera (NA w/Rear CHMSL Camera (873)) Note: Trailer TPMS sensors only compatible on wheels with a .452" diameter valve stem	653	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Locks (reqs. 20" wheels)	94W	O	O	—	—	O	O	—	—	O	O	—	—
Hood Deflector – Black Molded	87H	O	O	O	O	O	O	O	O	O	O	O	O
Stowable Loading Ramps (NA with Aluminum Toolbox (62X/62Y); reqs. Second unit body)	52R	O	O	O	O	O	O	O	O	O	O	O	O
Vehicle Safe by Console Vault (reqs. Seat-Bucket 40-20 Bridge-40)	21X	O	O	O	O	O	O	O	O	O	O	O	O
Drop-in Bedliner (NA with all Gooseneck features (53W, 15E, 15J, 15K))	85L	O	O	O	—	O	O	O	—	O	O	O	—
Tonneau Pickup Box Cover – Soft Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21D	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Hard Folding (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21E	O	O	O	O	O	O	O	O	O	O	O	O
Tonneau Pickup Box Cover – Retractable (NA w/Aluminum Crossbed Toolbox (62X/62Y), Stowable Loading Ramps (52R) or Drop-in Bedliner (85L))	21J	O	O	O	O	O	O	O	O	O	O	O	O
Wheel Well Liner, Front (DRW only)	61L	—	—	O	O	—	—	O	O	—	—	O	O
Wheel Well Liner, Front/Rear (SRW only; Rear is already standard)	61N	O	O	—	—	O	O	—	—	O	O	—	—
Bed Step	87B	O	O	O	—	O	O	O	—	O	O	O	—
Bed Mat (NA with all Gooseneck features (53W, 15E, 15J, 15K), 85L Drop-in Bedliner or 85S Tough Bed® (spray-in bedliner))	85M	O	O	O	O	O	O	O	O	O	O	O	O
Splash Guards/Mud Flaps Front (reqs. Splash Guards/Mud Flaps Rear (62S) for F250 & F350 SRW and DRW; standard on F-350 DRW when Deployable Running Boards (18E) are ordered; NA on 450)	61S	O	O	O	—	O	O	S	—	O	O	S	—
Splash Guards/Mud Flaps Rear (reqs. Splash Guards/Mud Flaps Front (61S) for F250 & F350 SRW and DRW; optional on F-350 DRW when Deployable Running Boards (18E) are ordered)	62S	O	O	O	O	O	O	O	O	O	O	O	O
Exterior Backup Alarm	76C	O	O	O	O	O	O	O	O	O	O	O	O
Gooseneck Hitch Kit (req. 53W 5 th Wheel/Gooseneck Hitch Prep Package; NA w/85L Drop-in Bedliner)	15J	O	O	O	—	O	O	O	—	O	O	O	—
5 th Wheel Hitch Kit-15L – includes 19k rated hitch for SRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15L	O	O	—	—	O	O	—	—	O	O	—	—
5 th Wheel Hitch Kit-15K – includes 32.5k rated hitch for DRW (req. 53W 5 th Wheel/Gooseneck Hitch Prep Pkg. and 8-ft. box; NA w/85L Drop-in Bedliner or 85M Bed Mat)	15K	—	—	O	O	—	—	O	O	—	—	O	O

COLOR & TRIM AVAILABILITY

INTERIOR COLOR		Interior and Seat Color
		Medium Earth Gray
XL	• HD Vinyl 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only)	AS
	• Cloth 40/20/40 Split Bench w/center armrest, cupholder and storage; manual lumbar (driver's side only)	1S
	• Vinyl 40/Mini-Console/40, manual lumbar (driver's side only)	LS ¹
	• Cloth 40/Mini-Console/40, manual lumbar (driver's side only)	4S ¹
XLT	• Cloth 40/20/40 split bench, 20% locking center under-seat storage, w/center armrest, cupholder and storage, two-way adjustable driver/passenger headrests, manual lumbar (driver's side only)	3S
	• Cloth 40/Console/40; two-way adjustable driver/passenger headrests, manual lumbar (driver's side only); Flow-through Console with 110V/400W outlet in rear (SuperCab & Crew Cab only; 4x4 req. ESOF – 213)	2S
EXTERIOR COLOR		Monotone
		Availability
XL		
Agate Black Metallic	UM	•
Antimatter Blue Metallic	HX	•
★Atlas Blue Metallic	B3	•
Carbonized Gray Metallic	M7	•
Iconic Silver Metallic	JS	•
Oxford White	Z1	•
Race Red	PQ	•
Stone Gray Metallic	D1	•
XLT		
Agate Black Metallic	UM	•
Antimatter Blue Metallic	HX	•
★Atlas Blue Metallic	B3	•
Carbonized Gray Metallic	M7	•
Iconic Silver Metallic	JS	•
Oxford White	Z1	•
Race Red	PQ	•
Rapid Red Metallic Tinted Clearcoat ²	D4	•
Stone Gray Metallic	D1	•
FLEET ONLY EXTERIOR COLOR – (REQUIRES VALID FIN CODE) ^{3,4}		Monotone
		Availability
XL		
Green	GR	•
Green Gem	W6	•
Orange	MB	•
School Bus Yellow	BY	•
Vermillion Red	E4	•
Yellow	AT	•
XLT		
Green	GR	•
Green Gem	W6	•
Orange	MB	•
School Bus Yellow	BY	•
Vermillion Red	E4	•
Yellow	AT	•

¹ Fleet Only² Extra Charge Paint³ Fleet only exterior colors will be priced as VSO colors.⁴ Not available with DRW or XLT Premium Package (17P), or Tremor Off-Road Package (17Y)

COLOR & TRIM AVAILABILITY (cont.)

		Interior and Seat Color				
		Baja	Black Onyx	Black Onyx / Dark Marsala	Java	Navy Pier / Light Slate
LARIAT	• Front Leather Seating Surfaces 40/Console/40; 10-way power driver and 8-way power front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, Flow-through Console with 110V/400W outlet in rear	5J	5B	—	—	
	• Front Leather Seating Surfaces 40/20/40 Split Bench; 10-way power driver and 8-way front passenger seating (includes power lumbar), two-way adjustable driver/passenger headrests, matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint	6J	6B	—	—	
KING RANCH®	• Unique King Ranch® Kingsville Antique Affect Leather Seating Surfaces Front 40/Console/40 w/matching 60/40 Rear Bench w/partitioned locking under-seat storage and 12V Powerpoint, dual integrated cupholders in armrest and 2 outboard head restraints; 10-way power driver and 8-way power passenger (includes power lumbar), memory, easy-entry/exit driver's seat, and heated/ventilated driver and passenger seating. Flow-through Console with 110V/400W outlet in rear.	—	—	—	SP	
PLATINUM	• Unique Platinum Multi-contour Driver and Passenger Leather 40/console/40 Seats; 10-way power driver and 8-way power front passenger heated/ventilated seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	7B	BB	—	
LIMITED	• Unique Limited Navy Pier/Light Slate Two-tone Premium Luxury Leather Seating Surfaces, Multi-contour Driver and Passenger 40/console/40 Seats; 10-way power driver and 8-way power front passenger, heated/ventilated driver and passenger seating (includes power lumbar), memory and four-way adjustable driver/passenger headrests; second row armrest. Flow-through Console with 110V/400W outlet in rear.	—	—	—	—	TT

COLOR & TRIM AVAILABILITY (cont.)

		Two-Tone						
EXTERIOR COLOR	Monotone	Stone Gray (D1)	Carbonized Gray (M7)	Availability				
LARIAT								
Agate Black Metallic	UM	—	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	—	•	•	—	—	—
★Atlas Blue	B3	—	—	•	•	—	—	—
Carbonized Gray Metallic	M7	—	—		•	—	—	—
Iconic Silver Metallic	JS	—	—	•	•	—	—	—
Oxford White	Z1	—	—	•	•	—	—	—
Race Red	PQ	—	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	•	•	—	—	—
Stone Gray Metallic	D1	—	—	•	•	—	—	—
★ LARIAT BLACK APPEARANCE PACKAGE (17L)								
Agate Black Metallic	UM	—	—	—	•	—	—	—
Antimatter Blue Metallic	HX	—	—	—	•	—	—	—
★Atlas Blue	B3	—	—	—	•	—	—	—
Carbonized Gray Metallic	M7	—	—	—	•	—	—	—
Iconic Silver Metallic	JS	—	—	—	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	—	—	—
LARIAT TWO-TONE (954) ¹								
Agate Black Metallic	UM	D1	—	•	•	—	—	—
Agate Black Metallic	UM	—	M7	—	•	—	—	—
★Atlas Blue	B3	—	M7	—	•	—	—	—
Antimatter Blue Metallic	HX	D1	—	•	•	—	—	—
Antimatter Blue Metallic	HX	—	M7	—	•	—	—	—
Iconic Silver Metallic	JS	—	M7		•	—	—	—
Oxford White	Z1	—	M7	—	•	—	—	—
Oxford White	Z1	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	•	•	—	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	M7	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	D1	—	•	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	M7	—	•	—	—	—
KING RANCH®								
Agate Black Metallic	UM	D1	—	—	—	—	•	—
Antimatter Blue Metallic	HX	D1	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	D1	—	—	—	—	•	—
Oxford White	Z1	D1	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	D1	—	—	—	—	•	—
KING RANCH® W/MONOCROMATIC PAINT PACKAGE (96M)								
Agate Black Metallic	UM	—	—	—	—	—	•	—
Antimatter Blue Metallic	HX	—	—	—	—	—	•	—
★Atlas Blue	B3	—	—	—	—	—	•	—
Oxford White	Z1	—	—	—	—	—	•	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	•	—
Stone Gray Metallic	D1	—	—	—	—	—	•	—
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	•	—
PLATINUM								
Agate Black Metallic	UM	—	—	—	•	•	—	—
Antimatter Blue Metallic	HX	—	—	—	•	•	—	—
★Atlas Blue	B3	—	—	—	•	•	—	—
Carbonized Gray Metallic	M7	—	—	—	•	•	—	—
Iconic Silver Metallic	JS	—	—	—	•	•	—	—
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	•	—	—	—
Star White Metallic Tri-Coat	AZ	—	—	—	•	•	—	—
LIMITED								
Agate Black Metallic	UM	—	—	—	—	—	—	•
★Atlas Blue	B3	—	—	—	—	—	—	•
Carbonized Gray Metallic	M7	—	—	—	—	—	—	•
Iconic Silver Metallic	JS	—	—	—	—	—	—	•
Rapid Red Metallic Tinted Clearcoat	D4	—	—	—	—	—	—	•
Star White Metallic Tri-Coat	AZ	—	—	—	—	—	—	•
Stone Gray Metallic	D1	—	—	—	—	—	—	•

¹ NA w/ Lariat Sport Package (17K)

★ = New for this model year

• = Available

PACKAGED OPTIONS/EMISSIONS

STX APPEARANCE PACKAGE (17S)**Availability:**

- Optional on XL

Not available with:

- XL Value Package (96V)

Includes:

- Bright Chrome Grille
- High Airflow Grille (std w/6.7L Diesel DRW only)
- Bright Hub Covers
- Chrome Front and Rear Step Bumpers
- Cruise Control (steering wheel-mounted)
- STX Fender Vent Badge
- 18" Sparkle Silver Painted Cast Aluminum Wheels (648) (F-250/F-350 SRW)
- LT275/65Rx18EBSW A/S (TCH)
- 17" Forged Polished Aluminum Wheels (F-350 DRW)
- 19.5" Forged Polished Aluminum Wheels (F-450)

Options Available:

- LT275/70Rx18EBSW A/T, 4x4 (TDX)
- LT275/70Rx18EOWL A/T, 4x4 (TDU)
- Floor Covering, color-coordinated full carpet with floor mats (16F)
- 6" Angular Chrome step bars (NA to Regular Cab)

XL VALUE PACKAGE (96V)**Availability:**

- Optional on XL

Not available with:

- STX Appearance Package (17S)

Includes:

- Bright chrome hub covers and center ornaments (SRW Only)
- Chrome front and rear step bumper
- Cruise Control (steering wheel-mounted)

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

XL DÉCOR GROUP (17F)**Availability:**

- Optional on XL (Fleet only)

Includes:

- Bright chrome hub covers and center ornaments (SRW and 64J DRW Wheel only)
- Chrome front and rear step bumper

NOTE: Does not include rear bumper when ordered w/66D Pickup Box Delete

POWER EQUIPMENT GROUP (90L)**Availability:**

- Optional on XL
- Standard on XLT and Lariat

Includes:

- Accessory delay
- Manual-folding, manually telescoping, power glass trailer tow mirrors with heated glass and heated convex spotter mirror, integrated clearance lamps/turn signals (54K) (XL & XLT)
- Advanced Security Pack (Incl. SecuriLock® Passive Anti-Theft System (PATS) and Inclination / Intrusion Sensors)
- Power locks
- Power Tailgate Lock
- Power 1st row (front-seat) windows w/one-touch up/down
- Power 2nd row (rear-seat) windows (SuperCab and Crew Cab)
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (Lariat only)
- Remote keyless-entry
- Upgraded door-trim panel on XL

Deletes:

- Passenger-side lock cylinder

Options Available:

- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System (LED Side-mirror Spotlights) (54F) (XLT only)

XLT VALUE PACKAGE (17V)**Availability:**

- Optional on XLT

Not available with:

- XLT Premium Package (17P)

Includes:

- Autolock/Auto unlock
- Fog Lamps
- Power Driver's Seat (eight-way)
- Rear under-seat storage (NA w/ Regular Cab; fixed/non-locking on SuperCab; foldable/locking on Crew Cab)
- Reverse Sensing System (76R) (not included when ordered w/Pickup Box Delete (66D))
- SecuriCode™ keyless entry keypad (driver's side)

PACKAGED OPTIONS/EMISSIONS

XLT PREMIUM PACKAGE (17P)**Availability:**

- Optional on XLT SuperCab and Crew Cab

Not available with:

- Pickup Box Delete (66D)
- XLT Value Package (17V)

Requires:

- 17" Forged Polished Aluminum (64J) (F-350 DRW only)
- PowerScope® Trailer Tow Mirrors (54F)
- Fixed Rear-window w/Privacy Glass and Defrost (43B) or Power-Sliding w/Privacy Glass and Defrost (435)

Includes:

- 6" Angular Chrome step bars
- 18" Chrome PVD Aluminum Wheel (647) (SRW only)
- LT275/65Rx18EBSW A/S (TCH) (standard on SRW only)
- Autolock/Auto unlock
- Chrome exhaust tip
- Chrome tailgate handle; body-color door handles with chrome insert
- Chrome tow hooks – front, two (2)
- Fog Lamps
- Power Driver seat w/heat (8-Way)
- Rear under-seat storage (fixed/non-locking on Super Cab; foldable/locking on Crew Cab)
- Passenger seat w/heat (2-Way)
- Reverse Sensing System (76R)
- SecuriCode™ keyless entry keypad (driver's side)
- Unique chrome mirror caps

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D)
- LT275/70Rx18EBSW A/T 4x4 (TDX)
- LT275/70Rx18E OWL A/T 4x4 (TDU)

LARIAT BLACK APPEARANCE PACKAGE (17L)**Availability:**

- Optional on Lariat Crew Cab

Not available with:

- Camper Package (471)
- Snowplow/Camper Package (47B)

Requires:

- 4x4
- F-250 or F-350 SRW

Includes:

- 6" Ebony Black Angular – Running Boards
- 20" Ebony Black Painted Premium Aluminum Wheel
- LT275/65R 20E OWL A/T (TCW)
- Body-color front and rear bumper
- Ebony Black Fender Vent Surround
- Ebony Black Painted front Grille Bars
- Ebony Black Painted Mirror Caps
- Headlamps – Black out surrounds, LED only
- Tough Bed® (spray-in bedliner; includes tailgate-Guard, black box bed tie-down hooks and black bed attachment bolts)
- Wheel Well Liner, Rear (61M)

LARIAT VALUE PACKAGE (96L)**Availability:**

- Optional on Lariat

Not available with:

- Lariat Ultimate Package (96U)

Includes:

- Easy Entry/Exit Memory Driver's Seat Feature
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System

CHROME PACKAGE (17C)**Availability:**

- Optional on Lariat SuperCab and Crew Cab
- Optional on King Ranch® 4x4

Not available with:

- Power-Deployable Running Boards (18E) on Lariat

Includes:

- 6" Angular Chrome step bars (replaces Accent-color Illuminated tubular cab steps on King Ranch®)
- 18" Chrome PVD Wheels (647) (Lariat SRW only)
- 20" Chrome PVD Aluminum Wheels (643) (King Ranch® SRW Only)
- Body-color door handles with chrome insert
- Chrome exhaust tip
- Chrome tow hooks – front, two (2)
- LT275/65Rx18EBSW A/S (TCH) (standard on Lariat SRW only)
- Unique Chrome mirror caps
- Chrome front and rear bumpers – King Ranch®
- Chrome rear tailgate appliqué – King Ranch®
- Power-folding with Autofold, PowerScope® Telescoping, Power Glass Trailer Tow Mirrors with Heat, Turn Signal, High-Intensity LED Security Approach Lamps, Utility Lighting System(LED Side-mirror Spotlights) (54F)

Options Available:

- Extended Running Boards, 6" Chrome Angular (18D) (when King Ranch® Ultimate Pkg. 96K is ordered you will get Power-Deployable Running Boards)
- LT275/70Rx18EBSW A/T, 4x4 (TDX) (Lariat SRW only)
- LT275/70Rx18E OWL A/T, 4x4 (TDU) (Lariat SRW only)
- LT275/65Rx20E OWL A/T, 4x4 (TCW) (SRW only; includes 20" Chrome PVD Aluminum wheel (649))

LARIAT ULTIMATE PACKAGE (96U)**Availability:**

- Lariat Crew Cab

Not available with:

- Lariat Value Package (96L)

Includes:

- Ambient Lighting – Fixed Color
- LED Box Lighting (incl. LED Center High-Mounted Stop Lamp (CHMSL))
- Power-Adjustable Pedals with Memory
- Easy Entry/Exit Memory Driver's Seat Feature
- Power Heated/Ventilated Driver/Passenger Seat with Driver Side Memory
- Intelligent Access with Push-button Start (PEPS)
- Power Telescoping/Tilt Steering Wheel/Column, memory and audio controls
- PowerScope® Trailer Tow Mirrors with Memory
- Remote Start System
- Remote Tailgate Release
- Tailgate Step
- Wireless Charging Pad (only included when 40/console/40 seat is ordered)

LARIAT SPORT APPEARANCE PACKAGE (17K)**Availability:**

- Optional on Lariat

Not available with:

- DRW
- 4x2
- Lariat Two-Tone Paint (954)

Includes:

- Chrome exhaust tip
- Body-color front and rear bumpers
- Exterior mirror – body-color
- Painted body-color grille
- Platform running boards
- Unique Sport 4x4 box decal

PACKAGED OPTIONS/EMISSIONS

KING RANCH® ULTIMATE PACKAGE (96K)**Availability:**

- Optional on King Ranch®

Includes:

- LED Fog Lamps
- LED Taillamps
- Quad LED Headlamps
- Moonroof (Twin Panel)
- Multi-contour Seats
- Power-Deployable Running Boards

KING RANCH® MONOCHROMATIC PAINT PACKAGE (96M)**Availability:**

- Optional on King Ranch®

Requires:

- Chrome Package (17C)

Includes:

- Chrome front and rear bumpers
- Monochromatic Paint
- Monotone fender flares (F-450 DRW only)

Deletes:

- Accent-color Wheelip moldings (SRW)

NOTE: If combined with Tremor Off-Road Package (17Y) body-color Wheelip moldings will be included

FX4 OFF-ROAD PACKAGE (17X)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- Pickup Box Delete (66D)

Requires:

- 4x4
- All-Terrain Tires (F-250 and F-350)
- 225/70Rx19.5G BSW Traction Tires (F-450)
- Electronic-locking differential on SRW
- Limited-slip rear-axle DRW

Includes:

- Hill Descent Control™
- Off-Road Specifically tuned front/rear shock absorbers
- Transfer case and fuel tank skid plates
- Unique "FX4 Off-Road" box decal

TREMOR OFF-ROAD PACKAGE (17Y)**Availability:**

- Optional on XLT, Lariat, King Ranch® and Platinum

Not available with:

- 8' Box
- Dual Rear Wheel (DRW)
- Pickup Box Delete (66D)
- Rear Stabilizer Bar (DZLAB)

Requires:

- 4x4
- 7.3L DEVCT Gas engine (99N)
- 6.7L Power Stroke® Diesel engine (99T)
- F-250 w/ 6.7L Diesel Engine req. F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System and **Pro Trailer Backup Assist** Package (53Q) or F-250 Trailer Tow Package – High Capacity (535)
- Crew Cab

Includes:

- 4.30 Electronic Locking Final Drive Ratio (X4M) (7.3L Gas Engine only (99N))
- 3.55 Electronic Locking final Drive Ratio (X3J) (6.7L Diesel Engine only (99T))
- 35" Off-Road Tire – LT285/75R18 (TFW)
- 18" Low-Gloss Black Painted Wheel (64E)
- Lane Departure Warning
- Unique Front Springs – Ride Height Increase
- Rear Electronic Locking Differential
- Front Limited Slip Differential
- Performance Front & Rear Shock Absorb
- Power Driver seat (8-Way) w/ rear under-seat storage (XLT only)
- Off-Road Running Boards – Textured Matte Finish
- Skid Plates – Transfer Case and Fuel Tank (41P)
- Unique Front Air Dams – Approach Angle Improvement
- Water Fording Vent Tubes – Transfer Case & Axle
- Rock Crawl Mode
- Trail Control Mode
- Tremor Off-Road Decal
- Spare – Conventional Road Wheel
- LT285/75R 18E BSW Spare Tire
- Wheelip Molding – Body-Color

Options Available:

- Power-Deployable Running Boards (18E) – NA w/ XLT or interior trims 6J or 6B

F-250 TRAILER TOW PACKAGE – HIGH CAPACITY (535)**Availability:**

- Optional on XL, XLT, and Lariat F-250

Not available with:

- 10,000 GVWR/9,900 GVWR Pkg. (68D)
- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Trailer Brake Controller (TBC) (52B) – XL SRW

Includes:

- Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.
- Upgraded axle

NOTE: Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.

PACKAGED OPTIONS/EMISSIONS

F-250 TRAILER TOW HIGH CAPACITY W/ ULTIMATE TRAILER TOW CAMERA SYSTEM PACKAGE AND PRO TRAILER BACKUP ASSIST (53Q)**Availability:**

- Optional on F-250

Not available with:

- Pickup Box Delete (66D)

Requires:

- 6.7L Power Stroke® Diesel engine (99T)
- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:

- Lane Departure Warning
- F-250 Trailer Tow Package – High Capacity (535)
 - Upgraded Axle
 - Increase GCW on diesel engine from 23,500 lbs. to 30,000 lbs.

★Pro Trailer Backup Assist – std on King Ranch®, Platinum and Limited

- Ultimate Trailer Tow Camera System – std on King Ranch®, Platinum and Limited
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

NOTE: *Salesperson's Portfolio or Trailer Towing Guide should be consulted for specific trailer towing or camper limits and corresponding required equipment, axle ratios and model availability. See Supplemental Reference for vehicle height consideration.*

ULTIMATE TRAILER TOW CAMERA SYSTEM W/ PRO TRAILER BACKUP ASSIST PACKAGE (53R)**Availability:**

- Optional on XL, XLT, and Lariat
- Standard on King Ranch®, Platinum, and Limited

Not available with:

- Pickup Box Delete (66D)

Requires:

- Power Equipment Group (90L) – XL only
- STX Appearance Package (17S) – XL only
- SYNC® 3 (913) – XL only
- Trailer Brake Controller (52B) – XL only

Includes:**★ Pro Trailer Backup Assist**

- Lane Departure Warning
- Ultimate Trailer Tow Camera System
 - Rear View Camera
 - 360 Degree Camera System
 - Rear CHMSL Camera
 - Trailer Reverse Guidance
 - LED Center High-Mounted Stop Lamp

SNOW PLOW PREP PACKAGE (473)**Availability:**

- Optional on all 4x4 Pickups

Not available with:

- ★ Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)

Options Available:

- 240 Amp Alternator (67E) with 6.2L Gas Engine

NOTE 1: *Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

CAMPER PACKAGE (471)**Availability:**

- Optional on XL, XLT, Lariat and King Ranch® (DRW only), Platinum (DRW)

Not available with:

- 20" Wheels and Tires
- Pickup Box Delete (66D)
- Heavy-Service Front Suspension Package (67H)
- ★ Tremor Off-Road Package (17Y)

Includes:

- Extra heavy-service front springs (4x2) (2 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with camper*

PACKAGED OPTIONS/EMISSIONS

SNOWPLOW/CAMPER PACKAGE (47B)**Availability:**

- Optional on XL, XLT, Lariat, and King Ranch® (DRW only)

Not available with:

- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Heavy-Service Front Suspension Package (67H)
- Heavy-Service Package for Pickup Box Delete (63R)
- Pickup Box Delete (66D)

Requires:

- 4x4

Includes:

- Computer selected springs for snowplow application
- 200 Amp Alternator (67D)
- Heavy-service front springs (4x4) (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)
- Rear auxiliary springs (F-250 only; Std. on 350)
- Rear stabilizer bar (SRW only)
- Slide-in camper certification

NOTE 1: *Salesperson's Source Book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

Restrictions apply; see Supplemental Reference or Body Builders Layout Book for details. Expect firmer ride when vehicle is not equipped with snowplow and/or camper.

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with snowplow and/or camper*

NOTE 3: *Dual Battery (86M) recommended with 6.2L or 7.3L Gasoline Engines; See Body Builders Layout Book for details.*

HEAVY-SERVICE FRONT SUSPENSION PACKAGE (67H)**Availability:**

- Optional on all Pickups

Usage:

- Recommended only on vehicles which will permanently utilize aftermarket equipment such as heavy-duty winches, brush guards or other apparatus which loads the front axle to the specified Gross Axle Weight Rating (GAWR)

Not available with:

- Tremor Off-Road Package (17Y)
- Snow Plow Package (473), Camper Package (471) or Heavy-Service Package for Pickup Box Delete (63R)

Includes:

- Heavy-service front springs (1 up upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment)

NOTE 1: *Vehicle ride height will increase w/the addition of this package.*

NOTE 2: *May result in deterioration of ride quality when vehicle is not equipped with front end utility attachment.*

HEAVY-SERVICE PACKAGE FOR PICKUP BOX DELETE (63R)**Availability:**

- Optional on XL and XLT
- F-250 and F-350 SRW

Not available with:

- 20" Wheels and Tires, Snow Plow Prep Package (473) or Heavy-Service Front Suspension Package (67H)
- Moonroof (Twin Panel) (43V)

Requires:

- Pickup Box Delete (66D)

Includes:

- Heavy-service front springs (200 lbs. Upgrade above the spring computer selected as a consequence of options chosen. Not included if maximum springs have been computer selected as standard equipment).
- Rear stabilizer bar
- Rear auxiliary springs (F-250 only; Std. on 350)

NOTE: *Salesperson's Source book or Ford RV Trailer Towing Guide should be consulted for specific Trailer Towing or camper limits and corresponding required equipment, axle ratios and model availability.*

10,000/9,900 GVWR PACKAGE (68D)**Availability:**

- Optional on F-250 and F-350 SRW

Not available with:

- Trailer Tow Pkg. – High Capacity (535)
- F-250 Trailer Tow High Capacity w/ Ultimate Trailer Tow Camera System Package and **Pro Trailer Backup Assist** (53Q)

Includes:

- 9,900 lbs. Gross Vehicle Weight Rating (F-250 SRW)
- 10,000 lbs. Gross Vehicle Weight Rating (F-350 SRW)

F-350 GAS HEAVY-DUTY PAYLOAD PACKAGE (96G)**Availability:**

- Optional on XL
- F-350
- Regular Cab

Not available with:

- 4x4
- Pickup Box Delete (66D)

Requires:

- 6.2L Gas engine (996) with 3.73 Non-Limited-Slip final drive ratio (X37) – SRW only
- 6.2L Gas engine (996) with 4.30 Limited-Slip final drive ratio (X4L) – DRW only

Includes:

- TorqShift®-G Six-Speed Automatic Transmission (44S) – 6.2L Gas engine (996) only
- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel) – DRW only

NOTE: *Package increases payload by reducing base curb weight*

PACKAGED OPTIONS/EMISSIONS

F-350 DIESEL HEAVY-DUTY PAYLOAD PACKAGE (96H)**Availability:**

- Optional on XL
- F-350
- Regular Cab
- DRW

Not available with:

- 4x4
- 6.2L Gas engine (996)
- 7.3L DEVCT Gas engine (99N)

Requires:

- 6.7L Power Stroke® Diesel engine (99T) with 3.55 (X3K) or 4.10 (X4N) Limited-Slip final drive ratio

Includes:

- 40/Mini-Console/40
- 17" Forged Polished Aluminum wheels (64J) (four (4) exterior wheels; inner DRW are steel)

NOTE: *Package increases payload by reducing base curb weight*

11,400 (SRW)/13,000 (DRW Only) GVWR PACKAGE (68L)**Availability:**

- Optional on F-350 SRW:
 - 4x4 with 6.2L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 7.3L Gas Engine and 18" or 20" A/T Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x2 with 6.7L Power Stroke® Diesel engine and 18" A/S Tires
 - SuperCab 164" WB (8' box)
 - Crew Cab 176" WB (8' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any 18" or 20" tires
 - Regular Cab 142" WB (8' box)
 - SuperCab 148" WB (6 3/4' box)
 - SuperCab 164" WB (8' box)
 - Crew Cab 160" WB (6 3/4' box)
 - 4x4 with 6.7L Power Stroke® Diesel engine and any size tires
 - Crew Cab 176" WB (8' box)
- Optional on F-350 DRW

Not available with:

- F-350 DRW w/Box Delete and 6.7L Diesel

Includes:

- 11,400 lbs. Gross Vehicle Weight Rating
 - Available w/F350 SRW Pickups or Box Deletes w/:
 - 6.2L GAS (996) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 7.3L GAS (99N) w/4x4 & w/18" or 20" A/T Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x2 & w/18" A/S Tires w/:
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB LONG BOX 176 WB
 - 6.7L DIESEL (99T) w/4x4 & w/any 18" or 20" Tires w/:
 - PU REG CAB LONG BOX 142" WB
 - PU SUPERCAB SHORT BOX 148 WB
 - PU SUPERCAB LONG BOX 164 WB
 - PU CREW CAB SHORT BOX 160 WB
 - 6.7L DIESEL (99T) w/4x4 & w/All Size Tires w/:
 - PU CREW CAB LONG BOX 176 F WB
- 13,000 lbs. Gross Vehicle Weight Rating (F-350 DRW)

PICKUP BOX DELETE (66D)**Availability:**

- Optional XL and XLT: F-250, F-350 SRW and F-350 DRW Pickups with long wheelbases
- Regular Cab 142" WB (8 ft. box)
- SuperCab 164" WB (8 ft. box)
- Crew Cab 176" WB (8 ft. box)

Usage:

- Incomplete vehicle package – req. further manufacture and certification by a final stage manufacturer. In addition, Ford urges manufacturers to follow the recommendations of the Ford Incomplete Vehicle Manual and the Ford Truck Body Builder's Layout Book (and applicable supplements).

Not available with:

- 7.3L Gas Engine (99N)
- 20" Wheels and Tires
- Tremor Off-Road Package (17Y)
- Moonroof (Twin Panel) (43V)
- Short Wheelbase Variants
- FX4 Off-Road Package (17X)

Deletes:

- Pickup Box and Tie-down hooks
- Tailgate
- Rear bumper
- Rearview Camera
- Spare wheel, tire, carrier and jack
- 7/4 Pin Connector
- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)

Options Available:

- Center High-mounted Stop Lamp (CHMSL) (59H) (only on vehicles over 10,000 lbs. Gross Vehicle Weight Rating)
- Rear View Camera and Prep Kit (872)

5TH WHEEL/GOOSENECK HITCH PREP PACKAGE (53W)**Availability:**

- Optional on XL, XLT, Lariat, King Ranch® Platinum and Limited
- Standard on F-450

Not available with:

- Drop-in Bedliner (85L)
- Pickup Box Delete (66D)

Includes:

- Five (5) pickup bed attachment points w/plugs
- One (1) frame under-bed cross member
- One (1) integrated 7-pin connector on driver's side pickup bed wall

5th Wheel Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible w/the factory orderable 5th Wheel Hitch Kits (15K and 15L) and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part #BC3Z-19D520-A (8 ft. box only). The prep package is also compatible w/Reese Signature Series 5th wheel hitch kits updated w/a new Leg Service Kit – Part# BC3Z-A00A25-A (8 ft. box only)
- The 5th Wheel Hitch Kit-15K, 5th Wheel Hitch Kit-15L and Dealer-installed Ford Accessories 5th Wheel Hitch kit by Reese – part # BC3Z-19D520-A is not released to the short box (6.75 ft. box)

NOTE: *The short pickup box provides less clearance between the cab and 5th wheel trailer compared to "long box" pickups. The receiver centerline of the hitch should be mounted at least two inches forward from the rear-axle of the truck chassis. When selecting a trailer and tow vehicle, it's critical that this combination provide clearance between the cab and tow vehicle for turns up to and including 90 degrees. Failure to follow this recommendation could result in the trailer contacting the cab of the tow vehicle during tight turns.*

Gooseneck Hitch Compatibility:

- The 5th Wheel/Gooseneck Prep Package (53W) is compatible only w/the factory orderable Gooseneck Hitch Kit-15J, Gooseneck Dual Hitch Kit-15E or Dealer-installed Ford Customer Accessories Gooseneck hitch by Reese – part # BC3Z-19F503-A (8 ft. box and 6.75 ft. box)

PACKAGED OPTIONS/EMISSIONS

CNG/Propane GASEOUS ENGINE PREP PACKAGE (98F)**Availability:**

- Optional on all F-250 and F-350

Requires:

- 6.2L Gas Engine (996)

Includes:

- Hardened Engine Intake Valves and Valve Seats
- Bi-Fuel manifold

NOTE: This package does not include CNG/Propane fuel tanks, lines, etc. Vehicle will be equipped w/the standard factory gasoline fuel system. Additional equipment combined w/Certified calibration reflash is required, from an external upfitter, to convert the vehicle to a CNG/Propane fueled vehicle. See Alternative Fuel Buyers Guide: www.ford.com/altfuelbuyersguide

Ford Motor Company does not provide an exhaust or evaporative emissions certificate w/this option when converted to use CNG or Propane fuel. Ford does not represent that a vehicle converted to use CNG or Propane will comply w/all applicable U.S. or Canadian safety standards. It is the responsibility of the final stage manufacturer (body-builder, installer, alterer or subsequent stage manufacturer) to determine that any vehicle converted to use CNG or Propane complies w/U.S. Federal, California or Canadian exhaust and evaporative emission requirements, Federal fuel economy standards, U.S. and Canadian safety standards, labeling and any other requirements

REAR VIEW CAMERA AND PREP KIT (872)**Availability:**

- Optional on XL and XLT

Requires:

- Pick Up Box Delete (66D)

Pre-installed Content Includes:

- Cab Wiring
- Frame Wiring to the rear most cross member
- Video Display
 - 4" display when ordered
 - 8" display when ordered with SYNC@3

Upfitters kit Includes:

- Camera with mounting bracket
- 20' jumper wire
- Camera mounting and aiming instructions

Vehicle Special Order (VSO)

FLEET ONLY. See www.fmcdealer.com for current VSO Order Guide. This live guide includes VSO option codes, descriptions and pricing. Email vsomail@ford.com or call 1.800.34.FLEET, menu 4 w/any VSO questions you may have.

High Sulfur Diesel Fuel Usage

Vehicles for intended usage w/diesel fuel sulfur content greater than 15ppm require Euro II (>500ppm sulfur) or Euro III (<500ppm sulfur) packages to avoid engine functionality issues.

Packages are available through Export Order Guide w/the appropriate US EPA exemption or verifiable export usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

NOTE: JP8 fuel is supported and compatible w/these packages

Leaded Fuel Capable

Package is available through Export Order Guide w/the appropriate US EPA exemption or verifiable market usage.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

European Certified Headlamps

European certified headlamp package is available for export usage through Export Order Guide.

NOTE: Post build modification kits are not available. Vehicles must be ordered correctly for the market that they are to be sold and operated in.

MISCELLANEOUS OPTIONS

COV req.....	79V
Priced DORA	C09

EMISSIONS STANDARD/OPTIONAL EQUIPMENT

50-STATE EMISSIONS SYSTEM	425
Standard on all Vehicles	

FRONT LICENSE PLATE BRACKET

.....	153
Standard in states requiring two license plates and optional to all others.	

POWERTRAIN**ENGINE HORSEPOWER AND TORQUE RATINGS***

ENGINE	TRANSMISSION	NOMINAL COMPRESSION RATIO	50-STATE	
			HORSEPOWER	TORQUE
			H.P. @ RPM*	FT. LBS. @ RPM
ALL				
6.2L 2V Gas SOHC EFI NA V8	TorqShift®-G Six-Speed SelectShift® Automatic	TBD	TBD	TBD
7.3L 2V Gas DEVCT PFI NA V8	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD
6.7L 4V OHV Power Stroke® V8 Turbo Diesel B20	TorqShift® Ten-Speed Automatic w/SelectShift®	TBD	TBD	TBD

(1) 10,000 lbs. GVWR and Under

(2) 10,001 lbs. GVWR and above

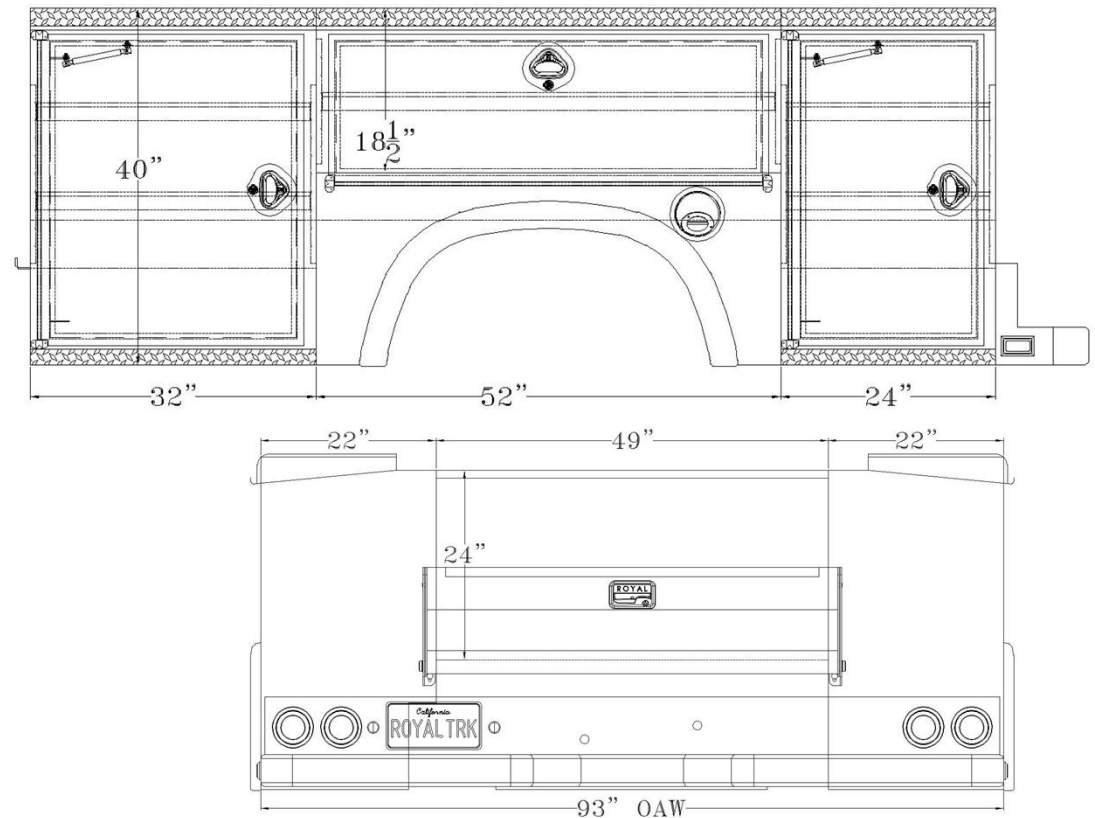
FUEL ECONOMY

TRUCKS W/GROSS VEHICLE WEIGHT RATINGS OVER 8,500 POUNDS ARE NOT INCLUDED IN THE EPA FUEL ECONOMY RATING SYSTEM. FUEL ECONOMY INFORMATION ON THESE MODELS IS GENERALLY NOT AVAILABLE BECAUSE OF WIDE VARIANCES IN VEHICLE LOADING AND OPERATIONAL CONDITIONS BETWEEN VARIOUS CUSTOMER APPLICATIONS.

9' DRW SERVICE UTILITY BODY

For 60" CA DRW Chassis

- Full Width Shelf up to 22"
- Ready for Dual Rear Wheel Chassis
- Designed for Storage Capacity and the Ability to Carry Heavy Loads
- Complete Offering of Royal Accessories
- Ideal for:
GM , Ford, and Ram



40-VDO-108

© 2019 SPARTAN MOTORS, INC. | PROPRIETARY AND CONFIDENTIAL

33



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Dave Whalen, Public Works Director

FINANCIAL IMPACT:

Yes:X

No:

CURRENTLY BUDGETED:

Yes:X

No:

FUND/ACCOUNT:

510-162100

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

For Possible Action to Approve the purchase of two new replacement air compressors with appurtenances from Atlas Copco for the City of Fernley's Water Treatment Facility.

AGENDA ITEM BRIEF:

During the 2022/2023 budget cycle, staff budgeted \$40,000 to replace the only two (2) air compressors that are used during the microfiltration treatment process at the City of Fernley's Water Treatment Facility. The air compressors are under continuous use since 2009 and have been serviced many times. They are at the end of their usable life cycle and need to be replaced rather than repair again. They are critical to the WTP microfiltration process and water cannot be treated without them.

RECOMMENDED MOTION:

"I move to approve the purchase of two new replacement air compressors with appurtenances from Atlas Copco for the City of Fernley's Water Treatment Facility."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council may choose to deny the purchase of the replacement air compressors and provide further direction to the Acting City Manager for alternatives to the replacement of the air compressors.

BACKGROUND:

The Water Treatment Facility utilizes two air compressors as a part of the microfiltration treatment process to treat water to EPA standards. The existing air compressor units being utilized were installed in 2009 and have reached the end of their service life. They have become inefficient and are problematic requiring frequent servicing. Staff requested to replace these aging units in the budget hearings for the FY 22-23. The replacement air compressors will consist of one variable speed air compressor (recommended by the manufacturer to help extend the next life cycle of the air compressors), one fixed speed air compressor, as well as one filtration system to be delivered for \$30,409.03 if approved for purchase by 7/28/22. The quote is valid for 30 days from Atlas Copco. The remainder of the \$40,000 budgeted will be used for contractor to provide the installation, plumbing, and wiring the new air compressors by a qualified contractor. Atlas Copco will provide food grade oil flushing of the equipment as well as initial equipment startup.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Statutes: NRS 338

FINANCIAL IMPLICATIONS:

The replacement of the two (2) air compressors at the City of Fernley's Water Treatment Facility was budgeted for \$40,000 and approved during the 2022/2023 budget cycle. The cost will come out of the operating budget using G.L # 510-162100 "Water Infrastructure".

ATTACHMENTS:

1. Staff Report -2022.7.20 WTP Air Compressor Replacement
2. Atlas Copco Quote NO 3377364 dated 06282022



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT THRU: Patrick Marsh, Acting City Manager

REPORT FROM: David Whalen, Public Works Director

REVIEWED BY: Brandi Jensen, City Attorney

REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

510-840-430

See attached report

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: For Possible Action to Approve the purchase of two new replacement air compressors with appurtenances from Atlas Copco for the City of Fernley's Water Treatment Facility.

Agenda Item Brief: During the 2022/2023 budget cycle, staff budgeted \$40,000 to replace the only two (2) air compressors that are used during the microfiltration treatment process at the City of Fernley's Water Treatment Facility. The air compressors are under continuous use since 2009 and have been serviced many times. They are at the end of their usable life cycle and need to be replaced rather than repair again. They are critical to the WTP microfiltration process and water cannot be treated without them.

Recommended Motion:

"I move to approve the purchase of two new replacement air compressors with appurtenances from Atlas Copco for the City of Fernley's Water Treatment Facility."

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

ALTERNATIVES: Council may choose to deny the purchase of the replacement air compressors and provide further direction to the Acting City Manager for alternatives to the replacement of the air compressors.

BACKGROUND:

The Water Treatment Facility utilizes two air compressors as a part of the microfiltration treatment process to treat water to EPA standards. The existing air compressor units being utilized were installed in 2009 and have reached the end of their service life. They have become inefficient and are problematic requiring frequent servicing. Staff requested to replace these aging units in the budget hearings for the FY 22-23. The replacement air compressors will consist of one variable speed air compressor (recommended by the manufacturer to help extend the next life cycle of the air compressors), one fixed speed air compressor, as well as one filtration system to be delivered for \$30,409.03 if approved for purchase by 7/28/22. The quote is valid for 30 days from Atlas Copco. The remainder of the \$40,000 budgeted will be used for contractor to provide the installation, plumbing, and wiring the new air compressors by a qualified contractor. Atlas Copco will provide food grade oil flushing of the equipment as well as initial equipment startup.

LEGAL IMPLICATIONS:

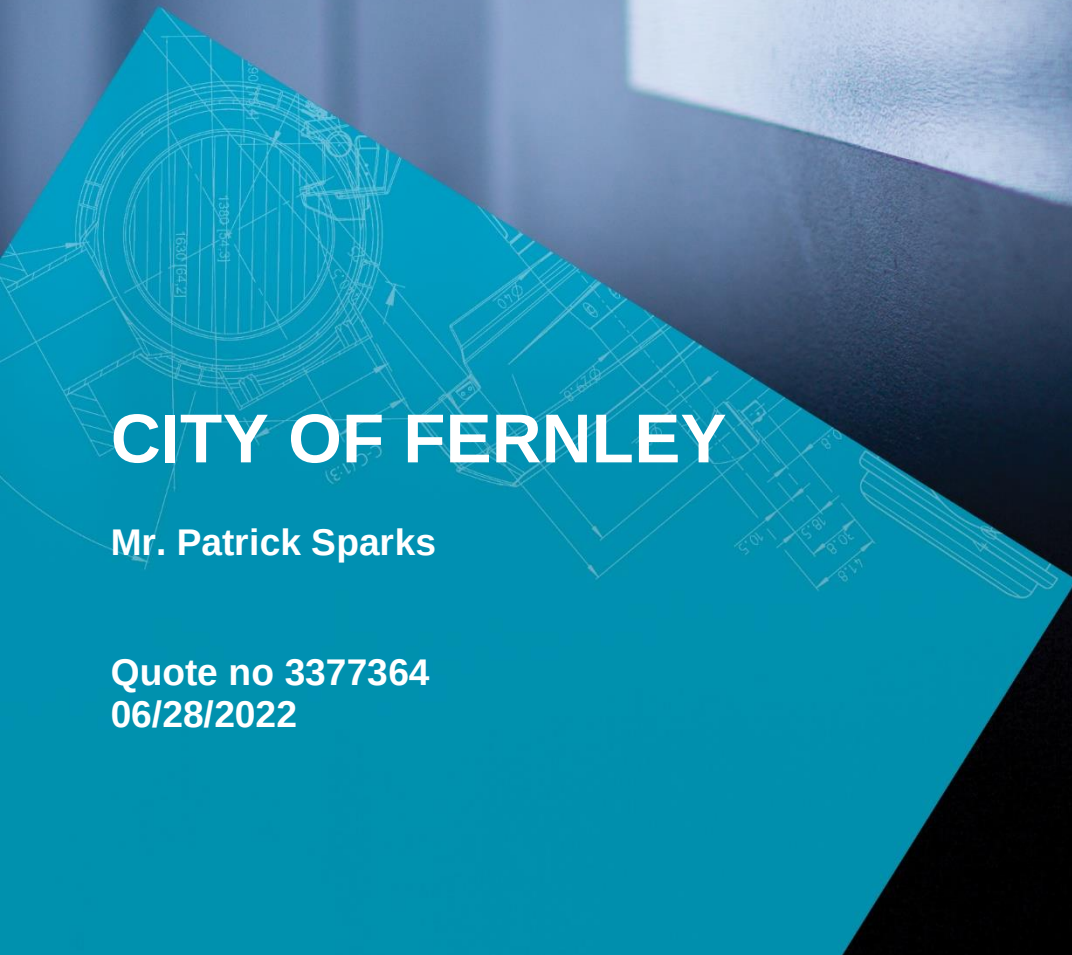
Nevada Statutes: NRS 338

FINANCIAL IMPLICATIONS:

The replacement of the two (2) air compressors at the City of Fernley's Water Treatment Facility was budgeted for \$40,000 and approved during the 2022/2023 budget cycle. The cost will come out of the operating budget using G.L # 510-840-430 "Air Compressor Replacement"

ATTACHMENTS:

Atlas Copco Quote NO. 3377364 dated 06/28/2022

A technical drawing, likely a cross-section of a mechanical part, is overlaid on a teal-colored triangular area in the bottom left corner of the page. The drawing includes various dimension lines and numerical values.

CITY OF FERNLEY

Mr. Patrick Sparks

Quote no 3377364
06/28/2022

**Quote**

Quote number: 3377364

Date: 06/28/2022

2/24

Contact: Mr. Patrick Sparks
Company: CITY OF FERNLEY
Address: 595 SILVERLACE BLVD
FERNLEY NV 89408-8547
United States
Phone: +1 775-980-5252
Email: psparks@cityoffernley.org

Dear Mr. Patrick Sparks

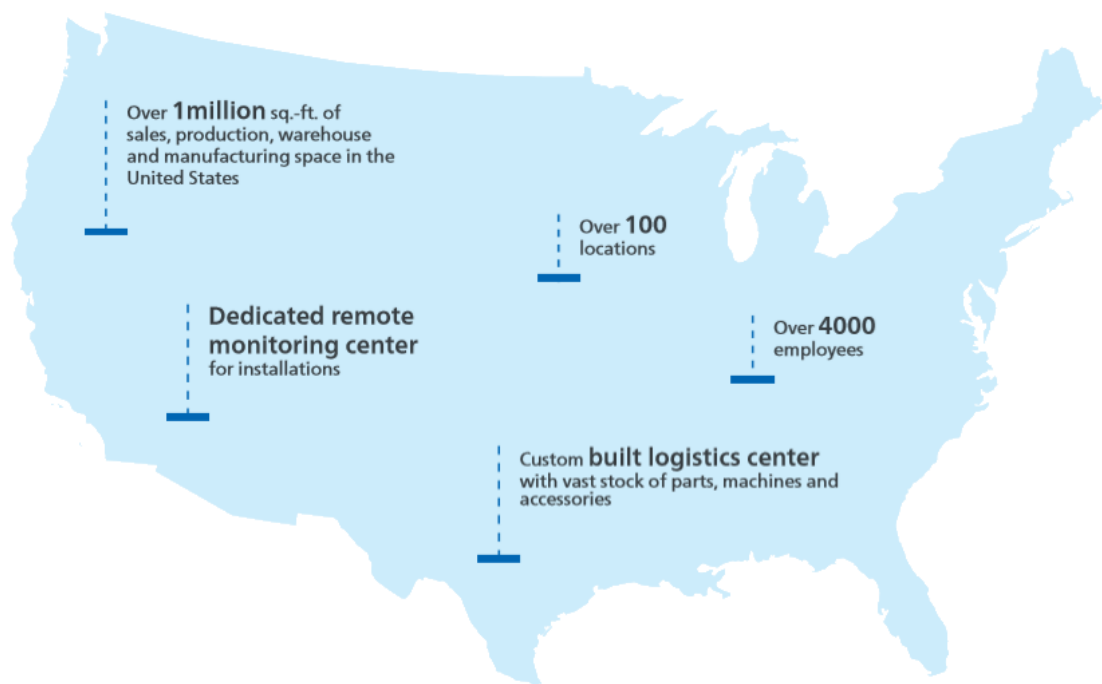
Thank you for considering Atlas Copco when fulfilling your compressed air needs. With over 130 years of serving industry worldwide, Atlas Copco has become the world's largest manufacturer of air compressors by producing the most efficient and reliable compressors on the market. Atlas Copco compressors are designed to provide you with long life, low maintenance, exceptional reliability and low operating cost. We have a complete range of compressors covering all technologies and applications.

We believe you will make the right decision by choosing Atlas Copco for your compressor needs and look forward to hearing from you. We are confident that your requirements have been interpreted correctly and look forward to your response.

I look forward to working with you,

Leslie Mays
Sales Manager
510-552-4965
leslie.mays@atlascopco.com

The Atlas Copco Group in the United States



Proud
to be **1st**

- ★ Air compressor manufacturer to be awarded ISO 8573-1 CLASS 0 certification.
- ★ Air compressor manufacturer to launch integrated Variable Speed Drive (VSD) compressors.
- ★ Air compressor manufacturer to launch full feature compressors with integrated dryers.
- ★ Air compressor manufacturer to launch an electronic control and monitoring system.
- ★ The only air compressor manufacturer to have been listed in the world's Top 100 Sustainable companies on five separate occasions.



Quote
Quote number: 3377364
Date: 06/28/2022
4/24

Contents

<i>Price Summary</i>	5
<i>Payment & delivery conditions</i>	6
<i>Atlas Copco – The Connected Efficiency Journey</i>	18
<i>Certifications</i>	19

Price Summary

Product Number	Description	Qty	Unit Value (USD)	Total Price (USD)
8153038289	GA11VSD+ FF	1	15,453.00	15,453.00
24 WEEKS	Oil Injected Screw Compressor -Capacity: 68.7 CFM @ 102 PSI -Motor: 15HP, Permanent Magnet IE5 Motor and Yaskawa Drive - Voltage: 460V/3ph/60Hz -179 PSI Maximum Operating Pressure -Advanced Microprocessor Control: Elektronikon Touch -Long Life RDX (Roto Duty Extend) Synthetic Oil -Full Feature Model: Integrated refrigerant dryer -Footprint: 25"L x 39"W x 56"H			
8153004810	GA11FF	1	11,843.52	11,843.52
6 WEEKS	Oil Injected Screw Compressor -Capacity: 54.5 CFM @ 125 PSI -Motor: 15HP, IE3 TEFC Motor - Voltage: 208-230/460V/3ph/60Hz -129 PSI Maximum Operating Pressure -Advanced Microprocessor Control: Elektronikon Basic -Long Life RDX (Roto Duty Extend) Synthetic Oil -Full Feature Model: Integrated refrigerant dryer -Footprint: 45"L x 28"W x 49"H			
8102372458	UD45+ inPASS FILTER	1	612.51	612.51
	New inPASS filters provide a filter bypass solution integrated into the head of the filter. Combining the coalescing performance of a DD+ and PD+ (pre & post) filter installed into a single filter that has 40% less pressure drop than the 2 individual filters. These NEW inPASS filters provide a filter bypass solution integrated into the head of the filter (NPT ¾")			
	Start-up including food grade oil flush/replacement	1	2,500.00	2,500.00
SUBTOTAL USD				30,409.03

Please note: Tax, Shipping & Installation are not included on this quote

Payment & delivery conditions

Quote valid to:	07/28/2022
Payment terms:	30 days net

Delivery Terms Equipment will be delivered in our standard packaging unless otherwise stated (off-loading and positioning to be done by others). Optional items may impact delivery. Delivery time can be confirmed upon acceptance of your order/final instructions to proceed.

GA 7-15 VSD+ PLUS PRODUCT DESCRIPTION

ATLAS COPCO COMPRESSORS

Overview

The revolutionary new GA 7-15 VSD+ is packed with innovative features that increase its efficiency, cuts its energy consumption, lowers its noise levels, and reduces its operating costs. On top of that, it meets or even exceeds all currently applicable efficiency standards. With its innovative vertical design, Atlas Copco's GA 7-15 VSD+ brings a game-changing revolution in the compressor industry. It offers Variable Speed Drive+ as standard, a compact motor and footprint thanks to its in-house design and iPM (interior Permanent Magnet) technology. The GA 7-15 VSD+ **reduces energy consumption by 50%** on average, with uptimes assured even in the harshest operational conditions. The GA 7-15 VSD+ is the air compressor of the future, designed in-house by Atlas Copco. It will set a new standard for years to come, positioning Atlas Copco as a leader in the compressed air industry. As standard, these units are designed to operate in 46°C/115°F ambient conditions and are available as Full Feature that includes an integrated dryer.



The GA 7-15 VSD+ air compressors are available in 10hp, 15hp, and 20hp variants with flows ranging from 14.2 to 86.5 cfm (at 102 psi).

These compressors are constructed with the following major components:

- State of the art compression element
- The patented, oil cooled, IP66 (NEMA4X) motor exceeds all IEEE and NEMA Premium efficiency standards
- Elektronikon® Touch graphic controller
- High efficiency aftercooler
- Innovative cooling fan
- Moisture separator
- Inlet air filter
- **Full Feature** includes an integrated refrigerated air dryer using environmentally friendly R410a refrigerant.

GA 11 VSD PLUS 175FF

ATLAS COPCO COMPRESSORS

Model: GA11VSD+ 175 AFF

	80 psi	102 psi	138 psi	181 psi	Unit
Inlet conditions					
1. Barometric pressure	14.5	14.5	14.5	14.5	psi(g)
2. Ambient air temperature	68	68	68	68	°F
3. Relative humidity	0	0	0	0	%

Performance⁽¹⁾					
1. Operating pressure	80	102	138	181	psi(g)
2. Capacity delivered @ min rpm	15.3	15.1	14.6	15.9	cfm
3. Capacity delivered @ max rpm	68.7	67.8	56.8	49.0	cfm
4. Package power input @ min rpm	3.5	4.0	4.9	6.4	kW
5. Package power input @ max rpm	13.3	14.4	13.6	13.8	kW
6. Sound level ⁽²⁾	63	63	63	63	dB(A)
7. Minimum ambient temperature	34	34	34	34	°F
8. Maximum ambient temperature	115	115	115	115	°F

Cooling data					
1. Cooling air flow		1,695			cfm
2. Cooling air flow (dryer)		349			cfm
3. Discharge air temperature (ambient + °F)		9			°F

Electrical data					
1. Motor		15			hp
2. Motor type		Synchronous Interior Permanent Magnet			
3. Enclosure		IP66			
4. Efficiency		94.3			%
5. Bearing		Anti-friction			
6. Insulation		F w/ B rise			
7. Starter type		Soft Start			

Physical data					
1. Dimensions (L x W x H)		38.8 x 24.8 x 55.9			inches
2. Shipping weight		728			Lbs.
3. Air discharge size		0.75			inches NPT
4. Condensate drain size		6			mm.
5. Oil sump capacity		1.7			gallons

1. Performance (free air delivery) measured according to ISO1217.

2. Operating Sound Level: Operating sound levels for machines equipped with recommended standard motors and enclosures are guaranteed ±3 dB(A) when measured in free field conditions at a distance of 1 meter according to CAGI PNEUROP Test Code.

GA MK5s ELEKTRONIKON TOUCH

ELEKTRONIKON® Mk5s TOUCH CONTROL MODULE:

The Mk5s ELEKTRONIKON TOUCH® control system provides energy efficient load/no load control. The graphic based controller has a 4.3" HD color display and uses icons for touch and swipe navigation. The unit can be programmed in a choice of 32 languages. The Elektronikon™ controller has following functions: Controlling the compressor, Protecting the compressor, Monitoring components subject to service and Automatic restart after voltage failure (ARAVF) to provide efficient operation of the compressor. Standard features include SMARTLINK 3G connectivity, built-in phase sequence relay. A partial description for the module's capabilities include*:

Compressor Status indication

- Automatic operation
- Voltage on
- General alarm/shutdown

Graphic Display & I/O Connections

- 1 Ethernet & 2 CAN connections
- Remote control and connectivity
- 10 digital inputs
- 5 temperature and 2 pressure analog inputs
- 9 digital outputs
- RS485 connection
- IO expansion connection

Available Data

- Element outlet temperature
- Delivery air pressure
- Running hours and hours to next service
- Loaded hours
- Elektronikon® regulator hours
- Motor overload status
- Oil separator differential pressure

Full Feature Only

- Outlet dew point
- Dryer monitoring
- Dryer inlet pressure
- Vessel Pressure

Algorithms & Features

- Delayed second stop
- Continuous pressure follow up
- Dryer Saver cycle
- Fan Saver cycle
- Numerous advanced timers

Service Indicators

- Air filter
- Oil filter
- Oil separator
- Oil lifetime

Configuration Parameters

- Time
- Date
- Format of date
- Multiple language display
- Units for pressure
- Units for temperature
- Auto restart after power failure (factory disabled)
- Motor start mode
- Extra digital input
- Pressure band

Shutdown and/or Warning Indications

- High element outlet temperature
- Drive motor overload
- Dew point (full feature units only)

*More detailed information is available upon request



GA 5-11 PRODUCT DESCRIPTION

ATLAS COPCO COMPRESSORS

Model: GA 5 - 11 Oil Injected Rotary Screw Air Compressor

We are pleased to offer our GA single stage, oil injected, rotary screw air compressor.

PACK UNITS FEATURE:

- High efficiency, EISA 2007 compliant TEFC motor
- Inlet air filter
- Differential pressure oil system with oil cooler
- Air/oil separator with oil level sight glass
- Factory filled with synthetic oil
- Aftercooler
- Load/no load capacity control
- Sound attenuating enclosure
- Advanced Mk5 Elektronikon® microprocessor controller
- Full voltage motor starter, mounted and pre-wired
- Emergency stop button
- V-belt drive with mechanical belt tensioning system
- Moisture separator with automatic and manual drains
- 115°F maximum ambient operating temperature

FULL FEATURE UNITS ADDITIONALLY FEATURE:

- Integrated refrigerated air dryer
- Dew point temperature monitoring via the Mk5 Elektronikon® controller
- Zero loss electronic water drain

AVAILABLE OPTIONS:

- Tank mounted on a 71 or 132 gallon AMSE approved tank
- Integrated DD or DD/PD filters (available on full feature units only)
- Integrated oil-water separation device
- Mk5 Elektronikon® Graphic controller
- Integrated master system controller
- High ambient version
- Freeze protection
- Automatic tank drain
- Outdoor weather protection
- Dryer saver cycle
- Main electrical disconnect switch
- Food grade oil
- Dryer bypass kit
- High dust inlet filter
- Modulation control
- Certified drawings



Technical Data

Model: GA 11-125 AFF

	125 psi	Unit
Inlet conditions		
1. Barometric pressure	14.5	psi(g)
2. Ambient air temperature	68	°F
3. Relative humidity	0	%
Performance⁽¹⁾		
1. Operating pressure	125	psi(g)
2. Capacity delivered	54.5	cfm
3. Package power input, loaded	14.2	kW
4. Package power input, unloaded	4.9	kW
5. Sound level ⁽²⁾	62	dB(A)
6. Minimum ambient temperature	32	°F
7. Maximum ambient temperature	115	°F
Cooling data		
1. Cooling air flow	2119	cfm
2. Cooling air flow (dryer)	318	cfm
3. Discharge air temperature (ambient + °F)	9	°F
Electrical data		
1. Motor	15	hp
2. Motor type	Induction	
3. Enclosure	TEFC	
4. Efficiency	91.2	%
5. Bearing	Antifriction	
6. Insulation	F w/B rise	
7. Starter type	DOL	
Physical data		
1. Dimensions (L x W x H)		
- Floor-mounted	49 x 28 x 49	inches
- 71G Tank-mounted	59 x 28 x 68	inches
2. Shipping weight		
- Floor-mounted	972	lbs
- 71G Tank-mounted	1105	lbs
3. Air discharge size	0.75	inches NPT
4. Condensate drain size	0.25	inches NPT
5. Oil sump capacity	1.3	gal

1. Performance (free air delivery) measured according to ISO1217.

2. Operating Sound Level: Operating sound levels for machines equipped with recommended standard motors and enclosures are guaranteed ±3 dB(A) when measured in free field conditions at a distance of 1 meter according to CAGI PNEUROP Test Code.

GA MK5 STANDARD ELEKTRONIKON DESCRIPTION

ATLAS COPCO COMPRESSORS

Model: GA Oil Injected Rotary Screw Air Compressor Series

ELEKTRONIKON® MK5 STANDARD CONTROL MODULE:

The MK5 Elektronikon® state-of-the-art controller is the “brain” that controls, protects and communicates compressed air system functions. The Elektronikon Mk5 compressor controller has many built-in features:

- Energy-saving algorithms for controlling multiple compressors!
- Windows based web server for remote monitoring and viewing capability.
- Service Plan counter keep track of real-run-time hours and is easy to re-set.
- Adjustable, dual pressure bands!



A partial description of the module's capabilities includes*:

Compressor Status indication

- Automatic operation
- Voltage on
- General alarm/shutdown

Available Data

- Element outlet temperature
- Delivery air pressure
- Dew point status indicator
- Running hours
- Loaded hours
- Elektronikon® regulator hours
- Dryer monitoring
- Motor overload status
- Oil separator differential pressure

Shutdown/Warning Indications

- High element outlet temperature
- Drive motor overload
- Emergency stop
- Dew point

Service Indicators

- Air filter
- Oil filter
- Oil separator
- Oil lifetime

Alphanumeric Displays

- Line 1 - data description
- Line 2 - reading
- Line 3 - status
- Line 4 - F key function

Configuration Parameters

- Time
- Date
- Format of date
- Multiple language display
- Units for pressure
- Units for temperature
- Auto restart after power failure (factory disabled)
- Motor start mode
- Extra digital input
- Pressure band

*More detailed information is available upon request

Filters UD+, DD+, DDp+, PD+, PDp+, QD+

ATLAS COPCO QUALITY AIR SOLUTIONS

General Description

Untreated compressed air can be contaminated by dust, water, and oil. In almost all applications, contamination of the air supply can cause serious performance decline and increase maintenance costs in terms of actual repairs and lost productivity. Therefore, filtration is a crucial component of your air system. Atlas Copco has developed filtration solutions that protect your air-powered tools, your processes, and your final products. Our extensive offer includes different filter types and a range of purity grades to meet your specific requirements. We design filtration solutions to provide compressed air purity that meets or exceeds levels set forth by the International Standard Organization. (ISO). Filters are tested in accordance with these standards:

- ISO 8573-1: 2010 Filtration Qualification
- ISO 8573-2 sampling and measuring OCO
- ISO 12500-1: inlet conditions for Oil Aerosol
- ISO 12500-3: inlet conditions for Dust



Among its filter ranges, Atlas Copco offers more than 200 filters that span from coalescing filters for general purpose protection to active carbon filters used for removal of oil vapor and hydrocarbon odors:

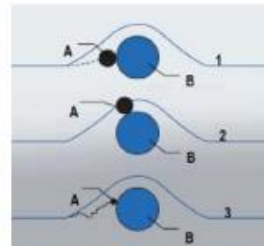
- UD+, a high-efficient coalescing filter type, combining DD+ and PD+ in one. Its unique low density provides a 40% pressure drop reduction. The maximum oil carry-over of this unique filter is 0,0009 mg/m³.
- DD+, a coalescing filter type, removes contaminants such as liquid water, oil aerosol up to 0.1ppm and particle size down to 1 micron.
- PD+, a coalescing filter type, removes contaminants such as liquid water, oil aerosol up to 0.01ppm and particle size down to 0.01 micron.
- DDp+ particulate filter type, dust protection, particle size down to 1 micron.
- PDp+ particulate filter type, dust protection, particle size down to 0.01 micron.
- QD+, activated carbon filter type, removes oil vapor, hydrocarbon odor contaminants.

Regardless of your quality air and filtration needs, Atlas Copco undoubtedly offers a filter that is perfect for your application.

Working Principle

Particles in the air stream that pass through a filter can be removed in several different ways. If the particles are larger than the openings between the filter material, they are separated mechanically ("sieving"). This usually applies for the particles larger than 1mm. The filter efficiency in this regard increases with the tighter filter material, consisting of fine fibers. Particles smaller than 1mm are collected on the fiber material by three physical mechanism:

1. inertial impaction
2. interception
3. diffusion



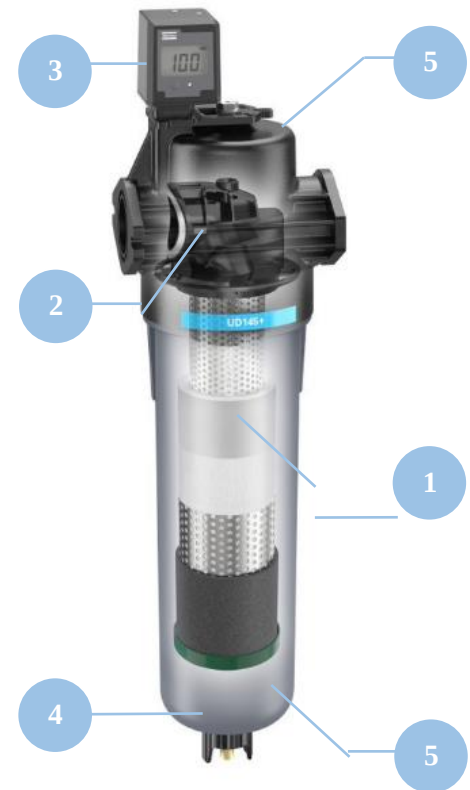
Impaction occurs for relatively large particles and for high gas velocities. Due to a large inertia of a heavy particle, it does not follow the streamlines but instead travels straight ahead and collides with fiber. Interception occurs when a particle does follow the streamline, but the radius of the particle is larger than the distance between the streamline and the fiber perimeter. Particle deposition due to diffusion occurs when a very small particle does not follow the streamlines but moves randomly across the flow due to Brownian motion. It becomes increasingly important with smaller particle size and lower the velocity. Oil and water in aerosol form behave like the other particles and can be separated using a coalescing filter. In the filter, these liquid aerosols coalesce to larger droplets that sink to the bottom due to gravity.

Depending on the purpose of the filter, we have designed different type of filter element:

1. **Wrapped for wet particles:** Wrapped media offer durability in wet and oil contaminated environments. The patented Nautilus technology combines multiple wrapped layers to ensure constant air quality in the harshest conditions.
2. **Pleated for solid particles:** Pleated technology is the preferred method to capture dry particulate in compressed air. Over time, particles will clog the filter media. Pleated surfaces have a larger surface area and therefore give you a longer filter service lifetime as well as a lower pressure drop.
3. **Macro-structured activated carbon:** Macro-structured activated carbon has a larger surface compared to the typical carbon dust filter media. Thanks to its supreme adsorption capacity, it delivers a steady performance over a longer period.

Scope of Supply

1. Filter Cartridge:
 - Wrapped for wet particles
 - Pleated for solid particles
 - Macro-structured activated carbon for oil aerosols
2. InPASS bypass (only for inPASS filter range)
 - Built-in by-pass system
3. Differential pressure gauge
 - Manual gauge (standard)
 - Smart indicator (optional upgrade – standard on inPASS)
4. Non-stick float drain
 - Automatic water removal
5. Housing
 - Aluminum die casted head and bowl



Features & Benefits

Energy Savings

- Large flow capacity
 - Low resistance to the air flow
 - Considerable reduction of air turbulence and pressure drop

Reliable operation

- Proven durable design
 - Dedicated filter element technology based on purpose
 - High-performance stainless-steel filter cores
 - Internal ribs to protect the element from damage and route oil droplets
 - High performance automatic drain
 - Anti-corrosive coating
 - Patented drainage technology

Easy set-up and use

- Operational ease
 - Easy monitoring via differential gauge or optional smart indicator
 - Ribbed housing for easy removal of the bowl during maintenance
 - Push on element
 - Anti-re-entrainment barrier is color coded to easily indicate filter grade
 - Bypass for the inPASS range: internal bypass in the housing for easy maintenance

When it Comes to Air – Do You Have a Plan?

Introducing AIRPlan. AIRPlan is a simple, intuitive name for a simple, intuitive program. It's the latest way to get a guaranteed supply of high-quality, efficient compressed air. How's it different? Well, like with all of our systems, we will calculate the air you need and will provide everything you need to make the air – but you only pay for the air! You are not leasing or buying equipment. Atlas Copco owns the equipment, monitors the equipment and ensures optimum operating conditions. We then simply provide an invoice for the running hours within the parameters agreed in the contract.

AIRPlan quick summary:

- Provides compressed air in the form of a simple monthly bill, like electricity, gas or water.
- All compressors come with a Total Responsibility Plan.
- State of the art equipment for lower electricity usage.
- Compressors are remotely monitored via SMARTLINK for quick responses and peace-of-mind.

Is AIRPlan right for you?

AIRPlan might be right for you if you can answer yes to one or more of these questions:



Do you have aged compressors and currently do not want to invest in capital expenditure?



Do you prefer to defer maintenance and downtime planning to the manufacturer?



Are you unsure if your production will need to change significantly over the coming months and years?



Do you wish you had a back-up compressor to ensure no downtime?



AIRPlan is available on select models from 10 horsepower and up.

During the contract, if your needs change, you also have the option to change the compressor

AIRPlan For Peace of Mind

Already have a new compressor? Another benefit of AIRPlan is that it will provide you a great option to ensure you have a back-up machine, or a load balancing machine to optimize efficiency and ensure you safeguard your production – without having to invest in capital equipment (you just pay for the contracted running hours).

Do you fear?

- That your needs have changed since you purchased your current compressor?
- What would happen if your current compressor was off-line?
- Suffering product losses due to running short on compressed air?
- Delaying essential service because you cannot afford to shut down production?



The Three Ways to Buy:

Which one is right for my business?



Purchase Equipment

You purchase the equipment, either outright or through our low-rate finance programs.



Lease Equipment

You lease the equipment for a defined period and have options to buy at the end of the lease.



Buy Air Only

Purchase air like a utility. Depending on the program, full system design services and all maintenance is included.

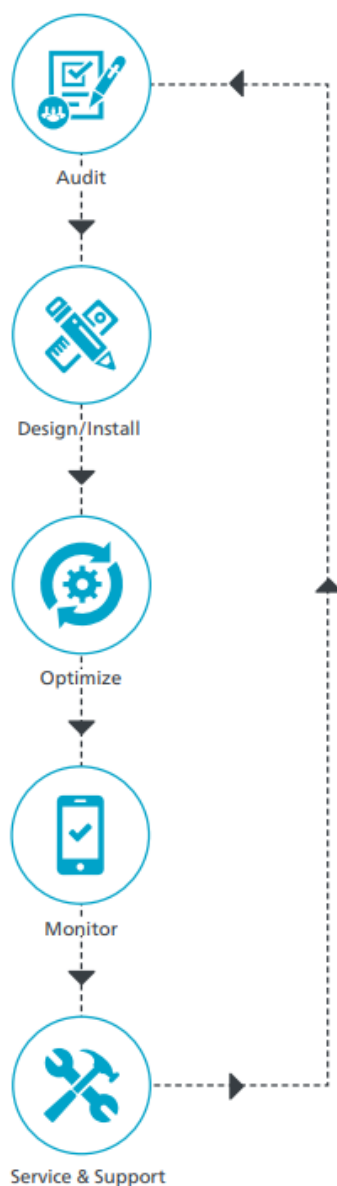
There has probably never been a better time to find out, due to great finance rates and purchasing options available. We are all exploring how to reduce our expenses, and how to improve our cash flow. Add your air and gas supply to that list – it may be the simplest way to save thousands of dollars!

Did You Know?

With AIRPlan, two oil-injected compressors equaling 400 horsepower, including a variable speed drive model, start at around \$5,000 per month—that cost covers everything

Atlas Copco – The Connected Efficiency Journey

Our promise to you is we do more. And together with you, we are more! No other company offers more technologies to produce and manage air, but we don't try to be a total solutions provider and we're not a 'one-stop-shop'. Instead, we innovate in the focused areas where we are confident we can provide a complete solution that has the lowest cost of ownership, maximizing efficiency and, most importantly, offer a complete service package that is second to none.



Audit

Every air journey starts here. Our trained audit teams use ultrasonic leak detection and precision flow measurement equipment, and the non-intrusive audit system can be scaled for any operation. We learn exactly where you are now and prove what you can save. It's the backbone of our promise and what we stand behind before asking you to invest. Anybody who claims a saving based purely on product performance and not on your unique circumstances is just guessing—we like to deal solely in facts. We can help you determine if a compressor upgrade qualifies for rebates from your local electrical utility company.



Design & Install

We apply creative thinking and advanced software to design integrated air production and distribution systems. At our custom design facility in Houston, Texas, we can custom fit our products to meet your specific needs. Our designs emphasize today's efficiency with future expansion that's ready when you are. Our unrivaled experience means we know what creates a great installation, and our local team will support you. We can do a computer-designed turnkey installation of your entire system, including equipment, air treatment, and state-of-the-art piping throughout your facility, no matter the size.



Optimize

This is the biggest advancement in compressed air over the last decade. Control systems leveraged by the Internet of Things mean you no longer need to be with your machine to make it perform. Optimizer 4.0, our simple and sophisticated user interface, ensures that you're always in the know, in control and in charge of your savings. No matter how many compressors, dryers, blowers or pumps you have, you're like the conductor of the orchestra—and you make it play in perfect tune.



Monitor

Just about all Atlas Copco equipment comes with remote monitoring and diagnostic capability. Our team keeps an eye on your system and contacts you if a need arises. Most importantly, we monitor your demand and suggest savings to make you an energy efficiency rock star! You can be away from the office or take that hard-earned vacation with complete peace of mind because we've got your back. However, if you want to watch your product while away, all you need is a smartphone.



Service & Support

Help is always close at hand. Atlas Copco has over 4,000 employees across the U.S., so one of our factory trained technicians is never far away. We can dispatch them at a moment's notice and GPS technology lets you know where they are. Plus our centralized technical support team is as close as your phone. All of us work together to provide a service solution that fits your needs—whether it's doing your own maintenance or us taking full responsibility for keeping your system running.

Certifications



Certificate of Approval

This is to certify that the Management System of:

Atlas Copco Compressors LLC Customer Center

300 Technology Center Way, Suite 550, Rock Hill, SC 29730, USA

has been approved by LRQA to the following standards:

ISO 9001:2015
ISO 14001:2015
OHSAS 18001:2007

P.G. Cornelissen - Area Manager North Europe

Issued by: Lloyd's Register EMEA for and on behalf of: Lloyd's Register Quality Assurance Limited

This certificate forms part of the approval identified by approval number:
ANT02146(qms), ANT02146.3, ANT02146.4

This certificate is valid only in association with the certificate schedule bearing the same number
on which the locations applicable to this approval are listed.

Approval Certificate No:

ANT02146.1.CC34

ANT02146.3.010

ANT02146.4.CC23

Original approval(s):

ISO 9001 – 9 December 2002

ISO 14001 – 1 January 2005

OHSAS 18001 – 11 September 2007

Current issue date: 4 July 2018

Expiry date: 1 January 2020

The scope of this approval is applicable to:

Marketing, design, sales, distribution, assembling, installation, service and rental of air/gas compressors, blowers, expanders, turbo machinery, vacuum pumps, air/gas treatment equipment, generators sets, assemblies and related products and services, under Atlas Copco Brand as well as other Brands i.e. Multi-Brand.



001

Lloyd's Register Group Limited, its offices and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this document as "Lloyd's Register". Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or otherwise provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.
Issued by: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Bicester Road, Bicester, Oxfordshire OX6 7BQ, United Kingdom
(For and on behalf of: 11, Marshfield Street, London EC4M 6DE, United Kingdom, registration number 1879382)



Certificate Schedule

Approval Certificate No: ANT02146.1.CC34, ANT02146.3.010, ANT02146.4.CC23

Location	Activities
Atlas Copco Compressors LLC Corporate Office 300 Technology Center Way, Suite 550, Rock Hill, SC 29730, USA	ISO 9001:2015 / ISO 14001:2015 / OHSAS 18001:2007 Central Management and marketing, design, sales, distribution, assembling, installation, service and rental of air/gas compressors, blowers, expanders, turbo machinery, vacuum pumps, air/gas treatment equipment, generators sets, assemblies and related products and services, under Atlas Copco Brand as well as other Brands i.e. Multi-brand.
Atlas Copco Compressors LLC 1220 Landmeier Road, IL 60007 Elk Grove Village, USA	ISO 9001:2015 / ISO 14001:2015 / OHSAS 18001:2007 Management of Central Region Customer Service including Sales, Contracts and Servicing.
Atlas Copco Compressors LLC 92 Interstate Drive, MA 01089 West Springfield, USA	ISO 9001:2015 / ISO 14001:2015 / OHSAS 18001:2007 Marketing, design, sales, distribution, assembling, installation, service and rental of air/gas compressors, blowers, expanders, turbo machinery, vacuum pumps, air/gas treatment equipment, generators sets, assemblies and related products and services, under Atlas Copco Brand as well as other Brands i.e. Multi-Brand.
Atlas Copco Compressors LLC 15045 Lee Road, TX 77032 Houston, USA	ISO 9001:2015 / ISO 14001:2015 / OHSAS 18001:2007 Marketing, design, sales, distribution, assembling, installation, service and rental of air/gas compressors, blowers, expanders, turbo machinery, vacuum pumps, air/ gas treatment equipment, generators sets, assemblies and related products and services, under Atlas Copco Brand as well as other Brands i.e. Multi-Brand.



001

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.
Issued by: Lloyd's Register EMEA, Jan Van Gierbinst 7 (bus 202) 2000 Antwerp Belgium for and on behalf of: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Sickenhill Lane, Birmingham B37 7ES, United Kingdom
(for and on behalf of 71, Fenchurch Street, London EC3M 4BS, United Kingdom, registration number 1070300)



Certificate Schedule

Approval Certificate No: ANT02146.1.CC34, ANT02146.3.010, ANT02146.4.CC23

Location	Activities
Atlas Copco Compressors LLC 48434 Millmont Drive, CA 94538 Fremont, USA	ISO 9001:2015 / ISO 14001:2015 / OHSAS 18001:2007 Marketing, design, sales, distribution, assembling, installation, service and rental of air/gas compressors, blowers, expanders, turbo machinery, vacuum pumps, air/ gas treatment equipment, generators sets, assemblies and related products and services, under Atlas Copco Brand as well as other Brands i.e. Multi-Brand.



001

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or otherwise provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.
 Issued by: Lloyd's Register EMISA, Jan Van Goyenkade 7 (bus 202) 2000 Antwerp Belgium for and on behalf of: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Sickenhill Lane, Birmingham B37 7YD, United Kingdom
 (For and on behalf of 71, Fenchurch Street, London EC3M 4BS, United Kingdom, registration number 1679380)

Standard Conditions of Sale

GENERAL – Unless otherwise expressly agreed in writing by a duly authorized representative of Atlas Copco these terms and conditions supersede all other communications and agreements and notwithstanding any conflicting or different terms and conditions in any order or acceptance of Purchaser, all sales and shipments shall exclusively be governed by these terms and conditions. When used herein “affiliates” shall mean Atlas Copco AB and its wholly-owned subsidiaries. Section headings are for purposes of convenience only. “Products” as used herein shall include products, parts and accessories furnished Purchaser by Atlas Copco. Orders shall be subject to acceptance at Atlas Copco Compressors LLC’s principal corporate offices in Rock Hill, South Carolina.

DELIVERY – Unless otherwise agreed in writing, Products manufactured, assembled or warehoused in the continental United States are delivered F.O.B. shipping point, and Products shipped from outside the continental United States are delivered F.O.B. point of entry. Where the scheduled delivery of Products is delayed by Purchaser or by reason of any of the contingencies referred to in Section 5. Atlas Copco may deliver such Products by moving it to storage for the account of and at the risk of Purchaser. Shipping dates are approximate and are based upon prompt receipt of all necessary information and approvals from Purchaser. Atlas Copco reserves the right to make delivery installments.

SECURITY AND RISK OF LOSS - Upon request from Atlas Copco, Purchaser agrees to execute a security agreement covering the Products sold or other assets and to perform all acts which may be necessary to perfect and assure a security position of Atlas Copco. Notwithstanding any agreement with respect to delivery terms or payment of transportation charges, the risk of loss or damage shall pass to Purchaser and delivery shall be deemed to be complete upon delivery to a private or common carrier or upon moving into storage, whichever occurs first, at the point of shipment for Products assembled, manufactured or warehoused in the continental United States or at the point of entry for Products shipped from outside the continental United States.

PAYMENT – If Purchaser fails to pay any invoice when due, Atlas Copco may defer deliveries under this or any other contract with Purchaser, except upon receipt of satisfactory security for or cash in payment of any such invoice.

A service charge of the lesser of 1% per month or the highest rate permitted by applicable law shall be charged on all overdue accounts. Failure on the part of Purchaser to pay invoices when due shall, at the option of Atlas Copco, constitute a default in addition to all other remedies Atlas Copco may have under these conditions of sale or applicable law. If, in the judgment of Atlas Copco, the financial condition of Purchaser at any time prior to delivery does not justify the terms of payment specified. Atlas Copco may require payment in advance or cancel any outstanding order, whereupon Atlas Copco shall be entitled to receive reasonable cancellation charges. If delivery is delayed by Purchaser, payment shall become due on the date Atlas Copco is prepared to make delivery. Should manufacture be delayed by Purchaser, pro rata payments shall become due if and to the extent required at Atlas Copco by its contracts with the manufacturer. All installment deliveries shall be separately invoiced and paid for without regard to subsequent deliveries. Delays in delivery or non-conformities in any installment shall not relieve Purchaser of its obligations to accept any pay for remaining installments.

FORCE MAJEURE – Atlas Copco shall not be liable for loss, damage, detention, or delay, nor be deemed to be in default from causes beyond its reasonable control including but not limited to acts of God, fire, storm, strike or other concerted action of workmen, act or omission of any governmental authority or of Purchaser, compliance with import or export regulations, insurrection or riot, embargo, quarantine, epidemic, pandemic, delays or shortages in transportation, or inability to obtain necessary engineering talent, labor, materials, or manufacturing facilities from usual sources. In the event of delay due to any such cause, the date of delivery will be postponed by such length of time as may be reasonably necessary to make up for such delay.

NEW PRODUCT WARRANTY – Atlas Copco warrants to the Purchaser that all stationary compressors, portable compressors, compressed air driers, Atlas Copco-designed compressor parts and other Products manufactured by Atlas Copco and affiliates shall be free of defects in design, material and workmanship for a period of fifteen (15) months from date of shipment to Purchaser, or twelve (12) months from date of initial start-up, whichever occurs first, except as set forth below or in the New Products Warranty attached hereto.

Should any failure to conform with this warranty appear prior to or after shipment of the Product to Purchaser during the specified periods under normal and proper use and provided the Product has been properly stored, installed, handled and maintained by the Purchaser, Atlas Copco shall, if given prompt notice by Purchaser, repair or replace, the non-conforming Product or authorize repair or replacement by the Purchaser at Atlas Copco’s expense.

Replaced Products become the property of Atlas Copco.

Atlas Copco warrants Products or parts thereof repaired or replaced pursuant to the above warranty under normal and proper use, storage, handling, installation, and maintenance, against defects in design, workmanship and material for a period of thirty (30) days from date of start-up of such repaired or replaced Products or parts thereof or the expiration of the original Product warranty, whichever is longer.

When the nature of the defect is such that it is appropriate in the judgment of Atlas Copco to do so, repairs will be made at the site of the Product. Repair or replacement under applicable warranty shall be made at no charge for replacement parts, F.O.B. Atlas Copco Warehouse, warranty labor, serviceman transportation and living costs, when work is performed during normal working hours (8 a.m. to 4:30 p.m. Monday through Friday, exclusive of holidays). Labor performed at other times will be billed at the overtime rate then prevailing for services of Atlas Copco personnel.

The Atlas Copco warranty does not extend to Products not manufactured by Atlas Copco or affiliates. As to such Products, Purchaser shall be entitled to proceed only upon the terms of that particular manufacturer’s warranty. The Atlas Copco warranty does not apply to defects in material provided by Purchaser or to design stipulated by Purchaser.

Used Products, Products not manufactured by Atlas Copco or affiliates and Products excluded from the above warranties are sold AS IS with no representation or warranty, and ALL WARRANTIES OF QUALITY, WRITTEN, ORAL, OR IMPLIED, other than may be expressly agreed to by Atlas Copco in writing, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE HEREBY DISCLAIMED.

Any services performed by Atlas Copco in connection with the sale, installation, servicing or repair of a Product are warranted to be performed in a workmanlike manner. If any nonconformity with this warranty appears within 45 days after the services are performed, the exclusive obligation of Atlas Copco shall be to re-perform the services in a conforming manner.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY, WRITTEN, ORAL OR IMPLIED, AND ALL OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS ARE HEREBY DISCLAIMED. Correction of nonconformities as provided above shall be Purchaser’s exclusive remedy and shall constitute fulfillment of all liabilities of Atlas Copco (including any liability for direct, indirect, special, incidental or consequential damage) whether in warranty, strict liability, contract, tort, negligence, or otherwise with respect to the quality of or any defect in Products or associated services delivered or performed hereunder.

LIMITATION OF LIABILITY – IN NO EVENT SHALL ATLAS COPCO BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, however arising, whether in warranty, strict liability, contract, tort, negligence or otherwise, including but not limited to loss of profits or revenue, loss of total or partial use of the Products or facilities or services, downtime cost, or claims of the Purchaser for such or other damages whether on account of Products furnished hereunder or delays in delivery thereof or services performed upon or with respect to such Products. Atlas Copco's liability on any claim whether in warranty, strict liability, contract, tort, negligence or otherwise for any loss or damage arising out of, connected with, or resulting from this contract or the performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, servicing, operation or use of any Product covered by or furnished under this contract shall in no case (except as provided in the section entitled "Patent Indemnity") exceed the purchase price allocable to the Product or Part thereof which gives rise to the claim.

All causes of action against Atlas Copco arising out of or relating to this contract or the performance hereof shall expire unless brought within one year of time of accrual thereof.

PRICES – Prices to the Purchaser shall be the Atlas Copco list price in effect at time of order. Atlas Copco may, upon thirty (30) days prior written notice to Purchaser, change prices, or other terms of sale affecting the Products, by issuing new price schedules, bulletins or other notices.

This contract applies to new Products only. Purchases of used equipment shall be on terms to be agreed upon at time of sale to Purchaser.

This price does not include any Federal, state or local property, license, privilege, sales, service use, excise, value added, gross receipts, or other like taxes which may now or hereafter be applicable to, measured by or imposed upon or with respect to this transaction, the property, its purchase, sale, replacement, value, or use, or any services performed in connection therewith. Purchaser agrees to pay or reimburse Atlas Copco, its subcontractors or suppliers any such taxes, which Atlas Copco, its subcontractors or suppliers are required to pay or collect or which are required to be withheld by Purchaser.

The price shall also be subject to adjustment in accordance with the published Price Adjustment Clauses, which price adjustment information shall supersede the terms of this Section 8, where inconsistent herewith.

INFORMATION FURNISHED PURCHASER – Any design, manufacturing drawings or other information or materials submitted to the Purchaser and not intended for dissemination by Purchaser remain the exclusive property of Atlas Copco and may not, without its consent, be copied or communicated to a third party.

PATENT INDEMNITY – For purposes only of this Section 10, where used, the designation "Atlas Copco" shall be deemed to mean Atlas Copco North America Inc. and its subsidiaries.

Atlas Copco shall at its own expense defend any suits or proceedings brought against purchaser insofar as based on an allegation that Products furnished hereunder constitute an infringement of any claim of any patent of the United States of America, other than a claim covering a process performed by said Products or a product produced by said Product, provided that such Products are manufactured by Atlas Copco, are not supplied according to Purchaser's detailed design, are used as sold by Atlas Copco. Purchaser shall have made all payments then due hereunder, and Atlas Copco is notified promptly in writing and given authority, information and assistance for the defense of said suit or proceeding; and Atlas Copco shall pay all damages and costs awarded in any suit or proceeding so defended, provided that his indemnity shall not extend to any infringement based upon the combination of said Products or any portion thereof with other Products or things not furnished hereunder unless Atlas Copco is a contributory infringer. Atlas Copco shall not be responsible for any settlement of such suit or proceeding made without its written consent. If in any suit or proceeding defended hereunder any Product is held to constitute infringement, and its use is enjoined, Atlas Copco shall, at its option and its own expense, either replace said Products with non-infringing Products; or modify them so that they become non-infringing; or remove them and refund the purchase price and the transportation costs thereof. **THE FOREGOING STATES THE ENTIRE LIABILITY OF ATLAS COPCO AND AFFILIATES WITH RESPECT TO PATENT INFRINGEMENT.**

To the extent that said Products or any portion thereof are supplied according to Purchaser's detailed design or instructions, or modified by Purchaser, or combined by Purchaser with equipment or things not furnished hereunder, except to the extent that Atlas Copco is a contributory infringer, or are used by Purchaser to perform a process, or produce a product, and by reason of said design, instructions, modification, combination, performance or production, a suit or proceeding is brought against Atlas Copco, Purchaser agrees to indemnify Atlas Copco in the manner and to the extent Atlas Copco indemnities Purchaser in this Section 10 insofar as the terms hereof are appropriate.

ASSIGNMENT – Any assignment of this contract or any rights hereunder, without prior written consent of Atlas Copco by a duly authorized representative thereof shall be void.

TERMINATION – Any order or contract may be cancelled by Purchaser only upon payment of reasonable charges (including an allowance for profit) based upon costs and expenses incurred, and commitments made by Atlas Copco.

PARTIAL INVALIDITY – If any provision herein or portion thereof shall for any reason be held invalid or unenforceable, such invalidity or enforceability shall not affect any other provision or portion thereof, but these conditions shall be construed as if such invalid or unenforceable provision or portion thereof had never been contained therein.

REMEDIES – The remedies expressly provided for in these conditions shall be in addition to any other remedies, which Atlas Copco may have under the Uniform Commercial Code or other applicable law.

NOTE: Sale of the equipment or services described or referred to herein at the price indicated is expressly conditioned upon the terms and conditions set forth on the front and back of this page. Any confirmatory action by the Purchaser hereunder, or any acceptance of such equipment or services, shall constitute assent to said terms and conditions. Any additional or different terms or conditions set forth in the Purchaser's order or other communications are objected to by Seller and shall not be effective or binding unless assented to in writing by an authorized representative of Seller.



Quote
Quote number: 3377364
Date: 06/28/2022
24/24

PAYMENT TERMS

Unless expressly agreed to in writing on a specific contract or order, our standard payment terms, subject to credit approval, are:

For orders under \$150,000 the payment terms shall be Net 30 days from date of shipment.

For orders over \$150,000 or with lead times greater than six months the following terms shall apply:

1. Domestic Shipments

- A. 30% of order value 30 Days from date of customer's purchase order.
- B. 30% of order value after passage of 1/3 of the time from date of customer's order to the originally scheduled shipment date.
- C. 30% of order value after passage of 2/3 of the time from date of customer's order to the originally scheduled shipment date.
- D. 10% of order value, net 30 days from date of shipment.

In those cases where progress payments are required, all work on the order will cease if payment is not received in accordance with the payment schedule.

2. Export Shipments

All export shipments are subject to purchaser arranging for an irrevocable letter of credit in favor of Atlas Copco Compressors LLC, from a recognized American bank.

Should the order fall in a category that requires progress payments, the letter of credit shall be arranged to release payment in accordance with the agreed payment schedule.

3. Payment Retention

Payment retention will not be allowed. An irrevocable bank letter of credit will be furnished at Atlas Copco's expense in lieu of retention.

4. Credit Approval

All terms are subject to credit approval by Atlas Copco Compressors LLC.

CANCELLATION SCHEDULE

Definitions:

Standard Stocked Equipment - equipment as shown in the current catalog and available for shipment from the US Distribution Center.

Standard Non-Stocked Equipment - equipment as shown in the current catalog but not currently stocked at the US Distribution Center.

Engineered Equipment - equipment requiring customized features not shown in the current catalog.

Orders for Standard Stocked Equipment

* 20% of equipment price

Orders for Standard Non-Stocked Equipment

A) Prior to release for manufacturing:

* 20% of equipment price

B) After production has started:

* 40% of equipment price

C) After production has been completed:

* 60% of equipment price

Orders for Engineered Equipment

A) Prior to release for manufacturing:

* 20% of the purchase price

B) After production has started

* 40% of the base compressor price

* 40% of optional equipment of purchased materials will be charged

C) After production has completed

* 60% of the base compressor price

* 100% of optional equipment

Accepted by: _____ Date: _____

Name: _____ Title: _____

Company: _____



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Dave Whalen, Public Works Director

FINANCIAL IMPACT:

Yes:X

No:

CURRENTLY BUDGETED:

Yes:X

No:

FUND/ACCOUNT:

510-162100

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to approve the purchase of eight Hach turbidity analyzers and appurtenances for a total of \$61,930.74 for the water treatment plant operations.

AGENDA ITEM BRIEF:

The current turbidity analyzers are five years beyond their service life. It was proposed to replace 8 of the 16 throughout the water treatment plant this prior FY and the remaining 8 in the current FY from the Approved FY 2022-23 Budget. Pricing has escalated again this year for the purchase of the new analyzers. The current quote is good until July 28th, 2022. This staff report is asking for approval of the purchase since it is above the City Managers spending limit.

RECOMMENDED MOTION:

"I move to approve the purchase of eight Hach turbidity analyzers and appurtenances for a total of \$61,930.74 for the water treatment plant operations".

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The City Council may not accept the recommendation and provide further direction to the city manager for alternative replacement parts to operate the WTP.

BACKGROUND:

The WTP currently has 16 Hach turbidity analyzers at various stages of the water treatment process to monitor quality. The life expectancy of these analyzers is 8 years, and they are now 13 years in service. Public Works has utilized the Hach Company's service department for any issues with the meters. They are an integral part of the water treatment plant operation and monitor the quality of water being produced at various stages in the water filtration process. Public Works has currently purchased 8 of the 16 replacements. Twelve of the analyzers are required by the USEPA for individual filter turbidity (10), combined filter turbidity (1) and final treated water turbidity (1). Hach has announced that they plan on ending support for the 1720 E analyzer in 2023. Hach's new model to replace the 1720 E is the TU5, which we purchased 8 last FY and now are proposing to purchase the additional 8 this FY. Along with each analyzer an SC-100 controller is attached to interface and transmit data to the SCADA system. The SC-100 will not work with the TU5 and the new SC-200 must be purchased with each analyzer. Hence the request to purchase the appurtenances associated with the meters, as identified in the quote. The quote is only good until July 28th, 2022, at its current price. Staff will approve the quote that is approved by the FCC and get the order processed as there is a large lead time due to supply chain issues.

The cost for installation of the new analyzers was estimated in the \$90K budget. However, water treatment plant staff have been able to figure out how to install the new meters and equipment on their own and save the additional funds that would have gone to a contractor to do the installation. This cost saving is appreciated by the Public Work Management and is mentioned here to appreciate the water treatment staff's initiative.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Statutes: NRS 445A

FINANCIAL IMPLICATIONS:

Funding of \$90,000 for this project to replace the analyzers was approved in the FCC adopted FY 2022-23 budget- GL 510-612100.

ATTACHMENTS:

1. Staff Report-2022.07.20 Purchase of Hach Turbidity Meters
2. 2022-23 Hach Turb Meter Quote



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: David Whalen, Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

510-162100

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible action to approve the purchase of eight Hach turbidity analyzers and appurtenances for a total of \$61,930.74 for the water treatment plant operations.

Agenda Item Brief: The current turbidity analyzers are five years beyond their service life. It was proposed to replace 8 of the 16 throughout the water treatment plant this prior FY and the remaining 8 in the current FY from the Approved FY 2022-23 Budget. Pricing has escalated again this year for the purchase of the new analyzers. The current quote is good until July 28th, 2022. This staff report is asking for approval of the purchase since it is above the City Managers spending limit.

Recommended Motion:

"I move to approve the purchase of eight Hach turbidity analyzers and appurtenances for a total of \$61,930.74 for the water treatment plant operations"

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The City Council may not accept the recommendation and provide further direction to the city manager for alternative replacement parts to operate the WTP.

BACKGROUND:

The WTP currently has 16 Hach turbidity analyzers at various stages of the water treatment process to monitor quality. The life expectancy of these analyzers is 8 years, and they are now 13 years in service. Public Works has utilized the Hach Company's service department for any issues with the meters. They are an integral part of the water treatment plant operation and monitor the quality of water being produced at various stages in the water filtration process. Public Works has currently purchased 8 of the 16 replacements. Twelve of the analyzers are required by the USEPA for individual filter turbidity (10), combined filter turbidity (1) and final treated water turbidity (1). Hach has announced that they plan on ending support for the 1720 E analyzer in 2023. Hach's new model to replace the 1720 E is the TU5, which we purchased 8 last FY and now are proposing to purchase the additional 8 this FY. Along with each analyzer an SC-100 controller is attached to interface and transmit data to the SCADA system. The SC-100 will not work with the TU5 and the new SC-200 must be purchased with each analyzer. Hence the request to purchase the appurtenances associated with the meters, as identified in the quote. The quote is only good until July 28th, 2022, at its current price. Staff will approve the quote that is approved by the FCC and get the order processed as there is a large lead time due to supply chain issues.

The cost for installation of the new analyzers was estimated in the \$90K budget. However, water treatment plant staff have been able to figure out how to install the new meters and equipment on their own and save the additional funds that would have gone to a contractor to do the installation. This cost saving is appreciated by the Public Work Management and is mentioned here to appreciate the water treatment staff's initiative.

PRIOR COUNCIL ACTION**LEGAL IMPLICATIONS:**

Nevada Statutes: NRS 445A

Fernley Municipal Code :

FINANCIAL IMPLICATIONS :

Funding of \$90,000 for this project to replace the analyzers was approved in the FCC adopted FY 2022-23 budget- GL 510-612100.

ATTACHMENTS:

1. 2022-23 Hach Turb Meter Quote- 100777635v4.

Quotation

Quote Number: 100777635v4

Use quote number at time of order to ensure that you receive prices quoted

Hach
PO Box 608
Loveland, CO 80539-0608
Phone: (800) 227-4224
Email: quotes@hach.com
Website: www.hach.com

Quote Date: 18-May-2022

Quote Expiration: 28-Jul-2022

Confirm Bill to
CITY OF FERNLEY

Need Ship to Address

Name: Patrick Sparks
Phone: (775) 784-9922
Email: psparks@cityoffernley.org

Customer Account Number : 40129293
Customer Quote Reference: Confirm Hach Acct #

Sales Contact: Karen Lanting Email: karen.lanting@hach.com Phone: 970-617-3529

PRICING QUOTATION

Line	Part Number	Description	Qty	% Disc	Net Unit Price	Extended Price
1	LZY904.97.00002	Calibration Lid for TU5300sc and TU5400sc Turbidimeters	1	6%	27.32	27.32
2	LXV445.99.13112	TU5300sc Low Range Laser Turbidimeter with System Check and RFID, EPA Version	8	6%	3,275.26	26,202.08
3	LZY876	Desiccant Cartridge for TU5300sc and TU5400sc Laser Turbidimeter	3	6%	48.42	145.26
4	LZY834	Replacement Vial for TU5300sc and TU5400sc Online Laser Turbidimeter	3	6%	45.05	135.15
5	LXV525.99E11551	SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, US plug	8	6%	2,790.97	22,327.76
6	LZY835	Stablcal® calibration set with RFID, for TU5200, TU5300sc, and TU5400sc Laser Turbidimeter	1	6%	601.15	601.15
7	LZY903	Manual Vial Wiper for TU5200, TU5300sc, and TU5400sc Laser Turbidimeters	3	6%	20.52	61.56
8	LQV159.97.00002	Automatic Cleaning Module TU5 (ROW)	2	6%	966.47	1,932.94
9	WRTUPGSC4500	WarrantyPlus Partnership provides full coverage, including parts, labor, and travel for instrument startup or one preventative maintenance visit, and on-site repairs with priority status.	8		267.00	2,136.00
		WarrantyPlus Service Agreement includes one start-up and three preventative maintenance/calibration visits per year, all parts,				

Line	Part Number	Description	Qty	% Disc	Net Unit Price	Extended Price
10	WRTUPGTU53XX - 4 VISIT	labor, and travel for on-site repairs, unlimited technical support calls, and free firmware updates. Automatic Cleaning Module is not covered under this offering.	8		856.00	6,848.00
					Grand Total Discount	\$ 2,931.24
					Shipping and Handling	\$ 1,513.52
					Grand Total	\$ 61,930.74

TERMS OF SALE

Freight:

Ground Prepay and Add

FCA:

Hach's facility

12% Supply Chain Surcharge has been added to this quote for all shipments, if applicable, and is included in the "Net Unit Price" and Grand Total

All purchases of Hach Company products and/or services are expressly and without limitation subject to Hach Company's Terms & Conditions of Sale ("Hach TCS"), incorporated herein by reference and published on Hach Company's website at www.hach.com/terms. Hach TCS are contained directly and/or by reference in Hach's offer, order acknowledgment, and invoice documents. The first of the following acts constitutes an acceptance of Hach's offer and not a counteroffer and creates a contract of sale "Contract" in accordance with the Hach TCS: (i) Buyer's issuance of a purchase order document against Hach's offer; (ii) acknowledgement of Buyer's order by Hach; or (iii) commencement of any performance by Hach pursuant to Buyer's order. Provisions contained in Buyer's purchase documents (including electronic commerce interfaces) that materially alter, add to or subtract from the provisions of the Hach TCS are not part of the Contract.

Due to International regulations, a U.S. Department of Commerce Export License may be required. Hach reserves the right to approve specific shipping agents. Wooden boxes suitable for ocean shipment are extra. Specify final destination to ensure proper documentation and packing suitable for International transport. In addition, Hach may require : 1). A statement of intended end-use; 2).Certification that the intended end-use does not relate to proliferation of weapons of mass destruction (prohibited nuclear end use, chemical / biological weapons, missile technology); and 3). Certification that the goods will not be diverted contrary to U.S. and/or applicable laws in force in Buyer's jurisdiction.

ORDER TERMS:
 Terms are Subject to Credit Review
 In order for Hach to process the order as quickly as possible, please provide the following information.

- Complete Billing address.
- Complete Shipping address.
- Part numbers and quantities of items being ordered.
- Please reference the quotation number on your purchase order

If the order is over \$25,000 Hach will also require the following additional information.

- Pricing
- Purchase Order Number
- Freight terms and INCO term FOB Origin or FCA Shipping Point
- Required delivery date
- Vendor name should specify "Hach Company" with the Loveland address:
 - o Hach, PO Box 389, Loveland, CO 80539
- Credit terms of payment. Default payment terms are Net 30.
- Indicate if order needs to ship complete or if it can ship partial.
- Tax status
- Special invoicing instructions

Sales tax is not included on quote. Applicable sales tax will be added to the invoice based on the U.S. destination, if applicable provide a resale/exemption certificate. Shipments will be prepaid and added to invoices unless otherwise specified.
 Equipment quoted operates with standard U.S. supply voltage.
 Hach standard terms and conditions apply to all sales.
 Additional terms and conditions apply to orders for service partnerships.
 Prices do not include delivery of product. Reference attached Freight Charge Schedule and Collect Handling Fees.
 Standard lead time is 30 days.
 This Quote is good for a one time purchase

Sales Contact:

Name:

Karen Lanting

Title:

Inside Service Sales Representative

Phone:

970-617-3529

Email:

karen.lanting@hach.com



HACH COMPANY

Headquarters

P.O. Box 389
5600 Lindbergh Drive
Loveland, CO 80539-0389

Purchase Orders

PO Box 608
Loveland, CO 80539-0608

WebSite: www.hach.com

U.S.A.

Phone: 800-227-4224
Fax: 970-669-2932
E-Mail: orders@hach.com
quotes@hach.com
techhelp@hach.com

Export

Phone: 970-669-3050
Fax: 970-461-3939
Email: intl@hach.com

Remittance

2207 Collections Center Drive
Chicago, IL 60693

Wire Transfers

Bank of America
231 S. LaSalle St.
Chicago, IL 60604
Account: 8765602385
Routing (ABA): 071000039

Quotation Addendum

ADVANTAGES OF WORKING WITH HACH

 Hach Service	Pick&Ship™	Technical Support
<i>Protect your investment & peace of mind</i> ✓ A global partner who understands your needs ✓ Delivers timely, high-quality service you can trust ✓ Provides team of unique experts to help you maximize instrument uptime ✓ Ensure data integrity ✓ Maintain operational stability ✓ Reduce compliance risk www.hach.com/service-contracts	<i>Pick&Ship™ Program offers a better way to keep your supplies in stock</i> ✓ Convenience of one purchase order for the entire year ✓ Flexibility to change, cancel or create new orders ✓ Savings from locking in prices & thus avoiding price surges and rush charges ✓ Peace of mind with automatic, reliable shipments just as you need them www.Hach.com/pickandship	<i>Provides post-sale instrumentation and application support</i> ✓ Hach's highly skilled Technical Support staff is dedicated to helping you resolve technical issues before, during and after the sale. ✓ Available via phone, e-mail, or live online chat at Hach.com! ✓ Fast access to answers at https://support.hach.com ✓ Toll-free phone: 800-227-4224 ✓ E-mail: techhelp@hach.com www.Hach.com

ADVANTAGES OF SIMPLIFIED SHIPPING AND HANDLING

Safe & Fast Delivery	Save Time – Less Hassle	Save Money
✓ Receive tracking numbers on your order acknowledgement ✓ Hach will assist with claims if an order is lost or damaged in shipment	✓ No need to set up deliveries for orders or to schedule pickup ✓ Hach ships order as product is available, at no additional charge, when simplified shipping and handling is used.	✓ No additional invoice to process – save on time and administrative costs ✓ Only pay shipping once, even if multiple shipments are required

STANDARD SIMPLIFIED SHIPPING AND HANDLING CHARGES ^{1, 2, 3, 4} Pricing Effective 4/11/2020						Collect ⁴
Total Price of Merchandise Ordered	Standard Surface (Mainland USA)	Second Day Delivery (Mainland USA)	Next Day Delivery (Mainland USA)	Second Day Delivery (Alaska & Hawaii)	Next Day Delivery (Alaska & Hawaii)	Handling Fee Effective 4/11/2020
\$0.00 - \$49.99	\$17.99	\$44.99	\$83.90	\$72.21	\$137.27	\$13.47
\$50.00 - \$149.99	\$28.59	\$84.27	\$159.00	\$120.84	\$229.73	\$13.85
\$150.00 - \$349.99	\$50.22	\$133.98	\$272.91	\$169.07	\$329.04	\$14.72
\$350.00 - \$649.99	\$69.95	\$182.91	\$363.75	\$228.65	\$442.76	\$15.48
\$650.00 - \$949.99	\$88.16	\$191.13	\$399.98	\$236.66	\$446.10	\$16.04
\$950.00 - \$1,999.99	\$110.91	\$235.85	\$498.69	\$280.67	\$543.06	\$17.52
\$2,000.00 - \$3,999.99	\$128.04	\$250.64	\$513.44	\$291.54	\$554.54	\$20.22
\$4,000.00 - \$5,999.99	\$148.44	\$260.33	\$538.23	\$292.89	\$570.53	\$24.90
\$6,000.00 - \$7,999.99	\$175.40	\$296.40	\$612.84	\$323.07	\$622.86	\$29.04
\$8,000.00 - \$9,999.99	\$200.15	\$336.83	\$658.19	\$360.41	\$683.52	\$33.51
Over \$10,000	2.5% of Net Order Value	4.5% of Net Order Value	7% of Net Order Value	4.5% of Net Order Value	7% of Net Order Value	\$51.84

- Shipping & Handling charges shown are only applicable to orders billing and shipping to U.S. destinations. Shipping & Handling charges will be prepaid and added to invoice. Shipping & Handling for the Pick&Ship Program is charged on each shipment release and is based on the total price of each shipment release. Shipping & Handling charges are subject to change without notice.
 - Additional Shipping & Handling charges will be applied to orders containing bulky and/or especially heavy orders. Refrigerated and all weather Samplers do not qualify for simplified Shipping & Handling charges, and are considered heavy products. Dissolved Oxygen Sensors can be damaged if exposed to temps below freezing, causing sensor failure. Must be shipped over night or 2nd day air during the cold weather months.
 - Orders shipping to Alaska or Hawaii: Additional Shipping & Handling charges may be applied at time of order processing. Second Day and Next Day delivery is not available to all destinations.
 - Hach Company will assess a collect handling fee on orders with collect shipping terms. This handling fee covers the additional costs that Hach Company incurs from processing and managing collect shipments.
- Due to variations in component characteristics, regulatory transportation requirements and/or associated shipping and handling costs, individual kit components may or may not be packaged together in a single carton at time of final packaging and shipping.

SALES TAX

Sales Tax is not included in the attached quotation. Applicable sales and usage taxes will be added to your invoice, at the time of order, based on U.S. destination of goods, unless a valid resale/exemption certificate for destination state is provided to the above address or fax number, attention of the Tax Dept.

TERMS & CONDITIONS OF SALE FOR HACH COMPANY PRODUCTS AND SERVICES

This document sets forth the Terms & Conditions of Sale for goods manufactured and/or supplied, and services provided, by Hach Company of Loveland, Colorado ("Hach") and sold to the original purchaser thereof ("Buyer"). Unless otherwise specifically stated herein, the term "Hach" includes only Hach Company and none of its affiliates. Unless otherwise specifically stated in a previously-executed written purchase agreement signed by authorized representatives of Hach and Buyer, these Terms & Conditions of Sale establish the rights, obligations and remedies of Hach and Buyer which apply to this offer and any resulting order or contract for the sale of Hach's goods and/or services ("Products").

1. **APPLICABLE TERMS & CONDITIONS:** These Terms & Conditions of Sale are contained directly and/or by reference in Hach's offer, order acknowledgment, and invoice documents. The first of the following acts constitutes an acceptance of Hach's offer and not a counteroffer and creates a contract of sale ("Contract") in accordance with these Terms & Conditions: (i) Buyer's issuance of a purchase order document against Hach's offer; (ii) acknowledgement of Buyer's order by Hach; or (iii) commencement of any performance by Hach pursuant to Buyer's order. Provisions contained in Buyer's purchase documents (including electronic commerce interfaces) that materially alter, add to or subtract from the provisions of these Terms & Conditions of Sale are not a part of the Contract.

2. **CANCELLATION:** Buyer may cancel goods orders subject to fair charges for Hach's expenses including handling, inspection, restocking, freight and invoicing charges as applicable, provided that Buyer returns such goods to Hach at Buyer's expense within 30 days of delivery and in the same condition as received. Buyer may cancel service orders on ninety (90) day's prior written notice and refunds will be prorated based on the duration of the service plan. Inspections and re-instatement fees may apply upon cancellation or expiration of service programs. Seller may cancel all or part of any order prior to delivery without liability if the order includes any Products that Seller determines may not comply with export, safety, local certification, or other applicable compliance requirements.

3. **DELIVERY:** Delivery will be accomplished FCA Hach's facility located in Ames, Iowa or Loveland, Colorado, United States (Incoterms 2010). Legal title and risk of loss or damage pass to Buyer upon transfer to the first carrier. Hach will use commercially reasonable efforts to deliver the Products ordered herein within the time specified on the face of this Contract or, if no time is specified, within Hach's normal lead-time necessary for Hach to deliver the Products sold hereunder. Upon prior agreement with Buyer and for an additional charge, Hach will deliver the Products on an expedited basis. Standard service delivery hours are 8 am – 5 pm Monday through Friday, excluding holidays.

4. **INSPECTION:** Buyer will promptly inspect and accept any Products delivered pursuant to this Contract after receipt of such Products. In the event the Products do not conform to any applicable specifications, Buyer will promptly notify Hach of such nonconformance in writing. Hach will have a reasonable opportunity to repair or replace the nonconforming product at its option. Buyer will be deemed to have accepted any Products delivered hereunder and to have waived any such nonconformance in the event such a written notification is not received by Hach within thirty (30) days of delivery.

5. **PRICES & ORDER SIZES:** All prices are in U.S. dollars and are based on delivery as stated above. Prices do not include any charges for services such as insurance; brokerage fees; sales, use, inventory or excise taxes; import or export duties; special financing fees; VAT, income or royalty taxes imposed outside the U.S.; consular fees; special permits or licenses; or other charges imposed upon the production, sale, distribution, or delivery of Products. Buyer will either pay any and all such charges or provide Hach with acceptable exemption certificates, which obligation survives performance under this Contract. Hach reserves the right to establish minimum order sizes and will advise Buyer accordingly.

6. **PAYMENTS:** All payments must be made in U.S. dollars. For Internet orders, the purchase price is due at the time and manner set forth at www.hach.com. Invoices for all other orders are due and payable NET 30 DAYS from date of the invoice without regard to delays for inspection or transportation, with payments to be made by check to Hach at the above address or by wire transfer to the account stated on the front of Hach's invoice, or for customers with no established credit, Hach may require cash or credit

card payment in advance of delivery. In the event payments are not made or not made in a timely manner, Hach may, in addition to all other remedies provided at law, either: (a) declare Buyer's performance in breach and terminate this Contract for default; (b) withhold future shipments until delinquent payments are made; (c) deliver future shipments on a cash-with-order or cash-in-advance basis even after the delinquency is cured; (d) charge interest on the delinquency at a rate of 1-1/2% per month or the maximum rate permitted by law, if lower, for each month or part thereof of delinquency in payment plus applicable storage charges and/or inventory carrying charges; (e) repossess the Products for which payment has not been made; (f) recover all costs of collection including reasonable attorney's fees; or (g) combine any of the above rights and remedies as is practicable and permitted by law. Buyer is prohibited from setting off any and all monies owed under this from any other sums, whether liquidated or not, that are or may be due Buyer, which arise out of a different transaction with Hach or any of its affiliates. Should Buyer's financial responsibility become unsatisfactory to Hach in its reasonable discretion, Hach may require cash payment or other security. If Buyer fails to meet these requirements, Hach may treat such failure as reasonable grounds for repudiation of this Contract, in which case reasonable cancellation charges shall be due Hach. Buyer grants Hach a security interest in the Products to secure payment in full, which payment releases the security interest but only if such payments could not be considered an avoidable transfer under the U.S. Bankruptcy Code or other applicable laws. Buyer's insolvency, bankruptcy, assignment for the benefit of creditors, or dissolution or termination of the existence of Buyer, constitutes a default under this Contract and affords Hach all the remedies of a secured party under the U.C.C., as well as the remedies stated above for late payment or non-payment. See [120](#) for further wire transfer requirements.

7. **LIMITED WARRANTY:** Hach warrants that Products sold hereunder will be free from defects in material and workmanship and will, when used in accordance with the manufacturer's operating and maintenance instructions, conform to any express written warranty pertaining to the specific goods purchased, which for most Hach instruments is for a period of twelve (12) months from delivery. Hach warrants that services furnished hereunder will be free from defects in workmanship for a period of ninety (90) days from the completion of the services. Parts provided by Hach in the performance of services may be new or refurbished parts functioning equivalent to new parts. Any non-functioning parts that are repaired by Hach shall become the property of Hach. No warranties are extended to consumable items such as, without limitation, reagents, batteries, mercury cells, and light bulbs. **All other guarantees, warranties, conditions and representations, either express or implied, whether arising under any statute, law, commercial usage or otherwise, including implied warranties of merchantability and fitness for a particular purpose, are hereby excluded.** The sole remedy for Products not meeting this Limited Warranty is replacement, credit or refund of the purchase price. This remedy will not be deemed to have failed of its essential purpose so long as Hach is willing to provide such replacement, credit or refund.

8. **INDEMNIFICATION:** Indemnification applies to a party and to such party's successors-in-interest, assignees, affiliates, directors, officers, and employees ("Indemnified Parties"). Hach is responsible for and will defend, indemnify and hold harmless the Buyer Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to Hach's breach of the Limited Warranty. Buyer is responsible for and will defend, indemnify and hold harmless the Hach Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to negligence, misuse or misapplication of any goods or services, violations of law, or the breach of any provision of this Contract by the Buyer, its affiliates, or those employed by, controlled by or in privity with them. Buyer's workers' compensation immunity, if any, does not preclude or limit its indemnification obligations.

9. **PATENT PROTECTION:** Subject to all limitations of liability provided herein, Hach will, with respect to any Products of Hach's design or manufacture, indemnify Buyer from any and all damages and costs as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. patent (or European patent for Products that Hach sells to Buyer for end use in a member state of the E.U.) that has issued as of the delivery date, solely by reason of the sale or normal use of any Products sold to Buyer hereunder and from reasonable expenses incurred by Buyer in defense of such suit if Hach does not undertake the defense thereof, provided that Buyer promptly notifies



TERMS AND CONDITIONS OF SALE FOR HACH® PRODUCTS

Hach of such suit and offers Hach either (i) full and exclusive control of the defense of such suit when Products of Hach only are involved, or (ii) the right to participate in the defense of such suit when products other than those of Hach are also involved. Hach's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the Products according to their applications as envisioned by Hach's specifications. In case the Products are in such suit held to constitute infringement and the use of the Products is enjoined, Hach will, at its own expense and at its option, either procure for Buyer the right to continue using such Products or replace them with non-infringing products, or modify them so they become non-infringing, or remove the Products and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of Hach for patent infringement by the Products. Further, to the same extent as set forth in Hach's above obligation to Buyer, Buyer agrees to defend, indemnify and hold harmless Hach for patent infringement related to (x) any goods manufactured to the Buyer's design, (y) services provided in accordance with the Buyer's instructions, or (z) Hach's Products when used in combination with any other devices, parts or software not provided by Hach hereunder.

10. **TRADEMARKS AND OTHER LABELS:** Buyer agrees not to remove or alter any indicia of manufacturing origin or patent numbers contained on or within the Products, including without limitation the serial numbers or trademarks on nameplates or cast, molded or machined components.

11. **SOFTWARE AND DATA.** All licenses to Hach's separately-provided software products are subject to the separate software license agreement(s) accompanying the software media and/or included as an Appendix to these Terms & Conditions of Sale. Except to the extent such express licenses conflict with the remainder of this paragraph, the following also applies relative to Hach's software: Hach grants Buyer only a personal, non-exclusive license to access and use the software provided by Hach with Products purchased hereunder solely as necessary for Buyer to enjoy the benefit of the Products. A portion of the software may contain or consist of open source software, which Buyer may use under the terms and conditions of the specific license under which the open source software is distributed. Buyer agrees that it will be bound by all such license agreements. Title to software remains with the applicable licensor(s). In connection with Buyer's use of Products, Hach may obtain, receive, or collect data or information, including data produced by the Products. In such cases, Buyer grants Hach a non-exclusive, worldwide, royalty-free, perpetual, non-revocable license to use, compile, distribute, display, store, process, reproduce, or create derivative works of such data, or to aggregate such data for use in an anonymous manner, solely to facilitate marketing, sales and R&D activities of Hach and its affiliates.

12. **PROPRIETARY INFORMATION; PRIVACY:** "Proprietary Information" means any information, technical data or know-how in whatever form, whether documented, contained in machine readable or physical components, mask works or artwork, or otherwise, which Hach considers proprietary, including but not limited to service and maintenance manuals. Buyer and its customers, employees and agents will keep confidential all such Proprietary Information obtained directly or indirectly from Hach and will not transfer or disclose it without Hach's prior written consent, or use it for the manufacture, procurement, servicing or calibration of Products or any similar products, or cause such products to be manufactured, serviced or calibrated by or procured from any other source, or reproduce or otherwise appropriate it. All such Proprietary Information remains Hach's property. No right or license is granted to Buyer or its customers, employees or agents, expressly or by implication, with respect to the Proprietary Information or any patent right or other proprietary right of Hach, except for the limited use licenses implied by law. Hach will manage Customer's information and personal data in accordance with its Privacy Policy, located at <http://www.hach.com/privacypolicy>.

13. **CHANGES AND ADDITIONAL CHARGES:** Hach reserves the right to make design changes or improvements to any products of the same general class as Products being delivered hereunder without liability or obligation to incorporate such changes or improvements to Products ordered by Buyer unless agreed upon in writing before the Products' delivery date. Services which must be performed as a result of any of the following conditions are subject to additional charges for labor, travel and parts: (a) equipment alterations not authorized in writing by Hach; (b) damage resulting from improper use or handling, accident, neglect, power surge, or operation in an environment or manner in which the instrument is not designed to operate or is not in accordance with Hach's operating manuals; (c) the use of parts or accessories not provided by Hach; (d) damage resulting from acts of war, terrorism or nature; (e) services outside standard business hours; (f) site

prework not complete per proposal; or (g) any repairs required to ensure equipment meets manufacturer's specifications upon activation of a service agreement.

14. **SITE ACCESS / PREPARATION / WORKER SAFETY / ENVIRONMENTAL COMPLIANCE:** In connection with services provided by Hach, Buyer agrees to permit prompt access to equipment. Buyer assumes full responsibility to back-up or otherwise protect its data against loss, damage or destruction before services are performed. Buyer is the operator and in full control of its premises, including those areas where Hach employees or contractors are performing service, repair and maintenance activities. Buyer will ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services. Buyer is the generator of any resulting wastes, including without limitation hazardous wastes. Buyer is solely responsible to arrange for the disposal of any wastes at its own expense. Buyer will, at its own expense, provide Hach employees and contractors working on Buyer's premises with all information and training required under applicable safety compliance regulations and Buyer's policies. If the instrument to be serviced is in a Confined Space, as that term is defined under OSHA regulations, Buyer is solely responsible to make it available to be serviced in an unconfined space. Hach service technicians will not work in Confined Spaces. In the event that a Buyer requires Hach employees or contractors to attend safety or compliance training programs provided by Buyer, Buyer will pay Hach the standard hourly rate and expense reimbursement for such training attended. The attendance at or completion of such training does not create or expand any warranty or obligation of Hach and does not serve to alter, amend, limit or supersede any part of this Contract.

15. **LIMITATIONS ON USE:** Buyer will not use any Products for any purpose other than those identified in Hach's catalogs and literature as intended uses. Unless Hach has advised the Buyer in writing, in no event will Buyer use any Products in drugs, food additives, food or cosmetics, or medical applications for humans or animals. In no event will Buyer use in any application any Product that requires FDA 510(k) clearance unless and only to the extent the Product has such clearance. Buyer will not sell, transfer, export or re-export any Hach Products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor use Hach Products or technology in any facility which engages in activities relating to such weapons. Unless the "ship-to" address is in California, U.S.A., the Products are not intended for sale in California and may lack markings required by California Proposition 65; accordingly, unless Buyer has ordered Products specifying a California ship-to address, Buyer will not sell or deliver any Hach Products for use in California. Any warranty granted by Hach is void if any goods covered by such warranty are used for any purpose not permitted hereunder.

16. **EXPORT AND IMPORT LICENSES AND COMPLIANCE WITH LAWS:** Unless otherwise specified in this Contract, Buyer is responsible for obtaining any required export or import licenses. Buyer will comply with all laws and regulations applicable to the installation or use of all Products, including applicable import and export control laws and regulations of the U.S., E.U. and any other country having proper jurisdiction, and will obtain all necessary export licenses in connection with any subsequent export, re-export, transfer and use of all Products and technology delivered hereunder. Buyer will comply with all local, national, and other laws of all jurisdictions globally relating to anti-corruption, bribery, extortion, kickbacks, or similar matters which are applicable to Buyer's business activities in connection with this Contract, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"). Buyer agrees that no payment of money or provision of anything of value will be offered, promised, paid or transferred, directly or indirectly, by any person or entity, to any government official, government employee, or employee of any company owned in part by a government, political party, political party official, or candidate for any government office or political party office to induce such organizations or persons to use their authority or influence to obtain or retain an improper business advantage for Buyer or for Hach, or which otherwise constitute or have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining business or any improper advantage, with respect to any of Buyer's activities related to this Contract. Hach asks Buyer to "Speak Up!" if aware of any violation of law, regulation or our Standards of Conduct ("SOC") in relation to this Contract. See <http://danaher.com/integrity-and-compliance> and www.danaherintegrity.com for a copy of the SOC and for access to our Helpline portal.

17. **RELATIONSHIP OF PARTIES:** Buyer is not an agent or representative of Hach and will not present itself as such under any circumstances unless and to

TERMS AND CONDITIONS OF SALE FOR HACH® PRODUCTS

the extent it has been formally screened by Hach's compliance department and received a separate duly-authorized letter from Hach setting forth the scope and limitations of such authorization.

18. **FORCE MAJEURE:** Hach is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control of, including but not limited to Government embargoes, blockages, seizures or freeze of assets, delays or refusals to grant an export or import license or the suspension or revocation thereof, or any other acts of any Government; fires, floods, severe weather conditions, or any other acts of God; quarantines; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to Hach by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms and payments under any letters of credit will be extended for a period of time equal to the period of delay. If the force majeure circumstances extend for six months, Hach may, at its option, terminate this Contract without penalty and without being deemed in default or in breach thereof.

19. **NON ASSIGNMENT AND WAIVER:** Buyer will not transfer or assign this Contract or any rights or interests hereunder without Hach's prior written consent. Failure of either party to insist upon strict performance of any provision of this Contract, or to exercise any right or privilege contained herein, or the waiver of any breach of the terms or conditions of this Contract will not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same will continue and remain in force and effect as if no waiver had occurred.

20. **FUNDS TRANSFERS (PAYMENTS):** Buyer and Hach both recognize that there is a risk of banking fraud when individuals impersonating a business demand payment under new banking or mailing instructions. To avoid this risk, Buyer must verbally confirm any new or changed bank transfer or mailing instructions by calling Hach at +1-970-663-1377 and speaking with Hach's Credit Manager before mailing or transferring any monies using the new instructions. Both parties agree that they will not institute mailing or bank transfer instruction changes and require immediate payment under the new instructions but will instead provide a ten (10) day grace period to verify any payment instruction changes before any new or outstanding payments are due using the new instructions.

21. **LIMITATION OF LIABILITY:** None of the Hach Indemnified Parties will be liable to Buyer under any circumstances for any special, treble, incidental or consequential damages, including without limitation, damage to or loss of property other than for the Products purchased hereunder; damages incurred in installation, repair or replacement; lost profits, revenue or opportunity; loss of use; losses resulting from or related to downtime of the products or inaccurate measurements or reporting; the cost of substitute products; or claims of Buyer's customers for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise). The total liability of the Hach Indemnified Parties arising out of the performance or nonperformance hereunder or Hach's obligations in connection with the design, manufacture, sale, delivery, and/or use of Products will in no circumstance exceed in the aggregate a sum equal to twice the amount actually paid to Hach for Products delivered hereunder.

22. **APPLICABLE LAW AND DISPUTE RESOLUTION:** The construction, interpretation and performance hereof and all transactions hereunder shall be governed by the laws of the State of Colorado, without regard to its principles or laws regarding conflicts of laws. If any provision of this Contract violates any Federal, State or local statutes or regulations of any countries having jurisdiction of this transaction, or is illegal for any reason, said provision shall be self-deleting without affecting the validity of the remaining provisions. Unless otherwise specifically agreed upon in writing between Hach and Buyer, any dispute relating to this Contract which is not resolved by the parties shall be adjudicated in order of preference by a court of competent jurisdiction (i) in the State of Colorado, U.S.A. if Buyer has minimum contacts with Colorado and the U.S., (ii) elsewhere in the U.S. if Buyer has minimum contacts with the U.S. but not Colorado, or (iii) in a neutral location if Buyer does not have minimum contacts with the United States.

23. **ENTIRE AGREEMENT & MODIFICATION:** These Terms & Conditions of Sale constitute the entire agreement between the parties and supersede any prior agreements or representations, whether oral or written. No change to or modification of these Terms & Conditions shall be binding upon Hach unless in a written instrument specifically referencing that it is amending these Terms & Conditions of Sale and signed by an authorized representative of Hach. Hach

rejects any additional or inconsistent Terms & Conditions of Sale offered by Buyer at any time, whether or not such terms or conditions materially alter the Terms & Conditions herein and irrespective of Hach's acceptance of Buyer's order for the described goods and services.

24. **APPENDICES:** If checked, the following Appendices are attached hereto and incorporated by reference into these Terms & Conditions of Sale:

☐ CLAROS SOFTWARE AS A SERVICE SUBSCRIPTION AGREEMENT

* * *



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Barry Williams

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes:X No:	Yes:X No:	100-475-741 and 300-425-730

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible Action to purchase one (1), Elgin Regen X Regenerative Air Sweeper from Velocity Truck Centers for the City of Fernley's Streets and Storm Drains Department for an amount of \$312,960, plus a 3% contingency of \$9,388.80, for a total of \$322,348.80.

AGENDA ITEM BRIEF:

This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Streets and Storm Drains Department to be utilized in the day-to-day operations of the Streets and Storm Drains cleaning and maintenance program.

RECOMMENDED MOTION:

"I move to Approve the purchase of one (1), Elgin Regen X Regenerative Air Sweeper from Velocity Truck Centers for the City of Fernley's Streets and Storm Drains Department for an amount of \$312,960, plus a 3% contingency of \$9,388.80, for a total of \$322,348.80."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which

legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council can deny the purchase of this equipment and direct staff to assemble bid specifications for the sweeper purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the equipment.

BACKGROUND:

This purchase was approved by the Council during the FY 22/23 budget process.

Every fiscal year, the State and Federal Government accepts bids from dealerships around the United States for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by government agencies. Using the results of the State and Federal Governments' competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Velocity Truck Centers will oversee the manufacturing and delivery of this equipment for the City of Fernley. This equipment is available under the Sourcewell Federal purchasing contract.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS:

This purchase was budgeted at \$281,255 using G.L number 100-475-741 in the General Fund and 305-425-730 in the capital improvement fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Velocity Truck Centers Sourcewell Price Quote
2. Elgin RegenX_Regenerative Air Sweeper Specification Sheet



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council
REPORT THRU: Patrick Marsh, Acting City Manager
REPORT FROM: Barry Williams, Deputy Public Works Director
REVIEWED BY: Brandi Jensen, City Attorney
REVIEWED BY: Denise Lewis, City Treasurer

FINANCIAL IMPACT:

Yes: ☒ No: ☐

CURRENTLY BUDGETED:

Yes: ☒ No: ☐

FUND/ACCOUNT:

100-475-742

ACTION REQUESTED: ☒ Consent ☐ Ordinance ☐ Resolution ☐ Motion ☐ Receive/File

AGENDA ITEM: Possible Action to purchase one (1), Elgin Regen X Regenerative Air Sweeper from Velocity Truck Centers for the City of Fernley's Streets and Storm Drains Department for an amount of \$312,960, plus a 3% contingency of \$9,388.80, for a total of \$322,348.80.

Agenda Item Brief: This purchase was approved by Council during the FY 22/23 budget process. If approved, this equipment will be assigned to the Streets and Storm Drains Department to be utilized in the day-to-day operations of the Streets and Storm Drains cleaning and maintenance program.

Recommended Motion:

"I move to Approve the purchase of one (1), Elgin Regen X Regenerative Air Sweeper from Velocity Truck Centers for the City of Fernley's Streets and Storm Drains Department for an amount of \$312,960, plus a 3% contingency of \$9,388.80, for a total of \$322,348.80."

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

PROJECT SUMMARY: If approved, this equipment will be assigned to the Streets and Storm Drains Department to be utilized in day-to-day street sweeping operations. The Department relies on vehicles and equipment relating to the City's Streets and Storm Drains maintenance and repair operations.

If approved, this equipment will replace the aged and problematic street sweeper that is currently assigned to the Department which is beyond the service miles, equipment hours and age recommended for vehicle and equipment replacement per the City of Fernley Fleet Management Program (PMP) Policy, Table 4.1 Appendix 8, Replacement Standard.

Staff has chosen the Elgin, Regen X Regenerative Air Sweeper from Velocity Truck Centers because this equipment meets the desired specifications needed for the departments sweeping operations. Velocity Truck Centers participates in the Sourcwell State and Federal Purchasing Program (formerly NJPA). This program allows the City of Fernley to obtain discounted vehicle and equipment pricing and better availability.

BACKGROUND: This purchase was approved by Council during the FY 22/23 budget process.

Every fiscal year, the State and Federal Government accepts bids from dealerships around the United States for assorted makes and models of work trucks, cars and light and heavy equipment for purchase by government agencies. Using the results of the State and Federal Governments competitive bid process is standard practice for municipalities because it saves time and money. The municipality does not have to assemble bid documents, advertise, and rank bidders in order to make a purchase.

Velocity Truck Centers will oversee the manufacturing and delivery of this equipment for the City of Fernley. This equipment is available under the Sourcwell Federal purchasing contract.

ALTERNATIVES: Council can deny the purchase of this equipment and direct staff to assemble bid specifications for the sweeper purchase, advertise for bids and then rank and award the winning bid. Neither is guaranteed to lower the current price of the equipment.

LEGAL IMPLICATIONS: NRS 332.039, NRS 332.195

FINANCIAL IMPLICATIONS: This purchase was budgeted at \$325,000 using G.L number 100-475-742 within the General Fund in the FY 22-23 Budget.

ATTACHMENTS:

1. Velocity Truck Centers Sourcwell Price Quote
2. Elgin Regen X Regenerative Air Sweeper Specification Sheet

1. **TRADE-IN(S).** Purchaser shall deliver trade-in(s) in the same condition as at the time of inspection and appraisal by Seller reasonable wear and tear excepted, except as disclosed in the Agreement. Purchase represents that each truck shall be free and clear of all liens and encumbrances and warrants that the trade-in(s) are that type and condition described in this Agreement, including any attachments hereto.
2. **TERMS OF PAYMENT.** Unless otherwise agreed, net payment shall be due on delivery. Late payments shall bear interest at the rate of 18% per annum, or the maximum permitted by law, whichever is less. If acceptance of delivery is delayed by Purchaser, payment shall become due on the date when Seller is prepared to deliver. If the financial condition of Purchaser at any time does not, in the judgment of Seller, justify continuance of the work to be performed by Seller hereunder on the terms of payment as agreed upon, Seller may suspend such work, or postpone delivery, and require such assurances of Purchaser's performance as Seller deems adequate, including payment in advance, or Seller may cancel this order and shall receive reimbursement for its reasonable and proper cancellation charges. In the event of bankruptcy or insolvency of Purchaser, voluntary or involuntary, Seller shall be entitled to cancel any order then outstanding at any time and seek reimbursement for its reasonable and proper cancellation charges.
3. **CANCELLATION.** Purchaser may cancel this order only if Seller is able to cancel said order with the manufacturer, and only upon written notice. Upon cancellation or failure to accept delivery, Purchaser shall pay Seller reasonable cancellation changes and expenses, not to be less than Seller's out-of-pocket expenses including carrying costs.
4. **SALES AND OTHER TAXES.** Unless otherwise specified herein, Seller's price does not include federal excise, sales, use, or other taxes. Consequently, in addition to the price specified herein, the amount of any other excise, sales, use, or other taxes (Purchaser's liability) to the sale or use of the trucks purchased hereunder shall be paid by Purchaser, or in lieu thereof Purchaser shall provide Seller with a tax exemption certificate acceptable to the taxing authorities. Purchaser agrees that all taxes related to this transaction, whether arising at the time of the transaction or in the future, are Purchaser's responsibility and further agrees to promptly pay any such taxes.
5. **DELIVERY.** All trucks furnished hereunder shall be delivered to Purchaser at the Seller's dealership location or other location as designated in this Agreement. Unless otherwise provided, delivery will be made via carriers and routes designated by manufacturer with freight charges to be included in the purchase price. Delivery dates are approximate and are based upon receipt of all necessary information from Purchaser. Seller shall not be liable for delays in delivery or manufacturing, or other causes beyond Seller's control.
6. **TECHNICAL CHANGES.** Purchaser acknowledges that the manufacturer and Seller reserve the right to change the specifications of the truck(s) at any time without obligation to make such changes in other trucks previously delivered to Purchaser. In addition, manufacturer and Seller reserve the right to make design changes and substitution of materials subsequent to the receipt of the order which, in manufacturers or Seller's opinion are necessary to improve the truck. Purchaser agrees to accept any such changes as fulfillment of Seller's obligations under this order.
7. **REQUIRED EQUIPMENT.** This order shall be deemed to include, whether or not specified herein, all equipment or accessories required by the National Highway Traffic Safety Act or other regulations in effect at the time of order of receipt. It is agreed that any additional or different equipment not specified which is required at the time of delivery to meet the foregoing Act or other regulations will be added and the costs shall be paid by Purchaser. Purchaser understands that certain safety equipment is available that is not legally required and is available at Purchasers request for an additional fee.
8. **TITLE AND REMEDIES.** Until full payment by Purchaser of all amounts due hereunder, Seller reserves the title to all equipment furnished hereunder. If Purchaser defaults in payment or performance hereunder or becomes subject to insolvency, receivership, or bankruptcy proceedings, or makes an assignment for the benefit of creditors, or without the consent of Seller voluntarily or involuntarily sells, transfers, leases, or permits any lien or attachment on the equipment delivered hereunder, Seller may treat all amounts then or thereafter owing hereunder by Purchaser as immediately due and payable (subject only to credits required by law) and Seller may repossess said equipment by any means available by law and shall enjoy any and all other remedies of a secured creditor under the Uniform Commercial Code. Purchaser shall execute and deliver to Seller such financing statements and other documents, as Seller may deem appropriate to evidence, perfect, and protect the priority of its security interest in the truck(s) subject to this order.
9. **GENERAL.** Any assignment by Purchaser of this order or any rights hereunder, without written consent of Seller, shall be void. Clerical errors in this order may be automatically corrected by giving written notice thereof to Purchaser by a duly authorized representative of Seller. No waiver, alteration, or modification of any of the provisions hereof shall be binding unless and until in writing and signed by a duly authorized representative of Seller. To the extent not covered by other terms herein, including terms of warranty and limitation of liability, etc., the provisions of the Uniform Commercial Code shall govern this sale.
10. **IMPORT TARIFFS:** Purchaser acknowledges that any import tariffs imposed by the government are the sole responsibility of the Purchaser and will result in an increase in the Seller's price equal to the amount of the obligatory tariff.

This Agreement (including by reference the provisions set out in manufacturer's standard warranty or warranties) shall constitute the entire agreement between Purchaser and Seller, and no understandings or obligations not expressly set forth herein or in manufacturer's standard warranty or warranties are binding upon Purchaser or Seller.

ALL WARRANTIES, IF ANY, BY A MANUFACTURER OR SUPPLIER OTHER THAN SELLER ARE THEIRS, NOT SELLER'S, AND ONLY SUCH MANUFACTURER OR OTHER SUPPLIER SHALL BE LIABLE FOR PERFORMANCE UNDER SUCH WARRANTIES. SELLER HEREBY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Accepted and Agreed by: _____
(Company Name)

(Date)

Signor's Name and Title: _____
(Please Print Name and Title. Must be an Officer of the company
Authorized to approve capital purchases.)

X _____
(Signature)



Presents a Proposal Summary

of the



RegenX

Regen-X Regenerative Air Street Sweeper with 74 HP Auxiliary Engine

for

City of Fernley
595 Silverlace Blvd , NV
Fernley, NV 89408
USA

Chad Medina
Tel:

PRODUCT DESCRIPTION

· Tier 4F emissions, John Deere 4045 turbocharged diesel engine, 8 cu. yard tilting hopper w/ 50 degree dump angle, right and left side brooms, sweeper powdercoated from powder coatings chart 2003/N with powder coated gray undercarriage and includes the standard features listed below

STANDARD FEATURES

- Sweeper Parts Manual
- Sweeper Operators Manual
- John Deere Operators Manual
- John Deere Parts
- Broom measurement ruler
- 16' 8" Water fill hose
- Machine delivery packet
- Elgin safety manual
- Auto Shutdown, Aux. Engine: low oil pressure, high coolant temp, hydraulic oil level, fuel temp, intake manifold air temp, water-in-fuel, very high soot loading.
- Backup Alarm, electric
- Brooms, hydraulic rotation
- Brooms, Dual
- Console, w/rocker switches for all sweep functions
- Full gauge package including tachometer, engine hour meter, oil pressure indicator and coolant temperature. Engine speed control, side broom down pressure controls and automotive style blade fuses. Standard indicators for full load, screen down, and hydraulic oil temp indicator lamps. Optional indicator lamps for hopper up, door open and/or hydraulic oil temp.
- Sweep resume/sweep transport/reverse pick-up
- Fuel Water Separator on Aux Engine
- Hopper rear door, hydraulically opened/closed and locked/unlocked with external manual controls
- Hose, hydrant fill, 16'8" (5080 mm) with coupling
- LED Clearance Lights
- Lights; rear clearance and rear identification
- 8" convex mirror
- Pick-up head, hydraulically operated, 14" (355 mm) outside diameter pressure hose, 13" (324mm) inside diameter suction hose with quick disconnect on suctions side
- Water system; one (1) rocker switch with HI / LOW setting, Spray nozzles: three (3) in the suction, nozzle, three (3) at each side broom
- Side Broom Outer Position Stop
- Hydraulic Oil Cooler
- Vacuum enhancer, cable-controlled in cab, 5 settings
- Water tank, molded polyethylene, 250 gallons
- Water pre-filter, hydrant fill hose
- FUNCTIONAL CONTROL OF WATER SYSTEM dispenses water with the use of the sweeper function rocker switch. Water to pickup head on when water is turned on, water to side brooms on when brooms are deployed.
- ANTI SIPHON 2-1/2" AIR GAP
- Standard Electric Horns
- Right Hand Bostrom Air 905 Cloth Hi-Back
- Sweeper Painted Standard White
- Red Logo
- 1 Year Parts and Labor Warranty
- SURCHARGE-131

ADDITIONAL FEATURES

- Variable Speed - Dual Sidebrooms
- Sidebroom Tilt Option Right Hand
- Sidebroom Tilt Option Left Hand
- Lifeline Hopper System
- Stainless Steel Screens

- Right Hand Inspection Door
- Hydraulic Heavy Duty Wandering Hose
- (1) 4 Ft. Aluminum Wandering Hose Extension Side Mounted
- Front Spray Bar
- Hopper Deluge
- In-Cab Hopper Dump
- Dual Sidebroom Scrubbing Position
- Auxiliary Hydraulic Pump
- (1) Extra a Key - Auxiliary Engine



ALL COST INCREASES FOR MAJOR COMPONENTS, RAW MATERIAL SURCHARGES WILL BE PASSED THROUGH AND ADDED TO FACTORY INVOICES.

Customer Initials _____

Training included

THE PROPERTY HEREIN IS GUARANTEED BY MANUFACTURER'S WARRANTY ONLY AND SELLER MAKES NO WARRANTY EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR OTHERWISE, OR OF FITNESS FOR ANY PARTICULAR PURPOSE, THAT EXTENDS BEYOND THE ABOVE DESCRIPTION OF THE EQUIPMENT.

NOTE: Price is good for 60 Days. Cost increases due to the addition of Government mandated safety or environmental devices incurred after the date of this proposal, will be charged to you at our cost. Proof of such costs, if any, will be documented.

TAXES: SALES TAX applicable at time of delivery will be shown on our invoice. FEDERAL EXCISE TAXES, if applicable, will require payment unless a properly executed Exemption Certificate is submitted.

DELIVERY: 240-265 days **TERMS:** Net 10 or Approved Lease

Let me know if you need any additional information. I can provide you with a bid spec if you need it. I would welcome the opportunity to set up a demo to show you guys just how easy it is to use our unit. If you have any questions, please give me a call at (510)604-9970.

Sincerely,

Chad Medina

Chad Medina
Territory Account Manager

LIMITED WARRANTY

ELGIN SWEEPER COMPANY warrants each new machine manufactured by it against defects in material and workmanship provided the machine is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of twelve (12) months from the date of delivery to the original user-purchaser.

ELGIN SWEEPER COMPANY will cause to be repaired or replaced, as the Company, may elect, any part or part of such machine which the Company's examination discloses to be defective in material or workmanship.

Repairs or replacements are to be made at the selling Elgin distributor's location or at other locations approved by ELGIN SWEEPER COMPANY.

The ELGIN SWEEPER COMPANY warranty shall not apply to:

1. Major components or trade accessories such as but not limited to, trucks, engines, tires or batteries that have a separate warranty by the original manufacturer.
2. Normal adjustments and maintenance services.
3. Normal wear parts such as but not limited to, broom filters, broom wire, shoe runners and rubber deflectors.
4. Failures resulting from the machine being operated in a manner or for a purpose not recommended by ELGIN SWEEPER COMPANY.
5. Repairs, modifications or alterations without the consent of ELGIN SWEEPER COMPANY which, in the Company's sole judgment, have adversely affected the machine's stability or reliability.
6. Items subjected to misuse, negligence, accident or improper maintenance.

The use in the product of any part other than parts approved by ELGIN SWEEPER COMPANY may invalidate this warranty. ELGIN SWEEPER COMPANY reserves the right to determine, in its sole discretion, if the use of non-approved parts operates to invalidate the warranty.

Nothing contained in this warranty shall make ELGIN SWEEPER COMPANY liable for loss, injury, or damage of any kind to any person or entity resulting from any defect or failure in the machine.

TO THE EXTENT LIMITED BY LAW, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty is also in lieu of all other obligations or liabilities on the part of ELGIN SWEEPER COMPANY, including but not limited to, liability for incidental and consequential damages on the part of the Company or the seller.

ELGIN SWEEPER COMPANY makes no representation that the machine has the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the machine.

No person or affiliated company representative is authorized to give any other warranties or to assume any other liability on behalf of ELGIN SWEEPER COMPANY in connection with the sale, servicing or repair of any machine manufactured by the Company.

ELGIN SWEEPER COMPANY reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.



REGENERATIVE AIR SWEEPER

Regen^X

Now available on
**NON-CDL
CHASSIS!**

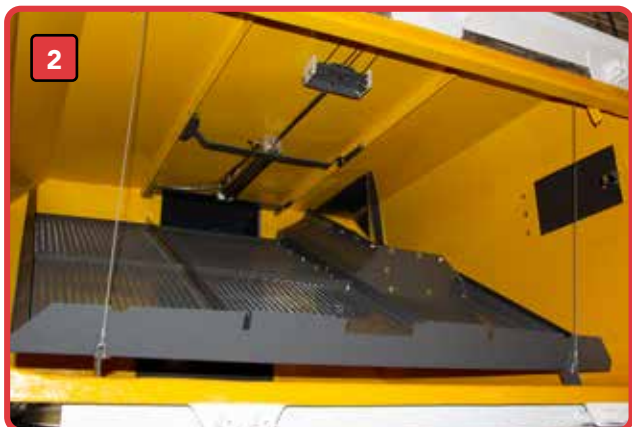


Built By Elgin[®] X Designed By You

CLEAN...WITHOUT GETTING DIRTY.



- 1 Rounded Corners**
For easier cleaning and better load evacuation
- 2 Drop-Down Screens**
Cable-controlled, activated by switch on side of hopper
- 3 Self-Emptying Dust Separator**
Evacuates dust when hopper is dumped
- 4 Dust Separator Washout Doors**
Easy-access for effective washout of dust separator
- 5 Simple Inlet Design with Deflector**
Deflector loads debris evenly without creating challenges for washout
- 6 Pickup Head Clean Out Port**
Efficiently clean out pickup head while staying clean and dry



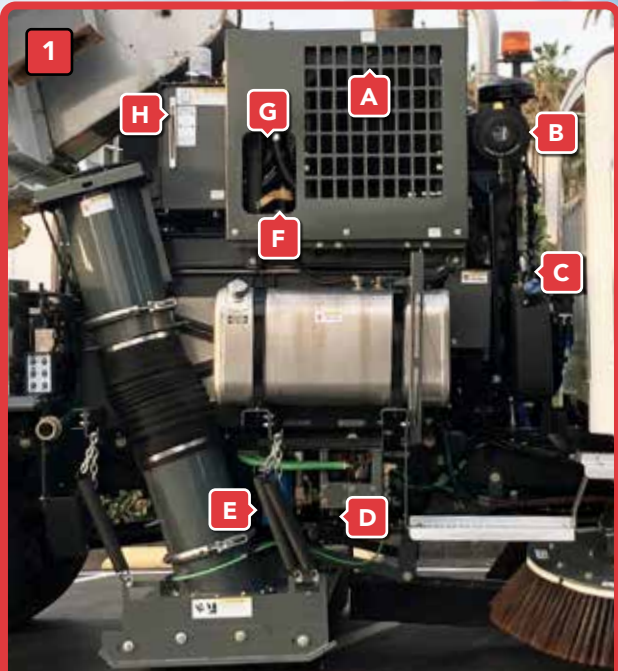
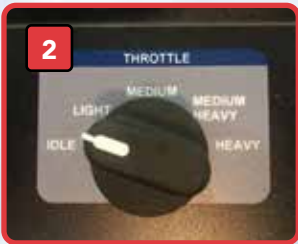
THE DIFFERENCE IS SIMPLE.

CONTAINER DUMP HEIGHT

- X Large 8 yd³ hopper capacity
- X 56" inch roll-off container dump height
- X Avoid double-handling from dumping on the ground
- X Improve operational efficiency by placing roll-off containers along your route
- X Comply with environmental restrictions prohibiting dumping on the ground

- 1 **Easy-Access to Service/Maintenance Components**
- 2 **Easy-to-Use Controls**
 - No control modules
- 3 **Superior Side Broom Design**
 - Pneumatic float for adjustable side broom pressure in cab
 - Elgin's trailing arm design provides inward motion to avoid obstacles
 - Standard parallelogram linkage allows side brooms to closely follow road contours, and maintain a consistent broom tilt (angle) with the road surface
- 4 **Left-Hand Exhaust**
 - Helps to avoid contact with tree limbs
- 5 **Easy-Access Switch to Drop Hopper Screens (standard)**
- 6 **Bolt-on Hopper Inlet for Easy Replacement**
- 7 **Bolt-on, External Dust Separator**

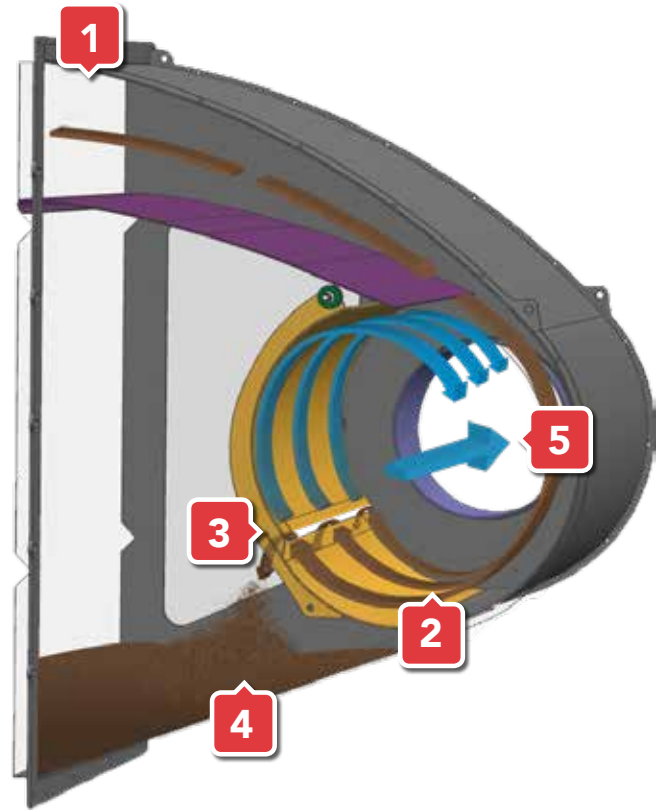
- 8 **Slotted Bolt-on Curtain Assembly**
 - Loosen 4 bolts to remove entire curtain assembly for service
- 9 **Water Level Indicator**
 - Visible from side mirror while operating
- 10 **Dual Quick Disconnect on Suction Tube**
 - Quick disconnects at top and bottom of suction tube for ease of maintenance and access to obstructions
- 11 **Extended Steel Suction Tube**
 - Minimal corrugation in suction tube for improved material flow
- 12 **Adjustable Bumper**
 - Customizable to various debris containers
- 13 **Adjustable Hopper Door Locks for Proper Seal**



- A. Radiator Coolant Level
- B. Air Filter
- C. Engine Oil Level / Fill
- D. Water Pump
- E. Water Filter
- F. Engine Oil Filter
- G. Fuel / Water Separator
- H. Hydraulic Oil Level

HIGHLY EFFICIENT DUST SEPARATOR

- 1 Dust Separator Inlet**
Dust enters the separator from the hopper
- 2 Centrifugal Separator Design**
Air spins around tube at high speed, forcing dust to outside walls
- 3 Skimmer Slot**
Dust is skimmed off into the collection chamber
- 4 Dust Collection Chamber**
Self-emptying chamber that evacuates when the hopper is dumped
- 5 Fan Inlet**
Clean air exits the separator and returns to the fan



**Fan belt change in less than 5 minutes -
NO TOOLS REQUIRED**

- 1 Hardox Steel Fan**
 - Highly efficient closed-face fan with backward curved vanes
 - Hardox steel vanes for durability (used in military-grade armor)
 - *Fan change can be executed in approximately 1 hour*
- 2 Sealed-for-Life Bearings**
 - No need to grease fan bearings
 - Secondary seal to prevent dirt from getting into the bearing
- 3 Fluid Coupler**
Acts as torque damper, increases reliability and life of drive system
- 4 Spring-Loaded Belt Tensioner**
Maintains consistent belt tension over time, easy to adjust
- 5 Keyed and Tapered Fan Shaft**
Provides ease of service

FAN DRIVE SYSTEM



Built By Elgin **X** Designed By You

The Elgin innovation team traversed the country, speaking to hundreds of customers at all levels within the street sweeping industry, both municipal and contractor, in pursuit of true voice-of-the-customer insights. Months of real-world prototype testing and feedback refined the sweeper design to provide customers with exactly what they want and need, while proving the reliability and durability along the way. The input of service technicians, operators, and street sweeping supervisors shaped every detail of the new **RegenX®** mid-dump regenerative air street sweeper. **Easy to use, easy to clean, and easy to maintain** while delivering the quality and proven technology that is the hallmark of Elgin Sweeper products.

The new RegenX was **built by Elgin, but designed by you.**

Why Regen**X**®

X Available on Non-CDL*, 26K GVW Chassis

X Roll-Off Dump Height with 50° Dump Angle and 8 yd³ Hopper

- Avoid double-handling, driving back to the facility to dump, and environmental ground-dumping restrictions

X Incredibly Easy to Clean

- Simple hopper – rounded corners and external self-dumping dust separator
- Easy-access washout doors for dust separator and pickup head
- Cable-controlled drop-down screens standard

X Easy to Service

- Easy to access components with locations determined by experienced service technicians
- Bolt-on wear parts wherever possible (dust separator, hopper inlet, etc.)
- Simple design with no control modules for sweeper functions

X Reliable

- Better cleanout and easier serviceability
- Highly efficient dust separator and large screen surface area reduce carryover and sand blasting
- Overall simple design – less moving parts, more uptime



ElginSweeper.com/RegenX

Phone (847) 741-5370 • Fax (847) 742-3035

1300 W. Bartlett Road, Elgin, IL 60120 U.S.A.

*May vary based on local rules and regulations. Specifications subject to change without notice. Some items shown may be optional. Elgin® RegenX® and LifeLiner® are registered trademarks of Federal Signal Corporation. Hardox® is a registered trademark of Hardox wear plate. Federal Signal Corporation is listed on the NYSE by the symbol FSS.



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: April Homme

FINANCIAL IMPACT:

Yes: X No:

CURRENTLY BUDGETED:

Yes: X No:

FUND/ACCOUNT:

100-413-322

ACTION REQUESTED: Consent

AGENDA ITEM: (For Possible Action):

Possible action to amend the contract between the City of Fernley and Walther Law Offices PLLC for Public Defender Services not to exceed \$120,000 a year beginning FY2022-23.

AGENDA ITEM BRIEF:

In light of recent legislative changes to indigent defense requirements in Nevada and the significant caseload, Walther Law Offices requested an increase of \$40,000 to its annual contract. Bail hearings were previously held two days a week and recently, a third day has been implemented; thus, bail hearings are now being held Mondays, Tuesdays, and Thursdays. It is further anticipated that the new change to the law will move bail hearings from three to seven days per week, including weekends. These hearings require Walther Law Offices to block between one and two hours from an attorney's schedule each day, including weekends. The \$40,000.00 contract increase was approved at the May 18, 2022 City Council Budget Meeting. Amendment 3 reflects the changes previously approved by council.

RECOMMENDED MOTION:

I move to amend the contract between the City of Fernley and Walther Law Offices PLLC for Public Defender Services not to exceed \$120,000 a year beginning FY2022-23.

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Renegotiate contract FY23-24

BACKGROUND:

The 1st amendment to this contract is to increase the contract with Walther Law Offices PLLC for Public Defender Services in the amount of \$40,000.00, not to exceed \$10,000.00 a month and/or \$120,000 a year beginning FY2022-23.

Previous Council Action: On December 15, 2021, City Council approved the Contract with Walther Law Offices PLLC for Public Defender Services beginning January 1, 2022 through June 30, 2024 in the amount of \$6,666.66 a month.

On May 18, 2022, City Council approved the \$40,000.00 contract increase during the City Council Budget Meeting.

Amendment 1 reflects the changes previously approved by the Council.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

NRS 332.115

FINANCIAL IMPLICATIONS:

Funds have been budgeted for FY2022/23 and FY2023/24.

ATTACHMENTS:

1. First Amendment to PD Agreement FY22-23

**FIRST AMENDMENT TO THE
AGREEMENT FOR PUBLIC DEFENDER
SERVICES JULY 1, 2022, THROUGH JUNE 30, 2024**

This Agreement is hereby made and entered into this 20th day of July 2022 by and between WALTHER LAW OFFICES PLLC hereinafter referred to as “Attorney” and the CITY OF FERNLEY, a political subdivision of the State of Nevada, hereinafter referred to as “City.”

PART A – COMPENSATION

1. City agrees to pay to the Attorney and the Attorney agrees to accept as full compensation for the performance of legal services under this Agreement:
 - a. For Fiscal Year 2022-2023, commencing July 1, 2022, and ending June 30, 2023, the sum of ONE HUNDRED TWENTY THOUSAND DOLLARS (\$120,000) in twelve (12) equal monthly installments of: TEN THOUSAND DOLLARS AND ZERO CENTS (\$10,000.00) due on or before the 5th of each month.
 - b. For Fiscal Year 2023-2024, commencing July 1, 2023, and ending June 30, 2024, the sum of ONE HUNDRED TWENTY THOUSAND DOLLARS (\$120,000) in twelve (12) equal monthly installments of: TEN THOUSAND DOLLARS AND ZERO CENTS (\$10,000.00) due on or before the 5th of each month.
2. The parties may increase the contract amount during the term of the contract by mutual agreement of the parties in writing and approved by the Fernley City Council. In the event that the parties do not agree on an increase, the compensation shall remain as stated above.
3. If any State statute in effect now or hereinafter requires the addition of jury trials, both parties agree to discuss the impact on the Public Defender’s case load to determine if an increase in the contracted amount is warranted.
4. Attorney may secure reimbursement from City for investigative, required expert or other services necessary for an adequate defense in any assigned matter in the manner set forth in NRS 7.135, 7.145 and 7.155.
5. Attorney understands that this Agreement is for public defender services pursuant to NRS 260.010 through NRS 266.080 and that the provisions as set forth in NRS 7.125 are not applicable, and Attorney is not entitled to any compensation or reimbursement pursuant to NRS 7.125.

6. The compensation specified in Paragraph G.1 is in lieu of the statutorily prescribed fees codified in NRS 7.125.
7. Mileage and travel expenses of Attorneys are the responsibility of the Attorneys, and the City will not pay additional for mileage or travel.

PART I – AMENDMENT/CANCELLATION

1. The parties agree that this Agreement can only be amended by agreement of the parties in writing.
2. This Agreement may be terminated by either party after ninety (90) days written notice to the other party. Attorneys serve at the pleasure of the City Council pursuant to NRS 266.010. This Agreement may be terminated for cause at any time. In the event of termination of this Agreement for any reason, the total compensation due to the Attorney shall be reduced to the proportionate number of days worked by Attorneys.
3. This Agreement may be renewed for the additional terms of one (1) or two (2) years commencing July 1, 2022, at the same or different compensation, as agreed upon by the parties, unless canceled or terminated by the parties as provided herein. Any renewal shall be in writing and must be approved with the same formality as this Agreement.

This Agreement is approved and entered into this 20th day of July 2022.

City of Fernley

By: Acting City Manager

By: Mayor

Attest:

City Clerk

This Agreement is approved and entered into this ____ day of _____, 2022.

Patrick B.T. Mansfield, Esq.



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Trisha Conner, Assistant to the City Manager

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM: (For Possible Action):

Presentation, discussion, and possible action on the 2023-2024 Community Development Block Grant (CDBG) Program update, priorities, and citizen participation process.

AGENDA ITEM BRIEF:

The CDBG program requires citizen input in the annual funding process. This process is a requirement to apply for a grant from CDBG. Three public meetings are required to obtain citizen input into the types of activities to submit for funding. This year's public meetings have been scheduled for July 21, 2021, a second meeting in September, and a final meeting before February 2023. The city can apply for/sponsor, an unlimited number of projects/grants. However, we are restricted to a maximum of five open grants. At this time, the City has been awarded two grants to begin FY2022-2023.

RECOMMENDED MOTION:

"I move to accept the annual CDBG program overview presentation, priorities, and support the citizen participation process."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

The Council may request additional information.

BACKGROUND:

The Community Development Block Grant (CDBG) Program is authorized under Title 1 of the Housing and Community Development Act of HCDA, Section 101(c), 570.1, 570.2. The primary objective of Title 1 of the Housing and Community Development Act of 1974, as amended, is the development of viable urban communities. These viable communities are achieved by providing the following, principally for persons of low and moderate income: provide decent housing; a suitable living environment; and create economic opportunity.

The primary purpose of CDBG's citizen participation requirement is to discuss possible applications for funding, and to solicit citizen input on possible activities to be included in applications.

The citizen participation component also ensures that information is provided to the public about the CDBG program, past projects that have been funded in the jurisdiction, how to apply, eligibility requirements, how and where funds can be used, and to give citizens an opportunity to make comments known regarding types of eligible activity that the City of Fernley should apply for under the CDBG program. The purpose of this second public hearing is to review the identified City projects, priorities, possible sponsorships, and to gather public input and make necessary changes. A third and final public hearing will be scheduled for the City Council to discuss, rank, and approve applications prior to submittal to the State.

Eligible activities under the allocation consist of public facilities and public improvement projects and privately-owned utilities; economic development; clearance, rehabilitation, reconstruction and construction of buildings; planning studies; and economic development assistance for for-profit businesses. Projects submitted must be eligible under the State CDBG program, and must meet one or more of the national objectives listed in CDBG federal statutes as follows:

- Benefit 51% or more low income households or persons
- Elimination or prevention of slum and blight
- Address a recent urgent community development need

CDBG expects to receive \$3.6 million from Housing and Urban Development (HUD) for 2023. The City of Fernley is one of twenty-six eligible entities to apply for funds through the CDBG for the 2023-year program. These monies may be used for community revitalization, housing rehabilitation, or infrastructure improvement projects within the City or that benefit qualified Fernley residents. The award process is highly competitive among the 26 rural jurisdictions in Nevada.

Communities who receive CDBG funds may use the funds for many kinds of community development activities including, but not limited to:

- Placemaking and beautification
- Construction or reconstruction of streets, water, and sewer facilities, neighborhood centers, recreation facilities, and other public works
- Demolition
- Acquisition of property for public purposes
- Rehabilitation of public and private buildings
- Planning and capacity building activities
- Assistance to nonprofit entities for community and economic development activities
- Assistance to private, for-profit entities to carry out economic development activities, including assistance to micro-enterprises.

Applications received will be scored based on a rating system. The system includes the following elements that are taken into consideration:

- Project Needs Analysis
- Proposed Project Activity
- Scope of Work
- Planning & Project Context
- Long-term Planning & Asset Management
- Environmental Review
- Internal Funding
- Alternative/External Funding
- Economic Development Impact
- Project Budget & Budget Justification Narrative
- Maturity & Project Readiness

In addition, the Advisory Committee will consider the following factors: phasing of larger projects; past performance on CDBG projects; project readiness; and the community's demonstrated efforts to seek other sources of funding for the project.

Previous CDBG funded projects for the City include: Continued Main Street Beautification; Depot ADA Restroom Amenity Bldg; Main Street Beautification; Depot Community Center Phase 3 (Community Center Conceptual Design); Depot Community Center Phase 2 (construction of sewer hook up to Depot and design of separate amenity building); Depot Community Center Phase 1 (engineering/design of sewer hook up to Depot); Downtown Corridor Revitalization Phase II; Main Street Revitalization Plan; UNR Small Business Development Center Business Counseling; Access to Health Care Network; WNDD's Small Business Revolving Loan Program; Fernley Community Assessment; and NxLevel Business Classes. In total, the City of Fernley has received over \$2.2 million in grant funds from the Nevada CDBG program since 2002.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

- Section 105 of Title I of the Housing and Community Development Act of 1974 as amended.
- Title 1 of the Housing and Community Development Act of HCDA, Section 101(c), 570.1, 570.2.

FINANCIAL IMPLICATIONS:

There are no financial implications during the initial public meeting, staff will collect input and project ideas and return with cost estimates for the second and third public meetings.

ATTACHMENTS:

None



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO:	Mayor & City Council
REPORT THROUGH:	Patrick Marsh, Acting City Manager
REPORT BY:	Tim Thompson, Planning Director
REVIEWED BY:	Brandi Jensen, City Attorney
REVIEWED BY:	Denise Lewis, Finance Director

FINANCIAL IMPACT: ☐ YES ☒ NO	CURRENTLY BUDGETED: ☐ YES ☒ NO ☐ N/A	FUND/ACCOUNT: N/A
--	---	----------------------

ACTION REQUESTED:	☐ Consent	☒ Motion	☒ Ordinance
	☐ Presentation	☐ Receive/File	☐ Resolution

AGENDA ITEM: Reading and Public Hearing, Bill #309 – ZMA22004 & TSM22003, Continued from 06/01/2022

Consideration and possible action on a Zoning Map Amendment and a Tentative Subdivision Map request for a site consisting of one (1) parcel of land approximately 30.15 acres in size, located at 900 Vonnie Lane, Fernley, NV (021-471-05):

1. A Zoning Map Amendment request associated with ZMA22004, to change the zoning on a single parcel of land from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size).
2. A Tentative Subdivision Map request associated with TSM22003, to allow for the development of a 79-lot residential subdivision, located within the SF6 (Single Family, 6,000 sq. ft. minimum lot size zoning district).

AGENDA ITEM BRIEF:

The proposed project is located on a single parcel of vacant land, located at (APN: 021-471-05) 900 Vonnie Lane. The applicant has filed for a Zoning Map Amendment (**ZMA22004**) and a Tentative Subdivision Map (**TSM22003**) for the development of a 79-lot residential subdivision. The proposed subdivision requires a rezone of the parcel from the SF20 zoning (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size).

These items were considered by the City of Fernley Planning Commission at the April 13th Planning Commission Meeting. The Planning Commission, by a vote of 6 – 0, forwarded a recommendation of denial to the City Council for both applications.

RECOMMENDED MOTIONS ON FOLLOWING PAGE



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

RECOMMENDED MOTIONS:

1. Zoning Map Amendment

Motion to Approve:

"I move to adopt Bill# 309 a general Ordinance for a Zoning Map Amendment associated with ZMA22004, based on Findings Z1 through Z3 and the facts supporting those Findings as they are set forth in the Staff Report."

Motion to Deny:

"Based on information received in written materials and at the public hearings on this matter, I move to deny Bill #309 as an Ordinance for a Zoning Map Amendment request associated with ZMA 22004 because I have determined that the proposed changes are detrimental to the public's health, safety, and general welfare, and I am unable to make the following required Zoning Map Amendment Findings: I am unable to make Finding(s) _____ as it relates to _____. Therefore, I cannot approve the Zoning Map Amendment."

2. Tentative Subdivision Map

Motion to Approve:

"I move to approve the Tentative Subdivision Map, associated with TSM 22003, based on Findings TM1 through TM11 and the facts supporting those Findings as set forth in the staff report, and subject to the Conditions of Approval 1 through 37 as listed in the staff report".

Motion to Deny:

"Based on information received in written materials and at the public hearings on this matter, I move to deny the Tentative Subdivision Map associated with TSM22003 because I have determined that the proposed changes are detrimental to the Public's health, safety, and general welfare, and I am unable to make the following required Tentative Subdivision Map Findings: I am unable to make Finding(s) _____ as it relates to _____. Therefore, I cannot approve the Tentative Subdivision Map.

Business Impact (per NRS Chapter 237):

- ☐ A Business Impact Statement is Attached.
- ☒ A Business Impact Statement is Not Required because:
- ☒ this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B);

See Attached Report for Background/Analysis/Findings.

PROJECT SUMMARY

CASE NUMBER(S):	• ZMA22004 and TSM22003
REQUESTED ACTION(S):	• Zoning Map Amendment & Tentative Subdivision Map
PROJECT DESCRIPTION:	• The proposed project consists of a 79-lot residential subdivision, located within the SF6 (Single Family, 6,000 sq. ft. minimum lot size zoning district). This applicant intends to rezone the project area from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to the SF6 zoning to increase the overall site density, and potentially provide a greater variety of housing options to the Fernley area. Lot sizes within this development are expected to vary in size, from 6,000 square feet to 15,000 square feet in size.
PROPERTY OWNER:	• Eureka Land Development, LLC
APPLICANT:	• Phelps Engineering Services
LOCATION:	• 900 Vonnie Lane, Fernley, NV
SITE SIZE:	• ±30.15 acres
EXISTING ZONING:	• SF20 (Single Family, 20,000 sq. ft. minimum lot size)
PROPOSED ZONING	• SF6 (Single Family, 6,000 sq. ft. minimum lot size)
EXISTING LAND USE:	• SFR – Single Family Residential
WARD INFORMATION:	• Ward 5 – Councilmember Fran McKay

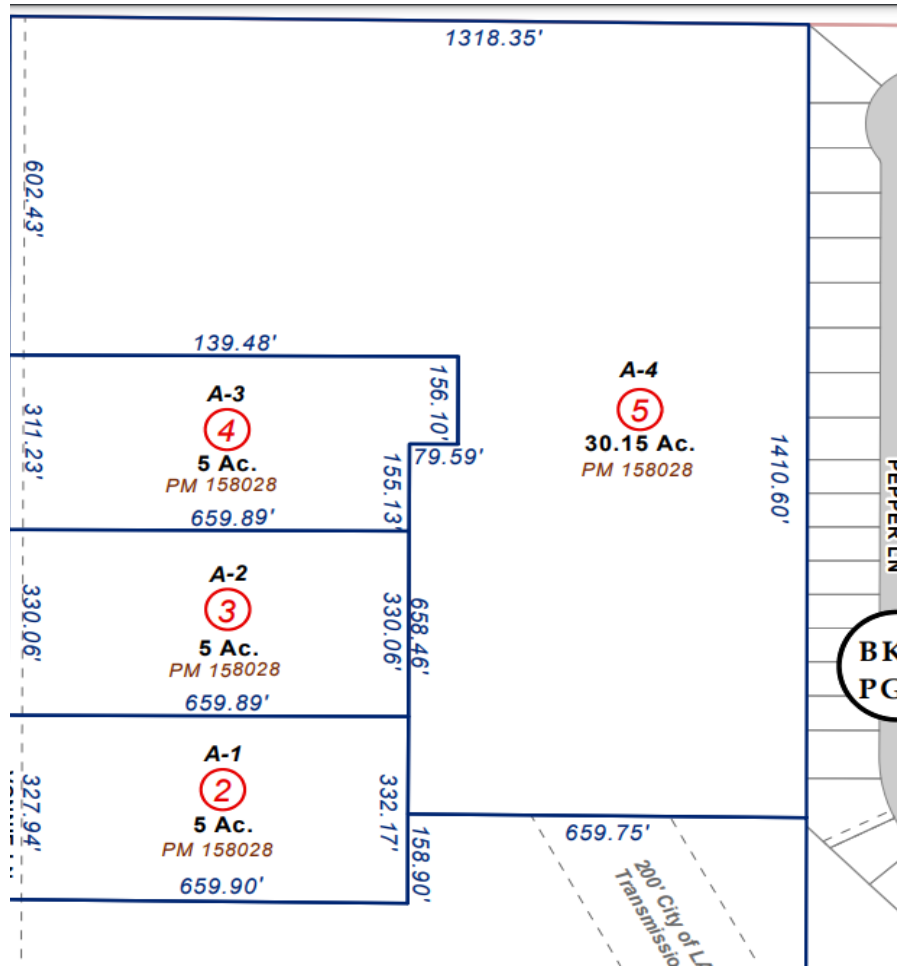
***A PUBLIC HEARING IS REQUIRED**

POLICY REFERENCE

<i>Nevada Statutes:</i>	<i>NRS 278</i>
<i>Fernley Municipal Code:</i>	<i>Title 32</i>
<i>Policies & Procedure Manual:</i>	<i>N/A</i>
<i>Community Assessment:</i>	<i>N/A</i>
<i>City of Fernley Development Code:</i>	<u>§32.03.040(e) (Zoning Map Amendments)</u>
	<u>§32.03.060(f) (Subdivision Maps)</u>
	<u>§32.06.070 (Residential – Single Family)</u>
	<u>§32.09.090 (Landscaping and Screening)</u>
	<u>§32.09.035 (Dedication of Water)</u>
	<u>§30.09.140 (Streets (roadways))</u>
	<u>§32.09.150 (Utilities)</u>
	<u>§32.09.030 (Adjacency Standards)</u>
	<u>§32.12.010 (Adequate Public Facilities)</u>

BACKGROUND

The project site has been under the ownership of Eureka Land Development LLC since February 2018 (Lyon County Records – Document #: 576146). Throughout this time, the property has remained vacant, with no fixed development or personal property being located on the parcel. A Greenbelt had been approved on the project site in March of 1985, with a primary agricultural use of Cultivation and Grazing. A parcel map from January of 1993 then split the parcel into its current configuration. No additional record of Land division or entitlement exists from that point onwards, according to the data present on the Lyon County Assessor's website. The following Plat Map highlights the project site (**A-4**), along with the surrounding parcels:

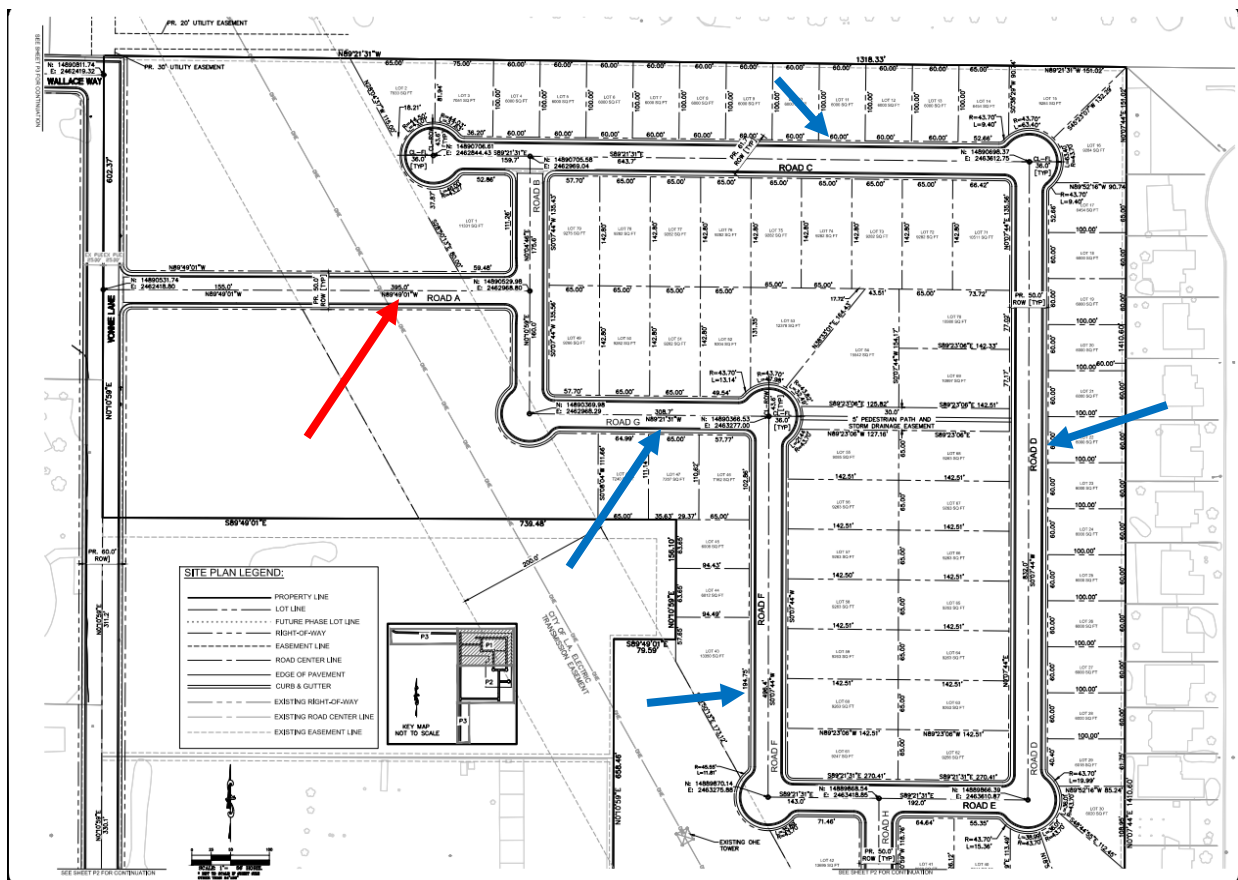


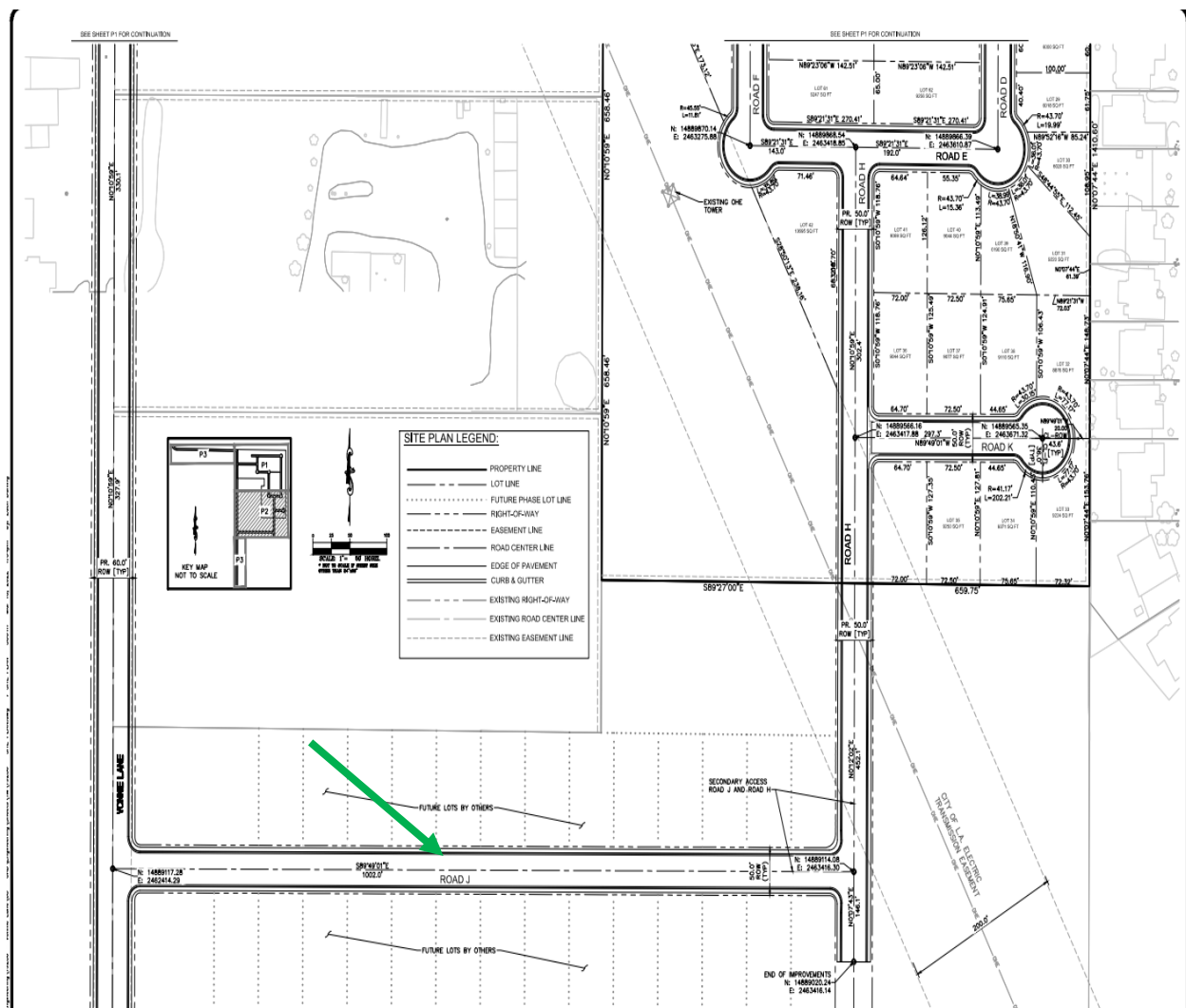
The project site itself consists of a single parcel of vacant land (APN: 021-471-05) and an approximate total area of 30.15 acres. The project site is generally surrounded by similar land uses, with the surrounding parcels to the north, south, east, and west, containing existing residential development of varying density. Furthermore, the parcels to the West, East, and South all share the same Master Plan Land Use Designation as the project site – Single Family Residential. The project area is located adjacent to an existing housing subdivision directly to the east – the Desert Lakes Golf Course, and the high-density Desert Rose RV Park is situated directly north of the project site.

ANALYSIS

The project site has a current land use designation of SFR (Single Family Residential) and is currently located within the SF20 (Single Family, 20,000 sq. ft. minimum lot size) zoning district. The project's current zoning is in conformance with the existing land use designation, but the applicant does believe that by rezoning the parcel to SF6 (Single Family, 6,000 sq. ft. minimum lot size), the goals and policies outlined within the 2018 Comprehensive Master Plan can be reached. The proposed SF6 zoning is an equivalent zoning district within the SFR (Single Family Residential) land use designation, and allows for appropriate low to medium density, single family detached homes with varied lot sizes. The parcels of land to the west and south of the project site are zoned RR5 (Residential Rural, 5-acre minimum lot size), and GR20 (General Rural, 20-acre minimum lot size), indicating a lower overall density than the parcels to the north and east of the project site.

The project site is generally located north of Farm District Road, east of Vonnie Lane, and south of Highway 50 Alternate. The majority of Vonnie Lane currently exists as a private easement, with a small section of the roadway adjacent to Farm District Road being dedicated right-of-way. The City of Fernley Development Code stipulates that both Vonnie Lane and Wallace Way will be required to be improved to City Standards, with the addition of curb and gutter sidewalks, and an increase of right-of-way width, to 50 or 60 feet. Primary access into the project site will be off Vonnie Lane via **Road A**, which then forms part of the project's **internal roadway network**, circulating throughout the project site providing access to each proposed lot. The project's secondary access will be provided via **Road J** (*Next Page*), which also provides access directly off Vonnie Lane. The secondary access will travel northeast through the project site, eventually connecting to the internal circulation roadway. The roadway network for the project is shown through the two diagrams attached below:





As mentioned previously, the individual residential lots within the project will vary in size from 6,000 square feet to approximately 15,000 square feet. The purpose of this variation in lot size is to provide more diverse housing types, and strategically position lots adjacent to the Transmission Line that bisects the project area. The presence of the Los Angeles Department of Water and Power Transmission Line Easement prevents uniform lot sizes along the south/southeastern project boundary, as the Department of Water and Power does not permit residential buildings or structures to be located directly underneath the Power Line. As such, the developer has proposed that the project areas' drainage facilities and roadway network will be located here instead. The strategic placement of the drainage facility additionally does provide buffering between the rural-residential lots west of the project site, while at the same time creating a natural space of walking trails, and the project's retention basin. Ultimately, some lots within the project are adjacent to the larger, more rural parcels, and as such they will be subject to the adjacency standards outlined within the City of Fernley's Development Code, prior to the approval of any Final Map. The image on the following page shows the proposed layout of drainage facilities adjacent to the transmission easement:



Sewer and Water discoveries were made by the applicant during the development process, and the development will connect to existing municipal sewer and water utilities as is required by the City's Development Code. The Water Study provided by the applicant identified that the City's existing municipal services can be extended to serve the project site, and the City's water treatment plant does have sufficient capacity to satisfy the expected water demand of the new development. The proposed development is expected to connect to the 18-inch water main within Farm District Road and be routed north through Vonnie Lane as well as the project site, before connecting to the 8-inch main located within the Desert Rose RV Park. The diameter of the water line running through Vonnie Lane is expected to be 8-inches and will serve the project area by running underneath the project roadways and providing water service to each individual residential lot. The provided Sewer Discovery Report additionally indicated that sufficient capacity does exist within the City's existing infrastructure to serve the Vonnie Lane project. A 680 Linear Foot gravity main will be extended to serve the project site, and this is expected to connect to the existing 12-inch sewer main located along the northern property line of the Desert Rose RV Park. The project is expected to utilize an 8-inch sewer main, which will likely be routed underneath the project's

interior roadway and serve each individual residential lot. Sewage generated by the development will flow north to the Highway 50 Lift Station, and from there it will go on to the City's Wastewater Treatment plant further north of the city. As mentioned earlier, there is existing capacity to serve the Vonnie Lane project, and any offsite improvements will require utility easements as well as approval by the City Engineer and Public Works Director.

The applicant also provided a preliminary drainage report to ensure that excess runoff could be maintained by the proposed development. The study identified that the project site slopes gently to the north, with an approximate 3-5% gradient. The project site also has two existing drainageways that carry runoff through the site, north towards Highway 50 Alternate. As the project site is developed, storm drainage piping is expected to be constructed underneath the project's internal roadway and collect runoff and drainage. This storm drain system, in conjunction with a gutter system will then redirect drainage and collected runoff into one of seven proposed retention basins, scattered throughout the project area. The seven retention ponds have been developed and sized to accommodate the 100-year storm/flood event. Furthermore, the retention basins will be developed and constructed in compliance with any standards or conditions outlined by the City of Fernley Engineering and Public Works Departments. The associated FEMA Flood Insurance Rate Map for the project site indicates that the proposed development is within Flood Zone X. This indicates that the proposed development is located within an area of minimal flood hazard, and as such, no significant floodplain impacts are expected.

A Traffic Study was also provided with the application, as it was expected that the proposed development would generate in excess of 100 peak hour trips. The Traffic Study determined that the development would generate an additional 802 daily trips per weekday, with an estimated 60 additional AM peak hour trips, and an additional 80 PM peak hour trips. The City of Fernley Engineering Department and the Nevada Department of Transportation (NDOT) identify Level of Service (LOS) D as the minimum service threshold for which traffic and roadway improvements will need to be made. Level of Service D is generally defined as:

"Approaching unstable flow. Speeds slightly decrease as traffic volume slightly increase. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease. Vehicles are spaced about 160 ft(50m) or 8 car lengths. Minor incidents are expected to create delays. Examples are a busy shopping corridor in the middle of a weekday, or a functional urban highway during commuting hours. It is a common goal for urban streets during peak hours, as attaining LOS C would require prohibitive cost and societal impact in bypass roads and lane additions."

This means that any roadway intersection equal to or higher than LOS D (D, C, B, A) will not require any significant infrastructure improvements, while those below LOS D (E, F) will require improvements. The Traffic Study found that the project would not have a significant impact on major roadway intersections around the project site and therefore would not lead to a long-term reduction in Level of Service below level D. Existing traffic conditions plus project conditions are expected to reduce the overall Level of Service in the long run, but not significantly. This can be seen in the long-term project impact table as shown below.

Table 8: Long-Term Project Impact on Intersection Operations

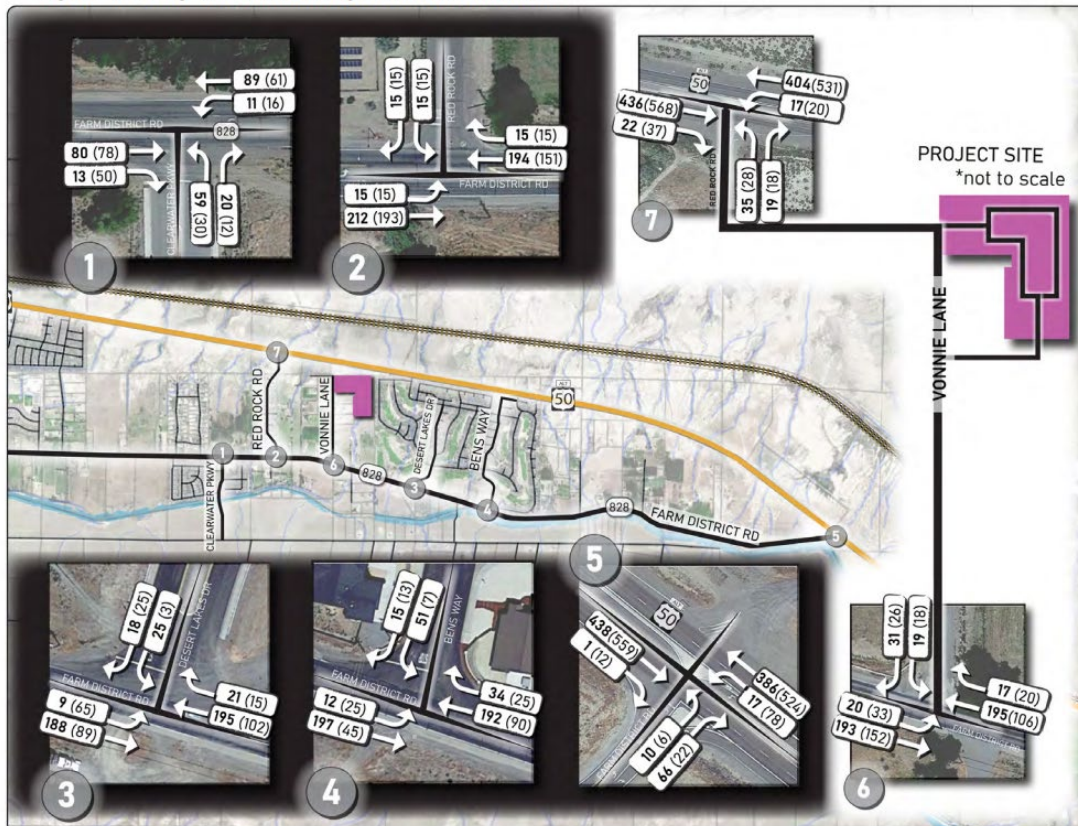
	Without Project		With Project	
	AM	PM	AM	PM
1: Clearwater Parkway at SR 828	A 9.6 (NB)	A 9.5 (NB)	B 10.0 (NB)	A 9.6 (NB)
2: Red Rock Road at SR 828	A 7.7 (SB)	B 10.2 (SB)	B 10.8 (SB)	B 10.4 (SB)
3: Desert Lakes Drive at SR 828	B 11.0 (SB)	A 9.2 (SB)	B 11.0 (SB)	A 9.2 (SB)
4: Bens Way at SR 828	B 11.9 (SB)	A 9.2 (SB)	B 11.9 (SB)	A 9.3 (SB)
5: US-50A at SR 828	B 12.9 (EB)	C 15.9 (EB)	B 13.0 (EB)	C 16.1 (EB)
6: Vonnie Lane at SR 828	B 10.8 (SB)	A 9.9 (SB)	B 10.8 (SB)	B 10.1 (SB)
7: Red Rock Road at US-50A	B 11.5 (NB)	B 12.7 (NB)	B 12.3 (NB)	B 13.5 (NB)

Source: Trafficware, Synchro 11

Source: Transportation Research Board, *Highway Capacity Manual*, 6th Edition

According to the above table, all intersections would continue to operate acceptably, even while accounting for the long-term project conditions. As such, the project will not be expected to have any significant or adverse impacts to the surrounding area, from a traffic standpoint. The Traffic Study did provide some general recommendations however, which includes the improvement of the Vonnie Lane & S.R. 828 (Farm District Road) intersection to NDOT Standards, with dedicated left & right turn lanes. Further recommendations include frontage and site improvements along Vonnie Lane, which will be developed in compliance with the City of Fernley Engineering & Public Works Design Standards. The following image shows seven general intersections that this project is expected to have an impact on.

Figure 11: Long-Term Plus Project Traffic Volumes



The proposed development will utilize the Lyon County School District facilities, and the School District generally calculates roughly 0.5 children per new residential household. Using this figure, it is expected that the project will contribute approximately forty new students to the area. The schools expected to serve the Vonnie Lane project are East Valley Elementary, Fernley Intermediate School, Silverland Middle School, and Fernley High School. According to data and comments from the Lyon County School District, both East Valley Elementary School and Fernley High School are expected to exceed their capacity within the coming years and will require sufficient funding from housing developments to allow for expansion and accommodate families moving into the Fernley area. The School District data indicates that approximately \$1.37 million in capital construction costs would be required to accommodate the expected influx of students from the Vonnie Lane project. This is due to a combination of factors: The lack of funding from district bonding capabilities, increased construction costs, and the rapid growth within the Fernley area.

Should the City Council determine the project, as submitted and conditioned, is consistent with the development code, will not have a significant adverse impact on the existing surrounding uses, promotes the public health, safety, and general welfare, and can make the applicable Findings, the City Council can approval the application.

If the City Council cannot make some or all the applicable Findings and determines the project, as submitted and conditioned, is not consistent with the development, will have a significant adverse impact on the existing uses, and/or does not promote the public health, safety and general welfare, the City Council can deny the application. The motion to deny should be based on information received in written materials and at the public hearings on this matter and the City Council's inability to make any Finding(s) should be explicitly described.

FINDINGS

Zoning Map Amendment

Z1: Consistency with the City's Master Plan and otherwise consistent with State & Federal Law.

Relationship to Master Plan

1. SF6 (Single Family, 6,000 sq. ft. minimum lot size)

The proposed development is located within an area designated as SFR (Single Family Residential) within the City of Fernley's Comprehensive Master Plan. The description of the Single-Family Residential land use states that the equivalent zoning districts are SF20 (Single Family, 20,000 sq. ft. minimum lot size), SF12 (Single Family, 12,000 sq. ft. minimum lot size), SF9 (Single Family, 9,000 sq. ft. minimum lot size), and SF6 (Single Family, 6,000 sq. ft. minimum lot size). Per the Comprehensive Master Plan document, the Single-Family Residential land use generally consists of detached, single family residential lots, with additional uses such as parks, open space, and occasional religious institutions. Residential lots may often contain accessory uses such as Urban Agriculture facilities or Home Occupations.

The Comprehensive Master Plan additionally states that municipal services such as sewer and water connections are required in Single Family Residential designated areas and that they be located on smaller, local streets, appropriately sited and distanced from more major arterial roadways. This provides privacy from nearby uses to property owners, while at the same time ensuring that adjacent uses are relatively easily accessible via the roadway network. The Single-Family Residential designation additionally offers more flexibility in terms of housing type and design, in that there are no specific architectural requirements for Single Family Residential subdivisions. However, the general design of houses within an individual development are required to complement one another. The general density range for the Single-Family Land use is 2-7 dwelling units per acre, and the proposed project has an overall density of 2.63 dwelling units per acre. For this reason and through the analysis of the project materials, the Zoning Map Amendment is consistent with the City's Comprehensive Master Plan.

2. The Land Use Plan Goals and Action Strategies in the 2018 Comprehensive Master Plan that are relevant to this proposal include:

Population, Housing & Employment

HP.1.1 Enhance Fernley's vitality as a community by providing a variety of housing types, density and costs that accommodate the needs, desires and financial abilities of the current and future households.

HP.1.1.4 Encourage the efficient use of land and existing infrastructure by focusing on achieving good design in new housing or redeveloped housing on either vacant land, infill parcels and/or under-developed parcels.

HP.1.2 Encourage housing that supports sustainable development patterns by promoting the efficient use of land, conservation of natural resources, easy access to services and public facilities such as parks, and resource efficient design and construction.

HP.1.2.1 Foster flexibility in the division of land and the siting of buildings and other improvements to reduce new development's impact on environmentally sensitive areas.

HP.1.8 Coordinate population growth with the availability of water, sanitary sewer, streets and highways and other public facilities and services.

HP.1.8.1 The City of Fernley Department of Community Development staff will document the demands for public services and facilities relative to existing and planned population in staff reports prepared in conjunction with applications to amend the Comprehensive Master Plan.

Land Use

LU.1.1 Encourage and plan for new development in areas where adequate public services and facilities can be provided efficiently.

LU.1.1.1 Require new development to provide its proportionate share of improvements to avoid a degradation of services for existing residents. This requirement will be applied regardless of project size in order to avoid incremental erosion of services and facilities.

- LU.1.1.2 Encourage development of vacant or underutilized lands within the community core where adequate infrastructure and facilities currently exists.
- LU.1.1.3 Require new development to provide certified, stamped studies demonstrating the impact proposed development will have on existing infrastructure and to provide improvements and/or funding in lieu of improvements in proportion to the impacts of the proposed projects on the city's roadway, sewer and water systems.
- LU.1.2 Encourage new development to be in accordance with the Comprehensive Master Plan land use category, and other land use controls to accomplish community principles.**
 - LU.1.2.1 Consistently monitor development applications that intend to utilize the underlying zoning. Modify the Fernley Development Code as necessary to ensure compatible development that reflects the community goals envisioned in the Comprehensive Master Plan.
- LU.1.3 Provide a balanced distribution of employment and population.**
 - LU.1.3.1 Encourage land uses and development, which maintain a balance of population, housing, and employment.
 - LU.1.3.2 Maintain adequate supplies of developable land for both residential and commercial land use.
- LU.1.4 Ensure existing and future land uses are compatible.**
 - LU.1.4.2 Projects shall be evaluated with intent to promote land use compatibility; community design measures can increase compatibility among adjoining land uses.
 - LU.1.4.3 Prevent future suburban or urban subdivisions from locating residences next to principal arterials, freeways, or 300 feet from railroads. Effective shielding and buffering will be required to provide noise abatement with health and safety precautions.
 - LU.1.4.5 Require development plans to address conditions unique to the developing area and minimize impacts to adjacent properties.
 - LU.1.4.6 Review all projects in relation to their geographic location, impacts to adjacent communities, fiscal impact and mitigation measures to protect natural and cultural resources. Apply specific conditions of approval tailored for each development proposal.
- LU.1.5 Promote infill development.**
 - LU.1.5.3 Development on the perimeter of Fernley is appropriate only where orderly extension of existing public services and facilities can occur.
 - LU.1.5.4 Adopt development regulations that recognize the relationship between land use timing and the provision of services and facilities.
- LU.1.6 Create a growth pattern that assures flexible, feasible, and efficient projects.**
 - LU.1.6.1 Support for developmental approval of projects that provide an appropriate balance of population.

- LU.1.6.2 The land use designations include minimum service standards that shall apply to proposed developments and land use changes.
- LU.1.8 Ensure that future growth is sensitive to the existing agricultural/farming uses.**
 - LU.1.8.1 Encourage flexibility in development proposals in the Farm District Road to vary lot sizes, cluster dwelling units and use innovative approaches to site planning.
- LU.1.12 It is the intent of the City of Fernley to provide timely, orderly, and efficient arrangement of adequate public facilities and infrastructure that support existing and planned land use patterns and densities.**
 - LU.1.12.1 Subdivision or intensification of land without adequate public facilities available to serve the new development as it occurs shall not be allowed.
 - LU.1.12.2 Any land use entitlement applications for subdivision or intensification of land shall also be required to submit a fiscal impact analysis to the approval of the city manager or their designee.
 - LU.1.12.3 the City of Fernley should explore the implementation of impact fees associated with the subdivision or intensification of land.

Transportation

- T.1.1 Require that roadway facilities be maintained and constructed as needed to ensure high quality and safe travel on major streets and at major intersections.**
 - T.1.1.1 The minimum Level of Service on all city maintained roadways shall be LOS D. The City will work with representatives from NDOT to ensure timely improvements are planned when NDOT roadways are forecast fall below LOS D.
 - T.1.1.6 Require all new development to be consistent with the access right-of-way dedication and improvement standards as specified in the Public Works Design Manual and pursuant to the functional classification as defined in this chapter.
- T.1.3 Implement street design and access standards to provide safe and efficient movement of goods and people.**
 - T.1.3.1 Assure that access to all new individual residential lots and/or units is provided only from collectors or local streets.
 - T.1.3.4 Require proposed new development that intends to connect with an NDOT roadway to incorporate the NDOT Access Management System and Standards into the project design. These standards regulate access onto the roadway network in order to protect health, safety and welfare of the public, maintain the rights-of-way, and to preserve the functional classification level of the roadway network while meeting the needs of the motoring public.

Public Services & Facilities

- PSF.1.1 To provide and maintain a reliable and adequate water supply and delivery system.**
 - PSF.1.1.4 Areas planned for urban or suburban development (residential densities of one or more dwelling units per acre or comparable non-residential development will

be served by a community water supply system consistent with adopted policies in the Land Use Chapter of the Fernley Comprehensive Master Plan.

PSF.2.1 Insure an efficient, adequate, and self-supporting wastewater collection treatment and disposal system that will meet the needs of the public and comply with federal, state, and local clean water requirements.

PSF.2.1.1 All new development within the City limits with lot sizes equal to or smaller than 1.0 acre shall be required to connect to the municipal sewer system. New development with residential densities lower than one dwelling unit per acre shall be allowed to utilize individual septic systems with acceptable sub-surface disposal if sewer is not available.

PSF.2.1.2 Final maps and building permits will be approved only when adequate sewer capacity is secured and applicable service and connections fees have been paid.

PSF.2.1.3 Sewer costs directly attributable to the new development shall be paid for by the new development. The cost of providing service shall include the cost of extending service lines or other necessary facilities to the individual project site.

Z2. Consistency with the surrounding land uses.

The Zoning Map Amendment request conforms with the underlying Master Plan designation and is compatible with the character of the adjacent area. The project site is located directly east of the Desert Lakes subdivision, and just south of the Desert Rose R.V. park. Much of the property north of Farm District Road is also designated for Single Family Development, with the parcels directly south, west, and east of the project site sharing the Single-Family land use designation. The proposed zoning does differ from the two parcels directly south of the project site, but it is understood that significant buffering between the two parcels will occur prior to the recordation of any Final Map. Given that adequate buffering and adjacency standards allow for the single-family development to be located adjacent to residential rural lots, the proposed zone change to SF6 (Single Family, 6,000 sq. ft. minimum lot size) would be consistent with the surrounding land uses.

Z3. Public Notice was given, and a public hearing has been scheduled per the requirements of the Development Code and Nevada Revised Statutes.

Public notice was given, and a public hearing was scheduled per the provisions outlined in the City's Municipal Code and Nevada Revised Statutes.

Tentative Subdivision Map

TM1: Compliance with environmental and health laws and regulations concerning water and air pollution, solid waste disposal, water supply facilities, community or public sewage disposal, and where applicable, individual systems for sewer disposal.

The developer shall comply with all standards, codes, and requirements regarding connection to the City's sanitary sewer and potable water systems, including but not limited to, associated fees, easements, design

standards, system looping, development code requirements, and state requirements. Prior to the recordation of a final map for the project, the developer shall provide the City with a utility plan for water and sanitary sewer that is in conformance with the City of Fernley's Municipal Code and Public Works Design Manual to the approval of the City Engineer, Public Works Director, and Administrator. The Map must be reviewed and approved by the Nevada Department of Environmental Protection prior to construction.

TM2: Availability of water that meets the applicable health standards and is sufficient for the reasonably foreseeable needs of the subdivision.

The developer shall comply with all City of Fernley municipal codes regarding the dedication of water rights, including associated fees, for the connection to the city's municipal water system in the amount that is required prior to the issuance of a building permit for the project. The developer shall pay all fees and provide all the information necessary to complete water and sewer modeling of the project. Modeling will be performed by the City of Fernley's consultant and any additional infrastructure or capacity identified by the modeling shall be included in the improvement plans and constructed by the developer.

TM3: Availability and accessibility of utilities

The applicant proposes to utilize City Water and sewer infrastructure located within the immediate surrounding area. Through the Water Discovery Report provided by the applicant, it has been determined that sufficient water capacity exists to allow for connection to the City's Municipal Water system. The project will utilize an 8-inch water main that is expected to be connected to the 18-inch water main on Farm District Road from one side and connected to an 8-inch main that serves the Desert Rose RV Park from the other side. The project's 8-inch main will be routed underneath Vonnie Lane between the Farm District & Desert Rose water lines, and will travel underneath the project's internal roadway, to serve each individual residential lot within the project. The project is expected to utilize an 8-inch sewer main that will connect to the 12-inch main located north of the project site, adjacent to the Desert Rose RV Park. Each of the 79 lots will be served by the City Sewer system, and there is sufficient capacity within the City's infrastructure network to serve this proposed project. The developer will be required to dedicate a sufficient amount of water rights to serve the project prior to the approval and recordation of a Final Map. A series of retention basins and storm drainage piping system have been proposed as a part of this development, both of which will address storm water and drainage concerns. Southwest Gas and NV Energy will provide gas and power, respectively.

TM4: Availability and accessibility of public services such as schools, police, and fire protection, transportation, recreation facilities, and parks

Schools:

The proposed Single-Family project will contain 79 residential lots. As a result, it is expected that the project will contribute roughly forty additional students to the surrounding area. East Valley Elementary School, Fernley Intermediate School, Silverland Middle School, and Fernley High School will serve this development. According to data provided by the Lyon County School District, many of Fernley's Schools are expected to exceed 100% capacity by 2025 or sooner. For this proposed development, it is expected that East Valley Elementary School will substantially exceed it is 100% capacity and will require significant funding to accommodate students residing within the Vonnie Lane subdivision. The Lyon County School District believes that an additional \$1.37 million in Capital Construction costs will be required to build

additional classrooms for the students that the Vonnie Lane project will bring to the area (approximately 1.5 additional classrooms). This information will also be provided as an attachment to this Staff Report.

Parks

The project site is located approximately 0.75 miles from The Golf Club at Fernley, which falls within the nearby Desert Lakes residential subdivision. Furthermore, Autumn Winds Park is located southwest of the project site alongside Farm District Road, approximately 1.17 miles away. Ponderosa Park also serves the project area, being located southwest of the project site, approximately 2.95 miles away.

Police & Fire

The Lyon County Sherriff's office provides police protection, and the North Lyon County Fire Protection District provides fire protection. The proposed development is located approximately 5.7 miles from the Lyon County Sherriff's office, and roughly 0.79 miles from the North Lyon County Fire Protection Station 62 on Red Rock Road.

Transportation:

The project is expected to have two points of access off Vonnie Lane, one of which will serve as the Main Access and another which will serve as the project's Secondary Access. Both accessways as well as Vonnie Lane will be required to be developed and improved to the City of Fernley's Public Works and Engineering design standards. Furthermore, Wallace way will also be improved to City of Fernley Standards and is tentatively expected to connect to the existing Red Rock Road, further west.

TM5: Consistency with the zoning district regulations

The proposed zoning for this development is SF6 (Single Family, 6,000 sq. ft. minimum lot size). The SF6 zoning allows for a maximum density of 7.26 dwelling units per acre. The proposed development will generally consist of 79 single family lots on a ±30.15-acre parcel of vacant land. Furthermore, the development will utilize varying lot sizes, ranging from 6,000 square feet to roughly 15,000 square feet, and sections of the project area are set aside for drainage areas and walking trails. This provides an overall project density of 2.62 dwelling units per acre, which is significantly within the density limit for the SF6 zoning. The proposed development is also required to comply with all City of Fernley Development Code requirements, including but not limited to dimensional standards, ([§32.06.070](#)), design standards, ([§32.06.070](#)) and development standards ([§32.09](#)).

TM6: Conformity with the Master Streets & Highways Plan

Any roadway construction additions or improvements required to serve the project will conform to the Master Streets & Highways Plan, and be approved by the City Engineer, Administrator, and Public Works Director. The Main Arterial Road that will serve this development is State Route 828 (Farm District Road). Farm District Road currently operates at LOS (Level of Service) A, but it is expected that by 2040, the Level of Service will drop down to LOS C. Given that Farm District Road will be an important residential corridor as Fernley grows over the next 20 years, the Master Plan highlights the importance of maintaining the roadway width and adding improvements to cross streets such as turn lanes and stops signs as development occurs. For the Vonnie Lane project, some of these policies will be implemented as improvements to Vonnie Lane are expected to occur, with the addition of dedicated left and right turn lanes to help accommodate safe access onto Farm District Road.

TM7: Effect of the proposed subdivision on existing public streets, and the need for new streets or

highways to serve the subdivision.

Any roadway construction additions or improvements required to serve the project will conform to the Master Streets & Highways Plan, and be approved by the City Engineer, Administrator, and Public Works Director. Based on the Traffic Study provided by the applicant, the proposed development is expected to generate an additional 802 average weekday trips – 60 during AM Peak Hours, and 80 during PM Peak Hours. The project is not expected to have a major traffic impact on the surrounding area, and as a result, the recommended improvements are relatively straightforward. Vonnie Lane and Wallace Way will both be improved to City of Fernley standards, along with the interior roadway that is expected to serve the project subdivision. Furthermore, Wallace Way is expected to connect to the existing Red Rock Road further east. Lastly, it is also expected that the Vonnie Lane/Farm District Road intersection will utilize dedicated turn lanes and appropriate signage/stripping as may be necessary to improve access to and from each roadway.

TM8: Physical land characteristics, such as floodplain, slope, soil, and elevation differentials with abutting properties.

The project site has a relatively gentle slope of around 3 – 5 % towards the north and falls within Flood Zone area X as depicted in the Flood Insurance Rate Map (FIRM) number 32019C0110E. This essentially means that there is less than 0.2% that the project area will flood each year, and as a result is an area of minimal flood hazard. The current vacant project site does contain two existing drainageways that carry runoff north towards Highway 50. These will be replaced by a series of storm drains, culverts, and gutters that will help carry runoff to one of seven proposed retention basins located throughout the site. These plans are generally in compliance with City of Fernley standards and will be finalized to comply with all Engineering & Public Works Design Standards prior to the approval and recordation of a Final Map.

TM9: Recommendations and Comments of review bodies

The application was distributed to the City's Public Works Department, City Engineer, and several outside agencies for comment. Comments were received and provided to the applicant, and any final approval will be conditioned such that all comments and recommendations of reviewing bodies will be addressed prior to any Final Map approval or recordation. One of the major comments regarding this project was from the Lyon County School District and concerns they might have for accommodating the influx of students this project would potentially bring.

TM10: Conformity to the Master Sewer and Water Utility Plan

The Developer shall comply with all standards, codes, and requirements regarding connection to the City's sanitary sewer and potable water systems, including but not limited to associated fees, easements, design standards, system looping, development code requirements, and state requirements. Prior to the recordation of a Final Map, for the project, the developer shall provide the City with a utility plan for water and sanitary sewer that is in conformance with the City of Fernley's Municipal Code and Public Works Design Manual to the approval of the City Engineer, Public Works Director, and Zoning Administrator. The project must also be reviewed and approved by the Nevada Department of Environmental Protection prior to construction.

TM11: Compliance with this code and all other applicable regulations

The developer shall comply with the design standards and regulations as set forth in the City of Fernley's Development Code and Public Works Design Manual unless in conflict with the local, state, or federal regulations, in which case the more stringent regulation will take precedence. The developer shall comply with all Engineering requirements within the City's Municipal Code Title 32, including but not limited to: Compliance with site development standards, Floodplain Management, Undergrounding of Utilities, and Water/Wastewater facilities to the approval of the Zoning Administrator, City Engineer, and Public Works Director, prior to the recordation of a Final Map for the project.

ATTACHMENTS

1. 2022.04.13 FPC Minutes
2. Vicinity Map
3. Existing & Proposed Zoning Exhibit
4. Bill #309 – Ordinance for Zoning Map Amendment
5. Tentative Map Plan Set
6. Preliminary Landscaping Plan
7. Lyon County School District Comment Letter
8. Traffic Study
9. Conditions of Approval – TSM22003

**MINUTES OF THE
FERNLEY PLANNING COMMISSION MEETING
APRIL 13, 2022**

1. INTRODUCTORY ITEMS

1.1. Roll Call

Present: Planning Commission Chairman Williams, Commissioner Lodhi, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Hodges Planning Director Tim Thompson, Assistant Planner Nikil Manayathara, Assistant Planner Shay League, Deputy City Attorney Aaron Mouritsen, Deputy City Clerk Brenda Gosser, Administrative Assistant Bailie Scott.
Absent: Commissioner Lewis, Commissioner Severa.

1.2. Public Forum

Planning Commission Chair Barry Williams opened up a public forum. No public comment was given at that time.

1.3. (For Possible Action) Approval of Agenda

Motion: MOVE TO APPROVE THE APRIL 13, 2022 PLANNING COMMISSION AGENDA.

Action: Approve, **Moved by** Commissioner McCullar, **Seconded by** Planning Commission Vice-Chair Wagner. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

1.4. (For Possible Action) Approval of Minutes from March 9th and March 23rd.

Motion: MOVE TO APPROVE MARCH 9, 2022 AND MARCH 23, 2022 PLANNING COMMISSION MINUTES.

Action: Approve, **Moved by** Planning Commission Vice-Chair Wagner, **Seconded by** Commissioner Lodhi. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

2. GENERAL BUSINESS

Nothing was presented for General Business.

3. PUBLIC HEARINGS

3.1. (For possible action) Public Hearing - ZMA22004 & TSM22003

Consideration and possible action on a Zoning Map Amendment and Tentative Subdivision Map request on a site consisting of one (1) parcel of land approximately 30.15 acres in size, located at 900 Vonnie Lane, Fernley, NV (021-471-05):

- 1. A Zoning Map Amendment request associated with ZMA22004, to change the zoning on a single parcel of land from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size).**
- 2. A Tentative Subdivision Map request associated with TSM22003, to allow for the**

development of a 79-lot residential subdivision, located within the SF6 (Single Family, 6,000 sq. ft. minimum lot size zoning district).

Assistant Planner Nikil Manayathara presented ZMA22004 & TSM22003 to the Planning Commission.

Lydia Altech, Phelps Engineering, presented an overview of the project.

David Schwegel and Matt Dickson, Phelps Engineering, addressed the commission's questions regarding the applicants' traffic study. He stated that Vonnie Lane is a public road according to document 144905

Public Comment

Tom Howell has been a Fernley resident for 27 years and lives on Vonnie Lane. He stated that Vonnie Lane is a private road and he is opposed to the project.

Michael Lowry is a Fernley resident and lives on Vonnie Lane. He provided an overview of the history of Vonnie Lane and is opposed to the project.

Gregory McCaffrey is a Fernley resident and lives on Vonnie Lane. His family has property on both sides of Vonnie Lane. He stated that the applicant tried to purchase the access easement that runs through his family's property. He commented that as of a month ago the offer has gone away and it is no longer a possibility.

Thomas Ehrhart is a Fernley resident and lives on Vonnie Lane. He stated that he maintains the road and has never been compensated for it. He commented that Wallace Way is also private property.

Richard Hedinger is a Fernley resident and lives on Pepper Lane in the Desert Lakes subdivision. Due to his backyard being a portion of the border to the project, he is opposed to the project.

Bernadette Howell is a Fernley resident and lives on Vonnie Lane. She commented that the residents on Vonnie Lane are not against growth, but they would like reasonable growth. She stated that the residents would also like to be respected and for everyone to understand that Vonnie Lane is a privately owned road. She was opposed to the project.

Paul Persson is a Fernley resident and lives on Vonnie Lane. Paul stated that Vonnie Lane is a privately owned road and he also maintains it. He would not be open to signing an agreement to give up his zoned part of the road for his 5 acres. Therefore, he is opposed to the project.

John Reichlein is a Fernley citizen. He stated that he has a vested interest in this development and all of the developments that are happening here in Fernley. He stated that he would like to know if diversity in the master plan means quantity and believes that this project oversteps what was intended for the master plan. He commented that the houses would be close to the electromagnetic fields.

Debbie Skinner is a resident of Fernley. She asked what type of buffer is being proposed between this project and the RV Park. She also asked who will be maintaining the zero-scape that will be put in place with the project. She commented that the project is in its infancy and has not been

thought through enough to make a comparable decision.

Planning Director Tim Thompson provided an overview of the application and the process the applicant had to go through leading up to the proposal. Director Thompson also gave a summary of the conditions and standards that would need to be met by the applicant before the final subdivision map can be presented.

MOTION: BASED ON INFORMATION RECEIVED IN WRITTEN MATERIALS AND AT THE PUBLIC HEARINGS ON THIS MATTER, I MOVE TO FORWARD A RECOMMENDATION OF DENIAL TO THE CITY COUNCIL FOR ZONING MAP AMENDMENT ASSOCIATED WITH ZMA22004 BECAUSE I HAVE DETERMINED THE PROPOSED CHANGES ARE DETRIMENTAL TO THE PUBLIC'S HEALTH, SAFETY, AND GENERAL WELFARE AND AM UNABLE TO MAKE THE FOLLOWING REQUIRED ZONING MAP AMENDMENT FINDINGS: I AM UNABLE TO MAKE THE FINDING Z1 AS IT RELATES TO MULTIPLE ISSUES HERE, H.P.1.2 ENCOURAGING HOUSING THAT SUPPORTS SUSTAINABLE DEVELOPMENT PATTERNS BY PROMOTING THE EFFICIENT USE OF LAND, CONSERVATION OF NATURAL RESOURCES, EASY ACCESS TO SERVICES AND PUBLIC FACILITIES SUCH AS PARKS, AND RESOURCE EFFICIENT DESIGN AND CONSTRUCTION, I DON'T FEEL THAT THE DEVELOPMENT GOING IN AT THE END OF VONNIE LANE WHERE THERE ARE SO MANY QUESTIONS IS EFFICIENT WHATSOEVER, H.P.1.8 COORDINATE POPULATION GROWTH WITH THE AVAILABILITY OF WATER, SANITARY SEWER, STREETS AND HIGHWAYS AND OTHER PUBLIC FACILITIES AND SERVICES. WITHOUT A CONCRETE PLAN TO CONNECT TO HIGHWAY 50A, I DON'T FEEL LIKE THAT CONDITION IS MET, L.U.1.1 ENCOURAGE AND PLAN FOR NEW DEVELOPMENT IN AREAS WHERE ADEQUATE PUBLIC SERVICES AND FACILITIES CAN BE PROVIDED EFFICIENTLY. EFFICIENCY RELATING TO THE PROXIMITY OF THE HIGHWAY IS LACKING IN THIS PROJECT, L.U.1.5 PROMOTE INFILL DEVELOPMENT. ALTHOUGH IT IS WITHIN THE CITY'S BOUNDARIES, IT SOUNDS LIKE THERE ARE ISSUES WITH RUNNING UTILITIES ALL THE WAY TO THE PROJECT WHICH WOULD NOT MEET MY DEFINITION OF INFILL DEVELOPMENT, L.U.1.8 ENSURE THAT FUTURE GROWTH IS SENSITIVE TO THE EXISTING AGRICULTURAL/FARMING USES. VONNIE LANE SEEMS LIKE AN AREA WHERE AGRICULTURE AND FARMING IS PRESENT AND THIS DEVELOPMENT WOULD CERTAINLY IMPACT THAT, T.1.1 REQUIRE THAT ROADWAY FACILITIES BE MAINTAINED AND CONSTRUCTED AS NEEDED TO ENSURE HIGH QUALITY AND SAFE TRAVEL ON MAJOR STREETS AND AT MAJOR INTERSECTIONS. SENDING ALL OF THESE CARS ONTO FARM DISTRICT THAT ALREADY HAS SOME SAFETY CONCERNS, EVEN IF IT MEETS THE LEVEL OF SERVICE, I THINK FARM DISTRICT NEEDS SOME MAJOR IMPROVEMENTS TO CONTINUE TO PUT CARS ON THAT ROAD, T.1.3 IMPLEMENT STREET DESIGN AND ACCESS STANDARDS TO PROVIDE SAFE AND EFFICIENT MOVEMENT OF GOODS AND PEOPLE. I BELIEVE EFFICIENCY IS LACKING IN THIS PROJECT, Z2 CONSISTENCY WITH THE SURROUNDING LAND USES. IT DOES NOT MEET CONSISTENCY WITH THE SURROUNDING LAND USES WELL AT ALL. THEREFORE, I CANNOT APPROVE THE ZONING MAP AMENDMENT.

Action: Deny, **Moved** By Planning Commission Vice-Chair Wagner, **Seconded** By Commissioner McCullar. **Vote:** Passed, **Summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

Motion: BASED ON INFORMATION RECEIVED IN WRITTEN MATERIALS AND AT THE PUBLIC HEARINGS ON THIS MATTER, I MOVE TO FORWARD A RECOMMENDATION OF DENIAL TO THE CITY COUNCIL FOR THE TENTATIVE SUBDIVISION MAP ASSOCIATED WITH TSM22003 BECAUSE I HAVE DETERMINED THE PROPOSED CHANGES ARE DETRIMENTAL TO THE PUBLIC'S HEALTH, SAFETY, AND GENERAL WELFARE AND AM UNABLE TO MAKE THE FOLLOWING REQUIRED TENTATIVE SUBDIVISION MAP FINDINGS: I AM UNABLE TO MAKE THE FINDINGS TM3 AVAILABILITY AND ACCESSIBILITY OF UTILITIES, TM4 AVAILABILITY AND ACCESSIBILITY OF PUBLIC SERVICES SUCH AS SCHOOLS, POLICE, AND FIRE PROTECTION, TRANSPORTATION, RECREATION FACILITIES, AND PARKS, TM5 CONSISTENCY WITH THE ZONING DISTRICT REGULATIONS, TM6 CONFORMITY WITH THE MASTER STREETS & HIGHWAY PLAN, TM7 EFFECT OF THE PROPOSED SUBDIVISION ON EXISTING PUBLIC STREETS, AND THE NEED FOR NEW STREETS OR HIGHWAYS TO SERVE THE SUBDIVISION. THEREFORE, I CANNOT APPROVE THE TENTATIVE SUBDIVISION MAP.

Action: Deny, **Moved by** Planning Commission Vice-Chair Wagner, **Seconded by** Commissioner Lodhi. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

Planning Director Tim Thompson informed the Planning Commission that this item will be presented to City Council during the May 18th meeting.

4. CHAIR AND COMMISSION ITEMS

There were none.

5. PLANNING DIRECTOR ITEMS

Tim Thompson notified the commission that on April 20th at 4:00 PM a training will be held on open meeting law and land use.

6. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

There were none.

7. PUBLIC FORUM

Planning Commission Chair Barry Williams opened up a public forum.

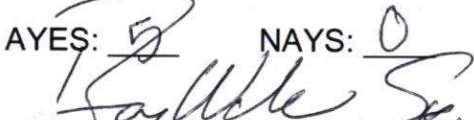
8. ADJOURNMENT

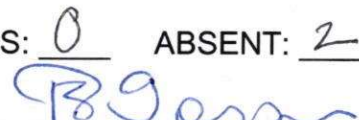
There being no further business to come before it, the Fernley Planning Commission meeting adjourned at 6:30 PM.

The next Planning Commission meeting will be on May 11, 2022, at 5:00 PM.

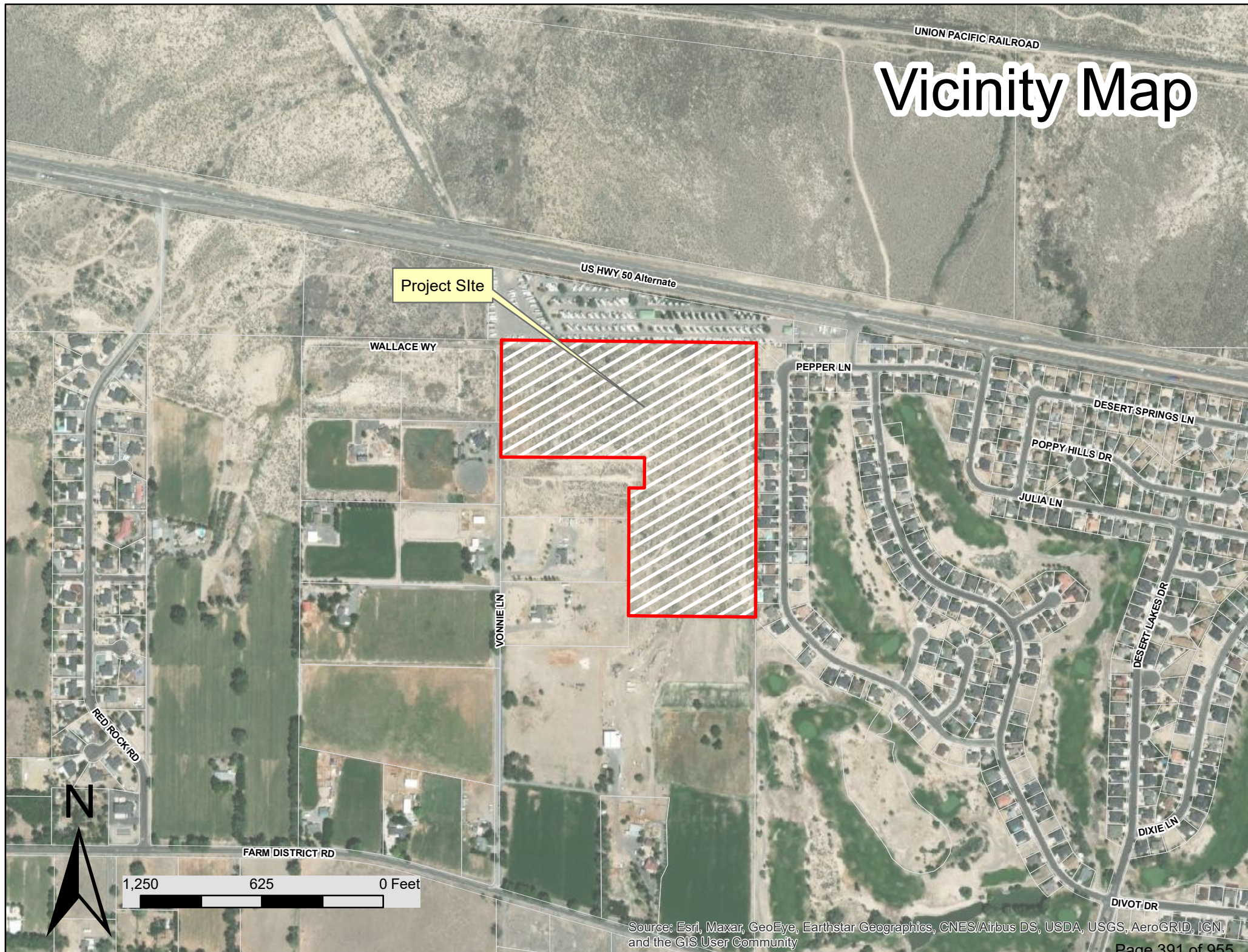
Approved by the Fernley Planning Commission on May 11th, 2022, by a vote of:

AYES: 5 NAYS: 0 ABSTENTIONS: 0 ABSENT: 2

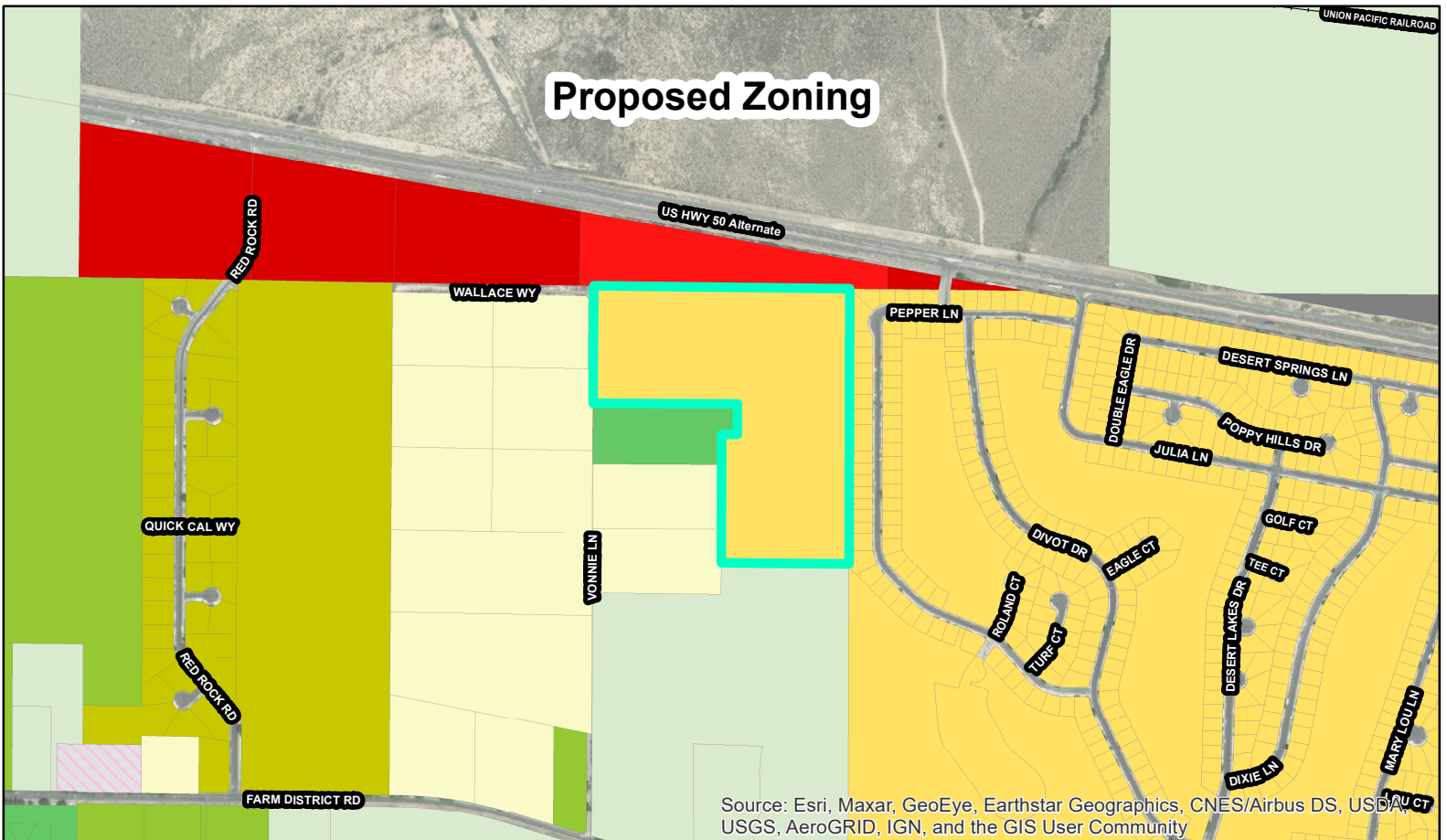
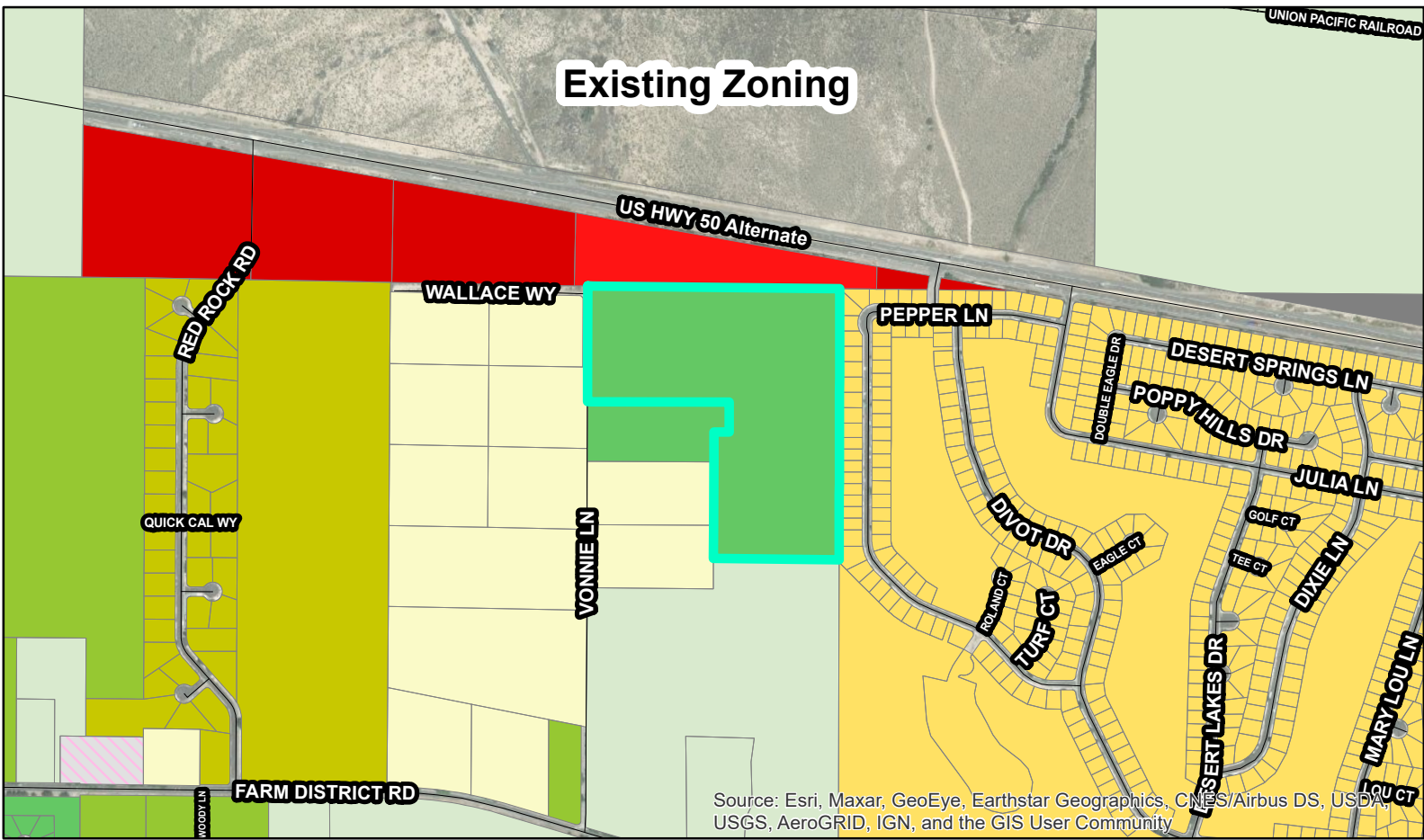

Planning Commission Chairman Barry Williams


ATTEST:

Vicinity Map



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



NOTE: The scale and configuration of all information shown hereon are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Fernley



0 625 Feet
1:250

 Vonnie_Lane

GR20	RR½	SF9	MF21	C1	EC	PF
RR5	SF20	SF6	MF30	C2	I	OSP
RR1	SF12	MDR14	MU	TC		

Legend

When recorded, mail to:
City Clerk
City of Fernley
595 Silver Lace Boulevard
Fernley, NV 89408

BILL # 309
CITY OF FERNLEY
ORDINANCE # 2022-006

A GENERAL ORDINANCE FOR A ZONING MAP AMENDMENT, ASSOCIATED WITH ZMA22004, TO CHANGE THE ZONING FROM SF20 (SINGLE FAMILY, 20,000 SQ. FT. MINIMUM LOT SIZE) TO SF6 (SINGLE FAMILY, 6,000 SQ. FT. MINIMUM LOT SIZE) ON A SITE APPROXIMATELY ±30.15 ACRES IN SIZE LOCATED AT 900 VONNIE LANE, FERNLEY, NV, ASSESSOR'S PARCEL NUMBERS 021-471-05, AND PROVIDING OTHER MATTERS PROPERLY RELATING THERETO.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter "the Council", DO HEREBY ORDAIN:

Section 1: The zoning of property described in Exhibit "A" and shown in Exhibit "A-1", which is attached hereto and incorporated herein by reference, situated in the City of Fernley, County Of Lyon, State Of Nevada, Is Hereby Changed from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size) on a site approximately ±30.15 acres in size located at 900 Vonnie Lane, NV (APN: 021-471-05).

SECTION 2: The zoning map of the City of Fernley is hereby amended in accordance with the zoning map amendment herein.

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 4: The City Clerk is instructed and authorized to publish the title to this ordinance as provided by law and to record the plan certified herein as provided by law.

SECTION 5: This ordinance shall become effective upon passage, approval, and publication.

SECTION 6: The provisions of this ordinance shall be liberally construed to effectively carry out its purposes in the interest of the public health, safety, welfare and convenience.

SECTION 7: If any subsection, phrase, sentence or portion of this section is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions.

SECTION 8: The City Council finds that this ordinance is not likely to impose a direct and significant economic burden upon a business or directly restrict the formation, operation or expansion of a business, or is otherwise exempt from Nevada Revised Statutes Chapter 237.

BILL # 309 BEING HEREBY PROPOSED on the 4th day of May 2022.

BILL # 309 BEING HEREBY PASSED, APPROVED and ADOPTED this _____ day of _____ 2022, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____
Roy Edgington, Mayor

Date: _____

Attest By: _____
Kim Swanson, City Clerk

Date: _____

EXHIBIT "A"
900 VONNIE LANE, CITY OF FERNLEY, LYON COUNTY, NV

A PART OF THE WEST HALF (W½) OF THE EAST HALF (E½) OF SECTION 22, TOWNSHIP 20 NORTH, RANGE 25 EAST, MOUNT DIABLO MERIDIAN, SITUATE IN THE CITY OF FERNLEY, LYON COUNTY, NEVADA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL "A-4" OF THAT CERTAIN PARCEL MAP FOR WILLIAM F. & IDA M. MITCHELL, FOUND IN DOCUMENT NO. 158028, PUBLIC RECORDS OF LYON COUNTY, NEVADA.

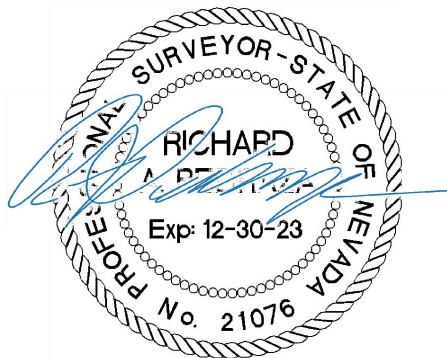
CONTAINING 30.15 ACRES, MORE OR LESS.

BEARING BASE: THE NORTH LINE OF THE WEST HALF (W½) OF THE EAST HALF (E½) OF SAID SECTION 22 IS ASSUMED TO BEAR SOUTH 89°40'11" EAST AND ALL BEARINGS CITED ON SAID PARCEL MAP ARE RELATIVE THERETO.

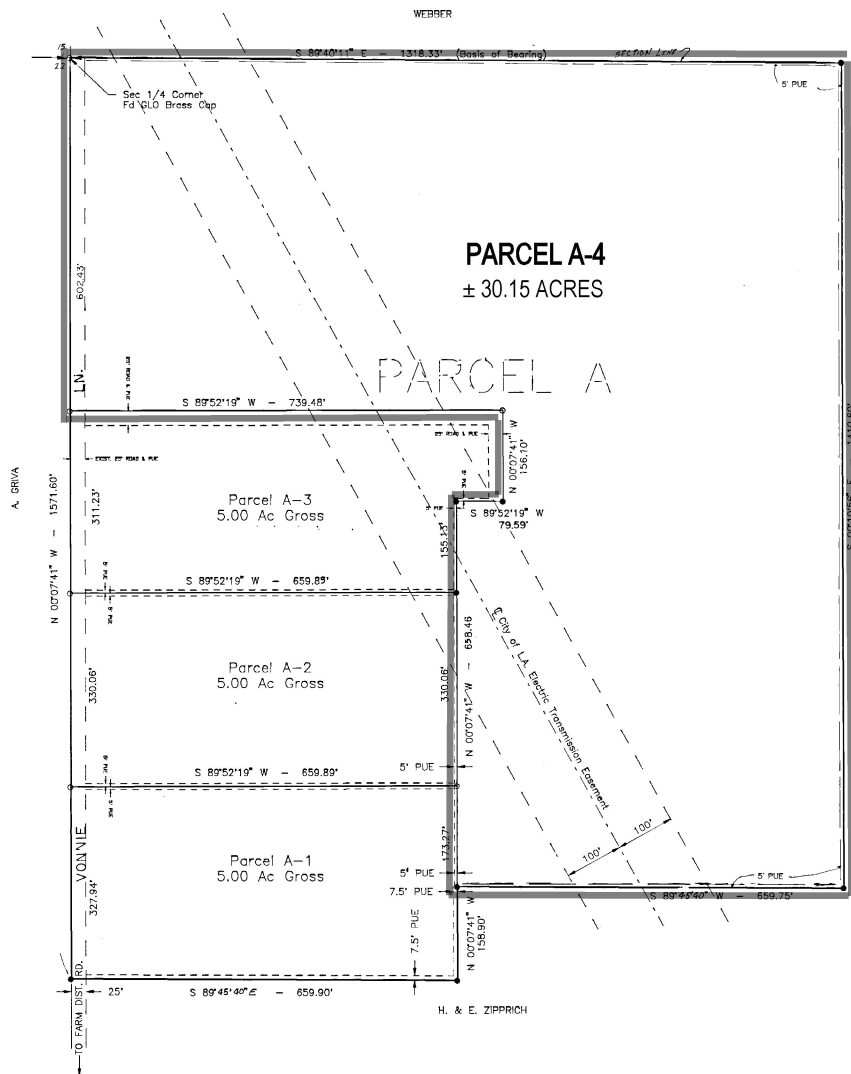
For the firm, by:
Richard A. Pedraza
PLS #21076
State of Nevada



155 Country Estates Circle
Reno, NV 89511



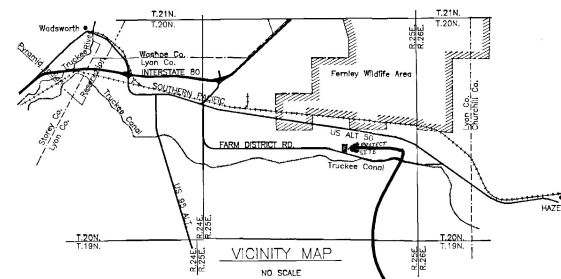
3-15-22



NOT TO SCALE



3-15-22

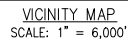
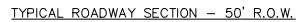
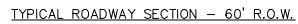


PROJECT SITE

CITY OF FERNLEY		NEVADA	LYON COUNTY	
PARCEL "A" 900 VONNIE LN	Exhibit "A1"	 PHELPS ENGINEERING 155 Country Estates Circle, Suite 300, Reno, NV. 89511	Sheet	
	DATE: 3/11/22		1	
	DRAWN BY: RAP		of	
	CHECKED BY: RAP		1	
(775) 241-3807 - www.phelpsenengineering.net - info@phelpsenengineering.net				

Sheet
1
of
1

A.P.N. 021-471-05
CITY OF FERNLEY, LYON COUNTY, NEVADA



1. MINIMUM LOT SIZE.....3000 SF
2. MINIMUM AVERAGE LOT WIDTH.....45 FT. (FRONTAGE: 35 FT MIN.)
3. SETBACKS.....FRONT: 15 FT, 20 GARAGE
SIDE (CORNER): 10 FT
SIDE (INTERIOR): 7.5 FT (0 FT ON SHARED LOT LINE)
REAR: 10 FT.
4. THIS DEVELOPMENT IS IN ZONE "X" ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL 32019C0105E (EFFECTIVE JANUARY 16, 2009) ZONE "X" IS IDENTIFIED AS AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN.
5. HISTORICALLY, THE PROJECT SITE WAS USED FOR AGRICULTURAL PURPOSES, AN IRRIGATED FIELD
6. DOMESTIC WATER SUPPLIED FROM COMMUNITY WATER SYSTEM.
7. DOMESTIC SEWAGE DISPOSAL BY COMMUNITY SEWER SYSTEM, ESTIMATED AMOUNT OF SEWAGE CONTRIBUTED IS 130 GAL/DAY/DU (MULTI-FAMILY); 200 GAL/DAY/DU (SINGLE FAMILY ATTACHED).
8. ALL UTILITIES TO BE PLACED UNDERGROUND
9. ALL STREET AND UTILITY IMPROVEMENTS WILL BE CONSTRUCTED TO CITY STANDARDS
10. STORM DRAINAGE WILL BE RETAINED ON SITE
11. WATER RIGHT SHALL BE IN ACCORDANCE WITH CITY ORDINANCE #714 BILL 696 PASSED 12-21-04
12. THE DISTANCE FROM THE SUBDIVISION TO THE COMMUNITY SEWAGE SYSTEM IS APPROXIMATELY 100 FEET.

CHARTER COMMUNICATIONS	SOUTHWEST GAS CORPORATION	FERNLEY PUBLIC WORKS DEPT.
9335 PROTOTYPE DRIVE	400 EAGLE STATION LANE	595 SILVER LACE LANE
RENO, NV. 89511	CARSON CITY, NV. 89702	FERNLEY, NV. 89408
(775) 850-7243	(775) 887-2720	(775) 575-2307

SBC NEVADA BELL
645 E. PLUMB LANE
P.O. BOX 11010
RENO, NV. 89520
(775) 333-4363

NV ENERGY
P.O. BOX 10100
RENO, NV 89520
(775) 473-6998

PENDING BOUNDARY SURVEY

THE BASIS OF BEARING FOR THIS MAP IS IN THE NEVADA STATE PLANE COORDINATE SYSTEM,
WEST ZONE, NAD 83/94 OBTAINED BY GPS OBSERVATIONS. COMBINED SCALE FACTOR 1.000269496

THE BASIS OF ELEVATIONS FOR THIS SURVEY ARE NAVD88 BASED ON CITY OF FERNELY CONTROL
POINT MATT ELEVATION = 4153.93

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	PHASING PLAN
4	EXISTING CONDITIONS – NORTH
5	EXISTING CONDITIONS – SOUTH
6	SITE PLAN – NORTH
7	SITE PLAN – SOUTH
8	SITE PLAN – OFFSITE IMPROVEMENTS
9	GRADING PLAN – NORTH
10	GRADING PLAN – SOUTH
11	UTILITY PLAN
12	UTILITY PLAN
13	UTILITY PLAN
14	UTILITY PLAN
15	UTILITY PLAN
16	UTILITY PLAN
17	UTILITY PLAN

APN 021-471-05 30.15 AC

TOTAL LOTS: 79
DENSITY: T.B.D.
ZONING: SF20
COMPREHENSIVE PLAN: RESIDENTIAL SINGLE FAMILY
LINEAL FEET OF NEW STREETS: 10,388.4 LF (INCLUDING PHASE 1A)

CUT= 70,308.24 CU YDS
FILL= 33,035.87 CU YDS W/ 7.0% COMPACTION
 NET= 37,272.37 CU YDS (EXPORT)
 *CUT/FILL INCLUDES 1A OFFSITE IMPROVEMENTS
 *CUT/FILL WAS GENERATED USING GIS
 SURFACE, NOT SURVEYED DATA.

ALL THAT CERTAIN REAL PROPERTY BEING A PORTION OF WEST 1/2 OF THE EAST 1/2 OF SECTION 22, T 20 N, R 25 E, M.D.B.&M., AND A PORTION OF PARCEL A OF LYON COUNTY MAP 133366, LYON COUNTY, NEVADA, DESCRIBED AS FOLLOWS:

PARCEL A-4, AS SHOWN ON THE PARCEL MAP FOR WILLIAM F. & IDA M. MITCHELL, RECORDED IN THE OFFICIAL RECORDS OF LYON COUNTY, NEVADA ON JANUARY 4, 1993, AS DOCUMENT NO. 158028.
ASSESSOR'S PARCEL NUMBER(S):
021-471-05

<u>OWNER/DEVELOPER</u>	<u>ENGINEER</u>	<u>SURVEYOR</u>
REGHETTI INVESTMENTS LLC 1991 MORNING GROVE CT RENO, NV 89523 (775) 250-4002	PHELPS ENGINEERING SERVICES, LLC 155 COUNTRY ESTATES CIRCLE SUITE 300 RENO, NV. 89511 (775) 399-2200	MST SURVEYING 15506 QUICKSILVER DR. RENO, NV. 89511 (775) 677-9166

"I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS FOR THE VONNIE LANE SUBDIVISION WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE CITY OF FERNLEY AND STATE OF NEVADA STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS TO SAID PLANS".

LONNY E. PHELPS
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA NO. 25230
PHELPS ENGINEERING

PHELPS ENGINEERING ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

APPROVED BY THE PLANNING COMMISSION OF THE CITY OF
FERNLEY THIS _____ DAY OF _____, 20__.

PUBLIC WORKS

COMMUNITY DEVELOPMENT

CITY ENGINEER

NORTH LYON COUNTY FIRE PREVENTION DISTRICT

TRUCKEE-CARSON |RR|GAT|ON D|STR|CT

ATTEST: CITY CLERK

[illegible]

SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

COVER SHEET

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022
PROJECT NO.
19286



OFFSITE IMPROVEMENTS

 SECONDARY ACCESS

[illegible]

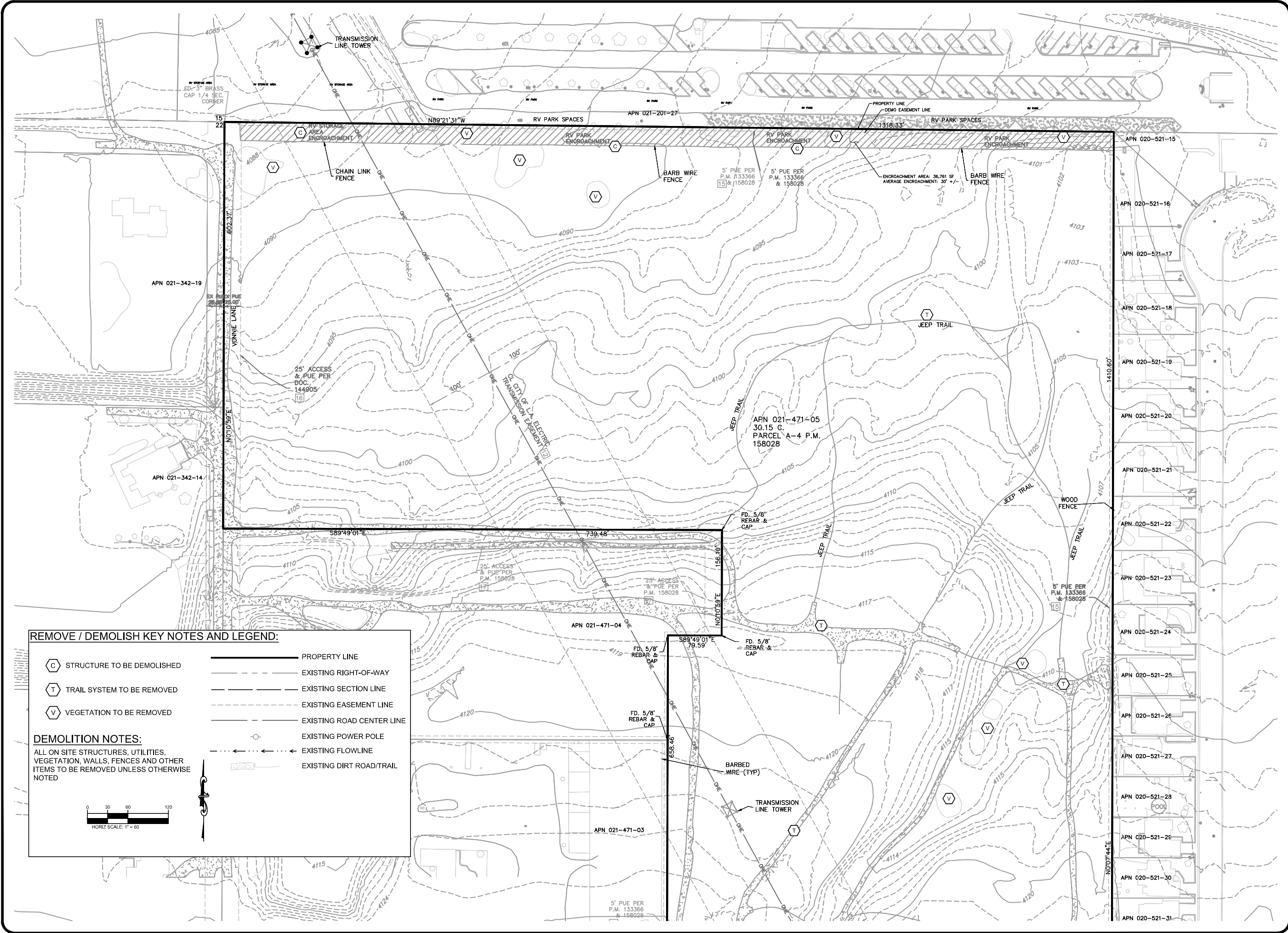
L N U I M E L L I
55 Country Estates Circle, Suite 300
Reno, NV. 89511 (775) 399-7200
www.phelpsengineering.net

SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

PHASING PLAN

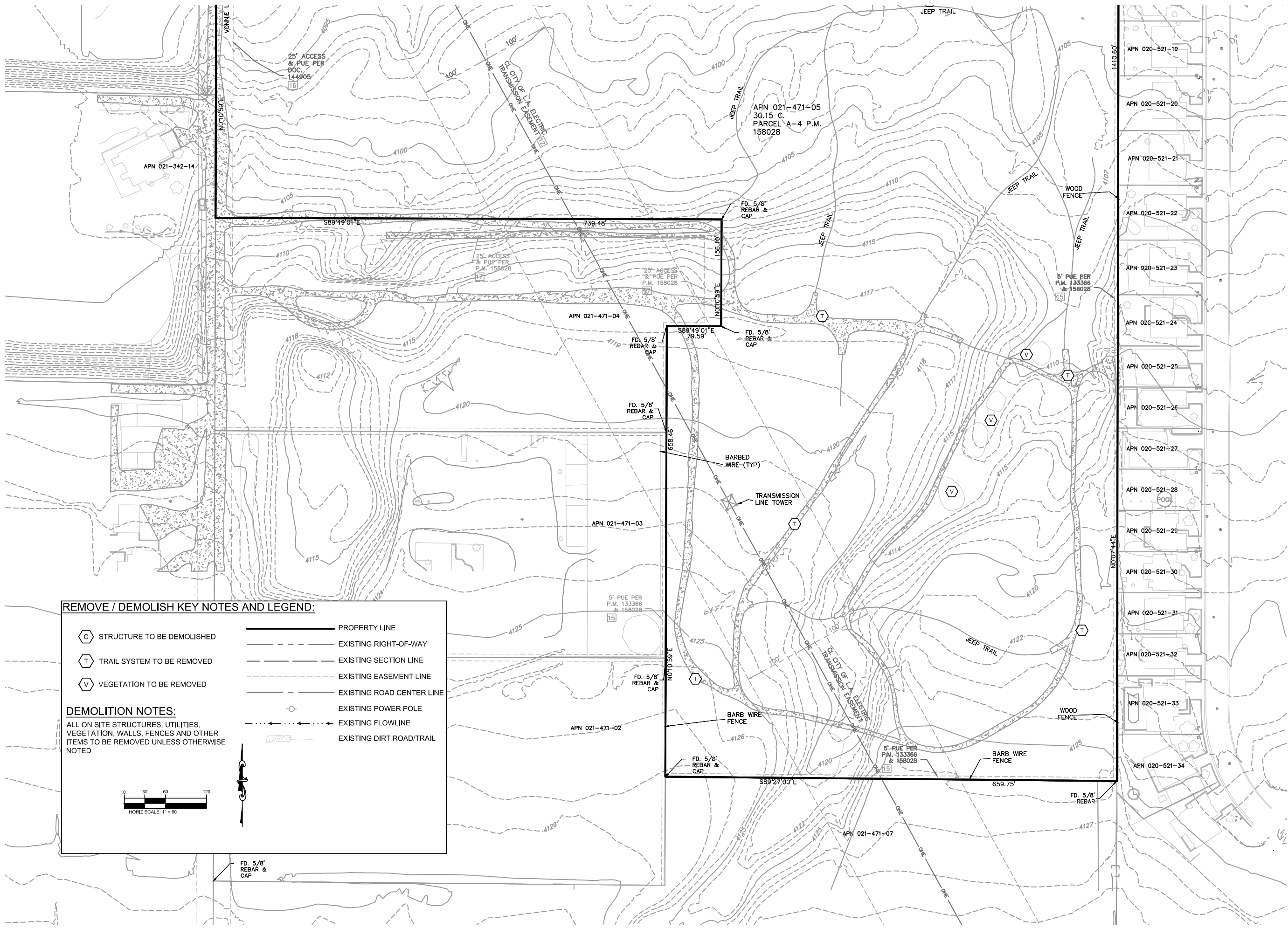
TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022
PROJECT NO.
19286

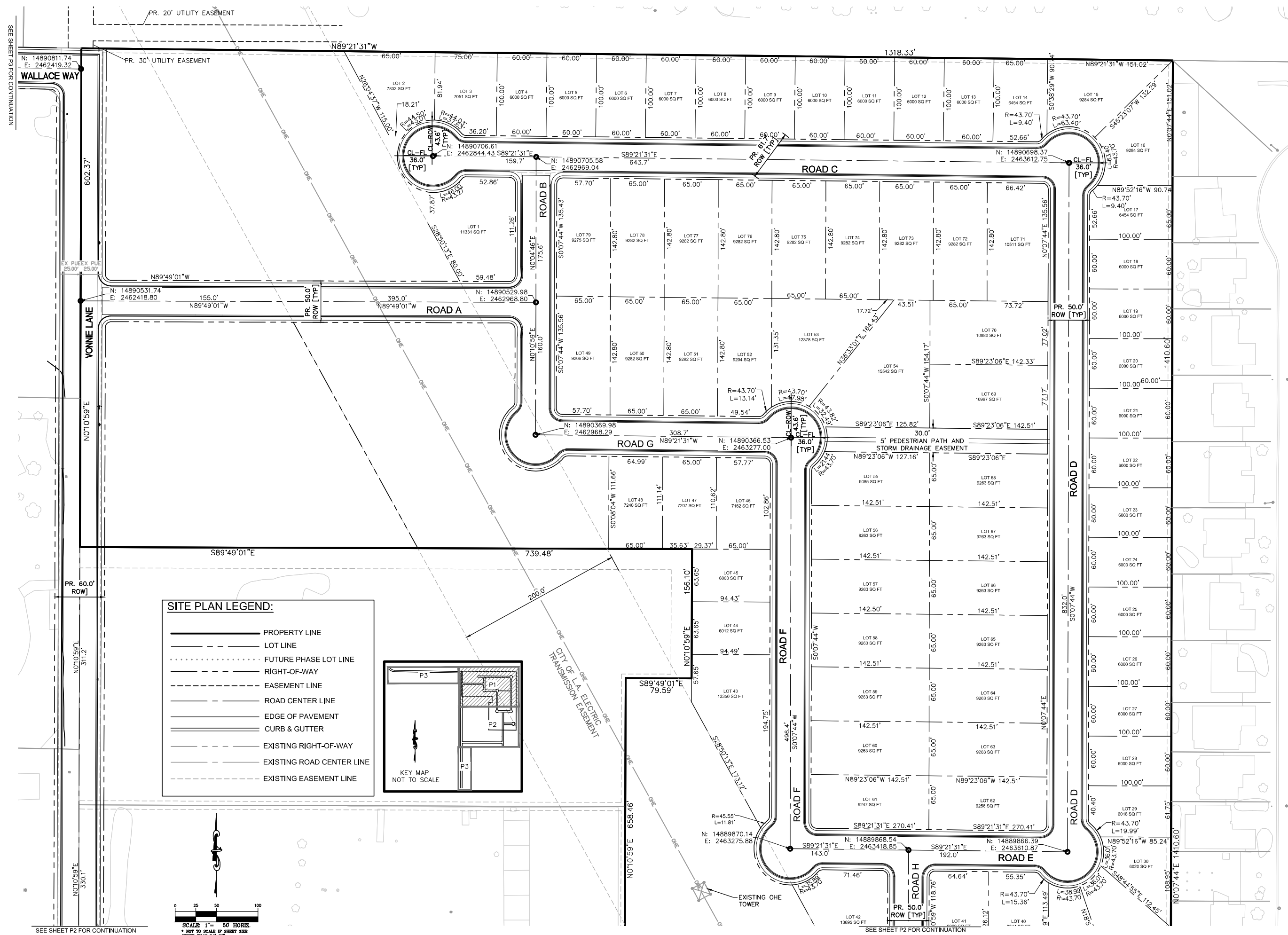


4
D = 400 ft

Drawing name: S:\Entitlement_Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\19286 - EXISTING CONDITIONS.dwg 5 EXISTING CONDITIONS - SOUTH Mar 15, 2022 1:54pm by: Zach Darling



REV	DATE	BY
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		
76		
77		
78		
79		
80		
81		
82		
83		
84		
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		
101		
102		
103		
104		
105		
106		
107		
108		
109		
110		
111		
112		
113		
114		
115		
116		
117		
118		
119		
120		
121		
122		
123		
124		
125		
126		
127		
128		
129		
130		
131		
132		
133		
134		
135		
136		
137		
138		
139		
140		
141		
142		
143		
144		
145		
146		
147		
148		
149		
150		
151		
152		
153		
154		
155		
156		
157		
158		
159		
160		
161		
162		
163		
164		
165		
166		
167		
168		
169		
170		
171		
172		
173		
174		
175		
176		
177		
178		
179		
180		
181		
182		
183		
184		
185		
186		
187		
188		
189		
190		
191		
192		
193		
194		
195		
196		
197		
198		
199		
200		
201		
202		
203		
204		
205		
206		
207		
208		
209		
210		
211		
212		
213		
214		
215		
216		
217		
218		
219		
220		
221		
222		
223		
224		
225		
226		
227		
228		
229		
230		
231		
232		
233		
234		
235		
236		
237		
238		
239		
240		
241		
242		
243		
244		
245		
246		
247		
248		
249		
250		
251		
252		
253		
254		
255		
256		
257		
258		
259		
260		
261		
262		
263		
264		
265		
266		
267		
268		
269		
270		
271		
272		
273		
274		
275		
276		
277		
278		
279		
280		
281		
282		
283		
284		
285		
286		
287		
288		
289		
290		
291		
292		
293		
294		
295		
296		
297		
298		
299		
300		
301		
302		
303		
304		
305		
306		
307		
308		
309		
310		
311		
312		
313		
314		
315		
316		
317		
318		
319		
320		
321		
322		
323		
324		
325		
326		
327		
328		
329		
330		
331		
332		
333		
334		
335		
336		
337		
338		
339		
340		
341		
342		
343		
344		
345		
346		
347		
348		
349		
350		
351		
352		
353		
354		
355		
356		
357		
358		
359		
360		
361		
362		
363		
364		
365		
366		
367		
368		
369		
370		
371		
372		
373		
374		
375		
376		
377		
378		
379		
380		
381		
382		
383		
384		
385		
386		
387		
388		
389		
390		
391		
392		
393		
394		
395		
396		
397		
398		
399		
400		
401		
402		
403		
404		
405		
406		
407		
408		
409		
410		
411		
412		
413		
414		
415		
416		
417		
418		
419		
420		
421		
422		
423		
424		
425		
426		
427		
428		
429		
430		
431		
432		
433		
434		
435		
436		
437		
438		
439		
440		
441		
442		
443		
444		
445		
446		
447		
448		
449		
450		
451		
452		
453		
454		
455		
456		
457		
458		
459		
460		
461		
462		
463		
464		
465		
466		
467		
468		
469		
470		
471		
472		
473		
474		
475		
476		
477		
478		
479		
480		
481		
482		
483		
484		
485		
486		
487		
488		
489		
490		
491		
492		
493		
494		
495		
496		
497		
498		
499		
500		
501		
502		
503		
504		
505		
506		
507		
508		
509		
510		
511		
512		
513		
514		
515		
516		
517		
518		
519		
520		
521		
522		
523		
524		
525		
526		
527		
528		
529		
530		
531		
532		
533		
534		
535		
536		
537		
538		
539		
540		
541		
542		
543		
544		
545		
546		
547		
548		
549		
550		
551		
552		
553		
554		
555		
556		
557		
558		
559		
560		
561		
562		
563		
564		
565		
566		
567		
568		
569		
570		
571		
572		
573		
574		
575		
576		
577		
578		
579		
580		
581		
582		
583		
584		
585		
586		



PHELPS
ENGINEERING

135 County Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

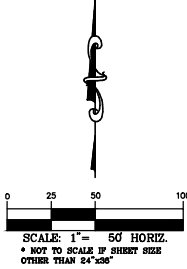
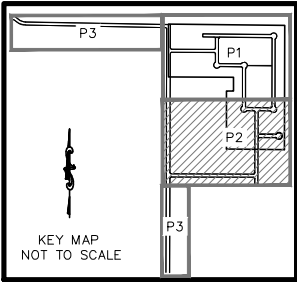
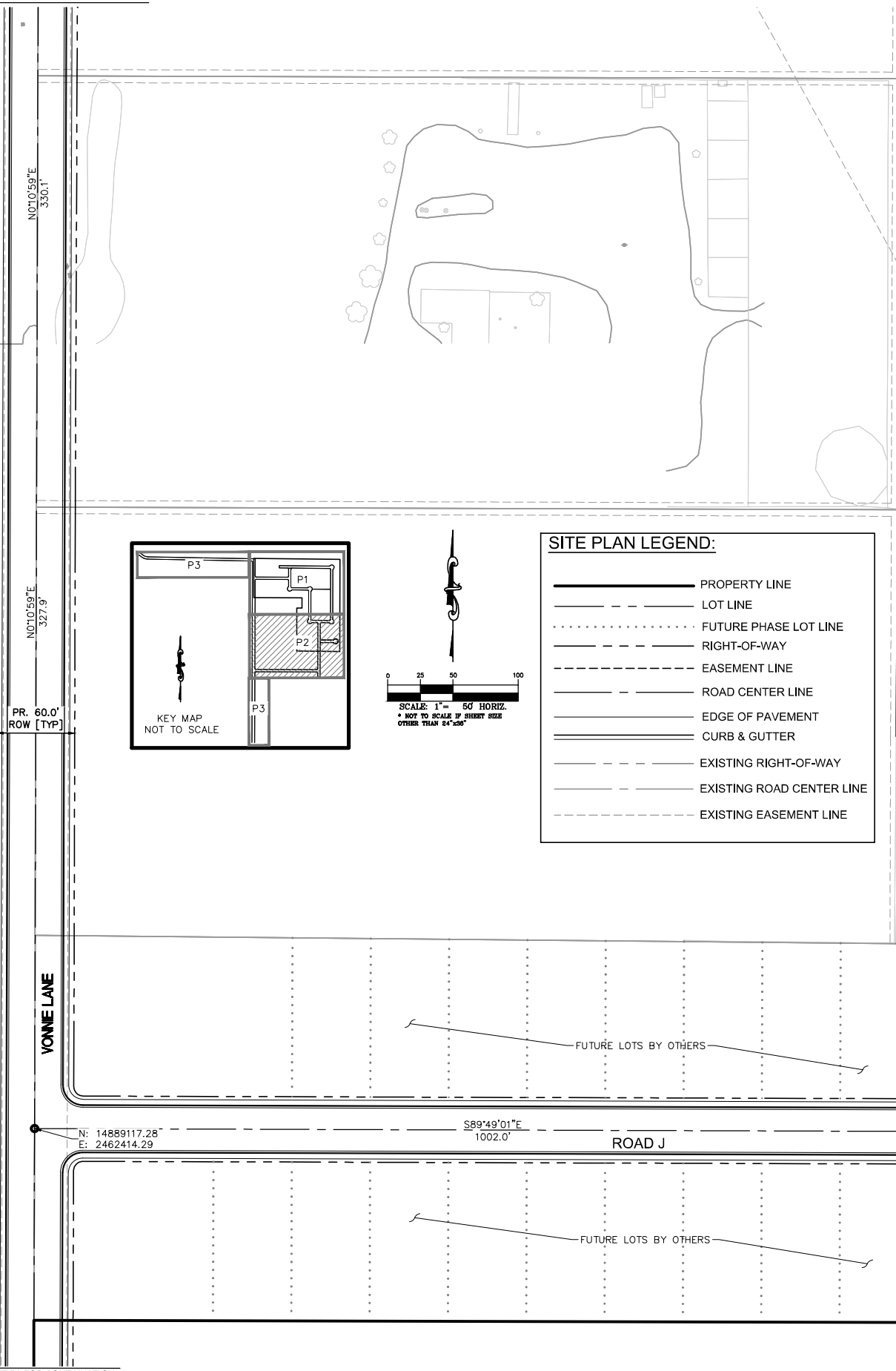
SITE PLAN
NORTH

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022

PROJECT NO.
19286

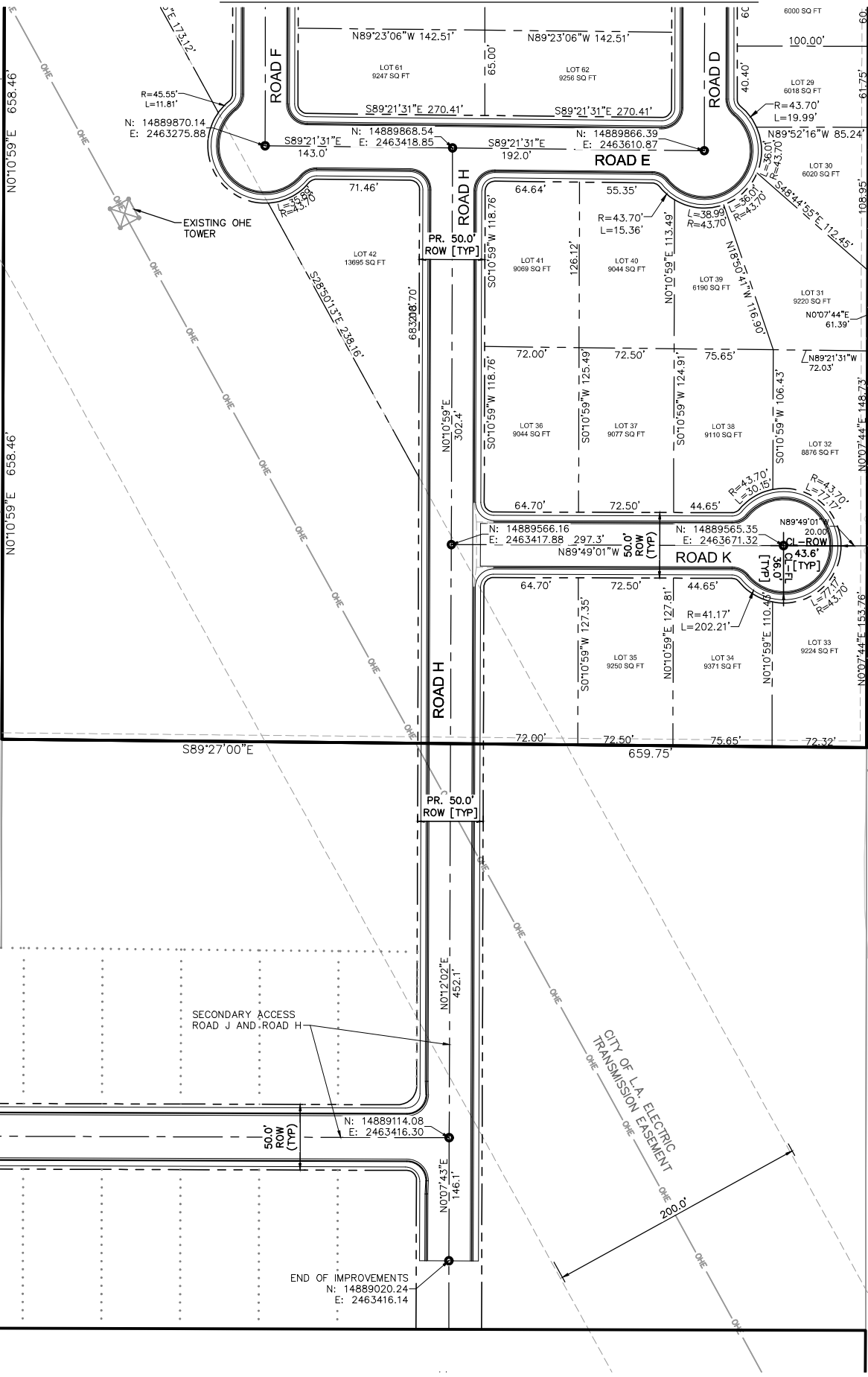
SEE SHEET P1 FOR CONTINUATION



SITE PLAN LEGEND:	
	PROPERTY LINE
	LOT LINE
	FUTURE PHASE LOT LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	ROAD CENTER LINE
	EDGE OF PAVEMENT
	CURB & GUTTER
	EXISTING RIGHT-OF-WAY
	EXISTING ROAD CENTER LINE
	EXISTING EASEMENT LINE

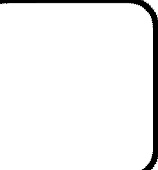
SEE SHEET P3 FOR CONTINUATION

SEE SHEET P1 FOR CONTINUATION



REVISIONS		DATE	BY
No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PHELPS ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

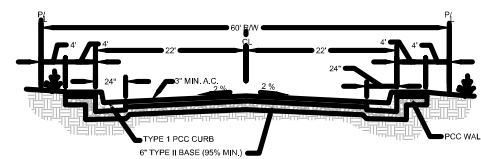
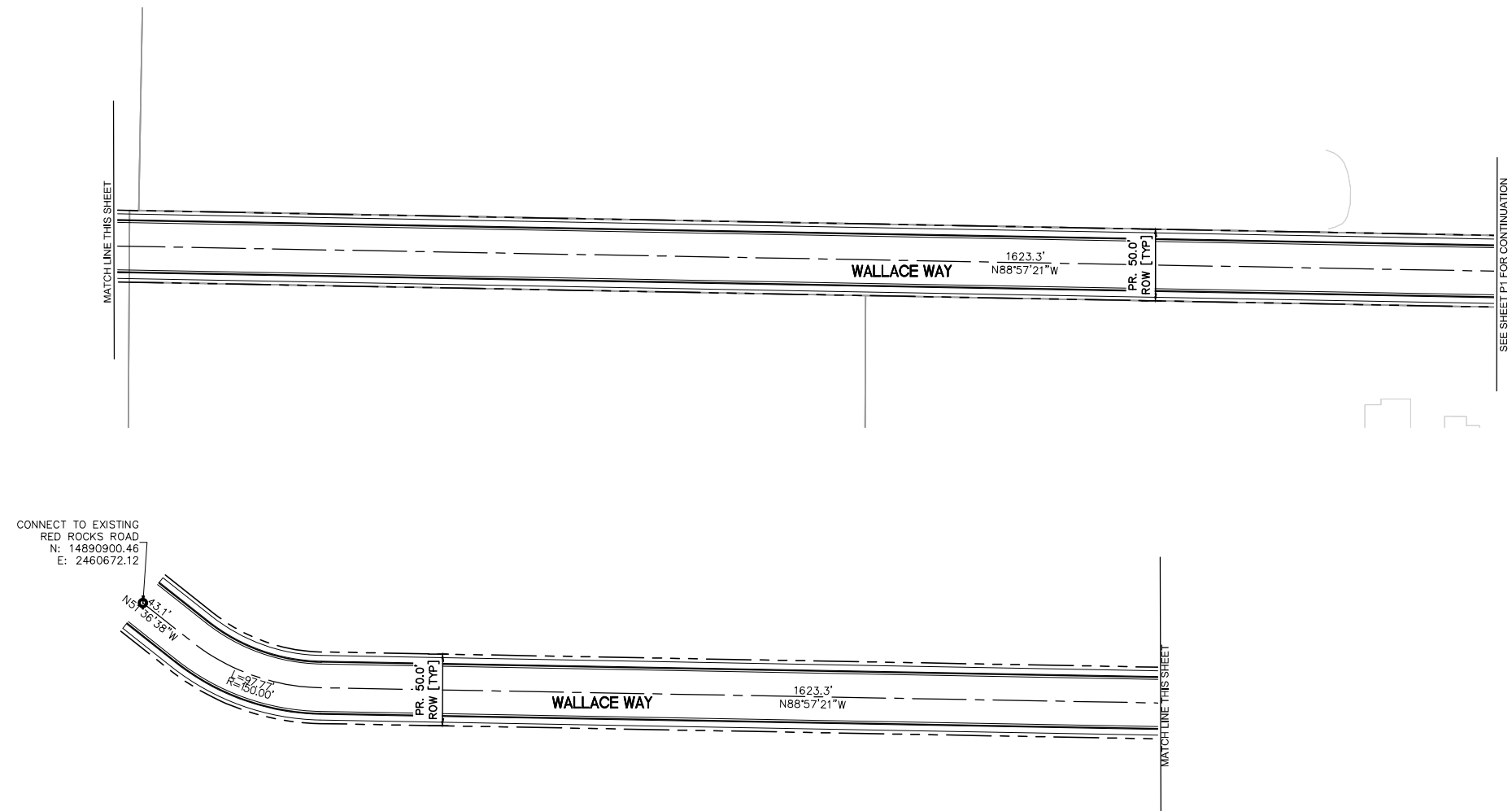


SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

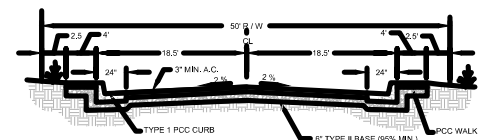
SITE PLAN SOUTH

TENTATIVE MAP VONNIE LANE SUBDIVISION FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286



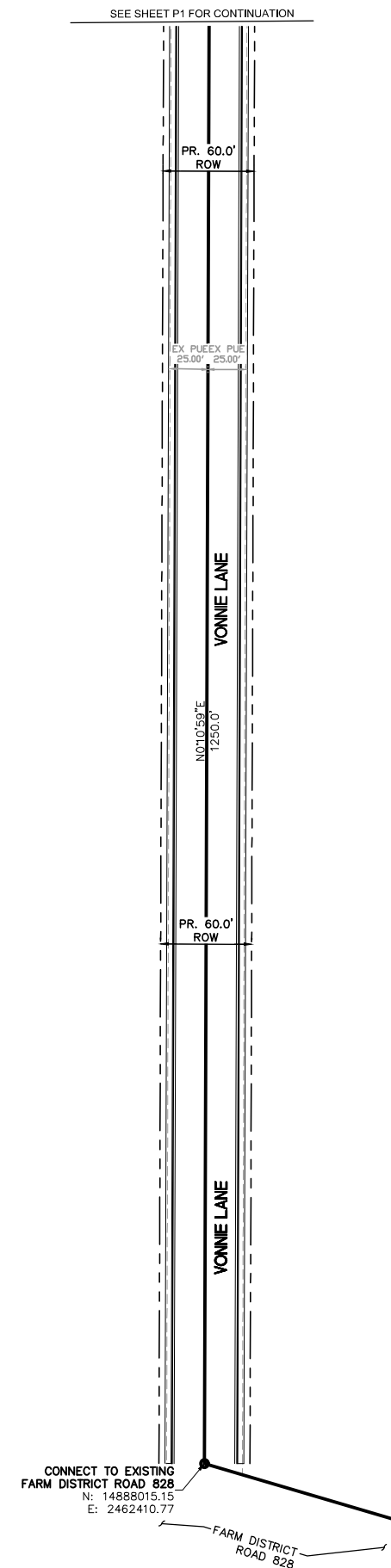
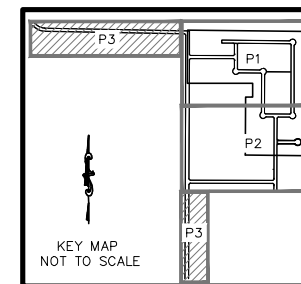
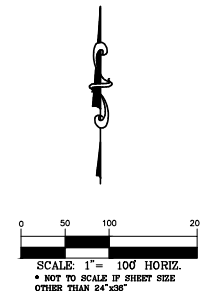
VONNIE LANE ROADWAY SECTION - 60' R.O.W.



WALLACE WAY ROADWAY SECTION - 50' R.O.W.

SITE PLAN LEGEND:

- | | |
|--|---------------------------|
| | PROPERTY LINE |
| | LOT LINE |
| | FUTURE PHASE LOT LINE |
| | RIGHT-OF-WAY |
| | EASEMENT LINE |
| | ROAD CENTER LINE |
| | EDGE OF PAVEMENT |
| | CURB & GUTTER |
| | EXISTING RIGHT-OF-WAY |
| | EXISTING ROAD CENTER LINE |
| | EXISTING EASEMENT LINE |

[illegible]

PHELPS
ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsenengineering.net

SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

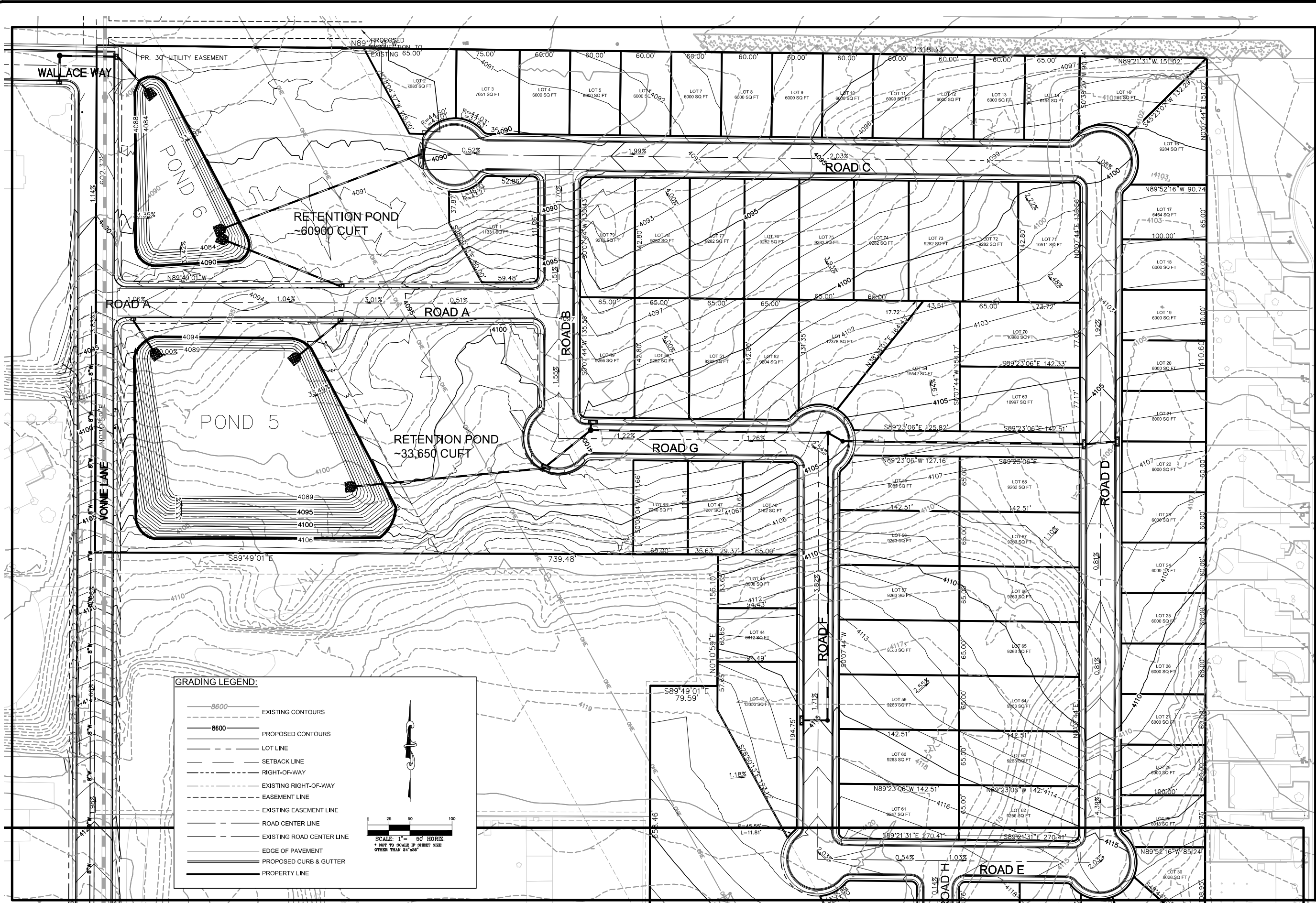
OFFSITE IMPROVEMENTS

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022

PROJECT NO.
19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\19286 - GRADING PLAN.dwg 9 GRADING PLAN - NORTH Mar 15, 2022 1:55pm by Zach Darling



TENTATIVE MAP	
VONNIE LANE SUBDIVISION	
FERNLEY, NEVADA	
DATE:	3/15/2022
PROJECT NO.	19286
9	

SCALE: AS SHOWN	
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

GRADING PLAN - NORTH	
----------------------	--

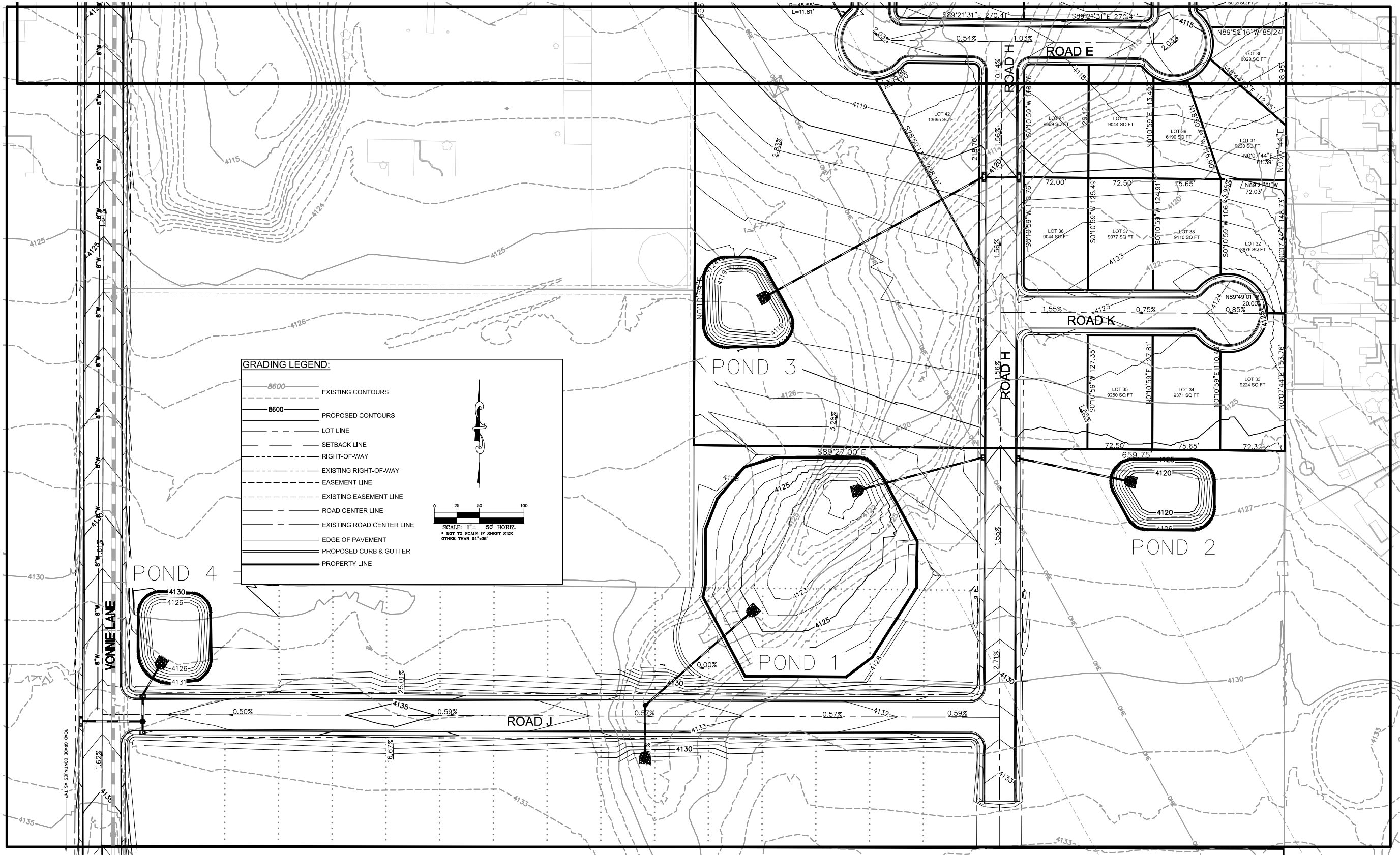
PHELPS ENGINEERING	
155 County Estates Circle, Suite 300	
Reno, NV 89511 (775) 395-7200	
www.phelpsengineering.net	

REVISIONS	
No.	DATE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\19286 - GRADING PLAN - SOUTH Mar 15, 2022 1:55pm by: Zach Darling

SEE SHEET G1 FOR CONTINUATION

SEE SHEET G1 FOR CONTINUATION



REVISIONS		DATE	BY
No.	REVISIONS	DATE	BY
1			LEP

PHELPS
ENGINEERING

155 County Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

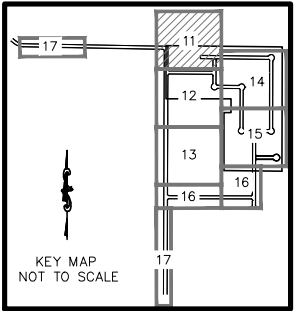
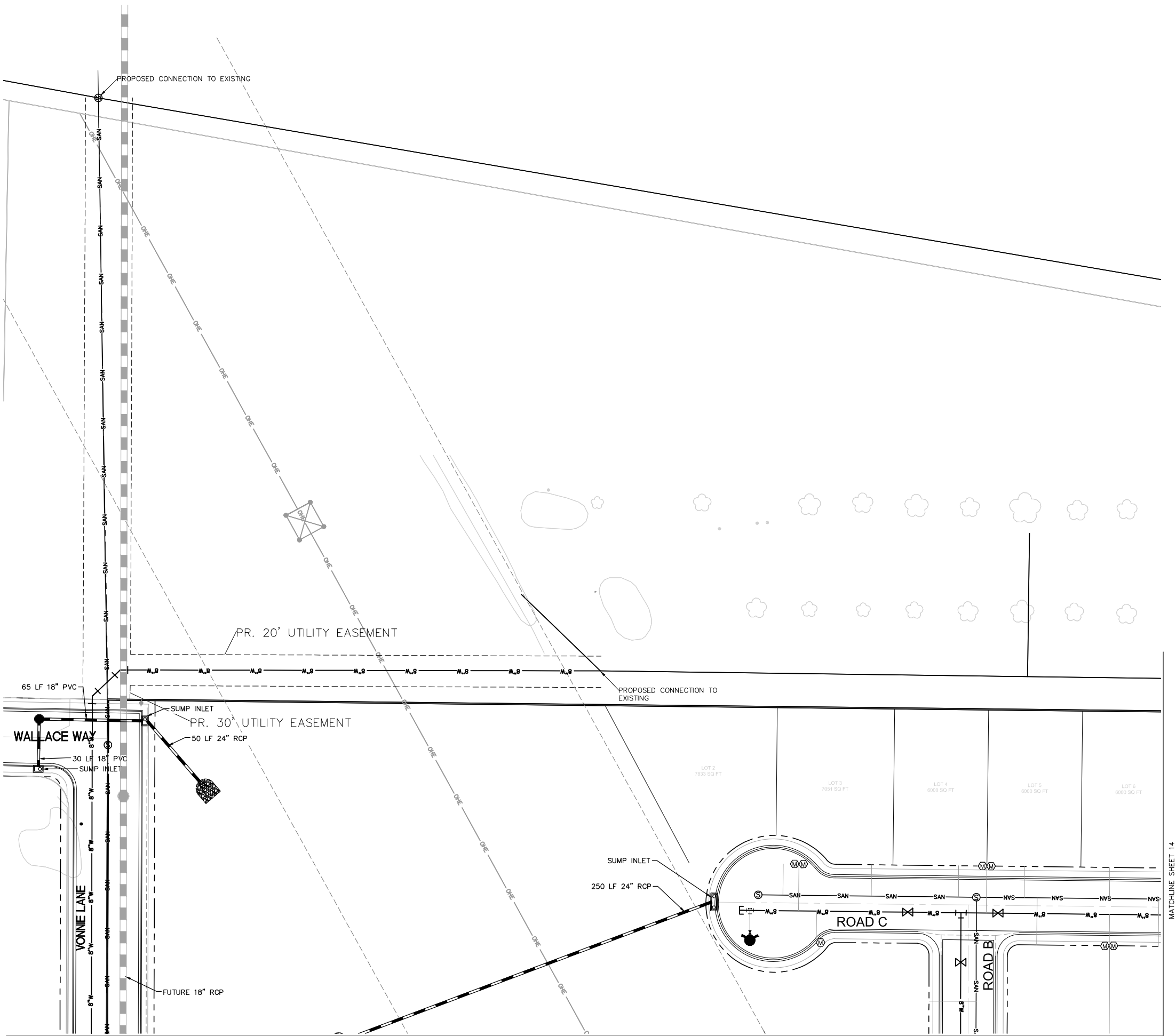
SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

GRADING PLAN - SOUTH

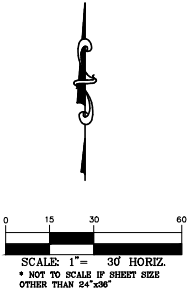
TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\19286 - UTILITY PLAN.dwg 11 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Darling



- UTILITY LEGEND:
- 8"W POTABLE WATER LINE WITH SIZE
 - SAN SANITARY SEWER WITH MANHOLE
 - SERVICE LINE
 - W EXISTING WATER LINE
 - SAN EXISTING SANITARY SEWER LINE
 - PROPERTY LINE
 - LOT LINE
 - FUTURE PHASE LOT LINE
 - RIGHT-OF-WAY
 - EASEMENT LINE
 - ROAD CENTER LINE
 - EDGE OF PAVEMENT
 - CURB & GUTTER
 - EXISTING RIGHT-OF-WAY
 - EXISTING ROAD CENTER LINE
 - EXISTING EASEMENT LINE
 - Fire Hydrant Assembly
 - Water Service Meter
 - Storm Sewer



PHELPS
ENGINEERING

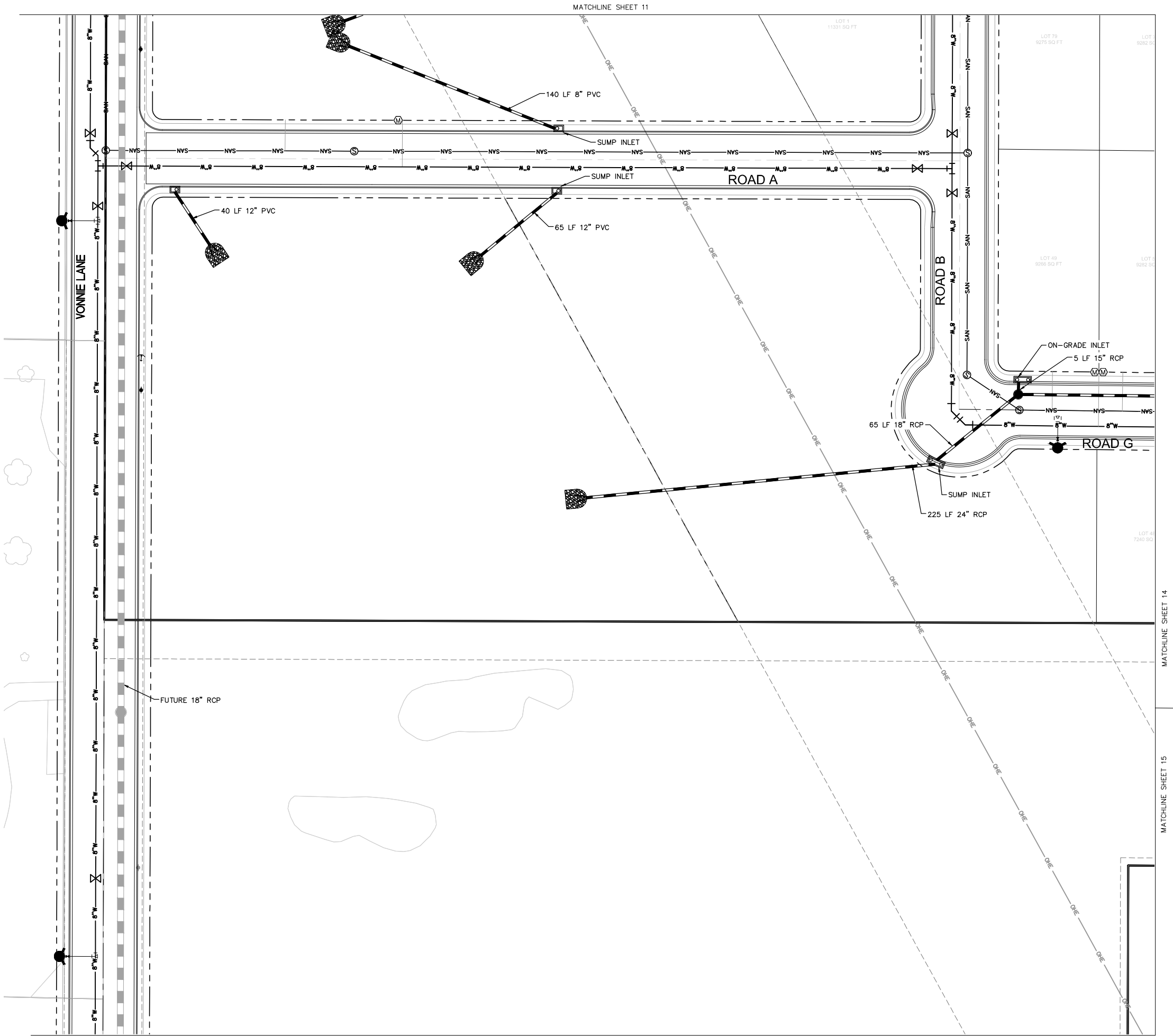
155 Country Estates Circle, Suite 300
Reno, NV, 89511 (775) 395-7200
www.phelpsengineering.net

SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

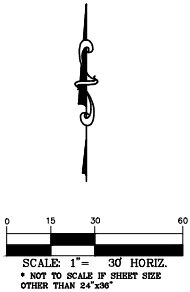
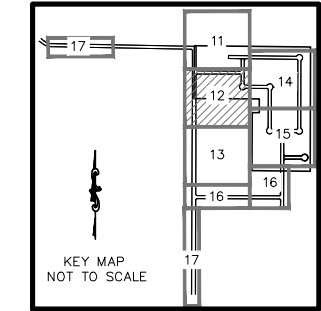
DATE: 3/15/2022
PROJECT NO. 19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\1A\19286 - UTILITY PLAN.dwg 12 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Darling



UTILITY LEGEND:

- 8"W POTABLE WATER LINE WITH SIZE
- SAN SANITARY SEWER WITH MANHOLE
- W EXISTING WATER LINE
- SAN EXISTING SANITARY SEWER LINE
- PROPERTY LINE
- LOT LINE
- FUTURE PHASE LOT LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- ROAD CENTER LINE
- EDGE OF PAVEMENT
- CURB & GUTTER
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER LINE
- EXISTING EASEMENT LINE
- FIRE HYDRANT ASSEMBLY
- WATER SERVICE METER
- STORM SEWER



No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

PHELPS ENGINEERING
 155 Country Estates Circle, Suite 300
 Reno, NV, 89511 (775) 395-7200
 www.phelpsengineering.net

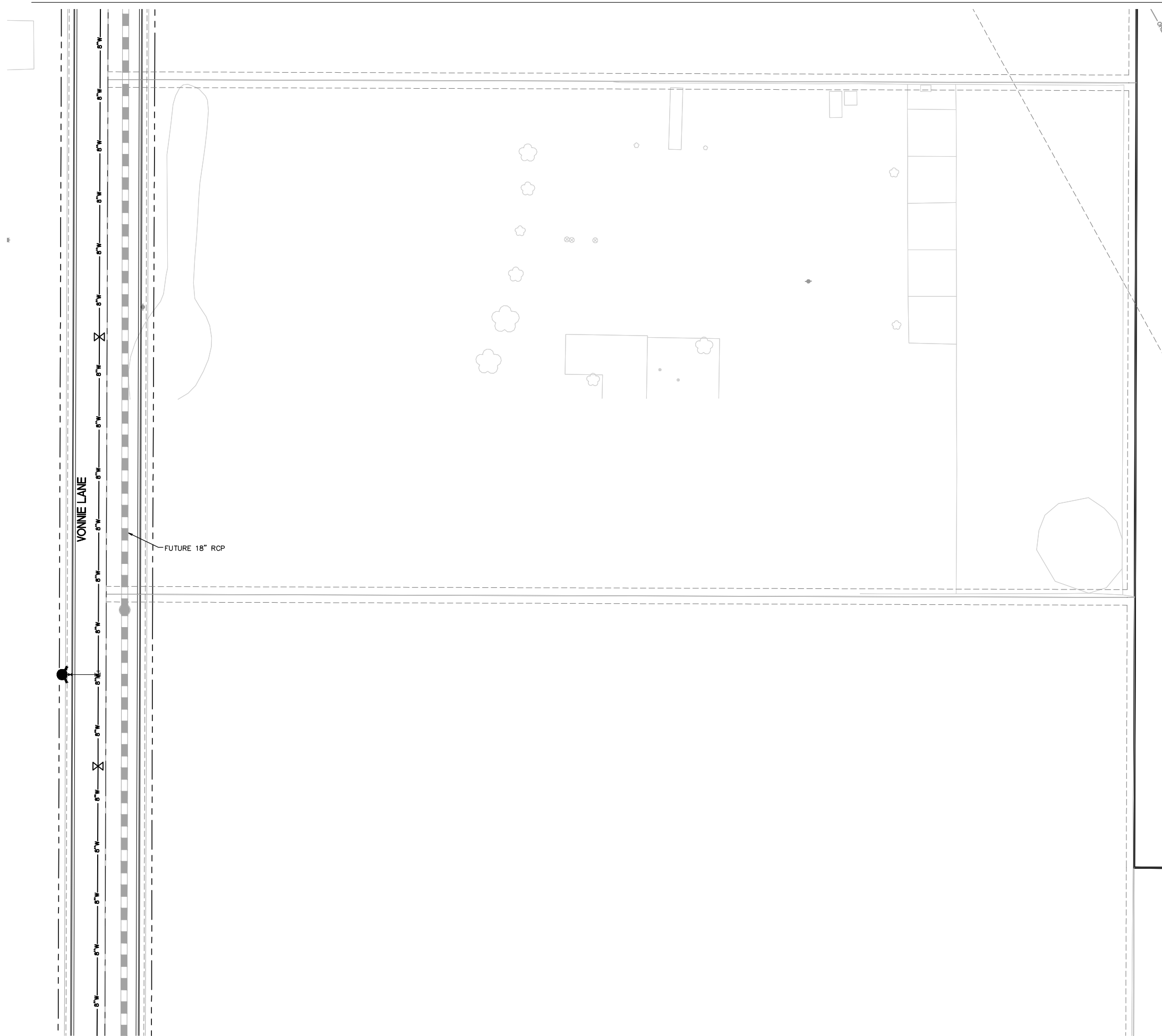
SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

UTILITY PLAN

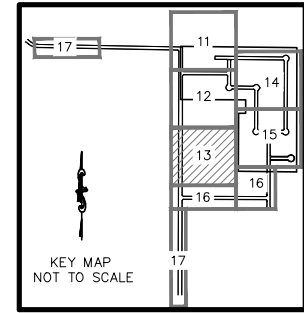
DATE: 3/15/2022
 PROJECT NO. 19286

12



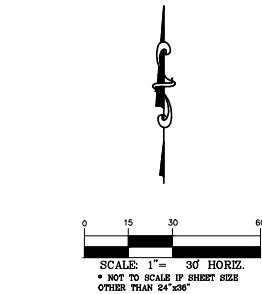
MATCHLINE SHEET 15

MATCHLINE SHEET 16



UTILITY LEGEND:

- | | | |
|--|-------|------------------------------|
| | 8\"/> | POTABLE WATER LINE WITH SIZE |
| | SAN | SANITARY SEWER WITH MANHOLE |
| | W | SERVICE LINE |
| | SAN | EXISTING WATER LINE |
| | SAN | EXISTING SANITARY SEWER LINE |
| | | PROPERTY LINE |
| | | LOT LINE |
| | | FUTURE PHASE LOT LINE |
| | | RIGHT-OF-WAY |
| | | EASEMENT LINE |
| | | ROAD CENTER LINE |
| | | EDGE OF PAVEMENT |
| | | CURB & GUTTER |
| | | EXISTING RIGHT-OF-WAY |
| | | EXISTING ROAD CENTER LINE |
| | | EXISTING EASEMENT LINE |
| | | FIRE HYDRANT ASSEMBLY |
| | M | WATER SERVICE METER |
| | | STORM SEWER |

[illegible]

PHELPS
ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89311 (775) 395-7200
www.phelpsengineering.net



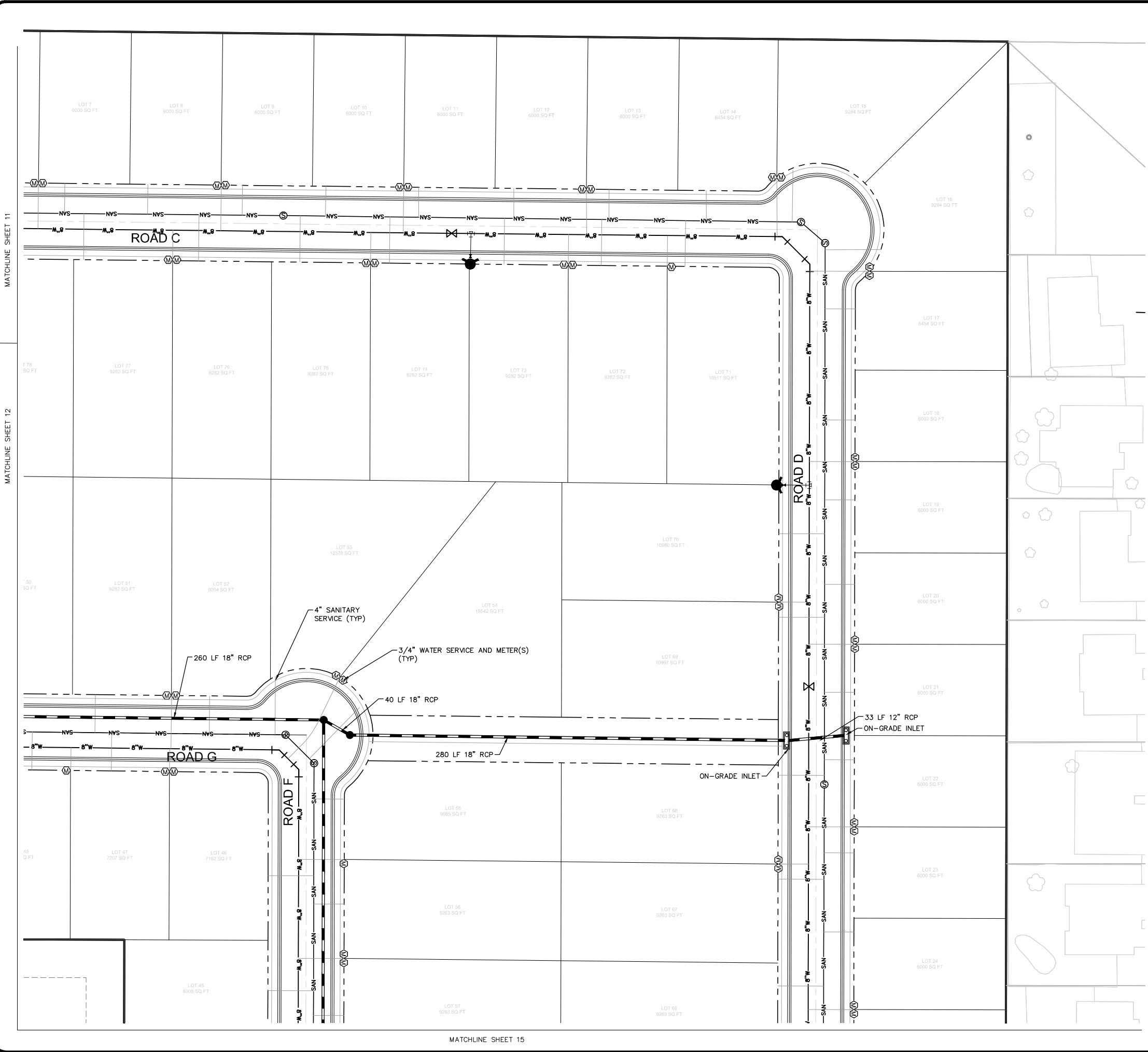
SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\1A\19286 - UTILITY PLAN.dwg 14 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Dorling



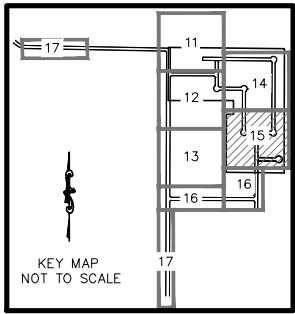
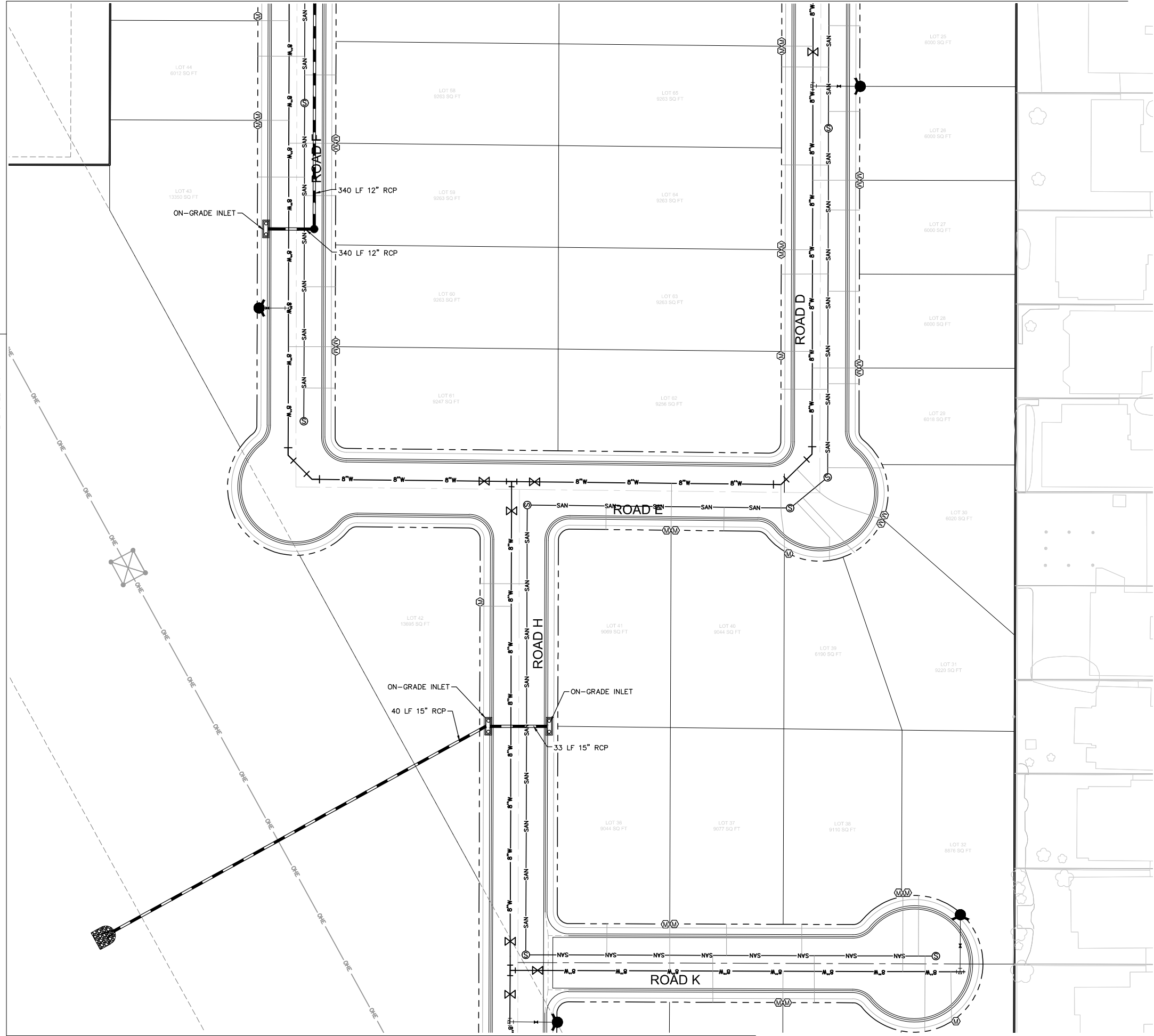
Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\1A\19286 - UTILITY PLAN.dwg 15 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Darling

MATCHLINE SHEET 12

MATCHLINE SHEET 13

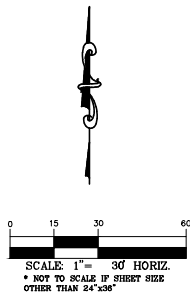
MATCHLINE SHEET 14

MATCHLINE SHEET 16



UTILITY LEGEND:

- 8" W POTABLE WATER LINE WITH SIZE
- SAN SANITARY SEWER WITH MANHOLE
- SERVICE LINE
- W EXISTING WATER LINE
- SAN EXISTING SANITARY SEWER LINE
- PROPERTY LINE
- LOT LINE
- FUTURE PHASE LOT LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- ROAD CENTER LINE
- EDGE OF PAVEMENT
- CURB & GUTTER
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER LINE
- EXISTING EASEMENT LINE
- Fire Hydrant Assembly
- Water Service Meter
- Storm Sewer



PHELPS ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

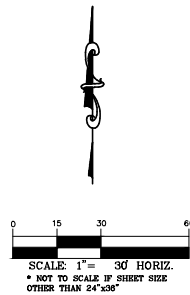
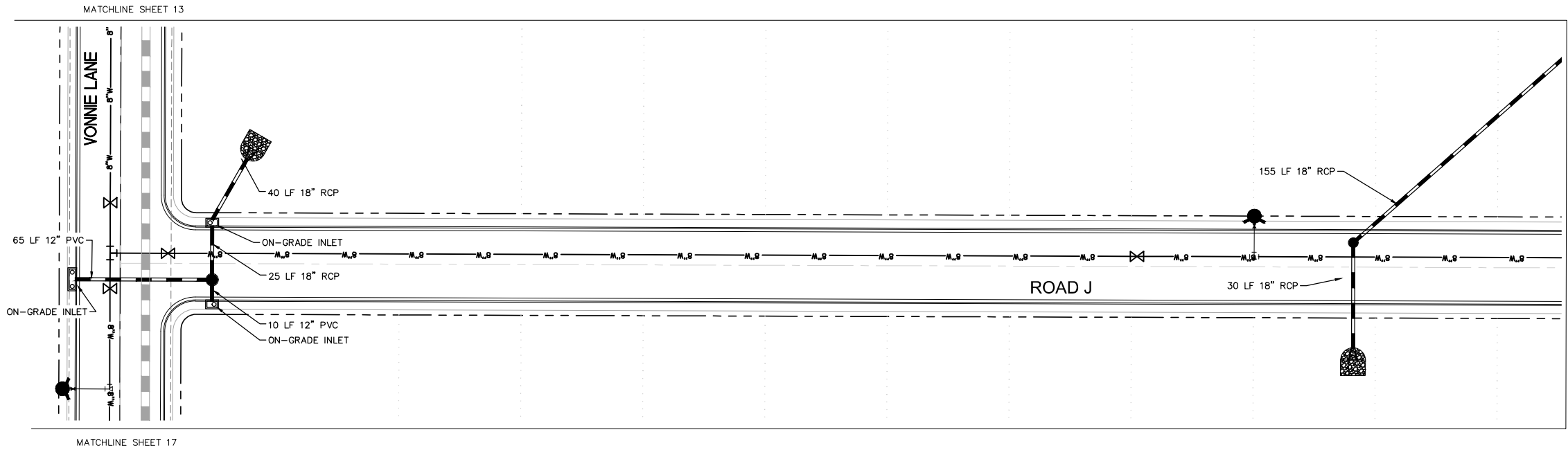
SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

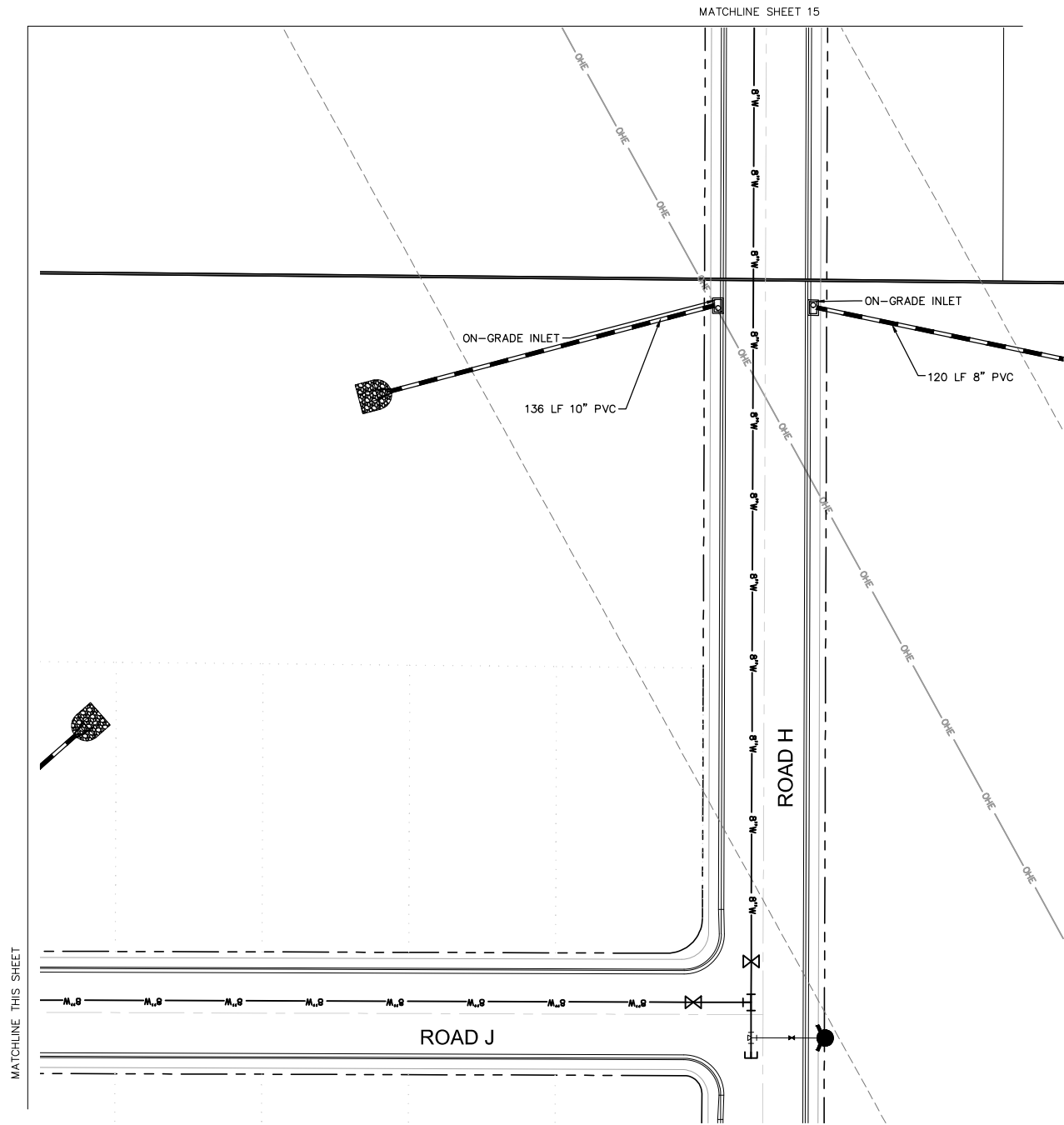
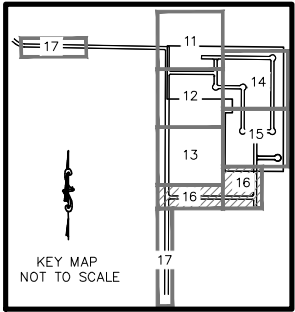
DATE:
3/15/2022
PROJECT NO.
19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\1A\19286 - UTILITY PLAN.dwg Mar 15, 2022 1:56pm by: Zach Darling



UTILITY LEGEND:

8" W	POTABLE WATER LINE WITH SIZE
SAN	SANITARY SEWER WITH MANHOLE
	SERVICE LINE
W	EXISTING WATER LINE
SAN	EXISTING SANITARY SEWER LINE
	PROPERTY LINE
	LOT LINE
	FUTURE PHASE LOT LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	ROAD CENTER LINE
	EDGE OF PAVEMENT
	CURB & GUTTER
	EXISTING RIGHT-OF-WAY
	EXISTING ROAD CENTER LINE
	EXISTING EASEMENT LINE
	FIRE HYDRANT ASSEMBLY
	WATER SERVICE METER
	STORM SEWER



No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

PHELPS
ENGINEERING

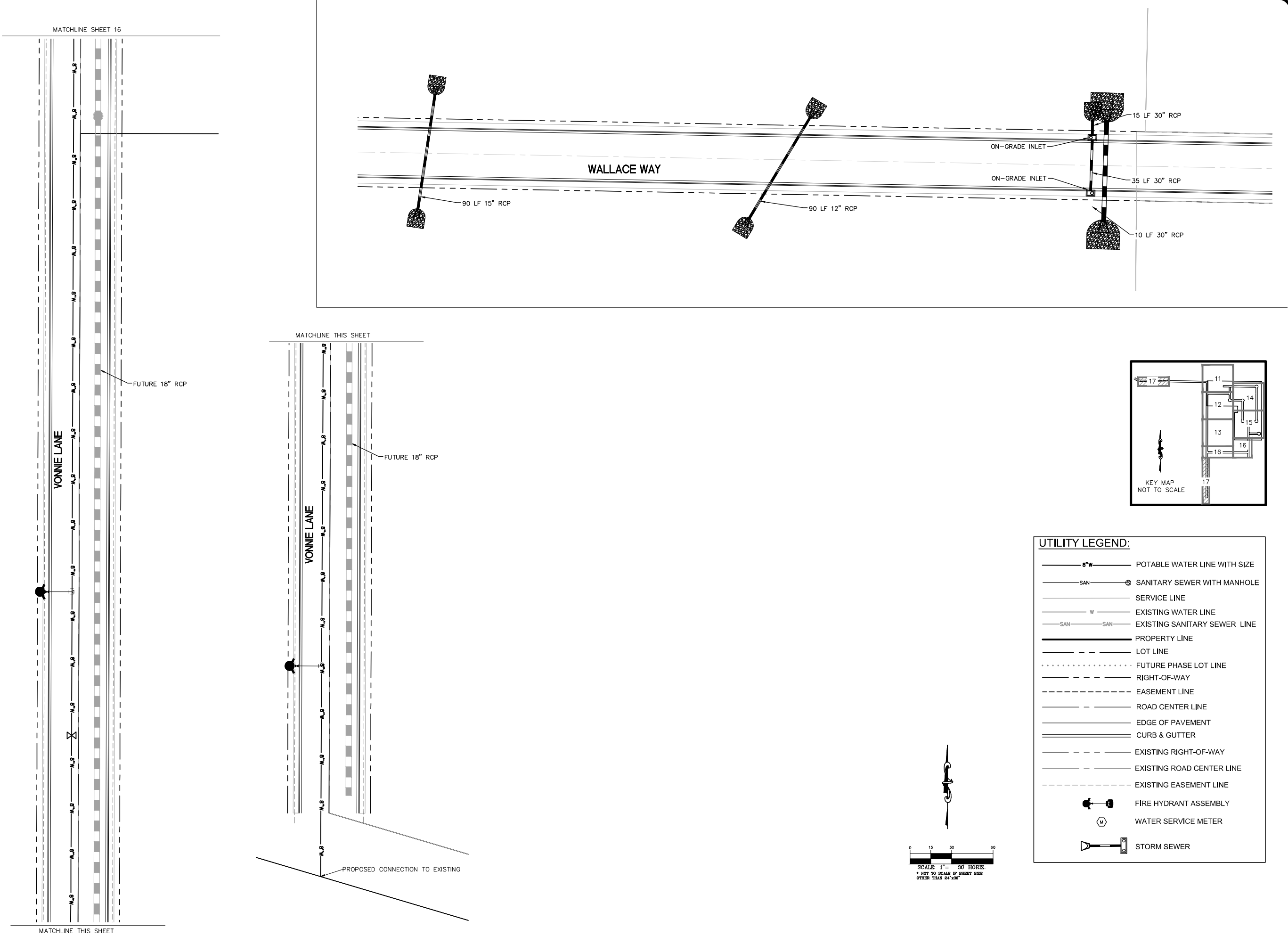
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

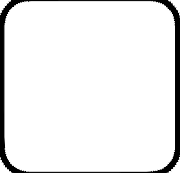
DATE: 3/15/2022
PROJECT NO. 19286



No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

PHELPS
ENGINEERING

155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net



SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286

MAP KEY

= UTILITY EASEMENT

= 9000 FT² LOT

= 6000 FT² LOT

LAND USE TABLE				
	LOTS	AREA (FT²)	ACRES	% TOTAL
6000 FT² SF	35	223,000	5.1	17%
9000 FT² SF	44	421,000	9.7	32%
R.O.W.	n/a	267,334	6.1	20%
OPEN SPACE	n/a	402,000	9.2	31%
TOTAL	79	1,313,334	30.1	100%
DU/AC= 2.63				

LANDSCAPE REQUIREMENTS AND SITE INFORMATION

SITE AREA: 30.15 ACRES (1,313,334 SF)

ZONING: SINGLE FAMILY RESIDENTIAL (SF20)

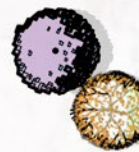
APN: 021-471-05

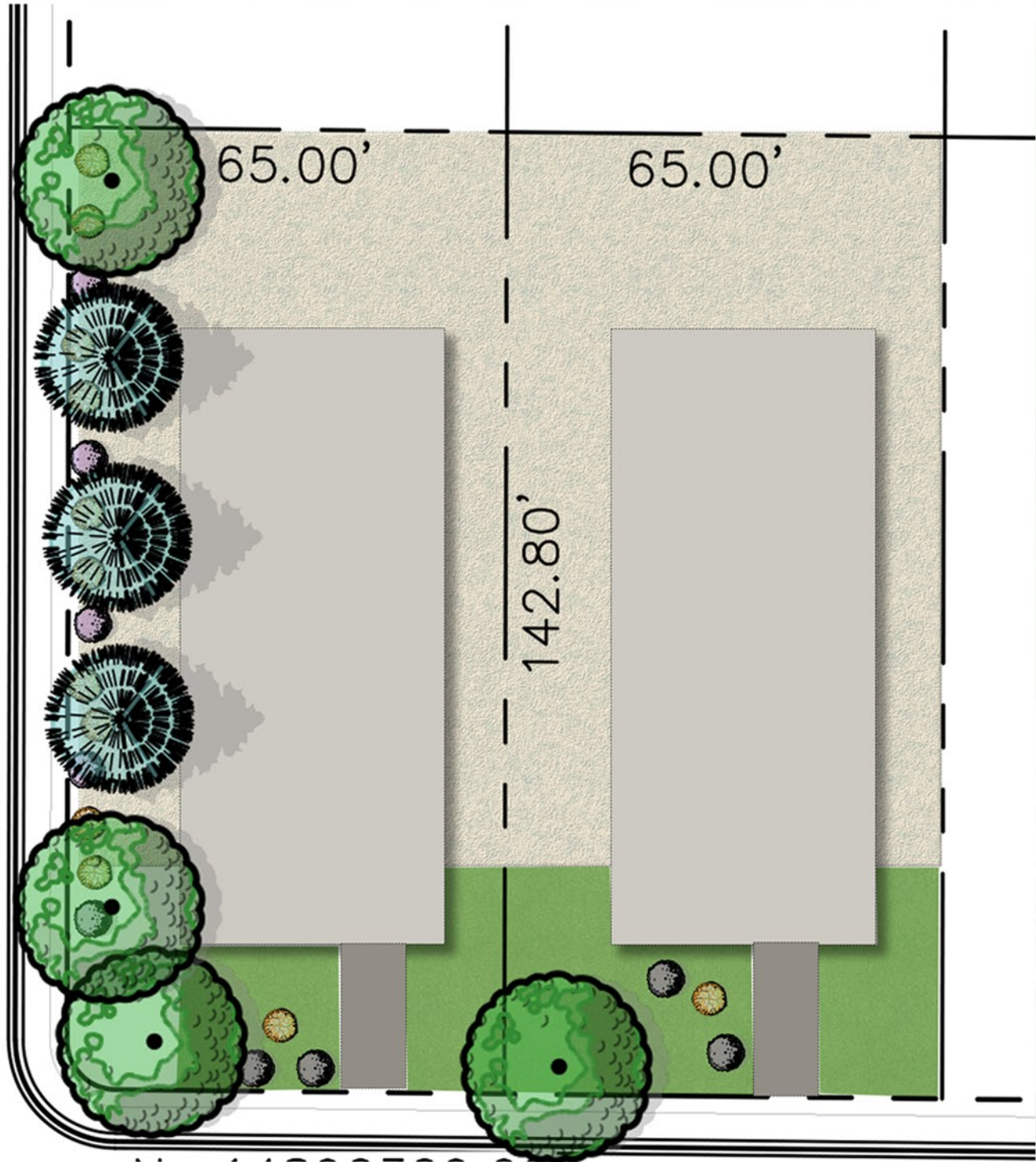
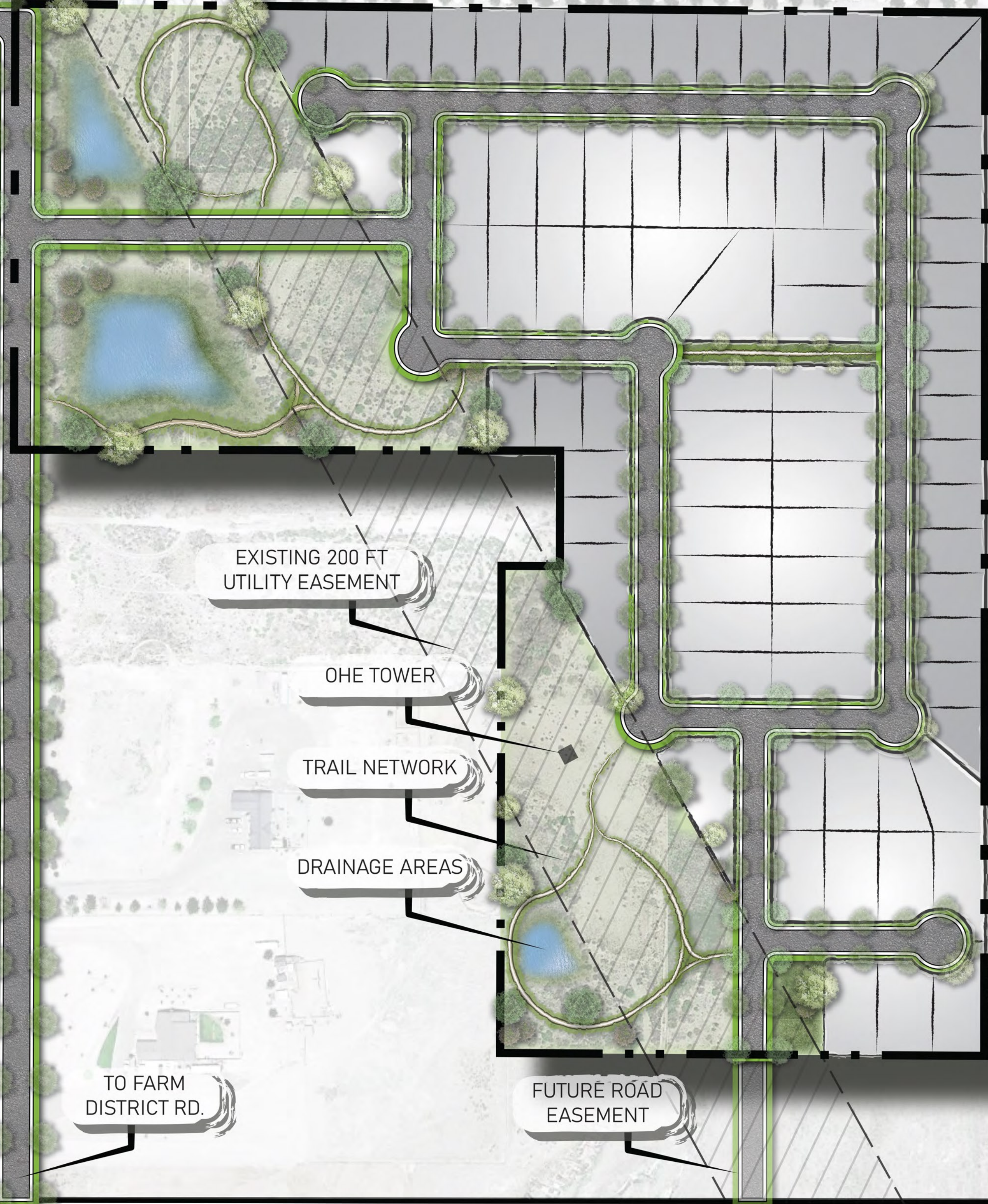
REQUIRED LANDSCAPE AREA: FRONT YARDS

PLANT LEGEND

DECIDUOUS TREE
MIN. 1" CAL.

EVERGREEN TREE
MIN. 6' HEIGHT

SHRUBS
50% MIN. 5 GAL



TYPICAL FRONT YARD LANDSCAPE

AT A MINIMUM, EACH INDIVIDUAL FRONT YARD SHALL INCLUDE:

- 1 TREE PER LOT FRONTAGE
- CORNER LOTS - 1 SIDE YARD TREE PER 30 LINEAL FEET OF STREET FRONTAGE
- 3 SHRUBS PER TREE
- TURF (OPTIONAL BY OWNER)
- USE A MINIMUM OF TWO MULCH TYPES PER FRONT YARD
- DECOMPOSED GRANITE
- 4" MINUS RIVER ROCK
- 1-1/2" RIVER ROCK

TYPICAL FRONT YARD LANDSCAPE SHOWN IS SCHEMATIC ONLY. LANDSCAPE LAYOUT MAY BE MODIFIED AS NEEDED TO FIT INDIVIDUAL LOT & TO AVOID CONFLICTS WITH UTILITIES



GENERAL NOTES:

1. ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER LOCAL GOVERNING CODES.
2. TREES
 - A. SECTION 32.09.030, D.5 "EVERGREEN TREES SHALL BE AT LEAST 6 FEET IN HEIGHT AT TIME OF PLANTING. FIFTY PERCENT (50%) OF DECIDUOUS TREES SHALL BE A MINIMUM CALIPER OF ONE INCH AND 50% SHALL BE A MINIMUM CALIPER OF TWO INCHES AT TIME OF PLANTING"
 - B. ADDITIONAL TREES, BEYOND THOSE REQUIRED BY CODE, MAY BE REDUCED IN SIZE AT INSTALLATION.
3. FINAL PLANT SELECTION AND LAYOUT WILL BE FINALIZED BY DEVELOPER AND BASED ON SOUND HORTICULTURAL PRACTICES REALTING TO MICRO-CLIMATE, SOIL AND WATER REGIMES. ALL TREES WILL BE STAKED SO AS TO REMAIN UPRIGHT AND PLUMB FOLLOWING INSTALLATION. PLANT SIZE AND QUALITY AT TIME OF PLANTING WILL BE PER THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-1990).
4. ALL SHRUB BEDS WILL RECEIVE 4" DEPTH MULCH WITH WEED CONTROL
5. ALL LANDSCAPING WILL BE AUTOMATICALLY IRRIGATED. CONTAINER PLANTINGS WILL BE DRIP IRRIGATED BASED ON THE SPECIFIC HORTICULTURAL REQUIREMENTS OF EACH SPECIES. A REDUCED-PRESSURE-TYPE BACKFLOW PRECENTOR WILL BE PROVIDED ON THE IRRIGATION SYSTEM AS REQUIRED PER CODE.
6. PLAN IS CONCEPTUAL. PLANT QUANTITIES INDICATED ARE PER CITY OF FERNLEY CODE REQUIREMENTS. PLANT LOCATION, FINAL SPECIES SELECTION AND SIZE AT PLANTING SHALL BE DETERMINED DURING DEVELOPMENT OF THE FINAL CONSTRUCTION DOCUMENTS.

REVISED DRAINAGE AREAS & LAND USE TABLE

3/15/22

DATE

BY

REVISIONS

No.

DATE

BY

PHELPS ENGINEERING

155 Country Estates Circle Suite 300
Reno, NV 89511 (775) 399-7200
www.phelpsengineering.net

811

Know what's below.
Call 811 before you dig.

NOT TO SCALE IF SHEET
SIZE OTHER THAN 24"x36"

DESIGNED BY: KRM & JC

DRAWN BY: KRM & JC

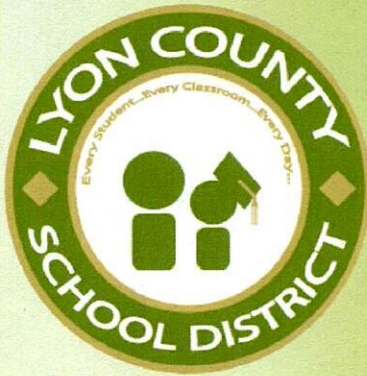
CHECKED BY: CTT

PRELIMINARY
LANDSCAPE PLAN

VONNIE LANE SUBDIVISION
FERNLEY, NV

PROJECT NO.: 19286

L1



Superintendent
Wayne Workman

Deputy Superintendent
Tim Logan

Board of Trustees

President Holly Villines
Clerk Philip Cowee
Michael Hogan
Barbara Jones
Neal McIntyre
Sherry Parsons
Bridget Peterson

Lyon County School District
25 E. Goldfield Ave.
Yerington, NV 89447

Ph. (775) 463-6800
Fax (775) 463-6808

www.lyoncsd.org

March 16, 2022

Mr. Tim Thompson
City of Fernley Planning Director
595 Silver Lance Blvd.
Fernley NV, 89408

RE: Proposed Vonnie Lane Project

Dear Mr. Thompson,

Eureka Land Development LLC, which proposes 86 new single family residential homes, will impact Lyon County School District (LCSD) facilities. This project is currently zoned for the following schools:

East Valley Elementary School
Fernley Intermediate School
Silverland Middle School
Fernley High School

Traditionally, LCSD has been able to count on approximately .5 children for every new home built in Lyon County. Therefore, LCSD is predicting 43 new students with this proposed Vonnie Lane Project. Increasing capacity throughout LCSD is an immediate need but unfortunately current property tax abatements and caps prevent the collection of enough revenue to meet the increasing facility needs.

MGT Master Plan study in 2016 predicted enrollment and utilization at East Valley Elementary, Silverland Middle, Fernley Intermediate, and Fernley High to be inadequate or approaching inadequate levels by 2025. All four schools realized inadequate or approaching inadequate utilization levels 4-5 years sooner than MGT predicted.

LYON COUNTY SCHOOL DISTRICT
CURRENT AND PROJECTED UTILIZATION RATES

UTILIZATION	DESCRIPTION
> 110	Inadequate
100-109.9	Approaching Inadequate
85 - 99.9	Adequate
70 - 84.99	Approaching Inefficient
< 70	Inefficient

LCSD Enrollment/Capacity as of October 1, 2021							
School	Enrollment April 1, 2019	Enrollment February 1, 2020	Enrollment October 1, 2021	Capacity Please see below	2015 Utilization	2025 Utilization	Current Utilization
East Valley ES	530	534	504	669*	97%	115%	75%
Fernley IS	658	656	620	680	81%	96%	93%
Silverland MS	651	680	649	759	73%	86%	86%
Fernley HS	1067	1183	1236	1346**	92%	106%	92%
Capacity Formula: = # rooms x 25 (K-6) or x 30 (7-12) x scheduling factor (high 75%, middle 85%, elementary 95%) (Please see page 44 of the LCSD Master Facility Plan for an example on estimating capacity)							
* Includes new addition completed Summer 2021, increasing capacity by 200							
** Includes two new modular buildings (for a total of 4 on campus) increasing capacity by 120							

The most recent project LCSD completed to increase capacity was at East Valley Elementary School. This project netted 8 new classrooms at total project cost of \$7.35 million or \$918,750 per classroom. Vonnie Lane Project projects 43 new students which would require approximately 1.5 new classrooms or \$1,378,125 (\$918,750 x 1.5) in construction only capital. LCSD has relied on Bond Funding to build new schools and additions. Unfortunately, given the district current bonding capacity and nationwide increased construction costs, it's not possible for the district to have sufficient capital to build anything alleviating student capacity concerns.

LCSD recognizes that growth is an inevitable product of living in a great community and will always strive to provide world class educational opportunities to our students. However, as long as new, young families move into our community, LCSD will be tasked with the challenges associated with growth. Facility needs will always lag new growth, increasing the stress and strain on a local education agency.

LCSD appreciates the opportunity to provide input and is grateful for the relationships we have with the city and district leaders. As our communities grow with new developments, we hope school district leadership will continue to be engaged. Given our challenges to raise capital funds in the necessary amounts to build new schools LCSD advocates for a school-friendly allowance or creative solutions that may be possible from a developer of each new residential plan in Lyon County.

Thanks again for the opportunity to provide this input.



Wayne Workman
Lyon County School District Superintendent



19286

**Vonnie Lane Residential Development
Fernley, NV**

**Traffic Impact Report
February 15, 2022**

PLANNERS

3522 South Emerson Street
Englewood, Colorado 80113
(303) 298-1644 (o)

ENGINEERS

ANALYSTS

155 Country Estates Circle
Suite 300
Reno, NV 89511

Table of Contents

1.0	INTRODUCTION	1
1.1	PURPOSE AND SCOPE OF THIS REPORT.....	1
1.2	REGIONAL SETTING.....	1
	<i>Figure 1: Regional and Vicinity Maps.....</i>	<i>1</i>
1.3	SITE PLAN AND LAND USE COMPOSITION	2
	<i>Figure 2: Site Plan.....</i>	<i>2</i>
1.4	EXISTING SITE AND PROPOSED ZONING AMENDMENT	2
1.5	SCOPE OF THE TRAFFIC IMPACT STUDY.....	2
	<i>Table 1: Analysis Intersections.....</i>	<i>3</i>
	<i>Table 2: Study Scenarios.....</i>	<i>4</i>
2.0	METHODOLOGY	5
	<i>Table 3: Capacity at Un-Signalized Intersections.....</i>	<i>5</i>
	<i>Table 4: Capacity at Signalized Intersections</i>	<i>5</i>
3.0	EXISTING SETTING	6
	<i>Figure 3: Existing Setting</i>	<i>6</i>
	<i>Table 5: Existing Setting: Key Roadways.....</i>	<i>6</i>
4.0	NEAR-TERM IMPACT ANALYSIS	7
4.1	VOLUMES WITHOUT PROJECT.....	7
	<i>Figure 4: Near-Term Volumes.....</i>	<i>7</i>
4.2	TRIP GENERATION.....	7
	<i>Table 6: Trip Generation</i>	<i>8</i>
4.3	TRIP DISTRIBUTION	8
	<i>Figure 5: Near-Term Trip Distribution.....</i>	<i>9</i>
4.4	TRIP ASSIGNMENT.....	9
	<i>Figure 6: Near-Term Trip Assignment.....</i>	<i>9</i>
4.5	VOLUMES WITH PROJECT	9
	<i>Figure 7: Near-Term Plus Project Volumes.....</i>	<i>9</i>
4.6	NEAR-TERM IMPACTS	10
	<i>Table 7: Near-Term Project Impact on Intersection Operations.....</i>	<i>10</i>
5.0	LONG-TERM IMPACT ANALYSIS	11
5.1	VOLUMES WITHOUT PROJECT.....	11
	<i>Figure 8: Long-Term Volumes.....</i>	<i>11</i>
5.2	TRIP GENERATION.....	11
5.3	TRIP DISTRIBUTION	11
	<i>Figure 9: Long-Term Trip Distribution</i>	<i>13</i>
5.4	TRIP ASSIGNMENT.....	13
	<i>Figure 10: Long-Term Trip Assignment</i>	<i>13</i>
5.5	VOLUMES WITH PROJECT	13
	<i>Figure 11: Long-Term Plus Project Traffic Volumes</i>	<i>13</i>
5.6	LONG-TERM IMPACTS	14
	<i>Table 8: Long-Term Project Impact on Intersection Operations.....</i>	<i>14</i>
6.0	FINDINGS AND RECOMMENDATIONS.....	15

6.1	FINDINGS	15
6.2	RECOMMENDATIONS	15
7.0	PRELIMINARY VEHICLE MILES TRAVELED ANALYSIS	16
7.1	REGULATORY CONTEXT.....	16
7.2	POTENTIAL VMT REDUCTION MEASURES.....	16
APPENDIX A: BROCHURE OF EXISTING GEOMETRIC CONDITIONS		18
APPENDIX B: NUMERIC ANALYSIS.....		19
APPENDIX C: LEVEL OF SERVICE ANALYSIS		20
APPENDIX C-1: NEAR-TERM AM		21
APPENDIX C-2: NEAR-TERM PM		22
APPENDIX C-3: NEAR-TERM PLUS PROJECT AM		23
APPENDIX C-4: NEAR-TERM PLUS PROJECT PM		24
APPENDIX C-5: LONG-TERM AM		25
APPENDIX C-6: LONG-TERM PM		26
APPENDIX C-7: LONG-TERM PLUS PROJECT AM		27
APPENDIX C-8: LONG-TERM PLUS PROJECT PM		28

1.0 Introduction

Reggetti Investment, LLC proposes development of the Vonnie Lane Residential Development project on the north side of State Route 828 (Farm District Road) just east of Vonnie Lane in the City of Fernley, Nevada.

The project consists of 85 single-family detached housing units. The development would consist of a single access connection to Vonnie Lane to the west. The study uses the Single-Family Detached Land Use (Institute of Transportation Engineers *Trip Generation* Land Use Code 210) to project the Trip Generation during the average weekday, AM peak hour, and PM peak hour timeframes.

1.1 Purpose and Scope of this Report

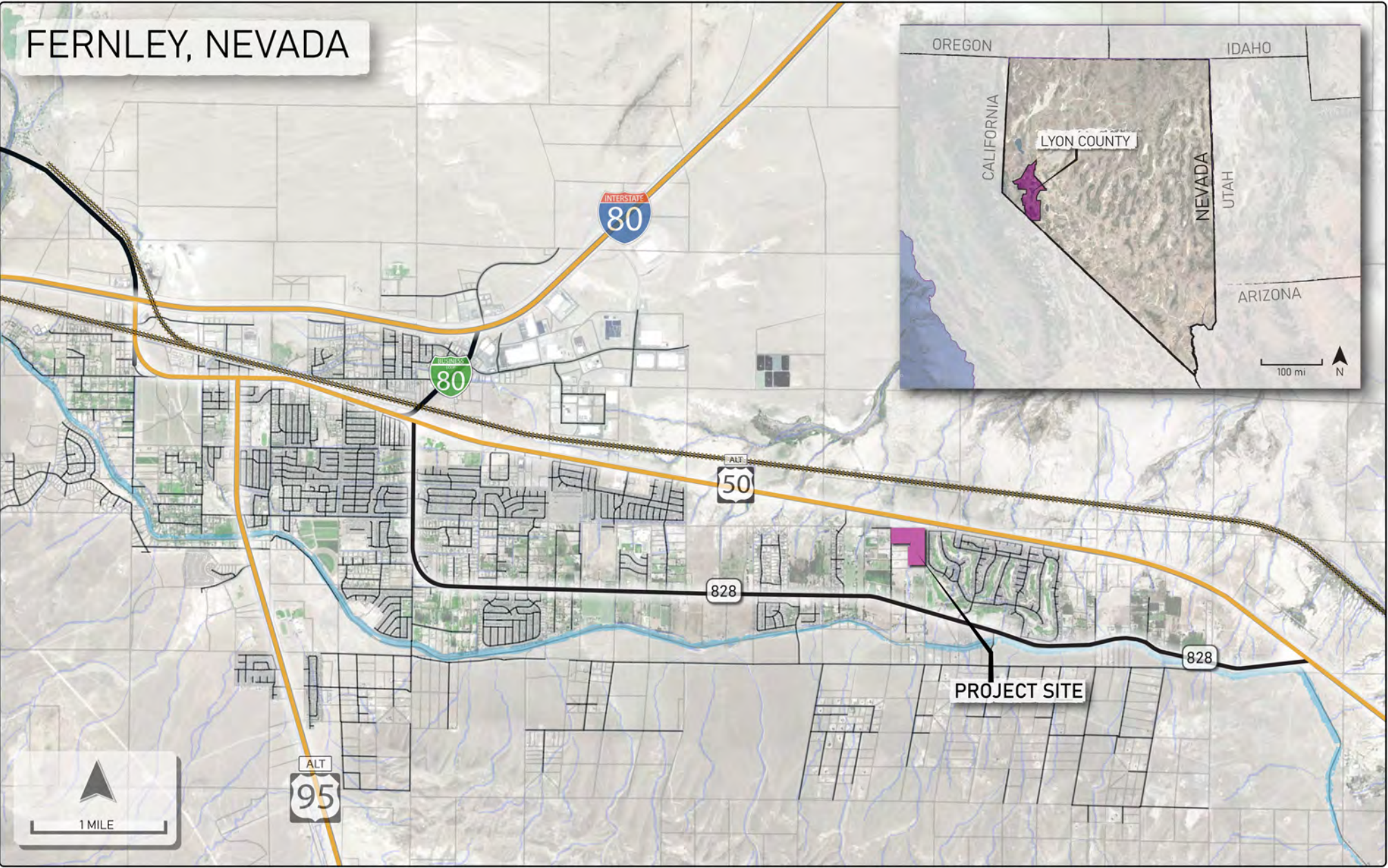
The purpose of this *Traffic Impact Report* is to communicate to the City of Fernley and the Nevada Department of Transportation (NDOT) the near-term and long-term impacts of the project on the analysis intersections. Operational analyses were conducted using Synchro Version 11 based on *Highway Capacity Manual Sixth Edition (2016)* methodologies. These are the latest software and manual editions available at the time of this study.

The scope of this report includes a discussion of the regional setting, the site plan and land use composition, the existing site in the context of the *City of Fernley Comprehensive Master Plan*, the traffic study parameters including analysis intersections and study scenarios, the methodology, the existing setting, the projected trip generation, the near-term project impacts, the long-term project impacts, and key findings and recommendations. A preliminary vehicle miles traveled (VMT) analysis is provided at the end of this report to reflect the incorporation of this new VMT metric that took effect on July 1, 2020, in a neighboring state. A brochure with satellite imagery of existing conditions provided in **Appendix A**. The numeric analysis including the trip generation, distribution, and assignment calculations are included in **Appendix B** along with the crash, turn lane, and signal warrant analyses. The Level of Service (LOS) worksheets are included in **Appendix C**.

1.2 Regional Setting

Figure 1: Regional and Vicinity Maps identify the project's location within the State of Nevada and the City of Fernley. The project is located approximately 38 miles northeast of Reno within the geographic boundaries of Lyon County. The nearest freeway interchange is Business Route 80 at Interstate 80. Business Route 80 transitions to State Route 828 south of the Roundabout with East Main Street and US Highway 50A (Lincoln Highway). State Route 828 continues to the south, and then makes a 90-degree turn to the east where it continues for approximately 3 miles and rejoins US-50A to the east.

FIGURE 1: REGIONAL AND VICINITY MAPS



1.3 Site Plan and Land Use Composition

Figure 2: Site Plan shows the layout of the proposed development including the relative locations of the residential and open space elements. Site access is proposed via two accesses to Vonnie Lane to the west. During the near-term, all project-generated traffic was assumed to proceed south on Vonnie Lane to State Route 828 (Farm District Road). The easement to the west to Red Rock Road was assumed to come online by the timeframe of the long-term analysis. Red Rock Road would provide access to US-50A to the north.

1.4 Existing Site and Proposed Zoning Amendment

The existing site within the East Development Area of the City of Fernley is low-density residential. The Desert Rose RV Park off US-50A borders to the north. Farm District Road (SR 828) borders to the south. Single-family residential units on the west side of Pepper Lane and a golf course border to the east, and Vonnie Lane borders to the west.

The *City of Fernley Comprehensive Master Plan* Figure 3-1 (Comprehensive Land Use Map) dated August 2018 identifies the proposed land use designation within this study area east of the East Development Area as Single-Family Residential (SFR), which is bordered to the east by a combination of SFR and Open Space and Parks (OSP).

The *Housing Needs Assessment – Churchill County, Nevada* dated September 11, 2021, underscores the severe housing shortage in nearby Churchill County escalated by a lack of new residential construction over the past decade, thereby underscoring the need to aggressively remove the barriers to residential construction. Implementation of the proposed Vonnie Lane Residential Development would help reverse this dwindling housing construction trend that is evident on a national scale.

1.5 Scope of the Traffic Impact Study

The scope of the traffic impact study entails assessing the multi-modal (vehicle, bicycle, pedestrian, equestrian, transit, etc.) transportation impacts of the proposed Vonnie Lane Residential Development on the analysis intersections identified in Table 1 during the study scenarios identified in Table 2 for both the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hours. The peak hours are defined as the busiest four-consecutive 15-minute intervals during these respective timeframes based on actual turning movement counts collected in the field.

FIGURE 2: SITE PLAN

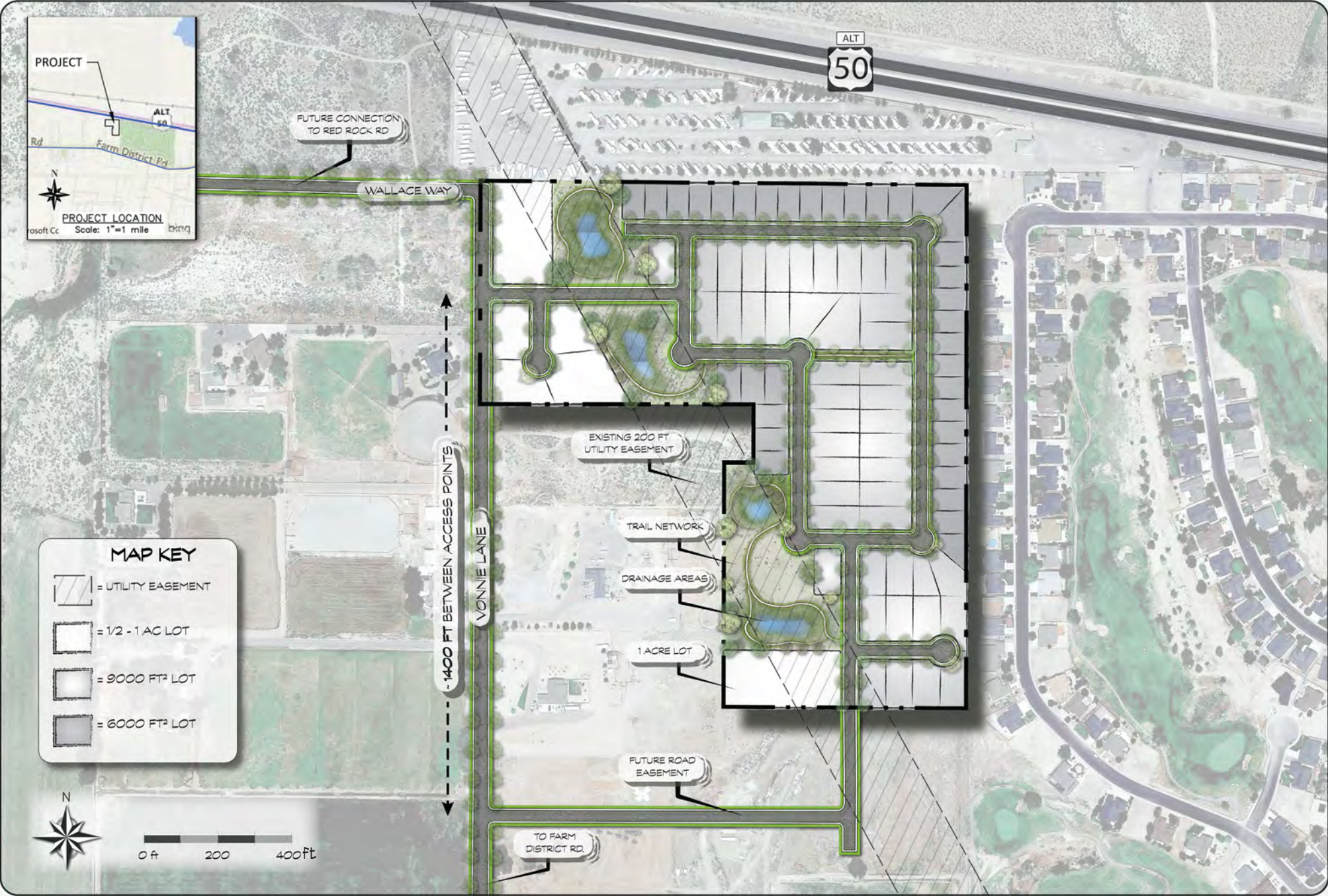


Table 1 identifies the analysis intersections.

Table 1: Analysis Intersections

No	North-South Roadway	East-West Roadway
1	Clearwater Parkway	SR 828
2	Red Rock Road	SR 828
3	Desert Lakes Drive	SR 828
4	Bens Way	SR 828
5	US-50A	SR 828
6	Vonnie Lane (Project and Long-Term Only)	SR 828
7	Red Rock Road (Long-Term Only)	US-50A

As noted during the High-Level Field Investigation (A Review of Satellite Imagery on Google Earth) conducted on Tuesday, November 30, 2021, and Low-Level Field Investigation (A Review from the Ground) conducted on Sunday, January 16, 2022, all intersections are un-signalized stop-controlled intersections with the stop-control applied to the north-south roadway, except for Intersection No. 5 (US-50A at SR 828) where the stop-control is applied to the east-west roadway of SR 828.

A dedicated westbound left turn lane (WBL) is provided at Intersection No. 1.

A dedicated eastbound left turn lane (EBL) is provided at intersection No. 2.

Dedicated northbound left (NBL), southbound right (SBR), eastbound left (EBL), and eastbound right (EBR) turn lanes are provided at Intersection No. 5. This intersection also includes raised islands, median storage for the eastbound left turn (EBL) movement, and a channelized eastbound right turn (EBR) movement with a “pork-chop-shaped” island.

While Vonnie Lane (Intersection No. 6) was observed as a gravel roadway during the High-Level Field Investigation, full paving of Vonnie Lane is assumed to take place in connection with the Vonnie Lane Residential Development project during the near-term.

Full paving of the easement and Red Rock Road north to US-50A is assumed to take place by the long-term timeframe.

During the Level of Service (LOS) analysis, the merits and drawbacks of turn lane channelization and signalization were evaluated for those intersections that fall at or below the City of Fernley and the Nevada Department of Transportation (NDOT) LOS Standard of D or better.

Table 2 identifies the study scenarios based on a 20-year planning horizon.

Table 2: Study Scenarios

No	Description
A	Near-Term
B	Near-Term Plus Project
C	Long-Term
D	Long-Term Plus Project

Appendix B shows the progressive volume analysis consisting of the generation, distribution, and assignment of the development trips during both the near-term and long-term timeframes.

2.0 Methodology

The scope entailed conducting capacity evaluations at multiple study intersections using Level of Service (LOS) based on *Highway Capacity Manual 6th Edition* methodologies. Level of Service is a qualitative measure describing operating conditions at intersections and their perception by intersection users.

Table 3 defines the intersection capacity evaluation criteria at un-signalized intersections by LOS designation as a function of delay along with a narrative description of each designation.

Table 3: Capacity at Un-Signalized Intersections

Designation	Delay (Seconds per Vehicle)	Description
A	0-10	Long, frequent gaps
B	10-15	Shorter, less frequent gaps, no more than 1 vehicle in queue
C	15-25	Less frequent gaps, 2 vehicles in queue
D	25-35	Less frequent gaps, 3 vehicles in queue
E	35-50	Less frequent gaps, 3 or more vehicles in queue
F	50+	Excessive delays waiting for suitable gaps, longer queues

Source: Transportation Research Board, *Highway Capacity Manual 6th Edition*

Table 4 defines the intersection capacity evaluation criteria at signalized intersections by LOS designation as a function of delay along with a narrative description of each designation.

Table 4: Capacity at Signalized Intersections

Designation	Delay (Seconds per Vehicle)	Description
A	0-10	Some slowing on green, but most vehicles do not stop
B	10-20	Some vehicles stop, but most do not
C	20-35	More vehicles stop, but many still pass through without stopping
D	35-55	Most vehicles stop
E	55-80	Almost all vehicles stop, but can clear the intersection within one cycle
F	80+	All vehicles stop, and some may not be able to clear the intersection within one cycle

Source: Transportation Research Board, *Highway Capacity Manual 6th Edition*

According to the City of Fernley and the Nevada Department of Transportation, the Level of Service Standard is “D” or better. When operational analyses were conducted showing results falling below this standard, measures were recommended to elevate operations to an acceptable level.

3.0 Existing Setting

The existing transportation system and topographical conditions were evaluated by studying satellite imagery and conducting a field investigation of the site and the study area on Tuesday, November 30, 2021. This was followed by a low-level field investigation conducted on Sunday, January 16, 2022.

Figure 3: Existing Setting defines the existing roadways, lane configurations, and intersection geometrics.

Table 5 describes the key roadways within the existing setting.

Table 5: Existing Setting: Key Roadways

Roadway	Divided or Un-Divided	Lanes	Posted Speed	Functional Classification
US-50A	Divided	4	65	Principal Arterial
State Route 828	Un-Divided	2	55	Minor Arterial
Clearwater Parkway	Divided	2	45	Minor Arterial
Desert Lakes Drive	Divided	2	35	Rural Minor Collector
Bens Way	Un-Divided	2	35	Rural Minor Collector
Wedge Lane	Un-Divided	2	35	Rural Minor Collector
Vonnies Lane	Un-Divided	2	25	Local Road
Red Rock Road	Un-Divided	2	25	Local Road

Source: City of Fernley Comprehensive Master Plan (August 2018)

Source: Nevada DOT Annual Traffic Report

US-50A connects I-80 to the west and the City of Fallon to the east and intersects with US-50 just west of Fallon. US-50 connects to Carson City to the southwest. US-50A includes paved shoulders, street lighting, and median storage within the study area.

State Route 828 includes paved shoulders throughout the study area along with dedicated left and right turn lanes and median storage in select locations.

Clearwater Parkway includes curb and gutter.

Desert Lakes Drive includes curb/gutter/sidewalk and a raised median.

Bens Way includes curb/gutter/sidewalk and intersects Wedge Lane just north of SR 828.

Vonnies Lane was observed as a gravel roadway. Full paving is assumed in connection with the proposed Vonnies Lane Residential Development. An easement between Vonnies Lane and Red Rock Road would come online by the long-term timeframe.

Red Rock Road was observed as a paved roadway at SR 828 to the south transitioning to a gravel roadway approaching US-50A to the north where it does not function as a usable paved roadway during the near-term.

The map displays the project area along Farm District Road, which runs from the west to the east. Key features include:

- Intersections:** Seven numbered callouts (1-7) provide detailed views of specific intersections:
 - 1:** Farm District Rd and Clearwater Pkwy.
 - 2:** Farm District Rd and Red Rock Rd.
 - 3:** Farm District Rd and Desert Lakes Dr.
 - 4:** Farm District Rd and Bens Way.
 - 5:** Farm District Rd and Clearwater Pkwy (at the intersection with Highway 50).
 - 6:** Farm District Rd and Vonnie Lane.
 - 7:** Farm District Rd and Red Rock Rd (at the intersection with Highway 50).
- Legend:**
 - Stop Control:** Represented by a purple octagon.
 - Yield Control:** Represented by a purple inverted triangle.
 - Lane Configuration:** Represented by white arrows.
 - Channelizing Island:** Represented by a green triangle.
 - Median Island:** Represented by a green oval.
 - Project Site:** Represented by a purple L-shaped polygon.
- Scale and Orientation:** A scale bar indicates 1 mile, and a north arrow points towards the top of the map.

4.0 Near-Term Impact Analysis

The Near-Term Impact Analysis was conducted to assess the impact of the project relative to existing conditions by adding the project volumes to the existing volumes (volumes without project) for each of the study intersections, calculating the Level of Service (LOS) for with and without-project conditions based on the methodology described in Section 2, and conducting a side-by-side comparison of intersection operations. Calculating the project volumes entailed determining the number of vehicle trips generated by the project (trip generation), evaluating how the trips would disperse throughout the study area (trip distribution), and assigning the trips to individual turning movements at each of the study intersections (trip assignment).

4.1 Volumes without Project

Figure 4: Near-Term Volumes shows the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hour traffic volumes based on the busiest four consecutive fifteen-minute intervals during these timeframes. Manual peak hour turning movement counts were obtained on Wednesday, January 5, 2022, by National Data and Surveying (NDS) at Intersections 1 (Clearwater Parkway), 3 (Desert Lakes Drive), 4 (Bens Way), and 5 (US-50A). Due to the presence of dirt roadways at the remaining three study intersections, through volumes were calculated from the adjacent intersections and turning volumes of 10 vehicles per hour were assigned to each of the four turning movements at these three intersections to ensure a conservative analysis.

Crash data was requested by the Nevada Department of Transportation (NDOT). Such data was provided at Intersection 1 (Clearwater Parkway) at State Route 828 for Calendar Years 2017, 2018, and 2019. Severity, Type, and Cause Analyses were conducted, and rates were calculated based on Million Entering Vehicles per year (MEV). One injury crash was reported at this intersection. The crash type was Rear-End. The cause was Following Too Closely. The calculated crash rate was 0.273 indicating satisfactory operations.

4.2 Trip Generation

A vehicle trip is defined as a trip whose primary purpose is to visit the site. Such trips include resident, guest, service, and delivery, among other types.

Trip generation was calculated based on rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition (2021)*. Specifically, the number of trips was projected by multiplying the rates by an individual independent variable quantity. For example, calculating the total weekday trips for the Single-Family Detached Housing Land Use (ITE Land Use Code 210) based on 85 Dwelling Units entails multiplying the independent variable quantity of 85 Dwelling Units by the rate of 9.43 Trips per Dwelling Unit to yield 802 Weekday Trips.

Figure 4: Near-Term Traffic Volumes

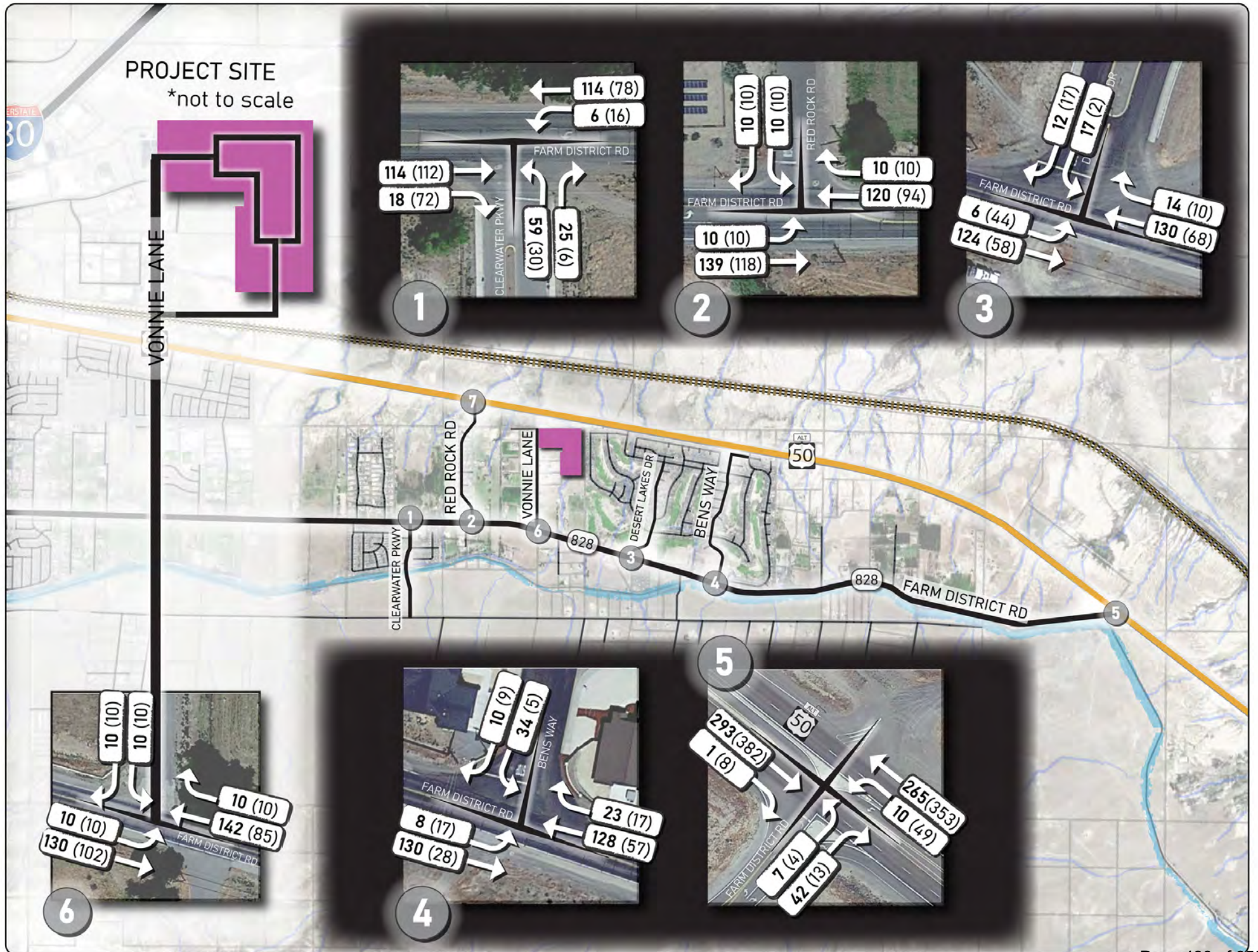


Table 6 shows the results of the trip generation analysis based on the Single-Family Detached Housing Land Use. Rates and trips are shown in more detail in **Appendix B**.

Table 6: Trip Generation

Description	Weekday		AM Peak Hour		PM Peak Hour		
	Total	Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached Housing (210) based on 85 Dwelling Units							
Rates	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Trips	802	16	44	60	50	30	80

Source: Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition (2021)

According to **Table 6**, the project would generate 802 vehicle trips during an average weekday, 60 vehicle trips during the AM peak hour, and 80 vehicle trips during the PM peak hour.

4.3 Trip Distribution

Two trip distribution analyses were conducted to evaluate how the trips would disperse throughout the study area between the project and the gates (points of entry to or exit from the study network). The first was a near-term analysis based on the existing roadway network plus improvements projected to come online in connection with the initial opening of the Vonnie Lane Residential Development. The second was a long-term analysis (covered in Section 5.3) based on the implementation of 5-year, 10-year, and 20-year improvements/additions to the transportation network as indicated in the *Draft Transportation Management Plan* presented to the Fernley City Council on June 3, 2020. The near-term and long-term trip distribution analyses use the same trip generation values identified in **Table 4** above.

The near-term trip distribution percentages were determined based on the following assumptions:

1. The trips would be characteristic of residential trips in general, namely strong familiarity with the local transportation network and attracted to local services. Such services would include, but are not limited to, shopping centers, grocery stores, schools, employment, parks, and recreation amenities.
2. Primary retail opportunities are located to the northwest within downtown, along Main Street, and near the interchanges with I-80 with the most preferred routes branching off Farm District Road to the southwest of the project and US-50A northwest of the project.
3. Primary educational opportunities are located near SR 828 at Cottonwood to the northwest, US-95A to the southwest, and the junction of US-50A and Farm District Road to the east.
4. Primary employment opportunities are located within downtown, within the hospitality and industrial developments along Main Street and the I-80 corridor

through town, and along I-80 to the west including the Greater Reno/Sparks population center.

5. Primary recreation opportunities include the parks to the northwest and the Pyramid Lake Recreation Area to the northwest.

Study area specific assumptions for the near-term analysis are as follows:

1. No traffic was assigned to Red Rock Road in the near-term trip distribution analysis based on the assumption that the implementation of the easement to Vonnie Lane to the east would not come online until long-term.
2. Desert Lakes Drive accesses the golf course and residential development to the east of the proposed Vonnie Lane Residential Development, with no existing or projected connections to Vonnie Lane. While Julia Lane was observed to connect with Desert Lakes Drive and US-50A, the intersection of Julia Lane at US-50A was observed as right-in/right-out. Therefore, no traffic was assigned to Desert Lakes Drive or Julia Lane in the near-term trip distribution/assignment analysis for traffic destined to locations on US-50A to the west.
3. Bens Way intersects Wedge Lane just north of State Route 828. Wedge Lane intersects US-50A to the north with full unrestricted access, raised medians, and median storage. Therefore, traffic was assigned to the intersection of Bens Way at SR 828 in the near-term trip distribution/assignment analysis for traffic destined to locations on US-50A to the west.

Figure 5: Near-Term Trip Distribution shows the near-term trip distribution percentages for each of the gates.

4.4 Trip Assignment

Trip assignment is calculated by multiplying the trip generation values from Table 6 by the trip distribution percentages described above. For analysis purposes, the trips were proportioned among each of the gates and then assigned to individual turning movements at each of the analysis intersections.

Figure 6: Near-Term Trip Assignment shows the trip assignment values for individual turning movements at each of the analysis intersections.

These values are shown in tabular form in **Appendix B**.

4.5 Volumes with Project

Figure 7: Near-Term Plus Project Volumes shows the with-project traffic volumes at each of the study intersections by adding the Figure 5 trip assignment volumes to the Figure 4 existing traffic volumes.

FIGURE 5: NEAR-TERM TRIP DISTRIBUTION

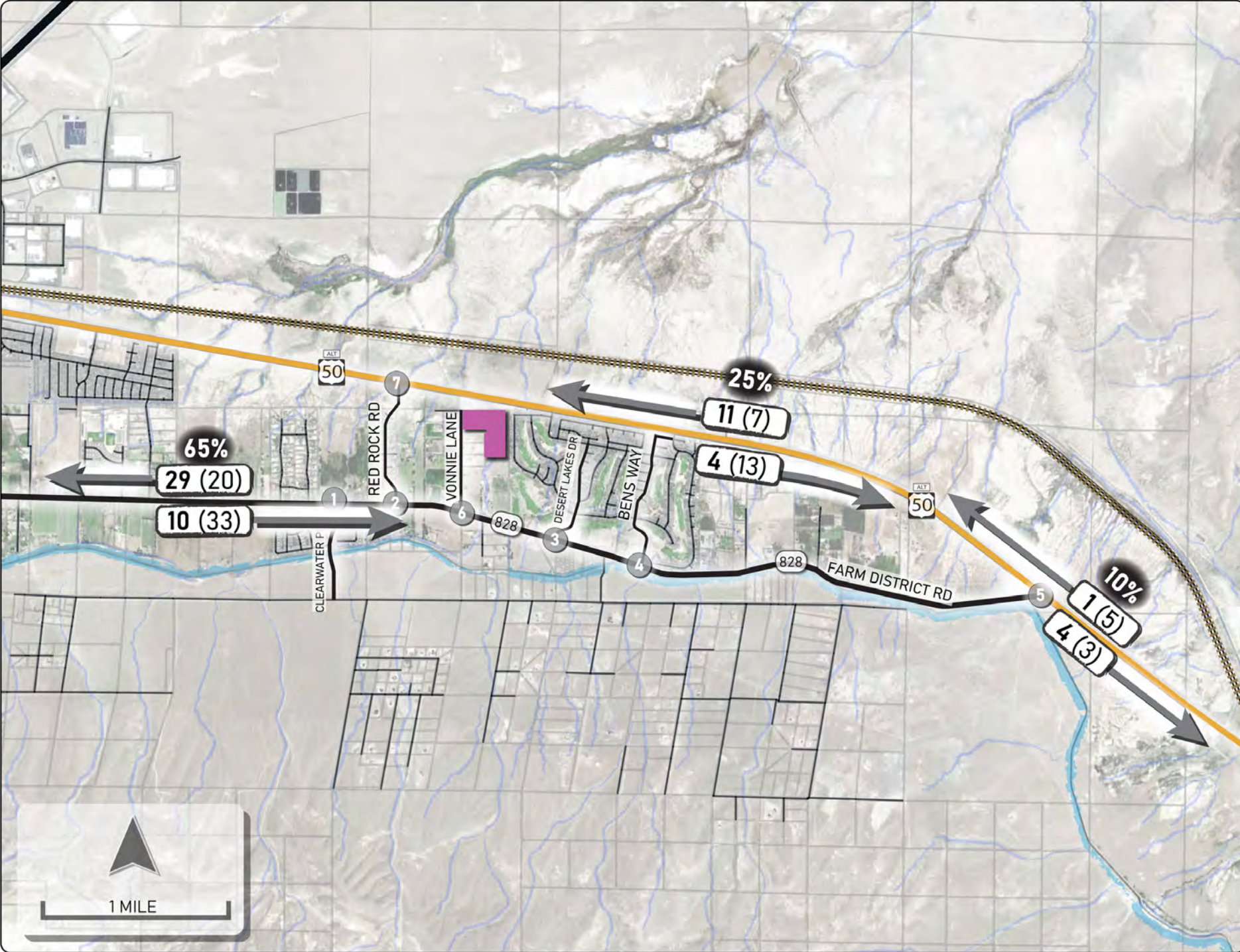


FIGURE 6: NEAR-TERM TRIP ASSIGNMENT

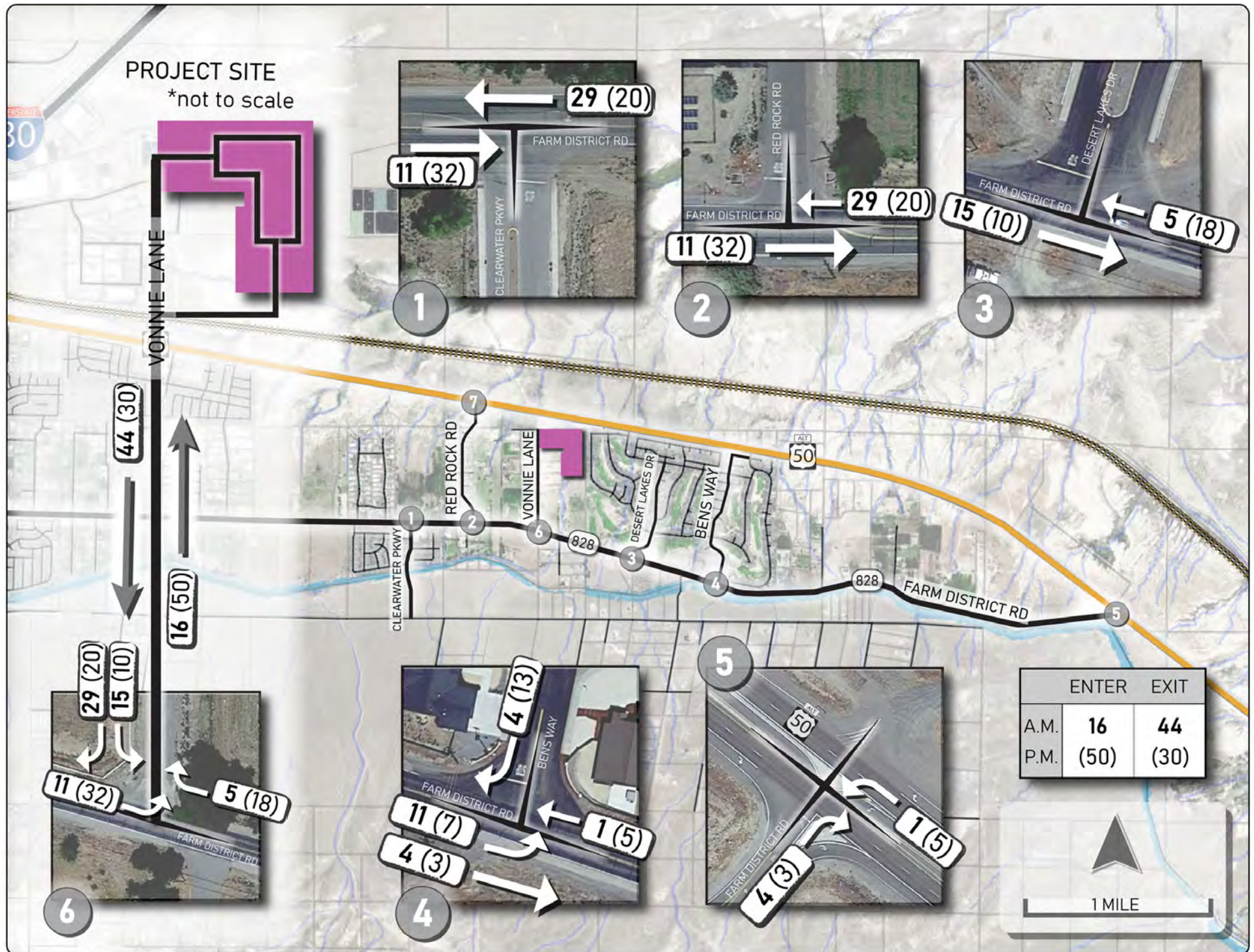
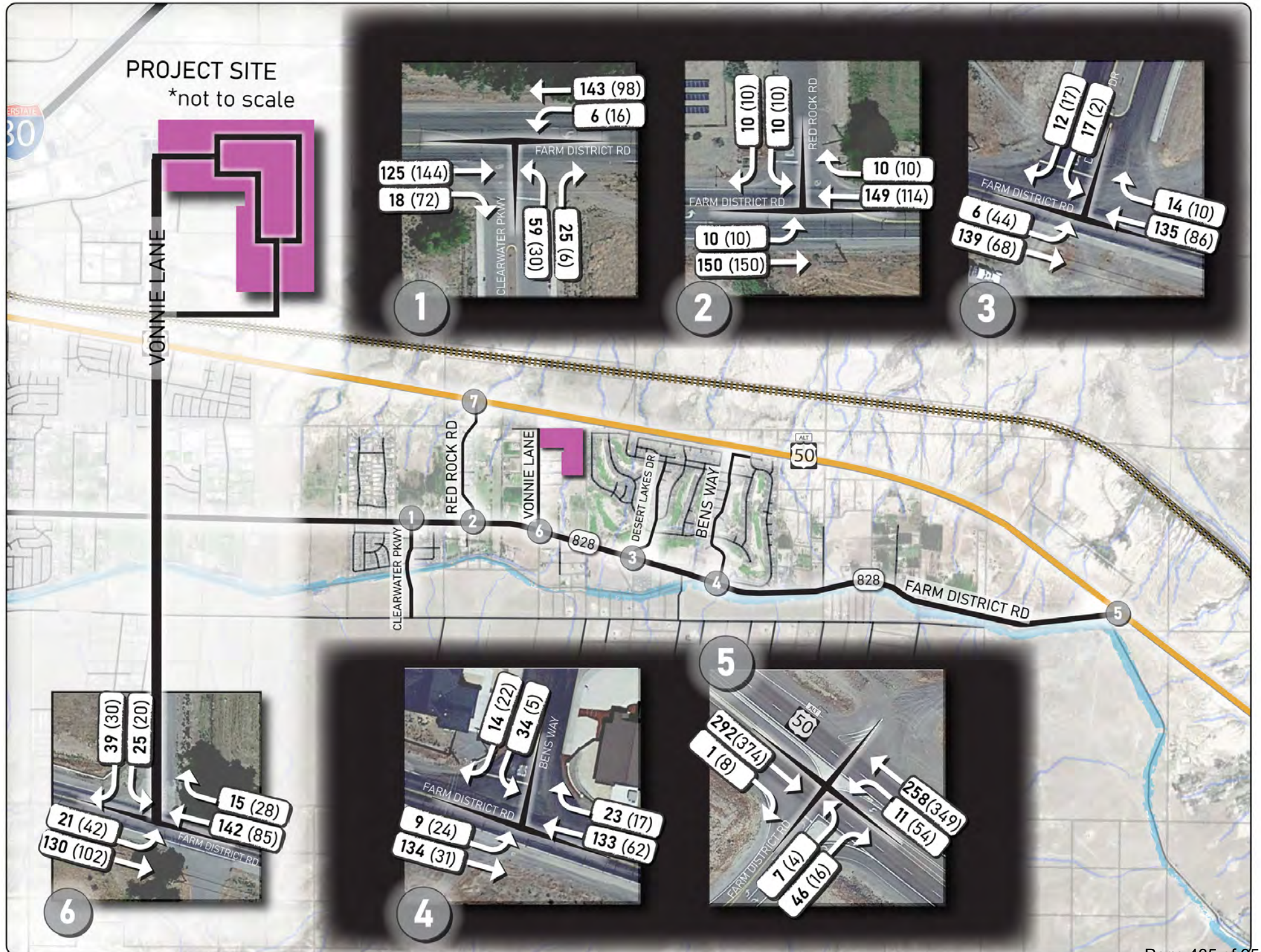


Figure 7: Near-Term Plus Project Traffic Volumes



The need for turn lanes was elevated at intersection of Vonnies Lane and SR 828 under near-term conditions. The need for left-turn (Table 4-12) and right-turn (Table 4-16) lanes was evaluated based on the respective tables in the NDOT Access Management System and Standards dated 2017. According to the analysis, a left-turn lane is warranted at the intersection under near-term conditions and is therefore recommended. For more information on the turn-lane warrant analysis, see Appendix B.

The need for signalization was evaluated at the intersection of Vonnies Lane and SR 828 under near-term conditions based on the Peak Hour Warrant in the Manual on Uniform Traffic Control Devices (MUTCD) Figure 4C-4. According to the analysis, a signal is not warranted at this intersection. Therefore, signalization is not projected to be needed under near-term conditions. For more information on the signal warrant analysis, see Appendix B.

4.6 Near-Term Impacts

Appendices C-1 (AM) and C-2 (PM) contain the calculation reports for near-term intersection operations without the project. **Appendices C-3 (AM) and C-4 (PM)** contain the calculation reports for near-term intersection operations with the project. These calculations are based on the *Highway Capacity Manual* methodology described in Section 2.

Peak Hour Factors are based on the actual intersection counts.

Table 7 shows the near-term impact of the project on the study intersections.

Table 7: Near-Term Project Impact on Intersection Operations

	Without Project		With Project	
	AM	PM	AM	PM
1: Clearwater Parkway at SR 828	B 11.2 (NB)	A 9.9 (NB)	B 11.6 (NB)	B 10.2 (NB)
2: Red Rock Road at SR 828	A 9.7 (SB)	A 9.5 (SB)	B 10.0 (SB)	A 9.8 (SB)
3: Desert Lakes Drive at SR 828	B 12.0 (SB)	A 8.9 (SB)	B 12.4 (SB)	A 9.0 (SB)
4: Bens Way at SR 828	B 14.1 (SB)	A 9.0 (SB)	C 15.2 (SB)	A 9.0 (SB)
5: US-50A at SR 828	B 11.3 (EB)	B 12.6 (EB)	B 11.3 (EB)	B 12.7 (EB)
6: Vonnies Lane at SR 828	A 9.8 (SB)	A 9.4 (SB)	B 10.1 (SB)	A 9.7 (SB)

Source: Trafficware, *Synchro 11*

Source: Transportation Research Board, *Highway Capacity Manual*, 6th Edition

According to Table 7, all intersections would operate acceptably under both without and with project conditions; and the project would not have a significant adverse impact on any elements of the study area.

5.0 Long-Term Impact Analysis

The Long-Term Impact Analysis was conducted to assess the project's impact on the study intersections at the end of a 20-year planning horizon using the same methodology as described in Section 4 for the Near-Term Impact Analysis, except that a compounded annual growth rate was applied to the near-term without-project traffic volumes to obtain the long-term without project volumes.

5.1 Volumes without Project

Diagram 4-2 of the *City of Fernley Comprehensive Master Plan* identifies NDOT portable traffic count stations in the City of Fernley. Station No. 35, located on SR 828, a quarter mile west of US-50A, is located within the study area. Table 4-3 of this *Master Plan* shows 2017, 2030, and 2040 traffic volumes at Count Station No. 35 in vehicles per day (vpd). According to Table 4-3, the 2017 volume is 540 vpd, the projected 2030 volume is 699 vpd, and the projected 2040 volume is 852 vehicles per day. All volumes correlate to a Level of Service (LOS) of A, and a compounded annual growth rate of 2 percent. Therefore, a 2 percent compounded annual growth rate were used for projecting the long-term traffic volumes for Intersections 2 to 7. A 30 percent reduction was applied to Intersection 1 to account for the addition of the Wadsworth Bypass to the west and the extension of the Nevada Pacific Parkway southward to US-50A to the north, both called for in the City of Fernley Transportation Master Plan.

Figure 8: Long-Term Volumes shows the future without project traffic volumes obtained by applying a compounded annual growth rate of 2.0 percent to the near-term without project volumes for Intersections 2 to 6, and a 30 percent reduction to Intersection 1.

5.2 Trip Generation

For analysis purposes, the same trip generation values calculated in Section 4 were applied to the long-term impact analysis to assess the long-term impacts of the project.

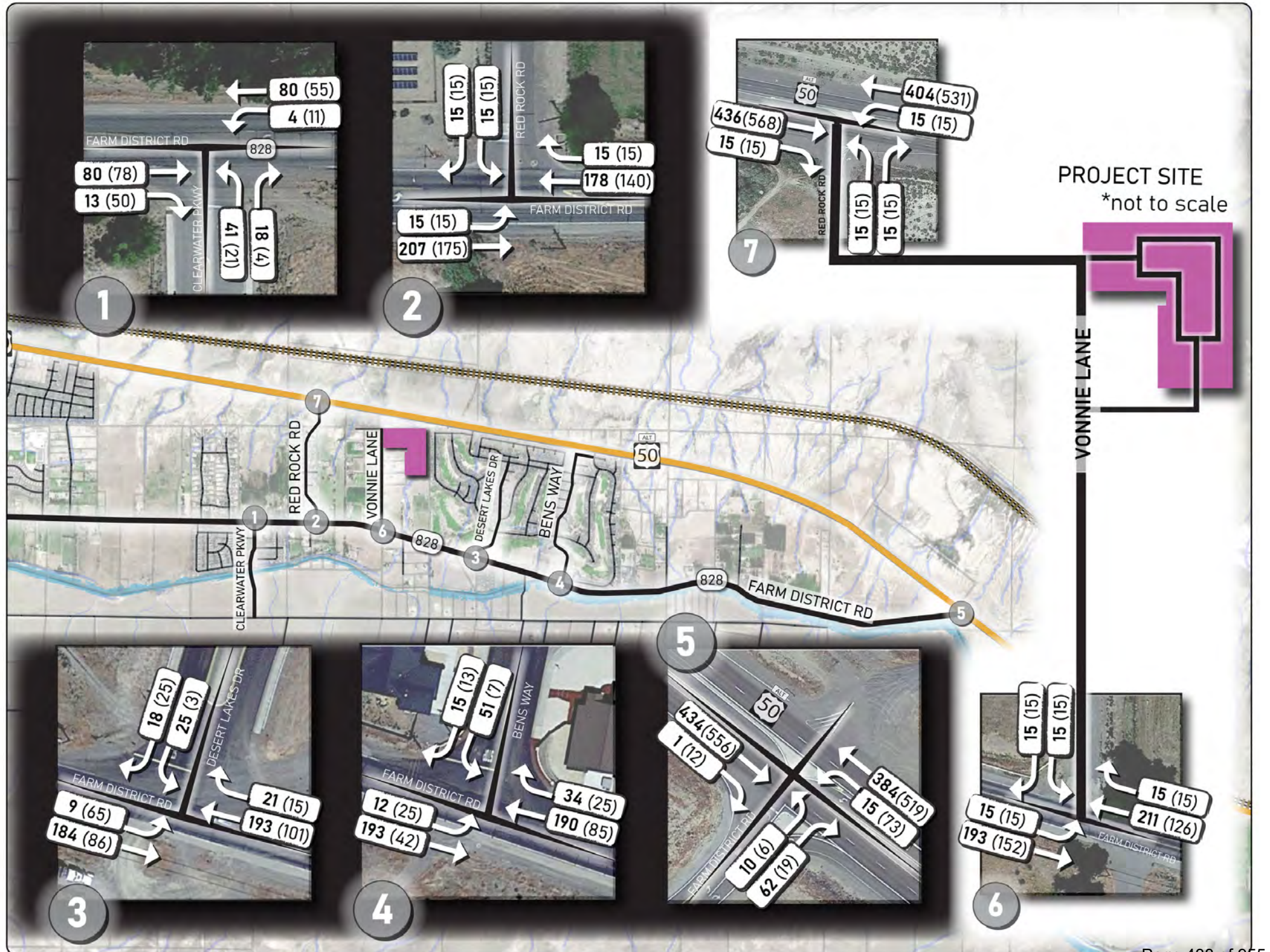
5.3 Trip Distribution

For the long-term with-project analysis, the long-term trip distribution percentages are based on the same assumptions as in the near-term analysis except with the inclusion of the 5-year, 10-year, and 20-year improvements and additions to the transportation network as indicated in the *Draft Transportation Management Plan* presented to the Fernley City Council on June 3, 2020.

Five-year improvements/additions are as follows:

1. Spot improvement at the Main/I-80 Interchange
2. Spot improvements in the vicinity of US-95A at Cottonwood

Figure 8: Long-Term Traffic Volumes



3. Corridor improvements along Business Route 80 between Main and I-80
4. Spot improvement at the Roundabout at Business Route 80 and East Main Street
5. Spot improvements at US-95A and US-50A
6. The extension of Nevada Pacific Parkway across the railroad tracks and south to US-50A, thereby boosting the desirability of US-50A west of Red Rock Road for trips generated by the Vonnie Lane Residential Development project
7. Corridor improvements to SR 828 west of US-50A

Ten-year improvements/additions are as follows:

1. A bridge on Clearwater Parkway across the Truckee-Carson Irrigation Canal providing a full connection between SR 828 and Desert Shadows Lane
2. Corridor improvements to US-95A between Sage Street and Main Street across the Truckee-Carson Irrigation Canal
3. The addition of Desert Shadows Lane between US-95A and US-50A
4. Corridor improvements to SR 427 between the Washoe/Lyon County Line and US-95A

Twenty-year improvements/additions are as follows:

1. The addition of the North Fernley Roadway between SR 427 and the Nevada Pacific Parkway/I-80 Interchange
2. The addition of the Western Bypass between I-80 and US-95A/Desert Shadows Lane, thereby boosting the desirability of Desert Shadows Lane to trips generated by the Vonnie Lane Residential Development project
3. Corridor improvements to Cottonwood Lane between US-95A and SR 828
4. Corridor improvements to SR 828 between the Roundabout at East Main Street/US-50A and Red Rock Road (connecting north to US-50A)
5. The addition of the I-11 Interchange with I-80 to the east with a connection to US-50A to the east, thereby boosting the desirability of US-50A to trips generated by the Vonnie Lane Residential Development project
6. Spot Improvement at Vine St/I-80

Study area specific assumptions for the long-term analysis are as follows:

1. Traffic was assigned to Red Rock Road in the long-term trip distribution analysis based on the assumption that the implementation of the easement to Vonnie Lane to the east would be online by then, and that Red Rock Road would form a full unrestricted intersection with US-50A to the north, complete with median storage.
2. Clearwater Parkway would be extended to the south across the Truckee Carson Irrigation District Canal to offer a fully paved connection between SR 828 to the north and Desert Shadows Lane to the south. An upgraded Desert Shadows Lane would provide access to the Western Bypass between US-95A and I-80.

Figure 9: Long-Term Trip Distribution shows the long-term trip distribution percentages for each of the gates.

Appendix B provides further elaboration on the trip distribution analysis including the gate (points of entry to or exit from the study network) percentages for the near-term and long-term analyses.

5.4 Trip Assignment

Trip assignment is calculated by multiplying the trip generation values from Table 4 by the trip distribution percentages described above.

Figure 10: Long-Term Trip Assignment shows the trip assignment values for individual turning movements at each of the analysis intersections.

These values are shown in tabular form in **Appendix B**.

5.5 Volumes with Project

Figure 11: Long-Term Plus Project Traffic Volumes shows the with-project traffic volumes obtained by adding the project-generated traffic volumes to the long-term without-project traffic volumes.

The need for turn lanes was evaluated at Vonnie Lane and SR 828 under long-term conditions. Specifically, the need for left-turn (Table 4-12) and right-turn (Table 4-16) lanes was evaluated based on the respective tables in the NDOT Access Management System and Standards dated 2017. According to this analysis, left-turn and right-turn lanes are warranted at the intersection, and are therefore recommended. For more information on the turn-lane warrant analysis, see Appendix B.

The need for signalization was evaluated at Vonnie Lane and SR 828 under long-term conditions based on the Peak Hour Warrant in the Manual on Uniform Traffic Control Devices (MUTCD) Figure 4C-4. According to the analysis, a signal is not warranted at this intersection. Therefore, signalization is not projected to be needed under long-term conditions. For more information on the signal warrant analysis, see Appendix B.

FIGURE 10: LONG-TERM TRIP ASSIGNMENT

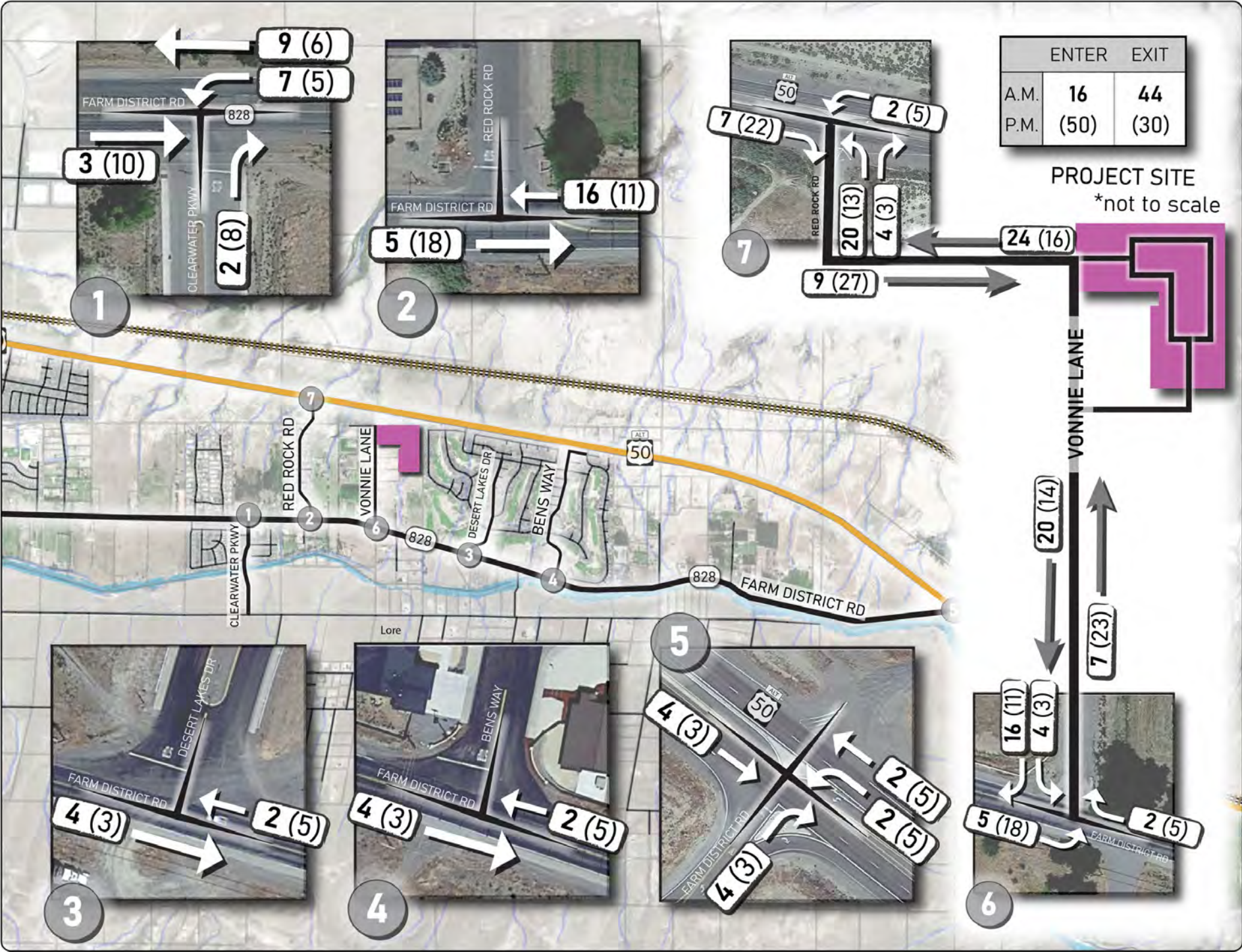
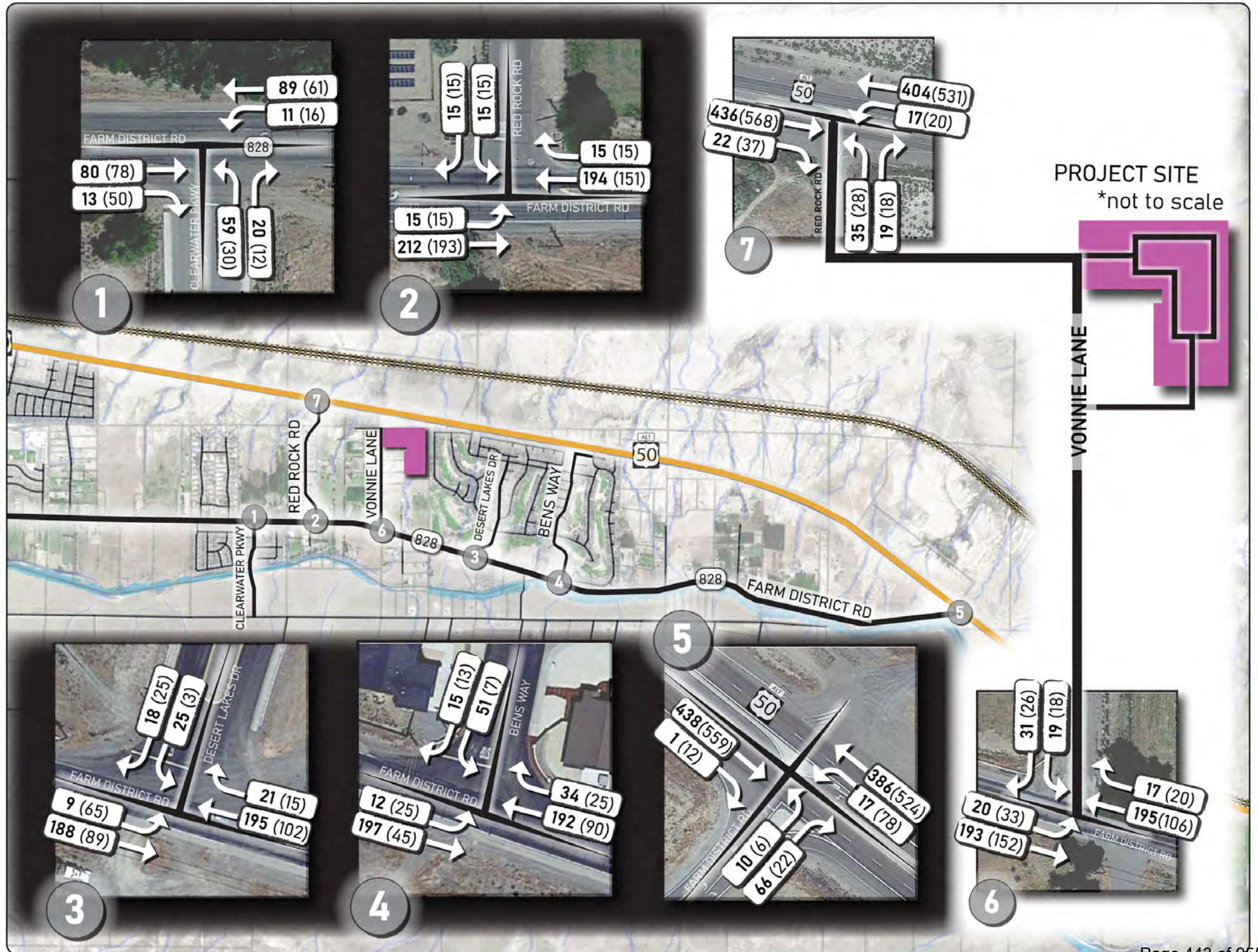


Figure 11: Long-Term Plus Project Traffic Volumes



5.6 Long-Term Impacts

Appendices C-5 (AM) and C-6 (PM) contain the calculation reports for long-term intersection operations without the project. **Appendices B-7 (AM) and B-8 (PM)** contain the calculation reports for long-term intersection operations with the project. These calculations are based on the Highway Capacity Manual methodology described in Section 2 just like in the existing impact analysis, except that the Peak Hour Factor is the default value of 0.92.

Table 8 shows the long-term impact of the project on the study intersections.

Table 8: Long-Term Project Impact on Intersection Operations				
	Without Project		With Project	
	AM	PM	AM	PM
1: Clearwater Parkway at SR 828	A 9.6 (NB)	A 9.5 (NB)	B 10.0 (NB)	A 9.6 (NB)
2: Red Rock Road at SR 828	A 7.7 (SB)	B 10.2 (SB)	B 10.8 (SB)	B 10.4 (SB)
3: Desert Lakes Drive at SR 828	B 11.0 (SB)	A 9.2 (SB)	B 11.0 (SB)	A 9.2 (SB)
4: Bens Way at SR 828	B 11.9 (SB)	A 9.2 (SB)	B 11.9 (SB)	A 9.3 (SB)
5: US-50A at SR 828	B 12.9 (EB)	C 15.9 (EB)	B 13.0 (EB)	C 16.1 (EB)
6: Vonnies Lane at SR 828	B 10.8 (SB)	A 9.9 (SB)	B 10.8 (SB)	B 10.1 (SB)
7: Red Rock Road at US-50A	B 11.5 (NB)	B 12.7 (NB)	B 12.3 (NB)	B 13.5 (NB)

Source: Trafficware, *Synchro 11*

Source: Transportation Research Board, *Highway Capacity Manual, 6th Edition*

According to Table 8, all intersections would continue to operate acceptably under without and with project conditions; and the project would not have a significant adverse impact on any elements of the study area.

6.0 Findings and Recommendations

6.1 Findings

Findings from the near-term impact analysis are as follows:

1. All approaches to the study intersections would operate acceptably.
2. The project would not have a significant adverse impact on the surrounding transportation network.

Findings from the long-term impact analysis are as follows:

1. All approaches to the study intersections would continue to operate acceptably.
2. The project would not have a significant adverse impact on the surrounding transportation network.

6.2 Recommendations

Recommendations are as follows:

1. Upgrade the intersection of Vonnie Lane at SR 828 to NDOT Standards with dedicated left and right turn lanes and to accommodate applicable master planned improvements for SR 828.
2. Construct the site access to Vonnie Lane and site frontage improvements along Vonnie Lane to City of Fernley Standards.

7.0 Preliminary Vehicle Miles Traveled Analysis

7.1 Regulatory Context

On July 1, 2020, the new Vehicle Miles Traveled (VMT) metric took effect in California and replaced the traditional Level of Service (LOS) metric that had been in effect the past half century. Many additional states are incorporating elements of the new VMT metric to encourage urban infill, reduce vehicle trip lengths, encourage active transportation (walking, bicycling, transit riding, etc.), encourage more compact development, and boost the sustainability of mitigation measures. Specifically, this new VMT metric is intended to address these nine limitations associated with the traditional LOS metric:

1. “Punishing” last-in development projects, discouraging infill development, and encouraging a “sprawling” development pattern;
2. Creating regional congestion at the expense of solving local congestion issues;
3. Discouraging transit use;
4. Discouraging active transportation (walking, bicycling, transit riding, etc.);
5. Poorly measuring access to developments within the network;
6. Posing limitations on optimizing roadway networks;
7. Creating more roadway construction than jurisdictions can afford to maintain;
8. Posing calculation challenges and inaccuracies; and
9. Creating costly unhelpful solutions.

Specifically, the traditional LOS metric has served as a barrier to residential development through the imposition of costly transportation impact mitigation measures when the objective is to encourage residential development to address the housing crisis while boosting the sustainability of such measures.

Therefore, a preliminary VMT analysis was conducted in connection with this scoping report. VMT is generally calculated by multiplying the trip generation by the trip length on a per capita basis. A VMT impact is typically considered significant when it exceeds 85 percent of the average per capita VMT for a given area.

7.2 Potential VMT Reduction Measures

The Vonnie Lane study area was examined through a VMT context. While the *City of Fernley Comprehensive Master Plan* does not identify the study area as being capacity constrained relative to the more urbanized portions of the City, potential VMT reduction

measures could still be considered. Such measures are as follows:

1. Pedestrian pathways to US-50A to the north and SR 828 to the south to encourage increased transit use;
2. Inclusion of additional bicycle paths and lanes along SR 828 to encourage increased bicycle use; and
3. Provision of nearby employment centers, grocery stores, and shopping centers as development progresses further east, should the Community Development and Planning Departments be open to amendments to the City of Fernley Comprehensive Plan to accommodate such uses.

Appendix A: Brochure of Existing Geometric Conditions

Existing Geometric Conditions



Along SR 828 (Farm District Rd)

- Upper Right: Clearwater Pkwy: EBRT = 175 ft; WBLT = 100 ft + Center Turn Lane
- Lower Left: Red Rock Rd: EBLT = 100 ft + Center Turn Lane to the West
- Vonnie Lane: Gravel Roadway, No Turn Lanes on SR 828

(Photo Credits: Google Earth)

Along US-50A



SR 828 (Farm District Rd): Upper Left
EBLT = 100 ft; EBRT = 150 ft + 215 ft Accel;
NBLT = 500 ft; NBRT = 425 ft; SBRT = 425 ft
(Photo Credit: Google Earth)

Wedge Lane: Middle Right
EBRT = 425 ft; WBLT = 500 ft;
NBLT = 150 ft + 500 ft Accel;
NBRT = 200 ft + 215 ft Accel
(Photo Credit: Google Earth)



Red Rock Rd: Lower Left
EBRT = 375 ft
WBLT = 500 ft
NBLT = 50 ft + 500 ft Accel
NBRT = 50 ft + 135 ft Taper
(Photo Credit: Google Earth)

Appendix B: Numeric Analysis

Vonnie Lane Traffic Study (without Forster)

A1_Trip_Generation

Table A1.1: Inputs

Code	Land Use	Units	Quantity	Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	Dwelling Units	85	4.71	4.72	9.43	0.18	0.52	0.70	0.59	0.35	0.94

Table A1.2: Values

Code	Land Use	Units	Quantity	Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	Dwelling Units	85	401	401	802	16	44	60	50	30	80
Total				401	401	802	16	44	60	50	30	80

Table A1.3: Summary

	Land Use			Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
	Residential Only			401	401	802	16	44	60	50	30	80

Vonnie Lane Traffic Study (Without Forster)

A2_Trip Distribution

Table A2.1: Near-Term Analysis

No	Description	Percent	Weekday			AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
1	Farm District w/o Clearwater	65.0%	260.7	260.7	521.3	10.4	28.6	39.0	32.5	19.5	52.0
2	US-50A w/o Wedge Lane	25.0%	100.3	100.3	200.5	4.0	11.0	15.0	12.5	7.5	20.0
3	US-50A e/o SR 828	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
	Total	100.0%	401	401	802	16	44	60	50	30	80

Table A2.2: Long-Term Analysis

No	Description	Percent	Weekday			AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
1	Farm District w/o Clearwater	20.0%	80.2	80.2	160.4	3.2	8.8	12.0	10.0	6.0	16.0
2	Clearwater s/o Farm District	15.0%	60.2	60.2	120.3	2.4	6.6	9.0	7.5	4.5	12.0
3	US-50A w/o Red Rock	45.0%	180.5	180.5	360.9	7.2	19.8	27.0	22.5	13.5	36.0
4	US-50A e/o Red Rock	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
5	US-50A e/o Red Rock via SR 828	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
	Total	100.0%	401	401	802	16	44	60	50	30	80

Vonnie Lane Traffic Study (Without Forster)

A3_Trip Assignment

Table A3.1: Intersection AM: Near-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		11			29							
2	Red Rock Rd/SR 828		11			29							
3	Desert Lakes/SR 828		15			5							
4	Bens Way/SR 828	11	4			1							4
5	US-50A/SR 828			4				1					
6	Vonnie Ln/SR 828	11					5				15		29

Table A3.2: Intersection PM: Near-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		32			20							
2	Red Rock Rd/SR 828		32			20							
3	Desert Lakes/SR 828		10			18							
4	Bens Way/SR 828	7	3			5							13
5	US-50A/SR 828			3				5					
6	Vonnie Ln/SR 828	32					18				10		20

Table A3.3: Intersection AM: Long-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		3		7	9				2			
2	Red Rock Rd/SR 828		5			16							
3	Desert Lakes/SR 828		4			2							
4	Bens Way/SR 828		4			2							
5	US-50A/SR 828			4				2	2			4	
6	Vonnie Ln/SR 828	5					2				4		16
7	Red Rock Rd/US-50A			7	2			20		4			

Table A3.4: Intersection PM: Long-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		10		5	6				8			
2	Red Rock Rd/SR 828		18			11							
3	Desert Lakes/SR 828		3			5							
4	Bens Way/SR 828		3			5							
5	US-50A/SR 828			3				5	5			3	
6	Vonnie Ln/SR 828	18					5				3		11
7	Red Rock Rd/US-50A			22	5			13		3			

Vonnie Lane Traffic Study

Table B1: Clearwater Parkway at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term			114	18	6	114		59		25		
Project			11			29						
NT w/Project			125	18	6	143		59		25		
Near-Term PM												
Near-Term			112	72	16	78		30		6		
Project			32			20						
NT w/Project			144	72	16	98		30		6		
Long-Term AM												
Long-Term			80	13	4	80		41		18		
Project			3		7	9				2		
LT w/Project			83	13	11	89		59		20		
Long-Term PM												
Long-Term			78	50	11	55		21		4		
Project			10		5	6				8		
LT w/Project			88	50	16	61		30		12		

Reduction

Factor 0.7

Wadsworth Bypass

Nevada Pacific Pkwy

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B2: Red Rock Road at SR 828

Eastbound			Westbound			Northbound			Southbound			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Near-Term AM												
Near-Term	10	139			120	10				10		10
Project		11			29							
NT w/Project	10	150			149	10				10		10
Near-Term PM												
Near-Term	10	118			94	10				10		10
Project		32			20							
NT w/Project	10	150			114	10				10		10
Long-Term AM												
Long-Term	15	207			178	15				15		15
Project		5			16							
LT w/Project	15	212			194	15				15		15
Long-Term PM												
Long-Term	15	175			140	15				15		15
Project		18			11							
LT w/Project	15	193			151	15				15		15
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B3: Desert Lakes Drive at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	Near-Term AM											
Near-Term	6	124			130	14				17		12
Project		15			5							
NT w/Project	6	139			135	14				17		12
Near-Term PM												
Near-Term	44	58			68	10				2		17
Project		10			18							
NT w/Project	44	68			86	10				2		17
Long-Term AM												
Long-Term	9	184			193	21				25		18
Project		4			2							
LT w/Project	9	188			195	21				25		18
Long-Term PM												
Long-Term	65	86			101	15				3		25
Project		3			5							
LT w/Project	65	89			106	15				3		25
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B4: Bens Way at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	8	130			128	23				34		10
Project	11	4			5							4
NT w/Project	19	134			133	23				34		14
Near-Term PM												
Near-Term	17	28			57	17				5		9
Project	7	3			5							13
NT w/Project	24	31			62	17				5		22
Long-Term AM												
Long-Term	12	193			190	34				51		15
Project		4			2							
LT w/Project	12	197			192	34				51		15
Long-Term PM												
Long-Term	25	42			85	25				7		13
Project		3			5							
LT w/Project	25	45			90	25				7		13
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B5: US-50A at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	7		42				10	258			292	1
Project			4				1					
NT w/Project	7		46				11	258			292	1
Near-Term PM												
Near-Term	4		13				49	349			374	8
Project			3				5					
NT w/Project	4		16				54	349			374	8
Long-Term AM												
Long-Term	10		62				15	384			434	1
Project			4				2	2			4	
LT w/Project	10		66				17	386			438	1
Long-Term PM												
Long-Term	6		19				73	519			556	12
Project			3				5	5			3	
LT w/Project	6		22				78	524			559	12

Projection

Year 2017	540
Year 2040	852
Growth Rate	2.0%

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B6: Vonnie Lane at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	10	130			142	10				10		10
Project	11					5				15		29
NT w/Project	21	130			142	15				25		39
Near-Term PM												
Near-Term	10	102			85	10				10		10
Project	32					18				10		20
NT w/Project	42	102			85	28				20		30
Long-Term AM												
Long-Term	15	193			211	15				15		15
Project	5					2				4		16
LT w/Project	20	193			211	17				19		31
Long-Term PM												
Long-Term	15	152			126	15				15		15
Project	18					5				3		11
LT w/Project	33	152			126	20				18		26
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B7: Red Rock Road at US-50A

Eastbound			Westbound			Northbound			Southbound			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Near-Term AM												
Near-Term		293	10	10	272		10		10			
Project			0	0			0		0			
NT w/Project			10				10					
Near-Term PM												
Near-Term		382	10	10	357		10		10			
Project			0	0			0		0			
NT w/Project			10				10					
Long-Term AM												
Long-Term		436	15	15	404		15		15			
Project			7	2			20		4			
LT w/Project		436	22	17	404		35		19			
Long-Term PM												
Long-Term		568	15	15	531		15		15			
Project			22	5			13		3			
LT w/Project		568	37	20	531		28		18			
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table C1: PM Peak Hour Turning Movements

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Vol
1: Clearwater Parkway at SR 828	0	112	72	16	78	0	30	0	26	0	0	0	334
2: Red Rock Road at SR 828	10	118	0	0	94	10	0	0	0	10	0	10	252
3: Desert Lakes Drive at SR 828	44	58	0	0	68	10	0	0	0	2	0	17	199
4: Bens Way at SR 828	17	28	0	0	57	17	0	0	0	5	0	9	133
5: US-50A at SR 828	4	0	13	0	0	0	49	349	0	0	0	0	415
6: Vonnie Lane at SR 828	10	102	0	0	85	10	0	0	0	10	0	10	227

Remarks

Per Data Collected by National Data and Surveying Services on Tuesday, January 4, 2022

Table C2: Severity Analysis

Intersection	FAT		INJ		PDO		TOT
	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	0	0	1	100%	0	0	1

Remarks

FAT: Fatalities

INJ: Injuries

PDO: Property Damage Only

TOT: Total

Table C3: Type Analysis

Intersection	Type 1		Type 2		Type 3		Other		TOT
	No	%	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	1	100%	0	0	0	0	0	0	1

Remarks

Type 1: Most Common Type: Rear-End

Type 2: Second Most Common Type

Type 3: Third Most Common Type

Other: Other Types not within the Top 3 Ranks

TOT: Total

Vonnie Lane Traffic Study

Table C4: Cause Analysis

Intersection	Cause 1		Cause 2		Cause 3		Other		TOT
	No	%	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	1	100%	0	0	0	0	0	0	1

Remarks

Type 1: Most Common Cause: Following Too Closely

Type 2: Second Most Common Cause

Type 3: Third Most Common Cause

Other: Other Causes not within the Top 3 Ranks

TOT: Total

Table C5: Rate Analysis

Intersection	TOT	YR	Vol	K	Days	Rate
1: Clearwater Parkway at SR 828	1	3	334	10	365	0.273

Remarks

TOT: Total Collisions

YR: Number of Years of Data

Vol: Volume Entering Intersection during PM Peak Hour

K: K-Factor: (Weekday Volume)/(PM Peak Hour Volume)

Days: Number of Days in Year

Rate: Per Million Entering Vehicles Per Year = $((TOT) * (1E6)) / ((YR) * (Vol) * (K) * (Days))$

Vonnie Lane Traffic Study: Turn Lane Warrant Analysis

Table D1: Peak Hour Turning Movements at Vonnie Lane at SR 828

Scenario	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	WBR	WBTR	EBL	EBTL
NT+P AM	21	130	0	0	142	15	0	0	0	25	0	39	15	157	21	151
NT+P PM	42	102	0	0	85	28	0	0	0	20	0	30	28	113	42	144
LT+P AM	20	193	0	0	211	17	0	0	0	19	0	31	17	228	20	213
LT+P PM	33	152	0	0	126	20	0	0	0	18	0	26	20	146	33	185

Remarks for Table D1:

Source: Nevada DOT Access Management System and Standards (2017 Edition)

NT+P: Near-Term Plus Project per Figure 7 of the Vonnie Lane Traffic Study

LT+P: Long-Term Plus Project per Figure 11 of the Vonnie Lane Traffic Study

AM: AM Peak Hour (4 Highest Consecutive 15-minute intervals between 7:00 and 9:00)

PM: PM Peak Hour (4 Highest Consecutive 15-minute intervals between 4:00 and 6:00)

WBR: Turning Volume per Table 4-16 (Two-Lane Roadways in Urban Areas)

WBTR: Directional Volume in Through Lane (Right + Through) per Table 4-16 (Two-Lane Roadways in Urban Areas)

EBL: Turning Volume per Table 4-12 (Two-Lane Roadways in Urban Areas)

EBTL: Directional Volume in Through Lane (Left + Through) per Table 4-12 (Two-Lane Roadways in Urban Areas)

Table D2: Turn Lane Warrant Analysis

Vonnie Lane at SR 828 (Left and Right)										
Scenario	EBL		EBTL		Left Lane?	WBR		WBTR		Right Lane?
	Act	Min	Act	Min		Act	Min	Act	Min	
NT+P	42	30	144	0	Yes	28	28	113	114	No
LT+P	33	30	185	0	Yes	20	20	146	140	Yes

Remarks for Table D2:

Act: Actual from Parts 1 and 2 and Higher of AM or PM

Min: Minimum to Trigger Satisfaction of Turn Lane Warrant

Right Lane?: Right Turn Lane Warrant Satisfied? Yes or No per Table 4-16

Left Lane?: Left Turn Lane Warrant Satisfied? Yes or No per Table 4-12

SR 828 Posted Speed Limit: 55 MPH

SR 828 Functional Classification: Minor Arterial

Vonnie Lane at SR 828 Progressive Signal Warrant Analysis

Table E1: Peak Hour Turning Movements

Scenario	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Major St	Minor St
NT+P AM	21	130	0	0	142	15	0	0	0	25	0	39	308	64
NT+P PM	42	102	0	0	85	28	0	0	0	20	0	30	257	50
LT+P AM	20	193	0	0	211	17	0	0	0	19	0	31	441	50
LT+P PM	33	152	0	0	126	20	0	0	0	18	0	26	331	44

Remarks for Table E1:

NT+P: Near-Term Plus Project per Figure 5 of the 600 West Main Street Traffic Study

LT+P: Long-Term Plus Project per Figure 7 of the 600 West Main Street Traffic Study

AM: AM Peak Hour (4 Highest Consecutive 15-minute intervals between 7:00 and 9:00)

PM: PM Peak Hour (4 Highest Consecutive 15-minute intervals between 4:00 and 6:00)

Major St: Total of both major street (eastbound and westbound) approaches per MUTCD Figure 4C-4

Minor St: Higher minor street (northbound or southbound) approach per MUTCD Figure 4C-4

MUTCD: Manual on Uniform Traffic Control Devices

Table E2: Peak Hour Warrant Analysis

	Major St		Minor St		Sig?	SB
Scenario	Act	Min	Act	Min		Deficient?
NT+P	308	1300	64	320	No	256
LT+P	441	1300	50	240	No	190

Remarks for Table E2:

Act: Actual from Part 1 and Higher of AM or PM

Min: Minimum to Trigger Satisfaction of Signal Warrant

Sig?: Peak Hour Signal Warrant Satisfied? Yes or No (Based on 1 Thru Lane Major and 1 Thru Lane Minor)

SB Deficient? Amount of Additional Southbound Traffic to Satisfy Peak Hour Warrant

Appendix C: Level of Service Analysis

Appendix C-1: Near-Term AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection

Int Delay, s/veh 2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	114	18	6	114	59	25
Future Vol, veh/h	114	18	6	114	59	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	29	10	181	94	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	210
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1361
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1361
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1361	-
HCM Lane V/C Ratio	0.187	-	-	0.007	-
HCM Control Delay (s)	11.2	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	130	120	10	10	10
Future Vol, veh/h	10	130	120	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	141	130	11	11	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	141	0	-	0	299	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1442	-	-	-	692	913
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1442	-	-	-	686	913
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	866	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1442	-	-	-	783	
HCM Lane V/C Ratio	0.008	-	-	-	0.028	
HCM Control Delay (s)	7.5	-	-	-	9.7	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	124	130	14	17	12
Future Vol, veh/h	6	124	130	14	17	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	49	49	49	49	49	49
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	253	265	29	35	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	294	0	-	0	557	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	277	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1268	-	-	-	491	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1268	-	-	-	486	759
Mov Cap-2 Maneuver	-	-	-	-	486	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	770	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		12		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1268	-	-	-	571	
HCM Lane V/C Ratio	0.01	-	-	-	0.104	
HCM Control Delay (s)	7.9	0	-	-	12	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	130	128	23	34	10
Future Vol, veh/h	8	130	128	23	34	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	46	46	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	283	278	50	74	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	328	0	-	0	620	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1232	-	-	-	452	737
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1232	-	-	-	445	737
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	738	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		14.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1232	-	-	-	489	
HCM Lane V/C Ratio	0.014	-	-	-	0.196	
HCM Control Delay (s)	8	0	-	-	14.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	7	42	292	1	10	258
Future Vol, veh/h	7	42	292	1	10	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	45	314	1	11	277
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	475	-	0	0	314	0
Stage 1	314	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	519	0	-	-	1243	-
Stage 1	714	0	-	-	-	-
Stage 2	851	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	514	-	-	-	1243	-
Mov Cap-2 Maneuver	583	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1243	-	583	-	-	-
HCM Lane V/C Ratio	0.009	-	0.013	-	-	-
HCM Control Delay (s)	7.9	-	11.3	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	130	142	10	10	10
Future Vol, veh/h	10	130	142	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	141	154	11	11	11
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	165	0	-	0	317	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1413	-	-	-	676	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1413	-	-	-	671	892
Mov Cap-2 Maneuver	-	-	-	-	671	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	866	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1413	-	-	-	766	
HCM Lane V/C Ratio	0.008	-	-	-	0.028	
HCM Control Delay (s)	7.6	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Appendix C-2: Near-Term PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	112	72	16	78	30	6
Future Vol, veh/h	112	72	16	78	30	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	80	18	87	33	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	204
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1368
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1368
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	768	-	-	1368	-
HCM Lane V/C Ratio	0.052	-	-	0.013	-
HCM Control Delay (s)	9.9	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	118	94	10	10	10
Future Vol, veh/h	10	118	94	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	128	102	11	11	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	113	0	0 258 108
Stage 1	-	-	- 108 -
Stage 2	-	-	- 150 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1476	-	- 731 946
Stage 1	-	-	- 916 -
Stage 2	-	-	- 878 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1476	-	- 726 946
Mov Cap-2 Maneuver	-	-	- 726 -
Stage 1	-	-	- 910 -
Stage 2	-	-	- 878 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1476	-	-	-	822
HCM Lane V/C Ratio	0.007	-	-	-	0.026
HCM Control Delay (s)	7.5	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	58	68	10	2	17
Future Vol, veh/h	44	58	68	10	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	61	72	11	2	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	83	0	-	0	231	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1514	-	-	-	757	983
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1514	-	-	-	734	983
Mov Cap-2 Maneuver	-	-	-	-	734	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	875	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		8.9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1514	-	-	-	949	
HCM Lane V/C Ratio	0.031	-	-	-	0.021	
HCM Control Delay (s)	7.5	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	28	57	17	5	9
Future Vol, veh/h	17	28	57	17	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	33	67	20	6	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	87	0	0 150 77
Stage 1	-	-	- 77 -
Stage 2	-	-	- 73 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1509	-	- 842 984
Stage 1	-	-	- 946 -
Stage 2	-	-	- 950 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1509	-	- 830 984
Mov Cap-2 Maneuver	-	-	- 830 -
Stage 1	-	-	- 933 -
Stage 2	-	-	- 950 -

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	923
HCM Lane V/C Ratio	0.013	-	-	-	0.018
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	4	13	374	8	49	349
Future Vol, veh/h	4	13	374	8	49	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	14	394	8	52	367
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	682	-	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	384	0	-	-	1161	-
Stage 1	650	0	-	-	-	-
Stage 2	735	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	367	-	-	-	1161	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.6	0	1			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1161	-	475	-	-	-
HCM Lane V/C Ratio	0.044	-	0.009	-	-	-
HCM Control Delay (s)	8.2	-	12.6	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-	-

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	102	85	10	10	10
Future Vol, veh/h	10	102	85	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	111	92	11	11	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	103	0	0 225 92
Stage 1	-	-	- 92 -
Stage 2	-	-	- 133 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1489	-	- 763 965
Stage 1	-	-	- 932 -
Stage 2	-	-	- 893 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1489	-	- 758 965
Mov Cap-2 Maneuver	-	-	- 758 -
Stage 1	-	-	- 925 -
Stage 2	-	-	- 893 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1489	-	-	-	849
HCM Lane V/C Ratio	0.007	-	-	-	0.026
HCM Control Delay (s)	7.4	-	-	-	9.4
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Appendix C-3: Near-Term Plus Project AM

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	18	6	143	59	25
Future Vol, veh/h	125	18	6	143	59	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	29	10	227	94	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	227	0	445	198
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1341	-	571	843
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	794	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	567	843
Mov Cap-2 Maneuver	-	-	-	-	628	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	788	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	680	-	-	1341	-	
HCM Lane V/C Ratio	0.196	-	-	0.007	-	
HCM Control Delay (s)	11.6	-	-	7.7	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.7	-	-	0	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	150	149	10	10	10
Future Vol, veh/h	10	150	149	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	163	162	11	11	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	173	0	0 353 168
Stage 1	-	-	- 168 -
Stage 2	-	-	- 185 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1404	-	- 645 876
Stage 1	-	-	- 862 -
Stage 2	-	-	- 847 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1404	-	- 640 876
Mov Cap-2 Maneuver	-	-	- 640 -
Stage 1	-	-	- 855 -
Stage 2	-	-	- 847 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1404	-	-	-	740
HCM Lane V/C Ratio	0.008	-	-	-	0.029
HCM Control Delay (s)	7.6	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	139	135	14	17	12
Future Vol, veh/h	6	139	135	14	17	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	49	49	49	49	49	49
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	284	276	29	35	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	305	0	-	0	599	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1256	-	-	-	465	748
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1256	-	-	-	460	748
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	745	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		12.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1256	-	-	-	547	
HCM Lane V/C Ratio	0.01	-	-	-	0.108	
HCM Control Delay (s)	7.9	0	-	-	12.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	134	133	23	34	14
Future Vol, veh/h	19	134	133	23	34	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	46	46	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	291	289	50	74	30
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	339	0	-	0	687	314
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1220	-	-	-	413	726
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1220	-	-	-	396	726
Mov Cap-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	696	-
Approach	EB	WB		SB		
HCM Control Delay, s	1	0		15.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1220	-	-	-	457	
HCM Lane V/C Ratio	0.034	-	-	-	0.228	
HCM Control Delay (s)	8.1	0	-	-	15.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	7	46	292	1	11	258
Future Vol, veh/h	7	46	292	1	11	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	49	314	1	12	277
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	477	-	0	0	314	0
Stage 1	314	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	517	0	-	-	1243	-
Stage 1	714	0	-	-	-	-
Stage 2	849	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	512	-	-	-	1243	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1243	-	582	-	-	-
HCM Lane V/C Ratio	0.01	-	0.013	-	-	-
HCM Control Delay (s)	7.9	-	11.3	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	130	142	15	25	39
Future Vol, veh/h	21	130	142	15	25	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	141	154	16	27	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	170	0	-	0	341	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1407	-	-	-	655	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	845	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1407	-	-	-	645	892
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	845	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		10.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1407	-	-	-	776	
HCM Lane V/C Ratio	0.016	-	-	-	0.09	
HCM Control Delay (s)	7.6	-	-	-	10.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Appendix C-4: Near-Term Plus Project PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	144	72	16	98	30	6
Future Vol, veh/h	144	72	16	98	30	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	80	18	109	33	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	240	0	305	160
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1327	-	687	885
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1327	-	677	885
Mov Cap-2 Maneuver	-	-	-	-	706	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	870	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		10.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	731	-	-	1327	-	
HCM Lane V/C Ratio	0.055	-	-	0.013	-	
HCM Control Delay (s)	10.2	-	-	7.8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
2: SR 828 & Red Rock Rd

02/09/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	150	114	10	10	10
Future Vol, veh/h	10	150	114	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	163	124	11	11	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	135	0	-	0	315	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1449	-	-	-	678	920
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	847	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1449	-	-	-	673	920
Mov Cap-2 Maneuver	-	-	-	-	673	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	847	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1449	-	-	-	777	
HCM Lane V/C Ratio	0.008	-	-	-	0.028	
HCM Control Delay (s)	7.5	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	68	86	10	2	17
Future Vol, veh/h	44	68	86	10	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	72	91	11	2	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	102	0	-	0	261	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1490	-	-	-	728	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1490	-	-	-	705	959
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	865	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.9	0		9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1490	-	-	-	924	
HCM Lane V/C Ratio	0.031	-	-	-	0.022	
HCM Control Delay (s)	7.5	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	31	62	17	5	22
Future Vol, veh/h	24	31	62	17	5	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	36	73	20	6	26

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	93	0	0 175 83
Stage 1	-	-	- 83 -
Stage 2	-	-	- 92 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1501	-	- 815 976
Stage 1	-	-	- 940 -
Stage 2	-	-	- 932 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1501	-	- 800 976
Mov Cap-2 Maneuver	-	-	- 800 -
Stage 1	-	-	- 922 -
Stage 2	-	-	- 932 -

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1501	-	-	-	938
HCM Lane V/C Ratio	0.019	-	-	-	0.034
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	4	16	374	8	54	349
Future Vol, veh/h	4	16	374	8	54	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	17	394	8	57	367
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	692	-	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	378	0	-	-	1161	-
Stage 1	650	0	-	-	-	-
Stage 2	727	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	359	-	-	-	1161	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.7	0	1.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1161	-	469	-	-	-
HCM Lane V/C Ratio	0.049	-	0.009	-	-	-
HCM Control Delay (s)	8.3	-	12.7	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0	-	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	102	85	28	20	30
Future Vol, veh/h	42	102	85	28	20	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	111	92	30	22	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	122	0	-	0	295	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1465	-	-	-	696	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1465	-	-	-	674	965
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	831	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1465	-	-	-	823	
HCM Lane V/C Ratio	0.031	-	-	-	0.066	
HCM Control Delay (s)	7.5	-	-	-	9.7	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

Appendix C-5: Long-Term AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	80	13	4	80	41	18
Future Vol, veh/h	80	13	4	80	41	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	14	4	87	45	20
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	101	0	182	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1491	-	807	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1491	-	805	971
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	926	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	839	-	-	1491	-	
HCM Lane V/C Ratio	0.076	-	-	0.003	-	
HCM Control Delay (s)	9.6	-	-	7.4	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
2: SR 828 & Red Rock Rd

02/09/2022

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	207	178	15	15	15
Future Vol, veh/h	15	207	178	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	225	193	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	209	0	-	0	458	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	257	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1362	-	-	-	561	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	554	840
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	786	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1362	-	-	-	668	
HCM Lane V/C Ratio	0.012	-	-	-	0.049	
HCM Control Delay (s)	7.7	-	-	-	10.7	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	184	193	21	25	18
Future Vol, veh/h	9	184	193	21	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	200	210	23	27	20
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	233	0	-	0	442	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1335	-	-	-	573	818
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1335	-	-	-	568	818
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	817	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1335	-	-	-	651	
HCM Lane V/C Ratio	0.007	-	-	-	0.072	
HCM Control Delay (s)	7.7	0	-	-	11	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	193	190	34	51	15
Future Vol, veh/h	12	193	190	34	51	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	210	207	37	55	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	244	0	-	0	462	226
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1322	-	-	-	558	813
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1322	-	-	-	552	813
Mov Cap-2 Maneuver	-	-	-	-	552	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	803	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		11.9		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1322	-	-	-	595	
HCM Lane V/C Ratio	0.01	-	-	-	0.121	
HCM Control Delay (s)	7.8	0	-	-	11.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	10	62	434	1	15	384
Future Vol, veh/h	10	62	434	1	15	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	67	472	1	16	417
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	713	-	0	0	472	0
Stage 1	472	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	366	0	-	-	1086	-
Stage 1	594	0	-	-	-	-
Stage 2	776	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	361	-	-	-	1086	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.9	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1086	-	464	-	-	-
HCM Lane V/C Ratio	0.015	-	0.023	-	-	-
HCM Control Delay (s)	8.4	-	12.9	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	193	211	15	15	15
Future Vol, veh/h	15	193	211	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	210	229	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	245	0	-	0	471	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1321	-	-	-	551	810
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1321	-	-	-	544	810
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1321	-	-	-	651	
HCM Lane V/C Ratio	0.012	-	-	-	0.05	
HCM Control Delay (s)	7.8	-	-	-	10.8	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	436	15	15	404	15	15
Future Vol, veh/h	436	15	15	404	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	16	16	439	16	16
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	490	0	726	237
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	252	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1070	-	360	764
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1070	-	355	764
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	755	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	460	764	-	-	1070	-
HCM Lane V/C Ratio	0.035	0.021	-	-	0.015	-
HCM Control Delay (s)	13.1	9.8	-	-	8.4	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-

Appendix C-6: Long-Term PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘↗	
Traffic Vol, veh/h	78	50	11	55	21	4
Future Vol, veh/h	78	50	11	55	21	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	56	12	61	23	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	172	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1440	-	818	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	811	971
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	930	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		9.5	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	820	-	-	1440	-	
HCM Lane V/C Ratio	0.034	-	-	0.008	-	
HCM Control Delay (s)	9.5	-	-	7.5	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	175	140	15	15	15
Future Vol, veh/h	15	175	140	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	190	152	16	16	16
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	168	0	-	0	382	160
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	222	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1410	-	-	-	620	885
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1410	-	-	-	613	885
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	815	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		10.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1410	-	-	-	724	
HCM Lane V/C Ratio	0.012	-	-	-	0.045	
HCM Control Delay (s)	7.6	-	-	-	10.2	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	86	101	15	3	25
Future Vol, veh/h	65	86	101	15	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	93	110	16	3	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	126	0	-	0	353	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1460	-	-	-	645	934
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1460	-	-	-	612	934
Mov Cap-2 Maneuver	-	-	-	-	612	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	804	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.3	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1460	-	-	-	884	
HCM Lane V/C Ratio	0.048	-	-	-	0.034	
HCM Control Delay (s)	7.6	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	42	85	25	7	13
Future Vol, veh/h	25	42	85	25	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	46	92	27	8	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	119	0	0 206 106
Stage 1	-	-	- 106 -
Stage 2	-	-	- 100 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1469	-	- 782 948
Stage 1	-	-	- 918 -
Stage 2	-	-	- 924 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1469	-	- 767 948
Mov Cap-2 Maneuver	-	-	- 767 -
Stage 1	-	-	- 901 -
Stage 2	-	-	- 924 -

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1469	-	-	-	876
HCM Lane V/C Ratio	0.018	-	-	-	0.025
HCM Control Delay (s)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	6	19	556	12	73	519
Future Vol, veh/h	6	19	556	12	73	519
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	21	604	13	79	564
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1044	-	0	0	604	0
Stage 1	604	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	225	0	-	-	970	-
Stage 1	508	0	-	-	-	-
Stage 2	616	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	207	-	-	-	970	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	15.9	0	1.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	970	-	338	-	-	-
HCM Lane V/C Ratio	0.082	-	0.019	-	-	-
HCM Control Delay (s)	9	-	15.9	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	152	126	15	15	15
Future Vol, veh/h	15	152	126	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	165	137	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	153	0	-	0	334	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	197	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1428	-	-	-	661	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1428	-	-	-	654	911
Mov Cap-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	836	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1428	-	-	-	761	
HCM Lane V/C Ratio	0.011	-	-	-	0.043	
HCM Control Delay (s)	7.5	-	-	-	9.9	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	568	15	15	531	15	15
Future Vol, veh/h	568	15	15	531	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	16	16	577	16	16
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	633	0	938	309
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	946	-	263	687
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	259	687
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	696	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.7	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	379	687	-	-	946	-
HCM Lane V/C Ratio	0.043	0.024	-	-	0.017	-
HCM Control Delay (s)	14.9	10.4	-	-	8.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Appendix C-7: Long-Term Plus Project AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	83	13	11	89	59	20
Future Vol, veh/h	83	13	11	89	59	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	14	12	97	64	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	211	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1488	-	777	968
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	771	968
Mov Cap-2 Maneuver	-	-	-	-	769	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	897	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		10	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	811	-	-	1488	-	
HCM Lane V/C Ratio	0.106	-	-	0.008	-	
HCM Control Delay (s)	10	-	-	7.4	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	212	194	15	15	15
Future Vol, veh/h	15	212	194	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	230	211	16	16	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	227	0	0 481 219
Stage 1	-	-	- 219 -
Stage 2	-	-	- 262 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1341	-	- 544 821
Stage 1	-	-	- 817 -
Stage 2	-	-	- 782 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1341	-	- 537 821
Mov Cap-2 Maneuver	-	-	- 537 -
Stage 1	-	-	- 807 -
Stage 2	-	-	- 782 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1341	-	-	-	649
HCM Lane V/C Ratio	0.012	-	-	-	0.05
HCM Control Delay (s)	7.7	-	-	-	10.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	188	195	21	25	18
Future Vol, veh/h	9	188	195	21	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	204	212	23	27	20
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	235	0	-	0	448	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	224	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1332	-	-	-	568	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1332	-	-	-	563	815
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	813	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1332	-	-	-	647	
HCM Lane V/C Ratio	0.007	-	-	-	0.072	
HCM Control Delay (s)	7.7	0	-	-	11	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	197	192	34	51	15
Future Vol, veh/h	12	197	192	34	51	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	214	209	37	55	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	246	0	0 468 228
Stage 1	-	-	- 228 -
Stage 2	-	-	- 240 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1320	-	- 553 811
Stage 1	-	-	- 810 -
Stage 2	-	-	- 800 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1320	-	- 547 811
Mov Cap-2 Maneuver	-	-	- 547 -
Stage 1	-	-	- 801 -
Stage 2	-	-	- 800 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	591
HCM Lane V/C Ratio	0.01	-	-	-	0.121
HCM Control Delay (s)	7.8	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	10	66	438	1	17	386
Future Vol, veh/h	10	66	438	1	17	386
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	72	476	1	18	420
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	722	-	0	0	476	0
Stage 1	476	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	362	0	-	-	1082	-
Stage 1	591	0	-	-	-	-
Stage 2	772	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	356	-	-	-	1082	-
Mov Cap-2 Maneuver	460	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	13	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1082	-	460	-	-	-
HCM Lane V/C Ratio	0.017	-	0.024	-	-	-
HCM Control Delay (s)	8.4	-	13	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	193	211	17	19	31
Future Vol, veh/h	20	193	211	17	19	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	210	229	18	21	34
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	247	0	-	0	483	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1319	-	-	-	542	810
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	533	810
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	788	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1319	-	-	-	676	
HCM Lane V/C Ratio	0.016	-	-	-	0.08	
HCM Control Delay (s)	7.8	-	-	-	10.8	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	436	22	17	404	35	19
Future Vol, veh/h	436	22	17	404	35	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	24	18	439	38	21

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	498
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	1062
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1062
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	458	764	-	-	1062	-
HCM Lane V/C Ratio	0.083	0.027	-	-	0.017	-
HCM Control Delay (s)	13.6	9.8	-	-	8.4	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Appendix C-8: Long-Term Plus Project PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	88	50	16	61	30	12
Future Vol, veh/h	88	50	16	61	30	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	54	17	66	33	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	150
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1431
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1431
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	822	-	-	1431	-
HCM Lane V/C Ratio	0.056	-	-	0.012	-
HCM Control Delay (s)	9.6	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	193	151	15	15	15
Future Vol, veh/h	15	193	151	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	210	164	16	16	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	180	0	0 414 172
Stage 1	-	-	- 172 -
Stage 2	-	-	- 242 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1396	-	- 595 872
Stage 1	-	-	- 858 -
Stage 2	-	-	- 798 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1396	-	- 588 872
Mov Cap-2 Maneuver	-	-	- 588 -
Stage 1	-	-	- 849 -
Stage 2	-	-	- 798 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1396	-	-	-	702
HCM Lane V/C Ratio	0.012	-	-	-	0.046
HCM Control Delay (s)	7.6	-	-	-	10.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	89	106	15	3	25
Future Vol, veh/h	65	89	106	15	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	97	115	16	3	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	131	0	-	0	362	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1454	-	-	-	637	928
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	604	928
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	801	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1454	-	-	-	878	
HCM Lane V/C Ratio	0.049	-	-	-	0.035	
HCM Control Delay (s)	7.6	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	45	90	25	7	13
Future Vol, veh/h	25	45	90	25	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	49	98	27	8	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	125	0	-	0	215	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1462	-	-	-	773	941
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1462	-	-	-	758	941
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	921	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.7	0		9.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1462	-	-	-	868	
HCM Lane V/C Ratio	0.019	-	-	-	0.025	
HCM Control Delay (s)	7.5	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	6	22	559	12	78	524
Future Vol, veh/h	6	22	559	12	78	524
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	24	608	13	85	570
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1063	-	0	0	608	0
Stage 1	608	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	218	0	-	-	966	-
Stage 1	506	0	-	-	-	-
Stage 2	606	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	199	-	-	-	966	-
Mov Cap-2 Maneuver	332	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	16.1	0	1.2			
HCM LOS	C					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	966	-	332	-	-	-
HCM Lane V/C Ratio	0.088	-	0.02	-	-	-
HCM Control Delay (s)	9.1	-	16.1	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	152	126	20	18	26
Future Vol, veh/h	33	152	126	20	18	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	165	137	22	20	28
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	159	0	-	0	374	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	237	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1420	-	-	-	627	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1420	-	-	-	611	911
Mov Cap-2 Maneuver	-	-	-	-	611	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	802	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.4	0		10.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1420	-	-	-	759	
HCM Lane V/C Ratio	0.025	-	-	-	0.063	
HCM Control Delay (s)	7.6	-	-	-	10.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	568	37	20	531	28	18
Future Vol, veh/h	568	37	20	531	28	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	40	22	577	30	20
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	657	0	950	309
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	926	-	258	687
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	926	-	252	687
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	681	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		13.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	374	687	-	-	926	-
HCM Lane V/C Ratio	0.081	0.028	-	-	0.023	-
HCM Control Delay (s)	15.5	10.4	-	-	9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Conditions of Approval for TSM22003

Tentative Subdivision Map

1. APPROVAL:

THE PROJECT IS APPROVED AS SUBMITTED AND CONDITIONED. ANY SUBSTANTIVE CHANGE SHALL REQUIRE REVIEW AND APPROVAL BY THE PLANNING COMMISSION AND CITY COUNCIL AS AN AMENDMENT TO THIS TENTATIVE SUBDIVISION MAP.

2. PROJECT DESCRIPTION:

THE PROJECT APPROVAL IS LIMITED TO SINGLE-FAMILY RESIDENTIAL DEVELOPMENT WITH A MAXIMUM OF 79 SINGLE FAMILY RESIDENTIAL LOTS ON ±30.15 ACRES.

3. EXPIRATION DATE:

THE TENTATIVE SUBDIVISION MAP SHALL EXPIRE WITHIN FOUR (4) YEARS OF THE DATE OF THE CITY COUNCIL APPROVAL UNLESS THE FINAL MAP HAS BEEN RECORDED IN ACCORDANCE WITH NEVADA REVISED STATUTES (N.R.S.) 278.360.

4. PROJECT CONTACT:

THE DEVELOPER SHALL DESIGNATE TO THE CITY A PROJECT CONTACT PERSON RESPONSIBLE/AUTHORIZED TO CORRECT PROBLEMS REGARDING THE PROJECT ON A 24-HOUR/7-DAYS A WEEK BASIS. THE DEVELOPER SHALL DESIGNATE THE PROJECT CONTACT PERSON TO THE CITY PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR THE PROJECT.

5. WATER RIGHTS:

THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING THE DEDICATION OF WATER RIGHTS AND ALL ASSOCIATED FEES FOR THE CONNECTION TO THE CITY'S MUNICIPAL WATER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE RECORDATION OF A FINAL MAP.

6. WATER REPORT:

THE DEVELOPER SHALL PROVIDE A WATER REPORT DEMONSTRATING THAT THE DEVELOPMENT CAN BE SERVED BY THE CITY'S MUNICIPAL WATER SYSTEM. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY IMPROVEMENTS DEEMED NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING WATER INFRASTRUCTURE, INCLUDING ASSOCIATED FEES FOR THE CONNECTION TO THE CITY'S WATER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE PUBLIC IMPROVEMENTS FOR THE PROJECT.

7. SANITARY SEWER REPORT:

THE DEVELOPER SHALL PROVIDE A SEWER REPORT DEMONSTRATING THE DEVELOPMENT CAN BE SERVED BY THE CITY'S SANITARY SEWER SYSTEM. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY IMPROVEMENTS DEEMED NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING THE SANITARY SEWER SYSTEM, INCLUDING ASSOCIATED FEES, FOR THE CONNECTION TO THE CITY'S SANITARY SEWER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE PUBLIC IMPROVEMENTS FOR THE PROJECT.

Conditions of Approval for TSM22003

Tentative Subdivision Map

8. WATER AND SEWER MODELING:

THE DEVELOPER SHALL PAY ALL FEES AND PROVIDE ALL THE INFORMATION NECESSARY TO COMPLETE WATER AND SEWER MODELING OF THE PROJECT. MODELING WILL BE PERFORMED BY THE CITY OF FERNLEY'S CONSULTANT, AND ANY ADDITIONAL INFRASTRUCTURE OR CAPACITY IDENTIFIED BY THE MODELING SHALL BE INCLUDED IN THE IMPROVEMENT PLANS AND CONSTRUCTED BY THE DEVELOPER.

9. WATER AND SEWER MAINS AND SERVICES:

THE DEVELOPER SHALL COMPLY WITH ALL STANDARDS, CODES, AND REQUIREMENTS REGARDING CONNECTION TO THE CITY'S SANITARY SEWER AND POTABLE WATER SYSTEMS, INCLUDING BUT NOT LIMITED TO, ASSOCIATED FEES, EASEMENTS, DESIGN STANDARDS, SYSTEM LOOPING, DEVELOPMENT CODE REQUIREMENTS, AND STATE REQUIREMENTS. PRIOR TO THE RECORDATION OF A FINAL MAP FOR ANY PHASE OF THE PROJECT, THE DEVELOPER SHALL PROVIDE THE CITY WITH A UTILITY PLAN FOR WATER AND SANITARY SEWER THAT IS IN CONFORMANCE WITH THE CITY OF FERNLEY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL TO THE APPROVAL OF THE CITY ENGINEER, PUBLIC WORKS DIRECTOR, AND ADMINISTRATOR. EACH PHASE MUST ALSO BE REVIEWED AND APPROVED BY THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION PRIOR TO CONSTRUCTION.

10. UTILITY EASEMENTS:

THE DEVELOPER SHALL PROVIDE EASEMENTS TO THE CITY OF FERNLEY FOR THE MAINTENANCE OF THE PUBLIC INFRASTRUCTURE BEING INSTALLED ON PRIVATE PROPERTY. THE EASEMENTS SHALL INCLUDE THE CITY OF FERNLEY'S STANDARD EASEMENT LANGUAGE AND SHALL BE RECORDED ALONG WITH THE FINAL MAP.

11. DESIGN STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE DESIGN STANDARDS AND REGULATIONS AS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AND PUBLIC WORKS DESIGN MANUAL UNLESS IN CONFLICT WITH THE LOCAL, STATE, OR FEDERAL REGULATIONS, IN WHICH CASE THE MORE STRINGENT REGULATION WILL TAKE PRECEDENCE.

12. ENGINEERING DIVISION:

THE DEVELOPER SHALL COMPLY WITH ALL ENGINEERING REQUIREMENTS WITHIN THE FERNLEY MUNICIPAL CODE TITLE 32, INCLUDING BUT NOT LIMITED TO, COMPLIANCE WITH SITE DEVELOPMENT STANDARDS, FLOODPLAIN MANAGEMENT, ROADWAYS, UNDERGROUNDING OF UTILITIES, AND WATER AND WASTEWATER FACILITIES TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

13. STREETS:

THE DEVELOPER SHALL CONSTRUCT ANY ROADWAY IMPROVEMENTS NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

Conditions of Approval for TSM22003

Tentative Subdivision Map

14. VONNIE LANE IMPROVEMENTS:

PRIOR TO THE SUBMITTAL OF ANY FINAL MAP APPLICATION, THE DEVELOPER SHALL PROCESS A DEDICATION MAP WHICH OFFERS FOR DEDICATION ALL NECESSARY RIGHT-OF-WAY FOR VONNIE LANE ALONG THE PROJECT SITE SOUTH TO FARM DISTRICT ROAD. THE DEDICATION MAP SHALL BE RECORDED PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

PRIOR TO THE APPROVAL AND RECORDATION OF THE FIRST FINAL MAP, THE DEVELOPER SHALL SUBMIT IMPROVEMENT PLANS FOR THE CONSTRUCTION OF THE VONNIE LANE IMPROVEMENTS. ALL NECESSARY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY FOR ANY SINGLE-FAMILY RESIDENCE TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

15. WALLACE WAY IMPROVEMENTS:

PRIOR TO THE SUBMITTAL OF A FINAL MAP APPLICATION WHICH INCLUDES THE LAST RESIDENTIAL LOT, THE DEVELOPER SHALL PROCESS A DEDICATION MAP WHICH OFFERS FOR DEDICATION ALL NECESSARY RIGHT-OF-WAY FOR WALLACE WAY FROM THE PROJECT SITE WEST TO RED ROCK ROAD. THE DEDICATION MAP SHALL BE RECORDED PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

PRIOR TO THE APPROVAL AND RECORDATION OF THE FINAL MAP WHICH INCLUDES THE LAST RESIDENTIAL LOT, THE DEVELOPER SHALL SUBMIT IMPROVEMENT PLANS FOR THE CONSTRUCTION OF THE WALLACE WAY IMPROVEMENTS. ALL NECESSARY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY FOR THE LAST SINGLE-FAMILY RESIDENCE TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

16. SECONDARY ACCESS

PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP WHICH INCLUDES THE CREATION OF THE 31ST RESIDENTIAL LOT, THE DEVELOPER SHALL DEMONSTRATE THAT SECONDARY EMERGENCY ACCESS HAS BEEN PROVIDED IN ACCORDANCE WITH THE ADOPTED BUILDING AND FIRE CODES TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, CITY ENGINEER, AND THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT.

17. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH ALL REGULATIONS OUTLINED BY THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT TO THE APPROVAL OF THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT, ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

Conditions of Approval for TSM22003

Tentative Subdivision Map

18. COMBUSTIBLES ON-SITE:

NO COMBUSTIBLES SHALL BE BROUGHT ON-SITE PRIOR TO THE INSTALLATION AND ACCEPTANCE OF AN ALL-WEATHER SURFACE AND INSTALLATION/OPERATION OF FIRE HYDRANTS TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT.

19. DRAINAGE AND GRADING:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE FERNLEY MUNICIPAL CODE CHAPTER 32 (DRAINAGE AND GRADING) AND CHAPTER 10 OF THE CITY OF FERNLEY'S PUBLIC WORKS DESIGN MANUAL TO THE APPROVAL OF ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

THE DEVELOPER SHALL PROVIDE A DRAINAGE REPORT FOR THE PROJECT IN CONFORMANCE WITH THE CITY'S DEVELOPMENT CODE, MUNICIPAL CODE, AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER. EACH SUCCESSIVE PHASE OF THE PROJECT SHALL SUBMIT AN UPDATED DRAINAGE REPORT FOR REVIEW AND APPROVAL BY THE CITY ENGINEER SHOWING THE CUMULATIVE EFFECT OF THE DEVELOPED PORTION OF THE PROJECT ALONG WITH THE PROPOSED PHASE'S EFFECT ON THE TOTAL DISCHARGE INTO THE DRAINAGE SYSTEM.

THE DRAINAGE BASIN SHALL BE DEDICATED TO THE CITY OF FERNLEY UPON COMPLETION OF THE PROJECT IN ORDER FOR THE CITY TO MAINTAIN THE STORM DRAIN SYSTEM FOR THE SUBDIVISION.

20. GRADING PERMIT:

THE DEVELOPER SHALL SUBMIT A GRADING PLAN FOR ANY PHASE OF THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. PRIOR TO THE ISSUANCE OF A GRADING PERMIT FOR THE DEVELOPMENT, THE DEVELOPER SHALL POST A SURETY BOND FOR REGRADING AND RECLAMATION OF THE SITE.

THE DEVELOPER SHALL PROVIDE A STAMPED ENGINEER'S ESTIMATE FOR REGRADING AND RECLAMATION OF THE SITE. THE DEVELOPER SHALL COMPLY WITH ALL GRADING REQUIREMENTS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AS WELL AS ALL STATE AND FEDERAL REGULATIONS. THE DEVELOPER OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PERMIT WITH THE STATE OF NEVADA AS WELL AS A SURFACE AREA DISTURBANCE.

21. GEOTECHNICAL REPORT:

THE DEVELOPER SHALL PROVIDE A FINAL GEOTECHNICAL REPORT FOR THE PROJECT IN CONFORMANCE WITH THE DEVELOPMENT CODE FOR REVIEW AND APPROVAL BY THE ADMINISTRATOR, CITY ENGINEER, PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF A FINAL MAP FOR ANY PORTION OF THE PROJECT.

22. IMPROVEMENT PLANS:

WITH THE SUBMITTAL OF ANY FINAL MAP APPLICATION, THE DEVELOPER SHALL SUBMIT THE ASSOCIATED IMPROVEMENT PLANS FOR REVIEW AND APPROVAL. THE IMPROVEMENT PLANS SHALL BE APPROVED PRIOR TO THE RECORDATION OF THE FINAL MAP. THE UTILITIES AND INFRASTRUCTURE FOR EACH PHASE MUST OPERATE INDEPENDENTLY OF FUTURE PHASES YET TO BE CONSTRUCTED.

Conditions of Approval for TSM22003

Tentative Subdivision Map

PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP FOR THE PROJECT, THE DEVELOPER SHALL CONSTRUCT ALL REQUIRED PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, PUBLIC UTILITY AND ROADWAY INFRASTRUCTURE ASSOCIATED WITH THE PROJECT OR PROVIDE A SURETY BOND IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN FERNLEY MUNICIPAL CODE CHAPTER 32.13 (IMPROVEMENTS AND AGREEMENTS) OF THE FERNLEY MUNICIPAL CODE.

23. SUBDIVISION IMPROVEMENT AGREEMENT:

THE DEVELOPER SHALL EXECUTE A SUBDIVISION IMPROVEMENT AGREEMENT WITH THE CITY OF FERNLEY PRIOR TO APPLYING FOR ANY BUILDING PERMITS FOR NEW HOME CONSTRUCTION WHILE THE PUBLIC IMPROVEMENTS ARE STILL NOT CONSTRUCTED. THE AGREEMENT SHALL BE DRAFTED BY THE CITY OF FERNLEY AND PROVIDED TO THE DEVELOPER FOR REVIEW AND EXECUTION. THE AGREEMENT SHALL BE RECORDED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. NO HOMES SHALL RECEIVE A FINAL CERTIFICATE OF OCCUPANCY UNTIL THE PUBLIC IMPROVEMENTS ARE COMPLETE AND ACCEPTED BY THE CITY OF FERNLEY.

24. RESIDENTIAL CONSTRUCTION TAX:

THE DEVELOPER IS SUBJECT TO THE PROVISIONS OF FERNLEY MUNICIPAL CODE RELATED TO RESIDENTIAL CONSTRUCTION TAX. THE RESIDENTIAL CONSTRUCTION TAX FEE SHALL BE PAID PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR EACH SINGLE-FAMILY RESIDENCE.

25. ADDRESSING AND STREET NAMES:

ALL ADDRESSING OF LOTS SHALL BE COMPLETED BY THE CITY. STREET NAMES SHALL BE APPROVED BY THE CITY PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP FOR THE PROJECT.

26. LOS ANGELES DEPARTMENT OF WATER AND POWER:

THE DEVELOPER SHALL COMPLY WITH THE REQUIREMENTS OF THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) RELATED TO ANY FACILITY OR EASEMENT WITHIN THE PROJECT BOUNDARY, TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

IF APPLICABLE, ALL ABANDONMENTS AND/OR REALIGNMENTS OF THE LADWP EASEMENTS SHALL BE FINALIZED AND ACCEPTED BY THE LADWP PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

27. NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION- BUREAU OF SAFE DRINKING WATER AND BUREAU OF WATER POLLUTION CONTROL FOR THE WATER AND SEWER INFRASTRUCTURE DESIGN AND CONSTRUCTION TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER AND PUBLIC WORKS DIRECTOR.

28. FENCING:

INCLUDED WITH THE SUBMISSION OF CIVIL IMPROVEMENT PLANS, THE DEVELOPER SHALL SUBMIT A FENCING PLAN IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY'S MUNICIPAL CODE TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

Conditions of Approval for TSM22003

Tentative Subdivision Map

29. WASTE MANAGEMENT:

THE DEVELOPER SHALL PROVIDE A WILL SERVE FROM WASTE MANAGEMENT TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

30. UNITED STATES POSTAL SERVICE:

IF NECESSARY, THE DEVELOPER SHALL PROVIDE AN EASEMENT FOR ANY NEW CLUSTER MAILBOX LOCATION TO THE APPROVAL OF THE ADMINISTRATOR AND LOCAL POSTAL INSPECTOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

31. EASEMENTS:

ALL ABANDONMENTS AND/OR REALIGNMENTS OF ANY EASEMENT SHALL BE FINALIZED AND ACCEPTED PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

32. ADJACENCY STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE ADJACENCY STANDARDS OF THE CITY OF FERNLEY DEVELOPMENT CODE SECTION 32.09.030 TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF ANY FINAL MAP.

33. FINAL MAP PHASING:

EACH PHASE SUBMITTED MUST BE DESIGNED TO MEET THE PUBLIC FACILITIES AND IMPROVEMENT STANDARDS AND BE ABLE TO OPERATE INDEPENDENTLY AND AS PART OF THE OVERALL DESIGN. CHANGES TO THE PHASING PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO BEING IMPLEMENTED.

34. NEVADA DEPARTMENT OF TRANSPORTATION:

THE DEVELOPER SHALL OBTAIN APPROVAL FROM THE NEVADA DEPARTMENT OF TRANSPORTATION PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

35. COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S):

IF APPLICABLE, THE APPLICANT SHALL PROVIDE COVENANTS, CONDITIONS, AND RESTRICTIONS. (CC&R'S) WITH THE FIRST FINAL MAP AND SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ADMINISTRATOR AND THE CITY ATTORNEY. CC&R'S SHALL BE RECORDED CONCURRENTLY WITH THE FINAL SUBDIVISION MAP. THE APPLICANT SHALL INCLUDE IN THE CC&R'S PROVISIONS OUTLINING MAINTENANCE RESPONSIBILITIES OF COMMON AREAS, SHARED ROADWAYS, LANDSCAPED MEDIANS, OR OTHER COMMON ELEMENTS TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

36. LYON COUNTY SCHOOL DISTRICT:

THE DEVELOPER SHALL WORK TOGETHER WITH THE LYON COUNTY SCHOOL DISTRICT TO ENSURE THAT THE PROPOSED DEVELOPMENT CAN BE SERVED BY SCHOOL DISTRICT FACILITIES.

**MINUTES OF THE
FERNLEY PLANNING COMMISSION MEETING
APRIL 13, 2022**

1. INTRODUCTORY ITEMS

1.1. Roll Call

Present: Planning Commission Chairman Williams, Commissioner Lodhi, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Hodges Planning Director Tim Thompson, Assistant Planner Nikil Manayathara, Assistant Planner Shay League, Deputy City Attorney Aaron Mouritsen, Deputy City Clerk Brenda Gosser, Administrative Assistant Bailie Scott.

Absent: Commissioner Lewis, Commissioner Severa.

1.2. Public Forum

Planning Commission Chair Barry Williams opened up a public forum. No public comment was given at that time.

1.3. (For Possible Action) Approval of Agenda

Motion: MOVE TO APPROVE THE APRIL 13, 2022 PLANNING COMMISSION AGENDA.

Action: Approve, **Moved by** Commissioner McCullar, **Seconded by** Planning Commission Vice-Chair Wagner. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

1.4. (For Possible Action) Approval of Minutes from March 9th and March 23rd.

Motion: MOVE TO APPROVE MARCH 9, 2022 AND MARCH 23, 2022 PLANNING COMMISSION MINUTES.

Action: Approve, **Moved by** Planning Commission Vice-Chair Wagner, **Seconded by** Commissioner Lodhi. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

2. GENERAL BUSINESS

Nothing was presented for General Business.

3. PUBLIC HEARINGS

3.1. (For possible action) Public Hearing - ZMA22004 & TSM22003

Consideration and possible action on a Zoning Map Amendment and Tentative Subdivision Map request on a site consisting of one (1) parcel of land approximately 30.15 acres in size, located at 900 Vonnie Lane, Fernley, NV (021-471-05):

- 1. A Zoning Map Amendment request associated with ZMA22004, to change the zoning on a single parcel of land from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size).**
- 2. A Tentative Subdivision Map request associated with TSM22003, to allow for the**

development of a 79-lot residential subdivision, located within the SF6 (Single Family, 6,000 sq. ft. minimum lot size zoning district).

Assistant Planner Nikil Manayathara presented ZMA22004 & TSM22003 to the Planning Commission.

Lydia Altech, Phelps Engineering, presented an overview of the project.

David Schwegel and Matt Dickson, Phelps Engineering, addressed the commission's questions regarding the applicants' traffic study. He stated that Vonnie Lane is a public road according to document 144905

Public Comment

Tom Howell has been a Fernley resident for 27 years and lives on Vonnie Lane. He stated that Vonnie Lane is a private road and he is opposed to the project.

Michael Lowry is a Fernley resident and lives on Vonnie Lane. He provided an overview of the history of Vonnie Lane and is opposed to the project.

Gregory McCaffrey is a Fernley resident and lives on Vonnie Lane. His family has property on both sides of Vonnie Lane. He stated that the applicant tried to purchase the access easement that runs through his family's property. He commented that as of a month ago the offer has gone away and it is no longer a possibility.

Thomas Ehrhart is a Fernley resident and lives on Vonnie Lane. He stated that he maintains the road and has never been compensated for it. He commented that Wallace Way is also private property.

Richard Hedinger is a Fernley resident and lives on Pepper Lane in the Desert Lakes subdivision. Due to his backyard being a portion of the border to the project, he is opposed to the project.

Bernadette Howell is a Fernley resident and lives on Vonnie Lane. She commented that the residents on Vonnie Lane are not against growth, but they would like reasonable growth. She stated that the residents would also like to be respected and for everyone to understand that Vonnie Lane is a privately owned road. She was opposed to the project.

Paul Persson is a Fernley resident and lives on Vonnie Lane. Paul stated that Vonnie Lane is a privately owned road and he also maintains it. He would not be open to signing an agreement to give up his zoned part of the road for his 5 acres. Therefore, he is opposed to the project.

John Reichlein is a Fernley citizen. He stated that he has a vested interest in this development and all of the developments that are happening here in Fernley. He stated that he would like to know if diversity in the master plan means quantity and believes that this project oversteps what was intended for the master plan. He commented that the houses would be close to the electromagnetic fields.

Debbie Skinner is a resident of Fernley. She asked what type of buffer is being proposed between this project and the RV Park. She also asked who will be maintaining the zero-scape that will be put in place with the project. She commented that the project is in its infancy and has not been

thought through enough to make a comparable decision.

Planning Director Tim Thompson provided an overview of the application and the process the applicant had to go through leading up to the proposal. Director Thompson also gave a summary of the conditions and standards that would need to be met by the applicant before the final subdivision map can be presented.

MOTION: BASED ON INFORMATION RECEIVED IN WRITTEN MATERIALS AND AT THE PUBLIC HEARINGS ON THIS MATTER, I MOVE TO FORWARD A RECOMMENDATION OF DENIAL TO THE CITY COUNCIL FOR ZONING MAP AMENDMENT ASSOCIATED WITH ZMA22004 BECAUSE I HAVE DETERMINED THE PROPOSED CHANGES ARE DETRIMENTAL TO THE PUBLIC'S HEALTH, SAFETY, AND GENERAL WELFARE AND AM UNABLE TO MAKE THE FOLLOWING REQUIRED ZONING MAP AMENDMENT FINDINGS: I AM UNABLE TO MAKE THE FINDING Z1 AS IT RELATES TO MULTIPLE ISSUES HERE, H.P.1.2 ENCOURAGING HOUSING THAT SUPPORTS SUSTAINABLE DEVELOPMENT PATTERNS BY PROMOTING THE EFFICIENT USE OF LAND, CONSERVATION OF NATURAL RESOURCES, EASY ACCESS TO SERVICES AND PUBLIC FACILITIES SUCH AS PARKS, AND RESOURCE EFFICIENT DESIGN AND CONSTRUCTION, I DON'T FEEL THAT THE DEVELOPMENT GOING IN AT THE END OF VONNIE LANE WHERE THERE ARE SO MANY QUESTIONS IS EFFICIENT WHATSOEVER, H.P.1.8 COORDINATE POPULATION GROWTH WITH THE AVAILABILITY OF WATER, SANITARY SEWER, STREETS AND HIGHWAYS AND OTHER PUBLIC FACILITIES AND SERVICES. WITHOUT A CONCRETE PLAN TO CONNECT TO HIGHWAY 50A, I DON'T FEEL LIKE THAT CONDITION IS MET, L.U.1.1 ENCOURAGE AND PLAN FOR NEW DEVELOPMENT IN AREAS WHERE ADEQUATE PUBLIC SERVICES AND FACILITIES CAN BE PROVIDED EFFICIENTLY. EFFICIENCY RELATING TO THE PROXIMITY OF THE HIGHWAY IS LACKING IN THIS PROJECT, L.U.1.5 PROMOTE INFILL DEVELOPMENT. ALTHOUGH IT IS WITHIN THE CITY'S BOUNDARIES, IT SOUNDS LIKE THERE ARE ISSUES WITH RUNNING UTILITIES ALL THE WAY TO THE PROJECT WHICH WOULD NOT MEET MY DEFINITION OF INFILL DEVELOPMENT, L.U.1.8 ENSURE THAT FUTURE GROWTH IS SENSITIVE TO THE EXISTING AGRICULTURAL/FARMING USES. VONNIE LANE SEEMS LIKE AN AREA WHERE AGRICULTURE AND FARMING IS PRESENT AND THIS DEVELOPMENT WOULD CERTAINLY IMPACT THAT, T.1.1 REQUIRE THAT ROADWAY FACILITIES BE MAINTAINED AND CONSTRUCTED AS NEEDED TO ENSURE HIGH QUALITY AND SAFE TRAVEL ON MAJOR STREETS AND AT MAJOR INTERSECTIONS. SENDING ALL OF THESE CARS ONTO FARM DISTRICT THAT ALREADY HAS SOME SAFETY CONCERNS, EVEN IF IT MEETS THE LEVEL OF SERVICE, I THINK FARM DISTRICT NEEDS SOME MAJOR IMPROVEMENTS TO CONTINUE TO PUT CARS ON THAT ROAD, T.1.3 IMPLEMENT STREET DESIGN AND ACCESS STANDARDS TO PROVIDE SAFE AND EFFICIENT MOVEMENT OF GOODS AND PEOPLE. I BELIEVE EFFICIENCY IS LACKING IN THIS PROJECT, Z2 CONSISTENCY WITH THE SURROUNDING LAND USES. IT DOES NOT MEET CONSISTENCY WITH THE SURROUNDING LAND USES WELL AT ALL. THEREFORE, I CANNOT APPROVE THE ZONING MAP AMENDMENT.

Action: Deny, **Moved** By Planning Commission Vice-Chair Wagner, **Seconded** By Commissioner McCullar. **Vote:** Passed, **Summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

Motion: BASED ON INFORMATION RECEIVED IN WRITTEN MATERIALS AND AT THE PUBLIC HEARINGS ON THIS MATTER, I MOVE TO FORWARD A RECOMMENDATION OF DENIAL TO THE CITY COUNCIL FOR THE TENTATIVE SUBDIVISION MAP ASSOCIATED WITH TSM22003 BECAUSE I HAVE DETERMINED THE PROPOSED CHANGES ARE DETRIMENTAL TO THE PUBLIC'S HEALTH, SAFETY, AND GENERAL WELFARE AND AM UNABLE TO MAKE THE FOLLOWING REQUIRED TENTATIVE SUBDIVISION MAP FINDINGS: I AM UNABLE TO MAKE THE FINDINGS TM3 AVAILABILITY AND ACCESSIBILITY OF UTILITIES, TM4 AVAILABILITY AND ACCESSIBILITY OF PUBLIC SERVICES SUCH AS SCHOOLS, POLICE, AND FIRE PROTECTION, TRANSPORTATION, RECREATION FACILITIES, AND PARKS, TM5 CONSISTENCY WITH THE ZONING DISTRICT REGULATIONS, TM6 CONFORMITY WITH THE MASTER STREETS & HIGHWAY PLAN, TM7 EFFECT OF THE PROPOSED SUBDIVISION ON EXISTING PUBLIC STREETS, AND THE NEED FOR NEW STREETS OR HIGHWAYS TO SERVE THE SUBDIVISION. THEREFORE, I CANNOT APPROVE THE TENTATIVE SUBDIVISION MAP.

Action: Deny, **Moved by** Planning Commission Vice-Chair Wagner, **Seconded by** Commissioner Lodhi. **Vote:** Passed, **summary:** Yes 5, Absent 2. **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner McCullar, Planning Commission Vice-Chair Wagner, Commissioner Lodhi, **Absent:** Commissioner Lewis, Commissioner Severa.

Planning Director Tim Thompson informed the Planning Commission that this item will be presented to City Council during the May 18th meeting.

4. CHAIR AND COMMISSION ITEMS

There were none.

5. PLANNING DIRECTOR ITEMS

Tim Thompson notified the commission that on April 20th at 4:00 PM a training will be held on open meeting law and land use.

6. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

There were none.

7. PUBLIC FORUM

Planning Commission Chair Barry Williams opened up a public forum.

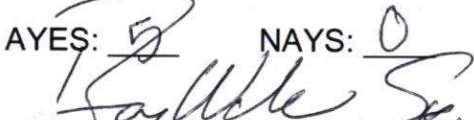
8. ADJOURNMENT

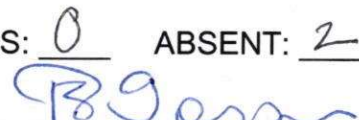
There being no further business to come before it, the Fernley Planning Commission meeting adjourned at 6:30 PM.

The next Planning Commission meeting will be on May 11, 2022, at 5:00 PM.

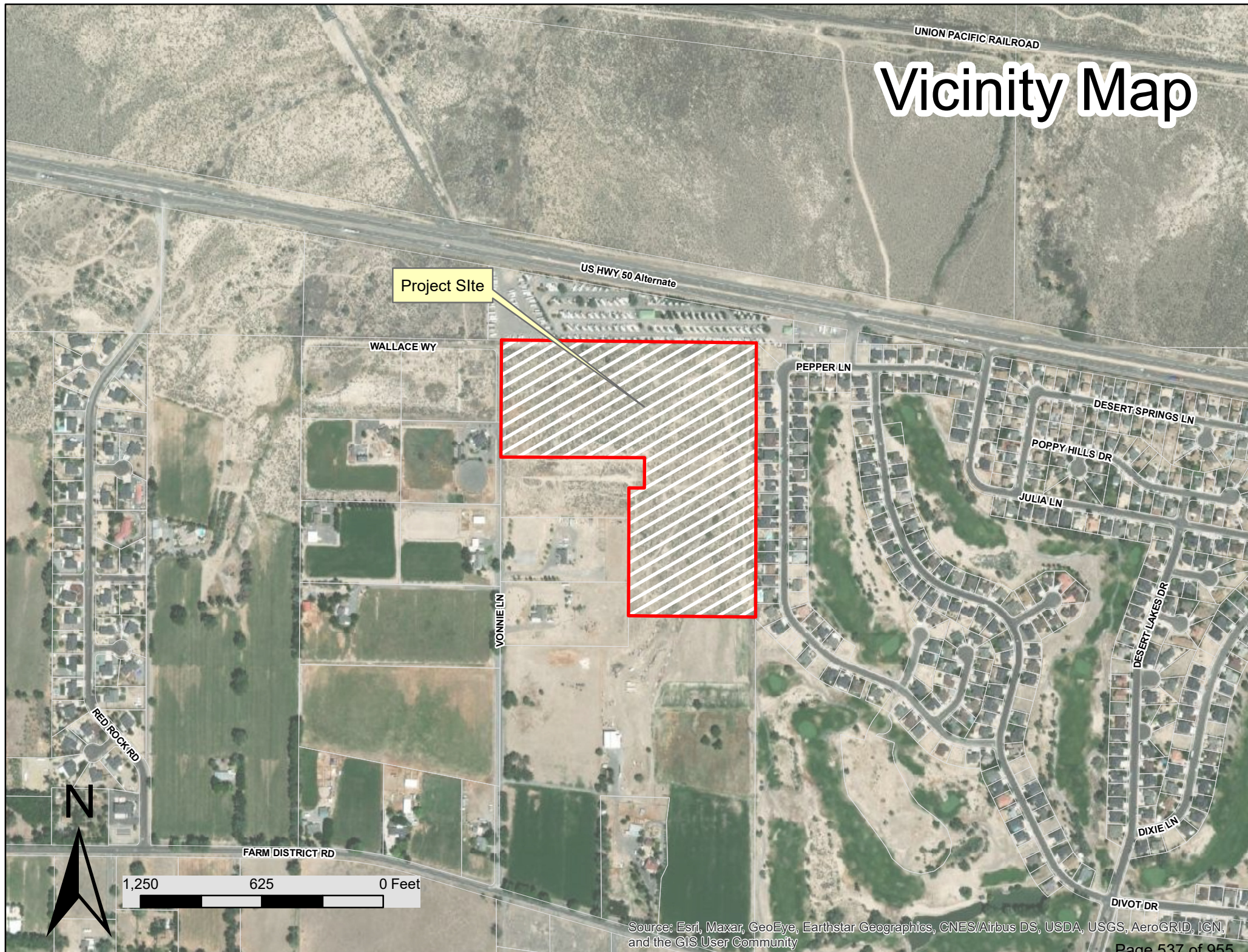
Approved by the Fernley Planning Commission on May 11th, 2022, by a vote of:

AYES: 5 NAYS: 0 ABSTENTIONS: 0 ABSENT: 2

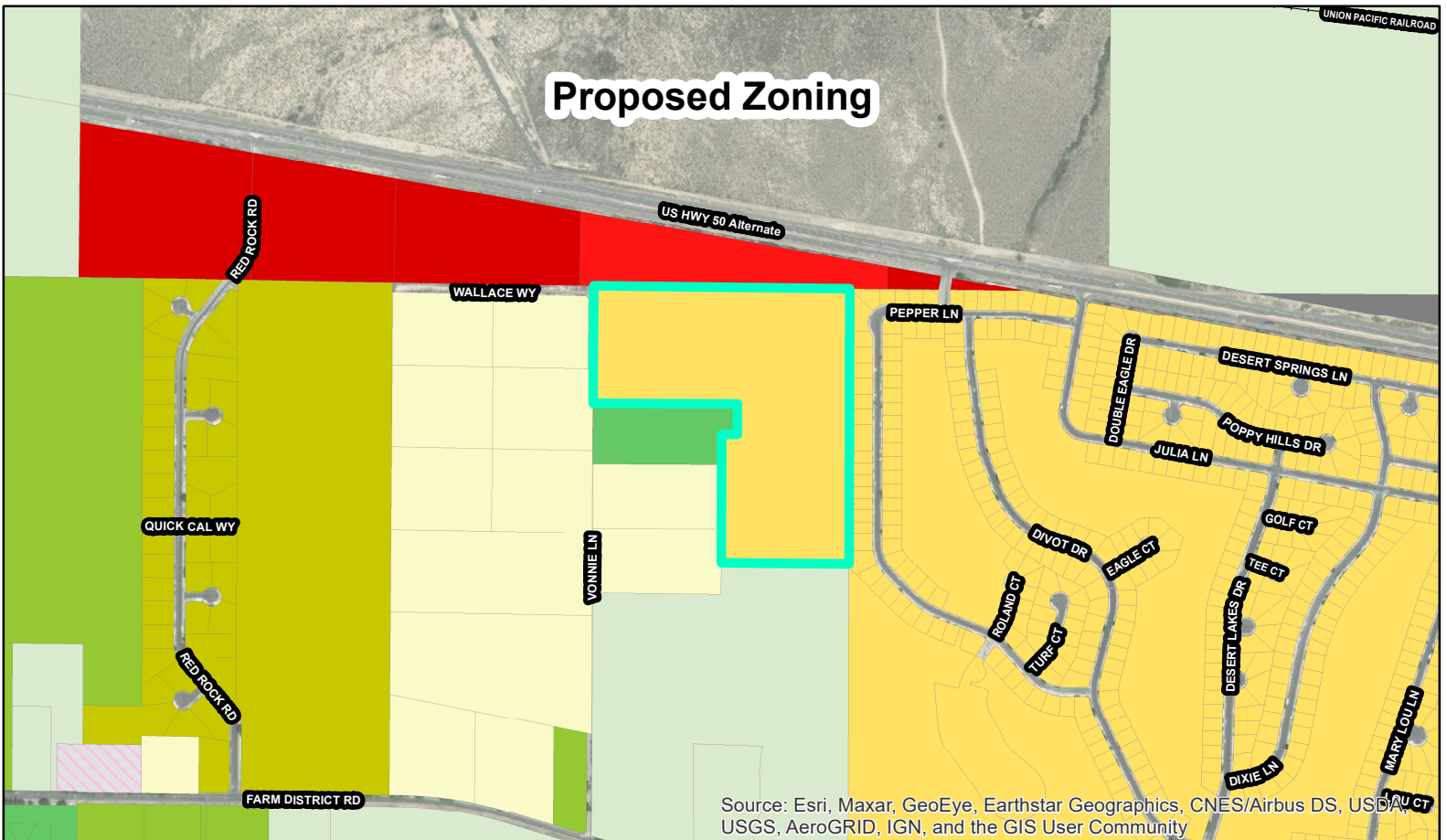
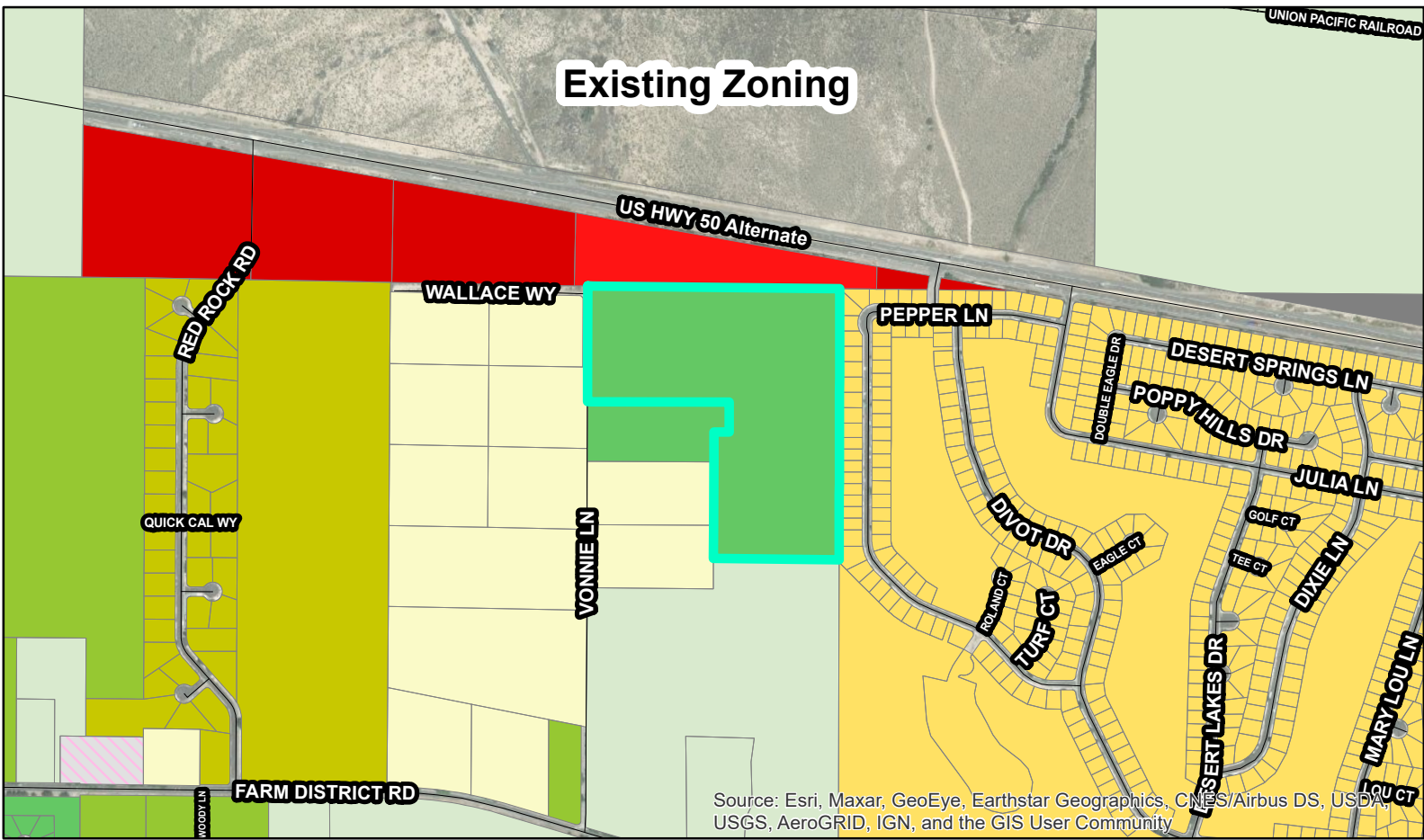

Planning Commission Chairman Barry Williams


ATTEST:

Vicinity Map



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



NOTE: The scale and configuration of all information shown hereon are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Fernley



0 625 Feet
1:250

 Vonnie_Lane

GR20	RR½	SF9	MF21	C1	EC	PF
RR5	SF20	SF6	MF30	C2	I	OSP
RR1	SF12	MDR14	MU	TC		

Legend

When recorded, mail to:
City Clerk
City of Fernley
595 Silver Lace Boulevard
Fernley, NV 89408

BILL # 309
CITY OF FERNLEY
ORDINANCE # 2022-006

A GENERAL ORDINANCE FOR A ZONING MAP AMENDMENT, ASSOCIATED WITH ZMA22004, TO CHANGE THE ZONING FROM SF20 (SINGLE FAMILY, 20,000 SQ. FT. MINIMUM LOT SIZE) TO SF6 (SINGLE FAMILY, 6,000 SQ. FT. MINIMUM LOT SIZE) ON A SITE APPROXIMATELY ±30.15 ACRES IN SIZE LOCATED AT 900 VONNIE LANE, FERNLEY, NV, ASSESSOR'S PARCEL NUMBERS 021-471-05, AND PROVIDING OTHER MATTERS PROPERLY RELATING THERETO.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter "the Council", DO HEREBY ORDAIN:

Section 1: The zoning of property described in Exhibit "A" and shown in Exhibit "A-1", which is attached hereto and incorporated herein by reference, situated in the City of Fernley, County Of Lyon, State Of Nevada, Is Hereby Changed from SF20 (Single Family, 20,000 sq. ft. minimum lot size) to SF6 (Single Family, 6,000 sq. ft. minimum lot size) on a site approximately ±30.15 acres in size located at 900 Vonnie Lane, NV (APN: 021-471-05).

SECTION 2: The zoning map of the City of Fernley is hereby amended in accordance with the zoning map amendment herein.

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 4: The City Clerk is instructed and authorized to publish the title to this ordinance as provided by law and to record the plan certified herein as provided by law.

SECTION 5: This ordinance shall become effective upon passage, approval, and publication.

SECTION 6: The provisions of this ordinance shall be liberally construed to effectively carry out its purposes in the interest of the public health, safety, welfare and convenience.

SECTION 7: If any subsection, phrase, sentence or portion of this section is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions.

SECTION 8: The City Council finds that this ordinance is not likely to impose a direct and significant economic burden upon a business or directly restrict the formation, operation or expansion of a business, or is otherwise exempt from Nevada Revised Statutes Chapter 237.

BILL # 309 BEING HEREBY PROPOSED on the 4th day of May 2022.

BILL # 309 BEING HEREBY PASSED, APPROVED and ADOPTED this _____ day of _____ 2022, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____
Roy Edgington, Mayor

Date: _____

Attest By: _____
Kim Swanson, City Clerk

Date: _____

EXHIBIT "A"
900 VONNIE LANE, CITY OF FERNLEY, LYON COUNTY, NV

A PART OF THE WEST HALF (W½) OF THE EAST HALF (E½) OF SECTION 22, TOWNSHIP 20 NORTH, RANGE 25 EAST, MOUNT DIABLO MERIDIAN, SITUATE IN THE CITY OF FERNLEY, LYON COUNTY, NEVADA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL "A-4" OF THAT CERTAIN PARCEL MAP FOR WILLIAM F. & IDA M. MITCHELL, FOUND IN DOCUMENT NO. 158028, PUBLIC RECORDS OF LYON COUNTY, NEVADA.

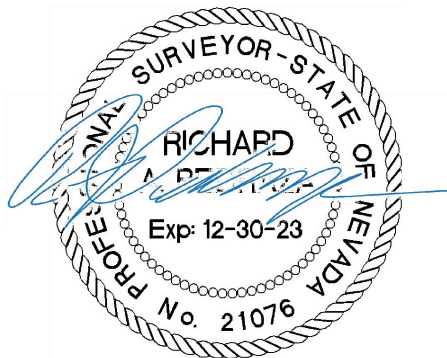
CONTAINING 30.15 ACRES, MORE OR LESS.

BEARING BASE: THE NORTH LINE OF THE WEST HALF (W½) OF THE EAST HALF (E½) OF SAID SECTION 22 IS ASSUMED TO BEAR SOUTH 89°40'11" EAST AND ALL BEARINGS CITED ON SAID PARCEL MAP ARE RELATIVE THERETO.

For the firm, by:
Richard A. Pedraza
PLS #21076
State of Nevada



155 Country Estates Circle
Reno, NV 89511

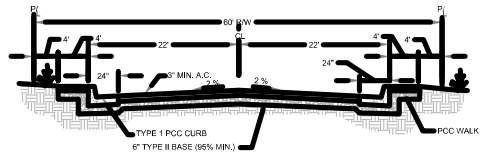


3-15-22

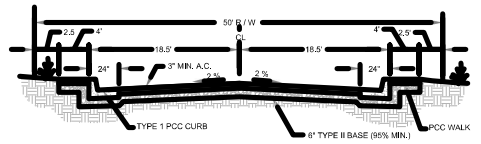
VONNIE LANE SUBDIVISION TENTATIVE MAP

A.P.N. 021-471-05

CITY OF FERNLEY, LYON COUNTY, NEVADA



TYPICAL ROADWAY SECTION - 60' R.O.W.



TYPICAL ROADWAY SECTION - 50' R.O.W.



VICINITY MAP
SCALE: 1" = 6,000'

LAND DATA

APN 021-471-05 30.15 AC

PROJECT INFORMATION

TOTAL LOTS: 79
DENSITY: T.B.D.
ZONING: SF20
COMPREHENSIVE PLAN: RESIDENTIAL SINGLE FAMILY
LINEAL FEET OF NEW STREETS: 10,388.4 LF (INCLUDING PHASE 1A)

EARTHWORK QUANTITIES

CUT= 70,308.24 CU YDS
FILL= 33,035.87 CU YDS W/ 7.0% COMPACTION
NET= 37,272.37 CU YDS (EXPORT)
*CUT/FILL INCLUDES 1A OFFSITE IMPROVEMENTS
*CUT/FILL WAS GENERATED USING GIS SURFACE, NOT SURVEYED DATA.

LEGAL DESCRIPTION:

ALL THAT CERTAIN REAL PROPERTY BEING A PORTION OF WEST 1/2 OF THE EAST 1/2 OF SECTION 22, T 20 N, R 25 E, M.D.B.&M., AND A PORTION OF PARCEL A OF LYON COUNTY MAP 133366, LYON COUNTY, NEVADA, DESCRIBED AS FOLLOWS:

PARCEL A-4, AS SHOWN ON THE PARCEL MAP FOR WILLIAM F. & IDA M. MITCHELL, RECORDED IN THE OFFICIAL RECORDS OF LYON COUNTY, NEVADA ON JANUARY 4, 1993, AS DOCUMENT NO. 158028, ASSESSOR'S PARCEL NUMBER(S): 021-471-05

PROJECT CONTACTS:

OWNER/DEVELOPER	ENGINEER	SURVEYOR
REGHETTI INVESTMENTS LLC 1991 MORNING GROVE CT RENO, NV 89523 (775) 250-4002	PHELPS ENGINEERING SERVICES, LLC 155 COUNTRY ESTATES CIRCLE SUITE 300 RENO, NV. 89511 (775) 399-2200	MST SURVEYING 15506 QUICKSILVER DR. RENO, NV. 89511 (775) 677-9166

"I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS FOR THE VONNIE LANE SUBDIVISION WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE CITY OF FERNLEY AND STATE OF NEVADA STANDARDS AND STATUES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS TO SAID PLANS".

LONNY E. PHELPS
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA NO. 25230
PHELPS ENGINEERING
DATE

PHELPS ENGINEERING ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

CITY APPROVAL:

APPROVED BY THE PLANNING COMMISSION OF THE CITY OF FERNLEY THIS _____, DAY OF _____, 20__.

PUBLIC WORKS

COMMUNITY DEVELOPMENT

CITY ENGINEER

NORTH LYON COUNTY FIRE PREVENTION DISTRICT

TRUCKEE-CARSON IRRIGATION DISTRICT

ATTEST: CITY CLERK

CITY DEVELOPMENT STANDARDS AND NOTES

1. MINIMUM LOT SIZE.....3000 SF
2. MINIMUM AVERAGE LOT WIDTH.....45 FT. (FRONTAGE: 35 FT MIN.)
3. SETBACKS.....FRONT: 15 FT , 20 GARAGE
SIDE (CORNER): 10 FT
SIDE (INTERIOR): 7.5 FT (0 FT ON SHARED LOT LINE)
REAR: 10 FT.
4. THIS DEVELOPMENT IS IN ZONE "X" ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL 32019C0105E (EFFECTIVE JANUARY 16, 2009) ZONE "X" IS IDENTIFIED AS AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN.
5. HISTORICALLY, THE PROJECT SITE WAS USED FOR AGRICULTURAL PURPOSES, AN IRRIGATED FIELD
6. DOMESTIC WATER SUPPLIED FROM COMMUNITY WATER SYSTEM.
7. DOMESTIC SEWAGE DISPOSAL BY COMMUNITY SEWER SYSTEM, ESTIMATED AMOUNT OF SEWAGE CONTRIBUTED IS 130 GAL/DAY/DU (MULTI-FAMILY); 200 GAL/DAY/DU (SINGLE FAMILY ATTACHED).
8. ALL UTILITIES TO BE PLACED UNDERGROUND
9. ALL STREET AND UTILITY IMPROVEMENTS WILL BE CONSTRUCTED TO CITY STANDARDS
10. STORM DRAINAGE WILL BE RETAINED ON SITE
11. WATER RIGHT SHALL BE IN ACCORDANCE WITH CITY ORDINANCE #714 BILL 696 PASSED 12-21-04
12. THE DISTANCE FROM THE SUBDIVISION TO THE COMMUNITY SEWAGE SYSTEM IS APPROXIMATELY 100 FEET.

UTILITIES:

CHARTER COMMUNICATIONS 9335 PROTOTYPE DRIVE
RENO, NV. 89511
(775) 850-7243

SOUTHWEST GAS CORPORATION 400 EAGLE STATION LANE
CARSON CITY, NV. 89702
(775) 887-2720

FERNLEY PUBLIC WORKS DEPT. 595 SILVER LACE LANE
FERNLEY, NV. 89408
(775) 575-2307

SBC NEVADA BELL 645 E. PLUMB LANE
P.O. BOX 11010
RENO, NV. 89520
(775) 333-4363

NV ERERGY P.O. BOX 10100
RENO, NV 89520
(775) 473-6998

BASIS OF BEARINGS

PENDING BOUNDARY SURVEY

DATUM STATEMENT:

THE BASIS OF BEARING FOR THIS MAP IS IN THE NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83/94 OBTAINED BY GPS OBSERVATIONS. COMBINED SCALE FACTOR 1.000269496

THE BASIS OF ELEVATIONS FOR THIS SURVEY ARE NAVD88 BASED ON CITY OF FERNELY CONTROL POINT MATT ELEVATION = 4153.93

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	PHASING PLAN
4	EXISTING CONDITIONS - NORTH
5	EXISTING CONDITIONS - SOUTH
6	SITE PLAN - NORTH
7	SITE PLAN - SOUTH
8	SITE PLAN - OFFSITE IMPROVEMENTS
9	GRADING PLAN - NORTH
10	GRADING PLAN - SOUTH
11	UTILITY PLAN
12	UTILITY PLAN
13	UTILITY PLAN
14	UTILITY PLAN
15	UTILITY PLAN
16	UTILITY PLAN
17	UTILITY PLAN



SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

COVER SHEET

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022
PROJECT NO.
19286

1

C:\Users\Zach.Doring\OneDrive\Documents\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\1A\19286 - COVER.dwg 2 GENERAL NOTES by: Zach Doring Mar 15, 2022 1:54pm

GENERAL NOTE FOR ALL DETAILS

1. ALL MATERIALS FURNISHED AND WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS" CONSTRUCTION (SSPWC OR ORANGE BOOK).

GENERAL NOTES FOR WATER SERVICE

1. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND CHAPTER 619 OF NRS, IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE COMPLETION OF THIS PROJECT.
2. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS AT THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK ACCORDING TO GENERALLY ACCEPTED CONSTRUCTION PRACTICES.
3. ALL UNDERGROUND VALVES LARGER THAN 2", TEES, ETC., SHALL BE COATED IN MASTIC.
4. NOTIFY CITY OF FERNLEY 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
5. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS; MIN 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45; AIR ENTRAINMENT 6% ± 1.5%; SLUMP AT 1 TO 4 INCHES; ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURERS RECOMMENDATIONS.
6. NO OTHER UTILITIES MAY BE PLACED IN A WATER OR SEWER TRENCH.
7. BACKFLOW PREVENTION IS REQUIRED PER DETAILS # 31 THRU # 40. RESIDENTIAL SUBDIVISIONS DO NOT TYPICALLY REQUIRE DETAILS # 31 THRU # 40. CITY OF FERNLEY WILL NOTIFY WHEN THESE SHEETS ARE REQUIRED.
8. CONTRACTORS SHALL COMPLY WITH HOST EMPLOYER (CITY OF FERNLEY) SAFETY PROGRAM
9. CONTRACTOR IS RESPONSIBLE FOR REVIEWING HOST EMPLOYER'S SAFETY PROGRAM. CONTRACTOR AT PRE-BID SHALL FURNISH CITY OF FERNLEY SAFETY RECORDS FROM THE LAST THREE YEAR PERIOD AND A COPY OF ITS OWN COMPANY SAFETY PROGRAM.
10. ALL VALVE BOXES, MANHOLE STRUCTURES, AND CLEANOUTS SHALL BE MARKED AND ACCESSIBLE AT ALL TIMES.
11. FOR DETAILS NOT SHOWN, CONTACT CITY OF FERNLEY @ 775-784-9910, FAX 775-784-9966.
12. THE OWNER IS RESPONSIBLE FOR FURNISHING QUALIFIED SITE INSPECTIONS DURING CONSTRUCTION OF PUBLIC IMPROVEMENTS.
13. CITY OF FERNLEY SHALL APPROVE OF THE INSPECTOR & TESTING FIRM PRIOR TO CONSTRUCTION.
14. THE INSPECTOR SHALL INVENTORY ALL CONSTRUCTION MATERIALS TO ENSURE QUALITY CONTROL. REJECTION OF DEFECTIVE MATERIALS MUST BE COORDINATED WITH CITY OF FERNLEY.
15. PERFORM PLASTIC PIPE BALL AND MANDREL TESTS ON NEWLY INSTALLED SEWER PIPE IN ACCORDANCE WITH SECTION 336.03.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
16. PERFORM AIR PRESSURE TESTING ON NEWLY INSTALLED SEWER PIPE IN ACCORDANCE WITH SECTION 336.03.07.04 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
17. ALL NEW PUBLIC WATER MAINS SHALL BE 8" OR LARGER.
18. CONTRACTOR IS RESPONSIBLE TO MAKE FIELD MEASUREMENTS TO LOCATE AND SIZE EXISTING FACILITIES OR UNDERGROUND UTILITIES.
19. PLACE CHLORINE TABLETS IN WATER LINES AS FOLLOWS:
3 TABLETS PER 8" DIAMETER OF LINE;
4 TABLETS PER 8" DIAMETER LENGTH OF LINE;
5 TABLETS PER 10" DIAMETER LENGTH OF LINE;
6 TABLETS PER 12" OR GREATER DIAMETER LENGTH OF LINE;
TABLETS MUST BE GLUED AT EQUALLY SPACED INTERVALS TO INSIDE OF PIPE USING APPROVED ADHESIVE. DISINFECTION SHALL MEET AWWA STANDARD C651.
20. CONTRACTOR SHALL SUBMIT CUT SHEETS & SHOP DRAWINGS FOR REVIEW TO THE PROJECT ENGINEER, AND/OR THE UTILITY ENGINEER PRIOR TO ORDERING CONSTRUCTION MATERIALS. A SIGNED SET OF DRAWINGS MUST ALWAYS BE AVAILABLE ON SITE DURING CONSTRUCTION.
21. PER THE CITY OF FERNLEY RULES AND REGULATIONS, SECTION 1.04.054, A BOND MUST BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
1	05/08	RELOCATED NOTES WITH DETAIL ID	
1		GEN NOTES	

GENERAL NOTES FOR SANITARY SEWER

1. SEWER LINE CLEANING SHALL BE PERFORMED WITH HYDRAULICALLY PROPELLED, HIGH-VELOCITY JET, MECHANICALLY POWERED EQUIPMENT, OR OTHER PUBLIC WORKS APPROVED DEVICES. THE CLEANING SHALL RESTORE THE SEWER LINES TO A MINIMUM OF 95% OF THE LINES ORIGINAL CARRYING CAPACITY. FINAL ACCEPTANCE SHALL BE MADE AFTER SUCCESSFUL INSPECTION TO THE PUBLIC WORKS INSPECTORS SATISFACTION THAT THE CONDITIONS ABOVE HAVE BEEN MET.
2. SEWER GRADES SHALL BE VERIFIED AT EACH MANHOLE. INSPECTOR SHALL VERIFY PROPER OPERATION OF LEVELING EQUIPMENT AND PROCEDURE.
3. ALL NEW PUBLIC COLLECTOR SEWERS SHALL BE 8 INCHES OR LARGER.

GENERAL NOTES FOR E-ONE SEWER

1. MINIMUM BURY DEPTH IS 30 INCHES.
2. ALL LOW PRESSURE FORCE MAIN PIPING SHALL BE SDR 21 PVC FOR 2" AND 3" MAINS AND C900 PVC FOR 4" AND LARGER MAINS.
3. INSTALL AIR-RELEASE VALVES AT SYSTEM HIGH POINTS OR EVERY 2000 FT OF PIPE RUN.
4. INSTALL FLUSHING STATIONS AND ISOLATION VALVES AT EVERY 1500 FT OF PIPE RUN AND WHENEVER TWO OR MORE MAINS COME TOGETHER.
5. "LOOPED" SYSTEMS ARE NOT ALLOWED.
6. SIZE SEWER MAINS IN ACCORDANCE WITH TABLES 4 AND 7 (MAXIMUM NUMBER OF GRINDER PUMP CORES OPERATING DAILY AND SCH 40 PVC PIPE FLUID DYNAMICS) FROM THE ENVIRONMENT-ONE CATALOG.
7. USE OF ENVIRONMENT-ONE SYSTEM COMPONENTS HAS BEEN AUTHORIZED BY THE UTILITY. ALTERNATE SYSTEM WILL BE REVIEWED ON A CASE-BY CASE BASIS.
8. "FLAPPER" TYPE STOP-CHECK VALVES SHALL BE INSTALLED AS CLOSE TO THE MAIN LINE AS FEASIBLE.

GEOTECHNICAL NOTE:

1. BACKFILL OF L.P. SEWER TRENCHES SHALL BE IN ACCORDANCE WITH THE DETAIL ON PAGE ONE OF THESE CITY OF FERNLEY STANDARDS. THE REQUIREMENT FOR CLASS 'A' BEDDING SAND MAY BE WAIVED IF THE TRENCH IS IN A NON-STRUCTURAL LOCATION AND THE NATIVE MATERIAL HAS A PLASTICITY INDEX OF LEAST 20.

SYSTEM TESTING:

1. THE CITY OF FERNLEY OR IT'S AUTHORIZED INSPECTOR SHALL INSPECT ALL SYSTEMS PRIOR TO BURIAL.
2. COMPACTION TESTING (>90% ASTM D1557A) IS REQUIRED IN ALL STRUCTURAL AREAS.
3. HYDROSTATIC ALLY TEST THE LINE TO 150% OF DEAD HEAD PRESSURE (90 psf) FOR 2 HOURS. SYSTEM SHALL NOT LOSE MORE THAN 5 psi WITHIN THIS TESTING PERIOD.

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
4	05/08	RELOCATED NOTES WITH DETAIL ID	
4		GEN NOTES	

WATER MAIN PRESSURE & BACTERIA TESTING

1. CONTRACTOR SHALL MAINTAIN TEST PRESSURE WITHIN 5 PSI FOR A PERIOD OF 2 HOURS. TEST PRESSURE SHALL BE 150 AND 200 PSI, PER PRESSURE ZONE, AS INDICATED ON PLANS.
2. ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING:
 $SD \sqrt{P}$
ALLOWABLE LEAKAGE (GALLONS PER HOUR) = 133,200
WHERE S = LENGTH OF PIPE IN TEST SECTION (FEET)
D = PIPE DIAMETER (INCHES)
P = TEST PRESSURE (PSIG)
3. LEAKAGE SHALL BE MEASURED BY THE VOLUME OF WATER REQUIRED TO MAINTAIN THE TEST PRESSURE WITHIN 5 PSI FOR THE TEST PERIOD, NOT THE DROP IN PRESSURE.
4. INSPECTOR IS RESPONSIBLE FOR OBTAINING AND DELIVERING TESTING LAB SAMPLE BOTTLES AND COLLECTING SAMPLES FOR BACTERIA TESTING. INSPECTOR SHALL PRESENT TEST RESULTS TO THE UTILITY.

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RP):

1. THE RP SHALL ALWAYS BE INSTALLED ABOVE GRADE AND WILL NOT BE ALLOWED IN BASEMENTS.
2. A DRAIN SHALL BE INSTALLED IN THE BOX FOR OUTDOOR INSTALLATIONS AND A DAYLIGHT DRAIN AND A FLOOR DRAIN SHALL BE INSTALLED FOR INDOOR INSTALLATIONS. REFER TO TABLE A FOR MINIMUM REQUIRED DRAIN SIZES.
3. AN AIR GAP (VERTICAL PHYSICAL SEPARATION) OF AT LEAST 2 TIMES THE DIAMETER OF THE RELIEF VALVE OPENING, WITH A MINIMUM OF 1", SHALL BE MAINTAINED BETWEEN THE WATER DISCHARGE POINT ON THE RELIEF VALVE AND THE DRAIN OR 1" ABOVE THE MINIMUM FLOOD LEVEL, WHICHEVER IS HIGHER.

TABLE A		
RP SIZE	MIN. ID	DRAIN SIZE
3/4" - 1 1/2"	2"	4"
1 1/4" - 2"	4"	6"
2 1/4" - 3"	6"	8"
4" - 10"	8"	

DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY (DC):

1. BELOW GROUND VAULTS SHALL REMAIN DRY THROUGHOUT THE YEAR.

PRESSURE VACUUM BREAKER (PVB) SPILL RESISTANT PRESSURE VACUUM BREAKER (SVB) BACKFLOW PREVENTION ASSEMBLY:

1. THE PVB SHALL NOT BE SUBJECT TO ANY BACK PRESSURE FROM: ELEVATED DOWNSTREAM PIPING, INJECTION SYSTEMS, COMPRESSED AIR, PUMPS, OR OTHER MEANS. IF BACK PRESSURE EXISTS, AN RP MUST BE INSTALLED.

DC, RP, AND PVB/SVB ASSEMBLIES:

1. SUPPORTS SHALL BE PROVIDED AS NECESSARY.
2. ELECTRIC SUPPLY SOCKETS SHALL BE AWAY FROM RELIEF VALVE & TESTCOCK.
3. FREEZE PROOF INSULATED BOX AND 1 TYPE OF HEAT ARE REQUIRED. 2 TYPES ARE STRONGLY RECOMMENDED.
4. PLACE WATERTIGHT, FLEXIBLE SEALANT AT PIPE PENETRATIONS.
5. INSULATED BOX SHALL BE AN INLET TEE TO BRASS SHUTOFF VALVE WITH A RUBBER SEAT & SCHEDULE 80 1/2" 90° ELBOW WITH FEMALE THREADS. ADD 1/2" RED FREEZE KING DRAIN.
10. USE 2 FULL TURNS OF TEFLON TAPE ON ALL THREADED JOINTS.
11. NO STOP AND WASTE VALVES.
12. ADEQUATE CLEARANCE MUST BE PROVIDED FOR OPERATION OF VALVES AND REPAIR AND TESTING OF THE ASSEMBLIES.
13. NO OUTLET, TEE, OR AN CONNECTION MAY BE MADE TO THE SERVICE LINE BETWEEN THE METER AND THE ASSEMBLY.
14. ALL ASSEMBLIES MUST BE INSTALLED IN THE HORIZONTAL ORIENTATION UNLESS USC APPROVED IN A DIFFERENT ORIENTATION.
15. ASSEMBLIES MUST BE INSTALLED AS CLOSELY AS PRACTICAL TO THE WATER METER.
16. CITY OF FERNLEY RECOMMENDS PROTECTING THE ASSEMBLIES FROM VANDALISM IN SUSCEPTIBLE AREAS. REQUIRED CLEARANCES MUST STILL BE MET AND UTILITY ACCESS MUST BE PROVIDED.
17. ASSEMBLIES LESS THAN 2" REQUIRE 1 CU. FT OF CLEAN GRAVEL AND ASSEMBLIES GREATER THAN OR EQUAL TO 2" REQUIRE 8 CU. FT OF CLEAN GRAVEL FOR ALL DRAINS.

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
2	05/08	RELOCATED NOTES WITH DETAIL ID	
2		GEN NOTES	

GENERAL NOTES FOR ROADWAY GEOMETRICS

1. THE ENGINEER SHALL SUBMIT A TRAFFIC REPORT AND PAVEMENT SECTION DESIGN WITH THE IMPROVEMENT PLANS, UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
2. THE ENGINEER OF RECORD SHALL SUBMIT THE PAVEMENT MIX DESIGN TWO (2) WEEKS PRIOR TO PAVING TO THE CITY OF FERNLEY PUBLIC WORKS DEPARTMENT FOR REVIEW.
3. DESIGN OF THE STRUCTURAL SECTION FOR ASPHALT CONCRETE PAVEMENT FOR BOTH PUBLIC AND PRIVATE STREETS SHALL CONFORM TO THE PROCEDURES AS SET FORTH IN THE CURRENT ASPHALT INSTITUTE MANUAL SERIES NO. 1 (MS-1) OR AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN GUIDE, BASED ON SUBGRADE STRENGTH VALUES DETERMINED BY RESILIENT MODULUS (MR) VALUE, RESISTANCE (R) VALUE OR CALIFORNIA BEARING RATIO (CBR), AND TRAFFIC DATA PROVIDED IN APPROVED TRAFFIC STUDY FOR THE PROJECT. SUFFICIENT TESTS SHALL BE MADE TO FULLY EVALUATE EACH DIFFERENT SOIL TYPE IN THE PROJECT. MAJOR ARTERIAL, MINOR ARTERIAL, INDUSTRIAL AND COMMERCIAL STREETS SHALL BE A TYPE 2 AC-20P ASPHALT CONCRETE (AC) PAVEMENT MIX DESIGN WITH HYDRATED LIME (MINERAL FILLER) ADDED AT ONE AND ONE-HALF PERCENT OF THE WEIGHT OF THE DRY AGGREGATES. COLLECTOR AND LOCAL/RESIDENTIAL STREETS SHALL BE A TYPE 3 AC-20 ASPHALT CONCRETE (AC) PAVEMENT MIX DESIGN WITH HYDRATED LIME (MINERAL FILLER) ADDED AT ONE AND ONE-HALF PERCENT OF THE WEIGHT OF THE DRY AGGREGATES. THE MINIMUM DESIGN LIFE OF THE STRUCTURAL SECTION SHALL BE 20 YEARS. MINIMUM STREET STRUCTURAL SECTIONS FOR BOTH PUBLIC AND PRIVATE STREETS SHALL BE 3" AC ON 6" OF TYPE 2, CLASS B AGGREGATE BASE FOR LOCAL/RESIDENTIAL STREETS, 3" AC ON 6" OF TYPE 2, CLASS B AGGREGATE BASE FOR MINOR ARTERIAL, INDUSTRIAL, COMMERCIAL AND COLLECTOR STREETS, AND 4" AC ON 6" OF TYPE 2, CLASS B AGGREGATE BASE FOR EXPRESSWAYS AND MAJOR ARTERIAL STREETS. ALL STREETS, BOTH PUBLIC AND PRIVATE WHICH ARE TO BE UTILIZED BY CONSTRUCTION VEHICLES DURING DEVELOPMENT, SHALL BE DESIGNED TO CARRY THE MAXIMUM ANTICIPATED LOADS. CONCRETE STREETS MAY BE PERMITTED UPON APPROVAL OF STRUCTURAL DESIGNS BY PUBLIC WORK.

STRIPING AND SIGNAGE

1. PAVEMENT STRIPING SHALL BE NDOT TYPE II WATERBORNE PAINT WITH A MINIMUM FILM THICKNESS OF 25 MILS APPLIED IN TWO COATS. DROP ON GLASS BEADS SHALL BE APPLIED ON SECOND COAT. SEE SECTION 632 OF THE CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SILVER BOOK).
2. PAVEMENT SYMBOL MARKINGS, YIELD LINES, AND STOP BARS SHALL BE REFLECTIVE THERMOPLASTIC MATERIAL MEETING THE CURRENT SPECIFICATIONS FROM SECTION 634 OF THE SILVER BOOK.
3. THE DESIGN AND INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

TRENCHING AND PATCHING

1. THE DESIGN AND INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
5	05/08	RELOCATED NOTES WITH DETAIL ID	
5		GEN NOTES	

AIR GAP SEPARATION

1. THE TANK AND PUMP SHALL BE DESIGNED TO SUIT CUSTOMER'S NEEDS.
2. AN AIR GAP (THE DISTANCE BETWEEN THE LOWEST POINT OF THE SUPPLY LINE AND OVERFLOW ELEVATION OF THE RECEIVING TANK) MUST BE AT LEAST 2 TIMES THE DIAMETER OF THE SUPPLY LINE, WITH A MINIMUM AIR GAP OF 1".
3. FREEZE PROTECTION SHALL BE PROVIDED FOR THE SUPPLY PIPE AND THE RECEIVING TANK WHERE NECESSARY.
4. THE WATER METER SHALL BE LOCATED UPSTREAM OF THE AIR GAP.
5. AIR GAP BYPASSES MUST BE AUTHORIZED BY THE UTILITY.

TYPICAL LOCATIONS WHERE RP ASSEMBLIES ARE REQUIRED

(THIS LIST IS ACCORDING TO NAC 445A.67195, CITY OF FERNLEY MAY REQUIRE AN RP FOR APPLICATIONS NOT LISTED HERE):

- A. BUILDING THAT:
- CONTAINS A HOTEL, MOTEL, CASINO, CONDOMINIUM OR TOWNHOUSE, OR ANY APARTMENTS;
 - IS USED FOR UNIDENTIFIED COMMERCIAL PURPOSES;
 - UTILIZES ANY SEWAGE PUMPS OR EJECTORS;
 - UTILIZES A HYDRONIC HEATING SYSTEM WITH A CHEMICAL ADDITIVE;
 - HAS A BAPTISMAL FONT;
 - UTILIZES A BOTTLING SYSTEM;
- IS A BREWERY, CANNERY, PACKING HOUSE, DAIRY PROCESSING FACILITY, RESTAURANT, OR OTHER FACILITY WHERE FOOD IS PROCESSED OR SERVED, DENTAL CLINIC, MEDICAL FACILITY, HOSPITAL, CONVALESCENT HOME, SANITARIUM, MORGUE, MORTUARY, FACILITY FOR CONDUCTING AUTOPSIES, LABORATORY, SCHOOL, COLLEGE, UNIVERSITY, PUBLISHING OR PRINTING FACILITY, VETERINARY CLINIC, PET SHOP, PET GROOMING FACILITY, LAUNDRY OR DRY CLEANING FACILITY, DYEING FACILITY, ANY ELECTROCHEMICAL PLATING FACILITY, FACILITY THAT HAS A POOL OR SPA, A PARK FOR MOBILE HOMES OR RECREATIONAL VEHICLES, FACILITY FOR PRODUCTION OF POWER, FACILITY THAT HANDLES, PROCESSES OR STORES RADIOACTIVE MATERIALS, FACILITY THAT PROCESSES SAND OR GRAVEL, FACILITY THAT MANUFACTURES OR UTILIZES CHEMICALS, FACILITY FOR THE MANUFACTURING, REPAIR, OR WASHING OF MOTOR VEHICLES, FACILITY FOR MANUF. OR PROCESSING OF FILM, FACILITY FOR MANUFACTURING OF ICE, A FACILITY FOR MANUF. PROCESSING OR CLEANING OF METAL, FACILITY FOR MANUF. OF ANY RUBBER, FACILITY FOR MANUF. OF ANY PAPER, ANY FACILITY FOR MANUF. PROCESSING OR FABRICATION, CLASS 4, CLASS 5, OR CLASS 6 FIRE SPRINKLER SYSTEMS, IRRIGATION SYSTEMS WHERE CHEMICALS ARE INJECTED OR BOOSTER PUMPS ARE ADDED.

TYPICAL LOCATIONS WHERE DC OR PVB/SVB ASSEMBLIES OR AIR GAPS ARE REQUIRED (THIS LIST IS ACCORDING TO NAC 445A.67195, CITY OF FERNLEY MAY REQUIRE A DC, PVB/SVB OR AG FOR APPLICATIONS NOT LISTED HERE):

- A DC IS REQUIRED FOR A BUILDING WITH CLASS 1, CLASS 2, OR CLASS 3 FIRE SPRINKLER SYSTEMS, A SITE WITH AN AUXILIARY WATER SUPPLY, AND A SITE WITH TWO METERS. A PVB/SVB IS REQUIRED FOR IRRIGATION SYSTEMS WITH NO PUMPS OR CHEMICAL INJECTION SYSTEMS. AN AIR GAP IS REQUIRED FOR STORM DRAINAGE SYSTEMS, SEWAGE COLLECTION, DISTRIBUTION, OR TREATMENT SYSTEMS, AND FILL LOCATIONS FOR PORTABLE SPRAYING OR CLEANING EQUIPMENT.

CITY OF FERNLEY CROSS-CONNECTION CONTROL PROGRAM REQUIREMENTS

1. ALL BACKFLOW PREVENTION ASSEMBLIES MUST BE INSPECTED BY A UTILITY REPRESENTATIVE AND A TEST FORM (COMPLETED BY A HEALTH DISTRICT CERTIFIED TESTER) MUST BE SUBMITTED TO CITY OF FERNLEY BEFORE SERVICE IS ACTIVATED.
2. THE TEST FORM MUST BE SUBMITTED TO CITY OF FERNLEY ANNUALLY WITHIN 30 DAYS OF THE ASSEMBLY INSTALLATION ANNIVERSARY DATE.
3. CITY OF FERNLEY MAY TEST THE ASSEMBLY AT ANY TIME AT ITS OWN EXPENSE.
4. THE CUSTOMER IS RESPONSIBLE TO PROTECT HIS/HER SYSTEM FROM THERMAL EXPANSION BY INSTALLING EITHER AN EXPANSION TANK OR PRESSURE RELIEF VALVE IN THE FEED LINE TO THE WATER HEATER (NO PROTECTION COULD RESULT IN SERIOUS DAMAGE AND/OR INJURY).
5. ALL ASSEMBLIES MUST BE USC APPROVED.
6. ALL WATER USED DURING CONSTRUCTION SHALL BE METERED AND SHALL FLOW THROUGH AN APPROVED BACKFLOW PREVENTION ASSEMBLY. UNAUTHORIZED FIRE HYDRANT USAGE SHALL RESULT IN COLLECTION OF FEES, FINES, POSSIBLE LEGAL ACTION, AND INVOLVEMENT OF STATE/LOCAL LICENSING BOARDS.
7. IF A CONTINUOUS WATER SUPPLY IS CRITICAL TO A PREMISE, PARALLEL ASSEMBLIES SHOULD BE INSTALLED.
8. IT IS THE CUSTOMER'S RESPONSIBILITY TO ACCOUNT FOR PRESSURE LOSSES FROM THE ASSEMBLY.
9. BACKFLOW PREVENTION SHALL NOT BE RELOCATED, REMOVED, OR REPLACED WITHOUT PRIOR APPROVAL FROM CITY OF FERNLEY.
10. PLEASE NOTE THAT THE REQUIRED ASSEMBLIES PROTECT THE PUBLIC WATER SYSTEM ONLY.
11. ENGINEER TO PROVIDE DOCUMENTATION THAT THE ASSEMBLIES ARE USC APPROVED.

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
3	05/08	RELOCATED NOTES WITH DETAIL ID	
3		GEN NOTES	

GENERAL NOTES FOR CONCRETE WORK

1. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY THE CITY EXCAVATION PERMIT INSPECTOR OR APPLICABLE ENGINEER OF RECORD.
2. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS; MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45; AIR ENTRAINMENT 6% ± 1.5%; SLUMP AT 1 TO 4 INCHES; ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURERS RECOMMENDATIONS.
3. COMMERCIAL DRIVEWAYS SHALL HAVE #4 BARS AT 18" ON-CENTER LONGITUDINAL AND TRANSVERSE EXTENDING INTO GUTTER PAN AND DRIVEWAY WINGS. MINIMUM 2" CONCRETE COVER FOR ALL REINFORCING BARS.
4. IF EXPANSION JOINT EXISTS WITHIN 4 FEET OF DRIVEWAY, REMOVE SIDEWALK AND CURB AND GUTTER TO THAT JOINT.
5. CONCRETE REMOVAL SHALL BE TO NEAT SAWCUT LINES
6. REMOVE CONCRETE WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXIST
7. DEPRESSED CURB LENGTH TO MATCH DRIVEWAY WIDTH
8. WEAKENED PLAIN JOINTS AT 5'-0" O.C. WITH EXPANSION JOINT IF NECESSARY

GENERAL NOTES

Detail No.	DATE	REVISIONS	BY
6	05/08	RELOCATED NOTES WITH DETAIL ID	
6		GEN NOTES	



SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286



PHASING LEGEND:

VONNIE LANE SUBDIVISION

OFFSITE IMPROVEMENTS

SECONDARY ACCESS



SCALE: AS SHOWN

DESIGNED BY: NRW

DRAWN BY: NRW

CHECKED BY: LEP

PHASING PLAN

TENTATIVE MAP

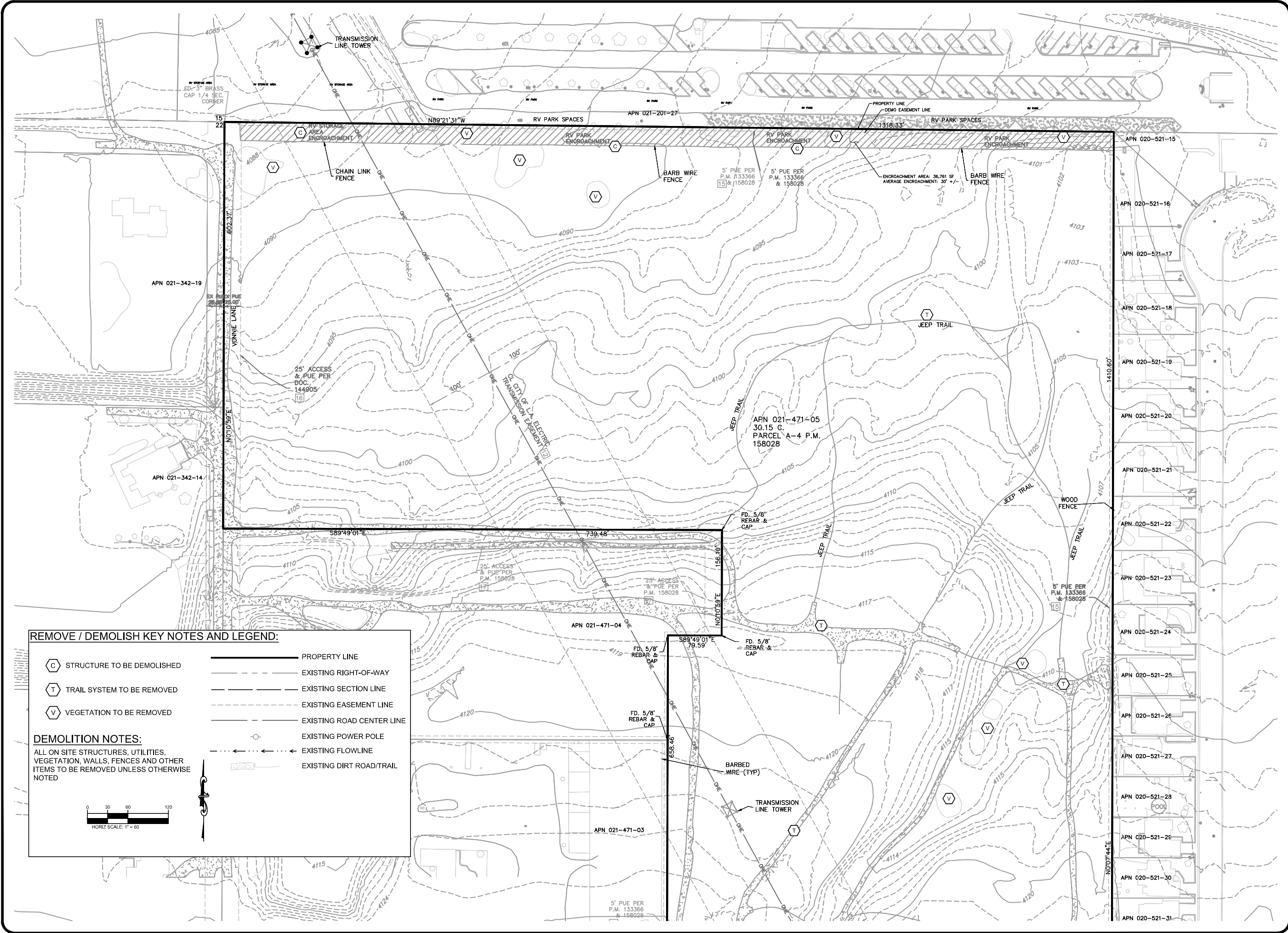
VONNIE LANE SUBDIVISION

FERNILEY, NEVADA

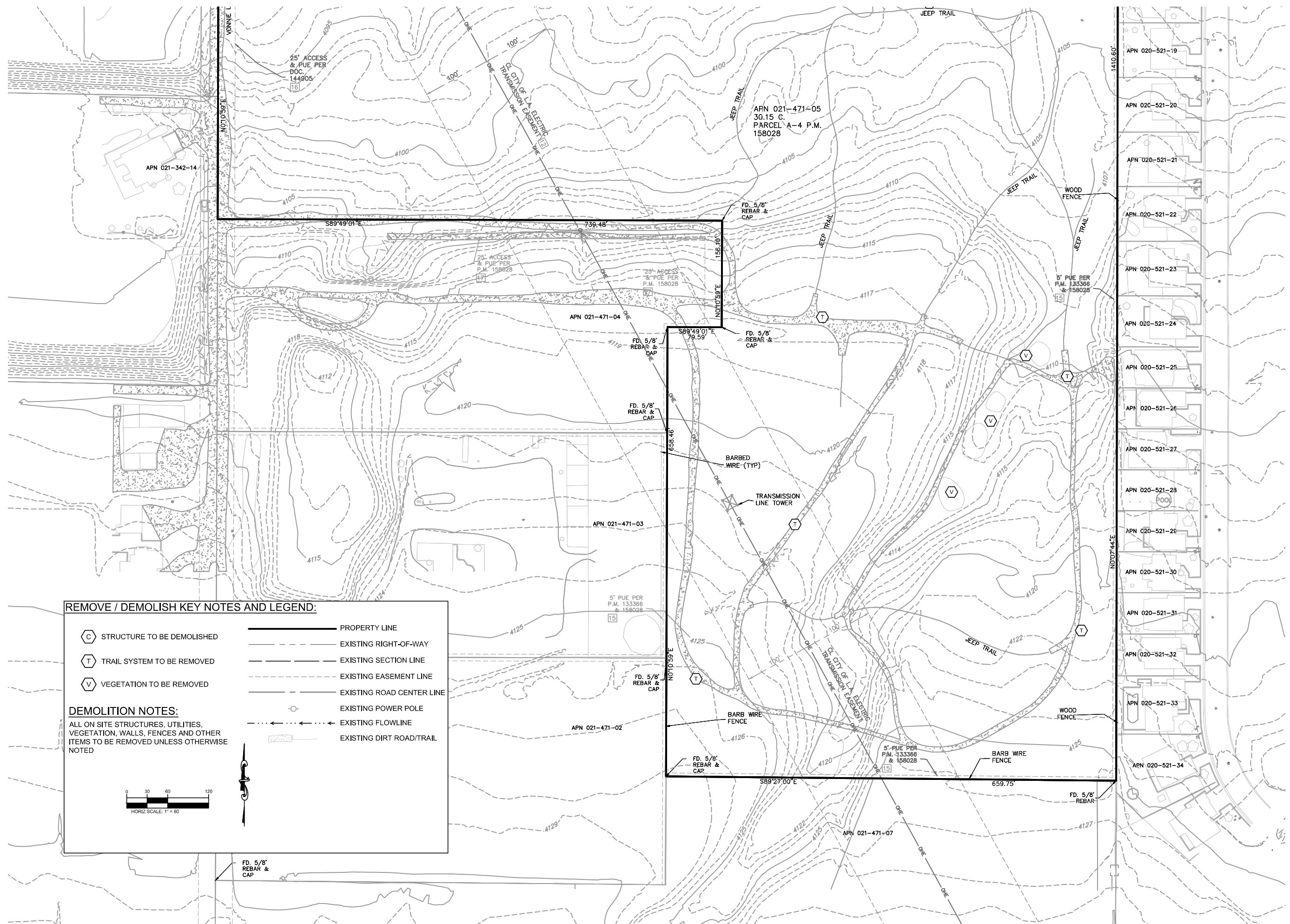
DATE: 3/15/2022

PROJECT NO. 19286

3



4
B-54C-6

[illegible]

PHELPS
ENGINEERING

135 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 359-7200
www.phelpsengineering.net



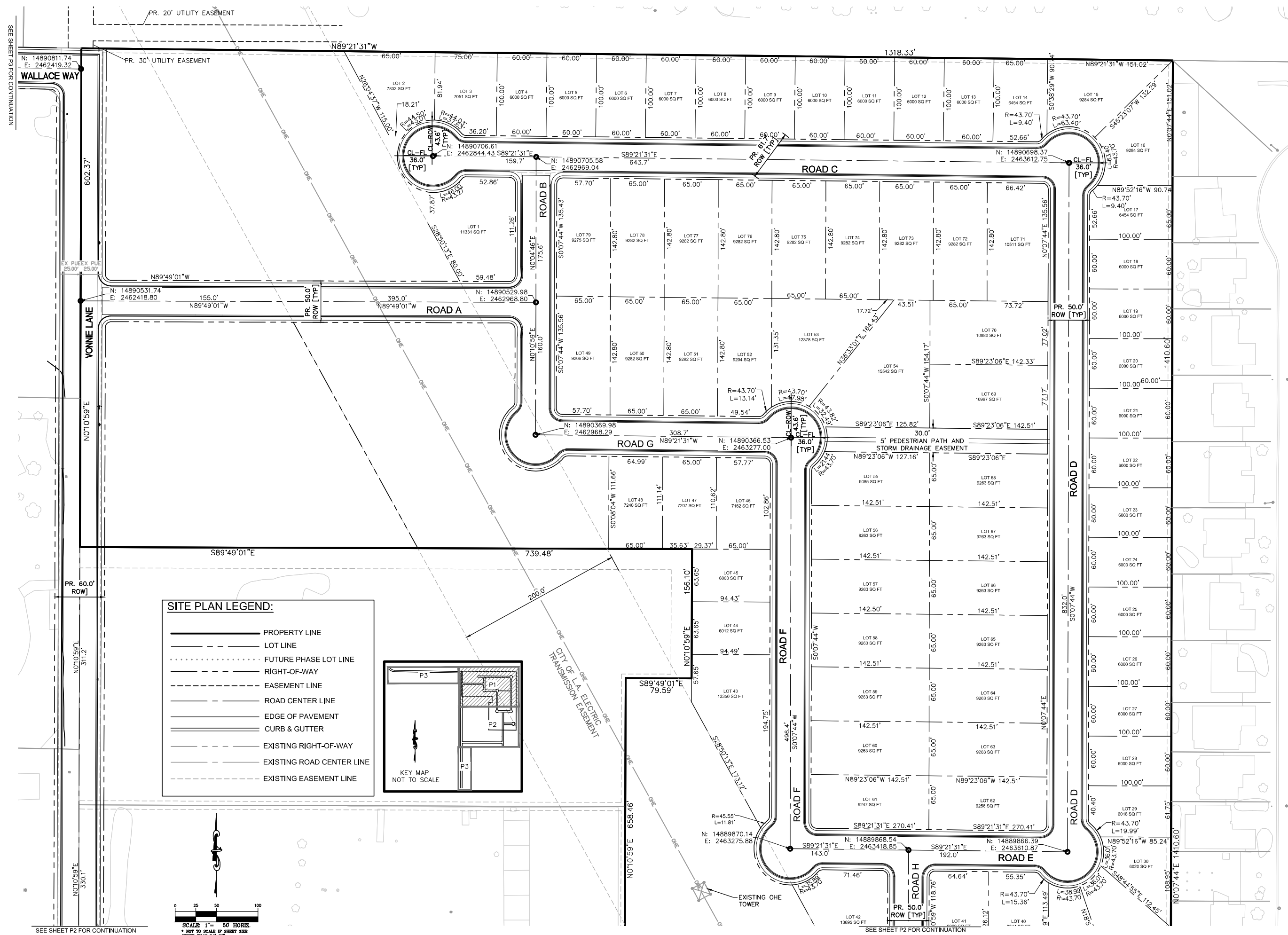
SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

EXISTING CONDITIONS
SOUTH

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022

PROJECT NO.
19286

[illegible]

PHELPS
ENGINEERING

155 Country Estates Circle, Suite 300
Reno, NV. 89511 (775) 395-1200
www.phelpsengineering.net



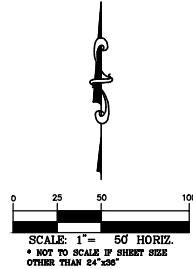
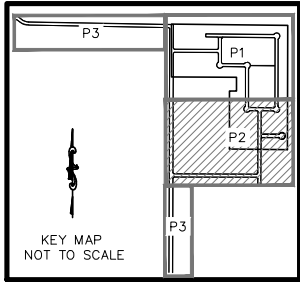
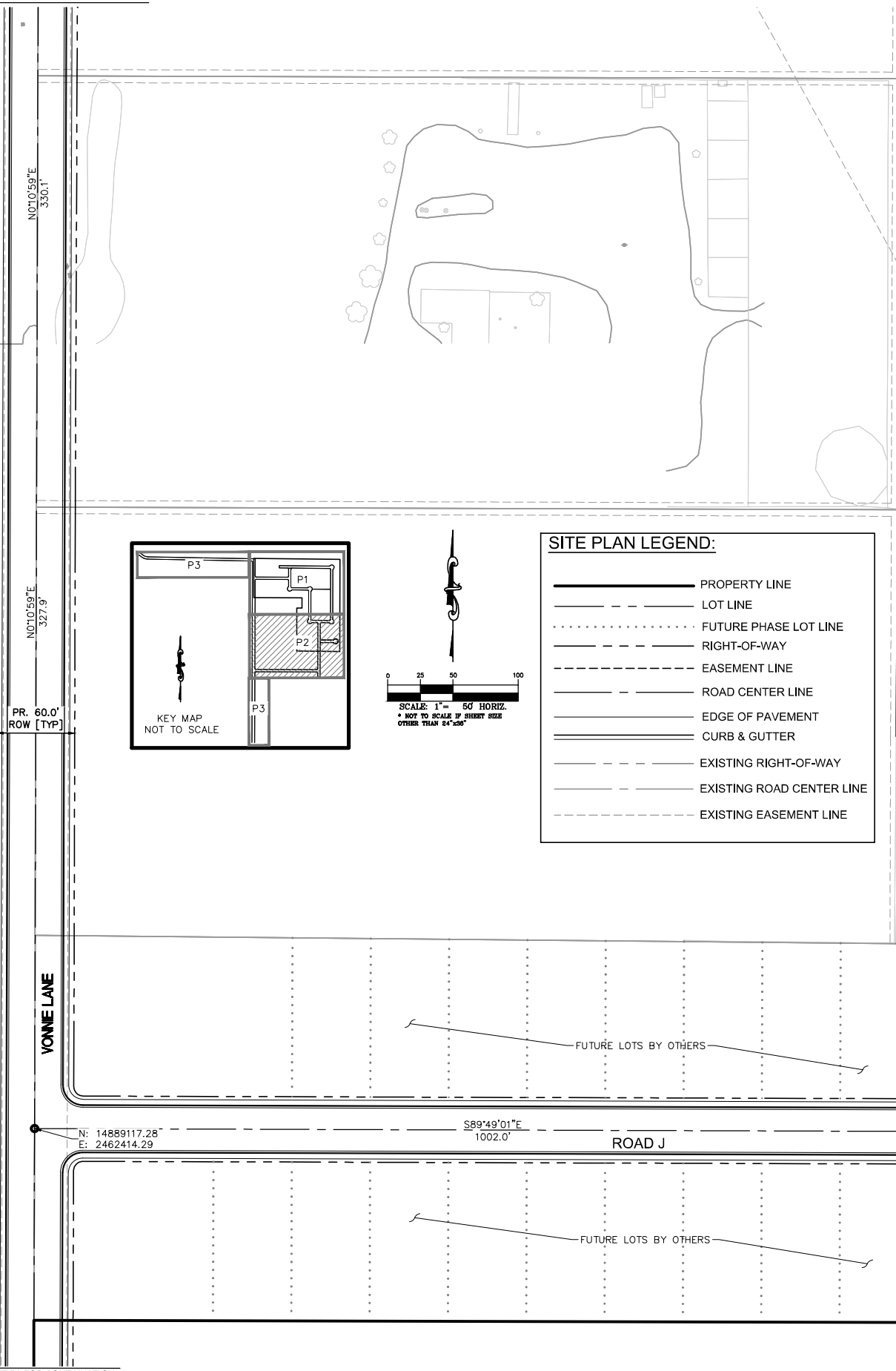
SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

SITE PLAN NORTH

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286

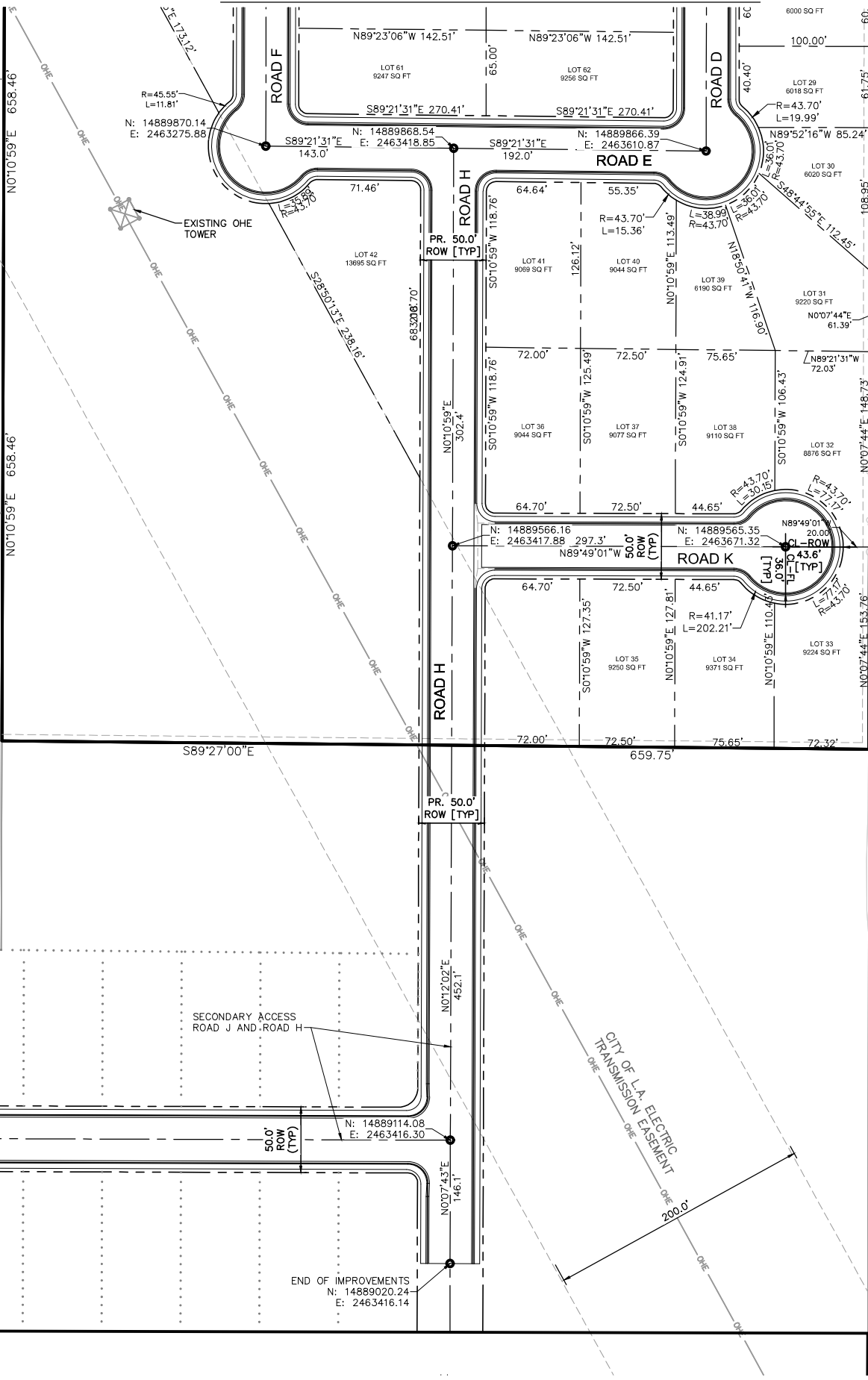
SEE SHEET P1 FOR CONTINUATION



SITE PLAN LEGEND:	
	PROPERTY LINE
	LOT LINE
	FUTURE PHASE LOT LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	ROAD CENTER LINE
	EDGE OF PAVEMENT
	CURB & GUTTER
	EXISTING RIGHT-OF-WAY
	EXISTING ROAD CENTER LINE
	EXISTING EASEMENT LINE

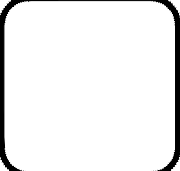
SEE SHEET P3 FOR CONTINUATION

SEE SHEET P1 FOR CONTINUATION



REVISIONS		DATE	BY
No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PHELPS
ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

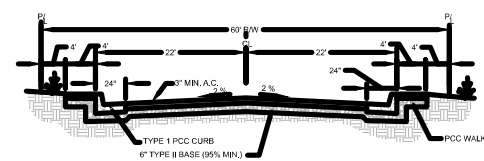
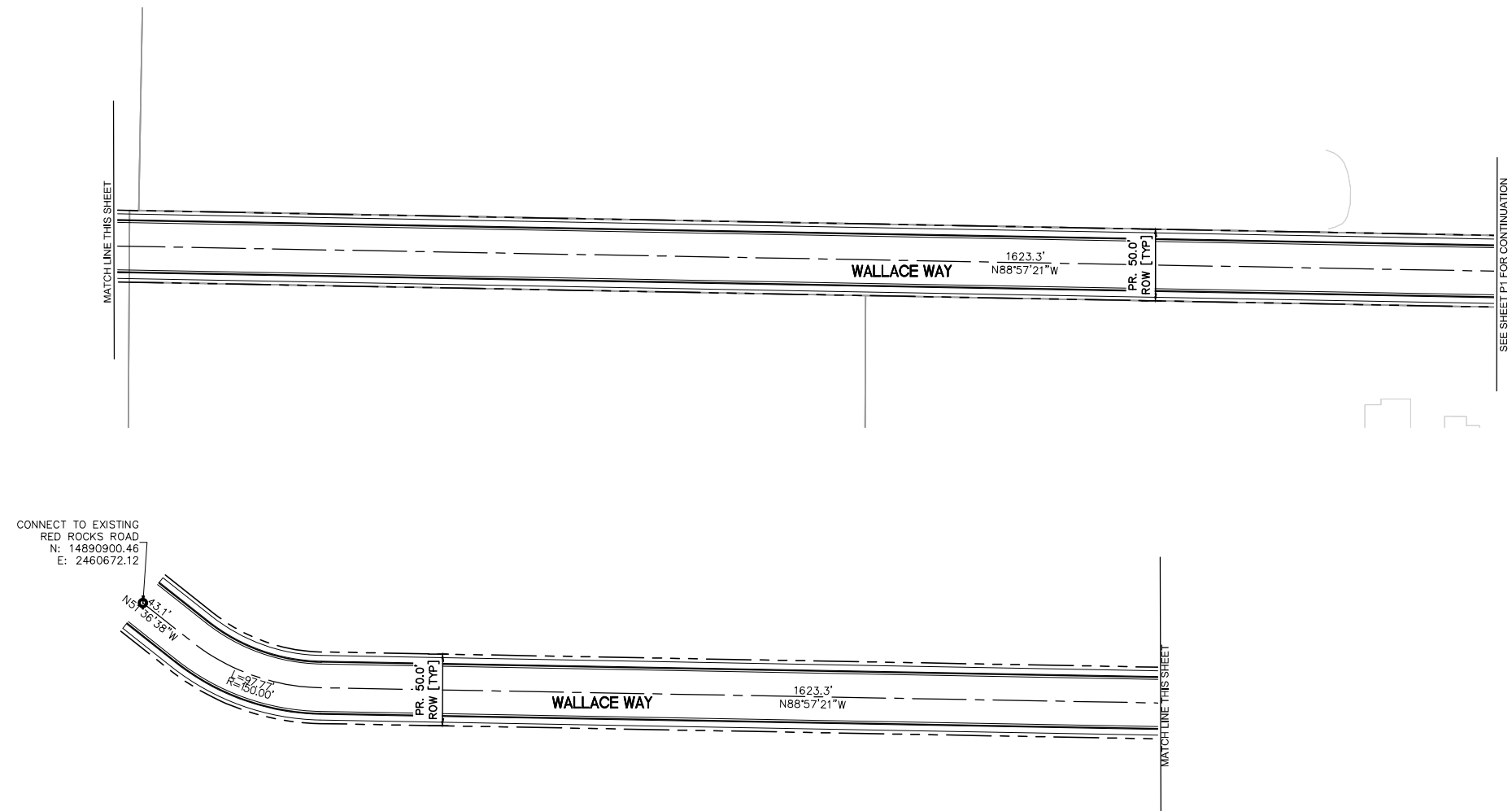


SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

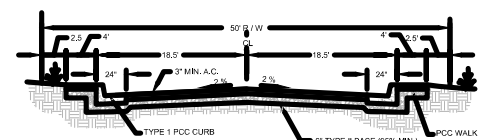
SITE PLAN SOUTH

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286



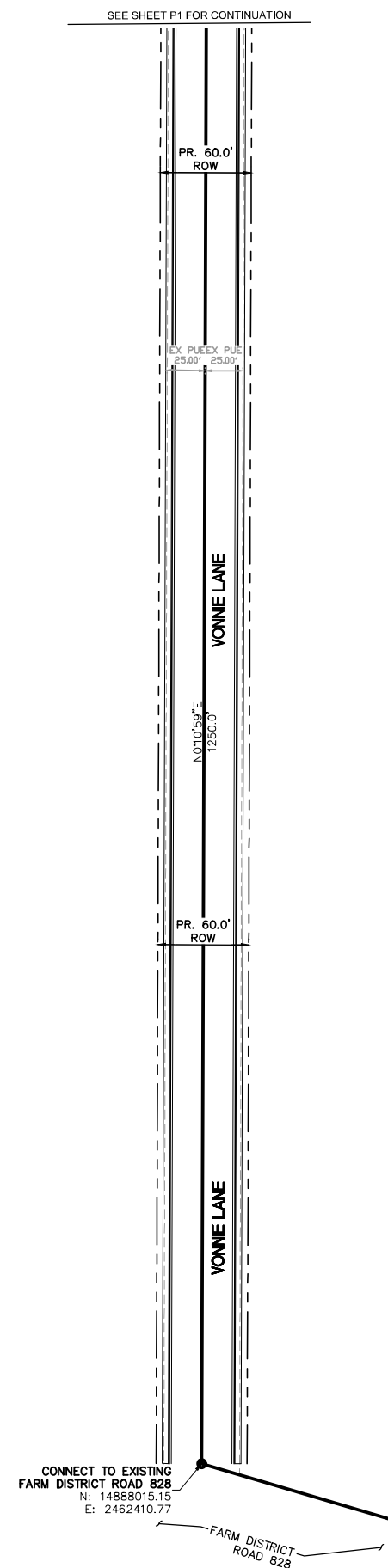
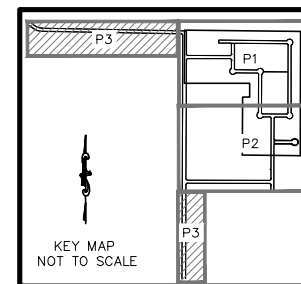
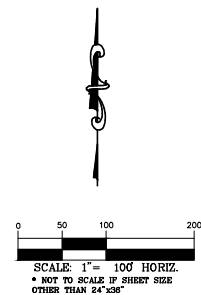
VONNIE LANE ROADWAY SECTION - 60' R.O.W.



WALLACE WAY ROADWAY SECTION - 50' R.O.W.

SITE PLAN LEGEND:

- | | |
|--|---------------------------|
| | PROPERTY LINE |
| | LOT LINE |
| | FUTURE PHASE LOT LINE |
| | RIGHT-OF-WAY |
| | EASEMENT LINE |
| | ROAD CENTER LINE |
| | EDGE OF PAVEMENT |
| | CURB & GUTTER |
| | EXISTING RIGHT-OF-WAY |
| | EXISTING ROAD CENTER LINE |
| | EXISTING EASEMENT LINE |

[illegible]

SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

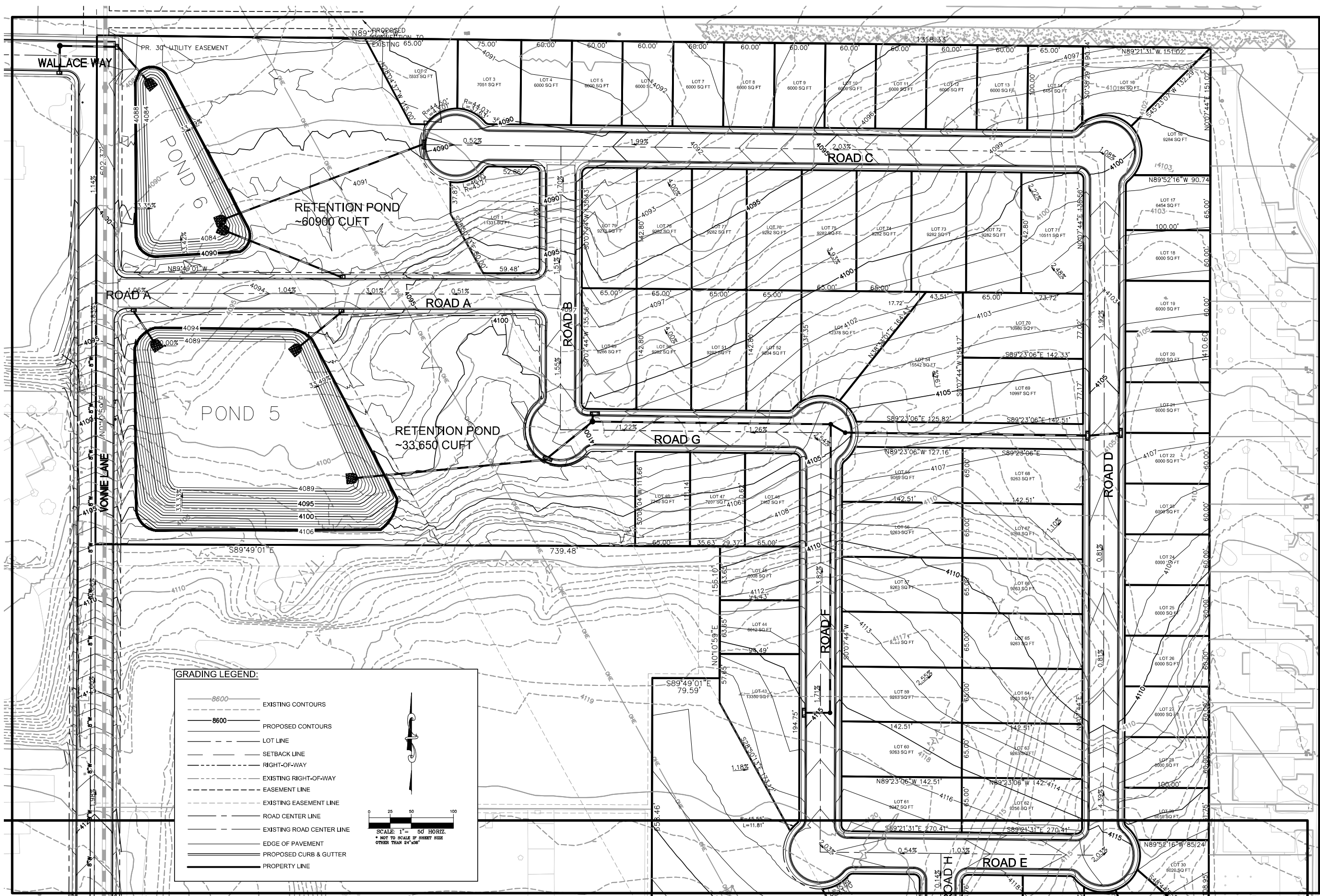
OFFSITE IMPROVEMENTS

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022

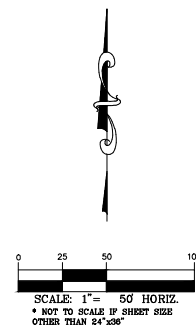
PROJECT NO.
19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\19286 - GRADING PLAN.dwg 9 GRADING PLAN - NORTH Mar 15, 2022 1:55pm by Zach Darling

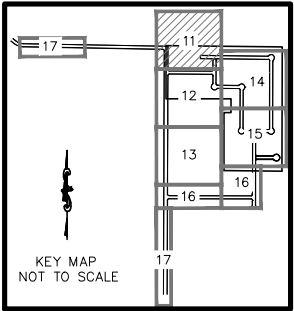
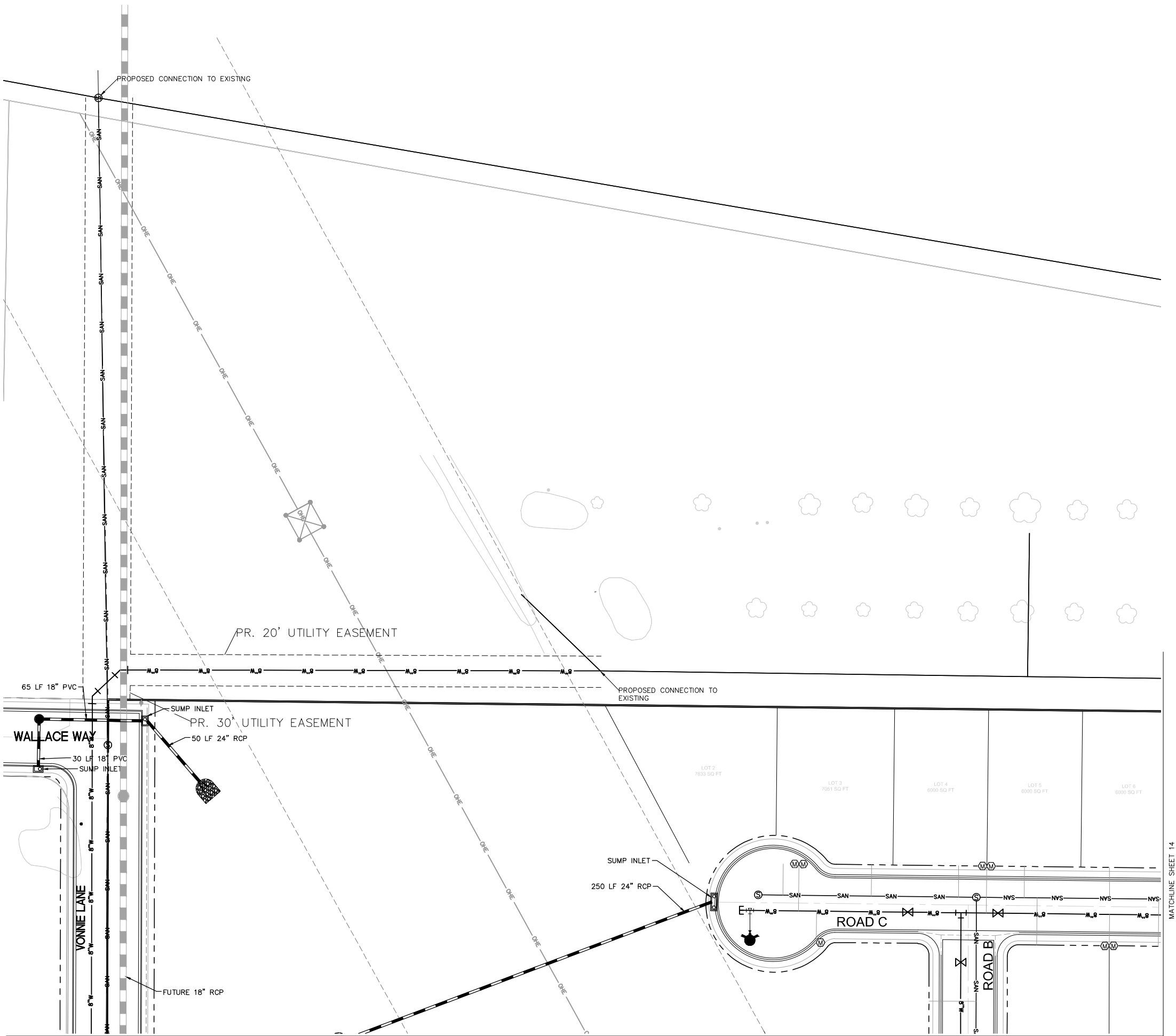


TENTATIVE MAP		GRADING PLAN - NORTH		SCALE: AS SHOWN	
VONNIE LANE SUBDIVISION				DESIGNED BY: NRW	
FERNLEY, NEVADA				DRAWN BY: NRW	
				CHECKED BY: LEP	
DATE: 3/15/2022				REVISIONS	
PROJECT NO. 19286				DATE	
9				No.	
				DATE	

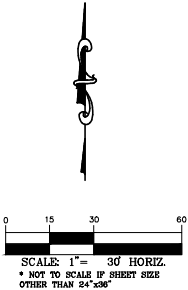
PHELPS ENGINEERING
155 County Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

Page 552 of 955

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\19286 - UTILITY PLAN.dwg 11 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Darling

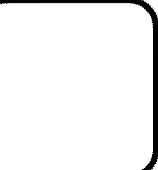


- UTILITY LEGEND:**
- 8"W POTABLE WATER LINE WITH SIZE
 - SAN SANITARY SEWER WITH MANHOLE
 - SERVICE LINE
 - W EXISTING WATER LINE
 - SAN EXISTING SANITARY SEWER LINE
 - PROPERTY LINE
 - LOT LINE
 - FUTURE PHASE LOT LINE
 - RIGHT-OF-WAY
 - EASEMENT LINE
 - ROAD CENTER LINE
 - EDGE OF PAVEMENT
 - CURB & GUTTER
 - EXISTING RIGHT-OF-WAY
 - EXISTING ROAD CENTER LINE
 - EXISTING EASEMENT LINE
 - FIRE HYDRANT ASSEMBLY
 - WATER SERVICE METER
 - STORM SEWER



No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

PHELPS ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV, 89511 (775) 395-7200
www.phelpsengineering.net



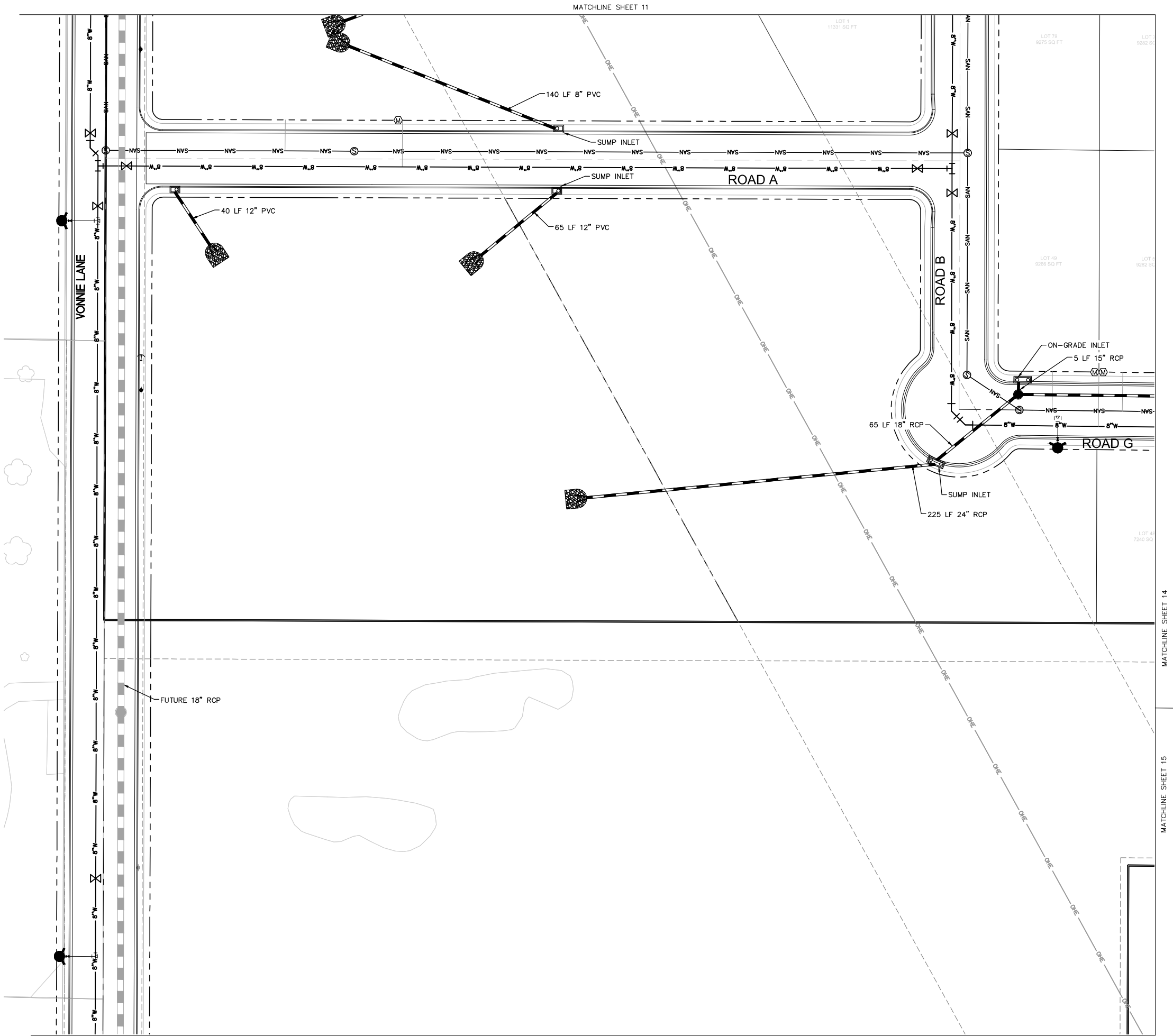
SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

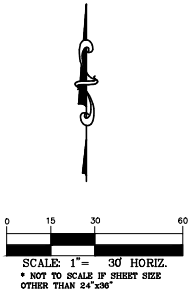
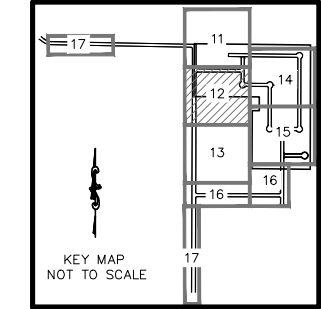
DATE:
3/15/2022
PROJECT NO.
19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\1A\19286 - UTILITY PLAN.dwg 12 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Darling



UTILITY LEGEND:

- 8"W POTABLE WATER LINE WITH SIZE
- SAN SANITARY SEWER WITH MANHOLE
- W EXISTING WATER LINE
- SAN EXISTING SANITARY SEWER LINE
- PROPERTY LINE
- LOT LINE
- FUTURE PHASE LOT LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- ROAD CENTER LINE
- EDGE OF PAVEMENT
- CURB & GUTTER
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER LINE
- EXISTING EASEMENT LINE
- FIRE HYDRANT ASSEMBLY
- WATER SERVICE METER
- STORM SEWER



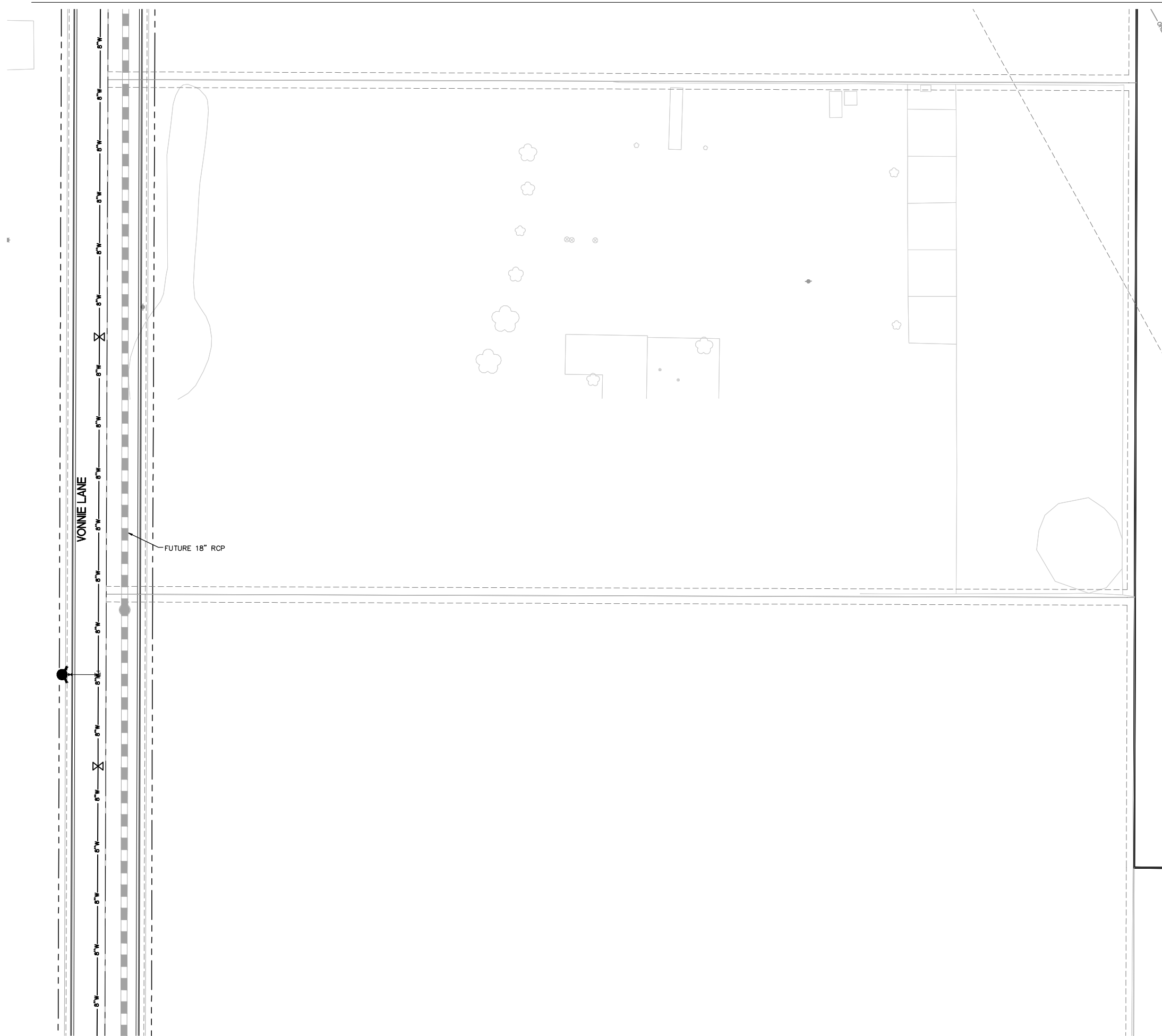
No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

PHELPS ENGINEERING
 155 Country Estates Circle, Suite 300
 Reno, NV, 89511 (775) 395-7200
 www.phelpsengineering.net

SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

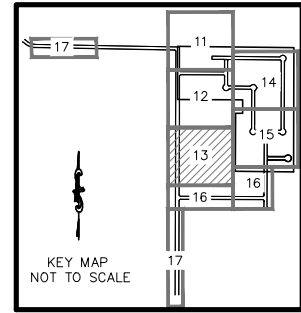
TENTATIVE MAP
 VONNIE LANE SUBDIVISION
 FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286



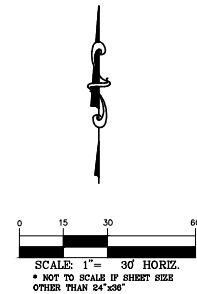
MATCHLINE SHEET 15

MATCHLINE SHEET 16



UTILITY LEGEND:

- | | | |
|--|---------|------------------------------|
| | 8" W | POTABLE WATER LINE WITH SIZE |
| | SAN | SANITARY SEWER WITH MANHOLE |
| | | SERVICE LINE |
| | W | EXISTING WATER LINE |
| | SAN SAN | EXISTING SANITARY SEWER LINE |
| | | PROPERTY LINE |
| | | LOT LINE |
| | | FUTURE PHASE LOT LINE |
| | | RIGHT-OF-WAY |
| | | EASEMENT LINE |
| | | ROAD CENTER LINE |
| | | EDGE OF PAVEMENT |
| | | CURB & GUTTER |
| | | EXISTING RIGHT-OF-WAY |
| | | EXISTING ROAD CENTER LINE |
| | | EXISTING EASEMENT LINE |
| | | FIRE HYDRANT ASSEMBLY |
| | M | WATER SERVICE METER |
| | | STORM SEWER |

[illegible]

PHELPS
ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89311 (775) 395-7200
www.phelpsengineering.net



SCALE:	AS SHOWN
DESIGNED BY:	NRW
DRAWN BY:	NRW
CHECKED BY:	LEP

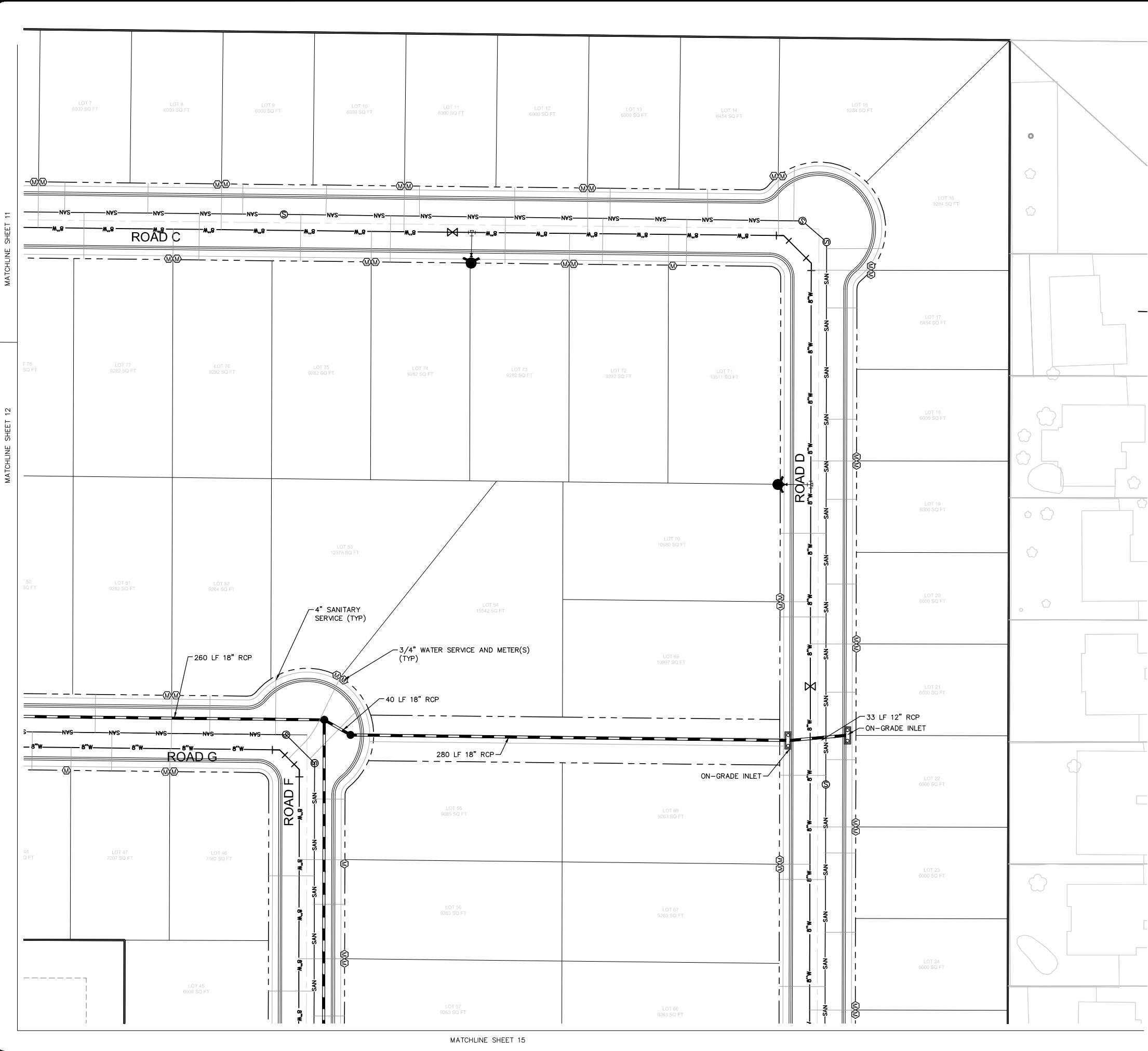
UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022

PROJECT NO.
19286

Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering Sheets\1A\19286 - UTILITY PLAN.dwg 14 UTILITY PLAN Mar 15, 2022 1:56pm by: Zach Dorling



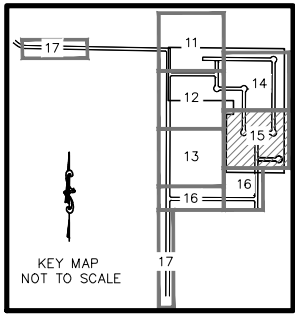
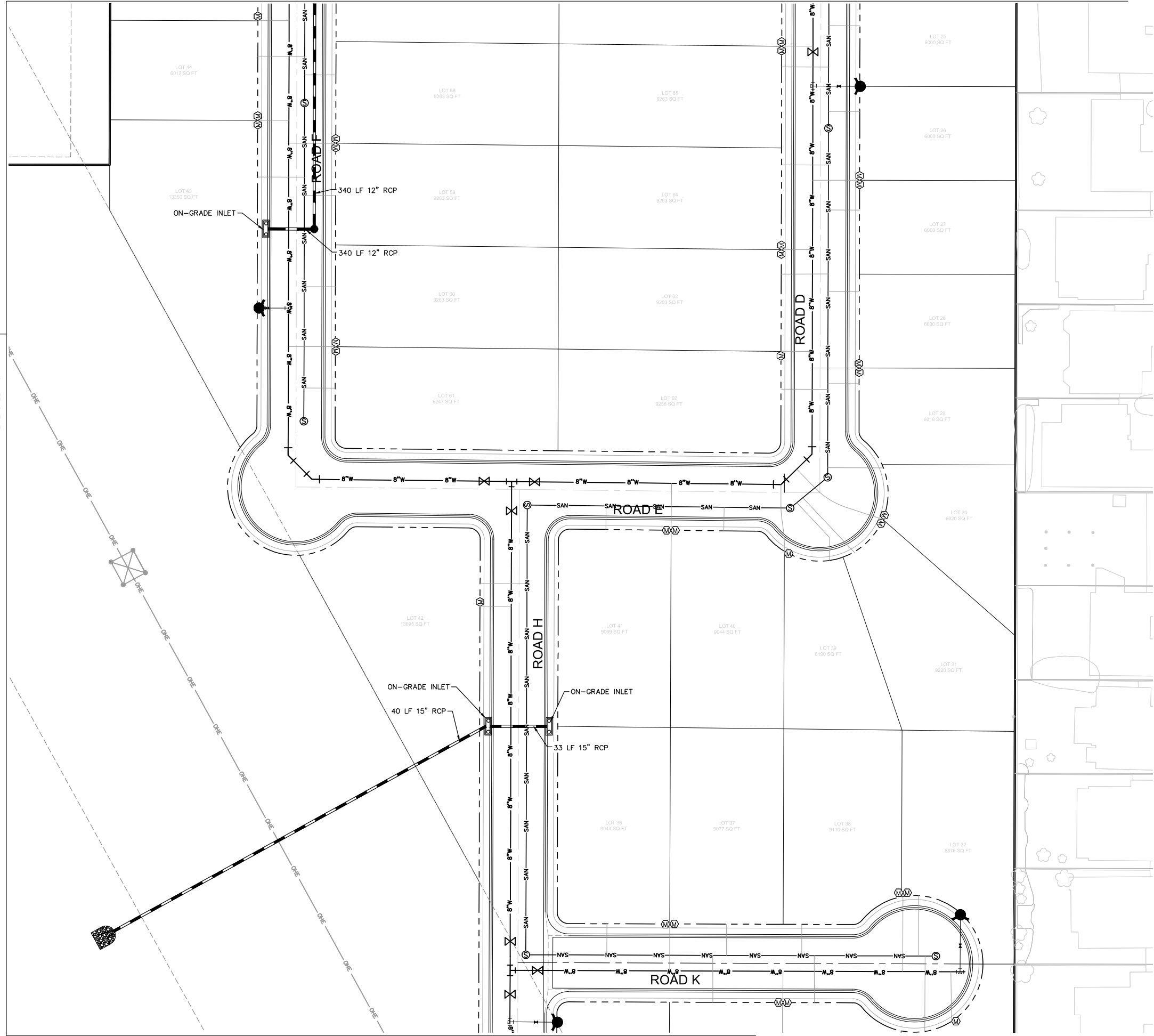
Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\1A\19286 - UTILITY PLAN.dwg Mar 15, 2022 1:56pm by: Zach Darling

MATCHLINE SHEET 12

MATCHLINE SHEET 13

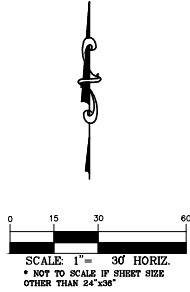
MATCHLINE SHEET 14

MATCHLINE SHEET 16



UTILITY LEGEND:

- 8"W POTABLE WATER LINE WITH SIZE
- SAN SANITARY SEWER WITH MANHOLE
- SERVICE LINE
- W EXISTING WATER LINE
- SAN EXISTING SANITARY SEWER LINE
- PROPERTY LINE
- LOT LINE
- FUTURE PHASE LOT LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- ROAD CENTER LINE
- EDGE OF PAVEMENT
- CURB & GUTTER
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER LINE
- EXISTING EASEMENT LINE
- FIRE HYDRANT ASSEMBLY
- WATER SERVICE METER
- STORM SEWER



PHELPS
ENGINEERING
155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net

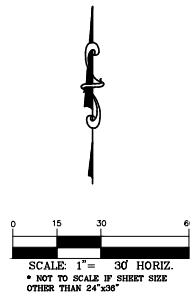
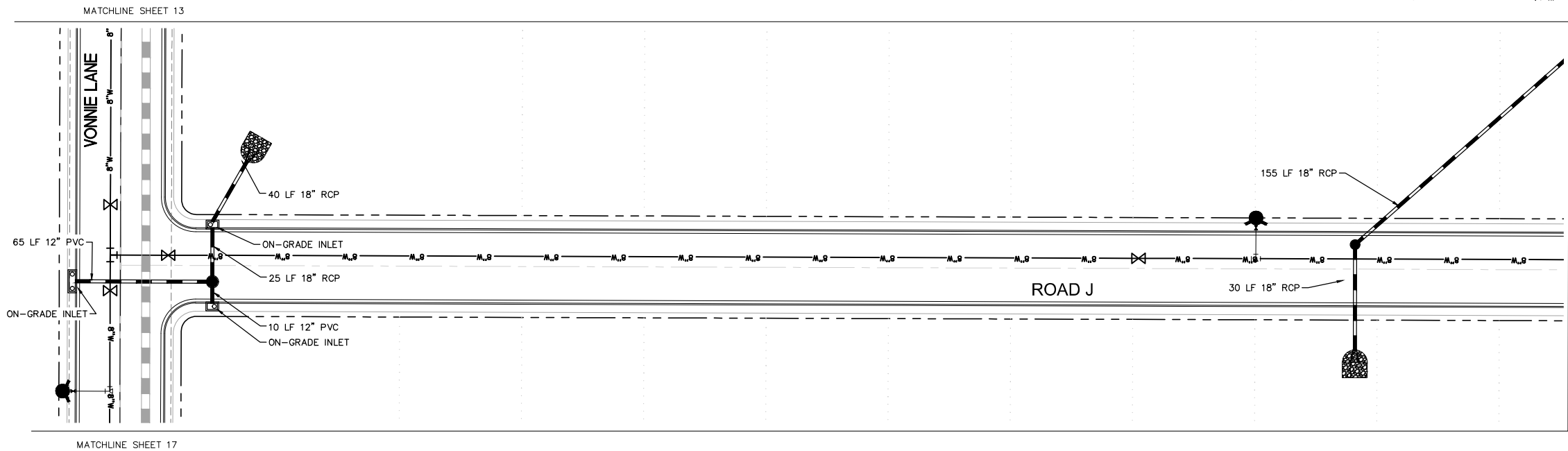
SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

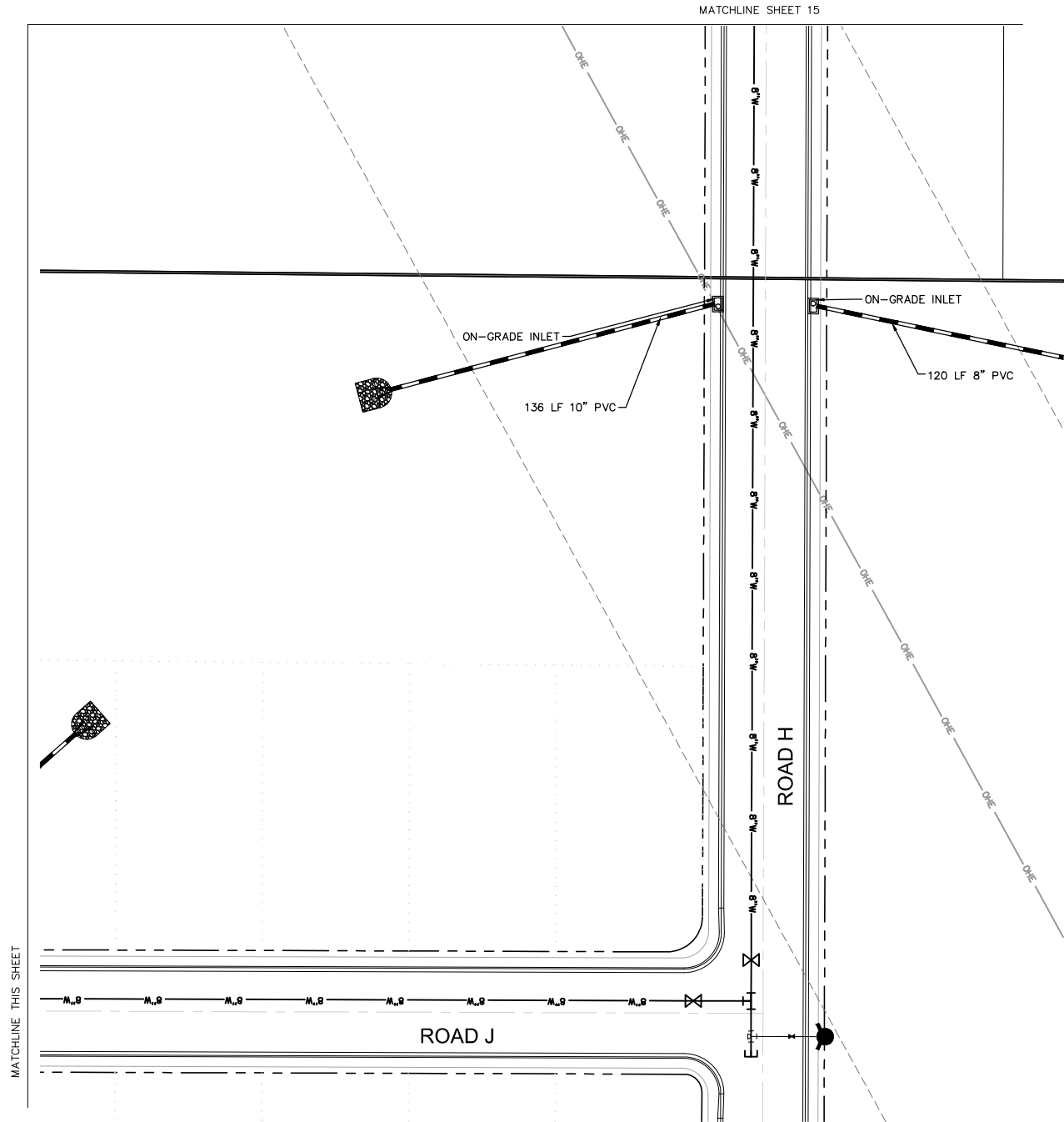
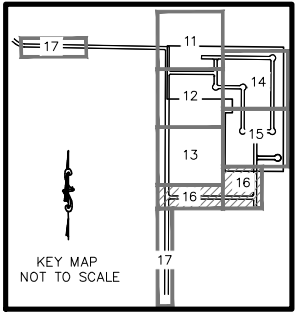
TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE:
3/15/2022
PROJECT NO.
19286

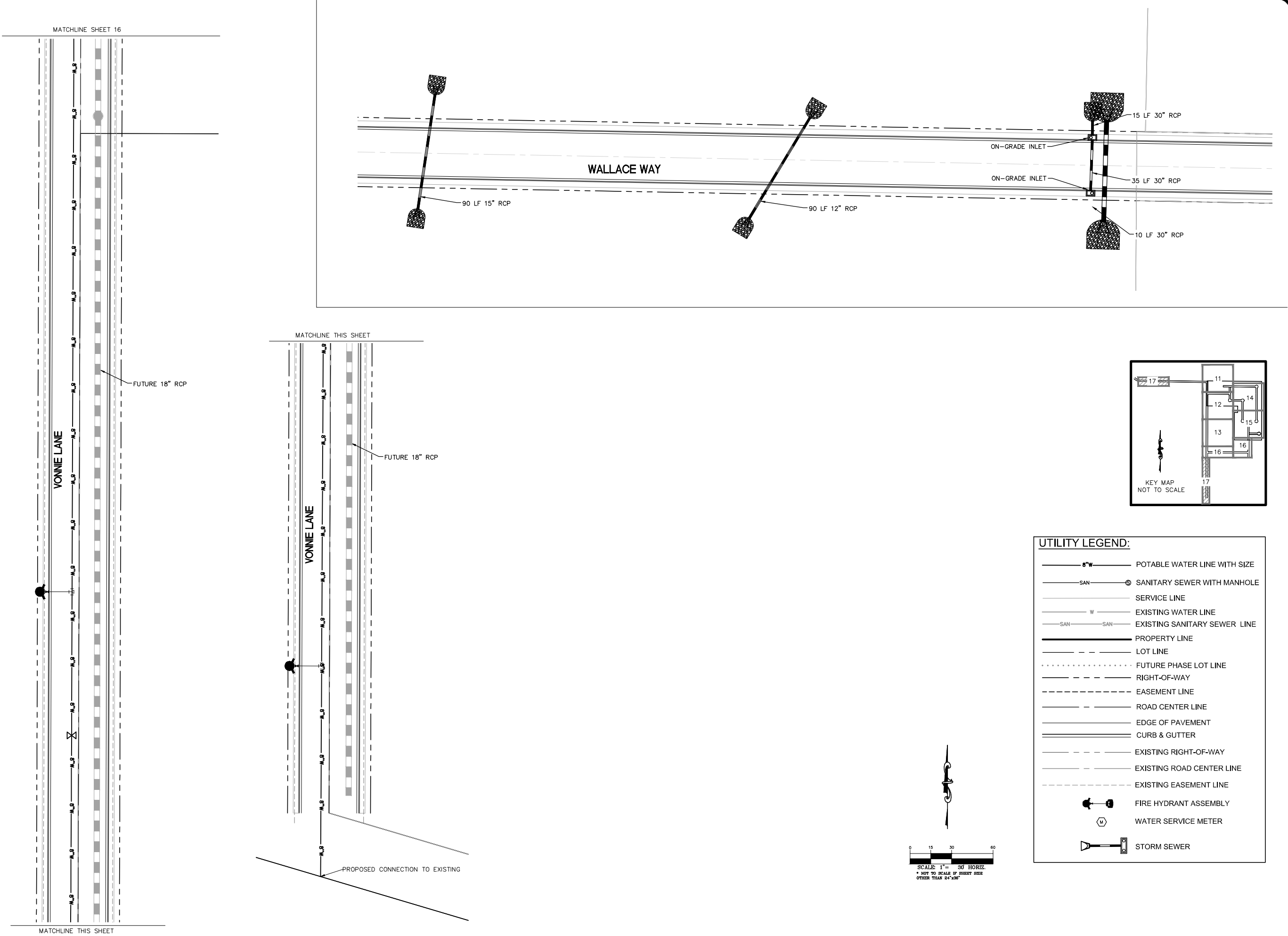
Drawing name: S:\Entitlement Engineering\19286 - Vonnie Lane\08 - CAD\Engineering\Sheets\1A\19286 - UTILITY PLAN.dwg Mar 15, 2022 1:56pm by: Zach Dorling



UTILITY LEGEND:	
	POTABLE WATER LINE WITH SIZE
	SANITARY SEWER WITH MANHOLE
	SERVICE LINE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	PROPERTY LINE
	LOT LINE
	FUTURE PHASE LOT LINE
	RIGHT-OF-WAY
	EASEMENT LINE
	ROAD CENTER LINE
	EDGE OF PAVEMENT
	CURB & GUTTER
	EXISTING RIGHT-OF-WAY
	EXISTING ROAD CENTER LINE
	EXISTING EASEMENT LINE
	FIRE HYDRANT ASSEMBLY
	WATER SERVICE METER
	STORM SEWER



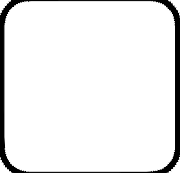
TENTATIVE MAP VONNIE LANE SUBDIVISION FERNLEY, NEVADA		UTILITY PLAN		SCALE: AS SHOWN DESIGNED BY: NRW DRAWN BY: NRW CHECKED BY: LEP		PHELPS ENGINEERING 155 Country Estates Circle, Suite 300 Reno, NV 89511 (775) 395-7200 www.phelpsengineering.net		No. REVISIONS DATE BY	
PROJECT NO. 19286		DATE: 3/15/2022		16					



No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

PHELPS
ENGINEERING

155 Country Estates Circle, Suite 300
Reno, NV 89511 (775) 395-7200
www.phelpsengineering.net



SCALE: AS SHOWN
DESIGNED BY: NRW
DRAWN BY: NRW
CHECKED BY: LEP

UTILITY PLAN

TENTATIVE MAP
VONNIE LANE SUBDIVISION
FERNLEY, NEVADA

DATE: 3/15/2022
PROJECT NO. 19286

MAP KEY

= UTILITY EASEMENT

= 9000 FT² LOT

= 6000 FT² LOT

LAND USE TABLE				
	LOTS	AREA (FT²)	ACRES	% TOTAL
6000 FT² SF	35	223,000	5.1	17%
9000 FT² SF	44	421,000	9.7	32%
R.O.W.	n/a	267,334	6.1	20%
OPEN SPACE	n/a	402,000	9.2	31%
TOTAL	79	1,313,334	30.1	100%
DU/AC= 2.63				

LANDSCAPE REQUIREMENTS AND SITE INFORMATION

SITE AREA: 30.15 ACRES (1,313,334 SF)

ZONING: SINGLE FAMILY RESIDENTIAL (SF20)

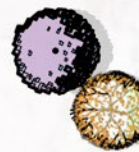
APN: 021-471-05

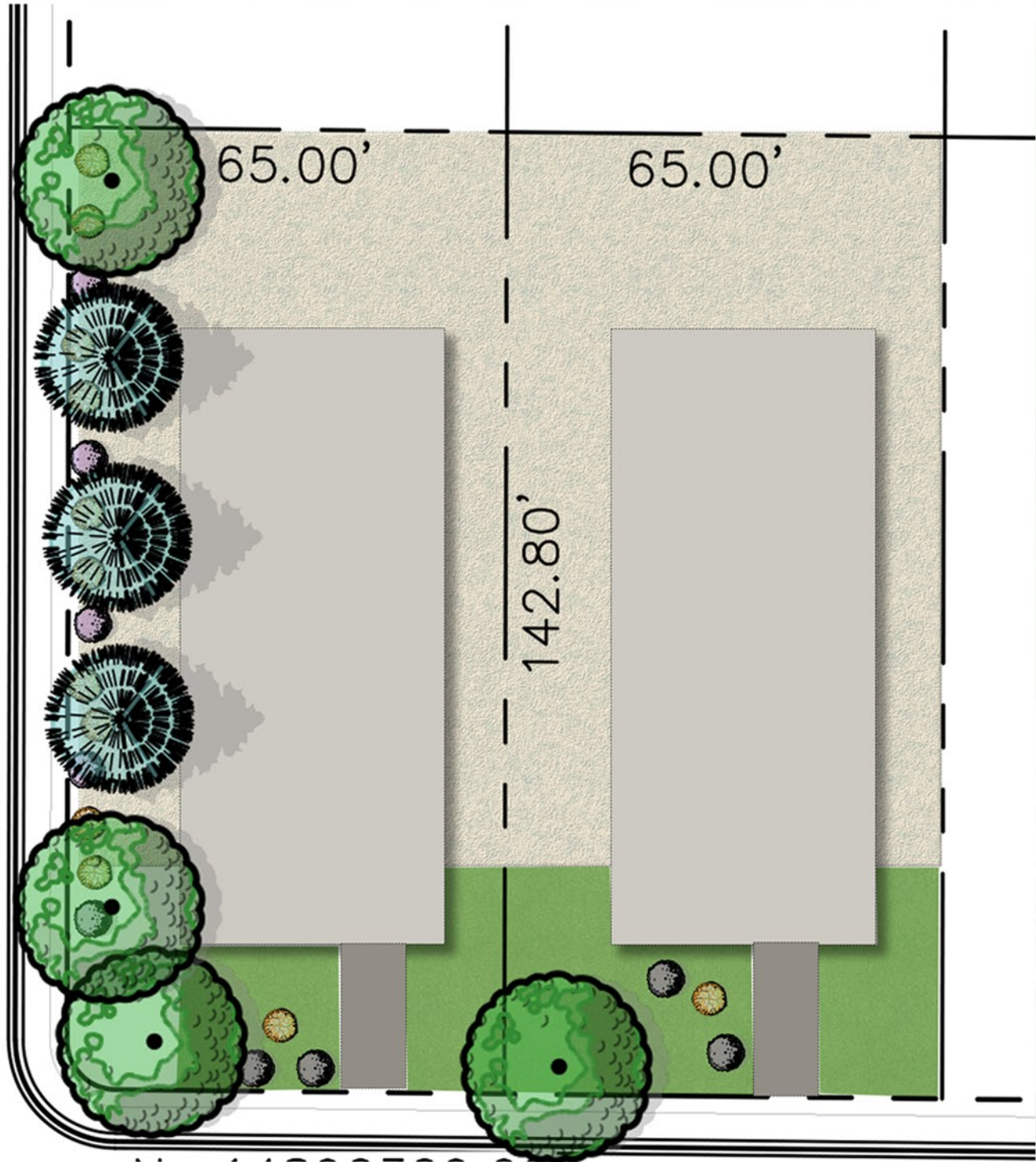
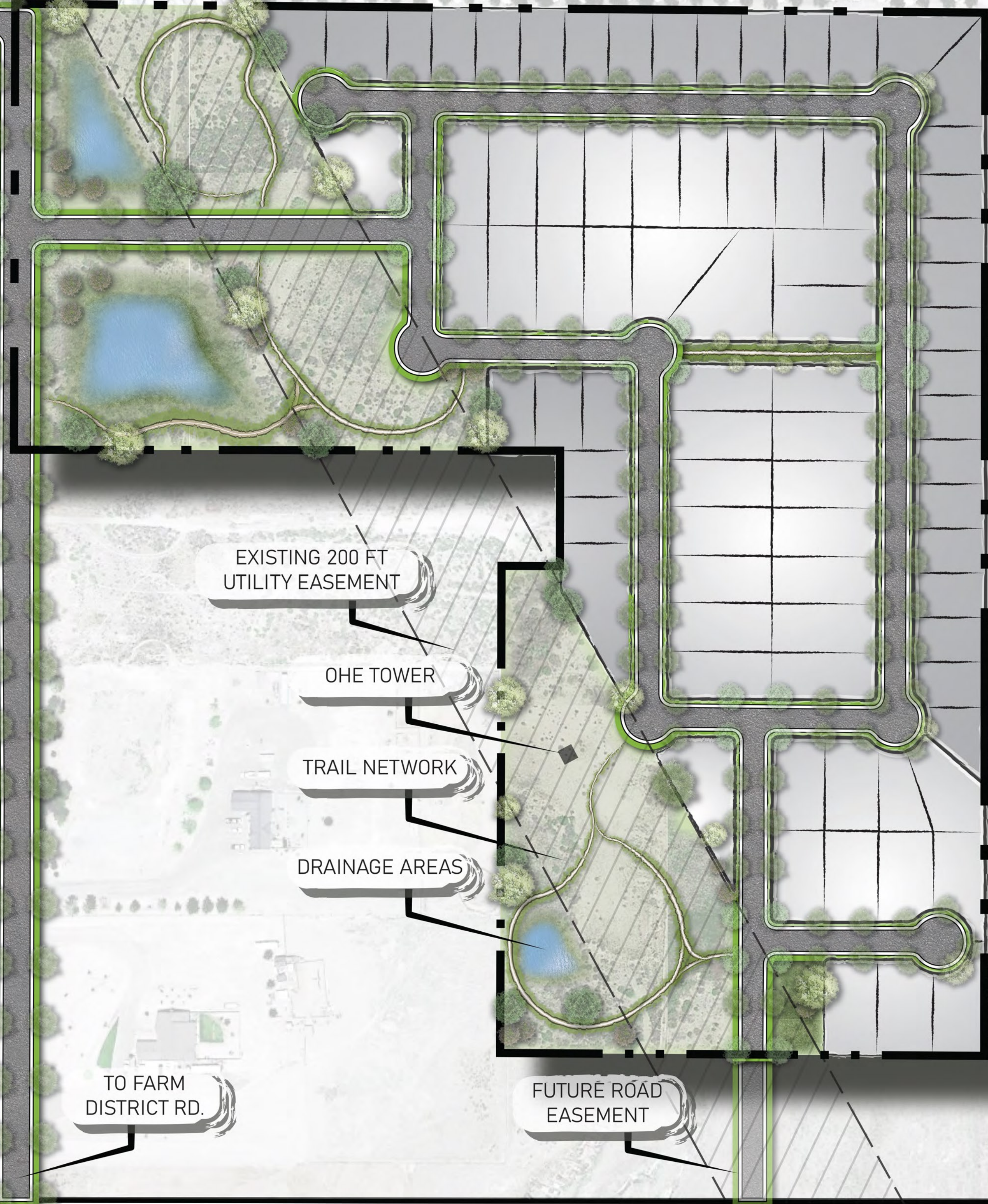
REQUIRED LANDSCAPE AREA: FRONT YARDS

PLANT LEGEND

DECIDUOUS TREE
MIN. 1" CAL.

EVERGREEN TREE
MIN. 6' HEIGHT

SHRUBS
50% MIN. 5 GAL

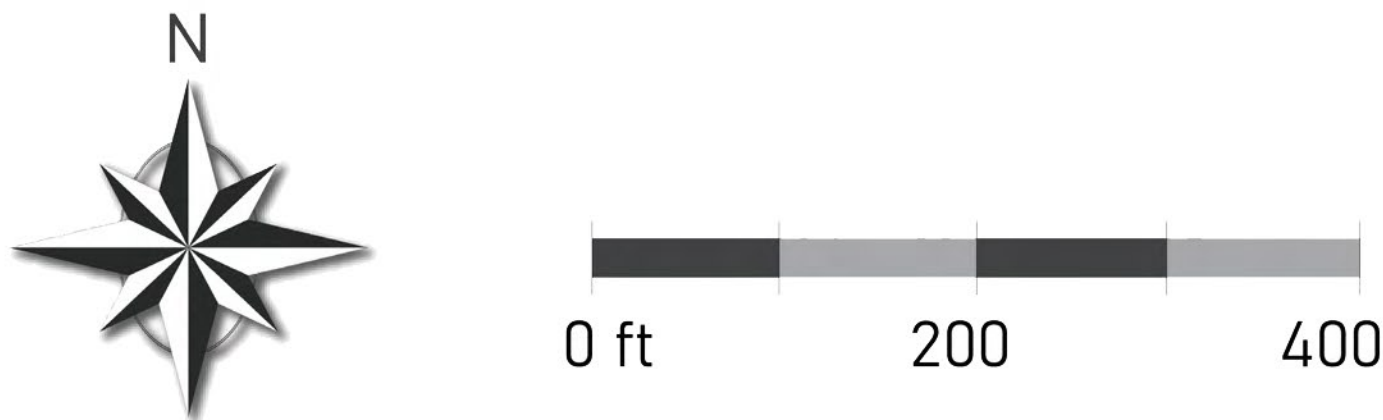


TYPICAL FRONT YARD LANDSCAPE

AT A MINIMUM, EACH INDIVIDUAL FRONT YARD SHALL INCLUDE:

- 1 TREE PER LOT FRONTAGE
- CORNER LOTS - 1 SIDE YARD TREE PER 30 LINEAL FEET OF STREET FRONTAGE
- 3 SHRUBS PER TREE
- TURF (OPTIONAL BY OWNER)
- USE A MINIMUM OF TWO MULCH TYPES PER FRONT YARD
- DECOMPOSED GRANITE
- 4" MINUS RIVER ROCK
- 1-1/2" RIVER ROCK

TYPICAL FRONT YARD LANDSCAPE SHOWN IS SCHEMATIC ONLY. LANDSCAPE LAYOUT MAY BE MODIFIED AS NEEDED TO FIT INDIVIDUAL LOT & TO AVOID CONFLICTS WITH UTILITIES



GENERAL NOTES:

1. ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER LOCAL GOVERNING CODES.
2. TREES
 - A. SECTION 32.09.030, D.5 "EVERGREEN TREES SHALL BE AT LEAST 6 FEET IN HEIGHT AT TIME OF PLANTING. FIFTY PERCENT (50%) OF DECIDUOUS TREES SHALL BE A MINIMUM CALIPER OF ONE INCH AND 50% SHALL BE A MINIMUM CALIPER OF TWO INCHES AT TIME OF PLANTING"
 - B. ADDITIONAL TREES, BEYOND THOSE REQUIRED BY CODE, MAY BE REDUCED IN SIZE AT INSTALLATION.
3. FINAL PLANT SELECTION AND LAYOUT WILL BE FINALIZED BY DEVELOPER AND BASED ON SOUND HORTICULTURAL PRACTICES REALTING TO MICRO-CLIMATE, SOIL AND WATER REGIMES. ALL TREES WILL BE STAKED SO AS TO REMAIN UPRIGHT AND PLUMB FOLLOWING INSTALLATION. PLANT SIZE AND QUALITY AT TIME OF PLANTING WILL BE PER THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-1990).
4. ALL SHRUB BEDS WILL RECEIVE 4" DEPTH MULCH WITH WEED CONTROL
5. ALL LANDSCAPING WILL BE AUTOMATICALLY IRRIGATED. CONTAINER PLANTINGS WILL BE DRIP IRRIGATED BASED ON THE SPECIFIC HORTICULTURAL REQUIREMENTS OF EACH SPECIES. A REDUCED-PRESSURE-TYPE BACKFLOW PRECENTOR WILL BE PROVIDED ON THE IRRIGATION SYSTEM AS REQUIRED PER CODE.
6. PLAN IS CONCEPTUAL. PLANT QUANTITIES INDICATED ARE PER CITY OF FERNLEY CODE REQUIREMENTS. PLANT LOCATION, FINAL SPECIES SELECTION AND SIZE AT PLANTING SHALL BE DETERMINED DURING DEVELOPMENT OF THE FINAL CONSTRUCTION DOCUMENTS.

REVISED DRAINAGE AREAS & LAND USE TABLE

3/15/22

DATE

BY

PHelps ENGINEERING

155 County Estates Circle Suite 300
Reno, NV 89511 (775) 399-7200
www.phelpsengineering.net

811

Know what's below.
Call 811 before you dig.

NOT TO SCALE IF SHEET
SIZE OTHER THAN 24"x36"

DESIGNED BY: KRM & JC

DRAWN BY: KRM & JC

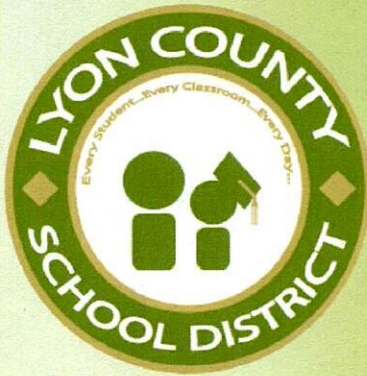
CHECKED BY: CTT

PRELIMINARY LANDSCAPE PLAN

VONNIE LANE SUBDIVISION
FERNLEY, NV

PROJECT NO.: 19286

L1



Superintendent
Wayne Workman

Deputy Superintendent
Tim Logan

Board of Trustees

President Holly Villines
Clerk Philip Cowee
Michael Hogan
Barbara Jones
Neal McIntyre
Sherry Parsons
Bridget Peterson

Lyon County School District
25 E. Goldfield Ave.
Yerington, NV 89447

Ph. (775) 463-6800
Fax (775) 463-6808

www.lyoncsd.org

March 16, 2022

Mr. Tim Thompson
City of Fernley Planning Director
595 Silver Lance Blvd.
Fernley NV, 89408

RE: Proposed Vonnie Lane Project

Dear Mr. Thompson,

Eureka Land Development LLC, which proposes 86 new single family residential homes, will impact Lyon County School District (LCSD) facilities. This project is currently zoned for the following schools:

East Valley Elementary School
Fernley Intermediate School
Silverland Middle School
Fernley High School

Traditionally, LCSD has been able to count on approximately .5 children for every new home built in Lyon County. Therefore, LCSD is predicting 43 new students with this proposed Vonnie Lane Project. Increasing capacity throughout LCSD is an immediate need but unfortunately current property tax abatements and caps prevent the collection of enough revenue to meet the increasing facility needs.

MGT Master Plan study in 2016 predicted enrollment and utilization at East Valley Elementary, Silverland Middle, Fernley Intermediate, and Fernley High to be inadequate or approaching inadequate levels by 2025. All four schools realized inadequate or approaching inadequate utilization levels 4-5 years sooner than MGT predicted.

LYON COUNTY SCHOOL DISTRICT
CURRENT AND PROJECTED UTILIZATION RATES

UTILIZATION	DESCRIPTION
> 110	Inadequate
100-109.9	Approaching Inadequate
85 - 99.9	Adequate
70 - 84.99	Approaching Inefficient
< 70	Inefficient

LCSD Enrollment/Capacity as of October 1, 2021							
School	Enrollment April 1, 2019	Enrollment February 1, 2020	Enrollment October 1, 2021	Capacity Please see below	2015 Utilization	2025 Utilization	Current Utilization
East Valley ES	530	534	504	669*	97%	115%	75%
Fernley IS	658	656	620	680	81%	96%	93%
Silverland MS	651	680	649	759	73%	86%	86%
Fernley HS	1067	1183	1236	1346**	92%	106%	92%
Capacity Formula: = # rooms x 25 (K-6) or x 30 (7-12) x scheduling factor (high 75%, middle 85%, elementary 95%) (Please see page 44 of the LCSD Master Facility Plan for an example on estimating capacity)							
* Includes new addition completed Summer 2021, increasing capacity by 200							
** Includes two new modular buildings (for a total of 4 on campus) increasing capacity by 120							

The most recent project LCSD completed to increase capacity was at East Valley Elementary School. This project netted 8 new classrooms at total project cost of \$7.35 million or \$918,750 per classroom. Vonnie Lane Project projects 43 new students which would require approximately 1.5 new classrooms or \$1,378,125 (\$918,750 x 1.5) in construction only capital. LCSD has relied on Bond Funding to build new schools and additions. Unfortunately, given the district current bonding capacity and nationwide increased construction costs, it's not possible for the district to have sufficient capital to build anything alleviating student capacity concerns.

LCSD recognizes that growth is an inevitable product of living in a great community and will always strive to provide world class educational opportunities to our students. However, as long as new, young families move into our community, LCSD will be tasked with the challenges associated with growth. Facility needs will always lag new growth, increasing the stress and strain on a local education agency.

LCSD appreciates the opportunity to provide input and is grateful for the relationships we have with the city and district leaders. As our communities grow with new developments, we hope school district leadership will continue to be engaged. Given our challenges to raise capital funds in the necessary amounts to build new schools LCSD advocates for a school-friendly allowance or creative solutions that may be possible from a developer of each new residential plan in Lyon County.

Thanks again for the opportunity to provide this input.



Wayne Workman
Lyon County School District Superintendent



19286

**Vonnie Lane Residential Development
Fernley, NV**

**Traffic Impact Report
February 15, 2022**

PLANNERS

3522 South Emerson Street
Englewood, Colorado 80113
(303) 298-1644 (o)

ENGINEERS

ANALYSTS

155 Country Estates Circle
Suite 300
Reno, NV 89511

Table of Contents

1.0	INTRODUCTION	1
1.1	PURPOSE AND SCOPE OF THIS REPORT.....	1
1.2	REGIONAL SETTING.....	1
	<i>Figure 1: Regional and Vicinity Maps.....</i>	<i>1</i>
1.3	SITE PLAN AND LAND USE COMPOSITION	2
	<i>Figure 2: Site Plan.....</i>	<i>2</i>
1.4	EXISTING SITE AND PROPOSED ZONING AMENDMENT	2
1.5	SCOPE OF THE TRAFFIC IMPACT STUDY.....	2
	<i>Table 1: Analysis Intersections.....</i>	<i>3</i>
	<i>Table 2: Study Scenarios.....</i>	<i>4</i>
2.0	METHODOLOGY	5
	<i>Table 3: Capacity at Un-Signalized Intersections.....</i>	<i>5</i>
	<i>Table 4: Capacity at Signalized Intersections</i>	<i>5</i>
3.0	EXISTING SETTING	6
	<i>Figure 3: Existing Setting</i>	<i>6</i>
	<i>Table 5: Existing Setting: Key Roadways.....</i>	<i>6</i>
4.0	NEAR-TERM IMPACT ANALYSIS	7
4.1	VOLUMES WITHOUT PROJECT.....	7
	<i>Figure 4: Near-Term Volumes.....</i>	<i>7</i>
4.2	TRIP GENERATION.....	7
	<i>Table 6: Trip Generation</i>	<i>8</i>
4.3	TRIP DISTRIBUTION	8
	<i>Figure 5: Near-Term Trip Distribution.....</i>	<i>9</i>
4.4	TRIP ASSIGNMENT.....	9
	<i>Figure 6: Near-Term Trip Assignment.....</i>	<i>9</i>
4.5	VOLUMES WITH PROJECT	9
	<i>Figure 7: Near-Term Plus Project Volumes.....</i>	<i>9</i>
4.6	NEAR-TERM IMPACTS	10
	<i>Table 7: Near-Term Project Impact on Intersection Operations.....</i>	<i>10</i>
5.0	LONG-TERM IMPACT ANALYSIS	11
5.1	VOLUMES WITHOUT PROJECT.....	11
	<i>Figure 8: Long-Term Volumes.....</i>	<i>11</i>
5.2	TRIP GENERATION.....	11
5.3	TRIP DISTRIBUTION	11
	<i>Figure 9: Long-Term Trip Distribution</i>	<i>13</i>
5.4	TRIP ASSIGNMENT.....	13
	<i>Figure 10: Long-Term Trip Assignment</i>	<i>13</i>
5.5	VOLUMES WITH PROJECT	13
	<i>Figure 11: Long-Term Plus Project Traffic Volumes</i>	<i>13</i>
5.6	LONG-TERM IMPACTS	14
	<i>Table 8: Long-Term Project Impact on Intersection Operations.....</i>	<i>14</i>
6.0	FINDINGS AND RECOMMENDATIONS.....	15

6.1	FINDINGS	15
6.2	RECOMMENDATIONS	15
7.0	PRELIMINARY VEHICLE MILES TRAVELED ANALYSIS	16
7.1	REGULATORY CONTEXT.....	16
7.2	POTENTIAL VMT REDUCTION MEASURES.....	16
APPENDIX A: BROCHURE OF EXISTING GEOMETRIC CONDITIONS		18
APPENDIX B: NUMERIC ANALYSIS.....		19
APPENDIX C: LEVEL OF SERVICE ANALYSIS		20
APPENDIX C-1: NEAR-TERM AM		21
APPENDIX C-2: NEAR-TERM PM		22
APPENDIX C-3: NEAR-TERM PLUS PROJECT AM		23
APPENDIX C-4: NEAR-TERM PLUS PROJECT PM		24
APPENDIX C-5: LONG-TERM AM		25
APPENDIX C-6: LONG-TERM PM		26
APPENDIX C-7: LONG-TERM PLUS PROJECT AM		27
APPENDIX C-8: LONG-TERM PLUS PROJECT PM		28

1.0 Introduction

Reggetti Investment, LLC proposes development of the Vonnie Lane Residential Development project on the north side of State Route 828 (Farm District Road) just east of Vonnie Lane in the City of Fernley, Nevada.

The project consists of 85 single-family detached housing units. The development would consist of a single access connection to Vonnie Lane to the west. The study uses the Single-Family Detached Land Use (Institute of Transportation Engineers *Trip Generation* Land Use Code 210) to project the Trip Generation during the average weekday, AM peak hour, and PM peak hour timeframes.

1.1 Purpose and Scope of this Report

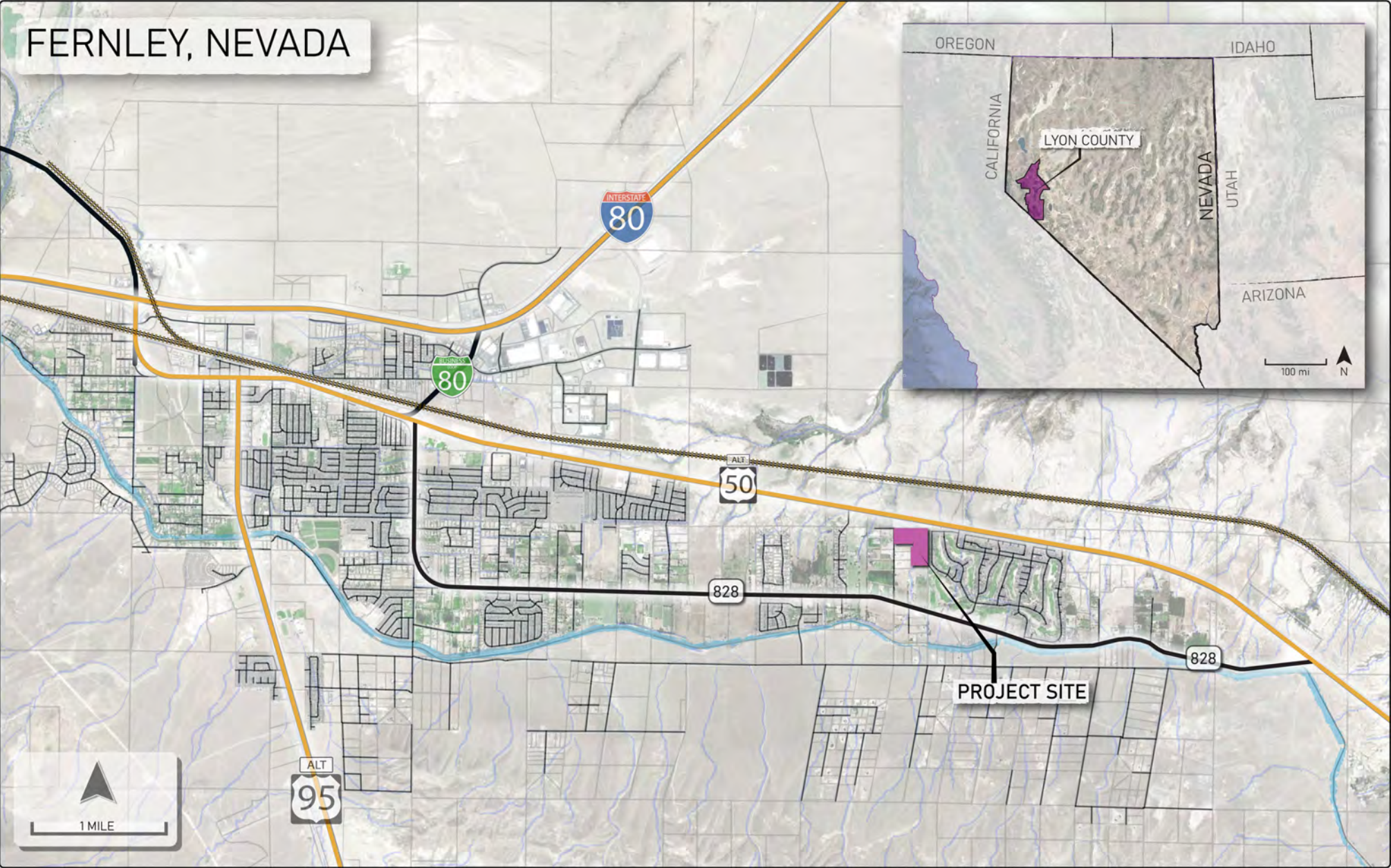
The purpose of this *Traffic Impact Report* is to communicate to the City of Fernley and the Nevada Department of Transportation (NDOT) the near-term and long-term impacts of the project on the analysis intersections. Operational analyses were conducted using Synchro Version 11 based on *Highway Capacity Manual Sixth Edition (2016)* methodologies. These are the latest software and manual editions available at the time of this study.

The scope of this report includes a discussion of the regional setting, the site plan and land use composition, the existing site in the context of the *City of Fernley Comprehensive Master Plan*, the traffic study parameters including analysis intersections and study scenarios, the methodology, the existing setting, the projected trip generation, the near-term project impacts, the long-term project impacts, and key findings and recommendations. A preliminary vehicle miles traveled (VMT) analysis is provided at the end of this report to reflect the incorporation of this new VMT metric that took effect on July 1, 2020, in a neighboring state. A brochure with satellite imagery of existing conditions provided in **Appendix A**. The numeric analysis including the trip generation, distribution, and assignment calculations are included in **Appendix B** along with the crash, turn lane, and signal warrant analyses. The Level of Service (LOS) worksheets are included in **Appendix C**.

1.2 Regional Setting

Figure 1: Regional and Vicinity Maps identify the project's location within the State of Nevada and the City of Fernley. The project is located approximately 38 miles northeast of Reno within the geographic boundaries of Lyon County. The nearest freeway interchange is Business Route 80 at Interstate 80. Business Route 80 transitions to State Route 828 south of the Roundabout with East Main Street and US Highway 50A (Lincoln Highway). State Route 828 continues to the south, and then makes a 90-degree turn to the east where it continues for approximately 3 miles and rejoins US-50A to the east.

FIGURE 1: REGIONAL AND VICINITY MAPS



1.3 Site Plan and Land Use Composition

Figure 2: Site Plan shows the layout of the proposed development including the relative locations of the residential and open space elements. Site access is proposed via two accesses to Vonnie Lane to the west. During the near-term, all project-generated traffic was assumed to proceed south on Vonnie Lane to State Route 828 (Farm District Road). The easement to the west to Red Rock Road was assumed to come online by the timeframe of the long-term analysis. Red Rock Road would provide access to US-50A to the north.

1.4 Existing Site and Proposed Zoning Amendment

The existing site within the East Development Area of the City of Fernley is low-density residential. The Desert Rose RV Park off US-50A borders to the north. Farm District Road (SR 828) borders to the south. Single-family residential units on the west side of Pepper Lane and a golf course border to the east, and Vonnie Lane borders to the west.

The *City of Fernley Comprehensive Master Plan* Figure 3-1 (Comprehensive Land Use Map) dated August 2018 identifies the proposed land use designation within this study area east of the East Development Area as Single-Family Residential (SFR), which is bordered to the east by a combination of SFR and Open Space and Parks (OSP).

The *Housing Needs Assessment – Churchill County, Nevada* dated September 11, 2021, underscores the severe housing shortage in nearby Churchill County escalated by a lack of new residential construction over the past decade, thereby underscoring the need to aggressively remove the barriers to residential construction. Implementation of the proposed Vonnie Lane Residential Development would help reverse this dwindling housing construction trend that is evident on a national scale.

1.5 Scope of the Traffic Impact Study

The scope of the traffic impact study entails assessing the multi-modal (vehicle, bicycle, pedestrian, equestrian, transit, etc.) transportation impacts of the proposed Vonnie Lane Residential Development on the analysis intersections identified in Table 1 during the study scenarios identified in Table 2 for both the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hours. The peak hours are defined as the busiest four-consecutive 15-minute intervals during these respective timeframes based on actual turning movement counts collected in the field.

FIGURE 2: SITE PLAN

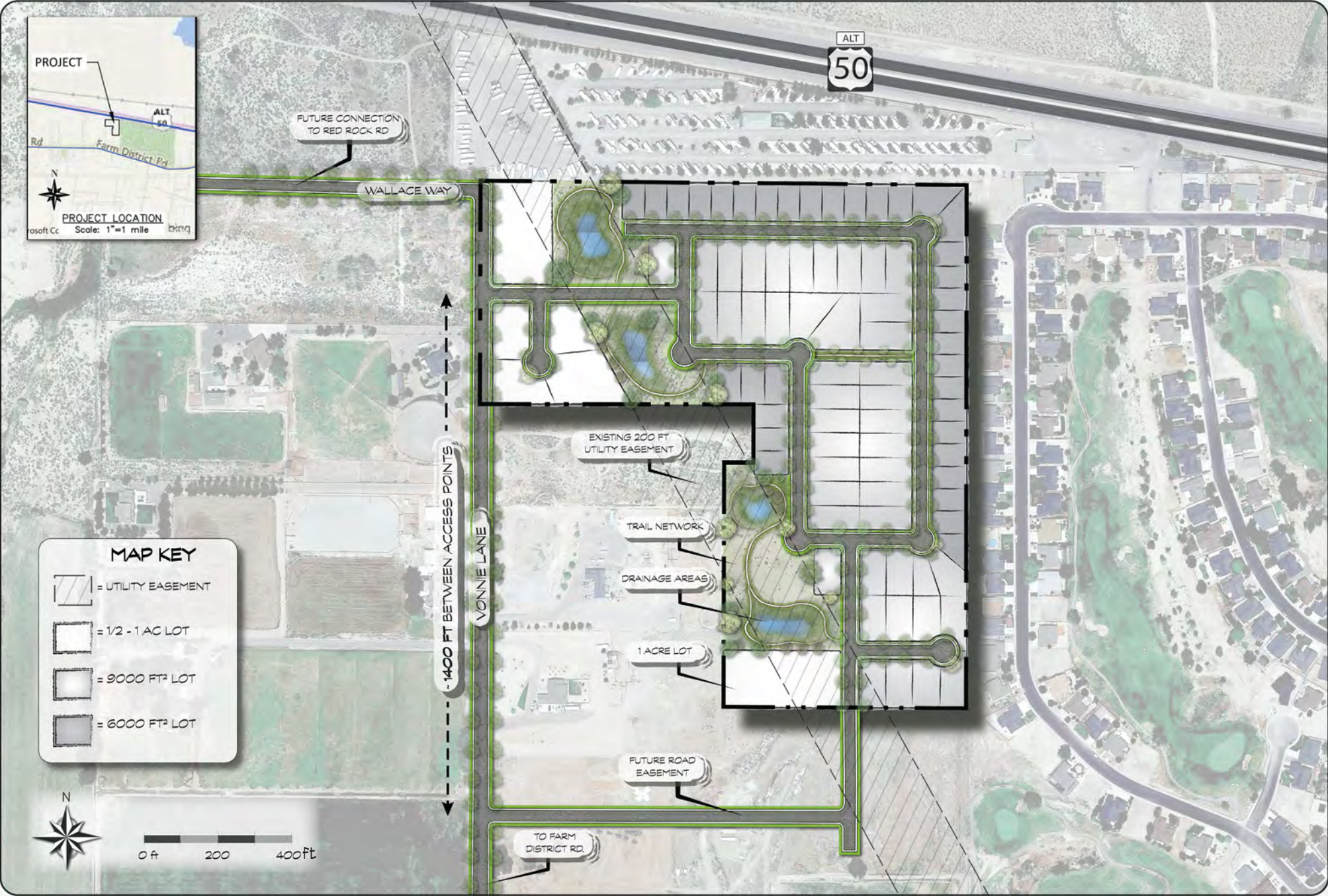


Table 1 identifies the analysis intersections.

Table 1: Analysis Intersections

No	North-South Roadway	East-West Roadway
1	Clearwater Parkway	SR 828
2	Red Rock Road	SR 828
3	Desert Lakes Drive	SR 828
4	Bens Way	SR 828
5	US-50A	SR 828
6	Vonnie Lane (Project and Long-Term Only)	SR 828
7	Red Rock Road (Long-Term Only)	US-50A

As noted during the High-Level Field Investigation (A Review of Satellite Imagery on Google Earth) conducted on Tuesday, November 30, 2021, and Low-Level Field Investigation (A Review from the Ground) conducted on Sunday, January 16, 2022, all intersections are un-signalized stop-controlled intersections with the stop-control applied to the north-south roadway, except for Intersection No. 5 (US-50A at SR 828) where the stop-control is applied to the east-west roadway of SR 828.

A dedicated westbound left turn lane (WBL) is provided at Intersection No. 1.

A dedicated eastbound left turn lane (EBL) is provided at intersection No. 2.

Dedicated northbound left (NBL), southbound right (SBR), eastbound left (EBL), and eastbound right (EBR) turn lanes are provided at Intersection No. 5. This intersection also includes raised islands, median storage for the eastbound left turn (EBL) movement, and a channelized eastbound right turn (EBR) movement with a “pork-chop-shaped” island.

While Vonnie Lane (Intersection No. 6) was observed as a gravel roadway during the High-Level Field Investigation, full paving of Vonnie Lane is assumed to take place in connection with the Vonnie Lane Residential Development project during the near-term.

Full paving of the easement and Red Rock Road north to US-50A is assumed to take place by the long-term timeframe.

During the Level of Service (LOS) analysis, the merits and drawbacks of turn lane channelization and signalization were evaluated for those intersections that fall at or below the City of Fernley and the Nevada Department of Transportation (NDOT) LOS Standard of D or better.

Table 2 identifies the study scenarios based on a 20-year planning horizon.

Table 2: Study Scenarios

No	Description
A	Near-Term
B	Near-Term Plus Project
C	Long-Term
D	Long-Term Plus Project

Appendix B shows the progressive volume analysis consisting of the generation, distribution, and assignment of the development trips during both the near-term and long-term timeframes.

2.0 Methodology

The scope entailed conducting capacity evaluations at multiple study intersections using Level of Service (LOS) based on *Highway Capacity Manual 6th Edition* methodologies. Level of Service is a qualitative measure describing operating conditions at intersections and their perception by intersection users.

Table 3 defines the intersection capacity evaluation criteria at un-signalized intersections by LOS designation as a function of delay along with a narrative description of each designation.

Table 3: Capacity at Un-Signalized Intersections

Designation	Delay (Seconds per Vehicle)	Description
A	0-10	Long, frequent gaps
B	10-15	Shorter, less frequent gaps, no more than 1 vehicle in queue
C	15-25	Less frequent gaps, 2 vehicles in queue
D	25-35	Less frequent gaps, 3 vehicles in queue
E	35-50	Less frequent gaps, 3 or more vehicles in queue
F	50+	Excessive delays waiting for suitable gaps, longer queues

Source: Transportation Research Board, *Highway Capacity Manual 6th Edition*

Table 4 defines the intersection capacity evaluation criteria at signalized intersections by LOS designation as a function of delay along with a narrative description of each designation.

Table 4: Capacity at Signalized Intersections

Designation	Delay (Seconds per Vehicle)	Description
A	0-10	Some slowing on green, but most vehicles do not stop
B	10-20	Some vehicles stop, but most do not
C	20-35	More vehicles stop, but many still pass through without stopping
D	35-55	Most vehicles stop
E	55-80	Almost all vehicles stop, but can clear the intersection within one cycle
F	80+	All vehicles stop, and some may not be able to clear the intersection within one cycle

Source: Transportation Research Board, *Highway Capacity Manual 6th Edition*

According to the City of Fernley and the Nevada Department of Transportation, the Level of Service Standard is “D” or better. When operational analyses were conducted showing results falling below this standard, measures were recommended to elevate operations to an acceptable level.

3.0 Existing Setting

The existing transportation system and topographical conditions were evaluated by studying satellite imagery and conducting a field investigation of the site and the study area on Tuesday, November 30, 2021. This was followed by a low-level field investigation conducted on Sunday, January 16, 2022.

Figure 3: Existing Setting defines the existing roadways, lane configurations, and intersection geometrics.

Table 5 describes the key roadways within the existing setting.

Table 5: Existing Setting: Key Roadways

Roadway	Divided or Un-Divided	Lanes	Posted Speed	Functional Classification
US-50A	Divided	4	65	Principal Arterial
State Route 828	Un-Divided	2	55	Minor Arterial
Clearwater Parkway	Divided	2	45	Minor Arterial
Desert Lakes Drive	Divided	2	35	Rural Minor Collector
Bens Way	Un-Divided	2	35	Rural Minor Collector
Wedge Lane	Un-Divided	2	35	Rural Minor Collector
Vonnies Lane	Un-Divided	2	25	Local Road
Red Rock Road	Un-Divided	2	25	Local Road

Source: City of Fernley Comprehensive Master Plan (August 2018)

Source: Nevada DOT Annual Traffic Report

US-50A connects I-80 to the west and the City of Fallon to the east and intersects with US-50 just west of Fallon. US-50 connects to Carson City to the southwest. US-50A includes paved shoulders, street lighting, and median storage within the study area.

State Route 828 includes paved shoulders throughout the study area along with dedicated left and right turn lanes and median storage in select locations.

Clearwater Parkway includes curb and gutter.

Desert Lakes Drive includes curb/gutter/sidewalk and a raised median.

Bens Way includes curb/gutter/sidewalk and intersects Wedge Lane just north of SR 828.

Vonnies Lane was observed as a gravel roadway. Full paving is assumed in connection with the proposed Vonnies Lane Residential Development. An easement between Vonnies Lane and Red Rock Road would come online by the long-term timeframe.

Red Rock Road was observed as a paved roadway at SR 828 to the south transitioning to a gravel roadway approaching US-50A to the north where it does not function as a usable paved roadway during the near-term.

The map displays the project area along Farm District Road, which runs from the west to the east. Key features include:

- Intersections:** Seven numbered callouts (1-7) provide detailed views of specific intersections:
 - 1:** Farm District Rd and Clearwater Pkwy.
 - 2:** Farm District Rd and Red Rock Rd.
 - 3:** Farm District Rd and Desert Lakes Dr.
 - 4:** Farm District Rd and Bens Way.
 - 5:** Farm District Rd and Clearwater Pkwy (at the intersection with Highway 50).
 - 6:** Farm District Rd and Vonnie Lane.
 - 7:** Farm District Rd and Red Rock Rd (at the intersection with Highway 50).
- Legend:**
 - Stop Control:** Represented by a purple octagon.
 - Yield Control:** Represented by a purple inverted triangle.
 - Lane Configuration:** Represented by black arrows.
 - Channelizing Island:** Represented by a green triangle.
 - Median Island:** Represented by a green oval.
 - Project Site:** Represented by a purple L-shaped polygon.
- Scale and Orientation:** A scale bar indicates 1 mile, and a north arrow points towards the top of the map.

4.0 Near-Term Impact Analysis

The Near-Term Impact Analysis was conducted to assess the impact of the project relative to existing conditions by adding the project volumes to the existing volumes (volumes without project) for each of the study intersections, calculating the Level of Service (LOS) for with and without-project conditions based on the methodology described in Section 2, and conducting a side-by-side comparison of intersection operations. Calculating the project volumes entailed determining the number of vehicle trips generated by the project (trip generation), evaluating how the trips would disperse throughout the study area (trip distribution), and assigning the trips to individual turning movements at each of the study intersections (trip assignment).

4.1 Volumes without Project

Figure 4: Near-Term Volumes shows the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hour traffic volumes based on the busiest four consecutive fifteen-minute intervals during these timeframes. Manual peak hour turning movement counts were obtained on Wednesday, January 5, 2022, by National Data and Surveying (NDS) at Intersections 1 (Clearwater Parkway), 3 (Desert Lakes Drive), 4 (Bens Way), and 5 (US-50A). Due to the presence of dirt roadways at the remaining three study intersections, through volumes were calculated from the adjacent intersections and turning volumes of 10 vehicles per hour were assigned to each of the four turning movements at these three intersections to ensure a conservative analysis.

Crash data was requested by the Nevada Department of Transportation (NDOT). Such data was provided at Intersection 1 (Clearwater Parkway) at State Route 828 for Calendar Years 2017, 2018, and 2019. Severity, Type, and Cause Analyses were conducted, and rates were calculated based on Million Entering Vehicles per year (MEV). One injury crash was reported at this intersection. The crash type was Rear-End. The cause was Following Too Closely. The calculated crash rate was 0.273 indicating satisfactory operations.

4.2 Trip Generation

A vehicle trip is defined as a trip whose primary purpose is to visit the site. Such trips include resident, guest, service, and delivery, among other types.

Trip generation was calculated based on rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition (2021)*. Specifically, the number of trips was projected by multiplying the rates by an individual independent variable quantity. For example, calculating the total weekday trips for the Single-Family Detached Housing Land Use (ITE Land Use Code 210) based on 85 Dwelling Units entails multiplying the independent variable quantity of 85 Dwelling Units by the rate of 9.43 Trips per Dwelling Unit to yield 802 Weekday Trips.

Figure 4: Near-Term Traffic Volumes

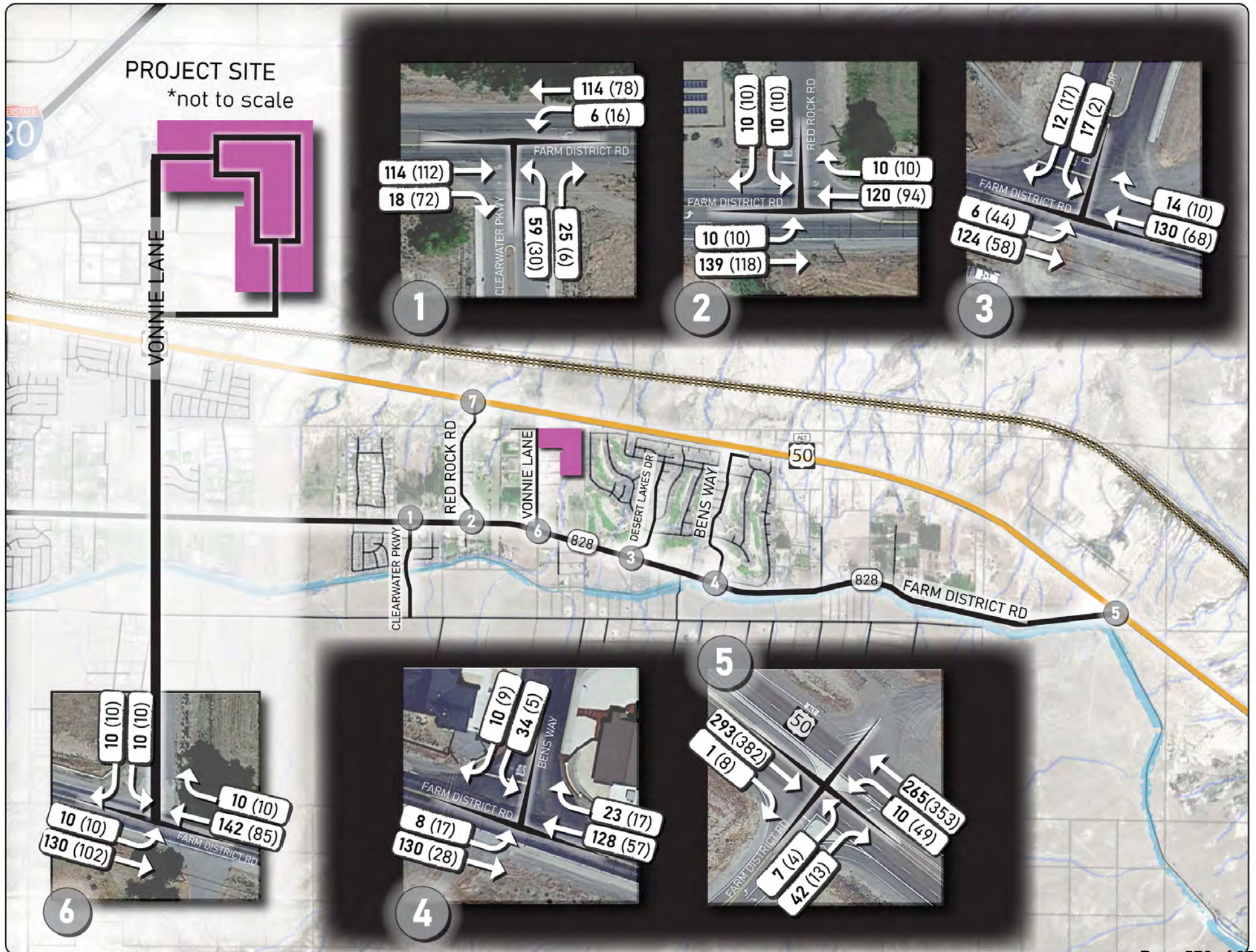


Table 6 shows the results of the trip generation analysis based on the Single-Family Detached Housing Land Use. Rates and trips are shown in more detail in **Appendix B**.

Table 6: Trip Generation

Description	Weekday		AM Peak Hour		PM Peak Hour		
	Total	Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached Housing (210) based on 85 Dwelling Units							
Rates	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Trips	802	16	44	60	50	30	80

Source: Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition (2021)

According to **Table 6**, the project would generate 802 vehicle trips during an average weekday, 60 vehicle trips during the AM peak hour, and 80 vehicle trips during the PM peak hour.

4.3 Trip Distribution

Two trip distribution analyses were conducted to evaluate how the trips would disperse throughout the study area between the project and the gates (points of entry to or exit from the study network). The first was a near-term analysis based on the existing roadway network plus improvements projected to come online in connection with the initial opening of the Vonnie Lane Residential Development. The second was a long-term analysis (covered in Section 5.3) based on the implementation of 5-year, 10-year, and 20-year improvements/additions to the transportation network as indicated in the *Draft Transportation Management Plan* presented to the Fernley City Council on June 3, 2020. The near-term and long-term trip distribution analyses use the same trip generation values identified in **Table 4** above.

The near-term trip distribution percentages were determined based on the following assumptions:

1. The trips would be characteristic of residential trips in general, namely strong familiarity with the local transportation network and attracted to local services. Such services would include, but are not limited to, shopping centers, grocery stores, schools, employment, parks, and recreation amenities.
2. Primary retail opportunities are located to the northwest within downtown, along Main Street, and near the interchanges with I-80 with the most preferred routes branching off Farm District Road to the southwest of the project and US-50A northwest of the project.
3. Primary educational opportunities are located near SR 828 at Cottonwood to the northwest, US-95A to the southwest, and the junction of US-50A and Farm District Road to the east.
4. Primary employment opportunities are located within downtown, within the hospitality and industrial developments along Main Street and the I-80 corridor

through town, and along I-80 to the west including the Greater Reno/Sparks population center.

5. Primary recreation opportunities include the parks to the northwest and the Pyramid Lake Recreation Area to the northwest.

Study area specific assumptions for the near-term analysis are as follows:

1. No traffic was assigned to Red Rock Road in the near-term trip distribution analysis based on the assumption that the implementation of the easement to Vonnie Lane to the east would not come online until long-term.
2. Desert Lakes Drive accesses the golf course and residential development to the east of the proposed Vonnie Lane Residential Development, with no existing or projected connections to Vonnie Lane. While Julia Lane was observed to connect with Desert Lakes Drive and US-50A, the intersection of Julia Lane at US-50A was observed as right-in/right-out. Therefore, no traffic was assigned to Desert Lakes Drive or Julia Lane in the near-term trip distribution/assignment analysis for traffic destined to locations on US-50A to the west.
3. Bens Way intersects Wedge Lane just north of State Route 828. Wedge Lane intersects US-50A to the north with full unrestricted access, raised medians, and median storage. Therefore, traffic was assigned to the intersection of Bens Way at SR 828 in the near-term trip distribution/assignment analysis for traffic destined to locations on US-50A to the west.

Figure 5: Near-Term Trip Distribution shows the near-term trip distribution percentages for each of the gates.

4.4 Trip Assignment

Trip assignment is calculated by multiplying the trip generation values from Table 6 by the trip distribution percentages described above. For analysis purposes, the trips were proportioned among each of the gates and then assigned to individual turning movements at each of the analysis intersections.

Figure 6: Near-Term Trip Assignment shows the trip assignment values for individual turning movements at each of the analysis intersections.

These values are shown in tabular form in **Appendix B**.

4.5 Volumes with Project

Figure 7: Near-Term Plus Project Volumes shows the with-project traffic volumes at each of the study intersections by adding the Figure 5 trip assignment volumes to the Figure 4 existing traffic volumes.

The map displays the Clearwater Park area with proposed transit routes and station locations. Key roads shown include Clearwater Pkwy, Red Rock Rd, Vonnie Lane, Desert Lakes Dr, Bens Way, Farm District Rd, and Highway 50. The proposed routes are marked with orange lines and arrows, with station locations indicated by numbered circles. The map also shows existing transit routes and station locations.

Proposed Routes and Stations:

- Route 1 (Left):** Clearwater Pkwy (Station 1) to Red Rock Rd (Station 2).
- Route 2 (Center):** Red Rock Rd (Station 2) to Vonnie Lane (Station 3) to Desert Lakes Dr (Station 4) to Bens Way (Station 5).
- Route 3 (Right):** Farm District Rd (Station 6) to Highway 50 (Station 7).

Station Locations:

- Station 1: Clearwater Pkwy
- Station 2: Red Rock Rd
- Station 3: Vonnie Lane
- Station 4: Desert Lakes Dr
- Station 5: Bens Way
- Station 6: Farm District Rd
- Station 7: Highway 50

Map Features:

- Scale:** 1 mile
- North Arrow:** Points North
- Legend:**
 - Orange line: Proposed transit route
 - Black line: Existing transit route
 - Circle with number: Station location
 - Yellow box: Station location

FIGURE 6: NEAR-TERM TRIP ASSIGNMENT

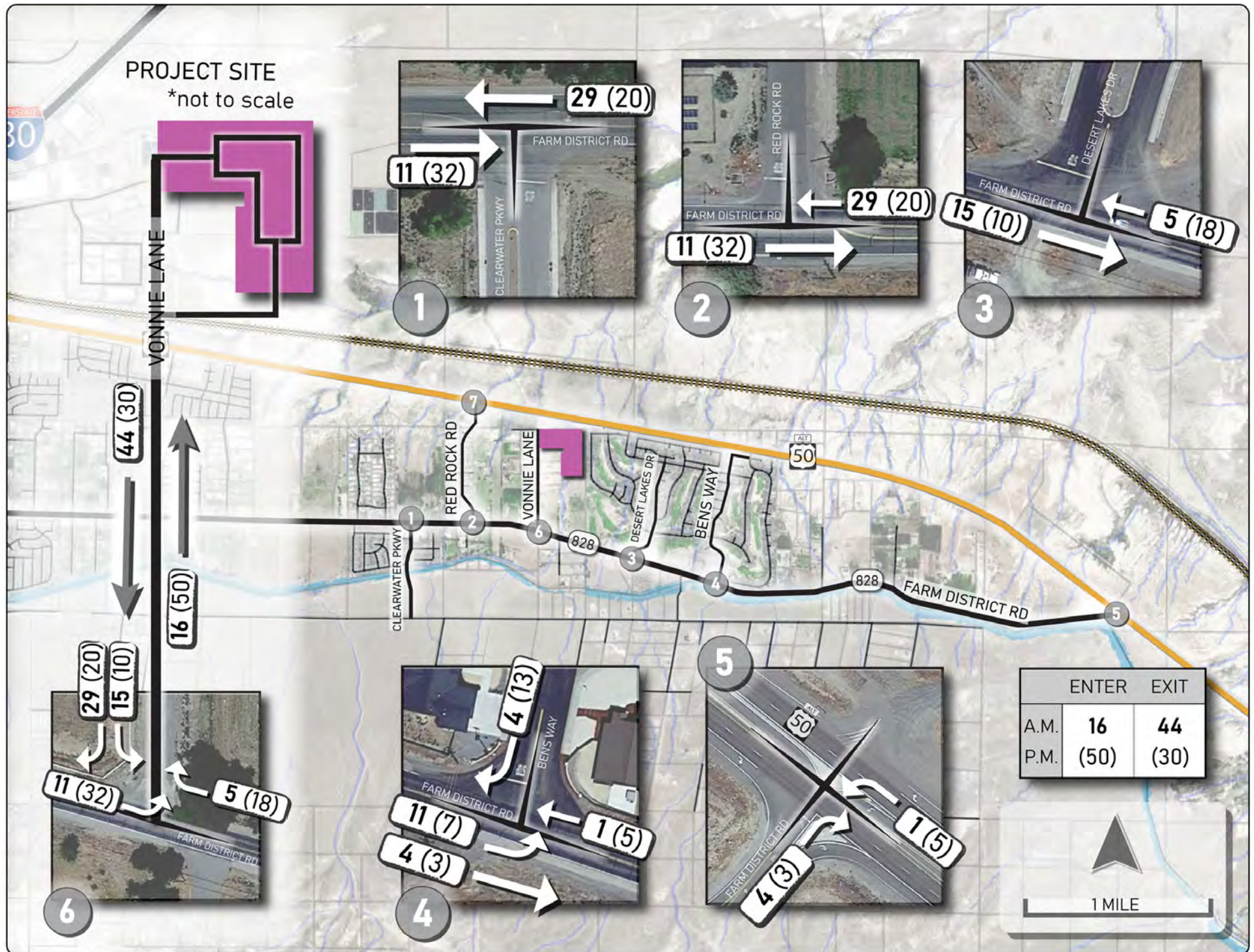
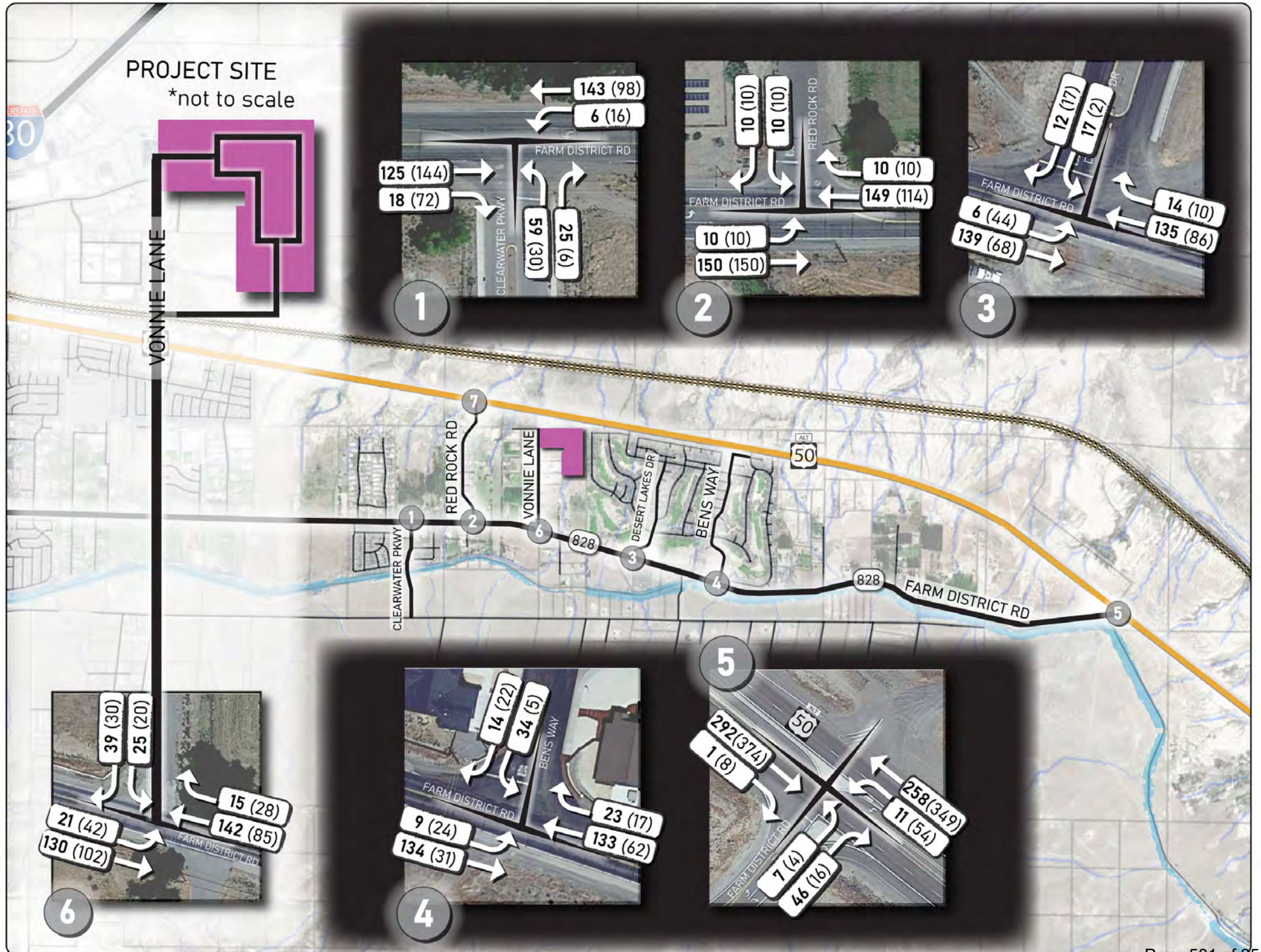


Figure 7: Near-Term Plus Project Traffic Volumes



The need for turn lanes was elevated at intersection of Vonnies Lane and SR 828 under near-term conditions. The need for left-turn (Table 4-12) and right-turn (Table 4-16) lanes was evaluated based on the respective tables in the NDOT Access Management System and Standards dated 2017. According to the analysis, a left-turn lane is warranted at the intersection under near-term conditions and is therefore recommended. For more information on the turn-lane warrant analysis, see Appendix B.

The need for signalization was evaluated at the intersection of Vonnies Lane and SR 828 under near-term conditions based on the Peak Hour Warrant in the Manual on Uniform Traffic Control Devices (MUTCD) Figure 4C-4. According to the analysis, a signal is not warranted at this intersection. Therefore, signalization is not projected to be needed under near-term conditions. For more information on the signal warrant analysis, see Appendix B.

4.6 Near-Term Impacts

Appendices C-1 (AM) and C-2 (PM) contain the calculation reports for near-term intersection operations without the project. **Appendices C-3 (AM) and C-4 (PM)** contain the calculation reports for near-term intersection operations with the project. These calculations are based on the *Highway Capacity Manual* methodology described in Section 2.

Peak Hour Factors are based on the actual intersection counts.

Table 7 shows the near-term impact of the project on the study intersections.

Table 7: Near-Term Project Impact on Intersection Operations

	Without Project		With Project	
	AM	PM	AM	PM
1: Clearwater Parkway at SR 828	B 11.2 (NB)	A 9.9 (NB)	B 11.6 (NB)	B 10.2 (NB)
2: Red Rock Road at SR 828	A 9.7 (SB)	A 9.5 (SB)	B 10.0 (SB)	A 9.8 (SB)
3: Desert Lakes Drive at SR 828	B 12.0 (SB)	A 8.9 (SB)	B 12.4 (SB)	A 9.0 (SB)
4: Bens Way at SR 828	B 14.1 (SB)	A 9.0 (SB)	C 15.2 (SB)	A 9.0 (SB)
5: US-50A at SR 828	B 11.3 (EB)	B 12.6 (EB)	B 11.3 (EB)	B 12.7 (EB)
6: Vonnies Lane at SR 828	A 9.8 (SB)	A 9.4 (SB)	B 10.1 (SB)	A 9.7 (SB)

Source: Trafficware, *Synchro 11*

Source: Transportation Research Board, *Highway Capacity Manual, 6th Edition*

According to Table 7, all intersections would operate acceptably under both without and with project conditions; and the project would not have a significant adverse impact on any elements of the study area.

5.0 Long-Term Impact Analysis

The Long-Term Impact Analysis was conducted to assess the project's impact on the study intersections at the end of a 20-year planning horizon using the same methodology as described in Section 4 for the Near-Term Impact Analysis, except that a compounded annual growth rate was applied to the near-term without-project traffic volumes to obtain the long-term without project volumes.

5.1 Volumes without Project

Diagram 4-2 of the *City of Fernley Comprehensive Master Plan* identifies NDOT portable traffic count stations in the City of Fernley. Station No. 35, located on SR 828, a quarter mile west of US-50A, is located within the study area. Table 4-3 of this *Master Plan* shows 2017, 2030, and 2040 traffic volumes at Count Station No. 35 in vehicles per day (vpd). According to Table 4-3, the 2017 volume is 540 vpd, the projected 2030 volume is 699 vpd, and the projected 2040 volume is 852 vehicles per day. All volumes correlate to a Level of Service (LOS) of A, and a compounded annual growth rate of 2 percent. Therefore, a 2 percent compounded annual growth rate were used for projecting the long-term traffic volumes for Intersections 2 to 7. A 30 percent reduction was applied to Intersection 1 to account for the addition of the Wadsworth Bypass to the west and the extension of the Nevada Pacific Parkway southward to US-50A to the north, both called for in the City of Fernley Transportation Master Plan.

Figure 8: Long-Term Volumes shows the future without project traffic volumes obtained by applying a compounded annual growth rate of 2.0 percent to the near-term without project volumes for Intersections 2 to 6, and a 30 percent reduction to Intersection 1.

5.2 Trip Generation

For analysis purposes, the same trip generation values calculated in Section 4 were applied to the long-term impact analysis to assess the long-term impacts of the project.

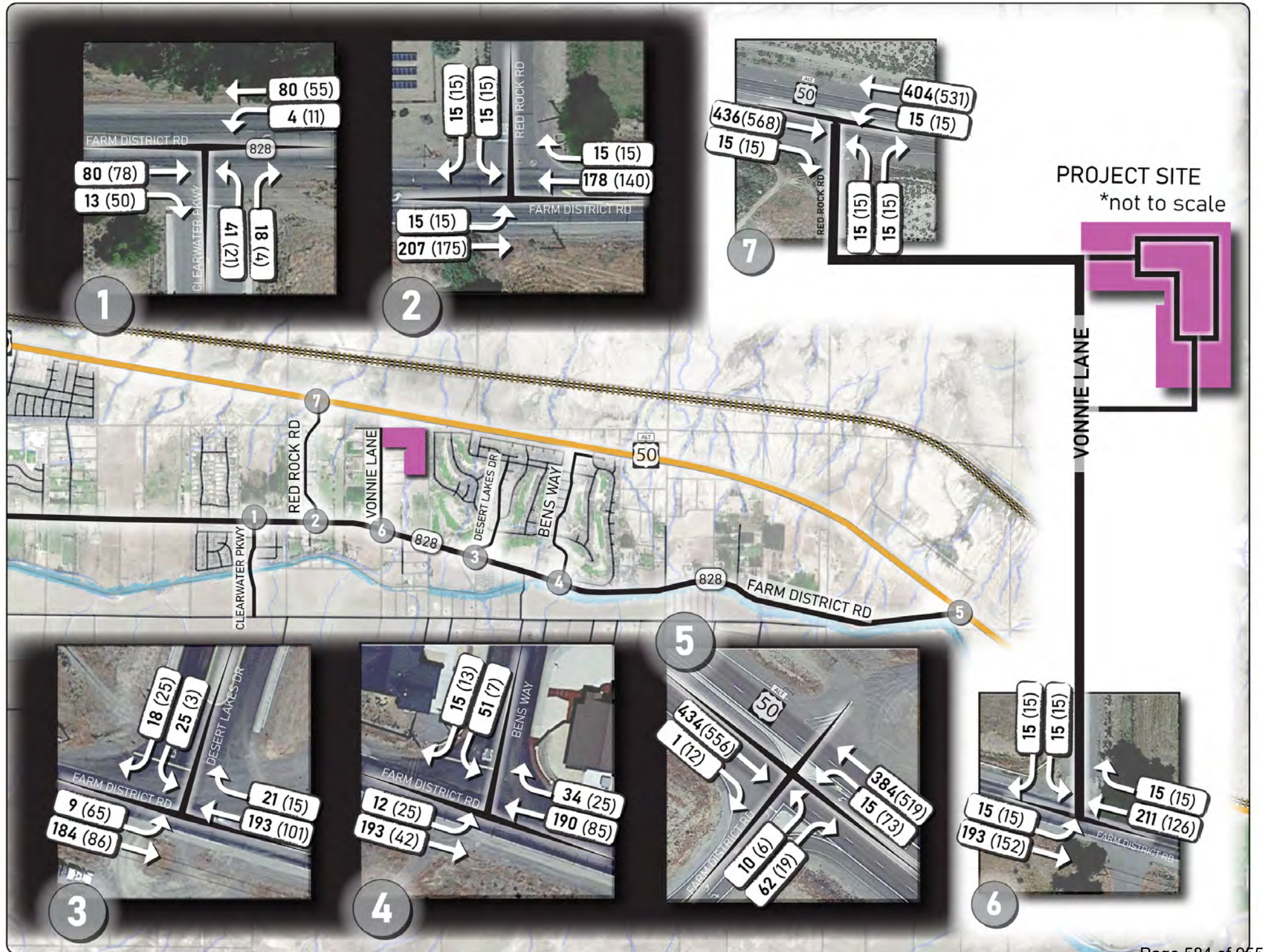
5.3 Trip Distribution

For the long-term with-project analysis, the long-term trip distribution percentages are based on the same assumptions as in the near-term analysis except with the inclusion of the 5-year, 10-year, and 20-year improvements and additions to the transportation network as indicated in the *Draft Transportation Management Plan* presented to the Fernley City Council on June 3, 2020.

Five-year improvements/additions are as follows:

1. Spot improvement at the Main/I-80 Interchange
2. Spot improvements in the vicinity of US-95A at Cottonwood

Figure 8: Long-Term Traffic Volumes



3. Corridor improvements along Business Route 80 between Main and I-80
4. Spot improvement at the Roundabout at Business Route 80 and East Main Street
5. Spot improvements at US-95A and US-50A
6. The extension of Nevada Pacific Parkway across the railroad tracks and south to US-50A, thereby boosting the desirability of US-50A west of Red Rock Road for trips generated by the Vonnie Lane Residential Development project
7. Corridor improvements to SR 828 west of US-50A

Ten-year improvements/additions are as follows:

1. A bridge on Clearwater Parkway across the Truckee-Carson Irrigation Canal providing a full connection between SR 828 and Desert Shadows Lane
2. Corridor improvements to US-95A between Sage Street and Main Street across the Truckee-Carson Irrigation Canal
3. The addition of Desert Shadows Lane between US-95A and US-50A
4. Corridor improvements to SR 427 between the Washoe/Lyon County Line and US-95A

Twenty-year improvements/additions are as follows:

1. The addition of the North Fernley Roadway between SR 427 and the Nevada Pacific Parkway/I-80 Interchange
2. The addition of the Western Bypass between I-80 and US-95A/Desert Shadows Lane, thereby boosting the desirability of Desert Shadows Lane to trips generated by the Vonnie Lane Residential Development project
3. Corridor improvements to Cottonwood Lane between US-95A and SR 828
4. Corridor improvements to SR 828 between the Roundabout at East Main Street/US-50A and Red Rock Road (connecting north to US-50A)
5. The addition of the I-11 Interchange with I-80 to the east with a connection to US-50A to the east, thereby boosting the desirability of US-50A to trips generated by the Vonnie Lane Residential Development project
6. Spot Improvement at Vine St/I-80

Study area specific assumptions for the long-term analysis are as follows:

1. Traffic was assigned to Red Rock Road in the long-term trip distribution analysis based on the assumption that the implementation of the easement to Vonnie Lane to the east would be online by then, and that Red Rock Road would form a full unrestricted intersection with US-50A to the north, complete with median storage.
2. Clearwater Parkway would be extended to the south across the Truckee Carson Irrigation District Canal to offer a fully paved connection between SR 828 to the north and Desert Shadows Lane to the south. An upgraded Desert Shadows Lane would provide access to the Western Bypass between US-95A and I-80.

Figure 9: Long-Term Trip Distribution shows the long-term trip distribution percentages for each of the gates.

Appendix B provides further elaboration on the trip distribution analysis including the gate (points of entry to or exit from the study network) percentages for the near-term and long-term analyses.

5.4 Trip Assignment

Trip assignment is calculated by multiplying the trip generation values from Table 4 by the trip distribution percentages described above.

Figure 10: Long-Term Trip Assignment shows the trip assignment values for individual turning movements at each of the analysis intersections.

These values are shown in tabular form in **Appendix B**.

5.5 Volumes with Project

Figure 11: Long-Term Plus Project Traffic Volumes shows the with-project traffic volumes obtained by adding the project-generated traffic volumes to the long-term without-project traffic volumes.

The need for turn lanes was evaluated at Vonnie Lane and SR 828 under long-term conditions. Specifically, the need for left-turn (Table 4-12) and right-turn (Table 4-16) lanes was evaluated based on the respective tables in the NDOT Access Management System and Standards dated 2017. According to this analysis, left-turn and right-turn lanes are warranted at the intersection, and are therefore recommended. For more information on the turn-lane warrant analysis, see Appendix B.

The need for signalization was evaluated at Vonnie Lane and SR 828 under long-term conditions based on the Peak Hour Warrant in the Manual on Uniform Traffic Control Devices (MUTCD) Figure 4C-4. According to the analysis, a signal is not warranted at this intersection. Therefore, signalization is not projected to be needed under long-term conditions. For more information on the signal warrant analysis, see Appendix B.

FIGURE 10: LONG-TERM TRIP ASSIGNMENT

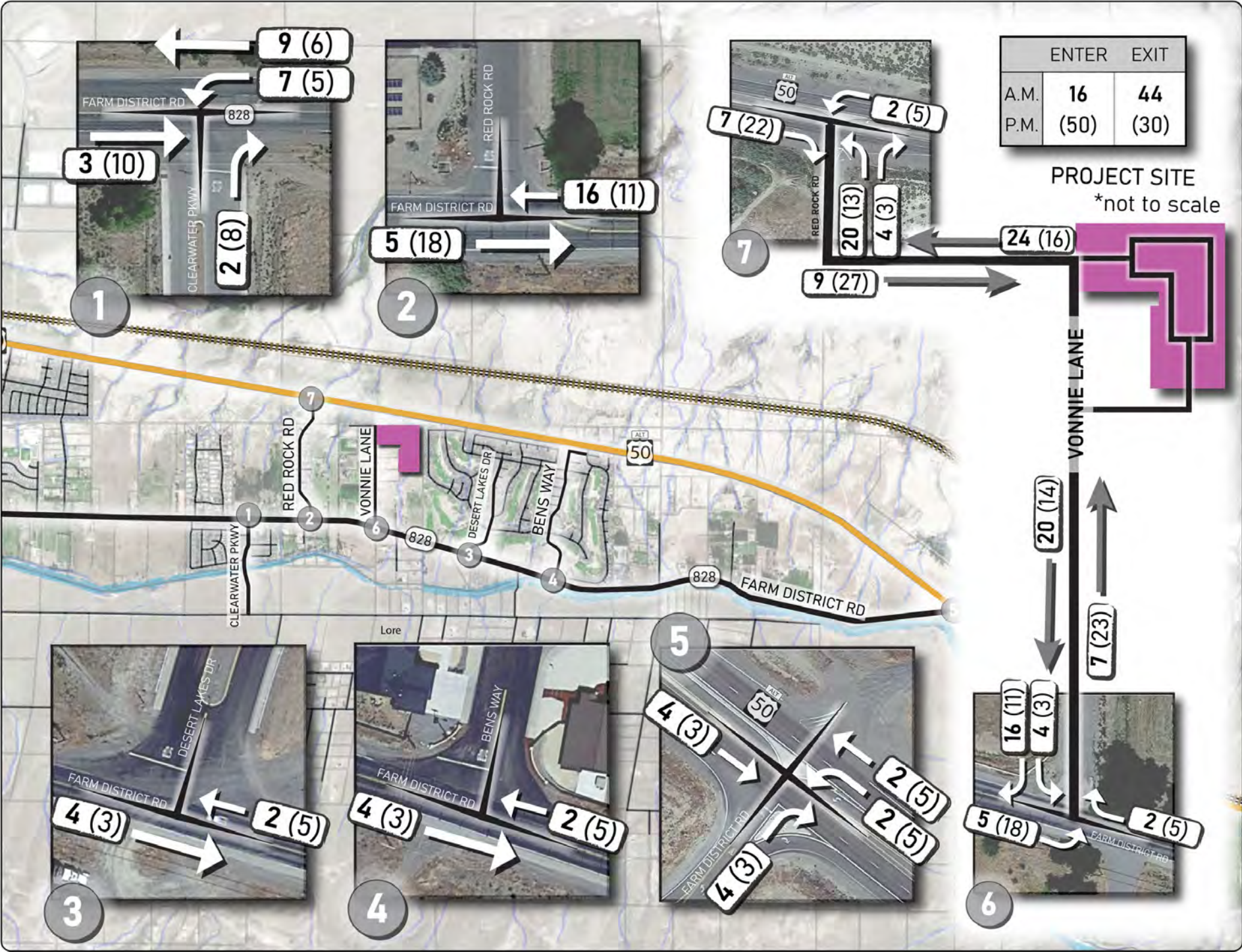
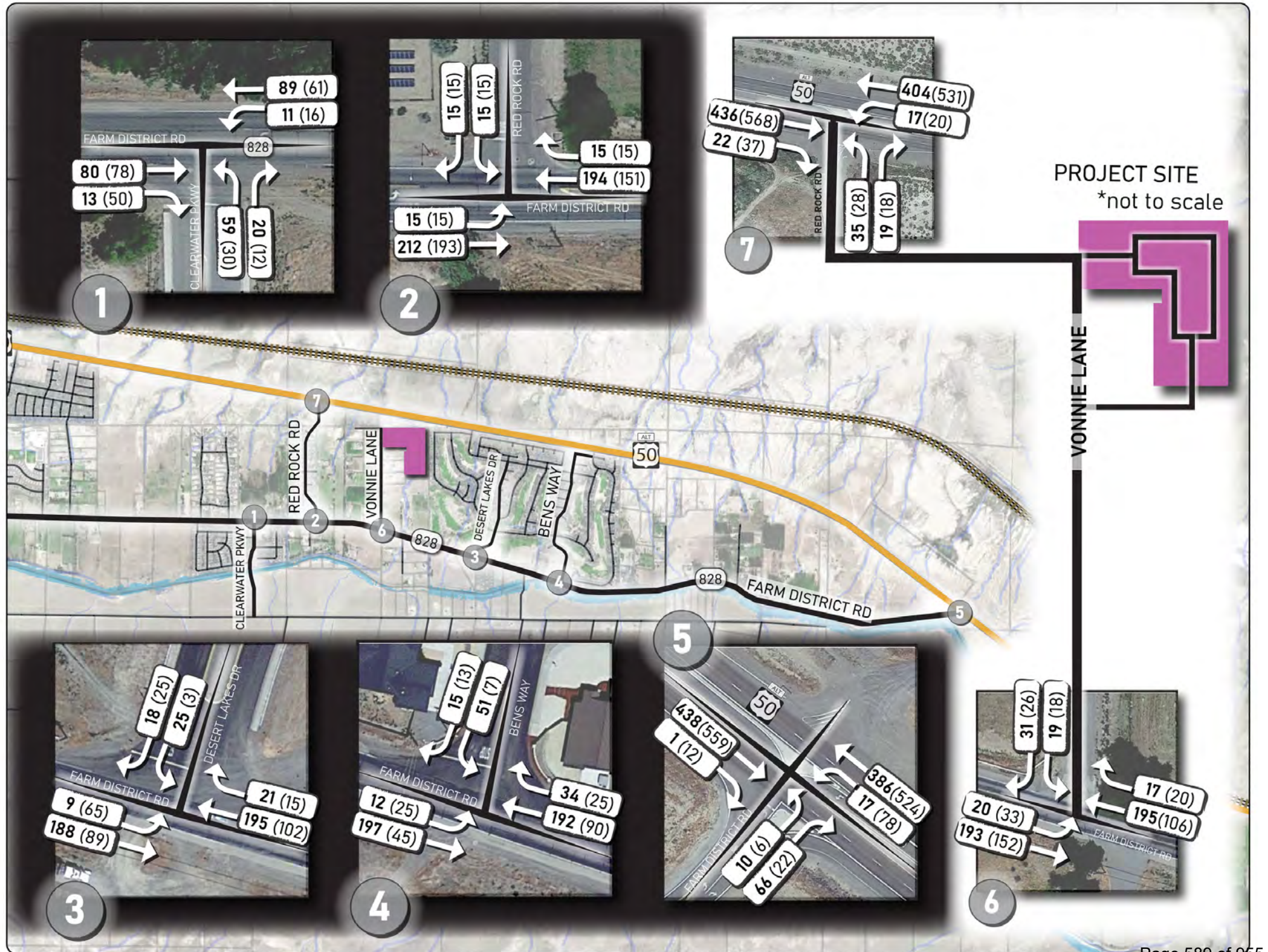


Figure 11: Long-Term Plus Project Traffic Volumes



5.6 Long-Term Impacts

Appendices C-5 (AM) and C-6 (PM) contain the calculation reports for long-term intersection operations without the project. **Appendices B-7 (AM) and B-8 (PM)** contain the calculation reports for long-term intersection operations with the project. These calculations are based on the Highway Capacity Manual methodology described in Section 2 just like in the existing impact analysis, except that the Peak Hour Factor is the default value of 0.92.

Table 8 shows the long-term impact of the project on the study intersections.

Table 8: Long-Term Project Impact on Intersection Operations

	Without Project		With Project	
	AM	PM	AM	PM
1: Clearwater Parkway at SR 828	A 9.6 (NB)	A 9.5 (NB)	B 10.0 (NB)	A 9.6 (NB)
2: Red Rock Road at SR 828	A 7.7 (SB)	B 10.2 (SB)	B 10.8 (SB)	B 10.4 (SB)
3: Desert Lakes Drive at SR 828	B 11.0 (SB)	A 9.2 (SB)	B 11.0 (SB)	A 9.2 (SB)
4: Bens Way at SR 828	B 11.9 (SB)	A 9.2 (SB)	B 11.9 (SB)	A 9.3 (SB)
5: US-50A at SR 828	B 12.9 (EB)	C 15.9 (EB)	B 13.0 (EB)	C 16.1 (EB)
6: Vonnies Lane at SR 828	B 10.8 (SB)	A 9.9 (SB)	B 10.8 (SB)	B 10.1 (SB)
7: Red Rock Road at US-50A	B 11.5 (NB)	B 12.7 (NB)	B 12.3 (NB)	B 13.5 (NB)

Source: Trafficware, *Synchro 11*

Source: Transportation Research Board, *Highway Capacity Manual, 6th Edition*

According to Table 8, all intersections would continue to operate acceptably under without and with project conditions; and the project would not have a significant adverse impact on any elements of the study area.

6.0 Findings and Recommendations

6.1 Findings

Findings from the near-term impact analysis are as follows:

1. All approaches to the study intersections would operate acceptably.
2. The project would not have a significant adverse impact on the surrounding transportation network.

Findings from the long-term impact analysis are as follows:

1. All approaches to the study intersections would continue to operate acceptably.
2. The project would not have a significant adverse impact on the surrounding transportation network.

6.2 Recommendations

Recommendations are as follows:

1. Upgrade the intersection of Vonnie Lane at SR 828 to NDOT Standards with dedicated left and right turn lanes and to accommodate applicable master planned improvements for SR 828.
2. Construct the site access to Vonnie Lane and site frontage improvements along Vonnie Lane to City of Fernley Standards.

7.0 Preliminary Vehicle Miles Traveled Analysis

7.1 Regulatory Context

On July 1, 2020, the new Vehicle Miles Traveled (VMT) metric took effect in California and replaced the traditional Level of Service (LOS) metric that had been in effect the past half century. Many additional states are incorporating elements of the new VMT metric to encourage urban infill, reduce vehicle trip lengths, encourage active transportation (walking, bicycling, transit riding, etc.), encourage more compact development, and boost the sustainability of mitigation measures. Specifically, this new VMT metric is intended to address these nine limitations associated with the traditional LOS metric:

1. “Punishing” last-in development projects, discouraging infill development, and encouraging a “sprawling” development pattern;
2. Creating regional congestion at the expense of solving local congestion issues;
3. Discouraging transit use;
4. Discouraging active transportation (walking, bicycling, transit riding, etc.);
5. Poorly measuring access to developments within the network;
6. Posing limitations on optimizing roadway networks;
7. Creating more roadway construction than jurisdictions can afford to maintain;
8. Posing calculation challenges and inaccuracies; and
9. Creating costly unhelpful solutions.

Specifically, the traditional LOS metric has served as a barrier to residential development through the imposition of costly transportation impact mitigation measures when the objective is to encourage residential development to address the housing crisis while boosting the sustainability of such measures.

Therefore, a preliminary VMT analysis was conducted in connection with this scoping report. VMT is generally calculated by multiplying the trip generation by the trip length on a per capita basis. A VMT impact is typically considered significant when it exceeds 85 percent of the average per capita VMT for a given area.

7.2 Potential VMT Reduction Measures

The Vonnie Lane study area was examined through a VMT context. While the *City of Fernley Comprehensive Master Plan* does not identify the study area as being capacity constrained relative to the more urbanized portions of the City, potential VMT reduction

measures could still be considered. Such measures are as follows:

1. Pedestrian pathways to US-50A to the north and SR 828 to the south to encourage increased transit use;
2. Inclusion of additional bicycle paths and lanes along SR 828 to encourage increased bicycle use; and
3. Provision of nearby employment centers, grocery stores, and shopping centers as development progresses further east, should the Community Development and Planning Departments be open to amendments to the City of Fernley Comprehensive Plan to accommodate such uses.

Appendix A: Brochure of Existing Geometric Conditions

Existing Geometric Conditions



Along SR 828 (Farm District Rd)

- Upper Right: Clearwater Pkwy: EBRT = 175 ft; WBLT = 100 ft + Center Turn Lane
- Lower Left: Red Rock Rd: EBLT = 100 ft + Center Turn Lane to the West
- Vonnie Lane: Gravel Roadway, No Turn Lanes on SR 828

(Photo Credits: Google Earth)

Along US-50A



SR 828 (Farm District Rd): Upper Left
EBLT = 100 ft; EBRT = 150 ft + 215 ft Accel;
NBLT = 500 ft; NBRT = 425 ft; SBRT = 425 ft
(Photo Credit: Google Earth)

Wedge Lane: Middle Right
EBRT = 425 ft; WBLT = 500 ft;
NBLT = 150 ft + 500 ft Accel;
NBRT = 200 ft + 215 ft Accel
(Photo Credit: Google Earth)



Red Rock Rd: Lower Left
EBRT = 375 ft
WBLT = 500 ft
NBLT = 50 ft + 500 ft Accel
NBRT = 50 ft + 135 ft Taper
(Photo Credit: Google Earth)

Appendix B: Numeric Analysis

Vonnie Lane Traffic Study (without Forster)

A1_Trip_Generation

Table A1.1: Inputs

Code	Land Use	Units	Quantity	Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	Dwelling Units	85	4.71	4.72	9.43	0.18	0.52	0.70	0.59	0.35	0.94

Table A1.2: Values

Code	Land Use	Units	Quantity	Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	Dwelling Units	85	401	401	802	16	44	60	50	30	80
Total				401	401	802	16	44	60	50	30	80

Table A1.3: Summary

	Land Use			Weekday			AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
	Residential Only			401	401	802	16	44	60	50	30	80

Vonnie Lane Traffic Study (Without Forster)

A2_Trip Distribution

Table A2.1: Near-Term Analysis

No	Description	Percent	Weekday			AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
1	Farm District w/o Clearwater	65.0%	260.7	260.7	521.3	10.4	28.6	39.0	32.5	19.5	52.0
2	US-50A w/o Wedge Lane	25.0%	100.3	100.3	200.5	4.0	11.0	15.0	12.5	7.5	20.0
3	US-50A e/o SR 828	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
	Total	100.0%	401	401	802	16	44	60	50	30	80

Table A2.2: Long-Term Analysis

No	Description	Percent	Weekday			AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
1	Farm District w/o Clearwater	20.0%	80.2	80.2	160.4	3.2	8.8	12.0	10.0	6.0	16.0
2	Clearwater s/o Farm District	15.0%	60.2	60.2	120.3	2.4	6.6	9.0	7.5	4.5	12.0
3	US-50A w/o Red Rock	45.0%	180.5	180.5	360.9	7.2	19.8	27.0	22.5	13.5	36.0
4	US-50A e/o Red Rock	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
5	US-50A e/o Red Rock via SR 828	10.0%	40.1	40.1	80.2	1.6	4.4	6.0	5.0	3.0	8.0
	Total	100.0%	401	401	802	16	44	60	50	30	80

Vonnie Lane Traffic Study (Without Forster)

A3_Trip Assignment

Table A3.1: Intersection AM: Near-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		11			29							
2	Red Rock Rd/SR 828		11			29							
3	Desert Lakes/SR 828		15			5							
4	Bens Way/SR 828	11	4			1							4
5	US-50A/SR 828			4				1					
6	Vonnie Ln/SR 828	11					5				15		29

Table A3.2: Intersection PM: Near-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		32			20							
2	Red Rock Rd/SR 828		32			20							
3	Desert Lakes/SR 828		10			18							
4	Bens Way/SR 828	7	3			5							13
5	US-50A/SR 828			3				5					
6	Vonnie Ln/SR 828	32					18				10		20

Table A3.3: Intersection AM: Long-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		3		7	9				2			
2	Red Rock Rd/SR 828		5			16							
3	Desert Lakes/SR 828		4			2							
4	Bens Way/SR 828		4			2							
5	US-50A/SR 828			4				2	2			4	
6	Vonnie Ln/SR 828	5					2				4		16
7	Red Rock Rd/US-50A			7	2			20		4			

Table A3.4: Intersection PM: Long-Term

No	Description	Eastbound			Westbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Clearwater/SR 828		10		5	6				8			
2	Red Rock Rd/SR 828		18			11							
3	Desert Lakes/SR 828		3			5							
4	Bens Way/SR 828		3			5							
5	US-50A/SR 828			3				5	5			3	
6	Vonnie Ln/SR 828	18					5				3		11
7	Red Rock Rd/US-50A			22	5			13		3			

Vonnie Lane Traffic Study

Table B1: Clearwater Parkway at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term			114	18	6	114		59		25		
Project			11			29						
NT w/Project			125	18	6	143		59		25		
Near-Term PM												
Near-Term			112	72	16	78		30		6		
Project			32			20						
NT w/Project			144	72	16	98		30		6		
Long-Term AM												
Long-Term			80	13	4	80		41		18		
Project			3		7	9				2		
LT w/Project			83	13	11	89		59		20		
Long-Term PM												
Long-Term			78	50	11	55		21		4		
Project			10		5	6				8		
LT w/Project			88	50	16	61		30		12		

Reduction

Factor 0.7

Wadsworth Bypass

Nevada Pacific Pkwy

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B2: Red Rock Road at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	10	139			120	10				10		10
Project		11			29							
NT w/Project	10	150			149	10				10		10
Near-Term PM												
Near-Term	10	118			94	10				10		10
Project		32			20							
NT w/Project	10	150			114	10				10		10
Long-Term AM												
Long-Term	15	207			178	15				15		15
Project		5			16							
LT w/Project	15	212			194	15				15		15
Long-Term PM												
Long-Term	15	175			140	15				15		15
Project		18			11							
LT w/Project	15	193			151	15				15		15
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B3: Desert Lakes Drive at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	Near-Term AM											
Near-Term	6	124			130	14				17		12
Project		15			5							
NT w/Project	6	139			135	14				17		12
Near-Term PM												
Near-Term	44	58			68	10				2		17
Project		10			18							
NT w/Project	44	68			86	10				2		17
Long-Term AM												
Long-Term	9	184			193	21				25		18
Project		4			2							
LT w/Project	9	188			195	21				25		18
Long-Term PM												
Long-Term	65	86			101	15				3		25
Project		3			5							
LT w/Project	65	89			106	15				3		25

Projection

Year 2017	540
Year 2040	852
Growth Rate	2.0%

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B4: Bens Way at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	8	130			128	23				34		10
Project	11	4			5							4
NT w/Project	19	134			133	23				34		14
Near-Term PM												
Near-Term	17	28			57	17				5		9
Project	7	3			5							13
NT w/Project	24	31			62	17				5		22
Long-Term AM												
Long-Term	12	193			190	34				51		15
Project		4			2							
LT w/Project	12	197			192	34				51		15
Long-Term PM												
Long-Term	25	42			85	25				7		13
Project		3			5							
LT w/Project	25	45			90	25				7		13
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B5: US-50A at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	7		42				10	258			292	1
Project			4				1					
NT w/Project	7		46				11	258			292	1
Near-Term PM												
Near-Term	4		13				49	349			374	8
Project			3				5					
NT w/Project	4		16				54	349			374	8
Long-Term AM												
Long-Term	10		62				15	384			434	1
Project			4				2	2			4	
LT w/Project	10		66				17	386			438	1
Long-Term PM												
Long-Term	6		19				73	519			556	12
Project			3				5	5			3	
LT w/Project	6		22				78	524			559	12

Projection

Year 2017	540
Year 2040	852
Growth Rate	2.0%

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B6: Vonnie Lane at SR 828

	Eastbound			Westbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Near-Term AM												
Near-Term	10	130			142	10				10		10
Project	11					5				15		29
NT w/Project	21	130			142	15				25		39
Near-Term PM												
Near-Term	10	102			85	10				10		10
Project	32					18				10		20
NT w/Project	42	102			85	28				20		30
Long-Term AM												
Long-Term	15	193			211	15				15		15
Project	5					2				4		16
LT w/Project	20	193			211	17				19		31
Long-Term PM												
Long-Term	15	152			126	15				15		15
Project	18					5				3		11
LT w/Project	33	152			126	20				18		26
Projection												
Year 2017	540											
Year 2040	852											
Growth Rate	2.0%											

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table B7: Red Rock Road at US-50A

Eastbound			Westbound			Northbound			Southbound			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Near-Term AM												
Near-Term		293	10	10	272		10		10			
Project			0	0			0		0			
NT w/Project			10				10					
Near-Term PM												
Near-Term		382	10	10	357		10		10			
Project			0	0			0		0			
NT w/Project			10				10					
Long-Term AM												
Long-Term		436	15	15	404		15		15			
Project			7	2			20		4			
LT w/Project		436	22	17	404		35		19			
Long-Term PM												
Long-Term		568	15	15	531		15		15			
Project			22	5			13		3			
LT w/Project		568	37	20	531		28		18			
Projection												
Year 2017		540										
Year 2040		852										
Growth Rate		2.0%										

Source: Nevada DOT Annual Traffic Report Count Station No. 35

Vonnie Lane Traffic Study

Table C1: PM Peak Hour Turning Movements

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Vol
1: Clearwater Parkway at SR 828	0	112	72	16	78	0	30	0	26	0	0	0	334
2: Red Rock Road at SR 828	10	118	0	0	94	10	0	0	0	10	0	10	252
3: Desert Lakes Drive at SR 828	44	58	0	0	68	10	0	0	0	2	0	17	199
4: Bens Way at SR 828	17	28	0	0	57	17	0	0	0	5	0	9	133
5: US-50A at SR 828	4	0	13	0	0	0	49	349	0	0	0	0	415
6: Vonnie Lane at SR 828	10	102	0	0	85	10	0	0	0	10	0	10	227

Remarks

Per Data Collected by National Data and Surveying Services on Tuesday, January 4, 2022

Table C2: Severity Analysis

Intersection	FAT		INJ		PDO		TOT
	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	0	0	1	100%	0	0	1

Remarks

FAT: Fatalities

INJ: Injuries

PDO: Property Damage Only

TOT: Total

Table C3: Type Analysis

Intersection	Type 1		Type 2		Type 3		Other		TOT
	No	%	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	1	100%	0	0	0	0	0	0	1

Remarks

Type 1: Most Common Type: Rear-End

Type 2: Second Most Common Type

Type 3: Third Most Common Type

Other: Other Types not within the Top 3 Ranks

TOT: Total

Vonnie Lane Traffic Study

Table C4: Cause Analysis

Intersection	Cause 1		Cause 2		Cause 3		Other		TOT
	No	%	No	%	No	%	No	%	
1: Clearwater Parkway at SR 828	1	100%	0	0	0	0	0	0	1

Remarks

Type 1: Most Common Cause: Following Too Closely

Type 2: Second Most Common Cause

Type 3: Third Most Common Cause

Other: Other Causes not within the Top 3 Ranks

TOT: Total

Table C5: Rate Analysis

Intersection	TOT	YR	Vol	K	Days	Rate
1: Clearwater Parkway at SR 828	1	3	334	10	365	0.273

Remarks

TOT: Total Collisions

YR: Number of Years of Data

Vol: Volume Entering Intersection during PM Peak Hour

K: K-Factor: (Weekday Volume)/(PM Peak Hour Volume)

Days: Number of Days in Year

Rate: Per Million Entering Vehicles Per Year = $((TOT) * (1E6)) / ((YR) * (Vol) * (K) * (Days))$

Vonnie Lane Traffic Study: Turn Lane Warrant Analysis

Table D1: Peak Hour Turning Movements at Vonnie Lane at SR 828

Scenario	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	WBR	WBTR	EBL	EBTL
NT+P AM	21	130	0	0	142	15	0	0	0	25	0	39	15	157	21	151
NT+P PM	42	102	0	0	85	28	0	0	0	20	0	30	28	113	42	144
LT+P AM	20	193	0	0	211	17	0	0	0	19	0	31	17	228	20	213
LT+P PM	33	152	0	0	126	20	0	0	0	18	0	26	20	146	33	185

Remarks for Table D1:

Source: Nevada DOT Access Management System and Standards (2017 Edition)

NT+P: Near-Term Plus Project per Figure 7 of the Vonnie Lane Traffic Study

LT+P: Long-Term Plus Project per Figure 11 of the Vonnie Lane Traffic Study

AM: AM Peak Hour (4 Highest Consecutive 15-minute intervals between 7:00 and 9:00)

PM: PM Peak Hour (4 Highest Consecutive 15-minute intervals between 4:00 and 6:00)

WBR: Turning Volume per Table 4-16 (Two-Lane Roadways in Urban Areas)

WBTR: Directional Volume in Through Lane (Right + Through) per Table 4-16 (Two-Lane Roadways in Urban Areas)

EBL: Turning Volume per Table 4-12 (Two-Lane Roadways in Urban Areas)

EBTL: Directional Volume in Through Lane (Left + Through) per Table 4-12 (Two-Lane Roadways in Urban Areas)

Table D2: Turn Lane Warrant Analysis

Vonnie Lane at SR 828 (Left and Right)										
Scenario	EBL		EBTL		Left Lane?	WBR		WBTR		Right Lane?
	Act	Min	Act	Min		Act	Min	Act	Min	
NT+P	42	30	144	0	Yes	28	28	113	114	No
LT+P	33	30	185	0	Yes	20	20	146	140	Yes

Remarks for Table D2:

Act: Actual from Parts 1 and 2 and Higher of AM or PM

Min: Minimum to Trigger Satisfaction of Turn Lane Warrant

Right Lane?: Right Turn Lane Warrant Satisfied? Yes or No per Table 4-16

Left Lane?: Left Turn Lane Warrant Satisfied? Yes or No per Table 4-12

SR 828 Posted Speed Limit: 55 MPH

SR 828 Functional Classification: Minor Arterial

Vonnie Lane at SR 828 Progressive Signal Warrant Analysis

Table E1: Peak Hour Turning Movements

Scenario	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Major St	Minor St
NT+P AM	21	130	0	0	142	15	0	0	0	25	0	39	308	64
NT+P PM	42	102	0	0	85	28	0	0	0	20	0	30	257	50
LT+P AM	20	193	0	0	211	17	0	0	0	19	0	31	441	50
LT+P PM	33	152	0	0	126	20	0	0	0	18	0	26	331	44

Remarks for Table E1:

NT+P: Near-Term Plus Project per Figure 5 of the 600 West Main Street Traffic Study

LT+P: Long-Term Plus Project per Figure 7 of the 600 West Main Street Traffic Study

AM: AM Peak Hour (4 Highest Consecutive 15-minute intervals between 7:00 and 9:00)

PM: PM Peak Hour (4 Highest Consecutive 15-minute intervals between 4:00 and 6:00)

Major St: Total of both major street (eastbound and westbound) approaches per MUTCD Figure 4C-4

Minor St: Higher minor street (northbound or southbound) approach per MUTCD Figure 4C-4

MUTCD: Manual on Uniform Traffic Control Devices

Table E2: Peak Hour Warrant Analysis

	Major St		Minor St		Sig?	SB
Scenario	Act	Min	Act	Min		Deficient?
NT+P	308	1300	64	320	No	256
LT+P	441	1300	50	240	No	190

Remarks for Table E2:

Act: Actual from Part 1 and Higher of AM or PM

Min: Minimum to Trigger Satisfaction of Signal Warrant

Sig?: Peak Hour Signal Warrant Satisfied? Yes or No (Based on 1 Thru Lane Major and 1 Thru Lane Minor)

SB Deficient? Amount of Additional Southbound Traffic to Satisfy Peak Hour Warrant

Appendix C: Level of Service Analysis

Appendix C-1: Near-Term AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	18	6	114	59	25
Future Vol, veh/h	114	18	6	114	59	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	181	29	10	181	94	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	210	0	382	181
Stage 1	-	-	-	-	181	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1361	-	620	862
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1361	-	616	862
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	827	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		11.2	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	713	-	-	1361	-	
HCM Lane V/C Ratio	0.187	-	-	0.007	-	
HCM Control Delay (s)	11.2	-	-	7.7	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.7	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	130	120	10	10	10
Future Vol, veh/h	10	130	120	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	141	130	11	11	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	141	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1442	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1442	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.7
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1442	-	-	-	783
HCM Lane V/C Ratio	0.008	-	-	-	0.028
HCM Control Delay (s)	7.5	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	124	130	14	17	12
Future Vol, veh/h	6	124	130	14	17	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	49	49	49	49	49	49
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	253	265	29	35	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	294	0	-	0	557	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	277	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1268	-	-	-	491	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1268	-	-	-	486	759
Mov Cap-2 Maneuver	-	-	-	-	486	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	770	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		12		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1268	-	-	-	571	
HCM Lane V/C Ratio	0.01	-	-	-	0.104	
HCM Control Delay (s)	7.9	0	-	-	12	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	130	128	23	34	10
Future Vol, veh/h	8	130	128	23	34	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	46	46	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	283	278	50	74	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	328	0	-	0	620	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1232	-	-	-	452	737
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1232	-	-	-	445	737
Mov Cap-2 Maneuver	-	-	-	-	445	-
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	738	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		14.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1232	-	-	-	489	
HCM Lane V/C Ratio	0.014	-	-	-	0.196	
HCM Control Delay (s)	8	0	-	-	14.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	7	42	292	1	10	258
Future Vol, veh/h	7	42	292	1	10	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	45	314	1	11	277
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	475	-	0	0	314	0
Stage 1	314	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	519	0	-	-	1243	-
Stage 1	714	0	-	-	-	-
Stage 2	851	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	514	-	-	-	1243	-
Mov Cap-2 Maneuver	583	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1243	-	583	-	-	-
HCM Lane V/C Ratio	0.009	-	0.013	-	-	-
HCM Control Delay (s)	7.9	-	11.3	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	130	142	10	10	10
Future Vol, veh/h	10	130	142	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	141	154	11	11	11
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	165	0	-	0	317	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1413	-	-	-	676	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1413	-	-	-	671	892
Mov Cap-2 Maneuver	-	-	-	-	671	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	866	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1413	-	-	-	766	
HCM Lane V/C Ratio	0.008	-	-	-	0.028	
HCM Control Delay (s)	7.6	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Appendix C-2: Near-Term PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘↗	
Traffic Vol, veh/h	112	72	16	78	30	6
Future Vol, veh/h	112	72	16	78	30	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	80	18	87	33	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	204	0	247	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1368	-	741	927
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	731	927
Mov Cap-2 Maneuver	-	-	-	-	742	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	890	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	768	-	-	1368	-	
HCM Lane V/C Ratio	0.052	-	-	0.013	-	
HCM Control Delay (s)	9.9	-	-	7.7	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	118	94	10	10	10
Future Vol, veh/h	10	118	94	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	128	102	11	11	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	113	0	-	0	258	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	150	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1476	-	-	-	731	946
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	878	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1476	-	-	-	726	946
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	878	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		9.5		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1476	-	-	-	822	
HCM Lane V/C Ratio	0.007	-	-	-	0.026	
HCM Control Delay (s)	7.5	-	-	-	9.5	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	58	68	10	2	17
Future Vol, veh/h	44	58	68	10	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	61	72	11	2	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	83	0	-	0	231	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1514	-	-	-	757	983
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1514	-	-	-	734	983
Mov Cap-2 Maneuver	-	-	-	-	734	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	875	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		8.9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1514	-	-	-	949	
HCM Lane V/C Ratio	0.031	-	-	-	0.021	
HCM Control Delay (s)	7.5	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	28	57	17	5	9
Future Vol, veh/h	17	28	57	17	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	33	67	20	6	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	87	0	0 150 77
Stage 1	-	-	- 77 -
Stage 2	-	-	- 73 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1509	-	- 842 984
Stage 1	-	-	- 946 -
Stage 2	-	-	- 950 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1509	-	- 830 984
Mov Cap-2 Maneuver	-	-	- 830 -
Stage 1	-	-	- 933 -
Stage 2	-	-	- 950 -

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	923
HCM Lane V/C Ratio	0.013	-	-	-	0.018
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	4	13	374	8	49	349
Future Vol, veh/h	4	13	374	8	49	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	14	394	8	52	367
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	682	-	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	384	0	-	-	1161	-
Stage 1	650	0	-	-	-	-
Stage 2	735	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	367	-	-	-	1161	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.6	0	1			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1161	-	475	-	-	-
HCM Lane V/C Ratio	0.044	-	0.009	-	-	-
HCM Control Delay (s)	8.2	-	12.6	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	102	85	10	10	10
Future Vol, veh/h	10	102	85	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	111	92	11	11	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	103	0	-	0	225	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	133	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1489	-	-	-	763	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	893	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	758	965
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	893	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1489	-	-	-	849	
HCM Lane V/C Ratio	0.007	-	-	-	0.026	
HCM Control Delay (s)	7.4	-	-	-	9.4	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Appendix C-3: Near-Term Plus Project AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	18	6	143	59	25
Future Vol, veh/h	125	18	6	143	59	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	198	29	10	227	94	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	227	0	445	198
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1341	-	571	843
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	794	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	567	843
Mov Cap-2 Maneuver	-	-	-	-	628	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	788	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	680	-	-	1341	-	
HCM Lane V/C Ratio	0.196	-	-	0.007	-	
HCM Control Delay (s)	11.6	-	-	7.7	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.7	-	-	0	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	150	149	10	10	10
Future Vol, veh/h	10	150	149	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	163	162	11	11	11
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	173	0	-	0	353	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1404	-	-	-	645	876
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	847	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1404	-	-	-	640	876
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	847	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1404	-	-	-	740	
HCM Lane V/C Ratio	0.008	-	-	-	0.029	
HCM Control Delay (s)	7.6	-	-	-	10	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	139	135	14	17	12
Future Vol, veh/h	6	139	135	14	17	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	49	49	49	49	49	49
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	284	276	29	35	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	305	0	-	0	599	291
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1256	-	-	-	465	748
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1256	-	-	-	460	748
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	745	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		12.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1256	-	-	-	547	
HCM Lane V/C Ratio	0.01	-	-	-	0.108	
HCM Control Delay (s)	7.9	0	-	-	12.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	134	133	23	34	14
Future Vol, veh/h	19	134	133	23	34	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	46	46	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	291	289	50	74	30
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	339	0	-	0	687	314
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1220	-	-	-	413	726
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1220	-	-	-	396	726
Mov Cap-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	696	-
Approach	EB	WB		SB		
HCM Control Delay, s	1	0		15.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1220	-	-	-	457	
HCM Lane V/C Ratio	0.034	-	-	-	0.228	
HCM Control Delay (s)	8.1	0	-	-	15.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	7	46	292	1	11	258
Future Vol, veh/h	7	46	292	1	11	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	49	314	1	12	277
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	477	-	0	0	314	0
Stage 1	314	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	517	0	-	-	1243	-
Stage 1	714	0	-	-	-	-
Stage 2	849	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	512	-	-	-	1243	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	11.3	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1243	-	582	-	-	-
HCM Lane V/C Ratio	0.01	-	0.013	-	-	-
HCM Control Delay (s)	7.9	-	11.3	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	130	142	15	25	39
Future Vol, veh/h	21	130	142	15	25	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	141	154	16	27	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	170	0	-	0	341	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1407	-	-	-	655	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	845	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1407	-	-	-	645	892
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	845	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		10.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1407	-	-	-	776	
HCM Lane V/C Ratio	0.016	-	-	-	0.09	
HCM Control Delay (s)	7.6	-	-	-	10.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Appendix C-4: Near-Term Plus Project PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	144	72	16	98	30	6
Future Vol, veh/h	144	72	16	98	30	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	80	18	109	33	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	240	0	305	160
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1327	-	687	885
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1327	-	677	885
Mov Cap-2 Maneuver	-	-	-	-	706	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	870	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		10.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	731	-	-	1327	-	
HCM Lane V/C Ratio	0.055	-	-	0.013	-	
HCM Control Delay (s)	10.2	-	-	7.8	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	150	114	10	10	10
Future Vol, veh/h	10	150	114	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	163	124	11	11	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	135	0	-	0	315	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1449	-	-	-	678	920
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	847	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1449	-	-	-	673	920
Mov Cap-2 Maneuver	-	-	-	-	673	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	847	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		9.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1449	-	-	-	777	
HCM Lane V/C Ratio	0.008	-	-	-	0.028	
HCM Control Delay (s)	7.5	-	-	-	9.8	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	68	86	10	2	17
Future Vol, veh/h	44	68	86	10	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	72	91	11	2	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	102	0	-	0	261	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1490	-	-	-	728	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1490	-	-	-	705	959
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	865	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.9	0		9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1490	-	-	-	924	
HCM Lane V/C Ratio	0.031	-	-	-	0.022	
HCM Control Delay (s)	7.5	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	31	62	17	5	22
Future Vol, veh/h	24	31	62	17	5	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	36	73	20	6	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	93	0	-	0	175	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1501	-	-	-	815	976
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1501	-	-	-	800	976
Mov Cap-2 Maneuver	-	-	-	-	800	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	932	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1501	-	-	-	938	
HCM Lane V/C Ratio	0.019	-	-	-	0.034	
HCM Control Delay (s)	7.4	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	4	16	374	8	54	349
Future Vol, veh/h	4	16	374	8	54	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	17	394	8	57	367
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	692	-	0	0	394	0
Stage 1	394	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	378	0	-	-	1161	-
Stage 1	650	0	-	-	-	-
Stage 2	727	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	359	-	-	-	1161	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.7	0	1.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1161	-	469	-	-	-
HCM Lane V/C Ratio	0.049	-	0.009	-	-	-
HCM Control Delay (s)	8.3	-	12.7	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0	-	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	102	85	28	20	30
Future Vol, veh/h	42	102	85	28	20	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	111	92	30	22	33
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	122	0	-	0	295	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1465	-	-	-	696	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1465	-	-	-	674	965
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	831	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		9.7		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1465	-	-	-	823	
HCM Lane V/C Ratio	0.031	-	-	-	0.066	
HCM Control Delay (s)	7.5	-	-	-	9.7	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

Appendix C-5: Long-Term AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘↗	
Traffic Vol, veh/h	80	13	4	80	41	18
Future Vol, veh/h	80	13	4	80	41	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	14	4	87	45	20
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	101	0	182	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1491	-	807	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1491	-	805	971
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	926	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		9.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	839	-	-	1491	-	
HCM Lane V/C Ratio	0.076	-	-	0.003	-	
HCM Control Delay (s)	9.6	-	-	7.4	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	207	178	15	15	15
Future Vol, veh/h	15	207	178	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	225	193	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	209	0	-	0	458	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	257	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1362	-	-	-	561	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	554	840
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	786	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		10.7		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1362	-	-	-	668	
HCM Lane V/C Ratio	0.012	-	-	-	0.049	
HCM Control Delay (s)	7.7	-	-	-	10.7	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	184	193	21	25	18
Future Vol, veh/h	9	184	193	21	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	200	210	23	27	20
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	233	0	-	0	442	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1335	-	-	-	573	818
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1335	-	-	-	568	818
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	817	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1335	-	-	-	651	
HCM Lane V/C Ratio	0.007	-	-	-	0.072	
HCM Control Delay (s)	7.7	0	-	-	11	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	193	190	34	51	15
Future Vol, veh/h	12	193	190	34	51	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	210	207	37	55	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	244	0	0 462 226
Stage 1	-	-	- 226 -
Stage 2	-	-	- 236 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1322	-	- 558 813
Stage 1	-	-	- 812 -
Stage 2	-	-	- 803 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1322	-	- 552 813
Mov Cap-2 Maneuver	-	-	- 552 -
Stage 1	-	-	- 803 -
Stage 2	-	-	- 803 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1322	-	-	-	595
HCM Lane V/C Ratio	0.01	-	-	-	0.121
HCM Control Delay (s)	7.8	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	10	62	434	1	15	384
Future Vol, veh/h	10	62	434	1	15	384
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	67	472	1	16	417
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	713	-	0	0	472	0
Stage 1	472	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	366	0	-	-	1086	-
Stage 1	594	0	-	-	-	-
Stage 2	776	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	361	-	-	-	1086	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	12.9	0	0.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1086	-	464	-	-	-
HCM Lane V/C Ratio	0.015	-	0.023	-	-	-
HCM Control Delay (s)	8.4	-	12.9	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	193	211	15	15	15
Future Vol, veh/h	15	193	211	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	210	229	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	245	0	-	0	471	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1321	-	-	-	551	810
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1321	-	-	-	544	810
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1321	-	-	-	651	
HCM Lane V/C Ratio	0.012	-	-	-	0.05	
HCM Control Delay (s)	7.8	-	-	-	10.8	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	436	15	15	404	15	15
Future Vol, veh/h	436	15	15	404	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	16	16	439	16	16
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	490	0	726	237
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	252	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1070	-	360	764
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1070	-	355	764
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	755	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	460	764	-	-	1070	-
HCM Lane V/C Ratio	0.035	0.021	-	-	0.015	-
HCM Control Delay (s)	13.1	9.8	-	-	8.4	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-

Appendix C-6: Long-Term PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	78	50	11	55	21	4
Future Vol, veh/h	78	50	11	55	21	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	56	12	61	23	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	172	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1440	-	818	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	811	971
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	930	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		9.5	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	820	-	-	1440	-	
HCM Lane V/C Ratio	0.034	-	-	0.008	-	
HCM Control Delay (s)	9.5	-	-	7.5	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	175	140	15	15	15
Future Vol, veh/h	15	175	140	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	190	152	16	16	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	168	0	0 382 160
Stage 1	-	-	- 160 -
Stage 2	-	-	- 222 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1410	-	- 620 885
Stage 1	-	-	- 869 -
Stage 2	-	-	- 815 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1410	-	- 613 885
Mov Cap-2 Maneuver	-	-	- 613 -
Stage 1	-	-	- 859 -
Stage 2	-	-	- 815 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	724
HCM Lane V/C Ratio	0.012	-	-	-	0.045
HCM Control Delay (s)	7.6	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	86	101	15	3	25
Future Vol, veh/h	65	86	101	15	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	93	110	16	3	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	126	0	-	0	353	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1460	-	-	-	645	934
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1460	-	-	-	612	934
Mov Cap-2 Maneuver	-	-	-	-	612	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	804	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.3	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1460	-	-	-	884	
HCM Lane V/C Ratio	0.048	-	-	-	0.034	
HCM Control Delay (s)	7.6	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	42	85	25	7	13
Future Vol, veh/h	25	42	85	25	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	46	92	27	8	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	119	0	-	0	206	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1469	-	-	-	782	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1469	-	-	-	767	948
Mov Cap-2 Maneuver	-	-	-	-	767	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	924	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.8	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1469	-	-	-	876	
HCM Lane V/C Ratio	0.018	-	-	-	0.025	
HCM Control Delay (s)	7.5	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	6	19	556	12	73	519
Future Vol, veh/h	6	19	556	12	73	519
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	21	604	13	79	564
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1044	-	0	0	604	0
Stage 1	604	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	225	0	-	-	970	-
Stage 1	508	0	-	-	-	-
Stage 2	616	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	207	-	-	-	970	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	15.9	0	1.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	970	-	338	-	-	-
HCM Lane V/C Ratio	0.082	-	0.019	-	-	-
HCM Control Delay (s)	9	-	15.9	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	152	126	15	15	15
Future Vol, veh/h	15	152	126	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	165	137	16	16	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	153	0	-	0	334	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	197	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1428	-	-	-	661	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1428	-	-	-	654	911
Mov Cap-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	836	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.9		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1428	-	-	-	761	
HCM Lane V/C Ratio	0.011	-	-	-	0.043	
HCM Control Delay (s)	7.5	-	-	-	9.9	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	568	15	15	531	15	15
Future Vol, veh/h	568	15	15	531	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	16	16	577	16	16
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	633	0	938	309
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	946	-	263	687
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	946	-	259	687
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	696	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.7	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	379	687	-	-	946	-
HCM Lane V/C Ratio	0.043	0.024	-	-	0.017	-
HCM Control Delay (s)	14.9	10.4	-	-	8.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Appendix C-7: Long-Term Plus Project AM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘↗	
Traffic Vol, veh/h	83	13	11	89	59	20
Future Vol, veh/h	83	13	11	89	59	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	14	12	97	64	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	211	90
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1488	-	777	968
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	771	968
Mov Cap-2 Maneuver	-	-	-	-	769	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	897	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		10	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	811	-	-	1488	-	
HCM Lane V/C Ratio	0.106	-	-	0.008	-	
HCM Control Delay (s)	10	-	-	7.4	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	212	194	15	15	15
Future Vol, veh/h	15	212	194	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	230	211	16	16	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	227	0	0	481	219
Stage 1	-	-	-	219	-
Stage 2	-	-	-	262	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1341	-	-	544	821
Stage 1	-	-	-	817	-
Stage 2	-	-	-	782	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1341	-	-	537	821
Mov Cap-2 Maneuver	-	-	-	537	-
Stage 1	-	-	-	807	-
Stage 2	-	-	-	782	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1341	-	-	-	649
HCM Lane V/C Ratio	0.012	-	-	-	0.05
HCM Control Delay (s)	7.7	-	-	-	10.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	188	195	21	25	18
Future Vol, veh/h	9	188	195	21	25	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	204	212	23	27	20
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	235	0	-	0	448	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	224	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1332	-	-	-	568	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1332	-	-	-	563	815
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	813	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1332	-	-	-	647	
HCM Lane V/C Ratio	0.007	-	-	-	0.072	
HCM Control Delay (s)	7.7	0	-	-	11	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	197	192	34	51	15
Future Vol, veh/h	12	197	192	34	51	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	214	209	37	55	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	246	0	0 468 228
Stage 1	-	-	- 228 -
Stage 2	-	-	- 240 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1320	-	- 553 811
Stage 1	-	-	- 810 -
Stage 2	-	-	- 800 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1320	-	- 547 811
Mov Cap-2 Maneuver	-	-	- 547 -
Stage 1	-	-	- 801 -
Stage 2	-	-	- 800 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	591
HCM Lane V/C Ratio	0.01	-	-	-	0.121
HCM Control Delay (s)	7.8	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	10	66	438	1	17	386
Future Vol, veh/h	10	66	438	1	17	386
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	72	476	1	18	420
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	722	-	0	0	476	0
Stage 1	476	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Critical Hdwy	6.84	-	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	-	-	-	2.22	-
Pot Cap-1 Maneuver	362	0	-	-	1082	-
Stage 1	591	0	-	-	-	-
Stage 2	772	0	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	356	-	-	-	1082	-
Mov Cap-2 Maneuver	460	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Approach	EB	SE	NW			
HCM Control Delay, s	13	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	1082	-	460	-	-	-
HCM Lane V/C Ratio	0.017	-	0.024	-	-	-
HCM Control Delay (s)	8.4	-	13	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	193	211	17	19	31
Future Vol, veh/h	20	193	211	17	19	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	210	229	18	21	34
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	247	0	-	0	483	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1319	-	-	-	542	810
Stage 1	-	-	-	-	809	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	533	810
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	788	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1319	-	-	-	-	676
HCM Lane V/C Ratio	0.016	-	-	-	-	0.08
HCM Control Delay (s)	7.8	-	-	-	-	10.8
HCM Lane LOS	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Vol, veh/h	436	22	17	404	35	19
Future Vol, veh/h	436	22	17	404	35	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	474	24	18	439	38	21
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	498	0	730	237
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1062	-	357	764
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1062	-	351	764
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	750	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		12.3	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	458	764	-	-	1062	-
HCM Lane V/C Ratio	0.083	0.027	-	-	0.017	-
HCM Control Delay (s)	13.6	9.8	-	-	8.4	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Appendix C-8: Long-Term Plus Project PM

HCM 6th TWSC
1: Clearwater Pkwy & SR 828

02/09/2022

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘↗	
Traffic Vol, veh/h	88	50	16	61	30	12
Future Vol, veh/h	88	50	16	61	30	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	54	17	66	33	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	150	0	196	96
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1431	-	793	960
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1431	-	783	960
Mov Cap-2 Maneuver	-	-	-	-	777	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	913	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		9.6	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	822	-	-	1431	-	
HCM Lane V/C Ratio	0.056	-	-	0.012	-	
HCM Control Delay (s)	9.6	-	-	7.5	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	193	151	15	15	15
Future Vol, veh/h	15	193	151	15	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	210	164	16	16	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	180	0	0 414 172
Stage 1	-	-	- 172 -
Stage 2	-	-	- 242 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1396	-	- 595 872
Stage 1	-	-	- 858 -
Stage 2	-	-	- 798 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1396	-	- 588 872
Mov Cap-2 Maneuver	-	-	- 588 -
Stage 1	-	-	- 849 -
Stage 2	-	-	- 798 -

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1396	-	-	-	702
HCM Lane V/C Ratio	0.012	-	-	-	0.046
HCM Control Delay (s)	7.6	-	-	-	10.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	89	106	15	3	25
Future Vol, veh/h	65	89	106	15	3	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	97	115	16	3	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	131	0	-	0	362	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1454	-	-	-	637	928
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	604	928
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	801	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1454	-	-	-	878	
HCM Lane V/C Ratio	0.049	-	-	-	0.035	
HCM Control Delay (s)	7.6	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	

HCM 6th TWSC
4: SR 828 & Bens Way

02/09/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	45	90	25	7	13
Future Vol, veh/h	25	45	90	25	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	49	98	27	8	14
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	125	0	-	0	215	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1462	-	-	-	773	941
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1462	-	-	-	758	941
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	921	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.7	0		9.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1462	-	-	-	868	
HCM Lane V/C Ratio	0.019	-	-	-	0.025	
HCM Control Delay (s)	7.5	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	6	22	559	12	78	524
Future Vol, veh/h	6	22	559	12	78	524
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Yield	-	None
Storage Length	100	-	-	425	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	24	608	13	85	570

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1063	-	0
Stage 1	608	-	-
Stage 2	455	-	-
Critical Hdwy	6.84	-	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	-	2.22
Pot Cap-1 Maneuver	218	0	966
Stage 1	506	0	-
Stage 2	606	0	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	199	-	966
Mov Cap-2 Maneuver	332	-	-
Stage 1	506	-	-
Stage 2	553	-	-

Approach	EB	SE	NW
HCM Control Delay, s	16.1	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NWL	NWT	EBLn1	EBLn2	SET	SER
Capacity (veh/h)	966	-	332	-	-	-
HCM Lane V/C Ratio	0.088	-	0.02	-	-	-
HCM Control Delay (s)	9.1	-	16.1	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	152	126	20	18	26
Future Vol, veh/h	33	152	126	20	18	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	165	137	22	20	28
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	159	0	-	0	374	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	237	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1420	-	-	-	627	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1420	-	-	-	611	911
Mov Cap-2 Maneuver	-	-	-	-	611	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	802	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.4	0		10.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1420	-	-	-	759	
HCM Lane V/C Ratio	0.025	-	-	-	0.063	
HCM Control Delay (s)	7.6	-	-	-	10.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	568	37	20	531	28	18
Future Vol, veh/h	568	37	20	531	28	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	375	500	-	-	50
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	617	40	22	577	30	20
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	657	0	950	309
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	926	-	258	687
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	926	-	252	687
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	681	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		13.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	374	687	-	-	926	-
HCM Lane V/C Ratio	0.081	0.028	-	-	0.023	-
HCM Control Delay (s)	15.5	10.4	-	-	9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Conditions of Approval for TSM22003

Tentative Subdivision Map

1. APPROVAL:

THE PROJECT IS APPROVED AS SUBMITTED AND CONDITIONED. ANY SUBSTANTIVE CHANGE SHALL REQUIRE REVIEW AND APPROVAL BY THE PLANNING COMMISSION AND CITY COUNCIL AS AN AMENDMENT TO THIS TENTATIVE SUBDIVISION MAP.

2. PROJECT DESCRIPTION:

THE PROJECT APPROVAL IS LIMITED TO SINGLE-FAMILY RESIDENTIAL DEVELOPMENT WITH A MAXIMUM OF 79 SINGLE FAMILY RESIDENTIAL LOTS ON ±30.15 ACRES.

3. EXPIRATION DATE:

THE TENTATIVE SUBDIVISION MAP SHALL EXPIRE WITHIN FOUR (4) YEARS OF THE DATE OF THE CITY COUNCIL APPROVAL UNLESS THE FINAL MAP HAS BEEN RECORDED IN ACCORDANCE WITH NEVADA REVISED STATUTES (N.R.S.) 278.360.

4. PROJECT CONTACT:

THE DEVELOPER SHALL DESIGNATE TO THE CITY A PROJECT CONTACT PERSON RESPONSIBLE/AUTHORIZED TO CORRECT PROBLEMS REGARDING THE PROJECT ON A 24-HOUR/7-DAYS A WEEK BASIS. THE DEVELOPER SHALL DESIGNATE THE PROJECT CONTACT PERSON TO THE CITY PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR THE PROJECT.

5. WATER RIGHTS:

THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING THE DEDICATION OF WATER RIGHTS AND ALL ASSOCIATED FEES FOR THE CONNECTION TO THE CITY'S MUNICIPAL WATER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE RECORDATION OF A FINAL MAP.

6. WATER REPORT:

THE DEVELOPER SHALL PROVIDE A WATER REPORT DEMONSTRATING THAT THE DEVELOPMENT CAN BE SERVED BY THE CITY'S MUNICIPAL WATER SYSTEM. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY IMPROVEMENTS DEEMED NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING WATER INFRASTRUCTURE, INCLUDING ASSOCIATED FEES FOR THE CONNECTION TO THE CITY'S WATER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE PUBLIC IMPROVEMENTS FOR THE PROJECT.

7. SANITARY SEWER REPORT:

THE DEVELOPER SHALL PROVIDE A SEWER REPORT DEMONSTRATING THE DEVELOPMENT CAN BE SERVED BY THE CITY'S SANITARY SEWER SYSTEM. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY IMPROVEMENTS DEEMED NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING THE SANITARY SEWER SYSTEM, INCLUDING ASSOCIATED FEES, FOR THE CONNECTION TO THE CITY'S SANITARY SEWER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR THE PUBLIC IMPROVEMENTS FOR THE PROJECT.

Conditions of Approval for TSM22003

Tentative Subdivision Map

8. WATER AND SEWER MODELING:

THE DEVELOPER SHALL PAY ALL FEES AND PROVIDE ALL THE INFORMATION NECESSARY TO COMPLETE WATER AND SEWER MODELING OF THE PROJECT. MODELING WILL BE PERFORMED BY THE CITY OF FERNLEY'S CONSULTANT, AND ANY ADDITIONAL INFRASTRUCTURE OR CAPACITY IDENTIFIED BY THE MODELING SHALL BE INCLUDED IN THE IMPROVEMENT PLANS AND CONSTRUCTED BY THE DEVELOPER.

9. WATER AND SEWER MAINS AND SERVICES:

THE DEVELOPER SHALL COMPLY WITH ALL STANDARDS, CODES, AND REQUIREMENTS REGARDING CONNECTION TO THE CITY'S SANITARY SEWER AND POTABLE WATER SYSTEMS, INCLUDING BUT NOT LIMITED TO, ASSOCIATED FEES, EASEMENTS, DESIGN STANDARDS, SYSTEM LOOPING, DEVELOPMENT CODE REQUIREMENTS, AND STATE REQUIREMENTS. PRIOR TO THE RECORDATION OF A FINAL MAP FOR ANY PHASE OF THE PROJECT, THE DEVELOPER SHALL PROVIDE THE CITY WITH A UTILITY PLAN FOR WATER AND SANITARY SEWER THAT IS IN CONFORMANCE WITH THE CITY OF FERNLEY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL TO THE APPROVAL OF THE CITY ENGINEER, PUBLIC WORKS DIRECTOR, AND ADMINISTRATOR. EACH PHASE MUST ALSO BE REVIEWED AND APPROVED BY THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION PRIOR TO CONSTRUCTION.

10. UTILITY EASEMENTS:

THE DEVELOPER SHALL PROVIDE EASEMENTS TO THE CITY OF FERNLEY FOR THE MAINTENANCE OF THE PUBLIC INFRASTRUCTURE BEING INSTALLED ON PRIVATE PROPERTY. THE EASEMENTS SHALL INCLUDE THE CITY OF FERNLEY'S STANDARD EASEMENT LANGUAGE AND SHALL BE RECORDED ALONG WITH THE FINAL MAP.

11. DESIGN STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE DESIGN STANDARDS AND REGULATIONS AS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AND PUBLIC WORKS DESIGN MANUAL UNLESS IN CONFLICT WITH THE LOCAL, STATE, OR FEDERAL REGULATIONS, IN WHICH CASE THE MORE STRINGENT REGULATION WILL TAKE PRECEDENCE.

12. ENGINEERING DIVISION:

THE DEVELOPER SHALL COMPLY WITH ALL ENGINEERING REQUIREMENTS WITHIN THE FERNLEY MUNICIPAL CODE TITLE 32, INCLUDING BUT NOT LIMITED TO, COMPLIANCE WITH SITE DEVELOPMENT STANDARDS, FLOODPLAIN MANAGEMENT, ROADWAYS, UNDERGROUNDING OF UTILITIES, AND WATER AND WASTEWATER FACILITIES TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

13. STREETS:

THE DEVELOPER SHALL CONSTRUCT ANY ROADWAY IMPROVEMENTS NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE CITY ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

Conditions of Approval for TSM22003

Tentative Subdivision Map

14. VONNIE LANE IMPROVEMENTS:

PRIOR TO THE SUBMITTAL OF ANY FINAL MAP APPLICATION, THE DEVELOPER SHALL PROCESS A DEDICATION MAP WHICH OFFERS FOR DEDICATION ALL NECESSARY RIGHT-OF-WAY FOR VONNIE LANE ALONG THE PROJECT SITE SOUTH TO FARM DISTRICT ROAD. THE DEDICATION MAP SHALL BE RECORDED PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

PRIOR TO THE APPROVAL AND RECORDATION OF THE FIRST FINAL MAP, THE DEVELOPER SHALL SUBMIT IMPROVEMENT PLANS FOR THE CONSTRUCTION OF THE VONNIE LANE IMPROVEMENTS. ALL NECESSARY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY FOR ANY SINGLE-FAMILY RESIDENCE TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

15. WALLACE WAY IMPROVEMENTS:

PRIOR TO THE SUBMITTAL OF A FINAL MAP APPLICATION WHICH INCLUDES THE LAST RESIDENTIAL LOT, THE DEVELOPER SHALL PROCESS A DEDICATION MAP WHICH OFFERS FOR DEDICATION ALL NECESSARY RIGHT-OF-WAY FOR WALLACE WAY FROM THE PROJECT SITE WEST TO RED ROCK ROAD. THE DEDICATION MAP SHALL BE RECORDED PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

PRIOR TO THE APPROVAL AND RECORDATION OF THE FINAL MAP WHICH INCLUDES THE LAST RESIDENTIAL LOT, THE DEVELOPER SHALL SUBMIT IMPROVEMENT PLANS FOR THE CONSTRUCTION OF THE WALLACE WAY IMPROVEMENTS. ALL NECESSARY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY FOR THE LAST SINGLE-FAMILY RESIDENCE TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

16. SECONDARY ACCESS

PRIOR TO THE APPROVAL AND RECORDATION OF ANY FINAL MAP WHICH INCLUDES THE CREATION OF THE 31ST RESIDENTIAL LOT, THE DEVELOPER SHALL DEMONSTRATE THAT SECONDARY EMERGENCY ACCESS HAS BEEN PROVIDED IN ACCORDANCE WITH THE ADOPTED BUILDING AND FIRE CODES TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, CITY ENGINEER, AND THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT.

17. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH ALL REGULATIONS OUTLINED BY THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT TO THE APPROVAL OF THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT, ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

Conditions of Approval for TSM22003

Tentative Subdivision Map

18. COMBUSTIBLES ON-SITE:

NO COMBUSTIBLES SHALL BE BROUGHT ON-SITE PRIOR TO THE INSTALLATION AND ACCEPTANCE OF AN ALL-WEATHER SURFACE AND INSTALLATION/OPERATION OF FIRE HYDRANTS TO THE APPROVAL OF THE ADMINISTRATOR, PUBLIC WORKS DIRECTOR, AND THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT.

19. DRAINAGE AND GRADING:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE FERNLEY MUNICIPAL CODE CHAPTER 32 (DRAINAGE AND GRADING) AND CHAPTER 10 OF THE CITY OF FERNLEY'S PUBLIC WORKS DESIGN MANUAL TO THE APPROVAL OF ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

THE DEVELOPER SHALL PROVIDE A DRAINAGE REPORT FOR THE PROJECT IN CONFORMANCE WITH THE CITY'S DEVELOPMENT CODE, MUNICIPAL CODE, AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER. EACH SUCCESSIVE PHASE OF THE PROJECT SHALL SUBMIT AN UPDATED DRAINAGE REPORT FOR REVIEW AND APPROVAL BY THE CITY ENGINEER SHOWING THE CUMULATIVE EFFECT OF THE DEVELOPED PORTION OF THE PROJECT ALONG WITH THE PROPOSED PHASE'S EFFECT ON THE TOTAL DISCHARGE INTO THE DRAINAGE SYSTEM.

THE DRAINAGE BASIN SHALL BE DEDICATED TO THE CITY OF FERNLEY UPON COMPLETION OF THE PROJECT IN ORDER FOR THE CITY TO MAINTAIN THE STORM DRAIN SYSTEM FOR THE SUBDIVISION.

20. GRADING PERMIT:

THE DEVELOPER SHALL SUBMIT A GRADING PLAN FOR ANY PHASE OF THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. PRIOR TO THE ISSUANCE OF A GRADING PERMIT FOR THE DEVELOPMENT, THE DEVELOPER SHALL POST A SURETY BOND FOR REGRADING AND RECLAMATION OF THE SITE.

THE DEVELOPER SHALL PROVIDE A STAMPED ENGINEER'S ESTIMATE FOR REGRADING AND RECLAMATION OF THE SITE. THE DEVELOPER SHALL COMPLY WITH ALL GRADING REQUIREMENTS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AS WELL AS ALL STATE AND FEDERAL REGULATIONS. THE DEVELOPER OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PERMIT WITH THE STATE OF NEVADA AS WELL AS A SURFACE AREA DISTURBANCE.

21. GEOTECHNICAL REPORT:

THE DEVELOPER SHALL PROVIDE A FINAL GEOTECHNICAL REPORT FOR THE PROJECT IN CONFORMANCE WITH THE DEVELOPMENT CODE FOR REVIEW AND APPROVAL BY THE ADMINISTRATOR, CITY ENGINEER, PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF A FINAL MAP FOR ANY PORTION OF THE PROJECT.

22. IMPROVEMENT PLANS:

WITH THE SUBMITTAL OF ANY FINAL MAP APPLICATION, THE DEVELOPER SHALL SUBMIT THE ASSOCIATED IMPROVEMENT PLANS FOR REVIEW AND APPROVAL. THE IMPROVEMENT PLANS SHALL BE APPROVED PRIOR TO THE RECORDATION OF THE FINAL MAP. THE UTILITIES AND INFRASTRUCTURE FOR EACH PHASE MUST OPERATE INDEPENDENTLY OF FUTURE PHASES YET TO BE CONSTRUCTED.

Conditions of Approval for TSM22003

Tentative Subdivision Map

PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP FOR THE PROJECT, THE DEVELOPER SHALL CONSTRUCT ALL REQUIRED PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, PUBLIC UTILITY AND ROADWAY INFRASTRUCTURE ASSOCIATED WITH THE PROJECT OR PROVIDE A SURETY BOND IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN FERNLEY MUNICIPAL CODE CHAPTER 32.13 (IMPROVEMENTS AND AGREEMENTS) OF THE FERNLEY MUNICIPAL CODE.

23. SUBDIVISION IMPROVEMENT AGREEMENT:

THE DEVELOPER SHALL EXECUTE A SUBDIVISION IMPROVEMENT AGREEMENT WITH THE CITY OF FERNLEY PRIOR TO APPLYING FOR ANY BUILDING PERMITS FOR NEW HOME CONSTRUCTION WHILE THE PUBLIC IMPROVEMENTS ARE STILL NOT CONSTRUCTED. THE AGREEMENT SHALL BE DRAFTED BY THE CITY OF FERNLEY AND PROVIDED TO THE DEVELOPER FOR REVIEW AND EXECUTION. THE AGREEMENT SHALL BE RECORDED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. NO HOMES SHALL RECEIVE A FINAL CERTIFICATE OF OCCUPANCY UNTIL THE PUBLIC IMPROVEMENTS ARE COMPLETE AND ACCEPTED BY THE CITY OF FERNLEY.

24. RESIDENTIAL CONSTRUCTION TAX:

THE DEVELOPER IS SUBJECT TO THE PROVISIONS OF FERNLEY MUNICIPAL CODE RELATED TO RESIDENTIAL CONSTRUCTION TAX. THE RESIDENTIAL CONSTRUCTION TAX FEE SHALL BE PAID PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR EACH SINGLE-FAMILY RESIDENCE.

25. ADDRESSING AND STREET NAMES:

ALL ADDRESSING OF LOTS SHALL BE COMPLETED BY THE CITY. STREET NAMES SHALL BE APPROVED BY THE CITY PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP FOR THE PROJECT.

26. LOS ANGELES DEPARTMENT OF WATER AND POWER:

THE DEVELOPER SHALL COMPLY WITH THE REQUIREMENTS OF THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) RELATED TO ANY FACILITY OR EASEMENT WITHIN THE PROJECT BOUNDARY, TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

IF APPLICABLE, ALL ABANDONMENTS AND/OR REALIGNMENTS OF THE LADWP EASEMENTS SHALL BE FINALIZED AND ACCEPTED BY THE LADWP PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

27. NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION- BUREAU OF SAFE DRINKING WATER AND BUREAU OF WATER POLLUTION CONTROL FOR THE WATER AND SEWER INFRASTRUCTURE DESIGN AND CONSTRUCTION TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER AND PUBLIC WORKS DIRECTOR.

28. FENCING:

INCLUDED WITH THE SUBMISSION OF CIVIL IMPROVEMENT PLANS, THE DEVELOPER SHALL SUBMIT A FENCING PLAN IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY'S MUNICIPAL CODE TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

Conditions of Approval for TSM22003

Tentative Subdivision Map

29. WASTE MANAGEMENT:

THE DEVELOPER SHALL PROVIDE A WILL SERVE FROM WASTE MANAGEMENT TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

30. UNITED STATES POSTAL SERVICE:

IF NECESSARY, THE DEVELOPER SHALL PROVIDE AN EASEMENT FOR ANY NEW CLUSTER MAILBOX LOCATION TO THE APPROVAL OF THE ADMINISTRATOR AND LOCAL POSTAL INSPECTOR PRIOR TO THE APPROVAL AND RECORDATION OF A FINAL MAP.

31. EASEMENTS:

ALL ABANDONMENTS AND/OR REALIGNMENTS OF ANY EASEMENT SHALL BE FINALIZED AND ACCEPTED PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

32. ADJACENCY STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE ADJACENCY STANDARDS OF THE CITY OF FERNLEY DEVELOPMENT CODE SECTION 32.09.030 TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF ANY FINAL MAP.

33. FINAL MAP PHASING:

EACH PHASE SUBMITTED MUST BE DESIGNED TO MEET THE PUBLIC FACILITIES AND IMPROVEMENT STANDARDS AND BE ABLE TO OPERATE INDEPENDENTLY AND AS PART OF THE OVERALL DESIGN. CHANGES TO THE PHASING PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO BEING IMPLEMENTED.

34. NEVADA DEPARTMENT OF TRANSPORTATION:

THE DEVELOPER SHALL OBTAIN APPROVAL FROM THE NEVADA DEPARTMENT OF TRANSPORTATION PRIOR TO THE RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

35. COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S):

IF APPLICABLE, THE APPLICANT SHALL PROVIDE COVENANTS, CONDITIONS, AND RESTRICTIONS. (CC&R'S) WITH THE FIRST FINAL MAP AND SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ADMINISTRATOR AND THE CITY ATTORNEY. CC&R'S SHALL BE RECORDED CONCURRENTLY WITH THE FINAL SUBDIVISION MAP. THE APPLICANT SHALL INCLUDE IN THE CC&R'S PROVISIONS OUTLINING MAINTENANCE RESPONSIBILITIES OF COMMON AREAS, SHARED ROADWAYS, LANDSCAPED MEDIANS, OR OTHER COMMON ELEMENTS TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

36. LYON COUNTY SCHOOL DISTRICT:

THE DEVELOPER SHALL WORK TOGETHER WITH THE LYON COUNTY SCHOOL DISTRICT TO ENSURE THAT THE PROPOSED DEVELOPMENT CAN BE SERVED BY SCHOOL DISTRICT FACILITIES.



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council		
REPORT THROUGH: Patrick Marsh, Acting City Manager		
REPORT BY: Shay League, Assistant Planner		
REVIEWED BY: Tim Thompson, Planning Director Brandi Jensen, City Attorney Denise Lewis, City Treasurer		
FINANCIAL IMPACT: ☐ YES ☒ NO	CURRENTLY BUDGETED: ☐ YES ☐ NO ☒ N/A	FUND/ACCOUNT: N/A
ACTION REQUESTED: ☐ Consent ☒ Motion ☒ Ordinance ☐ Presentation ☐ Receive/File ☐ Resolution		
AGENDA ITEM: Staff Report (For possible action): First Reading, Introduction of Bill #310 (ANX22001) – Consideration and possible action to introduce Bill #310 as an ordinance for an annexation request to annex approximately 685.51 acres into the City of Fernley, generally located southeast of Interstate 80, east of Nevada Pacific Parkway, and west of the Fernley Wildlife Management Area (APN: 021-201-01). Upon annexation, the zoning shall convert from the Lyon County zoning designation of M-1 (General Industrial) to a City of Fernley zoning designation of I (Industrial).		
AGENDA ITEM BRIEF: The subject ±685.51-acre parcel is meant to be added to the existing ±1,505.34 acres already within the City of Fernley, for a total ±2,190.85-acre industrial subdivision called Victory Logistics. A Tentative Subdivision Map for the entire industrial subdivision is running concurrently with the Annexation Request.		
RECOMMENDED MOTION: Read bill by title and schedule 2 nd reading, public hearing, and possible adoption of Bill #310 for the regularly scheduled meeting on August 3, 2022.		
RECOMMENDED MOTION LANGUAGE: "I move to introduce Bill #310 and set the public hearing for the August 3, 2022 City Council Meeting."		
Business Impact (per NRS Chapter 237): ☐ A Business Impact Statement is Attached. ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B.		

See Attached Report for Background/Analysis/Findings.

PROJECT SUMMARY

CASE NUMBER(S):	• ANX22001
REQUESTED ACTION(S):	• Annexation
PROPERTY OWNER(S):	• M4 New Fernley LLC, C/O Mark IV Capital Prop Inc
APPLICANT:	• Mark IV Capital
LOCATION:	• Generally located southeast of Interstate 80 and northeast of MSC Industrial. (APN: 021-201-01)
TOTAL SITE SIZE:	• ± 685.51 Acres
EXISTING ZONING:	• M-1 (General Industrial – Lyon County)
PROPOSED ZONING	• I (Industrial)
EXISTING LAND USE:	• Industrial
PROPOSED LAND USE:	• Industrial
WARD INFORMATION:	• Ward 1 – Councilmember Lacy

***A PUBLIC HEARING IS REQUIRED

POLICY REFERENCE

Nevada Statutes:	NRS 278
Fernley Municipal Code:	Title 32
Policies & Procedure Manual:	N/A
Community Assessment:	N/A
City of Fernley Development Code:	

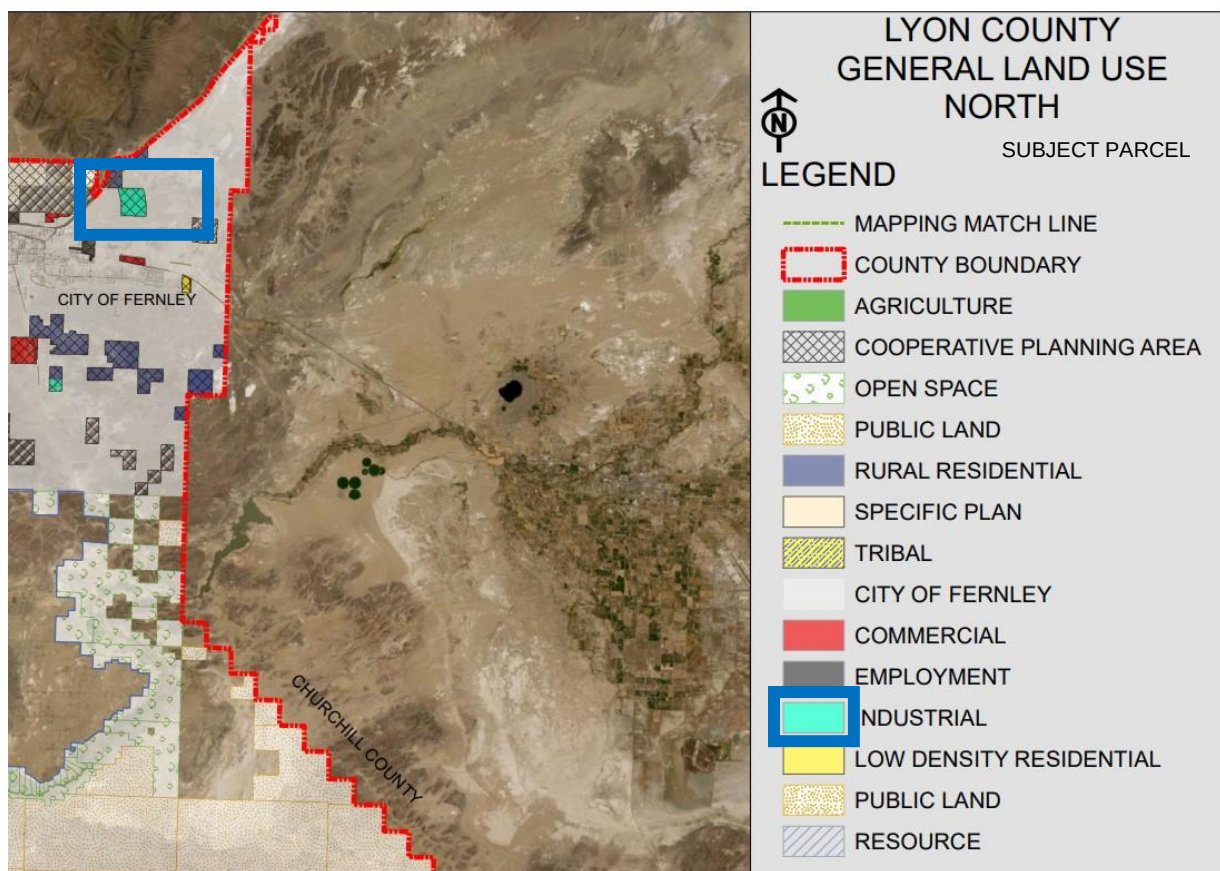
- [Chapter 32.03 – Administration](#)
- [Sec. 32.03.030 – Common review procedures.](#)
- [Sec. 32.03.040 – Annexation, comprehensive master plan, and zoning applications.](#)

BACKGROUND

In 1994, Wade Development purchased this parcel and others as part of what they intended to become the Crossroads Commerce Center. The Crossroads Commerce Center encompassed approximately 4,184 acres of undeveloped land within the boundaries of then-Town of Fernley and Lyon County. During their stewardship of the land that would eventually become the City of Fernley's industrial core, The applicant purchased this and related parcels in 2019 with the intention of adding new industrial development northeast of the existing industrial development, along Interstate 80.

ANALYSIS

This project site has a current land use designation of Industrial, Cooperative Planning Area (seen in an excerpt of Lyon County's General Land Use map below).



Because this unincorporated parcel is within the City of Fernley boundaries, Lyon County identified it as a cooperative planning area. Due to the nature of their cooperative planning areas, Lyon County's land use designation and zoning already match the current City of Fernley Master Plan for surrounding parcels.

In anticipation of this parcel one day being annexed into the City of Fernley, the 2018 Comprehensive Master Plan land use map shows this parcel as being designated Industrial land use.

FINDINGS

AX1. The request conforms to the requirements of NRS 268.

NRS 268.646 Factors to be considered in review of proposed annexation. Factors that must be considered in the review of an annexation proposal include, but are not limited to:

1. Population, population density, land area and land uses, per capita assessed valuation, topography, including natural boundaries and drainage basins, proximity to other populated areas, and the likelihood of significant growth in the area and in adjacent incorporated and unincorporated areas during the next 10 years.

The subject parcel and surrounding parcels are currently vacant. The nearest land uses are industrial in nature. This area has already been designated as an industrial area in the City of Fernley Comprehensive Master Plan.

2. The need for organized community services, the present cost and adequacy of governmental services and controls in the area, probable future needs for such services and controls, and the probable effect of the proposed formation and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas.

As part of the City of Fernley development process, the applicant will be required to ensure adequate organized community services to the subject parcel and mitigate any impacts to the adequacy of services and controls in the area and adjacent areas.

3. The effect of the proposed annexation and of alternative actions on adjacent areas, on mutual social and economic interests and on the local governmental structure of the county.

As part of the City of Fernley development process, the applicant will be required to mitigate any negative impacts toward mutual social and economic interests and on the local government structure of the county.

4. The effect of the proposed annexation and of alternative actions upon the availability and requirement of water and other natural resources throughout the affected area.

As part of the City of Fernley development process, the applicant will be required to ensure adequate water access to the subject parcel.

5. Any determination by the Bureau of Land Management that the territory proposed to be annexed is suitable for residential, commercial, or industrial development, or will be opened to private acquisition.

Not Applicable. This parcel is not being annexed from the Bureau of Land Management.

6. The consistency of the annexation proposal with any applicable comprehensive regional plan, area plan or master plan and any program of annexation adopted and certified pursuant to NRS 268.625.

NRS 268.6255 Requirements for land proposed for annexation by certified program of annexation.

1. The land proposed for annexation by a certified program of annexation must be contiguous to the annexing city unless:
 - a. The proposal is a voluntary annexation
 - b. The timing of the proposal is consistent with the certified program of annexation
 - c. The services and facilities required for the development of the land proposed for annexation will be provided upon annexation

This parcel is contiguous to the proposed annexing city.

2. The annexation of the land must not have the effect of:

- a. Creating an island of 40 acres or less

Annexing this land will not create an island of 40 acres or less. The subject parcel is currently an island within the City of Fernley sphere of influence that would be removed by annexation.

- b. Dividing an individual lot or parcel of land so that only a portion of the lot or parcel is proposed for annexation

Annexing this land does not involve dividing an individual lot or parcel.

AX2. The request conforms to the findings established for annexation applications pursuant to the Fernley Municipal Code Chapter 20.23. (a through j)

- a. Location of the property to be considered for annexation

Assessor Parcel Number 021-201-01, located southeast of Interstate 80 and Northeast of Assessor Parcels 021-241-11 (currently MSC Industrial) and 021-242-17.

- b. The logical extension of city limits

This parcel is an island surrounded by the City of Fernley tax district on all sides. It is already within city limits and requires no extension of them to annex.

- c. The need for the expansion to accommodate planned regional growth

The applicant intends to spur planned regional growth through development of this project.

- d. The location of existing and planned water and sewer service

There are existing water and sewer service facilities with the Victory Logistics District; the applicant proposes to expand them throughout the subdivision.

e. Community goals that would be met by the proposed annexation

The applicant identified their project as contributing toward the following community goals and action strategies outlined in the City of Fernley Comprehensive Master Plan:

LU.1.1 Encourage and plan for new development in areas where adequate public services and facilities can be provided efficiently.

LU.1.1.1 Require new development to provide its proportionate share of improvements to avoid a degradation of services for existing residents. This requirement will be applied regardless of project size in order to avoid incremental erosion of services and facilities.

LU.1.1.2 Encourage development of vacant or underutilized lands within the community core where adequate infrastructure and facilities currently exists.

LU.1.1.3 Require new development to provide certified, stamped studies demonstrating the impact proposed development will have on existing infrastructure and to provide improvements and/or funding in lieu of improvements in proportion to the impacts of the proposed projects on the city's roadway, sewer and water systems.

LU.1.2 Encourage new development to be in accordance with the Comprehensive Master Plan land use category, and other land use controls to accomplish community principles.

LU.1.2.1 Consistently monitor development applications that intend to utilize the underlying zoning. Modify the Fernley Development Code as necessary to ensure compatible development that reflects the community goals envisioned in the Comprehensive Master Plan.

LU.1.3 Provide a balanced distribution of employment and population.

LU.1.3.1 Encourage land uses and development, which maintains a balance of population, housing, and employment.

LU.1.4 Ensure existing and future land uses are compatible.

LU.1.4.2 Projects shall be evaluated with the intent to promote land use compatibility; community design measures can increase compatibility among adjoining land uses.

f. The efficient and cost-effective provision of service areas and capital facilities

The subject property is currently served by the Lyon County Sheriff and North Lyon County Fire Protection District and that would remain unchanged. The provision of roads, sewer, water, and

other services not yet established would be most efficiently provisioned by the City of Fernley because the parcel is surrounded by existing City of Fernley lands.

- g. Fiscal analysis regarding the proposed annexation

The applicant provided a Fiscal Impact Analysis that finds “the project will have a positive fiscal impact on the City of Fernley”. See Attachment 5 for the detailed analysis.

- h. Whether Lyon County has adopted a community management plan for the proposed annexation area

Lyon County has not adopted a community management plan for the proposed annexation area.

- i. Whether the annexation creates any islands

This annexation will not create any islands and serves to remove an island of unincorporated Lyon County within City of Fernley boundaries.

- j. Any other factors concerning the proposed annexation deemed appropriate for consideration by the City Council

AX3. The property requested to be annexed conforms to the Master Plan.

The subject property is currently master planned by Lyon County as Industrial and zoned M-1 (General Industrial). Surrounding City of Fernley parcels are largely master planned Industrial and zoned I (Industrial). The applicant has further identified community goals and action strategies from the City of Fernley Comprehensive Master Plan that are fulfilled by this project (outlined in finding AX2. – subsection 5. above).

AX4. Public notice was given, and a public hearing held per the requirements of the development code.

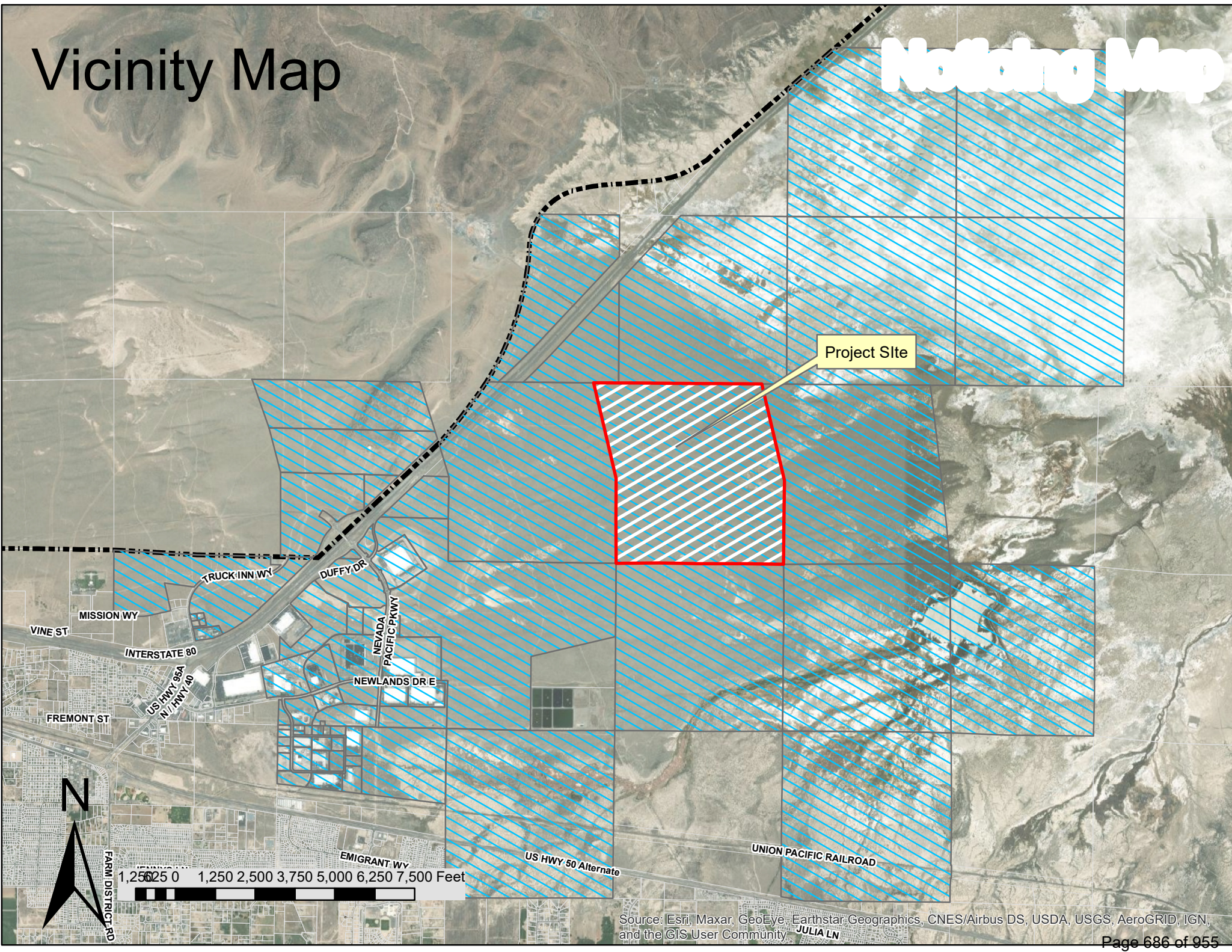
Public notice has been given and a public hearing scheduled per the provisions outlined in Fernley Municipal Code and Nevada Revised Statutes.

ATTACHMENTS

1. Vicinity Map
2. Bill # 310 – Ordinance for Annexation
3. Exhibit A – Legal Description
4. Exhibit B – Annexation Map
5. Fiscal Impact Analysis

Vicinity Map

Notching Map



When recorded, mail to:
City Clerk
City of Fernley
595 Silver Lace Boulevard
Fernley, NV 89408

BILL # 310
CITY OF FERNLEY
ORDINANCE # _____

AN ORDINANCE FOR THE ANNEXATION (ANX22001) OF CERTAIN LANDS TO THE CITY OF FERNLEY; LANDS MORE SPECIFICALLY DESCRIBED AS ASSESSOR PARCEL NUMBER 021-201-01, ON A SITE APPROXIMATELY 685.51 ACRES OWNED BY M4 NEW FERNLEY LLC, LOCATED SOUTHEAST OF INTERSTATE 80 AND NORTHEAST OF ASSESSOR PARCELS 021-241-11 AND 021-242-17; INTO THE INCORPORATED CITY LIMITS, PURSUANT TO NRS 268.670 CONTIGUOUS VOLUNTARY ANNEXATIONS; AND OTHER MATTERS PROPERLY RELATED THERETO.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter “the Council”, DO HEREBY ORDAIN:

SECTION 1: The property described in Exhibit “A” and shown in Exhibit “B”, which is attached hereto and incorporated herein by reference, situated in the County of Lyon, State of Nevada, shall become and hereafter shall be a part of the City of Fernley and shall be embraced within the corporate limits of this said City.

SECTION 2: Upon annexation, the zoning shall convert from the Lyon County zoning of M-1 (General Industrial) to a City of Fernley zoning of I (Industrial).

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 4: The City Clerk is instructed and authorized to publish the title to this ordinance as provided by law and to record the plan certified herein as provided by law.

SECTION 5: This ordinance shall become effective upon passage, approval, and publication.

SECTION 6: The provisions of this ordinance shall be liberally construed to effectively carry out its purposes in the interest of the public health, safety, welfare and convenience.

SECTION 7: If any subsection, phrase, sentence or portion of this section is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions.

SECTION 8: The City Council finds that this ordinance is not likely to impose a direct and significant economic burden upon a business or directly restrict the formation, operation or expansion of a business, or is otherwise exempt from Nevada Revised Statutes Chapter 237.

BILL # 310 BEING HEREBY PROPOSED on the ____ day of _____ 2022.

BILL # 310 BEING HEREBY PASSED, APPROVED and ADOPTED this ____ day of _____ 2022, by the following vote of the Council:

Ayes: ____ Nays: ____ Abstentions: ____ Absent: ____

FERNLEY CITY COUNCIL

By: _____
Roy Edgington, Mayor

Date: _____

Attest By: _____
Kim Swanson, City Clerk

Date: _____

ANNEXATION PARCEL

All that certain parcel situate within Section Three (3), Township Twenty (20) North, Range Twenty-Five (25) East, Mount Diablo Meridian, Lyon County, Nevada, being all of Section 3 as shown on United States General Land Office Township Plat Of Township 20 North, Range 25 East, Mount Diablo Meridian, Accepted April 9, 1935, said parcel being more particularly described as follows:

BEGINNING at the northwest corner of said Section 3;

THENCE along the north line of said Section 3, South $89^{\circ}36'54''$ East, 784.26 feet to the south corner common to Sections 33 and 34, Township 21 North, Range 25 East, Mount Diablo Meridian

THENCE continuing along said north line, being coincident with the south line of said Section 34, South $89^{\circ}36'02''$ East, 2636.43 feet to the south $1/4$ corner of said Section 34;

THENCE continuing along said north and south lines, South $89^{\circ}34'09''$ East, 1857.50 feet to the northeast corner of said Section 3;

THENCE leaving said south line of Section 34, along the east line of said Section 3, South $13^{\circ}12'59''$ East, 3118.75 feet to the east $1/4$ corner of said Section 3;

THENCE continuing along said east line, South $00^{\circ}32'19''$ West, 2636.54 feet to the southeast corner of said Section 3;

THENCE along the south line of said Section 3, North $89^{\circ}18'41''$ West, 2637.53 feet to the south $1/4$ corner of said Section 3;

THENCE continuing along said south line, North $89^{\circ}23'54''$ West, 2639.72 feet to the southwest corner of said Section 3;

THENCE along the west line of said Section 3, North $00^{\circ}22'22''$ East, 2643.53 feet to the west $1/4$ corner of said Section 3;

THENCE continuing along said west line, North 13°13'21" West, 3089.20 feet to the POINT OF BEGINNING.

Said ANNEXATION PARCEL contains 685.51 Acres of land, more or less.

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATIONS, OBSERVED FEBRUARY 7, 2022 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM NEVADA DEPARTMENT OF TRANSPORTATION MONUMENT NO. 1528012 MODIFIED BY A COMBINED FACTOR OF 1.000245, SCALED FROM 0.00N ,0.00E AND CONVERTED TO U.S. SURVEY FEET. ALL DIMENSIONS ON THIS MAP ARE GROUND DISTANCES.

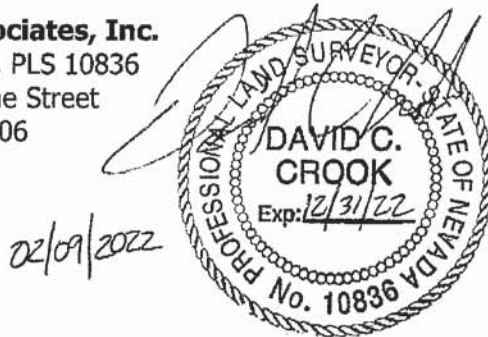
Prepared by:

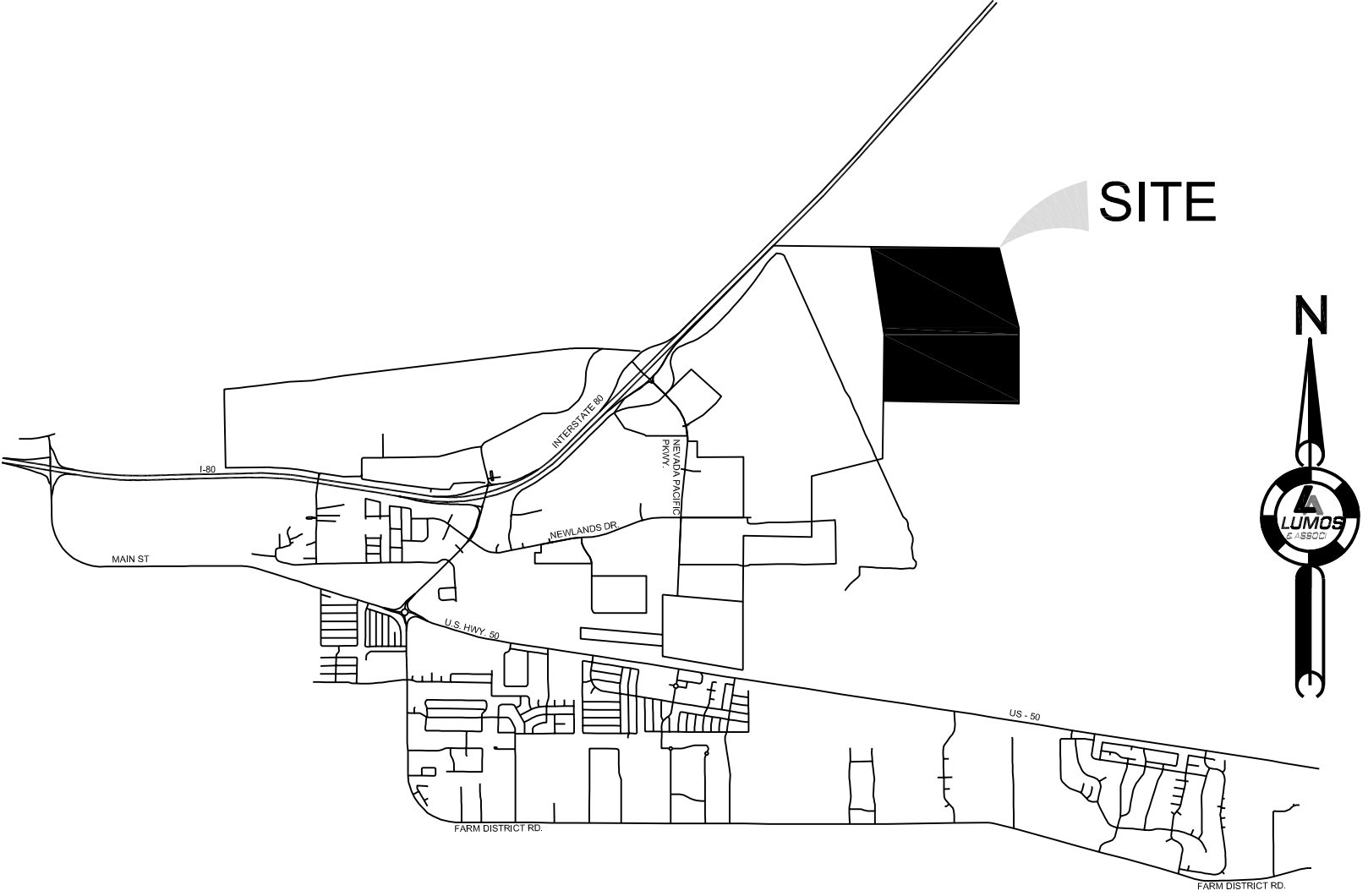
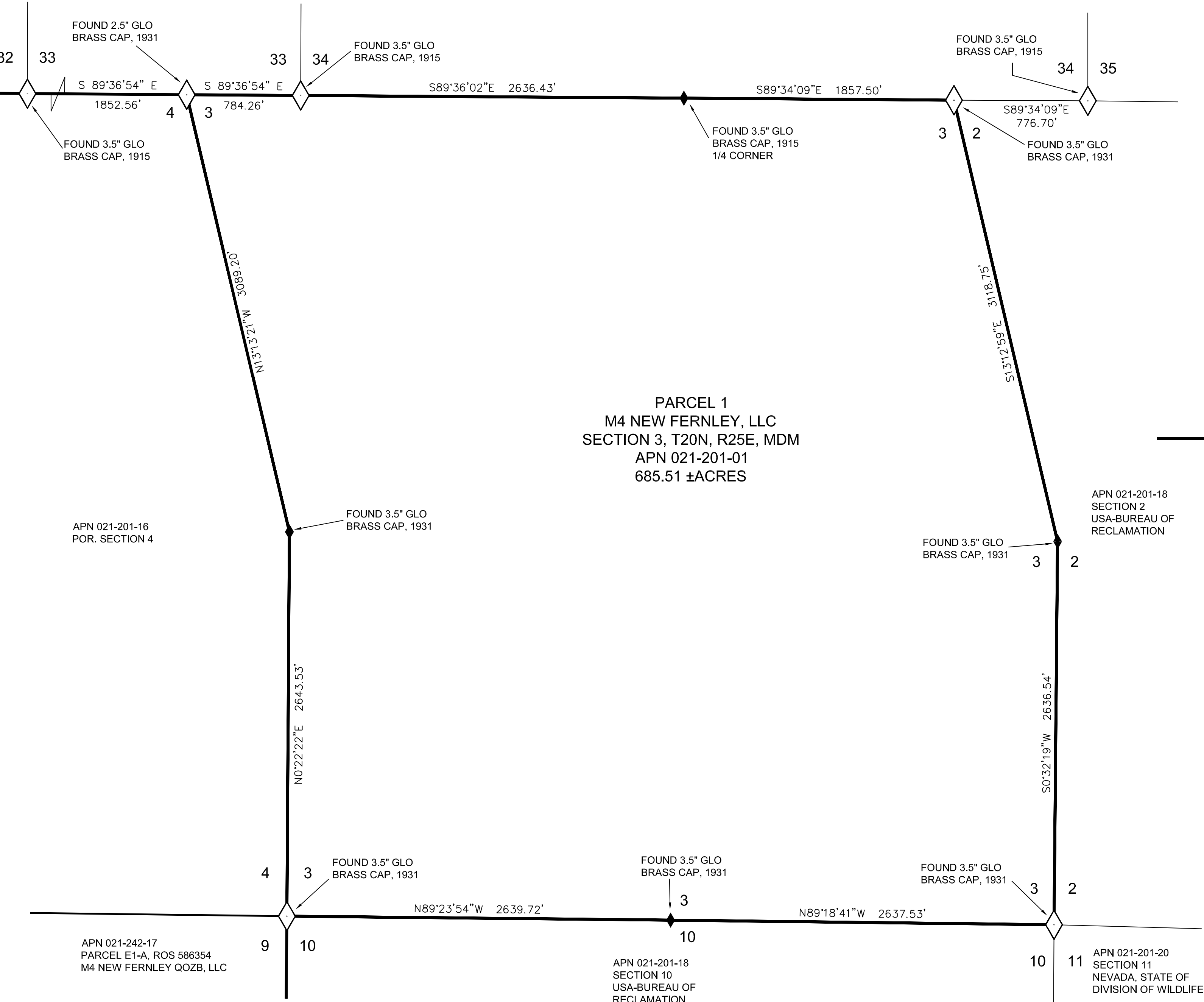
Lumos & Associates, Inc.

David C. Crook, PLS 10836

178 South Maine Street

Fallon, NV 89406





REFERENCE DOCUMENTS

- R1 - RECORD OF SURVEY MAP, FILED SEPTEMBER 19, 2018 AS FILE NO. 586354 IN THE OFFICIAL RECORDS OF LYON COUNTY, NEVADA.
- R2 - UNITED STATES GENERAL LAND OFFICE TOWNSHIP PLAT OF TOWNSHIP 21 NORTH, RANGE 25 EAST, MOUNT DIABLO MERIDIAN, APPROVED FEBRUARY 6, 1917.
- R3 - UNITED STATES GENERAL LAND OFFICE TOWNSHIP PLAT OF TOWNSHIP 20 NORTH, RANGE 25 EAST, MOUNT DIABLO MERIDIAN, ACCEPTED APRIL 9, 1935.
- R4 - UNITED STATES DEPARTMET OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUPPLEMENTAL PLAT OF SECTION 4, TOWNSHIP 20 NORTH, RANGE 25 EAST, OF THE MOUNT DIABLO MERIDIAN, NEVADA, ACCEPTED JUNE 8, 1999.

NOTE

1) THE INTENTION OF THIS MAP IS TO ANNEX THE SUBJECT PARCEL INTO THE CITY OF FERNLEY.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATIONS, OBSERVED FEBRUARY 7, 2022 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM NEVADA DEPARTMENT OF TRANSPORTATION MONUMENT NO. 1528012 MODIFIED BY A COMBINED FACTOR OF 1.000245, SCALED FROM 0.00N/0.00E AND CONVERTED TO U.S. SURVEY FEET. ALL DIMENSIONS ON THIS MAP ARE GROUND DISTANCES.

OWNERS

M4 NEW FERNLEY
C/O MARK IV CAPITAL PROPERTY INC.
4450 MACARTHUR BLVD, 2ND FLOOR
NEWPORT BEACH, CA 92660

APN 021-201-01
ZONING: M1

AREA: 685.51 ±ACRES

SURVEYOR'S CERTIFICATE

I, DAVID C. CROOK, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF NEVADA, AS AGENT FOR LUMOS AND ASSOCIATES, INC., CERTIFY THAT:

- 1) THIS PLAT REPRESENTS THE RESULTS OF A SURVEY CONDUCTED UNDER MY DIRECT SUPERVISION AT THE INSTANCE OF M4 NEW FERNLEY LLC
- 2) THE LANDS SURVEYED LIE WITHIN SECTION 3, T.20N., R.25 E., M.D.M., LYON COUNTY, NEVADA AND THE SURVEY WAS COMPLETED ON _____, 2022.
- 3) THIS PLAT COMPLIES WITH APPLICABLE STATUTES OF THIS STATE AND ANY LOCAL ORDINANCES IN EFFECT ON THE DATE THAT THE SURVEY WAS COMPLETED AND THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 625 OF THE NEVADA ADMINISTRATIVE CODE.
- 4) THE MONUMENTS DEPICTED ON THIS PLAT ARE OF THE CHARACTER SHOWN, OCCUPY THE POSITIONS INDICATED, AND ARE OF SUFFICIENT NUMBER AND DURABILITY.
- 5) THE PARCEL HEREON TRULY REPRESENTS THE LAND PROPOSED FOR ANNEXATION TO THE CITY OF FERNLEY.

FOR REVIEW ONLY



DAVID C. CROOK, P.L.S.
NEVADA CERTIFICATE No. #10836

OWNER'S CERTIFICATE

THIS IS TO CERTIFY THAT THE UNDERSIGNED

M4 NEW FERNLEY LLC

IS THE OWNERS OF THE REAL PROPERTY DEPICTED HEREON AND HAVE CONSENTED TO THE PREPARATION AND RECORDATION OF THIS PLAT AND THAT THE SAME IS EXECUTED IN COMPLIANCE WITH AND SUBJECT TO THE PROVISIONS OF N.R.S. 278.

M4 NEW FERNLEY LLC
C/O/ MARK IV CAPITAL PROPERTY INC

BY: _____

ITS: _____

STATE OF NEVADA }
COUNTY OF CHURCHILL }SS

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS ____ DAY OF _____, 20__ BY _____ AS _____ OF MARK IV CAPITAL PROPERTY INC.

NOTARY PUBLIC

CITY COUNCIL CERTIFICATE

APPROVED AND ACCEPTED BY THE CITY COUNCIL OF THE CITY OF FERNLEY, LYON COUNTY, NEVADA, THIS ____ DAY OF _____, 2022, AS PER ORDINANCE NO. _____, APPROVED _____, 2022 BY THE FERNLEY CITY COUNCIL, FERNLEY, NEVADA.

MAYOR

ATTEST: FALLON CITY CLERK

RECORDER'S CERTIFICATE

FILED FOR RECORD AT THE REQUEST OF LUMOS AND ASSOCIATES, INC., ON THIS ____ DAY OF _____, 20__, AT ____ MINUTES PAST ____ O'CLOCK __M., IN BOOK __, AT PAGE __, OF OFFICIAL RECORDS OF LYON COUNTY, NEVADA.

RECORDING FEE: _____ BY: _____ RECORDER

FILE NUMBER: _____ BY: _____

CITY OF FERNLEY

MAP TO SUPPORT THE ANNEXATION
OF CERTAIN LANDS TO THE
CITY OF FERNLEY

BEING ALL OF SECTION 3, TOWNSHIP 20 NORTH, RANGE 25 EAST,
M.D.M.

CITY OF FERNLEY LYON COUNTY STATE OF NEVADA



178 SOUTH MAINE STREET
FALLON, NV 89406
TEL (775) 423-2188
LUMOSINC.COM

Drawn By : DCC
Sheet : 1 of 1
Job No. : 10067.010
Drawing No.: 10067010ANNEX.DWG

VICTORY LOGISTICS DISTRICT

City of Fernley

Fiscal Impact Analysis

JANUARY 26, 2022

Prepared by:



EKAY Economic Consultants, Inc.

Economics for the changing world

550 West Plumb Lane

Suite B459

Reno, NV 89509

(775) 232-7203

www.ekayconsultants.com

TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
DEVELOPMENT DESCRIPTION.....	1
METHODOLOGY.....	1
FINDINGS	3
Table 1. Fiscal Impact Analysis Results	3
Figure 1. Budget Impact	3
Figure 2. Fiscal Impact Analysis Results	4
LIMITING CONDITIONS & DISCLOSURES.....	5
APPENDICES	6

EXECUTIVE SUMMARY

Ekey Economic Consultants, Inc. (EEC) of Reno, Nevada was retained to conduct a fiscal impact analysis on approximately 2,066 acres of the 4,300-acre Victory Logistics District (hereafter “Victory”) located south of I-80 in the City of Fernley, Nevada. Project details and findings of the fiscal impact analysis are summarized below.

Project Overview

- The analysis assumes 31.8 million square feet of industrial and commercial space constructed on 2,051 acres, plus additional space for roadways.
- The project is expected to be dominated by industrial uses that include distribution warehouse and manufacturing, data center uses and some convenience retail at the I-80 interchange. The project will include rail infrastructure to deliver rail services within the Victory.
- The project is expected to add 2.5 million square feet of road space to the City of Fernley inventory.

Fiscal Impact Findings

- The project is estimated to generate a **\$137.8 million revenue surplus** over the 40-year analysis period for the City of Fernley’s General Fund.
 - The project is estimated to generate \$168.2 million in revenue for the General Fund over the analysis period. This includes property tax and building permit/planning fee revenue.
 - The project is estimated to generate \$10.1 million in operating expenditures for the General Fund over the analysis period. This includes expenditures for the Public Works and Building and Planning departments.
 - The project is also estimated to generate \$20.3 million in infrastructure replacement costs over the analysis period.
- The project will have a **positive** fiscal impact on the City of Fernley.

DEVELOPMENT DESCRIPTION

The project is proposed to be constructed on 2,051 acres of land located in the City of Fernley, Nevada, plus additional space for roadways for a total of approximately 2,066 acres. Upon completion, the project will deliver approximately 31.8 million square feet of building space. Victory includes some buildings with expected delivery starting in 2022, with full notices of completion starting in 2025 and extending over an 18-year period. The fiscal impact analysis includes estimates of the impact of the project over this period, plus an additional twenty two years for a total analysis period of 40 years.

The project is expected to be dominated by industrial development that includes distribution warehouse and manufacturing facilities, at least one data center campus, some convenience retail on the south side of I-80, and rail service in the heart of the project and related rail infrastructure. Detailed project information, including acres and building square feet developed by use type, by year, is shown in Appendix 1 at the end of this report.

METHODOLOGY

City of Fernley is working with a consulting company, Verdunity, to arrive at a methodology for estimating fiscal impacts of future projects on the City. A tool has been created for City staff to estimate fiscal impacts of projects based on project-related information provided by developers. As this tool is in the early stages of implementation, EEC was asked by Victory Logistics District project developers to estimate the fiscal impact of this project.

EEC was provided a copy of the “Development Fiscal Impact Analysis Tool Methodology and Instructions” report by Verdunity, dated July 2021. The report outlined much of the methodology and assumptions behind the City’s fiscal impact tool. EEC provided a number of questions to the City regarding this methodology, answers to which were not received prior to the due date of this report. As a result, findings of the fiscal impact analysis contained in this report, which are based on our understanding of Verdunity’s methodology, may need to be updated as additional information becomes available.

The following assumptions were made in this analysis:

1. Industrial and commercial land and improvement values for the project are unavailable at this early stage in the planning process. As a result, the analysis uses average taxable land and improvement values for nearby industrial and commercial uses in City of Fernley, as these provide the latest market information for similar products in the City. Detailed information for this assumption is shown in Appendix 1.

It should be noted that the majority of industrial space in the City and used to arrive at comparable taxable values, is over 20 years old, while this project is expected to correspond to the latest design standards, including taller clear heights, technology, and other characteristics, which may significantly increase the replacement value of this project over existing uses. As a result, taxable valuation shown in this report, and resulting property tax revenue and revenue surplus for the City of Fernley may be significantly underestimated.

2. The Verdunity methodology covers all General Fund revenues and expenditures. However, it assumes non-residential developments only impact some of these sources. For this industrial/commercial development, EEC estimated revenues associated with property tax and building/planning fees only. Expenditures for only Public Works and Building and Planning services are included.
3. Additionally, the Verdunity methodology includes a discussion of an estimate of the long-term impact of a project on infrastructure costs to replace and repair city streets. However, no actual cost for this estimate is provided in the Verdunity report. EEC uses street replacement costs for the City of Sparks of \$7 per square foot in 2018 dollars, inflated and rounded to a conservative \$8 per square foot for this analysis in 2022 dollars. City of Sparks street replacement occurs 20 years after road construction, the schedule used in this analysis.
4. The Verdunity report provides no discussion of inflation, as a result, no inflation adjustments have been made to any estimates over the 40-year analysis period.
5. Additional information for revenue and cost estimate methodology, sources of data, calculations, and findings is provided in the appendices attached to this report.

FINDINGS

Findings of the fiscal impact analysis are presented below using table and figure templates from the Verdunity report. Appendices 1-3 attached to this narrative include a detailed calculation of these revenues and expenditures by year and use type, as well as a detailed discussion of all methodology, data, and assumptions.

Table 1. Fiscal Impact Analysis Results

Non-Inflated Values	Buildout	10 Years	20 Years	30 Years	40 Years
Property Tax Revenue	\$ 40,954,109	\$ 13,713,510	\$ 51,007,532	\$ 101,274,642	\$ 151,541,753
One-Time Fee Revenue	16,638,292	7,066,012	16,638,292	16,638,292	16,638,292
Total Revenue	\$ 57,592,401	\$ 20,779,522	\$ 67,645,823	\$ 117,912,934	\$168,180,045
Commercial Expense	\$ 2,782,804	\$ 943,844	\$ 3,447,263	\$ 6,769,559	\$ 10,091,855
Savings for Streets	9,143,784	5,079,880	10,159,760	15,239,640	20,319,520
Total Costs	\$ 11,926,588	\$ 6,023,724	\$ 13,607,023	\$ 22,009,199	\$ 30,411,375
Net Fiscal Impact	\$ 45,665,813	\$ 14,755,797	\$ 54,038,800	\$ 95,903,735	\$137,768,670
<i>Per Acre-Revenue</i>	\$ 28,083	\$ 10,132	\$ 32,985	\$ 57,496	\$ 82,007
<i>Per Acre-Expense</i>	5,816	2,937	6,635	10,732	14,829
Per Acre-Net Impact	\$ 22,267	\$ 7,195	\$ 26,350	\$ 46,764	\$ 67,178

Figure 1. Budget Impact

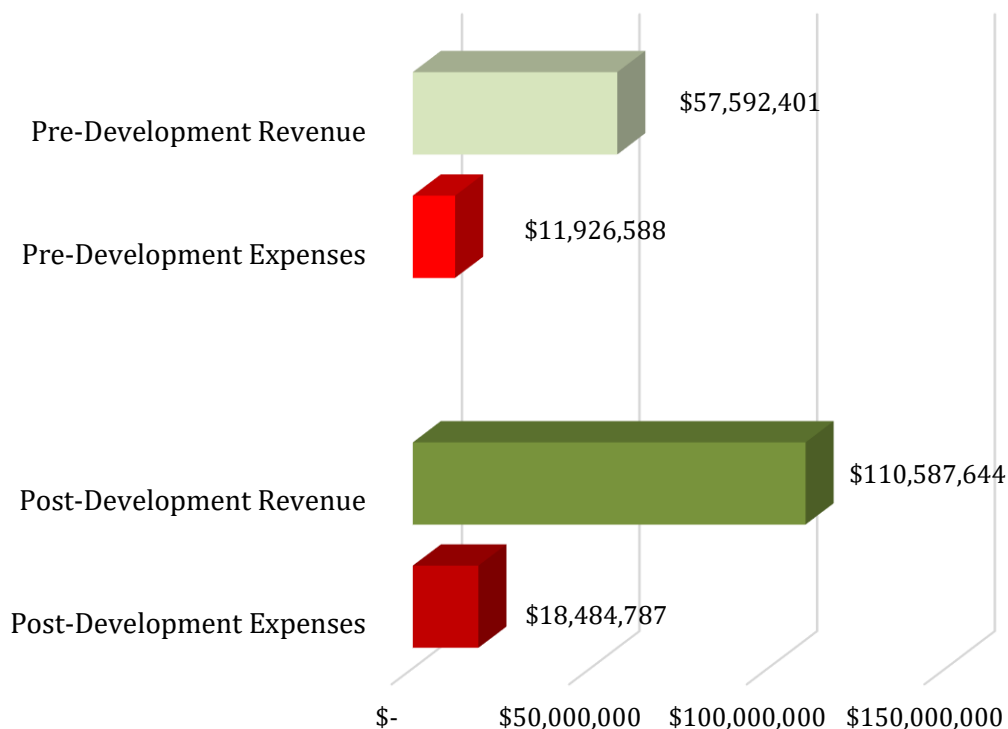
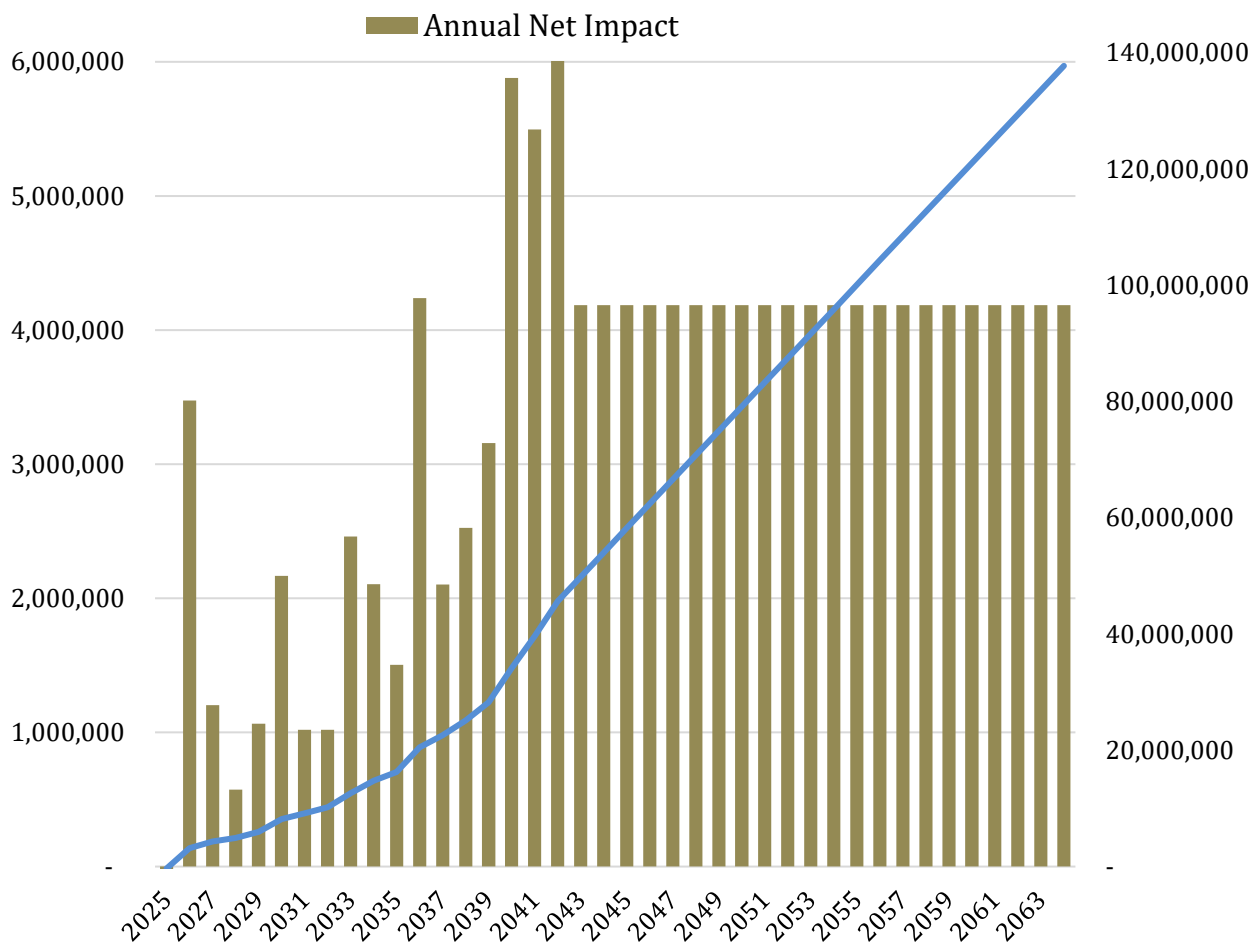


Figure 2. Fiscal Impact Analysis Results



The project is estimated to generate a \$137.8 million revenue surplus over the 40-year analysis period for the City of Fernley's General Fund. The project is estimated to generate \$168.2 million in revenue for the General Fund over the analysis period. This includes property tax and building permit/planning fee revenues. As noted above, this revenue estimate is likely conservative as it is based on taxable values for existing industrial uses, which may underrepresent actual values for the project.

The project is estimated to generate \$10.1 million in operating expenditures for the General Fund over the analysis period. This includes expenditures for the Public Works and Building and Planning departments. The project is also estimated to generate \$20.3 million in infrastructure replacement costs over the analysis period.

The project will have a **positive** fiscal impact on the City of Fernley.

LIMITING CONDITIONS & DISCLOSURES

In the preparation of this report, EEC asserts:

- The report is to be used in its entirety, and no part is to be used without the whole.
- In preparing this report, EEC relied on information provided by other individuals or found in previously existing records and/or documents. This information is assumed to be reliable. However, no warranty, either expressed or implied, is given by EEC for the accuracy of such information and EEC assumes no responsibility for information relied upon later found to have been inaccurate.
- EEC may amend this report in the event additional documents and/or other material discovered subsequent to the submission of this report and pertinent to the report and/or the conclusions contained herein are made available.
- EEC assumes no responsibility for economic, physical, or demographic factors, which may affect or alter the opinions of this report if said economic, physical, or demographic factors were not present or known as of the date of this report.
- Possession of this report, or a copy of this report, does not carry with it the right of publication. Without the consent of EEC, this report may not be used for any purpose by any person other than the party for whom this report was prepared.

APPENDICES

**APPENDIX 1
BUILDOUT ASSUMPTIONS**

<u>YEAR</u>	<u>USE TYPE</u>	<u>SQ.FT. ADDED</u>	<u># OF ACRES</u>	<u>ESTIMATED LAND VALUE</u>	<u>ESTIMATED IMPROV. VALUE</u>	<u>BUILD. PERMIT VALUATION</u>
2025	Data Center	-	-	\$ -	\$ -	\$ -
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	180,426	10.9	3,956,840	21,199,999	22,278,943
	Other	-	38.7	-	-	-
Subtotal		180,426	49.6	3,956,840	21,199,999	22,278,943
2026	Data Center	2,975,000	166.6	15,032,535	179,690,000	289,675,750
	Distribution	1,876,000	111.2	10,033,721	113,310,400	182,666,120
	Manufacturing	1,051,000	54.4	4,908,583	63,480,400	102,335,870
	Retail	-	-	-	-	-
	Other	-	26.4	-	-	-
Subtotal		5,902,000	358.6	29,974,838	356,480,800	574,677,740
2027	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	1,205,000	77.9	7,029,018	72,782,000	117,330,850
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		1,205,000	77.9	7,029,018	72,782,000	117,330,850
2028	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		-	-	-	-	-
2029	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	480,000	44.8	4,042,362	28,992,000	46,737,600
	Retail	166,000	10.0	3,630,128	19,505,000	20,497,680
	Other	-	-	-	-	-
Subtotal		646,000	54.8	7,672,490	48,497,000	67,235,280
2030	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	2,200,000	165.5	14,933,280	132,880,000	214,214,000
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		2,200,000	165.5	14,933,280	132,880,000	214,214,000
2031	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		-	-	-	-	-

**APPENDIX 1
BUILDOUT ASSUMPTIONS**

<u>YEAR</u>	<u>USE TYPE</u>	<u>SQ.FT. ADDED</u>	<u># OF ACRES</u>	<u>ESTIMATED LAND VALUE</u>	<u>ESTIMATED IMPROV. VALUE</u>	<u>BUILD. PERMIT VALUATION</u>
2032	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		-	-	-	-	-
2033	Data Center	2,160,000	121.0	10,917,987	130,464,000	210,319,200
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		2,160,000	121.0	10,917,987	130,464,000	210,319,200
2034	Data Center	-	-	-	-	-
	Distribution	1,150,000	81.3	7,335,805	69,460,000	111,975,500
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		1,150,000	81.3	7,335,805	69,460,000	111,975,500
2035	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		-	-	-	-	-
2036	Data Center	-	-	-	-	-
	Distribution	700,000	58.6	5,287,554	42,280,000	68,159,000
	Manufacturing	3,400,000	205.3	18,524,486	205,360,000	331,058,000
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		4,100,000	263.9	23,812,040	247,640,000	399,217,000
2037	Data Center	-	-	-	-	-
	Distribution	-	-	-	-	-
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		-	-	-	-	-
2038	Data Center	-	-	-	-	-
	Distribution	630,000	55.7	5,025,883	38,052,000	61,343,100
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		630,000	55.7	5,025,883	38,052,000	61,343,100

**APPENDIX 1
BUILDOUT ASSUMPTIONS**

<u>YEAR</u>	<u>USE TYPE</u>	<u>SQ.FT. ADDED</u>	<u># OF ACRES</u>	<u>ESTIMATED LAND VALUE</u>	<u>ESTIMATED IMPROV. VALUE</u>	<u>BUILD. PERMIT VALUATION</u>
2039	Data Center	-	-	-	-	-
	Distribution	1,440,000	96.8	8,734,390	86,976,000	140,212,800
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		1,440,000	96.8	8,734,390	86,976,000	140,212,800
2040	Data Center	-	-	-	-	-
	Distribution	5,220,000	329.6	29,740,236	315,288,000	508,271,400
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		5,220,000	329.6	29,740,236	315,288,000	508,271,400
2041	Data Center	-	-	-	-	-
	Distribution	3,500,000	184.1	16,611,582	211,400,000	340,795,000
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		3,500,000	184.1	16,611,582	211,400,000	340,795,000
2042	Data Center	-	-	-	-	-
	Distribution	3,500,000	212.0	19,129,036	211,400,000	340,795,000
	Manufacturing	-	-	-	-	-
	Retail	-	-	-	-	-
	Other	-	-	-	-	-
Subtotal		3,500,000	212.0	19,129,036	211,400,000	340,795,000
TOTAL		31,833,426	2,050.8	\$ 184,873,426	\$ 1,942,519,799	\$ 3,108,665,813

APPENDIX 1, ASSUMPTIONS:

1. The following information represents the Developer's best estimate and market data as of the date of this report:

<u>Land Use</u>	<u>Phase</u>	<u>Building Square Feet</u>	<u>Land Acres</u>	<u>Year of Completion</u>
Retail	0	166,000	10.0	2029
Distribution/Light Industrial	1	700,000	45.4	2034
Distribution/Light Industrial	2	700,000	58.6	2036
Distribution/Light Industrial	3	630,000	55.7	2038
	4a	840,000		2040
	4b	840,000		2040
Distribution/Light Industrial	4c	840,000	279.6	2040
	4d	840,000		2040
	4e	1,020,000		2040
Distribution/Light Industrial	5	450,000	35.9	2034
Data Center/ High Tech	6a	840,000	121.0	2033
Manufacturing	6b	1,320,000		2033
Distribution/Light Industrial	7	1,440,000	96.8	2039
Distribution/Light Industrial	8	840,000	50.0	2040

APPENDIX 1
BUILDOUT ASSUMPTIONS

<u>YEAR</u>	<u>USE TYPE</u>	<u>SQ.FT. ADDED</u>	<u># OF ACRES</u>	<u>ESTIMATED LAND VALUE</u>	<u>ESTIMATED IMPROV. VALUE</u>	<u>BUILD. PERMIT VALUATION</u>
		9a	800,000		2036	
	Manufacturing	9b	1,300,000	205.3	2036	
		9c	1,300,000		2036	
	Distribution/Light Industrial	10	3,500,000	212.0	2042	
	Distribution/Light Industrial	11	3,500,000	184.1	2041	
	Manufacturing	12	480,000	44.8	2029	
	Manufacturing	13	1,200,000	83.4	2030	
	Manufacturing	14	1,000,000	82.1	2030	
	Transload/ Switching Facility	15		38.7	2025	
	Manufacturing	D-1 (16)	441,000	25.6	2026	
	Manufacturing	17	1,205,000	77.9	2027	
	Data Center/High Tech			166.6		
	Manufacturing	18	2,975,000		2026	
	Manufacturing	G (19)	610,000	28.8	2026	
	Drainage Facility	20		26.4	2026	
	Retail	21	180,426	10.9	2025	
		H-1 (22)	938,000		2026	
	Distribution/Light Industrial	H-2 (22)	938,000	111.2	2026	
	Total		31,833,426	2,050.8		

Source: Development acreage, buildout schedule, and square footage data from Developer.

Land Use	Land Use Code	Land Value/Acre	Improv. Value/Sq.Ft.
General Commercial	400	\$ 363,013	\$ 118
Industrial	500/510	\$ 90,231	\$ 60

Land and improvement value information from actual taxable values for similar land uses in the City of Fernley, data from Lyon County Assessor's website for FY 2021-22.

Analysis conservatively does not include taxable and building permit valuation and resulting revenues associated with the drainage and transload/switching facility, acreage for which is shown in the analysis under "Other" land use.

2. Building Valuation is estimated at \$ **97.37** per square foot for industrial uses and \$ **123.48** per square foot for retail uses.

Source: International Code Council, Building Valuation Data – February 2021. Data for IIIA building type.

**APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE**

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2025	Data Center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Distribution	-	-	-	-	-	-
	Manufacturing	-	-	-	-	-	-
	Retail	25,156,838	25,156,838	22,278,943	59,442	122,892	182,334
	Other	-	-	-	-	-	-
Subtotal		25,156,838	25,156,838	22,278,943	59,442	122,892	182,334
2026	Data Center	194,722,535	194,722,535	289,675,750	460,100	1,547,983	2,008,083
	Distribution	123,344,121	123,344,121	182,666,120	291,444	977,675	1,269,119
	Manufacturing	68,388,983	68,388,983	102,335,870	161,593	549,555	711,148
	Retail	-	25,156,838	-	59,442	-	59,442
	Other	-	-	-	-	-	-
Subtotal		386,455,638	411,612,476	574,677,740	972,579	3,075,214	4,047,792
2027	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	79,811,018	148,200,001	117,330,850	350,174	629,471	979,645
	Retail	-	25,156,838	-	59,442	-	59,442
	Other	-	-	-	-	-	-
Subtotal		79,811,018	491,423,494	117,330,850	1,161,160	629,471	1,790,631
2028	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	-	148,200,001	-	350,174	-	350,174
	Retail	-	25,156,838	-	59,442	-	59,442
	Other	-	-	-	-	-	-
Subtotal		-	491,423,494	-	1,161,160	-	1,161,160
2029	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	33,034,362	181,234,363	46,737,600	428,230	253,244	681,474
	Retail	23,135,128	48,291,966	20,497,680	114,107	113,399	227,505
	Other	-	-	-	-	-	-
Subtotal		56,169,490	547,592,984	67,235,280	1,293,880	366,643	1,660,523
2030	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	147,813,280	329,047,643	214,214,000	777,490	1,145,810	1,923,300
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		147,813,280	695,406,265	214,214,000	1,643,141	1,145,810	2,788,951
2031	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	-	329,047,643	-	777,490	-	777,490
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	695,406,265	-	1,643,141	-	1,643,141

**APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE**

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2032	Data Center	-	194,722,535	-	460,100	-	460,100
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	-	329,047,643	-	777,490	-	777,490
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	695,406,265	-	1,643,141	-	1,643,141
2033	Data Center	141,381,987	336,104,522	210,319,200	794,165	1,125,052	1,919,217
	Distribution	-	123,344,121	-	291,444	-	291,444
	Manufacturing	-	329,047,643	-	777,490	-	777,490
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		141,381,987	836,788,252	210,319,200	1,977,205	1,125,052	3,102,258
2034	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	76,795,805	200,139,925	111,975,500	472,901	600,930	1,073,830
	Manufacturing	-	329,047,643	-	777,490	-	777,490
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		76,795,805	913,584,057	111,975,500	2,158,662	600,930	2,759,592
2035	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	200,139,925	-	472,901	-	472,901
	Manufacturing	-	329,047,643	-	777,490	-	777,490
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	913,584,057	-	2,158,662	-	2,158,662
2036	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	47,567,554	247,707,479	68,159,000	585,296	367,410	952,705
	Manufacturing	223,884,486	552,932,129	331,058,000	1,306,496	1,768,530	3,075,026
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		271,452,040	1,185,036,097	399,217,000	2,800,063	2,135,940	4,936,002
2037	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	247,707,479	-	585,296	-	585,296
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	1,185,036,097	-	2,800,063	-	2,800,063
2038	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	43,077,883	290,785,363	61,343,100	687,082	331,084	1,018,167
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		43,077,883	1,228,113,980	61,343,100	2,901,849	331,084	3,232,933

**APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE**

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2039	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	95,710,390	386,495,753	140,212,800	913,231	751,420	1,664,652
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		95,710,390	1,323,824,370	140,212,800	3,127,998	751,420	3,879,419
2040	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	345,028,236	731,523,989	508,271,400	1,728,481	2,712,989	4,441,470
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		345,028,236	1,668,852,606	508,271,400	3,943,248	2,712,989	6,656,237
2041	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	228,011,582	959,535,571	340,795,000	2,267,239	1,820,423	4,087,662
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		228,011,582	1,896,864,189	340,795,000	4,482,006	1,820,423	6,302,429
2042	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	230,529,036	1,190,064,607	340,795,000	2,811,944	1,820,423	4,632,367
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		230,529,036	2,127,393,224	340,795,000	5,026,711	1,820,423	6,847,134
2043	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2044	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2045	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711

**APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE**

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2046	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2047	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2048	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2049	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2050	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2051	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2052	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711

APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2053	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2054	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2055	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2056	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2057	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2058	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2059	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711

**APPENDIX 2
CITY OF FERNLEY
ESTIMATED GENERAL FUND REVENUE**

<u>YEAR</u>	<u>LAND USE</u>	<u>TOTAL TAXABLE VALUE</u>	<u>CUMULATIVE TOTAL TAX VALUE</u>	<u>BUILDING PERMIT VALUATION</u>	<u>REAL PROP. TAX REVENUE</u>	<u>BUILD. PERMIT PLAN CHECK REVENUE</u>	<u>TOTAL REVENUE</u>
2060	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2061	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2062	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2063	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
2064	Data Center	-	336,104,522	-	794,165	-	794,165
	Distribution	-	1,190,064,607	-	2,811,944	-	2,811,944
	Manufacturing	-	552,932,129	-	1,306,496	-	1,306,496
	Retail	-	48,291,966	-	114,107	-	114,107
	Other	-	-	-	-	-	-
Subtotal		-	2,127,393,224	-	5,026,711	-	5,026,711
TOTAL		\$ 2,127,393,224		\$ 3,108,665,813	\$ 151,541,753	\$ 16,638,292	\$ 168,180,045

APPENDIX 2, ASSUMPTIONS:

1. Development taxable value and building permit valuation from Appendix 1.
2. City of Fernley FY 2021-22 property tax rate of **\$ 0.6751** is assumed to remain unchanged over the analysis period.
3. Property tax calculation: Taxable X 35% = Assessed Value; Assessed Value/100 X Tax Rate = Property Tax Revenue.
4. Analysis assumes a single building permit for each land use in each year. Building permit fee calculation is based on the following rate:
\$ 5,748.97 per first **\$ 1,000,000** plus **\$ 3.23** for each additional **\$1,000** of value. Source: Building Permit Fee Schedule (BPFS), City of Fernley, June 3, 2020.
5. Plan Check fee revenue calculated at **65.0%** of building permit revenue.
Source: Building Permit Fee Schedule (BPFS), City of Fernley, June 3, 2020.

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2025	Data Center	-		\$ -	\$ -			
	Distribution	-		-	-			
	Manufacturing	-		-	-			
	Retail	10.90		182,334	1,766			
	Other	38.70		-	6,269			
Subtotal		49.60	-	182,334	8,035	\$ -	\$ 507,988	\$ (333,689)
2026	Data Center	166.60		2,008,083	26,989			
	Distribution	111.20		1,269,119	18,014			
	Manufacturing	54.40		711,148	8,813			
	Retail	10.90		59,442	1,766			
	Other	65.10		-	10,546			
Subtotal		408.20	243,186	4,047,792	66,128	-	507,988	3,473,676
2027	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	132.30		979,645	21,433			
	Retail	10.90		59,442	1,766			
	Other	65.10		-	10,546			
Subtotal		486.10	-	1,790,631	78,748	-	507,988	1,203,895
2028	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	132.30		350,174	21,433			
	Retail	10.90		59,442	1,766			
	Other	65.10		-	10,546			
Subtotal		486.10	-	1,161,160	78,748	-	507,988	574,424
2029	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	177.10		681,474	28,690			
	Retail	20.90		227,505	3,386			
	Other	65.10		-	10,546			
Subtotal		540.90	480,003	1,660,523	87,626	-	507,988	1,064,909
2030	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	342.60		1,923,300	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		706.40	420,146	2,788,951	114,437	-	507,988	2,166,526
2031	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	342.60		777,490	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		706.40	-	1,643,141	114,437	-	507,988	1,020,716

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2032	Data Center	166.60		460,100	26,989			
	Distribution	111.20		291,444	18,014			
	Manufacturing	342.60		777,490	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		706.40	-	1,643,141	114,437	-	507,988	1,020,716
2033	Data Center	287.60		1,919,217	46,591			
	Distribution	111.20		291,444	18,014			
	Manufacturing	342.60		777,490	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		827.40	111,031	3,102,258	134,039	-	507,988	2,460,231
2034	Data Center	287.60		794,165	46,591			
	Distribution	192.50		1,073,830	31,185			
	Manufacturing	342.60		777,490	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		908.70	295,286	2,759,592	147,209	-	507,988	2,104,394
2035	Data Center	287.60		794,165	46,591			
	Distribution	192.50		472,901	31,185			
	Manufacturing	342.60		777,490	55,501			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		908.70	-	2,158,662	147,209	-	507,988	1,503,465
2036	Data Center	287.60		794,165	46,591			
	Distribution	251.10		952,705	40,678			
	Manufacturing	547.90		3,075,026	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,172.60	367,695	4,936,002	189,961	-	507,988	4,238,053
2037	Data Center	287.60		794,165	46,591			
	Distribution	251.10		585,296	40,678			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,172.60	-	2,800,063	189,961	-	507,988	2,102,113
2038	Data Center	287.60		794,165	46,591			
	Distribution	306.80		1,018,167	49,702			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,228.30	142,869	3,232,933	198,985	-	507,988	2,525,961

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2039	Data Center	287.60		794,165	46,591			
	Distribution	403.60		1,664,652	65,383			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,325.10	304,061	3,879,419	214,666	-	507,988	3,156,765
2040	Data Center	287.60		794,165	46,591			
	Distribution	733.20		4,441,470	118,778			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,654.70	175,663	6,656,237	268,061	-	507,988	5,880,188
2041	Data Center	287.60		794,165	46,591			
	Distribution	917.30		4,087,662	148,603			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		1,838.80	-	6,302,429	297,886	-	507,988	5,496,555
2042	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		4,632,367	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	6,847,134	332,230	-	507,988	6,006,917
2043	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2044	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2045	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2046	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	1,945,488	507,988	4,186,493
2047	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2048	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2049	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	3,840,024	507,988	4,186,493
2050	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	3,361,168	507,988	4,186,493
2051	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2052	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2053	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	888,248	507,988	4,186,493
2054	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	2,362,288	507,988	4,186,493
2055	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2056	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	2,941,560	507,988	4,186,493
2057	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2058	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	1,142,952	507,988	4,186,493
2059	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	2,432,488	507,988	4,186,493

APPENDIX 3
CITY OF FERNLEY
COMPARISON OF ESTIMATED GENERAL FUND REVENUES AND EXPENDITURES

<u>YEAR</u>	<u>LAND USE</u>	<u>CUMULATIVE # OF ACRES</u>	<u>ROAD SQFT ADDED</u>	<u>ESTIMATED GEN. FUND REVENUE</u>	<u>ESTIMATED GEN. FUND COSTS</u>	<u>INFRASTR. REPLACEM'T COST</u>	<u>ANNUAL REPLACEM'T COSTS</u>	<u>ESTIMATED REVENUE SURPLUS</u>
2060	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	1,405,304	507,988	4,186,493
2061	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2062	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2063	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
2064	Data Center	287.60		794,165	46,591			
	Distribution	1,129.30		2,811,944	182,947			
	Manufacturing	547.90		1,306,496	88,760			
	Retail	20.90		114,107	3,386			
	Other	65.10		-	10,546			
Subtotal		2,050.80	-	5,026,711	332,230	-	507,988	4,186,493
TOTAL			2,539,940	\$ 168,180,045	\$ 10,091,855	\$ 20,319,520	\$ 20,319,520	\$ 137,768,670

APPENDIX 3, ASSUMPTIONS:

1. Number of developed acres shown in Appendix 1.
2. The project is estimated to add **2,539,940** square feet of roadways to the City's inventory. Source: Project developers.
3. Revenue estimated in Appendix 2.
4. General Fund costs estimated at **\$ 162.00** per acre of developed space. Source: Development Fiscal Impact Analysis Tool Methodology and Instructions, Verdunity, July 2021. Analysis conservatively includes costs for drainage and transload/switching facility, though costs associated with these uses are expected to be minimal or lower than other commercial uses, revenues for these uses were not estimated.
5. Road maintenance costs, according to the Verdunity report, are included in above General Fund cost estimates. Costs for road replacement are not provided in Verdunity report and are estimated using City of Sparks costs of **\$ 8.00** per square foot occurring every 20 years. Infrastructure Replacement Costs show estimated costs occurring 20 years after roads are added to City's inventory. Annual Replacement Costs show total costs divided by 40 years of analysis and shown in every year of the analysis.
6. Estimated Revenue Surplus=Estimated General Fund Revenue-Estimated General Fund Costs-Annual Replacement Costs



CITY OF FERNLEY

CITY COUNCIL AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council	
REPORT THROUGH: Patrick Marsh, Acting City Manager	
REPORT BY: Shay League, Assistant Planner	
REVIEWED BY: Tim Thompson, Planning Director Brandi Jensen, City Attorney Denise Lewis, City Treasurer	

FINANCIAL IMPACT: ☐ YES ☒ NO	CURRENTLY BUDGETED: ☐ YES ☒ NO ☐ N/A	FUND/ACCOUNT:
---	--	----------------------

ACTION REQUESTED:	☐ Consent	☒ Motion	☒ Ordinance
	☐ Presentation	☐ Receive/File	☐ Resolution

AGENDA ITEM: Staff Report (For possible action) First Reading, Introduction of Bill #313 (ZMA22005) – Consideration and possible action to introduce Bill #313 as an ordinance for a Zoning Map Amendment request from Mark IV Capital to change the zoning of two parcels of land (APN's 021-211-02 & 021-211-03) from RR1 (Rural Residential, 1-acre minimum lot size) to I (Industrial).
--

AGENDA ITEM BRIEF: The subject parcels of vacant land (APNs: 021-211-02 and 021-211-03) are generally located southeast of Interstate 80 and northeast of Nevada Pacific Parkway and have a combined acreage of ±46.27 acres.

RECOMMENDED MOTION: Read bill by title and schedule 2nd reading, public hearing, and possible adoption of Bill #313 for the regularly scheduled meeting on August 3, 2022.
RECOMMENDED MOTION LANGUAGE: "I move to introduce Bill #313 and set the public hearing for the August 3, 2022, City Council Meeting."

Business Impact (per NRS Chapter 237): ☐ A Business Impact Statement is Attached. ☒ A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B.
--

See Attached Report for Background/Analysis/Findings

PROJECT SUMMARY

- CASE NUMBER(S):** • ZMA22005
- REQUESTED ACTION(S):** • Master Plan Amendment & Zoning Map Amendment
- PROPERTY OWNER(s):** • M4 New Fernley QOZB, LLC
- APPLICANT:** • Mark IV Capital
- LOCATION:** • Generally located southeast of Interstate 80 and northeast of Nevada Pacific Parkway (APNs: 021-211-02 & 021-211-03)
- SITE SIZE:** • ±46.27 acres
- EXISTING ZONING:** • RR1 – Rural Residential, 1-acre minimum lot size
- PROPOSED ZONING** • I – Industrial
- WARD INFORMATION:** • Ward 1 – Councilmember Lacy

***A PUBLIC HEARING IS REQUIRED**

POLICY REFERENCE

Nevada Statutes: *NRS 278*

Fernley Municipal Code: *Title 32*

Policies & Procedure Manual: *N/A*

Community Assessment: *N/A*

City of Fernley Development Code:

- *Section 32.03.040 – Zoning Map Amendments*
- *Section 32.06.110 – Industrial (I) Zoning Districts*
- *Section 32.09.035 – Dedication of Water Rights*
- *Section 32.09.140 – Streets (Roadways)*
- *Section 32.09.150 – Utilities*
- *Section 32.12.010 – Adequate Public Facilities Required*
- *Section 32.13.030 – Improvements, Security, & Inspections*

BACKGROUND

Both parcels are vacant. They have long been passed down among family members with the first deed appearing in Lyon County Assessor records in May of 1979. M4 Fernley Jackson LLC obtained parcel APN: 021-211-02 in August of 2020 and is working to obtain ownership of parcel APN: 021-211-03. Both parcels are intended to be a part of their Victory Logistics project.

ANALYSIS

The applicant provided a fiscal impact analysis completed January 26, 2022, for the proposed project in its entirety. Their analysis was conducted assuming phased development of 2,066 acres of the Victory Logistics District (to include the 685.51-acre subject parcel). Their fiscal impact findings are as follows:

- The project is estimated to generate a \$137.8 million revenue surplus over the 40-year analysis period for the City of Fernley's General Fund.
 - The project is estimated to generate \$168.2 million in revenue for the General Fund over the analysis period. This includes property tax and building permit/planning fee revenue.
 - The project is estimated to generate \$10.1 million in operating expenditures for the General Fund over the analysis period. This includes expenditures for the Public Works and Building and Planning departments.
 - The project is also estimated to generate \$20.3 million in infrastructure replacement costs over the analysis period.
- The project will have a positive fiscal impact on the City of Fernley.

This annexation was distributed to the City's Public Works Department, City Engineer, and all applicable outside agencies for feedback; comments received were provided to the applicant.

FINDINGS

Z1: Consistent with the city's master plan and otherwise consistent with state and federal law.

The applicant identified the following City of Fernley Comprehensive Master Plan goals and policies as being supported by the entire Victory Logistics project:

- **LU.1.1** Encourage and plan for new development in areas where adequate public services and facilities can be provided efficiently.
- **LU.1.1.1** Require new development to provide its proportionate share of improvements to avoid a degradation of services for existing residents. This requirement will be applied regardless of project size in order to avoid incremental erosion of services and facilities.
- **LU.1.1.2** Encourage development of vacant or underutilized lands within the community core where adequate infrastructure and facilities currently exists.
- **LU.1.1.3** Require new development to provide certified, stamped studies demonstrating the impact proposed development will have on existing infrastructure and to provide improvements and/or funding in lieu of improvements in proportion to the impacts of the proposed projects on the city's roadway, sewer and water systems.
- **LU.1.2** Encourage new development to be in accordance with the Comprehensive Master Plan land use category, and other land use controls to accomplish community principles.

- **LU.1.2.1** Consistently monitor development applications that intend to utilize the underlying zoning. Modify the Fernley Development Code as necessary to ensure compatible development that reflects the community goals envisioned in the Comprehensive Master Plan.
- **LU.1.3** Provide a balanced distribution of employment and population.
- **LU.1.3.1** Encourage land uses and development, which maintains a balance of population, housing, and employment.
- **LU.1.4** Ensure existing and future land uses are compatible.
- **LU.1.4.2** Projects shall be evaluated with the intent to promote land use compatibility; community design measures can increase compatibility among adjoining land uses.
- **LU.1.4.4** Prohibit piecemeal parcelization through the parcel maps to subvert the subdivision map process.
- **LU.1.4.6** Review all projects in relation to their geographic location, impacts to adjacent communities, fiscal impact and mitigation measures to protect natural and cultural resources. Apply specific conditions of approval tailored for each development proposal.
- **LU.1.4.7** Protect viable industrial areas from encroachment by potentially incompatible land uses or conversion to alternate uses.
- **LU.1.6** Create a growth pattern that assures flexible, feasible and efficient projects.
- **LU.1.6.1** Support for developmental approval of projects that provide an appropriate balance of population.
- **LU.1.6.2** The land use designations include minimum service standards that shall apply to proposed developments and land use changes.
- **LU.1.12** It is the intent of the City of Fernley to provide timely, orderly, and efficient arrangement of adequate public facilities and infrastructure that support existing and planned land use patterns and densities.
- **LU.1.12.1** Subdivision or intensification of land without adequate public facilities available to serve the new development as it occurs shall not be allowed.
- **LU.1.12.2** Any land use entitlement applications for subdivision or intensification of land shall also be require to submit a fiscal impact analysis to the approval of the City Manager or their designee.
- **LU.1.12.4** The City, land owner(s), and/or future developer(s) shall develop Area Plans for the Future Development Areas to efficiently plan for adequate public facilities and infrastructure to support future development of these areas.
- **T.1.1** Require that roadway facilities be maintained and constructed as needed to ensure high quality and safe travel on major streets and major intersections.
- **T.1.1.1** The minimum Level of Service on all city maintained roadways shall be LOS D. The City will work with representatives from NDOT to ensure timely improvements are planned when NDOT roadways are forecast to fall below LOS D.
- **T.1.1.4** Develop regulations regarding setbacks, signage and right-of-way dedication, and other considerations which preserve and increase roadway capacity and safety.

- **T.1.1.5** Ensure development of the roadways planned in the Streets and Highways Plan of the Comprehensive Master Plan occurs in a timely manner and with the financial assistance from the development community.
- **T.1.1.6** Require all new development to be consistent with the access right-of-way dedication and improvement standards as specified in the Public Works Design Manual and pursuant to the functional classification as defined in this chapter.
- **T.1.3** Implement street design and access standards to provide for safe and efficient movement of goods and people.
- **T.1.3.4** Require proposed new development that intends to connect with an NDOT roadway to incorporate the NDOT Access Management System and Standards into the project design. These standards regulate access onto the roadway network in order to protect health, safety and welfare of the public, maintain the rights-of-way, and to preserve the functional classification level of the roadway network while meeting the needs of the motoring public. The access management standards address the location, spacing and frequency of access points on the roadway network.
- **T.1.4** Plan for a transportation system that combines a mix of transportation modes and system management techniques while minimizing the impacts upon the environment or upon adjacent development.
- **T.1.4.5** Work with Southern Pacific Railroad to plan new safe and effective lines and spurs through the city.
- **T.1.5** The City of Fernley will work with the Nevada Department of Transportation to obtain right-of-way along US 50, US 95A and I-80 for purposes of implementing a frontage road system to minimize direct access onto these state owned roadways.
- **PSF.1.1** To provide and maintain a reliable and adequate water supply and delivery system.
- **PSF.1.1.3** Final maps and building permits will be approved only when adequate water rights have been dedicated to the City of Fernley and applicable service and connections fees have been paid.
- **PSF.1.2** To the maximum extent possible, the cost of improvement, extension and construction of public facilities should be borne by those whose land development and redevelopment actions made such improvement, extension and construction necessary. A procedure is to be established that defines the responsibility for improvements for individual projects.
- **PSF.2.1** Insure an efficient, adequate and self-supporting wastewater collection treatment and disposal system that will meet the needs of the public and comply with federal, state and local clean water requirements.
- **PSF.2.1.2** Final maps and building permits will be approved only when adequate sewer capacity is secured and applicable service and connections fees have been paid.
- **PSF.2.1.3** Sewer costs directly attributable to new development shall be paid for by the new development. The cost of providing services shall include the cost of extending service lines or other necessary facilities to the individual project site.
- **PSF.3.1** Develop a regional stormwater drainage system.

- **PSF.3.2** Ensure major utility lines, such as electric transmission or high pressure gas, are compatible with existing and future development.
- **PSF.3.2.1** Require that any new major utility lines be placed within existing transmission line corridors or in new corridors defined through a public planning process.
- **PSF.3.3** Ensure appropriate levels of public services and facilities are continually provided.
- **PSF.3.3.1** Coordinate the provision of public services with growth and development in Fernley.
- **PSF.3.3.2** Consider the financial impacts in all growth management decisions.
- **PSF.3.11** Require large-scale developments to be within adequate fire service areas.
- **PSF.3.11.2** All development in the City (except for residential densities less than one residence per acre) shall be within a 4-7 minute response time of an existing or planned fire station.
- **PSF.3.11.3** New Development shall identify and fund facilities and infrastructure necessary to provide adequate fire protection.
- **PSF.3.11.5** Require water distribution systems to meet the Lyon County Fire District standards for all future development.

Z2: Consistent with the surrounding land uses.

SURROUNDING LAND USES AND ZONINGS (OF PROJECT SITE)		
Direction	Land Use	Zoning
North	Interstate-80	N/A
South	Industrial (I) - Same Project	Industrial (I)
East	Industrial (I) - Same Project	Industrial (I)
West	Interstate-80	N/A

These parcels are directly southeast of Interstate-80. Surrounding parcels are undeveloped but are a part of the overall Victory Logistics project and zoned and master planned as Industrial accordingly.

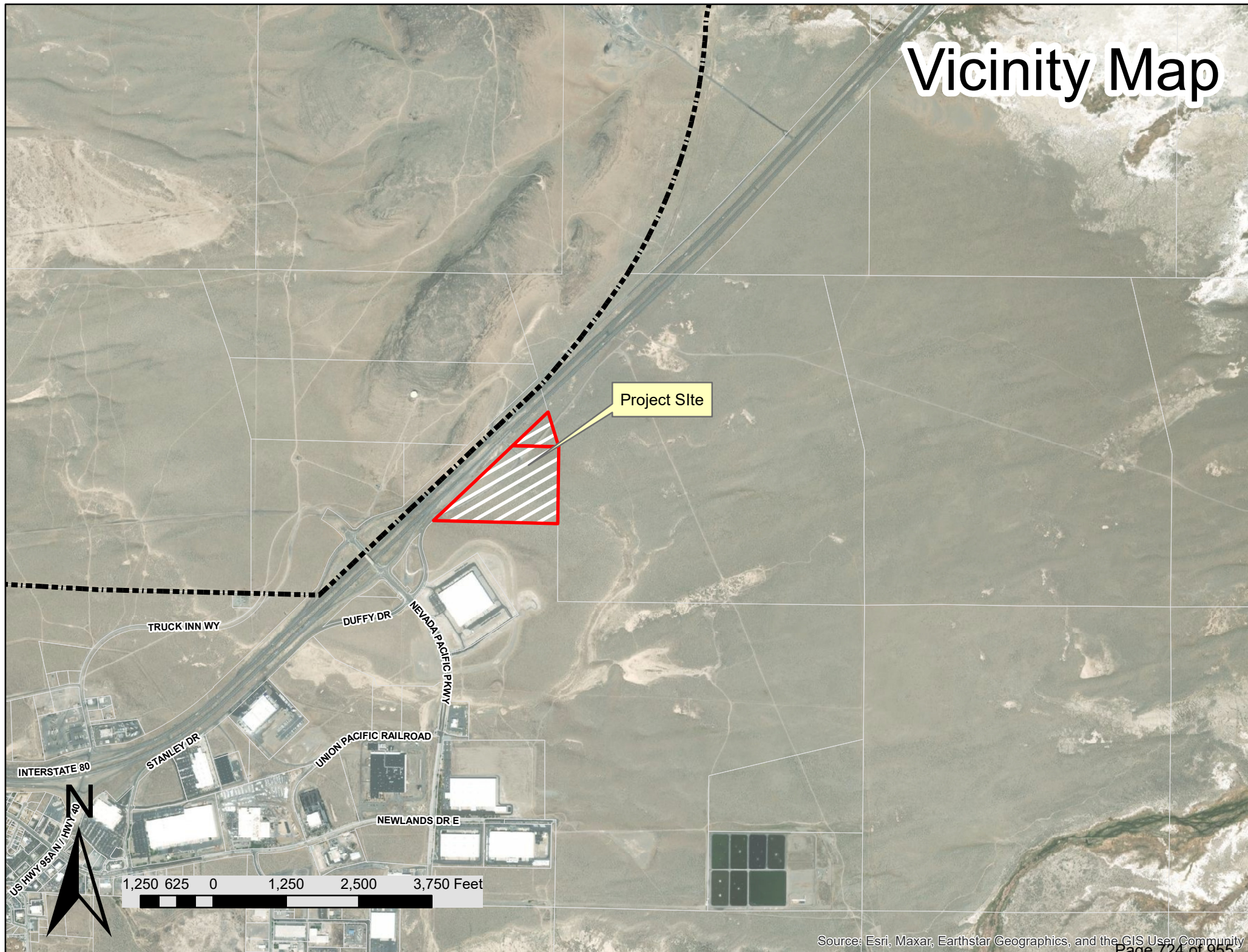
Z3: Public notice was given, and a public hearing held per the requirements of Nevada Revised Statutes and Fernley Development Code.

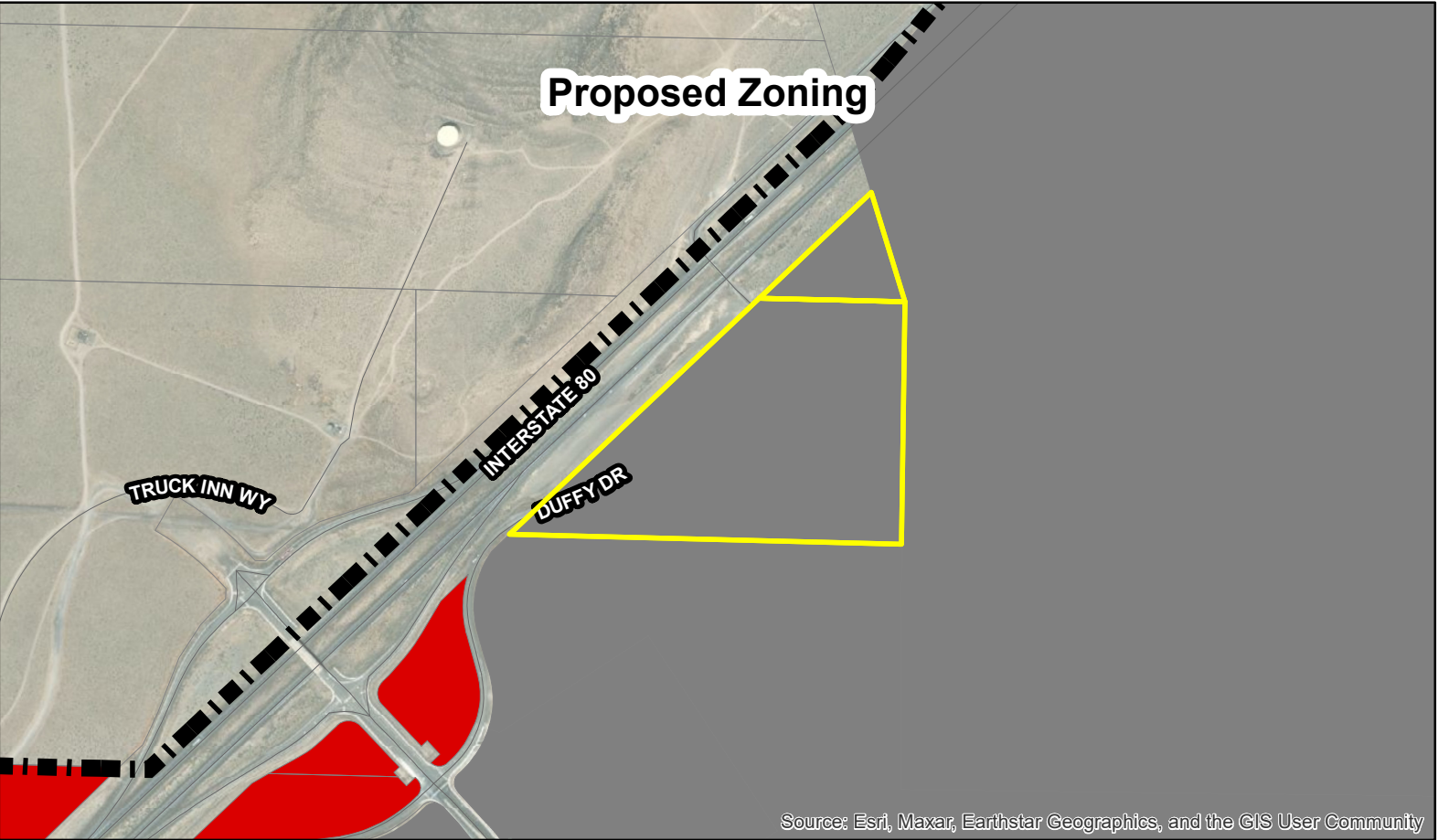
Staff certifies that public notice has been given and a public hearing was held per the requirements of the development code and the Nevada Revised Statutes.

ATTACHMENTS

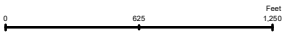
1. Vicinity Map
2. Existing & Proposed Zoning Map Exhibit
3. Bill #313 – Ordinance for Zoning Map Amendment

Vicinity Map





NOTE: The scale and configuration of all information shown hereon are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Ferley



Legend

GR20	RR1/2	SF9	MF21	C1	EC	PF
RR5	SF20	SF6	MF30	C2	I	OSP
RR1	SF12	MDR14	MU	TC	PD	Split Zoning

When recorded, mail to:
City Clerk
City of Fernley
595 Silver Lace Boulevard
Fernley, NV 89408

BILL # 313
CITY OF FERNLEY
ORDINANCE # _____

A GENERAL ORDINANCE FOR A ZONING MAP AMENDMENT, ASSOCIATED WITH ZMA22005, TO CHANGE THE ZONING FROM RR1 (RURAL RESIDENTIAL, 1 ACRE) TO I (INDUSTRIAL) ON A SITE APPROXIMATELY ±46.27 ACRES AND GENERALLY LOCATED SOUTHEAST OF INTERSTATE 80 AND NORTHEAST OF NEVADA PACIFIC PARKWAY IN FERNLEY, NV, ASSESSOR'S PARCEL NUMBERS 021-211-02 AND 021-211-03, AND PROVIDING OTHER MATTERS PROPERLY RELATING THERETO.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter "the Council", DO HEREBY ORDAIN:

Section 1: The zoning of property described in Exhibit "A" and shown in Exhibit "A-1", which is attached hereto and incorporated herein by reference, situated in the City of Fernley, County Of Lyon, State Of Nevada, Is Hereby Changed from RR1 (Rural Residential, 1 Acre) to Industrial (I) on a site approximately ±46.27 acres in size generally located southeast of Interstate 80 and northeast of Nevada Pacific Parkway in Fernley, NV (APNs: 021-211-02 AND 021-211-03).

SECTION 2: The zoning map of the City of Fernley is hereby amended in accordance with the zoning map amendment herein.

SECTION 3: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION 4: The City Clerk is instructed and authorized to publish the title to this ordinance as provided by law and to record the plan certified herein as provided by law.

SECTION 5: This ordinance shall become effective upon passage, approval, and publication.

SECTION 6: The provisions of this ordinance shall be liberally construed to effectively carry out its purposes in the interest of the public health, safety, welfare and convenience.

SECTION 7: If any subsection, phrase, sentence or portion of this section is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions.

SECTION 8: The City Council finds that this ordinance is not likely to impose a direct and significant economic burden upon a business or directly restrict the formation, operation or expansion of a business, or is otherwise exempt from Nevada Revised Statutes Chapter 237.

BILL # 313 BEING HEREBY PROPOSED on this 20th day of July 2022.

BILL # 313 BEING HEREBY PASSED, APPROVED and ADOPTED this 3rd day of August 2022, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____
Roy Edgington, Mayor

Date: _____

Attest By: _____
Kim Swanson, City Clerk

Date: _____

LEGAL DESCRIPTION

All that certain real property situate within Section 5, Township Twenty (20) North, Range Twenty-Five (25) East, Mount Diablo Base and Meridian, City of Fernley, County of Lyon, State of Nevada, being, being more particularly described as follows:

BEING all those portions of the South One-Half of the Northeast One-Quarter and the North One-Half of the Southeast One-Quarter of said Section 5 lying southeasterly of Southeast right-of-way of Interstate 80 in said Township Twenty (20) North, Range Twenty-Five (25) East, Diablo Base and Meridian, City of Fernley, County of Lyon, State of Nevada.

Prepared by:
Christy Corporation
1000 Kiley Parkway
Sparks, Nevada 89436



Daniel A. Bigrigg P.L.S.
Nevada Certificate No. 19716

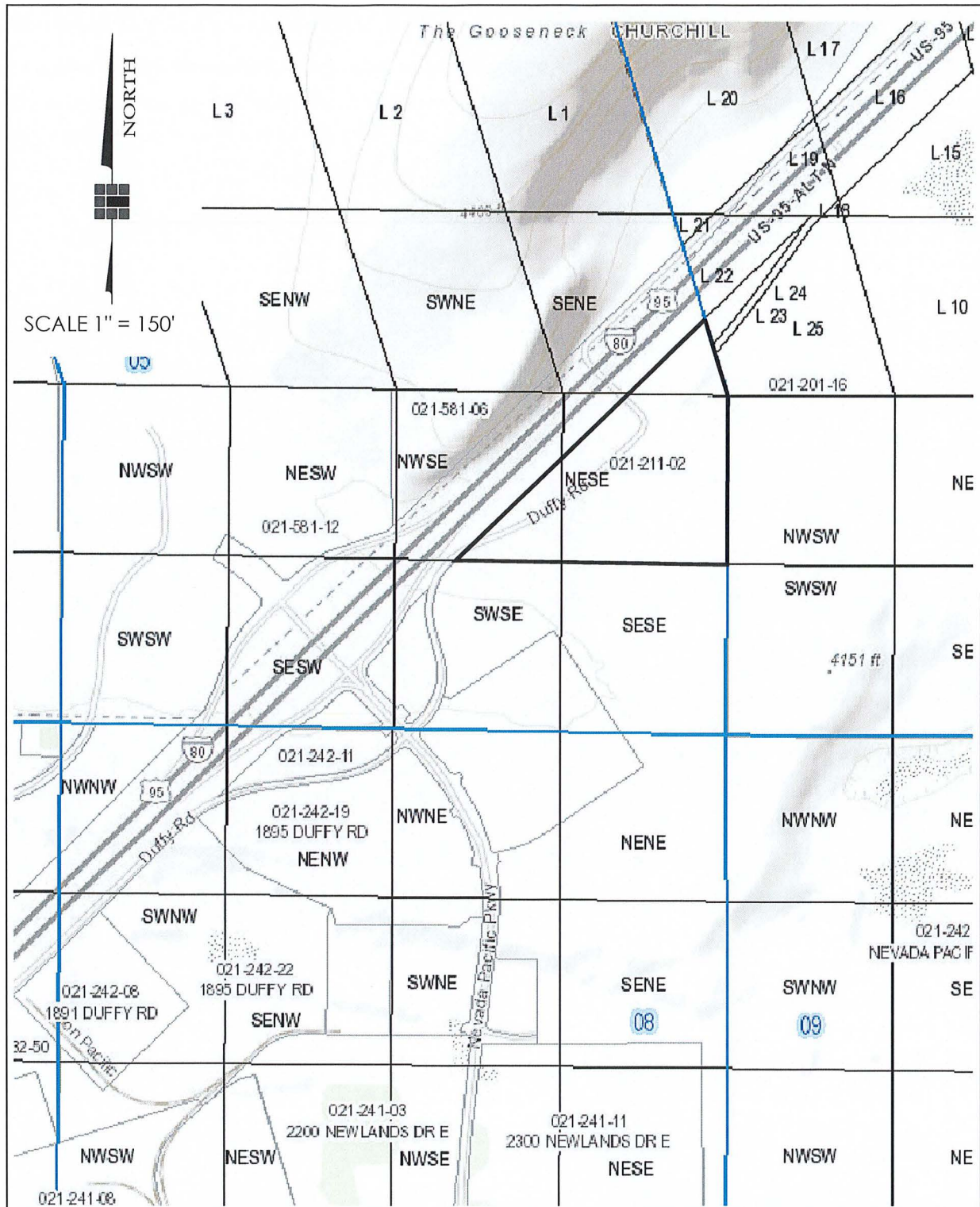


EXHIBIT
BOUNDARY MAP
TOWNSHIP 20 NORTH, RANGE 25 EAST
MOUNT DIABLO BASE AND MERIDIAN
CITY OF FERNLEY COUNTY OF LYON STATE OF NEVADA

CHRISTY
CORPORATION

1000 Kiley Pkwy | Sparks Nevada 89436
P 775.502.8552 W christynv.com



CITY OF FERNLEY

City Council AGENDA REPORT

Meeting Date: July 20, 2022

REPORT TO: Mayor and City Council

REPORT FROM: Trisha Conner, Assistant to the City Manager

FINANCIAL IMPACT:	CURRENTLY BUDGETED:	FUND/ACCOUNT:
Yes: X No:	Yes: X No:	ARPA 220-480-810

ACTION REQUESTED: Motion

AGENDA ITEM: (For Possible Action):

Possible Action to Discuss and Approve the Owner-Construction Manager At Risk Pre-Construction Agreement for the Community Response & Resource Center to Core Construction, in the amount not-to-exceed \$94,500.00

AGENDA ITEM BRIEF:

Staff reposted the Community Response & Resource Center CMAR Request for Proposal on April 27th, 2022. Because this project is contingent upon receipt of ARPA funding, there are additional federal procurement law requirements that must be satisfied. Some of the relevant provisions can be found in 2 CFR 200.317 through 200.327, and in particular sections 200.319 and 200.320. Two CMAR proposals were received by the deadline of May 25, 2022 at 2:00 pm and were reviewed by the CMAR Review Team on May 26, 2022. Both CMAR firms were interviewed on June 3, 2022 and one firm was selected by the CMAR Review Team. The selected CMAR firm and the City of Fernley CMAR Negotiating Team negotiated the contract before City Council. Staff recommends approving the Owner-Construction Manager At Risk (CMAR) Pre-Construction Agreement to improve cost control and lower financial risk.

RECOMMENDED MOTION:

"I move to approve the Owner-Construction Manager at Risk Pre-Construction Agreement for the Community Response & Resource Center between the City of Fernley and Core Construction, in the amount not-to-exceed \$94,500.00."

BUSINESS IMPACT (per NRS Chapter 237):

A Business Impact Statement is not required because this is not a rule (term excludes vehicles by which legislative powers are exercised under NRS Chapters 271, 278, 278A, or 278B).

See attached report for background, analysis, alternatives.

ALTERNATIVES:

Council may request more information.

BACKGROUND:

On August 4, 2021, Fernley City Council approved the American Rescue Plan Act spending plan which included \$12,000,000 for the development of a Community Response & Resource Center (CRRC). Due to City staff and budgetary limitations for the project, time constraints per ARPA regulations, the rapidly changing construction market, supply chain issues, staff recommends contracting for Owner-CMAR services in the Pre-Construction and Construction phases of the CRRC. The advantage of using a CMAR is to improve the cost control throughout various stages of the project development and construction. Contracting the CMAR during the design phase of the project gives the opportunity for the architect/engineer and the CMAR to develop an immediate and strong, collaborative working relationship on behalf of the City. The CMAR will assist with value engineering, cost estimating and constructability reviews during the design phase of the project. The CMAR may also accelerate the construction schedule through early start packages, for example, excavation and site dewatering prior to the final design. The CMAR will provide cost estimates for the cost of materials and labor so the City will have a better idea how to budget the project. This will allow for improved cost control so there are no unexpectedly high costs during the project. The CMAR is also required to complete all professional services and work within the time limits established.

Staff reposted the Community Response & Resource Center CMAR Request for Proposal on April 27th, 2022. Because this project is contingent upon receipt of ARPA funding, there are additional federal procurement law requirements that must be satisfied. Some of the relevant provisions can be found in 2 CFR 200.317 through 200.327, and in particular sections 200.319 and 200.320. Two CMAR proposals were received by the deadline of May 25, 2022 at 2:00 pm and were reviewed by the CMAR Review Team on May 26, 2022. Both CMAR firms were interviewed on June 3, 2022 and one firm was selected by the CMAR Review Team. The selected CMAR firm and the City of Fernley CMAR Negotiating Team negotiated the contract before City Council.

CMAR Pre-Construction Scope of Services

The scope of the CMAR's Pre-Construction Services includes, but is not limited to the following:

1. Participation in regularly scheduled design progress review meetings with the Architect and the Owner. The CMAR shall provide ongoing input with respect to constructability, construction cost, construction duration, sequence of construction, and construction means and methods.
2. Conducting investigations, with participation by appropriate subcontractors, of all existing site and building conditions, and all off-site conditions as appropriate for each project.
3. Assessment and advisement regarding schedule impacts related to long lead submittals and long lead equipment procurement.
4. Development of questions (RFI's), review comments, suggestions, and cost estimates at each of the stipulated phases of design (see Baseline Project Schedule in Request for Proposals).
5. Assistance with identifying and reconciling differences between third party cost estimating consultant's and/or Architect's cost estimates and the CMAR's cost estimates.
6. Assistance with developing bid alternates as may be appropriate to accommodate the project budget and the current cost estimates.
7. Development of constructability and value engineering suggestions at each phase of design, including final CMAR constructability and value engineering suggestions based upon 100% Construction Documents. CMAR constructability and value engineering suggestions shall be based on relevant first cost, life cycle cost, schedule impact, and constructability issues.

8. The CMAR shall utilize Virtual Construction and Building Information Modeling (BIM) throughout the design and construction process. The CMAR shall provide an implementation plan for review by the Owner and the Architect prior to commencing services on the project. Implementation and submittals of associated documentation related to Virtual Construction and Building Information Modeling shall begin during the Design Development phase of the project.
9. CMAR advertisements, pre-qualification procedures, and contracts with all subcontractors shall be conducted in accordance with NRS Sections 338.16991 and 338.16995. Advertisement for subcontractor applications must comply with NRS 338.1385 (1) (a). Subcontractor qualifications and involvement shall also be coordinated as described in Request for Proposals Article 6, Section 4 'Project Implementation Plan.' CMAR and any CMAR subcontractors must also comply with any grant provisions if a grant is involved in the owner's funding.
10. The CMAR shall develop potential bidder lists for all trades where the estimated value of the subcontract is at least 1% of the total cost of the public work, or \$50,000, whichever is greater. The complete list of subcontractors that the CMAR intends to solicit bids from shall be provided to the Owner prior to issuing the request for proposals to subcontractors.
11. Distribution of documents to potential bidders, coordination of pre-bid conferences and bid openings, and determination of the best bids in each category. Prior to issuing requests for proposals to subcontractors, the CMAR shall provide the Owner with a copy of the CMAR's request for subcontractor proposals, including the form that the subcontractors must utilize to submit their proposals, along with all associated instructions.
12. The CMAR shall coordinate the date and time of the bid opening with the Owner to ensure that the Owner is represented at the bid opening. The CMAR shall provide the Owner with a bound copy of all documentation submitted by subcontractors and suppliers immediately after the bid opening concludes. The bound copy shall also include the CMAR's summary tabulation of the bid results.
13. Coordination of input and questions from subcontractors with regard to each of the items described in this section/article.
14. The CMAR shall review all subcontractor proposals to determine completeness of scope, adherence to project schedule, and commitment to quality and safety before making the final recommendation to the Owner. The CMAR's recommendation shall be based on what is deemed to be the best value for the Owner.
15. Development of a GMP Proposal based on bids obtained from all necessary subcontractors after reviewing and coordinating the bid results with the Owner. Along with the GMP Proposal, the CMAR shall submit a bound set of documents that includes all subcontractor proposals for which the estimated value is at least 1% of the total cost of the public work, or \$50,000, whichever is greater, and narratives as necessary to describe any changes to the submitted subcontractor proposals.
16. CMAR warrants that all services, deliverables, and/or work product under this Agreement shall be completed in a good and workmanlike manner consistent with standards in the trade, profession, or industry and shall conform to or exceed the specifications set forth in the incorporated documents and/or services described herein.

Please note, the agreement is for Pre-Construction CMAR services only. The CMAR Fee includes for furnishing of all labor, materials, equipment, tools and services, and for doing everything required by the Owner-CMAR Pre-Construction Agreement including, but not limited to, providing the required Guaranteed Maximum Price Proposal.

Once the CMAR pre-construction agreement has been approved and the Notice to Proceed has been received by the selected CMAR, a kick-off meeting will be scheduled to onboard the contractor.

ARPA Funding Update for the Community Response & Resource Center Project:

On August 4, 2021, Fernley City Council approved the ARPA spending plan which included \$12,000,000 for the

development of a Community Response & Resource Center (CRRS). ARPA State and Local Fiscal Recovery Funds allows for capital project/investments that respond to the COVID-19 public health emergency. On October 20, 2021, Fernley City Council approved the professional architect-engineering services for the CRRS to TSK Architects in the amount of \$2,168,170.00. On February 16, 2022, Fernley City Council approved the contract for the Owner's Representative/Construction Management Services to Cumming Management Group, Inc. in the amount not-to-exceed \$602,232.00.

ARPA Project: Community Response & Resource Center	Description	Amount
TSK Architects - Approved	Professional architect-engineering services	\$2,168,170.00
Cumming Management Group, Inc. - Approved	Professional Owner's Representative/Construction Management Services	\$602,232.00
Core Construction - Proposing	CMAR Pre-construction agreement	\$94,500.00
To be determined	Other eligible needs will be presented to Council prior to expenditures	\$9,135,098.00
TOTAL		\$12,000,000.00

RELEVANT LAWS, STATUTES, AND REGULATIONS:

2 CFR Part 200, Sections 601 and 602 of the Social Security Act, NRS Chapter 338

FINANCIAL IMPLICATIONS:

The City of Fernley must comply with the Department of the Treasury 2 CFR Part 200 and Sections 601 and 602 of the Social Security Act. On August 4, 2021, a formal expenditure plan was presented to City Council for prior approval of ARPA fund expenditures. ARPA funds may be used to cover eligible costs incurred during the period that begins March 3, 2021, and ends on December 31, 2024, as long as the award funds for the obligations incurred by December 31, 2024 are expended by December 31, 2026. Any funds not expended by December 31, 2026 to cover such obligations must be returned.

ATTACHMENTS:

1. 1.0_Owner-CMAR Pre-Construction Agreement DRAFT 6.13.22 KH TC-1
2. 2.0_Owner-CMAR General Conditions DRAFT 6.13.22 KH TC

OWNER-CMAR PRE-CONSTRUCTION AGREEMENT

This Owner-CMAR Pre-Construction Agreement, between the City of Fernley, Nevada, represented by the listed Owner, hereinafter referred to as “Owner,” and the Construction Manager at Risk, hereinafter referred to as “CMAR”, is entered into as of the following date:

Execution Date: _____

Project Identification

Project Name: City of Fernley Community Response and Resource Center

Project Address: APNs 021-103-42 & 021-103-43, generally located as follows: Fernley, NV 89408 bound by East Main Street (north), Lois Lane (east), Peppertree Lane (south), and a modular home community (west)

Project No.:

Contract No:

Owner

City of Fernley, Nevada

c/o Cummings (Owner’s rep)

595 Silver Lace Blvd.

Fernley, NV 89408

(775) 784-9858

cmarrfp@cityoffernley.org

CMAR

CORE West, Inc.

7150 Cascade Valley Court

Las Vegas, NV, 89128

(702) 794-0550

ARTICLE 1 CMAR FEE

For furnishing all labor, materials, equipment, tools and services, and for doing everything required by this Agreement including, but not limited to, providing the required Guaranteed Maximum Price Proposal, the Owner will pay and the CMAR shall receive as full compensation therefore, a total sum not to exceed:

CMAR Pre-Construction Services Fee Amount: \$ 94,500.00

ARTICLE 2 INCORPORATED DOCUMENTS

The Owner and the CMAR mutually agree that the following documents comprise the Contract Documents and are incorporated into and made a part of this Agreement by reference:

1. CMAR Request for Proposals

2. CMAR General Conditions of the Contract

Dated: May 27, 2022

ARTICLE 3 AGREEMENT MODIFICATIONS

This Agreement constitutes the entire agreement between the parties and may be modified only by a written endorsement executed by the parties.

ARTICLE 4 CMAR PRE-CONSTRUCTION SERVICES

In consideration of the mutual covenants and conditions provided herein, the Owner does hereby employ the CMAR to perform Pre-Construction Services, and the CMAR agrees to expeditiously perform such services for the referenced project. The scope of the CMAR's Pre-Construction Services includes, but is not limited to the following:

1. Participation in regularly scheduled design progress review meetings with the Architect and the Owner. The CMAR shall provide ongoing input with respect to constructability, construction cost, construction duration, sequence of construction, and construction means and methods.
2. Conducting investigations, with participation by appropriate subcontractors, of all existing site and building conditions, and all off-site conditions as appropriate for each project.
3. Assessment and advisement regarding schedule impacts related to long lead submittals and long lead equipment procurement.
4. Development of questions (RFI's), review comments, suggestions, and cost estimates at each of the stipulated phases of design (see Baseline Project Schedule in Request for Proposals).
5. Assistance with identifying and reconciling differences between third party cost estimating consultant's and/or Architect's cost estimates and the CMAR's cost estimates.
6. Assistance with developing bid alternates as may be appropriate to accommodate the project budget and the current cost estimates.
7. Development of constructability and value engineering suggestions at each phase of design, including final CMAR constructability and value engineering suggestions based upon 100% Construction Documents. CMAR constructability and value engineering suggestions shall be based on relevant first cost, life cycle cost, schedule impact, and constructability issues.
8. The CMAR shall utilize Virtual Construction and Building Information Modeling (BIM) throughout the design and construction process. The CMAR shall provide an implementation plan for review by the Owner and the Architect prior to commencing services on the project. Implementation and submittals of associated documentation related to Virtual Construction and Building Information Modeling shall begin during the Design Development phase of the project.
9. CMAR advertisements, pre-qualification procedures, and contracts with all subcontractors shall be conducted in accordance with NRS Sections 338.16991 and 338.16995. Advertisement for subcontractor applications must comply with NRS 338.1385 (1) (a). Subcontractor qualifications and involvement shall also be coordinated as described in Request for Proposals Article 6, Section 4 'Project Implementation Plan.' CMAR and any CMAR subcontractors must also comply with any grant provisions if a grant is involved in the owner's funding.
10. The CMAR shall develop potential bidder lists for all trades where the estimated value of the subcontract is at least 1% of the total cost of the public work, or \$50,000, whichever is greater. The complete list of subcontractors that the CMAR intends to solicit bids from shall be provided to the Owner prior to issuing the request for proposals to subcontractors.
11. Distribution of documents to potential bidders, coordination of pre-bid conferences and bid openings, and determination of the best bids in each category. Prior to issuing requests for proposals to subcontractors, the CMAR shall provide the Owner with a copy of the CMAR's request for

subcontractor proposals, including the form that the subcontractors must utilize to submit their proposals, along with all associated instructions.

12. The CMAR shall coordinate the date and time of the bid opening with the Owner to ensure that the Owner is represented at the bid opening. The CMAR shall provide the Owner with a bound copy of all documentation submitted by subcontractors and suppliers immediately after the bid opening concludes. The bound copy shall also include the CMAR's summary tabulation of the bid results.
13. Coordination of input and questions from subcontractors with regard to each of the items described in this section/article.
14. The CMAR shall review all subcontractor proposals to determine completeness of scope, adherence to project schedule, and commitment to quality and safety before making the final recommendation to the Owner. The CMAR's recommendation shall be based on what is deemed to be the best value for the Owner.
15. Development of a GMP Proposal based on bids obtained from all necessary subcontractors after reviewing and coordinating the bid results with the Owner. Along with the GMP Proposal, the CMAR shall submit a bound set of documents that includes all subcontractor proposals for which the estimated value is at least 1% of the total cost of the public work, or \$50,000, whichever is greater, and narratives as necessary to describe any changes to the submitted subcontractor proposals.
16. CMAR warrants that all services, deliverables, and/or work product under this Agreement shall be completed in a good and workmanlike manner consistent with standards in the trade, profession, or industry and shall conform to or exceed the specifications set forth in the incorporated documents and/or services described herein.

ARTICLE 5 TIME/TERM

Time shall be of the essence of this Agreement and the CMAR agrees to satisfactorily complete all professional services and work within the time limits established in the incorporated documents. Failure to comply with the time schedule set forth in this Agreement shall be deemed adequate cause for termination of this Agreement. This Agreement shall be effective as of Execution Date, and the receipt by CMAR of a Notice to Proceed, and shall remain in effect for the period set forth in the incorporated documents, subject to the Termination provisions of this Agreement and subject to approval of City Council.

ARTICLE 6 STATUTORY REQUIREMENTS

The CMAR agrees to all terms and conditions of the Nevada Revised Statutes (NRS), the Nevada Administrative Code (NAC), and all federal laws and regulations as may apply to this Agreement, and to the work performed under this Agreement and agrees to comply with all such applicable portions of the NRS, the NAC, and all grants and federal laws and regulations that apply.

ARTICLE 7 OBLIGATION LIMITATION

The Owner and the CMAR mutually agree that the fee described herein is for Pre-Construction services only and in no manner obligates the Owner to enter into a construction contract with the CMAR.

ARTICLE 8 EXAMINATION OF DOCUMENTS

Execution of this Agreement by the CMAR constitutes the CMAR's representation that CMAR has examined the contents of all contract documents, including the CMAR General Conditions of the Contract that CMAR has read and understands the same, and specifically agrees to be bound thereby.

ARTICLE 9 LEGAL ACTIONS

This Agreement shall be governed by Nevada law, without regard to conflicts of law principles. The parties agree that jurisdiction and venue for any dispute arising out of or relating to the Agreement shall be exclusively within the courts of Lyon County, Nevada (as applicable and permitted by this Agreement) or within Lyon County, Nevada for any mediation or arbitration proceedings, and the parties hereby waive any objection to such jurisdiction and venue.

ARTICLE 10 DISPUTE RESOLUTION

EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED and agree that the Parties encounter any difference or dispute whatsoever relating to the interpretation, validity or performance of this Agreement (“Controversy”) the parties agree that every good faith attempt will be made to resolve the controversy within thirty (30) days of an issuance of written notice by either party to the other party, which notice shall include a statement of all material facts, theories, and arguments then known by the complaining party. If a successful resolution of the controversy has not been achieved to the satisfaction of both parties at the end of the thirty (30) day period, the following steps will be followed:

- a) Within thirty (30) days following the above-referenced 30-day period, a party may issue a Notice of Mediation to the other party, and the controversy shall be resolved in accordance with the Mediation Rules of the American Arbitration Association, in effect as of the date of the execution of this Agreement, which are incorporated by reference and shall guide this procedure.
- b) If no resolution has been mutually agreed to through mediation within ninety (90) days of service of a Mediation Notice, then and only then may the controversy be submitted to arbitration, after a finding by the mediator that each party participated in mediation in good faith.
- c) Within thirty (30) days of such finding, the parties agree to in good faith, proceed with binding confidential arbitration using the Commercial Arbitration Rules of the American Arbitration Association in effect as of the date of the execution of this Agreement, which are incorporated by reference and shall guide this procedure.
- d) The parties consent to jurisdiction and venue for purposes of Alternative Dispute Resolution, as provided in Section 10. Further the parties agree any judgment, award, or decision obtained through this section, may be entered thereon in any state or federal court in the same manner as if the parties were residents of the state or federal district in which said judgment is sought to be entered. All applicable statutes of limitations and defenses based upon the passage of time shall be tolled while the requirements of this Section are being followed.
- e) Notwithstanding the foregoing, nothing in this Agreement shall preclude the parties from seeking temporary or permanent injunctive relief from a court of competent jurisdiction as outlined in Section 10.

In the event of either arbitration or litigation, the prevailing party shall be entitled to an award of its reasonable attorney’s fees and costs from the non-prevailing party.

ARTICLE 11 INDEMNIFICATION

To the fullest extent permitted by law, the CMAR shall defend, indemnify, and hold harmless the Owner, Owner's Representative, the Architect, the Architect's consultants, and the agents and employees of all of them from and against all claims, damages, losses, and expenses, including, but not limited to attorneys' fees arising out of or resulting from performance of the Work or caused by the negligent acts or omissions of the CMAR, a Subcontractor, a supplier, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this paragraph. Owner does not waive, and expressly reserves the right to assert, and does intend to assert any and all available limitations on liability, including but not limited to, those within NRS Chapter 41.

ARTICLE 12 ASSIGNMENT RIGHTS

The CMAR shall neither assign, transfer, nor delegate any rights, obligations, monies or duties under this Agreement without the prior written consent of the Owner.

ARTICLE 13 TERMINATION

This Agreement may be amended or terminated by mutual written consent of the parties hereto. The Owner, however, specifically reserves the right at any time to terminate this Agreement for convenience seven calendar days after having served the CMAR with a written notice of termination. Owner may terminate this Agreement for breach of this Agreement by CMAR as follows: If Owner determines that CMAR is in default or breach of this Agreement, Owner may provide a 5-day notice and opportunity to cure. If CMAR does not cure within such 5-day period (or commence a cure or diligently prosecute such cure to completion thereafter if the breach reasonably cannot be cured within such 5-day period), then Owner may terminate this Agreement. Upon such termination, CMAR shall not be entitled to any further payment; if it is determined that the cost to complete the work remaining is less than otherwise owed to CMAR, then CMAR shall be entitled to the difference, but if the cost to complete the work remaining is more than what is otherwise owed to CMAR and the remaining fee, CMAR shall pay the difference to Owner promptly upon demand.

Upon termination for convenience, the Owner shall make payments to the CMAR of all fees due but unpaid for services or work completed to the satisfaction of the Owner as of the time of the notice of termination. The making of such payments by the Owner shall constitute a complete release of all the responsibilities of the Owner under the terms of this Agreement. The CMAR waives any claim for overhead and profit on the services or work remaining at the time of termination.

ARTICLE 14 OWNERSHIP AND USE OF DOCUMENTS

Any drawings, reports, studies, photographs, negatives, or other documents prepared by the CMAR in the performance of his obligations under this Agreement shall be the exclusive property of the Owner and all such materials shall be remitted to the Owner by the CMAR upon completion, termination, or cancellation of this Agreement. The CMAR shall not use, willingly allow, or cause to have such materials used for any purpose other than the performance of the CMAR's obligations under this Agreement, without the prior written consent of the Owner.

ARTICLE 15 INDEPENDENT CONTRACTOR/LICENSURE

The parties agree that the CMAR is an independent contractor, and that this Agreement is entered into in accordance with Nevada Revised Statutes Section 333.700, which in pertinent part provides that the CMAR is not a City employee, and that the CMAR will not be entitled to any City insurance or benefits. CMAR represents that it has and shall be responsible for maintaining any and all qualifications, business

licenses, and/or certifications necessary to perform its obligations under this Agreement.

ARTICLE 16 FAIR EMPLOYMENT PRACTICES

In connection with the performance of work under this Agreement, the CMAR agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age. Such agreement shall include, but not be limited to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The CMAR further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

Any violation of such provision by the CMAR shall constitute a material breach of this Agreement.

ARTICLE 17 WORKERS COMPENSATION/EMPLOYERS LIABILITY INSURANCE

The Owner is not liable for the payment of any premiums, deductibles, or any assessments on any insurance policies purchased by the CMAR. CMAR shall provide within thirty days of the execution of this Agreement, or at least 10 days prior to commencement of services, whichever is earlier, the following:

- a) Proof of general liability insurance coverage in an amount of at least \$1,000,000, designating the City of Fernley, Cumming, and TSK as additional insureds under the policy of insurance;
- b) Proof of errors and omissions insurance coverage in an amount of at least \$1,000,000; and
- c) Proof of worker's compensation insurance, including employer's liability coverage per the limits below.

In consideration of the award of this Contract, the CMAR agrees to waive all rights of subrogation against the Owner, the Owner's officers, officials, agents, and employees, for losses arising from the work performed by the CMAR for the Owner. CMAR shall provide written notice to Owner of any renewal, replacement, or change in insurance coverage and/or carrier thirty days prior to any such change.

Workers Compensation/Employers Liability Insurance

Provide Workers Compensation/Employers Liability insurance in the amounts listed. Provide additional coverage as may be required by applicable federal or state laws.

Part One	Statutory Limits	Nevada Revised Statutes Chapters 616A thru 618
Part Two	Each Accident	\$1,000,000
Disease	Policy Limit	\$1,000,000
Disease	Each Employee	\$1,000,000

ARTICLE 18 PAYMENT SCHEDULE

Payment for pre-construction services will be made in accordance with the following schedule:

Schematic Design Phase	20% of Total
Design Development Phase	20% of Total
50% Construction Documents	20% of Total
100% Construction Documents	20% of Total
Submittal of GMP Proposal	10% of Total
Submittal of Final CMAR Review Comments	10% of Total

ARTICLE 19 RECORDS

CMAR agrees and represents that all records obtained and resulting from services under this Agreement and held by CMAR on behalf of CMAR and/or its members, shall be

maintained, protected, and preserved in accordance with the requirements of NRS 239.005 et seq. (Public Records) and NRS Chapter 603A (Security of Personal Information). Such records shall remain the property of City of Fernley and/or its members, at all times and will be surrendered to City of Fernley upon termination or expiration of this Agreement. Each Party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and will present at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation is maintained.

ARTICLE 20 ENTIRE AGREEMENT/AMENDMENTS

This Agreement and the incorporated or attached documents constitute the entire understanding and agreement between the parties with regard to the subject matter hereof and may be amended only by the mutual written agreement of both parties.

ARTICLE 21 SEVERABILITY

To the extent that any provision of this Agreement shall be determined to be invalid or unenforceable by any court of competent jurisdiction or other appropriate authority, it shall be considered deleted here from, and the remainder of this Agreement shall continue to remain in full force and effect as it said invalid and unenforceable provision has not been included in this Agreement.

Construction Manager at Risk

CORE West, Inc.

By: _____

Print: Seth Maurer

Title: President

Date: _____

Owner

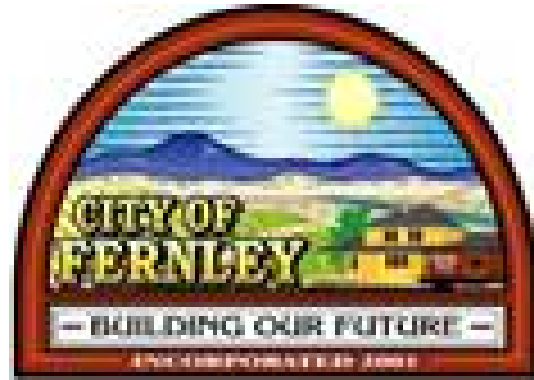
City of Fernley, Nevada

By: _____

Print: _____

Title: _____

Date: _____



OWNER-CMAR GENERAL CONDITIONS OF THE CONTRACT

TABLE OF CONTENTS

SECTION 1: DEFINITIONS			PAGE
1.1	Project		5
1.2	Work		5
1.3	Owner		5
1.4	Architect		5
1.5	Construction Manager at Risk (CMAR)		5
1.6	Subcontractor		5
1.7	Sub-Subcontractor		5
1.8	Written Notice		5
1.9	Calendar Days		5
1.10	Building Official		6
1.11	Guaranteed Maximum Price (GMP)		6
1.12	CMAR's Contingency		6
1.13	Owner's Contingency		6
1.14	Contract		6
1.15	Submittals and Shop Drawings		7
1.16	Rules and Regulations		7
1.17	Allowances		7
SECTION 2: CONTRACT DOCUMENTS			PAGE
2.1	Intent and Interpretation		7
2.2	Existing Conditions		8
2.3	Requests for Information		8
2.4	Changes in the Work & Change Order Mark-Ups		9
2.5	Construction Change Directives		12
2.6	Use of Contract Documents by CMAR		12
SECTION 3: CONTRACT			PAGE
3.1	Entire Contract		12
3.2	Contract Time		13
3.3	Contract Time Extensions		15
3.4	Substantial Completion		16
3.5	Final Completion		17
3.6	Warranty Requirements		18
3.7	Liquidated Damages		19
3.8	Claims for Damages		19
3.9	Dispute Resolution		20
3.10	Contract Termination by the CMAR		21
3.11	Contract Termination by the Owner		21
3.12	Separate Contracts		22
3.13	Assignment		23
3.14	Severability		23
3.15	Indemnification		23
3.16	Compliance with NRS 338.0117		24
3.17	CMAR Bidding Procedures & Owner's Oversight		25
3.18	CMAR Pre-Qualification of Subcontractors		25
3.19	CMAR Request for Proposals/Bids from Subcontractors		26

SECTION 4: THE OWNER		PAGE
4.1	Owner's Responsibilities	27
4.2	Owner's Authority	27
4.3	Inspection by the Owner	28
SECTION 5: THE CONSTRUCTION MANAGER AT RISK (CMAR)		PAGE
5.1	CMAR's Review of Contract	29
5.2	CMAR's Responsibilities	29
5.3	Superintendent, Assistants, and Employee Substitutions	31
5.4	Labor and Materials & Apprentice Utilization Act of 2019	31
5.5	Temporary Utilities, Heating, and Cooling	33
5.6	Emergencies	34
5.7	Progress Photographs	34
5.8	Taxes, Permits, Fees, and Notices	35
5.9	Project Signs	35
5.10	Access Roads	35
5.11	Construction Surveys	35
5.12	Archaeological Findings	35
5.13	Subsurface Conditions	36
5.14	Patents and Royalties	36
5.15	Materials Testing	36
5.16	Correction of the Work	37
5.17	Subcontractors and Substitutes	38
5.18	Safety Program and Hot Work Permits	39
5.19	Site Management and Cleanup Procedures	40
5.20	Roofing Installation and Protection	41
5.21	Quality Assurance and Quality Control Program	41
5.22	Drug and Alcohol Policy	41
5.23	Environmental Safety Regulations (<i>updated as of December 2019</i>)	42
5.24	Building Information Modeling (BIM) Required for New Buildings	44
SECTION 6: THE ARCHITECT		PAGE
6.1	Architect's Responsibilities	45
SECTION 7: INSURANCE AND BONDING		PAGE
7.1	General Requirements of Insurance Documentation	46
7.2	Commercial General Liability Insurance	49
7.3	Commercial Auto Liability Insurance	51
7.4	Workers' Compensation and Employer's Liability Insurance	51
7.5	Property, Builders Risk, Installation Floaters, Boiler and Machinery Insurance	52
7.6	Professional Liability and Extended Reporting Insurance	53
7.7	Electronic Data Liability Insurance	53
7.8	Pollution Liability Insurance	54
7.8	Performance and Payment Bonds	54

SECTION 8: PAYMENT		PAGE
8.1	Schedule of Values	55
8.2	Cost of Work	55
8.3	Progress Payment Applications	56
8.4	Final Payment	57
8.5	Interest Payments	58
SECTION 9: GENERAL CONDITIONS OF THE CMAR		PAGE
9.1	Allowable Expenses Under General Conditions of the CMAR	58
SECTION 10: CMAR'S FEE		PAGE
10.1	Allowable Expenses Under the CMAR's Fee	60
DIVISION ONE (1) REQUIREMENTS		
Section 01001	Construction Procedures for Existing Sites	
Section 01010	Summary of the work	
Section 01020	Personnel Safety Check Application for New Construction Only	
Section 01027	Applications for Payment	
Section 01030	Alternates	
Section 01035	Modification Procedure	
Section 01040	Coordination	
Section 01045	Cutting and Patching	
Section 01050	Field Engineering	
Section 01110	Prevailing Wage and Apprenticeship Utilization Specification and Forms	
Section 01200	Project Meetings	
Section 01300	Submittals	
Section 01310B	Progress Schedules and Cash Flow Plan	
Section 01400	Quality Control	
Section 01420	References	
Section 01500	Construction Facilities and Temporary Controls	
Section 01600	Materials and Equipment	
Section 01631	Substitutions	
Section 01700	Contract Close Out	
Section 01710	Final Cleaning	
Section 019113	General Commission Requirements when Applicable to Project	

SECTION 1: DEFINITIONS

1.1 PROJECT

The term Project is the total construction of which the work performed under the Contract Documents may be the whole or a part. The Project is identified by name, location, and a project number in the Owner-CMAR Construction Contract.

1.2 WORK

The term work includes all labor, materials, services, equipment, tools, transportation, power, water, permanent and temporary utilities, connections, provisions for safety, and all incidental and other things necessary to produce the finished construction as described by the Contract Documents.

1.3 OWNER

The Owner is the person or organization (e.g., City of Fernley; CITY) identified as such in the Owner-CMAR Construction Contract. The term Owner means the Owner and/or the Owner's authorized representative(s).

1.4 ARCHITECT

The Architect is the person or organization responsible for the design of the Project and the preparation of the Drawings and Specifications on behalf of the Owner. The term Architect means the Architect and/or the Architect's authorized representatives.

1.5 CONSTRUCTION MANAGER AT RISK (CMAR)

The CMAR is the person or organization identified as such in the Owner-CMAR Construction Contract. The term CMAR means the CMAR and/or the CMAR's authorized representatives.

1.6 SUBCONTRACTOR

A Subcontractor is a person or organization who has a direct contract with the CMAR to perform any of the work. The term Subcontractor means a Subcontractor and/or the Subcontractor's authorized representatives.

1.7 SUB-SUBCONTRACTOR

A Sub-Subcontractor is a person or an organization with direct or indirect contract with a Subcontractor to perform any of the work. The term Sub-Subcontractor means a Sub-Subcontractor and/or the Sub-Subcontractor's authorized representatives.

1.8 WRITTEN NOTICE

Written notice shall be deemed to have been duly served when delivered in person to the individual or member of the firm or to an officer of the organization for whom it was intended, or when sent by mail to the last known business address, or when sent by e-mail to the designated emails of the authorized representatives herein. Minutes of construction progress meetings and/or Requests for Information (RFI) do not constitute written notice.

1.9 CALENDAR DAYS

All references to a 'day' or to 'days' in the Contract Documents shall be understood to mean calendar days unless specifically indicated otherwise. A calendar day shall be understood to be any day of the year including weekends and holidays.

1.10 BUILDING OFFICIAL

The Building Official is the Building Official of the Authority Having Jurisdiction (AHJ). Any changes to the work that could be construed to have a potential code impact shall be reviewed and approved by the Building Official or other governmental authority, as applicable.

1.11 GUARANTEED MAXIMUM PRICE

The Guaranteed Maximum Price (GMP) is the maximum cost for the work as outlined in the Owner-CMAR Construction Contract and is also referred to as the Contract Sum in various Contract Documents including the CMAR General Conditions of the Contract.

1.12 CMAR'S CONTINGENCY

The CMAR's Contingency is an itemized amount that may be utilized by the CMAR, at the CMAR's discretion to complete the contract work. The CMAR's Contingency may be used for missing items or "holes" within the scope of work or sub-bids or other items that are needed to complete the work, all of which must be agreed to by the Owner, Architect and the CMAR. CMAR Contingency may be used for clear intent of work shown on Drawings and in Specifications that may have been missed by CMAR during completion of work and must be approved by the Owner, Architect, and CMAR. Any portion of the CMAR's Contingency that remains when the work is completed shall be split between the Owner and CMAR in accordance with the percentage values listed in the Owner-CMAR Construction Contract. Any CMAR Contingency remaining unused at the time of final payment shall be split TBD to Owner and TBD to CMAR.

1.13 OWNER'S CONTINGENCY

The Owner's Contingency belongs solely to the Owner for the purpose of being allocated towards stipulated additional work (as itemized in an executed Change Order). Any portion of the Owner's Contingency that remains when the work is completed belongs to the Owner in accordance with the percentage values listed in the Owner-CMAR Construction Contract. If any such claims remain unsatisfied after final payment is made, the CMAR shall refund to the Owner all monies the Owner may be compelled to pay in discharging such claims and any costs related thereto.

1.14 CONTRACT

All Contract Documents form the entire Contract between the Owner and the CMAR. The Contract Documents consist of all the following:

- A. Owner-CMAR Construction Contract Document
- B. General Conditions of the Contract for Construction Manager at Risk (including Division 1 requirements)
- C. CMAR Interview Submittal
- D. CMAR Fee Proposal
- E. Owner's Request for Proposal (RFP) Solicitation
- F. RFP Addenda and Amendments
- G. Wage Rates for Northern Nevada Rural Counties
- H. Performance and Payment Bonds

- I. Labor and Materials Bonds (if applicable to the Contract)
- J. Certificate(s) and related Endorsements of Insurance Liability
- K. Specifications
- L. Drawings
- M. Change Orders (if applicable)

1.15 SUBMITTALS AND SHOP DRAWINGS

Submittals and shop drawings are drawings, diagrams, illustrations, performance charts, brochures, samples, and other data, which are prepared by the CMAR or any Subcontractor, manufacturer, supplier, or distributor, which illustrate some portion of the work. Samples are physical examples furnished by the CMAR to illustrate materials, equipment, finishes, or workmanship, and to establish standards by which the work will be judged.

1.16 RULES AND REGULATIONS

The CMAR shall comply with all applicable portions of the Nevada Revised Statutes (NRS) (including, but not limited to, NRS Chapter 338) and any federal regulations attached herein. The CMAR shall comply with NRS Section 338.125 (which pertains primarily to discrimination against employees and applicants because of race, creed, color, national origin, sex, or age). A violation of any provision contained in NRS 338.125 shall constitute a material breach of the Contract.

1.17 ALLOWANCES

An Allowance is a specific value designated by the Owner for use to accommodate work that could not be identified adequately for bidding purposes in the original construction documents. Any portion of an Owner's Allowance that remains when the work is completed belongs to the Owner.

SECTION 2: CONTRACT DOCUMENTS

2.1 INTENT AND INTERPRETATION

2.1.1 The Contract Documents are complementary, and what is required by anyone shall be as binding as if required by all. In the event of an inconsistency between or within any of the Contract Documents listed above, or between any of the applicable codes, the better quality or greater quantity of work shall be provided, at no additional cost to the Owner. If the terms, provisions, conditions, specifications, or requirements contained in one Contract Document should conflict with those contained in another, then such conflict shall be resolved in accordance with the following order precedence:

- 1) Owner-CMAR Construction Contract
- 2) General Conditions of the Contract for Construction Manager at Risk (including Division 1 requirements)
- 3) Owner's Request for Proposal (RFP) for CMAR Solicitation
- 4) RFP Addenda and Amendments
- 5) CMAR Interview Submittal
- 6) CMAR Fee Proposal
- 7) Specifications
- 8) Drawings (including Notes)

- 2.1.2 Specifications shall take precedence over notes on drawings. Large scale drawings shall take precedence over smaller scale drawings.
- 2.1.3 The Contract Documents are intended to include and require all items, which are necessary for the proper execution and completion of the work.
- 2.1.4 Interpretations of the Drawings and Specifications and the intent, which are necessary to the proper execution and completion of the work, will be made by the Architect. Words, which have well known technical, or trade meanings are to be interpreted in accordance with such recognized meanings.
- 2.1.5 The organization of the Specifications into divisions and sections, and the arrangement of the Drawings, shall not be construed to establish controls or limitations on the CMAR regarding dividing the work among Subcontractors, or in establishing the extent of work to be performed by any specific trade.

2.2 EXISTING CONDITIONS

- 2.2.1 It is the CMAR's responsibility to ascertain any existing conditions that may affect the cost of the proposed work, which could have been discovered by reasonable examination of the site. Reasonable examination shall not be construed to mean any sort of examination that requires the physical removal of any permanent improvement or physical barrier or the excavation or testing of any existing soil.
- 2.2.2 No additional costs shall be allowed to the CMAR for existing conditions, which could have been discovered by reasonable examination of the site. Reasonable examination shall not be construed to mean any sort of examination that requires the physical removal of any permanent improvement or physical barrier or the excavation or testing of any existing soil.
- 2.2.3 Existing improvements visible at the job site, for which no specific disposition is made in the Contract Documents, but which could reasonably be assumed to interfere with the satisfactory completion of the work, shall be removed and disposed of by the CMAR at no additional cost to the Owner, after written notification is given to the Owner.
- 2.2.4 The geotechnical report issued with the Contract Documents is provided for the CMAR's information and is not a Contract Document. The Owner does not guarantee the accuracy or completeness of the report and shall not be liable for any additional work or cost arising out of conclusions reached by the CMAR based upon the geotechnical report. The CMAR assumes all responsibility for any conclusions reached by the CMAR based on the geotechnical report.

2.3 REQUEST FOR INFORMATION

- 2.3.1 The CMAR shall, upon discovering any discrepancy, conflict, or inconsistency in the Contract Documents, immediately submit a Request for Information (RFI) to the Architect. The Architect, upon receipt of any such request, will promptly investigate

the circumstances and give appropriate instructions to the CMAR, but will take such action only after consultation with the Owner. Until such written instructions are given, any work done by the CMAR, either directly or indirectly relating to such discrepancy, conflict, or inconsistency will be at the CMAR's own risk, and CMAR shall bear all costs arising therefrom. The CMAR shall maintain a sequential log of all questions and inquiries (RFIs).

- 2.3.2 No work shall be performed by the CMAR without adequate Drawings or Specifications, or that conflicts with or is contrary to the Contract Documents. The CMAR shall immediately report to the Owner and the Architect any discrepancy, conflict, or inconsistency that CMAR may discover, or should have discovered, in the Contract Documents. If the CMAR performs any work contrary to the Contract Documents, CMAR shall be solely responsible and shall bear all costs attributable thereto.
- 2.3.3 Requests for Information shall be limited to one specific issue or group of related issues and shall not address multiple issues. The Architect will review and respond to RFIs within five (5) working days from the date that the RFI is received by the Architect unless additional time is needed as indicated by the Architect or Owner within such 5-day period. RFIs shall be issued by the CMAR to the Architect in a reasonable and orderly sequence such that they are not unreasonably grouped together and then delivered to the Architect.

2.4 CHANGES IN THE WORK & CHANGE ORDER MARK-UPS

- 2.4.1 A Change Order is an amendment to the Owner-CMAR Construction Contract and is a written order to the CMAR signed by the Owner and the CMAR, issued after the execution of the Contract, authorizing a change in the work and/or an adjustment in the Contract Sum or the Contract Time.
- 2.4.2 The Owner and the Architect have the authority to order minor changes in the work, which do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Such changes shall be binding on the CMAR. CMAR shall bear the responsibility of the approved change.
- 2.4.3 The CMAR shall not proceed with changes to the work without a Change Order or a Construction Change Directive, except for minor changes as identified in Section 2.4.2. If the CMAR proceeds with changes to the work without proper written approval, the CMAR does so at the CMAR's own risk.
- 2.4.4 Should any event or circumstance occur that the CMAR believes may constitute a change in the work entitling the CMAR to an adjustment to the Contract Sum or the Contract Time, the CMAR shall issue written notice and a request for a Change Order to the Owner within five (5) working days of the occurrence of such event or circumstance. Such written notice shall be issued by the CMAR for any event or circumstance that the CMAR knows, or should have known, to have a potential impact on the work. The request shall describe in detail the related causes and any potential impact to the work. The CMAR shall also identify any anticipated adjustment to the Contract Sum and/or to the Contract Time as a result of such impact. Failure to submit such written notice and a request within the time stipulated and with the information required by this section shall constitute a waiver by the CMAR of the right to a Change Order; provided, however, if CMAR is unable to provide the potential impact and/or anticipated adjustment to the Contract Sum

and/or Contract Time within the designated time, CMAR shall describe in detail why it cannot do so and then promptly provide such information with the subsequent time agreed upon by the Owner, if any.

2.4.5 The cost or credit to the Owner resulting from a change in the work shall be determined in one or more of the following ways:

- A. By unit prices stated in the Contract Documents or as subsequently agreed upon.
- B. By a lump sum proposal, which is mutually accepted, is properly itemized, and includes the following:
 - i. Labor, including benefits, payroll taxes, and Workers' Compensation insurance or any other associated labor costs.
 - ii. Materials entering permanently into the work, including sales tax.
 - iii. Costs for equipment utilized to perform the Change Order work.
- C. By a not-to-exceed maximum cost, which is based on the actual cost of time and materials, properly itemized, and verified, and includes the following:
 - i. Labor, including benefits, payroll taxes, and Workers' Compensation insurance.
 - ii. Materials entering permanently into the work, including sales tax.
 - iii. Costs for equipment utilized to perform the Change Order work.

2.4.6 The costs for changes in the work may be increased by the CMAR and Subcontractor to include taxes (if applicable), insurance, bonding, profit and overhead, CMAR profit and overhead on Subcontractor work, and profit and overhead on work done by the CMAR's own forces. This fixed mark-up shall not exceed the amounts stipulated below for a single Change Order item, or for any group of related items, and shall be full compensation for the cost of overhead and profit related to the Change Order. CMAR and Subcontractor shall not be entitled to additional costs for supervision or field/home office personnel due to a change unless that change includes additional time. In that case, the CMAR shall be allowed to calculate costs for supervision and field office personnel who are directly attributable to the change. Administration or preparation costs shall not be allowed, and no other costs or expenses are agreed to unless otherwise agreed to in writing. All proposals shall be submitted to the Architect in sufficient detail to perform a complete analysis of all costs. The CMAR shall, upon request by the Owner or Architect, submit backup documentation to substantiate itemized costs, which may include, but are not limited to, payroll, invoices for materials, and invoices for equipment utilized in Change Order work. Labor rates or additional rates not identified as part of Prevailing Wage rates shall be identified and approved by Owner prior to start of construction.

CHANGE ORDER MARK-UP SCHEDULE

1. Additive Change Order (for the entity performing the work):	
<u>Total Cost of Change Order</u>	<u>Allowable Fee</u>
+\$0.01 to +\$9,999.99	15% of the Total Cost
+\$10,000.00 and above	10% of the Total Cost
2. Additive Change Order (Contractor Markup) Subcontractor work:	
<u>Total Cost of Change Order</u>	<u>Allowable Fee</u>
Any Amount	5% of the Total Subcontractor Fee
3. Deductive Change Order:	
<u>Total Credit Cost of Change Order</u>	<u>Credit Fee to be Applied</u>
Any Amount	5% of the Total Credit Cost. (Deductive)
<i>Example of Deductive Change: Assume <\$5,000.00> to be credited. The Contractor must include a 5% credit for profit and overhead, i.e. $\\$5,000.00 \times 0.05 =$ <\$5,250.00> total credit to the Contract.</i>	

- 2.4.7 Execution of a Change Order shall be considered complete and final adjustment of the Contract Sum and the Contract Time and represents complete and final resolution of all matters related to, or arising out of, the Change Order. The CMAR may not reserve the right to make further claims with regard to any executed Change Order. Any attempt by the CMAR to reserve such a right shall be considered invalid and unenforceable.
- 2.4.8 All requests for changes in the work shall be submitted to the Owner and the Architect in sufficient detail to allow a complete analysis of all proposed costs. The CMAR shall, upon request by the Owner or the Architect, submit invoices for materials and equipment utilized in Change Order work. Labor rates, including fringe benefits, shall be in conformance with the applicable prevailing wage rates as defined in the Contract Documents and/or related to the Project.
- 2.4.9 The CMAR shall provide, at the time of the GMP, detailed rationale and justification for all labor rates to be utilized in Change Order work, including any overtime labor rates applied to the project.
- 2.4.10 The CMAR will not be entitled to a Change Order for any work that reasonably could have or should have been identified as necessary during the CMAR's participation in the design review process as defined in the Owner-CMAR Preconstruction Contract. The CMAR and the Owner mutually agree that the Owner shall have the right to issue one or more Change Orders at or near the end of the Project, requiring work to be performed after the expiration of the Contract Time, without the assessment of liquidated damages to the CMAR; however, the allowance made for the completion of such incidentals will not negate or affect the Owner's right to assess any liquidated damages that the Owner may be entitled to as a result in the delays of the Project in its entirety by fault of the CMAR. The scope of such Change Orders shall be limited to work that is deemed by the Owner to be incidental in nature and necessary to allow for proper completion of the Project.

2.5 CONSTRUCTION CHANGE DIRECTIVE

- 2.5.1 A Construction Change Directive (Directive) is a written instruction to the CMAR, signed by the Owner and the Architect, which shall serve as formal and binding direction for the CMAR to proceed with a defined change in the work. The Directive may be implemented when deemed necessary as an interim action until a Change Order can be formally assessed and executed. Upon receipt of a Construction Change Directive, the CMAR shall promptly proceed with the directed changes.
- 2.5.2 The Owner, without invalidating the Contract, may order changes in the work utilizing a Construction Change Directive with the Contract Sum and/or the Contract Time being adjusted as deemed appropriate. The CMAR shall comply with the provisions of Section 2.4.4 if the CMAR believes that a Construction Change Directive has a potential impact on the Contract Time or the Contract Sum.

2.6 USE OF CONTRACT DOCUMENTS BY CMAR

- 2.6.1 Copies of the Contract Documents, which are reasonably necessary for the proper execution, progress, and satisfactory completion of the work, shall be provided to the CMAR by the Owner. Copies so furnished are not to be used by the CMAR on any other project.

SECTION 3: CONTRACT

3.1 ENTIRE CONTRACT

- 3.1.1 The Contract (as made up of the Contract Documents) for preconstruction and construction related services represents the entire and integrated agreement between the Owner and the CMAR and supersedes all prior negotiations, representations, or agreements, either written or oral.
- 3.1.2 The Contract shall not be binding on either the Owner or the CMAR until the Owner-CMAR Construction has been approved and signed by authorized representative of both the Owner and CMAR, including City Council or their authorized representative.; Performance and Payment Bond(s) and Labor and Materials Bond(s) (when applicable to the Contract) have been properly signed and submitted by the CMAR to the Owner; and a valid Certificate of Liability Insurance is submitted by the CMAR to Owner and that has been approved by the Owner to meet the needs of the Contract.
- 3.1.3 Execution of the Owner-CMAR Construction Contract shall constitute the CMAR's representation that the CMAR has carefully examined the contents of all Contract Documents that the CMAR has read and understands the same, and specifically agrees to be bound thereby. Additionally, execution of the Owner-CMAR Construction Contract by the CMAR shall represent that the CMAR has inspected the site, familiarized itself with all local conditions, laws, and regulations under which the work is to be performed and has correlated this knowledge with the requirements of the Contract Documents.

- 3.1.4 The Contract Documents shall not be construed to create a contractual relationship of any kind between the Architect and the CMAR; between the Owner and a Subcontractor; or, between any persons or entities other than the Owner and the CMAR. The Architect shall, however, have authority to act on behalf of the Owner, to the extent provided in the Contract Documents.
- 3.1.5 The laws of the State of Nevada and the applicable rules and regulations of the State of Nevada's departments, agencies, and institutions shall govern the Project and the work, as well as federal laws and regulations as applicable. If there is a conflict between the laws or regulations of the State of Nevada and federal laws and regulations, then the stricter will apply, unless the federal law or regulation at issue relates to the American Rescue Plan Act or funding provided thereunder, in which case the federal law or regulation will control. All provisions of law and clauses required by law to be inserted in the Contract shall be deemed to be inserted therein, and the Contract shall be read and enforced as though such provision were included therein, and if through mistake or otherwise, any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall be physically amended to make such insertion or correction.
- 3.1.6 The Contract Sum is the sum stated in the Owner-CMAR Construction Contract and is the total dollar amount payable by the Owner to the CMAR for the complete and approved performance of the work in strict conformance with the Contract Documents. The Owner's Contingency belongs solely to the Owner for the purpose of being allocated towards stipulated additional work.

3.2 CONTRACT TIME

- 3.2.1 The Contract Time is the period of time, in calendar days, allotted in the Contract Documents for the completion of the work. A calendar day shall be understood to be any day of the year including weekends and holidays (refer to Section 1.9).
- 3.2.2 The date of commencement of the work is the date established in the Notice to Proceed issued by the Owner to the CMAR.
- 3.2.3 The CMAR shall begin the work on the starting date established in the Notice to Proceed. The CMAR shall perform the work expeditiously with adequate forces and shall complete the work within the Contract Time.
- 3.2.4 CMAR shall coordinate hours with the Owner prior to scheduling the work. Unless otherwise agreed upon, normal working days are:
- ❖ Monday through Friday, excluding holidays observed by the Owner, between the hours of 7:00 a.m. and 3:30 p.m.
- 3.2.5 If the CMAR desires to work on any weekend day, any Owner's observed holiday, and/or during any other hours of the day CMAR shall request and obtain the Owner's written approval at least five (5) days in advance of the requested deviation. The Owner reserves the right to change working hours.

- 3.2.6 It is expressly understood and agreed that the Contract Time is a reasonable and acceptable time for completion of the work considering the requirements of the Contract Documents, the type and scope of the Project, and the usual industrial and labor conditions prevailing in the locality of the Project.

It is expressly understood and agreed that the Contract Time includes adequate time to allow for usual weather delays considering the climatic conditions in the area of the Project. No adjustments to the Contract Time will be allowed on the account of usual weather. The CMAR shall include adequate float or other allowance in the CMAR's construction schedule to accommodate weather conditions that may be associated with weather dependent work. An extension to the Contract Time will be considered only in a case where an abnormal or unusual weather delay has directly affected the critical path identified in the approved construction schedule. Any extension of time for delays related to weather shall be considered by the Architect and Owner only when a request for such extension is made in writing by the Contractor and provided further that any such request shall be presented to the Architect or Owner within five (5) working days from the commencement of the period of delay.

- A. Time extensions for weather will only be considered when both the number of reasonably anticipatable days of adverse weather **and** the average precipitation in any given month have been exceeded in accordance with the following table, Contractor's non-workdays bank, and allowance of time:

Month	# of Reasonable Anticipated Days of Weather per Month	Average Precipitation
January	4	1.23
February	4	0.95
March	3	0.62
April	2	0.57
May	1	0.44
June	0	0.52
July	0	0.20
August	1	0.21
September	1	0.26
October	2	0.65
November	3	0.66
December	4	1.37

- B. Monthly precipitation shall be gauged at the Reno/Tahoe International Airport station as posted on the Reno, WFO, Nevada (266791) website located at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nv6791>
- C. Total non-workdays shall be calculated by overall contract time from the date of Notice to Proceed to date of Substantial Completion.
- D. All accepted non-work weather days shall be implemented per Specification Section 01310B.

E. Time extension requests for delays caused by additional adverse weather conditions will be evaluated individually. Inclement weather days in which no work is conducted at the Project site will be considered by the Owner for full day time extensions. Inclement weather days in which any trade or workman actually work on the Project will be considered by the Owner for a maximum of one-half day time extension.

3.2.7 The Contract Sum is based on the Contract Time specified in the Owner-CMAR Construction Contract and shall not be based on an early completion schedule. No additional compensation shall be granted to the CMAR for delays to an early completion schedule and any such claim is hereby waived.

3.3 CONTRACT TIME EXTENSIONS

3.3.1 An extension in the Contract Time for a delay will be allowed only in the case that a full normal working day is lost. Delays will not be allowed for lost partial days or for lost non-working days.

3.3.2 All requests by the CMAR for extensions of the Contract Time due to delays to the work shall be made in writing to the Owner and the Architect within five (5) working days after the start of the delay. Each request shall describe in detail the event or events causing the delay, any related causes, and any impact to the work. Failure to submit such requests within the stipulated time and with the information required by this paragraph shall constitute a waiver by the CMAR of the CMAR's right to an extension of the Contract Time based upon this event or issue.

3.3.3 If the CMAR is delayed at any time in the progress of the work by any act or neglect of the Owner or the Architect, or by any employee of either, by any separate contractor employed by the Owner, or by circumstances that are agreed to be beyond the control and without the fault of the CMAR and the CMAR's Subcontractors and suppliers, the Contract Time may be extended by Change Order for such reasonable time as the Owner may determine.

3.3.4 The CMAR shall not claim or be entitled to any compensation or damages from the Owner because of delay caused by persons other than the Owner, or the Owner's agents and employees, and any entitlement thereto is hereby waived. The CMAR agrees that the CMAR's remedy in the event of a delay caused directly by the Owner, or by the Owner's agents and employees, shall be an extension of Contract Time that includes General Conditions costs and supervision costs at the same rate as agreed upon in the Contract Documents. Exceptions include where the delay unreasonably interferes with the CMAR's ability to complete the work within the Contract Time; so unreasonable in length as to amount to an abandonment of the work; is caused by fraud, misrepresentation, concealment, or other bad faith by the Owner; is caused by active interference by the Owner; and/or is caused by a decision made by the Owner to add significant scope or duration to the work.

3.3.5 The CMAR must submit any request for an extension of Contract Time in strict conformance with this section.

- 3.3.6 Should the CMAR request and be allowed cumulative time extensions, which cause the Contract Time to end on a non-workday (i.e., a weekend day or a holiday), the non-workday(s) may, at the Owner's discretion, be added to the Contract Time such that the Contract Time ends on a working day.
- 3.3.7 Extensions to the Contract Time will only be allowed for delays that affect the critical path for completion of the entire work as identified in the approved construction schedule.
- 3.3.8 Extensions to the Contract Time will not be allowed for delays, which could have been avoided by the exercise of care, prudence, foresight, and/or diligence by the CMAR, or for delays resulting from correction of work rejected as defective or as failing to conform to the Contract Documents.

3.4 SUBSTANTIAL COMPLETION

- 3.4.1 Substantial Completion is the stage in the progress of the work, or a designated portion thereof, when construction is sufficiently complete in accordance with the Contract Documents, so that the Owner can occupy and/or utilize the work (or portion thereof) for the work's intended use. The work will not be considered substantially complete if any of the following conditions exist:
 - A. Any of the work is incomplete including work identified in the final punch list, which in the opinion of the Owner, would prevent or interfere with occupancy and/or full use of the facility.
 - B. The Project's mechanical systems have not been tested, balanced, and accepted as being fully complete (including commissioning when applicable).
 - C. The Project's electrical and life safety systems have not been tested and accepted as being fully complete (including commissioning when applicable).
 - D. A Certificate of Occupancy has not been issued by the Building Official (either a Temporary/Conditional or a Final/Unconditional Certificate of Occupancy).
 - E. Final clean-up is not complete.
- 3.4.2 The following procedure shall be used in establishing Substantial Completion of the work, unless otherwise agreed to in writing:
 - A. When the CMAR determines that the work, or a portion thereof, which the Owner agrees to accept separately, is substantially complete, the CMAR shall submit written notice thereof to the Owner and the Architect and shall include a punch list of all items which remain to be completed or corrected. Failure to include any items on the list does not alter the CMAR's responsibility to complete all the work in accordance with the Contract Documents.
 - B. Inspections for Substantial Completion may be requested by the CMAR only after the status of completion has been reviewed and assessed by the Owner and the Architect. Upon such review the Owner and/or the Architect will issue a list of any observed deficiencies that affect the issuance of a Certificate of Substantial Completion.

- C. If the Owner and the Architect, based on an on-site inspection, agree that the work is substantially complete, the Architect may provide the CMAR with a list of additional corrective items, which shall be added to the CMAR's, and the Owner's punch lists.
- D. If the Owner and the Architect, based on an on-site inspection, determine that the work is not substantially complete, the Architect will notify the CMAR in writing, and will provide a list of observed deficiencies. The CMAR shall remedy the deficiencies and submit another written request for Substantial Completion.
- E. When the Owner and the Architect determine that the work is substantially complete, the Owner will prepare a Certificate of Substantial Completion, which shall establish the date of Substantial Completion, state the responsibilities of the Owner and the CMAR for maintenance, heat, utilities, and insurance, and fix the time within which the CMAR shall complete the punch list items that are attached to the Certificate of Substantial Completion.
- F. The Certificate of Substantial Completion, when signed by the Owner and the CMAR, shall serve to document the CMAR's acceptance of the responsibilities assigned to him in such Certificate.

3.4.3 No payment, nor any use or occupancy of the Project, or any portion thereof, by the Owner, shall constitute acceptance of any work that is not completed in accordance with the Contract Documents, nor shall it relieve the CMAR of full responsibility for correcting defective work or materials found at any time prior to completion of the entire Project or during the warranty period.

3.5 FINAL COMPLETION

- 3.5.1 When the CMAR considers the work fully completed, CMAR shall submit written notice to the Owner and the Architect confirming all the following:
- A. The work has been fully completed in accordance with the Contract Documents and is ready for final inspection.
 - B. All punch list items have been corrected or completed.
 - C. All equipment and systems have been tested, adjusted, and balanced and are fully operational.
 - D. All training required by the Contract Documents has been provided.
 - E. All operation and maintenance manuals and "as-built" drawings have been submitted to the Architect in accordance with the Contract Documents and have been accepted as being complete.
 - F. All surety releases required by the Contract Documents have been submitted to the Owner.

- 3.5.2 The Architect and Owner will perform a final inspection of the work. If the work is found to be incomplete or defective, the CMAR will be notified in writing and provided with a list of observed deficiencies. The Owner may withhold such payment as deemed appropriate to ensure the correction of the deficiencies. Should the CMAR fail to promptly correct the deficiencies noted in the final punch list, the Owner may, upon a seven (7) day written notice to the CMAR, hire another contractor to correct such deficiencies, notify the CMAR's Surety, and/or otherwise complete or correct the listed deficiencies, at the CMAR's expense.
- 3.5.3 When the work and all requirements of the Contract Documents are fully and satisfactorily completed, the Owner will pay to the CMAR a final payment consisting of the remaining unpaid balance of the Contract Sum due the CMAR. The acceptance of the final payment by the CMAR shall constitute a full and final release and waiver of all CMAR claims and rights of claim against the Owner relating or pertaining to the work.

3.6 WARRANTY REQUIREMENTS

- 3.6.1 The CMAR and the CMAR's Surety shall unconditionally guarantee all workmanship and materials incorporated in the work to be and remain free of defects for a period of one (1) year from the date of the Certificate of Substantial Completion, or for such longer periods as stipulated in the Contract Documents.
- 3.6.2 When the work, or a portion thereof, is accepted as being substantially complete, the warranty period will commence on the date of the Certificate of Substantial Completion for the completed portion of the work.
- 3.6.3 The CMAR shall perform all service and maintenance on any equipment that is operated prior to the date of the Certificate of Substantial Completion. Such service and maintenance shall be performed in accordance with the equipment manufacturer's written instructions, and as required to maintain the equipment warranty.
- 3.6.4 Within the one (1) year warranty period, and for such longer periods as specified in the Contract Documents, the CMAR shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom. The Owner shall promptly notify the CMAR in writing of any observed defects. The CMAR shall ensure that the corrective work is commenced within seven (7) days of such notice and completed in an expeditious and timely manner.
- 3.6.5 The obligations of the CMAR herein shall be in addition to and not in limitation of any obligation imposed by law.
- 3.6.6 Prior to the end of the one (1) year warranty period (approximately eleven (11) months after the date of the Certificate of Substantial Completion, on a date scheduled by the Owner) the CMAR and all requested Subcontractors shall attend a warranty inspection. The CMAR shall take immediate action to remedy, at no cost to the Owner, all warranty items identified during the warranty inspection.

3.7 LIQUIDATED DAMAGES

- 3.7.1 It is hereby mutually understood and agreed, by and between the CMAR and the Owner, that the Contract Time, as specified in the Contract, is an essential condition of the Contract. It is further mutually understood and agreed that both the work and the Contract Time shall commence on the starting date established in the Notice to Proceed.
- 3.7.2 The CMAR agrees that all the work shall be prosecuted regularly, diligently, and without interruption at a rate of progress that will ensure completion of the work within the Contract Time.
- 3.7.3 If the CMAR shall neglect, fail, or refuse to achieve Substantial Completion of the work within the Contract Time, then the CMAR and the CMAR's Surety do hereby agree, as part of the consideration for the Contract, to pay to the Owner, not as a penalty, but as liquidated damages, the amount of money specified in the Owner-CMAR Construction Contract for each and every excess calendar day that is required to achieve Substantial Completion of the work. The specified liquidated damages shall be the Owner's sole and exclusive remedy for excess calendar days. The CMAR agrees to and hereby waives any defense as to the validity or enforceability of any liquidated damages payable by the CMAR under the Contract on the grounds that such damages are a penalty or that such damages are disproportionate to the actual damages sustained by the Owner.
- 3.7.4 The CMAR and the Owner mutually agree that in the event of a delay the actual damages to be suffered by the Owner are difficult to determine and accurately quantify. Accordingly, the CMAR, the CMAR's Surety, and the Owner agrees that the amount specified in the Owner-CMAR Construction Contract for liquidated damages is the appropriate and best estimate of the damages that would actually be incurred by the Owner should the work not be completed within the Contract Time.
- 3.7.5 Should the remaining balance of the Contract Sum be insufficient to cover the specified liquidated damages due the Owner, then the Owner shall have the right to recover such damages from the CMAR and/or the CMAR's Surety.
- 3.7.6 Liquidated damages shall cease to be assessed on the date that Substantial Completion is achieved provided the CMAR completes all punch list work within the time limit stipulated in the Certificate of Substantial Completion.

3.8 CLAIMS FOR DAMAGES

- 3.8.1 Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or of any of that party's employees, agents, or others for whose acts the party is legally liable, claim shall be made in writing by CMAR to Owner within five (5) working days after the first knowledge of such injury or damage and from Owner to CMAR within thirty (30) working days after the first knowledge of such injury or damage.

- 3.8.2 Any costs to the Owner caused by defective or ill-timed work performed by the CMAR shall be paid by the CMAR.
- 3.8.3 Except for damages mutually agreed upon by the Owner and the CMAR as liquidated damages in accordance with this section and excluding losses covered by insurance that is required by the Contract or losses incurred due to violations of ARPA related federal procurement laws or timing requirements by CMAR, the Owner and the CMAR agree to mutually waive all claims against each other for any consequential damages suffered or incurred by the other party that arise from or relate to the Contract, including, without limitation, rental expenses or other damages resulting from a loss of use or availability of the work, lost income, lost profit, lost financing or opportunity, lost business or reputation, principle office expenses, and loss of management or employee availability, productivity, opportunity, or services.
- 3.8.4 The provisions of this section shall also apply to termination of the Contract and shall survive such termination. The CMAR shall require similar waivers in all contracts with the CMAR's Subcontractors and others retained on the Project and that those parties' contracts with lower-tiered contractors likewise contain similar waivers.

3.9 DISPUTE RESOLUTION

- 3.9.1 Except as provided in this section any controversy or claim arising out of or related to the Contract Documents or the work shall be subject to all provisions of Section 3.9.
- A. The provisions of Sections 3.9.1 through 3.9.7 do not apply if the Owner has given notice to the Surety under *Section 3(A) of the Performance Bond*. If the Owner discovers construction defects after the warranty period has expired, the Owner has the right to immediately a demand for binding arbitration or alternatively, file a judicial action in any Nevada court of competent jurisdiction. When the CMAR accepts final payment pursuant to Section 8.4, the CMAR waives all rights under this section, including the filing of binding arbitration, and any right to file a judicial action.
- 3.9.2 Unless otherwise agreed to in writing, the CMAR shall continue the work and maintain the construction schedule of the work during any dispute resolution proceedings. If the CMAR continues to perform in accordance with the Contract Documents, the Owner shall continue to make payments in accordance with the Contract Documents.
- 3.9.3 The Parties agree that if the Parties encounter any difference or dispute whatsoever relating to the interpretation, validity or performance of this Agreement ("Controversy") the parties agree that every good faith attempt will be made to resolve the controversy within thirty (30) days of an issuance of written notice by either party to the other party, which notice shall include a statement of all material facts, theories, and arguments then known by the complaining party. If a successful resolution of the controversy has not been achieved to the satisfaction of both parties at the end of the thirty (30) day period, the following steps will be followed.

- 3.9.4 Within thirty (30) days following the above-referenced 30-day period, a party may issue a Notice of Mediation to the other party, and the controversy shall be resolved in accordance with the Mediation Rules of the American Arbitration Association, in effect as of the date of the execution of this Agreement, which are incorporated by reference and shall guide this procedure.
- 3.9.5 If no resolution has been mutually agreed to through mediation within ninety (90) days of service of a Mediation Notice, then and only then may the controversy be submitted to arbitration, after a finding by the mediator that each party participated in mediation in good faith.
- 3.9.6 Within thirty (30) days of such finding, the parties agree to in good faith, proceed with binding confidential arbitration using the Commercial Arbitration Rules of the American Arbitration Association in effect as of the date of the execution of this Agreement, which are incorporated by reference and shall guide this procedure.
- 3.9.7 The Parties consent to jurisdiction and venue for purposes of Alternative Dispute Resolution to be Lyon County, Nevada. Further the parties agree any judgment, award, or decision obtained through this section, may be entered thereon in any state or federal court in the same manner as if the parties were residents of the state or federal district in which said judgment is sought to be entered. All applicable statutes of limitations and defenses based upon the passage of time shall be tolled while the requirements of this Section are being followed.
- 3.9.8 Notwithstanding the foregoing, nothing in this Agreement shall preclude the parties from seeking temporary or permanent injunctive relief from a court of competent jurisdiction in Lyon County, Nevada.

3.10 CONTRACT TERMINATION BY THE CMAR

- 3.10.1 The CMAR may, upon seven (7) days written notice, terminate the Contract after the work is stopped for a period of sixty (60) consecutive calendar days through no act or fault of the CMAR and/or their employees or agents, Subcontractor, Sub-Subcontractor, or due to issuance of a court order or other order from a public authority having jurisdiction. If the CMAR terminates the Contract under certain terms specified herein, the CMAR may recover from the Owner payment for work completed and approved, including reasonable overhead, profit, and termination costs. The CMAR will not be entitled to overhead and profit on any unperformed work.

3.11 CONTRACT TERMINATION BY THE OWNER

- 3.11.1 If any one of the following occurs, then the Owner may, without prejudice to any other right or remedy, and after giving the CMAR and the CMAR's Surety seven (7) days written notice, terminate the employment of the CMAR:
- A. The CMAR is adjudged bankrupt; or
 - B. The CMAR makes a general assignment for the benefit of the CMAR's creditors; or

- C. A receiver is appointed on account of the CMAR's insolvency; or
- D. The CMAR persistently or repeatedly refuses or fails to supply an adequate number of properly skilled workmen, proper supervision, or proper materials; or
- E. The CMAR fails to make prompt payment to Subcontractors or to materials suppliers for materials or labor; or
- F. The CMAR disregards any law, ordinance, rule, regulation, or order of any Public authority having jurisdiction.
- G. The CMAR otherwise materially breaches the Contract.

3.11.2 Upon termination by the Owner, the Owner may take possession of the site and of all materials, equipment, tools, and machinery thereon owned by the CMAR and may finish the work utilizing whatever means and methods the Owner deems appropriate.

3.11.2.1 Should the Owner terminate the Contract for any of the aforementioned reasons, the CMAR shall not be entitled to receive any further payment until the entire work is fully complete and the actual amount due the CMAR can be properly determined.

3.11.2.2 If the unpaid balance of the Contract Sum exceeds the costs of finishing the work, including compensation for any additional professional services, such excess shall be paid to the CMAR. If such costs exceed the unpaid balance, the CMAR or the CMAR's Surety shall promptly pay the difference to the Owner.

3.11.3 The Owner expressly reserves the right to terminate the Contract at any time due to a national emergency, court injunction, or for any reason determined to be in the best interest of the Owner, by giving the CMAR and the CMAR's Surety seven (7) days written notice. The CMAR shall be paid for work completed and approved, including reasonable overhead, profit, and termination costs. The CMAR will not be entitled to overhead and profit on any unperformed work.

3.12 SEPARATE CONTRACTS

3.12.1 The Owner reserves the right to award other separate contracts in connection with other portions of the Project.

3.12.2 The CMAR shall afford the Owner's separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work and shall properly interface and coordinate the CMAR's work with theirs.

3.12.3 If any part of the CMAR's work depends on the proper execution of the work of any separate contractor, the CMAR shall inspect and promptly report to the Owner and the Architect in writing any discrepancies or defects in such other work. Failure of the CMAR to so inspect and report shall constitute an acceptance of the separate contractor's work as fit and proper to receive the CMAR's work, except as to defects

which may develop in the other separate contractor's work after the execution of the CMAR's work.

3.12.4 The CMAR shall do all cutting, fitting, and patching of the work that may be required to accommodate and incorporate the work of any separate contractor, as shown upon or as reasonably implied by the Contract Documents. The CMAR shall not endanger or alter the work of any separate contractor.

3.12.5 Should the CMAR cause damage to the work or property of any separate contractor on the Project, the CMAR shall, upon written notice, settle with the separate contractor. If any separate contractor asserts any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the CMAR, who shall indemnify, hold harmless, and defend the Owner against any such claim.

3.12.6 If a dispute arises between the CMAR and a separate contractor as to their responsibility for any costs or damages to the Project, the Owner may assign and charge such costs or damages to the CMAR and/or the separate contractor as the Owner, in the Owner's sole discretion, determines to be appropriate.

3.13 ASSIGNMENT

3.13.1 The CMAR binds itself and each of the CMAR's partners, successors, assigns and legal representatives to the Owner and to the Owner's partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

3.13.2 The CMAR shall not assign or sublet the Contract, in whole or in part, without the written consent of the Owner, nor shall the CMAR assign any monies due or to become due to him/her hereunder, without the prior written consent of the Owner.

3.14 SEVERABILITY

3.14.1 The Contract and the various provisions thereof are severable. Should any part, clause, provisions, or terms be declared invalid, ineffective, or unenforceable, the remaining provisions of the Contract shall remain in full legal force and effect.

3.15 INDEMNIFICATION

3.15.1 To the fullest extent permitted by law, the CMAR shall defend, indemnify, and hold harmless the Owner, the Architect, the Architect's consultants, and the agents and employees of any of them from and against all claims, damages, losses, and expenses, including, but not limited to attorneys' fees arising out of or resulting from performance of the work or caused by the negligent acts or omissions of the CMAR, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this paragraph.

- 3.15.2 The Owner and the CMAR shall each indemnify the other for any losses principally caused by the indemnifying party.
- 3.15.3 In any/all claims against the Owner or the Architect or any of their officers, agents, or employees by any employee of the CMAR, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation hereunder shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CMAR or any Subcontractor under Workers' Compensation acts, disability benefit acts, or other employee benefit acts.
- 3.15.4 Obligations of the CMAR hereunder shall not extend to the liability of the Architect, the Architect's agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications; or the giving of or the failure to give directions or instructions by the Architect, the Architect's agents or employees, provided such giving or failure to give is the primary cause of the injury or damage.
- 3.15.5 Obligations of the CMAR hereunder shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist pertaining to a party or person described herein. This indemnification obligation shall not be diminished or limited in any way by the limits of insurance required in this Contract or otherwise available to the CMAR.
- 3.15.6 All indemnification obligations of the CMAR shall survive final payment.

3.16 COMPLIANCE WITH NRS SECTION 338.0117

- 3.16.1 To the extent permitted by applicable law, the CMAR shall comply with all the requirements listed herein for the duration of the Project as attested to by the CMAR in the CMAR's Affidavit of Compliance. The CMAR shall submit a report substantiating the CMAR's successful compliance with each listed requirement prior to submitting the CMAR's final progress payment application:
- A. At least fifty percent (50%) of all workers collectively employed by the CMAR, including any of those workers employed by the CMAR's Subcontractors, will hold a valid driver's license or identification card issued by the Nevada Department of Motor Vehicles; and
 - B. All vehicles used primarily for the Project will be registered and partially apportioned to Nevada pursuant to the International Registration Plan, as adopted by the Department of Motor Vehicles pursuant to NRS Section 706.826; or will be registered in the State of Nevada; and
 - C. The CMAR and all of the CMAR's Subcontractors will maintain and make available for inspection within this State all payroll records relating to the work and related Project.
- 3.16.2 In the event that the CMAR cannot meet the requirements of Section 3.16.1, the CMAR must provide Written Notice to the Owner within seven (7) days of the CMAR's discovery of that fact and include a detailed explanation of why the requirements of

Section 3.16.1 cannot be met.

3.16.3 If the CMAR causes a material breach of the Contract as a result of a failure to comply with the requirements of Section 3.16.2 the CMAR is liable to the Owner for a penalty in the amount of one percent (1%) of the Contract Sum.

3.16.4 All contracts between the CMAR and a Subcontractor or supplier, and each contract between a Subcontractor and a Sub-Subcontractor or supplier must provide that:

A. If a party to a contract causes a material breach of the contract between the CMAR and the Owner as a result of a failure to comply with the requirements of this section, the party is liable to the Owner for a penalty in the amount of one percent (1%) of the cost of the largest contract to which it is a party; and

B. The right to recover the amount determined pursuant to this section by the Owner may be enforced by the Owner directly against the party that causes the material breach; and

C. No other party is liable to the Owner for a penalty as set forth this section.

3.17 CMAR BIDDING PROCEDURES & OWNER'S OVERSIGHT

NOTE: All CMAR self-performed proposals/bids shall be received by the Owner from the CMAR no less than twenty-four (24) hours prior to the scheduled Subcontractor bid due date.

3.17.1 The CMAR shall coordinate with, document, and disclose to the Owner all qualification, bidding, and contracting procedures utilized in assessing, negotiating with, and contracting with Subcontractors as required by NRS Sections 338.16991 and 338.16995 and by the Contract Documents.

3.17.2 The CMAR shall coordinate all bid openings with the Owner and the Owner shall attend all bid openings.

3.17.3 Immediately following the opening of Subcontractor proposals/bids, the CMAR shall provide the Owner with a list that shall include at minimum the contact information for the Subcontractor, the associated trade, any exclusions, any stipulations/exceptions, and the bid amount.

3.17.4 The CMAR shall demonstrate to the satisfaction of the Owner that the CMAR has adequate previous experience on any work that the CMAR intends to self-perform and shall also provide evidence that the CMAR's proposed cost for such work is lower than the other bids received for that work.

3.18 CMAR PRE-QUALIFICATION OF SUBCONTRACTORS

3.18.1 Prior to advertisement for Subcontractor qualifications the CMAR shall provide the Owner with a copy of the Subcontractor pre-qualification application for review and approval.

3.18.2 The CMAR shall pre-qualify all Subcontractors whose scope of work is more than one

percent (1%) of the total estimated cost of construction in compliance with all requirements of NRS Sections 338.16991 and 338.16995 and with all provisions under this section.

3.18.3 The CMAR shall pre-qualify at least three (3) Subcontractors for each trade/discipline of work unless the Owner issues written authorization to pre-qualify less than three (3) Subcontractors for a specific scope of work.

3.18.4 When pre-qualifying a Subcontractor the CMAR shall consider and utilize only the criteria listed in NRS Section 338.16991(a-j). Per NRS Section 338.16991(5-7), the Owner shall ensure that each Subcontractor determination has been made per the required criteria.

3.18.5 The CMAR shall notify each applicant and the Owner in writing of a determination made pursuant to the required criteria per NRS Section 338.166991(a-j). Any applicant who is not qualified may be appealed to NRS Section 338.1381 to the Owner with whom the CMAR has entered into a contract for the construction of the work.

3.18.6 All Subcontractors, regardless of the value of their portion of the work, except those that are not required to have a State of Nevada Contractor's license pursuant to NRS 624.031(7) or 624.020(3) (merely furnishes materials or supplies without fabricating them into, or consuming them in the performance of, the work of a contractor, shall have and maintain a State of Nevada Contractor's license in good standing for the entire duration of the work, and must not be disqualified by the State Public Works Division pursuant to NRS Section 338.1376.

3.18.7 The CMAR shall maintain a record of all documents generated and received in connection with the pre-qualification of Subcontractors.

3.19 CMAR REQUEST FOR PROPOSALS/BIDS FROM SUBCONTRACTORS

3.19.1 The CMAR shall provide the Owner with a copy of the CMAR's request for Subcontractor proposals along with all associated documentation reasonably requested by Owner for review prior to issuing the request to Subcontractors.

3.19.2 CMAR is to verify that receiving Subcontractors were pre-qualified for the trade and/or scope of work that the proposal applies and provide said verification to the Owner.

3.19.3 If a MANDATORY Pre-Proposal/Bid Meeting was held, the CMAR is to verify that any Subcontractor submitting a proposal/bid attended said meeting.

SECTION 4: THE OWNER

4.1 OWNER'S RESPONSIBILITIES

- 4.1.1 The Owner, either directly and/or through an Owner's Representative, will provide general administration of the Contract Documents, including performance of the functions described herein. Such general administration shall not relieve the CMAR of complete responsibility for the means and methods of construction and performance of the work in accordance with the Contract Documents.
- 4.1.2 The Owner shall furnish site surveys describing the topography and physical characteristics, legal limits, and utility locations for the Project site.
- 4.1.3 Except for securing permits, which is the responsibility of the CMAR under the Contract Documents, the Owner shall pay for all costs associated with plan checking, building permits, easements, utility connection fees for permanent structures, and/or permanent changes in existing facilities.
- 4.1.4 Information or services under the Owner's control shall be furnished by the Owner within a reasonable time to avoid delays in the orderly progress of the work.
- 4.1.5 Prior to the start of construction, the Owner shall obtain all land and rights-of-way necessary for the carrying out and completion of the work.
- 4.1.6 In case of termination of the employment of the Architect, the Owner shall appoint a replacement whose status under the Contract Documents shall be that of the former Architect.
- 4.1.7 The Owner will issue the Notice to Proceed and Certificate of Substantial Completion.
- 4.1.8 The preceding items are in addition to other duties, responsibilities, and rights of the Owner enumerated throughout the Contract Documents.

4.2 OWNER'S AUTHORITY

- 4.2.1 The Owner and the Architect shall always have access to the work. The CMAR shall provide proper equipment and facilities for such access and inspection. If any work is required to be tested or approved, the CMAR shall give the Owner timely notice of the CMAR's readiness for inspection. Neither the observations of the Owner or the Architect in the general administration of the Contract, nor any inspections, tests, or approvals shall relieve the CMAR from the CMAR's obligation to perform the work in accordance with the Contract Documents.
- 4.2.2 If the Owner or the Architect determine that the CMAR has proceeded with work that does not comply with the Contract Documents, then the CMAR shall be required to correct such work at the expense of the CMAR.
- 4.2.3 The Owner will not be responsible for the acts or omissions of the CMAR or any Subcontractor, or any of their agents or employees, or any other persons performing any of the work.

- 4.2.4 If the CMAR defaults or neglects to carry out the work in accordance with the Contract Documents or fails to perform any provision of the Contract, the Owner may, after seven (7) days written notice to the CMAR, and without prejudice to any other remedy it may have, make good such deficiencies. In such case, an appropriate Change Order shall be issued deducting from the payments then or thereafter due the CMAR the cost of correcting such deficiencies, including the cost of the additional professional services (including attorney's fees) made necessary by such default, neglect, or failure. If the payments then or thereafter due the CMAR are not sufficient to cover such amount, the CMAR shall immediately pay the difference to the Owner.
- 4.2.5 If the CMAR fails to carry out the work in accordance with the Contract Documents or fails to correct work which is not in accordance with the Contract Documents, the Owner, by written notice, may order the CMAR to stop the work, or any portion thereof, until the cause for such order has been eliminated. The CMAR shall not be entitled to any compensation or to any additional time for such work stoppage.

4.3 INSPECTION BY THE OWNER

- 4.3.1 The Owner's Construction Project Manager and/or Project Coordinator/Inspector has authority to enforce compliance with the Contract Documents and to direct the CMAR to correct non-complying work. The Architect will render interpretations of the Drawings and Specifications as may be necessary to assist the Construction Project Manager and/or Project Coordinator/Inspector with proper assessment of non-complying work.
- 4.3.2 The Owner's Construction Project Manager and/or Project Coordinator/Inspector may direct the CMAR to stop any unsafe work, any non-complying work, and/or any work that presents a life-safety concern. The CMAR shall not be entitled to any compensation or to any additional time for such work stoppage.
- 4.3.3 Once the CMAR is advised of non-complying work, proceeding with that work or with any related work shall be at the CMAR's risk and at the CMAR's expense.
- 4.3.4 The CMAR shall provide the Owner's Construction Project Manager and/or Project Coordinator/Inspector with a minimum twenty-four (24) hour written notice of all desired inspections required by inspections that are performed by the Owner. The CMAR shall be responsible for scheduling all testing inspections with the professional consultant and/or firm doing any testing work, as well as all inspections required by the Authority Having Jurisdiction (AHJ) for building permit required inspections.
- 4.3.5 The CMAR will be charged for extra inspection services when any work requiring inspection is performed during time periods other than the proposed and agreed upon schedule provided to the Owner by the CMAR. The charges shall be based on the current rate of pay for the Owner's personnel, including any applicable travel and per diem expenses. Charges for extra inspection services beyond the agreed upon schedule provided to the Owner by the CMAR will be processed as deductive changes to the Contract Sum.

- 4.3.6 The Owner shall be permitted to inspect the work, materials, payroll records, personnel records, invoices for materials, and other relevant data of the CMAR and Subcontractors. Such inspection by the Owner shall not be considered a warranty as to the fitness or acceptability of the work, materials, payrolls, records of personnel, invoices for materials and other relevant data and work, and shall not relieve the CMAR or the CMAR's Subcontractors of their obligations or duties required by the Contract Documents.

SECTION 5: THE CONSTRUCTION MANAGER AT RISK (CMAR)

5.1 CMAR'S REVIEW OF CONTRACT

- 5.1.1 The CMAR shall carefully study and compare all parts of the Contract Documents with each other and with all information furnished by the Owner and shall immediately report any discrepancies, conflicts, or inconsistencies that CMAR discovers in writing to the Owner and the Architect.
- 5.1.2 The CMAR shall not be liable to the Owner and/or the Architect for any damages resulting from discrepancies, conflicts, or inconsistencies in the Contract Documents unless the CMAR recognized, or should have recognized, such discrepancies, conflicts, or inconsistencies and failed to report them to the Owner and the Architect. No mobilization shall commence, and no work shall be performed until all required insurance certificates have been provided to the Owner.
- 5.1.2 If the CMAR performs any work knowing that it involves a recognized discrepancy, conflict, or inconsistency in the Contract Documents, without specific notice to the Owner and the Architect, the CMAR shall assume all responsibility for such performance, including but not limited to, any/all costs for correction.
- 5.1.3 The CMAR shall submit cost proposals, progress schedules, payrolls, reports, estimates, records, and other data as the Owner or Architect may request concerning work self-performed under the Contract.

5.2 CMAR'S RESPONSIBILITIES

- 5.2.1 The CMAR shall perform and complete the work in a timely and professional manner and in strict conformance with the Contract Documents.
- 5.2.2 The CMAR shall prepare and submit daily reports to the Owner and the Architect within two (2) days of the reported day. Reports shall include workers on site, work performed, weather conditions, material and equipment deliveries, outstanding issues, and pending RFIs.
- 5.2.3 The CMAR shall supervise and direct all portions of the work. The CMAR shall be solely responsible for all construction procedures, methods, techniques, sequences, and safety, and for coordinating all portions of the work to comply with the Contract Documents. The CMAR shall be responsible for the acts and omissions of the CMAR's employees and Subcontractors, their agents and employees, and all other persons performing any of the work.

- 5.2.4 The CMAR and each Subcontractor, except those that are not required to have a State of Nevada Contractor's license pursuant to NRS 624.031(7) or 624.020(3) (merely furnishes materials or supplies without fabricating them into, or consuming them in the performance of, the work of a contractor, shall have and maintain a State of Nevada Contractor's license in good standing for the entire duration of the work.
- 5.2.5 The CMAR shall at all times enforce good discipline and order among the CMAR's employees and Subcontractors and shall, at the CMAR's own cost, provide the security necessary to adequately protect the work.
- 5.2.6 The CMAR shall at all times, and at the CMAR's own cost, safely guard and protect the Owner's property, the work, and all property adjacent to the Project, from damage, injury, or loss in connection with the Project and shall replace or make good any such damage, injury, or loss. The CMAR shall be responsible for the protection of adjacent property and the maintenance of passageways, guard fences, and other protective facilities.
- 5.2.7 The CMAR shall give all notices and shall comply with all laws, ordinances, rules, orders, and regulations of all public authorities, relating to the performance of the work.
- 5.2.8 In the event of a temporary suspension of the work, and/or during inclement weather, the CMAR shall protect, and shall cause the Subcontractors and Sub- Subcontractors to protect the work and materials against damage, injury, or loss. If any work or materials become damaged, injured, or lost due to any cause within the CMAR's control, such work and materials shall be removed and replaced at the expense of the CMAR.
- 5.2.9 It shall be the CMAR's responsibility to ensure that all construction loading of the structural decks complies with the metal deck manufacturer's allowable loading criteria. The storage of materials and the use of mechanical lifts or other heavy moveable or stationary equipment utilized on elevated concrete slabs to perform work shall be conducted in a safe manner, so as to not cause any damage or deformation to steel decks or other portions of the structure. The CMAR shall take all necessary precautions, including hiring a structural engineer, when necessary, to evaluate the imposed loadings on elevated slabs from materials, manpower, lifts, and equipment, in order to comply with the deck manufacturer's safe loading criteria and deflection limitations. The CMAR shall be fully responsible for any damage caused to elevated slabs or other portions of the work as a result of construction-imposed loads utilized in performing the work. The CMAR shall include adequate provisions in the CMAR's bid to accommodate any limitations, restrictions, or additional costs that are necessary to meet the deck manufacturer's requirements for the metal deck type, spans, and materials specified in the bid documents. The CMAR shall not be entitled to an increase in the Contract Sum or an extension to the Contract Time for complying with any of the requirements of this section.
- 5.2.10 The CMAR shall ensure that all ductwork either stored on site or installed at the Project site is thoroughly sealed to protect against dirt and moisture until such time that the Project site/building is deemed, by the Owner, to be adequately clean to allow for start-up of the associated air handling equipment. Should ductwork not be sealed

as specified, then the CMAR shall have such ductwork professionally cleaned to an as-new condition at no cost to the Owner.

5.3 SUPERINTENDENT, ASSISTANTS & EMPLOYEE SUBSTITUTIONS

- 5.3.1 The CMAR shall employ a competent full-time Superintendent and necessary assistants who shall be in attendance at the Project site throughout the progress of the work. The Superintendent shall represent the CMAR and have full authority to act on the CMAR's behalf.
- 5.3.2 CMAR firm shall not substitute a different employee for an employee whose resume was submitted during the proposal phase of the Request for Proposal solicitation unless: (A) the employee whose resume was submitted is no longer employed by the CMAR; (B) if the employee is unavailable for medical reasons; (C) or if the Owner entered into a contract with the CMAR for Preconstruction services pursuant to NRS 338.1693 more than ninety (90) days after the date on which the final ranking of application was made pursuant to NRS 338.1696(7).

5.4 LABOR AND MATERIALS & APPRENTICE UTILIZATION ACT OF 2019

- 5.4.1 Unless otherwise specifically stated in the Contract Documents, the CMAR shall provide and pay for all labor, materials, tools, equipment, water, light, power, heat, transportation, supervision, temporary construction services, procedures, and facilities of every nature required to properly execute and complete the work in accordance with the Contract Documents. All materials shall be installed in strict compliance with the Contract Documents and the recommendations of the manufacturer.
- 5.4.2 In any case where the manufacturer's installation instructions conflict with the Contract Documents the CMAR shall bring such conflict to the attention of the Owner and the Architect prior to installing the associated materials or equipment, such that the Owner and the Architect may provide direction for an appropriate resolution to the identified conflict. If the CMAR proceed with installing any materials or equipment in a manner contrary to the manufacturer's instructions without first notifying the Owner and the Architect, t h e n the CMAR shall remove and reinstall the materials or equipment in accordance with the manufacturer's instructions at no cost.
- 5.4.3 The CMAR shall not employ or contract with any firm or organization that is unfit or unskilled in the work to be performed. The CMAR shall not discriminate or allow discrimination against any employee or applicant for employment because of sex, race, color, creed, or national origin. The CMAR shall comply with and shall require the CMAR's Subcontractors to comply with all applicable provisions of NRS Title 28 (Public Works and Planning) and NRS Title 53 (Labor and Industrial Relations) and any and all applicable federal laws and regulations.
- 5.4.4 The CMAR shall comply strictly with the requirements of NRS Chapter 338 and the Apprentice Utilization Act of 2019 (Act). CMAR shall indemnify, protect, and defend Owner against any alleged violation of the Act by CMAR or any of its lower-tiered contractors.

A contractor or subcontractor employing a worker as defined in NRS 338.040, shall use one (1) or more apprentices for at least ten percent (10%) of the total hours on vertical construction and three percent (3%) of the total hours for horizontal construction of the total hours of labor worked for each apprenticed craft or type of work to be performed on the public work when more than three (3) employees of each craft are employed at the site of work.

❖ *If the construction project is considered a VERTICAL project, then it is subject to ten percent (10%) apprentice utilization.*

A Public Body, upon request of a contractor or subcontractor, may submit a request for a modification or waiver of the percentage of hours of labor of one or more apprentices prior to the bid advertisement; the bid opening; and the award of the contract.

The Labor Commissioner may also grant a waiver from the requirements of Section 1 of this Act after work on the public work has commenced if the public body, contractor, or subcontractor submits documentation and evidence that meets the requirements to establish Good Cause.

Good Cause is defined as:

- a. There are no apprentices available from an apprenticeship program within the jurisdiction where the public work is to be completed as recognized by the State Apprenticeship Council.*
- b. The contractor or subcontractor is required to perform uniquely complex or hazardous tasks on the public work that require the skill and expertise of a greater percentage of journeymen; and*
- c. The contractor or subcontractor has requested apprentices from an apprenticeship program and the request has been denied or the request has not been approved within five (5) business days.*

The term Good Cause does not include the refusal of a contractor or subcontractor to enter into an apprenticeship agreement.

Workforce Information (to comply with the Act):

- a. Upon request from OWNER, the contractor is required to submit the Comprehensive Contractor/Subcontractor List and Project Workforce Checklist.*
- b. Contractor is required to submit, within ten (10) business days of request for Project Workforce Checklist, all supporting documentation for waiver(s), including, but not limited to, the Request for Apprentice Availability on A Public work form.*
- c. Submit all requested documentation to cmarrfp@cityoffernley.org and identify in the email the construction project to which the documents apply.*

❖ *Failure to submit the required documentation within the required timeframe may delay the Notice to Proceed and will not be considered as cause for contract time extension.*

- 5.4.5 When required by the Contract Documents, the CMAR shall ensure that all employees on the Project are paid in accordance with the Prevailing Wage Rates as published in the Contract Documents and as issued by the State Labor Commissioner for the area or place of the work. The CMAR shall forfeit, by deductive Change Order, the amounts stipulated in NRS Section 338.060, should the CMAR fail to comply with any of the applicable prevailing wage rate requirements.
- 5.4.6 The CMAR shall ensure that all the CMAR's Subcontractors comply with the reporting requirements of NRS Section 338.070.
- 5.4.7 All work performed after regular working hours, on weekends or legal holidays, shall be performed without additional expense to the Owner unless previously agreed to otherwise by the Owner.
- 5.4.8 Unless otherwise specifically required, all materials and equipment incorporated in the work shall be new, free of faults and defects, and shall conform to the Contract Documents. If required, the CMAR shall furnish evidence, satisfactory to the Owner, as to the type and quality of all materials and equipment.
- 5.4.9 No materials or equipment for the work shall be purchased by the CMAR, nor shall the CMAR permit any Subcontractor to purchase materials or equipment, that are subject to any chattel mortgage or are under a conditional sale contract or other security agreement by which any right, title, or interest is retained by the seller.
- 5.4.10 All materials and equipment used in the work shall be subject to inspection and testing in accordance with accepted standards to ensure conformity with the requirements of the Contract Documents, laws, ordinances, rules and regulations, or orders of any public authority having jurisdiction. Where specific certificates concerning materials and/or equipment are required, securing payment for the prompt delivery of such certificates shall be the responsibility of the CMAR. Such certificates shall be executed by qualified firms acceptable to the Owner, shall include all information required by the Contract Documents and shall clearly refer specifically to the relevant materials and/or equipment.

5.5 TEMPORARY UTILITIES, HEATING, AND COOLING

- 5.5.1 The CMAR shall be solely responsible for providing all necessary temporary utilities. The CMAR shall pay all costs related thereto, including, but not limited to, applications, fees, permits, engineering, and any other costs as may be required to acquire temporary utilities. The Owner will not be responsible for any delays or costs related to obtaining temporary utilities unless otherwise agreed to by Owner.
- 5.5.2 Temporary utilities may be connected to the Owner's existing metered utilities only with the Owner's and utility company's written authorization. Any connection to the

Owner's existing utilities shall be separately metered to allow for proper allocation of utility costs unless another arrangement is specifically agreed to and authorized by the Owner in writing. Temporary meters shall be removed upon completion of the work.

- 5.5.3 The CMAR shall be solely responsible for providing temporary heating, cooling, and/or ventilation as required to prevent degradation or damage to the work unless otherwise agreed to by Owner. The permanent heating, cooling, and air handling systems shall not be utilized for the purpose of temporary heating, cooling, or ventilation until the Owner approves of such use in writing. In no case shall the permanent heating, cooling, or air handling systems be operated until they are complete, including formal start-up, check-out, and testing and balancing. Utilization of any of the permanent heating, cooling, or air handling systems prior to Substantial Completion shall not impact the specified warranty for such equipment, which shall begin on the date of Substantial Completion.

5.6 EMERGENCIES

- 5.6.1 In case of an emergency, which threatens loss or damage to property, personal injury, or life safety, the CMAR shall immediately take all feasible actions to prevent or mitigate such loss, damage, injury, or death, without awaiting instructions from the Owner or the Architect. The CMAR shall notify the Owner and the Architect in writing of such emergency at the first feasible opportunity.
- 5.6.2 The amount of reimbursement claimed by the CMAR on account of any emergency action shall be determined in the manner provided herein for claims.
- 5.6.3 The CMAR shall maintain a current emergency telephone number list at the job site. The list shall include telephone numbers for the CMAR's Superintendent and for other responsible CMAR representatives that can be contacted after normal working hours in the event of an emergency. This list shall be prominently posted both inside and outside of the CMAR's field office.

5.7 PROGRESS PHOTOGRAPHS

- 5.7.1 The CMAR shall take not less than twelve progress photographs of the work each month at a minimum resolution of 640 by 480 pixels. The photographs shall be taken with the intent of providing a clear and complete depiction of overall Project progress. Each photograph is to be clearly marked with the time, date, location/view, and other details sufficient to identify the subject.
- 5.7.2 Camera view/locations shall be coordinated with and approved by the Owner or the Architect.
- 5.7.3 Progress photos shall be stored on an electronic jump-drive/flash drive and issued to the Owner along with each progress payment application. Other data storage formats will be acceptable to the Owner with prior approval.

5.8 TAXES, PERMITS, FEES, AND NOTICES

- 5.8.1 The CMAR shall pay all sales, consumer, use, and other taxes required by law.
- 5.8.2 The CMAR shall secure and pay for all construction-related permits, fees, and licenses necessary for the proper execution and completion of the work, including, but not limited to, dust control permits, storm water mitigation permits, and temporary utility tap fees. Municipal or county plan checking, building permit or permanent utility usage fees will be the responsibility of the Owner.
- 5.8.3 The CMAR shall give all notices and comply with all laws, ordinances, rules, regulations, and orders of any public authority bearing on the work. If the CMAR discovers that any of the Contract Documents are at variance therewith, he shall immediately notify the Owner and the Architect in writing. If the CMAR performs any work which he knows or should have known to be contrary to such laws, ordinances, rules, and regulations, or orders, without such written notice and written instruction from the Owner or Architect, he shall assume full responsibility therefore and shall bear all costs attributable thereto. Any permit issued shall not warrant continued work in violation of law and once discovered, must be remediated and paid for by Owner.

5.9 PROJECT SIGNS

- 5.9.1 Within thirty (30) days of the Notice to Proceed, and maintain for the life of the Project, the CMAR shall erect one painted Project identification sign of the design, text, and colors designated by the Architect, measuring 4 feet by 8 feet (4' x 8'), in the format directed by the Owner.
- 5.9.2 This sign shall be the only CMAR sign displayed on the Project site. The sign shall include as a minimum the Project name, the Architect, the CMAR, City of Fernley, and major Subcontractors.

5.10 ACCESS ROADS

- 5.10.1 The CMAR shall use designated access roads as directed by the Owner, and the CMAR shall always keep these roads passable. The CMAR shall be entirely responsible for any damage to roads, trees, shrubs, gates, fences, grass, curbs, gutters, and driveways due to construction usage. All damaged portions shall be restored by the CMAR, at the CMAR's own cost, to the same condition as existed before the commencement of the work.
- 5.10.2 Dirt roads shall be periodically sprinkled with water when dust conditions create an onsite or offsite hazard or nuisance to workmen, neighboring properties, or the public in general. The CMAR shall secure and pay for any dust control permits required by State or local jurisdictions.

5.11 CONSTRUCTION SURVEYS

- 5.11.1 Unless otherwise expressly provided for in the Contract Documents, the CMAR shall furnish and pay for all construction surveys necessary for execution of the work or required by the Contract Documents.

5.12 ARCHAEOLOGICAL FINDINGS

- 5.12.1 Any historic, prehistoric, archeological evidence, or artifacts discovered on the site shall remain undisturbed and shall be reported immediately to the Owner in writing. Any such findings are the property of the Owner.

5.13 SUBSURFACE CONDITIONS

- 5.13.1 Should the CMAR encounter subsurface or hidden conditions at the site materially differing from those indicated in the Contract Documents, the CMAR shall immediately give written notice to the Owner and the Architect of such conditions before they are disturbed. The Architect will investigate the conditions, and if found to materially differ, the Architect will, after consultation with the Owner, make such changes in the Contract Documents as deemed necessary. Any increase or decrease in cost resulting from such changes will be adjusted by Change Order.

- 5.13.2 The CMAR shall perform all work in strict conformance with the current “*Call Before You Dig*” program applicable at the location of the Project.

5.14 PATENTS AND ROYALTIES

- 5.14.1 To the fullest extent permitted by law, the CMAR shall defend and hold harmless the Owner and the Owner’s officers, agents, and employees harmless from liability of any nature or kind, including cost and expenses for, or on account of claimed infringement of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the work, including the use of the work by the Owner, unless otherwise specifically stipulated in the Contract Documents.

- 5.14.2 If the CMAR uses any design, device or materials covered by letters, patent, or copyright, the CMAR shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device, or material.

- 5.14.3 It is mutually agreed and understood, that without exception, the Contract Sum includes all royalties or costs arising from the use of any such design, device, or materials in the work.

5.15 MATERIALS TESTING

- 5.15.1 Testing of construction materials delivered to the job site shall be carried out by the Owner unless otherwise required in the Contract Documents. The Owner shall select the testing laboratory or inspection agency to carry out this work. The purpose of such

testing is to verify conformity of materials and/or equipment with the Contract Documents. Where tests indicate conformity, costs of testing will be paid by the Owner; where tests indicate non-conformance, costs of re-testing will be paid by the CMAR by deductive Change Order.

5.15.2 If special inspection or testing requirements are established by any of the Contract Documents, performance of and payment for such inspection or testing shall be as specifically stated therein. If the manner of payment is not specified or if there is no mention of such inspection or testing in the Contract Documents, but such inspection is judged necessary by the Owner, then the Owner shall pay the cost thereof. The CMAR shall cooperate toward minimizing the cost of such inspection and testing.

5.15.3 All testing and inspection carried out by the Owner is for the benefit of the Owner and not the CMAR. Lack of performance or failure on the part of any testing laboratory or inspection agency retained by the Owner shall not relieve the CMAR of the CMAR's responsibility to complete the work in accordance with the Contract Documents.

5.16 CORRECTION OF THE WORK

5.16.1 If any work is covered prior to either a specified or a requested inspection, the CMAR shall uncover the work for observation and if found to be defective or non-conforming shall replace the work at no cost to the Owner.

5.16.2 If any work has been covered, which the Owner or the Architect has not specifically requested to observe prior to being covered, the Owner may request to see such work and it shall be uncovered by the CMAR. If the uncovered work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If the uncovered work is not in accordance with the Contract Documents, the CMAR shall pay such costs.

5.16.3 The CMAR shall promptly correct all work rejected as defective or as failing to conform to the Contract Documents, whether observed before or after the Certificate of Substantial Completion is issued, and whether or not fabricated, installed, or completed. The CMAR shall bear all costs of correcting such rejected work, including, but not limited to, the cost for additional professional services.

5.16.4 The CMAR shall bear all costs associated with making good all work of separate contractors destroyed or damaged by removal or correction.

5.16.5 If the CMAR does not remove defective or non-conforming work immediately upon written notice, the Owner may remove it and may store the materials or equipment at the expense of the CMAR. If the CMAR does not pay the cost of such removal and storage immediately upon written notice, the Owner may sell such work at auction or at private sale to recover the related costs. If such proceeds do not cover all related costs incurred by the Owner, the difference shall be charged to the CMAR, and an appropriate Change Order shall be issued.

5.16.6 If the CMAR fails to correct defective or non-conforming work, the Owner may correct it at the CMAR's expense.

5.16.7 If the Owner prefers to accept non-conforming work, Owner may do so instead of

requiring its removal or correction, in which case an appropriate reduction will be made to the Contract Sum, or, if the amount is determined after final payment, such amount shall be paid to the Owner by the CMAR immediately upon written notice.

- 5.16.8 All damage or loss to any property caused in whole or in part by the CMAR, any Subcontractor, Sub-Subcontractor, anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the CMAR, except damage or loss attributable to errors and/or omissions in the Contract Documents.

5.17 SUBCONTRACTORS & SUBSTITUTES

- 5.17.1 After selecting a subcontractor, the CMAR shall not change Subcontractors without proper justification and without the prior written approval of the Owner.
- 5.17.2 Should the CMAR decide for any reason to substitute a Subcontractor for work that the CMAR listed to be self-performed, the CMAR shall provide a written explanation of why the Subcontractor was not utilized in the original list and why the substitution is in the best interest of the Owner. The Owner reserves the right to either approve or deny such requests.
- 5.17.3 If the Owner has a reasonable objection to any Subcontractor, and requests in writing a change in Subcontractors, the CMAR shall submit an acceptable substitute, and the Contract Sum may be increased or decreased by any reasonable costs directly caused by such substitution.
- 5.17.4 The CMAR shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the CMAR by all Contract Documents. These provisions shall include, but shall not be limited to, the following:
- A. Require that the Subcontractor's work be performed in accordance with the requirements of the Contract Documents and be guaranteed for a period of one year after the date of Substantial Completion, or as may be required in the Contract Documents.
 - B. Require that the Subcontractor's work be performed in accordance with the CMAR's construction schedule to ensure completion within the Contract Time.
 - C. Require that all claims by the Subcontractor for additional costs or extensions of time with respect to subcontracted portions of the work shall be submitted to the CMAR in the time and manner provided in the Contract Documents for like claims by the CMAR upon the Owner.
- 5.17.5 The CMAR shall pay each Subcontractor, within ten (10) calendar days after receipt of payment from the Owner, an amount equal to the percentage of completion allowed to the CMAR on account of each Subcontractor's work. The CMAR shall also require that each Subcontractor make similar payments to each Sub-Subcontractor.
- 5.17.6 The CMAR shall be as fully responsible to the Owner for the acts and omissions of the CMAR's Subcontractors, and of persons either directly or indirectly employed by

them, as he is for the acts and omissions of the persons directly employed by him. If, through acts or neglect on the part of the CMAR, any Subcontractor suffers loss or damage, the CMAR agrees to settle with such Subcontractor. If such Subcontractor asserts any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the CMAR, who shall indemnify, hold harmless, and defend the Owner against any such claim.

5.17.7 If the CMAR fails to make appropriate payments to any Subcontractor, Sub-Subcontractor, worker, and/or supplier, then the Owner may pay unpaid bills and/or withhold from the CMAR's unpaid compensation a sum of money deemed reasonably sufficient to reimburse the Owner or pay any/all such claims until satisfactory evidence is furnished that all such liabilities have been fully discharged by the CMAR; however, in no event shall the provisions of this paragraph be construed to impose any obligations upon the Owner to the CMAR, Subcontractors, Sub-Subcontractors, workers, and/or suppliers. In paying any unpaid bills of the CMAR, the Owner shall be deemed the agent of the CMAR, and any payment so made by the Owner, shall be considered as a payment made under the Contract Documents by the Owner to the CMAR, and the Owner shall not be liable to the CMAR for any such payment made in good faith.

5.17.8 The CMAR shall be responsible for the proper distribution of all insurance recoveries resulting from an insured loss under the Contract.

5.17.9 The Owner may furnish to a Subcontractor or supplier, information regarding payments to the CMAR on account of work done by such Subcontractor or supplier, if requested.

5.17.10 Neither the Owner nor the Architect shall have any obligation to pay or to see to the payment of any monies to any Subcontractor, workman, or supplier, except as may otherwise be required by law.

5.17.11 Prior to receiving or accepting any payment, each Subcontractor must have a valid Nevada business license, pursuant to NRS 338.072.

5.18 SAFETY PROGRAM & HOT WORK PERMIT

5.18.1 In order to be eligible to provide labor on the Project, the CMAR must have in existence a Safety Program. This requirement is a reasonable precaution to ensure a safe working environment on construction projects that may involve workers being in relatively close contact with students, staff, and the community.

5.18.2 The CMAR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.

5.18.3 All work shall be performed in strict accordance with the most current edition of the State of Nevada Occupational Safety and Health Standards.

5.18.4 The CMAR shall take all necessary precautions for the safety of, and shall provide all necessary protection to prevent damage, injury, or loss to:

- A. All employees on the Project and all other persons who may be affected thereby.
- B. All work, whether in storage on or off the site.
- C. All property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities.

- 5.18.5 The CMAR shall comply with all applicable laws, ordinances, rules, and regulations of any public authority having jurisdiction for the safety of persons or property, or to protect them from damage, injury, or loss. The CMAR shall erect and maintain, as required by existing conditions and by the progress of the work, all necessary safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating regulations, and notifying Owners and users of adjacent properties.
- 5.18.6 The CMAR's Project Superintendent, unless otherwise designated in writing by the CMAR to the Owner, shall serve as the responsible member of the CMAR's organization at the site, whose duty shall be supervision and practice of the CMAR's Safety Program (and the prevention of accidents. In any emergency affecting the safety of persons or property, the CMAR shall act, at discretion, to prevent threatened damage, injury, or loss.
- 5.18.7 The CMAR shall be responsible for the safe operation of all equipment, for utilizing safe construction methods, and for any damage which may result from failure or from improper construction, maintenance, or operation.
- 5.18.8 The CMAR shall securely fence, barricade, cover, or otherwise adequately protect all excavations, holes, shafts, or other hazards to guard against danger to persons or animals and shall properly maintain such protection until the completion of the Project.
- 5.18.9 The CMAR shall immediately notify the Owner, and shall take immediate action to prevent damage, injury, or loss, should any suspected hazardous materials be encountered during the course of work on the Project.
- 5.18.10 Prior to conducting any hot work (welding, brazing, soldering, cutting, grinding, etc.) in an existing building the CMAR shall complete and submit to the Owner a Hot Work Permit (utilizing the associated form as issued by Factory Mutual or Global Risk Consultants).

5.19 SITE MANAGEMENT & CLEANUP PROCEDURES

- 5.19.1 The CMAR shall confine operations at the site to areas permitted by law, ordinances, permits, and the Contract Documents, and shall not unreasonably encumber the site. The CMAR shall always keep the site and the work free from accumulation of waste materials and debris resulting from the CMAR's operations.
- 5.19.2 The CMAR shall obtain any required dust control permit and shall implement a dust control program prior to beginning any activity at the Project site. The CMAR's dust control program shall comply with all applicable state and local requirements. At a

minimum, the CMAR shall periodically shower the entire construction site with water as required to prevent blowing dust from becoming a hazard or nuisance to workmen, neighboring properties, or the public.

5.19.3 The CMAR shall develop and implement a stormwater pollution prevention plan complying with the most current version of the federal Environmental Protection Agency Construction General Permit, or with applicable state or local stormwater pollution prevention requirements, whichever is more stringent.

5.19.4 Upon completion of the work the CMAR shall remove all waste materials, debris, tools, construction equipment and machinery, and surplus materials from the Project site. The CMAR shall clean all surfaces and leave the work in a finished, cleaned, washed, waxed, and polished condition. The cleanup requirements are also specifically applicable to all mechanical equipment and to all mechanical equipment rooms.

5.20 ROOFING INSTALLATION AND PROTECTION

5.20.1 No work including staging or access to other portions of the work shall be permitted on the finished membrane.

5.20.2 All roofing work shall commence at the furthest point from the workers' access and progress back towards the access point.

5.20.3 If staging, access, or work is required on the finished membrane, the CMAR shall provide protection along the access path and under the work extending 48 inches beyond the required work area. Protection shall consist of $\frac{3}{4}$ inch plywood over a heavy canvas tarp with sandbag ballasts as required to prevent the plywood from becoming airborne during strong winds.

5.21 QUALITY ASSURANCE & QUALITY CONTROL PROGRAM

5.21.1 The CMAR shall develop and implement an appropriate Quality Assurance & Quality Control Program for the Project. A detailed description of the program shall be furnished to the Owner and the Architect for review prior to submitting the first progress payment application.

5.22 DRUG AND ALCOHOL POLICY

5.22.1 In order to be eligible to provide labor on the Project, the CMAR must have in existence a Drug and Alcohol Policy. This requirement is a reasonable precaution to ensure a safe and drug-free environment on City construction projects that may involve workers being in relatively close contact with students.

5.22.2 All other contractors who provide labor on CITY projects, regardless of tier, shall have in place a Drug and Alcohol Policy applicable to all workers who will be employed on those projects.

5.22.3 Drug and Alcohol Policies must meet the minimum requirements of the Owner. The CMAR shall demonstrate compliance with this provision by submitting a certification

under penalty of perjury that the Drug and Alcohol Policy is in place, that it will be actively enforced, and that all workers who will be employed on the Project will have undergone the pre-placement drug testing required by Owner.

5.22.4 Owner, is empowered to review any/all contractors' records of enforcement of any/all contractors' Drug and Alcohol Policy at any time during the period following award of the resulting contract up to and including completion of the Project in order to determine whether the Drug and Alcohol Policy is in fact being enforced. Any/all contractors shall forthwith deliver to the Owner any/all records requested to determine compliance with the Drug and Alcohol Policy requirement. Failure to maintain or rigorously enforce the Drug and Alcohol Policy or to timely respond to the Owner demands for production of records relating to the Drug and Alcohol Policy may result in termination of the Project contract at no cost to the Owner.

5.23 ENVIRONMENTAL SAFETY REGULATIONS (updated as of December 2020)

MATERIAL DISTURBANCE PERMIT

The building Material Disturbance Permit (MDP) is a City of Fernley (CITY) document that identifies asbestos and lead site specific information, and it is issued by the Environmental, Safety and Assessment (ES&A) Department. A site-specific Material Disturbance Permit is required for each project. Each project and facility require a separate Material Disturbance Permit because each facility has specific information and direction regarding asbestos and lead, as each facility is different in that regard. The Material Disturbance Permit is to be requested by the Project Manager, in accordance with current Material Disturbance Permit requirements. No work can be done by a Contractor for CITY of FERNLEY without an MDP.

WATER SYSTEM DISTURBANCE

Improper closing of valves and other improperly conducted disruptions to City facilities can result in cross connections and back siphoning of chemicals and other contaminants into the water supply. Since these disturbances are very important, Owner has added a water system disturbance section to the Material Disturbance Permit (MDP). work, as a part of this contract, may involve the disturbance of a facilities water distribution system and, as such, the Contractor is required to comply with the Water System Disturbance Permit Appendix section of the Material, Water and Lead Disturbance Permit for any work impacting a facility water system.

The Contractor shall carefully comply with all requirements of the Material, Water and Lead Disturbance Permit, and shall be aware of this process prior to bid preparation and any construction. The permit requirements are hereby made a part of this specification and contract to the same extent as if bound herein and shall apply to all contractors, Subcontractors, and Sub-Subcontractors.

The Contractor shall be responsible for all costs incurred by Owner, including the consultant, sampling and testing, clean-up, replacement of effected equipment, materials, etc., and any legal action that may result from an unauthorized disturbance of a water system caused by the Contractor, Subcontractors, and Subcontractors resulting in a cross connection or backflow incident.

If Contractors have any questions regarding the requirements of the Water System Disturbance Permit, please call the ES&A Department for the Regulated Systems Compliance and Safety Officers at (775) 325-8491.

INDOOR ENVIRONMENTAL QUALITY

Preventative job site practices will reduce the potential for residual problems with indoor air quality in completed buildings and reduce undue health risks for all workers. The following are the minimum standards required by the CITY for on-site construction in the city.

A. Existing HVAC System:

When feasible, the HVAC system for the project area will be shut down for the duration of the project. If occupied spaces will be adversely affected by the shut-down of the system, construction area return registers should be sealed with polyethylene sheeting and secured as an alternative. Registers must be sealed prior to the start of work.

B. Separating Occupied Spaces from Non-Occupied:

Keep work areas separate from occupied spaces with polyethylene sheeting (or similar) if there are no other natural barriers in place OR in spaces where air exchange will occur around the barriers.

C. Ventilation:

During the installation of carpet, paints, furnishings, and any other VOC emitting products, provide “spot” ventilation during application/installation and for at least 24 hours after the work is completed. In most cases, opening windows and doors will not be enough to effectively exhaust contaminants. It is recommended that an exhaust fan be used to pull polluted air out of the building. This can be accomplished by placing a fan in a window or door and temporarily sealing any opening around the fan with plastic. Additionally, a door or window at the opposite end of the room should be opened to allow fresh, outdoor air to flow across the work area and sweep polluted air out through the exhaust fan. As long as odors are present, the temporary exhaust ventilation must continue to operate. This may include nights and weekends, as necessary. Ventilation should continue for a minimum of 24 hours after the completion of the project or until there are no more noticeable odors.

D. Construction Dust:

Minimize the amount of dust in the air and on surfaces. Examples include the use of vacuum assisted drywall sanding equipment and the use of vacuums instead of brooms to clean construction dust from floors.

E. After Hours Scheduling:

Schedule high dust generating operations or extreme noise generating activities for after normal working hours. (i.e., saw cutting, jack hammering) and install temporary barriers to confine dust, as necessary.

F. Gasoline/Diesel Powered Equipment:

Electric powered equipment must be used in lieu of diesel or gasoline powered equipment. Gas and diesel equipment may not be used inside a CITY building or near an outdoor fresh air building intake.

- G. Material Safety Data Sheets (MSDS):
MSDS must be made be maintained onsite and made available upon request as required by federal law.
- H. Construction Completion:
Prior to the occupancy of the building but after the installation of new furniture, carpet, etc., the building should be flushed with 100% outside air for one to three days.
- I. Air Filters:
Replace all filtration media immediately at the conclusion of the job.
- J. Monitoring Air Quality:
Indoor air quality monitoring will be conducted randomly throughout the project. Results and any recommendations will be communicated through the building inspector to construction management.
- K. Preconstruction work Area Inspection:
Any overhead work including roof, the Contractor shall conduct a pre room condition walk through with CITY Project Manager to determine the level of cleanliness that will be expected at completion of project. Contractor shall be responsible for cleaning all exposed surfaces within the facility beneath the work area. At the completion of the project, the Contractor shall clean all exposed surfaces within the facility beneath the aforementioned work area including but not limited to all shelving, duct, lighting, flooring, furniture, etc.

LOCK OUT TAG OUT (LOTO) PROCEDURE

When applicable to the work of the project, the Contractor will be responsible for the isolation and termination of all building systems that may be impacted by the scope of work within this bid. Contractor will coordinate all shut-down processes with the construction manager prior to any shutdowns up to and including Lock Out Tag Out procedures 24 hours prior to any shutdowns. CITY will make the final determination of which systems and location shall be isolated. All Lock Out Tag Out will be performed at main service panel.

5.24 BUILDING INFORMATION MODELING (BIM) REQUIRED FOR NEW BUILDINGS

- 5.24.1 Building Information Modeling (BIM) is an intelligent 3D model-based process that gives architecture, engineering, and construction professionals the insight and tools to plan more efficiently, design, construct, and manage buildings and infrastructure.
- 5.24.2 The Level of Development (**LOD**) Specification is a reference that enables architecture, engineering, and construction professionals to specify and articulate with a high level of clarity the content and reliability of BIMs at various stages in the design and construction process
- 5.24.3 The LOD for this Project's BIM shall be LOD 300. At the completion of the Project, said model shall be provided to the Owner in full editable and usable format. The Model or Revit file will be provided to the awarded Contractor (except electrical). The

Electrical Subcontractor will be required to provide the Subcontractor's own Revit file.

5.24.4 Required for new buildings, the BIM modeling, at a minimum, shall include:

- 1) all duct work and air handling equipment (ductwork shall show flanges) and model shall show insulation around duct work
- 2) all mechanical equipment
- 3) all hangers including Unistrut, clevis, all-thread, and strap material
- 4) duct fittings including HETO (high efficiency take off) and flex and diffusers/grilles
- 5) electrical work and controls conduit cumulating 1.5 inches or larger
- 6) mechanical access zones
- 7) fire/smoke or fire dampers including access zones.
- 8) mechanical piping larger than ¾ inch
- 9) refrigerant lines, no matter the size
- 10) cable tray
- 11) electrical equipment
- 12) all hangers and supports for electrical equipment
- 13) all light fixtures
- 14) all power feeds including conduit or bus bars
- 15) outlets and switches where location is a priority for architectural
- 16) electrical equipment access zones
- 17) all occupancy sensors, daylight sensors, exit signs, fire alarm strobes and horns, cameras, speakers, and av equipment located in ceiling grid.
- 18) natural gas lines larger than ½ inch
- 19) plumbing lines larger than ½ inch
- 20) insulation shall be shown with the correct sizing on plumbing lines
- 21) all plumbing valves and cleanouts
- 22) access zones to plumbing valves and cleanouts
- 23) fire protection piping no matter the size
- 24) fire protection drops
- 25) fire protection equipment
- 26) the entire steel structure including beams, columns, supports, braces, bent plate, supports or secondary supports
- 27) all catwalks and their support systems
- 28) all concrete and block structures include walls, columns, or beams
- 29) all access doors in the architectural ceiling for access to all electrical, plumbing, and mechanical systems
- 30) ceiling grid
- 31) all walls windows and doors
- 32) lab hoods
- 33) soda machine lines
- 34) kitchen equipment and hoods

SECTION 6: THE ARCHITECT

6.1 ARCHITECT'S RESPONSIBILITIES

- 6.1.1 The Architect will provide all applicable professional services for the duration of the Project. The Architect is the Owner's representative and will advise and consult with

- the Owner for the duration of the Project.
- 6.1.2 The Architect will be the interpreter of the Drawings and Specifications and will render interpretations as may be necessary for proper execution of the work.
 - 6.1.3 The Architect will review and respond to all Requests for Information issued by the CMAR within the time period stipulated in Section 2.3.
 - 6.1.4 The Architect shall always have complete access to the work.
 - 6.1.5 The Architect will make periodic visits to the site to observe the progress and quality of the work and to determine if the work is proceeding in accordance with the Contract Documents.
 - 6.1.6 The Architect will review all shop drawings, samples, and submittals required by the Contract Documents.
 - 6.1.7 The Architect will not be responsible for the acts or omissions of the CMAR and/or their agents or employees, or any Subcontractor, Sub-Subcontractor, or any other persons performing any of the work.
 - 6.1.8 Based upon site observations and the CMAR's progress payment applications, the Architect will review and make recommendations to the Owner, regarding the amounts claimed by the CMAR in each progress payment application.
 - 6.1.9 The Architect will have authority to reject work which does not conform to the Contract Documents.
 - 6.1.10 The Architect will prepare Change Orders and Construction Change Directives for review and approval by the Owner.
 - 6.1.11 The Architect will have authority to order minor changes in the work that do not involve a change in the Contract Sum or the Contract Time.
 - 6.1.12 The Architect shall attend and conduct all scheduled construction progress meetings at the Project site.
 - 6.1.13 The Architect's decisions on matters relating to aesthetics will be final if consistent with the intent expressed in the Contract Documents.

SECTION 7: INSURANCE AND BONDING

7.1 GENERAL REQUIREMENTS OF INSURANCE DOCUMENTATION

- 7.1.1 Without limiting any of the other obligations or liabilities of the CMAR, the CMAR shall, at the CMAR's sole expense, procure, maintain, and keep in force not less than the following amounts, types, and coverages of insurance conforming to the minimum requirements set forth in this section, unless otherwise agreed to by the Owner in writing.
 - 7.1.1.1 The required insurance coverage shall be procured before any work

commences on the Project and shall always be maintained continuously in force. If the CMAR fails to comply with this section, the CMAR shall be considered in default of the Contract, if determined by the Owner.

7.1.2 Without limiting any of the other obligations or liabilities of the CMAR, the CMAR shall, at the CMAR's sole expense, cause each Subcontractor and each Sub-Subcontractor involved with the work of construction under the direction and control of the CMAR for this contract, to procure, maintain and keep continuously in force insurance types and limits to conform to the minimum requirements set forth in this section, unless otherwise agreed to beforehand by the Owner in writing.

7.1.2.1 The required insurance coverage shall be procured before any work commences on the Project and shall always be maintained continuously in force.

7.1.3 Unless specified herein or otherwise agreed to by the Owner, the required insurance policy(s) and required endorsements shall be received and in effect prior to the commencement of work by the CMAR. The certificates for each insurance policy shall be signed by a person authorized by the insured's agent or broker and shall continue in force until the latter of the following conditions:

- A. Final acceptance by the Owner of the completed work and acceptance of final payment by the CMAR.
- B. At such time that the insurance is no longer required by the Owner under the terms of the Contract Documents.
- C. The expiration of any applicable law (including any Statute of Repose), by which any party may bring a claim against Owner.

7.1.4 As evidence of compliance with the insurance required in the section, the CMAR shall furnish the Owner with all certificates of insurance liability coverage (using an Acor Form 25 or equivalent form approved by the Owner) prior to the award of the contract. The CMAR shall maintain original copies of Subcontractor insurance certificates for the duration of the Project and through the warranty period. Such records shall be furnished to the Owner upon request. The certificates for each insurance policy shall be signed by a person authorized by the insured's agent or broker.

7.1.5 The Owner reserves the right to require and obtain complete, certified copies of any insurance policies required by the Contract Documents at any time. Complete copies of policies shall be furnished by the CMAR and by any Subcontractor or Sub-Subcontractor within thirty (30) days after a written request is issued by the Owner. In lieu of a required certificate of insurance the CMAR may furnish an original binder signed by an authorized representative of the Insurer(s) for a maximum of sixty (60) days from the date of inception of the associated policy(s). Said certificates of insurance or original binder must include the Additional Insured Endorsement as required in this section.

7.1.6 Except as provided below, coverages shall not be suspended, cancelled, non-renewed or reduced in coverage or in limits by either the CMAR or by the CMAR's Insurer, without written notice by email to: cmarrfp@cityoffernley.org (preferred), or at a

minimum via U.S. Mail of said suspension, cancellation, non-renewal, or reduction in coverage, or in limits by the CMAR or the Insurer given no less than thirty (30) days. The Contractor's insurance certificates shall include endorsement(s) stating that thirty (30) days' prior written notice will be given by the Insurer to the certificate holder if cancellation is to be before the expiration date set forth in the certificate.

- 7.1.7 Cancellation by the Insurer for non-payment of premium requires that the Insurer give the CMAR a notice of cancellation ten (10) calendar days before the effective date of the cancellation and the CMAR shall notify Owner immediately upon receipt of the notice.
- 7.1.8 CMAR's Insurers or Surety Company(s) shall have and maintain throughout the period for which coverage is required, an A.M. Best Company Rating of A- or better and an A.M. Best Company Financial Size Category of X or better, unless specifically waived or adjusted by the Owner.
- 7.1.9 Insurers or Surety Company(s) providing the insurance or providing the bonds required by this Contract must be either:
 - A. Authorized by certificates of authority issued by the Department of Insurance of the State of Nevada; or
 - B. With respect only to Workers' Compensation, be authorized as a Self-Insured under NRS Section 616.291.
- 7.1.10 The insurance provided by the CMAR and the CMAR's Subcontractors pursuant to this Contract shall apply on a primary basis and any other insurance or self-insurance maintained by the Owner shall be in excess of and not contributing to the insurance provided by or on behalf of the CMAR. Coverage maintained by the CMAR or the CMAR's Subcontractors shall apply first, before any other insurance, on a primary basis, and without application of a deductible or self-insured retention unless otherwise specifically agreed to by the Owner. Such approval shall not relieve the CMAR from payment of any deductible or self-insured retention owed on CMAR's insurance.
- 7.1.11 The Owner and the Architect shall be named as Additional Insured on all insurance provided by the CMAR and the CMAR's Subcontractors as required in this section (except for Workers Compensation). The Workers Compensation Insurance shall provide a Waiver of Subrogation endorsement as required in this section. The CMAR shall comply with all warranties required by the Insurer. Any deductible shall be the responsibility of the CMAR.
- 7.1.12 Failure to maintain the required insurance or surety requirements may result in termination of this contract at Owner's option. If CMAR or its Subcontractors fails to maintain insurance as set forth herein, Owner shall have the right, but not the obligation, to purchase said insurance or bond at the CMAR's and/or Subcontractor's expense.
- 7.1.13 By requiring insurance herein, Owner does not represent that coverage and limits will necessarily be adequate to protect Owner and such coverage and limits shall not be deemed as a limitation on CMAR's or Subcontractor's liability under the indemnities granted to Owner in this contract.

7.2 COMMERCIAL GENERAL LIABILITY INSURANCE

7.2.1 The CMAR shall carry and maintain a Commercial General Liability (CGL) Insurance and, if necessary, a Commercial Umbrella Liability Insurance, provided on a form at least as broad as the Insurance Service Office (ISO) CG 00 01 12 07 and/or CG 00 01 04 13 occurrence forms and shall cover all operations, activities and exposures of the CMAR including, but not limited to, the following:

- A. Premises and Operations Liability.
- B. Products and Completed Operations Liability.
- C. Personal and Advertising Injury.
- D. Contractual Liability safeguarding the obligations assumed by the CMAR in the Contract Documents.
- E. Liability which the CMAR may incur as a result of the operations, acts, or omissions of the CMAR's Subcontractors, independent contractors, suppliers, their agents, or employees.
- F. "Claims Made" or "Modified Occurrence" coverage forms may not be used and are not acceptable (except for Professional Liability Insurance).
- G. Defense costs and expenses shall not reduce the limits of insurance and shall not apply within any aggregate limit of insurance unless approved by the Owner.

7.2.2 The CMAR's CGL coverage shall be \$2,000,000 per occurrence and \$4,000,000 in both the General Aggregate and Products/Completed Operations Aggregate or the amount customarily carried by CMAR, whichever is greater, combined single limit per occurrence for bodily injury, personal injury and property damage.

7.2.2.1 The required limits of CGL coverage for Subcontractors shall be a minimum of \$2,000,000, or the amount customarily carried by the Subcontractor, whichever is greater, per occurrence for bodily injury, personal injury, and property damage. If the CMAR fails to comply with this section, the CMAR shall be considered to be in default of the Contract if determined by the Owner.

7.2.3 The General Aggregate must be on a "per project" basis. CGL coverage shall specifically apply to the acts and/or omissions of CMAR and the Subcontractors. **The CGL coverage shall be maintained in full force and effect for five (5) years from the date of completion of the project and shall solely apply to this Project.**

- Products/Completed Operations Aggregate \$4,000,000
- Personal and Advertising Injury \$4,000,000
- Each Occurrence \$2,000,000
- Excess/Umbrella Policy \$10,000,000

- Fire Damage (Any One Fire) NIL (*Latin for “nothing”*)
- Medical Expense (Any One Person) NIL (*Latin for “nothing”*)

- 7.2.4 The Owner’s Project’s Number, Project Name, and the Project’s location shall be noted on each certificate of insurance. An additional certificate evidencing continuation of Commercial General Liability (CGL) insurance for completed operations shall be submitted with the final payment and thereafter upon renewal or replacement of such coverage until the expiration of the time required by the Owner under the terms of the Contract. Upon Owner’s written request information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the CMAR with reasonable promptness.
- 7.2.5 The CMAR shall maintain per project coverage with separate limits of coverage applicable only to the work performed under that project’s Contract. The minimum limits to be maintained by the CMAR (inclusive of any amounts provided by an Umbrella or other excess policy) shall be those that would be provided with the attachment of ISO Endorsement Amendment of Limits of Insurance (Designated Project or Premises) to a CGL insurance with the minimum amounts stated in this section. The CMAR shall continue to maintain the required coverage (inclusive of any amounts provided by an Umbrella or excess policy) along with Products/Completed Operations coverage, without restrictive endorsements unless approved by the Owner, for the applicable statute of repose per NRS 11.202, 11.203, 11.204, 11.205, and 11.2055, or any applicable law as required under the Contract. Continuing CGL insurance shall be written on ISO occurrence form CG 00 01 12 07 or CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall, at minimum, cover liability arising from products-completed operations and liability assumed under an insured contract. Continuing CGL insurance shall have a Products-Completed Operation Aggregate of at least twice (2x) the amount each occurrence limit.
- 7.2.6 Additional Insured status and coverage to Owner, Owner’s officials, officers, and employees shall be included in accordance with an endorsement attached to the insurance and under the commercial Umbrella, if, providing coverage at least as broad as the combination of forms, which include the unmodified ISO CG 20 10 07 04 and the ISO CG 20 37 10 01 endorsements.
- 7.2.7 The endorsement shall name and list Owner, Owner’s officials, officers, and employees as Additional Insureds under the CGL and shall apply until the applicable state statute of repose has expired for potential defective workmanship.
- 7.2.8 This Additional Insured coverage shall apply on a primary basis and be “non-contributory” with respect to any other valid and applicable insurance, self-insurance or deductible afforded to Owner.
- 7.2.9 The status of Owner as an insured under a CGL obtained in compliance with this Contract Documents shall not restrict coverage under such CGL with respect to the escape or release of pollutants at or from a site owned or occupied by or rented or loaned to Owner.
- 7.2.10 There shall be no endorsement or modification of the CGL limiting the scope of

coverage for liability arising from pollution, explosion, collapse, underground property damage, or damage to the named insured's work.

7.3 COMMERCIAL AUTO LIABILITY INSURANCE

- 7.3.1 The CMAR's Commercial Automobile Liability (CAL) Insurance coverage shall be \$1,000,000 minimum or the amount customarily carried by the CMAR, whichever is greater, combined single limit per accident for bodily injury and property damage. No aggregate limits may apply. Non-owned and hired automobile liability must be included in the policy.
- 7.3.2 The CMAR's CAL shall cover the CMAR's liability arising out of any auto and be written on any of the unmodified forms at least as broad as the (ISO CA 0001, CA 00 055, CA 00 12, CA 00 20). The form shall include coverage for any owned, non-owned, and hired autos used by the CMAR, its Subcontractors (if not separately insured), its employees, agents, or representatives. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.
- 7.3.3 CMAR waives all rights against Owner and its agents, officers, directors, and employees for recovery of damages to the extent these damages are covered by the business CAL or Commercial Umbrella Liability Insurance obtained by CMAR pursuant to the Contract Documents.

7.4 WORKERS' COMPENSATION & EMPLOYER'S LIABILITY INSURANCE

- 7.4.1 The CMAR shall obtain statutory limits of Workers' Compensation and Employer's Liability Insurance for employees engaged on or at the site of the project in accordance with Chapters 616A to 616D, inclusive, and 617 of NRS.
- 7.4.2 Employers Liability Insurance must be maintained in a minimum amount of \$1,000,000 in limits. If an excess policy is utilized, the policy will provide excess coverage for Employer's Liability Insurance.
- 7.4.3 The CMAR's Workers' Compensation Insurance shall comply with all statutory requirements of the State of Nevada. The CMAR's insurance or authorized self-insurance shall cover the CMAR, and to the extent not otherwise insured, the CMAR's Subcontractors of every tier for those sources of liability that would be covered by the standard Workers' Compensation Insurance as prescribed in NRS Chapter 616 and Employers Liability coverage without restrictive endorsements. Each Workers' Compensation insurance shall provide a Waiver of Subrogation endorsement against the Owner. In addition, where appropriate, coverage shall be included for any other applicable federal or state law, including but not limited to, the Longshore and Harbor Workers Compensation Act, Maritime including Jones Act, and Federal Employers Liability Act.
- 7.4.4 Subject to the restrictions of coverage found in the Nevada Industrial Insurance Act (NRS Chapter 616), there shall be no maximum limit on the amount of coverage for liability imposed by the Nevada Industrial Insurance Act, the Longshore and Harbor Workers Compensation Act, or any other coverage customarily insured under Part One of a standard Workers Compensation Insurance. The minimum amount of coverage for those coverages insured under Part Two of the Standard Workers'

Compensation Insurance (inclusive of any amounts provided by an Umbrella or excess policy) shall be those amounts stated under in this section. If self-insured, such insurance must be provided to and approved by Owner.

7.5 PROPERTY, BUILDERS RISK, INSTALLATION FLOATER, AND BOILER & MACHINERY INSURANCE

- 7.5.1 Property Insurance shall be on an ALL RISK or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss. The Owner reserves the right to require the CMAR to provide other forms of Property Insurance if determined by the Owner.
- 7.5.2 Property Insurance shall cover the entire work of the Project, identified in the Contract Documents including reasonable compensation for Architect's services and expenses made necessary by an insured loss. Insured property shall include portions of the work located away from the site, but intended for use at the site, and shall also cover portions of the work in transit. If the Contract includes both construction of or additions to buildings or structures and the installation of machinery or equipment, Builders Risk Insurance shall include coverage during transit, interim off-site storage, and during post-installation testing. If the Contract is solely for the purpose of installation of machinery or equipment in existing buildings or structures, the CMAR shall provide an All-Risk Installation Floater including coverage during transit, interim off-site storage, and during post-installation testing.
- 7.5.3 For Builders Risk Insurance the amount of insurance is to be one hundred percent (100%) replacement cost plus an additional fifteen (15%) for debris removal of the completed value including foundations of the entire addition(s), building(s) or structure(s). In the event that such Builders Risk Insurance includes debris removal in excess of the policy limit, the limit shall not require the additional amount for debris removal. In the case of a remodel or renovation project, the policy limit shall be the greater of the project amount or \$500,000. The extra expense sublimit shall be the greatest of twenty percent (20%) of the policy limit or \$1,000,000.
- 7.5.4 The amount of insurance for an All-Risk Installation Floater shall be one hundred percent (100%) of the installed replacement cost value, and valuation shall be replacement cost.
- 7.5.5 The Builders Risk Insurance and/or the All-Risk Installation Floater must not be subject to any limitation or exclusion of coverage because of occupancy of the building(s), addition(s) or structure(s) in the course of construction or the putting to use of the machinery or equipment. The policy must be endorsed to provide that, subject to the notice of cancellation requirement, coverage will continue to apply until the Certificate of Substantial Completion is issued by the Owner for the building(s), building addition(s) or structure(s), or the machinery or equipment.

- 7.5.6 The CMAR shall maintain and provide a Boiler and Machinery Insurance with replacement cost endorsement with a minimum limit of twenty-five percent (25%) of the bid value unless such project is for the installation of fired equipment wherein the limit shall be one hundred percent (100%) of bid. The CMAR may be released from this responsibility by the Owner through written confirmation. The “connected and ready for use” requirement, underground property exclusion or any similar limitation shall be excluded. Such coverage may be incorporated as part of the Builders Risk Insurance through the elimination of exclusions for mechanical and electrical breakdown as well as the addition of coverage for damage stemming from change in temperature to machinery or equipment.
- 7.5.7 If applicable, there shall be no exclusion in the Builders Risk Insurance and/or Boiler and Machinery Insurance for any loss caused by or resulting from workmanship, construction, materials, specifications, or design defect. Nor shall there be any other exclusion in the policy which the Owner, in its sole discretion, finds unacceptable.
- 7.5.8 Owner and CMAR waive all rights against each other and each of their Subcontractors, Sub-Subcontractors, officers, directors, agents, and employees, for recovery for damages caused by fire and other perils to the extent covered by Builders Risk Insurance purchased pursuant to the requirements of this Contract, or any other property insurance applicable to the work. If the Builders Risk Insurance and other property insurance policies purchased as required in this section do not allow the Insured to waive rights of recovery against others prior to loss, CMAR shall cause them to be endorsed with a Waiver of Subrogation as required above.

7.6 PROFESSIONAL LIABILITY & EXTENDED REPORTING INSURANCE

- 7.6.1 Professional Liability (Errors and Omissions) Insurance shall apply to all activities performed under the Contract in a form acceptable to the Owner.
- 7.6.2 The CMAR will maintain Professional Liability (Errors and Omissions) Insurance during the term of the Contract Documents and for a period of three (3) years from the date of completion of the construction of the project unless otherwise agreed to by the Owner.
- 7.6.3 In the event that the CMAR goes out of business during the term of the Contract, or the three (3) year period described above, the CMAR shall purchase at the request and expense of the Owner, if available, Extended Reporting Insurance for claims arising out of the CMAR’s negligent acts and/or errors and omissions committed during the term of the Professional Liability Insurance. Professional Liability Insurance coverage shall be \$1,000,000 per claim minimum or the amount customarily carried by the CMAR, whichever is greater.

7.7 ELECTRONIC DATA LIABILITY INSURANCE

- 7.7.1 CMAR shall maintain Electronic Data Liability Insurance if applicable to the Project and insuring against liability arising out of the loss of, loss of use of, corruption of liability access, and/or inability to manipulate electronic data. This coverage shall be maintained with a limit of liability of not less than \$1,000,000.

7.8 POLLUTION LIABILITY INSURANCE

- 7.8.1 Contractor shall maintain in force for the full period of this Contract, unless otherwise approved by the Owner, Pollution Liability Insurance covering losses caused by pollution incidents that relate to the Project and arise from the operations of the Contractor and/or Subcontractors. Insurance shall apply to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured, cleanup costs, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. The insurance affording these required coverages shall be written in an amount of at least \$1,000,000 per claim, with an annual aggregate of at least \$2,000,000.
- 7.8.2 Owner, its officers, and employees shall be included as an Additional Insured. If coverage as required is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this contract and that continuous coverage will be maintained, or an extended discovery period will be exercised through the Statute of Repose beginning from the time that work under the Contract is completed.
- 7.8.3 If the Project includes the disposal of any hazardous or nonhazardous materials from the job site, the Contractor must furnish to the Owner evidence of the Pollution Liability Insurance maintained by the Disposal Site Operator for losses arising from the insured facility accepting waste under this Contract. Coverage must be maintained in minimum amounts of \$1,000,000 per loss, with an annual aggregate of at least \$2,000,000.
- 7.8.4 Pollution Liability Insurance policy must be equivalent to the ISO pollution liability-broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and the Motor Carrier Act endorsement (MCS 90) shall be attached.

7.9 PERFORMANCE AND PAYMENT BONDS

- 7.9.1 Per NRS Section 339.025, Performance and Payment Bonds are required for new construction, repair, or reconstruction of any public building or other public work or public improvement of any contracting body (e.g., CITY/Owner) is awarded to any contractor. Upon award to the contractor, the contractor shall immediately cause to be executed all required Performance and Payment Bonds in a form acceptable to the Owner for one hundred percent (100%) of the Contract Sum. The Performance and Payment Bonds shall be furnished no later than fifteen (15) calendar days after the Contract is awarded.
- 7.9.2 The Owner reserves the right to require the CMAR to obtain Performance and Payment Bonds of any Subcontractor in the amount of one hundred percent (100%) of the Subcontractor's bid. If said bonds cannot be obtained within sixty (60) calendar days of notification, the Subcontractor shall be replaced at no additional cost to the Owner.
- 7.9.2.1 The Owner will pay the actual cost of any bond, if required by the Owner of the Subcontractor, not including any overhead and profit.

- 7.9.3 The Owner will not require the CMAR to increase the Performance and Payment Bonds to accommodate Change Orders. The Owner will not pay additional costs for increased bond fees resulting from Change Orders.
- 7.9.4 With respect only to the bonds required in this section, the CMAR shall furnish the Owner with properly executed bonds on forms acceptable to the Owner and shall have affixed to each bond a certified copy of a current Power of Attorney of the Attorney-In-Fact who executed the bond on behalf of the surety.

SECTION 8: PAYMENT

NOTE: Division 1, Section 01027 – Application for Payment shall also apply to this section.

8.1 SCHEDULE OF VALUES

- 8.1.1 Within fourteen (14) calendar days after the issuance of the Notice to Proceed, the CMAR shall submit to the Owner and the Architect a Schedule of Values of the various portions of the work, aggregating to the total Contract Sum, divided to facilitate payments to Subcontractors, prepared in a form acceptable to the Owner, and supported by such data to substantiate its correctness as the Owner may require. The Schedule of Values, when approved by the Owner and the Architect, shall be the basis for each Progress Payment Application.
- 8.1.2 The Schedule of Values shall be itemized in accordance with the breakdown listed in the CMAR's GMP Proposal specific to the phase of construction the Project will be entering and according to the list of defined components included in this section.

8.2 COST OF WORK

- 8.2.1 Any portion of the Cost of Work that remains below the GMP when the work is completed belongs TBD to the Owner and TBD to the CMAR. The Cost of the Work includes wages paid for labor in the direct hire of the CMAR in the performance of the work. Labor rates, including fringe benefits, shall be in conformance with the applicable Prevailing Wage Rates as published by the Nevada State Labor Commission for this Project, including for employees of CMAR performing work covered by Prevailing Wage Rates. Employees of CMAR that are not performing work covered by Prevailing Wage Rates shall be paid in accordance with the applicable rate or schedule of values established for that position.
- 8.2.2 The Cost of the Work includes the following:
- A. Cost of all materials, supplies, and equipment incorporated in the cost of the work, cost of certificates for inspection and testing, transportation, storage, and handling.
 - B. All payments made by the CMAR to the Subcontractors and suppliers for the cost of the work performed under the Contract.
 - C. Cost of bonding as stipulated in Section 7 herein.

- D. All allowable permits, fees, licenses, and tests.
- E. Rental charges for all necessary machinery and equipment, exclusive of hand tools owned by workers, used for the work, whether rented from the CMAR or others.
- F. Installation, repair and replacement, dismantling, removal, maintenance, transportation, and delivery costs will be at rates consistent with those prevalent in the area.
- G. Sales, use, gross receipts, other taxes, tariffs, and/or duties related to Project for which the CMAR is liable.

8.3 PROGRESS PAYMENT APPLICATIONS

- 8.3.1 The CMAR shall submit a Progress Payment Application not more than once (1x) each month in the form required by the Owner. Each Progress Payment Application shall be accompanied by a current construction schedule, updated to reflect all change orders, and/or changes in the work.
- 8.3.2 Each Progress Payment Application shall correctly set forth the value of all work satisfactorily performed to date, less five percent (5%) of that amount as a retained percentage. The Owner may pay the invoiced value, less retention, of materials properly stored on site or in approved, bonded, and insured facilities.
 - 8.3.2.1 In no event will the CMAR be paid more than the listed value of each properly completed portion of the work, less the required retention, until the entire work has been successfully completed.
- 8.3.3 If payment is requested for materials or equipment not yet incorporated in the work, but delivered and properly stored at the site or at a bonded and insured facility previously approved by the Owner in writing, such payment shall be conditioned upon the CMAR's submission of documentation, satisfactory to the Owner, as deemed necessary to protect the Owner's interest, including applicable insurance and transportation to the job site. The risk of loss for such materials or equipment shall remain with the CMAR until final completion and acceptance of the work.
- 8.3.4 The CMAR guarantees that title to all work, materials, and equipment covered by a Progress Payment Application, whether incorporated into the Project or not, has passed to the Owner prior to issuing the Progress Payment Application.
 - 8.3.4.1 Said title shall be free and clear of all liens, claims, security interests, or encumbrances, and that no work, materials, or equipment covered by a Progress Payment Application has been acquired by the CMAR, or by any other person.
 - 8.3.4.2 This matter subject to an agreement under which an interest therein, or an encumbrance thereon is retained by the seller/supplier or otherwise imposed by the CMAR or such other person.

- 8.3.4.3 This provision shall not be construed to relieve the CMAR of the CMAR's sole responsibility for the care and protection of the work, and to restore all damages thereto, nor shall serve as a waiver of the right of the Owner to require the fulfillment of all terms of the Contract Documents.
- 8.3.5 Upon receipt of each Progress Payment Application, and within a reasonable time, the Owner and the Architect will either approve the Progress Payment Application, modify the Progress Payment Application for such amount as is determined to be properly due, or reject the Progress Payment Application and notify the CMAR.
- 8.3.6 The Owner or the Architect may decline to approve any Progress Payment Application, or, because of subsequently discovered evidence or subsequent inspections, may nullify the whole or any part of a Progress Payment Application previously paid to such extent as may be necessary to protect the Owner from loss based on any of, but not limited to, the findings outlined below. When the findings are resolved, payment shall be approved for the associated amount withheld.
- A. Defective work not remedied.
 - B. Claims filed or reasonable evidence indicating the probable filing of claims.
 - C. Failure of the CMAR to make proper payments to Subcontractors and/or suppliers.
 - D. Reasonable doubt that the work can be completed for the unpaid balance of the Contract Sum.
 - E. Damage to a separate contractor, including, but not limited to Subcontractors.
 - F. Reasonable indication that the work will not be completed within the Contract Time.
 - G. Unsatisfactory execution of the work by the CMAR.
 - H. Failure to maintain any insurance required by the Contract Documents.
 - I. Any other material breach of the Contract Documents.
- 8.3.7 No payment by the Owner shall constitute an acceptance of any work not in accordance with the Contract Documents, nor shall it relieve the CMAR of full responsibility for correcting defective work or materials found at any time.

8.4 FINAL PAYMENT

- 8.4.1 When the Owner has received satisfactory evidence that all claims and obligations of the CMAR have been paid, discharged, or waived, the Owner will make final payment to the CMAR of all monies retained on all properly completed and accepted work.
- 8.4.2 Issuance of final payment shall constitute a waiver of all claims by the Owner except those arising from any of the following:

- A. Unsettled claims.
- B. Guarantee or warranty issues.
- C. Faulty or defective work.
- D. Failure of the work to comply with the requirements of the Contract Documents.
- E. Latent defects in the work.
- F. Violations of laws, rules, or regulation.
- G. Indemnification claims.

8.4.3 The acceptance by the CMAR of final payment shall constitute a full and complete release to the Owner of: all claims by, and all liability to, the CMAR for all things done or furnished in connection with the work; and for every act and neglect of the Owner and any others for whom the Owner is or may be responsible relating to or arising out of performance of the work by the CMAR.

8.4.4 No payment, final or otherwise, shall operate to release the CMAR or the CMAR's surety from any obligations under the Contract and/or under the Performance and Payment Bonds.

8.4.5 As a condition of requesting or receiving final payment, the CMAR shall submit all operation and maintenance manuals, guarantees, as-built drawings, surety release, and all other close-out documents as may be applicable under the Contract Documents.

8.5 INTEREST PAYMENTS

8.5.1 Interest will be paid to the CMAR for monies that are retained on satisfactorily completed work, in accordance with NRS Section 338.515.

SECTION 9: GENERAL CONDITIONS OF THE CMAR

NOTE: For additional information, refer to CMAR Fee Proposal Form, Exhibit B, Page 2 of 2.

9.1 ALLOWABLE EXPENSES UNDER GENERAL CONDITIONS OF THE CMAR

9.1.1 The General Conditions of the CMAR include positions/salaries of CMAR's employees when stationed at the field office, in whatever capacity employed, employees engaged on the road expediting the production or transportation of material and equipment, and employees from the principal or branch office performing jobsite functions while located at the principal office. These positions/salaries include, but are not limited to the following identified below; provided however that the Division of Costs Elements Matrix identifies which positions and/or costs are included in fee, general requirements (and costs of the work), general conditions, A/E costs, Owner costs, and direct costs of work:

- A. General Superintendent
- B. Project Superintendent
- C. Assistant Superintendent/Non-Working Foreman
- D. Project Manager (full and/or part-time)
- E. Senior Project Manager (full and/or part-time)
- F. Assistant Project Manager (full and/or part-time)
- G. Project Engineer (full and/or part-time)
- H. Project Administrator/Coordinator (full and/or part-time)
- I. Job Site Clerk
- J. Job Site Contract Coordinator (full and/or part-time)
- K. Project Estimator/Estimating Support

9.2 The General Conditions of the CMAR also include, but are not limited to the following:

- A. Project management; scheduling; equipment and employee costs; general conditions; and shall be itemized and billed based upon the percentage complete of the work.
- B. The cost of all employee benefits and taxes including, but not limited to: unemployment compensation; social security; health; welfare; retirement; and other fringe benefits as required by law, labor agreements, or paid under the CMAR's standard personnel policy, insofar as such costs are actually paid to employees of the CMAR who are engaged in the work.
- C. The cost, including transportation and maintenance of, all materials, supplies, equipment, temporary facilities, and consumables that are used or consumed in the performance of the work.
- D. Sales, use, gross receipts, other taxes, tariffs, and/or duties related to the work for which the CMAR is liable.
- E. All costs associated with establishing, equipping, operating, maintaining, and demobilizing the specified field office(s).
- F. All costs for reproduction, photographs, fax transmissions, long distance telephone calls, data processing services, postage, express delivery charges, and on-site telephone service at the CMAR's field office.
- G. All temporary water, power, and fuel costs necessary for the work.
- H. All costs for removal of all generated non-hazardous substances, debris, and waste materials.
- I. Costs incurred by the CMAR due to any emergency affecting the safety of persons and/or property of the Project.
- J. All costs directly incurred in the performance of the work or in connection with

the Project, and not included in the CMAR's Fee, which are reasonably inferable from the Contract Documents as necessary to produce the intended results.

- K. Only costs related to the CMAR's Safety Program's consumables. The CMAR Fee includes all other costs related to CMAR's Safety Program.

SECTION 10: CMAR'S FEE

NOTE: For additional information, refer to CMAR Fee Proposal Form, Exhibit B, Page 2 of 2.

10.1 ALLOWABLE EXPENSES UNDER CMAR'S FEE

10.1.1 The CMAR's Fee shall NOT include those expenses related to the General Conditions of the CMAR in Section 9. The CMAR's fee may include the following:

- A. Salaries and other mandatory or customary compensation of the CMAR's employees at its principal and branch offices, except employees assigned to the Project at the principal office. These positions/salaries include but are not limited to: Firm Principals; Executives; Project Executives; Firm Management; Project Accountants; Director of Operations.
- B. General and administrative expenses of the CMAR's principal and branch offices other than the field office. Specifically excluded are materials and equipment utilized at the jobsite.
- C. CMAR's capital expenses, including interest on the CMAR's capital employed for the work.
- D. Transportation, travel, and hotel expenses for the CMAR's personnel incurred in connection with the work.
- E. Cost for insurances, bonding, profit, and overhead that would impact the total proposed cost related to construction of the Project.

SECTION 01001 – CONSTRUCTION PROCEDURES FOR EXISTING CITY SITES

PART 1 – GENERAL

1.1 DESCRIPTION

- A. All work activities under this contract shall be coordinated with the requirements of the City of Fernley's (CITY) Facilities Management Department. CITY shall be contacted prior to any service shutdown and advised when such shutdown shall be commenced. All materials and equipment shall be stored in spaces assigned by CITY. The Contractor will be required to maintain a neat and orderly operation and to limit or keep noise and nuisance to a minimum.
- B. CITY reserves the right to remove any person from the property for the safety and security of the facility

1.2 GENERAL REQUIREMENTS FOR WORK INSIDE THE EXISTING PERIMETER AND EXISTING BUILDINGS

- A. It is a felony to transport any alcoholic beverages, drugs, weapons or ammunition of any kind on CITY property
- B. Any contact or conversation with students is prohibited.
- C. Smoking is prohibited on all CITY property.
- D. Working hours inside the existing perimeter and existing building will be coordinated with CITY.
- E. Storage of materials inside the existing perimeter and buildings will be coordinated with CITY Facilities Management Department.
- F. Construction operations shall be confined to the areas permitted under the contract. Areas beyond indicated work areas are not to be disturbed. Conform to site rules and regulations affecting the work.
- G. Keep driveways and entrances serving the premises clear and available at all times. Do not use these areas for parking or storage of materials.
- H. Passenger cars, trucks and motorized construction equipment, when parked and unattended, shall be locked and the ignition key removed. Do not leave any such vehicle with the motor running.
- I. Limitations on site usage, as well as specific requirements that impact site utilization are indicated on the drawings and any other contract documents. Allocate available space equitably among sub-contractors needing both access and space so as to produce the best overall efficiency. Schedule deliveries to minimize space and time requirements for storage of materials and equipment.

J. All refuse will be removed daily.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01001

SECTION 01010 - SUMMARY OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 PROJECT DESCRIPTION

- A. Project to entail work as described in scope of work.
- B. The project shall consist of all on and off-site improvements, as shown in the contract documents.

1.3 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have full use of the premises (construction area) for construction operations. The Contractor's use of the premises (construction area) is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of project.
- B. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment site.

1.4 OWNER OCCUPANCY

- A. Partial Owner Occupancy: The Owner reserves the right to occupy and to place and install equipment in completed areas of the building, prior to substantial completion provided that such occupancy does not interfere with completion of the work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total work.

1.5 OWNER FURNISHED ITEMS

- A. The Owner will provide certain pieces of equipment and accessories that are to be installed and connected by the Contractor.
 - 1. The Owner will arrange and pay for delivery of Owner furnished items in accordance with the Contractor's construction schedule and will inspect deliveries for damage.

2. If Owner furnished items are damaged, defective or missing, the Owner will arrange for replacement. The Owner will also arrange for manufacturer's field services and the delivery of manufacturer's warranties and bonds to the Contractor.
3. The Contractor is responsible for designating the delivery dates of Owner furnished items in the Contractor's construction schedule and for receiving, unloading and handling Owner furnished items at the site. The Contractor is responsible for protecting Owner furnished items from damage, including damage from exposure to the elements, and to repair or replace items damaged as a result of the Contractor's operations.
4. Owner furnished and Contractor installed and connected equipment shall be as indicated in the contract documents.

END OF SECTION 01010

SECTION 01015 – SCHEDULE OF DRAWINGS

SECTION 01020 – PERSONNEL SAFETY CHECK APPLICATION (NEW CONSTRUCTION)

PART 1 -GENERAL

1.1 RELATED DOCUMENTS

- A. General provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for submittals required for performance of the work for all entities/individuals including, but not limited to, the following:
 - 1. General Contractor
 - 2. Sub-Contractor
 - 3. Sub-Contractor of Sub-Contractor
 - 4. Quality Control Personnel
 - 5. Special Inspection Personnel
 - 6. Security Personnel
 - 7. Consultant Personnel
- B. Administrative Submittals: Refer to other Division 1 sections and other Contract Documents for requirements for administrative submittals.

1.3 SUBMITTAL PROCEDURES

- A. Required Submittals
 - 1. Each company, engaged on a project, shall report to the City of Fernley all required certifications for every employee who will be on a City of Fernley site. This includes all personnel whom the Contractor engages for work on the project site as defined in 1.2 (A). This information must be submitted within twenty-one (21) calendar days prior to commencement of work by the Contractor, and any sub-contractor, regardless of tier. Such submittals required include:
 - a. Certification by Company Regarding Personnel Safety Check Application.

PART 2- PRODUCTS (Not Applicable)

PART 3- EXECUTION (Not Applicable)

**CERTIFICATION BY COMPANY REGARDING
PERSONNEL SAFETY CHECK APPLICATION
(NEW CONSTRUCTION)**

Owner – Capital Improvement Projects’ New Facilities

I certify on behalf of the company/firm named below that adequate background check procedures have been or will be performed for all employees that will work on Owner’s project _____ (Project Name) regarding _____ (Company/Firm Name) to determine that their employees meet the qualifications required by the Owner.

With this certification, I confirm that:

- All employees working on a City of Fernley project shall not have been arrested, convicted, pled guilty, or pled nolo contendere for any offenses related to:
 - Sexual assault or sexual activities with a minor
 - Child abuse
 - Felony drug possession
 - Felony weapons possession
- All employees working on a City of Fernley project shall not:
 - Have any active Wants/Warrants
 - Is a Registered Sex Offender
 - Is on a Terrorist list.

I understand that the City of Fernley maintains the right to remove any individuals from the project who do not comply with the above requirements.

I certify the information provided on this application is true, complete, and correct to the best of my knowledge and belief and is provided in good faith. I understand that a knowing and willful false statement on this application can be an automatic disqualification.

I hereby release, discharge, exonerate and hold harmless the City of Fernley, its agents and representatives and persons furnishing information from any and all liability arising out of the disseminating and inspection of my records.

Company/Firm Name

Name of Executive Officer

Title

Signature

Date

SECTION 01027 - APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Related Sections: The following sections contain requirements that relate to this section.
 - 1. Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in SECTION 01300 - SUBMITTALS.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule
 - b. Application for Payment forms, including continuation sheets
 - c. List of all tier Sub-Contractors
 - d. List of products
 - e. List of principal suppliers and fabricators
 - f. Schedule of Submittals
 - g. Schedule of Allowances
 - h. Schedule of Alternates
 - 2. Submit the Schedule of Values to the Architect at the earliest possible date but no later than seven (7) calendar days before the date scheduled for submittal of the initial Application for Payment.
 - 3. Sub-schedules: Where Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location
 - b. Name of the Architect
 - c. Project Number
 - d. Contractor's name and address
 - e. Date of submittal
2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division
 - b. Description of Work
 - c. Name of Sub-Contractor
 - d. Name of manufacturer or fabricator
 - e. Generic Name of supplier
 - f. Change Orders (numbers) that affect value
 - g. Dollar value
 1. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Application for Payment and progress reports. Coordinate with the Project Manual Table of Contents. Break principal subcontract amounts down into several line items. Include a line item for Force Accounts and unit price items, as applicable.
4. The total shall equal the Contract Sum.
5. For each part of the work where an Application for Payment may include materials or equipment, purchased or fabricated and stored on or off-site, provide separate line items on the Schedule of Values for cost of those materials.
 - a. If the Contractor is requesting payment for materials or equipment that are stored off-site, those materials must be stored in a bonded and insured third party warehouse, and they must be segregated from other stored materials and they shall be identified according to project name, material and/or equipment description, and quantity. These materials must be observed in their stored condition by either the Architect or the Owner's representative prior to approval of the Application for Payment. In lieu of bond for stored materials offsite the contractor/subcontractor may provide an appropriate insurance policy approved by the owner to provide for the full replacement cost coverage for all materials stored. Any coverage for materials or equipment stored off-site shall include Owner as loss payee with respect to its interests. These materials must be observed in their stored condition by either the Architect or the Owner's representatives prior to approval of the Application for Payment.

6. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values
7. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and Owner's representative and paid for by the Owner.
 1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements
 2. Each application for payment shall include sufficient documentation to substantiate completed work including but not limited to subcontractor invoicing, all tiers; general conditions cost breakdown, etc.
- B. Payment Application Times: The date for each progress payment is as indicated in the Contract. The period covered by each Application for Payment is the period indicated in the Contract.
- C. Payment Application Forms: Use Owner's Certificate for Payment form only, which will be the AIA G702 & G703 continuation forms. This form is available in both hard copy format or electronic format.
- D. Application Preparation: Complete every entry on the form. The execution of this form shall be by a person authorized to sign legal documents on behalf of the Contractor. The Owner will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- E. Pre-Approval of Application: Percentages of completed work are to be verified by the Owner's Representative and Architect prior to transmittal to the Architect.
 1. The payment application review will be managed by Cumming Group, with input and assistance from TSK.
- F. Record Drawings and Record Specifications: Prior to transmittal of the Application for Payment, Record Drawings and Record Specifications must be reviewed and approved by the Owner's Representative and Architect.
 1. It shall be established at the Pre-Construction meeting the protocols that are

acceptable to each party for the review of Record Drawings and Specifications.

- G. Transmittal: Submit one (1) signed original copy of each Application for Payment to the Architect by a method ensuring receipt within twenty-four (24) hours. The submitted copy shall be complete, including waivers of lien and similar attachments, when required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Architect.
 2. Obtain Owner's Representative's initials as established during the Pre-Construction meeting and in sub-section 1.4, items E & F above.
- H. Waivers of Mechanic's Lien: With each Application for Payment, submit conditional waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the work covered by the payment.
1. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to the Owner.
- I. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
1. List of Sub-Contractors (all tiers)
 2. List of principal suppliers and fabricators
 3. Schedule of Values
 4. Contractor's Construction Schedule
 5. Schedule of principal products
 6. Submittal Schedule
 7. List of Contractor's staff assignments
 8. List of Contractor's principal consultants
 9. Copies of Building Permits
 10. Copies of authorizations and licenses from governing authorities for performance of the work
 11. Initial Progress Report
 12. Report of Pre-Construction meeting

13. Data needed to acquire the Owner's insurance

14. Initial settlement survey and damage report, if required, (existing facility condition)

15. Record Drawings *

16. Record Specifications*

* Record Drawings and Specifications must be reviewed and approved by the Owner's Representative prior to the Application for Payment.

J. Continuing Application for Payments: Administrative actions and submittals, that must precede or coincide with submittal of the Application for Payment, include the following:

1. Updated Contractor's Construction Schedule

2. Progress report

3. Record Drawings*

4. Record Specifications*

*Record Drawings and Specifications must be reviewed and approved by the Owner's Representative prior to the Application for Payment.

K. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.

1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the work.

2. Administrative actions and submittals that shall precede or coincide with this application include:

a. Occupancy permits and similar approvals

b. Changeover information related to Owner's occupancy, use, operation, and maintenance

c. Final cleaning

d. Application for reduction of retainage and consent of surety

e. Advice on shifting insurance coverages

f. List of incomplete work, recognized as exceptions to Architect's Certificate of Substantial Completion

g. Record Drawings*

h. Record Specifications*

i. Meter Readings

j. Change of door locks to Owner's access

*Record Drawings and Specifications must be reviewed and approved by the Owner's Representative prior to the Application for Payment.

L. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:

1. Completion of project closeout requirements
2. Completion of items specified for completion after Substantial Completion
3. Ensure that unsettled claims will be settled.
4. Ensure that incomplete work is not accepted and will be completed without undue delay
5. Transmittal of required project construction records to the Owner
6. Proof that taxes, fees, and similar obligations were paid
7. Removal of temporary facilities and services
8. Removal of surplus materials, rubbish, and similar elements
9. Certified property survey
10. Warranties (Guarantees) and Maintenance Agreements
11. Test/adjust/balance records
12. Operation and Maintenance Manuals
13. Startup performance reports
14. Final progress photographs

1.2 Final progress photographs

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01027

SECTION 01030 – ALTERNATES

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section includes administrative and procedural requirements for Alternates.
- B. This section identifies each Alternate by number and describes the basic changes to be incorporated into the work when each Alternate is made a part of the work by specific provisions in the Agreement between the Owner and Contractor.
- C. The contract documents sections referenced within the respective Alternates describe the general requirements for the work under each Alternate.

1.02 DEFINITIONS

- A. An Alternate (or Alternate Bid) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the work, as described in this section, is accepted by the Owner.
- B. Refer to the contract documents for further information.

1.03 PROCEDURES

- A. Coordinate related work and modify surrounding work as required to integrate the various elements of the Alternates in the complete work. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated or specified as part of the Alternate.
- B. Immediately following award of the contract, notify in writing parties involved of the status of each Alternate. Indicate if Alternate has been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to Alternates, if any.
- C. Execute accepted Alternates under the same conditions as other work of the Contract.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.01 PREPARATION

- A. Base Bid shall include all site work, architectural, structural, mechanical, electrical, food service and all other work as required to render the facility complete and operable except for the Add Alterations as described in this section.

((COMPLETE THE FOLLOWING SCHEDULE AS REQUIRED FOR
THE SPECIFIC WORK TO BE INCLUDED AS AN ALTERNATE))

3.02 SCHEDULE OF ALTERNATES

A. ALTERNATE NO. 1

1. General:

B. ALTERNATE NO. 2

1. General:

END OF SECTION 01030

SECTION 01035 - MODIFICATION PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section specifies administrative and procedural requirements for handling and processing contract modifications.
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 SECTION 01300 – SUBMITTALS for requirements for the Contractor's Construction Schedule.
 - 2. Division 1 SECTION 01027 – APPLICATIONS FOR PAYMENT for administrative procedures governing Applications for Payment.
 - 3. Division 1 SECTION 01631 – SUBSTITUTIONS for administrative procedures for handling requests for substitutions made after award of the Contract.

1.3 MINOR CHANGES IN THE WORK

- A. The Architect will issue supplemental instructions authorizing minor changes in the work, not involving adjustment to the contract sum or contract time, as an Architect's Supplemental Instruction.

1.4 CHANGE ORDER PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: The Architect will issue a detailed description of proposed changes in the work that will require adjustment to the contract sum or contract time. If necessary, the description will include supplemental or revised drawings and specifications.
 - 1. Proposal requests issued by the Architect are for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.
 - 2. Within fourteen (14) working days of receipt of a proposal request, submit an estimate of cost necessary to execute the change to the Architect for the Owner's review.

- a. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
 - c. Include a statement indicating the effect the proposed change in the work will have on the contract time.
 - d. Include all subcontractor and contractor overhead and profit per contract documents.
- B. Contractor-Initiated Proposals: When latent or unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.
- 1. Include a statement outlining the reasons for the change and the effect of the change on the work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the contract sum and contract time.
 - 2. Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Comply with requirements in SECTION 01631 – SUBSTITUTIONS if the proposed change requires substitution of one product or system for a product or system specified.
 - 5. Include a list of all associated cost that would be incurred, including subcontractor and contractor overhead and profit per contract documents.
- C. The Contractor shall prepare his response in accordance with the requirements set forth in the General Conditions.
- D. Proposal Request Form: Use AIA Document G709-2001 for Change Order Proposal Requests or Change Order Request Form (CP-F107).

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: When the Owner and the Contractor disagree on the terms of a Proposal Request, the Owner and Architect may issue a Construction Change Directive. The Construction Change Directive instructs the Contractor to proceed with a change in the work, for subsequent inclusion in a Change Order. The Construction Change Directive will be approved upon email confirmation from the Owner.

1. The Construction Change Directive contains a complete description of the change in the work. It also designates the method to be followed to determine change in the contract sum or contract time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.6 CHANGE ORDER PROCEDURES

- A. Upon the Owner's approval of a Proposal Request, the Architect will issue a Change Order for signatures of the Owner and the Contractor on AIA Form G701-2000/2001 or CITY's Change Order Form (CP-F107).

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01035

ARCHITECT / OWNER

SAMPLE PRICE

REQUEST

Date: _____ Price Request # _____

Contractor: _____

Bid/Quote #: _____

Project: _____

Please submit a Price Quotation for the following changes being considered. Quote the change within five (5) calendar days - ADD or DEDUCT - in the Contract Sum and any change in the Contract Time. Also, please state how long the price quoted is effective before job conditions warrant an increase in price. This is NOT authorization to proceed with this work.

REFERENCE: _____

CHANGE: _____

REQUESTED BY: _____

REASON: _____

CONTRACTOR / OWNER
SAMPLE CHANGE ORDER
REQUEST

Date: _____ Price Request # _____

Contractor: _____

Bid/Quote #: _____

Project: _____

Please submit a Price Quotation for the following changes being considered. Quote the change within five (5) calendar days - ADD or DEDUCT - in the Contract Sum and any change in the Contract Time. Also, please state how long the price quoted is effective before job conditions warrant an increase in price. This is NOT authorization to proceed with this work.

REFERENCE: _____

CHANGE: _____

REQUESTED BY: _____

REASON: _____

SAMPLE CLARIFICATION

DATE: _____

TO: _____

FROM: _____

SUBJECT: _____

REFERENCE: _____

CLARIFICATION: _____

THIS INFORMATION IS PROVIDED FOR CLARIFICATION ONLY AND DOES NOT INVOLVE ANY CHANGE IN CONTRACT PRICE OR TIME.

SIGNATURE: _____

TITLE: _____

DATE: _____ CLAR. NO.: _____

SAMPLE REQUEST FOR INFORMATION

DATE: _____

TO: _____

FROM: _____

SUBJECT: _____

REFERENCE:
Specification Section: _____ Paragraph: _____

Drawing Number: _____ Details: _____

INFORMATION REQUIRED: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

REPLY TO ABOVE RFI: _____

THIS INFORMATION IS PROVIDED FOR CLARIFICATION ONLY AND DOES NOT INVOLVE ANY CHANGE IN CONTRACT PRICE OR TIME.

SIGNATURE: _____

TITLE: _____

DATE: _____ CLAR. NO.: _____

SECTION 01040 – COORDINATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
 - 1. General project coordination procedures
 - 2. Conservation
 - 3. Coordination Drawings
 - 4. Administrative and supervisory personnel
 - 5. Cleaning and protection
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 Section 01050 – FIELD ENGINEERING specifies procedures for field engineering services, including establishment of benchmarks and control points.
 - 2. Division 1 Section 01200 – PROJECT MEETING for progress meetings, coordination meetings, and pre-installation conferences.
 - 3. Division 1 Section 01300 – SUBMITTALS for preparing and submitting the Contractor's construction schedule.
 - 4. Division 1 Section 01600 – MATERIALS AND EQUIPMENT for coordinating general installation.
 - 5. Division 1 Section 01700 – CONTRACT CLOSEOUT for coordinating contract closeout.

1.3 COORDINATION

- A. Coordinate construction operations included in various sections of these Specifications to assure efficient and orderly installation of each part of the work. Coordinate construction operations included under different sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination, include such items as required notices, reports, and attendance at meetings.
 - 1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules
 - 2. Installation and removal of temporary facilities
 - 3. Delivery and processing of submittals
 - 4. Progress meetings
 - 5. Project closeout activities
- D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the work.
- E. Coordinate the installation of all motor starters. General Contractor is responsible for costs associated with supplying and installing all required motor starters.
- F. Dimensions: The Structural drawings are to be used in conjunction with the Architectural, Mechanical and Electrical drawings. Primary structural elements are dimensioned on the structural plans and details. Not all secondary dimensions are shown, such as exact door and window locations, wall configurations, slab slopes, depressions, curbs, etc. Coordination of the structure of the dimensions as shown on the drawings and architectural items to be embedded into, or attached to the structure, is the responsibility of the Contractor. Any dimensions discrepancies between the Architectural, Civil Structural, Mechanical and Electrical drawings shall be reported to the Owner's Representative and Architect before proceeding with the work.
- G. Intent of Drawings:
1. The work of the Contractor and subcontractor shall conform to the intent of the architectural and coordination drawings as reviewed by the Architect. Drawings are partly diagrammatic and do not intend to show in detail all features of work. The Contractor shall carefully review the work to be performed by other trades, compare related drawings and shall thoroughly understand the building conditions affecting their work.
 2. All changes required in the work caused by failure to do so shall be at no expense to the Owner.
- H. Interfaces and Right-of-Way:
1. Make proper provisions to avoid interfaces.
 2. Where conflicts occur, architectural and structural has right-of-way over mechanical and electrical work; concealed mechanical work has right-of-way over concealed electrical work; exposed electrical fixtures have right-of-way over mechanical fixtures.
 3. Submit conflicts which cannot be resolved by right-of-way to the Owner for direction.
 4. Submit reflected ceiling coordination plans showing work by all applicable trades for review and approval by the Architect.

I. Masonry Wall Coordination Drawings:

1. Contractor shall be responsible for providing masonry wall coordination drawings for all concrete masonry unit walls. Drawings shall consist of wall elevations drawn to scale at not less than $\frac{1}{4}" = 1'0"$.
2. Wall elevations shall include dimensioned sizes and locations for all door, window and mechanical openings and penetrations, beam and joist bearing pockets, ledger angles, embedded plate connections, and anchor bolts. All miscellaneous steel to be embedded in the masonry unit wall shall be referenced by show drawing mark number or structural detail number.
3. Masonry wall coordination drawings shall be reviewed and approved by interfacing trades prior to submittal to the Architect. Shop drawings for masonry reinforcement shall be an 'overlay' of the masonry wall coordination drawings. Detail, fabricate and place per ACI 315. Reinforcing shop drawings elevations shall show all vertical and horizontal reinforcing layouts; special reinforcement at lintels and jams at doors, windows, mechanical openings and as called out on Structural drawings.

1.4 SUBMITTALS

- A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space of efficient installation of different components.
1. Show the relationship of components shown on separate Shop drawings.
 2. Indicate required installation sequences.
 3. Comply with requirements contained in Section 01300 - SUBMITTALS.
- B. Staff Names: Within 15 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the project site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.

1. Post copies of the list in the Project Meeting Room, the temporary field office and each temporary telephone.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

3.2 CLEANING AND PROTECTION

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 1. Excessive static or dynamic loading
 2. Excessive internal or external pressures
 3. Excessively high or low temperatures
 4. Thermal shock
 5. Excessively high or low humidity
 6. Air contamination or pollution
 7. Water or ice
 8. Solvents
 9. Chemicals
 10. Light

11. Radiation
12. Puncture
13. Abrasion
14. Heavy traffic
15. Soiling, staining and corrosion
16. Bacteria
17. Rodent and insect infestation
18. Combustion
19. Electrical current
20. High-speed operation
21. Improper lubrication
22. Unusual wear or other misuse
23. Contact between incompatible materials
24. Destructive testing
25. Misalignment
26. Excessive weathering
27. Unprotected storage
28. Improper shipping or handling
29. Theft
30. Vandalism

END OF SECTION 01040

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A This section includes administrative and procedural requirements for cutting and patching.
- B Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 1 SECTION 01040 - COORDINATION for procedures for coordinating cutting and patching with other construction activities.
 - 2. Division 2 SELECTIVE DEMOLITION for demolition of selected portions of the building for alterations.
 - 3. Refer to other sections for specific requirements and limitations applicable to cutting and patching individual parts of the work.
 - a. Requirements of this section apply to mechanical and electrical installations. Refer to Division 15 and 16 sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.3 SUBMITTALS

- A Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Owner requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
 - 3. List products to be used and firms or entities that will perform work.

4. Indicate dates when cutting and patching will be performed.
5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
6. Approval by the Architect to proceed with cutting and patching does not waive the Architect's right to later require complete removal and replacement of unsatisfactory work.

1.4 QUALITY ASSURANCE

A Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

1. Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
 - a. Foundation construction
 - b. Bearing and retaining walls
 - c. Structural steel
 - d. Lintels
 - e. Miscellaneous structural metals
 - f. Piping, ductwork, vessels, and equipment

B Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.

1. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
 - a. Primary operational systems and equipment
 - b. Air or smoke barriers
 - c. Water, moisture or vapor barriers
 - d. Membranes and flashings
 - e. Fire protection systems
 - f. Noise and vibration control elements and systems

- g. Control systems
 - h. Communication systems
 - i. Electrical wiring systems
 - j. Operating systems of special construction in Division 13 sections
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner.
 - 1. If possible, retain the original installer or fabricator to cut and patch the exposed work. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.

1.5 WARRANTY

- A. Existing Warranties: Replace, patch and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties, required or existing.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
 - 1. Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Avoid cutting existing pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
 - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill.
 - 4. Comply with requirements of applicable Division 2 sections where cutting and patching requires excavating and backfilling.

5. Where services are required to be removed, relocated or abandoned, bypass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after bypassing and cutting.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
 2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Where removing walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.
 4. Patch, repair or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.

3.4 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty and similar items. Thoroughly clean piping, conduit and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION 01045

SECTION 01050 - FIELD ENGINEERING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. General: This section specifies administrative and procedural requirements for field engineering services including, but not limited to, the following:
 - 1. Land survey work
 - 2. Civil Engineering Services
 - 3. Damage Surveys
 - 4. Geotechnical Monitoring
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 1 SECTION 01040 – COORDINATION for procedures for coordinating field engineering with other construction activities.
 - 2. Division 1 SECTION 01300 – SUBMITTALS for submitting project record surveys.
 - 3. Division 1 SECTION 01700 – CONTRACT CLOSEOUT for submitting final property survey with Project Record Documents and recording of Owner accepted deviations from indicated lines and levels.

1.3 SUBMITTALS

- A. Certificates: Submit a certificate signed by the land surveyor or professional engineer certifying the location and elevation of improvements upon completion of construction.
- B. Final Property Survey: Submit ten (10) copies of the final property survey.

- C. Project Record Documents: Submit a record of work performed and record survey data as required under provisions of SECTION 01300 – SUBMITTALS and SECTION 01700 – CONTRACT CLOSEOUT.

1.4 QUALITY ASSURANCE

- A. Surveyor Qualifications: Engage a land surveyor registered in the State of Nevada, to perform required land surveying services.
- B. Engineer Qualifications: Engage an engineer of the discipline required, licensed in the State of Nevada, to perform required engineering services.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Identification: The Owner will identify existing control points and property line corner stakes.
- B. Verify layout information shown on the drawings, in relation to the property survey and existing benchmarks, before proceeding to lay out the work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
 - 1. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
 - 2. Promptly replace lost or destroyed project control points. Base replacements on the original survey control points.
- C. Establish and maintain a minimum of two (2) permanent benchmarks on the site, referenced to data established by survey control points.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- D. Existing Utilities and Equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction.

1. Prior to construction, verify the location and invert elevation at points of connection of all underground utility including but not limited to sanitary sewer, storm sewer, water service piping, electric conduits and gas service piping.

3.2 PERFORMANCE

- A. Work from lines and levels established by the property survey. Establish benchmarks and markers to set lines and levels at each stage/story of construction and elsewhere as needed to locate each element of the project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale drawings to determine dimensions.
 1. Advise entities engaged in construction activities of marked lines and levels provided for their use.
 2. As construction proceeds, check every major element for line, level and plumb.
- B. Surveyor's Log: Maintain a surveyor's log of control and other survey work. Make this log available for reference.
 1. Record deviations from required lines and levels and advise the Architect when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
 2. On completion of foundation walls, major site improvements and other work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles and elevations of construction and site work.
- C. Site Improvements: Locate and lay out site improvements, including but not limited to, pavements; stakes for grading; fill and topsoil placement; utility; slopes; invert elevations; etc.
- D. Building Lines and Levels: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels and control lines and levels required for mechanical and electrical work.
- E. Existing Utilities: Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in or affected by construction. Coordinate with local Authorities Having Jurisdiction (AHJ).

- F. Final Property Survey: Prepare a final property survey showing significant features (real property) for the project. Include on the survey a certification, signed by the Surveyor, that principal metes, bounds, lines and levels of the project are accurately positioned as shown on the survey.
 - 1. Recording: At Substantial Completion, have the final property survey recorded by or with the AHJ as the official Property Survey.

END OF SECTION 01050

SECTION 01110 – PREVAILING WAGE AND APPRENTICESHIP UTILIZATION SPECIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents, addendums and all Apprenticeship Utilization Act requirements associated with this project shall apply to this section. Various forms and information regarding the Apprenticeship Utilization Act (2019) can be found on the Office of the Labor Commissioner's website: http://labor.nv.gov/Apprenticeship_Utilization_Act/Apprenticeship_Utilization_Act/.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for submittals required for performance of the work, including the following:
 - 1. Contractor/Subcontractor Notification (Section 1.3, Item B, subsections b-d - Apprenticeship Utilization forms)
 - 2. Completion Notification
 - 3. Weekly Wage and Hour Report of Public Works Contractors.
 - 4. Weekly Wage and Hour Report submittal log.
 - 5. Certification of bidder regarding penalties for noncompliance
 - 6. Certification of bidder, proposed contractor or subcontractor regarding debarment, suspension, ineligibility of voluntary exclusion.
- B. Related Sections: The following section(s) may contain requirements that relate to this section if included:
 - 1. SECTION - 01027 APPLICATIONS FOR PAYMENT
 - 2. SECTION – 01300 SUBMITTALS

1.3 SUBMITTAL PROCEDURES

- A. Compensation:
 - 1. No extension of contract time, overhead, or profit will be authorized because of failure to transmit any required

submittals or payroll report submittals to the Owner sufficiently in advance of progress payment submittals.

2. No extension of contract time will be authorized because of failure to transmit Apprenticeship Utilization Act forms.

B. Required Submittals

1. CONTRACTOR/SUBCONTRACTOR NOTIFICATION

- a. The Apparent Low Bidder is requested to submit the information on the Comprehensive Contractor/Subcontractor List for the Prime Bidder, and all named (used) Subcontractors whom they engage for work within two (2) business days after Recommendation of Award, which will be supplied by the Purchasing Department.
- b. The Apparent Low Bidder is requested to submit the Project Workforce Checklist form for the Prime Bidder, and all named (used) Subcontractors within two (2) business days after Recommendation of Award, which will be supplied by the Purchasing Department.
- c. All supporting documentation including, but not limited to, the Apprenticeship Utilization Act Waiver Request form and Request for Apprentice Availability on a Public Work from and any additional documentation for waiver(s), must be submitted within ten (10) business days after the Recommendation of Award by the City of Fernley. The Apprenticeship Utilization Act Waiver Request form and supporting documentation shall be submitted via email to cmarrfp@cityoffernley.org
- d. Changes to the anticipated workforce after start of construction, may have an impact on compliance with the Nevada Apprenticeship Utilization Act of 2019, and will require the submittal of all revised forms within five (5) business days of any change.

2. COMPLETION NOTIFICATION

The contractor shall notify City of Fernley when completion of all work performed under the contract is complete.

3. WEEKLY WAGE AND HOUR REPORTING OF PUBLIC WORKS CONTRACTORS

- a. The contractor and all subcontractors are required to submit Certified Weekly Wage and Hour Reports of

Public Work Contractors for each weekly payroll to City of Fernley on the City of Fernley form included in this specification. All forms submitted shall contain a certification similar to that on the back of the Wage Report of the State Labor Commissioner. The first weekly report will begin on the Notice to Proceed date and conclude on the following Saturday. If the Notice to Proceed date falls on a Saturday, the first report will only include reporting for that day. All successive reports will begin with the following Sunday and conclude on the following Saturday. All subcontractor report numbers shall coincide with the General Contractors report numbers. If the contractor or subcontractors do not work during any weekly reporting period, they still must submit a report indicating no public work project hours were performed for that weekly period. When contract scope of work is completed, the last report is to be clearly marked "FINAL REPORT."

- b. Weekly Wage and Hour Report of Public Works Contractors and Weekly Wage and Hour Report submittal log must be turned into City of Fernley within fifteen (15) calendar days following the end of the month being reported.
- c. The contractor is required to submit the Weekly Wage and Hour Report submittal log on a monthly basis on the form provided in this specification. It must include every report number and Weekly Wage and Hour Report ending date provided by each contractor and subcontractor. If the Weekly Wage and Hour Reports submittal log is not complete and Weekly Wage and Hour Reports of Public Work Contractors for each weekly payroll have not been provided, then the monthly progress payment will not be provided until these submittals are completed, transmitted and approved by City of Fernley.

4. CERTIFICATION OF BIDDERS

- a. The Contractor shall sign and submit the forms located at the end of this section prior to award of the contract.
 - i. Certification of bidder regarding penalties for noncompliance with Nevada prevailing wage requirements.
 - ii. Certification of bidder, proposed contractor or subcontractor regarding debarment, suspension, ineligibility of voluntary exclusion.

1.4 WEEKLY WAGE AND HOUR REPORT OF PUBLIC WORKS CONTRACTORS REPORTING FORMAT

A. Prepare Weekly Wage and Hour Reports of Public Works recording the following information concerning Public Work Project Hours performed by the contractor and all Subcontractors. The following information must be provided for each employee on this public works project:

1. Employee Name
2. Work Classification
 - a. Level and Characteristics
 - b. Group
 - c. Zone pay amount
 - d. Equipment type, if applicable
3. Hours worked by day, standard and overtime
4. Total hours for the week
5. Hourly rate of pay, standard and overtime
6. Prevailing hourly fringe benefit, broken down into categories
7. Total hourly rate of pay plus prevailing hourly fringe benefit paid
8. Applicable hourly prevailing wage rate

B. Prepare the Weekly Wage and Hour Report submittal log recording the following information concerning weekly reports from the contractor and all Subcontractors.

1. Report Number
2. Ending date for the Payroll Period
3. Contractor's name and the date the report was submitted to the City of Fernley.
4. Subcontractors name and the date the report was submitted to the Contractor.

1.5 OWNER'S ACTION

A. The owner will review each submittal, mark to indicate action taken, and provide review and acceptance.

1. Compliance with submittal requirements is the Contractor's responsibility.

1.6 POSTINGS/SIGNAGE

- A. Each contractor engaged on a public work must post the applicable prevailing rate of wages for the project on the site of the public work in a generally visible place to workmen.
- B. Each contractor engaged on a public work must provide a sign with a white background and 6" black lettering stating: "Posted prevailing wages apply to this public works project". This sign must be posted on the site of the public work in a generally visible place to workmen. This will be maintained by the Contractor throughout the construction phase from the Notice to Proceed date through completion of the project.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01110

**CERTIFICATION OF BIDDER, PROPOSED CONTRACTOR
OR SUBCONTRACTOR REGARDING DEBARMENT,
SUSPENSION, INELIGIBILITY OR VOLUNTARY EXCLUSION**

The undersigned bidder, proposed contractor or subcontractor certified, to the best of his or her knowledge and belief, that:

1. Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this contract by any Federal department, agency, or program.
2. Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in public works contracts by the Nevada Labor Commissioner.
3. Where either the bidder or subcontractor is unable to certify to any of the above statements, the bidder or subcontractor shall attach an explanation as to why a certification cannot be submitted.

Name of Bidder, Proposed Contractor or Subcontractor

Name and Title of Authorized Representative

Signature

Date

CERTIFICATION OF BIDDER REGARDING PENALTIES FOR NONCOMPLIANCE WITH NEVADA PREVAILING WAGE REQUIREMENTS

The undersigned bidder, proposed contractor or subcontractor certifies that:

1. This contract is for a public work as set forth in Nevada Revised Statutes Chapter 338.
2. A Contractor engaged on a public work shall forfeit, as a penalty to the public body on behalf of which the contract has been made and awarded to the Contractor, not less than \$20 nor more than \$50 for each calendar day or portion thereof that each worker employed on the public work:
 - A. Is paid less than the designated rate for any work done under the contract, by the Contractor or any Subcontractor under him or her.
 - B. For which the Contractor or Subcontractor willfully included inaccurate or incomplete information in the monthly record required to be submitted to the public body.
 - C. Is not reported accurately to the public body awarding the contract as required pursuant to NRS 338.070, Subsection 5.
 - D. If a violation of more than one (1) provision of this section involves the same worker, the Contractor shall forfeit the penalty set forth in each subsection that was violated.
3. If a penalty is imposed pursuant to this section, the costs of the proceeding, including investigative costs and attorney's fees, may be recovered by the Labor Commissioner.

Name of Bidder

Name and Title of Authorized Representative

Signature

Date

CITY OF FERNLEY
WEEKLY WAGE AND HOUR REPORT
SUBMITTAL LOG

Report Number	Contractor	Week Ending Date	Date Submitted

WEEKLY WAGE AND HOUR REPORT OF PUBLIC WORK CONTRACTORS FOR THE PAYROLL PERIOD ENDING

Month and Day Year

Pursuant to Chapter 338 of NRS and NAC, respectively, the contractor and each subcontractor shall keep or cause to be kept an accurate record showing the name and the actual per diem, wages and benefits paid to each workman employed by him in connection with the public work. The contractor or subcontractor shall ensure that a copy of the record for each calendar month is received by the public body awarding the contract no later than 15 days after the end of the month.

Report # ☐ Regular Weekly Report ☐ Final Report Bid/Project # PWP-

Project Title Public Body Awarding Contract **City of Fernley**

Prime Contractor Name & Address License #

Subcontractor Name & Address License #

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day							Total Hours For Week	Hourly Rate Of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S		H & W	Pen.	Vac.	App. Trg	Other		
		S							0								
		O							0								
		S							0								
		O							0								

Report Hours For Above Referenced Public Works Project Only

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day								Total Hours For Week	Hourly Rate Of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S			H & W	Pen.	Vac.	App. Trg	Other		
			1/0	1/0	1/0	1/0	1/0	1/0	1/0									
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								

Report Hours For Above Referenced Public Works Project Only

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day								Total Hours For Week	Hourly Rate of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S			H & W	Pen.	Vac.	App. Trg	Other		
			1/0	1/0	1/0	1/0	1/0	1/0	1/0									
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								

Report Hours For Above Referenced Public Works Project Only

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day								Total Hours For Week	Hourly Rate of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S			H & W	Pen.	Vac.	App. Trg	Other		
			1/0	1/0	1/0	1/0	1/0	1/0	1/0									
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								

Report Hours For Above Referenced Public Works Project Only

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day								Total Hours For Week	Hourly Rate of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S			H & W	Pen.	Vac.	App. Trg	Other		
			1/0	1/0	1/0	1/0	1/0	1/0	1/0									
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								

Report Hours For Above Referenced Public Works Project Only

Employee Name & State/Jurisdiction that Issued Identification	Work Classification	Hours Worked By Day								Total Hours For Week	Hourly Rate of Pay including fringe	Hourly Fringe Benefit Contribution					Gross Amount Earned For Week	Net Wage Paid For Week
			S	M	T	W	T	F	S			H & W	Pen.	Vac.	App. Trg	Other		
			1/0	1/0	1/0	1/0	1/0	1/0	1/0									
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								
		S								0								
		O								0								

Report Hours For Above Referenced Public Works Project Only

STATE OF NEVADA
Office of the Labor Commissioner
STATEMENT OF COMPLIANCE

In compliance with the provisions of Chapters 338 of NRS and NAC, respectively, I, as an officer, owner or director of the undersigned contractor, hereby certify that this report is a true and accurate statement of worker's earnings employed on this Public Works contract by the undersigned contractor for the following payroll period:

_____, _____ to _____, _____
Month and Day Year Month and Day Year

I further certify:

1. That no deductions have been made from the wages earned by any person so listed other than those permissible or required by law.
2. That any apprentice listed herein is registered in a bona fide apprenticeship program.
3. Check all that apply:
 - ☐ The contractor is signatory to a collective bargaining agreement with some or all of its employees.
 - ☐ Each employee listed has been paid the required applicable wages plus the amount of fringe benefits listed in their contract.
 - ☐ Each employee listed has been paid the required applicable wages per hour with no fringe benefit contributions paid by the contractor.

 - ☐ Prime Contractor
 - ☐ Subcontractor

Contractor Name:	Address:
Telephone:	Fax:

Printed Name / Title Signature Date

NRS 338.070:

4. The contractor and each subcontractor shall keep or cause to be kept an accurate record showing the name and the actual per diem, wages and benefits paid to each workman employed by him in connection with the public work.
5. The record must be open at all reasonable hours to the inspection of the public body awarding the contract, and its officers and agents. The contractor or subcontractor shall ensure that a copy of the record for each calendar month is received by the public body awarding the contract no later than 15 days after the end of the month. The copy must be open to public inspection as provided in NRS 239.010. The record in the possession of the public body awarding the contract may be discarded by the public body 2 years after final payment is made by the public body for the public work.
6. Any contractor or subcontractor, or agent or representative thereof, performing work for a public work who neglects to comply with the provisions of this section is guilty of a misdemeanor.

NON-PERFORMANCE PAYROLL REPORT FOR PUBLIC WORKS PROJECTS

Pursuant to Chapter 338 of NRS and NAC, respectively, the contractor and each subcontractor shall keep or cause to be kept an accurate record showing the name and the actual per diem, wages and benefits paid to each workman employed by him in connection with the public work. The contractor or subcontractor shall ensure that a copy of the record for each calendar month is received by the public body awarding the contract no later than 15 days after the end of the month.

Report #

☐ Regular Weekly Report

☐ Final Report

Bid/Project #

PWP-

Project Title

Public Body Awarding Contract

CITY OF FERNLEY

Prime Contractor Name & Address

License #

Subcontractor Name & Address

License #

Payroll period

Month and Day

Year

to

Month and Day

Year

I hereby certify that no employees or owner/operators were used on the construction of this Public Works project during the payroll period above.□

Name & Title (please print)

Signature

Date

COMPREHENSIVE CONTRACTOR/SUBCONTRACTOR LIST

All Prime and Sub-Contractors that will be utilized on this project (regardless of tier) shall be included on this list.
 This list shall include all contractors/sub-contractors previously listed on the 5% and 1% lists.

PROJECT NAME: _____

BID # _____

CONTRACTOR/SUBCONTRACTOR	CRAFT/TRADE DESCRIPTION OF WORK	CONTACT	ADDRESS	LICENSE #	MANUFACTURED HOUSING DIVISION (MHD) LICENSE If Applicable

SIGNATURE: _____

Authorized Firm Representative

 DATE: _____

NAME: _____

TITLE: _____

Project Workforce Checklist

Contract No.: _____

Project Name: _____

Contractor/Subcontractor: _____

Craft/Trade	More than 3 Employees Anticipated	Anticipate Needing a Waiver
Air Balance Technician	Yes ☐ No ☐	Yes ☐ No ☐
Alarm Installer	Yes ☐ No ☐	Yes ☐ No ☐
Bricklayer , can also include tile setter, terrazzo workers and marble masons	Yes ☐ No ☐	Yes ☐ No ☐
Carpenter , can also include floor coverer, millwright and piledriver (non-equipment) and terrazzo workers	Yes ☐ No ☐	Yes ☐ No ☐
Cement Mason , can also include Laborers	Yes ☐ No ☐	Yes ☐ No ☐
Electrician , includes communication technician, line, neon sign and wireman. Can also include alarm installer	Yes ☐ No ☐	Yes ☐ No ☐
Elevator Constructor	Yes ☐ No ☐	Yes ☐ No ☐
Floor Coverer	Yes ☐ No ☐	Yes ☐ No ☐
Glazier , see also Painters and Allied Trades	Yes ☐ No ☐	Yes ☐ No ☐
Hod Carrier (see laborers), includes brick-mason tender and plaster tender	Yes ☐ No ☐	Yes ☐ No ☐
Iron Worker , includes fence erectors (steel/iron)	Yes ☐ No ☐	Yes ☐ No ☐
Laborer , can also include brick mason tender, cement mason, fence erector (non-steel/iron), flag person, highway striper, landscaper, plastic tender, and traffic barrier erector	Yes ☐ No ☐	Yes ☐ No ☐
Lubrication and Service Engineer	Yes ☐ No ☐	Yes ☐ No ☐
Mechanical Insulator	Yes ☐ No ☐	Yes ☐ No ☐
Millwright	Yes ☐ No ☐	Yes ☐ No ☐

Craft/Trade	More than 3 Employees Anticipated	Anticipate Needing a Waiver
Operating Engineer , can also include equipment greaser, piledriver, soils and material tester, steel fabricator/erector (equipment) and surveyor (non-licensed) and well driller	Yes ☐ No ☐	Yes ☐ No ☐
Painters and Allied Trades , can also include glaziers, floor coverers, and tapers	Yes ☐ No ☐	Yes ☐ No ☐
Pile Driver (non-equipment)	Yes ☐ No ☐	Yes ☐ No ☐
Plasterer	Yes ☐ No ☐	Yes ☐ No ☐
Plumber/Pipefitter	Yes ☐ No ☐	Yes ☐ No ☐
Refrigeration	Yes ☐ No ☐	Yes ☐ No ☐
Roofer (not sheet metal)	Yes ☐ No ☐	Yes ☐ No ☐
Sheet Metal Worker , can also include air balance technician	Yes ☐ No ☐	Yes ☐ No ☐
Soils and Materials Tester , includes certified soil tester	Yes ☐ No ☐	Yes ☐ No ☐
Sprinkler Fitter	Yes ☐ No ☐	Yes ☐ No ☐
Surveyor (non-licensed)	Yes ☐ No ☐	Yes ☐ No ☐
Taper	Yes ☐ No ☐	Yes ☐ No ☐
Tile/Terrazzo Worker/Marble Mason	Yes ☐ No ☐	Yes ☐ No ☐
Traffic Barrier Erector (See Laborers)	Yes ☐ No ☐	Yes ☐ No ☐
Truck Driver	Yes ☐ No ☐	Yes ☐ No ☐
Well Driller (see also Operating Engineer)	Yes ☐ No ☐	Yes ☐ No ☐
Other:	Yes ☐ No ☐	Yes ☐ No ☐

I affirm I am fully authorized to acknowledge, on behalf of the Contractor listed above, the anticipated workforce, and acknowledge that changes to the anticipated workforce which may have an impact on compliance with the Nevada Apprenticeship Utilization Act, 2019 will require the submittal of a revised form within ten (10) working days of such change.

Signed: _____
Name and Title: _____
Date: _____
Contractor Name: _____

SECTION 01200 - PROJECT MEETINGS

PART 1- GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for project meetings including, but not limited, to the following:
 - 1. Pre-Construction Conference
 - 2. Pre-Installation Conferences
 - 3. Coordination Meetings
 - 4. Progress Meetings
 - 5. Start-up / Training
 - 6. Service, maintenance, warranty review.
- B. Construction Schedules are specified in Division 1 SECTION 01310-A – PROGRESS SCHEDULES.

1.3 PRE-CONSTRUCTION CONFERENCE

- A. The Contractor shall schedule a pre-construction conference and organizational meeting at the project site or other convenient location no later than fifteen (15) days after execution of the Contract and prior to commencement of any construction activities. The Contractor shall conduct the meeting to review scope, responsibilities, personnel assignments, Permits, submittals, safety, emergency action plans, contacts, schedule, etc.
- B. Attendees: Owner; Architect, and their consultants; Contractor and their Superintendent and major sub-contractors; and manufacturers, suppliers and other concerned appropriate parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the work.

C. Agenda: Discuss items of significance that could affect progress including such topics as:

1. Construction schedule
2. Critical work sequencing
3. Designation of responsible personnel
4. Procedures for processing field decisions and change orders
5. Procedures for processing Applications for Payment
6. Submittal of Shop Drawings, product data and samples
7. Preparation of Record Documents
8. Use of the premises
9. Office, work and storage areas
10. Equipment deliveries and priorities
11. Safety and Security, emergency procedures
12. Housekeeping
13. Working hours

1.4 PRE-INSTALLATION CONFERENCES

- A. Conduct a pre-installation conference at the site before each major construction activity that requires coordination with other construction. The installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination of integration with other materials and installations that have preceded or will follow, shall attend the meeting. The Contractor shall advise the Architect of scheduled meeting dates.
- B. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:
1. Contract Documents
 2. Options
 3. Related Change Orders

4. Purchases
 5. Deliveries
 6. Shop Drawings, products data and quality control samples
 7. Possible conflicts
 8. Compatibility problems
 9. Time schedules
 10. Weather limitations
 11. Manufacturer's recommendations
 12. Compatibility of materials
 13. Acceptability of substrates
 14. Temporary facilities
 15. Space and access limitations
 16. Governing regulations
 17. Inspection and testing requirements
 18. Required performance results
 19. Recording requirements
 20. Protections
- C. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the minutes of the meeting to everyone concerned, promptly, including the Owner and the Architect.
- D. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and reconvene the conference at the earliest feasible date.

1.5 PROGRESS MEETINGS

- A. Conduct a weekly progress meeting at the project site at regularly scheduled intervals. Coordinate with the Owner and the Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request, Change Order request, mockup reviews, etc.

- B. Attendees: In addition to representatives of the Owner, Architect, Construction Manager each sub-contractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future work shall be represented at these meetings by persons familiar with the project and authorized to conclude matters relating to progress.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the project.
 - 1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's construction schedule, whether on time or ahead or behind schedule. Determine how construction that is behind schedule will be expedited; and secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the allotted contract time.
 - 2. Review the present and future needs of each entity present, including such items as:
 - a. Interface requirements
 - b. Time
 - c. Sequence
 - d. Deliveries
 - e. Off-site fabrication problems
 - f. Access
 - g. Site utilization
 - h. Temporary facilities
 - i. Hours of work
 - j. Hazards of work
 - k. Housekeeping
 - l. Quality and work standards
 - m. Change Orders
 - n. Documentation of information for payment requests
- D. Reporting: No later than three (3) days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1. Schedule Updating: update the construction progress schedule after each progress meeting where modifications to the schedule have been made or recognized. Issue the updated schedule concurrently with the report of each meeting.

1.6 GUARANTEE/WARRANTIES; BONDS; AND SERVICE AND MAINTENANCE
CONTRACTS REVIEW MEETING:

- A. Eleven (11) months following the date of Substantial Completion of the work, hold a meeting for the purpose of review of guarantees/warranties; bonds; and service and maintenance contracts for materials and equipment.
- B. Meeting location shall be at a mutually agreed upon site, as convenient as possible for all parties.
- C. Attending shall be representatives of the following:
 1. Owner
 2. Architect
 3. Owner's and Architect's Consultants, as appropriate to the agenda
 4. Construction Manager
 5. Commissioning Agent
 6. Contractor
 7. Sub-contractors, as appropriate to the agenda
 8. Suppliers, as appropriate to the agenda
 9. Others, as appropriate to the agenda
- D. Owner will prepare an agenda for the meeting and distribute it to the attendees a minimum of seven (7) calendar days in advance of the scheduled meeting date.
- E. The Contractor shall take action as appropriate to implement repair or replacement of defective items and to extend service and maintenance contracts.
- F. Owner or Owners Representative shall take meeting notes and distribute them to all attendees. Attendees taking exception to anything in the meeting notes shall state in writing to the Owner within five (5) working days, following receipt of meeting notes.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01200

SECTION 01300 – SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for submittals required for performance of the work, including the following:
 - 1. Submittal Schedule
 - 2. Daily Construction Reports
 - 3. Shop Drawings
 - 4. Product Data
 - 5. Samples
 - 6. Quality Assurance Submittals
 - 7. Record Drawings
 - 8. Record Specifications
- B. Administrative Submittals: Refer to other Division 1 Sections and other contract documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
 - 1. Permits
 - 2. Applications for Payment
 - 3. Performance and Labor & Material Bonds
 - 4. Insurance Certificates
 - 5. List of Sub-Contractors
- C. Related Sections: The following sections contain requirements that relate to this section:

1. Division 1 SECTION 01027 – APPLICATION FOR PAYMENT specifies requirements for submittal of the Schedule of Values.
2. Division 1 SECTION 01040 - COORDINATION specifies requirements governing preparation and submittal of required coordination drawings.
3. Division 1 SECTION 01200 – PROJECT MEETING specifies requirements for submittal and distribution of meeting and conference minutes.
4. Division 1 SECTION 01400 – QUALITY CONTROL specifies requirements for submittal of inspection and test reports.
5. Division 1 SECTION 01700 – CONTRACT CLOSEOUT specifies requirements for submittal of project Record Documents and warranties at project closeout.

1.3 DEFINITIONS

- A. Coordination drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
 1. Preparation of coordination drawings is specified in Division 1 SECTION 01040 - COORDINATION and may include components previously shown in detail on Shop Drawings or Product Data.
- B. Field samples are full size physical examples erected onsite to illustrate finishes, coatings or finish materials. Field samples are used to establish the standard by which the work will be judged.
- C. Mockups are full size assemblies for review of construction, coordination, testing or operation; they are not samples.

1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.

- a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 - a. Allow three (3) weeks for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals or needs additional information to complete review.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow two (2) weeks for reprocessing each submittal.
 - d. No extension of contract time, overhead or profit will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the work to permit processing.
 - e. Allow four (4) weeks for initial review of any submittal requiring review by Authority Having Jurisdiction (AHJ). A listing of these known submittals is indicated on the contract drawings, but this is not necessarily exhaustive.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 1. Provide a space approximately 4" x 5" (100 x 125 mm) on the label or beside the title block on the Shop Drawings to record the Contractor's review and approval markings and the action taken.
 2. Include the following information on the label for processing and recording action taken:
 - a. Project Name
 - b. Date
 - c. Name and Address of the Architect
 - d. Name and Address of the Contractor
 - e. Name and Address of Sub-Contractor
 - f. Name and Address of Supplier
 - g. Name of the Manufacturer
 - h. Number and Title of appropriate specification section
 - i. Drawing Number and detail references, as appropriate
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. The Architect will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from contract document requirements, including variations and limitations. Include Contractor's certification that information complies with contract document requirements.
2. Transmittal Form: Use AIA Document G810.

1.5 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's construction schedule, prepare a complete schedule of submittals. Submit the schedule within ten (10) days of the date required for submittal of the Contractor's construction schedule.
 1. Coordinate submittal schedule with the list of sub-contracts, schedule of values and the list of products as well as the Contractor's construction schedule.
 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal
 - b. Related section number
 - c. Submittal category (Shop Drawings, Product Data or Samples)
 - d. Name of the Sub-Contractor
 - e. Description of the part of the work covered
 - f. Scheduled date for resubmittal
 - g. Scheduled date for the Architect's final release or approval
- B. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, Sub-Contractors and other appropriate parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.
 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.6 DAILY CONSTRUCTION REPORTS

- A. Prepare a daily construction report recording the following information concerning events at the site and submit duplicate copies to the Architect at weekly intervals:

1. List of sub-contractors at the site
2. Exact count of personnel at the site from each contractor or sub-contractor
3. Time spent by each person working on site vs off the job site
4. High and low temperatures, general weather conditions
5. Accidents and unusual events
6. Meetings and significant decisions
7. Stoppages, delays, shortages and losses
8. Emergency procedures
9. Orders and requests of governing authorities
10. Change Orders received, implemented
11. Services connected, disconnected
12. Equipment or system tests and startups
13. Partial Completions, occupancies
14. Substantial Completions authorized
15. Record Drawing identified changes
16. Record Specification identified changes

1.7 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle or otherwise indicate deviations from the contract documents. Do not reproduce contract documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the project is not a Shop Drawing.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
 1. Dimensions

2. Identification of products and materials included by sheet and detail number
3. Compliance with specified standards
4. Notation of coordination requirements
5. Notation of dimensions established by field measurement
6. Sheet Size: Except for templates, patterns and similar full-size drawings, submit Shop Drawings on sheets at least 8½" x 11" but, no larger than 30" x 42".
7. Submit in the quantity the Contractor requires to be returned, together with four (4) additional copies each of brochures, catalog cuts and similar material for mechanical, electrical, hardware and elevator items; and three (3) additional copies for all others.
8. Do not use Shop Drawings without an appropriate final stamp indicating action taken.

1.8 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing in diagrams and templates, standard wiring diagrams and performance curves.
 1. Mark each copy to show applicable choices and options. Where printed, Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations
 - b. Compliance with trade association standards
 - c. Compliance with recognized testing agency standards
 - d. Application of testing agency labels and seals
 - e. Notation of dimensions verified by field measurement
 - f. Notation of coordination requirements
 2. Do not submit Product Data until compliance with requirements of the contract documents has been confirmed.
 3. Preliminary Submittal: Submit a preliminary single copy of Product Data where selection of options is required.
 4. Submittals: Submit three (3) copies of each required submittal; submit four (4) copies where required for maintenance manuals. The Architect will retain one and will return one (1) marked with action taken and corrections or modifications required. One (1) copy with review comments will be supplied to the Owner.

- a. Unless non-compliance with contract document provisions is observed, the submittal may serve as the final submittal.
- 5. Distribution: Furnish copies of final submittal to installers, sub-contractors, suppliers, manufacturers, fabricators and others required for performance of construction activities. Show distribution on transmittal forms.
 - a. Do not proceed with installation until a copy of Product Data is in the installer's possession.
 - b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.9 SAMPLES

- A. Submit full size, fully fabricated samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets and swatches showing color, texture and pattern.
 - 1. Mount or display samples in the manner to facilitate review of qualities indicated. Prepare samples to match the Architect's sample. Include the following:
 - a. Specification section number and reference
 - b. Generic description of the sample
 - c. Sample source
 - d. Product name or name of the manufacturer
 - e. Compliance with recognized standards
 - f. Availability and delivery time
 - 2. Submit samples for review of size, kind, color, pattern, texture, and lead content testing for all paints and painted materials. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show approximate limits of the variations.
 - b. Refer to other specification sections for requirements for samples that illustrate workmanship, fabrication techniques, details of

- assembly, connections, operation and similar construction characteristics.
 - c. Refer to other sections for samples to be returned to the Contractor for incorporation in the work. Such samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of sample submittals.
 - d. Samples not incorporated into the work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.
 - e. Samples that are tested by CITY to have any lead content shall be rejected.
3. Preliminary Submittals: Submit a full set of choices where samples are submitted for selection of color, pattern, texture or similar characteristics from a range of standard choices.
- a. The Architect will review and return preliminary submittals with the Architect's notation, indicating selection and other action.
4. Submittals: Except for samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit three (3) sets. The Architect will return one set marked with the action taken.
5. Maintain sets of samples, as returned, at the project site, for quality comparisons throughout the course of construction.
- a. Unless non-compliance with contract document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to sub-contractors, manufacturers, fabricators, suppliers, installers and others as required for performance of the work. Show distribution on transmittal forms.
1. Field samples are full size examples erected on site to illustrate finishes, coatings or finish materials and to establish the project standard.
- a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.10 QUALITY ASSURANCE SUBMITTALS

- A. Submit quality control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports and other quality control submittals as required under other sections of the specifications.

- B. Certifications: Where other sections of the specifications require certification that a product, material or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 - 1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 SECTION 01400 – QUALITY CONTROL.

1.11 ARCHITECT'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken and return promptly.
 - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. Final Unrestricted Release: When the Architect marks a submittal "No Exceptions Taken," the work covered by the submittal may proceed provided it complies with requirements of the contract documents. Final payment depends on that compliance.
 - 2. Final-But-Restricted Release: When the Architect marks a submittal "Implement Exception Noted," the work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the contract documents. Final payment depends on that compliance.
 - 3. Returned for Resubmittal: When the Architect marks a submittal "Not Approved, Revise and Resubmit," do not proceed with work covered by the submittal, including purchasing, fabrication, delivery or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
 - a. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the project site or elsewhere where work is in progress.

- b. When the submittal review action stamp is marked “Rejected”, do not proceed with that portion of the work covered by the submittal including, but not limited to, purchasing, fabrication, delivery or other activity. Make a new submittal in accordance with the review notations on the submittal and resubmit without delay in the same manner and number as for the original submittal. Resubmit as often as necessary as required to obtain an unrestricted or restricted release action. “Rejected” review action stamp notation shall not be construed by the Contractor as a valid reason for an increase in contract time.
 - 4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked “Action Not Required.”
- C. Unsolicited Submittals: The Architect will return unsolicited submittals to the sender without action.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01300

SECTION 01310B – PROGRESS SCHEDULES AND CASH FLOW PLAN

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. References
- B. Schedule Submittal Requirements
- C. Schedule Submittal Format
- D. CPM Schedule Structural Requirements
- E. Updating Schedules
- F. Schedule Revisions
- G. Time Extensions
- H. Three Week Look Ahead Schedule

1.2 RELATED SECTIONS

- A. SECTION 00100 – INSTRUCTIONS TO BIDDERS
- B. SECTION 00800 – SUPPLEMENTARY GENERAL CONDITIONS
- C. SECTION 01010 – SUMMARY OF WORK
- D. SECTION 01027 – APPLICATION FOR PAYMENT
- E. SECTION 01300 – SUBMITTALS

1.3 REFERENCES

- A. Reference: O'Brien, James J., and Fredric L Plotnick, *"CPM in Construction Management"*, 7th Ed., McGraw-Hill, Inc., New York, 2010.

1.4 SCHEDULE SUBMITTAL REQUIREMENTS

- A. Preliminary Documents: Submit, in duplicate, as described in Part 1.5 A., to the Owner and Architect at the Pre-construction Conference the following Preliminary Documents defining planned operations:
 - 1. Preliminary Schedule (90 Day) (bar chart PDF and electronic P6 XER file)
 - 2. Cash Flow Curve

3. Submittal Schedule

- B. The Architect and Owner will review schedule submittals; such review shall not constitute an approval or acceptance of the Contractor's construction means, methods, sequencing, or its ability to complete the Work in a timely manner.
- C. The Preliminary Documents will illustrate, at a minimum, a detailed baseline schedule for those activities commencing within the first ninety (90) calendar days after the Notice to Proceed is issued by the Owner (Preliminary Schedule (90 Day)). Within seven (7) calendar days after the date of the Pre-construction Conference, the Contractor, including its primary superintendent, will participate in a Schedule Review meeting with the Owner and Architect. As part of the review meeting, the Contractor will be prepared to explain its approach to the scheduling, sequencing of the work, submittals, and its cash flow forecast. Based on comments provided by the Owner and Architect, as well as agreed to changes by all parties, the Contractor will revise and resubmit the Preliminary Schedule (90 Day) and progress curve within seven (7) calendar days from the date of the Schedule Review meeting.
- D. Baseline Documents: The Contractor shall submit the completed Baseline Schedule to the Owner and Architect within thirty (30) calendar days from the Notice of Award. The schedules shall integrate the activities of the Preliminary Schedule (90 Day), and include all activities required for contract completion.
 - 1. Within ten (10) calendar days after receipt of the complete Baseline Schedule, the Owner and Architect will communicate in writing, its comments and concerns to the Contractor. Within five (5) working days, Contractor shall adjust the Baseline Schedule and Progress Curve to incorporate comments from the Owner and Architect and re-submit.
 - 2. Upon Owner and Architect receipt and acknowledgment of revisions to the Baseline Schedule and Progress Curve, the Baseline Documents shall become part of the Contract Documents.
- E. The Contractor shall not submit a Baseline Schedule that indicates a contractual substantial completion date earlier than the Contractual Substantial Completion Date as defined in the City of Fernley's issued Notice to Proceed letter. Any Baseline Schedule submission that indicates an early completion of the project shall be rejected. In any event, if the Contractor should plan to complete the work earlier than the Contractual Substantial Completion Date, the Owner shall not be liable to the Contractor for any costs or other damages if the Contractor is unable to complete the work before the Contractual Substantial Completion date.
- F. Should the Contractor fail to define an element of work, activity or logic and the Owner and / or Architect does not detect this omission during the review of the Baseline Schedule, the Contractor shall be required to correct this omission(s) when discovered by the Owner and / or Architect and / or Contractor. The

correction(s) will be made before the next Monthly Schedule Update after the omission(s) is discovered. The inclusions of this correction(s) shall not be cause for delay of the completion of the work within the specified contract time or any increase in cost.

- G. Include the submission and approval of the Baseline Schedule as a cost line item in the Schedule of Values. Payment to the Contractor shall be withheld until such schedule, satisfactory in form and substance to the Owner and Architect, has been received and approved.
- H. After the Baseline Schedule has been approved, no change in logic and / or durations shall be made without first providing written notification to Owner and Architect for Contractor's need to change and approval for these changes has been provided to the Contractor by the Owner and Architect. Consideration will be given for Contractor changes if they are determined to be reasonable by narrative explanation. Acceptance or rejection of any requested revisions is without liability to the Owner, Architect, or any of their representatives. Unreasonable logic or duration changes to simply accommodate a perception of being on-schedule will not be accepted.
- I. Failure to provide the required schedule information at the required times will result in denial of the relative portion of progress payments, until such time that the schedule information is submitted in the correct format, at the sole discretion of the Owner.
- J. Re-Baseline Schedule: At the discretion of the Architect and / or Owner, when the most current Monthly Schedule Update no longer represents the planned sequence of construction as reflected in the approved Baseline Schedule, the Architect and / or Owner may require that a Re-Baseline Schedule be prepared. This Re-Baseline Schedule shall indicate the Contractors revised plan to complete the project within the Contractual Substantial Completion date.
- K. Recovery Schedule: When the most current Monthly Schedule Update indicates a delay based on the actual progress of the work of negative fifteen (-15) or less calendar days versus the planned progress in the approved Baseline Schedule, the Architect and / or Owner may require that a Recovery Schedule be prepared. This Recovery Schedule shall indicate the Contractors revised plan and methods that will be used to complete the project by the Contractual Substantial Completion date. The Recovery Schedule will be required within ten (10) calendar days of request by Architect and / or Owner.

1.5 SCHEDULE SUBMITTAL FORMAT

- A. Follow the guidelines below when submitting a Baseline, Update or Look-ahead Schedule.
- B. Required Submittals:

1. Bar Chart: sheet size to be 8-1/2 x 11 inches minimum, organized by the WBS as prescribed herein.
2. Cash Flow Curve; Minimum sheet size to be 8½ x 11 inches.
3. The formatting of the hard-copy and electronic submissions of the Baseline Schedule, Schedule Updates and 3-Week Look-ahead Schedules shall include the following information in the order shown:
 - a. Activity ID Number
 - b. Activity Description
 - c. Calendar ID
 - d. Original Duration
 - e. Remaining Duration
 - f. Percent Complete
 - g. Total Float
 - h. Early Start Date
 - i. Early Finish Date
 - j. Primary Baseline Early Start (except on Baseline Schedule)
 - k. Primary Baseline Early finish (except on Baseline Schedule)
4. On all Update and Look-ahead Schedules, the approved Baseline Schedule shall be included as the Primary Baseline Schedule and be shown as the Primary Baseline Bar with Primary Baseline Early Start and Primary Baseline Early Finish dates. The format of the Title Block shall include (at a minimum) Contractor's name, project number, file name, start date, finish date, data date and run date.
5. Required Electronic Media: Provide all Schedule files in PDF and XER format electronically on CD, DVD, or flash drive and via an attachment to an email to the Owner and Architect. The Contractor is to provide two (2) electronic copies of all Baseline and Schedule Updates including the 3- Week Look-ahead Schedules in the prescribed scheduling software format. Disks are to have the Contractor's name, project number, schedule file name, and data date on the disk label. All Schedule data files must be created by excluding any necessity of usernames and/or password requirements. 3-Week Lookahead files for the weeks preceding the month end Schedule Update may be placed on the same media.
6. The Contractor will be responsible for planning, scheduling, managing, and reporting the progress of the Work in accordance with this specification section.
7. All Contract required Construction Schedules shall be prepared by a competent scheduler, and used by the Contractor to plan, prosecute, and coordinate the Work in an orderly and expeditious manner. The approved Baseline Schedule will be used by the Owner and the Architect to evaluate

progress and status of the required Update Schedules at the various stages of the Project and establish the basis for progress payments.

8. Required Critical Path Method (CPM) software, using compatible hardware, to be used for scheduling:
 - a. Oracle's Primavera P6, Version 15.1 or equivalent scheduling program.

1.6 CPM SCHEDULE STRUCTURAL REQUIREMENTS

The following requirements have been defined in an effort to create consistency across all project schedules for purpose of analysis.

- A. File Naming Schemes for Schedules are to use the following italicized naming schemes:
 1. Preliminary Schedule:
 2. Baseline Schedule:
 3. Monthly Schedule Update:
 4. Three-week Look-ahead Schedules provided at the weekly Project Meetings are to be a working schedule, each with a unique file name. The reason for this is to accommodate CITY program-wide scheduling needs.
- B. Structure of Schedule:
 1. No work activities in the Schedule shall have an Original Duration greater than fifteen (15) workdays, except for Submittals; Fabrication and Delivery of Materials and Equipment; and Level of Effort tasks, without prior approval of the Owner. For all required Submittal Activities, please refer to Project Manual Section 01300, Shop Drawings, for the allowed submission timeframe after the Pre-Construction conference. All Submittal activities must conform to this timeframe.
 2. Dependencies between activities shall be indicated so that it may be established as to the effect the progress of any one activity would have on the Schedule. Dependencies shall make use of Finish-to-Start (FS), Start- to-Start (SS), and Finish-to-Finish (FF) logic relationships. All activities that have a successor Start-to-Start relationship shall also include a successor Finish-to-Start or Finish-to-Finish relationship. There shall not be any open-ended activities except as noted below. Use of Start-to-Finish (SF) logic ties shall not be allowed without written justification and acceptance by the Owner and Architect prior to implementation. Leads or lags will not be used when the creation of an activity will perform the same function (e.g., concrete cure time). Dependencies shall not make use of negative lags. The use of any lead or lag shall require a written explanation by the Contractor in a narrative Report. All activities, except Notice to Proceed and Final Completion, are required to have at least one predecessor and one successor.

3. Date/time constraint(s), other than those required by the contract, will not be allowed unless the Contractor specifically asks in a narrative how they intend to use these constraints and they are accepted by the Owner and Architect. The only exception is that Zero-Free Float constraints may only be used to set individual Pre-Construction Meetings to within 5 days of the first-time occurrence of each meeting.
4. Calendars: Define at least two (2) calendars for the schedule.
 - a. Calendar 1 shall be a five-day week (workdays) and is to reflect Saturdays, Sundays, and all Holidays as non-workdays.
 - b. Calendar 2 shall be seven-day week (calendar days) and is to reflect Saturdays, Sundays, and Holidays as workdays.
 - c. When defining calendars, use “Total Work Hours/Day”; do not use “Detailed Work Hours/Day”. The latter occasionally creates issues with start and finish times and dates.
 - d. The aforementioned two calendars and any others are to be “Project” calendars. Use of “Global” or “Resource” calendars are prohibited.
5. The schedule should be broken down into logical areas of work by use of a Work Breakdown Structure (WBS). In the WBS, minimally separate schedule activities by building or major areas, if within one building. Within each building separate the schedule activities by Building System per ASTM Unifomat II Classification for Building Elements (E1557) Level 2 Group Elements. At a minimum, the following areas shall be included:
 - a. Milestones
 - b. Level of Effort Summary
 - c. Prepare and Transmit Submittals
 - d. Review Submittals
 - e. Material Procurement & Delivery
 - f. On Site Work
 - g. Retaining Walls (if applicable)
 - h. Off Site Work
 - i. Building Foundation & SOG
 - j. Building Structure
 - k. Building Exterior Enclosure

- l. Building Roofing
 - m. Building Interior Framing & Rough-in
 - n. Building Interior Finishes & Trim
 - o. Punchlist, Testing & Inspection
6. Activity Coding
- a. In addition to use of the Work Breakdown Structure, develop an Activity Code structure, and code all schedule activities to minimally the following activity codes:
 - 1) Area
 - 2) Subarea
 - 3) Responsibility
7. Tasks related to the submittal and procurement of material and equipment shall be included as separate activities in the project schedule. Sequences for major material items, such as reinforcing steel, structural steel, and steel joists, etc. shall be shown as individual activities within the schedule. Major equipment items, such as HVAC equipment, electrical equipment, specialty items, and any long lead material or equipment items shall be shown as individual activities within the schedule. Examples of submittal/procurement activities include, but are not limited to:
- a. Material/Equipment submittal preparation
 - b. Submittal and Approval of material/equipment
 - c. Fabrication and/or Delivery of Equipment and Specialty Materials:
 - d.
 - 1) Separate Activities shall be required when durations will be greater or equal to 30 calendar days maximum for each delivery.
 - 2) Delivery Activities that are phased or partial deliveries shall require an Activity ID with logic relationship to installation and/or the related construction activities.
 - e. Delivery of extra parts/extra stock/special tools
 - f. Notification of Owner furnished materials / equipment delivery requirements
 - g. Delivery of O&M manuals
8. The approved Baseline schedule shall become the basis for all Weekly Look-ahead and Monthly Schedule Updates. The approved Baseline Schedule shall also be shown as the Primary Baseline Schedule in all Weekly Look-ahead and Monthly Schedule Updates.
9. Construction activities shall include at a minimum, but are not limited to:
- a. Permit Requirements
 - b. Tasks corresponding to each specification section covered in the Specification Index in Divisions 01 through 33
 - c. Tasks related to mobilization / demobilization

- d. The installation of temporary or permanent work by tradesman
 - e. Testing and inspections of installed work by technicians, inspectors or engineers
 - f. Required outside Agency inspections
 - g. System utility outages and tie-ins
 - h. Start-up and testing of equipment, commissioning of building and related systems
 - i. Scheduling of specified manufacturer's representatives
 - j. Contractor's Punch list activity by area
 - k. Final clean-up
 - l. Training to be provided
 - m. Final Punch list
 - n. Maintenance period
 - o. Administrative tasks necessary to start, proceed with, accomplish or finalize the contract
10. The following logic relationships will be required in any precedence diagram method used:
- a. All logical relationships shall be finish to start (FS) as much as practical. Start to start (SS) and finish to finish (FF) relationships may be used as follows:
 - 1) successors may be SS with a corresponding FF relationship
 - 2) at a milestone or at the conclusion of the network
 - 3) use in Level of Effort activities
 - b. Lag factor use should be limited. Lag factors shall not be used when the work could be identified as a functional activity (i.e., concrete curing).
 - c. Accepted Schedules shall only contain Contract Required Early Start and/or Early Finish Constraints. Additional constraints may be used if authorization from the Owner and / or Architect is received prior to their implementation.
 - d. The retained logic mode is required for schedule calculations.
 - e. Under Enterprise / Projects / Settings, "Define Critical Activities" shall be set to "Longest Path" (as opposed to "Total Float less than or equal to").
 - f. Any deviations/change from these logic specifications require written request to be reviewed for acceptance from the Architect and Owner prior-to implementation.

1.7 UPDATING SCHEDULES

- A. Monthly Schedule Updates shall accompany the monthly Application for Payment, reflecting progress since the previous month's submittal.
 - 1. Two (2) 8 ½ x 11-inch copies of the Bar Chart, along with two (2) electronic copies containing PDF and XER files, in the scheduling software format, containing the Monthly Schedule Update, in addition to the Updated Cash Flow Progress Curve. The Bar Chart will be sorted as noted in Section 01310B-1.5. Email the PDF and XER file to the Owner.
- B. The Schedule Update shall show the actual status of all activities. All activities that have a percentage less than 100% shall have a remaining duration in whole one (1) day increments. In addition, activities having a remaining duration of zero cannot be

claimed as less than 100% complete. Refer to Part 1.8 for revisions to the Schedule.

- C. Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in the CPM scheduling software system. Actual Start and Actual Finish dates on the CPM schedule shall match the dates of actual work accomplished in the field and not on projected completion dates.
- D. With each monthly update schedule submission, the Contractor shall submit a narrative report including descriptions of any problem areas, current or anticipated delays and their estimated schedule impacts, and the Contractor's plan to mitigate any of these noted delays. The Contractor shall provide explanation for any delay(s) shown in the schedule updates. If the Contractor should require the addition or deletion of any activity, require a revision(s) to the approved schedule logic, or any other change to the approved schedule, the Contractor shall include a narrative explaining why these revisions are necessary and the anticipated impact to the schedule and Contractual Substantial Completion Date.
- E. The Contractor shall provide a computer-generated Log Report in digital format using Claim Digger, Schedule Analyzer Pro, or other recognized schedule comparison software, listing ALL changes made between the previously reviewed monthly schedule update and the current monthly schedule update. Identify the name of the Baseline Schedule, previous schedule and name of the current schedule being compared.

1.8 SCHEDULE REVISIONS

- A. Updating the schedule to reflect actual progress made up to the data date of a schedule update shall not be considered revisions to the Baseline Schedule.
- B. During the progression of the project, if it appears the Monthly Update Schedule no longer represents the actual prosecution of the work as reflected in the Baseline Schedule, the Architect or Owner may request a Revised Baseline Schedule from the Contractor. The revision shall address the Contractor's current construction plan for completing the work without impacting contract time and cost. Approved revisions to the Monthly Schedule Update shall then be incorporated into the previously approved Baseline Schedule. The Revised Baseline Schedule shall then be used as the Primary Baseline Schedule for all subsequent monthly schedule update submissions.
- C. The Contractor may also request revisions to the construction schedule logic and activities in the event the Contractor's planning for the work is revised. If the Contractor desires to make changes in the construction schedule to reflect revisions in its method of operating and scheduling of the work, the Contractor shall provide the Architect and Owner the reason(s) for the proposed revisions. The request shall address the Contractor's current construction plan for completing the work without impacting contract time and cost. Accepted revisions to the schedule shall be incorporated into a Revised Baseline Schedule and the current construction schedule at the next Monthly Schedule Update submission.

D. If the Architect or Owner recognizes at any time that the work has fallen sufficiently behind the scheduled Contractual Contract Completion Date, milestones, or phase dates, the Architect or Owner shall require the Contractor to submit a Recovery Schedule. The Contractor shall submit the Recovery Schedule within seven (7) calendar days of the Architect's/Owner's written request. The Contractor will include a narrative with the Recovery Schedule that will describe the Contractor's work plan, including all additional resources, materials, equipment, labor, and modifications of operations which will be provided so as to meet the Contractual Substantial Completion Date. The Contractor will provide all such additional resources and modifications of operations without additional cost to the Owner. Such additional resources and modifications may include but not be limited to:

1. Required overtime for the Contractor's personnel.
2. Increased construction manpower in such quantities as will substantially eliminate the backlog of work and put the project back on schedule.
3. Increase numbers of shifts per working day, working days per week, or the amount of construction equipment, or any combination of the foregoing which will put the project back on schedule.
4. Reschedule activities to achieve the maximum practical concurrence of accomplishment of activities to put the project back on schedule.
5. Supplemental progress schedules detailing the specific operation changes instituted to regain the Contract Schedule.

The Contractor will implement the Recovery Schedule without additional cost to the Owner and provide for completion of the work in accordance with the remaining milestone dates without a time extension. Should the logic and/or durations of the Recovery Schedule not receive acceptance of the Architect and Owner, the Contractor is responsible to use concurrent operations, additional manpower, additional shifts, overtime, etc., including 24-hour production work day, seven (7) day work week operation, as required to put the Project back on schedule at no additional cost to the Owner.

E. Use of float suppression techniques, such as:

1. Preferential sequencing (arranging critical path through activities Owner and/or Architect related activities) using:
 - a. Special lead/lag logic restraints,
 - b. Zero total or free float constraints except where otherwise noted,
 - c. Imposing constraint dates other than as required by the contract,

shall be cause for rejection of the project schedule or its updates. The use

of resource Leveling (or similar software features) used for the purpose of artificially adjusting activity durations to consume float and influence the critical path is expressly prohibited.

F. Definitions of Float or Slack

1. Free Float is the length of time the start of an activity can be delayed without delaying the start of a successor activity.
2. Total Float is the length of time along a given network path that the actual start and finish of activity(s) can be delayed without delaying the project completion date.
3. Positive Total Float is for the benefit of the Project and for the mutual use of the Owner and the Contractor.

G. Negative float will not be a basis for requesting time extensions. Any extension of time will be addressed in accordance with the Section 01310B "Time Extensions".

1.9 TIME EXTENSIONS

- A. Extensions of time to the Contract may be granted only for delays to activities on the critical path that actually delay the Project completion beyond the Contractual Substantial Completion date or for delays to activities that transform that activity onto the critical path, and, as a result, delay completion beyond Contractual Substantial Completion date.
- B. For any period in which a delay to the contract specified Milestones and/or Contractual Substantial Completion is anticipated by the Contractor, a Time Impact Analysis (TIA) shall be submitted in accordance with Contract Documents to the Architect and Owner. Each TIA shall include a detailed Network Diagram demonstrating where the Contractor proposes to incorporate the delay in the most current approved Monthly Update Schedule. The TIA shall show all the current activities affected by the delay and the proposed activity logic relationships caused by the delay. The TIA network diagram shall have a minimum of one (1) current accepted Monthly Update Schedule predecessor and successor. The TIA shall demonstrate the time impact based on the date the delay is noticed by the Contractor or the date the delay began; the Project Status of all construction at that specific point in time; and the event time computation of all affected activities. The event times used in the TIA shall be substantiated by actual dates of occurrence. Included in the Contractor's TIA shall be a detailed narrative report providing the rationale or basis of entitlement used in developing the TIA request. The preparation of the TIA is considered part of the construction process and will be performed at no additional cost to the Owner.
- C. Time Impact Analysis shall be used by the Owner in determining if a time extension or reduction to the contract milestone date(s) is justified. The Contractor may provide a TIA to the Owner for any contract change or as support for a Value Engineering Proposal.

1. The Contractor shall submit a TIA illustrating the influence of a change or delay to the Contractual Substantial Completion Date or milestones. All TIA's submitted shall utilize the most recently approved Monthly Schedule Update logic to demonstrate the impact(s) or delay(s) alleged to have affected the Contractual Substantial Completion date.
 2. Each TIA shall include a Fragmentary Network (Fragnet) demonstrating how the Contractor proposes to incorporate the impact into the Project Schedule. A Fragnet is defined as the sequence of new activities and/or activity revisions, logic relationships and resource changes that are proposed to be added to the most recently approved Monthly Construction Schedule Update at the time of the alleged impact to demonstrate the influence of impacts to the accepted schedule logic. The Fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities. Include a narrative report describing the effects of new activities and relationships to interim and contract completion dates. The TIA shall include an electronic copy (both PDF and XER) of the TIA Network Diagram and Fragnet.
 3. If the TIA was submitted as support for a change order request, following the Contractor's receipt of an executed Change Order, the activity data and logic relationships in the TIA shall be incorporated into the most current Monthly Schedule Update.
- D. Each Time Impact Analysis shall demonstrate the estimated time impact based on the events of delay, the date the Change Order was given to the Contractor, the Actual Project status of construction at that point in time.
- E. Following the receipt of an executed Change Order, the activity data and logic relationships in the TIA shall also be incorporated into the current accepted Monthly Update Schedule. All TIA Activities shall be coded in a manner that they can be identified to the specific Change Order and TIA.
- F. Seasonal weather conditions shall be considered and included in the planning and scheduling of all work influenced by wind, cold or warm weather, and/or precipitation to ensure completion of all work within the Contract time.

If all the work, or the portion(s) of the work which are the currently controlling operation(s), are suspended for weather so as not to prosecute the work, a time extension at the Owners discretion, **may be awarded if the following conditions are satisfied:**

- a. The weather shall actually be the delay to the Substantial Completion Date of the project and the delay must be beyond the control and without the fault or negligence of Contractor; **and either:**

- b. The weather recorded by NOAA / NWS (WS Form: F6) website: (www.weather.gov/climate/index), Reno location during the Contract period shall be found to occur more frequently than the weather normally recorded by NOAA / NWS to be anticipated in Reno, Nevada, **OR**; documented more frequently occurring than 3 Year NOAA / NWS (WS Form: F6) Averages for all project locations; or
- c. Owner/Architect orders the stoppage or suspension of the work in the interest of public safety or health or due to specification requirements.

Weather is defined for the purposes of this Contract to be compared to current recorded National Oceanic and Atmospheric Administration (NOAA) / National Weather Service Preliminary Local Climatological Data (WS FORM: F-6) for Station: Reno, Nevada, as follows:

- **PRECIPITATION** water equivalent of greater than or equal to 0.1 inch recorded for the 24-hour period of the date, and/or
- **AVERAGE** wind speed of greater than or equal to 20 miles per hour recorded for the 24-hour period for the date of occurrence. **NOT** 2 Minute Sustained or Gusts as recorded in (WS FORM:F6).

The following schedule of anticipated weather delays is based on current National Oceanic and Atmospheric Administration (NOAA) / National Weather Service (NWS) records kept as Preliminary Local Climatological Data (WS FORM: F-6) for Station: Reno, Nevada, (e.g. 3 Year NOAA / NWS (WS Form: F6) Averages) for all project locations **and will constitute the baseline for the total Contract Time weather delay evaluations.** Contractor's CPM schedule shall be understood to include as a minimum, this amount of weather delay days lost in all Contractors' weather dependent activities occurring during the following schedule.

CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORK DAYS FOR WEATHER CONDITIONS AS DEFINED ABOVE
Based On Five-Day Work Week

<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
4	4	3	2	1	0	0	1	1	2	3	4

Contractor, or their authorized representative, shall provide specific written notification with documented backup to both, Owner's designated Project Manager and Architect designated Project Manager, on Company letterhead of the occurrence of qualifying precipitation and/or average wind speeds and the resultant full day(s) impact to normally scheduled workdays, within ten (10) calendar days of each occurrence of qualifying weather, whereby preventing

work on current critical activities for fifty (50) percent or more of Contractor's normal scheduled workday hours. The Contractor written notice will provide contemporaneously documented information concerning date, work Activities scheduled to be worked, the hours worked for all employees and subcontractors, and time qualifying weather conditions occurred. A Time Extension may be granted when the number of actual weather days calculated from the Notice to Proceed date to the date Contractor asserts the request exceeds the total cumulative non-work weather days using the above schedule for the same calendar time period. If Contractor wishes to assert additional claim(s) for time adjustment at a later date(s), each succeeding claim must address the time period from NTP date to the date of the request. No compensation will be made for monetary damages including, but not limited to extended General Conditions, due to weather delay(s).

The clear intent of this Contract Weather provision is to establish that the Contractor & Owner/Architect agree that a predetermined weather lost time has been accounted for in the Bid and accepted Baseline Schedule. Each Project has been determined to have a specific number of Contract Weather Days. Contractors are to make their own determination at time of bid and scheduling weather sensitive work activities as to incidental time for but not limited to (e.g., wet conditions, muddy site, etc.) time lost due to an accepted qualifying weather event as described above. The Contractor is responsible to provide a weatherized Project site at no additional cost or time to the Owner, including but not limited to, work and/or materials protected, temporary site drainage, and SWPP / Dust Control.

The Project's total Weather Days accounted for in Contractor's schedule is to be calculated using the schedule CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS. The mathematical calculation will take the actual NTP date of this Contract and prorate the remaining days of the beginning month as a percentage of the month. This percentage is then multiplied by the Non-Work Weather days from the Monthly Total – Non-Work schedule, to arrive at a rounded whole number for that month, should the NTP not be on the 1st day of the month. The same pro-rata will be done for the Substantial Completion date of the Contract. All months in between use the Totals given in the Non-Work Weather Days schedule for the same calendar period of this Contract. A grand total of impact days lost would be the cumulative sum of each month starting with the NTP Date and running through the Project Substantial Completion Date.

This total number of impact / lost days will be agreed by all parties to be the "CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS", which has already been included and accounted for in this Contract. It is this specific number, that the Contractor and Owner / Architect will use as baseline weather day work impacts for the Project calendar period of time. Any Contractor claims for lost days of work due to weather events as defined herein shall be totaled for the entire project and subtracted from the "CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS." It is understood that the impact day(s) claimed by the Contractor, must meet the requirements set forth in Section 1.9.G above. Until the Contract Weather Impact Days that have met the specification requirements have been used by deducting each qualifying event from the overall Project Total Days, the Owner / Architect will not consider time extensions for weather impacts. This Contract is a calendar day contract with a specific Notice to Proceed date and a Project Substantial Completion date. The Contractor will choose to use whatever

schedule work calendar they want as far as workdays per calendar week (e.g., 5-day work week, 6-day work week) when a Baseline Schedule is submitted for acceptance. Should the Contractor choose to utilize a work calendar other than a 5 day per week work schedule, per the CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS will have to be recalculated to match the actual working conditions planned. Any planned schedule requiring a re-calculation of the CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS, require Owner acceptance.

Only after the cumulative total “CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS” are exceeded by qualifying days previously accepted, the Owner / Architect may grant time extensions to the Contract Substantial Completion Date for additional qualifying Weather Impact Days accepted. CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS will be contemporaneously kept by Owner/Architect during the project duration as they are provided by Contractor for acceptance. Project Impact Days accepted to date, will be memorialized in regularly scheduled project meetings by the Owner PM/Architect PM. Contract Time Extensions granted by Owner will be in accordance with Section 01310, Article 1.9 of Project Manual. CPM Schedule changes can only be made with Owner Project Manager approval.

The Contractor shall provide an activity in the schedule reflecting the “CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS” that is included as a result of a calculation from the above schedule for the overall Contract Time from the date of NTP to the date of Substantial Completion. This activity shall have a description of “CONTRACTOR’S NON-WORKDAYS BANK OF TIME.” This activity shall be logically tied to the Contractual Substantial Completion as described in Section 1.6 Article B (a through e) along with Section 1.6 Article B (i) – (xiii) and shall be a BANK of time that the Contractor shall draw from as “CONTRACT INCLUDED MONTHLY TOTALS OF NON-WORKDAYS” are approved by Owner / Architect. When a NON-WORK Weather Event as defined above is accepted, the Contractor shall at the discretion of the Owner PM/Architect PM, submit a Time Impact Analysis as follows and reduce the allowance with the corresponding amount of NON-WORK delay time granted. Upon acceptance of a Non-Work Weather Day by Owner PM/Architect PM, the Contractor shall utilize the P3 function of “suspend and resume” within the dates function on the Critical Activity determined to be affected and if the accepted weather occurrences happen more than once on a Critical Activity, the Contractor will have to add an Activity as “Non-Work Weather Delay” with each predecessor(s) and successors being the “Critical Activity” so that the Critical Path runs through the Actualized Non-Weather time period and back onto the Critical Path of the Work Activity.

1.10 THREE WEEK LOOK-AHEAD SCHEDULE

- A. The Contractor shall provide a three-week detailed short-interval schedule for each building or area of the Work, at regularly scheduled progress meetings. The format shall be satisfactory to the Owner and Architect. All schedules shall be based upon the most current Architect / Owner accepted Monthly Schedule Update and will indicate the actual progress achieved the previous week as well as the detailed activities scheduled for the next three weeks and will show anticipated durations, start and completion dates for activities.

END OF SECTION 01310B

SECTION 01400 – QUALITY CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for quality control services.
- B. Quality control services include inspections, tests and related actions, including reports performed by the Contractor, by independent agencies and by governing authorities. They do not include contract enforcement activities performed by the Architect.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with contract document requirements.
- D. Requirements of this section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality control requirements for individual construction activities are specified in the sections that specify those activities. Requirements in those sections may also cover production of standard products.
 - 2. Specified inspections, tests and related actions do not limit the Contractor's quality control procedures that facilitate compliance with contract document requirements.
 - 3. Requirements for the Contractor to provide quality control services required by the Architect, Owner or Authorities Having Jurisdiction (AHJ) are not limited by provisions of this section.
- E. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 1 SECTION 01045 – CUTTING AND PATCHING specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.

2. Division 1 SECTION 01300 – SUBMITTALS specifies requirements for development of a schedule of required tests and inspections.

1.3 RESPONSIBILITIES

- A. Owners Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, the Owner shall provide inspections, tests and other quality control services specified elsewhere in the contract documents and required by AHJ.
 1. Where individual sections specifically indicate that certain inspections, tests and other quality control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality control services. Costs for these services are included in the contract sum.
 2. Where individual sections specifically indicate that certain inspections, tests and other quality control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.
 - a. Where the Owner has engaged a testing agency for testing and inspecting part of the work and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless agreed to in writing by the Owner.
- B. Retesting: The Contractor is responsible for retesting where results of inspections, tests or other quality control services prove unsatisfactory and indicate non-compliance with contract document requirements, regardless of whether the original test was the Contractor's responsibility.
 1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated non-compliance with contract document requirements.
- C. Associated Services: Cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 1. Provide access to the work.
 2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.

3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 4. Provide facilities for storage and curing of test samples.
 5. Deliver samples to testing laboratories.
 6. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 7. Provide security and protection of samples and test equipment at the project site.
- D. Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling and testing of materials and construction specified in individual sections shall cooperate with the Architect and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.
1. The agency shall notify the Architect and the Contractor promptly of irregularities or deficiencies observed in the work during performance of its services.
 2. The agency is not authorized to release, revoke, alter or enlarge requirements of the contract documents or approve or accept any portion of the work.
 3. The agency shall not perform any duties of the Contractor.
- E. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
1. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities. The Contractor will also be responsible for standby charges from the Owner's laboratory if they are due to a scheduling error by the Contractor.

1.4 SUBMITTALS

- A. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test or similar service to the Architect. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test or similar service through the Contractor.
1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.

2. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
 - a. Date of issue
 - b. Project title and number
 - c. Name, address and telephone number of testing agency
 - d. Dates and locations of samples and tests or inspections
 - e. Names of individuals making the inspection or test
 - f. Designation of the work and test method
 - g. Identification of product and specification section
 - h. Complete inspection or test data
 - i. Test results and an interpretation of test results
 - j. Ambient conditions at the time of sample taking and testing
 - k. Comments or professional opinion on whether inspected or tested work complies with the contract document requirements
 - l. Name and signature of laboratory inspector
 - m. Recommendations on retesting

1.5 QUALITY ASSURANCE

- A. Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories' *Recommended Requirements for Independent Laboratory Qualification* and that specialize in the types of inspections and tests to be performed.
 1. Each independent inspection and testing agency engaged on the project shall be authorized by AHJ to operate in the State of Nevada.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with the contract document requirements for Division 1 SECTION 01045 – CUTTING AND PATCHING
- B. Protect construction exposed by or for quality control service activities and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION 01400

SECTION 01420 – REFERENCES

PART 1 - GENERAL

1.1 DESCRIPTION

- A This section includes abbreviations and acronyms, additional definitions, and reference standards used in the contract documents.
- B Refer to Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project for further information.

1.2 ABBREVIATIONS AND ACRONYMS

- A The following abbreviations and acronyms may be used in the contract documents. Refer uncertainties to the Architect for a decision before proceeding.

AA	Aluminum Association
AAADM	American Association of Automatic Door Manufacturers
AAMA	Architectural Aluminum Manufacturers' Association
AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AFPA	American Forest and Paper Association
AIA	American Institute of Architects
AIMA	Acoustical and Insulation Materials Association
AISC	American Institute of Steel Construction
AMCA	American Movement and Control Association
ANSI	American National Standards Institute
APA	The Engineered Wood Association (formerly the American Plywood Association)
ARI	Air Conditioning and Refrigeration
Institute ASA	American Standards Association
ASHRAE	American Society of Heating, Refrigerating, and Air- Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers' Association
AWWA	American Water Works Association AWS American Welding Society
BHMA	Builders Hardware Manufacturers' Association
BIA	Brick Institute of America
CAL/OSHA	State of California Construction Safety Orders

CALTRANS	State of California, Business and Transportation Agency, Department of Transportation, <i>Standard Specifications</i>
CCR	California Code of Regulations
CDA	Copper Development Association
CISCA	Ceilings and Interior Systems Construction Association
CFFA	Chemical Fabrics and Film Association, Inc.
CFMG	Cabinet and Fixture Manufacturers Guild
CLFMI	Chain Link Fence Manufacturers' Institute
CPA	Composite Panel Association (formerly the National Particleboard Association)
CRI	Carpet and Rug Institute
CRSI	Concrete Reinforcing Steel Institute
CPSC	United States Consumer Products Safety Commission
CS	Commercial Standard, United States Department of Commerce
CSA	Canadian Standards Association
DASMA	Door and Access Systems Manufacturers Association International
EIMA	EIFS Industry Members Association
EPA	Environmental Protection Agency
ESO	Electrical Safety Orders
FAA	Federal Aviation Administration, United States Department of Transportation
FCC	Federal Communications Commission
FGMA	Flat Glass Marketing Association (now the GANA)
FM	Factory Mutual System, Factory Mutual Engineering Corporation
FS	Federal Specification Unit
GA	Gypsum Association
GANA	Glass Association of North America (formerly the Flat Glass Marketing Association and Glass Tempering Association)
GRI	Geosynthetic Research Institute
GTA	Glass Tempering Association (now the GANA)
HMA	Hardwood Manufacturers Association
HPMA	Hardwood Plywood Manufacturers Association
HPVA	Hardwood Plywood and Veneer Association
HUD	United States Department of Housing and Urban Development
IEEE	Institute of Electrical and Electronic Engineers
IGCC	Insulating Glass Certification Council
ITS-WH	Intertek Testing Service - Warnock Hersey
LSGA`	Laminator's Safety Glass Association

MIA	Marble Institute of America or the Masonry Institute of America
MIL	Military Standardization Document, United States Department of Defense
MIW	Masonry Institute of Washington
ML/SFA	Metal Lath/Steel Framing Association
MM	“Materials Manual”, State of California, Business and Transportation Agency, Department of Transportation
NAAMM	National Association of Architectural Metal Manufacturers
NBGQA	National Building Granite Quarries Association, Inc.
NBS	National Bureau of Standards (now the NIST)
NCMA	National Concrete Masonry Association
NEC	National Electrical Code
NEMA	National Electric Manufacturers’ Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association (now the AFPA)
NFRC	National Fenestration Rating Council
NHLA	National Hardwood Lumber Association
NIST	National Institute of Standards and Technology, United States Department of Commerce (formerly the National Bureau of Standards)
NOFMA	National Oak Flooring Manufacturers Association
NPDES	National Pollutant Discharge Elimination System
NRCA	National Roofing Contractors Association
NSF	NSF International (formerly National Sanitary Foundation)
NTMA	National Terrazzo and Mosaic Association
NWWDA	National Wood Window and Door Association (now WDMA)
OSA	Office of the State Architect, State of California
OSHPD	Office of Statewide Health Planning and Development, State of California
PCI	Precast / Prestressed Concrete Institute
PS	Product Standard, United States Department of Commerce
RCW	Revised Code of Washington, State of Washington
RIS	Redwood Inspection Service
SDI	Steel Deck Institute or the Steel Door Institute SFM
SIGMA	Office of State Fire Marshal, State of California
SMACNA	Sealed Insulated Glass Manufacturer’s Association
SSPC	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Society for Protective Coatings (formerly the Steel Structures Painting Council)
SWI	Steel Window Institute
TCA	Tile Council of America

UBC	Uniform Building Code
UFC	Uniform Fire Code
UL	Underwriters Laboratories, Inc.
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
USPS	United States Postal Service
USS	United States Standard
WAC	Washington Administrative Code, State of Washington
WCLIB	West Coast Lumber Inspection Bureau
WDMA	Window and Door Manufacturers Association (formerly the National Wood Window and Door Association)
WIC	Woodwork Institute of California
WLPDIA	Western Lath Plaster /Drywall Industries Association (now the WWCCA)
WSDOT	Washington State Department of Transportation
WWCCA	Western Wall & Ceiling Contractors Association
WWPA	Woven Wire Products Association or Western Wood Products Association

- B Additional abbreviations, used only on the drawings, are listed and defined thereon.

USE SECTION 1.03 ONLY IF THESE DEFINITIONS ARE NOT INCLUDED IN THE GENERAL CONDITIONS FOR THE SPECIFIC CONTRACT.

1.03 ADDITIONAL DEFINITIONS

- A In addition to the terms defined in the General Conditions, the following terms are used in the contract documents and are defined as follows:

Accepted Equal As	accepted by the Architect as being of equivalent quality, utility and appearance.
Addenda	Written or graphic instruments issued by the Owner/Architect prior to the execution of the Contract which modify or interpret the bidding documents by additions, deletions, clarifications or corrections.
By Owner	Work on this project that will be performed by the Owner or its agents, at the Owner's cost.
By Others	Work on this project that is outside the Scope of Work to be performed by the Contractor under this Contract, but that will be performed by the Owner, other contractors or other means.
Consultant	A consultant to the Architect
Directed	Directed by the Architect
Furnish	Supply only; do not install
Indicated	As shown and/or noted on the drawings
Install	Install or apply only; do not furnish
Owner-Furnished,	The Owner will furnish at their cost and the Contractor
Contractor-Installed	shall install under their contract for this work.

Project Manual	The Project Manual consists of two volumes: Volume 1 includes the bidding and contract requirements and Specifications; and Volume 2 includes the details and schedules. One volume which includes the bidding and contract requirements and specifications and the details and schedules.
Provide	Furnish and install
Site	Geographical location of the project
Specified	As written in the specifications

1.4 REFERENCE STANDARDS

- A. Specified standards of the construction industry shall have the same force and effect on the performance of the work as if bound or copied directly into the contract documents. Such standards are made a part of the contract documents by reference.
- B. Each entity or person engaged in the work shall be familiar with the industry standards applicable to its construction activity.
- C. Where compliance with two (2) or more standards is specified and the standards establish different or conflicting requirements for minimum qualities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to the Architect for a decision before proceeding.
- D. Copies of applicable standards are not bound with the contract documents. Where copies are required for proper performance of the work, obtain and pay for authorized copies directly from publication source and maintain at the site during submittals, planning and performance of work until final acceptance by the Owner. Make such copies of standards available to the Owner and Architect for review upon request.
- E. For products or quality of installation specified by association, trade, military, federal or other reference standards, comply with requirements of the standard, except when more rigid requirements are specified in the contract documents or are required by applicable codes and/or public Authorities Having Jurisdiction (AHJ).
 - 1. Except as otherwise indicated or specified, where compliance with a reference standard is required, comply with the standard in effect as of the date established for the receipt of bids. Where a reference standard has been revised and reissued after the date established for the receipt of bids and before performance of the work affected, notify the Architect in writing and request a decision on how to proceed. The Architect may issue a contract modification or an Architect's Supplemental Instruction (ASI) for proceeding in accordance with the updated standard.

- 2 The contractual relationship of the parties to the Contract shall not be altered from the contract documents by mention or inference otherwise in a reference standard. The provisions of the bidding requirements; contract documents including, but not limited to all issued addendums; and the Contract shall void the general, but not technical, provisions of a reference standard in conflict therewith.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01420

SECTION 01500 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.
- B. Temporary utilities include, but are not limited to, the following:
 - 1. Water service and distribution
 - 2. Temporary electric power and light
 - 3. Temporary heat
 - 4. Ventilation
 - 5. Telephone service
 - 6. Sanitary facilities, including drinking water
 - 7. Storm and sanitary sewer
- C. Support facilities include, but are not limited to, the following:
 - 1. Field offices and storage sheds
 - 2. Temporary roads and paving
 - 3. Dewatering facilities and drains
 - 4. Temporary enclosures
 - 5. Hoists and temporary elevator use
 - 6. Temporary project identification signs and bulletin boards
 - 7. Waste disposal services
 - 8. Rodent and pest control

9. Construction aids and miscellaneous services and facilities
- D. Security and protection facilities include, but are not limited to, the following:
 1. Temporary fire protection
 2. Barricades, warning signs, and lights
 3. Sidewalk bridge or enclosure fence for the site
 4. Environmental protection

1.3 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
- B. Implementation and Termination Schedule: Within fifteen (15) days of the date established for commencement of the work, submit a schedule indicating implementation and termination of each temporary utility.

1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
 1. Building code requirements
 2. Health and safety regulations
 3. Utility company regulations
 4. Police, Fire Department, and rescue squad rules
 5. Environmental protection regulations
- B. Standards: Comply with NFPA “Standard for Safeguarding Construction, Alterations, and Demolition Operations”; ANSI A10 Series standards for “Safety Requirements for Construction and Demolition”; and NECA Electrical Design Library “Temporary Electrical Facilities”.
 1. Electrical Service: Comply with NEMA, NECA, UL Standards and regulations for temporary electric service. Install service in compliance with NFPA “National Electric Code”.
- C. Permit and Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits, including all design and permit cost.

1.5 PROJECT CONDITIONS

- A. Temporary Facilities: Field Offices, utility, and support infrastructure shall be installed no later than 30 days from NTP.
- B. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner change over from use of temporary service to use of permanent service.
- C. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.
- D. Project Identification and Signs: Provide within 30 days of NTP, and maintain for the life of the project, a project identification sign of the design, text and colors designated by the Architect, locate sign as approved by the Owner. Signs other than the specified sign will not be permitted, unless otherwise approved in advance by the Owner.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials. If acceptable to the Architect, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
- B. Lumber and Plywood: Comply with requirements in Division 6 Section “Rough Carpentry.”
 - 1. For job-built temporary offices, shops, and sheds within the construction area, provide UL-labeled, fire-treated lumber and plywood for framing, sheathing, and siding.
 - 2. For signs and directory boards, provide exterior-type, Grade B-B high-density concrete form overlay plywood of sizes and thickness indicated.
 - 3. For fences and vision barriers, provide minimum 3/8-inch (9.5-mm-) thick exterior plywood.
 - 4. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch - (16-mm-) thick exterior plywood.

- C. Gypsum Wallboard: Provide gypsum wallboard on interior walls of temporary offices.
- D. Roofing Materials: Provide UL Class A standard-weight asphalt shingles or UL Class C mineral - surfaced roll roofing on roofs on job-built temporary offices, shops, and sheds.
- E. Paint: Comply with requirements of Division 9 Section "Painting."
 - 1. For job-built temporary offices, shops, sheds, fences, and other exposed lumber and plywood, provide exterior-grade acrylic-latex emulsion over exterior primer.
 - 2. For sign panels and applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer.
 - 3. For interior walls of temporary offices, provide 2 coats interior latex-flat wall paint.
- F. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.
- G. Water: Provide potable water approved by local health authorities.
- H. Open-Mesh Fencing: Provide 1.120-inch- (3-mm-) thick, galvanized 2- inch (50-mm-) chain-link fabric fencing 6 feet (2 m) high and galvanized steel pip posts, 1-1/2 inches (38 mm) I.D. for line posts and 2-1/2 inches (64 mm) I.D. for corner posts.

2.2 EQUIPMENT

- A. General: Provide new equipment. If acceptable to the Architect, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
- B. Water Hoses: Provide 3/4-inch (19-mm-) heavy duty, abrasion-resistant, flexible rubber hoses 100 feet (30 m) long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.
- C. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120- Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
- D. Electrical Power Cords: Provide grounded extension cords. Use hard- service cords where exposed to abrasion and traffic. Provide waterproof

connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

- E. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- F. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.
- G. Temporary Offices: Provide prefabricated or mobile units or similar job- built construction with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading. A separate temporary office with its own utilities is to be provided for City of Fernley personnel.
- H. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- I. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.
 - 1. Comply with NFPA for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the project adequately and result in minimum interference with performance of the work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.
 - 1. Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 - 3. Obtain easements to bring temporary utilities to the site where the Owner's easement cannot be used for that purpose.
 - 4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect. Neither the Owner nor Architect will accept cost or use charges as a basis of claims for Change Orders.
- B. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.
 - 1. Sterilization: Sterilize temporary water piping prior to use.
- C. Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnects, automatic ground-fault interrupters, and main distribution switch gear.
 - 1. Install electric power service underground, except where overhead service must be used.
 - 2. Power Distribution System: Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.
- D. Temporary Lighting: When overhead floor or roof deck has been installed, provide temporary lighting with local switching.

Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.

1. Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.
- E. Temporary Heat: Provide temporary heat required by construction activities for curing or drying of completed installations or for protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy
- F. Heating Facilities: Except where the Owner authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel-oil heaters with individual space thermostatic control.
 1. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.
- G. Temporary Data/Telephones: Provide temporary service throughout the construction period for all personnel engaged in construction activities. Install a separate line for each temporary office and first-aid station.
 1. Provide one data line including WIFI Access for computer access to the Owner's computer network in Owner's Project Representative Field Office and pay costs for installation maintenance service and removal.
- H. Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the project's needs.
 1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.
- I. Drinking-Water Facilities: Provide containerized, tap-dispenser, bottled-water drinking-water units, including paper supply.
 1. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45-to-55-degree F (7 to 13 degree C).
- J. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds, and similar facilities. If neither sewers nor drainage

facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off-site in a lawful manner.

1. Filter out excessive amounts of soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.
 2. Connect temporary sewers to the municipal system, as directed by sewer department officials.
 3. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.
- K. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Locate field offices, storage sheds, and other temporary construction and support facilities for easy access.
1. Maintain support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
- B. Provide incombustible construction for offices, shops, and sheds located within the construction area or within 30 feet (9 m) of building lines. Comply with requirements of NFPA 241.
- C. Field Offices: Provide insulated, weather tight temporary offices of sufficient size to accommodate required City of Fernley, Architect and Construction Coordinator office personnel at the project site. Keep the office clean and orderly for use of small progress meetings. Size, Furnish and equip offices as follow:
1. Provide two distinctly secured office spaces (minimum 120sf each) each with 6x6 L desk and chair, 4' x 8' plan table, plan rack, one (1) 6-shelf bookcase, tack board and dry erase board.
 2. Provide 1 distinctly secured meeting space with conference table and chairs for minimum 12 personnel.
 3. Equip with a water cooler and private toilet complete with water closet, lavatory, and medicine cabinet unit with a mirror.
 4. Contractor to pay for all power, phone, data, fax, installations, set up, take down and monthly usage charges.

5. Sani-Hut to be placed by trailer.
- D. Storage and Fabrication Sheds: Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.
- E. Temporary Paving: Construct and maintain temporary roads and paving to support the indicated loading adequately and to withstand exposure to traffic during the construction period. Locate temporary paving for roads, storage areas, and parking where the same permanent facilities will be located. Review proposed modifications to permanent paving with the Architect.
1. Paving: Comply with Division 2 Section “Hot-Mixed Asphalt Paving” for construction and maintenance of temporary paving.
 2. Coordinate temporary paving development with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
 3. Install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas without damage or deterioration when occupied by the Owner.
 4. Delay installation of the final course of permanent asphalt concrete paving until immediately before Substantial Completion. Coordinate with weather conditions to avoid unsatisfactory results.
 5. Extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration, and supervision.
- F. Dewatering Facilities and Drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division 2 Sections. Where feasible, utilize the same facilities. Maintain the site, excavations, and construction free of water.
- G. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

2. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood or similar materials.
 3. Close openings through floor or roof decks and horizontal surfaces with load bearing, wood-framed construction.
 4. Where temporary wood or plywood enclosure exceeds 100 sq. ft. (9.2 sq. m) in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.
- H. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered “tools and equipment” and not temporary facilities.
- I. Temporary Exterior Lighting: Install exterior yard and sign lights so signs are visible when work is being performed.
- J. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than seven (7) days during normal weather or three (3) days when the temperature is expected to rise above 80 degrees F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.
- K. Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- L. Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering of plywood or similar material so finishes will be undamaged at the time of acceptance.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Architect.
- B. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities

of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 “Standard for Portable Fire Extinguishers” and NFPA 241 “Standard for Safeguarding Construction, Alterations, and Demolition Operations.”

1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one (1) extinguisher on each floor at or near each usable stairwell.
 2. Store combustible materials in containers in fire-safe locations.
 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.
 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
- C. Permanent Fire Protection: At the earliest feasible date in each area of the project, complete installation of the permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
- D. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- E. Enclosure Fence: Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
1. Provide open-mesh, chain link fencing with posts set in Masonry blocks.
- F. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

- G. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 - 2. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal: Unless the Architect request that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.
 - 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.

3. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:
 - a. Replace air filters and clean inside of ductwork and housing.
 - b. Replace significantly worn parts and parts subject to unusual operating conditions.
 - c. Replace lamps burned out or noticeably dimmed by hours of use.

END OF SECTION 01500

SECTION 01600 – MATERIALS AND EQUIPMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements governing the Contractor's selection of products for use in the project.
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 SECTION 01420 - REFERENCES specifies the applicability of industry standards to products specified.
 - 2. Division 1 SECTION 01300 – SUBMITTALS specifies requirements for submittal of the Contractor's construction schedule and the submittal schedule.
 - 3. Division 1 SECTION 01631 – SUBSTITUTIONS specifies administrative procedures for handling requests for substitutions made after award of the contract.

1.3 DEFINITIONS

- A. Definitions used in this section are not intended to change the meaning of other terms used in the contract documents such as *Specialties*, *Systems*, *Structure*, *Finishes*, *Accessories* and similar terms. Such terms are self-explanatory and have well recognized meanings in the construction industry.
 - 1. *Products* are items purchased for incorporation in the work, whether purchased for the project or taken from previously purchased stock. The term *Product* includes the terms *Material*, *Equipment*, *System* and terms of similar intent.
 - a. *Named Products* are items identified by the Manufacturer's product name, including make and model number or other designation, shown or listed in the Manufacturer's published product literature that is current as of the date of the contract documents.
 - b. *Foreign Products* as distinguished from domestic products are items substantially manufactured fifty percent [(50%) or more of value]

outside the United States and its possessions. Products produced or supplied by entities substantially owned [more than fifty percent (50%)] by persons who are not citizens of, nor living within, the United States and its possessions.

2. *Materials* are products substantially shaped, cut worked, mixed, finished, refined or otherwise fabricated, processed or installed to form a part of the work.
3. *Equipment* is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.4 SUBMITTALS

- A. Product List: A list of products required is included at the end of this section. Prepare a schedule in tabular form showing each product listed. Include the Manufacturer's name and proprietary product names for each item listed.
 1. Coordinate product list with the Contractor's construction schedule and the schedule of submittals.
 2. Form: Prepare product list with information on each item tabulated under the following column headings:
 - a. Related Specification Section Number
 - b. Generic name used in the contract documents
 - c. Proprietary Name, Model Number and similar designations
 - d. Manufacturer's Name and Address
 - e. Supplier's Name and Address
 - f. Installer's Name and Address
 - g. Projected Delivery Date or time span of delivery period
 3. Initial Submittal: Within thirty (30) days after date of commencement of the work, submit three (3) copies of an initial product list. Provide a written explanation for omissions of data and for known variations from the contract requirements.
 - a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the contract period.
 4. Completed List: Within sixty (60) days after date of commencement of work, submit three (3) copies of the completed product list. Provide a written explanation for omissions of data and for known variations from the contract requirements.
 5. Architect's Action: The Architect will respond in writing to Contractor within two (2) weeks of receipt of the completed product list. No response

within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with the contract documents. The Architect's response will include a list of unacceptable product selections containing a brief explanation of reasons for this action.

1.5 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
 - 1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability or compatibility. When a determination has been made select products from sources producing products that possess these qualities to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two (2) or more products for use on the project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
 - 1. Each Prime Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime or separate contractors.
 - 2. If a dispute arises between Prime Contractors over concurrently selectable, but incompatible products, the Architect will determine which products shall be retained and which are incompatible and must be replaced.
- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the work:
 - 1. No available domestic product complies with the contract documents.
 - 2. Domestic products that comply with the contract documents are available only at prices or terms substantially higher than foreign products that comply with the contract documents.
- D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturers or producer's nameplate or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces, or where required for observation after installation, on accessible surfaces that are not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service connected or power operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of Product and Manufacturer
 - b. Model and Serial Number
 - c. Capacity
 - d. Speed
 - e. Ratings

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle products according to the Manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
 1. Schedule delivery to minimize long term storage at the site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged or sensitive to deterioration, theft and other losses.
 3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
 4. Inspect products upon delivery to ensure compliance with the contract documents and to ensure that products are undamaged and properly protected.
 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 6. Store heavy materials away from the project structure in a manner that will not endanger the supporting construction.
 7. Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 – PRODUCTS

2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the contract documents that are undamaged and, unless otherwise indicated, new at the time of installation.
 - 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: The contract documents and governing regulations govern product selection. Procedures governing product selection include the following:
 - 1. Proprietary Specification Requirements: Where specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
 - 2. Semi Proprietary Specification Requirements: Where specifications name two (2) or more products or manufacturers, provide one (1) of the products indicated. No substitutions will be permitted.
 - a. Where specifications specify products or manufactures by name, accompanied by the term “or equal” or “or approved equal.” Comply with the contract document provisions concerning *Substitutions* to obtain approval for use of an unnamed product.
 - 3. Non-Proprietary Specifications: When specifications list products or manufacturers that are available and may be incorporated in the work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with contract requirements. Comply with contract document provisions concerning *Substitutions* to obtain approval for use of an unnamed product.
 - 4. Descriptive Specification Requirements: Where specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with contract requirements.
 - 5. Performance Specification Requirements: Where specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

- a. Manufacturer's recommendations may be contained in published product literature or by the Manufacturer's Certification of Performance.
- 6. Compliance with Standards, Codes, and Regulations: Where specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
- 7. Visual Matching: Where specifications require matching an established sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the contract documents concerning *Substitutions* for selection of a matching product in another product category.
- 8. Visual Selection: Where specified product requirements include the phrase "...as selected from Manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and Manufacturer that comply with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.
- 9. Allowances: Refer to individual specification sections and *Allowance* provisions in Division 1 for allowances that control product selection and for procedures required for processing such selections.

PART 3 – EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with Manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work.
 - 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01600

SECTION 01631 - SUBSTITUTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for handling requests for substitutions made after award of the Contract.
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 SECTION 01420 - REFERENCES specifies the applicability of industry standards to products specified.
 - 2. Division 1 SECTION 01300 - SUBMITTALS specifies requirements for submitting the Contractor's Construction Schedule and the Submittal Schedule.

1.3 DEFINITIONS

- A. Definitions in this article do not change or modify the meaning of other terms used in the contract documents.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction required by the contract documents proposed by the Contractor after award of the Contract are considered to be requests for substitutions. The following are not considered to be requests for substitutions:
 - 1. Substitutions requested during the bidding period, and accepted by addendum prior to award of the Contract, are included in the contract documents and are not subject to requirements specified in this section for substitutions.
 - 2. Revisions to the Contract Documents requested by the Owner or Architect.
 - 3. Specified options of products and construction methods included in the contract documents.
 - 4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

- A. Substitution Request Submittal: The Architect will consider requests for substitution if received within sixty (60) days after commencement of the work. Requests received more than sixty (60) days after commencement of the work may be considered or rejected at the discretion of the Architect.
1. Submit three (3) copies of each request for substitution for consideration. Submit requests in the form and according to procedures required for change-order proposals and include the Product Evaluation Questionnaire (CP-F116) found within these bid documents.
 2. Identify the product or the fabrication or installation method to be replaced in each request. Include related specification section and drawing numbers.
 3. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a. Coordination information, including a list of changes or modifications needed to other parts of the work and to construction performed by the Owner and separate contractors, that will be necessary to accommodate the proposed substitution.
 - b. A detailed comparison of significant qualities of the proposed substitution with those of the work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
 - c. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - d. Samples, where applicable or requested.
 - e. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - f. Cost information, including a proposal of the net change, if any in the Contract Sum.
 - g. The Contractor's certification that the proposed substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.

- h. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
- 4. Architect's Action: If necessary, the Architect will request additional information or documentation for evaluation within one (1) week of receipt of a request for substitution. The Architect will notify the Contractor of acceptance or rejection of the substitution within three (3) weeks of receipt of the request, or two (2) weeks of receipt of additional information or documentation, whichever is later. Acceptance will be in the form of a change order.
 - a. Use the product specified if the Architect cannot make a decision on the use of a proposed substitute within the time allocated.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Conditions: The Architect will receive and consider the Contractor's request for substitution when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests without action except to record noncompliance with these requirements.
 - 1. Extensive revisions to the contract documents are not required.
 - 2. Proposed changes are in keeping with the general intent of the contract documents.
 - 3. The request is timely, fully documented, and properly submitted.
 - 4. The specified product or method of construction cannot be provided within the Contract Time. The Architect will not consider the request if the product or method cannot be provided as a result of failure to pursue the work promptly or coordinate activities properly.
 - 5. The request is directly related to an "or-equal" clause or similar language in the contract documents.
 - 6. The requested substitution offers the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner, and similar considerations.

7. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
 8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials and where the Contractor certifies that the substitution will overcome the incompatibility.
 9. The specified product or method of construction cannot be coordinated with other materials and where the Contractor certifies that the proposed substitution can be coordinated.
 10. The specified product or method of construction cannot provide a warranty required by the contract documents and where the Contractor certifies that the proposed substitution provides the required warranty.
- B. The Contractor's submittal and the Architect's acceptance of shop drawings, product data, or samples for construction activities not complying with the contract documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01631

PRODUCT EVALUATION QUESTIONNAIRE

When proposing to substitute products for those specified or proposing a product to meet a specified performance standard, please furnish the following information to assist the Owner and Architect in evaluating the proposed product.

Bid/Quote #: _____

Project: _____

Specification Section: _____

Division: _____

Article #: _____

Name of Product: _____

Manufacturer's Name and Address: _____

-
1. Attach manufacturer's complete technical data and all information relating to limitations of the product information requiring further testing be deemed necessary by the Architect, the cost of the prescribed test shall be borne by the Contractor. Contractor shall send product samples upon request.
 2. Attach a list of projects where comparable use has been made of this product. List the name and location of the project, name of Owner or Architect, Engineer, General Contractor, and Subcontractor (if applicable), and the year installed.
 3. List any problems encountered with this product on projects where it has been used. What corrective measures were required?
 4. Provide a detailed comparison of the proposed substitute product with that of the specified product. Differences are to be highlighted and called out.
 5. Submit a detailed specification, conforming to the format of the technical specifications herein contained, tailored to this project for installation of this product.
 6. Will the services of an expert field representative be furnished to supervise the installation of this product?

7. Describe maintenance requirements for this product and availability of expert repair service, if needed.
8. Will the proposed substitution result in a change in Contract price or time of completion? If so, submit itemization of price change and explain effect on time of completion.
9. Will the use of the proposed product necessitate a change in the contract drawings or specifications?
10. Will the use of this product necessitate the payment of any license fees or royalties?
11. Furnish information establishing financial responsibility of the manufacturer. (Number of years in business, volume of business, Dunn & Bradstreet rating, etc.)
12. The Contractor certifies that he or she understands the conditions of use to which this product will be put, and he/she warrants this product as stipulated in the General Conditions.

Name of Contractor

Signature of Officer, Owner or Partner

Date

SECTION 01700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all bid documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for Contract closeout including, but not limited to, the following:
 - 1. Inspection Procedures
 - 2. Submittal of Project Record Document
 - 3. Submittal of Operation and Maintenance Manual
 - 4. Submittal of Warranties
 - 5. Final Cleaning
 - 6. Submittal of Regulated Systems [ACBM (Asbestos Containing Building Materials) & Lead] Closeout Documents
 - 7. Submittal of any Final Prevailing Wage Reports
- B. Closeout requirements for specific construction activities are included in the appropriate sections in Divisions 2 through 16.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
 - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show one hundred percent (100%) completion for the portion of the work claimed as substantially complete.
 - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the contract sum.

- b. If one hundred percent (100%) completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the work is not complete.
 2. Advise the Owner of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
 4. Obtain and submit releases enabling the Owner unrestricted use of the work and access to services and utilities.
 5. Include occupancy permits, operating certificates, and similar releases.
 6. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
 7. Submit all required training meeting minutes.
 8. Deliver tools, spare parts, extra stock, and similar items.
 9. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.
 10. Complete startup testing of systems and instruction of the Owner's Operation and Maintenance personnel.
 11. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.
 12. Complete final clean-up requirements, including touch up painting.
 13. Touch-up and otherwise repair and restore marred, exposed finishes.
- B. Inspection Procedures: On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
1. The Architect will repeat inspection when requested and assured that the work is substantially complete.
 2. Results of the completed inspection will form the basis of requirements for final acceptance.

3. The cost for any Architectural services for reinspection is the Contractor's sole responsibility.

1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
 3. Submit a certified copy of the CITY's, Architect's & Engineer's final inspection lists of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.
 4. Submit consent of surety to final payment.
 5. Submit a final liquidated damages settlement statement.
 6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 7. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the work.
- B. Reinspection Procedure: The Architect will reinspect the work upon receipt of notice that the work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Architect.
 1. Upon completion of reinspection, the Architect will prepare a Certificate of Final Acceptance. If the work is incomplete, the Architect will advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.
 2. If necessary, reinspection will be repeated.

1.5 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Architect's reference during normal working hours. Record documents, including O&M Manuals, as-built drawings and Owner Training procedures can be provided in electronic format, although there shall be 1 hard copy included, per Section G below.
- B. Record Drawings: Maintain a clean, undamaged set black line white prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies from the work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date. At the conclusion of the project, this record set of prints shall be submitted to the Architect for his/her review and comment. If the record set of prints is found to be complete and accurate, the prints shall be returned to the Contractor for submittal to the Owner with other closeout documents.

Record drawings must be reviewed and approved prior to each pay request by the Owner's representative. The drawings should reflect the work that has been accomplished during the time period of the pay request. Lack of record drawings approval at the time of submittal of a pay request will result in a potential delay in the processing of the pay request.

- 1. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the work.
 - 2. Mark new information that is important to the Owner but was not shown on Contract Drawings or Shop Drawings.
 - 3. Note related change order numbers where applicable.
 - 4. Organize record drawing sheets into manageable sets. Bind sets with durable paper cover sheets; print suitable titles, dates and other identification on the cover of each set.
 - 5. Provide record drawings using electronic media, Auto Cad compatible. Original media will be provided for Contractor to make required record drawing notations.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda. Include with the Project Manual, one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.

Record specifications must be reviewed and approved prior to each pay request by the Owner's representative. The specifications should reflect the work that has been accomplished during the time period of the pay request.

Lack of record specification approval at the time of submittal of a pay request will result in a potential delay in the processing of the pay request.

1. Mark these documents to show substantial variations in actual work performed in comparison with the text of the specifications and modifications.
 2. Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
 3. Note related record drawing information and product data.
 4. Upon completion of the work, submit an electronic record specification to the Architect for the Owner's records.
- D. Record Product Data: Maintain one (1) copy of each Product Data submittal. Note related Change Orders and markup of record drawings and specifications.
1. Mark these documents to show significant variations in actual work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
 2. Give particular attention to concealed products and portions of the work that cannot otherwise be readily discerned later by direct observation.
 3. Upon completion of markup, submit complete set of record Product Data to the Architect for the Owner's records.
- E. Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with the Architect and the Owner's personnel at the project site to determine which samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's sample storage area.
- F. Miscellaneous Record Submittals: Refer to other specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records, and place in good order. Identify miscellaneous records properly and bind or electronic file, ready for continued use and reference. Submit to the Architect for the Owner's records.
- G. Maintenance Manuals: Organize operation and maintenance data into suitable sets of manageable size. Bind 2 copies (1 hard copy / 1 electronic) properly indexed data in individual, heavy duty, 2-inch, 3-ring, vinyl covered binders, with pocket folders for folded sheet information. Mark appropriate

identification on front and spine of each binder. Include the following types of information:

1. Emergency instructions
2. Spare parts list
3. Copies of warranties
4. Wiring diagrams
5. Recommended turn around cycles
6. Inspection procedures
7. Shop Drawings and Product Data
8. Fixture lamping schedule
9. Any other applicable information_

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operation and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
 1. Maintenance manuals
 2. Record documents
 3. Spare parts and materials
 4. Tools
 5. Lubricants
 6. Fuels
 7. Identification systems
 8. Control sequences
 9. Hazards

10. Cleaning
 11. Warranties and bonds
 12. Maintenance agreements and similar continuing commitments
- B. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up
 2. Shut down
 3. Emergency operations
 4. Noise and vibration adjustments
 5. Safety procedures
 6. Economy and efficiency adjustments
 7. Effective energy utilization

END OF SECTION 01700

SECTION 01710 - FINAL CLEANING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including all contract documents and addendums associated with this project shall apply to this section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for final cleaning at Substantial Completion.
- B. Related Sections: The following sections contain requirements that relate to this Section:
 - 1. Division 1 SECTION 01500 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS specifies general cleanup and waste removal requirements.
 - 2. Division 1 SECTION 1700 – CONTRACT CLOSEOUT specifies general contract closeout requirements.
 - 3. Special cleaning requirements for specific construction elements are included in appropriate sections of Divisions 2 through 16.
- C. Multiple Prime Contracts: Each Prime Contractor is responsible for final cleaning their own work. The Contractor for General Construction is responsible for coordinating final cleaning of an area or piece of equipment where more than one (1) Prime Contractor is involved.
- D. Environmental Requirements: Conduct cleaning and waste disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and antipollution regulations.
 - 1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
 - 2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final-cleaning operations to all workspaces and any adjacent spaces affected by the work performed. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site.
 - 5. Remove snow and ice to provide safe access to the building.
 - 6. Clean exposed exterior and interior hard surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition. Wax any required flooring to the City standard.
 - 7. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - 8. Broom clean concrete floors in unoccupied spaces.
 - 9. Vacuum clean carpet and similar soft surfaces, removing debris and excess nap. Shampoo, if required.

10. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 11. Remove labels that are not permanent labels.
 12. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - a. Do not paint over “UL” and similar labels, including mechanical and electrical nameplates.
 13. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 14. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 15. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 16. Clean ducts, blowers, and coils if units were operated without filters during construction.
 17. Clean food-service equipment to a sanitary condition, ready and acceptable for its intended use.
 18. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs and defective and noisy starters in fluorescent and mercury vapor fixtures.
 19. Leave the Project clean and ready for occupancy.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests. Comply with regulations of local authorities. This section is only applicable for a new facility or an addition to an existing facility.
- D. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- E. Compliances: Comply with regulations of Authorities Having Jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner’s property. Do not discharge volatile,

harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

END OF SECTION 01710

SECTION 01 9113 – GENERAL COMMISSIONING REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED WORK

- A. All other sections in Division 21, 22, and 23.
- B. Specification Section 220800 – “General Commissioning Requirements”
- C. Specification Section 260800 – “Electrical Systems Commissioning
- D. Specification Section 230800 – “Mechanical Systems Commissioning”

1.2 RELATED DOCUMENTS

- A. Owners Project Requirements (OPR)
- B. Basis of Design (BOD)

1.3 COMMISSIONING AGENT OF RECORD

- A. Company: The Commissioning Agent contracted directly with City of Fernley will be_____. The contractors or any of their sub-contractors are not responsible to hire the commissioning agent for this project.
- B. Project Manager: _____ shall be the Project Manager throughout the entire commissioning process.

1.4 DESCRIPTION

- A. The purpose of the commissioning process is to provide the Owner/operator of the facility with a high level of assurance that the mechanical, Plumbing and associated electrical Systems have been installed in the prescribed manner, and operate within the performance guidelines set in the design intent. The Commissioning Authority shall provide the Owner with an unbiased, objective view of the systems installation, operation, and performance. This process is not to take away or reduce the responsibility of the design professionals or installing contractors to provide a finished product. Commissioning is intended to enhance the quality of system start-up and aid in the orderly transfer of systems to beneficial use by the owner. The Commissioning Authority will be a member of the construction team, cooperating and coordinating all commissioning activities with the design professionals, construction manager, contractors, subcontractors, manufacturers and equipment suppliers.

1.5 SCOPE

A. The General systems commissioning shall include a demonstration by the Contractor with the assistance of the Commissioning Authority (CxA) of each piece of equipment to comply with the Construction Documents (CD). The commissioning process shall demonstrate that each piece of equipment is performing and operating to the CDs.

B. Participants in General Systems Commissioning: Commissioning systems shall be conducted with representatives from the following entities as needed.

1. General Contractor
2. Mechanical Contractor
3. BMS or ATC Contractor
4. Factory Authorized Service Personnel for all major pieces of equipment. This is not a sales representative, but an authorized technician certified to work on the piece of equipment.
5. Water Treatment Contractor
6. Electrical Contractor
7. Test and Balance Contractor
8. Owner's Representative
9. Electrical Engineer
10. Mechanical Engineer
11. Architectural Team

C. Kickoff, Coordination and MEP Meetings

1. The CxA will attend the contractors sub meeting. Contractor shall schedule time at meetings for review of Issues log, upcoming installations, schedule, submittals, and commissioning plan review.
2. Other meetings such as the Commissioning Kick-Off Meeting, Update Meetings, and other Coordination Meetings shall be attended by those participants as indicated in the "Participants in General Systems Commissioning."

D. Submittal Reviews and Meetings

1. The CxA shall review each submittal in Division 22, 23, 26, and provide comment and review to the design team prior to return of submittal to contractor.
2. Submittal reviews are NOT an approval but a courtesy review to help validate products submitted is in general compliance with the construction documents.

E. Issues Log

1. An issues log shall be kept by the CxA. These issues will identify issues, defects, improper installations, and deficiencies of the installation and design. The issues log will have the issue, a potential resolution, the sub- contractor responsible, the date of the issue found and the CxA who found the issue.
2. The issues log shall be addressed weekly by the contractor; any unresolved items shall be included in the contractor punch list for completion.
3. When an item is completed and addressed by the contractor or sub- contractor responsible, the party responsible shall sign off and deliver to the CxA for review. The sign off shall include how the contractor addressed the issue and the date in which the contractor addressed the issue

F. Construction Checklist, Pre and Final Functional Testing Checklist, and Startup Checklist

1. The CxA shall develop construction checklist that will be executed by the CxA. The contractors and sub-contractors shall review the checklist for compliance with the ability of their individual systems. If the contractor or sub-contractors do not provide comments to the CxA then the CxA shall assume their procedures shall not harm nor deteriorate the individual systems. If a problem occurs during testing that causes a piece of equipment of system to malfunction, damage, or any other failure and the contractor or sub-contractor has not in writing opposed such test then the contractor or sub-contractor shall be liable for any damages and delays.
2. The contractor shall fill out checklist called Contractor Readiness checklist. These shall be delivered in the commissioning plan and shall be used to show the CxA that the contractor is ready for Final Function Testing.

3. Startup Sheets shall be delivered to the CxA. The contractor responsible for the piece of equipment is also responsible for delivering those startup sheets to the CxA.
4. Functional Testing shall be attended by the members as defined in "Participants in General Systems Commissioning."
5. Should any of the aforementioned requirements not be met on the date that the commissioning process commences and or if deficiencies are observed during the commissioning process the commissioning will be considered a failure and the deficiencies will be required to be remedied and then addressed in writing prior to requesting a date for re-commissioning. There will be no additional costs allowed to the Contractor for re-commissioning sessions as may be required to address issues that are found to be in non-compliance with the requirements of this specification.

G. Current Facility Requirements Document

1. The CxA shall prepare a document that contains the following pieces of information. This document shall include the following:
 - a. a sequence of operations for the building
 - b. the building occupancy schedule
 - c. equipment run-time schedules
 - d. set points for all General equipment
 - e. set lighting levels throughout the building
 - f. minimum outside air requirements
 - g. any changes in schedules or set points for different seasons, days of the week, and times of day
 - h. a systems narrative describing the mechanical systems and equipment
 - i. a preventative maintenance plan for building equipment described in the systems narrative
2. The document shall be delivered to the Owner by the CxA in a Microsoft Word (.doc or .docx) format (Document for CITY at end of project that UNVC will deliver.)

H. Systems Manual

1. The CxA shall prepare a document that contains the following pieces of information. This document shall include the following:
 - a. As-built sequence of operation
 - b. Original set points for all systems commissioned

- c. Recommended schedule for sensor recalibration
- d. Equipment operations and maintenance manuals
- e. Equipment preventive maintenance schedules
- f. Confirmation of completed training for the owner and occupants
(Document for CITY at end of project that UNVC will deliver.)

1.6 SYSTEMS TO BE COMMISSIONED

A. This list is not intended to be exhaustive. All division 22, 23, and 26 and any equipment, piping, balancing, controls, etc. that are defined in the entire cumulative sections of division 22, 23, and 26 will go through commissioning. The below list is a representative sample of items that are typically commissioned.

- 1. All electrical systems including power (emergency and normal), lighting controls, fire alarm, security, and audio/visual.
- 2. All building HVAC systems and controls
- 3. All building plumbing systems

1.7 COORDINATION

- A. The Commissioning authority shall receive a copy of all construction documents, addenda, change orders, and appropriate approved submittals and shop drawings directly from the Contractor. We only use this documentation for our review, but not as a method of approval.
- B. The Commissioning Authority shall disseminate written information and documents to all responsible parties relative to the nature and extent of the communication.
- C. The Commissioning Authority is primarily responsible to the Owner, and as such, shall regularly appraise the Architect, the Contractor, and the Owner of progress, pending problems and/or disputes, and shall provide regular status reports on progress with each system. Any potential change in the contractual and/or financial obligations of the owner (credits, change orders, schedule changes, etc.) shall be identified and quantified as soon as possible.
- D. The Commissioning Authority shall coordinate the schedule of commissioning activities with the construction schedule. It is possible that some procedures will be completed before the entire Mechanical system is completed.

1.8 SCHEDULE

- A. Final Commissioning shall not commence on the individual pieces of equipment, Test and Balance, Controls, and other mechanical systems until the Contractor Readiness Forms are delivered to the CxA.
- B. Pre-Functional Commissioning shall commence during the progress of the project. Contractor Readiness checklist do not typically have to be filled out for the CxA to check out these systems. However, the contractor is responsible to inform and schedule the CxA to do Pre-Functional Checks.
- C. Contractor schedules and scheduling is the responsibility of the Contractor. The Commissioning Authority shall provide commissioning scheduling information to the contractor for review and planning activities.
- D. Individual dates are defined in the individual commissioning specifications for each spec section as defined in the other commissioning specifications.

1.9 MISCELLANEOUS CONTRACTOR RESPONSIBILITIES

- A. Means and Methods: The contractor is solely responsible for the means and methods of construction. While the CxA shall assist in construction the final responsibility rest solely on the General and Installation Contractor.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 COMMISSIONING KICKOFF MEETING

- A. The CxA shall facilitate a Commissioning Kickoff Meeting after all Mechanical, Electrical, and General subcontractors are under contract with the General Contractor. The CxA shall invite the Architect, Engineers, and Owners Representatives to the meeting.
- B. The General Contractor shall ensure that the following individuals are in attendance:
 - 1. The Mechanical Foreman and Project Manager
 - 2. The General Foreman and Project Manager
 - 3. The Controls Foreman and Project Manager

4. The Test and Balance Project Manager
5. The Electrical Foreman and Project Manager
6. The Fire Protection Foreman and Project Manager
7. The General Contractor Project Engineer, Superintendent, and Project Manager

C. The CxA shall keep meeting minutes and distribute to the individuals present.

3.2 DISTRIBUTION LIST

- A. The distribution list shall be developed during the Commissioning Kickoff Meeting. This distribution list shall be used for all distribution of commissioning activities. While every effort shall be made to distribute all pertinent information to the subcontractors by the CxA, the sole responsibility for sub-contractors to receive information rest on the General Contractor.

3.3 COMMISSIONING PLAN

- A. The Commissioning Plan shall be developed by the CxA and delivered at the conclusion of the submittal process.
- B. The Commissioning Plan will have the CxA Procedural Standards for testing, the PFAT checklist, the FAT checklist and the Contractor Readiness checklist.
- C. The sub-contractors and contractors are responsible for reviewing the above checklist and provide comments to the CxA within 30 calendar days of receiving the commissioning plan. During this comment period, the comments must be received in writing and the CxA will work with the individual contractors and sub-contractors to ensure the safety of systems. After the thirty (30) day period for comment any additional comments received shall be reviewed by the CxA, however; the subcontractor shall be liable for any cost associated with this review and any delays.

3.4 SUBMITTAL REVIEWS AND SUBMITTAL MEETINGS

- A. The CxA shall review all mechanical submittals. It is the responsibility of the Architect to ensure the contractor receives the CxA reviews. The Architect is responsible for delivering the submittals to the CxA, and to receive and incorporate comments prior to submittal return to contractor.

- B. The subcontractor, supplier and manufacturer are responsible to submit with initial submittals a line-by-line submittal compliance document. The compliance document will follow the specification that the submittal is in reference too. The compliance document will have one of the following for each paragraph of the specification: Comply, Exception, or Unable to Comply. With each Exception and Unable to comply, the compliance document will have a detailed explanation.

3.5 BUILDING INFORMATION MODELING (BIM) REVIEWS

- A. The CxA shall review the BIM models at 90% completion for access issues. The file shall be delivered to the CxA in a NavisWorks format (.nwd).
- B. The contractor may split the review up by floors or buildings. Partial models shall not be reviewed by the CxA until the entire floor is completed to 90%.
- C. The CxA shall deliver a floor plan with markups on areas of access concern.
- D. BIM Model shall include the following:
 - 1. All duct work and air handling equipment. Ductwork shall show flanges. Model shall show insulation around duct work.
 - 2. All mechanical equipment.
 - 3. All hangers including unistrut, clevis, all-thread and strap material.
 - 4. Duct fittings including HETO and flex and diffusers/grilles.
 - 5. Electrical work and controls conduit cumulating 1.5" or larger.
 - 6. Mechanical access zones
 - 7. Fire/Smoke or fire dampers including access zones.
 - 8. Mechanical piping larger than ¾".
 - 9. Refrigerant lines, no matter the size.
 - 10. Cable tray
 - 11. Electrical Equipment
 - 12. All hangers and supports for electrical equipment.

13. All light fixtures
14. All power feeds including conduit or bus bars.
15. Outlets and switches where location is a priority for architectural.
16. Electrical equipment access zones.
17. All occupancy sensors, daylight sensors, exit signs, fire alarm strobes and horns, cameras, speakers, and AV equipment located in ceiling grid.
18. Natural gas lines larger than ½"
19. Plumbing lines larger than ½"
20. Insulation shall be shown with the correct sizing on plumbing lines.
21. All plumbing valves and cleanouts.
22. Access zones to plumbing valves and cleanouts.
23. Fire protection piping no matter the size.
24. Fire protection drops
25. Fire protection equipment
26. The entire steel structure including beams, columns, supports, braces, bent plate, supports or secondary supports.
27. All catwalks and their support systems.
28. All concrete structures include walls, columns or beams.
29. All access doors in the architectural ceiling for access to all electrical, plumbing and mechanical systems.
30. Ceiling grid
31. All walls windows and doors.
32. Lab hoods
33. Soda Machine Lines

34. Kitchen equipment and hoods

3.6 COORDINATION MEETINGS (MEP MEETINGS)

- A. The CxA will attend the contractors MEP meeting at a minimum every other week.
- B. The purpose of these meetings for UNVC to attend is to assist with coordination of installation, commissioning, and testing activities. These meetings will be conducted by the contractor.

3.7 CONSTRUCTION OBSERVATION AND FIRST INSTALLS

- A. The CxA shall observe construction activities throughout the construction of the project. The contractors shall be available during these observations for information as needed. An issues log as outlined in Part 1 shall be kept by the CxA.
- B. Mockups or first installations of individual pieces of equipment need to be installed in their location where applicable. First Installs will be required of the contractor and sub-contractor as defined in the individual commissioning specifications.
- C. Contractor shall coordinate and not prohibit observations and first installs. Sub-contractors, owner's representatives and engineers shall review the first installs for compliance.

3.8 CONTRACTOR READINESS CHECKLIST

- A. Contractor Readiness Checklist (CRC) shall be delivered by the CxA to the contracting team for the contracting team to fill out. The purpose of the CRCs to inform the CxA of the readiness of the contractor to begin Functional Testing on the mechanical system.
- B. The CxA shall not begin Functional Testing of the system or any equipment until the CRC are received. While some systems can be tested without a complete system the CxA shall have the final say on which can and cannot begin functional testing based on the completeness of the project. A single CRC can be completed per type of equipment. (i.e., if there are 80 Heat Pumps and all of them are ready then a single sheet can be filled out for all 80 Heat Pumps)
- C. If the contractor delivers the CRC and the CxA finds, the system is not functional then the contractor shall be liable for cost incurred by the CxA.

3.9 PRE-FUNCTIONAL CHECKLIST

- A. The Pre-Functional Checklist shall be developed by the CxA and delivered in the commissioning plan.
- B. The Pre-Functional Checklist shall be reviewed by the contractors and subcontractors and shall be executed by the CxA.
- C. The CxA shall review 100% of all General systems installations.

3.10 FUNCTIONAL PERFORMANCE CHECKLIST

- A. The CxA shall execute Functional Performance Checks. Suppliers, BMS or ATC Contractor, Mechanical Contractors, Electrical Contractors, Test and Balance Contractor, and General Contractors shall be available at the request of the CxA.
- B. Commissioning Authority shall develop and document the commissioning procedures to be used this will be delivered to the contractor in the commissioning plan and is called the Procedural Standards. Include a performance checklist and performance test data sheets for each system based on actual system configuration. These procedures shall be reviewed by the appropriate contractors and sub-contractors for technical depth, clarity of documentation and completeness. Emphasis shall be placed on testing procedures that shall determine actual system performance and compliance with the design intent.
- C. The Commissioning Authority shall determine the acceptance procedures for each system within General divisions as required. The acceptance procedures shall incorporate the commissioning standards and successful testing results as referred to throughout General specifications.
- D. The appropriate contractor and vendor(s) shall be informed of what tests are to be performed and the expected results. Whereas some test results and interpretations may not become evident until the actual tests are performed, all parties shall have a reasonable understanding of the requirements. The Commissioning Plan shall address those requirements and be distributed to all parties involved with that particular system.
- E. Acceptance procedures shall confirm the performance of systems to the extent of the design intent. When a system is accepted, the Owner shall be assured that the system is complete, works as intended, is correctly documented, and operator training has been performed

- F. During the functional performance testing, the BMS or ATC contractor shall be in attendance to setup the CxA on the controls system and be in attendance throughout the Sequence of Operation checks.
- G. The CxA shall review 100% and test 100% of all mechanical, electrical and plumbing systems.

3.11 TRENDING

- A. Trending points will be outlined in the Procedural Standards as delivered by the CxA in the commissioning plan.
- B. Following substantial completion and starting with normal building occupancy and use, a minimum Four (4) weeks of “Clean” trending (no mechanical, software, control loop or Building Management System “BMS” failures) shall be provided on “Any” or “All” BMS systems & points as directed by the CxA. Trends shall be coincident at 15-minute intervals with a cache able to handle four (4) weeks of trending on a rollover basis. The trending shall also be setup to a COV in conjunction with the 15-minute requirement if possible.
- C. The CxA will review the trends after the four weeks of clean trending.

3.12 OPERATION AND MAINTENANCE MANUALS

- A. The contractor responsible for Mechanical O&Ms shall deliver electronic copies of those O&M to the CxA at 75% billable completion of installed mechanical systems. The O&M manuals shall include installation requirements and maintenance requirements.
- B. The final O&M Manual shall be reviewed by the CxA before delivery to the Owner. Any deficiencies shall be noted, and the contractor shall remedy before final delivery.
- C. The final O&M must be delivered to the Owner before training shall commence.

3.13 CURRENT FACILITY REQUIREMENTS AND OPERATION AND MAINTENANCE PLAN

- A. The contractors shall support the CxA when they are gathering information for the following.

- A. Sequences of operation for the building
- B. Building occupancy schedule
- C. Equipment run-time schedules
- D. Set points for all General equipment
- E. Lighting levels throughout the building
- F. Minimum outside air requirements
- G. Changes in schedules or set points for different seasons, days of the week, and times of day
- H. Systems narrative describing the mechanical and electrical systems and equipment
- I. Preventive maintenance plan for building equipment described in the systems narrative
- J. CxA program that includes periodic CxA requirements, ongoing CxA tasks, and continuous tasks for critical facilities (UNVC will make this document, but it requires the contractor to aid in getting us any information as needed)

3.14 SYSTEMS MANUAL

- A. The contractors shall provide the following in an editable Microsoft Word Format. (.doc or .docx) in a narrative format for use by the CxA to provide the final Systems Manual. The submittals shall be compiled by section in a .pdf format
 - 1. Construction record documents and specifications
 - 2. Approved submittals
 - 3. As-built drawings
 - 4. As-built sequence of operation
 - 5. Equipment operations and maintenance manuals
 - 6. Equipment preventive maintenance schedules

7. Confirmation of completed training for the owner and occupants

3.15 TRAINING

- A. The CxA shall be invited to all General training sessions by the General Contractor.
- B. The training shall not commence until the system has been commissioned and proven ready for training.
- C. The contractor shall schedule and coordinate training sessions for the Owner's staff for each system. Training may be in a classroom setting with the appropriate schematics, handouts, and visual/audio training aids on-site with equipment.
- D. The Commissioning Authority shall review agendas and training schedules, which shall be submitted four weeks before training.
- E. The agenda shall include but not limited to operational set points, runtime schedules, general operation and maintenance requirements, time and location for the training.
- F. The training program shall include the following:
 - 1. Emergency instructions and procedures
 - 2. Operation instructions and procedures
 - 3. Troubleshooting procedures
 - 4. Maintenance and inspection procedures
 - 5. Repair procedures
 - 6. Upkeep of the systems manual and associated maintenance documentation logs
- G. Evaluations shall be done of the training system by the attendees. The evaluations shall reflect ASHRAE 0-2013-Appendix P Evaluation Form.
 - 1. If the Evaluations from the training average rises above 2 (based on 1 being very well trained and 5 not at all trained) then the training shall recommence. All cost for the re-training shall be solely born by the contractor training. Including any reimbursement to the Owner for the Czar,

the Owners Operational Staff, and any other cost born by the owner for failure to comply with requirements.

- H. The contractor shall provide a schedule for training times and dates. The schedule shall include location, who is training, trainer's contact information,
- I. The appropriate installing contractors shall provide training on all the major systems per specifications, including peculiarities specific to this project.
- J. The equipment vendors shall provide training on the specifics of each major equipment item including philosophy, troubleshooting, and repair techniques.
- K. The automatic control vendor shall provide training on the control system per their specification section.
- L. The contractor shall furnish a final video DVD set, above the owner's requirements as defined elsewhere, to the CxA for their use and ownership and review. Included in those DVDs shall be the sign-in sheet for each training.

3.16 RECORD DRAWINGS OR REDLINES

- A. The CxA shall review the "Redlines" or "Record Drawings" on a bi-weekly basis.
- B. Record Drawings or Redlines shall be kept in a printed format beyond any BIM modeling. If record drawings are being kept on BIM a printed version on a typical 2D flat sheet of paper large enough to read shall be kept as well in the General Contractors trailer.
- C. The following requirements shall be met for Redlines or Record Drawings:
 - 1. Underground: All underground piping no matter the size shall be shown with dimensions from walls (not gridlines) and elevations of the pipe at every ninety or y fitting and marked at every 20 feet on the drawings.
 - 2. Above Ground Concealed: All above ground piping no matter the size concealed in hard lid or behind walls shall be dimensioned from walls.
 - 3. Above Ground Accessible or Unconcealed: All above ground piping, no matter the size, shall be documented in the redlines. General location shall be sufficient as long as the general location is in the same area not separated by walls.

D. The final redlines shall be reviewed by the CxA before delivery to the Architect.

3.17 WARRANTY PERIOD AND CONTINUOUS COMMISSIONING

A. The CxA shall provide Continuous Commissioning during the One Year Warranty Period after substantial completion. During this time, the CxA shall adjust settings on the BMS for optimization of the system, shall find issues with the system, and shall report issues to the contractors.

B. The contractor and sub-contractors shall resolve issues immediately.

3.18 REPEATED WORK, TESTING, AND REVIEWS

A. Contractor shall, at no additional cost to the Owner, repeat the complete verification test procedure for each test for which acceptable results are not achieved. Repeat tests until acceptable results are achieved.

B. Contractor shall compensate the Owner for costs incurred as the result of tests review or inspection repeated. This includes the costs for the Commissioning Authority, Design Architect, Design Engineers, and Owner--s personnel for billed costs (including travel expenses) for the extraordinary participation of the Owners Representative, Architect, Commissioning Authority or owner's staff.

END OF SECTION 019113

**U.S. DEPARTMENT OF THE TREASURY CORONAVIRUS LOCAL
FISCAL RECOVERY FUND AWARD TERMS AND CONDITIONS**

1. Use of Funds:
 - a. Recipient understands and agrees that the funds disbursed under this award may only be used in compliance with section 603(c) of the Social Security Act (the Act), Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing.
 - b. Recipient will determine prior to engaging in any project using this assistance that it has the institutional, managerial, and financial capability to ensure proper planning, management, and completion of such project.
2. Period of Performance: The period of performance for this award begins on the date hereof and ends on _____. As set forth in Treasury's implementing regulations, Recipient may use award funds to cover eligible costs incurred during the period that begins on _____, and ends on _____.
3. Reporting: Recipient agrees to comply with any reporting obligations established by Treasury as they relate to this award.
4. Maintenance of and Access to Records:
 - a. Recipient shall maintain records and financial documents sufficient to evidence compliance with section 603(c) of the Act, Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing.
 - b. The Treasury Office of Inspector General and the Government Accountability Office, or their authorized representatives, shall have the right of access to records (electronic and otherwise) of Recipient in order to conduct audits or other investigations.
 - c. Records shall be maintained by Recipient for a period of five (5) years after all funds have been expended or returned to Treasury, whichever is later.
5. Pre-award Costs: Pre-award costs, as defined in 2 C.F.R. §200.458, may not be paid with funding from this award.
6. Administrative Costs: Recipient may use funds provided under this award to cover both direct and indirect costs.
7. Cost Sharing: Cost sharing or matching funds are not required to be provided by Recipient.
8. Conflicts of Interest: Recipient understands and agrees it must maintain a conflict of interest policy consistent with 2 C.F.R. §200.318(e) and that such conflict of interest policy is applicable to each activity funded under this award. Recipient and subrecipients must disclose in writing to Treasury or the pass-through entity, as appropriate, any potential conflict of interest affecting the awarded funds in accordance with 2 C.F.R. § 200.112.

9. Compliance with Applicable Law and Regulations:

- a. Recipient agrees to comply with the requirements of section 603 of the Act, regulations adopted by Treasury pursuant to 603(f) of the Act, and guidance issued by Treasury regarding the foregoing. Recipient also agrees to comply with all other applicable federal statutes, regulations, and executive orders, and Recipient shall provide for such compliance by other parties in any agreements it enters into with other parties relating to this award.
- b. Federal regulations applicable to this award including, without limitation, the following:
 - i. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, other than such provisions as Treasury may determine are inapplicable to this Award and subject to such exceptions as may be otherwise provided by Treasury. Subpart F – Audit Requirements of the Uniform Guidance, implementing the Single Audit Act, shall apply to this award.
 - ii. Universal Identifier and System for Award Management (SAM) 2 C.F.R. Part 25, pursuant to which the award term set forth in Appendix A to 1 C.F.R. Part 25 is hereby incorporated by reference.
 - iii. Reporting Subaward and Executive Compensation Information, 2 C.F.R. Part 170, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 170 is hereby incorporated by reference.
 - iv. OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement), 2 C.F.R. Part 180, including the requirement to include a term or condition in all lower tier covered transactions (contracts and subcontracts described in 2 C.F.R. Part 180, subpart B) that the award is subject to 2 C.F.R. Part 180 and Treasury's implementing regulation at 31 C.F.R. Part 19.
 - v. Recipient Integrity and Performance Matters, pursuant to which the award term set forth in 2 C.F.R. Part 200, Appendix XII to Part 200 is hereby incorporated by reference.
 - vi. Governmentwide Requirements for Drug-Free Workplace, 31 C.F.R. Part 21.
 - vii. New Restrictions on Lobbying, 31 C.F.R. Part 21
 - viii. Uniform relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. §§4601-4655) and implementing regulations.
 - ix. Generally applicable federal environmental laws and regulations.
- c. Statutes and regulations prohibiting discrimination applicable to this award include, without limitation, the following:

- i. Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§2000D *et seq.*) and Treasury's implementing regulations at 31 C.F.R. Part 22, which prohibit discrimination on the basis of race, color, or national origin under programs or activities receiving federal financial assistance;
 - ii. The Fair Housing Act, Title VII of the Civil Rights Act of 1963 (42 U.S.C. §§3601 *et seq.*), which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability;
 - iii. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance;
 - iv. The Age Discrimination act of 1975, as amended (42 U.S.C. §§ 6101 *et. Seq.*), and Treasury's implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in progress or activities receiving federal financial assistance; and
 - v. Title II of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§12101 *et. seq.*), which prohibits discrimination on the basis of disability under programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.
10. Remedial Actions. In the event of Recipient's noncompliance with section 603 of the Act, other applicable laws, Treasury's implementing regulations, guidance, or any reporting or other program requirements, Treasury may impose additional conditions on the receipt of a subsequent tranche of future award funds, if any, or take other available remedies as set forth in 2 C.F.R. § 200.339. In the case of a violation of section 603(c) of the Act regarding the use of funds, previous payments shall be subject to recoupment as provided in section 603(e) of the Act.
11. Hatch Act. Recipient agrees to comply, as applicable, with requirements of the Hatch Act (5 U.S.C. §§ 1501-1508 AND 7324-7328), which limit certain political activities of State or local government employees whose principal employment is in connection with an activity financed in whole or in part by this federal assistance.
12. False Statements. Recipient understands that making false statements or claims in connection with this award is a violation of federal law and may result in criminal, civil, or administrative sanctions, including fines, imprisonment, civil damages and penalties, debarment from participating in federal awards or contracts, and/or any other remedy available by law.
13. Publications. Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [name of Recipient] by the U.S. Department of the Treasury."
14. Debts Owed the Federal Government.
- a. Any funds paid to Recipient (1) in excess of the amount to which Recipient is finally determined to be authorized to retain under the terms of this award; (2) that are determined by the Treasury Office of Inspector General to have been misused; or (3) that are determined by Treasury to be subject to a repayment obligation pursuant to section 603(e) of the Act and have not been repaid by Recipient shall constitute a debt to the federal government.
 - b. Any debts determined to be owed the federal government must be paid promptly by Recipient. A debt

is delinquent if it has not been paid by the date specified in Treasury's initial written demand for payment, unless other satisfactory arrangements have been made or if the Recipient knowingly or improperly retains funds that are a debt as defined in paragraph 14(a). Treasury will take any actions available to it to collect such a debt.

15. Disclaimer.

- a. The United States expressly disclaims any and all responsibility or liability to Recipient or third persons for the actions of Recipient or third persons resulting in death, bodily injury, property damages, or any other losses resulting in any way from the performance of this award or any other losses resulting in any way from the performance of this award or any contract, or subcontract under this award.
- b. The acceptance of this award by Recipient does not in any way establish an agency relationship between the United States and Recipient.

16. Protections for Whistleblowers.

- a. In accordance with 41 U.S.C. §4712, Recipient may not discharge, demote, or otherwise discriminate against an employee in reprisal for disclosing to any of the list of persons or entities provided below, information that the employee reasonable believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contact (including the competition for or negotiation of a contract) or grant.
- b. The list of persons and entities referenced in the paragraph above includes the following:
 - i. A member of Congress or a representative of a committee of Congress
 - ii. An Inspector General;
 - iii. The Government Accountability Office;
 - iv. A Treasury employee responsible for contact or grant oversight or management;
 - v. An authorized official of the Department of Justice or other law enforcement agency;
 - vi. A court of grand jury; or
 - vii. A management official or other employee of Recipient, contractor, or subcontractor who has the responsibility to investigate, discover, or address misconduct.
- c. Recipient shall inform its employees in writing of the rights and remedies provided under this section, in the predominant native language of the workforce.

17. Increasing Seat Belt Use in the United States. Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Recipient should encourage its contractors to adopt and enforce on the job seat belt policies and programs for their employees when operating company-owned, rented or personally owned vehicles.

18. Reducing Text Messaging While Driving. Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Recipient should encourage its employees, subrecipients, and contractors to adopt and enforce policies that

ban text messaging while driving, and Recipient should establish workplace safety policies to decrease accidents caused by distracted drivers.