



N E V A D A

AGENDA
Regular Meeting
Planning Commission

Wednesday, August 13, 2025 • 5:00 PM

Members

Jenni McCullar - Chairwoman
Angela Lewis - Vice Chair
Barry Williams Sr. - Commissioner
Cody Wagner - Commissioner
Jacob VanderHeiden - Commissioner
Robert Flores - Commissioner
Tessa Garvin - Commissioner
Julianne Holt - Alternate

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 Planning Commission may submit public comment through the [online public comment form](#), 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 the Planning Commission 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 commission 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: The Planning Commission 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 Planning Commission 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. Pledge of Allegiance**
- 1.2. Roll Call**
- 1.3. Public Forum**
- 1.4. (For Possible Action) Approval of Agenda**
- 1.5. (Possible Action) Approval of Minutes**

2. PRESENTATIONS

- 2.1. (For Possible Action) Presentation by Chris Molina regarding the management of SF6 Zoning and its consequences.**

3. STAFF REPORTS

- 3.1. (For Possible Action) Consideration and possible action regarding a Waiver application (WVR25002) submitted by Diane Anderson and Lisa Young for a site located at 80 Main Street (APN: 020-021-03) in a C2 (Commercial) zoning district. The Waiver application is to request the removal of curb, gutter, sidewalk, parking, and landscaping requirements.**

4. GENERAL BUSINESS

- 4.1. (For Possible Action) Discussion and possible action to appoint one member of the Planning Commission to sit on the Technical Advisory Group working on the three Corridor Studies currently underway.**

5. PUBLIC HEARINGS

A. DISCUSSION WITH PLANNING COMMISSION & STAFF B. PUBLIC INPUT C. ADDITIONAL DISCUSSION WITH PLANNING COMMISSION & STAFF D. COUNCIL ACTION OR DIRECTION TO STAFF

- 5.1. (For Possible Action) Discussion and possible action to recommend approval of Bill #362 (associated with CA25002) to amend Title 32, Chapter 9, Section 090 (Landscaping and Screening) of the City of Fernley Development Code to update the location and design requirements for trash enclosures and update the screening requirements for mechanical and electrical equipment and facilities.**
- 5.2. (For Possible Action) Discussion and possible action regarding concurrent requests for a Zoning Map Amendment (ZMA25001) and Tentative Subdivision Map (TSM25001) from Wood Rodgers, Inc. on behalf of Genica Clover Ranch, LLC, rezoning six (6) parcels containing approximately 24.72 acres from RR½ (Rural Residential, ½-acre minimum) and RR5 (Rural Residential, 5-acre minimum) to SF6 (Single Family, 6000-square foot minimum) and creating a 105-lot single-family residential subdivision generally located between Farm District Road to the south, Langdon Street to the north, Winnie Lane to the west, and Nevada Pacific Boulevard to the east (APNs 021-331-15, -19, -20, -22, -29, and -38).**
- 5.3. (For Possible Action) Discussion and possible action regarding a request from the Planning Department to amend the home occupation use standards contained in Fernley Municipal Code, Title 32, Chapter 7, Section 200 (Bill 364, CA25003).**

6. CHAIR AND COMMISSION ITEMS

(SUMMARY OR ACTIVITY REPORTS ON PLANNING ISSUES, ACTIVITIES OR ORGANIZATIONS IN WHICH INDIVIDUAL MEMBERS MAY BE INVOLVED. THIS ITEM IS TO PROVIDE GENERAL INFORMATION TO THE COMMISSION AND PUBLIC. NO DISCUSSION SHALL TAKE PLACE AND NO ACTION WILL BE TAKEN.)

7. PLANNING DIRECTOR ITEMS

(ACTIVITY SUMMARY OR UPDATES ON PROJECTS THAT HAVE BEEN PREVIOUSLY REVIEWED BY THE PLANNING COMMISSION. THIS ITEM IS TO PROVIDE GENERAL INFORMATION TO THE COMMISSION AND PUBLIC. NO DISCUSSION SHALL TAKE PLACE AND NO ACTION WILL BE TAKEN.)

7.1. Update on City Council actions from July 16, 2025 and August 6, 2025.

7.2. General Planning Department updates and announcements

8. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

9. PUBLIC FORUM

10. ADJOURNMENT

Next Meeting: September 10th @ 5pm

**MINUTES OF THE
FERNLEY PLANNING COMMISSION MEETING
JULY 9, 2025**

Vice-Chair Angela Lewis called the meeting to order at 5:00 pm.

1. INTRODUCTORY ITEMS

1.1. Pledge of Allegiance

1.2. Roll Call

Present: Vice-Chair Angela Lewis, Commissioner Cody Wagner, Commissioner Jacob VanderHeiden, Commissioner Robert Flores, Commissioner Tessa Garvin, Commissioner Julianne Holt, City Attorney Aaron Mouritsen, Deputy City Manager Lydia Altick, Senior Planner Alisa Johansson, Planning Director Michele Rambo, Deputy City Clerk Brenda Gosser, Administrative Specialist I Sandy Harris. **Absent:** Chair Jenni McCullar, Commissioner Barry Williams.

1.3. Public Forum

None at this time

1.4. (For Possible Action) Approval of Agenda

Motion: I MOVE TO APPROVE TONIGHT'S AGENDA AS PRESENTED. **Action:** Approved, **Moved by:** Commissioner Cody Wagner, **Seconded by:** Commissioner Robert Flores. **Vote:** Passed, **Summary:** Yes 6. **Yes:** Vice-Chair Lewis, Commissioner Wagner, Commissioner VanderHeiden, Commissioner Flores, Commissioner Garvin, Planning Commissioner Holt.

1.5. (Possible Action) Approval of Minutes

Motion: I MOVE TO APPROVE LAST MONTHS MINUTES. **Action:** Approved, **Moved by:** Commissioner Robert Flores, **Seconded by:** Commissioner Jake VanderHeiden. **Vote:** Passed, **Summary:** Yes 6. **Yes:** Vice-Chair Lewis, Commissioner Wagner, Commissioner VanderHeiden, Commissioner Flores, Commissioner Garvin, Planning Commissioner Holt.

Chair Jenni McCullar joined the meeting via Zoom at 5:03 pm.

2. STAFF REPORTS

2.1. (For Possible Action) – TSM20004 – Tentative Subdivision Map Extension of Time Consideration of and possible action on an extension of time request for not more than two (2) years from Phelps Engineering on behalf of Vertex Fund 1 LLC to record a final subdivision map for the project known as “Fernwood Village,” a 54-lot subdivision containing approximately 7.08 acres generally located between Eaglewood Drive to the north, Granada Street to the east, Tanglewood Drive to the south, and Vine Street to the west (APN 020-516-06).

Alisa Johnansoon, Senior Planner, presented. The purpose of this extension of time request is to allow the developer an additional 2 years to record their final subdivision map. The tentative subdivision map for this project was approved by the city council on May 19, 2021. The tentative subdivision map, therefore, expires on May 19, 2025. A timely request for an extension of time was received on April 29, 2025, and we do stop the clock when that timely extension of time request is received to allow us time for processing. If the extension of time request is granted tonight, the applicant must be ready to record

the final map for the Fernwood Village subdivision by May 19, 2027. That does mean that all public improvements would need to be installed by that time as well.

Commissioner Robert Flores inquired about the transferability and partialization of land to somebody else.

Alisa Johnansson, Senior Planner, stated they do not have to start all over again. The segregation of land follows the land.

Commissioner Cody Wagner asked for clarification on tonight's item compared to last meeting.

Alisa Johnansson, Senior Planner, stated last month that they amended the conditions of approval to remove the erroneous prohibition on extensions that was present in condition number 3. The council approved that, we waited for the required appeal period, issued a revised Final Action letter and revised conditions of approval, and that now allows us to move forward with tonight's action, which is the extension of time request.

Commissioner Julianne Holt asked what it takes to get the final map approval, what have they done in the last 2 years, and what's expected to happen over the next 2 years?

Alisa Johnansson, Senior Planner, stated that it's been 4 years since the tentative subdivision map was approved, and during that time the applicants have been working to meet the conditions of approval. The improvement permit is still in review with our Engineering Department, and one of the holdups for that permit review process has been vacation of a drain line easement that is owned by TCID. They are behind with this project in terms of moving all of those things forward, because the permit review for the public infrastructure has not been able to move forward due to that drain line easement.

Motion: CONSIDERING THE INFORMATION PROVIDED IN THE APPLICANTS.\ EXTENSION OF TIME LETTER AND THE STAFF REPORT, I MOVE TO APPROVE A TENTATIVE SUBDIVISION MAP EXTENSION REQUEST, NOT TO EXCEED 2 YEARS, FOR FERNWOOD VILLAGE ASSOCIATED WITH TSM2004. **Action:** Approved, **Moved by:** Commissioner Cody Wagner, **Seconded by:** Commissioner Robert Flores. **Vote:** Passed, **Summary:** Yes 7. **Yes:** Chair McCullar, Vice-Chair Lewis, Commissioner Wagner, Commissioner VanderHeiden, Commissioner Flores, Commissioner Garvin, Commissioner Holt.

2.2. Presentation from the Deputy City Manager providing an update on the status of the Lands Bills impacting the City of Fernley.

Lydia Altick, Deputy City Manager, presented an update on the status of the Lands Bills and how the properties obtained from the Federal Government will be used or disposed of. She also explained the Cultural Resource Inventory Report, the Baseline Biological Report, the Mineral Potential Report, and the Plan of Development, which is a concept plan that's provided to the BLM so that they can see that it fits within the recreation and public purposes definition.

Commissioner Robert Flores asked what happens if the city decides to sell parcels or use them for commercial purposes.

Lydia Altick, Deputy City Manager, stated that the city would have to pay BLM the fair market price.

Commissioner Cody Wagner asked if the Federal bill had anything to do with the City of Fernley or were this land already available for conveyance previously and there's no effect on Fernley from that recent proposal. He also asked about the money for all the studies being done for the conveyance.

Lydia Altick, Deputy City Manager, stated that they do include some of the Fernley lands that started out as the 2023 Federal Lands Bill, and those were lands that were pulled out of the Reconciliation Bill because it didn't fit the criteria. Everything north has already been written into law and everything south is still up for discussion. Wood Rogers was hired to do all our environmental work on those, and whether they are bought by the city under the Reversionary Act Interest, they still have to have environmental compliance. We haven't done anything concrete, but they have been looking for grant funding.

3. PUBLIC HEARINGS

3.1. (For Possible Action) Discussion and possible action to recommend approval of Bill #361 (associated with CA25001) to revise Section 32.03.040(b) (Comprehensive Master Plan Amendment) of the City of Fernley Development Code to better reflect the requirements found in NRS 278.210.

Michele Rambo, Planning Director, stated during the processing of a recent Master Plan Amendment, it was discovered that the Development Code section outlining the process for Master Plan Amendments appeared to be contradictory to NRS. Therefore, this amendment to the Development Code has been prepared to clarify the process and ensure compliance with NRS 278.210.

Motion: I MOVE TO RECOMMEND THAT THE CITY COUNCIL APPROVE BILL #361 ASSOCIATED WITH CA25001 AS PRESENTED BY STAFF. **Action:** Approved, **Moved by:** Commissioner Cody Wagner, **Seconded by:** Commissioner Robert Flores. **Vote:** Passed, **Summary:** Yes 7. **Yes:** Chair McCullar, Vice-Chair Lewis, Commissioner Wagner, Commissioner VanderHeiden, Commissioner Flores, Commissioner Garvin, Planning Commissioner Holt.

4. CHAIR AND COMMISSION ITEMS

Commissioner Cody Wagner thanked City Attorney Aaron Mouritsen for their conversation with the City's outside legal counsel regarding SF6 zoning and what our options are moving forward. In his opinion, since SF6 has become available, it seems developers are exclusively moving towards that zoning, and as we densify the development that creates traffic issues, that creates a lot of things. He is thinking about the idea of incentivizing developers to build some bigger lots around town somewhere, nicer houses, things of that nature. He looks forward to continuing the discussion and would like to see that brought to a planning commission meeting, so all commissioners can voice their opinion, and just have some options for what is possible within our code to incentivize developers to build bigger lots.

5. PLANNING DIRECTOR ITEMS

5.1. Update on City Council actions from June 18, 2025 and July 2, 2025.

Michele Rambo, Planning Director, gave updates on the June 18th City Council meeting which included the condition of approval to fix the no extensions that Alisa Johansson talked about earlier. At the July 2nd meeting, we had some contract renewals which increased some fees.

5.2. General Planning Department updates and announcements

Michele Rambo, Planning Director, stated that the Associate Planner position is now open and we have received 8 applications. The first of the RFPs went out last week. The RFPs for the Capital Improvement Plan and the impact fee study and the infrastructure plan for the north and the southwest area plans. Later this month there will be another RFP for the South Area Plan and then following that there will be one for the update to the Comprehensive Master Plan.

6. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

Commissioner Tess Garvin would like the presentation for Item 2.2 emailed to the Commissioners and schedule some time to go over more details of how the Southwest Area Plan works with the Lands Bill presentation.

7. PUBLIC FORUM

None at this time.

The next meeting is Augustu 13, 2025.

8. ADJOURNMENT

There being no further business to come before it, the Fernley Planning Commission meeting adjourned at 5:39 pm.

Approved by the Fernley Planning Commission on August 13, 2025, by a vote of:

AYES _____ NAYS: _____ ABSTENTIONS: _____ ABSENT: _____

Vice-Chair Angela Lewis

ATTEST:



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: August 13, 2025

REPORT TO: Fernley Planning Commission

REPORT FROM: Lisa Warner

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM:

(For Possible Action) Consideration and possible action regarding a Waiver application (WVR25002) submitted by Diane Anderson and Lisa Young for a site located at 80 Main Street (APN: 020-021-03) in a C2 (Commercial) zoning district. The Waiver application is to request the removal of curb, gutter, sidewalk, parking, and landscaping requirements.

AGENDA ITEM BRIEF:

Waiver application to request the waiver of curb, gutter, sidewalk, parking, and landscaping requirements on a site located at 80 Main Street.

RECOMMENDED MOTION:

Approval

"I move to approve the Waiver associated with WVR25002 subject to Conditions of Approval 1 through 14, based on Findings WVR01 through WVR05 for the Waiver, and the facts supporting these findings, as set forth in the staff report."

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:

I move to deny WVR25002 because the following finding(s) can not be met: _____.

BACKGROUND:

This building was constructed in 1983 and has primarily been used for commercial uses. The most recent business was Tats & Flats, which is defined as a personal services use. The applicant is requesting to change the use from personal services to a coffee house, which is defined as a restaurant use. The intensification of use triggers the site be brought up to the current Development Code, which includes curb, gutter, sidewalk, parking, and landscaping requirements.

The site is a substandard development, meaning it was originally constructed in accordance with the applicable regulations but no longer meets the standards of our current Development Code.

Per Fernley Municipal Code (FMC) 32.03.090-1 the site is located in the designated downtown area where waiver applications are permitted for curb, gutter, sidewalk, number of parking spaces, and landscaping requirements.

ANALYSIS:

FMC32.08.060(d)(3) allows the Planning Commission to allow such changes or enlargements to a substandard development without full compliance with the current provisions of this title when the proposed changes are not detrimental to public health, safety, and welfare.

FMC 32.09.140 requires the applicant to construct a curb, gutter, and sidewalk along Locust Street. The applicant has submitted a Waiver application (WVR25002) requesting to waive the curb, gutter, and sidewalk requirements along Locust Street.

There is curb, gutter, and sidewalk along the frontage of the building along Main Street. There is currently no curb, gutter, or sidewalk along either side of Locust St. If curb, gutter, and sidewalk were constructed along Locust Street it would connect with the curb, gutter, and sidewalk on Main Street; however, the new curb, gutter, and sidewalk would be placed in the area that currently serves as informal parking and in the area of the completed outdoor seating area which would then need to be removed or reconfigured.

FMC32.09.120-2 requires the project to have parking as follows: 1/300 square feet for a restaurant use. As the building is 955 square feet, the required parking would be a total of four (4) parking spaces. The applicant has submitted a Waiver application (WVR25002) requesting to waive the number of required parking spaces and a handicapped accessible parking space.

There is minimal parking on Main Street; however, per FMC 32.09.120, parking spaces on Main Street are not counted toward parking requirement calculations. There is no parking at the rear of the building. Previous tenants have been using informal parking spaces on Locust Street, which is in the right of way easement and not allowable. If curb, gutter, and sidewalk are constructed along Locust Street, there will be no parking available on Locust Street. In addition, if parking were developed at the rear of the property, the completed outdoor seating area would need to be removed or reconfigured, which would cause the owner/tenant to lose seating capacity.

FMC32.09.090-1 requires the application to provide landscaping to meet specific standards. The minimum percentage of landscaping that is required in an C2 (Commercial) zone is 15% of the site area. The site area is 7,000 square feet; therefore, 1,050 square feet of landscaping must be added to the site to meet requirements. The applicant has submitted a Waiver application (WVR25002) requesting to waive the landscaping requirements.

Since the tenant is planning to use this building on a temporary basis only, the cost of providing the permanent 1,050 square feet of landscaping could make opening the business cost prohibitive to the small business owner. The tenant has proposed the use of planters for some landscaping components for aesthetics, but they would move the planters when the business is relocated.

WAIVER APPLICATION FINDINGS:

WVR01: There is evidence of circumstances beyond the reasonable control of the property owner, such as: unusual size, shape, or topography; circumstances that make complying with the code impractical; or the site is somehow legally nonconforming.

The site is essentially a flat, rectangular parcel with no unusual angles, encumbrances, drop-offs or slopes; therefore, there are no unusual size, shape or topography issues with this site.

Overall, as expanded on above, the requirements to bring this substandard development into compliance with current Development Code creates a domino effect that affects curb, gutter, sidewalk, parking, and landscaping required by the intensification of use which make compliance with the code impractical.

The site is a substandard development, meaning that it was originally constructed in accordance with the applicable regulations but no longer meets the standard of our current Development Code.

Can this finding be met? YES

WVR02: The waiver does not impair the purpose of the zoning district.

The site is zoned C2 (Commercial). According to FMC 32.06.100 of the Development Code, the C2 zone is defined as “commercial districts intended to create and preserve areas for businesses that provide a variety of retail and other commercial services in concentrated centers that serve the local community, or tourist-oriented uses adjacent to I-80 and downtown Fernley. It may also include larger retail centers that serve as a regional draw. Single-use or “strip center” commercial patterns of development are discouraged unless the development is designed for pedestrian use. Smaller, limited-use centers should be integrated into the surrounding neighborhood”.

Granting the waiver will have no impact on the intended purpose of the Commercial zoning district as the waiver would preserve the area for businesses that provide a variety of retail and other commercial services to the local community and tourist-oriented community.

Can this finding be met? YES

WVR03: The waiver does not impact any fire, building, or health codes.

The granting of this waiver does not impact any fire, building, or health codes.

Can this finding be met? YES

WVR04: The waiver is consistent with the Master Plan.

As this site is zoned C2 (Commercial) and all parcels around this site are also zoned commercial and have commercial uses, it could be found that the waiver which is allowed in this area is consistent with the Master Plan.

Can this finding be met? YES

WVR05: The waiver is necessary to preserve a substantial property right enjoyed by surrounding properties.

The granting of the waiver will provide a substantial property right that other surrounding properties have, as none of the other properties in the immediate area have been required to construct curb, gutter, and sidewalk along side streets. It will also allow for the forward movement of the coffee house to open/operate at this location and ensure that the property owner can maintain business opportunities going forward despite the site being substandard.

Can this find be met? YES

RELEVANT LAWS, STATUTES, AND REGULATIONS:

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Revised Statutes (NRS), Chapter 278 – Planning and Zoning

Fernley Municipal Code (FMC), Title 32 – Development Code

FMC32.06.100, Title 32 – Development Code - Zoning Districts – Commercial (C1, C2, and TC)

FMC32.08.060 – Title 32 – Development Code – Nonconformities -Substandard Development

FMC32.09.090-1 – Title 32 – Development Code – Development Standards – Landscaping and Screening

FMC32.09.120-2 – Title 32 – Development Code – Development Standards – Streets

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

1. Conditions of Approval Final_MR071625
2. PHOTO 2 MAIN STREET FRONT VIEW
3. PHOTO 3 CORNER OF MAIN ST AND LOCUST SHOWING ADA RAMP AND ENTRANCE

Conditions of Approval for WVR25002

WAIVER

SCOPE AND DURATION OF APPROVAL

1. APPROVAL:
THE APPLICATION IS APPROVED AS DESCRIBED IN CONDITION #2 BELOW, SUBJECT TO THESE CONDITIONS OF APPROVAL. ANY SUBSTANTIVE CHANGE SHALL BE REVIEWED BY THE PLANNING COMMISSION AND/OR CITY COUNCIL AS AN AMENDED WAIVER.
2. PROJECT DESCRIPTION:
THE PROJECT APPROVAL IS PERTAINING TO THE WAIVER OF CURB, GUTTER, SIDEWALK, PARKING, AND LANDSCAPING REQUIREMENTS ON A C2 (COMMERCIAL) SITE LOCATED AT 80 MAIN STREET (APN: 020-021-03).
3. EXPIRATION DATE:
THE WAIVER SHALL EXPIRE WITHIN ONE (1) YEAR OF THE DATE OF APPROVAL, UNLESS THE PERMITTED USE HAS BEEN ESTABLISHED OR CONSTRUCTION TO ACCOMMODATE THAT USE HAS BEGUN AND IS BEING DILIGENTLY PURSUED. IF THE APPROVAL EXPIRES, A NEW WAIVER APPLICATION SHALL BE REQUIRED.
4. GOVERNING DOCUMENTS:
ALL CITY OF FERNLEY MUNICIPAL CODE (FMC) OR DEVELOPMENT CODE REFERENCES HEREIN PERTAIN TO THE VERSION OF THE CODE ESTABLISHED BY ORDINANCE NUMBER 2023-010, UNLESS OTHERWISE NOTED. THE DEVELOPER MAY SUBSTITUTE REQUIREMENTS ESTABLISHED IN FUTURE FMC UPDATES, IF APPROVED BY THE ADMINISTRATOR.

UNLESS WAIVED BY THIS APPROVAL, THE DEVELOPER SHALL ALSO COMPLY WITH ALL STANDARDS FOUND WITHIN THE "CITY OF FERNLEY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS & REVIEW GUIDELINES" OF MAY 2008, THE "CITY OF FERNLEY STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION" OF JULY 15, 2008, AND THE "CITY OF FERNLEY COMPREHENSIVE MASTERPLAN" OF AUGUST 2018.

DESIGN STANDARDS

5. TRASH ENCLOSURES:
THE DEVELOPER SHALL LOCATE AND INSTALL TRASH ENCLOSURES TO THE APPROVAL OF WASTE MANAGEMENT AND THE ADMINISTRATOR INCLUDING THE APPROPRIATE SIZE AND LOCATION. THE TRASH ENCLOSURES SHALL MATCH THE PROJECT'S ARCHITECTURE AND BUILDING MATERIALS TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO FINAL SIGN-OFF OF THE BUILDING PERMIT.
6. UTILITY SCREENING:
THE DEVELOPER SHALL WORK IN CONJUNCTION WITH THE UTILITY COMPANIES TO LOCATE ANY NEW UTILITY EQUIPMENT SUCH AS ELECTRICAL, GAS AND WATER JUNCTION BOXES, INCLUDING TRANSFORMER BOXES, VAULTS AND ELECTRICAL PANELS, IN AREAS WHERE THE EQUIPMENT IS SCREENED BY ARCHITECTURAL ELEMENTS THAT MATCH THE MAIN STRUCTURE'S COLORS AND TO THE APPROVAL OF THE ADMINISTRATOR PRIOR TO FINAL SIGN-OFF OF THE BUILDING PERMIT.

Conditions of Approval for WVR25002

WAIVER

7. SCREENING:

MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW OF THE PARKING LOT, ADJACENT PUBLIC STREETS, AND PUBLIC AREAS BY USING AN ARCHITECTURAL ELEMENT OF THE BUILDING CONSISTING OF SAME MATERIALS AND BE DURABLE MATERIALS TO THE APPROVAL OF ADMINISTRATOR. THE SCREENING SHALL BE REVIEWED AND APPROVED BY THE ADMINISTRATOR PRIOR TO FINAL SIGN-OFF OF THE BUILDING PERMIT.

8. LIGHTING:

THE DEVELOPER SHALL SUBMIT A LIGHTING PLAN WITH THE TENANT IMPROVEMENT PLANS FOR REVIEW AND APPROVAL BY THE ADMINISTRATOR PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. THE DEVELOPER IS REQUIRED TO COMPLY WITH THE LIGHTING STANDARDS AND REQUIREMENTS IN THE CITY OF FERNLEY DEVELOPMENT CODE. TO REDUCE THE IMPACT OF GLARE AND MINIMIZE THE EFFECT OF FIELD AND PARKING LIGHTING, LIGHTING FIXTURES WITH EXTERNAL "HOODS" AND INTERNAL GLARE REDUCTION LOUVERS SHALL BE USED.

PER FMC SECTION 32.09.100(D)1 THE HEIGHT OF PARKING LOT LIGHTING SHALL NOT EXCEED 20 FEET FROM THE GRADE OF PARKING LOT.

9. SIGNAGE:

ANY NEW SIGNS TO BE INSTALLED ON THE PROPERTY SHALL REQUIRE THE SUBMITTAL OF A SIGN PERMIT APPLICATION AND SHALL CONFORM TO CHAPTER 32.10 (SIGNS) OF THE DEVELOPMENT CODE.

BUILDING PERMIT REQUIREMENTS

10. BUILDING PERMIT:

A BUILDING PERMIT SHALL BE REQUIRED FOR ALL TENANT IMPROVEMENTS. THE DEVELOPER SHALL SUBMIT A BUILDING PERMIT APPLICATION FOR REVIEW AND APPROVAL OF THE BUILDING OFFICIAL PRIOR TO OPERATION OF A NEW BUSINESS.

11. PROJECT CONTACT:

THE DEVELOPER SHALL DESIGNATE TO THE ADMINISTRATOR 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 ADMINISTRATOR PRIOR TO ISSUANCE OF ANY PERMIT FOR THE PROJECT.

12. TRASH DISPOSAL:

PRIOR TO ISSUE OF ANY CERTIFICATE OF OCCUPANCY FOR THIS SITE, THE DEVELOPER SHALL CONTRACT WITH A TRASH DISPOSAL COMPANY SUBJECT TO THE APPROVAL BY THE ADMINISTRATOR.

REGULATORY AGENCIES

13. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT INCLUDING BUT NOT LIMITED TO DEVELOPING A PLAN TO PROVIDE

Conditions of Approval for WVR25002

WAIVER

ADEQUATE EMERGENCY ACCESS THROUGHOUT THE SITE, DEVELOPING A MASTER FIRE HYDRANT AND FIRE FLOW PLAN, DEVELOPING A MASTER FIRE DEPARTMENT CONNECTION (FDC) PLAN, AND INSTALLING FIRE SUPPRESSION AND/OR ALARM SYSTEMS TO THE APPROVAL OF THE FIRE CHIEF PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

14. NEVADA DEPARTMENT OF TRANSPORTATION:

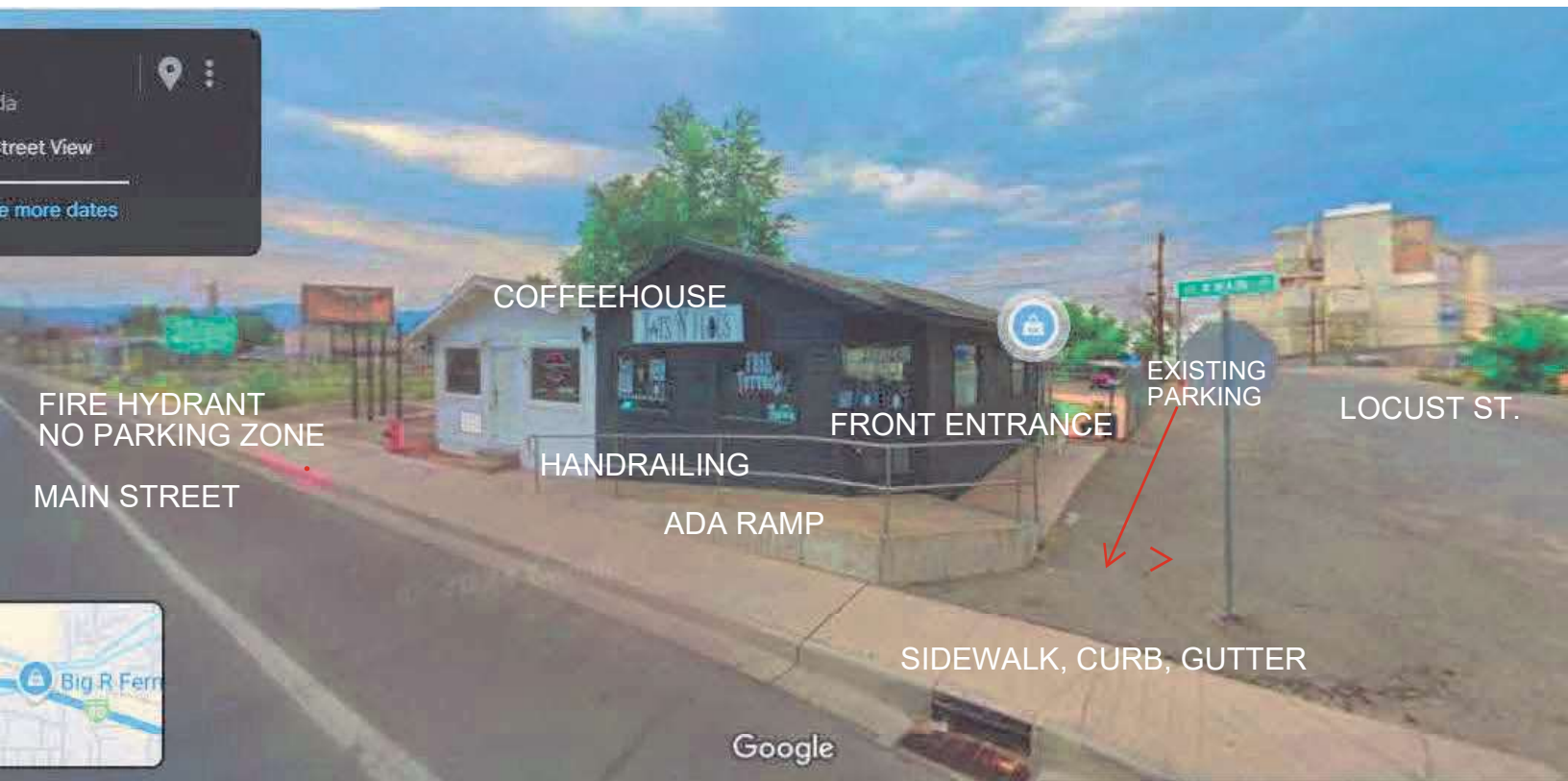
ANY CONSTRUCTION OR PLACEMENT OF ITEMS WITHIN THE RIGHT-OF-WAY WILL REQUIRE REVIEW AND APPROVAL FROM THE NEVADA DEPARTMENT OF TRANSPORTATION. THIS INCLUDES ANY LANDSCAPING, SIGNAGE, LIGHTING, ETC.

MAIN STREET FRONT VIEW
PHOTO 2

Front View showing ADA ramp, railing and side street parking area



Front and east side of the building, ramp and front door view





CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: August 13, 2025

REPORT TO: Fernley Planning Commission

REPORT FROM: Michele Rambo, Planning Director

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM:

(For Possible Action) Discussion and possible action to appoint one member of the Planning Commission to sit on the Technical Advisory Group working on the three Corridor Studies currently underway.

AGENDA ITEM BRIEF:

The City has recently begun working with NDOT on three Corridor Plans intended to identify how roads are improved to accommodate future growth. These roads are: 1) Main Street/Hwy 95 from Exit 46 to Exit 48 (including the roundabout), 2) Farm District Road, and 3) Hwy 95/50 south from Main Street. A Technical Advisory Committee has been created consisting of city employees, representatives from the Fire and the Sheriff's offices, and other interested stakeholders. Involving a member of the Planning Commission has also been suggested.

RECOMMENDED MOTION:

I move to appoint Commissioner _____ to represent the Planning Commission as a member of the Corridor Study Technical Advisory Committee.

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:

None

BACKGROUND:

The Technical Advisory Committee includes:

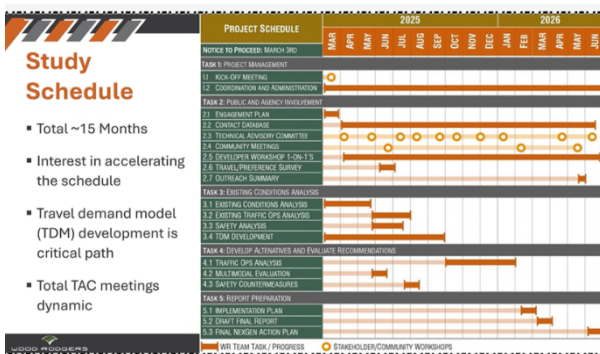
TAC Roles and Expectations

Technical Advisory Committee



- Collaborate on major technical aspects of the study
- Communicate/coordinate internally within your organization
- Provide insight into public and stakeholder engagement efforts
- Support implementation of study recommendations
- Meet regularly throughout the study

The chosen Commissioner would be required to attend a series of meetings as shown in the following schedule:



RELEVANT LAWS, STATUTES, AND REGULATIONS:

None

FINANCIAL IMPLICATIONS:

None

ATTACHMENTS:

None



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: August 13, 2025

REPORT TO: Fernley Planning Commission

REPORT FROM: Lisa Warner

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Resolution
Motion

AGENDA ITEM:

(For Possible Action) Discussion and possible action to recommend approval of Bill #362 (associated with CA25002) to amend Title 32, Chapter 9, Section 090 (Landscaping and Screening) of the City of Fernley Development Code to update the location and design requirements for trash enclosures and update the screening requirements for mechanical and electrical equipment and facilities.

AGENDA ITEM BRIEF:

While working through some current commercial projects, it has been discovered that it is necessary to update the Development Code Section for Landscaping and Screening to ensure consistent and compliant trash enclosures and screening of mechanical and electrical equipment and facilities throughout the City of Fernley.

RECOMMENDED MOTION:

"I move to recommend that the City Council approve Bill #362 associated with CA25002 as presented by staff.

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:

"I move to recommend that the City Council deny Bill #362 associated with CA25002."

"I move to recommend that the City Council approve Bill #362 associated with CA25002 with the following modifications _____."

BACKGROUND:

Recent commercial projects have shown that current requirements in the Fernley Development Code for trash enclosures and mechanical and electrical screening are vague and unclear; therefore, it was determined that more specific requirements should be added to the Development Code. These additional requirements will make it easier for City staff to enforce the requirements and ensure consistent and compliant trash enclosures and screening of mechanical and electrical equipment and facilities throughout the City of Fernley.

There are multiple proposed changes throughout this section of the Development Code. Trash Enclosures and Mechanical and Electrical have been split into two (2) sections. New content regarding specific standards and requirements has been added to both sections. For trash enclosures, the following items have been added: location, height, enclosure construction materials, gate construction materials, concrete flow with service apron, and spill containment systems for restaurants and other similar uses. For mechanical and electrical, the following have been added: screening height, inclusion of screening ductwork, antennaas and satellite disks, and chain link fence only being allowed in Industrial zones.

FINDINGS:

In order to be approved, the following findings must be met:

1. The code amendment is consistent with the city's Master Plan and is otherwise consistent with state and federal law.

The Master Plan does not specifically address trash enclosures or mechanical screening. Therefore, the proposed Code Amendment does not violate any specific Master Plan requirement.

2. Public notice was given, and a public hearing held per the requirements of the Development Code and Nevada Revised Statues.

Public notices were given, and public hearings will be held at both the Planning Commission and City Council meetings.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Fernley Development Code Section 32.09.090(i)

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

1. Trash Enclosure Original
2. Black line final document
3. Bill 362
4. Trash Enclosure picture
5. Mechanical and Electrical picture

(i)Trash enclosure and mechanical/electrical.

(1) Trash enclosures shall allow convenient access from each tenant.

(2) Trash enclosures shall be constructed to be architecturally compatible with the project. All trash enclosures shall be treated with anti-graffiti material. The trash enclosure shall be constructed of substantial building materials used in the design of the building(s). The gates shall be constructed of durable material that screens the trash enclosure. Wood and chain link gates are not allowed.

(3) Switch boxes, transformers, electrical and gas meters, including ground mounted air conditioning units and other above ground or building mounted utility elements (including antennas or satellite disks), shall be screened or located out of view from public roads, driveways and common public areas, such as exterior entrances.

(4) All roof-mounted equipment shall be screened with a parapet from adjacent properties, public rights-of-way, and driveways/common areas within project. The screening elements shall be designed to be compatible with building architecture.

(i) **Sec. 32.09.090. – Landscaping and screening.**

(i) **Trash enclosure and mechanical/electrical Enclosures**

(1) Trash enclosures shall allow convenient access from each tenant.

(2) Trash enclosures shall be constructed to be (7) All development shall provide interior or exterior areas for all refuse and recycling containers, compactors, and other refuse collection per the standard of the local trash service provider, unless the provider certifies that refuse is not generated at the site. Screened enclosures are required for all industrial uses, commercial uses, and multi-family residential uses with four or more units.

(2) **Location of Trash Enclosures.**

- a. Trash enclosures shall be sited to allow convenient access for each tenant or business and shall facilitate convenient collection by vendors.
- b. Trash enclosures shall be sited in locations screened from adjoining streets and other public areas. Trash enclosures may be permitted within side and rear setbacks subject to approval by the Administrator.
- c. Trash enclosures shall not be located between a lot's street frontage and the street-facing (front) façade of the primary building on the lot.
- d. Deviations from these siting standards may be allowed by the administrator based on additional information provided by the applicant including, but not limited to, demonstrated collection and service challenges, building design, parking design, and/or vehicular and pedestrian access.

(3) **Design and Other Specifications.**

- a. Trash enclosures shall be permanent in nature and architecturally compatible with the project, by incorporating building materials and colors consistent with the primary building.
- b. Trash enclosures shall be constructed of masonry, concrete block, or other durable opaque material on three sides and a solid opaque metal gate on the fourth side.
- c. All trash enclosures shall be treated with anti-graffiti material.
- d. The trash height of enclosure walls shall be constructed of substantial building materials used in the design of the building(s). The:

Height of Required Dumpster or Other Trash Receptacle	Minimum Height of Enclosure Walls
6 feet or more	8 feet

Commented [MR1]: Not loving the "solid waste" enclosure. But I'll try it out for now.

Commented [LW2R1]: Changing it back to trash enclosures

Commented [CM3R1]: Possible alternatives:
• "Trash and refuse collection areas"
• "Dumpsters"

Less than 6 feet	At least 1 foot above height of required dumpster or other trash receptable.
------------------	--

e. ~~Enclosure gates shall be constructed of durable steel or other metal material that screens the and shall remain closed except when trash enclosure pick-ups occur. Wood and gates are not allowed in any zone. Opaque chain link gates are not allowed in Industrial zones.~~

f. ~~(3) Gates shall be appropriately sized for the containers screened by the enclosure. Gates shall allow collection by vendors and commercial users. In multifamily residential projects, a separate pedestrian access into the enclosure is required.~~

g. ~~All trash enclosures shall have a concrete floor with a service apron extending 5 feet beyond the gate(s).~~

h. ~~Trash enclosures for restaurants and other similar uses shall provide a spill containment system or other mechanism to ensure liquids remain within the enclosure.~~

i. ~~Adequate clearance for service vehicles shall be provided pursuant to vendor specification on file with the Administrator.~~

(ii) ***Mechanical and Electrical Equipment and Facilities.***

(1) ~~Switch boxes, transformers, electrical and gas meters, including ground mounted air conditioning units and other above ground or building mounted utility elements (including ductwork, antennas or satellite disks), shall be screened or located out incorporated into the structure of view from public roads, driveways and common public areas, such as exterior entrances the building.~~

a. ~~(4) Screening shall be at least 1 foot taller than the height of the mechanical and electrical equipment.~~

b. ~~Slotted chain link fencing shall only be used for Industrial uses.~~

(2) All roof-mounted equipment shall be screened with a parapet from adjacent properties, public rights-of-way, and driveways/common areas within project. The screening elements shall be designed to be compatible with building architecture and materials. ~~Chain link fencing is not allowed for roof-top parapets.~~

BILL #362
CITY OF FERNLEY
ORDINANCE # _____

AN ORDINANCE AMENDING TITLE 32, CHAPTER 9, SECTION 090 (LANDSCAPING AND SCREENING) OF THE FERNLEY DEVELOPMENT CODE TO UPDATE THE LOCATION AND DESIGN REQUIREMENTS FOR TRASH ENCLOSURES AND UPDATE THE SCREENING REQUIREMENTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT AND FACILITIES.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter “the Council”, DO HEREBY ORDAIN:

Section 1. Title 32, Chapter 32.09, Section 32.09.090(i) is hereby amended as follows:

Sec. 32.09.090 – Landscaping and screening.

(i) *Trash enclosures.*

(1) All development shall provide interior or exterior areas for all refuse and recycling containers, compactors, and other refuse collection per the standard of the local trash service provider, unless the provider certifies that refuse is not generated at the site. Screened enclosures are required for all industrial uses, commercial uses, and multi-family residential uses with four or more units. Trash enclosures shall allow convenient access from each tenant.

(2) Location of Trash Enclosures.

- a. Trash enclosures shall be sited to allow convenient access for each tenant or business and shall facilitate convenient collection by vendors.
- b. Trash enclosures shall be sited in locations screened from adjoining streets and other public areas. Trash enclosures may be permitted within side or rear setbacks subject to approval by the Administrator.
- c. Trash enclosures shall not be located between a lot’s street frontage and the street-facing (front) façade of the primary building on the lot.
- d. Deviations from these siting standards may be allowed by the Administrator based on additional information provided by the applicant including, but not limited to, demonstrated collection and service challenges, building design, parking design, and/or vehicular and pedestrian access.

(3) Design and Other Specifications.

- a. Trash enclosures shall be permanent in nature and architecturally compatible with the project by incorporating building materials and colors consistent with the primary building.
- b. Trash enclosures shall be constructed of masonry, concrete block, or other durable opaque material on three sides and a solid opaque metal gate on the fourth side.
- c. All trash enclosures shall be treated with anti-graffiti material.

d. The height of enclosure walls shall be:

Height of Required Dumpster or Other Trash Receptacle	Minimum Height of Enclosure Walls
6 feet or more	8 feet
Less than 6 feet	At least 1 foot above height of required dumpster or other trash receptable.

- e. Enclosure gates shall be constructed of steel or other metal material and shall remain closed except when trash pick-ups occur. Wood gates are not allowed in any zone. Opaque chain link gates are allowed in Industrial zones.
- f. Gates shall be appropriately sized for the containers screened by the enclosure. Gates shall allow collection by vendors and commercial users. In multi-family residential projects, a separate pedestrian access into the enclosure is required.
- g. All trash enclosures shall have a concrete floor with a service apron extending five (5) feet beyond the gate(s).
- h. Trash enclosures for restaurants and other similar uses shall provide a spill containment system or other mechanism to ensure liquids remain within the enclosure.
- i. Adequate clearance for service vehicles shall be provided pursuant to vendor specifications on file with the Administrator.

(ii) Mechanical and Electrical Equipment and Facilities.

1) Switch boxes, transformers, electrical and gas meters, including ground mounted air conditioning units and other above ground or building mounted utility elements (including ductwork, antennas or satellite disks), shall be screened or incorporated into the structure of the building.

- a. Screening shall be at least one (1) foot taller than the height of the mechanical and electrical equipment.
- b. Slotted chain link fencing shall only be used for Industrial uses.

2) All roof-mounted equipment shall be screened with a parapet from adjacent properties, public rights-of-way, and driveways/common areas within project. The screening elements shall be designed to be compatible with building architecture and materials. Chain link fencing is not allowed for roof-top parapets.

Section 2. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

- Section 3.** The City Clerk is instructed and authorized to publish the title of this ordinance as provided by law.
- Section 4.** This ordinance shall become effective upon passage, approval, and publication.
- Section 5.** 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 6.** In any subsection, phrase, sentence, or portion of this ordinance 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 7.** 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 #362 BEING HEREBY PROPOSED on the 3rd day of September, 2025.

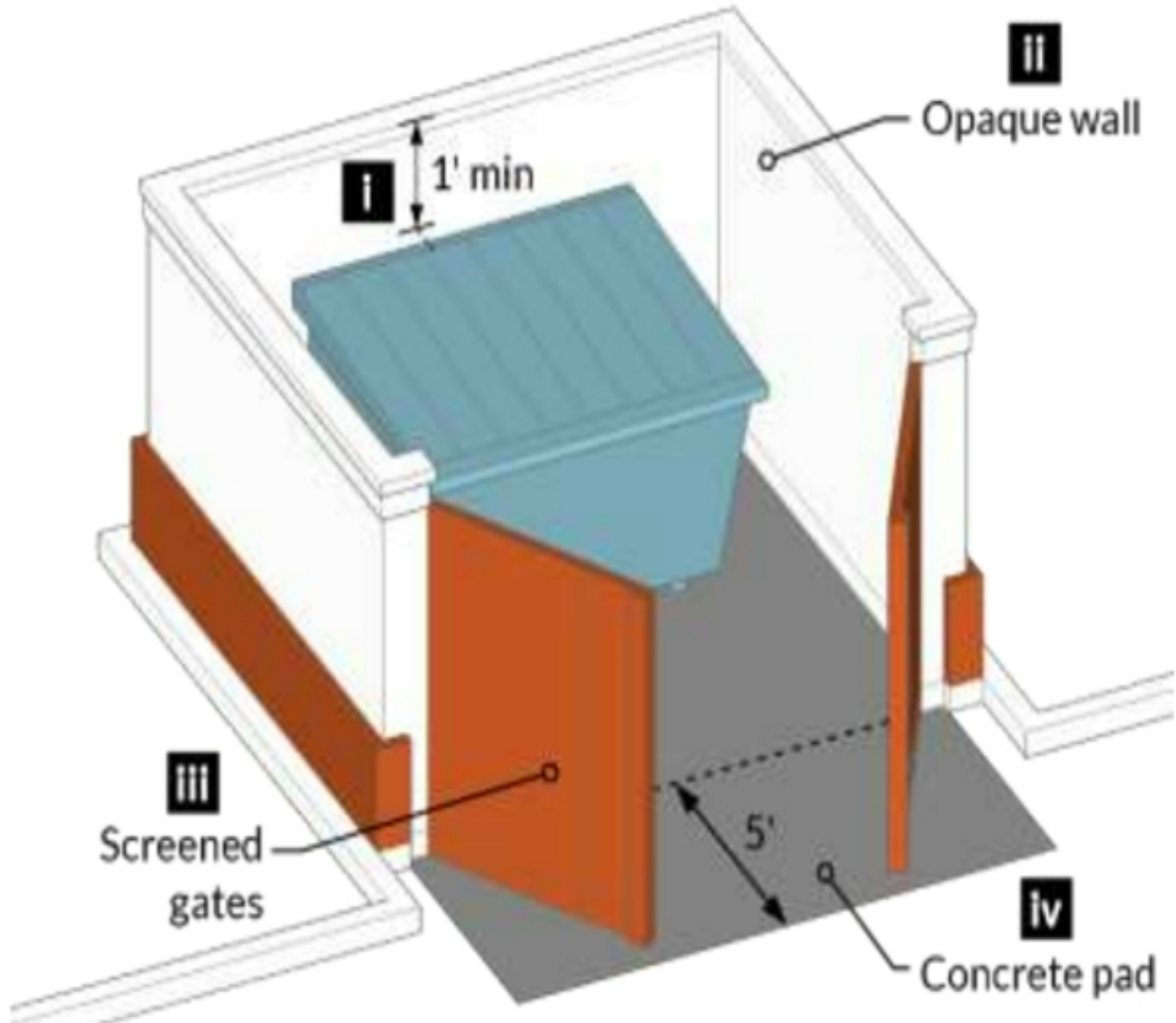
BILL #362 BEING HEREBY PASSED, APPROVED, and ADOPTED this 17th day of September, 2025, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____ Date: _____
Neal E. McIntyre, Mayor

Attest By: _____ Date: _____
Kim Swanson, City Clerk







CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: August 13, 2025

REPORT TO: Fernley Planning Commission

REPORT FROM: Alisa Johansson

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion
Resolution

AGENDA ITEM:

(For Possible Action) Discussion and possible action regarding concurrent requests for a Zoning Map Amendment (ZMA25001) and Tentative Subdivision Map (TSM25001) from Wood Rodgers, Inc. on behalf of Genica Clover Ranch, LLC, rezoning six (6) parcels containing approximately 24.72 acres from RR½ (Rural Residential, ½-acre minimum) and RR5 (Rural Residential, 5-acre minimum) to SF6 (Single Family, 6000-square foot minimum) and creating a 105-lot single-family residential subdivision generally located between Farm District Road to the south, Langdon Street to the north, Winnie Lane to the west, and Nevada Pacific Boulevard to the east (APNs 021-331-15, -19, -20, -22, -29, and -38).

AGENDA ITEM BRIEF:

An application to rezone, merge, and resubdivide six (6) parcels containing approximately 24.72 acres into 105 single-family lots.

RECOMMENDED MOTION:

“Considering the information contained in the applicant’s submittal package and based on the analysis presented in the staff report, I move to recommend approval of Bill 365 and ZMA25001 rezoning the subject parcels from RR½ and RR5 to SF6 and recommend approval of TSM25001 subdividing 24.72 acres into 105 single-family residential lots.”

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:

Denial

"I move to recommend denial of Chaparral Estates associated with ZMA25001, Bill 365, and TSM25001. I cannot recommend approval of this Zoning Map Amendment and Tentative Subdivision Map because I have determined the proposed changes to be detrimental to the public's health, safety, and general welfare and I am unable to make the following required findings:

(State finding and supporting analysis—repeat for each applicable finding)"

No further alternatives are provided, however, any other motions comporting with Planning Commission parliamentary procedures are appropriate.

BACKGROUND:

Site & Vicinity

Generally located between Farm District Road to the south, Langdon Street to the north, Winnie Lane to the west and Nevada Pacific Boulevard to the east, the site comprises 24.72 acres and is split-zoned. Five of the subject parcels are zoned RR½ with one parcel (021-331-15) zoned RR5. Abutting sites are zoned RR5, RR½, and SF20 (Single Family, 20,000-square foot minimum). The underlying Comprehensive Master Plan Land Use across all parcels and in the immediate vicinity is Single Family Residential (SFR). The surrounding context to the east, west, and south is characterized by large-lot residential development consisting of single-family residences on parcels ranging in size from 1.12 acres to over 5 acres. Denser residential developments are present to the immediate north, where single-family lot sizes range from 7,500 square feet to 12,000 square feet along the perimeters of the subdivisions. Staff notes that these subdivisions were approved before the City adopted development standards pertaining to adjacency and no meaningful buffers or transition are present. Largely vacant, the site's topography is gently sloped, ascending roughly ten feet in elevation from northwest to east-southeast. Vegetation largely consists of scrub grasses and small native shrubs. Trees are present and proposed to be removed along the east and west boundaries of the site where private irrigation ditches demarcate the site.

Analysis: Zoning Map Amendment

Zoning map amendments are committed to the City Council's legislative discretion. A zoning map amendment may be approved when the following findings can be made.

1. *Consistent with the city's master plan and otherwise consistent with state and federal law.*

The underlying Comprehensive Master Plan Land Use for the site is Single Family Residential (SFR). The corresponding zoning districts associated with this land use are the Single Family (SF) zoning districts, with minimum lot sizes ranging from 6,000 to 20,000 square feet. The requested zoning district of SF6 (Single Family, 6,000-square foot minimum) is consistent with this Master Plan land use.

Furthermore, the Comprehensive Plan goals and action strategies directly supported by this requested zone change are:

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.

If approved, the proposed zoning map amendment will increase the available maximum density on the site from approximately 39 units to approximately 179 units. Although the current proposal does not seek to achieve this

maximum density, once constructed, the proposed smaller lot sizes still provide a more affordable alternative to large-lot developments, thereby adding to the variety of housing stock available in the City.

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.

If approved, the requested zoning map amendment would facilitate housing development within the established City core where easy access to services and public facilities is available. By concentrating development on undeveloped or underdeveloped land in this part of the City, conservation of land and resources in the more remote portions of the City can be realized.

LU.1.1 - Encourage and plan for new development in areas where adequate public services and facilities can be provided efficiently.

Centrally located, the project site has easy access to utility infrastructure within adjoining or nearby developments. This allows efficient extension of infrastructure to the project site. Public services and facilities, such as an established roadway network, a fire station, schools, and recreational opportunities already serve neighboring developments, ensuring efficient access for the project's future residents.

LU.1.2 - Encourage new development to be in accordance with the Comprehensive Master Plan land use category.

The proposed zoning designation of SF6 is consistent with the site's mapped Comprehensive Master Plan land use category of Single Family Residential. If the zoning map amendment request is approved, future development of the site would inherently be in conformance with the Comprehensive Master Plan land use category.

LU.1.4 - Ensure existing and future land uses are compatible

The proposed project will consist of single-family residential development. This land use is compatible with existing established residential land uses in the vicinity. Further compatibility will be achieved through application of adjacency standards to provide appropriate transition between adjoining large-lot developments and the subject project.

LU.1.5 - Promote infill development

The project is considered infill development as defined by the City: vacant land surrounded by existing development served by public services and infrastructure

2. Consistent with the surrounding land uses.

Surrounding parcels in the immediate vicinity are mapped Single Family Residential (SFR) in the City's Comprehensive Master Plan. The requested zoning district is consistent with this land use designation. Existing land uses in the vicinity are predominantly residential—the only exception to this pattern being a pre-school established on an adjoining lot zoned SF20 (Single Family, 20,000-square foot minimum). If approved, the requested zoning district of SF6 would allow a limited range of residential uses, including single-family detached dwellings and accessory uses. These land uses would be compatible with the established land uses in the vicinity.

3. Public notice was given, and a public hearing held per the requirements of the development code and Nevada Revised Statutes.

A public hearing will be held in accordance with Fernley Municipal Code and Nevada Revised Statutes. Legal notice was provided on July 28, 2025 via US Mail to all property owners within 300' of the site, to all manufactured home residents in manufactured home parks within 300' of the site, and to all owners, residents, and applicants for the proposed action. Legal notice was published in the Reno-Gazette Journal on July 29, 2025.

Analysis: Tentative Subdivision Map

Recommendations and decisions on tentative maps shall be based on consideration of all of the following criteria:

1. 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 sewage disposal;

The subdivision has been designed to conform to applicable environmental and health laws and regulations. On-site drainage and public sewage disposal will address any ongoing water pollution risk resulting from the development. Significant air pollution resulting from the proposed residential development is not anticipated. Temporary measures to control dust, spills, and sediment will be required as part of any approvals for construction of improvements. Solid waste disposal will be provided by Waste Management.

2. Availability of water that meets applicable health standards and is sufficient for the reasonably foreseeable needs of the subdivision;

Water supply meeting applicable health standards will be provided by the City of Fernley. Public water is available in Fort Sutter Boulevard to the immediate north of the site. As a condition of approval, the project proponent will be required to dedicate 1.12 acre-feet per lot to the City of Fernley. If dedicating groundwater rights, the amount of water to be dedicated will be calculated by the State Engineer. Dedication of water rights must occur prior to recordation of the final map.

3. Availability and accessibility of utilities;

Public and private utilities are available in the immediate vicinity of the proposed development. Public water is available in Fort Sutter Boulevard; public sewer is available in Westward Lane to the east. Both utilities will be extended to serve the project. A preliminary sewer modeling report was provided as part of the application package indicating that the City's sewer system has adequate capacity to serve the demand generated by the proposed project. Southwest Gas will provide natural gas services to the site. Communications utilities are also available nearby.

4. Availability and accessibility of public services such as schools, police and fire protection, transportation, recreation facilities, and parks;

The subject subdivision is proposed in an area already served by public services such as schools, police and fire protection, recreation facilities, and parks. In 2016, Lyon County School District anticipated that schools in Fernley would remain at adequate utilization until 2025 when some schools may approach inadequacy (Master Facilities Planning Report, MGT of America, Inc., April 19, 2016). Although the Lyon County School Board heard a presentation related to an updated facilities management plan earlier this year, those updates have not yet been released for public review. Students residing in the proposed development would attend Cottonwood

Elementary School, Silverland Middle School, and Fernley High School. The Lyon County Sheriff's Office and North Lyon County Fire Protection District already serve the community surrounding the proposed subdivision and no changes to operations are anticipated to be needed to support this development. Picetti Park, Ponderosa Park, Green Valley Park, and Out of Town Park are all nearby, with travel distances ranging from just over one-half mile to just over two miles. Transportation network connectivity will be provided through construction and dedication of roadway improvements within and connecting to the development.

5. Consistency with the zoning district regulations;

The proposed subdivision has been examined for consistency with the SF6 zoning district dimensional standards and no apparent correction items were found. This includes, but is not limited to, lot width, minimum lot size, and a conceptual evaluation of setbacks.

6. Conformity with the master streets and highways plan;

As designed and conditioned, the project will conform to the City's Design Standards and to the successor document to the Master Streets and Highways Plan, the Transportation Master Plan (2020). Impacts to the transportation network resulting from this development are anticipated to be minimal.

7. Effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision.

A traffic impact study (Traffic Impact Study, GCW Engineers & Surveyors, July 21, 2025) was provided for review. The report indicates that total trips generated by the development would not create adverse Level of Service impacts at surrounding intersections. The report recommends installation of an eastbound left-turn lane on Farm District Road as an improvement required with or without project impacts—this recommendation was confirmed by Nevada Department of Transportation staff and incorporated into the conditions of approval for the project. Local streets Fort Sutter Boulevard to the north, Clover Lane to the south, and Westward Lane to the east will be extended to serve the subdivision with appropriate dedication of rights-of-way or granting of easements to the City of Fernley. All roadway extensions and all new roads within the subdivision will be designed and constructed to meet City of Fernley standards. Pedestrian infrastructure will be provided within the subdivision, south of the subdivision along reconstructed and extended Clover Lane, and at the intersection of Clover Lane and Farm District Road, where a new crosswalk will be installed to connect the subdivision's pedestrian network with the existing multi-use path along Farm District Road.

8. Physical land characteristics, such as floodplain, slope, soil, and elevation differentials with abutting properties;

The site is not mapped within any FEMA floodplain zones. The site slopes gently upgradient from northwest to east-southeast, rising approximately ten feet in elevation from site boundary to site boundary. There are no significant elevation changes between this site and adjoining sites, though private irrigation ditches are present along the east and west property boundaries, forming an informal barrier. Per the soils report provided as part of this application, the on-site soils consist of Swingler sandy loam (23.2 acres), Swingler clay loam (0.9 acres), and Biddleman-Mazuma association (0.7 acres). These soils vary in their suitability for construction but do not appear to pose any hazard to development, nor are any adverse impacts to neighboring properties anticipated.

9. Recommendations and comments of review bodies;

At the time of this report, there are no outstanding comments from review bodies. Comments from reviewing departments and agencies not addressed through corrected plans have been incorporated into the conditions of

approval attached hereto.

10. Conformity to the master sewer and water utility plan; and

As conditioned, the project is designed to conform to the City's master sewer and water utility plans. Final improvement plans for the project will be required to adhere to City and state regulations regarding sanitary sewer and public water supply and installation of all infrastructure will be inspected to ensure compliance.

11. Compliance with this Code and all other applicable regulations.

As conditioned, the project is anticipated to meet all applicable requirements contained in Fernley Municipal Code and state law.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

General References

Nevada Revised Statutes (NRS) Chapter 278 – Planning and Zoning
Fernley Municipal Code (FMC) Title 32 – Development Code
City of Fernley Comprehensive Master Plan

Specific References

NRS 278.260 – Determination, establishment, enforcement and amendment of zoning regulations
NRS 278.330-278.353 – Subdivision of Land: Tentative Maps

FMC 32.03.040(e) – Zoning map amendments (rezoning)
FMC 32.03.060(f)(1) – Tentative subdivision maps
FMC 32.06.060 – General rural (GR20) and residential rural (RR5, RR1, and RR½)
FMC 32.06.070 – Residential – Single-family (SF20, SF12, SF9, SF6)
FMC 32.09 – Development Standards

FINANCIAL IMPLICATIONS:

None.

ATTACHMENTS:

1. Exhibit 1 - Bill 365
2. Exhibit 2 - Conditions of Approval
3. Exhibit 3 - Tentative Map Set
4. Exhibit 4 - Project Narrative - Applicant
5. Exhibit 5 - Traffic Impact Study

When recorded, mail to:
City Clerk
City of Fernley
595 Silver Lace Boulevard
Fernley, NV 89408

**BILL #365
CITY OF FERNLEY
ORDINANCE # _____**

A GENERAL ORDINANCE FOR A ZONING MAP AMENDMENT, ASSOCIATED WITH CASE NUMBER ZMA25001, TO CHANGE THE ZONING OF A ±24.72-ACRE SITE COMPRISED OF SIX (6) PARCELS GNERALLY LOCATED BETWEEN FARM DISTRICT ROAD, WESTWARD LANE, LANGDON STREET, AND WINNIE LANE FROM RR5 (RURAL RESIDENTIAL, 5-ACRE MINIMUM) AND RR½ (RURAL RESIDENTIAL, ONE-HALF-ACRE MINIMUM) TO SF6 (SINGLE-FAMILY RESIDENTIAL, 6,000-SQUARE FOOT MINIMUM) (APNS 021-331-15, -19, -20, -22, -29, AND -38)

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter “the Council”, DO HEREBY ORDAIN:

Section 1: The zoning of that certain real property totaling ±24.72 acres, more or less, situated in the City of Fernley, Nevada, and owned by Genica Clover Ranch, LLC and Shawna Tibbals, being more particularly described on Exhibit “A” attached hereto and depicted on “Exhibit B” attached hereto is hereby reclassified from RR5 (Rural Residential, 5-acre minimum) and RR½ (Rural Residential, ½-acre minimum) to SF6 (Single-Family Residential, 6,000-square foot minimum).

Section 2: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 3: The City Clerk is instructed and authorized to publish the title to this ordinance as provided by law and to record the pan certified herein as provided by law.

Section 4: This ordinance shall become effective upon passage, approval, and publication.

Section 5: The provisions of this ordinance shall be liberally construed to effectively carry out its purposes in the interest of public health, safety, welfare, and convenience.

Section 6: 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 7: The 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 #365 BEING HEREBY PROPOSED this 13th day of August 2025.

BILL #365 BEING HEREBY PASSED, APPROVED, AND ADOPTED this 17th day of September 2025, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____ Date: _____
Neal E. McIntyre, Mayor

Attest By: _____
Kimberly Swanson, City Clerk

Date: _____

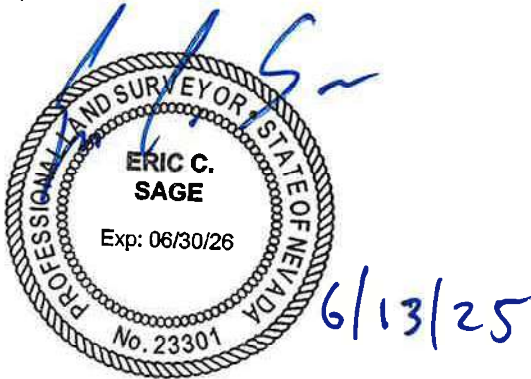
**LEGAL DESCRIPTION
CHAPARRAL ESTATES
TENTATIVE MAP BOUNDARY**

All that certain real property situate within the Northwest One-Quarter (NW 1/4) of Section 20, Township 20 North, Range 25 East, M.D.M., City of Fernley, County of Lyon, State of Nevada, being more particularly described as follows:

BEING Parcel 3 per Parcel Map File No. 100090 recorded June 11, 1986, Parcel 1, Parcel 3, and Parcel 4 per Parcel Map File No. 105269 recorded February 3, 1987, Parcel 2-A per Parcel Map File No. 142350 recorded June 25, 1991, and Parcel 2-B-1 per Boundary Line Adjustment Quitclaim Deed Document No. 554364 and shown on Record of Survey Document No. 554363 both recorded August 22, 2016, all of the above in the Official Records of Lyon County, State of Nevada.

APNs: 021-331-15, 021-331-19, 021-331-20, 021-331-22, 021-331-29, & 021-331-38

Prepared by:
Wood Rodgers, Inc.
1361 Corporate Blvd.
Reno, NV 89502
(775) 823-4068

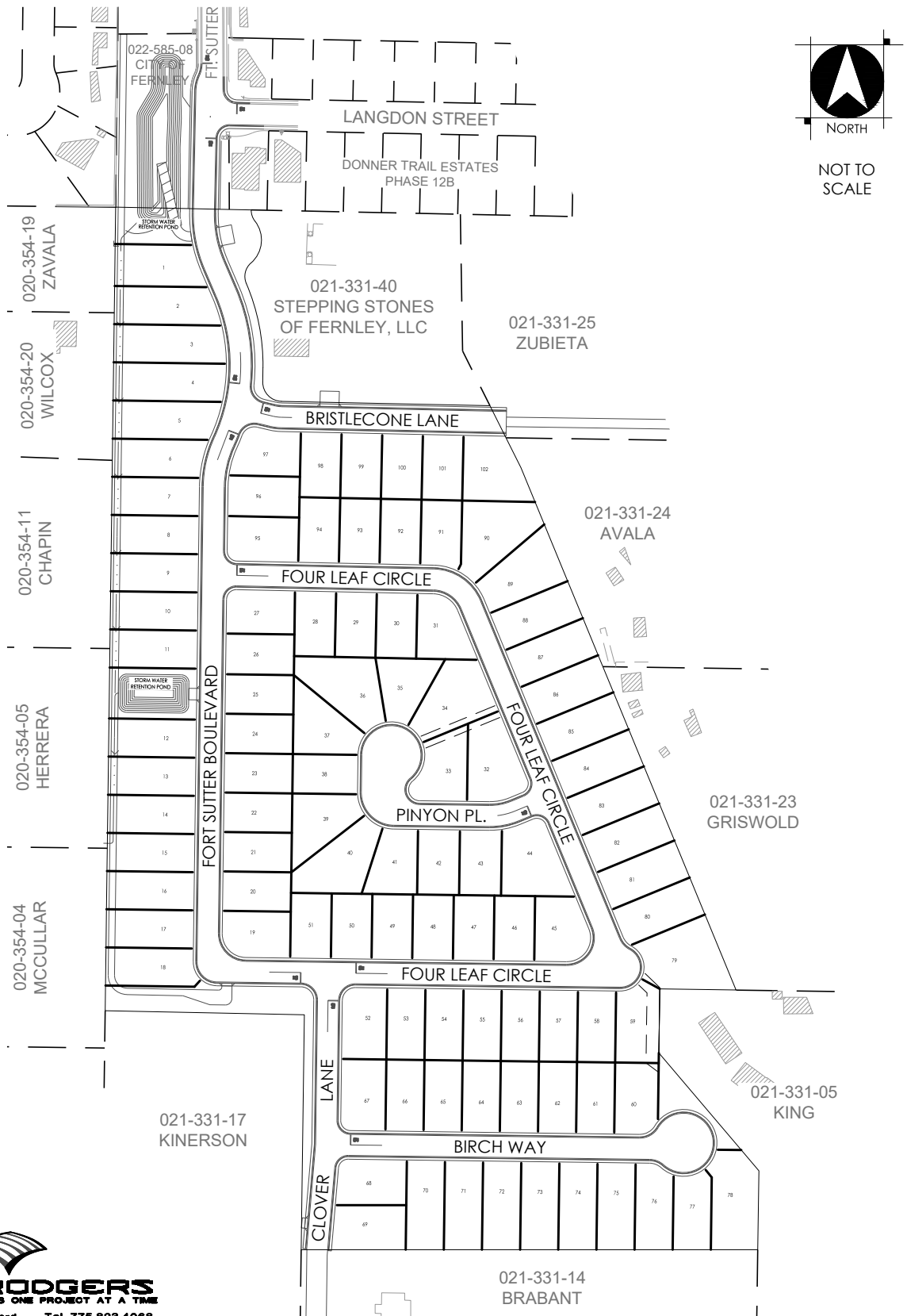


Eric C. Sage, P.L.S.
Nevada Certificate No. 23301

CHAPARRAL ESTATES SUBDIVISION PRELIMINARY SITE PLAN

FERNLEY, NEVADA

AUGUST 2025



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

SCOPE AND DURATION OF APPROVAL

1. APPROVAL:

THE PROJECT IS APPROVED AS CONDITIONED AND DESCRIBED BELOW. ANY SUBSTANTIVE CHANGE SHALL REQUIRE APPROVAL FROM THE CITY OF FERNLEY AND SHALL BE PROCESSED AS OUTLINED IN THE DEVELOPMENT CODE.

2. PROJECT DESCRIPTION:

THE PROJECT APPROVAL IS LIMITED TO THE FOLLOWING:

- A. A ZONING MAP AMENDMENT CHANGING THE ZONING OF SIX (6) PARCELS COMPRISING ±24.72 ACRES FROM RR½ (RURAL RESIDENTIAL, ONE-HALF ACRE MINIMUM) AND RR5 (RURAL RESIDENTIAL, 5-ACRE MINIMUM) TO SF6 (SINGLE FAMILY, 6,000 SQUARE FOOT MINIMUM), AND
- B. TENTATIVE SUBDIVISION OF ±24.72 ACRES INTO 105 RESIDENTIAL LOTS, INCLUDING THREE LOTS FOR COMMON AREA AND STORMWATER DETENTION, GENERALLY LOCATED BETWEEN FARM DISTRICT ROAD TO THE SOUTH, LANGDON STREET TO THE NORTH, WINNIE LANE TO THE WEST, AND NEVADA PACIFIC BOULEVARD TO THE EAST (APNS 021-331-15, -19, -20, -22, -29, and -38).

3. EXPIRATION DATE:

THE TENTATIVE SUBDIVISION MAP SHALL EXPIRE WITHIN FOUR (4) YEARS OF THE DATE OF CITY COUNCIL APPROVAL, UNLESS AN EXTENSION OF TIME OF UP TO TWO (2) YEARS HAS BEEN APPROVED BY THE PLANNING COMMISSION OR THE FINAL SUBDIVISION MAP OR A PHASE OF THE FINAL SUBDIVISION MAP HAS BEEN RECORDED.

THE ZONING MAP AMENDMENT DOES NOT EXPIRE.

4. GOVERNING DOCUMENTS:

ALL CITY OF FERNLEY MUNICIPAL CODE (FMC) REFERENCES HEREIN PERTAIN TO THE VERSION OF THE CODE ESTABLISHED BY ORDINANCE NUMBER 2023-008, UNLESS OTHERWISE NOTED. THE DEVELOPER MAY SUBSTITUTE REQUIREMENTS ESTABLISHED IN FUTURE FMC UPDATES, IF APPROVED BY THE ADMINISTRATOR.

THE DEVELOPER SHALL ALSO COMPLY WITH ALL STANDARDS FOUND WITHIN "CITY OF FERNLEY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS & REVIEW GUIDELINES" AS UPDATED MARCH 2024, "CITY OF FERNLEY STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION" AS UPDATED JULY 2022, AND "CITY OF FERNLEY COMPREHENSIVE MASTER PLAN" AS UPDATED APRIL 2024.

FINAL MAP REQUIREMENTS

5. DESIGN STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE DESIGN STANDARDS AND REGULATION AS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AND PUBLIC WORKS MANUAL UNLESS IN CONFLICT WITH LOCAL, STATE, OR FEDERAL REGULATIONS, IN WHICH CASE THE MORE STRINGENT REGULATION WILL TAKE PRECEDENCE.

6. ADJACENCY:

PRIOR TO RECORDING ANY FINAL MAP FOR THE PROPOSED SUBDIVISION, THE DEVELOPER SHALL DEMONSTRATE COMPLIANCE WITH THE ADJACENCY STANDARDS CONTAINED IN FERNLEY MUNICIPAL CODE TITLE 32 SECTION 9 TO THE APPROVAL OF THE ADMINISTRATOR.

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

7. ENGINEERING DEPARTMENT:

THE DEVELOPER SHALL COMPLY WITH ALL ENGINEERING REQUIREMENTS WITHIN 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.

8. LEGAL ACCESS:

THE DEVELOPER SHALL DEMONSTRATE THAT LEGAL ACCESS IS PROVIDED TO EACH PROPOSED PARCEL TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO THE RECORDATION OF THE FINAL PARCEL MAP FOR THE PROJECT.

9. IRRIGATION EASEMENTS:

ALL ABANDONMENTS AND/OR REALIGNMENTS OF TRUCKEE-CARSON IRRIGATION DISTRICT (TCID) OR UNITED STATES BUREAU OF RECLAMATION (USBR) EASEMENTS SHALL BE FINALIZED AND ACCEPTED BY TCID/USBR AND THE CITY OF FERNLEY PRIOR TO RECORDATION OF ANY FINAL MAP FOR THE PROJECT.

10. MAINTENANCE EASEMENTS:

THE DEVELOPER SHALL PROVIDE EASEMENTS TO CITY OF FERNLEY FOR MAINTENANCE OF ALL PUBLIC INFRASTRUCTURE INSTALLED ON PRIVATE PROPERTY. THE EASEMENTS SHALL INCLUDE CITY OF FERNLEY'S STANDARD EASEMENT LANGUAGE, SUBJECT TO APPROVAL OF THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR, AND SHALL BE RECORDED ALONG WITH THE FINAL SUBDIVISION MAP. ALL EASEMENTS SHALL BE WIDE ENOUGH TO ALLOW FOR OPERATIONS, MAINTENANCE, AND REPLACEMENT OF UTILITY IN THE FUTURE. THE MINIMUM WIDTH IS 20 FEET FOR A SINGLE UTILITY AND 30 FEET FOR TWO UTILITIES OR DEEP SEWER.

11. MAINTENANCE ASSOCIATION:

THE DEVELOPER SHALL ESTABLISH A MAINTENANCE ASSOCIATION FOR THE UPKEEP OF ALL COMMON AREAS, THE LANDSCAPING AND FENCING ALONG THE EASTERN BOUNDARY OF THE DEVELOPMENT, AND ANY DRAINAGE CONVEYANCE FACILITIES NOT DEDICATED TO THE CITY OF FERNLEY. DOCUMENTS ESTABLISHING THE MAINTENANCE ASSOCIATION SHALL BE SUBMITTED, APPROVED, AND RECORDED ALONG WITH THE FINAL SUBDIVISION MAP. THIS CONDITION IS SUBJECT TO THE APPROVAL OF THE ADMINISTRATOR, CITY ATTORNEY, CITY ENGINEER, FINANCE DIRECTOR, AND PUBLIC WORKS DIRECTOR.

12. FINAL HYDROLOGICAL REPORT:

PRIOR TO APPROVAL OF A SUBDIVISION MAP FOR ANY PORTION OF THE PROJECT, THE DEVELOPER SHALL PROVIDE A FINAL HYDROLOGICAL REPORT FOR THE PROJECT IN CONFORMANCE WITH THE FERNLEY MUNICIPAL CODE AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER.

13. WATER RIGHTS:

PRIOR TO RECORDING A FINAL SUBDIVISION MAP, IN ORDER TO BE SERVED BY THE CITY'S MUNICIPAL WATER SYSTEM, THE DEVELOPER SHALL DEDICATE THE APPROPRIATE AMOUNT OF WATER RIGHTS, AS CALCULATED BY THE CITY ENGINEER. SHOULD THE PROJECT BE CONSTRUCTED IN PHASES, THESE REQUIREMENTS MAY BE CALCULATED ON A PER-PHASE BASIS. THIS REQUIREMENT IS SUBJECT TO THE APPROVAL OF THE PUBLIC WORKS DIRECTOR, THE CITY ENGINEER, AND THE ADMINISTRATOR

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

14. WATER AND SEWER SYSTEM MODELING:

PRIOR TO APPROVAL OF A FINAL SUBDIVISION MAP, THE DEVELOPER SHALL COMPLETE WATER AND SEWER MODELING AND CONSTRUCT ANY IMPROVEMENTS IDENTIFIED AS NECESSARY TO SERVE THE PROJECT IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. THIS REQUIREMENT IS SUBJECT TO APPROVAL OF THE CITY ENGINEER AND PUBLIC WORKS DIRECTOR.

15. WATER SYSTEM LOOPING:

WATER MAINS SHALL BE LOOPED AT THE END OF CUL DE SACS OR THE LAYOUT OF THE SUBDIVISION SHALL BE ADJUSTED TO ELIMINATE CUL DE SACS.

16. OFF-SITE WATER LOOPING:

OFF-SITE WATER LOOPING IS REQUIRED TO THE SOUTH ALONG CLOVER LANE TO FARM DISTRICT ROAD AND NORTH TO DONNER TRAILS. TYPICAL FIRE HYDRANT SPACING PER NORTH LYON FIRE PROTECTION DISTRICT SHALL BE INCLUDED WITH OFF-SITE WATER MAINS.

17. WATER AND SEWER SYSTEM DESIGN AND APPROVAL:

THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING CONNECTIONS AND DEMANDS TO THE CITY'S SANITARY SEWER AND POTABLE WATER SYSTEMS, INCLUDING, BUT NOT LIMITED TO, ASSOCIATED FEES, DESIGN STANDARDS, DEVELOPMENT CODE REQUIREMENTS, AND STATE REQUIREMENTS.

PRIOR TO APPROVAL OF A FINAL SUBDIVISION MAP FOR THE PROJECT, THE DEVELOPER SHALL PERMIT THE WATER SYSTEM MODIFICATIONS IN CONFORMANCE WITH THE CITY OF FERNLEY MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL TO THE APPROVAL OF THE CITY ENGINEER, PUBLIC WORKS DIRECTOR, AND ADMINISTRATOR.

18. WATER AND SEWER SYSTEM MAINS AND SERVICES:

PRIOR TO RECORDING A FINAL SUBDIVISION MAP, THE DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS DEEMED NECESSARY TO SERVE THE PROJECT, AS IDENTIFIED IN THE APPROVED WATER AND SEWER MODELING REPORTS, SUBJECT TO APPROVAL OF THE CITY ENGINEER. THE DEVELOPER SHALL COMPLY WITH THE CITY OF FERNLEY MUNICIPAL CODE REGARDING THE SANITARY SEWER AND WATER SYSTEMS, INCLUDING ASSOCIATED CONNECTION FEES, PRIOR TO ISSUING A PERMIT FOR THE CIVIL IMPROVEMENTS FOR THIS PROJECT.

19. PHASING:

IF THE FINAL SUBDIVISION MAP IS PHASED, 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. A PHASING PLAN SHOULD BE SUBMITTED WITH PHASE 1. CHANGES TO THE PHASING PLAN WILL REQUIRE REVIEW AND APPROVAL BY THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR, PRIOR TO IMPLEMENTATION.

20. STREETS AND SIGNAGE:

STREET IDENTIFICATION SIGNS MUST BE IN PLACE AND STREETS WITHIN THE SUBDIVISION MUST BE COMPLETE, TO THE APPROVAL OF THE CITY ENGINEER AND FIRE CHIEF, PRIOR TO SUBMITTING THE FINAL MAP APPLICATION.

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

FINAL IMPROVEMENT PLANS

21. IMPROVEMENT PLANS REQUIRED:

WITH SUBMITTAL OF ANY FINAL SUBDIVISION MAP APPLICATION, THE DEVELOPER SHALL SUBMIT THE ASSOCIATED CIVIL IMPROVEMENT PLANS FOR REVIEW AND APPROVAL. THE IMPROVEMENT PLANS SHALL BE APPROVED PRIOR TO RECORDING THE FINAL SUBDIVISION MAP. THE UTILITIES AND INFRASTRUCTURE FOR EACH PHASE MUST OPERATE INDEPENDENTLY OF FUTURE PHASES YET TO BE CONSTRUCTED.

22. GENERAL:

IMPROVEMENT PLANS SHALL IDENTIFY ALL IMPROVEMENTS AS "PUBLIC" (TO BE DEDICATED) OR "PRIVATE."

23. GEOTECHNICAL REPORT:

A FINAL GEOTECHNICAL INVESTIGATION SHALL BE SUBMITTED WITH THE FINAL IMPROVEMENT PLAN SUBMITTALS.

THE FINAL GEOTECHNICAL INVESTIGATION SHALL INCLUDE INFORMATION REGARDING PAVEMENT SECTION STUDY.

24. TRANSITIONS:

FINAL IMPROVEMENT PLANS SHALL REQUIRE REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT, SIDEWALKS, AND CURB AND GUTTER WHERE NEW ROADS TIE IN TO EXISTING ROADS TO ENSURE SMOOTH TRANSITIONS BETWEEN EXISTING AND NEW ROADS.

25. PEDESTRIAN RAMPS:

PEDESTRIAN RAMPS SHALL BE PROVIDED AT THE SOUTHWEST AND SOUTHEAST CORNERS OF FORT SUTTER BOULEVARD AND LANGDON STREET.

A MINIMUM OF THREE PEDESTRIAN RAMPS SHALL BE PROVIDED AT ALL T-INTERSECTIONS, INCLUDING BULBS.

26. SIDEWALKS:

SIDEWALKS SHALL BE INCREASED TO 5 FEET WIDE OR PASSING SPACES SHALL BE INCORPORATED EVERY 200 FEET IN ACCORDANCE WITH AMERICANS WITH DISABILITY ACT AND ACCESSIBLE GUIDELINES FOR PEDESTRIAN FACILITIES IN PUBLIC RIGHT-OF-WAY REQUIREMENTS.

27. T-INTERSECTIONS:

THE FINAL IMPROVEMENT PLANS WILL NEED TO REVISE THE CURB LINES OF ALL THREE LEGS OF THE EXISTING FORT SUTTER BOULEVARD AND LANGDON STREET INTERSECTION. TO CONVERT THIS BULB TO A T-INTERSECTION AS PROPOSED, THE ASPHALT WIDTHS AND CURB LINES NEED TO BE ADJUSTED TO MATCH A T- INTERSECTION.

28. GUTTERS:

THE FINAL IMPROVEMENT PLANS SHALL ELIMINATE VALLEY GUTTERS AT PUBLIC ROAD INTERSECTIONS TO THE EXTENT POSSIBLE.

29. ACCESS TO ADJOINING SITES:

THE FINAL IMPROVEMENT PLANS SHALL COORDINATE THE EXISTING CLOVER LANE ACCESS IN FRONT OF THE SCHOOL AND PROVIDE CONNECTIVITY OFF OF BRISTLECONE LANE AS

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

REQUIRED FOR THE SECONDARY DRIVEWAY ACCESS TO THE SCHOOL.

30. OFF-SITE IMPROVEMENTS – CLOVER LANE:

THE OFF-SITE PORTION OF CLOVER LANE TO THE SOUTH OF THE DEVELOPMENT SHALL BE RECONSTRUCTED TO MATCH THE IMPROVED 50-FOOT RIGHT-OF-WAY ROADWAY SECTION WHICH INCLUDES CURB, GUTTER, AND SIDEWALK. SIDEWALK ON AT LEAST ONE SIDE OF CLOVER LANE SHALL BE PROVIDED TO FARM DISTRICT ROAD. ON THE FINAL IMPROVEMENT PLANS, CLOVER LANE SHALL BE REFERENCED AS BEING OFFERED FOR DEDICATION TO THE CITY.

IF ANY OF THE UNDERLYING FEE PROPERTY OWNERS ARE UNWILLING TO APPROVE DEDICATION OF THE RIGHT-OF-WAY, SUFFICIENT EASEMENT RIGHTS FOR CITY ROADWAY AND CITY WATER, SEWER, AND STORM DRAIN UTILITIES SHALL BE DOCUMENTED AND VERIFIED PRIOR TO RECORDATION OF THE FINAL MAP.

31. OFF-SITE IMPROVEMENTS – FARM DISTRICT ROAD CROSSWALK:

THE FARM DISTRICT ROAD/CLOVER LANE INTERSECTION IMPROVEMENTS SHALL INCLUDE A NEW CROSSWALK ACROSS FARM DISTRICT ROAD TO CONNECT TO THE EXISTING MULTI-USE PATH. THE CROSS WALK SHALL BE EQUIPPED WITH RAPID FLASHING BEACONS MEETING CITY AND NDOT REQUIREMENTS.

32. OFF-SITE IMPROVEMENTS – TRAFFIC MITIGATION:

THE FINAL IMPROVEMENT PLANS SHALL INCLUDE THE ADDITION OF AN EASTBOUND LEFT-TURN LANE ON FARM DISTRICT ROAD AS RECOMMENDED BY THE TRAFFIC STUDY AND NEVADA DEPARTMENT OF TRANSPORTATION.

STORM WATER TREATMENT AND DRAINAGE

33. FINAL DRAINAGE REPORT:

AS PART OF THE FINAL IMPROVEMENT PLANS, THE DEVELOPER SHALL PROVIDE A FINAL DRAINAGE REPORT FOR THE PROJECT IN CONFORMANCE WITH FERNLEY MUNICIPAL CODE AND THE PUBLIC WORKS DESIGN MANUAL FOR REVIEW AND APPROVAL BY THE CITY ENGINEER. THE REPORT SHALL INCLUDE PERCOLATION RATES AT THE DEPTH PROPOSED FOR THE NEW STORMWATER BASIN, PROVIDE A REVIEW OF THE SOILS BELOW THE PROPOSED BASIN, AND VERIFY SIZING AND PIPE ELEVATIONS OF THE RECONFIGURED BASIN IN DONNER TRAILS PH 12B.

34. RETENTION BASIN VOLUME:

THE PROPOSED RETENTION BASIN SHALL HAVE SUFFICIENT VOLUME STORAGE TO RETAIN THE PRE- VS. POST-100-YEAR, 24-HOUR STORM RUNOFF WITH ONE FOOT OF FREEBOARD.

35. RETENTION BASIN DESIGN:

FLAT BOTTOMS SHALL BE PROVIDED IN ALL PROPOSED RETENTION BASINS TO ALLOW MAINTENANCE ACCESS BY VEHICLE TO REMOVE ACCUMULATED SEDIMENT. THE SURFACE FOR THE ACCESS TO THE BOTTOM OF THE BASIN SHALL BE PAVEMENT OR ARTICULATING CONCRETE BLOCKS AT 15% MAX SLOPE. THE BASIN SHALL BE COMPLETELY FENCED.

36. OVERFLOW LOCATION AND DESIGN:

THE NEW STORMWATER RETENTION POND HAS AN OVERFLOW ROUTED THROUGH AN OVERHEAD HIGH-VOLTAGE POWER LINE EASEMENT. RELOCATE THE STORM WATER POND, RELOCATE THE OVERFLOW OUTSIDE OF THE EASEMENT, OR PROVIDE VERIFICATION FROM NV ENERGY THAT THE OVERFLOW DITCH CAN BE INSTALLED WITHIN THE EASEMENT. IF A

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

PUBLIC REAR-LOT DITCH REMAINS FOR OVERFLOW PURPOSES, IT SHALL BE LINED AND BE DESIGNED TO BE ACCESSIBLE FOR LONG-TERM MAINTENANCE PER THE PUBLIC WORKS DESIGN MANUAL.

37. EXISTING POND OVERFLOW:

FINAL IMPROVEMENT PLANS SHALL INCLUDE AN OVERFLOW ROUTE FROM THE EXISTING DONNER TRAILS PH 12B STORMWATER POND TO THE NEW CHAPPARAL ESTATES POND OR OVERFLOW DITCH. THE POND SHALL HAVE A SAFE OVERFLOW PATH TO ENSURE THE NORTHERLY LOTS OF CHAPPARAL ESTATES ARE NOT SUBJECT TO INUNDATION FROM OVERFLOWS FROM THE EXISTING POND.

38. MAINTENANCE ACCESS AND DESIGN:

FINAL IMPROVEMENT PLANS SHALL PROVIDE A PAVED OR GRAVEL ACCESS ROAD FOR MAINTENANCE AROUND THE DETENTION BASIN TO THE SATISFACTION OF THE CITY ENGINEER.

BUILDING PERMIT REQUIREMENTS

39. CONSTRUCTION TIMELINE:

PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR ANY PHASE OF THE PROJECT, DRAINAGE CONVEYANCE FACILITIES AND OTHER IMPROVEMENTS MUST BE CONSTRUCTED AND FUNCTIONAL. DESIGN AND CONSTRUCTION OF ALL DRAINAGE CONVEYANCE FACILITIES IS SUBJECT TO APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

40. PUBLIC AND PRIVATE INFRASTRUCTURE:

PRIOR TO ISSUANCE OF ANY BUILDING PERMIT FOR THE PROJECT, THE DEVELOPER SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE CITY OF FERNLEY MUNICIPAL CODE AND PUBLIC WORKS DESIGN MANUAL FOR THE CONSTRUCTION OF ANY PUBLIC OR PRIVATE INFRASTRUCTURE TO THE APPROVAL OF THE CITY ENGINEER, PUBLIC WORKS DIRECTOR, AND BUILDING OFFICIAL

REGULATORY AGENCIES

41. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE MOST RECENT FIRE CODE ADOPTED BY THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT, TO THE APPROVAL OF THE FIRE CHIEF, FIRE MARSHAL, OR DESIGNEE.

42. FEDERAL, STATE, AND LOCAL AGENCIES:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF ANY FEDERAL, STATE, LOCAL AGENCY, DEPARTMENT, OR LICENSED PROFESSIONAL WITH JURISDICTION OVER THE PROJECT INCLUDING, BUT NOT LIMITED TO: BUREAU OF RECLAMATION (BOR), NEVADA DEPARTMENT OF TRANSPORTATION (NDOT), NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP), NEVADA DIVISION OF WATER RESOURCES (NDWR), NEVADA BUREAU OF WATER POLLUTION CONTROL, NEVADA BUREAU OF SAFE DRINKING WATER, NEVADA STATE ENVIRONMENTAL COMMISSION, TRUCKEE CARSON IRRIGATION DISTRICT (TCID), THE CITY OF FERNLEY BUILDING OFFICIAL, THE CITY OF FERNLEY ENGINEER, CITY OF FERNLEY PLANNING DEPARTMENT, AND CITY OF FERNLEY PUBLIC WORKS DEPARTMENT.

Conditions of Approval for ZMA25001 and TSM25001
ZONING MAP AMENDMENT
TENTATIVE SUBDIVISION MAP

43. POSTAL SERVICE:

PRIOR TO ISSUANCE OF ANY BUILDING PERMIT FOR ANY PHASE OF THE PROJECT, THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE UNITED STATES POSTAL SERVICE FOR MAIL DELIVERY, MAILBOX DESIGN, AND MAILBOX LOCATION FOR THAT PHASE. THIS REQUIREMENT IS SUBJECT TO APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, FERNLEY POSTMASTER, AND PUBLIC WORKS DIRECTOR.

44. ADDRESSING:

THE DEVELOPER SHALL SUBMIT A REQUEST FOR ADDRESS FORM TO THE CITY OF FERNLEY ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. ALL ADDRESSING SHALL BE COMPLETED BY THE CITY PRIOR TO ISSUANCE OF A BUILDING PERMIT.

45. 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, PUBLIC WORKS DIRECTOR, AND CITY ENGINEER.

46. NEVADA REVISED STATUTES 278 COMPLIANCE:

THE FINAL MAP SHALL CONFORM TO THE FORM AND CONTENTS OF A FINAL PARCEL MAP AS REQUIRED BY NRS 278.

47. WASTE MANAGEMENT:

THE DEVELOPER SHALL PROVIDE A WILL-SERVE FROM WASTE MANAGEMENT, SUBJECT TO APPROVAL OF THE ADMINISTRATOR, PRIOR TO RECORDING ANY FINAL SUBDIVISION MAP.

CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
TITLE SHEET

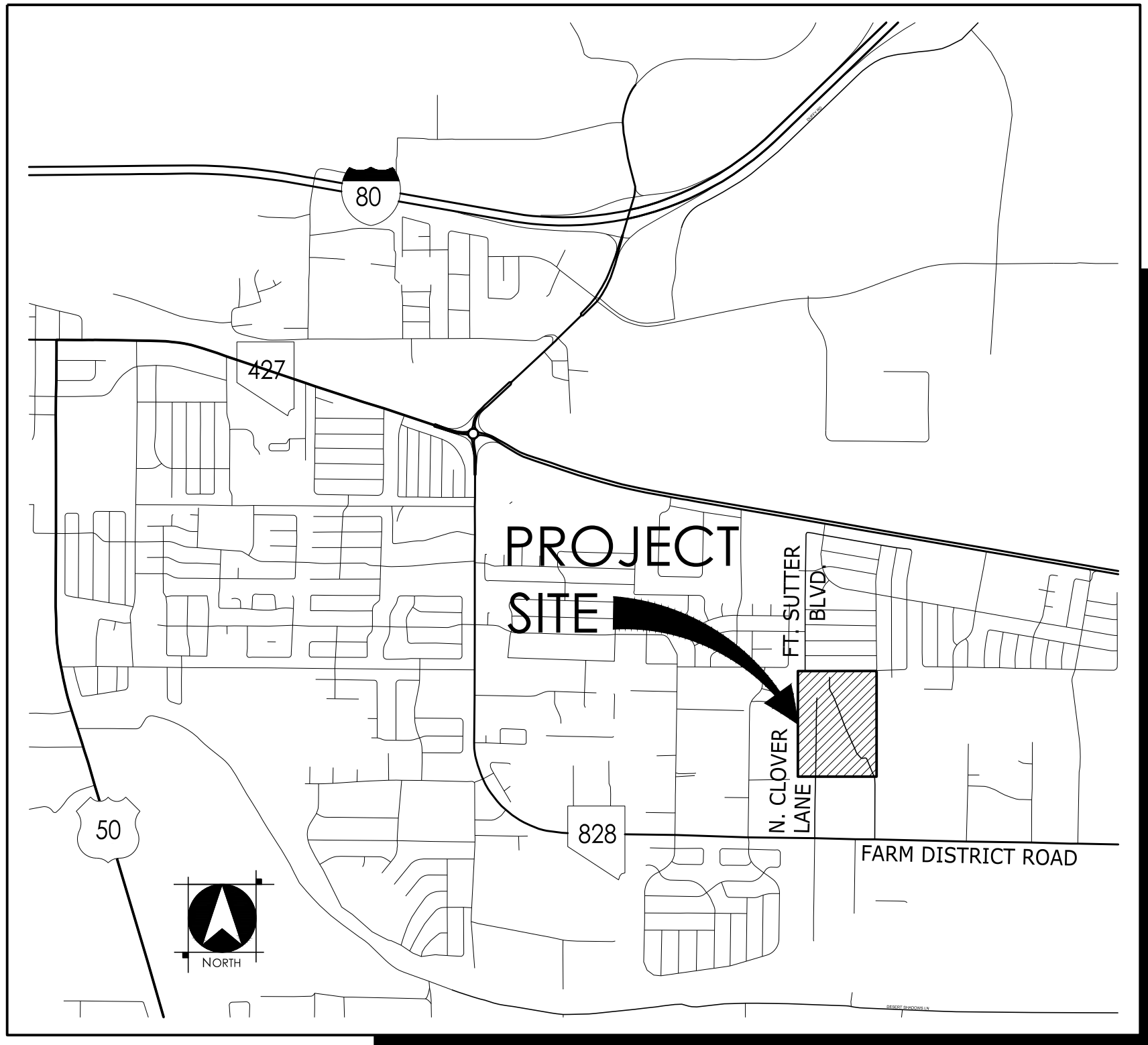
OWNER / DEVELOPER
GENICA CLOVER RANCH, LLC
POST OFFICE BOX 2267
CHILLIWACK, BRITISH COLUMBIA
CANADA V2R 1A6
253.380.3054

BASIS OF BEARINGS

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983/1994, AS DETERMINED USING RTK GPS CORRECTIONS FROM NATIONAL GEODETIC SURVEY BENCHMARK THE BEARING BETWEEN NGS BENCHMARKS 'B 340' TAKEN AS NORTH 73°13'02" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES, COMBINED GRID-TO-GROUND FACTOR = 1.000245

BASIS OF ELEVATION

THE BASIS OF ELEVATION IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS TAKEN FROM NGS BENCHMARK WITH A PUBLISHED ELEVATION OF 4155.00 FT. BENCHMARK DESCRIBED AS BEING A 3-1/4-INCH DIAMETER DISK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED B 340 1953.



VICINITY MAP
NOT TO SCALE

SITE INFORMATION:

OVERALL SITE STATISTICS
TOTAL PROJECT AREA: 24.72 AC
TOTAL LOT AREA: 18.04 AC
TOTAL AREA, DEDICATED LOTS (2): 0.40 AC (TO CITY OF FERNLEY)
TOTAL COMMON AREAS: 0.65 AC
TOTAL RIGHTS-OF-WAY: 5.63 AC

RESIDENTIAL LOT STATISTICS
TOTAL NUMBER OF LOTS: 102
AVERAGE LOT SIZE: 7,702 SF
MINIMUM LOT SIZE: 6,200 SF
MAXIMUM LOT SIZE: 12,249 SF

PROJECT DENSITY
GROSS DENSITY = 4.1 DU / AC
NET DENSITY = 5.7 DU / AC
PROPOSED ZONING: SF6

ASSESSOR PARCEL NUMBERS
021-331-15, -19, -20, -22, -29, -38

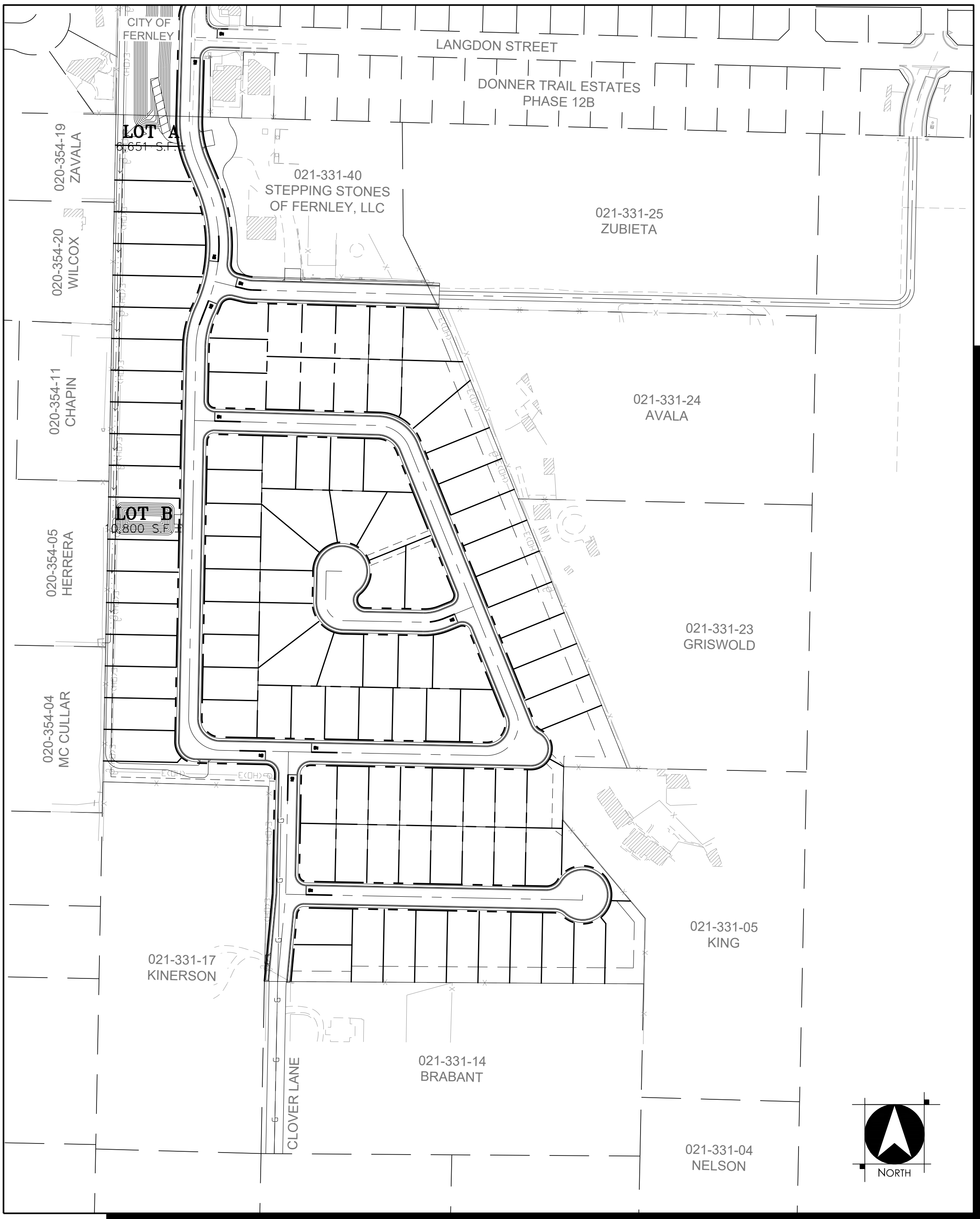
ENGINEER'S STATEMENT:

I, EVAN NIKIRK, DO HEREBY CERTIFY THAT THIS PLAN SET HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 23rd DAY OF JULY, 2025.

Evan Nikirk
EVAN NIKIRK, P.E. #11466

SHEET INDEX

SHEET	DWG	DRAWING DESCRIPTION
1	T-1	TITLE SHEET
2	DE-1	EXISTING CONDITIONS AND DEMOLITION PLAN
3	LB-1	PRELIMINARY LOT AND BLOCK PLAN, NORTH
4	LB-2	PRELIMINARY LOT AND BLOCK PLAN, SOUTH
5	U-1	PRELIMINARY UTILITY PLAN, NORTH
6	U-2	PRELIMINARY UTILITY PLAN, SOUTH
7	G-1	PRELIMINARY GRADING PLAN, NORTH
8	G-2	PRELIMINARY GRADING PLAN, SOUTH
9	F-1	PRELIMINARY FENCING PLAN, NORTH
10	F-2	PRELIMINARY FENCING PLAN, SOUTH
11	LS-1	PRELIMINARY LANDSCAPING PLAN



SITE PLAN
1" = 150'

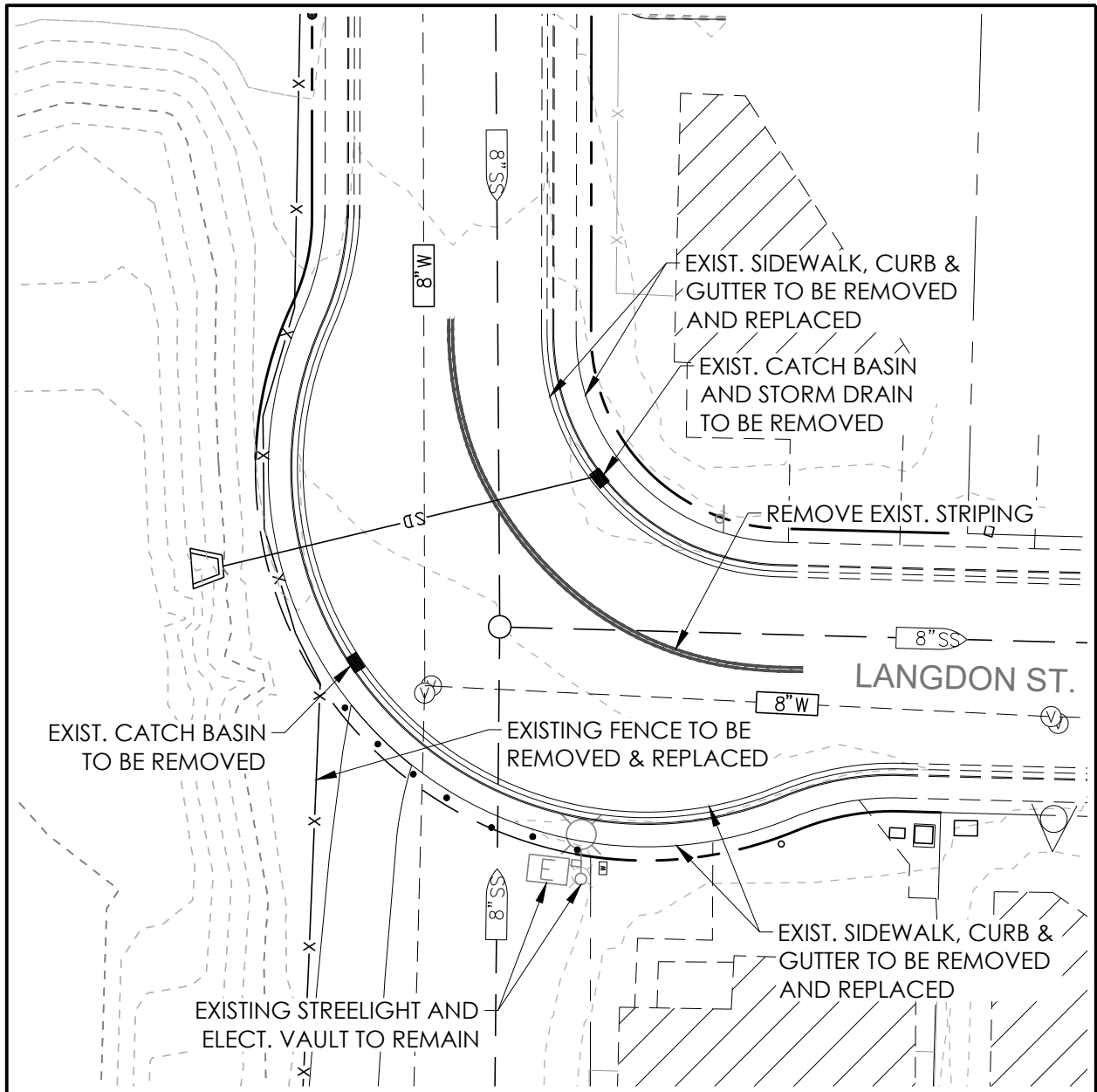
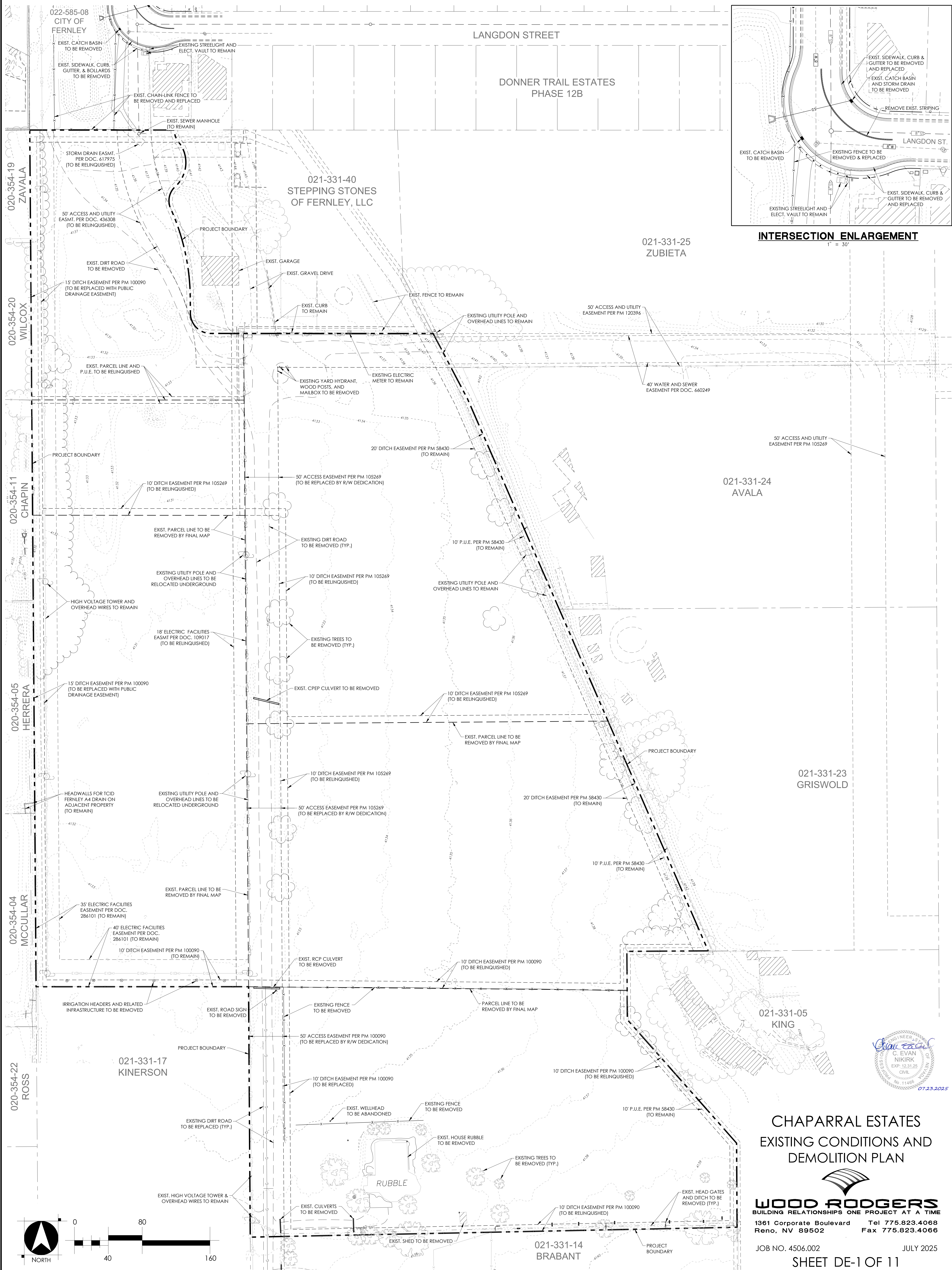


CHAPARRAL ESTATES
TITLE SHEET

WOOD ROGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

JOB NO. 4506.002 JULY 2025
SHEET T-1 OF 11

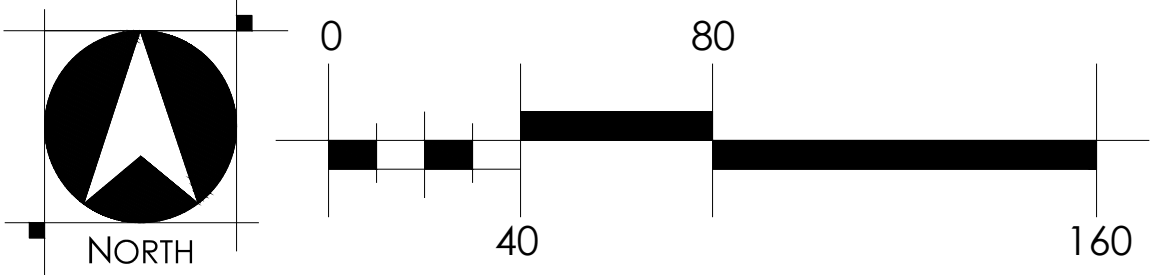
CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
EXISTING CONDITIONS AND DEMOLITION PLAN



CHAPARRAL ESTATES
EXISTING CONDITIONS AND
DEMOLITION PLAN

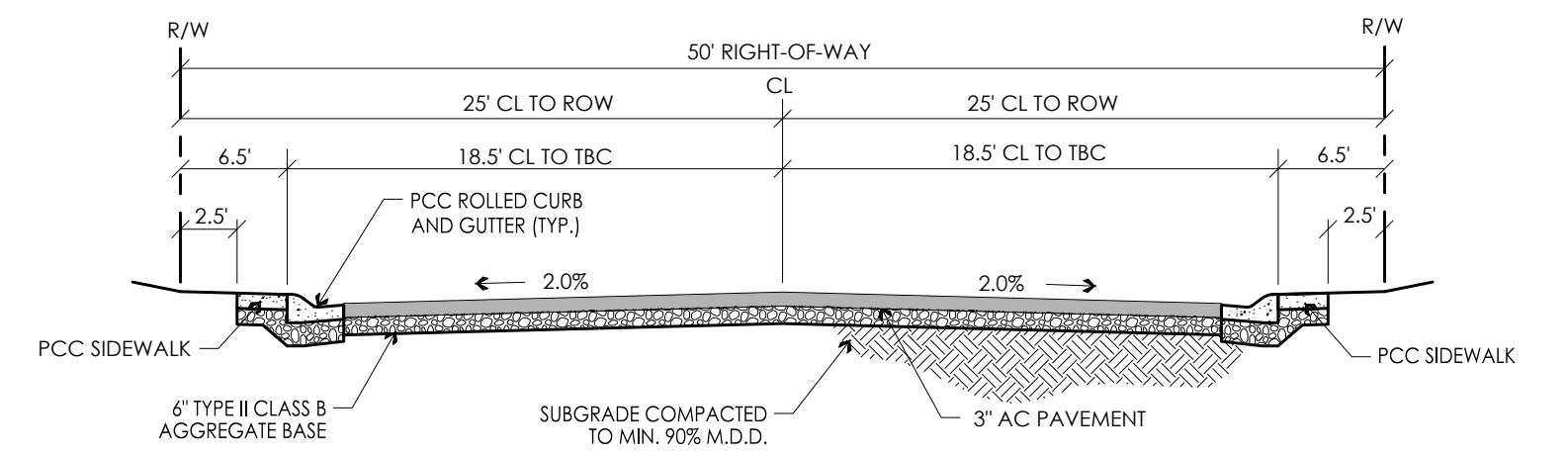
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

JOB NO. 4506.002 JULY 2025
SHEET DE-1 OF 11



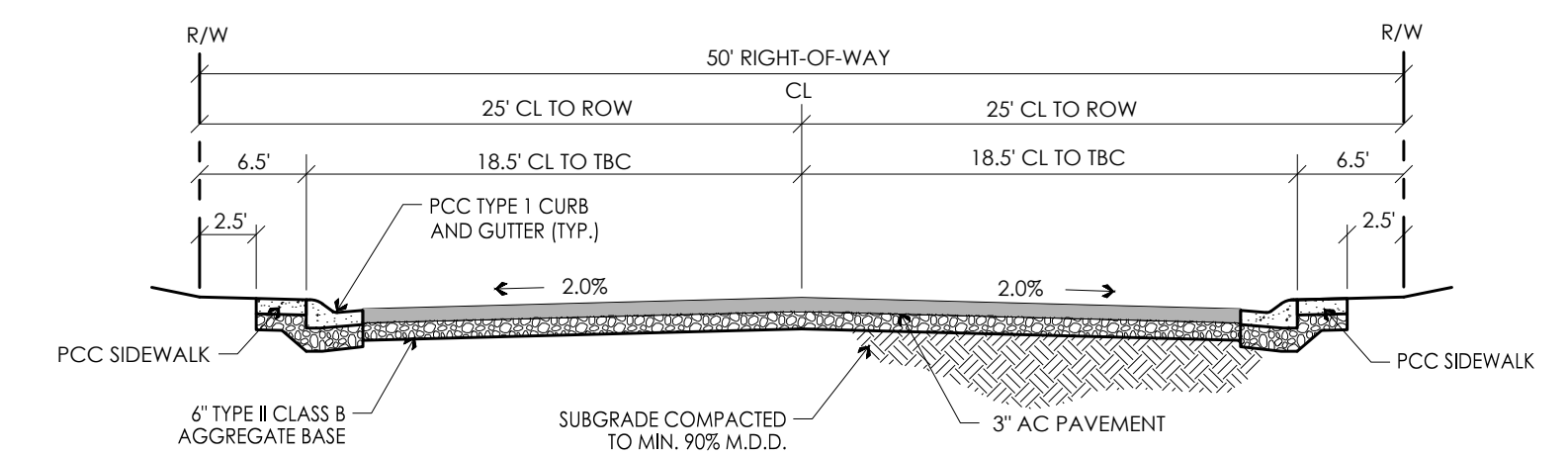
CHAPARRAL ESTATES

TENTATIVE SUBDIVISION MAP
PRELIMINARY LOT AND BLOCK PLAN, NORTH



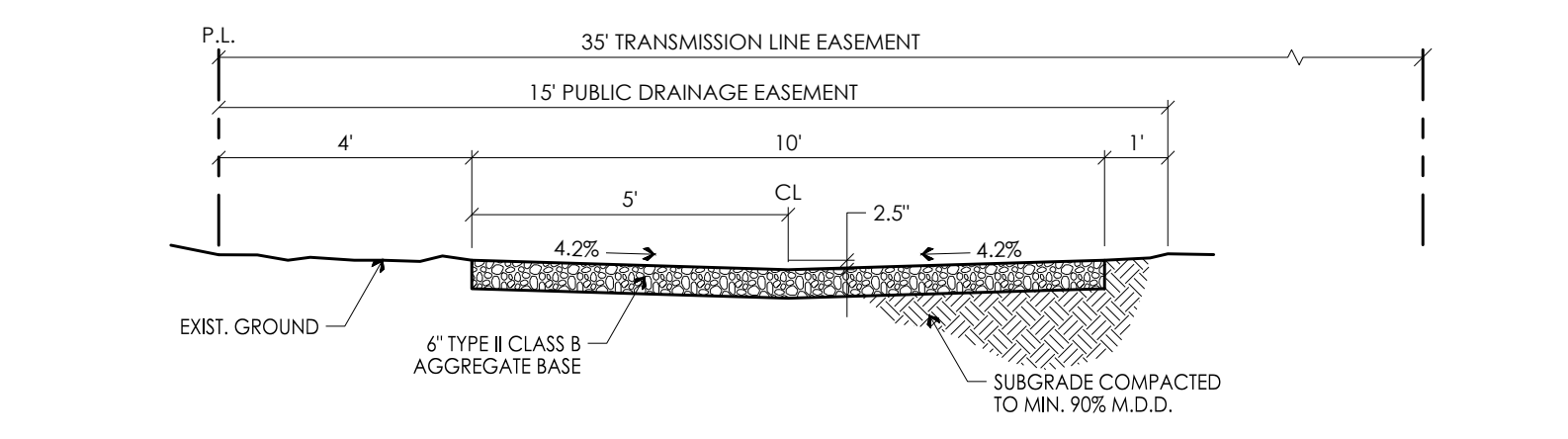
LOCAL STREET
ROLLED CURB (FRONTING LOTS)

NOT TO SCALE

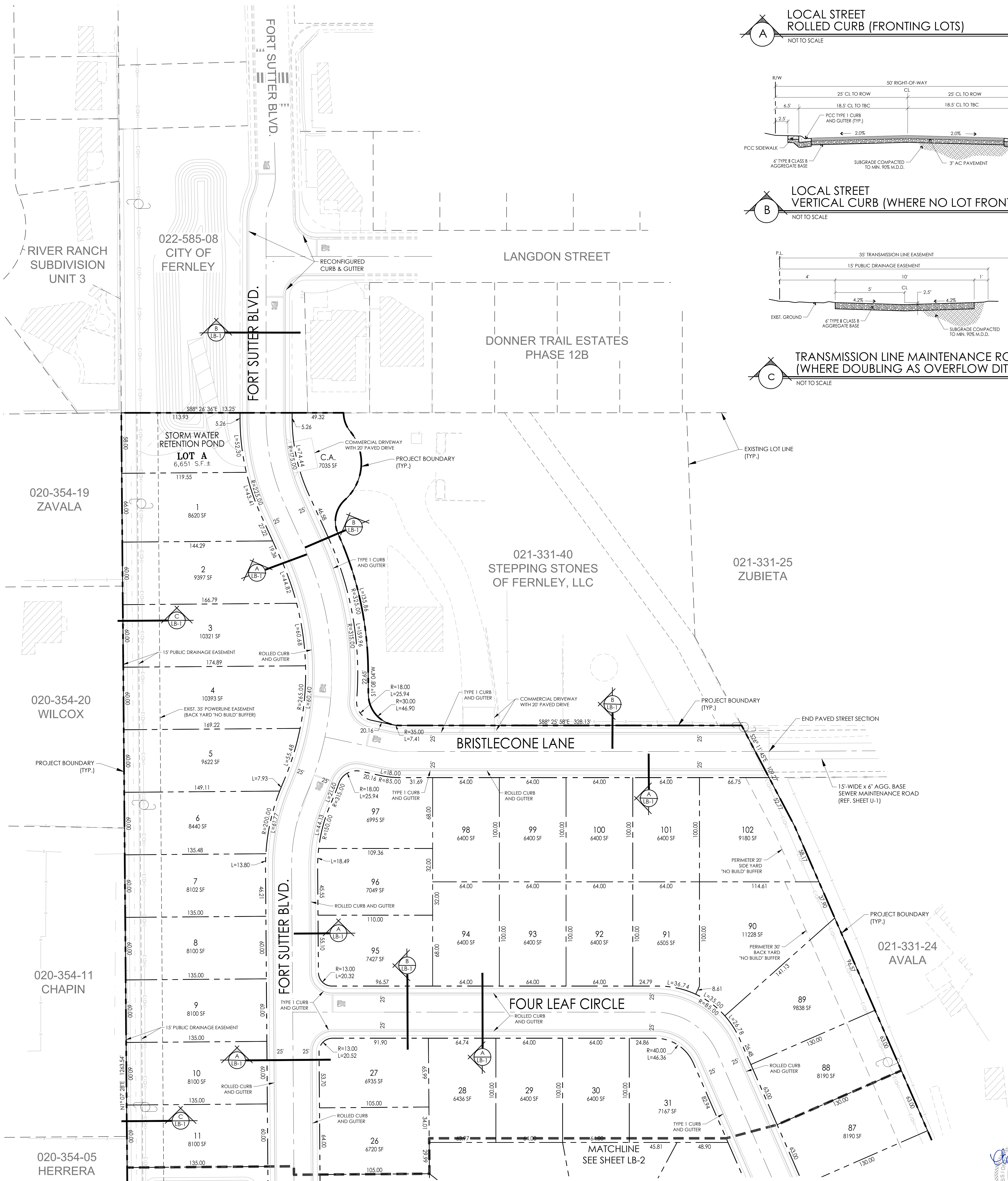


LOCAL STREET
VERTICAL CURB (WHERE NO LOT FRONT)

NOT TO SCALE

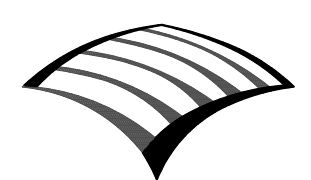
TRANSMISSION LINE MAINTENANCE ROAD
(WHERE DOUBLING AS OVERFLOW DITCH)

NOT TO SCALE



07.23.2025

CHAPARRAL ESTATES
PRELIMINARY LOT AND
BLOCK PLAN, NORTH



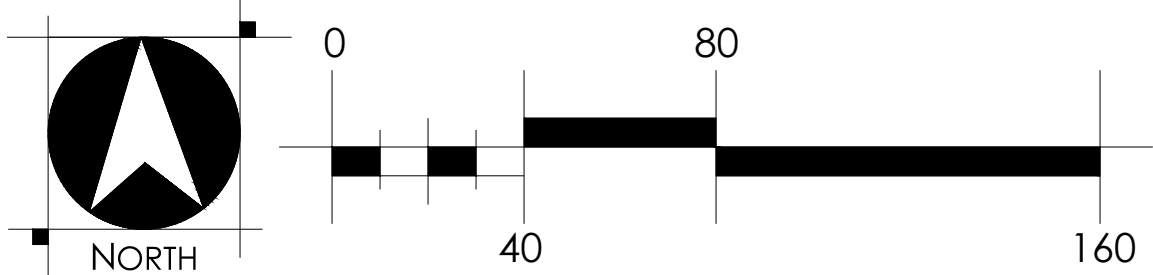
WOOD RODGERS
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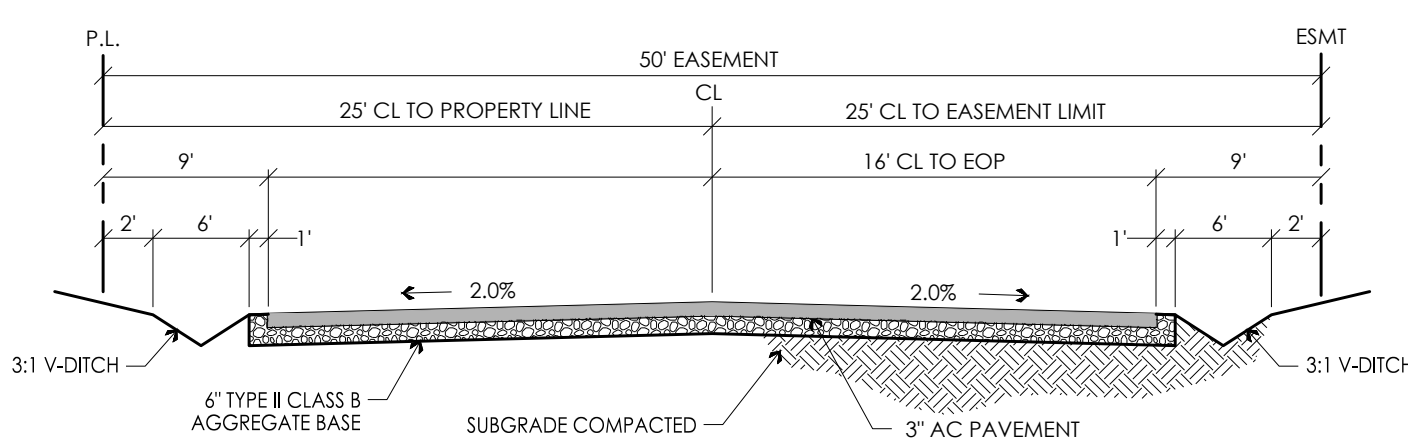
JOB NO. 4506.002

JULY 2025

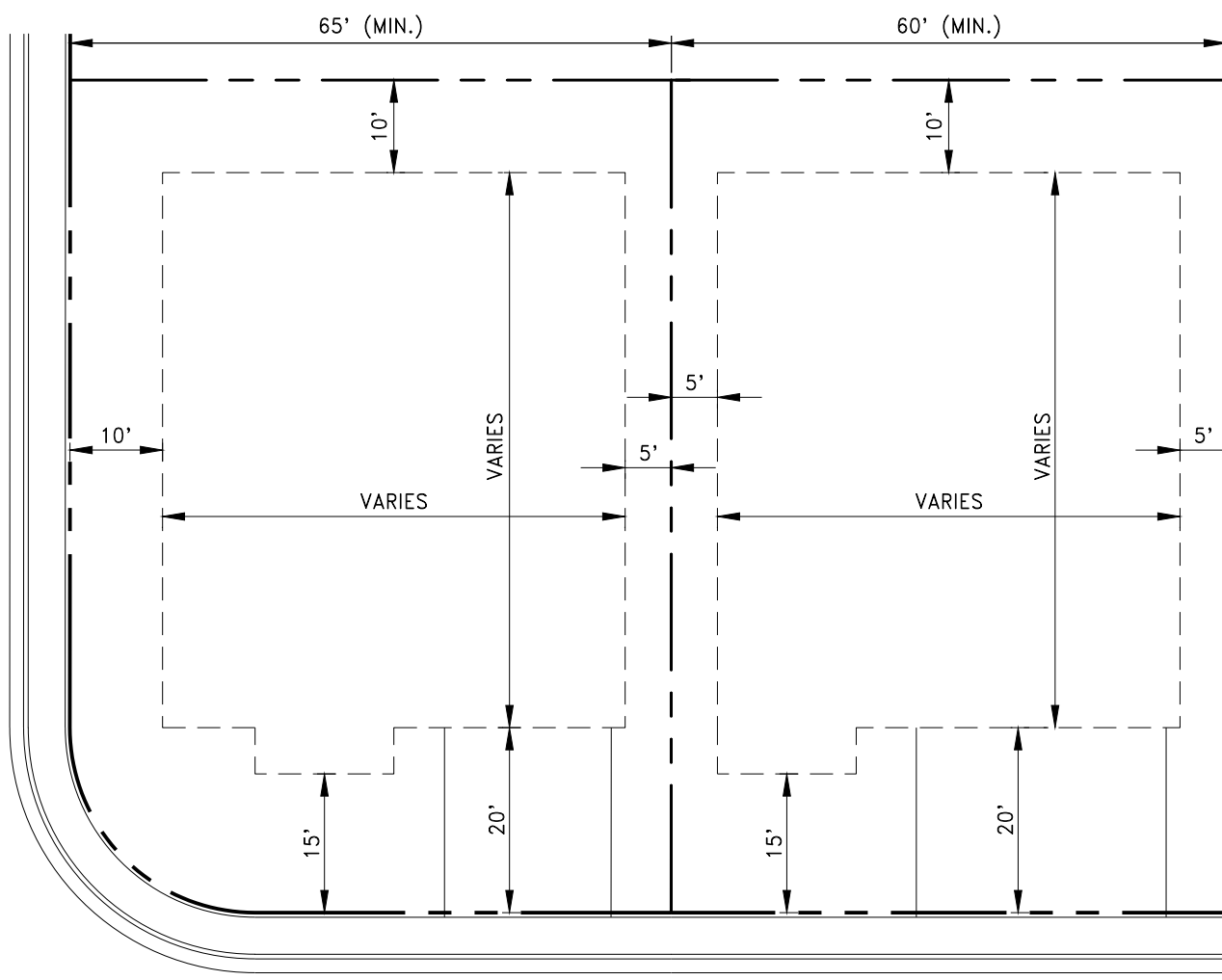
SHEET LB-1 OF 11



CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
PRELIMINARY LOT AND BLOCK PLAN, SOUTH



CLOVER LANE OFF-SITE
NOT TO SCALE
NOTE: EXTEND DOWN CLOVER LANE WITHIN EXISTING 50' ACCESS AND UTILITY EASEMENT FROM PROJECT SOUTH BOUNDARY TO FARM DISTRICT ROAD.



TYPICAL LOT SETBACK DETAIL (SF6 ZONING)

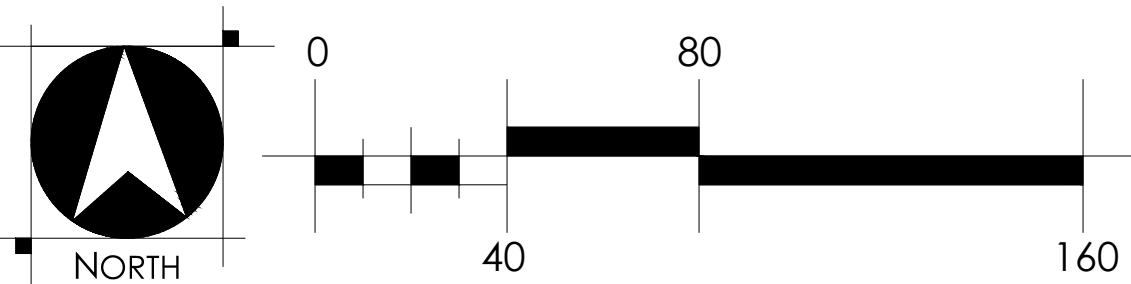
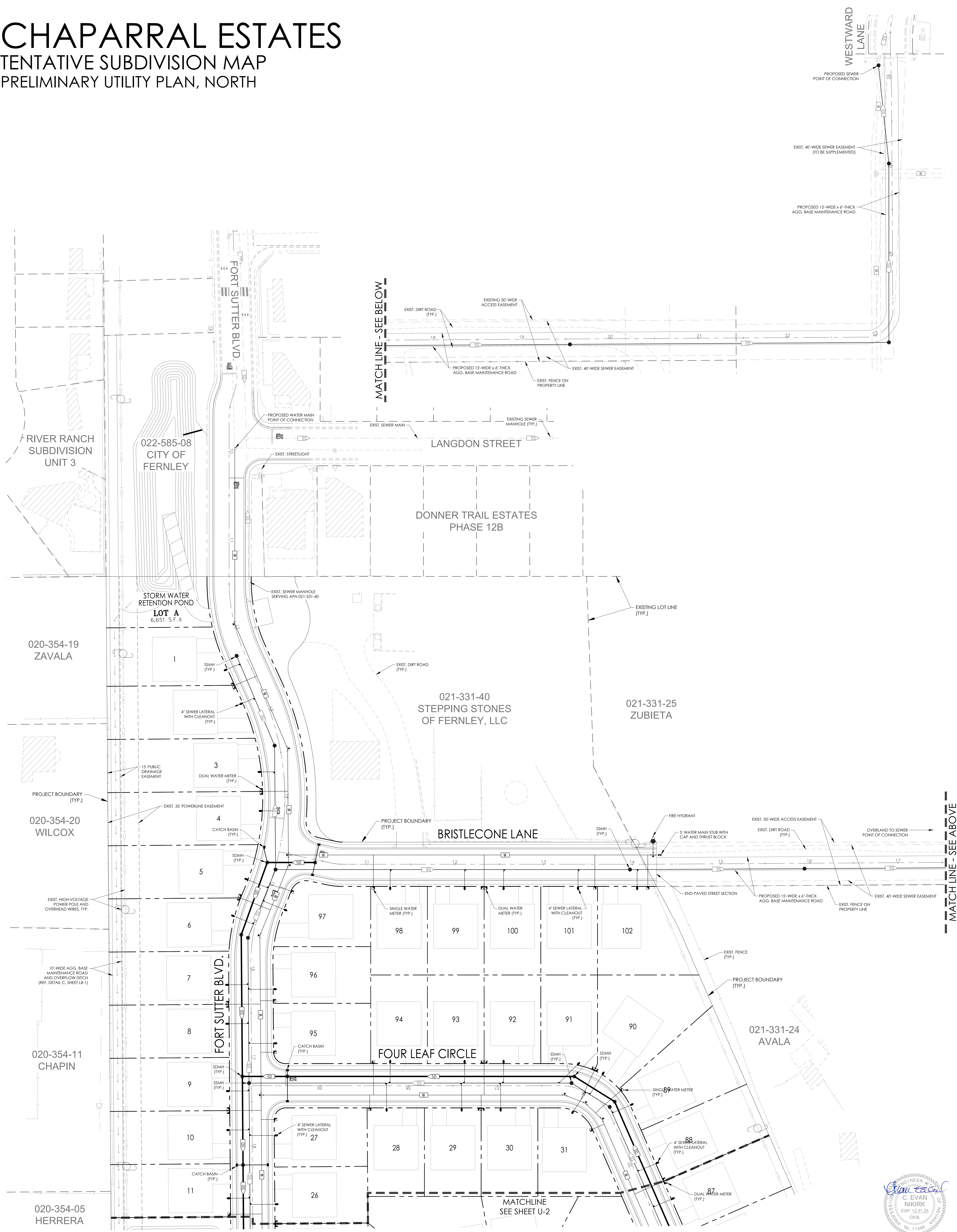


CHAPARRAL ESTATES
PRELIMINARY LOT AND
BLOCK PLAN, SOUTH

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JOB NO. 4506.002 JULY 2025
SHEET LB-2 OF 11

CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
PRELIMINARY UTILITY PLAN, NORTH



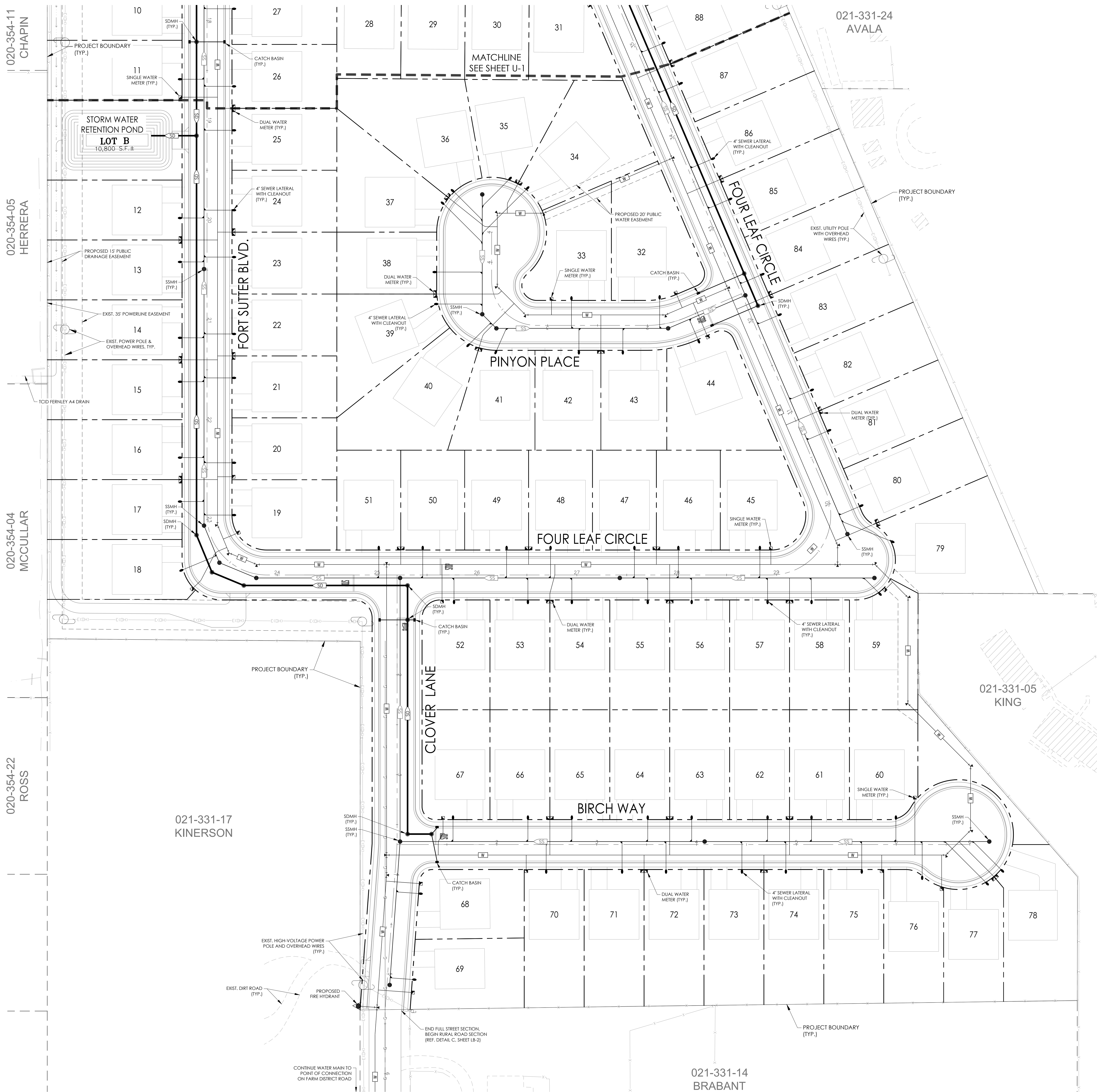
CHAPARRAL ESTATES
PRELIMINARY
UTILITY PLAN, NORTH

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

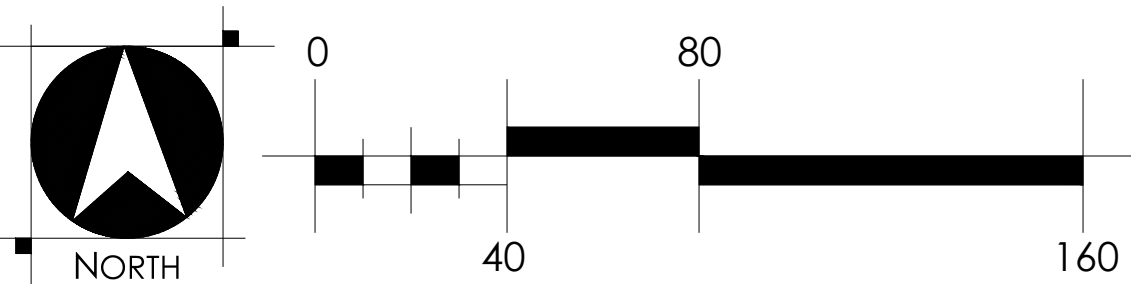
JOB NO. 4506.002 JULY 2025
SHEET U-1 OF 11



CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
PRELIMINARY UTILITY PLAN, SOUTH



CHAPARRAL ESTATES
PRELIMINARY UTILITY PLAN, SOUTH
07.23.2025



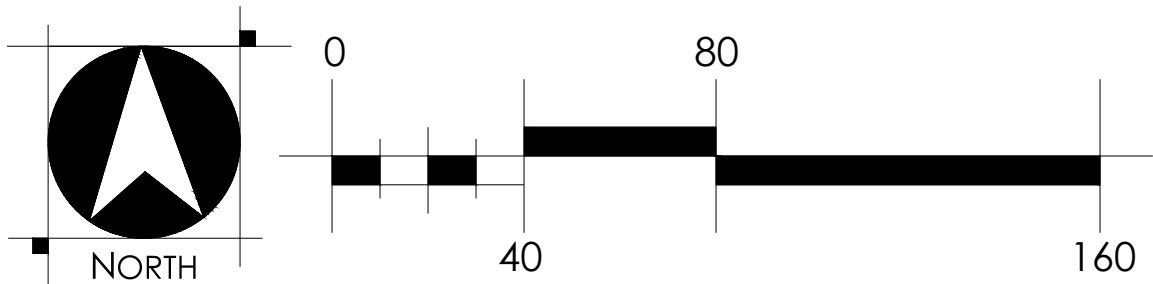
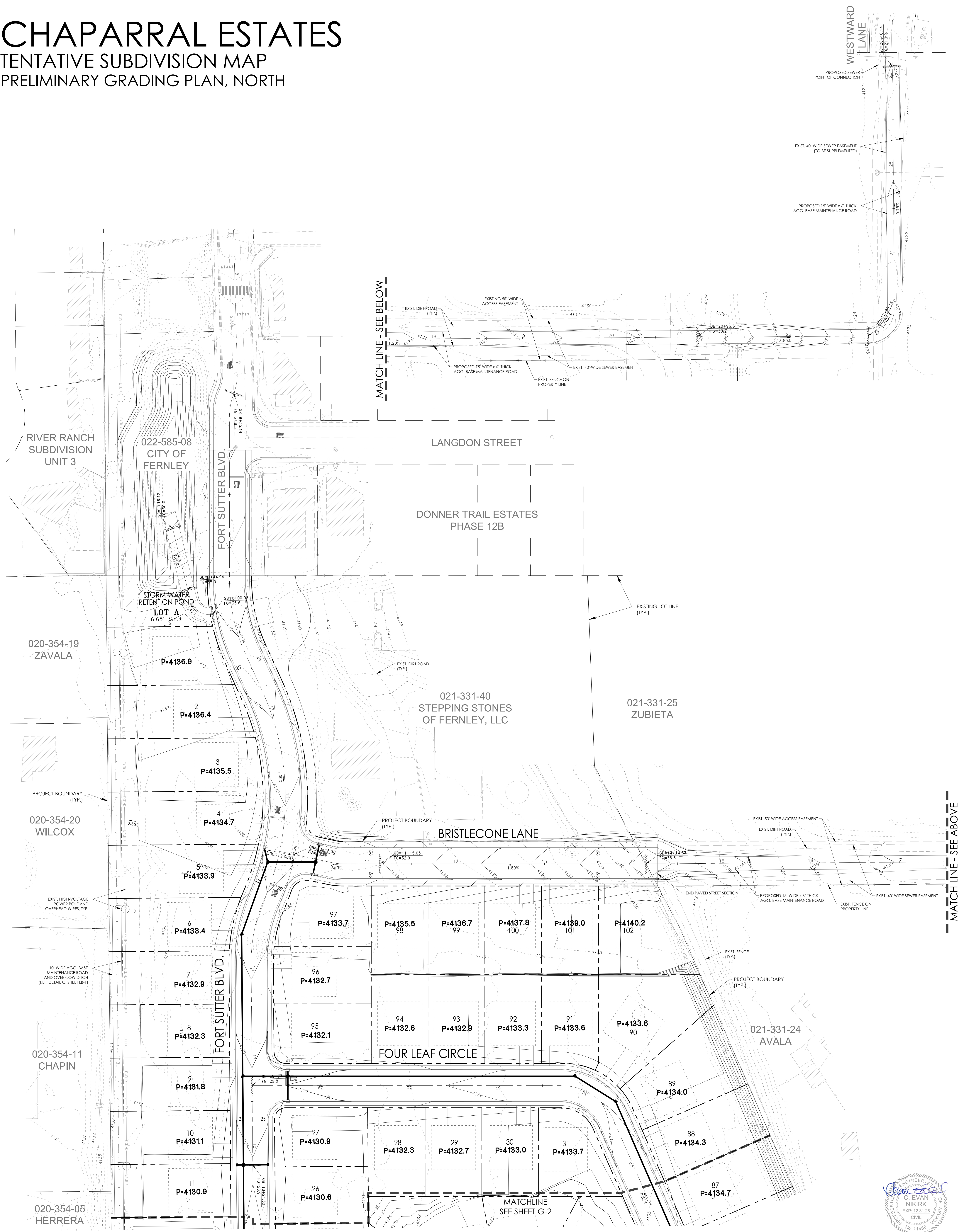
CHAPARRAL ESTATES
PRELIMINARY
UTILITY PLAN, SOUTH

WOOD ROGERS
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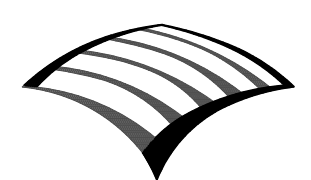
JOB NO. 4506.002 JULY 2025
SHEET U-2 OF 11

CHAPARRAL ESTATES

TENTATIVE SUBDIVISION MAP
PRELIMINARY GRADING PLAN, NORTH



CHAPARRAL ESTATES
PRELIMINARY
GRADING PLAN, NORTH



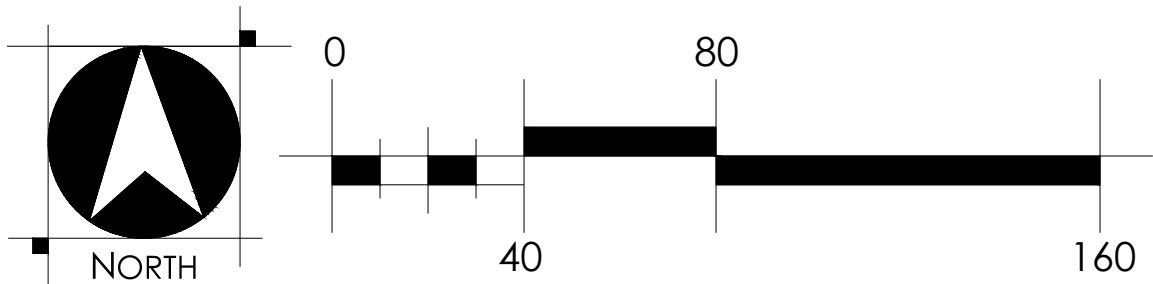
WOOD RODGERS
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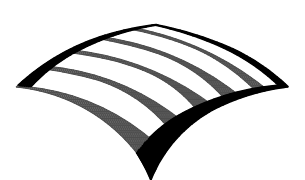
JOB NO. 4506.002

SHEET G-1 OF 11

PRELIMINARY GRADING PLAN, SOUTH



CHAPARRAL ESTATES
PRELIMINARY
GRADING PLAN, SOUTH



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

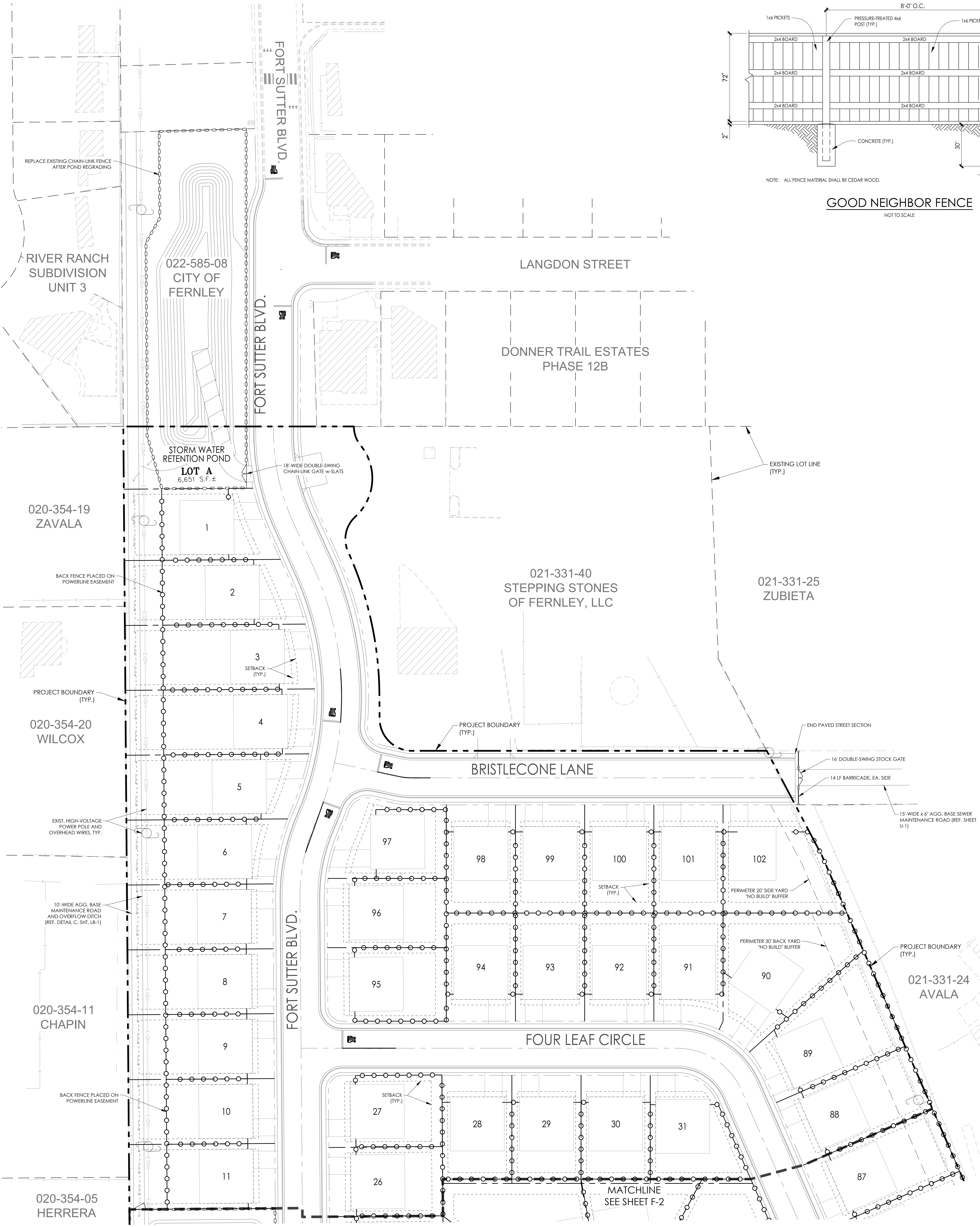
1361 Corporate Boulevard Tel 775.823.4068
Reno, NV 89502 Fax 775.823.4066

JOB NO. 4506.002

SHEET G-2 OF 11

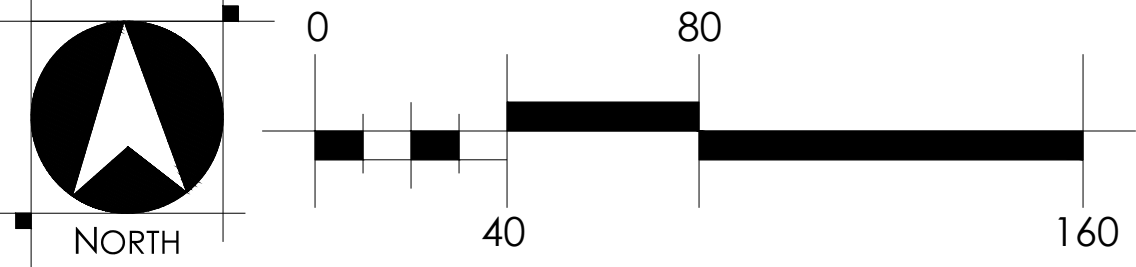
CHAPARRAL ESTATES

TENTATIVE SUBDIVISION MAP
PRELIMINARY FENCING PLAN, NORTH



LEGEND

- 6" SOLID WOOD PRIVACY FENCE PER DETAIL THIS SHEET
- 6" CHAIN-LINK FENCE WITH PRIVACY SLATS (BROWN)



CHAPARRAL ESTATES PRELIMINARY FENCING PLAN, NORTH

WOOD RODGERS
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JOB NO. 4506.002 JULY 2025
SHEET F-1 OF 11



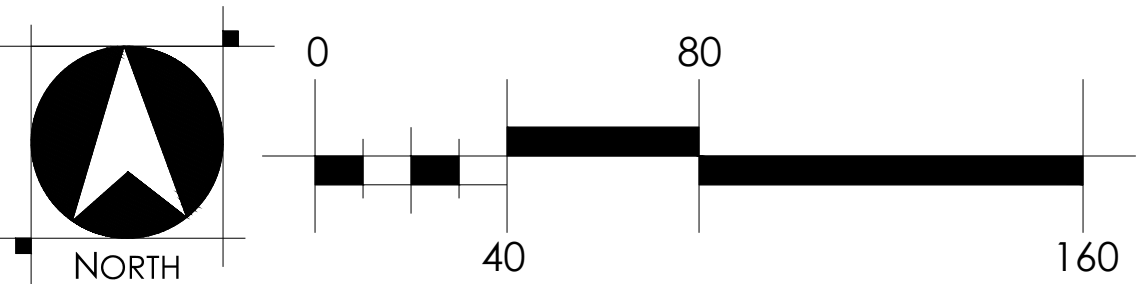
CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
PRELIMINARY FENCING PLAN, SOUTH



LEGEND

6" SOLID WOOD PRIVACY FENCE PER DETAIL SHEET F-1

6" CHAIN-LINK FENCE WITH PRIVACY SLATS (BROWN)



CHAPARRAL ESTATES
PRELIMINARY
FENCING PLAN, SOUTH

WOOD ROGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
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JOB NO. 4506.002 JULY 2025
SHEET F-2 OF 11

CHAPARRAL ESTATES
TENTATIVE SUBDIVISION MAP
PRELIMINARY LANDSCAPE PLAN



CITY OF FERNLEY LANDSCAPE NOTES

- CITY OF FERNLEY MUNICIPAL CODE - SEC. 32.09.090 (c)
GENERAL LANDSCAPING STANDARDS:
- 1) LANDSCAPE ELEMENTS SHALL PROVIDE A VERTICAL DIMENSION. TREES AND TALL SHRUBS SHALL BE USED IN ADDITION TO GRASS AND GROUNDCOVER.
 - 2) LANDSCAPING SHALL BE USED TO ENHANCE THE QUALITY OF THE RESIDENTIAL ENVIRONMENT, TO BUFFER THE UNITS FROM NOISE OR UNDESIRABLE VIEWS, AND TO SEPARATE ROADS WITHIN THE DEVELOPMENT.
 - 3) LANDSCAPING AROUND THE ENTIRE FOUNDATION BASE OF BUILDINGS IS REQUIRED TO ENHANCE THE EDGE BETWEEN THE PARKING LOT AND THE STRUCTURE.
 - 4) LANDSCAPING SHALL BE PROTECTED FROM VEHICULAR AND PEDESTRIAN ENCROACHMENT BY BASED PLANTERS OR THE USE OF CURBS. STEPPING STONES SHALL BE PROVIDED AS ACCESS THROUGH A LANDSCAPE PLANTER(S) WHEN ADJACENT TO PARKING SPACES.
 - 5) ALL LANDSCAPE PLANTERS SHALL BE PROTECTED BY A MINIMUM SIX-INCH HIGH CONCRETE CURB.
 - 6) ALL GROUND SURFACES SHALL HAVE ONE OR MORE OF THE FOLLOWING TREATMENTS:
A. PAVING
B. TURF
C. FOUR-INCH ROUNDED RIVER ROCK
D. DECOMPOSED GRANITE WITH A PRE-EMERGENT HERBICIDE USING WEED BARRIER UNDERNEATH
E. OTHER SIMILAR GROUND SURFACE AS APPROVED BY THE ADMINISTRATOR
 - 7) LANDSCAPING SHALL BE SITED SO THAT AT MATURITY THE PLANTS DO NOT INHIBIT VISIBILITY IN ANY SIGHT TRIANGLE.
 - 8) PLANTING ISLANDS IN PARKING LOTS SHALL HAVE A MINIMUM WIDTH OF EIGHT FEET INTERIOR, PROTECTED BY SIX-INCH HIGH CURBS.
 - 9) ARTIFICIAL TURF IS PERMITTED AS A LANDSCAPE COVER IN SIDE AND REAR YARDS THAT ARE NOT ADJACENT TO STREETS.

PLANTING & IRRIGATION NOTES

- 1) ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER CITY OF FERNLEY CODES.
- 2) FINAL PLANT SELECTION AND LAYOUT WILL BE BASED ON SOUND HORTICULTURE PRACTICES RELATING 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 THE TIME OF PLANTING WILL BE PER THE AMERICAN STANDARD FOR NURSERY STOCK.
- 3) ALL PLANTER BEDS WILL RECEIVE 4" TOP-DRESSING OF MULCH (RIVER ROCK, DECOMPOSED GRANITE, ETC.).
- 4) ALL LANDSCAPING WILL BE AUTOMATICALLY IRRIGATED. TURF GRASS (IF PRESENT) WILL BE IRRIGATED USING LOW ANGLE SPRAY, ROTARY, AND/ OR IMPACT HEADS TO REDUCE WIND DRIFT. CONTAINER PLANTINGS WILL BE DRIP IRRIGATED BASED ON THE SPECIFIC HORTICULTURE REQUIREMENTS OF EACH SPECIES. THE IRRIGATION SYSTEM WILL BE DESIGNED TO ALLOW FULL IRRIGATION OF THE SITE BASED ON A THREE-DAY WEEKLY WATERING SCHEDULE. A REDUCED-PRESSURE-TYPE BACKFLOW PREVENTER (RPB) WILL BE PROVIDED ON THE IRRIGATION SYSTEM AS REQUIRED PER CODE.

LEGEND

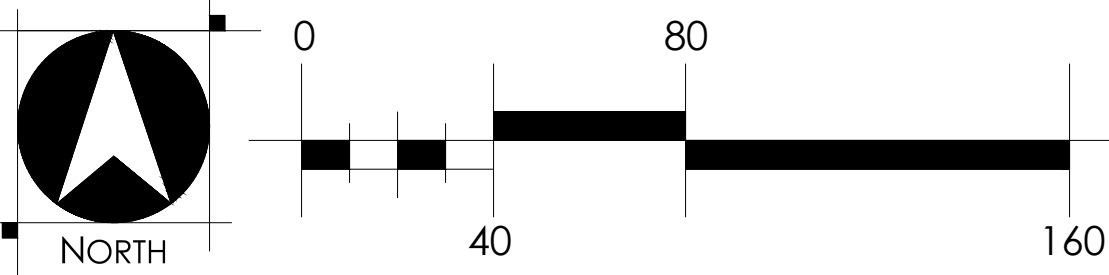
- | | |
|------------|------------------|
| LOTS | ROCK MULCH |
| HOUSE PADS | MAINTENANCE ROAD |
| STREETS | COMMON AREA |
- FRONT LOT TREE
- (1) PER LOT
- TOTAL: 102
- ACCENT / SITE TREE
- 1/500 SQ.FT. OF LS
- REQUIRED: 60
- PROVIDED: 61



CHAPARRAL ESTATES
PRELIMINARY
LANDSCAPE PLAN

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
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JOB NO. 4506.002 JULY 2025
SHEET LS-1 OF 11



EXECUTIVE SUMMARY

- Project Name:** Chaparral Estates Zoning Map Amendment and Tentative Subdivision Map
- Site Location:** The project site is a six-parcel site, which when combined totals approximately 24.72 acres, situated within the city limits of Fernley, Nevada, approximately 0.46 miles south of the intersection of U.S. Highway 50 and Emigrant Way. The site lies at the southern terminus of Fort Sutter Boulevard, where the roadway intersects Langdon Street at a 90-degree angle. Farm District Road is located approximately 0.18 miles south of the site's southern boundary. The site will be accessible via two proposed access points: one from the north through Fort Sutter Boulevard and another from the south via Clover Lane.
- APN Numbers:** 021-331-15, -19, -20, -22, -29, and -38
- Applicant:** Genica Development, LLC
- Applicant's Representative:** Wood Rodgers, Inc., Attention: Eric Hasty
- Owners:** Genica Clover Ranch, LLC (APNs 021-331-19, -20, -22, -29 and -38)
Shawna J. Tibbals (APN 021-331-15)
- Proposed Action:** This application packet includes requests for:
- 1) **Zoning Map Amendment** on the entire 24.72-acre portion of land from Residential – Rural (½-acre minimum) (RR- ½) and Residential – Rural (5 acre minimum) (RR5) to Residential – Single-Family (6,000 sf minimum)(SF6);
 - 2) **Tentative Subdivision Map** to develop a 102-lot single-family detached subdivision with three common-area parcels, for a total of 105 parcels.
- Current Land Use:** Single-Family Residential (SFR)
- Current Zoning:** ±19.3 acres: Residential – Rural (½-acre minimum) (RR- ½)
±5.42 acres: Residential – Rural (5 acre minimum) (RR5)
- Proposed Zoning:** ±24.72 acres: Residential – Single-Family (6,000 sf minimum) (SF6)
- Flood Zone Designation:** Zone X
- Gross Site Area:** ±24.72 acres

Background / Existing Conditions

The project site (Site) is generally located along Clover Lane and Browne Lane approximately 0.5 miles (mi) south of U.S. Highway 50 and south of the terminus of Fort Sutter Boulevard, where the roadway intersects Langdon Street at a 90-degree angle. Farm District Road is located approximately 0.18 mi south of the site's southern boundary. Specifically, the project site includes six parcels identified with APNs 021-331-15, -19, -20, -22, -29, and -38 that when combined total 24.72 acres.

The site has direct access to Farm District Road to the south via Clover Lane. Clover Lane traverses the site north to south and is an unimproved roadway within the site but is paved south of the site to Farm District Road. A *Step Ahead Preschool* is located to the north of the site as well as existing and newer 6,000 square foot lots, with residential in varying lot sizes and vacant land to the east, west and south. In terms of site characteristics, the site is relatively flat. The site is undisturbed vacant land with primarily native vegetation consisting of native grasses.

Zoning Map Amendment and Tentative Subdivision Map

Project Description

The site has an existing Fernley Comprehensive Master Plan (Master Plan) land use designation of Single-Family Residential (SFR), with non-conforming zoning districts of Residential – Rural (½-acre minimum) (RR- ½) (19.3 acres) and Residential – Rural (5 acre minimum) (RR5) (5.42 acres) (*refer to Zoning and Master Plan maps in Section 2 of this submittal packet*). The SFR land use designation is intended to allow 2-7 dwelling units per acre/ (du/ac) in primarily single-family detached homes with varied lot sizes. It is important to note the entire project site is zoned RR½ or RR5, which is non-conforming to the current Master Plan designation of SFR. The site is an infill site and a logical expansion of the residential units to the north, which are zoned SF6.

It should be noted that a neighborhood meeting was held on April 24, 2025, to discuss the proposed zone change and tentative subdivision map with neighbors and stakeholders. Notice of the meeting was mailed directly to all surrounding neighbors within 750 feet of the project site. A conceptual site plan similar to the Tentative Map submitted with this request was presented. Concerns expressed by meeting attendees included site circulation and existing irrigation easements. These comments have been addressed, with mitigation measures incorporated into the proposed design and further described in the document below.

Project Requests

Included with this submittal is an application and associated materials for:

- 1) **Zoning Map Amendment.** The application requests to change the regulatory zoning of the site from 5.4 acres of Residential – Rural (5 acre minimum) (RR5) and 19.3 acres of Residential – Rural (½-acre minimum) (RR ½) to 24.72 acres of Single-Family Residential (6,000 sf minimum) (SF6). The proposed SF6 zoning designation will be in conformance with the existing Master Plan designation and will support proposed development of the site.
- 2) **Tentative Subdivision Map.** This application requests approval of a Tentative Subdivision Map (TSM) to develop a 102-lot single-family detached development, with three common area parcels, for a total of 105 parcels, a minimum lot size of 6,144 sf interior lots, and an average perimeter lot size of ±8,269 sf. The gross density proposed is 4.1 du/ac, which is in conformance with the proposed regulatory zoning and existing Master Plan land use designations.

Adjacent Land Use and Zoning

	Master Plan	Zoning	Current Use of Land
North	Single Family Residential (SFR)	SF6 SF20	single-family residential, detention basin pre-school
South	Single Family Residential (SFR)	RR5	single-family residential
East	Single Family Residential (SFR)	RR5 SF20	single-family residential
West	Single Family Residential (SFR)	RR1 RR5	vacant, single-family residential

North: The northern boundary of the site borders two parcels with a Master Plan land use designation of SFR and a zoning designation of SF6. The western of these two parcels bordering the site's northern boundary is owned by the City of Fernley and is occupied by the water detention basin for the adjacent single-family residential subdivision. The other parcel adjacent to the site's northern boundary is occupied by a single-family residence. Additionally, the site shares a portion of its northern and eastern boundaries with an adjacent parcel with a land use designation of SFR and a zoning designation of SF20 occupied by a preschool (*A Step Ahead Preschool*).

South: The site is bordered to the south by parcels with a land use designation of SFR, a zoning designation of RR5, and occupied with single-family residential dwelling units.

East: Directly adjacent to the site's eastern boundary are parcels with a SFR Master Plan land use designation, zoning designations of either SF20 or RR5, and occupied with single-family residential dwelling units. Further east is another single-family residential subdivision which surrounds the southern and western boundaries of Silverland Middle School.

West: Directly adjacent to the site's western boundary are five parcels with a master plan land use designation of SFR and zoning designations of either RR1 or RR5. These parcels are either vacant or occupied with single-family residential dwelling units.

In terms of surrounding land use compatibility, the site is uniquely positioned to provide an opportunity for a more desirable lot size in the current market conditions (6,400 to 8,000 square feet) for most buyers similar to the newer neighborhoods surrounding the site. The site also provides larger lots along the perimeter to provide a transition to the adjacent vary lot size parcels to the west, east, and south. The project allows for a wide range of lot sizes as envisioned in the City of Fernley master plan, helping the city provide an appropriate transition zone from the more rural development in the south and the higher density development in the north.

Zoning Map Amendment Justification

The zoning map amendment (ZMA) request to change the current zoning designations from RR5 and RR½ to SF6 is consistent with the adjacent zoning and lot sizes as it will allow for lot sizes similar to the newer single-family subdivisions to the north, east and southwest, but allow for flexibility in lot sizes along the perimeter to accommodate larger lots compatible with the adjacent lots. Larger lots have been incorporated into the overall site design to accommodate for increased perimeter buffers along the eastern and western site boundaries as well as internally at corner lots. This ZMA will facilitate the proposed subdivision and help support housing needs to accommodate anticipated population growth. Furthermore, the project is located within an area that has direct access to existing utilities and nearby paved roadways for connectivity and access, making this a logical extension of the existing surrounding neighborhoods and compatible with the land use pattern envisioned for this area of the community.

The proposed SF6 zoning would allow for a maximum density of 7.26 du/ac. The proposed SF6 zoning and resultant allowed density of 7.26 du/ac is consistent with the surrounding zoning designation of SF6 to the north and northwest and compatible with the single-family character envisioned for this part of the community and echoed by several other approved single-family residential developments to the east (*refer to Proposed Zoning Map in Section 2 of this submittal packet*).

The ZMA request to change the current designations of RR5 and RR ½ to SF6 is consistent with the adjacent zoning and lot sizes to the north and northwest and provide for an appropriate transition from the larger-lot rural-residential parcels to the south and east, as the design of the site incorporates larger perimeter lots in accordance with the purpose and intent of the adjacency standards in Fernley Development Code (FDC) § 32.09.030.

To further justify this amendment, the existing RR5 and RR½ zoning districts are non-conforming to the existing SFR Master Plan land use designation and the proposed ZMA will bring the site into compliance with the Master Plan.

The proposed ZMA supports the tentative subdivision map (TSM) request also included with this application for a 105-parcel subdivision (102 residential lots and three common area parcels) with lots ranging in size from 6,200 sf to 12,249 sf. The proposed tentative map would produce a density of approximately 4.1 du/ac, falling well below

the maximum density for the SF6 zoning and effectively providing a minimum density similar to the SF9 zone and is an appropriate density for compatibility with both surrounding rural residential and smaller-lot residential development (*refer to the Site Plan in the Map pocket of the submittal packet*).

Tentative Subdivision Map Analysis

Overview

The current request is to develop the site with 102 single family residential lots and three common area parcels for 105 parcels total, with two other dedicated areas to be offered to the city for storm water retention ponds. Pending the proposed ZMA the regulatory zoning for the site will be SF6, with the maximum number of dwelling units allowed in this zoning district is 7.26 du/ac, and lots must be a minimum of 6,000 sf. Without considering allowances for roadways, landscaping, open space, or setbacks, a 24.72-acre site would be allowed a maximum of 173 separate lots, noting the site plan includes 102 residential lots and amounts to a density of 4.1 du/ac, far less than would be allowed under the proposed zoning district’s maximums. There are no existing structures on the site. Proposed improvements include site access, drainage and grading improvements, and the extension of utilities, including water, sewer, and electric, to the new lots.

The SF6 zoning district has the specific purpose and intent to preserve areas where the predominant dwelling type is single-family detached dwelling units at or below 7.26 du/ac, consistent with the tentative subdivision map being submitted for this site under this application.

The tentative subdivision map has been designed specifically to meet the intent and purpose of lot adjacency and transition standards for single-family residential development. FDC §32.09.030(d) includes specific requirements for transitions and buffers between development on lots with varying degrees of density. When considering this, it is worth noting the zoning code was last comprehensively update prior to the Master Plan’s most recent comprehensive update in 2019, with some portions of the existing zoning code including standards not reflective of the vision for the community seen in the updated Master Plan. Specifically, the transition and buffer adjacency standards, if adhered to strictly, would create possible “dead zones” of land within subdivisions where development or improvements are neither feasible nor required. Further, FDC allows deviation from these standards with approval by the Administrator.

In order to satisfy the purpose and intent of the lot adjacency and transition standards, the site plan for the proposed subdivision has incorporated 30-ft rear buffers on both the east and west perimeter boundaries of the subdivision, included on the submitted TSM. It is anticipated that the buffer will be recorded on the final map and reflected on all applicable deed documents. These buffers will satisfy the access needs for utility infrastructure, including power poles and lines which run along both the eastern and western perimeter boundaries, while also providing an adequate transition zone buffer from the density/intensity of the neighboring RR1 and RR5 parcels and the proposed adjacent SF6 parcels. This perimeter buffer is in addition to rear setback requirements, thus development (erection of structures) will be prohibited in the rear 40-ft of any eastern or western perimeter lot, as regulated by the future Homeowners Association (HOA) for the subdivision. This 40-ft no-build buffer is a minimum standard, with it anticipated most perimeter lots will have an even larger rear setback of the residence.

Development Statistics Summary

Total Site Area:.....	24.72± acres
Total Dwelling Units:	102 single-family detached dwelling units
Net Density:	4.1± dwelling units/acre
Total Lot Area:.....	18.01± acres (73%)
Average Lot Size:.....	7,691± square feet

Average Perimeter Lot Size:	8,269± square feet
Maximum Lot Size:.....	12,249± square feet
Minimum Interior Lot Size:.....	6,200± square feet
Total Right of Way Area:.....	5.64± acres (23%)
Total Common Area:	0.66± acres (2.7%)

Grading

The project site is mostly vacant. The site generally slopes from east to west. Approximately 100% of the site has slopes less than 10%, therefore *FDC §32.09.130 (Slopes, hilltops, and ridges)* is not applicable. Grading of the site is provided in the Preliminary Site Plan (*refer to the Preliminary Grading Plan [Sheets G-1 and G2] of the Tentative Map Plan Set in Section 4 and the Map Pocket of this submittal packet*).

Drainage

On site drainage will consist of directing onsite flows from the various portions of the site and allowing them to flow to curb and gutter facilities located within the proposed street network. This will convey the flows to the two proposed retention ponds. One retention pond is the existing pond adjacent to the site's northern boundary and located within the City of Fernley owned parcel. This will be reconfigured to allow for the extension of Fort Sutter Boulevard into the site. A second retention pond located between lots 11 and 12 will capture the remaining flows generated from the site (*refer to Preliminary Hydrology Report included in Section 4 of this submittal packet*).

Water, Sewer, and Utilities

Water is anticipated to be extended into the site via the extension of Fort Sutter Boulevard to the north. Water infrastructure serving the site will be located within the proposed road network and will be stubbed to each proposed lot. Sewer is anticipated to be extended from Westward Lane within an existing utility easement and brought into the site via the existing roadway Brown Lane, which is proposed to be Bristle Cone Lane within the proposed subdivision, as seen on the site plan. Other utilities including power and communications are adjacent to the site and will be brought in within the proposed right of ways. For detailed information regarding existing and proposed utility infrastructure refer to the *Preliminary Utility Plan (Sheets U-1 and U2)* in Section 4 and the *Map Pocket* of this submittal packet.

Site Access and Circulation

The site is currently accessed from the south via Clover Lane to Farm District Road. The TSM shows a new access proposed to the north via Fort Sutter Boulevard through the adjacent city-owned parcel, with slight reconfiguration of the existing stormwater retention pond to accommodate the roadway extension and encourage travel patterns north to Highway 50. A network of 50-ft-wide internal street rights-of-way, including sidewalks, cul-de-sacs, and turning radii will serve the site, all designed to meet City of Fernley roadway standards and international fire code.

Given the site's proximity to a preschool, and in response to feedback received from neighborhood stakeholders, the configuration of internal roadways was redesigned, incorporating elements to slow traffic around the preschool including a proposed three way stop at the intersection of Birch Street and Bristle Cone Lane and providing a 10-foot buffer from the preschool parcel and the right of way. Further, instead of grid style roadways running straight from north to south, the subdivision is designed with roadways with slight turns, bump outs, and cul-de-sacs. Sidewalks will be incorporated throughout which will bring pedestrian scale to the roadways.

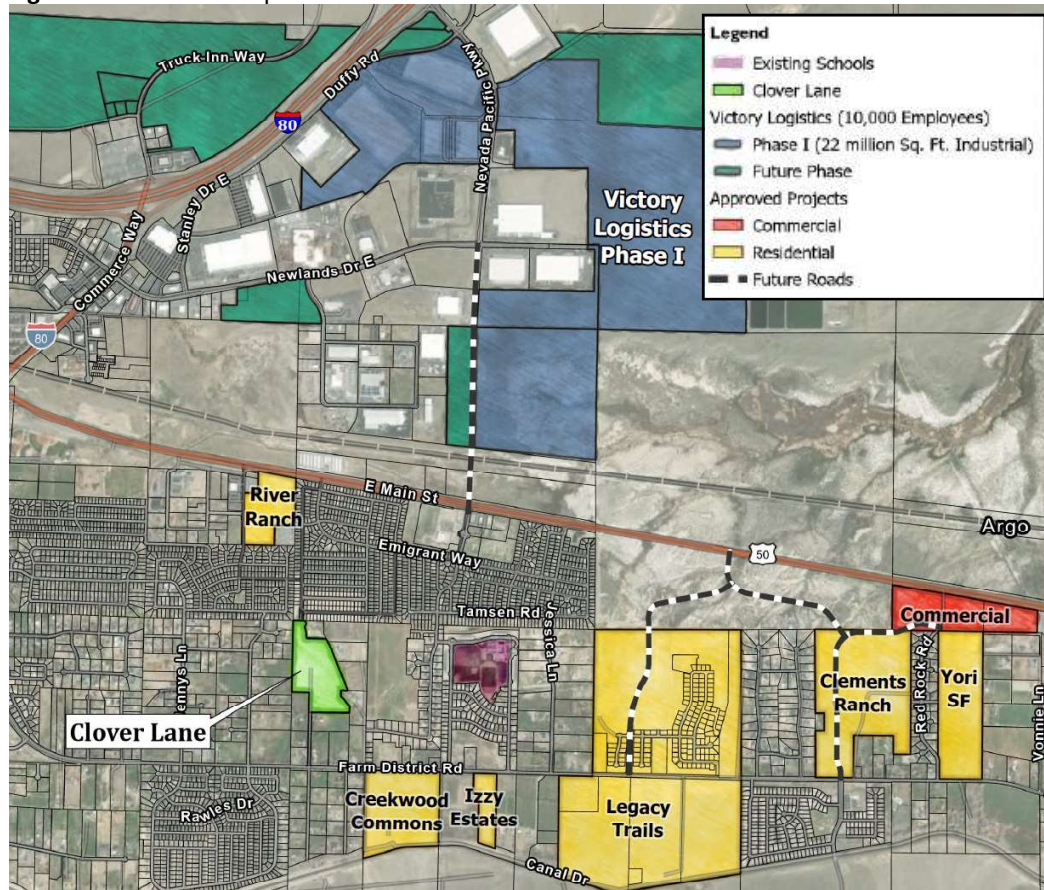
Although the site does draw existing access from Clover Lane which extends south to connect with Farm District Road, the traffic impact study conducted in tandem with this submittal indicates, under the current project design, a vast majority (80%) of trip generation would access the site via the north through the new connection

to Fort Sutter Boulevard (refer to *Traffic Impact Study in Section 4 of this submittal packet*). As this connection will bifurcate the adjacent city-owned parcel to the north, the new roadway will be constructed a minimum of 15-ft from the adjacent western parcel boundary of the privately owned parcel to the east, ensuring additional setback area for the adjacent property.

A key factor in traffic patterns for the Fernley community moving forward will be the completion of the Nevada Pacific Parkway connecting I-80 to Highway 50 which will provide necessary access to the Victory Logistics, a company anticipated to add approximately 10,000 jobs to the Fernley community over the next 10 of years which will contribute substantially to the need for housing and adequate traffic circulation in coming years (refer to **Figure 1** below).

The proposed subdivision located south of Highway 50 but north of Farm District Road, only a short distance from the future connection of Nevada Pacific Parkway and Highway 50, combined with the site's new access to the north, makes the site perfectly positioned to provide much a much needed housing product while not contributing negatively to traffic flow and likely helping to relieve traffic flow issues currently being experienced in Fernly due to the I-80 roundabout.

Figure 1: Future Development



Traffic

The Traffic Impact Study prepared by Headway Transportation (April 15, 2025) considered 100 single-family dwelling units (refer to *Traffic Impact Study in Section 4 of this submittal packet*). Based on this analysis a project of the analyzed size would generate approximately 943 daily trips, 70 AM peak hour trips, and 94 PM peak hour trips. The study concluded that all intersections studied are anticipated to operate within policy level of service

under all scenarios, with or without the project. The addition of project traffic had no significant impact on the study intersections. The TIS does not indicate any roadway improvements are needed for capacity based on the additions of project traffic. For specific details regarding traffic conditions and improvements, refer to the *Traffic Impact Study* in Section 4 of the submittal packet.

Landscaping

The proposed TSM is for 105 parcels (102 residential lots and three common area parcels) intended for development with single-family detached dwelling units and is not classified as a planned development under FDC. Although limited common area is anticipated at this time, all landscaping in any common areas will be owned and maintained by a HOA or an equivalent that will be established at final map. Beyond this, individual lots will not be held to any additional landscaping standards above and beyond the landscaping standards for the proposed underlying SF6 zoning district.

Public Services

Schools: According to the Lyon County School District's 2016 Facilities Plan, all Fernley schools are currently under capacity and are planned to be within adequate utilization through 2025. Students residing in this development will attend Cottonwood Elementary School, Silverland Middle School, and Fernley High School.

Police and Fire Services: The project site is located in an area already served by police and fire services. Police services will be provided by the Lyon County Sheriff's Department and fire service will be provided by the North Lyon County Fire Protection District. The closest fully staffed fire station is the North Lyon County Fire Protection District Main Office, located approximately 2.7 miles west near the intersection of State Route 95A and Main Street. The main access to the site where police and fire will enter the development is located on Fort Sutter Boulevard.

Parks: There are recreational amenities in the area of the subject site. Ponderosa Park is located 0.88 miles southwest of the site. Picetti Park, a small neighborhood serving park, is located 0.66 miles east. Green Valley Park is approximately 1.5 miles west from the site, with larger parks like Fernley out of Town Park (2.5 miles west) and Autumn Winds Park (2.2 miles east) further from the site.

Fiscal Impact Statement

The subject parcel is an infill parcel located in an area surrounded by existing older residential development adjacent to existing infrastructure. The current vacant use does not provide any fiscal benefit for the City of Fernley at this time. One of the issues the City of Fernley is facing is that larger-lot developments no longer cover the costs of required infrastructure, which has contributed to a continual increase in utility fees and roads left in poor shape. Developing the subject site with large lots consistent with the current non-conforming zoning could bring negative fiscal impact to the City of Fernley based on existing trends and would be an inefficient use of the land given the housing demand anticipated for the large employment center (Victory Logistics) currently under construction.

The proposed zoning will provide a mix of unit types that will take advantage of the existing infrastructure, helping provide fees that will support the city's ongoing utility and public service costs. The additional dwelling units facilitated by this request will provide additional impact fees and tax revenues that will fiscally support the city's schools, parks, roads, and public services while also providing more obtainable housing options that are appropriate to support the growing workforce.

Victory Logistics employment center, less than two miles northeast from the subject site, is anticipated to generate over 10 million square feet of new industrial space along with over 10,000 employees within the first phase (Northern Nevada Business Weekly <https://www.nnbw.com/news/2021/jul/27/playing-long-game-massive-fernley-development-sets/>). Utilizing the subject infill parcel to help support the adjacent employment

growth is a much more efficient use of the land and will help fill the gap in needed housing within the community. Housing products obtainable to average-incomed Fernley residents will help fill a crucial need in “missing-middle” housing products, which is critical to support the future employment centers already being constructed and, more broadly, the future economic growth of Fernley.

FINDINGS FOR APPROVAL

Pursuant to the City of Fernley Development Code §32.03.040(e)(6) *Findings for approval*, a zoning map amendment may be approved if it is:

- 1) Consistent with the city's Master Plan and otherwise consistent with state and federal law;
- 2) Consistent with the surrounding land uses; and
- 3) Public notice was given, and a public hearing held per the requirement of the development code and Nevada Revised Statutes.

1) Implementation and Consistency with the City of Fernley Master Plan

Response: The ZMA and TSM will enable the development of 102 single-family dwelling units, offering a housing option that is highly desirable given current market conditions and employment coming to Fernley. This proposed zoning aligns with the site's current Master Plan land use designation, addressing the inconsistency between the existing zoning and the Fernley Master Plan. Furthermore, the ZMA and TSM support and advance several goals and policies outlined in the Master Plan. The following excerpts and accompanying analysis demonstrate the proposal's alignment with these planning objectives

Applicable Master Plan Goals and Policies

Goal 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.

Comment: The proposed ZMA and TSM will facilitate the development of 102 single-family dwelling units on the parcels, which will provide a slightly higher density housing option on the site than its present zoning would allow. With projected growth in Fernley and increased development in the area, offering a variety of housing types and costs will contribute to vitality and housing diversity in the community.

Goal 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.

Comment: The subject parcel is located in an area that is master planned for the size of lots proposed. The ZMA request is consistent with the surrounding area. The ZMA request would maintain conformance with the Master Plan and continue similar growth patterns of the surrounding area by allowing lot sizes similar to those in the neighborhood to the north and allow for larger lots along the perimeter. The potential for increased residential density conserves natural resources in the area by concentrating development in an area already being served by public services and amenities. Resource efficient design and construction will be incorporated into future stages of the project.

Goal LU.1.1 Encourage and plan for new development in areas where adequate public services and facilities can be provided efficiently.

Comment:
Sewer, Water, and Utilities

Water is anticipated to be extended into the site via the extension of Fort Sutter Boulevard to the north. Water infrastructure serving the site will be located within the proposed road network and will be stubbed to each proposed lot. Sewer is anticipated to be extended from Westward Lane within an existing utility easement and brought into the site via the existing roadway Brown Lane, which is proposed to be Bristle Cone Lane within the proposed subdivision, as seen on the site plan. Other utilities including power and communications are adjacent to the site and will be brought in within the proposed right of ways. For detailed information regarding existing and proposed utility infrastructure refer to the *Preliminary Utility Plan (Sheets U-1 and U2)* in Section 4 and the *Map Pocket* of this submittal packet.

Schools

According to the Lyon County School District's 2016 Facilities Plan, all Fernley schools are currently under capacity and are planned to be within adequate utilization through 2025. Students residing in this development will attend Cottonwood Elementary School, Silverland Middle School, and Fernley High School.

Police and Fire Services

The project site is located in an area already served by police and fire services. Police services will be provided by the Lyon County Sheriff's Department and fire service will be provided by the North Lyon County Fire Protection District. The closest fully staffed fire station is the North Lyon County Fire Protection District Main Office, located approximately 2.7 miles west near the intersection of State Route 95A and Main Street. The main access to the site where police and fire will enter the development is located on Fort Sutter Boulevard.

Parks

There are recreational amenities in the area of the subject site. Ponderosa Park is located 0.88 miles southwest of the site. Picetti Park, a small neighborhood serving park, is located 0.66 miles east. Green Valley Park is approximately 1.5 miles west from the site, with larger parks like Fernley out of Town Park (2.5 miles west) and Autumn Winds Park (2.2 miles east) further from the site.

Goal LU.1.2 Encourage new development to be in accordance with the Comprehensive Master Plan land use category.

Comment: The subject parcel has an existing Master Plan designation of Single-Family Residential (SFR), and the existing RR5 and RR ½ zoning districts are non-conforming to this land use designation. The proposed ZMA will bring the site into compliance with the Master Plan as well as the intent for the character and density for this area of Fernley. Lots created will range in size from 6,200 sf to over 14,185 sf, with an **average lot size of 7,781 sf**. As designed the subdivision incorporates several lots above 10,000 sf. With a wide range of lot sizes this design allows for the site to comply with the current master plan.

Goal LU.1.4 Ensure existing and future land uses are compatible.

Comment: The proposed lots are compatible with the existing 6,000 square foot lots to the north and will provide larger 8,000 square foot perimeter lots which are more compatible with the adjacent development to the west, east, and south.

Goal LU.1.5 Promote infill development

Comment: The proposed project is considered infill development.

2) Consistency and Compatibility with Surrounding Land Uses

Response: The proposed request is consistent and compatible with the surrounding land uses. As seen in the table below, the site is surrounded on all sides by residential development ranging from large-lot rural residential development to small-lot single-family denser subdivisions, making a residential subdivision with lots ranging in size from 6,144 sf to over 12,200 sf consistent with the transitional nature of this portion of the city.

Adjacent Land Uses

	Master Plan	Zoning	Current Use of Land
North	Single Family Residential (SFR)	SF6	Single-Family Residential, Detention Basin
		SF20	Pre-school
South	Single Family Residential (SFR)	RR5	Large-lot single-family residential
East	Single Family Residential (SFR)	RR5 SF20	Large-lot single-family residential
West	Single Family Residential (SFR)	RR1 RR5	Vacant, Large-lot single-family residential

North: The northern boundary of the site borders two parcels with a Master Plan land use designation of SFR and a zoning designation of SF6. The western of these two parcels bordering the site's northern boundary is owned by the City of Fernley and is occupied by the water detention basin for the adjacent single-family residential subdivision. The other parcel adjacent to the site's northern boundary is occupied by a single-family residence. Additionally, the site shares a portion of its northern and eastern boundaries with an adjacent parcel with a land use designation of SFR and a zoning designation of SF20 occupied by a preschool (*A Step Ahead Preschool*).

South: The site is bordered to the south by parcels with a land use designation of SFR, a zoning designation of RR5, and occupied with single-family residential dwelling units on large lots, typical to rural residential zoning districts.

East: Directly adjacent to the site's eastern boundary are parcels with a SFR Master Plan land use designation, zoning designations of either SF20 or RR5, and occupied with single-family residential dwelling units on large lots, typical to these zoning districts. Further east is another single-family residential subdivision which surrounds the southern and western boundaries of Silverland Middle School.

West: Directly adjacent to the site's western boundary are five parcels with a master plan land use designation of SFR and zoning designations of either RR1 or RR5. These parcels are either vacant or occupied with single-family residential dwelling units on large lots, typical to rural residential zoning districts.

From a land use compatibility perspective, the site is uniquely positioned to be able to provide a range of lot sizes larger than those typically offered in single-family residential subdivisions yet still maintain compatibility with adjacent rural residential land uses. The site is surrounded closely to the north, east, and southwest by smaller lot single-family residential uses, yet the site is neighbored by characteristically rural

parcels to the west and south, allowing for a subdivision with a wide range of lot sizes, as envisioned for the site, to provide an appropriate transition zone from the more rural development seen south and east and the higher density development north and west closer to the city center.

3) Public notice was given, and a public hearing held per the requirements of Nevada Revised Statutes and Fernley Development Code.

Response: Throughout the entitlement process, the applicant will follow all requirements of the development code and Nevada Revised Statutes for noticing the public, holding meetings, and attending public hearings.

Tentative Subdivision Map Approval Criteria

Pursuant to *Fernley Development Code §32.03.060 (Land Division Applications)* recommendations and decisions on tentative maps shall be based on consideration of all of the following criteria:

1. **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 sewage disposal;**

Response: This project has been designed to meet all environmental and health laws/regulations, as required by local, state, and federal regulations. Water and sewer will be provided and treated by the City of Fernley municipal water and wastewater systems (*refer to Preliminary Utility Plan [Sheets U-1 and U-2] in Section 4 and the Map Pocket of this submittal packet*). Solid waste disposal will be provided by Waste Management. This is a residential project, and this use is not anticipated to contribute significantly to air pollution.

2. **Availability of water that meets applicable health standards and is sufficient for the reasonably foreseeable needs of the subdivision;**

Response: Water meeting applicable health standards is available for the future needs of this subdivision, provided by the City of Fernley. The required water is available and will be provided at final map. Actual demand will be calculated with the site improvement plans prior to recording the final subdivision map. A utility plan is included in the Map Pocket of this submittal packet indicating the location of existing City of Fernley utility infrastructure to serve the project.

3. **Availability and accessibility of utilities;**

Response: All utilities necessary to serve the proposed subdivision currently exist in close proximity to the site. Sewer is anticipated to be extended into the site via Westward Lane and through an existing access and utility easement that will connect to the proposed Bristle Cone Lane. Water lines are planned to be extended to the site via the extension of Fort Sutter Blvd and within the proposed roadways. The proposed water and sewer systems will be operated by the City of Fernley. A preliminary sewer study is included in Section 4 of this submittal packet which indicates the City of Fernley has sufficient system capacity to serve the project. Gas will be operated by Southwest Gas and power and communications services will also be extended to the site (*refer to Preliminary Utility Plan [Sheets U-1 and U-2] in Section 4 and the Map Pocket of this submittal packet*).

4. **Availability and accessibility of public services such as schools, police and fire protection, transportation, recreation facilities, and parks;**

Response:

Schools

According to the Lyon County School District's 2016 Facilities Plan, all Fernley schools are currently under capacity and are planned to be within adequate utilization through 2025 with the exception of one elementary school. The School District's 10-year capital program identifies a new elementary school planned to be built in the next four to six years, which would address any potential elementary school capacity issues. Students residing in this development will attend Cottonwood Elementary School, Silverland Middle School, and Fernley High School.

Police and Fire Services

The project site is located in an area already served by police and fire services. Police services will be provided by the Lyon County Sheriff's Department and fire service will be provided by the North Lyon County Fire Protection District. The closest fully staffed fire station is the North Lyon County Fire Protection District Main Office, located approximately 2.7 miles west near the intersection of State Route 95A and Main Street. The main access to the site where police and fire will enter the development is located on Fort Sutter Boulevard.

Parks

There are recreational amenities in the area of the subject site. Ponderosa Park is located 0.88 miles southwest of the site. Picetti Park, a small neighborhood serving park, is located 0.66 miles east. Green Valley Park is approximately 1.5 miles west from the site, with larger parks like Fernley out of Town Park (2.5 miles west) and Autumn Winds Park (2.2 miles east) further from the site.

5. Consistency with the zoning district regulations;

Response: The project site has an existing master plan land use designation of Single-Family Residential (SFR) and, upon approval of the proposed ZMA associated with this request, the project site will have a zoning designation of SF6. This zoning district allows for single-family residential lots that are a minimum of 6,000 sf. This tentative subdivision request seeks to create 105 parcels in total, with 102 single-family lots, ranging from 6,144 sf interior lots to 12,249 sf, with an average lot size of 7,691 sf. The proposed subdivision is entirely consistent with all standards of the proposed SF6 zoning district regulations.

6. Conformity with the master streets and highways plan;

Response: The request conforms with the Master Streets and Highways Plan. Currently the property is accessed via Clover Lane to the south. Proposed access to the site will be improved to provide a 50-ft wide roadway into the site from the north as an extension of Fort Sutter Boulevard. This extension of Fort Sutter Boulevard will connect to an internal network of 50-ft roadways, with curbs, gutters, and sidewalks all designed to meet FDC standards, providing access to driveways of all proposed lots. Two bulbs and two cul-de-sacs are included in site design which will provide adequate turnaround for fire trucks and compliance with international fire code. Additional compliance with the Master Street and Highways Plan would be demonstrated further with the proposed site access connection to the north via Fort Sutter Boulevard over the city owned parcel. It is not anticipated that his project will contribute negatively to traffic or congestion, as concerns regarding traffic at the I-80 roundabout and along Farm District Road were considered and project design elements incorporated to mitigate potential impacts.

7. Effect of the proposed subdivision on existing public streets and the need for new streets or highways to serve the subdivision;

Response: Traffic generated from the project is not anticipated to have a significant impact to the surrounding transportation infrastructure or Farm District Road, as the *Traffic Impact Study* concluded over 80% of trips generated to and from the site will utilize the new connection to the north and Highway 50, especially considering the sites proximity to the future development of Victory Logistics and Nevada Pacific Parkway just northeast of the site. The proposed subdivision will only generate approximately 94 PM peak hour trips. As concluded in the TIS, beyond what is proposed no additional improvements are needed to accommodate demand on surrounding roadways. Traffic generation is minimal, and the surrounding existing roadways, combined with the new internal roadway network, can adequately serve the proposed lots.

8. Physical land characteristics, such as floodplain, slope, soil, and elevation differentials with abutting properties;

Response: This project is not within a floodplain. A grading plan is included in the Map Pocket of this submittal packet completed in compliance with all applicable grading, slope, soil and elevation differential standards of the City of Fernley (*refer to Preliminary Grading Plan [Sheets G-1 and G-2] in Section 4 and the Map Pocket of this submittal packet*).

9. Recommendations and comments of review bodies;

Response: Any comments received thus far have been incorporated into site design. Any recommendations and comments of review bodies moving forward will be considered in the project design and engineering processes.

10. Conformity to the master sewer and water utility plan;

Response: A *Preliminary Sewer Report* is included within *Section 4* of this submittal packet. The reports consulted with the Master Sewer and Water Utility Plans and include discussion of how the City of Fernley sewer and water infrastructure and supply has sufficient capacity to meet the projected demand of this project.

This project also conforms to the following Water/Wastewater Goals of the City of Fernley Comprehensive Master Plan:

- *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.*
 - **Comment:** This project will connect to the municipal water system. A utility plan is included within Section 4 of this submittal packet and modeling for demand will be done at final map.
- *PSF.1.4 - Reduce water demand through xeriscape project landscaping, reclamation and reuse of treated wastewater for golf courses, medians, parkways and other appropriate application uses.*
 - **Comment:** Although there is minimal landscaping required with this plan, xeriscaping will be utilized where feasible to reduce water demand.
- *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.*
 - **Comment:** This project will connect to the municipal sewer system. A utility plan and a preliminary sewer report are included within Section 4 of this submittal packet.

11. Compliance with this Code and all other applicable regulations.

Response: Beyond all typical development code sections applicable to development of this nature in this zoning district, additional standards of the development code are applicable, as outlined below, with

descriptions of mitigation strategies incorporated into site design to meet the purpose and intent of these standards:

Adjacency Standards (FDC §32.09.030)

The tentative subdivision map has been designed specifically to meet the intent and purpose of lot adjacency and transition standards for single-family residential development. FDC §32.09.030(d) includes specific requirements for transitions and buffers between development on lots with varying degrees of density. When considering this, it's worth noting the zoning code was last comprehensively update prior to the Master Plan which was comprehensively updated in 2019, with some portions of the existing zoning code including standards not reflective of the vision for the community seen in the updated Master Plan. Specifically, the transition and buffer adjacency standards, if adhered to strictly, would create possible "dead zones" of land within subdivisions where development or improvements are neither feasible nor required. Further, code allows deviation from these standards with approval by the Administrator.

In order to satisfy the purpose and intent of the lot adjacency and transition standards, the site plan for the proposed subdivision has incorporated 30-ft rear buffers on both the east and west perimeter boundaries of the subdivision. Along the east and west perimeter boundaries 30-ft wide buffers have been included on the tentative subdivision map. It is anticipated that the buffer will be recorded on the final map and reflected on all applicable deed documents. These buffers will satisfy the access needs for utility infrastructure, including power poles and lines which run along both the eastern and western perimeter boundaries, while also providing an adequate transition zone buffer from the density/intensity of the neighboring RR1 and RR5 parcels and the proposed adjacent SF6 parcels. This perimeter buffer is in addition to rear setback requirements, thus development (erection of structures) will be prohibited in the rear 40-ft of any eastern or western perimeter lot, as regulated by the future HOA for the subdivision.

TRAFFIC IMPACT STUDY

for

Chaparral Estates

July 21, 2025

PREPARED FOR:

Wood Rodgers, Inc.

PREPARED BY:



Lauren
T. Picou

Digitally signed
by Lauren T.
Picou
Date: 2025.07.21
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YOUR QUESTIONS ANSWERED QUICKLY

Why did you perform this study?

This Traffic Impact Study evaluates the potential traffic impacts associated with the proposed Chaparral Estates (formerly Clover Lane) residential development in Fernley, NV. This study was undertaken to determine the opening year and future year traffic conditions, quantify traffic volumes generated by the proposed project, identify potential impacts, and develop recommendations to mitigate impacts, if any are found.

What does the project consist of?

The project consists of 102 single-family dwelling units. The site is located north of Farm District Road, with proposed access via Clover Lane, Fort Sutter Boulevard and a planned connection to Westward Lane. The project location within the region is shown in **Figure 1** and the project site location is shown in **Figure 2**. The preliminary site plan is shown in **Figure 3**.

How much traffic will the project generate?

The development is anticipated to generate approximately 962 Daily trips, 71 AM peak hour trips, and 96 PM peak hour trips.

Are there any traffic impacts?

All intersections studied are anticipated to operate within policy level of service under all scenarios, with or without the project. The addition of project traffic had no significant impact on the study intersections.

Are any improvements proposed?

- No capacity improvements are needed at the study intersections based on the addition of project traffic. The project should construct an eastbound left turn lane at the Farm District Road / Clover Lane intersection; this is warranted by NDOT criteria based on the existing volumes (independent of the project). The project adds a small number of trips (10 in the PM peak hour) to the eastbound left turn movement.
- The project should construct the roadway connection to Fort Sutter Boulevard. This connection at Fort Sutter Boulevard/ Langdon Street should convert that intersection to a side-street stop (stop on Langdon Street) T-intersection.
- The project should construct the roadway connection to Clover Lane.
- All roadway connections and internal project roadways should be constructed to City of Fernley standards.

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INTRODUCTION

This Traffic Impact Study evaluates the potential traffic impacts associated with the proposed Chaparral Estates (formerly Clover Lane) residential development in Fernley, NV. This study was undertaken to determine the existing, opening year and future year traffic conditions, quantify traffic volumes generated by the proposed project, identify potential impacts, and develop recommendations to mitigate impacts, if any are found.

Study Area and Evaluated Scenarios

The project consists of 102 single-family dwelling units. The site is located north of Farm District Road, with two proposed accesses – to the north via Fort Sutter Boulevard, and to the south via Clover Lane. An additional connection is planned via an extension to Westward Lane. The project location within the region is shown in **Figure 1** and the project site location is shown in **Figure 2**. The preliminary site plan is shown in **Figure 3**.

The following intersections are included in this study:

1. US 50A / River Ranch Road
2. River Ranch Road / Round Up Road
3. Round Up Road / Fort Sutter Blvd
4. Farm District Road / Clover Lane

This study includes analysis of both the weekday AM and PM peak hours as these are the periods of time in which peak traffic is anticipated to occur. The evaluated development scenarios are:

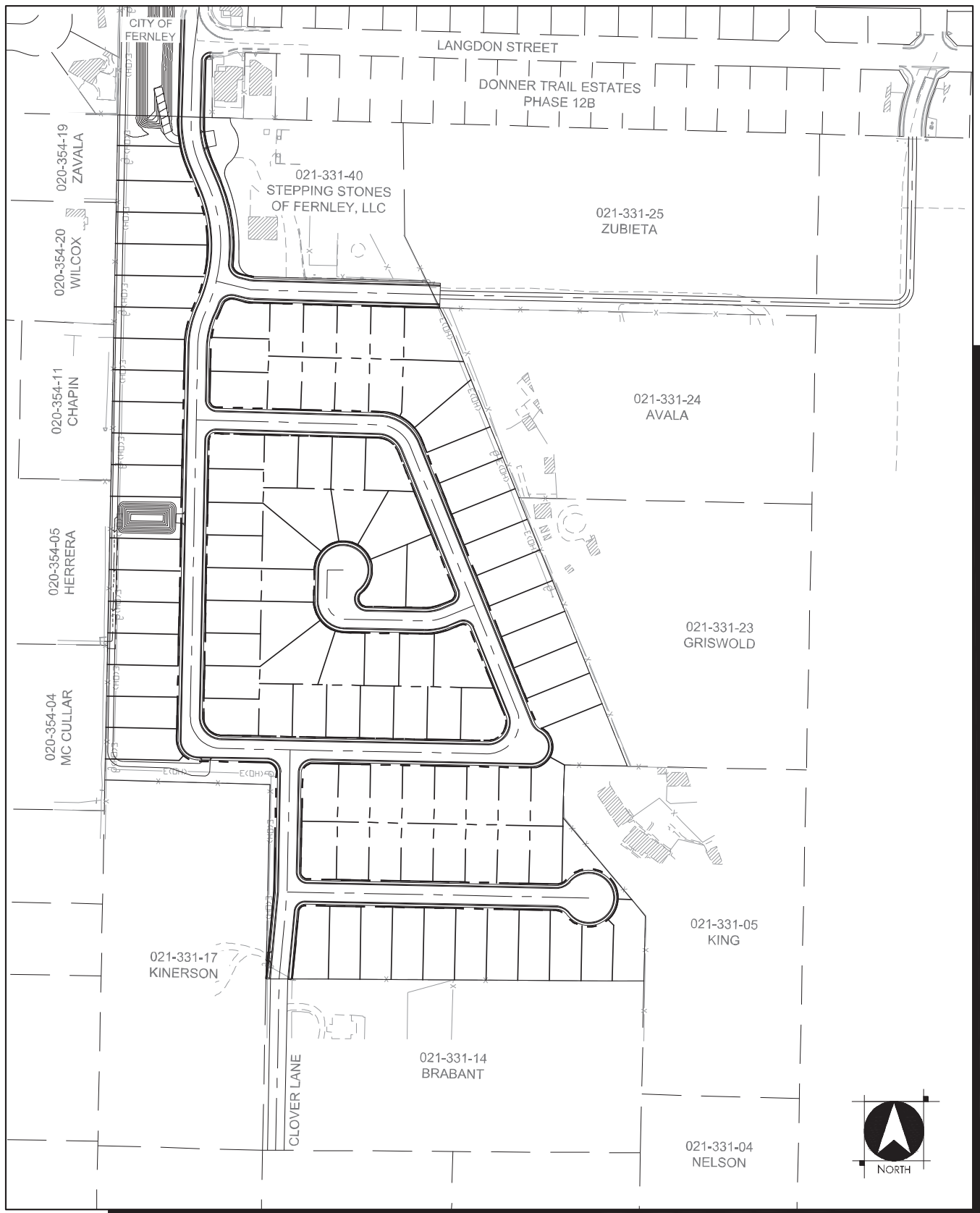
- Existing Conditions
- Opening Year Conditions (5 Year horizon, no project)
- Future Conditions (20 Years from Opening Year, no project)
- Opening Year Plus Project Conditions
- Future Year Plus Project Conditions



Study Intersections

- ① US 50A / River Ranch Rd
- ② River Ranch Rd / Round Up Rd
- ③ Round Up Rd / Fort Sutter Blvd
- ④ Farm District Rd / Clover Ln





SITE PLAN

1" = 150'



ANALYSIS METHODOLOGY

Level of service (LOS) is a term commonly used by transportation practitioners to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. This term equates seconds of delay per vehicle at intersections to letter grades “A” through “F” with “A” representing optimum conditions and “F” representing breakdown or over capacity flows.

Intersections

The complete methodology for intersection level of service analysis is established in *the Highway Capacity Manual (HCM)*, 7th Edition published by the Transportation Research Board (TRB). **Table 1** presents the delay thresholds for each level of service grade at signalized and unsignalized intersections.

Table 1: Level of Service Definition for Intersections

Level of Service	Brief Description	Average Delay (seconds per vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Free flow conditions.	< 10	< 10
B	Stable conditions with some affect from other vehicles.	10 to 20	10 to 15
C	Stable conditions with significant affect from other vehicles.	20 to 35	15 to 25
D	High density traffic conditions still with stable flow.	35 to 55	25 to 35
E	At or near capacity flows.	55 to 80	35 to 50
F	Over capacity conditions.	> 80	> 50

Source: *Highway Capacity Manual, 7th Edition*

Level of service calculations were performed for the study intersections using the Synchro 12 software and Highway Capacity Software (HCS) package with analysis and results reported in accordance with *HCM* methodology.

Level of Service Policy

The *City of Fernley Comprehensive Master Plan* indicates that “the minimum Level of Service on all city-maintained roadways shall be LOS D.” This is consistent with Nevada Department of Transportation (NDOT) policies, which indicate that “Level of Service “C” will be the design objective for capacity and under no circumstances will less than Level of Service “D” be accepted for site and non-site traffic.”

Hence, LOS “D” was used as the threshold criteria for this analysis.

Traffic engineering practitioners recognize that LOS E/F conditions for the side street approach, during the peak hour(s), does not indicate an intersection failure or the need for mitigation. This condition (LOS E/F for a minor side-street approach) commonly exists throughout urban and suburban areas and is manageable in most cases.

EXISTING CONDITIONS

Roadway Facilities

A brief description of the key roadways in the study area is provided below:

US 50A is classified as a Principal Arterial that runs east-west and connects I-80 in Fernley to US 50 near Fallon. In the immediate project vicinity, US 50A has two lanes in each direction and has a posted speed limit of 65 MPH.

Farm District Road (SR 828) is an NDOT roadway classified as a Minor Arterial that runs east-west and connects to US 50A in Fernley and to the east of Fernley. In the immediate project vicinity, Farm District Road is two lanes with a posted speed limit of 45 MPH.

River Ranch Road is classified as a Minor Collector. *Fort Sutter Boulevard*, *Round Up Road* and *Clover Lane* are classified by NDOT as a Local Roads. These roadways have 2 lanes, one in each direction of travel. The posted speed limit is 25 mph on these roadways. A small preschool exists at the northern terminus of Clover Lane.

Bicycle, Pedestrian & Transit Facilities

Sidewalks are generally present on the local roads in the study area and a portion of River Ranch Road. Farm District Road and US 50A do not have sidewalks or bicycle lanes.

Crash History

Vehicle crash data was obtained from NDOT and includes information from:

- 2016 to 2020 – The most current five-year period available on the NDOT Crash Data website.
- 2021 and 2022 – Supplemental data request.

The available crash data is provided in **Appendix A**. Twenty-two crashes occurred in the area from 2016-2022, summarized as:

- Half (11) were Property Damage Only (PDO) and 11 were injury crashes. None were fatal.
- No recorded crashes involved pedestrians or bicyclists.
- The majority (15) occurred at US 50A/River Ranch Road. Six (6) were Property Damage Only (PDO) and 9 were injury crashes. Fourteen were angle-type crashes, one was a non-collision (single car incident). It is important to note that a traffic signal was installed at this intersection in 2021 as an operational and safety improvement.

- Three crashes occurred at Clover Lane / Farm District Road: one PDO and two injury crashes. Two were angle-type and one was rear-end.
- Two PDO crashes occurred at River Ranch Road / Round Up Road (one single car collision and one side-swipe).
- Two additional PDO crashes occurred along River Ranch Road – one angle, one non-collision (single car incident).

The crash data does not indicate any significant safety concerns in the area. The 2016-2020 crash map is shown in **Exhibit 1**.

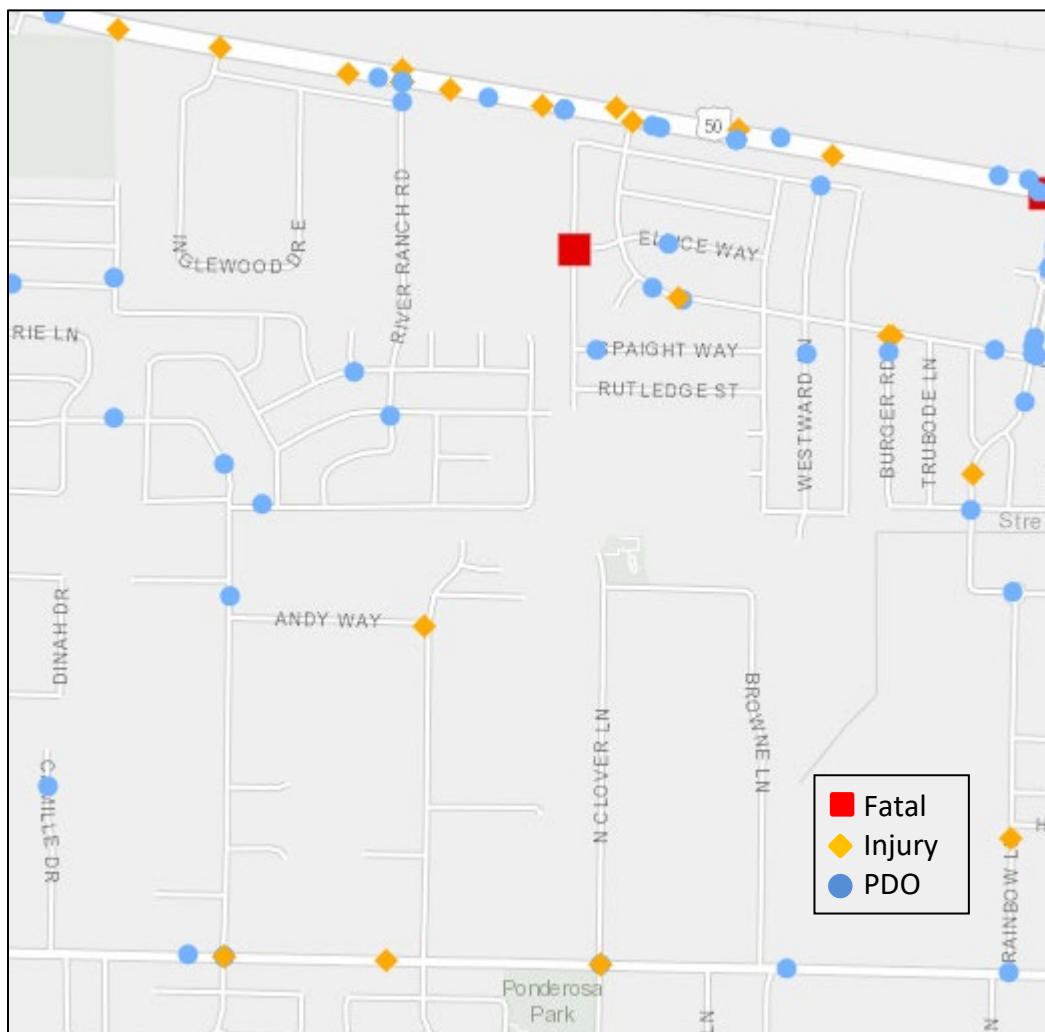


Exhibit 1: Study Intersection Crashes (2016-2020)

Source: NDOT

Traffic Volumes

AM and PM peak hour traffic volumes were collected at the study intersections on November 13-14, 2024 when school was in regular session. NDOT's 2022 Seasonal Growth Factors report was reviewed and November was found to be an average month of the year with a seasonal factor of approximately 1.0. Therefore, seasonal growth factors were not applied to the existing counts. The existing AM and PM peak hour intersection turning movement volumes are shown on **Figure 4**.

Intersection Level of Service Analysis

Existing weekday AM and PM peak hour intersection level of service analysis was performed for the study intersections using Synchro 12. The existing intersection lane configurations and controls are shown on **Figure 4**. **Table 2** shows the existing conditions level of service results, and the technical calculations are provided in **Appendix B**.

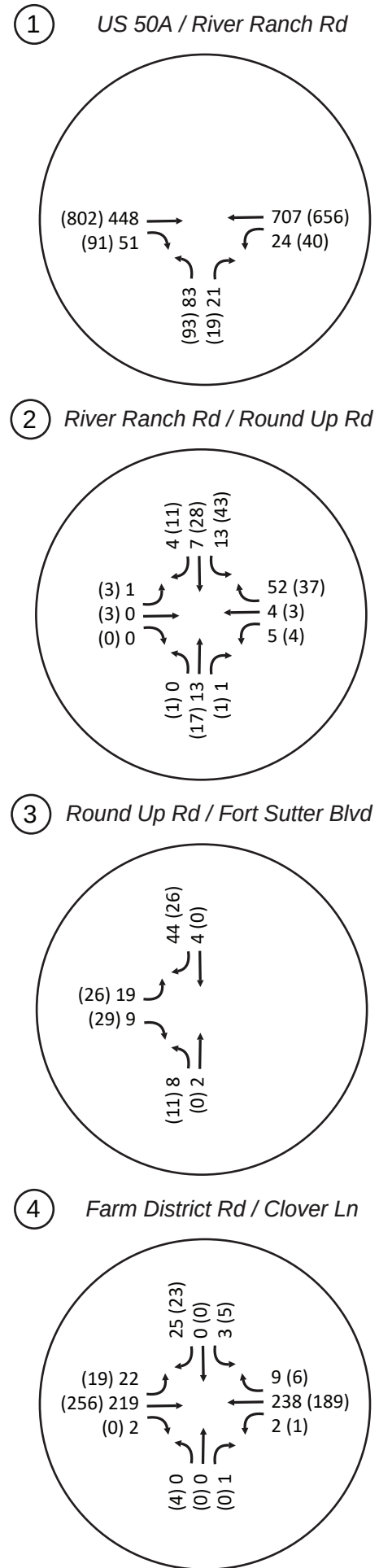
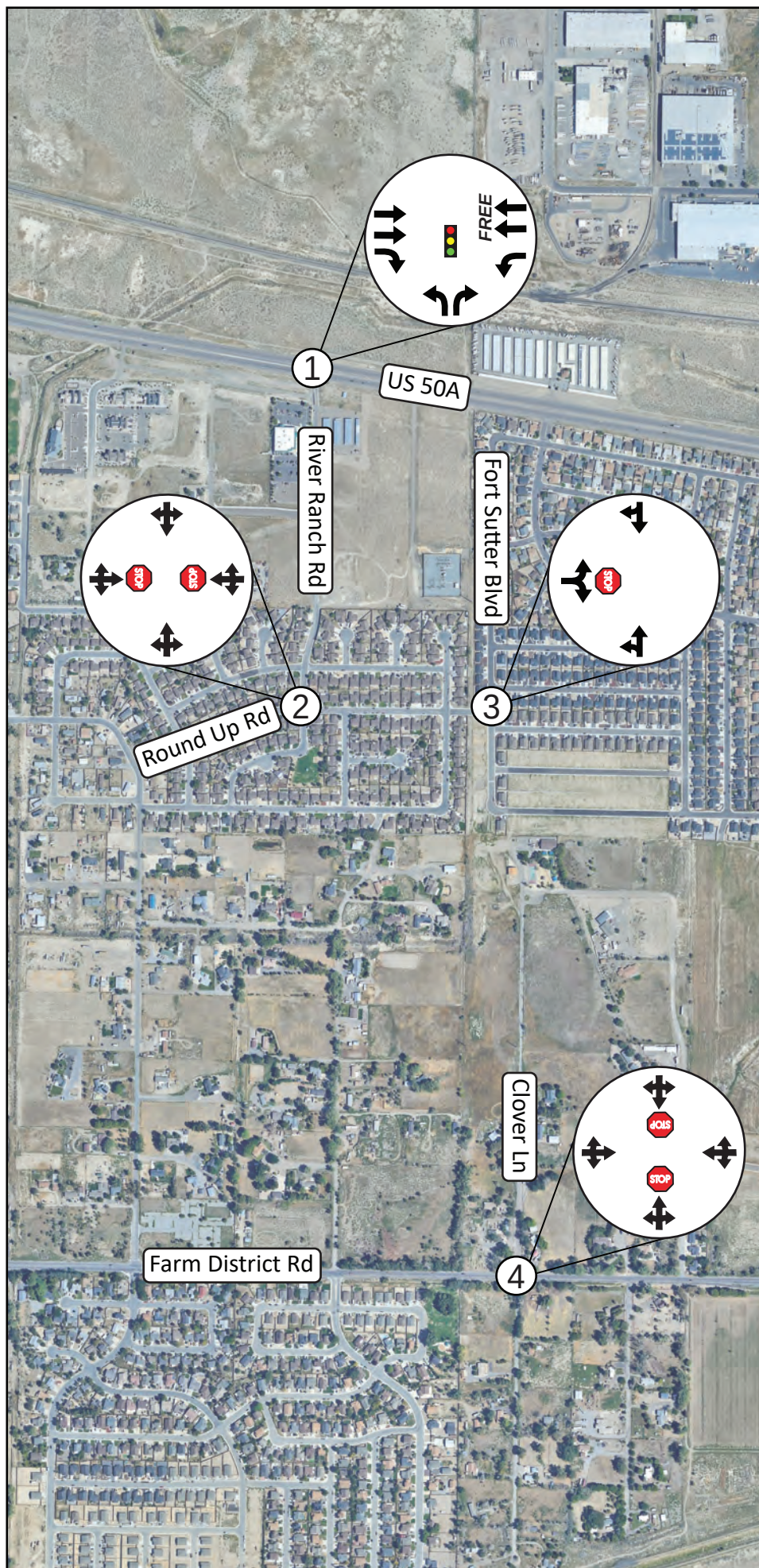
Table 2: Existing Intersection Level of Service

Int. ID	Intersection	Control	AM		PM	
			Delay ¹	LOS	Delay ¹	LOS
1	US 50A / River Ranch Road	Signalized High-T				
	Overall		7.0	A	7.5	A
	Northbound Left		15.4	B	20.3	C
	Northbound Right		12.8	B	16.4	B
	Eastbound Through		8.6	A	8.7	A
	Westbound Left		20.2	C	22.6	C
2	River Ranch Road / Round Up Road	Side Street Stop				
	Northbound Left		0.0	A	7.3	A
	Southbound Left		7.3	A	7.3	A
	Eastbound Approach		9.3	A	10.5	B
	Westbound Approach		8.9	A	8.8	A
3	Round Up Road / Fort Sutter Boulevard	Side Street Stop				
	Northbound Left		7.4	A	7.3	A
	Eastbound Approach		8.9	A	8.8	A
4	Farm District Road / Clover Lane	Side Street Stop				
	Northbound Approach		10.1	B	13.5	B
	Southbound Approach		11.3	B	10.3	B
	Eastbound Left		8.1	A	7.7	A
	Westbound Left		7.9	A	7.8	A

Notes: 1. Delay is reported in seconds per vehicle for the worst approach/movement for side street stop-controlled intersections, and overall and by movement for signalized intersections.

Source: GCW, 2025

The study intersections currently operate within the LOS policy.



OPENING AND FUTURE YEAR CONDITIONS

The project is expected to be constructed in approximately 5 years. This horizon is used to forecast traffic volumes for the Opening Year conditions, approximately 2029/2030. Future Year represents 20 years after the Opening Year (25 years from Existing Conditions).

Traffic Volume Forecasts

Projections for Opening Year and Future Year were developed to include background growth, planned roadway projects, and planned developments in the area. A growth rate of 2% per year was applied to the existing traffic volumes, consistent with the annual growth rate used in the City of Fernley *Comprehensive Master Plan*, the *Transportation Master Plan*, and previous approved traffic impact studies.

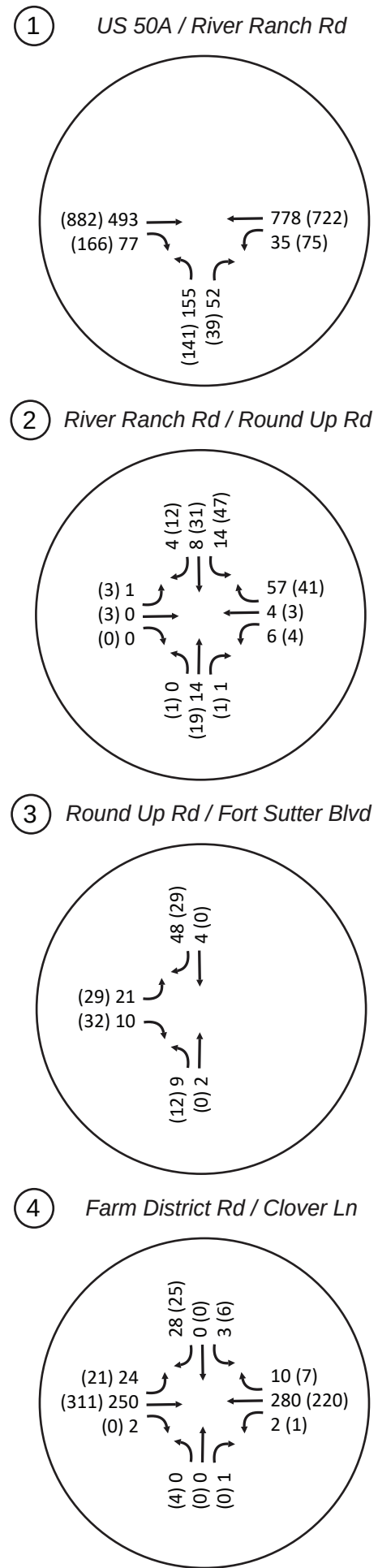
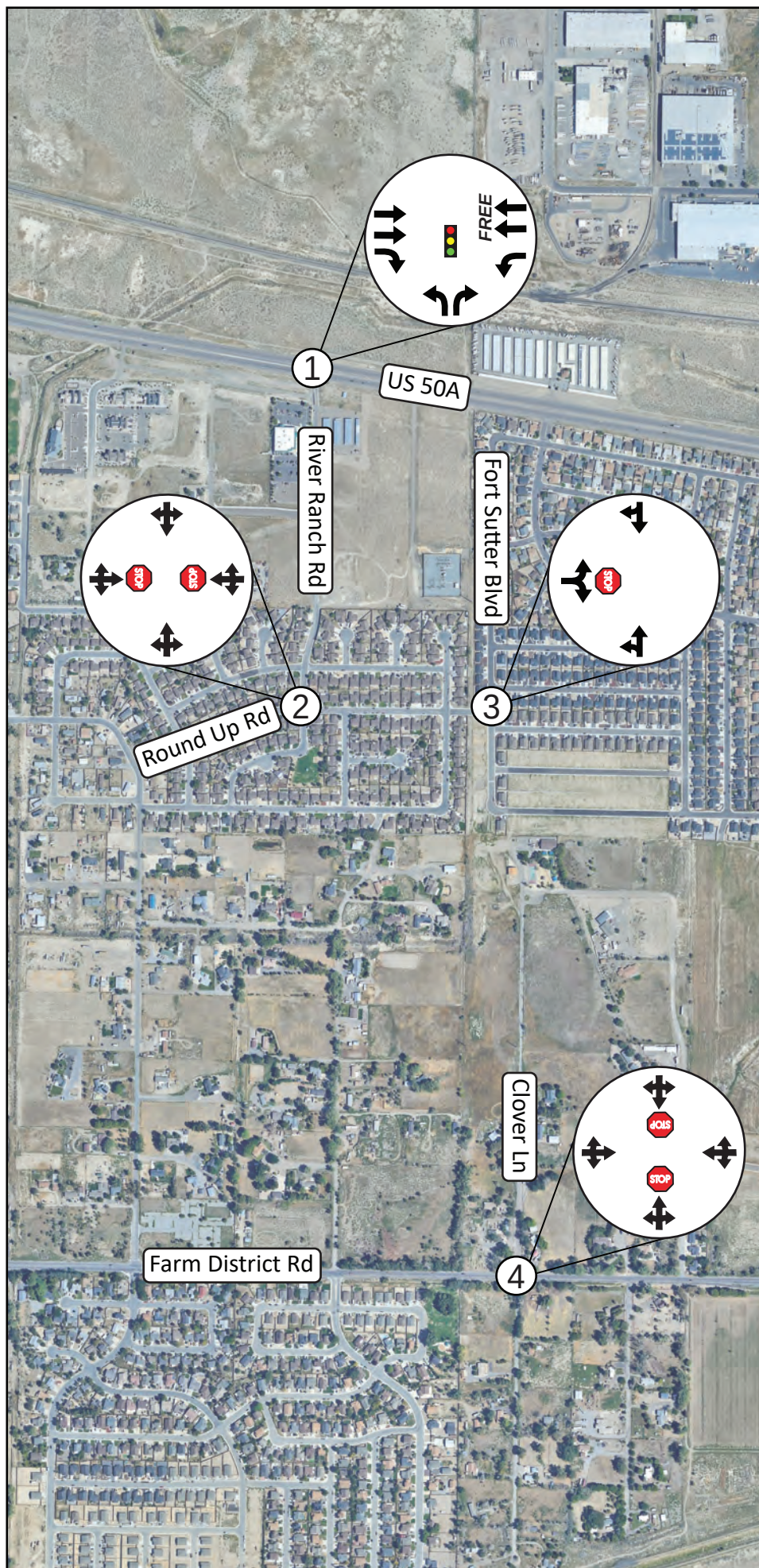
Opening Year and Future Year traffic volumes incorporate the Nevada Pacific Parkway extension to US 50A, which is planned to connect to US 50A opposite the existing Nevada Pacific Boulevard, as well as planned development in the area, including other development project traffic described in the:

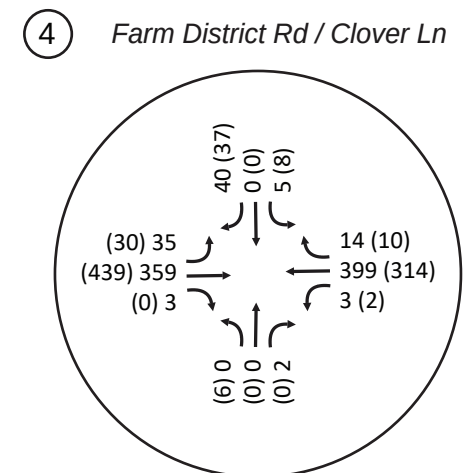
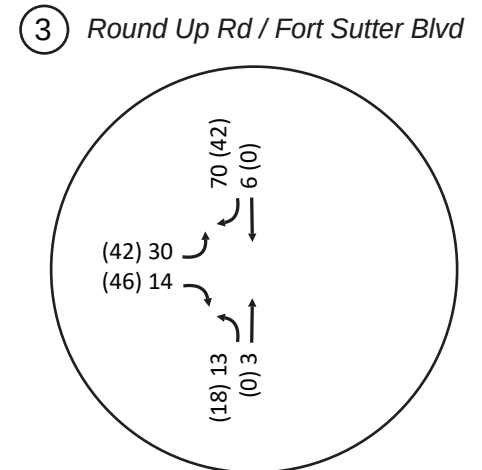
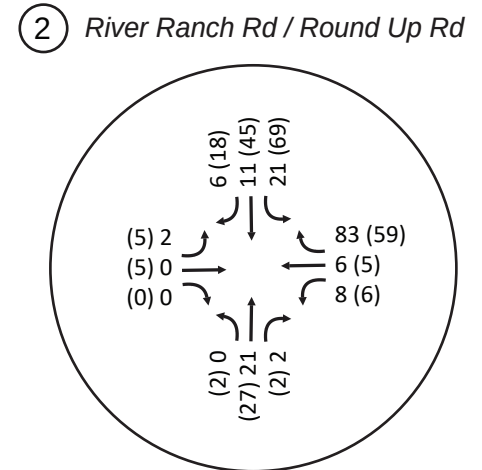
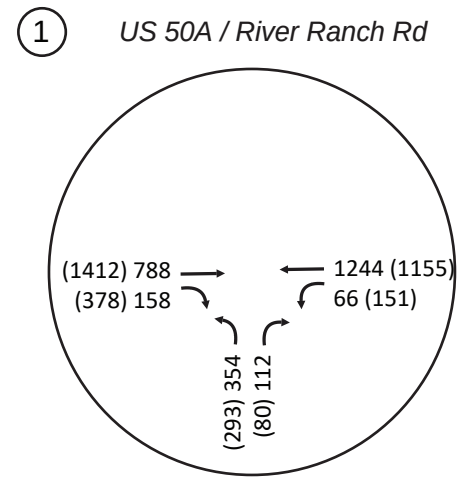
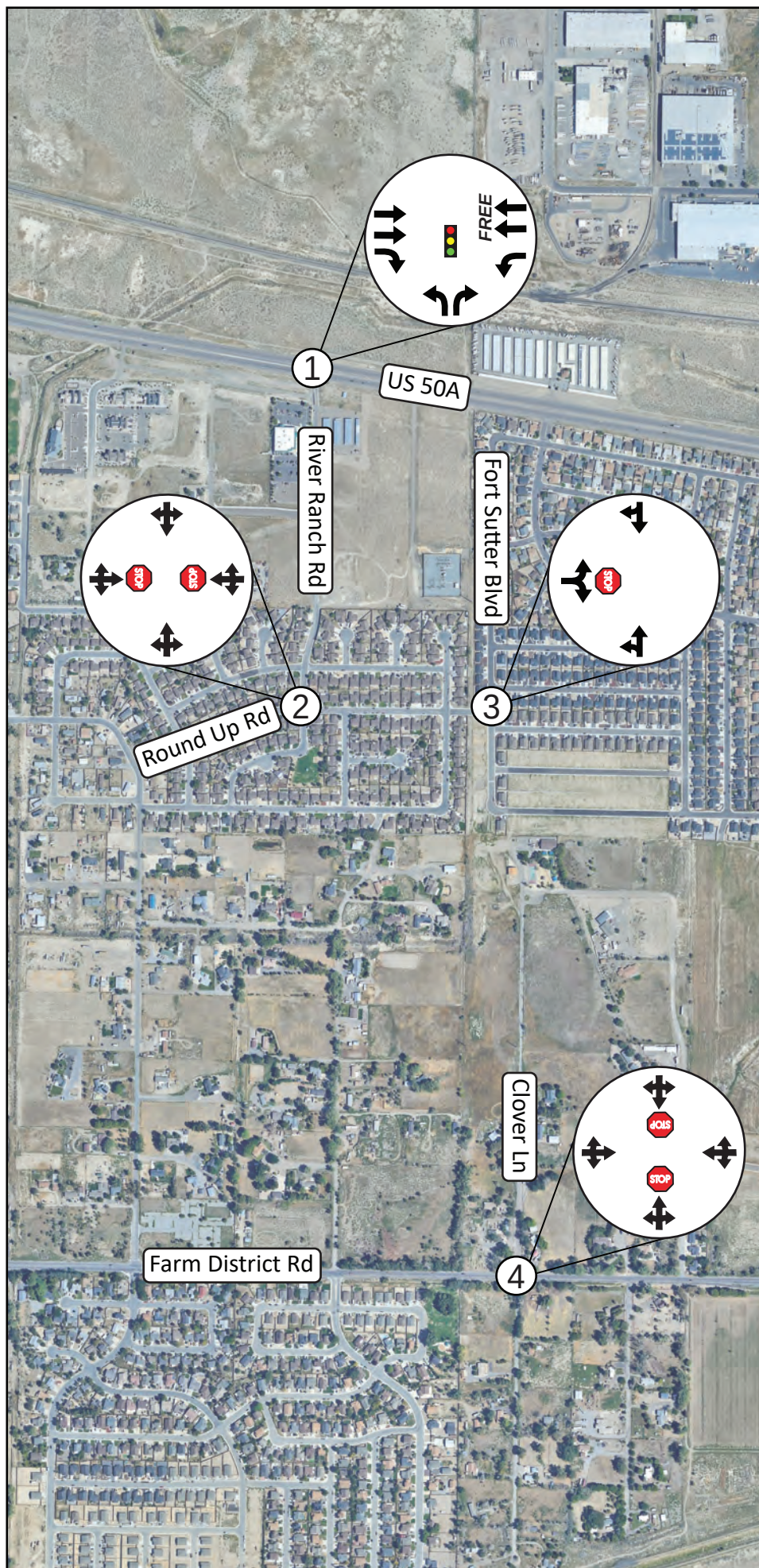
- Nevada Pacific Boulevard Development Traffic Impact Study (Headway, January 2022)
- River Ranch Apartments Traffic Impact Study (Headway, September 2022)
- Clements Ranch Traffic Impact Study (Headway, April 2023)
- Victory Traffic Impact Study (Headway, February 2022)

Ultimately, this resulted in background growth rates and factors of approximately:

- 2.3% per year
- Opening (5-Yr) growth factor of 1.1
- Future (20 years from Opening) growth factor of 1.6

Other projects in the area are assumed to be accounted for with the annual 2.3% per year growth rate. The Opening Year and Future Year (without Project) volumes are shown on **Figures 5 and 6**.





Intersection Level of Service Analysis

Opening Year and Future Year weekday AM and PM peak hour intersection level of service analysis was performed for the study intersections using Synchro 12. **Table 3** shows the level of service results, and the technical calculations are provided in **Appendix C**.

Table 3: Opening Year and Future Year Intersection Level of Service

Int. ID	Intersection	Control	Opening Yr AM		Opening Yr PM		Future Yr AM		Future Yr PM	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
1	US 50A / River Ranch Road	Signalized High-T								
	Overall		8.5	A	9.2	A	15.6	B	20.8	C
	Northbound Left		16.6	B	22.5	C	28.3	C	52.0	D
	Northbound Right		13.4	B	18.2	B	18.2	B	29.1	B
	Eastbound Through		9.9	A	10.2	A	15.9	B	24.9	C
	Westbound Left		21.2	C	26.1	C	40.1	D	57.8	E
2	River Ranch Road / Round Up Road	Side Street Stop								
	Northbound Left		0.0	A	7.3	A	0.0	A	7.3	A
	Southbound Left		7.3	A	7.3	A	7.3	A	7.4	A
	Eastbound Approach		9.4	A	10.2	B	9.9	B	11.3	B
	Westbound Approach		8.9	A	8.9	A	9.2	A	9.2	A
3	Round Up Road / Fort Sutter Boulevard	Side Street Stop								
	Northbound Left		7.4	A	7.3	A	7.5	A	7.3	A
	Eastbound Approach		9.0	A	8.8	A	9.2	A	9.0	A
4	Farm District Road / Clover Lane	Side Street Stop								
	Northbound Approach		10.3	B	15.1	B	11.6	B	21.3	C
	Southbound Approach		12.0	B	10.9	B	15.9	C	12.7	B
	Eastbound Left		8.3	A	7.8	A	8.9	A	8.1	A
	Westbound Left		8.0	A	8.0	A	8.5	A	8.4	A

Notes:

1. Delay is reported in seconds per vehicle for the worst approach/movement for side street stop-controlled intersections, and overall and by movement for signalized intersections.

Source: GCW, 2025

Table 3 indicates that the studied intersections are expected to operate acceptably in the Opening and Future Year Conditions (without the project).

PROJECT CONDITIONS

Trip generation rates from the *Trip Generation Manual, 11th Edition* published by the Institute of Transportation Engineers (ITE) were used to develop trip generation estimates for the proposed project based on the Single-Family Detached (ITE 210) for 102 dwelling units. **Table 4** shows the Daily, AM peak hour, and PM peak hour trip generation estimates.

Table 4: Trip Generation Estimates

Land Use (ITE Code)	Size ¹	Trips ²				
		Daily	AM In/Out	Total AM	PM In/Out	Total PM
Single-Family Detached (210)	102 du	962	18 / 53	71	60 / 36	96

Notes: 1. du = dwelling units

2. Trips were calculated based on the following rates per du:

Single-Family Detached: Daily – 9.43; AM – 0.70 (25% in / 75% out); PM – 0.94 (63% in / 37% out)

Source: GCW, 2025

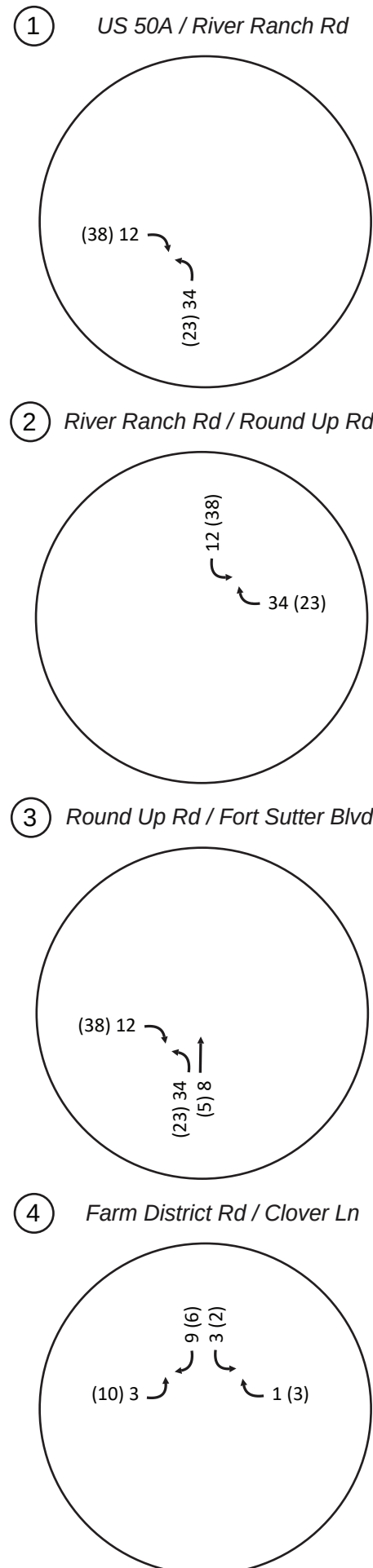
As shown in the table, the project is expected to generate 962 Daily, 71 AM peak hour, and 96 PM peak hour trips to the external roadway network.

Project Access and Trip Distribution

Access is proposed as shown in the preliminary site plan (**Figure 3**); the project will extend and connect to Fort Sutter Boulevard and connect to Clover Lane. Project trips were distributed to the adjacent roadway network based on existing traffic volumes, the locations of complimentary land uses, and anticipated travel patterns. Project trips were distributed based on the following:

- 65% to/from the west via US 50A
- 15% to/from the east via US 50A (in via Nevada Pacific Boulevard and out via Fort Sutter Boulevard)
- 15% to/from the west via Farm District Road
- 5% to/from the east via Farm District Road

Figure 7 shows the project trip distribution and assignment.



Access Management

The project access intersections of US 50A / River Ranch Road and US 50A / Nevada Pacific Boulevard have both left and right turn lanes. Turn lanes do not exist on Farm District Road (SR 828) / Clover Lane. The requirements for left and right turn lanes per the *NDOT Access Management System and Standards (AMSS 2017)* indicate that:

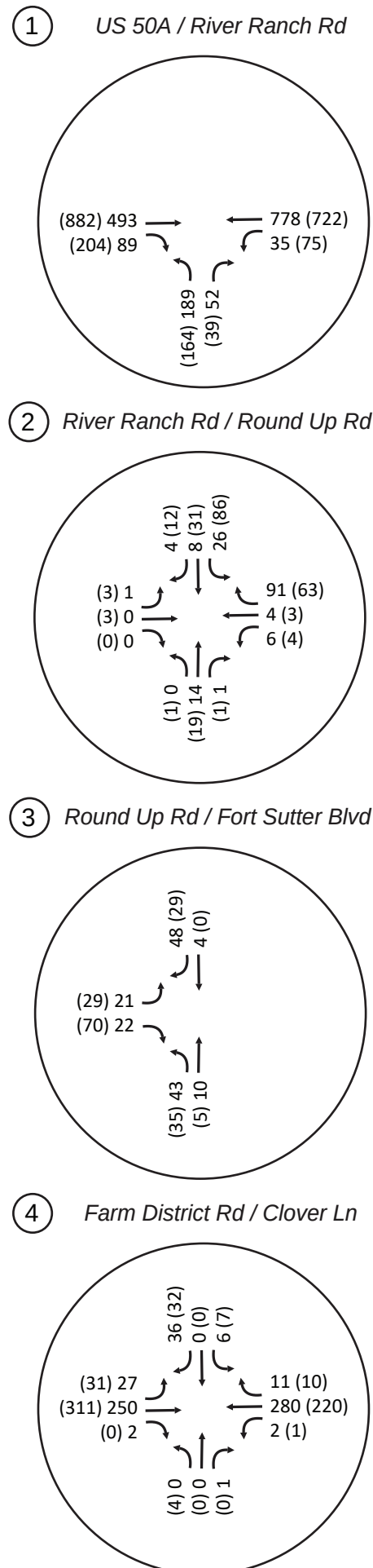
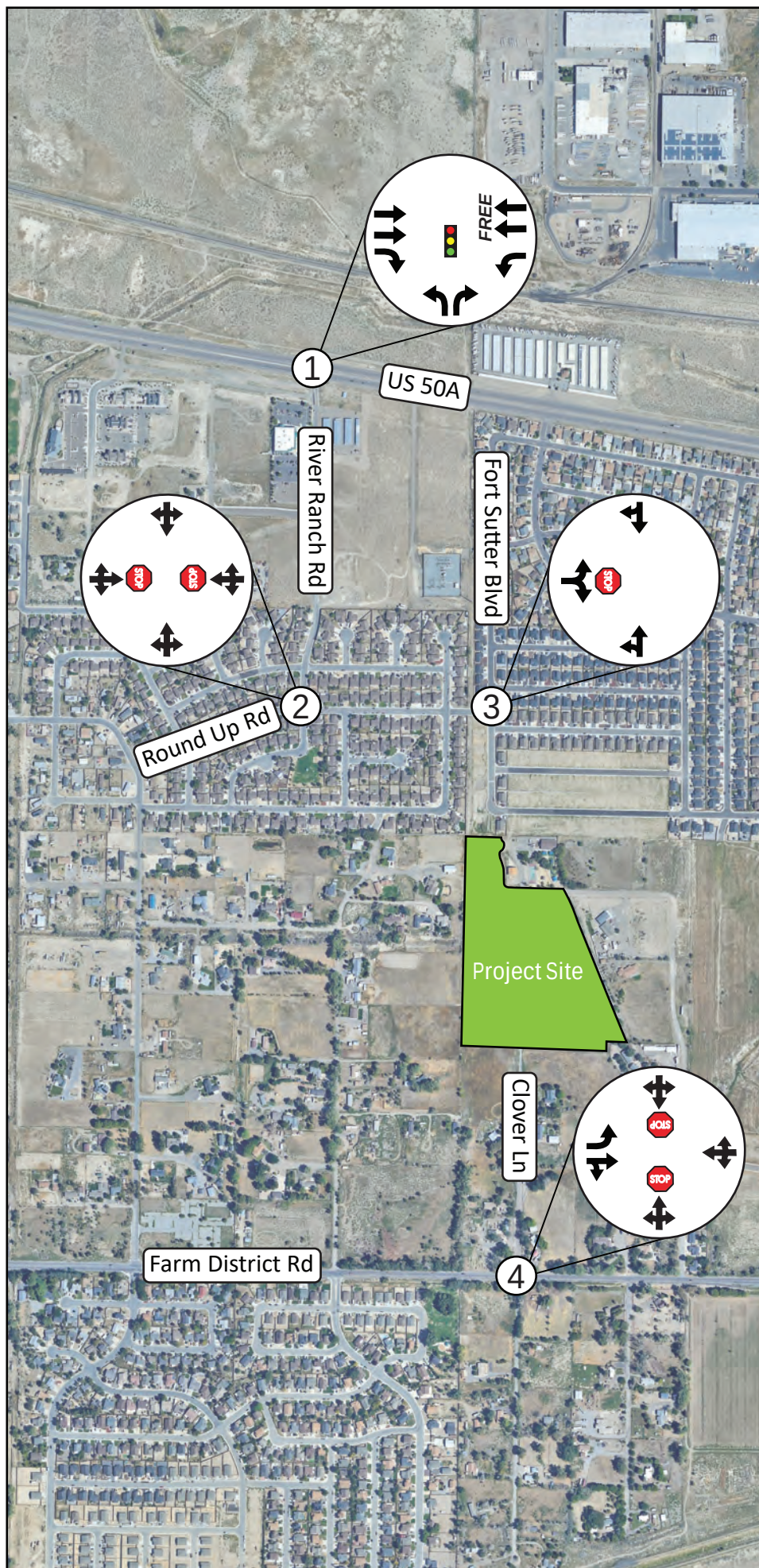
- Per *AMSS Table 4-12: Left-Turn Lane Warrants at Unsignalized Intersections, Two-Lane Roadways in Urban Areas* for 45 mph, left turn lanes are currently warranted based on the existing AM and PM peak hour volumes. The project adds 3 AM and 10 PM peak hour trips to the eastbound left turn movement on Farm District Road.
- Per *AMSS Table 4-16: Right-Turn Lane Warrants at Unsignalized Intersections, Two-Lane Roadways in Urban Areas* for 45 mph, right turn lanes are not currently warranted but are nearing thresholds. The project adds 1 AM and 3 PM peak hour trips to the westbound right turn movement on Farm District Road.

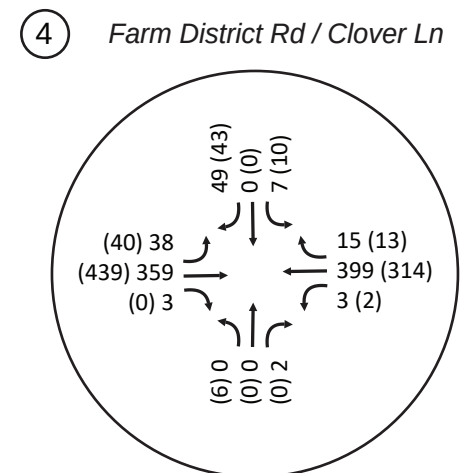
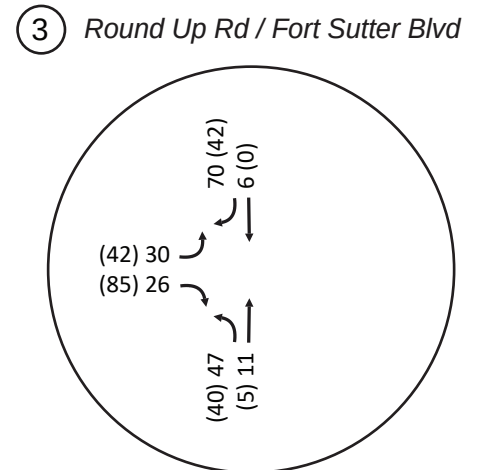
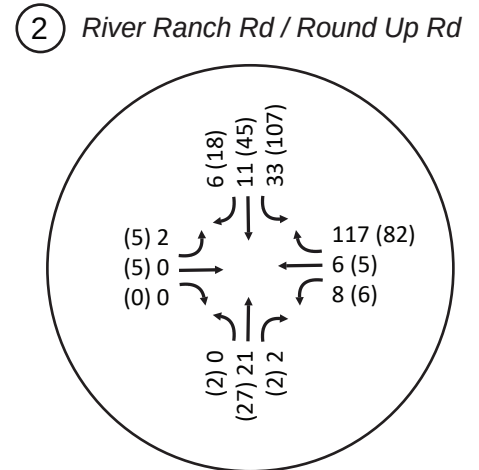
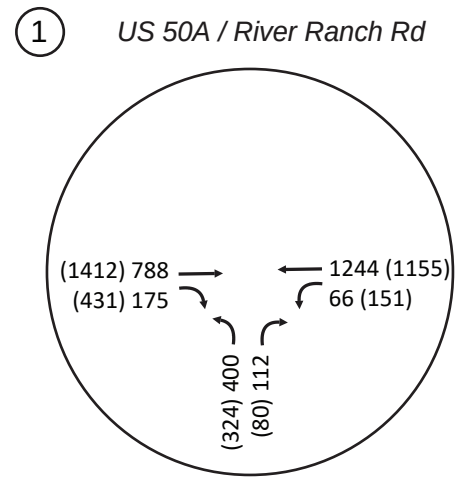
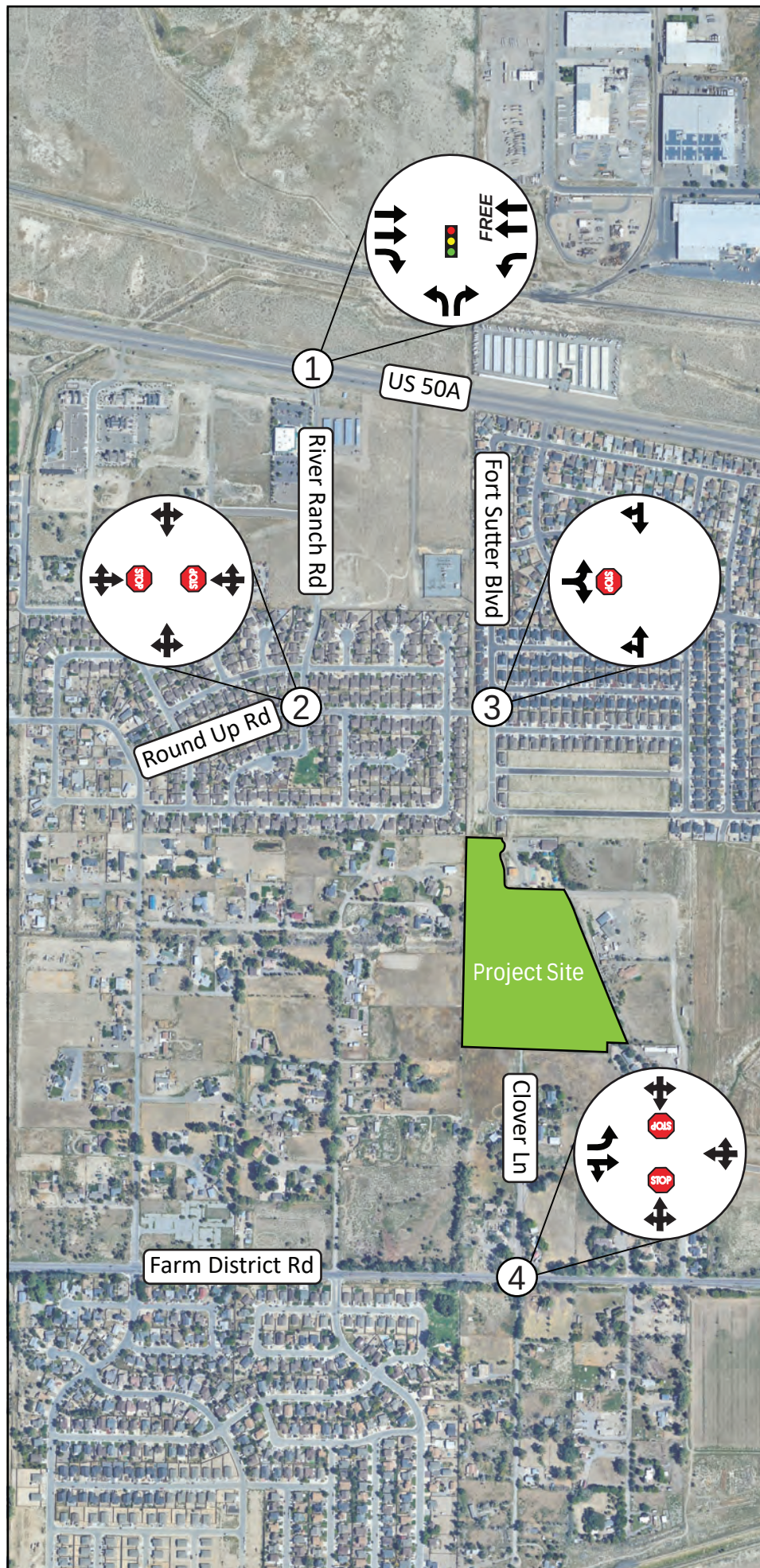
An eastbound left turn lane is recommended to be constructed with the project as a reasonable mitigation. It is noted that the left turn lane is warranted based on existing volumes, not due to the addition of project traffic. A right turn lane is not recommended as the project adds 1-3 trips per peak hour.

OPENING YEAR AND FUTURE YEAR PLUS PROJECT CONDITIONS

Traffic Volumes

Project trips (**Figure 7**) were added to the Opening Year traffic volumes (**Figure 5**) to develop the Opening Plus Project conditions traffic volumes, shown on **Figure 8**. Project trips (**Figure 7**) were added to the Future Year traffic volumes (**Figure 6**) to develop the Future Plus Project conditions traffic volumes, shown on **Figure 9**.





Intersection Level of Service

AM and PM peak hour intersection level of service analysis was performed for the study intersections for the Opening Year Plus Project and Future Year Plus Project conditions. **Tables 5 and 6** show the level of service results, and the technical calculations are provided in **Appendix D**.

Table 5: Opening Year Plus Project Intersection Level of Service

Int. ID	Intersection	Control	Opening Yr AM		Opening Yr PM		Opening Yr Plus Project AM		Opening Yr Plus Project PM	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
1	US 50A / River Ranch Road	Signalized High-T								
	Overall		8.5	A	9.2	A	9.1	A	9.6	A
	Northbound Left		16.6	B	22.5	C	16.6	B	22.7	C
	Northbound Right		13.4	B	18.2	B	13.0	B	18.0	B
	Eastbound Through		9.9	A	10.2	A	10.6	B	10.7	A
	Westbound Left		21.2	C	26.1	C	22.1	C	27.2	C
2	River Ranch Road / Round Up Road	Side Street Stop								
	Northbound Left		0.0	A	7.3	A	0.0	A	7.3	A
	Southbound Left		7.3	A	7.3	A	7.3	A	7.4	A
	Eastbound Approach		9.4	A	10.2	B	10.5	B	11.3	B
	Westbound Approach		8.9	A	8.9	A	9.1	A	9.0	A
3	Round Up Road / Fort Sutter Boulevard	Side Street Stop								
	Northbound Left		7.4	A	7.3	A	7.5	A	7.3	A
	Eastbound Approach		9.0	A	8.8	A	9.4	A	9.1	A
4	Farm District Road / Clover Lane	Side Street Stop							(includes eastbound left turn lane)	
	Northbound Approach		10.3	B	15.1	B	10.3	B	15.9	C
	Southbound Approach		12.0	B	10.9	B	12.7	B	11.0	B
	Eastbound Left ²		8.3	A	7.8	A	8.3	A	7.8	A
	Westbound Left		8.0	A	8.0	A	8.0	A	8.0	A

Notes:

1. Delay is reported in seconds per vehicle for the worst approach/movement for side street stop-controlled intersections, and overall and by movement for signalized intersections.
2. Plus Project conditions adds an eastbound left turn lane.

Source: GCW, 2025

Table 6: Future Year Plus Project Intersection Level of Service

Int. ID	Intersection	Control	Future Yr AM		Future Yr PM		Future Yr Plus Project AM		Future Yr Plus Project PM	
			Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
1	US 50A / River Ranch Road	Signalized High-T								
	Overall		15.6	B	20.8	C	17.9	B	22.8	C
	Northbound Left		28.3	C	52.0	D	34.4	C	58.4	E
	Northbound Right		18.2	B	29.1	B	18.2	B	28.8	C
	Eastbound Through		15.9	B	24.9	C	17.4	B	27.4	C
	Westbound Left		40.1	D	57.8	E	44.4	D	60.5	E
2	River Ranch Road / Round Up Road	Side Street Stop								
	Northbound Left		0.0	A	7.3	A	0.0	A	7.3	A
	Southbound Left		7.3	A	7.4	A	7.3	A	7.4	A
	Eastbound Approach		9.9	B	11.3	B	11.4	B	12.5	B
	Westbound Approach		9.2	A	9.2	A	9.5	A	9.4	A
3	Round Up Road / Fort Sutter Boulevard	Side Street Stop								
	Northbound Left		7.5	A	7.3	A	7.6	A	7.4	A
	Eastbound Approach		9.2	A	9.0	A	9.7	A	9.3	A
4	Farm District Road / Clover Lane	Side Street Stop							(includes eastbound left turn lane)	
	Northbound Approach		11.6	B	21.3	C	11.5	B	22.8	C
	Southbound Approach		15.9	C	12.7	B	16.8	C	13.1	B
	Eastbound Left		8.9	A	8.1	A	8.9	A	8.1	A
	Westbound Left		8.5	A	8.4	A	8.5	A	8.4	A

Notes:

1. Delay is reported in seconds per vehicle for the worst approach/movement for side street stop-controlled intersections, and overall and by movement for signalized intersections.
2. Plus Project conditions adds an eastbound left turn lane.

Source: GCW, 2025

As shown in **Tables 5 and 6**, the study intersections are anticipated to operate within the LOS policy in the Opening Year and Future Year Plus Project Conditions. The addition of project trips had no significant impact on the operation, and the level of service is similar with or without the project.

CONCLUSIONS & RECOMMENDATIONS

- The project consists of 102 single-family dwelling units.
- The site is located north of Farm District Road, with proposed access via Clover Lane and Fort Sutter Boulevard.
- The project is anticipated to generate approximately 962 Daily trips, 71 AM peak hour trips, and 96 PM peak hour trips.
- All intersections studied operate within policy level of service under all scenarios, with or without the project. No impacts were identified requiring mitigations or improvements.

- The project should construct an eastbound left turn lane at the Farm District Road / Clover Lane intersection; this is warranted based on the existing volumes independent of the project. The project adds a small number of trips (10 in the PM peak hour) to the eastbound left turn movement.
- The project should construct the connection to Fort Sutter Boulevard. This connection at Fort Sutter Boulevard/ Langdon Street should convert that intersection to a side-street stop (stop on Langdon Street) T-intersection.
- The project should construct the connection to Clover Lane.
- All roadway connections and internal project roadways should be constructed to City of Fernley standards.

Appendix A

Crash Data

	OBJECTID	Crash Severity	Crash Date	Injury Type	Crash Type
River Ranch/ US 50A	1668617	PROPERTY DAMAGE ONLY	1/31/2016, 12:57 PM	No Data	ANGLE
River Ranch/ US 50A	1674863	INJURY CRASH	3/18/2016, 1:34 PM	A	ANGLE
River Ranch/ US 50A	1678169	PROPERTY DAMAGE ONLY	4/11/2016, 8:40 AM	No Data	ANGLE
River Ranch/ US 50A	1704114	INJURY CRASH	10/20/2016, 7:00 AM	A	ANGLE
River Ranch/ US 50A	1708986	INJURY CRASH	11/23/2016, 4:00 AM	C	ANGLE
River Ranch/ US 50A	1715793	INJURY CRASH	1/7/2017, 4:02 PM	B	NON-COLLISION
River Ranch/ US 50A	1731774	INJURY CRASH	4/29/2017, 5:10 AM	A	ANGLE
River Ranch/ US 50A	1745453	INJURY CRASH	8/7/2017, 9:17 AM	B	ANGLE
River Ranch/ US 50A	1767004	PROPERTY DAMAGE ONLY	1/5/2018, 3:26 AM	No Data	ANGLE
River Ranch/ US 50A	1769472	INJURY CRASH	1/22/2018, 3:45 AM	C	ANGLE
River Ranch/ US 50A	1773731	PROPERTY DAMAGE ONLY	2/20/2018, 10:20 AM	No Data	ANGLE
Clover Lane / Farm District	1776833	INJURY CRASH	3/12/2018, 10:40 AM	C	ANGLE
River Ranch/ US 50A	1781101	INJURY CRASH	4/13/2018, 6:05 AM	A	ANGLE
River Ranch/ US 50A	1786054	INJURY CRASH	5/23/2018, 11:17 AM	C	ANGLE
Clover Lane / Farm District	1795217	PROPERTY DAMAGE ONLY	8/5/2018, 6:21 AM	No Data	ANGLE
River Ranch/ Other intersection	1797476	PROPERTY DAMAGE ONLY	8/22/2018, 2:50 AM	No Data	ANGLE
River Ranch/ US 50A	1806797	PROPERTY DAMAGE ONLY	10/28/2018, 1:17 PM	No Data	ANGLE
Clover Lane / Farm District	1845330	INJURY CRASH	8/14/2019, 10:26 AM	C	REAR-END
River Ranch/ Round Up	1887633	PROPERTY DAMAGE ONLY	8/19/2020, 9:35 PM	No Data	SIDESWIPE, MEETING
River Ranch/ US 50A			9/15/2021		ANGLE
River Ranch Roadway			9/16/2022		Non-Collision
River Ranch/ Round Up			5/22/2022		Non-Collision

Appendix B

Existing Conditions LOS Calculations

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

11/18/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑
Traffic Volume (veh/h)	448	51	24	707	83	21
Future Volume (veh/h)	448	51	24	707	83	21
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	515	59	28	813	95	24
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	7	7	7	7	7
Cap, veh/h	1088	644	59	1823	178	159
Arrive On Green	0.32	0.32	0.03	0.53	0.10	0.10
Sat Flow, veh/h	3503	1522	1711	3503	1711	1522
Grp Volume(v), veh/h	515	59	28	813	95	24
Grp Sat Flow(s),veh/h/ln	1706	1522	1711	1706	1711	1522
Q Serve(g_s), s	3.7	0.7	0.5	4.4	1.6	0.4
Cycle Q Clear(g_c), s	3.7	0.7	0.5	4.4	1.6	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1088	644	59	1823	178	159
V/C Ratio(X)	0.47	0.09	0.47	0.45	0.53	0.15
Avail Cap(c_a), veh/h	4095	1985	647	6002	1434	1276
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.3	5.3	14.4	4.3	12.9	12.4
Incr Delay (d2), s/veh	0.3	0.1	5.7	0.2	2.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.2	0.0	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.6	5.3	20.2	4.5	15.4	12.8
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	574			841	119	
Approach Delay, s/veh	8.3			5.0	14.9	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.7		8.7	6.6	15.2
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		53.5		25.5	11.5	36.5
Max Q Clear Time (g_c+I1), s		6.4		3.6	2.5	5.7
Green Ext Time (p_c), s		5.6		0.3	0.0	4.0
Intersection Summary						
HCM 7th Control Delay, s/veh			7.0			
HCM 7th LOS			A			

HCM 7th TWSC
2: Round Up Road & River Ranch Road

11/18/2024

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	5	4	52	0	13	1	13	7	4
Future Vol, veh/h	1	0	0	5	4	52	0	13	1	13	7	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	0	8	6	79	0	20	2	20	11	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	76	74	14	70	77	20	17	0	0	21	0	0
Stage 1	53	53	-	20	20	-	-	-	-	-	-	-
Stage 2	23	21	-	50	56	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	919	820	1072	926	818	1063	1614	-	-	1608	-	-
Stage 1	965	855	-	1003	882	-	-	-	-	-	-	-
Stage 2	1001	882	-	968	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	834	810	1072	915	808	1063	1614	-	-	1608	-	-
Mov Cap-2 Maneuver	834	810	-	915	808	-	-	-	-	-	-	-
Stage 1	953	844	-	1003	882	-	-	-	-	-	-	-
Stage 2	920	882	-	956	842	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	9.32		8.85		0		3.94	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1614	-	-	834 1028	909	-	-
HCM Lane V/C Ratio	-	-	-	0.002 0.09	0.012	-	-
HCM Control Delay (s/veh)	0	-	-	9.3 8.8	7.3	0	-
HCM Lane LOS	A	-	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.3	0	-	-

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	9	8	2	4	44
Future Vol, veh/h	19	9	8	2	4	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	27	13	11	3	6	63

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	63	37	69
Stage 1	37	-	-
Stage 2	26	-	-
Critical Hdwy	6.44	6.24	4.14
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.336	2.236
Pot Cap-1 Maneuver	938	1029	1520
Stage 1	980	-	-
Stage 2	992	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	931	1029	1520
Mov Cap-2 Maneuver	931	-	-
Stage 1	973	-	-
Stage 2	992	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.91	5.91	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1440	-	961	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s/veh)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	219	2	2	238	9	0	0	1	3	0	25
Future Vol, veh/h	22	219	2	2	238	9	0	0	1	3	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	317	3	3	345	13	0	0	1	4	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	358	0	0	320	0	0	733	746	319	738	741	351
Stage 1	-	-	-	-	-	-	383	383	-	357	357	-
Stage 2	-	-	-	-	-	-	351	364	-	381	384	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1195	-	-	1234	-	-	335	340	720	332	343	690
Stage 1	-	-	-	-	-	-	638	611	-	658	626	-
Stage 2	-	-	-	-	-	-	664	622	-	639	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1234	-	-	306	328	720	320	331	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	328	-	320	331	-
Stage 1	-	-	-	-	-	-	617	591	-	656	625	-
Stage 2	-	-	-	-	-	-	627	620	-	617	590	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.73	0.06	10.01	11.28
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	163	-	-	14	-	-	614
HCM Lane V/C Ratio	0.002	0.027	-	-	0.002	-	-	0.066
HCM Control Delay (s/veh)	10	8.1	0	-	7.9	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

HCM 7th Signalized Intersection Summary1: River Ranch Road & US 50

11/18/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑
Traffic Volume (veh/h)	802	91	40	656	93	19
Future Volume (veh/h)	802	91	40	656	93	19
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	862	98	43	705	100	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	1498	815	84	2166	165	147
Arrive On Green	0.43	0.43	0.05	0.62	0.09	0.09
Sat Flow, veh/h	3589	1560	1753	3589	1753	1560
Grp Volume(v), veh/h	862	98	43	705	100	20
Grp Sat Flow(s),veh/h/ln	1749	1560	1753	1749	1753	1560
Q Serve(g_s), s	7.2	1.2	0.9	3.7	2.1	0.5
Cycle Q Clear(g_c), s	7.2	1.2	0.9	3.7	2.1	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1498	815	84	2166	165	147
V/C Ratio(X)	0.58	0.12	0.51	0.33	0.61	0.14
Avail Cap(c_a), veh/h	3326	1630	525	4875	1165	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.3	4.7	17.8	3.5	16.7	16.0
Incr Delay (d2), s/veh	0.4	0.1	4.8	0.1	3.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.3	0.4	0.0	0.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.7	4.7	22.6	3.6	20.3	16.4
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	960			748	120	
Approach Delay, s/veh	8.3			4.7	19.6	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		29.3		9.1	7.3	21.9
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		53.5		25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s		5.7		4.1	2.9	9.2
Green Ext Time (p_c), s		4.6		0.3	0.0	7.3
Intersection Summary						
HCM 7th Control Delay, s/veh			7.5			
HCM 7th LOS			A			

HCM 7th TWSC

2: Round Up Road & River Ranch Road

11/18/2024

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	0	4	3	37	1	17	1	43	28	11
Future Vol, veh/h	3	3	0	4	3	37	1	17	1	43	28	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	4	0	5	4	45	1	20	1	52	34	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	169	168	40	163	174	21	47	0	0	22	0	0
Stage 1	144	144	-	23	23	-	-	-	-	-	-	-
Stage 2	25	24	-	139	151	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	800	728	1037	807	723	1062	1573	-	-	1607	-	-
Stage 1	864	782	-	1000	880	-	-	-	-	-	-	-
Stage 2	998	879	-	869	777	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	736	704	1037	776	698	1062	1573	-	-	1607	-	-
Mov Cap-2 Maneuver	736	704	-	776	698	-	-	-	-	-	-	-
Stage 1	835	756	-	999	879	-	-	-	-	-	-	-
Stage 2	952	878	-	836	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v10.05		8.83	0.38	3.84
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	94	-	-	720	994	893	-
HCM Lane V/C Ratio	0.001	-	-	0.01	0.053	0.032	-
HCM Control Delay (s/veh)	7.3	0	-	10.1	8.8	7.3	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection

Int Delay, s/veh 6.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 26 29 11 0 0 26

Future Vol, veh/h 26 29 11 0 0 26

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 0 0 0 0 0 0

Mvmt Flow 31 34 13 0 0 31

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 41 15 31 0 - 0

Stage 1 15 - - - - -

Stage 2 26 - - - - -

Critical Hdwy 6.4 6.2 4.1 - - -

Critical Hdwy Stg 1 5.4 - - - - -

Critical Hdwy Stg 2 5.4 - - - - -

Follow-up Hdwy 3.5 3.3 2.2 - - -

Pot Cap-1 Maneuver 975 1070 1595 - - -

Stage 1 1013 - - - - -

Stage 2 1002 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 967 1070 1595 - - -

Mov Cap-2 Maneuver 967 - - - - -

Stage 1 1005 - - - - -

Stage 2 1002 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 8.77 7.28 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1595 - 1019 - -

HCM Lane V/C Ratio 0.008 - 0.064 - -

HCM Control Delay (s/veh) 7.3 0 8.8 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	256	0	1	189	6	4	0	0	5	0	23
Future Vol, veh/h	19	256	0	1	189	6	4	0	0	5	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	288	0	1	212	7	4	0	0	6	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	288	0	0	545	552	288	548	548	216
Stage 1	-	-	-	-	-	-	330	330	-	218	218	-
Stage 2	-	-	-	-	-	-	215	221	-	330	330	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1350	-	-	1274	-	-	449	442	751	447	444	824
Stage 1	-	-	-	-	-	-	683	646	-	784	723	-
Stage 2	-	-	-	-	-	-	788	720	-	683	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1350	-	-	1274	-	-	427	433	751	438	435	824
Mov Cap-2 Maneuver	-	-	-	-	-	-	427	433	-	438	435	-
Stage 1	-	-	-	-	-	-	670	633	-	784	722	-
Stage 2	-	-	-	-	-	-	762	719	-	670	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v 0.53		0.04	13.53	10.29
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	124	-	-	9	-	-	712
HCM Lane V/C Ratio	0.011	0.016	-	-	0.001	-	-	0.044
HCM Control Delay (s/veh)	13.5	7.7	0	-	7.8	0	-	10.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Appendix C

Opening Year and Future Year LOS Calculations

High-T; the westbound through movement is included although this is actually a free movement.

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

11/18/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (veh/h)	493	77	35	778	155	52
Future Volume (veh/h)	493	77	35	778	155	52
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	567	89	40	894	178	60
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	7	7	7	7	7
Cap, veh/h	1103	731	79	1799	269	239
Arrive On Green	0.32	0.32	0.05	0.53	0.16	0.16
Sat Flow, veh/h	3503	1522	1711	3503	1711	1522
Grp Volume(v), veh/h	567	89	40	894	178	60
Grp Sat Flow(s),veh/h/ln	1706	1522	1711	1706	1711	1522
Q Serve(g_s), s	4.7	1.1	0.8	5.8	3.4	1.2
Cycle Q Clear(g_c), s	4.7	1.1	0.8	5.8	3.4	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1103	731	79	1799	269	239
V/C Ratio(X)	0.51	0.12	0.51	0.50	0.66	0.25
Avail Cap(c_a), veh/h	3576	1834	565	5241	1252	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	5.0	16.2	5.3	13.8	12.9
Incr Delay (d2), s/veh	0.4	0.1	5.0	0.2	2.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.4	0.3	0.4	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.9	5.1	21.2	5.5	16.6	13.4
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	656			934	238	
Approach Delay, s/veh	9.3			6.2	15.8	
Approach LOS	A			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.9		11.0	7.1	16.8
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		53.5		25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s		7.8		5.4	2.8	6.7
Green Ext Time (p_c), s		6.3		0.7	0.0	4.6
Intersection Summary						
HCM 7th Control Delay, s/veh			8.5			
HCM 7th LOS			A			

HCM 7th TWSC
2: Round Up Road & River Ranch Road

11/18/2024

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	6	4	57	0	14	1	14	8	4
Future Vol, veh/h	1	0	0	6	4	57	0	14	1	14	8	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	0	9	6	86	0	21	2	21	12	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	82	80	15	77	83	22	18	0	0	23	0	0
Stage 1	58	58	-	22	22	-	-	-	-	-	-	-
Stage 2	24	23	-	55	61	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	911	814	1070	918	811	1061	1612	-	-	1606	-	-
Stage 1	959	851	-	1002	881	-	-	-	-	-	-	-
Stage 2	999	880	-	963	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	819	803	1070	906	801	1061	1612	-	-	1606	-	-
Mov Cap-2 Maneuver	819	803	-	906	801	-	-	-	-	-	-	-
Stage 1	947	839	-	1002	881	-	-	-	-	-	-	-
Stage 2	911	880	-	950	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.4	8.9	0	3.92
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1612	-	-	819 1025	909	-	-
HCM Lane V/C Ratio	-	-	-	0.002 0.099	0.013	-	-
HCM Control Delay (s/veh)	0	-	-	9.4 8.9	7.3	0	-
HCM Lane LOS	A	-	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.3	0	-	-

Intersection

Int Delay, s/veh 3.7

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 21 10 9 2 4 48

Future Vol, veh/h 21 10 9 2 4 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 70 70 70 70 70 70

Heavy Vehicles, % 4 4 4 4 4 4

Mvmt Flow 30 14 13 3 6 69

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 69 40 74 0 - 0

Stage 1 40 - - - - -

Stage 2 29 - - - - -

Critical Hdwy 6.44 6.24 4.14 - - -

Critical Hdwy Stg 1 5.44 - - - - -

Critical Hdwy Stg 2 5.44 - - - - -

Follow-up Hdwy 3.536 3.336 2.236 - - -

Pot Cap-1 Maneuver 931 1026 1513 - - -

Stage 1 977 - - - - -

Stage 2 989 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 923 1026 1513 - - -

Mov Cap-2 Maneuver 923 - - - - -

Stage 1 969 - - - - -

Stage 2 989 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 8.96 6.05 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1473 - 954 - -

HCM Lane V/C Ratio 0.009 - 0.046 - -

HCM Control Delay (s/veh) 7.4 0 9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.1 - -

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	250	2	2	280	10	0	0	1	3	0	28
Future Vol, veh/h	24	250	2	2	280	10	0	0	1	3	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	362	3	3	406	14	0	0	1	4	0	41
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	365	0	0	845	859	364	851	854	413
Stage 1	-	-	-	-	-	-	433	433	-	419	419	-
Stage 2	-	-	-	-	-	-	412	426	-	432	435	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1133	-	-	1188	-	-	282	293	679	279	295	637
Stage 1	-	-	-	-	-	-	599	580	-	610	588	-
Stage 2	-	-	-	-	-	-	615	584	-	600	579	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1133	-	-	1188	-	-	253	281	679	267	283	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	253	281	-	267	283	-
Stage 1	-	-	-	-	-	-	576	557	-	608	587	-
Stage 2	-	-	-	-	-	-	574	582	-	576	557	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.72			0.06			10.31			11.97		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	679	156	-	-	12	-	-	562				
HCM Lane V/C Ratio	0.002	0.031	-	-	0.002	-	-	0.08				
HCM Control Delay (s/veh)	10.3	8.3	0	-	8	0	-	12				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.3				

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

11/18/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑
Traffic Volume (veh/h)	882	166	75	722	141	39
Future Volume (veh/h)	882	166	75	722	141	39
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	948	178	81	776	152	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	1528	879	124	2202	222	198
Arrive On Green	0.44	0.44	0.07	0.63	0.13	0.13
Sat Flow, veh/h	3589	1560	1753	3589	1753	1560
Grp Volume(v), veh/h	948	178	81	776	152	42
Grp Sat Flow(s),veh/h/ln	1749	1560	1753	1749	1753	1560
Q Serve(g_s), s	9.4	2.5	2.0	4.8	3.7	1.1
Cycle Q Clear(g_c), s	9.4	2.5	2.0	4.8	3.7	1.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1528	879	124	2202	222	198
V/C Ratio(X)	0.62	0.20	0.65	0.35	0.68	0.21
Avail Cap(c_a), veh/h	2830	1460	447	4148	991	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	4.8	20.4	4.0	18.8	17.7
Incr Delay (d2), s/veh	0.4	0.1	5.7	0.1	3.7	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	0.8	0.3	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.2	5.0	26.1	4.1	22.5	18.2
LnGrp LOS	B	A	C	A	C	B
Approach Vol, veh/h	1126			857	194	
Approach Delay, s/veh	9.4			6.2	21.6	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.9		11.2	8.7	25.2
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		53.5		25.5	11.5	36.5
Max Q Clear Time (g_c+I1), s		6.8		5.7	4.0	11.4
Green Ext Time (p_c), s		5.2		0.5	0.1	8.3
Intersection Summary						
HCM 7th Control Delay, s/veh			9.2			
HCM 7th LOS			A			

HCM 7th TWSC
2: Round Up Road & River Ranch Road

11/18/2024

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	0	4	3	41	1	19	1	47	31	12
Future Vol, veh/h	3	3	0	4	3	41	1	19	1	47	31	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	4	0	5	4	49	1	23	1	57	37	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	185	184	45	178	191	23	52	0	0	24	0	0
Stage 1	158	158	-	26	26	-	-	-	-	-	-	-
Stage 2	27	27	-	152	165	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	780	714	1031	788	708	1059	1567	-	-	1604	-	-
Stage 1	849	771	-	997	878	-	-	-	-	-	-	-
Stage 2	995	877	-	855	765	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	713	687	1031	755	681	1059	1567	-	-	1604	-	-
Mov Cap-2 Maneuver	713	687	-	755	681	-	-	-	-	-	-	-
Stage 1	818	743	-	996	877	-	-	-	-	-	-	-
Stage 2	944	876	-	820	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.2	8.86	0.35	3.83
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	85	-	-	700	991	890	-
HCM Lane V/C Ratio	0.001	-	-	0.01	0.058	0.035	-
HCM Control Delay (s/veh)	7.3	0	-	10.2	8.9	7.3	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection

Int Delay, s/veh 6.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 29 32 12 0 0 29

Future Vol, veh/h 29 32 12 0 0 29

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 0 0 0 0 0 0

Mvmt Flow 34 38 14 0 0 34

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 45 17 34 0 - 0

Stage 1 17 - - - - -

Stage 2 28 - - - - -

Critical Hdwy 6.4 6.2 4.1 - - -

Critical Hdwy Stg 1 5.4 - - - - -

Critical Hdwy Stg 2 5.4 - - - - -

Follow-up Hdwy 3.5 3.3 2.2 - - -

Pot Cap-1 Maneuver 970 1068 1590 - - -

Stage 1 1011 - - - - -

Stage 2 1000 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 961 1068 1590 - - -

Mov Cap-2 Maneuver 961 - - - - -

Stage 1 1002 - - - - -

Stage 2 1000 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 8.82 7.28 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1590 - 1014 - -

HCM Lane V/C Ratio 0.009 - 0.071 - -

HCM Control Delay (s/veh) 7.3 0 8.8 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	311	0	1	220	7	4	0	0	6	0	25
Future Vol, veh/h	21	311	0	1	220	7	4	0	0	6	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	349	0	1	247	8	4	0	0	7	0	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	255	0	0	349	0	0	646	654	349	650	650	251
Stage 1	-	-	-	-	-	-	397	397	-	253	253	-
Stage 2	-	-	-	-	-	-	249	257	-	397	397	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1310	-	-	1209	-	-	385	386	694	382	388	788
Stage 1	-	-	-	-	-	-	629	604	-	751	697	-
Stage 2	-	-	-	-	-	-	755	695	-	629	604	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1209	-	-	362	377	694	373	379	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	362	377	-	373	379	-
Stage 1	-	-	-	-	-	-	615	590	-	750	697	-
Stage 2	-	-	-	-	-	-	727	694	-	615	590	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.49	0.03	15.06	10.87
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	362	114	-	-	8	-	-	648
HCM Lane V/C Ratio	0.012	0.018	-	-	0.001	-	-	0.054
HCM Control Delay (s/veh)	15.1	7.8	0	-	8	0	-	10.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

11/19/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↑
Traffic Volume (veh/h)	788	158	66	1244	354	112
Future Volume (veh/h)	788	158	66	1244	354	112
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	906	182	76	1430	407	129
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	7	7	7	7	7
Cap, veh/h	1362	1032	100	1862	477	424
Arrive On Green	0.40	0.40	0.06	0.55	0.28	0.28
Sat Flow, veh/h	3503	1522	1711	3503	1711	1522
Grp Volume(v), veh/h	906	182	76	1430	407	129
Grp Sat Flow(s),veh/h/ln	1706	1522	1711	1706	1711	1522
Q Serve(g_s), s	13.6	2.7	2.7	20.5	14.1	4.2
Cycle Q Clear(g_c), s	13.6	2.7	2.7	20.5	14.1	4.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1362	1032	100	1862	477	424
V/C Ratio(X)	0.67	0.18	0.76	0.77	0.85	0.30
Avail Cap(c_a), veh/h	1991	1312	314	2919	697	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	3.7	29.0	11.1	21.4	17.8
Incr Delay (d2), s/veh	0.6	0.1	11.0	0.7	6.9	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	1.6	1.3	5.0	6.2	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.9	3.8	40.1	11.8	28.3	18.2
LnGrp LOS	B	A	D	B	C	B
Approach Vol, veh/h	1088			1506	536	
Approach Delay, s/veh	13.9			13.2	25.9	
Approach LOS	B			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		39.6		22.9	9.2	30.5
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		53.5		25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s		22.5		16.1	4.7	15.6
Green Ext Time (p_c), s		11.6		1.3	0.1	7.4
Intersection Summary						
HCM 7th Control Delay, s/veh			15.6			
HCM 7th LOS			B			

HCM 7th TWSC
2: Round Up Road & River Ranch Road

11/19/2024

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	8	6	83	0	21	2	21	11	6
Future Vol, veh/h	2	0	0	8	6	83	0	21	2	21	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	0	12	9	126	0	32	3	32	17	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	121	120	21	114	123	33	26	0	0	35	0	0
Stage 1	85	85	-	33	33	-	-	-	-	-	-	-
Stage 2	36	35	-	80	89	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	859	774	1062	868	771	1046	1602	-	-	1589	-	-
Stage 1	928	828	-	988	871	-	-	-	-	-	-	-
Stage 2	984	870	-	933	825	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	731	759	1062	851	756	1046	1602	-	-	1589	-	-
Mov Cap-2 Maneuver	731	759	-	851	756	-	-	-	-	-	-	-
Stage 1	909	812	-	988	871	-	-	-	-	-	-	-
Stage 2	857	870	-	914	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.94	9.2	0	4.04
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	731 1003	929	-	-
HCM Lane V/C Ratio	-	-	-	0.004 0.147	0.02	-	-
HCM Control Delay (s/veh)	0	-	-	9.9 9.2	7.3	0	-
HCM Lane LOS	A	-	-	A A	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.5	0.1	-	-

Intersection

Int Delay, s/veh 3.7

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 30 14 13 3 6 70

Future Vol, veh/h 30 14 13 3 6 70

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 70 70 70 70 70 70

Heavy Vehicles, % 4 4 4 4 4 4

Mvmt Flow 43 20 19 4 9 100

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 100 59 109 0 - 0

Stage 1 59 - - - - -

Stage 2 41 - - - - -

Critical Hdwy 6.44 6.24 4.14 - - -

Critical Hdwy Stg 1 5.44 - - - - -

Critical Hdwy Stg 2 5.44 - - - - -

Follow-up Hdwy 3.536 3.336 2.236 - - -

Pot Cap-1 Maneuver 894 1002 1469 - - -

Stage 1 959 - - - - -

Stage 2 976 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 883 1002 1469 - - -

Mov Cap-2 Maneuver 883 - - - - -

Stage 1 947 - - - - -

Stage 2 976 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 9.21 6.08 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1463 - 917 - -

HCM Lane V/C Ratio 0.013 - 0.069 - -

HCM Control Delay (s/veh) 7.5 0 9.2 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	359	3	3	399	14	0	0	2	5	0	40
Future Vol, veh/h	35	359	3	3	399	14	0	0	2	5	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	51	520	4	4	578	20	0	0	3	7	0	58

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	599	0	0	525	0	0	1211	1231	522	1219	1223	588
Stage 1	-	-	-	-	-	-	624	624	-	597	597	-
Stage 2	-	-	-	-	-	-	587	607	-	622	626	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	973	-	-	1037	-	-	158	176	552	156	178	507
Stage 1	-	-	-	-	-	-	472	476	-	488	490	-
Stage 2	-	-	-	-	-	-	494	485	-	473	475	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	973	-	-	1037	-	-	129	162	552	143	164	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	129	162	-	143	164	-
Stage 1	-	-	-	-	-	-	437	441	-	485	487	-
Stage 2	-	-	-	-	-	-	435	482	-	436	440	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v 0.78		0.06	11.55	15.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	552	158	-	-	13	-	-	395
HCM Lane V/C Ratio	0.005	0.052	-	-	0.004	-	-	0.165
HCM Control Delay (s/veh)	11.6	8.9	0	-	8.5	0	-	15.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.6

High-T; the westbound through movement is included although this is actually a free movement.

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

11/18/2024

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (veh/h)	1412	378	151	1155	293	80
Future Volume (veh/h)	1412	378	151	1155	293	80
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1518	406	162	1242	315	86
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	1719	1083	196	2336	355	316
Arrive On Green	0.49	0.49	0.11	0.67	0.20	0.20
Sat Flow, veh/h	3589	1560	1753	3589	1753	1560
Grp Volume(v), veh/h	1518	406	162	1242	315	86
Grp Sat Flow(s),veh/h/ln	1749	1560	1753	1749	1753	1560
Q Serve(g_s), s	33.2	9.2	7.7	15.5	14.9	4.0
Cycle Q Clear(g_c), s	33.2	9.2	7.7	15.5	14.9	4.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	1083	196	2336	355	316
V/C Ratio(X)	0.88	0.37	0.83	0.53	0.89	0.27
Avail Cap(c_a), veh/h	1789	1114	216	2447	402	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	5.4	37.0	7.3	32.9	28.6
Incr Delay (d2), s/veh	5.5	0.2	20.9	0.2	19.1	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	5.1	4.2	3.8	8.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.9	5.6	57.8	7.5	52.0	29.1
LnGrp LOS	C	A	E	A	D	C
Approach Vol, veh/h	1924			1404	401	
Approach Delay, s/veh	20.8			13.3	47.1	
Approach LOS	C			B	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.3		22.7	15.0	47.3
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		59.5		19.5	10.5	43.5
Max Q Clear Time (g_c+l1), s		17.5		16.9	9.7	35.2
Green Ext Time (p_c), s		10.1		0.4	0.0	6.6
Intersection Summary						
HCM 7th Control Delay, s/veh			20.8			
HCM 7th LOS			C			

HCM 7th TWSC
2: Round Up Road & River Ranch Road

11/18/2024

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	6	5	59	2	27	2	69	45	18
Future Vol, veh/h	5	5	0	6	5	59	2	27	2	69	45	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	6	0	7	6	71	2	33	2	83	54	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	272	271	65	262	281	34	76	0	0	35	0	0
Stage 1	231	231	-	39	39	-	-	-	-	-	-	-
Stage 2	40	40	-	223	242	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	685	639	1005	695	631	1045	1536	-	-	1589	-	-
Stage 1	776	717	-	982	867	-	-	-	-	-	-	-
Stage 2	980	866	-	784	709	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	597	603	1005	650	596	1045	1536	-	-	1589	-	-
Mov Cap-2 Maneuver	597	603	-	650	596	-	-	-	-	-	-	-
Stage 1	734	678	-	980	865	-	-	-	-	-	-	-
Stage 2	905	864	-	734	670	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.13		9.18	0.47	3.86
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	115	-	-	600	945	890	-
HCM Lane V/C Ratio	0.002	-	-	0.02	0.089	0.052	-
HCM Control Delay (s/veh)	7.3	0	-	11.1	9.2	7.4	0
HCM Lane LOS	A	A	-	B	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.2	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	46	18	0	0	42
Future Vol, veh/h	42	46	18	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	54	21	0	0	49

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	67	25	49	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	943	1057	1570	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	930	1057	1570	-	-	-
Mov Cap-2 Maneuver	930	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.05	7.32	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1570	-	993	-	-
HCM Lane V/C Ratio	0.013	-	0.104	-	-
HCM Control Delay (s/veh)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	439	0	2	314	10	6	0	0	8	0	37
Future Vol, veh/h	30	439	0	2	314	10	6	0	0	8	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	493	0	2	353	11	7	0	0	9	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	493	0	0	918	929	493	924	924	358
Stage 1	-	-	-	-	-	-	561	561	-	363	363	-
Stage 2	-	-	-	-	-	-	357	369	-	561	561	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1070	-	-	252	268	576	250	270	686
Stage 1	-	-	-	-	-	-	512	510	-	656	625	-
Stage 2	-	-	-	-	-	-	660	621	-	512	510	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1070	-	-	227	256	576	240	258	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	256	-	240	258	-
Stage 1	-	-	-	-	-	-	492	490	-	654	623	-
Stage 2	-	-	-	-	-	-	619	619	-	492	490	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.52	0.05	21.33	12.74
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	115	-	-	11	-	-	515
HCM Lane V/C Ratio	0.03	0.028	-	-	0.002	-	-	0.098
HCM Control Delay (s/veh)	21.3	8.1	0	-	8.4	0	-	12.7
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3

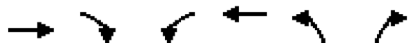
Appendix D

Opening Year and Future Year Plus Project LOS Calculations

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

04/03/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	493	89	35	778	189	52
Future Volume (veh/h)	493	89	35	778	189	52
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	567	102	40	894	217	60
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	7	7	7	7	7
Cap, veh/h	1083	763	78	1755	314	279
Arrive On Green	0.32	0.32	0.05	0.51	0.18	0.18
Sat Flow, veh/h	3503	1522	1711	3503	1711	1522
Grp Volume(v), veh/h	567	102	40	894	217	60
Grp Sat Flow(s), veh/h/ln	1706	1522	1711	1706	1711	1522
Q Serve(g_s), s	4.9	1.3	0.8	6.3	4.3	1.2
Cycle Q Clear(g_c), s	4.9	1.3	0.8	6.3	4.3	1.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1083	763	78	1755	314	279
V/C Ratio(X)	0.52	0.13	0.51	0.51	0.69	0.21
Avail Cap(c_a), veh/h	3423	1806	541	5017	1199	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	4.9	17.0	5.8	13.9	12.6
Incr Delay (d2), s/veh	0.4	0.1	5.1	0.2	2.7	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.5	0.3	0.6	1.6	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.6	4.9	22.1	6.0	16.6	13.0
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	669			934	277	
Approach Delay, s/veh	9.7			6.7	15.8	
Approach LOS	A			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	24.2			12.2	7.2	17.0
Change Period (Y+Rc), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.5			25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s	8.3			6.3	2.8	6.9
Green Ext Time (p_c), s	6.3			0.8	0.0	4.6
Intersection Summary						
HCM 7th Control Delay, s/veh			9.1			
HCM 7th LOS			A			

HCM 6th TWSC
2: Round Up Road & River Ranch Road

04/03/2025

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	6	4	91	0	14	1	26	8	4
Future Vol, veh/h	1	0	0	6	4	91	0	14	1	26	8	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	0	9	6	138	0	21	2	39	12	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	187	116	15	115	118	22	18	0	0	23	0	0
Stage 1	93	93	-	22	22	-	-	-	-	-	-	-
Stage 2	94	23	-	93	96	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	778	778	1070	867	776	1061	1612	-	-	1605	-	-
Stage 1	919	822	-	1002	881	-	-	-	-	-	-	-
Stage 2	918	880	-	919	819	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	660	759	1070	851	757	1061	1612	-	-	1605	-	-
Mov Cap-2 Maneuver	660	759	-	851	757	-	-	-	-	-	-	-
Stage 1	919	801	-	1002	881	-	-	-	-	-	-	-
Stage 2	793	880	-	896	799	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s/v	10.5		9.1			0			5			
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1612	-	-	660 1030	1605	-	-					
HCM Lane V/C Ratio	-	-	-	0.002 0.149	0.025	-	-					
HCM Control Delay (s/veh)	0	-	-	10.5 9.1	7.3	0	-					
HCM Lane LOS	A	-	-	B A	A A	-	-					
HCM 95th %tile Q (veh)	0	-	-	0 0.5	0.1	-	-					

Intersection

Int Delay, s/veh 4.9

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 21 22 43 10 4 48

Future Vol, veh/h 21 22 43 10 4 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 70 70 70 70 70 70

Heavy Vehicles, % 4 4 4 4 4 4

Mvmt Flow 30 31 61 14 6 69

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 177 41 75 0 - 0

Stage 1 41 - - - - -

Stage 2 136 - - - - -

Critical Hdwy 6.44 6.24 4.14 - - -

Critical Hdwy Stg 1 5.44 - - - - -

Critical Hdwy Stg 2 5.44 - - - - -

Follow-up Hdwy 3.536 3.336 2.236 - - -

Pot Cap-1 Maneuver 808 1024 1512 - - -

Stage 1 976 - - - - -

Stage 2 886 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 775 1024 1512 - - -

Mov Cap-2 Maneuver 775 - - - - -

Stage 1 936 - - - - -

Stage 2 886 - - - - -

Approach EB NB SB

HCM Control Delay, s/v 9.4 6.1 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1512 - 885 - -

HCM Lane V/C Ratio 0.041 - 0.069 - -

HCM Control Delay (s/veh) 7.5 0 9.4 - -

HCM Lane LOS A A A - -

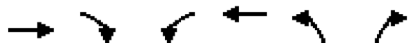
HCM 95th %tile Q (veh) 0.1 - 0.2 - -

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	250	2	2	280	11	0	0	1	6	0	36
Future Vol, veh/h	27	250	2	2	280	11	0	0	1	6	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	39	362	3	3	406	16	0	0	1	9	0	52
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	365	0	0	888	870	364	862	863	414
Stage 1	-	-	-	-	-	-	442	442	-	420	420	-
Stage 2	-	-	-	-	-	-	446	428	-	442	443	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1132	-	-	1188	-	-	263	289	679	274	291	636
Stage 1	-	-	-	-	-	-	592	575	-	609	588	-
Stage 2	-	-	-	-	-	-	590	583	-	592	574	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1132	-	-	1188	-	-	235	278	679	266	280	636
Mov Cap-2 Maneuver	-	-	-	-	-	-	235	278	-	266	280	-
Stage 1	-	-	-	-	-	-	572	555	-	588	586	-
Stage 2	-	-	-	-	-	-	540	581	-	570	554	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.8			0.1			10.3			12.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	679	1132	-	-	1188	-	-	531				
HCM Lane V/C Ratio	0.002	0.035	-	-	0.002	-	-	0.115				
HCM Control Delay (s/veh)	10.3	8.3	-	-	8	0	-	12.7				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.4				

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

04/03/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	882	204	75	722	164	39
Future Volume (veh/h)	882	204	75	722	164	39
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	948	219	81	776	176	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	1518	899	122	2174	250	222
Arrive On Green	0.43	0.43	0.07	0.62	0.14	0.14
Sat Flow, veh/h	3589	1560	1753	3589	1753	1560
Grp Volume(v), veh/h	948	219	81	776	176	42
Grp Sat Flow(s), veh/h/ln	1749	1560	1753	1749	1753	1560
Q Serve(g_s), s	9.8	3.2	2.1	5.0	4.5	1.1
Cycle Q Clear(g_c), s	9.8	3.2	2.1	5.0	4.5	1.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1518	899	122	2174	250	222
V/C Ratio(X)	0.62	0.24	0.66	0.36	0.71	0.19
Avail Cap(c_a), veh/h	2739	1444	433	4015	959	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	4.9	21.1	4.3	19.1	17.6
Incr Delay (d2), s/veh	0.4	0.1	6.0	0.1	3.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	1.2	0.9	0.5	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.7	5.0	27.2	4.4	22.7	18.0
LnGrp LOS	B	A	C	A	C	B
Approach Vol, veh/h	1167			857	218	
Approach Delay, s/veh	9.6			6.5	21.8	
Approach LOS	A			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	34.5			12.1	8.7	25.7
Change Period (Y+Rc), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.5			25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s	7.0			6.5	4.1	11.8
Green Ext Time (p_c), s	5.2			0.6	0.1	8.4
Intersection Summary						
HCM 7th Control Delay, s/veh			9.6			
HCM 7th LOS			A			

HCM 6th TWSC
2: Round Up Road & River Ranch Road

04/03/2025

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	0	4	3	63	1	19	1	86	31	12
Future Vol, veh/h	3	3	0	4	3	63	1	19	1	86	31	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	4	0	5	4	76	1	23	1	104	37	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	318	278	44	280	285	24	51	0	0	24	0	0
Stage 1	252	252	-	26	26	-	-	-	-	-	-	-
Stage 2	66	26	-	254	259	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	639	633	1032	676	628	1058	1568	-	-	1604	-	-
Stage 1	757	702	-	997	878	-	-	-	-	-	-	-
Stage 2	950	878	-	755	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	560	590	1032	638	585	1058	1568	-	-	1604	-	-
Mov Cap-2 Maneuver	560	590	-	638	585	-	-	-	-	-	-	-
Stage 1	756	655	-	996	877	-	-	-	-	-	-	-
Stage 2	877	877	-	701	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.3	9	0.3	4.9
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	575 987	1604	-	-
HCM Lane V/C Ratio	0.001	-	-	0.013 0.085	0.065	-	-
HCM Control Delay (s/veh)	7.3	0	-	11.3 9	7.4	0	-
HCM Lane LOS	A	A	-	B A	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0 0.3	0.2	-	-

HCM 6th TWSC 3: For Sutter Boulevard & Round Up Road

04/03/2025

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	70	35	5	0	29
Future Vol, veh/h	29	70	35	5	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	82	41	6	0	34

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	105	17	34	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	898	1068	1591	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	875	1068	1591	-	-	-
Mov Cap-2 Maneuver	875	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.1	6.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1591	-	1003	-	-
HCM Lane V/C Ratio	0.026	-	0.116	-	-
HCM Control Delay (s/veh)	7.3	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.4	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	311	0	1	220	10	4	0	0	7	0	32
Future Vol, veh/h	31	311	0	1	220	10	4	0	0	7	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	349	0	1	247	11	4	0	0	8	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	258	0	0	349	0	0	692	679	349	674	674	253
Stage 1	-	-	-	-	-	-	419	419	-	255	255	-
Stage 2	-	-	-	-	-	-	273	260	-	419	419	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1307	-	-	1210	-	-	358	374	694	368	376	786
Stage 1	-	-	-	-	-	-	612	590	-	749	696	-
Stage 2	-	-	-	-	-	-	733	693	-	612	590	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1307	-	-	1210	-	-	334	364	694	360	365	786
Mov Cap-2 Maneuver	-	-	-	-	-	-	334	364	-	360	365	-
Stage 1	-	-	-	-	-	-	595	574	-	729	695	-
Stage 2	-	-	-	-	-	-	699	692	-	596	574	-

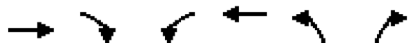
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.7			0			15.9			11		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	334	1307	-	-	1210	-	-	648
HCM Lane V/C Ratio	0.013	0.027	-	-	0.001	-	-	0.068
HCM Control Delay (s/veh)	15.9	7.8	-	-	8	0	-	11
HCM Lane LOS	C	A	-	-	A	A	-	B
HCM 95th %tile Q (veh)	0	0.1	-	-	0	-	-	0.2

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

04/03/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	788	175	66	1244	400	112
Future Volume (veh/h)	788	175	66	1244	400	112
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	906	201	76	1430	460	129
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	7	7	7	7	7	7
Cap, veh/h	1350	1064	97	1821	519	462
Arrive On Green	0.40	0.40	0.06	0.53	0.30	0.30
Sat Flow, veh/h	3503	1522	1711	3503	1711	1522
Grp Volume(v), veh/h	906	201	76	1430	460	129
Grp Sat Flow(s), veh/h/ln	1706	1522	1711	1706	1711	1522
Q Serve(g_s), s	14.7	3.1	3.0	22.7	17.3	4.4
Cycle Q Clear(g_c), s	14.7	3.1	3.0	22.7	17.3	4.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1350	1064	97	1821	519	462
V/C Ratio(X)	0.67	0.19	0.79	0.79	0.89	0.28
Avail Cap(c_a), veh/h	1846	1285	291	2705	646	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	3.5	31.4	12.6	22.4	17.9
Incr Delay (d2), s/veh	0.6	0.1	13.0	0.9	12.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.0	1.4	6.1	8.3	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.4	3.6	44.4	13.6	34.4	18.2
LnGrp LOS	B	A	D	B	C	B
Approach Vol, veh/h	1107			1506	589	
Approach Delay, s/veh	14.9			15.1	30.8	
Approach LOS	B			B	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	41.5			26.0	9.3	32.2
Change Period (Y+Rc), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.5			25.5	11.5	36.5
Max Q Clear Time (g_c+l1), s	24.7			19.3	5.0	16.7
Green Ext Time (p_c), s	11.3			1.2	0.1	7.3
Intersection Summary						
HCM 7th Control Delay, s/veh			17.9			
HCM 7th LOS			B			

HCM 6th TWSC
2: Round Up Road & River Ranch Road

04/03/2025

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	0	8	6	117	0	21	2	33	11	6
Future Vol, veh/h	2	0	0	8	6	117	0	21	2	33	11	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	0	12	9	177	0	32	3	50	17	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	249	157	22	156	160	34	26	0	0	35	0	0
Stage 1	122	122	-	34	34	-	-	-	-	-	-	-
Stage 2	127	35	-	122	126	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	709	739	1061	815	736	1045	1601	-	-	1589	-	-
Stage 1	887	799	-	987	871	-	-	-	-	-	-	-
Stage 2	882	870	-	887	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	569	715	1061	795	712	1045	1601	-	-	1589	-	-
Mov Cap-2 Maneuver	569	715	-	795	712	-	-	-	-	-	-	-
Stage 1	887	773	-	987	871	-	-	-	-	-	-	-
Stage 2	725	870	-	859	771	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.4	9.5	0	4.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1601	-	-	569 1004	1589	-	-
HCM Lane V/C Ratio	-	-	-	0.005 0.198	0.031	-	-
HCM Control Delay (s/veh)	0	-	-	11.4 9.5	7.3	0	-
HCM Lane LOS	A	-	-	B A	A A	-	-
HCM 95th %tile Q (veh)	0	-	-	0 0.7	0.1	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	26	47	11	6	70
Future Vol, veh/h	30	26	47	11	6	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	43	37	67	16	9	100
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	209	59	109	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	775	1001	1469	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	739	1001	1469	-	-	-
Mov Cap-2 Maneuver	739	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	9.7	6.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1469	-	841	-	-	
HCM Lane V/C Ratio	0.046	-	0.095	-	-	
HCM Control Delay (s/veh)	7.6	0	9.7	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q (veh)	0.1	-	0.3	-	-	

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	359	3	3	399	15	0	0	2	7	0	49
Future Vol, veh/h	38	359	3	3	399	15	0	0	2	7	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	55	520	4	4	578	22	0	0	3	10	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	600	0	0	524	0	0	1265	1240	522	1231	1231	589
Stage 1	-	-	-	-	-	-	632	632	-	597	597	-
Stage 2	-	-	-	-	-	-	633	608	-	634	634	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	972	-	-	1038	-	-	145	174	553	153	177	506
Stage 1	-	-	-	-	-	-	467	472	-	488	490	-
Stage 2	-	-	-	-	-	-	466	484	-	466	471	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	972	-	-	1038	-	-	119	163	553	145	166	506
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	163	-	145	166	-
Stage 1	-	-	-	-	-	-	440	445	-	460	487	-
Stage 2	-	-	-	-	-	-	398	481	-	437	444	-

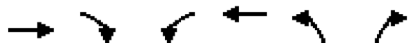
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.8			0.1			11.5			16.8		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	553	972	-	-	1038	-	-	386
HCM Lane V/C Ratio	0.005	0.057	-	-	0.004	-	-	0.21
HCM Control Delay (s/veh)	11.5	8.9	-	-	8.5	0	-	16.8
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q (veh)	0	0.2	-	-	0	-	-	0.8

HCM 7th Signalized Intersection Summary

1: River Ranch Road & US 50

04/03/2025



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	1412	431	151	1155	324	80
Future Volume (veh/h)	1412	431	151	1155	324	80
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1518	463	162	1242	348	86
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	1688	1093	195	2297	382	340
Arrive On Green	0.48	0.48	0.11	0.66	0.22	0.22
Sat Flow, veh/h	3589	1560	1753	3589	1753	1560
Grp Volume(v), veh/h	1518	463	162	1242	348	86
Grp Sat Flow(s), veh/h/ln	1749	1560	1753	1749	1753	1560
Q Serve(g_s), s	34.8	11.1	7.9	16.6	17.0	4.0
Cycle Q Clear(g_c), s	34.8	11.1	7.9	16.6	17.0	4.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1688	1093	195	2297	382	340
V/C Ratio(X)	0.90	0.42	0.83	0.54	0.91	0.25
Avail Cap(c_a), veh/h	1736	1114	210	2374	390	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	5.6	38.1	8.0	33.5	28.4
Incr Delay (d2), s/veh	6.7	0.3	22.3	0.2	24.9	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	6.5	4.4	4.2	9.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	27.4	5.9	60.5	8.2	58.4	28.8
LnGrp LOS	C	A	E	A	E	C
Approach Vol, veh/h	1981			1404	434	
Approach Delay, s/veh	22.3			14.3	52.5	
Approach LOS	C			B	D	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	63.1			24.6	15.3	47.8
Change Period (Y+Rc), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	59.5			19.5	10.5	43.5
Max Q Clear Time (g_c+l1), s	18.6			19.0	9.9	36.8
Green Ext Time (p_c), s	10.1			0.1	0.0	5.5
Intersection Summary						
HCM 7th Control Delay, s/veh		22.8				
HCM 7th LOS		C				

HCM 6th TWSC
2: Round Up Road & River Ranch Road

04/03/2025

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	6	5	82	2	27	2	107	45	18
Future Vol, veh/h	5	5	0	6	5	82	2	27	2	107	45	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	6	0	7	6	99	2	33	2	129	54	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	414	362	65	364	372	34	76	0	0	35	0	0
Stage 1	323	323	-	38	38	-	-	-	-	-	-	-
Stage 2	91	39	-	326	334	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	552	569	1005	596	561	1045	1536	-	-	1589	-	-
Stage 1	693	654	-	982	867	-	-	-	-	-	-	-
Stage 2	921	866	-	691	647	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	463	520	1005	552	513	1045	1536	-	-	1589	-	-
Mov Cap-2 Maneuver	463	520	-	552	513	-	-	-	-	-	-	-
Stage 1	692	598	-	981	866	-	-	-	-	-	-	-
Stage 2	827	865	-	626	592	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	12.5		9.4		0.5		4.7	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	490	939	1589	-
HCM Lane V/C Ratio	0.002	-	-	0.025	0.119	0.081	-
HCM Control Delay (s/veh)	7.3	0	-	12.5	9.4	7.5	0
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.1	0.4	0.3	-

HCM 6th TWSC
3: For Sutter Boulevard & Round Up Road

04/03/2025

Intersection						
Int Delay, s/veh	6.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	85	40	5	0	42
Future Vol, veh/h	42	85	40	5	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	100	47	6	0	49

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	125	25	49	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	875	1057	1571	-	-	-
Stage 1	1003	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	849	1057	1571	-	-	-
Mov Cap-2 Maneuver	849	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.3	6.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	978	-	-
HCM Lane V/C Ratio	0.03	-	0.153	-	-
HCM Control Delay (s/veh)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	439	0	2	314	13	6	0	0	10	0	43
Future Vol, veh/h	40	439	0	2	314	13	6	0	0	10	0	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	493	0	2	353	15	7	0	0	11	0	48
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	368	0	0	493	0	0	972	955	493	948	948	361
Stage 1	-	-	-	-	-	-	583	583	-	365	365	-
Stage 2	-	-	-	-	-	-	389	372	-	583	583	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1191	-	-	1071	-	-	232	258	576	241	261	684
Stage 1	-	-	-	-	-	-	498	499	-	654	623	-
Stage 2	-	-	-	-	-	-	635	619	-	498	499	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1191	-	-	1071	-	-	209	248	576	234	251	684
Mov Cap-2 Maneuver	-	-	-	-	-	-	209	248	-	234	251	-
Stage 1	-	-	-	-	-	-	479	480	-	629	622	-
Stage 2	-	-	-	-	-	-	589	618	-	479	480	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.7			0.1			22.8			13.1		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	209	1191	-	-	1071	-	-	502				
HCM Lane V/C Ratio	0.032	0.038	-	-	0.002	-	-	0.119				
HCM Control Delay (s/veh)	22.8	8.1	-	-	8.4	0	-	13.1				
HCM Lane LOS	C	A	-	-	A	A	-	B				
HCM 95th %tile Q (veh)	0.1	0.1	-	-	0	-	-	0.4				



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: August 13, 2025

REPORT TO: Fernley Planning Commission

REPORT FROM: Alisa Johansson

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Resolution
Motion

AGENDA ITEM:

(For Possible Action) Discussion and possible action regarding a request from the Planning Department to amend the home occupation use standards contained in Fernley Municipal Code, Title 32, Chapter 7, Section 200 (Bill 364, CA25003).

AGENDA ITEM BRIEF:

The Planning Department and City Clerk's Office propose to amend the City of Fernley's Municipal Code, Title 32, Chapter 7, Section 200 to refine and clarify regulations for the home occupation accessory use. In working with the City Clerk's office regarding these changes, a plethora of regulatory conflicts and enforcement issues were relayed to Planning Department staff. Complaints from neighbors, specialized business types, and compliance challenges were discussed and incorporated into the revised standards for this use. These proposed changes seek to address these facets of home occupations by improving the clarity of the code, simplifying licensing and enforcement, and limiting the occurrence of adverse impacts by restricting the overall scope of home occupations.

The proposed changes include, but are not limited to, the addition of a floor area limit and a prohibited home occupations list, as well as clarification and revision to limitations on associated vehicles and employees. Word choice revisions, punctuation and grammar corrections, and reorganization of the section are also proposed.

RECOMMENDED MOTION:

"I move to recommend approval of Bill 364 associated with CA25003 amending the use standards for home occupations as proposed and presented by staff."

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:

"I move to recommend denial of Bill 364 associated with CA25003 amending the use standards for home occupations as proposed and presented by staff because I am unable to make the following required finding(s): *(State finding and supporting analysis—repeat for each applicable finding).*"

"I move to recommend approval of Bill 364 associated with CA25003 amending the use standards for home occupations as presented by staff with the following modifications: *(Identify modification and state rationale—repeat for all requested modifications).*"

BACKGROUND:

The Planning Department seeks to refine the use standards for home occupations. These changes seek to enhance the compatibility of home occupations with their residential surroundings, reduce conflicts, streamline enforcement, and simplify licensing.

One of the many changes and additions is a new limitation on the total floor area that may be occupied by home occupations as well as where that floor area may be located. This change seeks to ensure that the home occupation accessory use remains subordinate and incidental to the primary residential use while also offering new flexibility for occupancy of accessory structures on the site. Staff also included revisions to the allowances for storage, associated vehicles, and employees—these amendments are intended to minimize the outwardly apparent scope and scale of the businesses to address community concerns such as visual impacts, spillover parking, and additional trips generated to and from the site. In consulting with the City Clerk's Office and with the adopted development codes of nearby jurisdictions, a list of incompatible and impermissible home occupations was developed and added to address the proliferation of niche business types, which can be difficult to classify and regulate and which can result in unanticipated adverse impacts to neighboring properties and to City infrastructure such as roadways and utilities. Finally, grammatical and word choice revisions are proposed throughout the section for clarity and improved organization. At this time, there are no proposed changes to the use definition or to the use table where home occupations are identified—home occupations would continue to be defined as accessory to a single-family residential use and would continue to be allowed as such an accessory use in the same range of residential, mixed-use, and commercial zones.

Analysis: Development Code Text Amendment**Approval Criteria**

A development code text amendment is committed to the City Council's legislative discretion. A development code text amendment may be approved if it meets the following criteria.

1. *Consistent with the city's master plan and otherwise consistent with state and federal law.*

The proposed code amendment is consistent with the City's Comprehensive Master Plan as a continuation of and complement to the development code's implementation of master plan goals and policies. Although home occupations are not specifically mentioned in the comprehensive plan, the following goals and policies would be supported by this code amendment. More broadly, the Comprehensive Plan's emphasis on land use compatibility and mitigation or prevention of adverse impacts caused by development supports the

promulgation of increasingly effective and adaptive code where such compatibility conflicts are found to be present.

LU.1.4 Ensure existing and future land uses are compatible.

The code amendment seeks to impose stricter regulations on home occupations, enhancing compatibility with the surrounding residential uses. By limiting vehicles, employees, and the type, scope, and scale of home occupations, staff intends to limit the adverse impacts experienced by the community.

LU.1.5 Promote infill development.

Although home occupations accompany existing developed sites, promoting intensification and infill of residential areas with appropriately scaled and conditioned non-residential uses promotes efficient use of land. By promoting home occupations as an accessory use in residential, mixed-use, and commercial zones where single-family dwellings are present, the City effectively concentrates those non-residential uses in areas where they can be effectively served by existing public services and infrastructure.

2. Public notice was given, and a public hearing held per the requirements of the Development Code and Nevada Revised Statutes.

A public hearing will be held in accordance with Fernley Municipal Code and Nevada Revised Statutes. Legal notice was published in the Reno-Gazette Journal on July 29, 2025.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

General References

Nevada Revised Statutes (NRS) Chapter 266 – General Law for Incorporation of Cities and Towns
Nevada Revised Statutes (NRS) Chapter 268 – Powers and Duties Common to Cities and Towns Incorporated under
General or Special Laws
Nevada Revised Statutes (NRS) Chapter 278 – Planning and Zoning
Fernley Municipal Code (FMC) Title 32 – Development Code
City of Fernley Comprehensive Master Plan, August 2018 (3rd Update)

Specific References

NRS 266.105-118 – Ordinances and Resolutions
NRS 268.014 – Codification of Ordinances; Publication of Code

FMC 1.01.03 – Official Municipal Code, Amendments
FMC 32.03.040(d) – Development Code, Administration, Development Code Text Amendments
FMC 32.07.200 – Development Code, Use Standards, Home Occupations

FINANCIAL IMPLICATIONS:

None.

ATTACHMENTS:

1. Exhibit 1 - Bill 364

2. Exhibit 2 - Home Occupations - Original Code
3. Exhibit 3 - Home Occupations - Amended Code

BILL #364
CITY OF FERNLEY
ORDINANCE # _____

AN ORDINANCE AMENDING TITLE 32, CHAPTER 7, SECTION 200 (HOME OCCUPATIONS) OF THE FERNLEY DEVELOPMENT CODE TO IMPROVE COMPATIBILITY, REDUCE ADVERSE IMPACTS, AND SIMPLIFY LICENSING AND ENFORCEMENT.

THE CITY COUNCIL OF THE CITY OF FERNLEY, hereinafter “the Council”, DO HEREBY ORDAIN:

Section 1. Title 32, Chapter 9, Section 200 is hereby amended as follows:

Sec. 32.07.200. - Home occupations.

Purpose: It is the purpose of this section to recognize the home as a viable location for some occupations and to ensure the compatibility of home occupations with the surrounding neighborhood. Except as otherwise provided in this Section and Title, no residential dwelling unit may be used for the purpose of conducting any business or income-generating activity. This section provides the following benefits:

- Supports opportunities for alternative employment forms that are nurturing to a family environment by allowing one or both parents to remain home during the day;
- Increases the number of people at home during the day, which improves neighborhood safety;
- Allows incubators for small business, which leads to increased commercial activity as businesses grow; and
- Encourages telecommuting, thereby minimizing traffic congestion and air pollution.

(a) Applicability. This section applies to any home occupation, except as follows:

1. Educational activities, including, but not limited to, music lessons, academic tutoring, or religious instruction, provided that no more than two students are present at any one time.
2. Telecommuting or remote working arrangements, provided that no one other than the resident shall be employed on-site or report to work at the site for the purpose of telecommuting.

(b) Standards.

- (1) The home occupation shall be operated entirely within a dwelling unit by a person or persons residing in the dwelling unit as a clearly secondary and incidental use of the dwelling for residential purposes. The home occupation shall not occupy more than 25% of the total floor area on the site, or 300 square feet, whichever is less. The home occupation must not change the residential character of the dwelling unit.
- (2) Home occupations may be conducted within permitted accessory buildings, provided the size limit identified in (1) is met.
- (3) A home occupation may not occupy more than one site.
- (4) The home occupation may include storage for stock-in-trade, supplies, small-scale equipment, or goods. Storage areas must be confined to the dwelling unit or accessory structure in which the home occupation is conducted.

- (5) Vehicles associated with home occupations are limited as follows:
- a. On all sites, no more than one vehicle and one trailer may be associated with the home occupation.
 - b. Vehicles and/or trailers associated with the home occupation must be parked on-site. Vehicles and/or trailers associated with the home occupation may not be parked in the street or on another site not associated with the home occupation.
 - c. Vehicles parked on-site may not exceed a gross unladen vehicle weight of 10,000 pounds. Trailers parked on-site may not exceed 25' in length.
 - d. Exception: Truck tractors used in independent operator freight or trucking home occupations must be parked off-site in a location approved for freight or trucking uses. This requirement shall not be construed to cause the independent operator trucking home occupation to occupy more than one site, nor shall this requirement be construed to allow other home occupations to park or store vehicles off-site.
- (6) Up to five client visits and/or service deliveries to the home occupation are allowed per day. Client visits shall be by appointment only. Client visits and service deliveries shall not result in adverse impacts to neighboring properties, including, but not limited to, blocked access or excessive noise.
- (7) Unless required by federal or state regulation, there shall be no indication of the home occupation on the exterior of the premises. Documentation of the applicable federal or state regulation shall be provided to the City prior to permit issuance.
- (8) There shall be no manufacturing, processing, or similar activity on the premises which generates noise, odor, dust, vibration, fumes, smoke, electrical interference, or other interference with or nuisance to adjacent properties.
- (9) The home occupation shall not be operated without the written consent of the owner of the real property. An affidavit signed by the property owner shall be submitted as part of the business license application whenever the licensee is not the property owner.
- (10) No employees of the business shall be allowed to report for duty either at or near the residence.
- (11) Prohibited home occupations. The following uses are not permitted as home occupations:
- a. Adult businesses,
 - b. Animal services, except for dog training, mobile grooming, or other services conducted off-site,
 - c. Auto and truck repair uses, except mobile repair services,
 - d. Medical service uses, except for those service uses that do not result in client visits to the site of the home occupation, such as telehealth and mobile or in-home services for clients,
 - e. Cosmetology services,
 - f. Massage services, except for callout services conducted in a mobile unit or in the home of the client,
 - g. Manufacturing uses, except small-scale craftwork or similar items,

- h. Contractor shops and skilled trade services, except when conducted off-site from a mobile unit,
 - i. Restaurant uses, except for cottage food preparation, and for food trucks and other mobile uses when sales are conducted off-site. Permitted uses must conform to all state and local health regulations, and
 - j. On-site vehicle and equipment rentals and sales, except when conducted as a service provided entirely via telephonic or online means, for example vehicle brokerage or rental fleet management.
 - k. Waste related uses.
 - l. Exceptions:
 - i. Legally permitted home occupations in existence as of the effective date of this ordinance are considered legally established and may continue operating provided that the use is not discontinued pursuant to Section 32.08.040. Legally permitted home occupations required to obtain a new license are considered new and must adhere to current regulations.
 - ii. Other exceptions to the prohibited home occupations list may be approved by the Administrator with the provision of a business plan.
- (c) *Business license required.* A person desiring to conduct a home occupation shall complete an application for a business license under [title 10](#) of this Code. The business license application shall include a clear description of the proposed home occupation, including days and hours of operation, description of services offered or goods sold or manufactured, whether the business is in-home or mobile, and, if requested, a utility plan, waste disposal plan, or other supporting information as determined by the Administrator.
- (d) *[Conditional Use Permit.]* If unable to meet the requirements of this section, the planning commission may, by conditional use permit, allow a home occupation without full compliance with the current provisions of this title when the proposed changes are not detrimental to the public health, safety, and welfare.

- Section 2.** All ordinances or parts of ordinances in conflict herewith are hereby repealed.
- Section 3.** The City Clerk is instructed and authorized to publish the title of this ordinance as provided by law.
- Section 4.** This ordinance shall become effective upon passage, approval, and publication.
- Section 5.** 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 6.** In any subsection, phrase, sentence, or portion of this ordinance 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 7. 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 #364 BEING HEREBY PROPOSED on the 13th day of August, 2025.

BILL #364 BEING HEREBY PASSED, APPROVED, and ADOPTED this 17th day of September, 2025, by the following vote of the Council:

Ayes: _____ Nays: _____ Abstentions: _____ Absent: _____

FERNLEY CITY COUNCIL

By: _____ Date: _____
Neal E. McIntyre, Mayor

Attest By: _____ Date: _____
Kim Swanson, City Clerk

Home Occupation code suggestions:

Existing definition:

Home occupation. A use customarily carried on by a dwelling occupant and incidental to the primary residential use, providing such residential character of the property is not changed and is operated in compliance with [chapter 32.07](#).

Existing use table:

Use Category	Use Type	Additional Use Standards	GR20	RR5	RR1	RR½	SF20	SF12	SF9	SF6	MDR14	MF21	MF30	MU	C1	C2	TC	EC	I	PF
Residences																				
	Home occupation	reference chapter 32.07	A	A	A	A	A	A	A	A	A	A	A	A	A	A				

Existing use standards:

Sec. 32.07.200. - Home occupations.

Purpose: It is the purpose of this section to recognize the home as a viable location for some occupations and to ensure the compatibility of home occupations with the surrounding neighborhood. Furthermore, this section provides the following benefits:

- Support opportunities for alternative employment forms that are nurturing to a family environment by allowing one or both parents to remain home during the day;
- Increase the number of people at home during the day, which improves neighborhood safety;
- Act as incubators for small business, which leads to increased commercial activity as businesses grow; and
- Encourage telecommuting, thereby minimizing traffic congestion and air pollution.

(a) Applicability. This section applies to any home occupation.

(b) Standards.

- (1) The home occupation shall be operated entirely within a dwelling unit by a person or persons residing in the dwelling unit as a clearly secondary and incidental use of the dwelling for residential purposes. The home occupation must not change the residential character of the dwelling unit.
- (2) The home occupation may include storage for stock-in-trade, supplies, equipment, or goods and must be confined to the dwelling unit, accessory structures, or be stored behind a solid fence to conceal these items from any public street.

- (3) Not more than one commercial motor vehicle or trailer shall be kept at the residence. Commercial motor vehicles or trails shall not exceed an unladen vehicle weight of 10,000 pounds or be more than 25 feet in length, except on parcels greater than two acres in size.
 - (4) Up to five client visits or service deliveries to the home occupation are allowed per day. Client visits shall be by appointment only.
 - (5) Unless required by federal regulation, There shall be no indication of the home occupation on the exterior of the premises.
 - a. Unless required by federal regulation. Demonstration of this requirement is necessary for the city to permit indication on the exterior of the home occupation.
 - (6) There shall be no manufacturing, processing, or similar activity on the premises which generates noise, odor, dust, vibration, fumes, smoke, electrical interference or other interference with adjacent properties.
 - (7) The home occupation shall not be operated without the written consent of the owner of the real property. An affidavit signed by the property owner shall be submitted as part of the business license application.
 - (8) In residential-single-family zoning districts, no employees of the business shall be allowed to report for duty either at or near the residence. In residential-rural zoning districts, no employees of the business shall be allowed to report for duty either at or near the residence, except in the GR20 and RR5 zoning districts where not more than three non-occupants may be allowed to report for duty at the residence.
- (c) *Business license required.* A person desiring to conduct a home occupation shall complete an application for a business license under [title 10](#) of this Code.
- (d) *[Exceptions.]* If unable to meet the requirements of this section, the planning commission may, by conditional use permit, allow a home occupation without full compliance with the current provisions of this title when the proposed changes are not detrimental to the public health, safety, and welfare.

Home Occupation code suggestions:

Existing definition: ~~(no proposed changes)~~:

Home occupation. A use customarily carried on by a dwelling occupant and incidental to the primary residential use, providing such residential character of the property is not changed ~~and is.~~ Home occupations shall be operated in compliance with [chapter 32.07](#).

Existing use table: ~~(no proposed changes)~~:

Use Category	Use Type	Additional Use Standards	GR20	RR5	RR1	RR½	SF20	SF12	SF9	SF6	MDR14	MF21	MF30	MU	C1	C2	TC	EC	I	PF
Residences																				
	Home occupation	reference chapter 32.07	A	A	A	A	A	A	A	A	A	A	A	A	A	A				

~~Existing~~Revised use standards:

Sec. 32.07.200. - Home occupations.

Purpose: It is the purpose of this section to recognize the home as a viable location for some occupations and to ensure the compatibility of home occupations with the surrounding neighborhood. ~~Furthermore, this~~Except as otherwise provided in this Section and Title, no residential dwelling unit may be used for the purpose of conducting any business or income-generating activity. This section provides the following benefits:

- Supports ~~s~~ opportunities for alternative employment forms that are nurturing to a family environment by allowing one or both parents to remain home during the day;
- Increases ~~s~~ the number of people at home during the day, which improves neighborhood safety;
- ~~Act as~~Allows incubators for small business, which leads to increased commercial activity as businesses grow; and
- Encourages ~~s~~ telecommuting, thereby minimizing traffic congestion and air pollution.

(a) *Applicability.* This section applies to any home occupation ~~-,~~ except as follows:

1. Educational activities, including, but not limited to, music lessons, academic tutoring, or religious instruction, provided that no more than two students are present at any one time.
2. Telecommuting or remote working arrangements, provided that no one other than the resident shall be employed on-site or report to work at the site for the purpose of telecommuting.

(b) *Standards.*

- (1) The home occupation shall be operated entirely within a dwelling unit by a person or persons residing in the dwelling unit as a clearly secondary and incidental use of the dwelling for residential purposes. The home occupation shall not occupy more than 25% of the total floor area on the site, or 300 square feet, whichever is less. The home occupation must not change the residential character of the dwelling unit.
- (2) Home occupations may be conducted within permitted accessory buildings, provided the size limit identified in (1) is met.
- (3) A home occupation may not occupy more than one site.
- (2)(4) The home occupation may include storage for stock-in-trade, supplies, small-scale equipment, or goods ~~and~~. Storage areas must be confined to the dwelling unit, ~~accessory structures,~~ or ~~be stored behind a solid fence to conceal these items from any public street.~~ accessory structure in which the home occupation is conducted.
- (5) ~~Not~~ Vehicles associated with home occupations are limited as follows:
 - a. On all sites, no more than one commercial motor vehicle or and one trailer shall may be kept at associated with the residence. Commercial motor vehicles home occupation.
 - b. Vehicles and/or trails shall trailers associated with the home occupation must be parked on-site. Vehicles and/or trailers associated with the home occupation may not be parked in the street or on another site not associated with the home occupation.
 - (3)c. Vehicles parked on-site may not exceed a gross unladen vehicle weight of 10,000 pounds or be more than 25 feet in length, except on parcels greater than two acres in size. Trailers parked on-site may not exceed 25' in length.
 - d. Exception: Truck tractors used in independent operator freight or trucking home occupations must be parked off-site in a location approved for freight or trucking uses. This requirement shall not be construed to cause the independent operator trucking home occupation to occupy more than one site, nor shall this requirement be construed to allow other home occupations to park or store vehicles off-site.
- (4)(6) Up to five client visits and/or service deliveries to the home occupation are allowed per day. Client visits shall be by appointment only. Client visits and service deliveries shall not result in adverse impacts to neighboring properties, including, but not limited to, blocked access or excessive noise.
- (5) Unless required by federal or state regulation, ~~T~~there shall be no indication of the home occupation on the exterior of the premises.

~~a.(7)~~ Unless required by Documentation of the applicable federal or state regulation. Demonstration of this requirement is necessary for the city shall be provided to the City prior to permit indication on the exterior of the home occupation issuance.

~~(6)(8)~~ There shall be no manufacturing, processing, or similar activity on the premises which generates noise, odor, dust, vibration, fumes, smoke, electrical interference, or other interference with or nuisance to adjacent properties.

~~(7)(9)~~ The home occupation shall not be operated without the written consent of the owner of the real property. An affidavit signed by the property owner shall be submitted as part of the business license application whenever the licensee is not the property owner.

~~(10)~~ In residential single-family zoning districts, no No employees of the business shall be allowed to report for duty either at or near the residence. ~~In residential-rural zoning districts, no employees of the business shall be allowed to report for duty either at or near the residence~~

~~(11)~~ Prohibited home occupations. The following uses are not permitted as home occupations:

a. Adult businesses,

b. Animal services, except in the GR20 for dog training, mobile grooming, or other services conducted off-site,

c. Auto and RR5 zoning districts where not more than three non-occupants may be allowed to report truck repair uses, except mobile repair services,

d. Medical service uses, except for duty at those service uses that do not result in client visits to the site of the home occupation, such as telehealth and mobile or in-home services for clients,

e. Cosmetology services,

f. Massage services, except for callout services conducted in a mobile unit or in the home of the residence client,

g. Manufacturing uses, except small-scale craftwork or similar items,

h. Contractor shops and skilled trade services, except when conducted off-site from a mobile unit,

i. Restaurant uses, except for cottage food preparation, and for food trucks and other mobile uses when sales are conducted off-site. Permitted uses must conform to all state and local health regulations, and

j. On-site vehicle and equipment rentals and sales, except when conducted as a service provided entirely via telephonic or online means, for example vehicle brokerage or rental fleet management.

k. Waste related uses.

l. Exceptions:

i. Legally permitted home occupations in existence as of the effective date of this ordinance are considered legally established and may continue operating provided that the use is not discontinued pursuant to Section 32.08.040. Legally permitted home occupations required to obtain a new license are considered new and must adhere to current regulations.

(8)ii. Other exceptions to the prohibited home occupations list may be approved by the Administrator with the provision of a business plan.

(c) Business license required. A person desiring to conduct a home occupation shall complete an application for a business license under title 10 of this Code. The business license application shall include a clear description of the proposed home occupation, including days and hours of operation, description of services offered or goods sold or manufactured, whether the business is in-home or mobile, and, if requested, a utility plan, waste disposal plan, or other supporting information as determined by the Administrator.

~~*(d) [Exceptions.] [Conditional Use Permit.]*~~ If unable to meet the requirements of this section, the planning commission may, by conditional use permit, allow a home occupation without full compliance with the current provisions of this title when the proposed changes are not detrimental to the public health, safety, and welfare.

(d)