



N E V A D A

AGENDA
Regular Meeting
Planning Commission

Wednesday, February 8, 2023 • 5:00 PM

Members

Barry Williams Sr. - Chairman
Cody Wagner - Vice Chair
Jan Hodges - Commissioner
Humayoon Lodhi - Commissioner
Angela Lewis - Commissioner
Shellie Severa - Commissioner
Jenni McCullar - Commissioner

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

Zoom information:

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

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

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

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

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

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

1. INTRODUCTORY ITEMS

1.1. Roll Call

1.2. Public Forum

1.3. (For Possible Action) Approval of Agenda

1.4. (For Possible Action) Approval of Minutes

2. STAFF REPORTS

3. GENERAL BUSINESS

3.1. (For Possible Action) Discussion and election of City of Fernley Planning Commission Officers for 2023.

4. 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

4.1. (For Possible Action) Consideration and possible action on a tentative parcel map (TPM22006) application from Fernley QOF, LLC to divide a ±12.66-acre parcel generally located southeast of Stanley Drive, north of Newlands Drive East, and west of the Newlands Drive East / Lyon Drive intersection (APN: 021-232-53) into two parcels to facilitate the development of a hotel and future commercial projects.

5. 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.)

6. 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. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

8. PUBLIC FORUM

9. ADJOURNMENT

Next Meeting: March 8th @ 5pm

**MINUTES OF THE
FERNLEY PLANNING COMMISSION MEETING
JANUARY 11, 2023**

Chairman Barry Williams called the meeting to order at 05:00 PM at Fernley City Hall, 595 Silver Lave Blvd., Fernley, NV 89408.

1. INTRODUCTORY ITEMS

1.1. Roll Call

Present: Commissioner Hodges, Commissioner Severa, Commissioner Lewis, Commissioner McCullar, Planning Commission Chairman Williams, Planning Commission Vice-Chair Wagner. Staff: Deputy City Clerk Brenda Gosser, Administrative Specialist Sandy Harris, Deputy City Attorney Aaron Mouritsen, Associate Planner Shay League, Deputy City Manager Lydia Altick. **Absent:** Commissioner Lodhi.

1.2. Public Forum

None

1.3. (For Possible Action) Approval of Agenda

Motion: MOVE TO APPROVE AGENDA WITH ITEM ITEM 4.3 REMOVED. **Action:** Approve, **Moved by** Commissioner Angela Lewis, **Seconded by** Commissioner Jenni McCullar. **Vote:** Passed, **Summary:** Yes 6, **Yes:** Planning Commission Chairman Williams, Commissioner Hodges, Commissioner Severa, Commissioner McCullar, Commissioner Lewis, Planning Commission Vice-Chair Wagner, **Absent:** Commissioner Lodhi

1.4. (For Possible Action) Approval of Minutes

Motion: MOVE TO APPROVE MINUTES. **Action:** Approved , **Moved by** Commissioner Jenni McCullar, **Seconded by** Commissioner Jan Hodges. **Vote:** Passed, **Summary:** Yes 6. **Yes:** Chairman Williams, Commissioner Hodges, Commissioner Severa, Commissioner McCullar, Commissioner Lewis, Vice-Chair Wagner, **Absent:** Commissioner Lodhi.

2. STAFF REPORTS

None

3. GENERAL BUSINESS

3.1. (For Possible action) Discussion and election of City of Fernley Planning Commission Officers for 2023.

This item was pulled and will be re-addressed at the February Planning Commission Meeting.

4. PUBLIC HEARINGS

4.1. For Possible Action – Public Hearing, TSM 2019-002EOT – Extension of Time Consideration and

possible action on an extension of time request of not more than two years for Genica NV, LLC to record a final parcel map for Donner Trails Estates Phase 12B, a 61-parcel single family subdivision generally located on Mifflin Street between Endeavor Lane and Langdon Street (APN: 021-201-57) on a site ±11.24 acres in size.

Shay League, Associate Planner, presented this item

Motion: CONSIDERING THE INFORMATION PROVIDED IN THE APPLICANT'S EXTENSION OF TIME LETTER, I MOVE TO RECOMMEND APPROVAL OF THE TENTATIVE SUBDIVISION MAP EXTENSION REQUEST FOR DONNER TRAILS 12 ASSOCIATED WITH TSM 2019-002. **Action:** Approved **Moved by** Vice-Chair Cody Wagner, **Seconded by** Commissioner Angela Lewis. **Vote:** Passed, **Summary:** Yes 6. **Yes:** Chairman Williams, Commissioner Hodges, Commissioner Severa, Commissioner McCullar, Commissioner Lewis, Vice-Chair Wagner, **Absent:** Commissioner Lodhi.

4.2. For Possible Action – Public Hearing, TPM22005 – Tentative Parcel Map Consideration and possible action on a tentative parcel map application from Reno Engineering Corporation to allow for the development of 4 commercial buildings with the working name “Nevada Commerce Center” on a site ±78.86 acres in size and located approximately 850 & 855 Commerce Center Drive (APNs: 021-061-29 & 021-061-30).

Shay League, Associate Planner, presented this item.

Cody Wagner, Vice-Chair expressed concerns about traffic

Motion: MOVE TO APPROVE THE TENTATIVE PARCEL MAP REQUEST ASSOCIATED WITH TPM22005 SUBJECT TO CONDITIONS OF APPROVAL 1 THROUGH 22 AS PRESENTED BY STAFF AND BASED ON FINDINGS TM1 THROUGH TM5 AND THE SUPPORTING DATA AS SET FORTH IN THE STAFF REPORT **Action:** Approved, **Moved by** Commissioner Jan Hodges, **Seconded by** Commissioner Angela Lewis. **Vote:** Passed, **Summary:** Yes 6. **Yes:** Chairman Williams, Commissioner Hodges, Commissioner Severa, Commissioner McCullar, Commissioner Lewis, Vice-Chair Wagner. **Absent:** Commissioner Lodhi,

4.3. For Possible Action – Public Hearing, TPM22006 – Tentative Parcel Map Consideration and possible action on a tentative parcel map application from Morton & Pitalo to allow for the division of a commercial site ±12.66 acres in size with the working name “Stanley Drive Commercial”, generally located on Stanley Drive (APN: 021-232-53) into a ±3.5-acre site proposed for the development of a hotel and a ±9.2-acre site reserved for future commercial development.

This item was removed

4.4. For Possible Action – Public Hearing, TSM22005 – Tentative Subdivision Map Consideration and possible action on a tentative subdivision map application from Phelps Engineering Services to allow for the development of Sherwood Villages, a 316-unit multifamily residential complex on a site ±26.25-acres in size and generally located north of Fremont Street, south of US Interstate 80, west of Wildwood Drive, and east of Vine Street (APNs: 021-092-05, 021-092-23, 021-092-26, 021-092-27, 021-092-46, 021-092-47, 021-092-54, & 021-092-55).

Shay League, Associate Planner, presented this item.

Clayton Trap, Developer, gave a presentation

Planning Commissioners expressed concerns with schools, the development not having emergency access streets, the height of buildings 4 and 12 being three stories.

Motion: I MOVE TO RECOMMEND CITY COUNCIL APPROVE THE TENTATIVE SUBDIVISION MAP ASSOCIATED WITH TSM22005 SUBJECT TO CONDITIONS OF APPROVAL 1 THROUGH 26 AS PRESENTED BY STAFF AND BASED ON FINDINGS TM1 THROUGH TM11 AND THE SUPPORTING DATA AS SET FORTH IN THE STAFF REPORT **Action:** Approved, **Moved by** Vice-Chair Cody Wagner, **Seconded by** Commissioner Jenni McCullar. **Vote:** Passed, **Summary:** Yes 5, No 1. **Yes:** Chairman Williams, Commissioner Hodges, Commissioner Severa, Commissioner McCullar, Vice-Chair Wagner, **No:** Commissioner Lewis, **Absent:** Commissioner Lodhi.

5. CHAIR AND COMMISSION ITEMS

There was none.

6. PLANNING DIRECTOR ITEMS

Shay League, Associate Planner, reviewed Redhawk, Clements Ranch, & Sherwood projects.

7. ADDRESS REQUEST(S) FOR FUTURE AGENDA ITEMS

There were none.

8. PUBLIC FORUM

There was none.

9. ADJOURNMENT

There being no further business to come before it, the Fernley Planning Commission meeting adjourned at 6:19 pm.

Approved by the Fernley Planning Commission on February 8, 2023 by a vote of:

AYES _____ NAYS: _____ ABSTENTIONS: _____ ABSENT: _____

Chairman Barry Williams Sr.

ATTEST:



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: February 8, 2023

REPORT TO: Fernley Planning Commission

REPORT FROM: Shay League

FINANCIAL IMPACT:

N/A

CURRENTLY BUDGETED:

N/A

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM: (For Possible Action):

(For Possible Action) Discussion and election of City of Fernley Planning Commission Officers for 2023.

AGENDA ITEM BRIEF:

Fernley Planning Commission By-Laws, Article III, Section 2A. stipulates the Chair and Vice-Chair "shall be elected from among the members of the Commission by a simple majority vote at the first regular meeting of the Commission at the beginning of each calendar year"

RECOMMENDED MOTION:

Staff recommends making 2 separate motions, one each for Planning Commission Chair, Vice-Chair..

Suggested Language

"I move Commissioner _____ serve as Planning Commission Chair for calendar year 2023."

"I move Commissioner _____ serve as Planning Commission Vice-Chair for calendar year 2023."

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:

All officers may be elected via the same motion if desired. All other motions consistent with Planning Commission parliamentary procedure are appropriate.

BACKGROUND:

This item initially appeared on the January 2023 agenda. The Planning Department presented incorrect information regarding election procedure and the Planning Commission was unable to make an informed decision during that meeting. Commissioners requested clarification regarding Planning Commission by-laws as they pertain to terms of office for all Commissioners and election of officers.

Article III, Section 2C. of City of Fernley Planning Commission By-Laws indicates that although officers can be re-elected, Commissioners "may not serve more than two (2) consecutive terms in a single office". Because Chair Williams and Vice-Chair Wagner served in their respective capacities in 2021 and 2022, neither is eligible for re-election. Commissioner Williams is eligible to be elected Vice-Chair, Commissioner Wagner is eligible to be elected Chair, and Commissioners Hodges, Lewis, Lodhi, McCullar, and Severa are eligible for either office.

The scope of this report has been limited to the election of officers for the 2023 calendar year. Staff intends to request that a discussion regarding the current by-laws be agendaized during the "future agenda item(s)" section of this meeting.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

Nevada Revised Statutes (NRS) Chapter 241 - Meetings of State and Local Agencies

Note: This NRS Chapter is often referred to as "open meeting law".

NRS 268.110 - 268.220, Powers and Duties Common to Cities and Towns Incorporated Under General or Special Laws, City Planning Commission

NRS 278.030 - 278.265, Planning and Zoning, Planning Commissions

Fernley Municipal Code (FMC) Title 2, Chapter 9, Article I, Administration, Boards and Commissions, Planning Commission

Fernley Planning Commission By-Laws, Adopted 11/14/2001 and Revised 01/13/2016

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

1. Current Fernley Planning Commission By-Laws

**CITY OF FERNLEY
PLANNING COMMISSION
BY-LAWS**

Adopted 11/14/2001

Revised 01/13/2016

Article I – The Commission

Section 1. Name of Commission: the name of the commission shall be the Fernley Planning Commission (Hereinafter the Commission).

Section 2. Office of the Commission: The office of the Commission shall be the City of Fernley Planning Department, 595 Silver Lace Boulevard, Fernley, NV 89408.

Article II – Membership

Section 1. The mayor shall appoint, subject to advice and consent by the City Council, the seven members of the Commission. The members shall be residents of the City of Fernley. The mayor, city attorney and city engineer or designee shall be ex-officio members of the Commission.

Section 2. Legal Counsel: The City Attorney's Office shall be the legal counsel for the Commission.

Section 3. Compensation: The Council may provide by resolution for compensation, expenses and subsistence allowances to the Commission members, subject to the limitation of NRS 278.040.

Section 4. Terms of Office: The term of each appointed member shall be four (4) years, or until his/her successor takes office. Members presently serving on the Commission may serve the balance of the term for which they were appointed. Terms of the Commission shall be staggered pursuant to NRS 268.120(2).

Section 5. Removal from the Commission: Members may be removed from office, after a public hearing, by a majority of the City Council for just cause. Removal may be recommended to the City Council by a majority vote of the whole commission for two (2) consecutive unexcused absences and three (3) unexcused absences within a calendar year or for otherwise failing to meet the requirements of office.

Section 6. Vacancies: Vacancies occurring other than through the expiration of terms by the Mayor as provided by NRS 268.120(3).

Article III – Officers and Responsibilities

Section 1. Officers of the Commission: The officers of the Commission shall be a Chairman, Vice-Chairman and Secretary.

A. Chairman:

1. Presides over all meetings of the Commission.
2. Calls special meetings of the Commission in accordance with the By-Laws.
3. Signs certain documents and maps of the Commission such as resolutions, the land use map and official letters from the Commission.

4. Insures that all actions of the Commission are properly taken.
5. Preserves order and decorum, prevents attacks on personalities or the impugning of the members' motives and confines member debate to the question under discussion.

B. Vice Chairman:

1. Presides at any regular or special meeting of the Commission in the absence of the Chairman; and in the event of the resignation or death of the chairman, will perform such duties as are imposed on the Chairman until such time as the Commission shall elect a new Chairman.

C. Secretary:

1. The recording secretary is responsible for keeping an accurate record of all proceedings and may not be a member of the Commission. In addition, the Secretary is responsible to prepare and file with the City Council an annual report at the end of each calendar year.

Section 2. Election of Officers:

- A. The Chairman and vice-Chairman shall be elected from among the members of the Commission by a simple majority vote at the first regular meeting of the Commission at the beginning of each calendar year.
- B. They shall hold office for one (1) year or until their successor(s) are elected and qualified.
- C. Any office may be re-elected but may not serve more than two (2) consecutive terms in a single office.
- D. Following the election, the gavel shall pass to the officers at the existing meeting of the Commission.

Article IV – Meetings

Section 1. Meetings:

- A. Unless otherwise specified, regular meetings shall be held in the Council Chambers on the second Wednesday of the month.
- B. Special meetings may be called by the Chairman when deemed necessary. Members of the Commission shall be notified at least three (3) days prior to the special meeting. Special meetings shall be noticed and agenzized pursuant to the Open Meeting Law.
- C. Executive meetings may be called by the Chairman when deemed necessary. Members of the Commission must be notified at least three (3) days prior to the executive meeting. Such executive meeting shall consider only internal and confidential matters. Neither discussion nor decision shall be made on applications pending before the Commission.
- D. In the event that there is no business to conduct, a notice shall be mailed to the Commission and posted as required by the Open Meeting Law.

- E. Noticing and posting of the agenda shall follow the open meeting law as set forth by NRS.

Section 2. Quorum: A quorum shall consist of four (4) members of the membership of the Commission and shall be empowered to conduct Commission business. However, NRS 278.210 requires that five (5) members of the Commission be present to vote on any adoption, amendment, extension or addition to the master plan.

Section 3. Public Rights

- A. Manner of Addressing the Commission: - Time Limit: Each person addressing the Commission shall step forward to the microphone, shall give his/her name and address in an audible tone of voice for the record and shall limit his/her address to five (5) minutes, unless further time is granted by the Chairman. No person, other than the members of the Commission and the person having the floor, shall be permitted to enter into any discussion, either directly or through the members of the Commission. No questions shall be asked of the Commission members, except through the presiding officer. Except during the public comment period, speakers shall limit their presentation to statements and exhibits relevant to the agenda item under discussion and shall avoid undue repetition of points previously presented to the Commission.
 - B. Disruptive Behavior: Any person who willfully disrupts a meeting to the extent that its orderly conduct is made impractical may be requested to leave the meeting.
 - C. Presentation of Protests: Interested persons or their authorized representatives may address the Commission for the presentation of protest, petitions or communications relating to any matter over which the Commission has control when the item is under consideration by the Commission.
 - D. Written Communication: Written information and materials provided by the project proponent, including graphics, photographs and records of verbal statements, that pertain to Commission meetings, may be submitted to the Commission staff. All such information and materials shall be received a minimum of three (3) working days in advance of the meeting for distribution to all Commission members.
- Section 4. Case Number: All materials related to a matter pending before the Commission shall be identified by a specific case number. Materials bearing said number shall constitute the public record of the Commission on the matter.

Section 5. Action Items: In Accordance with the provisions of the Open Meeting Law, action items appearing on the agenda of the Planning Commission will be (*) designated.

Section 6. Voting: When any vote is called, each member of the Commission shall respond by saying "aye (yes)" or "nay (no)", or abstain, unless a member requests a roll call vote.

Section 7. Tie vote: Any tie vote shall constitute a technical denial of the motion and may be reconsidered by a motion offered by any member who voted on the matter.

Section 8. Conflicts of Interest: A member of the Commission shall not approve, disapprove, vote or otherwise act upon any matter regarding which he has accepted a gift, loan or other financial interest as defined in Article V which would reasonably be effected by his

commitment is his private capacity to the interest of others, or in which he has pecuniary interest, without disclosing the nature and extent of the gift, loan, commitment or interest at the time the matter is considered. A member of the Commission shall consider refraining from approving, disapproving, voting or otherwise acting upon any matter regarding which a member of this immediate family or a relative has accepted a gift, loan or other financial interest as defined in Article V without disclosing the full nature and extent of the gift, loan, commitment or interest at the time the matter is considered. A member of the Commission shall consider refraining from approving, disapproving, voting or otherwise acting upon any matter regarding which a member of this immediate family or a relative has accepted a gift, loan or other financial interest as defined in Article V without disclosing the full nature and extent of the gift, loan, commitment or interest at the time the matter is considered. Any member of the Commission who feels that he has a conflict may request legal advice on how to handle the conflict from the City Attorney's Office, preferably in advance of the meeting.

Section 9. Abstentions: A member who decides to abstain whether because of a conflict of interest or otherwise, must state the reasons for doing so on the record at the time the matter is considered.

Section 10. Rules of Order: All rules of order not herein provided for shall be determined in accordance with Robert's Rules of Order (newly revised).

Article V – Gifts, Loans and Other Financial Interests

Section 1. Gifts or Loans: A gift or loan shall include any gift, loan, service, favor, employment, engagement, emolument or economic opportunity such as sale of goods or services.

Section 2. Financial Interests: Financial interests, which may be direct or indirect, include but are not limited to, owning stock in a corporation, having contract with the City, selling any land, material, supplies or services to the City, or associating with a contractor who supplies the City, which would tend improperly to influence a reasonable person in such a position to depart from the faithful and impartial discharge of public duties.

Article VI – Site Visitations; Neighborhood Meetings

Section 1. Site Visitations: NRS 278.190 (3) permits the Planning Commission to conduct site visitations in the performance of their functions.

Section 2. Neighborhood Meetings: Applicant may hold neighborhood meetings to solicit neighborhood input, provide information to the neighborhood, and attempt to resolve disputes prior to the presentation of their applications. Should the Commissioners wish to attend they shall ensure that the requirements of the Open Meeting Laws are met. The commissioners must also disclose their attendance at the meeting.

Section 3. Procedure: Notice procedures and formal requirements for site visitations by the Commission and neighborhood meetings shall follow those required for a special meeting of the Planning Commission.

Article VII – Amendments of By-Laws

- Section 1. Amendments of By-Laws: The Planning Commission By-Laws may be amended by the Commission as deemed necessary by a majority vote of the Commission members.

Article VIII – Commissioner Attendance at City Council Meetings

- Section 1. Members of the Planning Commission may attend the City Council meetings provided that all requirements of the open meeting law prescribed by NRS Chapter 241 are met.
- Section 2. A member of the Planning Commission shall not comment or express the Opinion of the Planning Commission on Planning Items being considered by the City Council.



CITY OF FERNLEY

Planning Commission AGENDA REPORT

Meeting Date: February 8, 2023

REPORT TO: Fernley Planning Commission

REPORT FROM: Shay League

FINANCIAL IMPACT:

Yes: No: X

CURRENTLY BUDGETED:

Yes: No: X

FUND/ACCOUNT:

N/A

ACTION REQUESTED: Motion

AGENDA ITEM: (For Possible Action):

(For Possible Action) Consideration and possible action on a tentative parcel map (TPM22006) application from Fernley QOF, LLC to divide a ± 12.66 -acre parcel generally located southeast of Stanley Drive, north of Newlands Drive East, and west of the Newlands Drive East / Lyon Drive intersection (APN: 021-232-53) into two parcels to facilitate the development of a hotel and future commercial projects.

AGENDA ITEM BRIEF:

The applicant has requested division of parcel 021-232-53, which is currently zoned General Commercial (C2) with a Commercial (C) master plan land use, into two parcels. Requested parcel 1 is ± 3.39 acres in size and intended to be the site of a hotel. Requested parcel 2 is ± 9.26 acres in size and the applicant intends to divide this parcel further once the exact commercial use is determined.

RECOMMENDED MOTION:

"I move to approve the tentative parcel map request associated with TPM22006 subject to conditions of approval 1 through 21 as presented by staff and based on findings TM1 through TM5 and the supporting data 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:

Denial

"Based on information received in written materials, and at the public hearings on this matter, I move to deny the tentative parcel map request associated with TPM22006. I have determined the proposed changes are detrimental to the public's health, safety, and general welfare, and am unable to make the following required finding(s): I am unable to make the finding _____ as it relates to _____. Therefore, I cannot approve the parcel map."

Though further specific language has not been provided, all motions consistent with Planning Commission parliamentary procedure are appropriate. Staff has prepared conditions of approval that they feel will allow Planning Commission to make the required findings; however, they are ultimately the Planning Commission's conditions and can be added to or detracted from as the Commission deems appropriate to make the required findings. Any such change(s) of the conditions of approval must be included in the motion.

BACKGROUND:

There have been no recent master plan or zoning map amendments on the project site. This parcel has long been part of the City's approved commercial land use area. The parcel was created in 2006 through Final Parcel Map, Document #393486, as part of the Fernley Commercial Center by Sonterra Development Co LLC.

The project site is currently owned by Fernley QOZB LLC, which formed within a few days of purchasing this property on 12/13/2021. LRE Management, LLC of San Rafael, CA is listed as a managing member of Fernley QOZB LLC; LRE has recently released to the press that they intend to develop the "Fernley Promenade" on this site. Materials regarding the whole of the Fernley Promenade were not submitted with this application, as this is the first in a series of planning applications, but LRE & Companies provided a press release to PR Newswire on January 5, 2023 that details plans for "a 98-room hotel, three quick-service restaurants, three large junior anchors, and 16,000 square feet of shop space". Further, they identified their preferred hotel brand as Home2 Suites by Hilton, an extended-stay hotel brand.

FINDINGS:

TM1: Availability and accessibility of utilities

This is infill development on a parcel surrounded by retail and industrial uses. Utilities are both available and accessible at the project site.

TM2: Availability and accessibility of public services such as schools, police and fire protection, recreation facilities, and parks

Because this is a commercial project, the availability and accessibility of public services such as schools, recreation facilities, and parks is not necessarily applicable. This project site is currently primarily served by the Lyon County Sheriff Substation at 555 Main Street, Fernley (approximately 2.1 miles away) and North Lyon County Fire Protection District Main Office at 195 E. Main Street, Fernley (approximately 2.5 miles away). The City of Fernley has received no comments from the Sheriff or Fire Marshal regarding the project at this time; however, the Fire Marshal will continue to be actively involved in reviewing this site as the project progresses.

TM3: Consistency with the zoning district regulations

The proposed tentative map is generally consistent with the zoning regulations as outlined within the City of Fernley Development Code. The applicant has shared that they intend to develop a 98-unit, 5-story hotel on parcel 1. The use as suggested will need to be addressed through a conditional use permit. Further, the applicant will need to submit a minor or major deviation application if the proposed structure does not comply with our quantifiable development standards such as building height. Because a 5-story structure is typically 50-55 feet, excluding the roof and any fixtures placed on the roof, this building will likely need such a deviation. It is

currently in the C2 (General Commercial) zone, which has a maximum building height of 60'. The tentative parcel map has been conditioned to require all applicable planning entitlements, vacations, and modifications (such as a deviation) before the final parcel map may be recorded.

TM4: Recommendations & comments of review bodies

No outside review agencies or bodies commented on this application. All staff comments and concerns have been addressed through the conditions of approval.

TM5: Compliance with this code and all other applicable regulations

Staff certifies this tentative parcel map is in compliance with the City's Development Code and has found no indication it is in violation of any other applicable regulation.

RELEVANT LAWS, STATUTES, AND REGULATIONS:

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 278.461 – 278.469 – Parcel Maps
- FMC 32.03.020, Table 32.03.020-1 – Development Code, Administration, Review and decision-making bodies, Summary Table of Development Review Procedures
- FMC 32.03.060 (d) – Development Code, Administration, Land division applications, Parcel maps
- Section 32.06.100 – Development Code, Zoning Districts, Commercial (C1, C2, and TC)
- FMC Chapter 32.09 – Development Code, Development Standards
- Master Plan, Chapter 3, Page 65 – Land Use, Non-Residential Land Uses, Commercial (C)

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

1. TPM22006 Conditions of Approval
2. Tentative Parcel Map
3. Traffic Impact Study

Conditions of Approval for TPM22006

Tentative Parcel Map

1. APPROVAL:

THE PROJECT IS APPROVED AS SUBMITTED AND CONDITIONED. ANY SUBSTANTIVE CHANGE SHALL REQUIRE REVIEW AND APPROVAL BY PLANNING COMMISSION AS AN AMENDMENT TO THIS TENTATIVE PARCEL MAP.

2. PROJECT DESCRIPTION:

THE PROJECT APPROVAL IS LIMITED TO A COMMERCIAL DEVELOPMENT WITH A MAXIMUM OF 2 LOTS ON THE ±12.66 ACRES CURRENTLY RECORDED AS APN: 021-232-53. THE RESULTANT ±3.39 ACRE PARCEL, DESIGNATED PARCEL 1 ON THE TENTATIVE MAP, IS FURTHER LIMITED TO THE DEVELOPMENT OF A HOTEL AS DESCRIBED IN THE SUBMITTED APPLICATION MATERIALS.

3. EXPIRATION DATE:

THE TENTATIVE PARCEL MAP SHALL EXPIRE WITHIN FOUR (4) YEARS OF THE DATE OF PLANNING COMMISSION APPROVAL, UNLESS THE FINAL PARCEL MAP HAS BEEN RECORDED.

4. PLANNING ENTITLEMENTS:

THE DEVELOPER SHALL OBTAIN ALL APPLICABLE PLANNING ENTITLEMENT, VACATION, AND MODIFICATION APPROVALS BEFORE SUBMISSION OF THE FINAL PARCEL MAP APPLICATION, TO THE APPROVAL OF THE ADMINISTRATOR AND PLANNING DIRECTOR.

PLANNING ENTITLEMENTS, VACATIONS, AND MODIFICATIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: ADMINISTRATIVE REVIEW, CONDITIONAL USE PERMIT, TYPE I VACATION, TYPE II VACATION, MAJOR DEVIATION, OR MINOR DEVIATION.

5. WATER RIGHTS:

THE DEVELOPER SHALL COMPLY WITH ALL CITY OF FERNLEY MUNICIPAL CODES REGARDING THE DEDICATION OF WATER RIGHTS AND ALL ASSOCIATED FEES FOR CONNECTION TO THE CITY'S MUNICIPAL WATER SYSTEM IN THE AMOUNT THAT IS REQUIRED PRIOR TO RECORDING A FINAL MAP.

6. WATER AND SEWER MAINS AND SERVICES:

THE DEVELOPER SHALL COMPLY WITH ALL STANDARDS, CODES, AND REQUIREMENTS REGARDING CONNECTION TO THE CITY'S SANITARY SEWER AND POTABLE WATER SYSTEMS, INCLUDING BUT NOT LIMITED TO: ASSOCIATED FEES, EASEMENTS, DESIGN STANDARDS, SYSTEM LOOPING, DEVELOPMENT CODE REQUIREMENTS, AND STATE REQUIREMENTS.

ALONG WITH SUBMITTAL OF A FINAL MAP FOR ANY PHASE OF THE PROJECT, THE DEVELOPER SHALL PROVIDE THE CITY WITH A UTILITY PLAN FOR WATER AND SANITARY SEWER THAT IS IN CONFORMANCE WITH THE NEVADA ADMINISTRATIVE CODE 445A, THE CITY OF FERNLEY'S MUNICIPAL CODE, AND PUBLIC WORKS DESIGN MANUAL, TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

7. UTILITY EASEMENTS:

THE DEVELOPER SHALL PROVIDE EASEMENTS TO THE CITY OF FERNLEY FOR THE MAINTENANCE OF THE WATER MAINS, METER BOXES, AND SEWER MAINS TO BE INSTALLED ON PRIVATE PROPERTY. THE EASEMENTS SHALL INCLUDE THE CITY OF FERNLEY'S STANDARD EASEMENT LANGUAGE AND SHALL BE RECORDED ALONG WITH THE FINAL MAP.

8. WATER SYSTEM LOOPING:

THE DEVELOPER SHALL PROVIDE THE CITY WITH A UTILITY PLAN FOR THE WATER SYSTEM THAT DEMONSTRATES ADEQUATE SYSTEM LOOPING PRIOR TO ISSUE OF ANY CIVIL OR BUILDING PERMIT. THE PLAN SHALL BE IN CONFORMANCE WITH THE CITY OF FERNLEY'S MUNICIPAL CODE, NEVADA ADMINISTRATIVE CODE 445A AND PUBLIC WORKS DESIGN MANUAL, TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

Conditions of Approval for TPM22006

Tentative Parcel Map

9. DESIGN STANDARDS:

THE DEVELOPER SHALL COMPLY WITH THE DESIGN STANDARDS AND REGULATIONS AS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE AND PUBLIC WORKS DESIGN MANUAL UNLESS IN CONFLICT WITH THE LOCAL, STATE, OR FEDERAL REGULATIONS, IN WHICH CASE THE MORE STRINGENT REGULATION WILL TAKE PRECEDENCE. THE GOVERNING VERSION OF CITY OF FERNLEY'S DEVELOPMENT CODE AND PUBLIC WORKS DESIGN MANUAL SHALL BE THE VERSION EFFECTIVE AT THE TIME ANY MAP, BUILDING PERMIT, CIVIL IMPROVEMENT PERMIT, OR ANY OTHER TYPE OF APPLICATION IS SUBMITTED.

10. 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 RECORDING ANY FINAL MAP FOR THE PROJECT.

11. STREETS:

THE DEVELOPER SHALL CONSTRUCT ANY ROADWAY IMPROVEMENTS NECESSARY TO SERVE THE PROJECT TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

12. DRAINAGE AND GRADING:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE CITY'S MUNICIPAL CODE CHAPTER 32 (DRAINAGE AND GRADING) AND CHAPTER 10 OF THE CITY OF FERNLEY'S PUBLIC WORKS DESIGN MANUAL, TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR. THE DEVELOPER SHALL PROVIDE A DRAINAGE REPORT FOR THE PROJECT IN CONFORMANCE WITH THE CITY'S DEVELOPMENT CODE, MUNICIPAL CODE, AND THE PUBLIC WORKS DESIGN MANUAL FOR THE REVIEW AND APPROVAL BY THE CITY ENGINEER. IF PHASED, EACH SUCCESSIVE PHASE OF THE PROJECT SHALL SUBMIT AN UPDATED DRAINAGE REPORT FOR REVIEW AND APPROVAL BY THE CITY ENGINEER SHOWING THE CUMULATIVE EFFECT OF THE DEVELOPED PORTION OF THE PROJECT ALONG WITH THE PROPOSED PHASE'S EFFECT ON THE TOTAL DISCHARGE INTO THE DRAINAGE SYSTEM. THE DRAINAGE REPORT AND GRADING PLANS FOR ANY PHASE OF THE DEVELOPMENT SHALL BE REVIEWED AND APPROVED BY THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR PRIOR TO ISSUE OF A GRADING PERMIT FOR EACH PHASE OF THE PROJECT.

THE DEVELOPER SHALL CONSTRUCT ANY DOWNSTREAM STORM DRAIN SYSTEM IMPROVEMENTS REQUIRED TO SERVE THE PROJECT.

13. GRADING PERMIT:

IF APPLICABLE, THE DEVELOPER SHALL SUBMIT A GRADING PLAN FOR ANY PHASE OF THE PROJECT TO THE APPROVAL OF THE CITY ENGINEER. PRIOR TO ISSUE OF A GRADING PERMIT FOR THE DEVELOPMENT, THE DEVELOPER SHALL POST A SURETY BOND FOR REGRADING AND RECLAMATION OF THE SITE. THE DEVELOPER SHALL PROVIDE A STAMPED ENGINEER'S ESTIMATE FOR REGRADING AND RECLAMATION OF THE SITE. THE DEVELOPER SHALL COMPLY WITH ALL GRADING REQUIREMENTS SET FORTH IN THE CITY OF FERNLEY'S DEVELOPMENT CODE, AS WELL AS ALL STATE AND FEDERAL REGULATIONS. THE DEVELOPER, OR THEIR DESIGNEE, SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PERMIT WITH THE STATE OF NEVADA AS WELL AS A SURFACE AREA DISTURBANCE PERMIT.

Conditions of Approval for TPM22006

Tentative Parcel Map

14. COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S):

THE APPLICANT SHALL PROVIDE COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S) WITH THE FIRST FINAL MAP TO BE REVIEWED BY THE ADMINISTRATOR AND CITY ATTORNEY. CC&R'S SHALL BE RECORDED CONCURRENTLY WITH THE FINAL PARCEL MAP.

THE APPLICANT SHALL INCLUDE IN THE CC&R'S PROVISIONS OUTLINING PERPETUAL MAINTENANCE RESPONSIBILITIES OF COMMON AREAS, LANDSCAPE MEDIANS, PERIMETER FENCING, OR OTHER COMMON ELEMENTS, TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

THE CITY SHALL BE NAMED A THIRD-PARTY BENEFICIARY OF SAID MAINTENANCE OBLIGATIONS TO THE APPROVAL OF THE ADMINISTRATOR AND SHALL DISCLOSE THAT THE CITY MAY REQUIRE FORMATION OF A LANDSCAPE MAINTENANCE ASSESSMENT DISTRICT IN THE EVENT OF DEFAULT UNDER SUCH MAINTENANCE OBLIGATIONS.

15. IMPROVEMENT PLANS SECURITY:

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

PRIOR TO RECORDING A FINAL MAP FOR THE PROJECT, THE DEVELOPER SHALL CONSTRUCT ALL REQUIRED PUBLIC IMPROVEMENTS, OR PROVIDE A SECURITY IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN TITLE 32, (IMPROVEMENTS AND AGREEMENTS) OF THE FERNLEY MUNICIPAL CODE. FURTHER, THE DEVELOPER COMPLETE THE MINIMUM IMPROVEMENTS IDENTIFIED IN TITLE 32.03.060 OF THE CITY OF FERNLEY MUNICIPAL CODE TO THE APPROVAL OF THE ADMINISTRATOR, CITY ENGINEER, AND PUBLIC WORKS DIRECTOR.

16. NORTH LYON COUNTY FIRE PROTECTION DISTRICT:

THE DEVELOPER SHALL COMPLY WITH THE REQUIREMENTS OF THE NORTH LYON COUNTY FIRE PROTECTION DISTRICT, TO THE APPROVAL OF THE ADMINISTRATOR AND THE FIRE CHIEF, PRIOR TO RECORDING A FINAL MAP.

17. UNITED STATES POSTAL SERVICE:

THE DEVELOPER SHALL PROVIDE APPROVAL FROM THE LOCAL POSTMASTER FOR ANY REQUIRED CLUSTER BOXES OR ANY OTHER APPURTENANCES REQUIRED TO PROVIDE MAIL DELIVERY FOR THE PROJECT PRIOR TO RECORDING A FINAL MAP.

18. ADDRESSING:

THE DEVELOPER SHALL SUBMIT A REQUEST FOR ADDRESSING APPLICATION TO THE CITY OF FERNLEY FOR REVIEW AND APPROVAL. ALL ADDRESSING WILL BE COMPLETED BY THE CITY PRIOR TO THE APPROVAL OF A FINAL MAP.

19. 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 RECORDING THE FINAL PARCEL MAP FOR THE PROJECT.

20. NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

THE DEVELOPER SHALL COMPLY WITH ALL REQUIREMENTS OF THE NEVADA DEPARTMENT OF THE 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.

Conditions of Approval for TPM22006

Tentative Parcel Map

21. 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, TO THE APPROVAL OF THE ADMINISTRATOR.

TRAFFIC IMPACT STUDY

For

FERNLEY VILLAGE - HOTEL

LYON COUNTY APN: 021-232-53

0 STANLEY DR

FERNLEY, NEVADA 89408

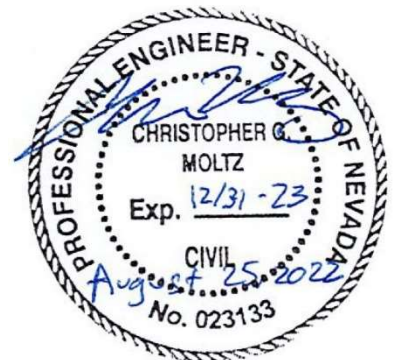
Prepared For:

Fernley QOZ, LLC for submittal to City of Fernley

Prepared By:



P.O. Box 18871, Reno, Nevada 89511
chris@westexconsulting.com
(775) 484-1013



File No.: 2274.001-T
August 25, 2022

August 25, 2022

Fernley QOZ, LLC
4302 Redwood Hwy, Suite 200
San Rafael, CA 94903

Re: Traffic Impact Study for Fernley Village - Hotel
Lyon County APN: 021-232-53
0 Stanley Dr
Fernley, NV 89408
File No.: 2274.001-T

Dear Mr. Chiang,

WESTEX Consulting Engineers, LLC (Westex) is pleased to present this report containing the results of our Traffic Impact Study at the referenced property.

As discussed in further details in the attached report, the key takeaway items are:

- Based on review of Level of Service (LOS) Analysis performed with HCS 2022 traffic software, the proposed project (Fernley Village - Hotel) will have minimal impact to the existing roadway network.
- All Levels of Service (LOS) obtained through HCS 2022 simulations resulted in a LOS of C or higher, which exceeds the LOS of D recommended by the Transportation Research Board
- No traffic improvements are anticipated or required due to this project (Fernley Village – Hotel).
- There are no site specific hazards or considerations identified which may cause the need for improvements or geometry changes to the local roadway network.
- Egress (exit) traffic from the proposed project location should be controlled with stop signs.
- A single egress lane at the proposed driveway along the Lowe's Access Road should be sufficient for this project
- Two separate egress lanes at the proposed driveway along Stanley Drive should be installed to account for future development on the property.

We appreciate your selecting WESTEX Consulting Engineers to perform this Traffic Impact Study and trust that the results will fulfill project design requirements. If you, any design consultants, or plan reviewers have any questions, please contact me directly at (775) 484-1013 or at chris@westexconsulting.com

Respectfully submitted,
WESTEX Consulting Engineers, LLC



Christopher Moltz, P.E.
Senior Project Manager

TABLE OF CONTENTS

I	INTRODUCTION AND SUMMARY	1
A.	Purpose of Report and Study Objectives.....	1
B.	Executive Summary.....	1
1.	Site Location and Study Area	2
2.	Development Description	2
3.	Principal Findings	2
4.	Conclusions.....	3
5.	Principal Findings	3
II	PROPOSED DEVELOPMENT	4
A.	Land Use and Intensity.....	4
B.	Location.....	4
C.	Site Plan	6
D.	Phasing and Timing.....	7
III	AREA CONDITIONS	7
A.	Study Area.....	7
B.	Study Area and Lane Use	7
C.	Site Accessibility.....	8
D.	Condition of Existing Roads	9
IV	METHODOLOGY.....	9
V	EXISTING TRAFFIC	11
A.	Site Generated Traffic (2022).....	11
B.	Baseline (Existing) Traffic (2022)	11
B.	Total Traffic (2022)	11
VI	PROJECTED TRAFFIC (2042).....	11
A.	Site Generated Traffic (2042).....	11
B.	Future Traffic (2042).....	12
C.	Total Traffic (2042)	12
VII	IMPROVEMENT ANALYSIS.....	12
VIII	FINDINGS.....	12

A.	Site Accessibility.....	12
B.	Traffic Impacts.....	13
C.	Need for Traffic / Roadway Improvements	16
D.	Site Specific Hazards / Considerations.....	16
IX RECOMMENDATIONS.....		18
A.	Site Accessibility.....	18
B.	Traffic Impacts.....	18
ADDITIONAL NOTES		18
REFERENCES.....		19
LIST OF ATTACHMENTS.....		20

I INTRODUCTION AND SUMMARY

This report presents the results of Traffic Impact Study for Fernley Village – Hotel. The site location is shown in Figure 1 (page 5), and the proposed site layout is shown in Figure 2 (page 6). This study was performed in general accordance with our July 11, 2022 proposal and work order, authorized on July 13, 2022.

The conclusions and recommendations contained in this report are based on:

- Site visits and traffic counts performed during the AM and PM Peak Hours on Tuesday, July 19, 2022 and Wednesday, July 20, 2022
- Methodology contained within the *“Highway Capacity Manual (HCM) 7th Edition”* (Published 2022 by the Transportation Research Board (TRB))
- Level of Service (LOS) analysis from MacTrans HCS 2022 Traffic Modeling Software
- Published trip generation data from the *“Trip Generation Manual: 11th Edition”* (Published September 2021 by the Institute of Transportation Engineers)
- Review of other recently published traffic studies and documents applicable to the intersections analyzed, notably: the “City of Fernley Transportation Master Plan” by Kimley Horn (2020), and “Traffic Impact Study for Victory Logistics District Building D-2” by Headway Transportation (December 21, 2021).

If any findings, assumptions, conditions, or project plans are found to vary from those described in this report, we should be contacted immediately to verify that the recommendations contained herein remain applicable to the final project design. Accordingly, this report may be revised at any time.

A. Purpose of Report and Study Objectives

The purpose of this report is to analyze the Traffic Impact of the proposed project (Fernley Village – Hotel), to be located within portions of Section 7, T.20N., R.25E., M.D.B.&M., on Lyon County APN 021-232-53. Per discussions with the applicant and their forwarded conversations with Derek Starkey, P.E., City Engineer for the City of Fernley, it was determined that a traffic impact study for the proposed hotel should include analysis of the following intersections for both the current (2022) and future (2042) traffic volumes:

- US 95A and Newlands Road
- Newlands Road and Stanley Drive
- Stanley Drive and Walmart / Lowe’s Access Road
- Any proposed project driveways

B. Executive Summary

This Executive Summary is intended to concisely and accurately summarize the findings and impact this proposed project will have on traffic for the surrounding roadway network.

1. Site Location and Study Area

The site location of the proposed project is Lyon County APN 021-232-53. The subject parcel is located within the City of Fernley, at the northeast corner of Stanley Drive and Lowe's Access / Walmart Access. The address is listed as 0 Stanley Drive per the Lyon County Assessor's Office. The project is bound on the north and west by Stanley Drive, on the south by the Lowe's access road, and on the east by the Lowe's parking lot. Stanley Drive is a two lane road (one lane in each direction), which connects Nevada Pacific Parkway with E Newlands Rd (Stanley Drive becomes Duffy Road east of the project location). The Lowe's access road is an unnamed two lane road (one lane in each direction) which provides access between Stanley Drive and the Lowe's Home Improvement Center. Stanley Drive is uninterrupted in the vicinity of the project location, with both the Lowe's Access and Walmart Accessways controlled by stop signs.

Five intersections were analyzed for current (2022) and future (2042) traffic volumes, both with and without the proposed project. The intersections analyzed in this report are:

- US 95A and Newlands Road
- Newlands Road and Stanley Drive
- Stanley Drive and Walmart / Lowe's Access Road
- Two project Driveways (one off Lowe's Access, and one off Stanley Dr)

2. Development Description

The proposed development for this project is an up to 120 room hotel (ITE Land Use 310: Hotel), which is to have two driveways as points of ingress / egress (one access driveway off Newlands Rd, and one driveway off the Lowe's access road). The location of this project is on Lyon County APN 021-232-53 at the northeast corner of Stanley Drive and the Walmart / Lowe's Access. Please reference Figures 1 and 2 (pages 5 and 6) for an overview of the proposed project.

3. Principal Findings

Based on review of Level of Service (LOS) Analysis performed with HCS 2022 traffic software (as summarized in Tables 4 through 7, on pages 13-15), it can be seen that the proposed project (Fernley Village - Hotel) will have minimal impact to the existing roadway network.

The Highway Capacity Manual, 7th Edition recommends a Level of Service (LOS) of D or better. However, LOS far exceeds what is considered acceptable, with the lowest Level of Service observed identified as LOS C (for the intersection of US 95A and Newlands Road), and all other intersections and turning movements receiving a LOS of A or B.

Based on field observations during the AM and PM Peak Hours, as well as HCS 2022 software analysis, no changes to the existing roadway network are recommended or required due to this project.

Per review of HCS 2022 Analysis and traffic counts performed, US 95A and Newlands Road received a LOS of C; however, both field observations (particularly during the PM Peak Hour) and the City of Fernley Transportation Master Plan (2020) identifies that US 95A is not running at an acceptable Level of Service. Please reference the City of Fernley Transportation Master Plan (2020) for more information on projects and solutions to help alleviate existing congestion issues along US 95A and the Main Street Roundabout. This is a pre-existing problem, and the relatively small size and impact of this project will not significantly affect traffic along US 95A.

Per review of NDOT crash data (2015-2017), the number of crashes in the vicinity of this project can be considered extremely low.

4. Conclusions

Direct access to the site from Stanley Drive or the Lowe's access road is good, due to the uninterrupted flows and light traffic observed. The proposed driveway locations will provide effective accessibility to the site (assuming the southern access driveway is moved further east, further from the intersection of Stanley Drive and Walmart / Lowe's Access).

In order to get to the project location, traffic is likely to access the project site from either US 95 Alt, US 50 Alt, or I-80, and will need to access the project site via US 95A (which has Level of Service issues).

Pre-existing traffic congestion issues observed along US 95A should be addressed per the recommendations of the City of Fernley Transportation Master Plan (2020). This is a pre-existing problem, which should be addressed through Main Street Roundabout improvements, signal timing analysis and improvements, and completion of Nevada Pacific Parkway (which should help alleviate congestion on US 95A).

No traffic improvements are anticipated or required due to this project (Fernley Village – Hotel).

This project will cause minimal impact to the surrounding roadway network.

There are no site specific hazards or considerations identified which may cause the need for improvements or geometry changes to the local roadway network.

5. Principal Findings

No traffic or roadway improvements are anticipated or required due to this project (Fernley Village – Hotel) and its minimal impact to the surrounding roadway network.

Egress traffic from the proposed project location should be controlled with stop signs.

Driveway spacing for the proposed project should be made per any applicable City of Fernley Standards and the 2018 Green Book. The 2018 *Green Book* is the unofficial name of "A Policy on Geometric Design of Highways and Streets, 2018 7th Edition", by the American Association of State Highway and Transportation Officials (AASHTO). Initial review of the proposed site

layout suggests that the southern project driveway is likely too close to the intersection of Stanley Dr and Walmart / Lowe's Access.

Based on the proposed geometry in Attachment 2, separate left and right turn lanes should be installed at the egress stop sign along the western project driveway, for vehicles that wish to turn onto Stanley Drive. Separate left and right turn lanes are not required for capacity issues for the proposed project (Fernley Village – Hotel), but this project only plans on developing a portion of the subject parcel at this time, so it is recommended that separate left and right turn lanes are installed to account for any potential future development that may occur.

II PROPOSED DEVELOPMENT

A. Land Use and Intensity

The proposed project intends to build up to a 120 room hotel on the property.

ITE Land Use 310: Hotel was determined to be an acceptable land use for this project.

Per review of data for ITE Land Use 310: Hotel, a 120 room hotel will create an AM Peak Hour demand of 64 trips and a PM Peak Hour demand of 72 trips. These numbers are both under the 80 peak hour trips which is typically required to trigger a traffic impact study. However, the total daily trips are estimated to be 959 trips, which exceeds the 500 total daily trip trigger to require a traffic impact study.

A summary of peak hour trips for the residential portion of this project can be seen below in Table 1.

Table 1 – Assigned Peak Hour Trips for 120 Room Hotel

ITE Land Use 310: Hotel (120 Rooms)	
AM Peak Hour	PM Peak Hour
64 Trips	72 Trips
34 entering, 30 exiting	42 entering, 30 exiting

B. Location

The proposed project (Fernley Village - Hotel) is to be located on Lyon County APN 021-232-53. The subject parcel is located within the City of Fernley, at the northeast corner of Stanley Drive and Lowe's Access / Walmart Access. The address is listed as 0 Stanley Drive per the Lyon County Assessor's Office. The project is bound on the north and west by Stanley Drive, on the south by the Lowe's access road, and on the east by the Lowe's parking lot. The project is located in the City of Fernley approximately 500 feet south of I-80, and 1,000 feet east of US 95A. Stanley Drive provides the main access to the project location. Stanley Drive is identified as a local road per the 2020 City of Fernley Transportation Master Plan, and has two lanes (one

lane in each direction). Under current conditions, it is anticipated that almost all traffic will utilize Stanley Drive, to E Newlands Road, and then to US 95 A to either head north or south on US 95 A. E Newlands Road is identified as a Minor Arterial per the 2020 City of Fernley Transportation Master Plan, and has four lanes (two lanes in each direction). US 95A is by far the busiest road in the City of Fernley, yet it is still only classified as a Minor Arterial per the 2020 City of Fernley Transportation Master Plan, and has four lanes (two lanes in each direction) where it intersects Newlands Road.

Stanley Drive is free flowing in the vicinity of the project location, with the Walmart / Lowe's accessways being controlled by stop signs. The intersections of E Newlands Road and Stanley Drive, as well as Newlands Road and US 95A, are both signalized intersections (controlled by stop lights). An overview of the site location can be seen below in Figure 1.



**Figure 1 – Site Location of proposed project (Fernley Village - Hotel), to be located on a portion of Lyon County APN 021-232-53. An approximate location of the proposed project is shown as a red box.
(Imagery from Lyon County GIS)**

C. Site Plan

A conceptual site plan can be seen below in Figure 2, as well as in Attachment 1. Two access driveways are proposed to provide access to the project. Per initial comments from Derek Starkey, P.E., City Engineer for the City of Fernley, it was identified that the driveway on the proposed site layout, along the Lowe's Access road has a very short throat depth (spacing from the intersection of Stanley Dr and Walmart / Lowe's Access. Based on our review of the conceptual site layout, we would have to concur with this comment from Mr. Starkey, and would recommend placement of this driveway further back from the intersection of Stanley Dr and Walmart / Lowe's Access. It is recommended that the design engineer reference the current edition of the AASHTO "Green Book" as well as any applicable City of Fernley Municipal Code when designing and spacing any and all driveways to the project location.

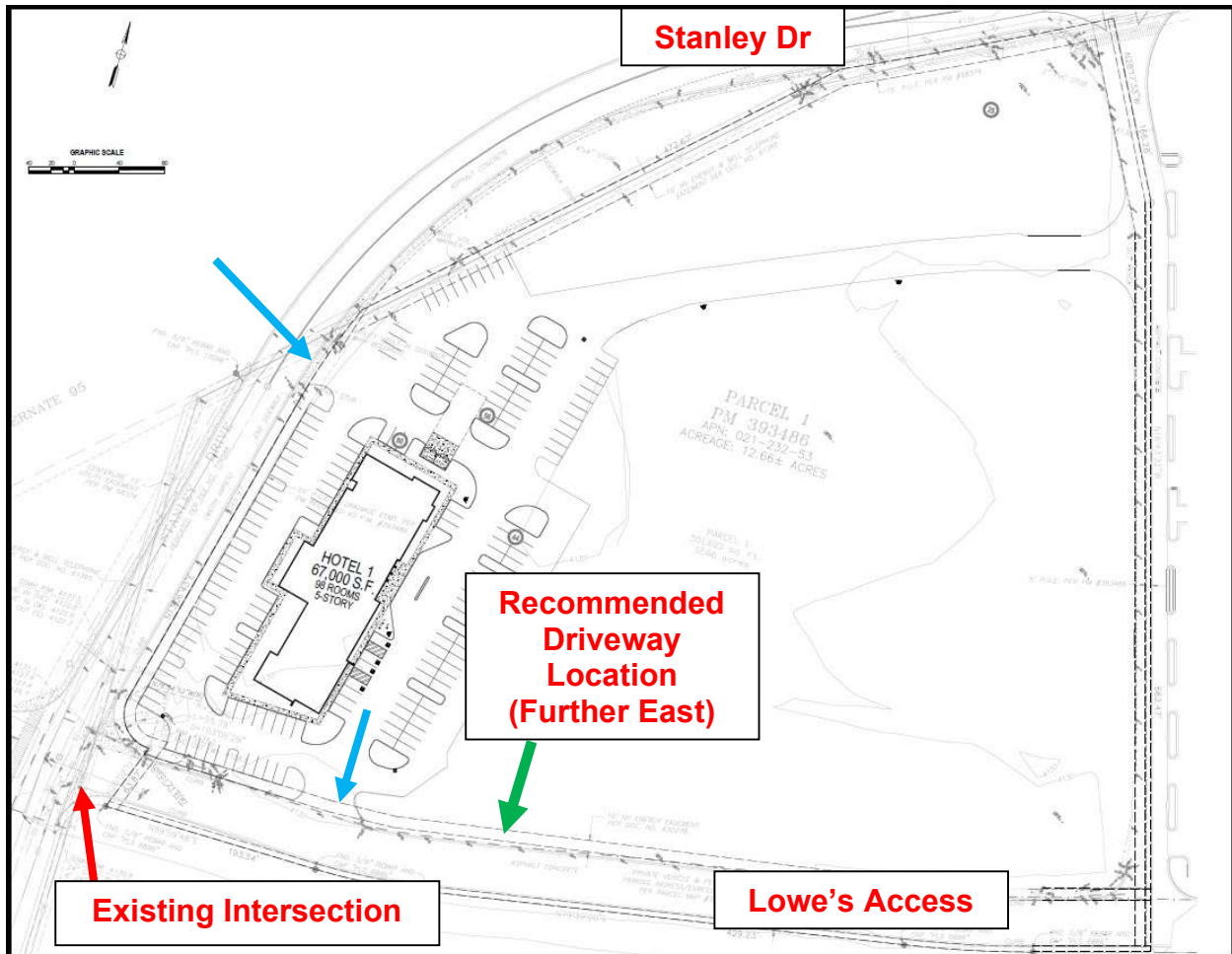


Figure 2 – Conceptual Site Layout of Project. The intersection of Stanley Dr and Lowe's Access is shown as a red arrow. Preliminary Driveway Locations are shown as blue arrows. It is recommended that the proposed driveway is moved further east (green arrow). Please consult AASHTO and any applicable City of Fernley Standards for driveway spacing.

D. Phasing and Timing

There is no phasing or timing for this project. This project can be considered a single phase project. The hotel will only cover a portion of the parcel, leaving the remainder of the parcel available for future development; however, there are no solid plans for any future land uses at this time.

Any future additional development on the subject parcel will require separate traffic analysis at a later date.

III AREA CONDITIONS

A. Study Area

The site location of this proposed project is Lyon County APN 021-232-53. The subject parcel is located within the City of Fernley, at the northeast corner of Stanley Drive and Lowe's Access / Walmart Access. The address is listed as 0 Stanley Drive per the Lyon County Assessor's Office. The project is bound on the north and west by Stanley Drive, on the south by the Lowe's access road, and on the east by the Lowe's parking lot. Stanley Drive is a two lane road (one lane in each direction), which connects Nevada Pacific Parkway with E Newlands Rd (Stanley Drive becomes Duffy Road east of the project location). The Lowe's access road is an unnamed two lane road (one lane in each direction) which provides access between Stanley Drive and the Lowe's Home Improvement Center. Stanley Drive is uninterrupted in the vicinity of the project location, with both the Lowe's Access and Walmart Accessways controlled by stop signs.

Five intersections were analyzed for current (2022) and future (2042) traffic volumes, both with and without the proposed project. The intersections analyzed in this report are:

- US 95A and Newlands Road
- Newlands Road and Stanley Drive
- Stanley Drive and Walmart / Lowe's Access Road
- Two project Driveways (one off Lowe's Access, and one off Stanley Dr)

B. Study Area and Lane Use

The proposed study area is the previously mentioned intersections of US 95A and Newlands Road, Newlands Road and Stanley Drive, Stanley Drive and Walmart / Lowe's Access Road, and the two project driveways (one off Lowe's Access and one off Stanley Drive).

Only the two project driveways, as well as the intersection of Stanley Drive and Walmart / Lowe's Access Road are directly in contact with the subject parcel and proposed project. Both the intersection of US 95A and Newlands Road, and the intersection of Newlands Road and Stanley Drive, are further away from the project location, but we can assume these intersections will both be used by traffic accessing the proposed project (Fernley Village - Hotel).

Stanley Drive is a two lane road (one lane in each direction), which connects Nevada Pacific Parkway with E Newlands Rd (Stanley Drive becomes Duffy Road east of the project location). The Lowe's access road is an unnamed two lane road (one lane in each direction) which provides access between Stanley Drive and the Lowe's Home Improvement Center. Stanley Drive is uninterrupted in the vicinity of the project location, with both the Lowe's Access and Walmart Accessways controlled by stop signs. Based on observations during the AM and PM Peak Hours, this approach functions as it should. No hazardous conditions were observed based on existing lane geometry during site visits.

E Newlands Road is a four lane road (two lanes in each direction), which connects Nevada Pacific Parkway with US 95 A. The intersection of Stanley Drive and E Newlands Road is signalized (controlled with a stop light). Based on observations during the AM and PM Peak Hours, this approach functions as it should. No hazardous conditions were observed based on existing lane geometry during site visits.

US 95A is a four lane road (two lanes in each direction), which connects I-80 with US 50 Alt. The intersection of US 95A and Newlands Road is signalized (controlled with a stop light). Based on observations during the AM and PM Peak Hours, this approach does not function as it should. Traffic was observed backing up all the way from the Fernley Roundabout, north to the intersection being analyzed (US 95A and E Newlands Road). Traffic is so congested, that not all vehicles could pass through the intersection on a green light. It should be noted that this is a pre-existing and known problem. The 2020 City of Fernley Transportation Master Plan identifies that the Level of Service LOS of US 95A in the vicinity of E Newlands Road is LOS E, which according to the Highway Capacity Manual is failing (HCS recommends a LOS of D or greater). Accordingly, improvements to both the Main Street Roundabout and US 95A Improvements are proposed for the 5-year Planning Horizon (by 2025) per the 2020 City of Fernley Transportation Master Plan.

It is proposed that egress traffic from the proposed project (Fernley Village - Hotel) will be controlled with a single stop sign at each driveway location. Based on the low numbers of observed traffic, long sight distances, low road speeds (25 or 35 mph depending on the driveway), and HCS 2022 Analysis, it was determined that a single egress lane would be sufficient for egress traffic from the project driveway for the proposed project (Fernley Village – Hotel); however, it is suggested that the driveway along Stanley Drive is split into separate right and left turn egress lanes to account for any future development on the subject parcel which may come at a later date. A single egress lane is sufficient for the Lowe's Access driveway. An overview of existing / proposed lane geometry can be seen in Attachment 2.

C. Site Accessibility

Direct access to the site from Stanley Drive or the Lowe's Access road is good, due to the uninterrupted flows and light traffic observed. The proposed driveway locations will provide effective accessibility to the site (assuming the southern access driveway is moved further east, further from the intersection of Stanley Drive and Walmart / Lowe's Access).

In order to get to the project location, traffic is likely to access the project site from either US 95 Alt, US 50 Alt, or I-80, and will need to access the project site via US 95A (which has previously identified LOS issues).

An overview of the proposed site layout can be seen on page 6, in Figure 2, as well as in Attachment 1.

D. Condition of Existing Roads

Based on a site visit and review of existing pavement, the existing roads appear to be in good condition. Review of the 2020 City of Fernley Transportation Master Plan reveals that Stanley Drive has a pavement condition index varying between Good and Very Good in the vicinity of the project location.

IV METHODOLOGY

Methodology used for this report is based on intersection Level of Service (LOS) analysis from the Highway Capacity Manual (HCM) 7th Edition (Published 2022 by the Transportation Research Board (TRB)). In summary, there are different Levels of Service which can be assigned to an intersection, and they are all based on the average delay (in seconds per vehicle). Levels of service assigned vary between signalized intersections and un-signalized intersections. Table 2 (below) shows the average delay (in seconds per vehicle) and assigned Level of Service for un-signalized intersections. Table 3 (following page) shows the average delay (in seconds per vehicle) and assigned Level of Service for signalized intersections. Since both un-signalized intersections and signalized intersections are being analyzed in this report, both tables are applicable to this analysis. Two way stop controls should be analyzed by individual movement, but four way stop controls, and signalized intersections should be analyzed in terms of average vehicle delay of all movements.

Table 2 – Un-signalized Intersections – Assigned Level of Service (LOS) Based on Average Delay (Seconds/Vehicle)

Average Delay (Seconds/Vehicle)	Assigned Level of Service (LOS)
< 10	A
10 - 15	B
15 - 25	C
25 - 35	D
35 - 50	E
> 50	F

Table 3 – Signalized Intersections – Assigned Level of Service (LOS) Based on Averaged Delay (Seconds/Vehicle)

Average Delay (Seconds/Vehicle)	Assigned Level of Service (LOS)
< 10	A
10 - 20	B
20 - 35	C
35 - 55	D
55 - 80	E
> 80	F

Based on the above discussed LOS analysis provided by the Highway Capacity Manual (7th Edition), the existing road conditions were analyzed using HCS 2022 (MacTrans Highway Capacity Software) based on Highway Capacity Manual methodology to determine applicable Levels of Service to all current intersections for both 2022 current traffic volumes, as well as future 2042 future traffic volumes (both with and without the proposed project).

Please note that some assumptions were made in this traffic analysis. The assumptions made for this analysis are:

- 60% of vehicles will access the project driveway on Stanley Drive.
- The remaining 40% of vehicles will access the project driveway from the Lowe's Access Road.
- Under Future (2042) Conditions, once Nevada Pacific Parkway is completed between I-80 and US 50A, approximately 40% of the future traffic along US 95A will utilize Nevada Pacific Parkway. This is the same percentage identified in "Traffic Impact Study for Victory Logistics District Building D-2" by Headway Transportation dated December 21, 2021.
- Under Current (2022) Conditions, 95% of traffic to and from the proposed project will pass through the intersection of E Newlands Road and Stanley Drive
- Under Current (2022) Conditions, 90% of traffic to and from the proposed project will pass through the intersection of Newlands Road and US 95A
- Under Future (2042) Conditions, 80% of traffic to and from the proposed project will pass through the intersection of E Newlands Road and Stanley Drive
- Under Future (2042) Conditions 70% of traffic to and from the proposed project will pass through the intersection of Newlands Road and US 95A

These assumptions were made on engineering judgment based on review of nearby streets, access roads, proximity to major intersections, and proximity to the highway, traffic counts, site visits, and review of previous traffic impact studies.

V EXISTING TRAFFIC

A. Site Generated Traffic (2022)

Before trip assignment (number of trips for given traffic movements) can be determined, estimated trip distribution needs to be determined first. Trip distribution is the expected directions vehicles are to come from into and out of the proposed site. Trip distribution was based on traffic counts performed during the AM and PM Peak Hours. For a visual overview of Trip Distribution, please see Attachment 3.

In order to determine site traffic (trip assignment), trip generation data was analyzed, determined, and assigned movement volumes based on observed trip distribution. For more information on estimated trips to be generated, refer to Section II. A. of this report. Trip assignment analysis was performed based on observed traffic flows during the AM and PM Peak hours, as well as review of intersection geometry. Trip assignment figures for current (2022) traffic can be seen in Attachment 4.

B. Baseline (Existing) Traffic (2022)

Traffic counts were performed in order to obtain existing AM and PM Peak Hour traffic volumes for the intersections analyzed. Traffic Counts were performed during the AM and PM Peak hours on Tuesday, July 19, 2022 and Wednesday, July 20, 2022.

The results of the AM and PM Peak hour traffic counts can be seen in Attachment 5.

C. Total Traffic (2022)

The total traffic for current (2022) conditions is simply the addition of the existing traffic plus the anticipated site generated traffic (projected trip assignment). Total traffic (2022 Baseline Traffic Plus Project) conditions can be seen in Attachment 6.

VI PROJECTED TRAFFIC (2042)

A. Site Generated Traffic (2042)

The completion of Nevada Pacific Parkway to the east is anticipated to alter trip distribution for future (projected) traffic. Future trip distribution was based on traffic counts performed during the AM and PM Peak Hours, as well as the assumptions stated in Section IV. Methodology. For a visual overview of Future Trip Distribution, please see Attachment 7.

Please note the trip generation quantities are not anticipated to change; however, trip assignment will change in the future based on the completion of Nevada Pacific Parkway. In order to determine future site traffic (trip assignment), trip generation data was analyzed, determined, and assigned movement volumes based on observed trip distribution. For more information on estimated trips to be generated, refer to Section II. A. of this report. Trip assignment analysis was performed based on observed traffic flows during the AM and PM Peak hours, as well as review of (proposed) intersection geometry, and the assumptions stated in Section IV. Methodology. 2042 Trip assignment figures can be seen in Attachment 8.

B. Future Traffic (2042)

Traffic counts were performed in order to obtain existing AM and PM Peak Hour traffic volumes for the intersections analyzed. Traffic Counts were performed during the AM and PM Peak hours on Tuesday, July 19, 2022 and Wednesday, July 20, 2022.

The results of the AM and PM Peak hour traffic counts can be seen in Attachment 5.

C. Total Traffic (2042)

The total traffic for 2042 is simply the addition of the 2042 baseline (future) traffic plus the anticipated 2042 site generated traffic. Total anticipated traffic for 2042 conditions can be seen in Attachment 11.

VII IMPROVEMENT ANALYSIS

Based on the previously discussed LOS analysis discussed in Section IV. Methodology, both the existing (2022) road conditions, the existing (2022) road conditions plus proposed project, the future (2042) road conditions, and future (2042) road conditions plus proposed project were analyzed using HCS 2022 (MacTrans Highway Capacity Software) based on Highway Capacity Manual 7th Edition methodology to determine applicable Levels of Service to the proposed intersection.

This Level of Service (LOS) analysis is the determining factor into which any improvements are required for any of these intersections. Results of HCS 2022 analysis are discussed in the following section: VIII. Findings.

VIII FINDINGS

A. Site Accessibility

Direct access to the site from Stanley Drive or the Lowe's Access road is good, due to the uninterrupted flows and light traffic observed and anticipated. The proposed driveway locations will provide effective accessibility to the site (assuming the southern access driveway along

Lowe's Access is moved further east, further from the intersection of Stanley Drive and Walmart / Lowe's Access).

In order to get to the project location, traffic is likely to access the project site from either US 95 Alt, US 50 Alt, or I-80, and will need to access the project site via US 95A (which has previously identified LOS issues). The proposed Nevada Pacific Parkway extension will help alleviate some of the congestion and poor Levels of Service (LOS) observed, but not remove these Level of Service issues completely.

B. Traffic Impacts

Tables 4-7 (pages 13-15) show the average delay (in seconds per vehicle) and assigned Level of Service (LOS) for the intersections analyzed for both 2022 and 2042 scenarios both with and without the proposed project (Fernley Village – Hotel).

Supporting HCS 2022 software printouts of which Tables 4-7 summarize can be seen in Attachments 12-16.

Table 4 – Summary of Delay and Corresponding Level of Service (LOS) for Intersections Analyzed for 2022 Existing Traffic Volumes

Year	Scenario	Intersection	Intersection Type	Approach Movement	AM Peak Hour		PM Peak Hour	
					Delay (s/veh)	LOS	Delay (s/veh)	LOS
2022	Existing Traffic	Stanley Drive and Project Driveway	One Way Stop Control (Stanley Drive is Uninterrupted)	Southbound Left	-	-	-	-
				Westbound Left	-	-	-	-
				Westbound Right	-	-	-	-
		Lowe's Access and Project Driveway	One Way Stop Control (Lowe's Access is Uninterrupted)	Eastbound Left	-	-	-	-
				Southbound Right	-	-	-	-
		Stanley Drive and Walmart / Lowe's Access	Two Way Stop Control (Stanley Drive is Uninterrupted)	Eastbound Left and Through	9.4	A	9.5	A
				Eastbound Right	8.5	A	8.5	A
				Westbound	9.2	A	9.5	A
				Northbound	0.3	A	0.2	A
				Southbound	0.0	A	0.0	A
		E Newlands Rd and Stanley Dr	Signalized	Overall	5.3	A	8.0	A
		US 95A and Newlands Rd	Signalized	Overall	22.1	C	28.8	C

Table 5 – Summary of Delay and Corresponding Level of Service (LOS) for Intersections Analyzed for 2022 Existing Traffic Volumes plus Proposed Project

Year	Scenario	Intersection	Intersection Type	Approach Movement	AM Peak Hour		PM Peak Hour	
					Delay (s/veh)	LOS	Delay (s/veh)	LOS
2022	Existing Traffic Plus Project	Stanley Drive and Project Driveway	One Way Stop Control (Stanley Drive is Uninterrupted)	Southbound Left	7.3	A	7.3	A
				Westbound Left	8.9	A	9.1	A
				Westbound Right	8.5	A	8.5	A
		Lowe's Access and Project Driveway	One Way Stop Control (Lowe's Access is Uninterrupted)	Eastbound Left	7.3	A	7.4	A
				Southbound Right	8.5	A	8.6	A
		Stanley Drive and Walmart / Lowe's Access	Two Way Stop Control (Stanley Drive is Uninterrupted)	Eastbound Left and Through	9.7	A	9.9	A
				Eastbound Right	8.5	A	8.6	A
				Westbound	9.6	A	10.0	B
				Northbound	0.2	A	0.1	A
				Southbound	0.0	A	0.0	A
		E Newlands Rd and Stanley Dr	Signalized	Overall	6.1	A	12.1	B
		US 95A and Newlands Rd	Signalized	Overall	22.9	C	29.7	C

Table 6 – Summary of Delay and Corresponding Level of Service (LOS) for Intersections Analyzed for 2042 Future Traffic Volumes

Year	Scenario	Intersection	Intersection Type	Approach Movement	AM Peak Hour		PM Peak Hour	
					Delay (s/veh)	LOS	Delay (s/veh)	LOS
2042	Future Traffic	Stanley Drive and Project Driveway	One Way Stop Control (Stanley Drive is Uninterrupted)	Southbound Left	-	-	-	-
				Westbound Left	-	-	-	-
				Westbound Right	-	-	-	-
		Lowe's Access and Project Driveway	One Way Stop Control (Lowe's Access is Uninterrupted)	Eastbound Left	-	-	-	-
				Southbound Right	-	-	-	-
		Stanley Drive and Walmart / Lowe's Access	Two Way Stop Control (Stanley Drive is Uninterrupted)	Eastbound Left and Through	9.5	A	9.6	A
				Eastbound Right	8.4	A	8.5	A
				Westbound	9.3	A	9.7	A
				Northbound	0.3	A	0.3	A
				Southbound	0.0	A	0.0	A
		E Newlands Rd and Stanley Dr	Signalized	Overall	5.2	A	10.8	B
		US 95A and Newlands Rd	Signalized	Overall	24.1	C	28.7	C

Table 7 – Summary of Delay and Corresponding Level of Service (LOS) for Intersections Analyzed for 2042 Future Traffic Volumes plus Proposed Project

Year	Scenario	Intersection	Intersection Type	Approach Movement	AM Peak Hour		PM Peak Hour	
					Delay (s/veh)	LOS	Delay (s/veh)	LOS
2042	Future Traffic Plus Project	Stanley Drive and Project Driveway	One Way Stop Control (Stanley Drive is Uninterrupted)	Southbound Left	7.3	A	7.3	A
				Westbound Left	8.9	A	9.1	A
				Westbound Right	8.5	A	8.5	A
		Lowe's Access and Project Driveway	One Way Stop Control (Lowe's Access is Uninterrupted)	Eastbound Left	7.3	A	7.4	A
				Southbound Right	8.6	A	8.7	A
		Stanley Drive and Walmart / Lowe's Access	Two Way Stop Control (Stanley Drive is Uninterrupted)	Eastbound Left and Through	9.8	A	9.9	A
				Eastbound Right	8.5	A	8.6	A
				Westbound	9.6	A	10.1	B
				Northbound	0.3	A	0.2	A
				Southbound	0.0	A	0.0	A
		E Newlands Rd and Stanley Dr	Signalized	Overall	6.0	A	8.3	A
		US 95A and Newlands Rd	Signalized	Overall	24.6	C	29.3	C

Based on review of Level of Service (LOS) Analysis performed with HCS 2022 traffic software (Summarized in Tables 4-7 on pages 13-15) it can be seen that the proposed project (Fernley Village - Hotel) will have minimal impact to the surrounding traffic network. The largest impact will be for egress traffic which is leaving the proposed project. Additionally, the further the intersection is from the proposed project location, the less the impact will be on that intersection. All traffic exiting or entering the project site has a LOS of A. All intersections and turning movements under all scenarios (2022 with and without project, as well as 2042 with and without project) received a LOS of A or B, with the exception of the intersection of US 95A and Newlands Road. This particular intersection received a LOS of C for all scenarios. The Highway Capacity Manual, 7th Edition recommends a Level of Service (LOS) of D or better. The LOS meets or exceeds what is considered acceptable under all turning movements.

The proposed project will have a minimal impact to the surrounding traffic network. The largest increase in average delay observed (excluding project driveways) was an increase in 4.1 seconds in observed delay for E Newlands Rd and Stanley Dr under the 2022 PM Peak Hour scenario. The average increase in delay for each intersection observed is less than one second. Additionally the largest average increase in delay for US 95A and Newlands Rd was 0.9 seconds during the 2022 PM Peak Hour.

Level's of Service (LOS) stayed relatively close between 2022 and 2042 scenarios. The reasoning for this is that it is anticipated that the completion of Nevada Pacific Parkway will offset the future increases in traffic volumes.

C. Need for Traffic / Roadway Improvements

Per review of HCS 2022 Analysis and traffic counts performed, US 95A and Newlands Road received a LOS of C; however, both field observations (particularly during the PM Peak Hour) and the City of Fernley Transportation Master Plan (2020) identifies that US 95A is not running at an acceptable Level of Service. The City of Fernley Transportation Master Plan (2020) shows that US 95A between I-80 and the Fernley Roundabout (at Main Street) runs at a LOS of E (considered failing per the Highway Capacity Manual recommendations). This can primarily be attributed to the City of Fernley Roundabout causing vehicles to queue and back up all the way to Newlands Road, as well as signal timing issues. This is a pre-existing and known issue. It is identified in the City of Fernley Transportation Master Plan (2020) that NDOT is planning on Main Street Roundabout Improvements and the Nevada Pacific Parkway Extension for the 2025 planning horizon. Assuming that queuing issues for southbound traffic along US 95A accessing the Main Street Roundabout are resolved, and assuming that Nevada Pacific Parkway is completed, a LOS of C could be observed at this intersection (based on HCS 2022 traffic simulations). This would be a huge improvement over the current LOS of E for US 95A.

It should be reiterated that this is a pre-existing problem, and this proposed project will contribute minimal increases in delay (less than one second) to the intersection of US 95A and Newlands Rd. Images taken during the PM Peak Hour of traffic backing up (queuing) to Newlands Road can be seen in Attachment 17.

Driveway spacing for the proposed project should be made per any applicable City of Fernley Standards and the 2018 Green Book. The 2018 *Green Book* is the unofficial name of “*A Policy on Geometric Design of Highways and Streets, 2018 7th Edition*”, by the American Association of State Highway and Transportation Officials (AASHTO). Initial review of the proposed site layout suggests that the southern project driveway is likely too close to the intersection of Stanley Dr and Walmart / Lowe’s Access.

No need for traffic improvements are anticipated due to this project or it’s minimal impact to the surrounding roadway network.

Egress traffic from the proposed project location should be controlled with stop signs.

Based on the proposed geometry in Attachment 2, separate left and right turn lanes should be installed at the egress stop sign along the western project driveway, for vehicles that wish to turn onto Stanley Drive. Separate left and right turn lanes are not required for capacity issues for the proposed project (Fernley Village – Hotel), but this project only plans on developing a portion of the subject parcel at this time, so it is recommended that separate left and right turn lanes are installed to account for any potential future development that may occur.

D. Site Specific Hazards / Considerations

The site was reviewed to determine if there are any site specific hazards or considerations regarding the proposed project access. A site visit was performed on Tuesday, July 19, 2022 to perform AM and PM Peak Hour traffic counts. During this site visit, it was determined that the

existing geometry seems adequate given the light traffic observed. The roadway speeds of 35 mph for Stanley Dr, and 25 mph for the Lowe's access road seems appropriate as well.

NDOT Crash Data (2015-2017) was reviewed for number and severity of crashes at the project location (Figure 4, below). No crashes were identified in the vicinity of the proposed project.

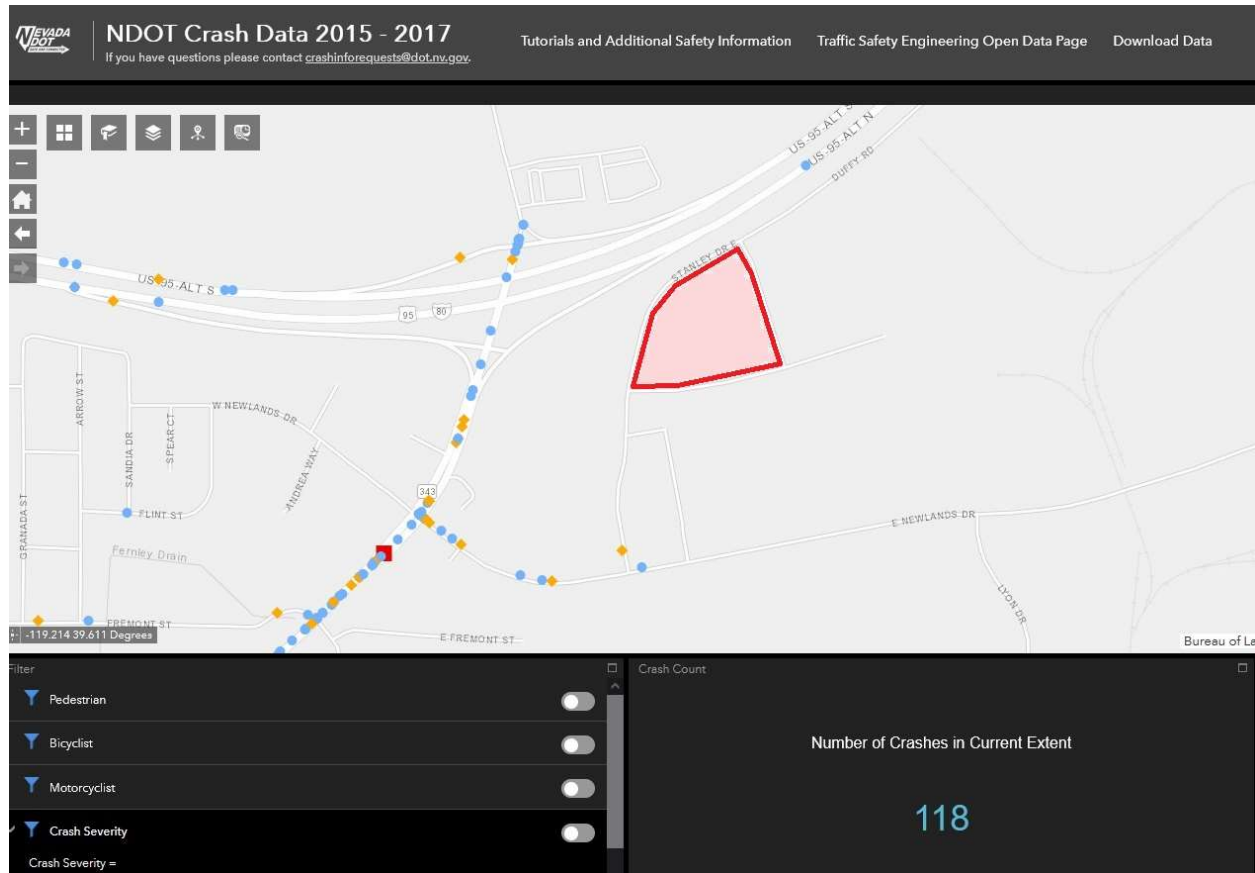


Figure 4 – NDOT Crash Data 2015-2017 at project location. Accessed on 8/19/2022. Project Location has been highlighted as a red polygon.

IX RECOMMENDATIONS

A. Site Accessibility

Egress traffic from the proposed project location should be controlled with stop signs.

Driveway spacing for the proposed project should be made per any applicable City of Fernley Standards and the 2018 Green Book. The 2018 *Green Book* is the unofficial name of “*A Policy on Geometric Design of Highways and Streets, 2018 7th Edition*”, by the American Association of State Highway and Transportation Officials (AASHTO). Initial review of the proposed site layout suggests that the southern project driveway is likely too close to the intersection of Stanley Dr and Walmart / Lowe’s Access.

Based on the proposed geometry in Attachment 2, separate left and right turn lanes should be installed at the egress stop sign along the western project driveway, for vehicles that wish to turn onto Stanley Drive. Separate left and right turn lanes are not required for capacity issues for the proposed project (Fernley Village – Hotel), but this project only plans on developing a portion of the subject parcel at this time, so it is recommended that separate left and right turn lanes are installed to account for any potential future development that may occur.

B. Traffic Impacts

Based on review of Tables 4 through 7 (pages 13-15), it can be seen that the proposed project (Fernley Village - Hotel) will have minimal impact to the existing roadway network and corresponding Levels of Service (LOS).

No traffic or roadway improvements are anticipated or required due to this project (Fernley Village – Hotel).

ADDITIONAL NOTES

The recommendations presented in this report are based on best available data and reputable published data. Multiple assumptions are made and stated to come to the conclusions stated in this report. By nature, future traffic predictions are only predictions based on the best available data at the time.

Our conclusions and recommendations may be invalidated, partially or in whole, by changes outside our control, such as changes to the local traffic network, new projects, or changes in land uses. This report may be subject to review and revision at any time. Opinions expressed in this report do not constitute a warranty of any kind, either express or implied.

REFERENCES

“Highway Capacity Manual: 7th Edition: A Guide For Multimodal Mobility Analysis”. Washington, D.C.: Transportation Research Board, 2022.

“Trip Generation Manual: 11th Edition”. Washington, D.C.: Institute of Transportation Engineers, September 2021.

“City of Fernley Transportation Master Plan”. Kimley Horn, Reno, NV. July 2020.

“Traffic Impact Study for Victory Logistics District Building D-2”, by Headway Transportation, December 21, 2021.

LIST OF ATTACHMENTS

- ATTACHMENT 1 – SITE PLAN FOR PROPOSED PROJECT
- ATTACHMENT 2 – EXISTING / PROPOSED LANE GEOMETRY FOR INTERSECTIONS ANALYZED
- ATTACHMENT 3 – TRIP DISTRIBUTION (2022)
- ATTACHMENT 4 – TRIP ASSIGNMENT FOR HOTEL (2022)
- ATTACHMENT 5 – CURRENT 2022 BASELINE TRAFFIC
- ATTACHMENT 6 – CURRENT 2022 BASELINE TRAFFIC PLUS PROPOSED PROJECT
- ATTACHMENT 7 – TRIP DISTRIBUTION (2042)
- ATTACHMENT 8 – TRIP ASSIGNMENT FOR HOTEL (2042)
- ATTACHMENT 9 – U.S. CENSUS FACTS FOR FERNLEY, NV
- ATTACHMENT 10 – FUTURE 2042 BASELINE TRAFFIC
- ATTACHMENT 11 – FUTURE 2042 BASELINE TRAFFIC PLUS PROPOSED PROJECT
- ATTACHMENT 12 – HCS 2022 ANALYSIS FOR STANLEY DR AND PROJECT DRIVEWAY
- ATTACHMENT 13 – HCS 2022 ANALYSIS FOR LOWE'S ACCESS AND PROJECT DRIVEWAY
- ATTACHMENT 14 – HCS 2022 ANALYSIS FOR STANLEY DR AND WALMART / LOWE'S ACCESS
- ATTACHMENT 15 – HCS 2022 ANALYSIS FOR E. NEWLANDS RD AND STANLEY DR
- ATTACHMENT 16 – HCS 2022 ANALYSIS FOR US 95A AND NEWLANDS RD
- ATTACHMENT 17 – PHOTOS OF TRAFFIC BACKED UP ON US 95A SOUTHBOUND (PM PEAK HOUR)

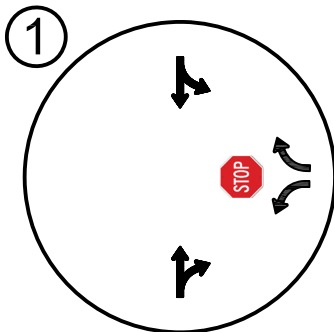
ATTACHMENT 1 – SITE PLAN FOR PROPOSED PROJECT

**ATTACHMENT 2 – EXISTING / PROPOSED LANE GEOMETRY FOR
INTERSECTIONS ANALYZED**

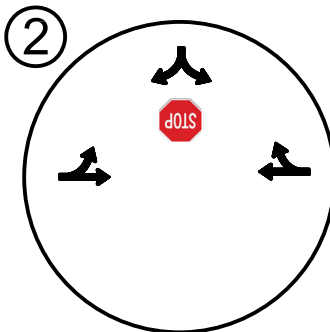
Existing / Proposed Lane Geometry for Intersections Analyzed



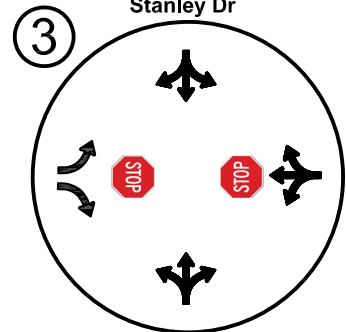
Stanley Dr and Project Driveway



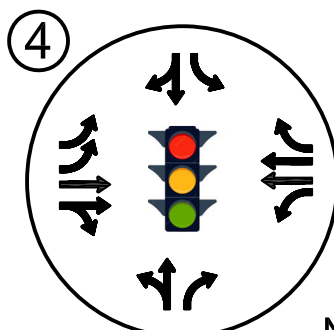
Lowe's Access and Project Driveway



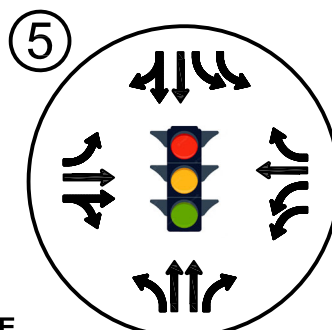
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

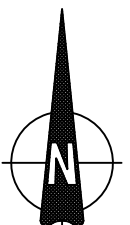


NO SCALE

PROJECT NO: 2274.001-T



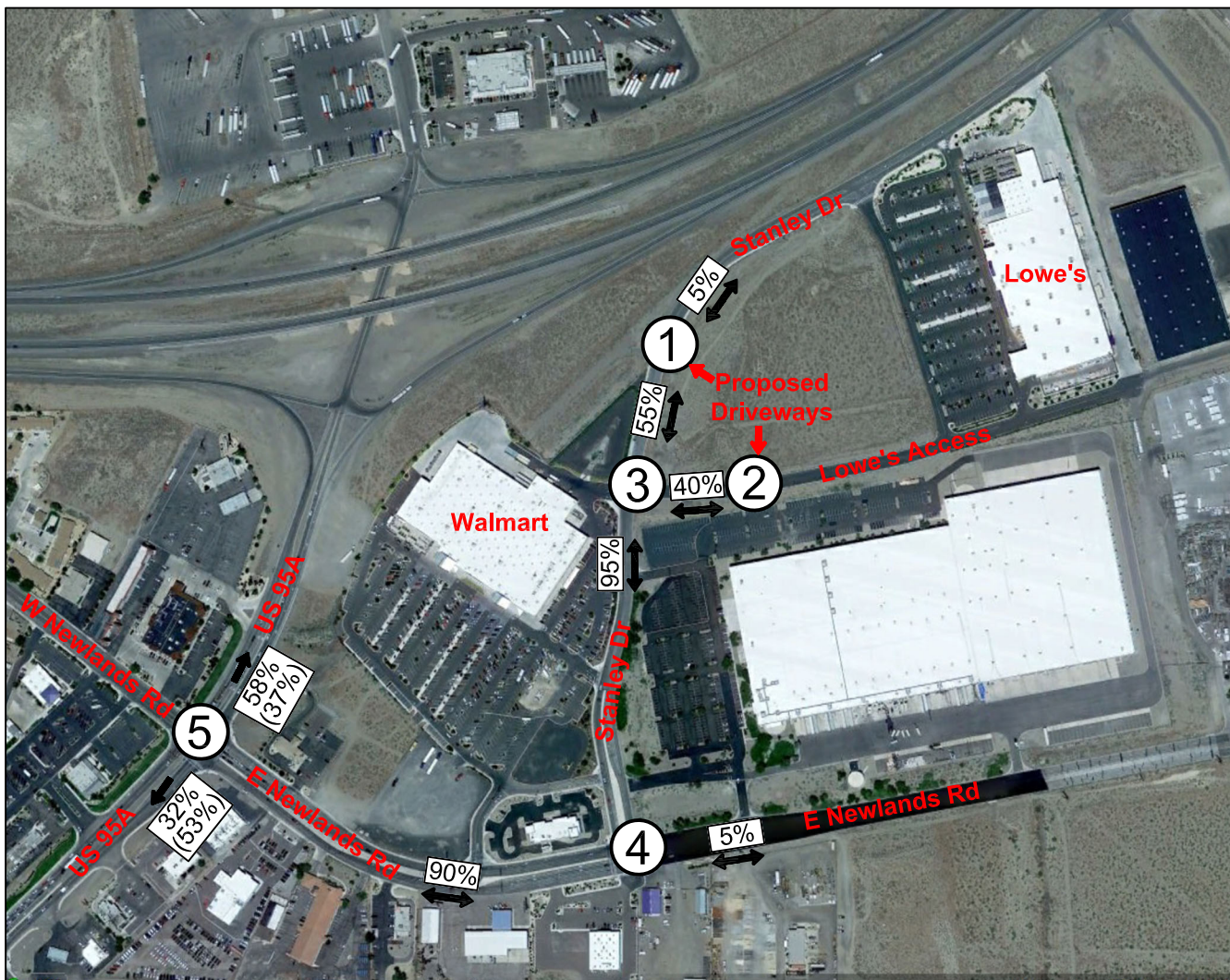
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chris@westexconsulting.com



* Aerial Imagery Obtained from Google Earth

ATTACHMENT 3 – TRIP DISTRIBUTION (2022)

Trip Distribution (2022)



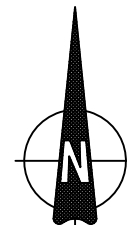
% AM TRIP DISTRIBUTION
(%) PM TRIP DISTRIBUTION

PROJECT NO: 2274.001-T



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NO SCALE



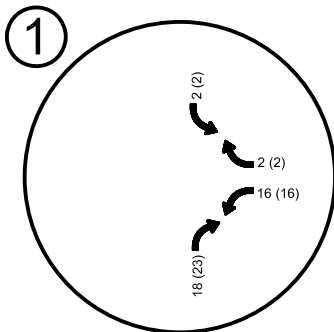
* Aerial Imagery Obtained from Google Earth

ATTACHMENT 4 – TRIP ASSIGNMENT FOR HOTEL (2022)

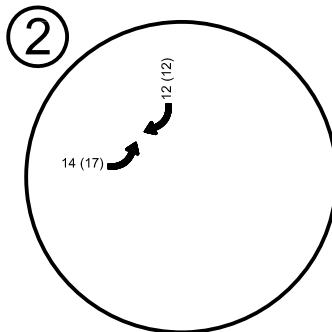
Trip Assignment for Hotel (2022)



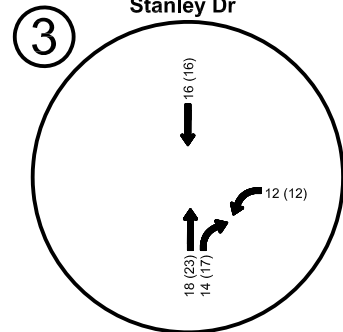
Stanley Dr and Project Driveway



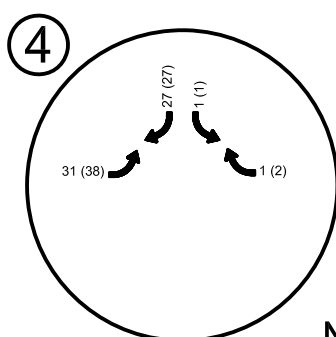
Lowe's Access and Project Driveway



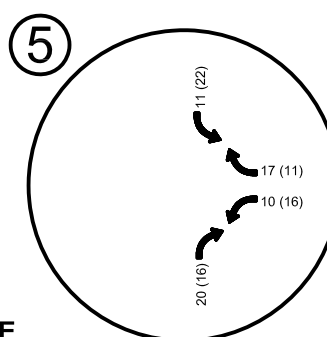
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

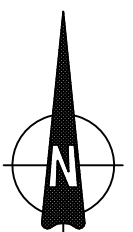


NO SCALE

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AM PEAK HOUR VOLUME
PM PEAK HOUR VOLUME

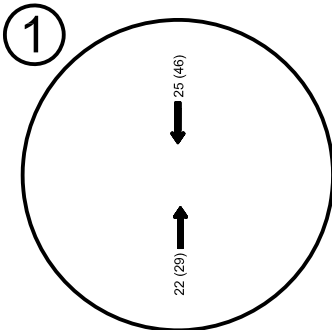
* Aerial Imagery Obtained from Google Earth

ATTACHMENT 5 – CURRENT 2022 BASELINE TRAFFIC

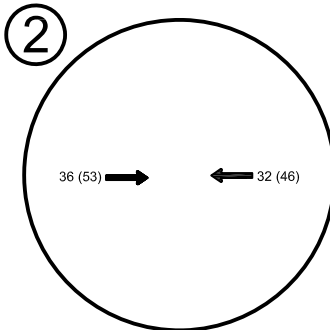
Current 2022 Baseline Traffic



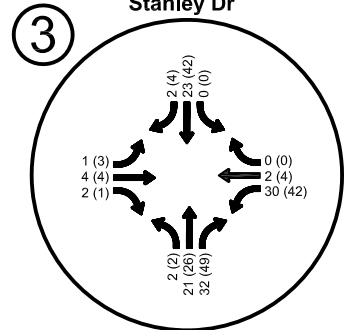
Stanley Dr and Project Driveway



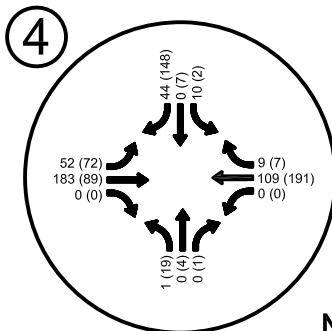
Lowe's Access and Project Driveway



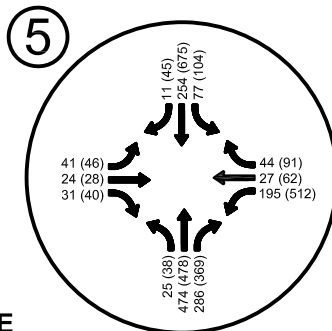
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

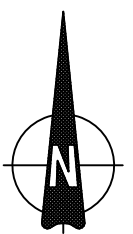


NO SCALE

PROJECT NO: 2274.001-T



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AM PEAK HOUR VOLUME
(#) PM PEAK HOUR VOLUME

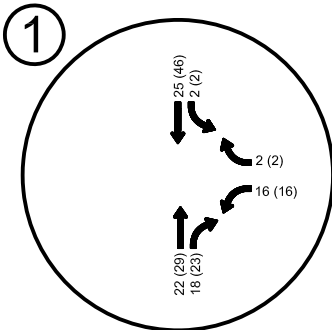
* Aerial Imagery Obtained from Google Earth

**ATTACHMENT 6 – CURRENT 2022 BASELINE TRAFFIC PLUS PROPOSED
PROJECT**

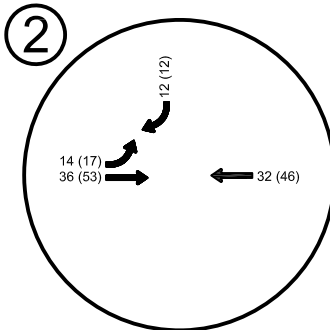
Current 2022 Baseline Traffic Plus Proposed Project



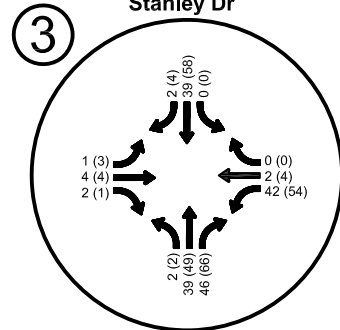
Stanley Dr and Project Driveway



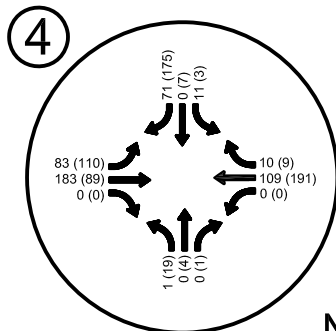
Lowe's Access and Project Driveway



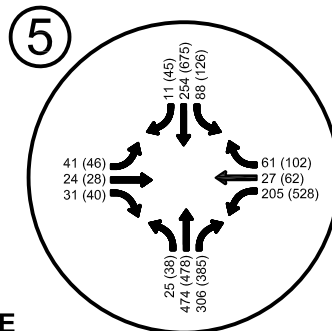
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

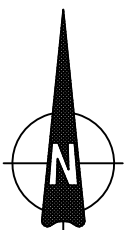


NO SCALE

PROJECT NO: 2274.001-T



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AM PEAK HOUR VOLUME
(#) PM PEAK HOUR VOLUME

* Aerial Imagery Obtained from Google Earth

ATTACHMENT 7 – TRIP DISTRIBUTION (2042)

Trip Distribution (2042)



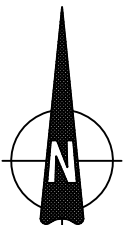
% AM TRIP DISTRIBUTION
(%) PM TRIP DISTRIBUTION

PROJECT NO: 2274.001-T



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NO SCALE



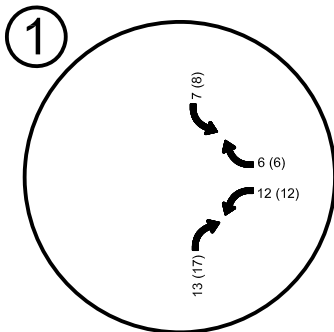
* Aerial Imagery Obtained from Google Earth

ATTACHMENT 8 – TRIP ASSIGNMENT FOR HOTEL (2042)

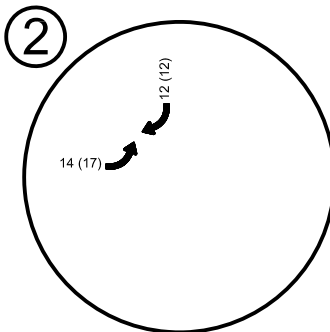
Trip Assignment for Hotel (2042)



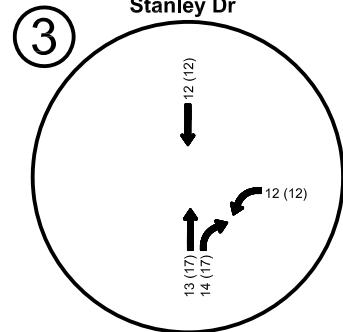
Stanley Dr and Project Driveway



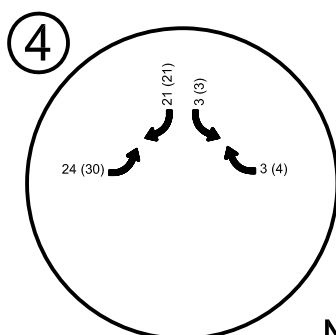
Lowe's Access and Project Driveway



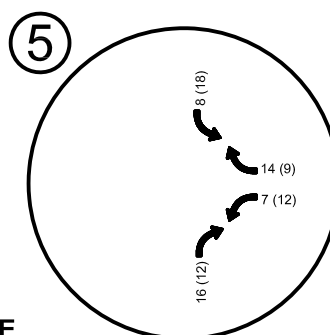
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

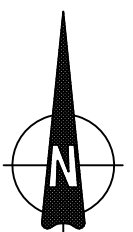


NO SCALE

PROJECT NO: 2274.001-T



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AM PEAK HOUR VOLUME
PM PEAK HOUR VOLUME

* Aerial Imagery Obtained from Google Earth

ATTACHMENT 9 – U.S. CENSUS FACTS FOR FERNLEY, NV

QuickFacts
Fernley city, NevadaQuickFacts provides statistics for all states and counties, and for cities and towns with a **population of 5,000 or more**.**Table**

All Topics	Fernley city, Nevada
Population Estimates, July 1 2021, (V2021)	▲ 23,511
PEOPLE	
Population	
Population Estimates, July 1 2021, (V2021)	▲ 23,511
Population estimates base, April 1, 2020, (V2021)	▲ 22,862
Population, percent change - April 1, 2020 (estimates base) to July 1, 2021, (V2021)	▲ 2.8%
Population, Census, April 1, 2020	22,895
Population, Census, April 1, 2010	19,368
Age and Sex	
Persons under 5 years, percent	▲ 6.2%
Persons under 18 years, percent	▲ 23.5%
Persons 65 years and over, percent	▲ 15.7%
Female persons, percent	▲ 49.9%
Race and Hispanic Origin	
White alone, percent	▲ 80.8%
Black or African American alone, percent (a)	▲ 2.1%
American Indian and Alaska Native alone, percent (a)	▲ 1.8%
Asian alone, percent (a)	▲ 1.4%
Native Hawaiian and Other Pacific Islander alone, percent (a)	▲ 0.0%
Two or More Races, percent	▲ 8.1%
Hispanic or Latino, percent (b)	▲ 20.6%
White alone, not Hispanic or Latino, percent	▲ 69.1%
Population Characteristics	
Veterans, 2016-2020	2,316
Foreign born persons, percent, 2016-2020	5.6%
Housing	
Housing units, July 1, 2021, (V2021)	X
Owner-occupied housing unit rate, 2016-2020	68.9%
Median value of owner-occupied housing units, 2016-2020	\$256,200
Median selected monthly owner costs -with a mortgage, 2016-2020	\$1,397
Median selected monthly owner costs -without a mortgage, 2016-2020	\$398
Median gross rent, 2016-2020	\$1,181
Building permits, 2021	X
Families & Living Arrangements	
Households, 2016-2020	7,379
Persons per household, 2016-2020	2.79
Living in same house 1 year ago, percent of persons age 1 year+, 2016-2020	85.3%
Language other than English spoken at home, percent of persons age 5 years+, 2016-2020	13.2%
Computer and Internet Use	
Households with a computer, percent, 2016-2020	96.2%
Households with a broadband Internet subscription, percent, 2016-2020	87.6%
Education	
High school graduate or higher, percent of persons age 25 years+, 2016-2020	90.1%
Bachelor's degree or higher, percent of persons age 25 years+, 2016-2020	11.3%
Health	
With a disability, under age 65 years, percent, 2016-2020	7.4%
Persons without health insurance, under age 65 years, percent	▲ 8.7%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2016-2020	60.1%
In civilian labor force, female, percent of population age 16 years+, 2016-2020	55.3%
Total accommodation and food services sales, 2017 (\$1,000) (c)	34,070
Total health care and social assistance receipts/revenue, 2017 (\$1,000) (c)	18,301
Total transportation and warehousing receipts/revenue, 2017 (\$1,000) (c)	17,383
Total retail sales, 2017 (\$1,000) (c)	352,130
Total retail sales per capita, 2017 (c)	\$17,812
Transportation	
Mean travel time to work (minutes), workers age 16 years+, 2016-2020	27.7

Income & Poverty

Median household income (in 2020 dollars), 2016-2020	\$66,525
Per capita income in past 12 months (in 2020 dollars), 2016-2020	\$29,276
Persons in poverty, percent	▲ 9.2%

**BUSINESSES****Businesses**

Total employer establishments, 2020	X
Total employment, 2020	X
Total annual payroll, 2020 (\$1,000)	X
Total employment, percent change, 2019-2020	X
Total nonemployer establishments, 2019	X
All employer firms, Reference year 2017	262
Men-owned employer firms, Reference year 2017	142
Women-owned employer firms, Reference year 2017	42
Minority-owned employer firms, Reference year 2017	S
Nonminority-owned employer firms, Reference year 2017	190
Veteran-owned employer firms, Reference year 2017	S
Nonveteran-owned employer firms, Reference year 2017	202

**GEOGRAPHY****Geography**

Population per square mile, 2020	188.7
Population per square mile, 2010	158.6
Land area in square miles, 2020	121.31
Land area in square miles, 2010	122.12
FIPS Code	3224900

[About datasets used in this table](#)

Value Notes

⚠ Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info ⓘ icon to the left of each row in TABLE view to learn about sampling error.

The vintage year (e.g., V2021) refers to the final year of the series (2020 thru 2021). Different vintage years of estimates are not comparable.

Users should exercise caution when comparing 2016-2020 ACS 5-year estimates to other ACS estimates. For more information, please visit the [2020 5-year ACS Comparison Guidance](#) page.

Fact Notes

- (a) Includes persons reporting only one race
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data
- (b) Hispanics may be of any race, so also are included in applicable race categories

Value Flags

- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper interval of an open ended distribution.
- F Fewer than 25 firms
- D Suppressed to avoid disclosure of confidential information
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.
- FN Footnote on this item in place of data
- X Not applicable
- S Suppressed; does not meet publication standards
- NA Not available
- Z Value greater than zero but less than half unit of measure shown

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

CONNECT WITH US

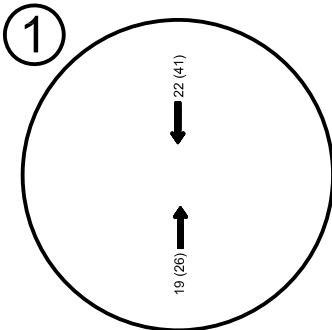
[Accessibility](#) | [Information Quality](#) | [FOIA](#) | [Data Protection and Privacy Policy](#) | [U.S. Department of Commerce](#)

ATTACHMENT 10 – FUTURE 2042 BASELINE TRAFFIC

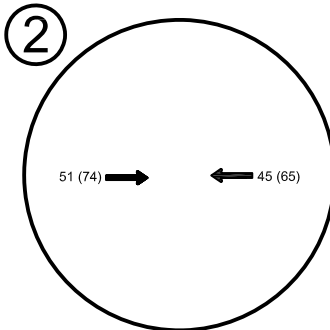
Future 2042 Baseline Traffic



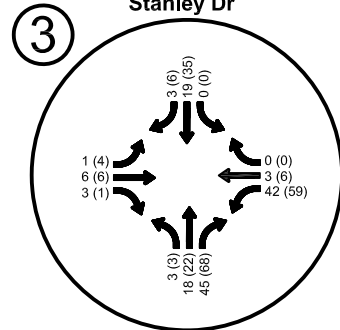
Stanley Dr and Project Driveway



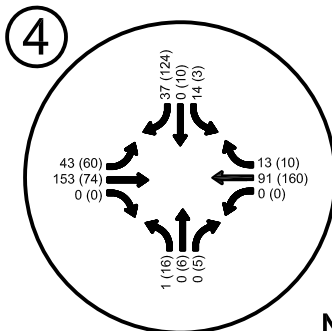
Lowe's Access and Project Driveway



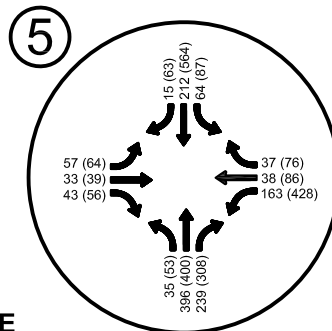
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

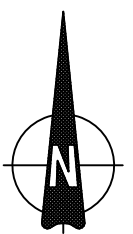


NO SCALE

PROJECT NO: 2274.001-T



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AM PEAK HOUR VOLUME
PM PEAK HOUR VOLUME

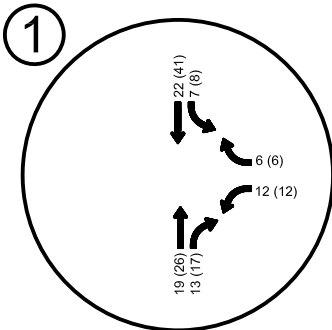
* Aerial Imagery Obtained from Google Earth

**ATTACHMENT 11 – FUTURE 2042 BASELINE TRAFFIC PLUS PROPOSED
PROJECT**

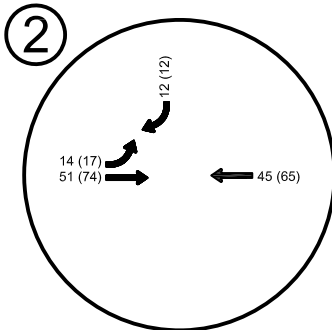
Future 2042 Baseline Traffic Plus Proposed Project



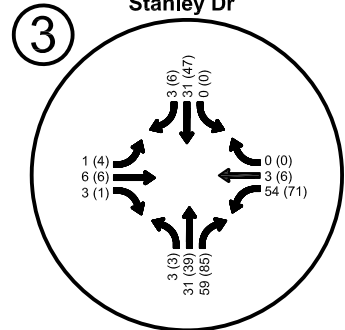
Stanley Dr and Project Driveway



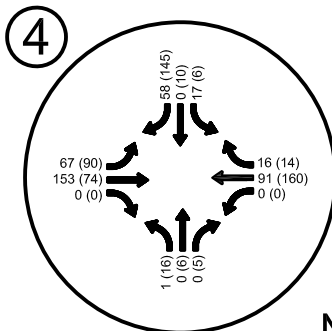
Lowe's Access and Project Driveway



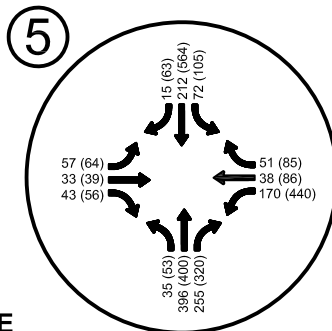
Walmart / Lowe's Access and Stanley Dr



Stanley Dr and E Newlands Rd



Newlands Rd and US 95A

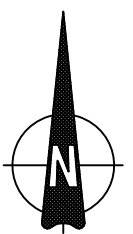


NO SCALE

PROJECT NO: 2274.001-T



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AM PEAK HOUR VOLUME
PM PEAK HOUR VOLUME

* Aerial Imagery Obtained from Google Earth

**ATTACHMENT 12 – HCS 2022 ANALYSIS FOR STANLEY DR AND PROJECT
DRIVEWAY**

HCS Two-Way Stop-Control Report

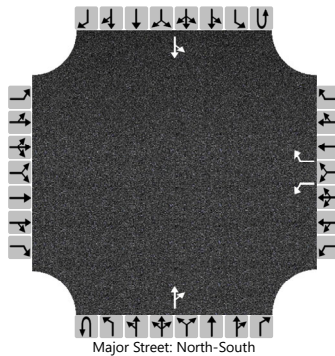
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	2022 with Project

Site Information

Intersection	Stanley Dr / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Project Driveway
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						16		2			22	18		2	25	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						18		2						2		
Capacity, c (veh/h)						933		1035						1556		
v/c Ratio						0.02		0.00						0.00		
95% Queue Length, Q ₉₅ (veh)						0.1		0.0						0.0		
Control Delay (s/veh)						8.9		8.5						7.3	0.0	
Level of Service (LOS)						A		A						A	A	
Approach Delay (s/veh)					8.9								0.6			
Approach LOS					A								A			

HCS Two-Way Stop-Control Report

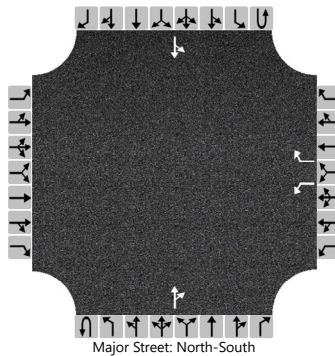
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	2022 with Project

Site Information

Intersection	Stanley Dr / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Project Driveway
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						16		2			29	23		2	46	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						18		2						2		
Capacity, c (veh/h)						892		1021						1538		
v/c Ratio						0.02		0.00						0.00		
95% Queue Length, Q ₉₅ (veh)						0.1		0.0						0.0		
Control Delay (s/veh)						9.1		8.5						7.3	0.0	
Level of Service (LOS)						A		A						A	A	
Approach Delay (s/veh)					9.1								0.3			
Approach LOS					A								A			

HCS Two-Way Stop-Control Report

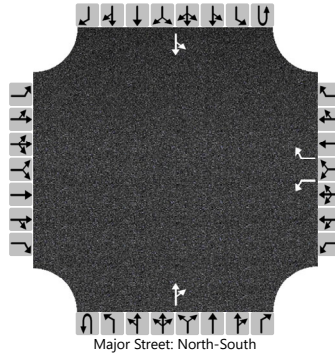
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	2042 with Project

Site Information

Intersection	Stanley Dr / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Project Driveway
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						12		6			19	13		7	22	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14		7						8		
Capacity, c (veh/h)						927		1043						1568		
v/c Ratio						0.01		0.01						0.01		
95% Queue Length, Q ₉₅ (veh)						0.0		0.0						0.0		
Control Delay (s/veh)						8.9		8.5						7.3	0.0	
Level of Service (LOS)						A		A						A	A	
Approach Delay (s/veh)					8.8								1.8			
Approach LOS					A								A			

HCS Two-Way Stop-Control Report

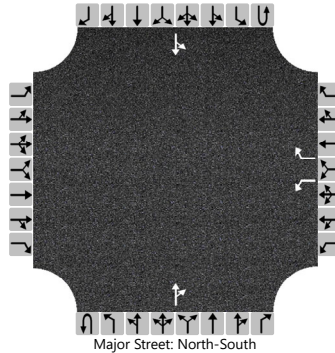
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	2042 with Project

Site Information

Intersection	Stanley Dr / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Project Driveway
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						12		6			26	17		8	41	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14		7						9		
Capacity, c (veh/h)						886		1030						1552		
v/c Ratio						0.02		0.01						0.01		
95% Queue Length, Q ₉₅ (veh)						0.0		0.0						0.0		
Control Delay (s/veh)						9.1		8.5						7.3	0.0	
Level of Service (LOS)						A		A						A	A	
Approach Delay (s/veh)					8.9								1.2			
Approach LOS					A								A			

**ATTACHMENT 13 – HCS 2022 ANALYSIS FOR LOWE’S ACCESS AND PROJECT
DRIVEWAY**

HCS Two-Way Stop-Control Report

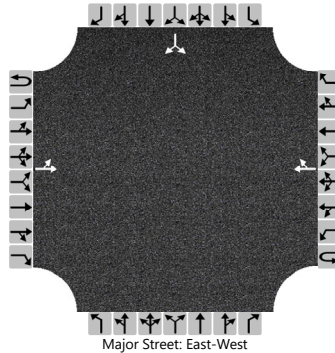
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	2022 with Project

Site Information

Intersection	Lowe's Access / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Lowe's Access
North/South Street	Project Driveway
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		14	36				32	0						0		12
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16													14	
Capacity, c (veh/h)		1568													1033	
v/c Ratio		0.01													0.01	
95% Queue Length, Q ₉₅ (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.5	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)	2.1												8.5			
Approach LOS	A												A			

HCS Two-Way Stop-Control Report

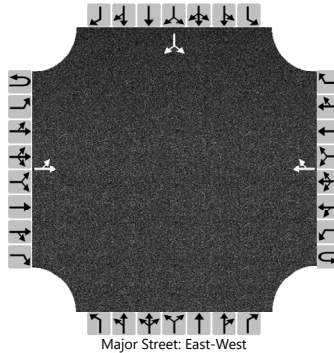
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	2022 with Project

Site Information

Intersection	Lowe's Access / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Lowe's Access
North/South Street	Project Driveway
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		17	53				46	0						0		12
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		19													14	
Capacity, c (veh/h)		1547													1013	
v/c Ratio		0.01													0.01	
95% Queue Length, Q ₉₅ (veh)		0.0													0.0	
Control Delay (s/veh)		7.4	0.1												8.6	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)	1.9												8.6			
Approach LOS	A												A			

HCS Two-Way Stop-Control Report

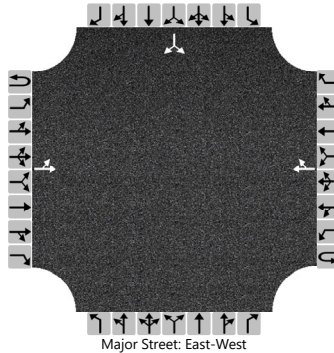
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	2042 with Project

Site Information

Intersection	Lowe's Access / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Lowe's Access
North/South Street	Project Driveway
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		14	51				45	0						0		12
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16													14	
Capacity, c (veh/h)		1549													1014	
v/c Ratio		0.01													0.01	
95% Queue Length, Q ₉₅ (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.6	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)	1.6												8.6			
Approach LOS	A												A			

HCS Two-Way Stop-Control Report

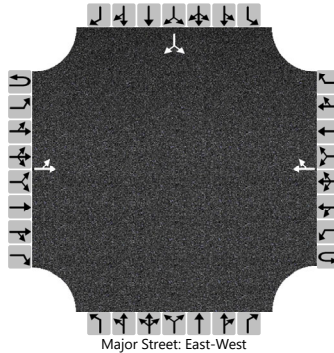
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	2042 with Project

Site Information

Intersection	Lowe's Access / Project Driveway
Jurisdiction	City of Fernley
East/West Street	Lowe's Access
North/South Street	Project Driveway
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		17	74				65	0						0		12
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		19													14	
Capacity, c (veh/h)		1519													985	
v/c Ratio		0.01													0.01	
95% Queue Length, Q ₉₅ (veh)		0.0													0.0	
Control Delay (s/veh)		7.4	0.1												8.7	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)	1.5												8.7			
Approach LOS	A												A			

**ATTACHMENT 14 – HCS 2022 ANALYSIS FOR STANLEY DR AND WALMART /
LOWE'S ACCESS**

HCS Two-Way Stop-Control Report

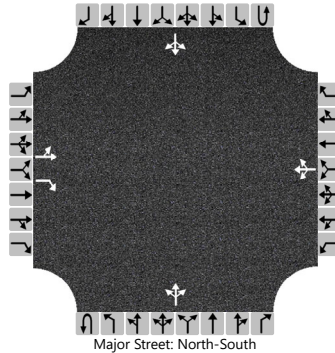
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	AM Peak Hours
Intersection Orientation	North-South
Project Description	2022 Baseline

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		1	4	2		30	2	0		2	21	32		0	23	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		2			36			2				0		
Capacity, c (veh/h)		819		1045			898			1578				1537		
v/c Ratio		0.01		0.00			0.04			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.1			0.0				0.0		
Control Delay (s/veh)		9.4		8.5			9.2			7.3	0.0	0.0		7.3	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.1				9.2				0.3				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

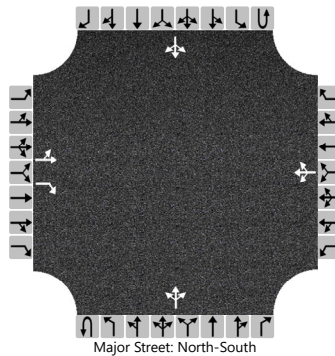
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	PM Peak Hours
Intersection Orientation	North-South
Project Description	2022 Baseline

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		3	4	1		42	4	0		2	26	49		0	42	4
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8		1			52			2				0		
Capacity, c (veh/h)		803		1015			848			1547				1505		
v/c Ratio		0.01		0.00			0.06			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.2			0.0				0.0		
Control Delay (s/veh)		9.5		8.5			9.5			7.3	0.0	0.0		7.4	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.4				9.5				0.2				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

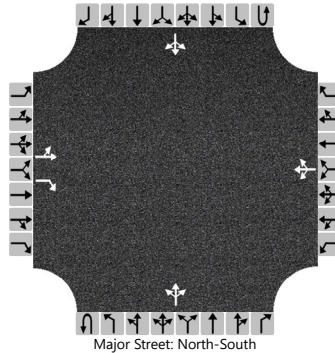
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	2022 with Project

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		1	4	2		42	2	0		2	39	46		0	39	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		2			50			2				0		
Capacity, c (veh/h)		766		1021			839			1555				1491		
v/c Ratio		0.01		0.00			0.06			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.2			0.0				0.0		
Control Delay (s/veh)		9.7		8.5			9.6			7.3	0.0	0.0		7.4	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.4				9.6				0.2				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

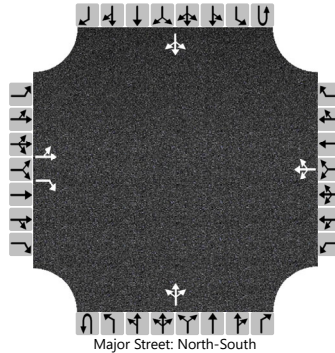
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	2022 with Project

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		3	4	1		54	4	0		2	49	66		0	58	4
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8		1			66			2				0		
Capacity, c (veh/h)		745		992			784			1524				1448		
v/c Ratio		0.01		0.00			0.08			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.3			0.0				0.0		
Control Delay (s/veh)		9.9		8.6			10.0			7.4	0.0	0.0		7.5	0.0	0.0
Level of Service (LOS)		A		A			B			A	A	A		A	A	A
Approach Delay (s/veh)	9.7				10.0				0.1				0.0			
Approach LOS	A				B				A				A			

HCS Two-Way Stop-Control Report

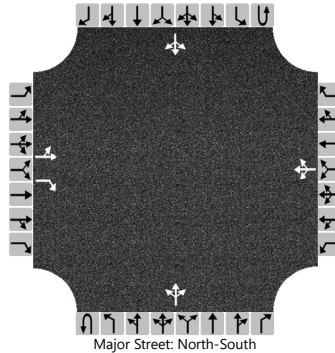
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	AM Peak Hours
Intersection Orientation	North-South
Project Description	2042 Baseline

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		1	6	3		42	3	0		3	18	45		0	19	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8		3			51			3				0		
Capacity, c (veh/h)		803		1051			889			1583				1522		
v/c Ratio		0.01		0.00			0.06			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.2			0.0				0.0		
Control Delay (s/veh)		9.5		8.4			9.3			7.3	0.0	0.0		7.4	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.2				9.3				0.3				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

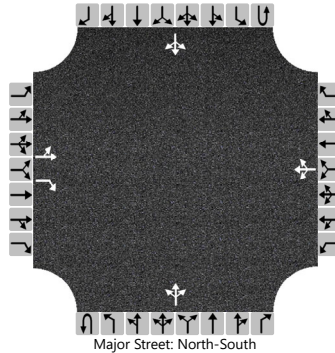
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	PM Peak Hours
Intersection Orientation	North-South
Project Description	2042 Baseline

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		4	6	1		59	6	0		3	22	68		0	35	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		11		1			74			3				0		
Capacity, c (veh/h)		793		1024			842			1555				1484		
v/c Ratio		0.01		0.00			0.09			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.3			0.0				0.0		
Control Delay (s/veh)		9.6		8.5			9.7			7.3	0.0	0.0		7.4	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.5				9.7				0.3				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

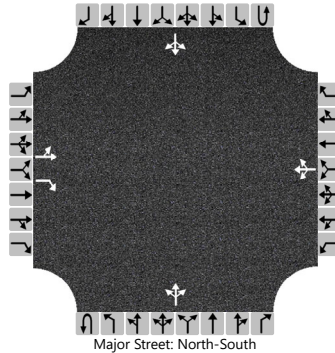
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	2042 with Project

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		1	6	3		54	3	0		3	31	59		0	31	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8		3			65			3				0		
Capacity, c (veh/h)		761		1032			843			1565				1484		
v/c Ratio		0.01		0.00			0.08			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.2			0.0				0.0		
Control Delay (s/veh)		9.8		8.5			9.6			7.3	0.0	0.0		7.4	0.0	0.0
Level of Service (LOS)		A		A			A			A	A	A		A	A	A
Approach Delay (s/veh)	9.4				9.6				0.3				0.0			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

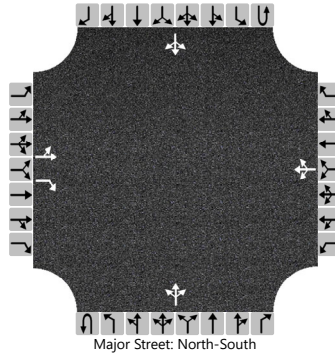
General Information

Analyst	Christopher Moltz, P.E.
Agency/Co.	Westex Consulting
Date Performed	2022
Analysis Year	2042
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	2042 with Project

Site Information

Intersection	Walmart / Lowe's Access and Stanley Dr
Jurisdiction	City of Fernley
East/West Street	Walmart / Lowe's Access
North/South Street	Stanley Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	1	0	0	0	1	0	0	0	1	0
Configuration		LT		R			LTR				LTR				LTR	
Volume (veh/h)		4	6	1		71	6	0		3	39	85		0	47	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

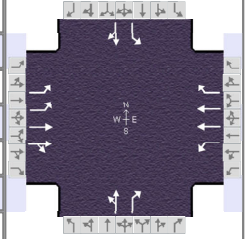
Flow Rate, v (veh/h)		11		1			88			3				0		
Capacity, c (veh/h)		746		1007			791			1537				1436		
v/c Ratio		0.02		0.00			0.11			0.00				0.00		
95% Queue Length, Q ₉₅ (veh)		0.0		0.0			0.4			0.0				0.0		
Control Delay (s/veh)		9.9		8.6			10.1			7.3	0.0	0.0		7.5	0.0	0.0
Level of Service (LOS)		A		A			B			A	A	A		A	A	A
Approach Delay (s/veh)	9.8				10.1				0.2				0.0			
Approach LOS	A				B				A				A			

**ATTACHMENT 15 – HCS 2022 ANALYSIS FOR E. NEWLANDS RD AND STANLEY
DR**

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2022 Baseline	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 202...		
Project Description	2022 Baseline - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	52	183	0	0	109	9	1	0	0	10	0	44

Signal Information

Cycle, s	20.5	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	1.7	5.1	1.7	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	5.7	14.7	0.0	9.1		5.7		5.7
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.3		3.3
Queue Clearance Time (g_s), s	2.3	2.6		2.6		2.6		2.7
Green Extension Time (g_e), s	0.1	0.7	0.0	0.7		0.0		0.0
Phase Call Probability	0.27	0.89		0.84		0.29		0.29
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	57	199	0	0	118	10		1	0	11	48	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		924	1610	1810	1572	
Queue Service Time (g_s), s	0.3	0.6	0.0	0.0	0.6	0.1		0.0	0.0	0.1	0.6	
Cycle Queue Clearance Time (g_c), s	0.3	0.6	0.0	0.0	0.6	0.1		0.6	0.0	0.7	0.6	
Green Ratio (g/C)	0.08	0.52			0.25	0.25		0.08	0.08	0.08	0.08	
Capacity (c), veh/h	262	1837		9	827	390		430	137	457	133	
Volume-to-Capacity Ratio (X)	0.215	0.108	0.000	0.000	0.143	0.025		0.003	0.000	0.024	0.358	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.1	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.0	0.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.01	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.02	
Uniform Delay (d_1), s/veh	8.8	2.5		0.0	6.0	5.8		9.1	0.0	9.1	8.8	
Incremental Delay (d_2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	8.9	2.5		0.0	6.0	5.8		9.1	0.0	9.1	9.4	
Level of Service (LOS)	A	A			A	A		A		A	A	
Approach Delay, s/veh / LOS	3.9		A	6.0		A		9.1		A	9.4	
Intersection Delay, s/veh / LOS	5.3						A					

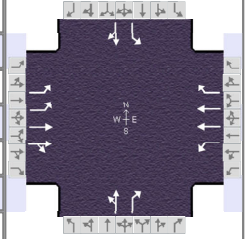
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.83	B	2.06	B	2.40	B	2.40	B
Bicycle LOS Score / LOS	0.70	A	0.59	A	0.49	A	0.58	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2022 Baseline	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 202...		
Project Description	2022 Baseline - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	72	89	0	0	191	7	19	4	1	2	7	148

Signal Information

Cycle, s	24.1	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.5	5.3	4.4	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	6.5	15.7	0.0	9.3		8.4		8.4
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.4		3.4
Queue Clearance Time (g_s), s	2.5	2.4		3.3		4.4		4.4
Green Extension Time (g_e), s	0.1	0.7	0.0	0.7		0.2		0.2
Phase Call Probability	0.41	0.93		0.88		0.73		0.73
Max Out Probability	0.00	0.00		0.00		0.12		0.12

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	78	97	0	0	208	8		25	1	2	168	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		800	1610	1434	1583	
Queue Service Time (g_s), s	0.5	0.4	0.0	0.0	1.3	0.1		0.0	0.0	0.0	2.4	
Cycle Queue Clearance Time (g_c), s	0.5	0.4	0.0	0.0	1.3	0.1		2.4	0.0	2.3	2.4	
Green Ratio (g/C)	0.10	0.49			0.22	0.22		0.18	0.18	0.18	0.18	
Capacity (c), veh/h	331	1702		7	728	343		418	294	424	289	
Volume-to-Capacity Ratio (X)	0.237	0.057	0.000	0.000	0.285	0.022		0.060	0.004	0.005	0.582	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.2	0.0	0.0	0.0	0.4	0.0		0.1	0.0	0.0	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.02	0.00	0.00	0.00	0.01	0.00		0.03	0.00	0.00	0.07	
Uniform Delay (d_1), s/veh	10.0	3.3		0.0	7.9	7.4		8.2	8.1	10.1	9.0	
Incremental Delay (d_2), s/veh	0.1	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.0	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	10.1	3.3		0.0	7.9	7.4		8.3	8.1	10.1	9.7	
Level of Service (LOS)	B	A			A	A		A	A	B	A	
Approach Delay, s/veh / LOS	6.3		A	7.9		A	8.3		A	9.7		A
Intersection Delay, s/veh / LOS	8.0						A					

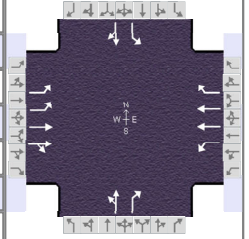
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.84	B	2.07	B	2.39	B	2.39	B
Bicycle LOS Score / LOS	0.63	A	0.67	A	0.53	A	0.77	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2022 with Project	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 202...		
Project Description	2022 with Project - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	83	183	0	0	109	9	1	0	0	11	0	71

Signal Information

Cycle, s	22.4	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.6	5.2	2.6	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	6.6	15.8	0.0	9.2		6.6		6.6
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.3		3.3
Queue Clearance Time (g_s), s	2.6	2.6		2.6		3.0		3.1
Green Extension Time (g_e), s	0.1	0.7	0.0	0.7		0.1		0.1
Phase Call Probability	0.43	0.93		0.87		0.43		0.43
Max Out Probability	0.00	0.00		0.00		0.01		0.01

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	90	199	0	0	118	10		1	0	12	77	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		820	1610	1810	1572	
Queue Service Time (g_s), s	0.6	0.6	0.0	0.0	0.6	0.1		0.0	0.0	0.1	1.0	
Cycle Queue Clearance Time (g_c), s	0.6	0.6	0.0	0.0	0.6	0.1		1.0	0.0	1.1	1.0	
Green Ratio (g/C)	0.12	0.53			0.23	0.23		0.12	0.12	0.12	0.12	
Capacity (c), veh/h	374	1847		8	778	367		416	186	451	182	
Volume-to-Capacity Ratio (X)	0.241	0.108	0.000	0.000	0.152	0.027		0.003	0.000	0.027	0.425	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.2	0.0	0.0	0.0	0.2	0.0		0.0	0.0	0.1	0.4	
Queue Storage Ratio (RQ) (95 th percentile)	0.02	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.03	
Uniform Delay (d_1), s/veh	9.0	2.7		0.0	6.8	6.6		9.7	0.0	9.7	9.2	
Incremental Delay (d_2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	9.1	2.7		0.0	6.9	6.6		9.7	0.0	9.7	9.8	
Level of Service (LOS)	A	A			A	A		A		A	A	
Approach Delay, s/veh / LOS	4.7		A	6.8		A		9.7		A	9.8	
Intersection Delay, s/veh / LOS	6.1						A					

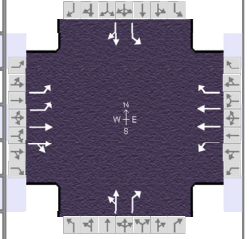
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.83	B	2.06	B	2.40	B	2.40	B
Bicycle LOS Score / LOS	0.73	A	0.59	A	0.49	A	0.63	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2022 with Project	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 202...		
Project Description	2022 with Project - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	110	89	0	0	191	9	19	4	1	3	7	175

Signal Information

Cycle, s	31.8	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	3.9	5.6	5.0	1.2	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		11.0		10.0
Phase Duration, s	7.9	17.5	0.0	9.6		5.2		9.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.1		3.4
Queue Clearance Time (g_s), s	3.1	2.5		3.7		2.4		5.8
Green Extension Time (g_e), s	0.2	0.7	0.0	0.7		0.0		0.2
Phase Call Probability	0.65	0.98		0.94		0.21		0.83
Max Out Probability	0.00	0.00		0.00		0.00		0.47

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	120	97	0	0	208	10		25	1	3	198	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		1825	1610	1810	1582	
Queue Service Time (g_s), s	1.1	0.5	0.0	0.0	1.7	0.2		0.4	0.0	0.0	3.8	
Cycle Queue Clearance Time (g_c), s	1.1	0.5	0.0	0.0	1.7	0.2		0.4	0.0	0.0	3.8	
Green Ratio (g/C)	0.12	0.43			0.18	0.18		0.04	0.04	0.16	0.16	
Capacity (c), veh/h	400	1494		6	591	279		71	63	285	249	
Volume-to-Capacity Ratio (X)	0.299	0.065	0.000	0.000	0.351	0.035		0.351	0.017	0.011	0.795	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.5	0.2	0.0	0.0	0.8	0.1		0.3	0.0	0.0	2.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.04	0.00	0.00	0.00	0.02	0.01		0.07	0.00	0.00	0.15	
Uniform Delay (d_1), s/veh	12.7	5.4		0.0	11.5	10.8		14.9	14.7	11.3	12.9	
Incremental Delay (d_2), s/veh	0.2	0.0	0.0	0.0	0.1	0.0		1.1	0.0	0.0	2.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	12.8	5.4		0.0	11.6	10.9		16.0	14.7	11.3	15.1	
Level of Service (LOS)	B	A			B	B		B	B	B	B	
Approach Delay, s/veh / LOS	9.5		A	11.6		B	15.9		B	15.0		B
Intersection Delay, s/veh / LOS	12.1						B					

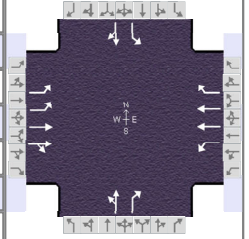
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	2.08	B	2.42	B	2.42	B
Bicycle LOS Score / LOS	0.67	A	0.67	A	0.53	A	0.82	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2042 Baseline	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 204...		
Project Description	2042 Baseline - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	43	153	0	0	91	13	1	0	0	14	0	37

Signal Information

Cycle, s	19.7	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	1.4	4.7	1.6	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	5.4	14.1	0.0	8.7		5.6		5.6
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.3		3.3
Queue Clearance Time (g_s), s	2.3	2.5		2.5		2.5		2.6
Green Extension Time (g_e), s	0.0	0.6	0.0	0.6		0.0		0.0
Phase Call Probability	0.23	0.83		0.78		0.27		0.27
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	47	166	0	0	99	14		1	0	15	40	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		990	1610	1810	1572	
Queue Service Time (g_s), s	0.3	0.5	0.0	0.0	0.5	0.1		0.0	0.0	0.2	0.5	
Cycle Queue Clearance Time (g_c), s	0.3	0.5	0.0	0.0	0.5	0.1		0.5	0.0	0.6	0.5	
Green Ratio (g/C)	0.07	0.51			0.24	0.24		0.08	0.08	0.08	0.08	
Capacity (c), veh/h	224	1793		9	798	376		447	131	474	128	
Volume-to-Capacity Ratio (X)	0.209	0.093	0.000	0.000	0.124	0.038		0.002	0.000	0.032	0.314	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.1	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.1	0.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.01	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.01	
Uniform Delay (d_1), s/veh	8.6	2.5		0.0	5.9	5.7		8.7	0.0	8.8	8.5	
Incremental Delay (d_2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.5	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	8.8	2.5		0.0	5.9	5.8		8.7	0.0	8.8	9.0	
Level of Service (LOS)	A	A			A	A		A		A	A	
Approach Delay, s/veh / LOS	3.9		A	5.9		A		8.7		A	9.0	
Intersection Delay, s/veh / LOS	5.2						A					

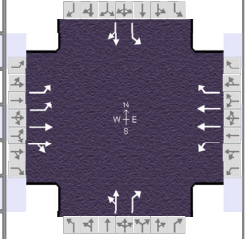
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.83	B	2.06	B	2.40	B	2.40	B
Bicycle LOS Score / LOS	0.66	A	0.58	A	0.49	A	0.58	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2042 Baseline	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 204...		
Project Description	2042 Baseline - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	60	74	0	0	160	10	16	6	5	3	10	124

Signal Information

Cycle, s	29.3	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.5	5.3	4.2	1.3	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		11.0		10.0
Phase Duration, s	6.5	15.8	0.0	9.3		5.3		8.2
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.1		3.3
Queue Clearance Time (g_s), s	2.6	2.4		3.3		2.4		4.5
Green Extension Time (g_e), s	0.1	0.5	0.0	0.5		0.0		0.1
Phase Call Probability	0.41	0.93		0.88		0.21		0.70
Max Out Probability	0.00	0.00		0.00		0.00		0.11

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	65	80	0	0	174	11		24	5	3	146	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		1833	1610	1810	1591	
Queue Service Time (g_s), s	0.6	0.4	0.0	0.0	1.3	0.2		0.4	0.1	0.0	2.5	
Cycle Queue Clearance Time (g_c), s	0.6	0.4	0.0	0.0	1.3	0.2		0.4	0.1	0.0	2.5	
Green Ratio (g/C)	0.08	0.40			0.18	0.18		0.04	0.04	0.14	0.14	
Capacity (c), veh/h	274	1410		6	605	285		80	70	261	229	
Volume-to-Capacity Ratio (X)	0.238	0.057	0.000	0.000	0.287	0.038		0.299	0.077	0.013	0.635	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.3	0.1	0.0	0.0	0.6	0.1		0.2	0.1	0.0	1.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.02	0.00	0.00	0.00	0.01	0.01		0.06	0.01	0.00	0.09	
Uniform Delay (d_1), s/veh	12.5	5.4		0.0	10.4	9.9		13.6	13.4	10.7	11.8	
Incremental Delay (d_2), s/veh	0.2	0.0	0.0	0.0	0.1	0.0		0.8	0.2	0.0	1.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	12.7	5.4		0.0	10.5	9.9		14.3	13.6	10.8	12.9	
Level of Service (LOS)	B	A			B	A		B	B	B	B	
Approach Delay, s/veh / LOS	8.6		A	10.4		B	14.2		B	12.9		B
Intersection Delay, s/veh / LOS	10.8						B					

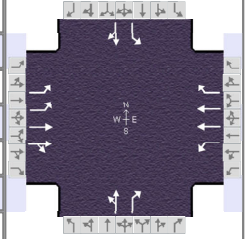
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	2.08	B	2.42	B	2.41	B
Bicycle LOS Score / LOS	0.61	A	0.64	A	0.54	A	0.73	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2042 with Project	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 204...		
Project Description	2042 with Project - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	67	153	0	0	91	16	1	0	0	17	0	58

Signal Information

Cycle, s	21.3	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.1	4.9	2.3	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	6.1	15.0	0.0	8.9		6.3		6.3
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.3		3.3
Queue Clearance Time (g_s), s	2.4	2.5		2.5		2.8		3.0
Green Extension Time (g_e), s	0.1	0.6	0.0	0.6		0.1		0.1
Phase Call Probability	0.35	0.88		0.81		0.39		0.39
Max Out Probability	0.00	0.00		0.00		0.01		0.01

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	73	166	0	0	99	17		1	0	18	63	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		907	1610	1810	1572	
Queue Service Time (g_s), s	0.4	0.5	0.0	0.0	0.5	0.2		0.0	0.0	0.2	0.8	
Cycle Queue Clearance Time (g_c), s	0.4	0.5	0.0	0.0	0.5	0.2		0.8	0.0	1.0	0.8	
Green Ratio (g/C)	0.10	0.52			0.23	0.23		0.11	0.11	0.11	0.11	
Capacity (c), veh/h	321	1806		8	764	360		437	176	472	172	
Volume-to-Capacity Ratio (X)	0.227	0.092	0.000	0.000	0.129	0.048		0.002	0.000	0.039	0.366	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.2	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.1	0.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.01	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.01	0.02	
Uniform Delay (d_1), s/veh	8.9	2.6		0.0	6.5	6.4		9.2	0.0	9.2	8.8	
Incremental Delay (d_2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.5	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	9.0	2.6		0.0	6.6	6.4		9.2	0.0	9.2	9.3	
Level of Service (LOS)	A	A			A	A		A		A	A	
Approach Delay, s/veh / LOS	4.6		A	6.5		A		9.2		A	9.3	
Intersection Delay, s/veh / LOS	6.0						A					

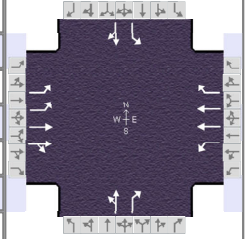
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.83	B	2.06	B	2.40	B	2.40	B
Bicycle LOS Score / LOS	0.68	A	0.58	A	0.49	A	0.62	A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	E Newlands Road	Analysis Year	2042 with Project	Analysis Period	1> 7:00
Intersection	Newlands Rd/ Stanley Dr	File Name	Signalized - E Newlands Rd and Stanley Dr - 204...		
Project Description	2042 with Project - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	90	74	0	0	160	14	16	6	5	6	10	145

Signal Information

Cycle, s	24.5	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.9	5.0	4.5	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		7.0		6.0
Phase Duration, s	6.9	16.0	0.0	9.0		8.5		8.5
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (MAH), s	3.1	3.0	0.0	3.0		3.3		3.3
Queue Clearance Time (g_s), s	2.7	2.3		3.1		4.4		4.5
Green Extension Time (g_e), s	0.1	0.6	0.0	0.6		0.2		0.2
Phase Call Probability	0.49	0.92		0.84		0.75		0.75
Max Out Probability	0.00	0.00		0.00		0.12		0.13

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	98	80	0	0	174	15		24	5	7	168	
Adjusted Saturation Flow Rate (s), veh/h/ln	1620	1752	0	1810	1668	1572		951	1610	1432	1588	
Queue Service Time (g_s), s	0.7	0.3	0.0	0.0	1.1	0.2		0.0	0.1	0.1	2.4	
Cycle Queue Clearance Time (g_c), s	0.7	0.3	0.0	0.0	1.1	0.2		2.4	0.1	2.5	2.4	
Green Ratio (g/C)	0.12	0.49			0.21	0.21		0.18	0.18	0.18	0.18	
Capacity (c), veh/h	387	1713		7	688	324		429	297	420	293	
Volume-to-Capacity Ratio (X)	0.253	0.047	0.000	0.000	0.253	0.047		0.056	0.018	0.016	0.575	
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	0.3	0.0	0.0	0.0	0.4	0.1		0.1	0.0	0.0	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.02	0.00	0.00	0.00	0.01	0.00		0.03	0.01	0.00	0.07	
Uniform Delay (d_1), s/veh	9.8	3.3		0.0	8.1	7.8		8.3	8.2	10.2	9.1	
Incremental Delay (d_2), s/veh	0.1	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.0	0.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	9.9	3.3		0.0	8.2	7.8		8.3	8.2	10.2	9.8	
Level of Service (LOS)	A	A			A	A		A	A	B	A	
Approach Delay, s/veh / LOS	6.9		A	8.2		A	8.3		A	9.8		A
Intersection Delay, s/veh / LOS	8.3						A					

Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.84	B	2.07	B	2.39	B	2.39	B
Bicycle LOS Score / LOS	0.63	A	0.64	A	0.54	A	0.78	A

ATTACHMENT 16 – HCS 2022 ANALYSIS FOR US 95A AND NEWLANDS RD

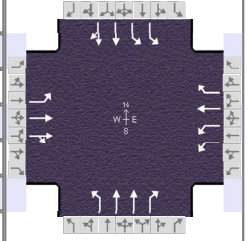
HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers		
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022
Jurisdiction	City of Fernley	Time Period	AM Peak Hour
Urban Street	US 95A	Analysis Year	2022 Baseline
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2022 Baseli...
Project Description	2022 Baseline - AM Peak Hour		

Intersection Information

Duration, h	0.250
Area Type	Other
PHF	0.92
Analysis Period	1 > 7:00



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	41	24	31	195	27	44	25	474	286	77	254	11

Signal Information

Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		9.8		13.7	7.6	86.9	9.6	89.0
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.2	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		4.9		9.1	3.8		4.8	
Green Extension Time (g _e), s		0.1		0.6	0.0	0.0	0.2	0.0
Phase Call Probability		0.97		1.00	0.60		0.94	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	45	26	34	212	29	48	27	515	311	84	145	143
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1872
Queue Service Time (g_s), s	2.9	1.6	2.4	7.1	1.7	3.4	1.8	6.2	10.1	2.8	2.9	2.9
Cycle Queue Clearance Time (g_c), s	2.9	1.6	2.4	7.1	1.7	3.4	1.8	6.2	10.1	2.8	2.9	2.9
Green Ratio (g/C)	0.05	0.05	0.05	0.08	0.08	0.08	0.03	0.69	0.69	0.05	0.71	0.71
Capacity (c), veh/h	88	92	78	283	153	130	54	2499	1001	165	1345	1325
Volume-to-Capacity Ratio (X)	0.508	0.283	0.432	0.749	0.192	0.369	0.504	0.206	0.311	0.507	0.107	0.108
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	2.4	1.4	1.8	5.7	1.5	2.5	1.5	4.0	5.5	2.2	2.0	2.0
Queue Storage Ratio (RQ) (95 th percentile)	0.28	0.08	0.10	0.24	0.06	0.18	0.18	0.13	0.49	0.11	0.06	0.06
Uniform Delay (d_1), s/veh	55.7	55.1	55.5	54.0	51.5	52.3	57.3	6.7	7.3	55.8	5.5	5.5
Incremental Delay (d_2), s/veh	1.7	0.6	1.4	1.5	0.2	0.7	2.7	0.2	0.8	0.9	0.2	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.4	55.7	56.9	55.5	51.8	52.9	60.0	6.9	8.1	56.7	5.7	5.7
Level of Service (LOS)	E	E	E	E	D	D	E	A	A	E	A	A
Approach Delay, s/veh / LOS	56.8	E		54.7	D		9.0	A		17.2	B	
Intersection Delay, s/veh / LOS	22.1						C					

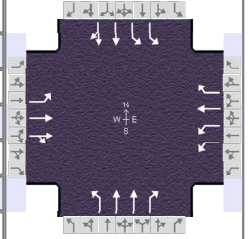
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.38	B		2.05	B	
Bicycle LOS Score / LOS	0.57	A		0.96	A		1.19	A		0.79	A	

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2022 Baseline	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2022 Baseli...		
Project Description	2022 Baseline - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	46	28	40	512	62	91	38	478	369	104	675	45

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	4.5	1.4	70.7	21.6	5.9	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		9.9		25.6	8.5	74.7	9.9	76.1
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		5.2		20.5	4.7		5.8	
Green Extension Time (g _e), s		0.1		1.0	0.0	0.0	0.2	0.0
Phase Call Probability		0.98		1.00	0.75		0.98	
Max Out Probability		0.09		0.31	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	50	30	43	557	67	99	41	520	401	113	396	387
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1858
Queue Service Time (g_s), s	3.2	1.9	3.2	18.5	3.6	6.4	2.7	8.3	18.9	3.8	12.6	12.6
Cycle Queue Clearance Time (g_c), s	3.2	1.9	3.2	18.5	3.6	6.4	2.7	8.3	18.9	3.8	12.6	12.6
Green Ratio (g/C)	0.05	0.05	0.05	0.18	0.18	0.18	0.04	0.59	0.59	0.05	0.60	0.60
Capacity (c), veh/h	89	93	79	631	341	289	68	2131	854	172	1141	1115
Volume-to-Capacity Ratio (X)	0.562	0.326	0.549	0.882	0.197	0.342	0.611	0.244	0.470	0.659	0.347	0.347
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	2.7	1.6	2.4	13.7	3.1	4.6	2.3	5.9	10.4	3.1	9.2	9.0
Queue Storage Ratio (RQ) (95 th percentile)	0.31	0.09	0.13	0.57	0.13	0.33	0.28	0.20	0.93	0.15	0.30	0.30
Uniform Delay (d_1), s/veh	55.8	55.1	55.7	48.0	41.9	43.0	56.9	11.8	14.0	56.1	12.1	12.1
Incremental Delay (d_2), s/veh	2.1	0.7	2.2	9.1	0.1	0.3	3.3	0.3	1.9	1.6	0.8	0.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.8	55.9	57.9	57.1	42.0	43.3	60.2	12.1	15.9	57.7	12.9	13.0
Level of Service (LOS)	E	E	E	E	D	D	E	B	B	E	B	B
Approach Delay, s/veh / LOS	57.4	E		53.8	D		15.7	B		18.6	B	
Intersection Delay, s/veh / LOS	28.8						C					

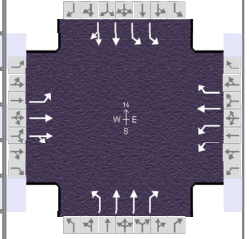
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.40	B		2.08	B	
Bicycle LOS Score / LOS	0.59	A		1.68	B		1.28	A		1.23	A	

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2022 with Project	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2022 with Pr...		
Project Description	2022 with Project - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	41	24	31	205	27	61	25	474	306	88	254	11

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	3.6	2.2	82.4	10.1	5.8	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		9.8		14.1	7.6	86.4	9.8	88.5
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.2	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		4.9		9.4	3.8		5.2	
Green Extension Time (g _e), s		0.1		0.6	0.0	0.0	0.2	0.0
Phase Call Probability		0.97		1.00	0.60		0.96	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	45	26	34	223	29	66	27	515	333	96	145	143
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1872
Queue Service Time (g_s), s	2.9	1.6	2.4	7.4	1.7	4.7	1.8	6.3	11.2	3.2	2.9	2.9
Cycle Queue Clearance Time (g_c), s	2.9	1.6	2.4	7.4	1.7	4.7	1.8	6.3	11.2	3.2	2.9	2.9
Green Ratio (g/C)	0.05	0.05	0.05	0.08	0.08	0.08	0.03	0.69	0.69	0.05	0.70	0.70
Capacity (c), veh/h	88	92	78	295	160	135	54	2483	994	168	1338	1319
Volume-to-Capacity Ratio (X)	0.508	0.283	0.432	0.755	0.184	0.490	0.504	0.208	0.334	0.568	0.108	0.109
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	2.4	1.4	1.8	6.0	1.5	3.5	1.5	4.1	6.1	2.6	2.0	2.0
Queue Storage Ratio (RQ) (95 th percentile)	0.28	0.08	0.10	0.25	0.06	0.25	0.18	0.14	0.55	0.13	0.07	0.07
Uniform Delay (d_1), s/veh	55.7	55.1	55.5	53.8	51.1	52.5	57.3	6.9	7.7	55.9	5.7	5.7
Incremental Delay (d_2), s/veh	1.7	0.6	1.4	1.5	0.2	1.0	2.7	0.2	0.9	1.1	0.2	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.4	55.7	56.9	55.2	51.3	53.5	60.0	7.1	8.6	57.0	5.8	5.8
Level of Service (LOS)	E	E	E	E	D	D	E	A	A	E	A	A
Approach Delay, s/veh / LOS	56.8	E		54.5	D		9.3	A		18.6	B	
Intersection Delay, s/veh / LOS	22.9						C					

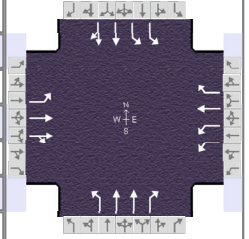
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.38	B		2.05	B	
Bicycle LOS Score / LOS	0.57	A		1.01	A		1.21	A		0.80	A	

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2022 with Project	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2022 with Pr...		
Project Description	2022 with Project - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	46	28	40	528	62	102	38	478	385	126	675	45

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	4.5	2.3	69.2	22.1	5.9	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		9.9		26.1	8.5	73.2	10.7	75.5
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		5.2		21.1	4.7		6.6	
Green Extension Time (g _e), s		0.1		1.0	0.0	0.0	0.2	0.0
Phase Call Probability		0.98		1.00	0.75		0.99	
Max Out Probability		0.17		0.43	0.00		0.00	

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	50	30	43	574	67	111	41	520	418	137	396	387
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1858
Queue Service Time (g _s), s	3.2	1.9	3.2	19.1	3.6	7.2	2.7	8.5	20.6	4.6	12.8	12.8
Cycle Queue Clearance Time (g _c), s	3.2	1.9	3.2	19.1	3.6	7.2	2.7	8.5	20.6	4.6	12.8	12.8
Green Ratio (g/C)	0.05	0.05	0.05	0.18	0.18	0.18	0.04	0.58	0.58	0.06	0.60	0.60
Capacity (c), veh/h	89	93	79	648	350	297	68	2087	836	197	1132	1107
Volume-to-Capacity Ratio (X)	0.562	0.326	0.549	0.886	0.192	0.374	0.611	0.249	0.500	0.694	0.349	0.350
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	2.7	1.6	2.4	14.1	3.0	5.2	2.3	6.1	11.3	3.7	9.3	9.1
Queue Storage Ratio (RQ) (95 th percentile)	0.31	0.09	0.13	0.59	0.13	0.37	0.28	0.20	1.01	0.19	0.31	0.30
Uniform Delay (d ₁), s/veh	55.8	55.1	55.7	47.7	41.4	42.9	56.9	12.5	15.1	55.6	12.4	12.4
Incremental Delay (d ₂), s/veh	2.1	0.7	2.2	9.9	0.1	0.3	3.3	0.3	2.1	1.6	0.9	0.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.8	55.9	57.9	57.6	41.5	43.2	60.2	12.8	17.2	57.3	13.2	13.3
Level of Service (LOS)	E	E	E	E	D	D	E	B	B	E	B	B
Approach Delay, s/veh / LOS	57.4		E	54.1		D	16.7		B	19.8		B
Intersection Delay, s/veh / LOS	29.7						C					

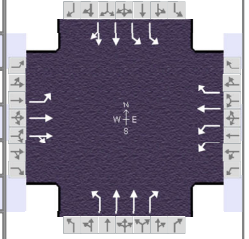
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47		B	2.47		B	2.41		B	2.08		B
Bicycle LOS Score / LOS	0.59		A	1.73		B	1.30		A	1.25		A

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2042 Baseline	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2042 Baseli...		
Project Description	2042 Baseline - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	57	33	43	163	38	37	35	396	239	64	212	15

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	4.3	1.1	84.0	8.4	6.2	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		10.2		12.4	8.3	88.0	9.4	89.1
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		6.0		7.9	4.5		4.3	
Green Extension Time (g _e), s		0.2		0.5	0.0	0.0	0.1	0.0
Phase Call Probability		0.99		1.00	0.72		0.90	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	62	36	47	177	41	40	38	430	260	70	124	123
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1856
Queue Service Time (g_s), s	4.0	2.2	3.4	5.9	2.5	2.9	2.5	4.9	7.9	2.3	2.4	2.5
Cycle Queue Clearance Time (g_c), s	4.0	2.2	3.4	5.9	2.5	2.9	2.5	4.9	7.9	2.3	2.4	2.5
Green Ratio (g/C)	0.05	0.05	0.05	0.07	0.07	0.07	0.04	0.70	0.70	0.05	0.71	0.71
Capacity (c), veh/h	94	98	83	247	133	113	65	2531	1014	158	1347	1315
Volume-to-Capacity Ratio (X)	0.663	0.365	0.562	0.718	0.309	0.356	0.585	0.170	0.256	0.439	0.092	0.093
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	3.4	1.9	2.6	4.8	2.2	2.1	2.1	3.1	4.2	1.9	1.7	1.7
Queue Storage Ratio (RQ) (95 th percentile)	0.39	0.11	0.14	0.20	0.09	0.15	0.25	0.10	0.38	0.09	0.05	0.05
Uniform Delay (d_1), s/veh	55.9	55.0	55.6	54.6	53.0	53.2	57.0	6.1	6.6	55.8	5.4	5.4
Incremental Delay (d_2), s/veh	3.0	0.8	2.2	1.5	0.5	0.7	3.1	0.1	0.6	0.7	0.1	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	58.8	55.8	57.8	56.1	53.5	53.9	60.0	6.3	7.2	56.5	5.6	5.6
Level of Service (LOS)	E	E	E	E	D	D	E	A	A	E	A	A
Approach Delay, s/veh / LOS	57.8	E		55.3	E		9.4	A		16.8	B	
Intersection Delay, s/veh / LOS	24.1						C					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.38	B		2.05	B	
Bicycle LOS Score / LOS	0.61	A		0.91	A		1.09	A		0.75	A	

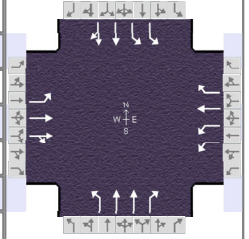
HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers		
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022
Jurisdiction	City of Fernley	Time Period	PM Peak Hour
Urban Street	US 95A	Analysis Year	2042 Baseline
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2042 Baseli...
Project Description	2042 Baseline - PM Peak Hour		

Intersection Information

Duration, h	0.250
Area Type	Other
PHF	0.92
Analysis Period	1 > 7:00



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	64	39	56	428	86	76	53	400	308	87	564	63

Signal Information

Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		10.7		22.6	9.1	77.0	9.7	77.6
Change Period, ($Y+R_c$), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s		6.5		17.5	5.8		5.2	
Green Extension Time (g_e), s		0.2		1.1	0.1	0.0	0.2	0.0
Phase Call Probability		1.00		1.00	0.85		0.96	
Max Out Probability		0.02		0.05	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	70	42	61	465	93	83	58	435	335	95	346	335
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1833
Queue Service Time (g_s), s	4.5	2.6	4.5	15.5	5.2	5.5	3.8	6.4	14.1	3.2	10.3	10.4
Cycle Queue Clearance Time (g_c), s	4.5	2.6	4.5	15.5	5.2	5.5	3.8	6.4	14.1	3.2	10.3	10.4
Green Ratio (g/C)	0.06	0.06	0.06	0.15	0.15	0.15	0.04	0.61	0.61	0.05	0.61	0.61
Capacity (c), veh/h	101	106	90	545	294	250	77	2200	881	168	1165	1124
Volume-to-Capacity Ratio (X)	0.691	0.401	0.680	0.854	0.317	0.331	0.746	0.198	0.380	0.562	0.297	0.298
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	3.9	2.3	3.4	11.5	4.5	4.0	3.3	4.5	8.2	2.5	7.8	7.6
Queue Storage Ratio (RQ) (95 th percentile)	0.44	0.13	0.19	0.48	0.19	0.28	0.39	0.15	0.73	0.13	0.26	0.25
Uniform Delay (d_1), s/veh	55.7	54.7	55.6	49.4	45.1	45.2	56.8	10.5	12.0	55.9	11.0	11.0
Incremental Delay (d_2), s/veh	3.1	0.9	3.3	5.1	0.2	0.3	5.3	0.2	1.2	1.1	0.7	0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	58.8	55.6	59.0	54.5	45.3	45.4	62.0	10.7	13.2	57.0	11.6	11.7
Level of Service (LOS)	E	E	E	D	D	D	E	B	B	E	B	B
Approach Delay, s/veh / LOS	58.1	E		52.0		D	15.3	B		17.2	B	
Intersection Delay, s/veh / LOS	28.7						C					

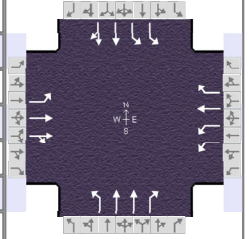
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.40	B		2.08	B	
Bicycle LOS Score / LOS	0.63	A		1.55	B		1.17	A		1.13	A	

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	AM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2042 with Project	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2042 with Pr...		
Project Description	2042 with Project - AM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	57	33	43	170	38	51	35	396	255	72	212	15

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	4.3	1.2	83.5	8.7	6.2	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		10.2		12.7	8.3	87.5	9.6	88.8
Change Period, ($Y+R_c$), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.2	3.1	0.0	3.1	0.0
Queue Clearance Time (g_s), s		6.0		8.2	4.5		4.6	
Green Extension Time (g_e), s		0.2		0.6	0.0	0.0	0.1	0.0
Phase Call Probability		0.99		1.00	0.72		0.93	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	62	36	47	185	41	55	38	430	277	78	124	123
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1856
Queue Service Time (g_s), s	4.0	2.2	3.4	6.2	2.5	4.0	2.5	4.9	8.6	2.6	2.5	2.5
Cycle Queue Clearance Time (g_c), s	4.0	2.2	3.4	6.2	2.5	4.0	2.5	4.9	8.6	2.6	2.5	2.5
Green Ratio (g/C)	0.05	0.05	0.05	0.07	0.07	0.07	0.04	0.70	0.70	0.05	0.71	0.71
Capacity (c), veh/h	93	98	83	256	138	117	65	2518	1008	163	1342	1311
Volume-to-Capacity Ratio (X)	0.663	0.365	0.562	0.723	0.299	0.473	0.585	0.171	0.275	0.481	0.092	0.094
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	3.4	1.9	2.6	5.0	2.1	2.9	2.1	3.2	4.7	2.1	1.7	1.7
Queue Storage Ratio (RQ) (95 th percentile)	0.39	0.11	0.14	0.21	0.09	0.21	0.25	0.11	0.42	0.10	0.06	0.06
Uniform Delay (d_1), s/veh	55.9	55.0	55.6	54.4	52.7	53.4	57.0	6.3	6.9	55.8	5.5	5.5
Incremental Delay (d_2), s/veh	3.0	0.8	2.2	1.5	0.4	1.1	3.1	0.1	0.7	0.8	0.1	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	58.9	55.8	57.8	55.9	53.2	54.5	60.0	6.4	7.5	56.6	5.7	5.7
Level of Service (LOS)	E	E	E	E	D	D	E	A	A	E	A	A
Approach Delay, s/veh / LOS	57.8	E		55.2	E		9.6	A		17.9	B	
Intersection Delay, s/veh / LOS	24.6						C					

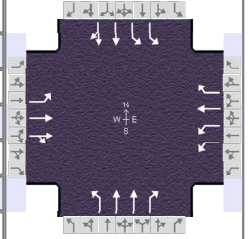
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.38	B		2.05	B	
Bicycle LOS Score / LOS	0.61	A		0.95	A		1.10	A		0.76	A	

HCS Signalized Intersection Results Summary

General Information

Agency	Westex Consulting Engineers			Duration, h	0.250
Analyst	Christopher Moltz, P.E.	Analysis Date	8/23/2022	Area Type	Other
Jurisdiction	City of Fernley	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 95A	Analysis Year	2042 with Project	Analysis Period	1> 7:00
Intersection	US 95A / Newlands	File Name	Signalized - US 95A and Newlands - 2042 with Pr...		
Project Description	2042 with Project - PM Peak Hour				



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	64	39	56	440	86	85	53	400	320	105	564	63

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	5.1	0.8	72.4	19.0	6.7	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	0.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		10.0		9.0	2.0	3.0	2.0	4.0
Phase Duration, s		10.7		23.0	9.1	76.4	9.9	77.2
Change Period, (Y+R _c), s		4.0		4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s		3.2		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		6.5		17.9	5.8		5.8	
Green Extension Time (g _e), s		0.2		1.1	0.1	0.0	0.2	0.0
Phase Call Probability		1.00		1.00	0.85		0.98	
Max Out Probability		0.03		0.07	0.00		0.00	

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	70	42	61	478	93	92	58	435	348	114	346	335
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1757	1900	1610	1810	1809	1449	1757	1900	1833
Queue Service Time (g_s), s	4.5	2.6	4.5	15.9	5.2	6.1	3.8	6.5	15.0	3.8	10.4	10.5
Cycle Queue Clearance Time (g_c), s	4.5	2.6	4.5	15.9	5.2	6.1	3.8	6.5	15.0	3.8	10.4	10.5
Green Ratio (g/C)	0.06	0.06	0.06	0.16	0.16	0.16	0.04	0.60	0.60	0.05	0.61	0.61
Capacity (c), veh/h	101	106	89	558	302	256	77	2183	874	172	1158	1117
Volume-to-Capacity Ratio (X)	0.692	0.402	0.680	0.857	0.310	0.361	0.746	0.199	0.398	0.662	0.299	0.300
Back of Queue (Q), ft/ln (95 th percentile)												
Back of Queue (Q), veh/ln (95 th percentile)	3.9	2.3	3.4	11.8	4.4	4.4	3.3	4.6	8.6	3.1	7.9	7.7
Queue Storage Ratio (RQ) (95 th percentile)	0.44	0.13	0.19	0.49	0.19	0.32	0.39	0.15	0.77	0.16	0.26	0.25
Uniform Delay (d_1), s/veh	55.7	54.7	55.6	49.2	44.7	45.0	56.8	10.7	12.4	56.1	11.2	11.2
Incremental Delay (d_2), s/veh	3.2	0.9	3.4	5.6	0.2	0.3	5.3	0.2	1.4	1.6	0.7	0.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	58.8	55.7	59.0	54.8	44.9	45.4	62.0	10.9	13.8	57.7	11.8	11.9
Level of Service (LOS)	E	E	E	D	D	D	E	B	B	E	B	B
Approach Delay, s/veh / LOS	58.1	E		52.1	D		15.6	B		18.4	B	
Intersection Delay, s/veh / LOS	29.3						C					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.47	B		2.47	B		2.40	B		2.08	B	
Bicycle LOS Score / LOS	0.63	A		1.58	B		1.18	A		1.14	A	

**ATTACHMENT 17 – PHOTOS OF TRAFFIC BACKED UP ON US 95A
SOUTHBOUND (PM PEAK HOUR)**



