# Red Bluff Apartments
# Traffic Impact Analysis

*Red Bluff, California*

April 6, 2022

Prepared by:

TJW ENGINEERING, INC.
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TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

April 6, 2022

Mr. Mitch Slagerman
*PALM COMMUNITIES*
100 Pacifica, Suite 203
Irvine, CA 92618

**Subject: Red Bluff Apartments Traffic Impact Analysis, City of Red Bluff**

Dear Mr. Slagerman:

*TJW ENGINEERING, INC.* (TJW) is pleased to present you with this traffic impact analysis for the proposed Red Bluff Apartments project located at 321 South Jackson Street in the City of Red Bluff.

This traffic study has been prepared to meet the traffic study requirements for the City of Red Bluff and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Red Bluff.

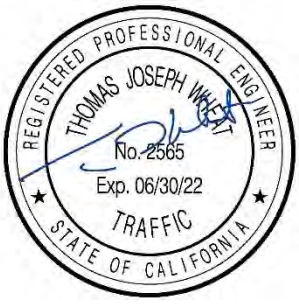
Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

Thomas Wheat, PE, TE
President

David Chew, PTP
Transportation Planner

Registered Civil Engineer *#69467*
Registered Traffic Engineer *#2565*


Brandon Alvarado, EIT
Transportation Planner

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# 1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the development of the Red Bluff Apartments project located at 321 South Jackson Street in the City of Red Bluff. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Red Bluff via a scoping agreement (See **Appendix B**).

The proposed project consists of constructing 61 affordable apartments. Site access is planned via a full access driveway on Jackson Street (aligned with Olive Street). The proposed project is anticipated to be fully built and generating trips in 2025. To account for ambient growth on roadways, *Existing* traffic volumes have been increased by a growth rate of 2% per year over a three-year period for Project Opening Year conditions.

The proposed project is projected to generate 293 daily trips, 22 AM peak hour trips, and 28 PM peak hour trips.

The following 5 intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Jackson Street / Aloha Street
2. Jackson Street / Lay Avenue
3. Jackson Street / Reeds Avenue
4. Jackson Street / Luther Road
5. Jackson Street / Olive Street - Project Driveway

The following roadway segment in the vicinity of the project site has been included in the roadway segment LOS analysis:

1. Jackson Street from Lay Avenue to Reeds Avenue

The study intersections and roadway segments have been analyzed for the following study scenarios:

- Existing Year 2022 Traffic Conditions ("*Existing*")
- Opening Year 2025 Without Project Conditions ("*Opening Year Without Project*")
    - Existing + Ambient
- Opening Year 2025 With Project Conditions ("*Opening Year With Project*")
    - Existing + Ambient + Project

## 1.1 SUMMARY OF LEVEL OF SERVICE ANALYSIS RESULTS

The table below summarizes the results of the intersection LOS analysis based on the City of San Bernardino thresholds of significance for analyzing transportation deficiencies.

Summary of Transportation Deficiencies at Study Intersections

| Intersection | | | Opening Year With Project |
|---|---|---|---|
| 1 | Jackson Street | Aloha Street | No Deficiencies |
| 2 | Jackson Street | Lay Avenue | No Deficiencies |
| 3 | Jackson Street | Reeds Avenue | No Deficiencies |
| 4 | Jackson Street | Luther Road | No Deficiencies |
| 5 | Jackson Street | Olive Street – Project Driveway | No Deficiencies |

Existing Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Existing* conditions.

Opening Year Without Project Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Opening Year Without Project* conditions.

Opening Year With Project Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Opening Year With Project* conditions.

## 1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Wherever necessary, roadways adjacent to the proposed project site and site access points will be constructed in compliance with recommended roadway classifications and respective cross-sections in the City of Red Bluff General Plan or as directed by the City Engineer.

Sight distance at each project access point should be reviewed with respect to standard City sight distance standards at the time of final grading, landscaping and street improvement plans.

Signing/striping should be implemented in conjunction with detailed construction plans for the project site.

# 2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the development of the Red Bluff Apartments project located at 321 South Jackson Street in the City of Red Bluff. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Red Bluff via a scoping agreement (See **Appendix B**).

## 2.1 PROJECT DESCRIPTION

The proposed project consists of constructing 61 affordable apartments. Site access is planned via a full access driveway on Jackson Street (aligned with Olive Street). The proposed project is anticipated to be fully built and generating trips in 2025. To account for ambient growth on roadways, *Existing* traffic volumes have been increased by a growth rate of 2% per year over a three-year period for Project Opening Year conditions.

**Exhibit 1** shows the project site location and study area. **Exhibit 2** shows the proposed project site plan.

## 2.2 STUDY AREA

The following 5 intersections in the vicinity of the project site have been included in the intersection level of service (LOS) analysis:

1. Jackson Street / Aloha Street
2. Jackson Street / Lay Avenue
3. Jackson Street / Reeds Avenue
4. Jackson Street / Luther Road
5. Jackson Street / Olive Street - Project Driveway

The following roadway segment in the vicinity of the project site has been included in the roadway segment LOS analysis:

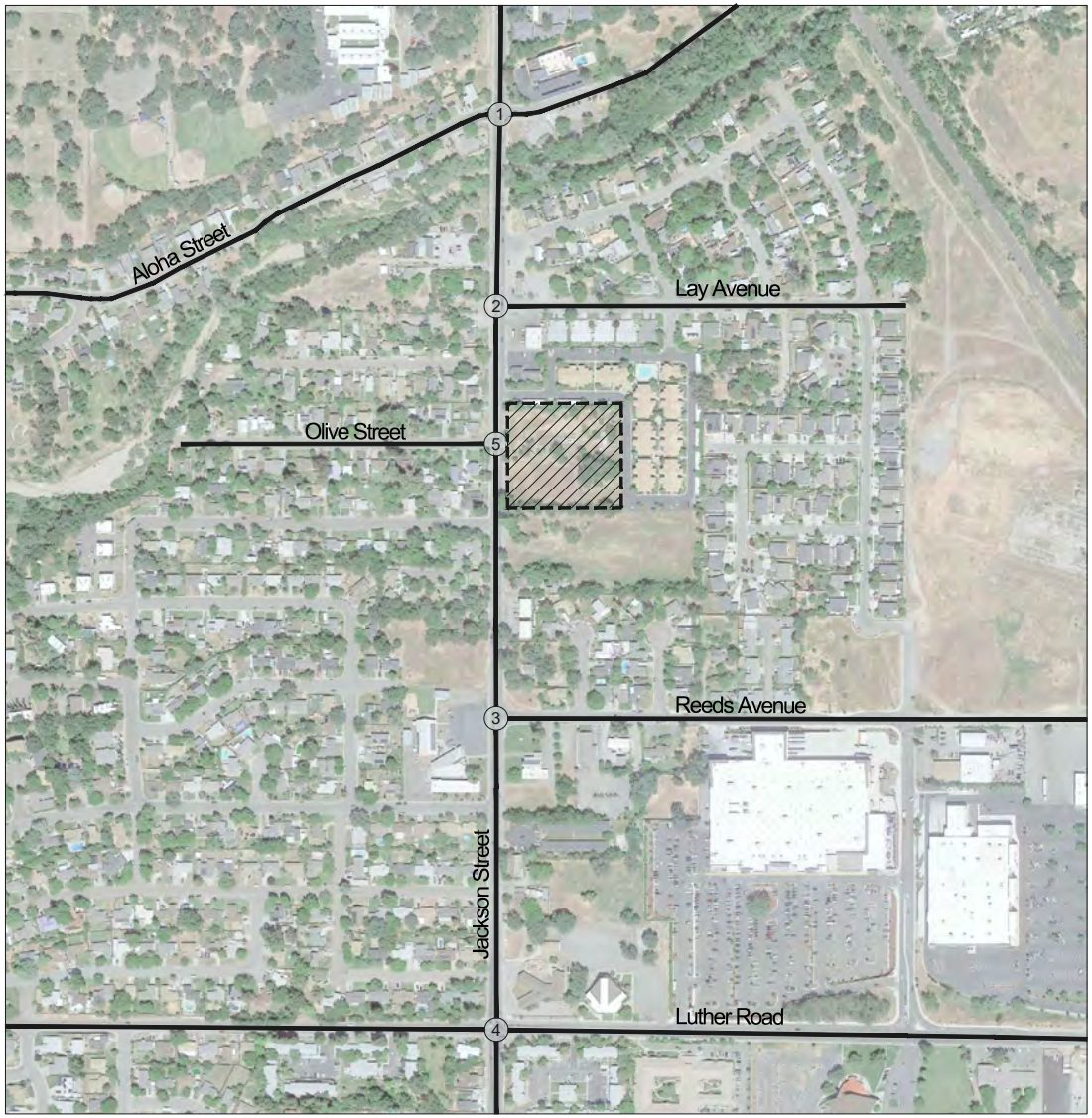
1. Jackson Street from Lay Avenue to Reeds Avenue

**Exhibit 1** shows the location of the study intersections and roadway segments which are analyzed for the following study scenarios:

- Existing Year 2022 Traffic Conditions ("*Existing*")
- Opening Year 2025 Without Project Conditions ("*Opening Year Without Project*")
    - Existing + Ambient
- Opening Year 2025 With Project Conditions ("*Opening Year With Project*")
    - Existing + Ambient + Project

Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring within 7:00 AM to 9:00 AM
- Weekday PM Peak Hour occurring within 4:00 PM to 6:00 PM




Legend:

- Project Site
- (#) Study Intersection Location

Not to Scale

## Exhibit 1: Project Location

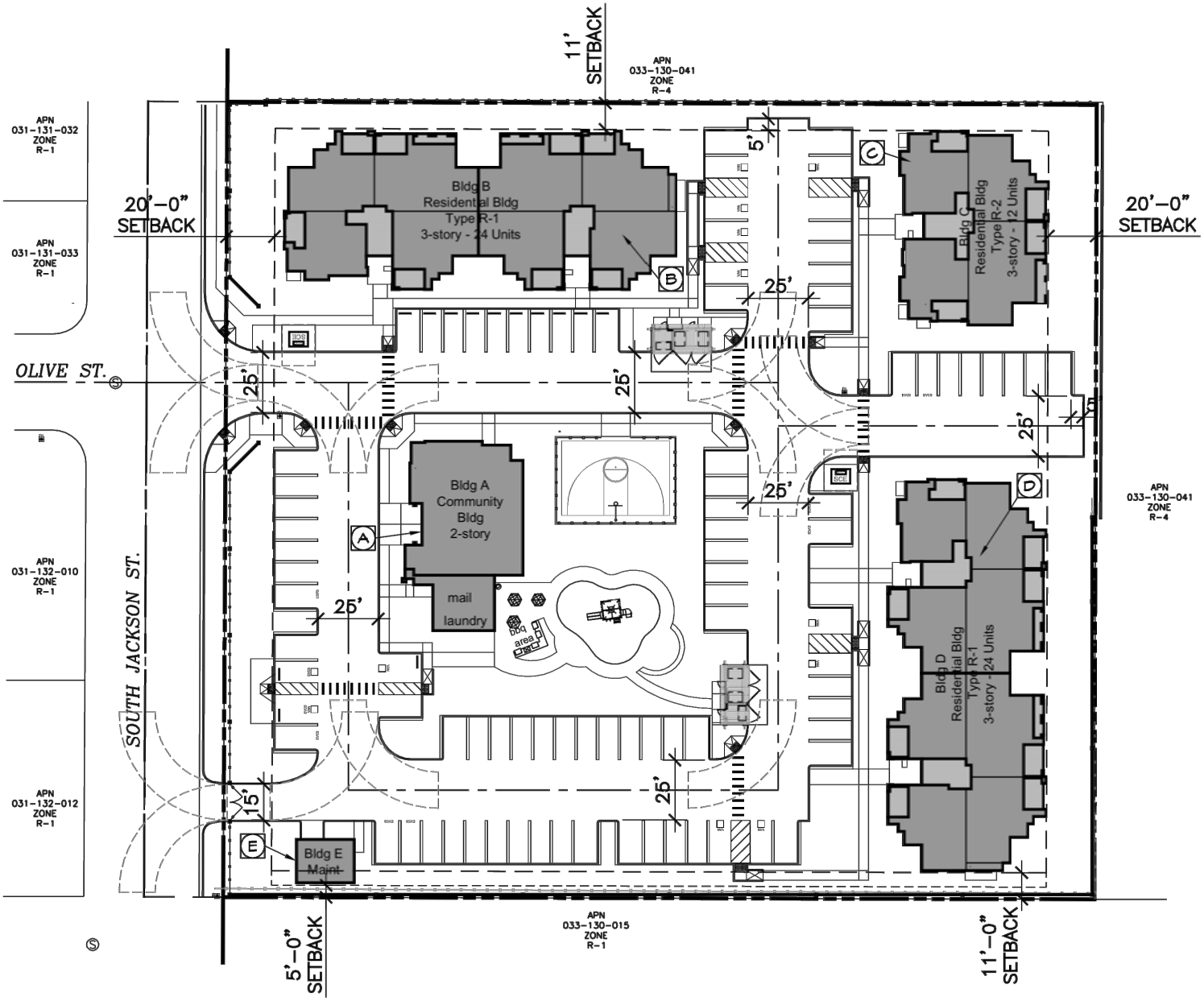



Exhibit 2: Proposed Project Site Plan



TJW ENGINEERING, INC.

Not to Scale

# 3.0 METHODOLOGY

## 3.1 INTERSECTION ANALYSIS METHODOLOGY

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops).

Analysis of signalized intersections within the City of Red Bluff is based on the Intersection Capacity Utilization (ICU) methodology. The ICU methodology compares the traffic volume using the intersection to the capacity of the intersection. The resulting volume-to-capacity ratio represents that portion of the total hourly capacity required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The table below describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

ICU – LOS & V/C Ranges – Signalized Intersections

| Level of Service | Description | Volume/Capacity Ratio |
|---|---|---|
| A | Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. Intersection delays are very short, less than 5 seconds. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent. | ≤ 0.60 |
| B | Stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. Intersection delays are somewhat increased, to between 5 and 15 seconds. The level of comfort and convenience provided is somewhat less that at LOS A because the presence of others in the traffic stream begins to affect individual behavior. | 0.61 – 0.70 |
| C | Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. Intersection delays are in the range of 15 to 25 seconds. The general level of comfort and convenience declines noticeably at this level. | 0.71 – 0.80 |

| | | |
|---|---|---|
| D | High-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Intersection delays are between 25 and 40 seconds. Small increases in traffic flow will generally cause operational problems at this level. | 0.81 – 0.90 |
| E | Represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to 'give way' to accommodate such maneuvers. Intersection delays range between 40 to 60 seconds. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow and minor perturbations within the traffic stream will cause breakdowns. | 0.91 – 1.00 |
| F | Forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can transverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Intersection delays are greater than 60 seconds. Level-of-service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases, operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow, which causes the queue to form, and level-of-service F is an appropriate designation for such points. | ≥ 1.01 |

Source: City of Red Bluff, *Circulation Element Intent*, August 1991.

Collected peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. It is a common practice in LOS analysis to conservatively use a peak 15-minute flow rate applied to the entire hour to derive flow rates in vehicles per hour that are used in the LOS analysis. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume.

PHF = [Hourly Volume]/ [4 * Peak 15-Minute Volume]

The use of a 15-minute PHF produces a more detailed and conservative analysis compared to analyzing vehicles per hour. Existing PHFs obtained from the existing traffic counts have been used for all analysis scenarios in this study.

The *Highway Capacity Manual (HCM) 6* (Transportation Research Board, 2016) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control. Unsignalized intersection operations have been analyzed utilizing the HCM 6$^{th}$ Edition methodology. Intersection operation for unsignalized intersections is based on the weighted average control delay expressed in seconds per vehicle.

At a two-way or side-street stop-controlled intersections, LOS is calculated for each stop-controlled minor street movement, for the left-turn movement(s) from the major street, and for the intersection as a whole. For approaches consisting of a single lane, the delay is calculated as the average of all movements in that lane. For all-way stop-controlled intersection, LOS is computed for the intersection as a whole.

The table below describes the general characteristics of traffic flow and accompanying delay ranges at unsignalized intersections.

HCM – LOS & Delay Ranges – Unsignalized Intersections

| Level Of Service | Description | Delay (in seconds) |
|---|---|---|
| A | Little or no delays. | 0 – 10.00 |
| B | Short traffic delays. | 10.01 – 15.00 |
| C | Average traffic delays. | 15.01 – 25.00 |
| D | Long traffic delays. Multiple vehicles in queue. | 25.01 – 35.00 |
| E | Very long delays. Demand approaching capacity of intersection | 35.01 – 50.00 |
| F | Very constrained flow with extreme delays and intersection capacity exceeded. | > 50.01 |

Source: Transportation Research Board, *Highway Capacity Manual*, HCM6 Edition (Washington D.C., 2016).

Intersection analysis has been performed utilizing *PTV Vistro 2022* analysis software for all signalized and unsignalized intersections.

## 3.2 ROADWAY SEGMENT ANALYSIS METHODOLOGY

LOS for roadway segments is based on volume/capacity ratio (V/C). Roadway capacities for various types of facilities have been referenced from the *Tehama County General Plan Update 2009-2029* (March 2009). The capacities for each type of facility are defined below.

County of Tehama Roadway Capacities

| Facility Type | Capacity |
|---|---|
| Local/Minor | 2,000 Vehicles Per Day |
| Collector | 12,000 Vehicles Per Day |
| Minor Arterial | 23,500 Vehicles Per Day |
| Major Arterial | 35,000 Vehicles Per Day |

The table below describes the LOS and V/C ranges for roadway segments.

LOS & V/C Ranges – Roadway Segments

| Level of Service | Volume/Capacity Ratio |
|---|---|
| A | ≤ 0.60 |
| B | 0.61 – 0.70 |
| C | 0.71 – 0.80 |
| D | 0.81 – 0.90 |
| E | 0.91 – 1.00 |
| F | ≥ 1.01 |

## 3.3 CITY OF RED BLUFF PERFORMANCE CRITERIA

The City of Red Bluff has established level of service "C" or better as acceptable LOS for all intersections along the designated street and highway system in the City's General Plan Circulation Element. As such, intersections operating at LOS D, E, or F will be considered deficient.

A transportation deficiency occurs if the addition of Project trips to an intersection that is operating at an acceptable LOS (i.e., LOS A, B, or C) causes the intersection to operate at an unacceptable LOS (i.e., LOS D, E, or F).

# 4.0 EXISTING CONDITIONS

## 4.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The characteristics of the roadway system in the vicinity of the proposed project are described in **Table 1.**

**Exhibit 3** shows *Existing* conditions lane geometry and intersection controls.

## 4.2 CITY OF RED BLUFF GENERAL PLAN CIRCULATION PLAN

The proposed project site is located within the City of Red Bluff. **Appendix C** contains the current *City of Red Bluff General Plan Circulation Plan* and an explanation of roadway cross sections.

## 4.3 EXISTING PUBLIC TRANSIT SERVICES

The City of Red Bluff is served by Tehama Rural Area eXpress (TRAX), which is a fixed route bus service connecting Red Bluff, Corning, Los Molinos, Gerber, Tehama, and places in between. **Appendix C** shows the TRAX routes in the vicinity of the project site.

TRAX Route 2 runs along Jackson Street and Reeds Avenue within the study area. The nearest Route 2 stop to the project site is located north of the intersection of Jackson Street/Lay Avenue. This stop is approximately 0.12 miles away from the proposed project.

## 4.4 EXISTING TRAFFIC VOLUMES

To determine the existing operation of the study intersections, AM and PM peak period traffic volumes were estimated based on new traffic counts collected on Tuesday March 1, 2022 and Tuesday March 15, 2022. Detailed traffic count data is provided in **Appendix D**.

**Exhibit 4** and **Exhibit 5** show *Existing* AM and PM peak hour volumes at the study intersections.

## 4.5 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

*Existing* conditions AM and PM peak hour intersection analysis is shown in **Table 2**. Calculations are based on the existing geometrics at the study area intersections as shown in **Exhibit 3**. HCM analysis sheets are provided in **Appendix E**.

As shown in **Table 2**, the study intersections are currently operating at an acceptable LOS during the AM and PM peak hours for *Existing* conditions.

## 4.6 EXISTING CONDITIONS ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS

**Table 3** summarizes *Existing* conditions roadway segment analysis based on the LOS capacities referenced in the *Tehama County General Plan Update 2009-2029* (March 2009).

As shown in **Table 3,** the study roadway segments are currently operating at an acceptable LOS.

**Table 1**
Roadway Characteristics Within Study Area

| Roadway | Classification[1] | Jurisdiction | Direction | Existing Travel Lanes | Median Type[2] | Speed Limit (mph) | On-Street Parking |
|---|---|---|---|---|---|---|---|
| Jackson | Minor Arterial | City of Red Bluff | North-South | 2 | NM/ TWLTL | 35 | No |
| Aloha | Collector | City of Red Bluff | East-West | 2 | NM | 25/30 | Yes/No |
| Lay | Local | City of Red Bluff | East-West | 2 | NM | 25 | Yes |
| Olive | Local | City of Red Bluff | East-West | 2 | NM | 25 | Yes |
| Reeds | Local | City of Red Bluff | East-West | 2 | NM | 25 | Yes |
| Luther | Minor Arterial | City of Red Bluff | East-West | 2 | NM | 35 | Yes/No |

1: Source: City of Red Bluff Circulation Element Existing/Proposed Circulation Map (February 4, 2008).

2: NM = No Median; TWLTL = Two-Way Left-Turn Lane.

**Table 2**
Intersection Analysis - Existing Conditions

| Intersection | | | Control Type[1] | Peak Hour | Existing | |
|---|---|---|---|---|---|---|
| | | | | | Delay[2] / [V/C][3] | LOS |
| 1 | Jackson Street | Aloha Street | AWSC | AM | 19.0 | C |
| | | | | PM | 14.6 | B |
| 2 | Jackson Street | Lay Avenue | TWSC | AM | 12.7 | B |
| | | | | PM | 11.4 | B |
| 3 | Jackson Street | Reeds Avenue | TWSC | AM | 12.0 | B |
| | | | | PM | 12.4 | B |
| 4 | Jackson Street | Luther Road | Signal | AM | [0.743] | C |
| | | | | PM | [0.719] | C |
| 5 | Jackson Street | Olive Street | TWSC | AM | 15.5 | C |
| | | | | PM | 14.1 | B |

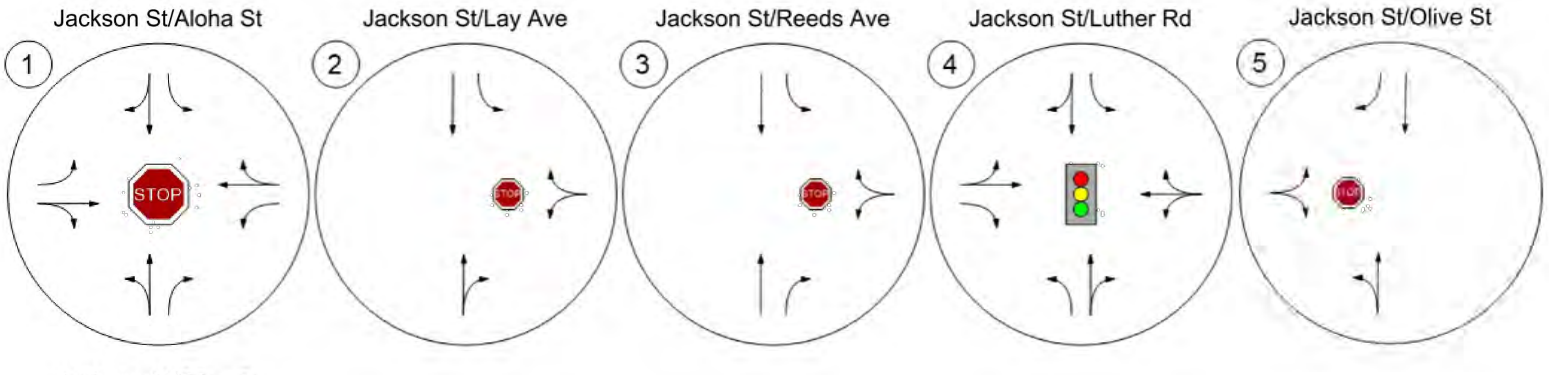
1: AWSC = All-Way Stop Controlled; TWSC = Two-Way Stop Controlled.
2: Delay is shown in seconds per vehicle. Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.
3: V/C = Volume/Capacity.

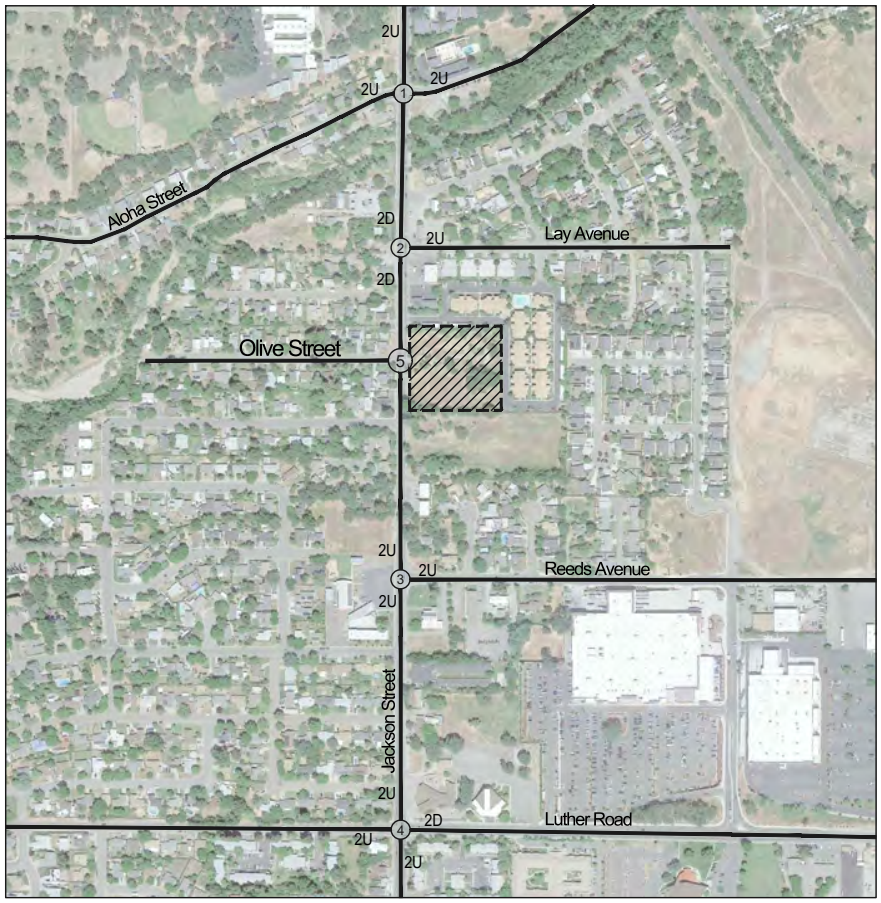
**Table 3**
Roadway Segment Analysis - Existing Conditions

| Roadway Segment | Cross Section[1] | Capacity[2] | Existing | | |
|---|---|---|---|---|---|
| | | | ADT | V/C | LOS |
| Jackson Street from Lay Avenue to Reeds Avenue | 2U | 23,500 | 9,586 | 0.41 | A |

1: 2U = two-lane undivided roadway.

2: Capacity based on Tehama County General Plan Update 2009-2029 (March 2009).




Legend:

- Project Site
- 2U 2-Lane Undivided Roadway
- 2D 2-Lane Divided Roadway

Not to Scale

## Exhibit 3: Lane Geometry and Intersection Controls

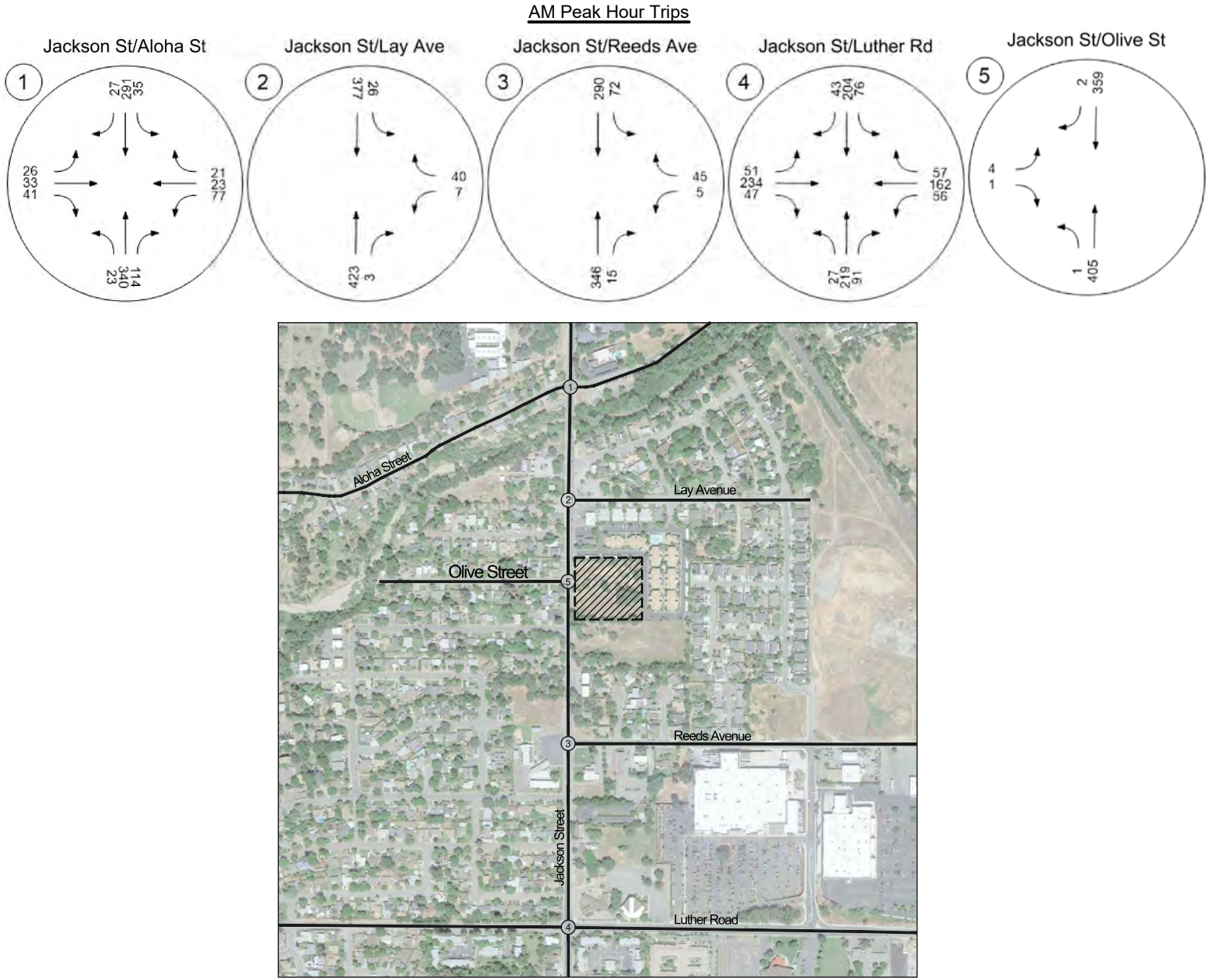



Exhibit 4: Existing AM Peak Hour Volumes

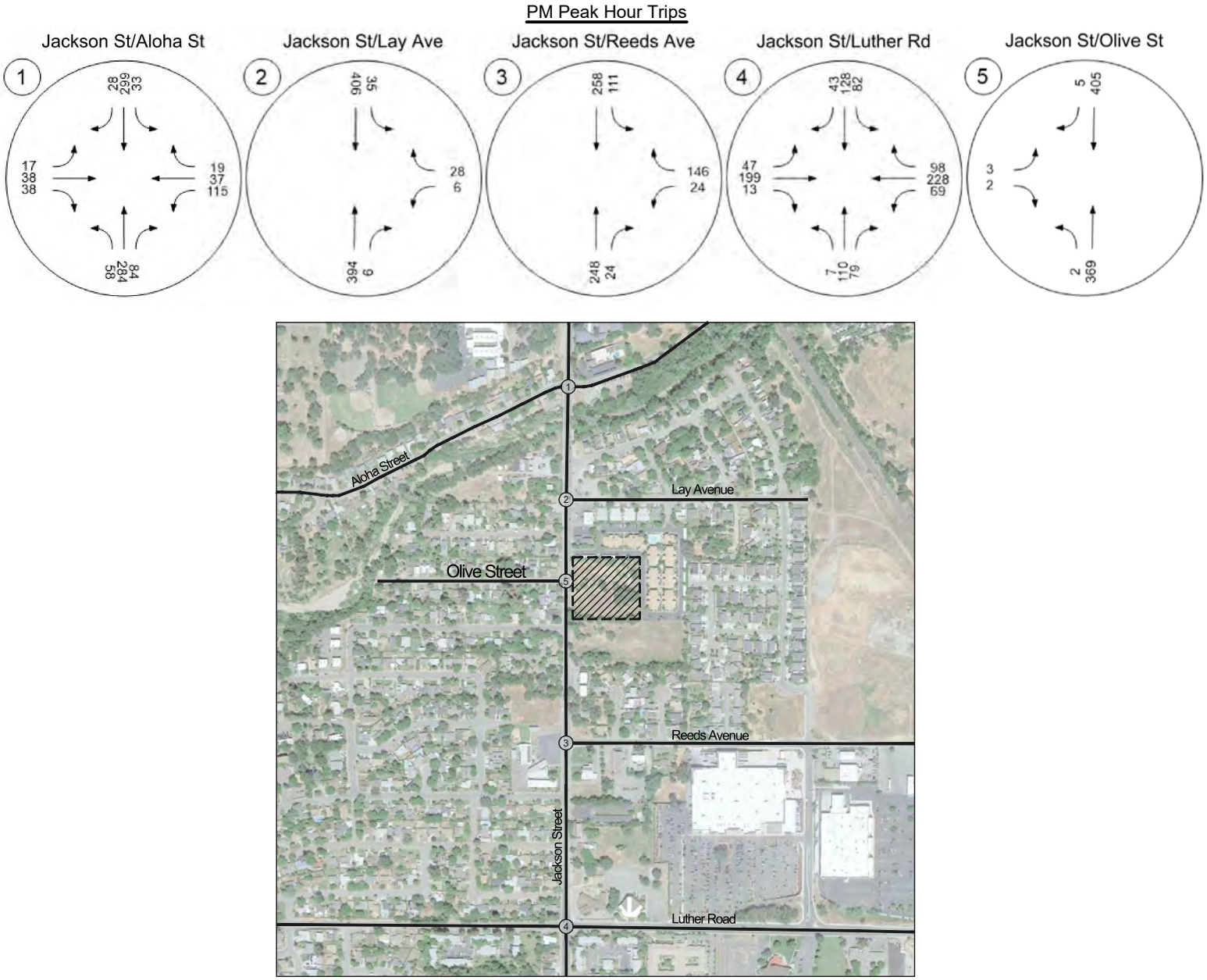



Exhibit 5: Existing PM Peak Hour Volumes



Not to Scale

# 5.0 PROPOSED PROJECT

## 5.1 PROJECT DESCRIPTION

The proposed project consists of constructing 61 affordable apartments. Site access is planned via a full access driveway on Jackson Street (aligned with Olive Street). A conceptual striping plan showing site access upon project completion is presented in **Exhibit 6**.

The proposed project is anticipated to be fully built and generating trips in 2025. To account for ambient growth on roadways, *Existing* traffic volumes have been increased by a growth rate of 2% per year over a three-year period for Project Opening Year conditions.

## 5.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021)* trip generation rates were used to determine trip generation of for the proposed project land use.

**Table 4** summarizes the projected AM peak hour, PM peak hour and daily trip generation of the proposed project. The proposed project is projected to generate 293 daily trips, 22 AM peak hour trips, and 28 PM peak hour trips.

## 5.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site.

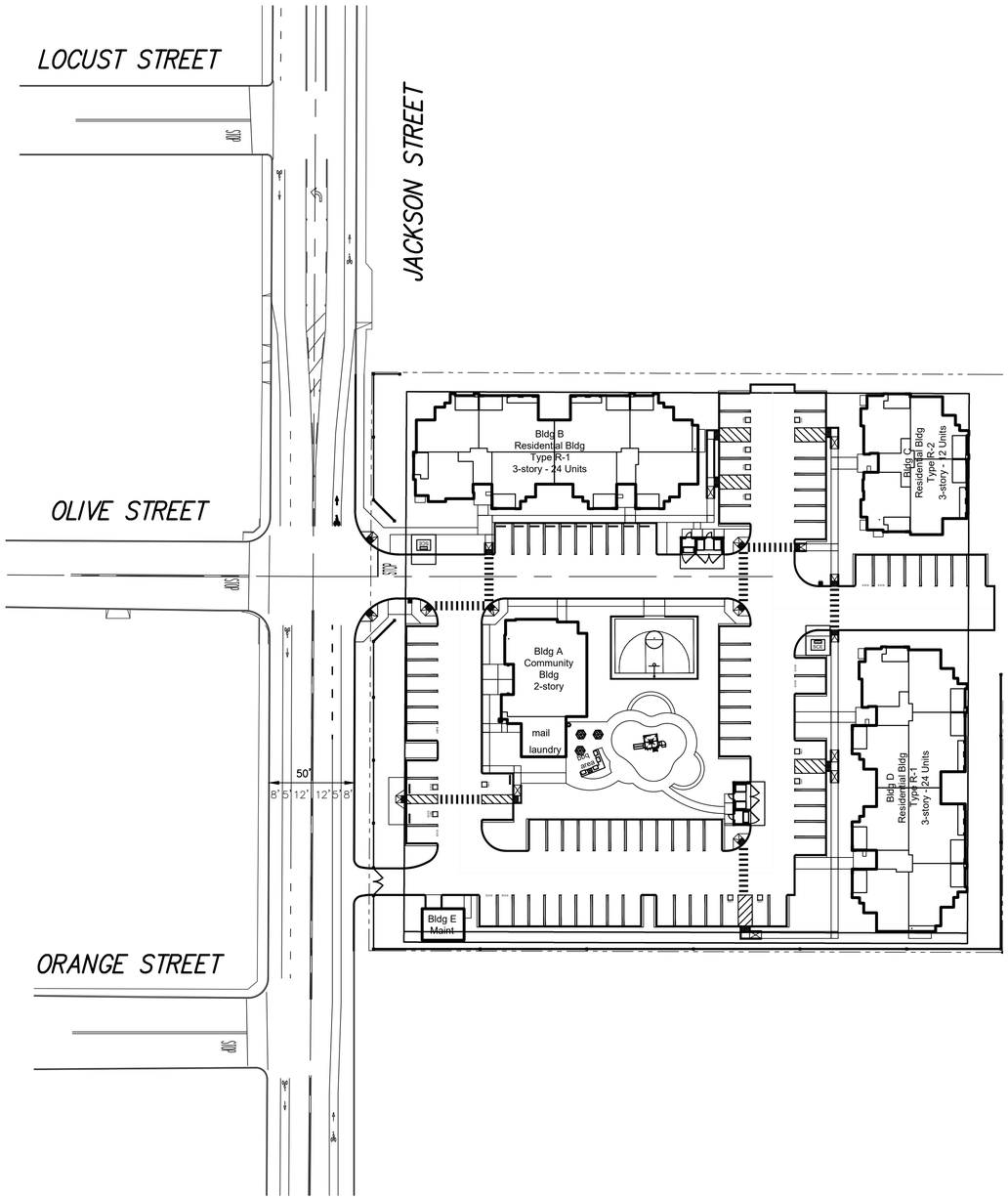
**Exhibit 7** shows the projected trip distribution of proposed project trips. **Exhibit 8** and **Exhibit 9** show the AM and PM peak hour project trip assignment.

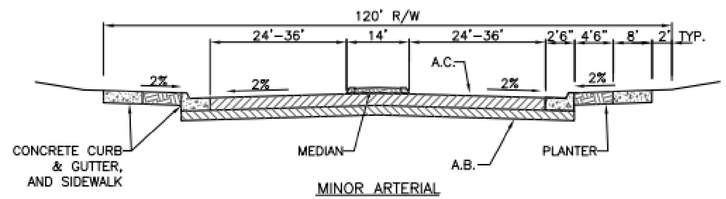
**Table 4**
Project Trip Generation

| Proposed Land Use[1] | ITE Code | Qty | Unit[2] | Daily | | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Volume | Rate | In:Out Split | Volume | | | Rate | In:Out Split | Volume | | |
| | | | | | | | | In | Out | Total | | | In | Out | Total |
| Affordable Housing | 223 | 61 | DU | 4.81 | 293 | 0.36 | 29:71 | 6 | 16 | 22 | 0.46 | 59:41 | 17 | 11 | 28 |

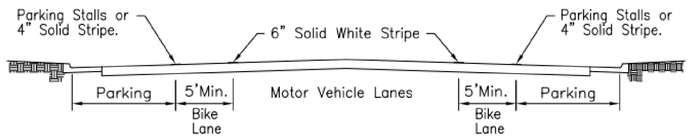
1: Trip generation and pass-by rates from ITE Trip Generation (11th Edition, 2021).

2: DU = Dwelling Units.




MINOR ARTERIAL




(1) STRIPED PARKING

EXHIBIT 6: CONCEPTUAL STRIPING PLAN
JACKSON STREET
Date: 04/05/22



REGISTERED PROFESSIONAL ENGINEER
THOMAS JOSEPH WHEAT
No. 69467
Exp. 6/30/22
CIVIL
STATE OF CALIFORNIA

PREPARED BY:
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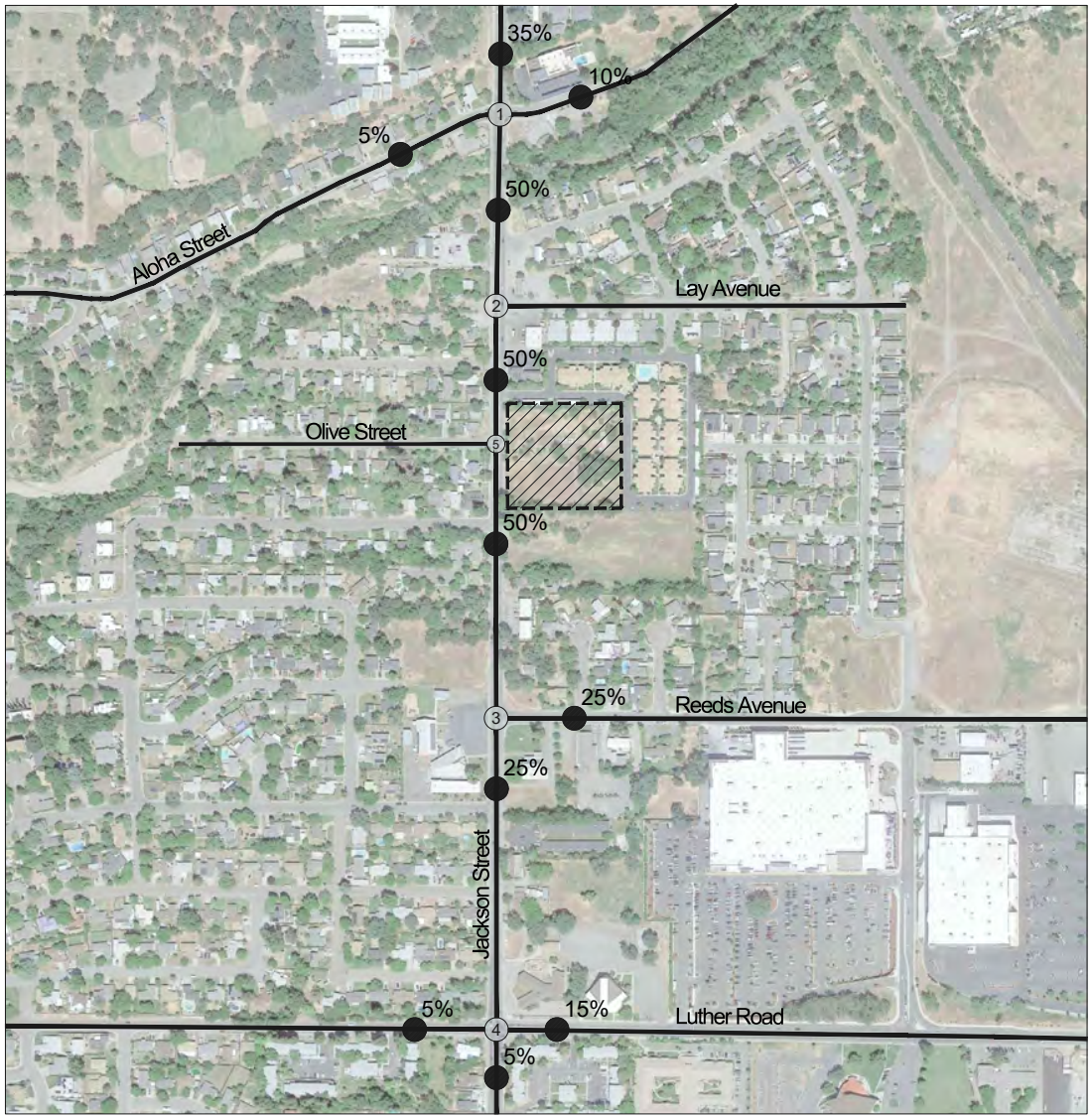
SCALE: 1" = 40'
20 0 20 40 60
24x36 PLOT

EXHIBIT 'A': CONCEPT STRIPING PLAN

Plot Date: 04/5/2022 3:27:00 PM User: #### File Name: C:\Users\Daniel\Dropbox (TJW Engineering Inc.)\TJW Projects\PAL Projects\PAL-22-001\PAL22001 Exhibit\PAL22001 Jackson Street Concept Striping.dwg Last Update: 4/5/2022 2:58:40 PM




Legend:

- Project Site
- XX% Percent Trip Distribution
- (#) Study Intersection Location

## Exhibit 7: Project Trip Distribution


## Exhibit 8: Project AM Peak Hour Volumes


Exhibit 9: Project PM Peak Hour Volumes

# 6.0 OPENING YEAR WITHOUT PROJECT CONDITIONS

*Opening Year Without Project* traffic conditions analysis is intended to identify baseline conditions in the near-term without the proposed project and without ambient growth.

## 6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Opening Year Without Project* scenario are consistent with those previously shown in **Exhibit 3**.

## 6.2 OPENING YEAR WITHOUT PROJECT TRAFFIC VOLUMES

*Opening Year Without Project* volumes include background traffic. Since the proposed project is expected to be built and generating trips in 2025, *Opening Year Without Project* volumes include a growth rate of 2% per year for three years applied to *Existing* volumes.

*Opening Year Without Project* Volumes = *Existing* (2022) Counts * 1.02^3

**Exhibit 10** and **Exhibit 11** show *Opening Year Without Project* AM and PM peak hour volumes at the study intersections.

## 6.3 OPENING YEAR WITHOUT PROJECT LEVEL OF SERVICE ANALYSIS

*Opening Year Without Project* AM and PM peak hour intersection analysis is shown in **Table 5**. HCM analysis sheets are provided in **Appendix E**.

As shown in **Table 5,** the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *Opening Year* conditions.

## 6.4 OPENING YEAR WITHOUT PROJECT ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS

**Table 6** summarizes *Opening Year Without Project* conditions roadway segment analysis based on the LOS capacities referenced in the *Tehama County General Plan Update 2009-2029* (March 2009).

As shown in **Table 6,** the study roadway segments are projected to continue operating at an acceptable LOS.

**Table 5**
Intersection Analysis - Opening Year Without Project Conditions

| Intersection | | | Control Type[1] | Peak Hour | Opening Year Without Project | |
|---|---|---|---|---|---|---|
| | | | | | Delay[2] / [V/C][3] | LOS |
| 1 | Jackson Street | Aloha Street | AWSC | AM | 22.6 | C |
| | | | | PM | 16.1 | C |
| 2 | Jackson Street | Lay Avenue | TWSC | AM | 13.1 | B |
| | | | | PM | 11.6 | B |
| 3 | Jackson Street | Reeds Avenue | TWSC | AM | 12.4 | B |
| | | | | PM | 12.9 | B |
| 4 | Jackson Street | Luther Road | Signal | AM | [0.780] | C |
| | | | | PM | [0.756] | C |
| 5 | Jackson Street | Olive Street | TWSC | AM | 16.3 | C |
| | | | | PM | 14.7 | B |

1: AWSC = All-Way Stop Controlled; TWSC = Two-Way Stop Controlled.
2: Delay is shown in seconds per vehicle. Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.
3: V/C = Volume/Capacity.

**Table 6**
Roadway Segment Analysis - Opening Year Without Project Conditions

| Roadway Segment | Cross Section[1] | Capacity[2] | Opening Year Without Project | | |
|---|---|---|---|---|---|
| | | | ADT | V/C | LOS |
| Jackson Street from Lay Avenue to Reeds Avenue | 2U | 23,500 | 10,173 | 0.43 | A |

1: 2U = two-lane undivided roadway.

2: Capacity based on Tehama County General Plan Update 2009-2029 (March 2009).

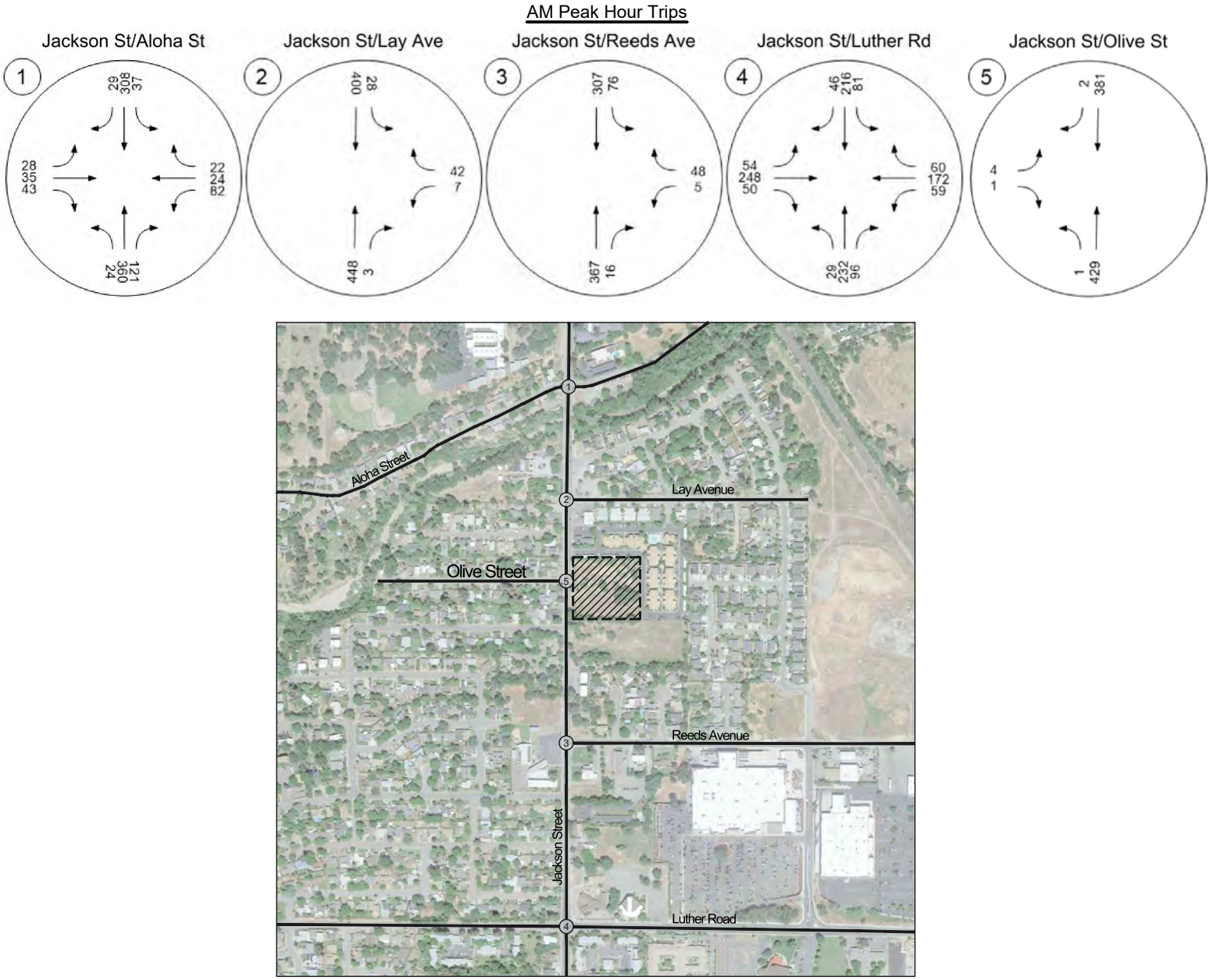



Exhibit 10: Opening Year Without Project AM Peak Hour Volumes

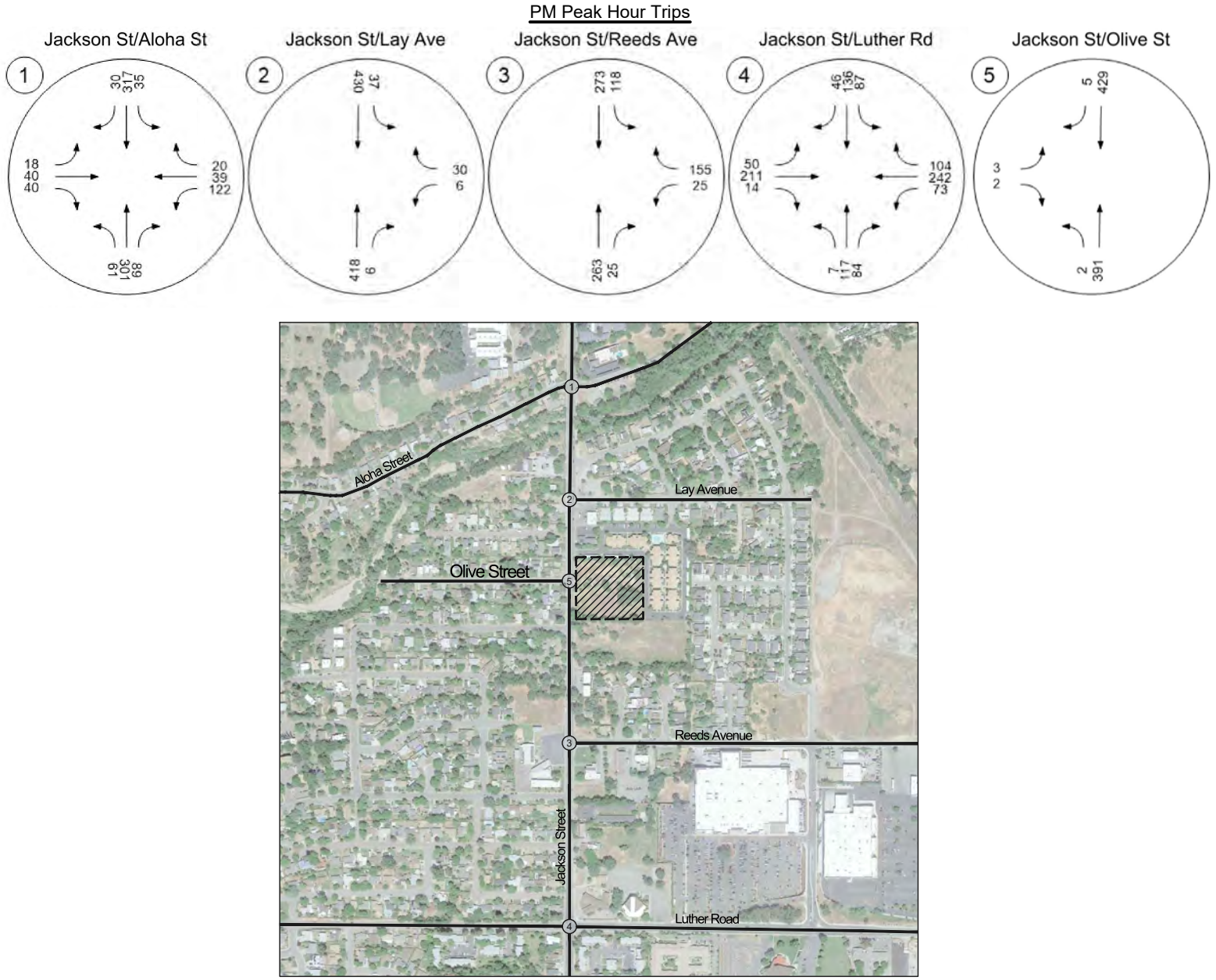



Exhibit 11: Opening Year Without Project PM Peak Hour Volumes

# 7.0 OPENING YEAR WITH PROJECT CONDITIONS

*Opening Year With Project* conditions analysis is intended to identify the project-related impacts on the planned near-term circulation system.

## 7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Opening Year With Project* scenario are consistent with those previously shown in **Exhibit 3**. The project driveway will align with Olive Street and will be stop controlled.

## 7.2 OPENING YEAR WITH PROJECT TRAFFIC VOLUMES

*Opening Year With Project* volumes include background traffic plus the addition of the traffic projected to be generated by the proposed project. Since the proposed project is expected to be fully completed and generating trips in 2025, *Opening Year With Project* volumes include an ambient growth rate of 2% per year for three years applied to *Existing* volumes**.**

*Opening Year With Project* Volumes = (*Existing* (2022) Counts * 1.02^3) + Project Volume

**Exhibit 12** and **Exhibit 13** show *Opening Year With Project* AM and PM peak hour volumes at the study intersections.

## 7.3 OPENING YEAR WITH PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

*Opening Year With Project* conditions AM and PM peak hour intersection analysis is shown in **Table 7.** HCM analysis sheets are provided in **Appendix E**.

As shown in **Table 7**, the study intersections are projected to continue to operate at an acceptable LOS during the AM and PM peak hours for *Opening Year With Project* conditions.

A transportation deficiency occurs if the addition of Project trips to an intersection that is operating at an acceptable LOS (i.e., LOS A, B, or C) causes the intersection to operate at an unacceptable LOS (i.e., LOS D, E, or F). All study area intersections are projected to continue to operate at an acceptable LOS; therefore, the project does not cause a deficiency and no improvements are required.

## 7.4 OPENING YEAR WITH PROJECT ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS

**Table 8** summarizes *Opening Year With Project* conditions roadway segment analysis based on the LOS capacities referenced in the *Tehama County General Plan Update 2009-2029* (March 2009).

As shown in **Table 8**, the study roadway segments are projected to continue operating at an acceptable LOS.

**Table 7**
Intersection Analysis - Opening Year With Project Conditions

| Intersection | | | Control Type[1] | Peak Hour | Opening Year Without Project | | Opening Year With Project | | Change | Impact? |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Delay[2] / [V/C][3] | LOS | Delay[2] / [V/C][3] | LOS | | |
| 1 | Jackson Street | Aloha Street | AWSC | AM | 22.6 | C | 23.5 | C | 0.9 | No |
| | | | | PM | 16.1 | C | 16.5 | C | 0.4 | No |
| 2 | Jackson Street | Lay Avenue | TWSC | AM | 13.1 | B | 13.2 | B | 0.1 | No |
| | | | | PM | 11.6 | B | 11.7 | B | 0.1 | No |
| 3 | Jackson Street | Reeds Avenue | TWSC | AM | 12.4 | B | 12.4 | B | 0.0 | No |
| | | | | PM | 12.9 | B | 13.1 | B | 0.1 | No |
| 4 | Jackson Street | Luther Road | Signal | AM | [0.780] | C | [0.782] | C | 0.0 | No |
| | | | | PM | [0.756] | C | [0.761] | C | 0.0 | No |
| 5 | Jackson Street | Olive Street | TWSC | AM | 16.3 | C | 18.9 | C | 2.6 | No |
| | | | | PM | 14.7 | B | 16.7 | C | 2.0 | No |

1: AWSC = All-Way Stop Controlled; TWSC = Two-Way Stop Controlled.

2: Delay is shown in seconds per vehicle. Per the Highway Capacity Manual 6th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

3: V/C = Volume/Capacity.

**Table 8**
Roadway Segment Analysis - Opening Year With Project Conditions

| Roadway Segment | Cross Section[1] | Capacity[2] | Opening Year Without Project | | | Opening Year With Project | | |
|---|---|---|---|---|---|---|---|---|
| | | | ADT | V/C | LOS | ADT | V/C | LOS |
| Jackson Street from Lay Avenue to Reeds Avenue | 2U | 23,500 | 10,173 | 0.43 | A | 10,320 | 0.44 | A |

1: 2U = two-lane undivided roadway.

2: Capacity based on Tehama County General Plan Update 2009-2029 (March 2009).

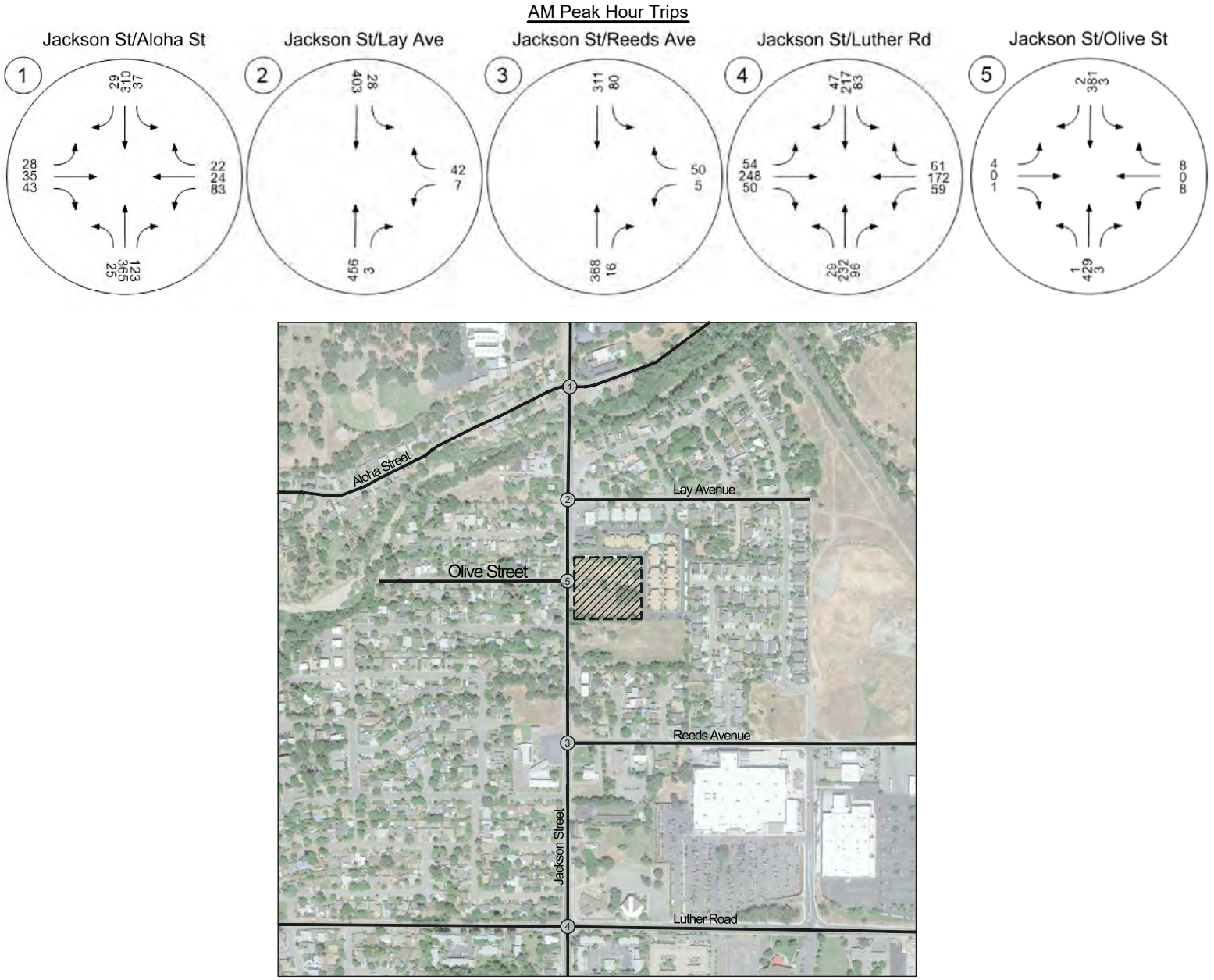



Exhibit 12: Opening Year With Project AM Peak Hour Volumes

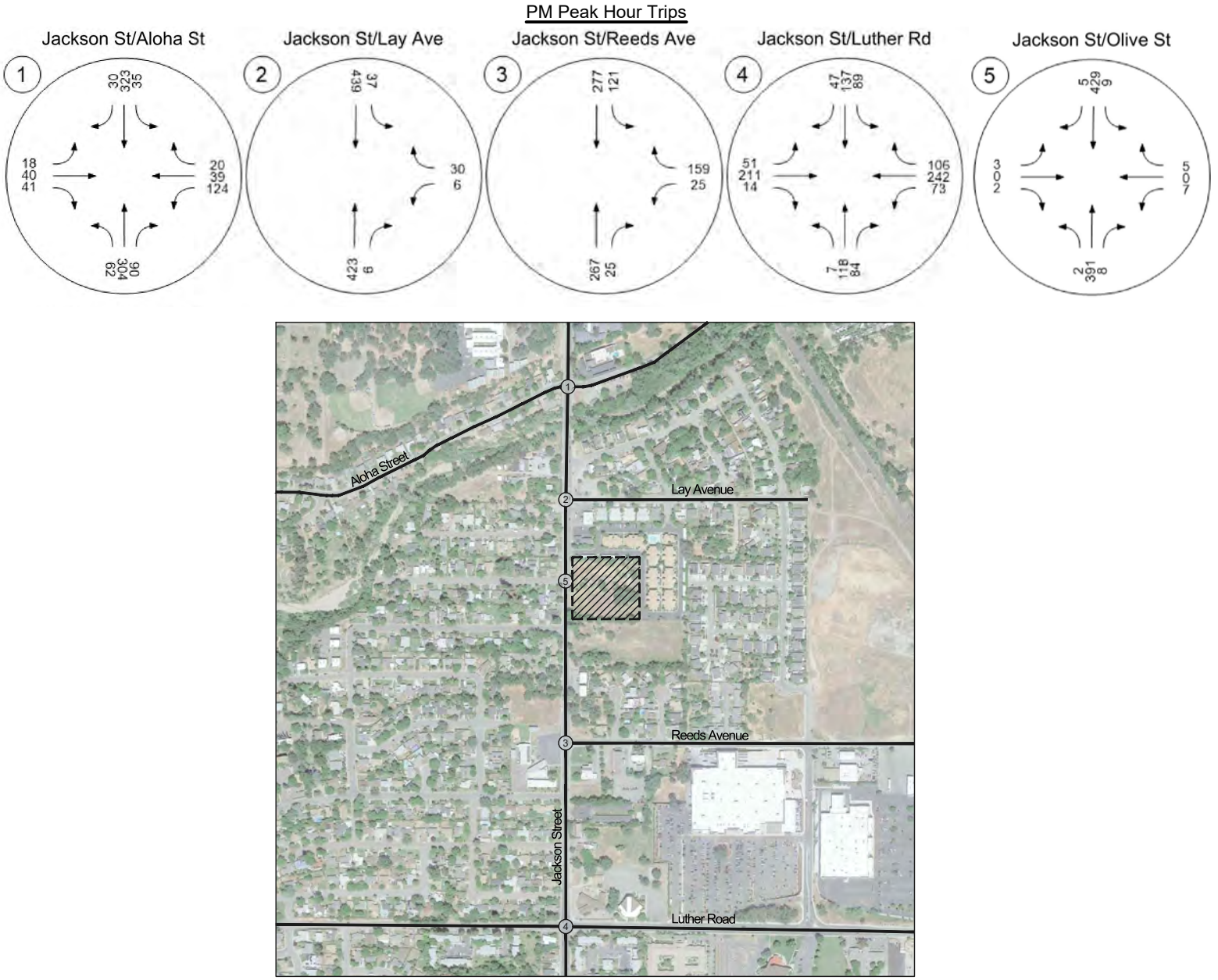



Exhibit 13: Opening Year With Project PM Peak Hour Volumes

# APPENDIX

# APPENDIX A

GLOSSARY OF TERMS

# Glossary of Terminology

## ACRONYMS:

| | |
|---|---|
| **AC** | Acres |
| **ADT** | Average Daily Traffic |
| **Caltrans** | California Department of Transportation |
| **DU** | Dwelling Unit |
| **ICU** | Intersection Capacity Utilization |
| **LOS** | Level of Service |
| **TSF** | Thousand Square Feet |
| **V/C** | Volume/Capacity |
| **VMT** | Vehicle Miles Traveled |

## TERMS

**AVERAGE DAILY TRAFFIC** – *The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.*

**CAPACITY** – T*he maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.*

**CORNER SIGHT DISTANCE** – *The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.*

**CYCLE LENGTH** – *The time period in seconds required for a traffic signal to complete one full cycle of indications.*

**CUL-DE-SAC** – *A local street open at one end only and with special provisions for turning around.*

**DAILY CAPACITY** – *A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.*

**DELAY –** *The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.*

**DENSITY –** *The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.*

**DESIGN SPEED –** *A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.*

**DIRECTIONAL SPLIT –** *The percent of traffic in the peak direction at any point in time.*

**FREE FLOW –** *Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.*

**HEADWAY –** *Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.*

**LEVEL OF SERVICE** – *A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.*

**LOOP DETECTOR –** *A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.*

**PASSENGER CAR EQUIVALENT (PCE)** – *A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.*

**PEAK HOUR** – *The 60 consecutive minutes with the highest number of vehicles.*

**QUEUE LENGTH** – *The length of vehicle queue, typically expressed in feet, waiting at a service area such as a Traffic signal, stop sign, or access gate.*

**SIGHT DISTANCE** – *The continuous length of roadway visible to a driver or roadway user.*

**SIGNAL CYCLE** – *The time period in seconds required for one complete sequence of signal indications.*

**SIGNAL PHASE** – *The part of the signal cycle allocated to one or more traffic movements.*

**STARTING DELAY** – *The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.*

**STOPPING SIGHT DISTANCE –** *The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.*

**TRAFFIC-ACTUATED SIGNAL –** *A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.*

**TRIP –** *The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.*

**TRIP GENERATION RATE** – *The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.*

**TURNING RADIUS –** *The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.*

**VEHICLE MILES OF TRAVEL** – *A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.*

# APPENDIX B

SCOPING AGREEMENT

## Scoping Agreement for Traffic Impact Analysis

This form acknowledges the requirements for the traffic impact analysis of the following project. The analysis will follow the local jurisdiction's traffic impact analysis guidelines.

| | |
|---|---|
| Project Name: | Red Bluff Apartments |
| Project Address: | 321 South Jackson Street, Red Bluff, CA |
| Project Description: | Affordable Apartments (61 Dwelling Units) |

| | Consultant | Developer |
|---|---|---|
| Name: | TJW Engineering | PALM COMMUNITIES |
| Address: | 9841 Irvine Center Drive, Suite 200 | 100 Pacifica, Suite 203 |
| | Irvine, CA 92618 | Irvine, CA 92618 |
| Telephone: | 949-878-3509 | 949-878-9373 |
| Email: | daniel@tjwengineering.com | mslagerman@palmcommunities.com |

Trip Generation Source: ITE Trip Generation Manual, 11th Edition (2021)

| | | | |
|---|---|---|---|
| Current GP Land Use: | R-L/R-M | Proposed Land Use: | R-L/R-M |
| Current Zoning: | R-1/R-3 | Proposed Zoning: | R-1/R-3 |

Is the project screened from LOS analysis? [ ] Yes [X] No

| | |
|---|---|
| Justification: | |

Is the project screened from VMT analysis? [X] Yes [ ] No

| | |
|---|---|
| Justification: | Since the City does not have established guidelines, the Office of Planning and Research (OPR) guidelines will be used. Since the proposed project is proposing affordable housing, it is anticipated a Vehicle Miles Traveled (VMT) analysis will not be needed. |

| | Existing Trip Generation | | | Proposed Trip Generation | | |
|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total |
| AM Trips | | | | 6 | 16 | 22 |
| PM Trips | | | | 16 | 12 | 28 |
| Daily | | | | | | 293 |

Internal Trip Capture: [ ] Yes [X] No _____ % Trip Discount

Pass-By Allowance: [ ] Yes [X] No _____ % Trip Discount

Trip Distribution: See attached exhibit

Project Build-out Year: 2025 Annual Ambient Growth Rate: 2%

Study Intersections:

1. Jackson St/Aloha St
2. Jackson St/Lay Ave
3. Jackson St/Reeds Ave
4. Jackson St/Luther Rd
5. 
6. 
7. 
8. 
9. 
10. 

Study Roadway Segments:

1. Jackson St between Lay Ave and Reeds Ave
2. 
3. 
4. 

Analysis Scenarios:

1. Existing Traffic Conditions (existing)
2. Opening Year Without Project Conditions (Existing + Ambient + Cumulative)
3. Opening Year With Project Conditions (Existing + Ambient + Cumulative + Project)
4. 
5. 

Other Jurisdiction Analyzed? [ ] Yes [X] No Name of Jurisdiction: City of Red Bluff

Date of Traffic Counts: New Traffic Counts

| | |
|---|---|
| Additional Items to be Addressed: | TJW will prepare a concept striping plan for the proposed project access along Jackson Street. The striping plan would incorporate the anticipated driveway and roadway configuration demonstrating project site's access to and from the adjacent roadway. |

| | |
|---|---|
| Additional Notes: | City to provide the most recent cumulative project list so that we may add to the analysis. |

Signatures:

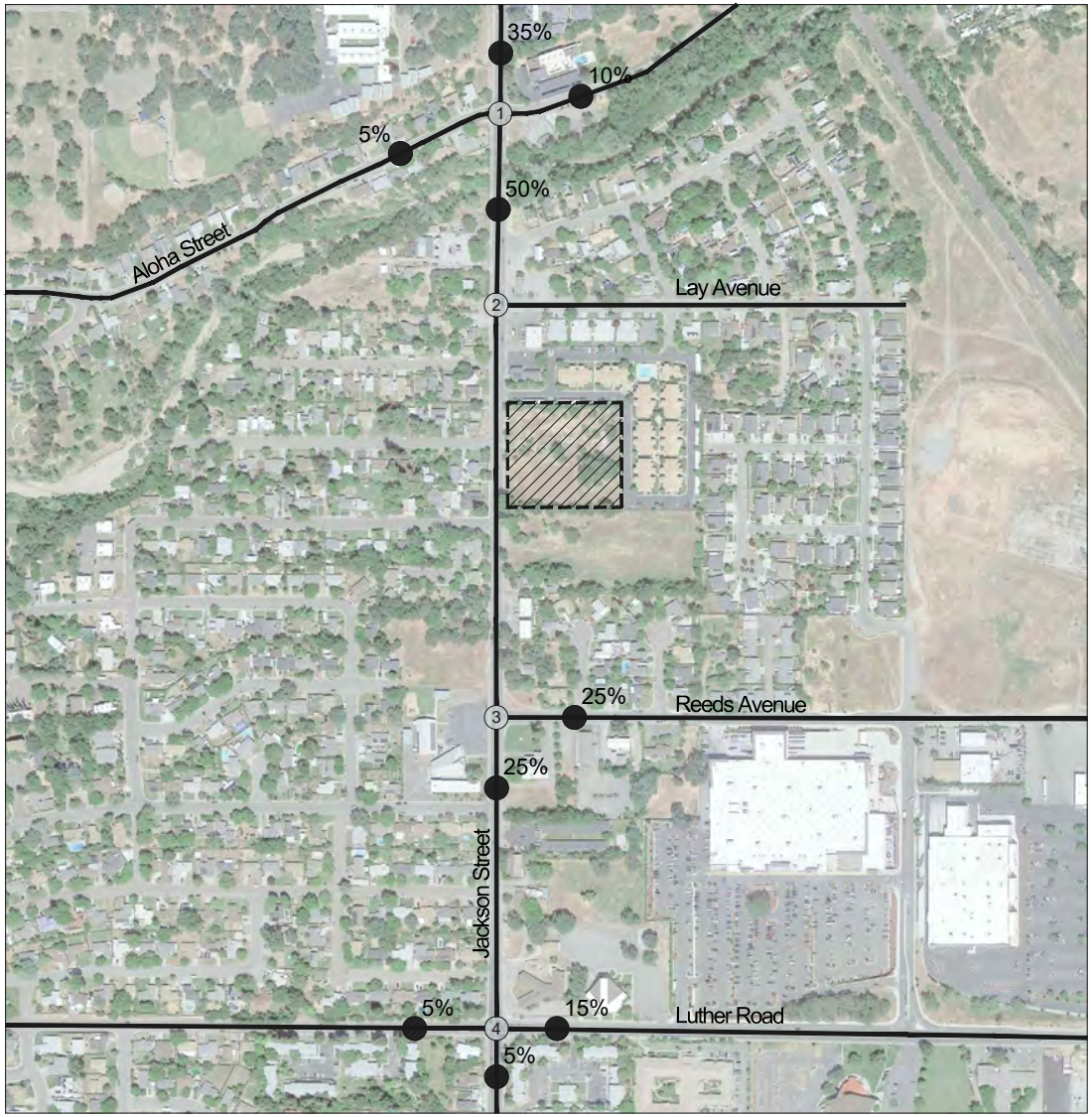
| | |
|---|---|
| Consultant's Representative | City (Approved By) |
| 02/17/22 | |
| Date | Date |

## Trip Generation Table

| Land Use[1] | Qty | Unit[2] | Daily Trips (ADTs) | | AM Peak Hour | | | | | PM Peak Hour | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rate | Volume | Rate | In:Out Split | Volume | | | Rate | In:Out Split | Volume | | |
| | | | | | | | In | Out | Total | | | In | Out | Total |
| Affordable Housing (223) | 61 | DU | 4.81 | 293 | 0.36 | 29:71 | 6 | 16 | 22 | 0.46 | 59:41 | 16 | 12 | 28 |
| **Total** | | | | **293** | | | **6** | **16** | **22** | | | **16** | **12** | **28** |

1: Rates from ITE Trip Generation (11th Edition, 2021).

2: DU = Dwelling Unit.




Legend:

| | |
|---|---|
| ▬▬▬ | Project Site |
| (#) | Study Intersection Location |
| XX% | Percent Trip Distribution |

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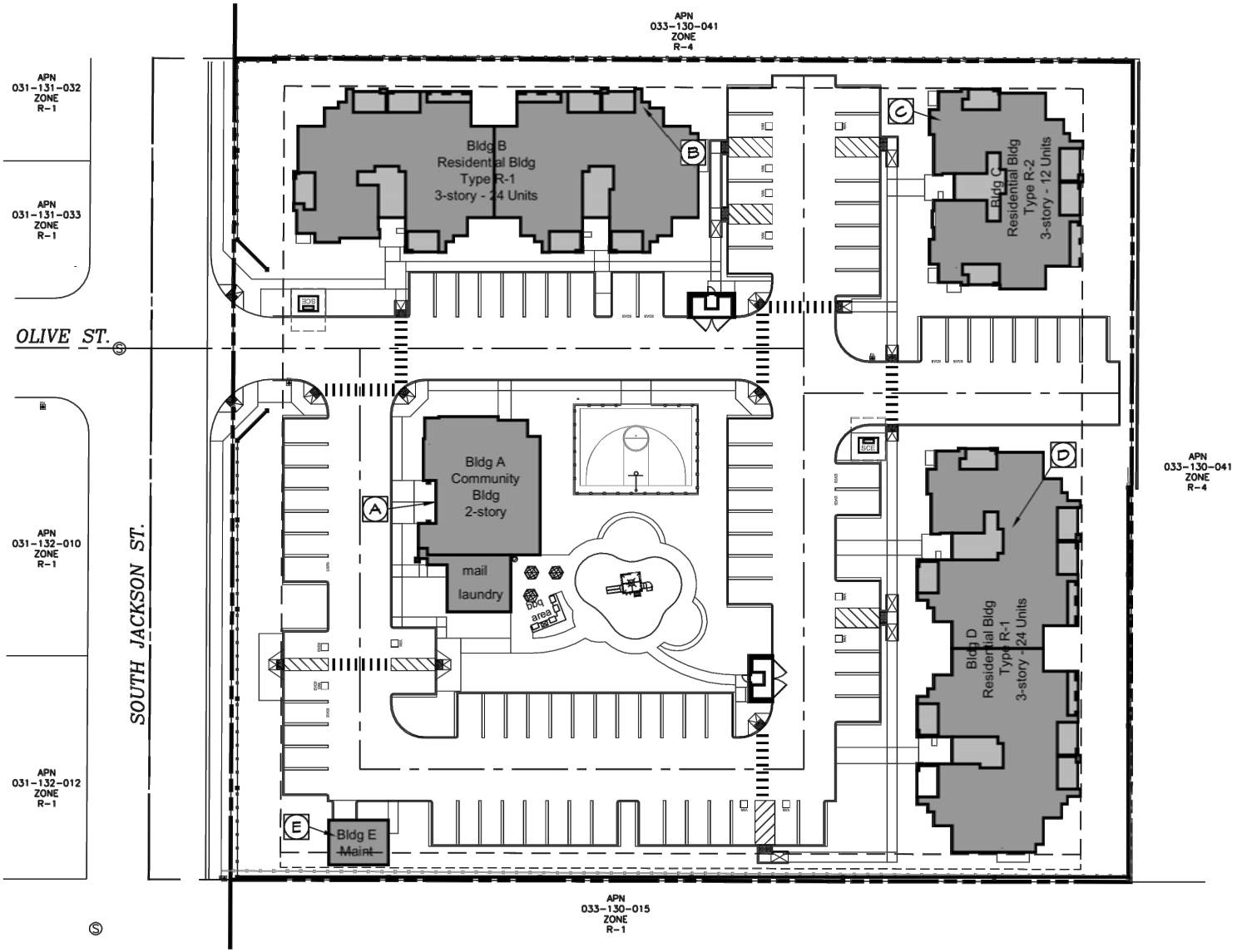


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Not to Scale

# APPENDIX C

CITY OF RED BLUFF PLANS AND TRANSIT

# CITY OF RED BLUFF
# CIRUCLATION ELEMENT
# EXISTING/PROPOSED CIRCULATION MAP

**Legend**

**City of Red Bluff Roadways**

Other Roads

**Functional Class**

- COLLECTOR
- FUTURE ROAD
- INTERSTATE FREEWAY
- LOCAL STREET
- MAJOR ARTERIAL
- MINOR ARTERIAL
- PROPOSED FUTURE ROAD
- RAIL ROAD
- SR36E/COLLECTOR
- City Limit

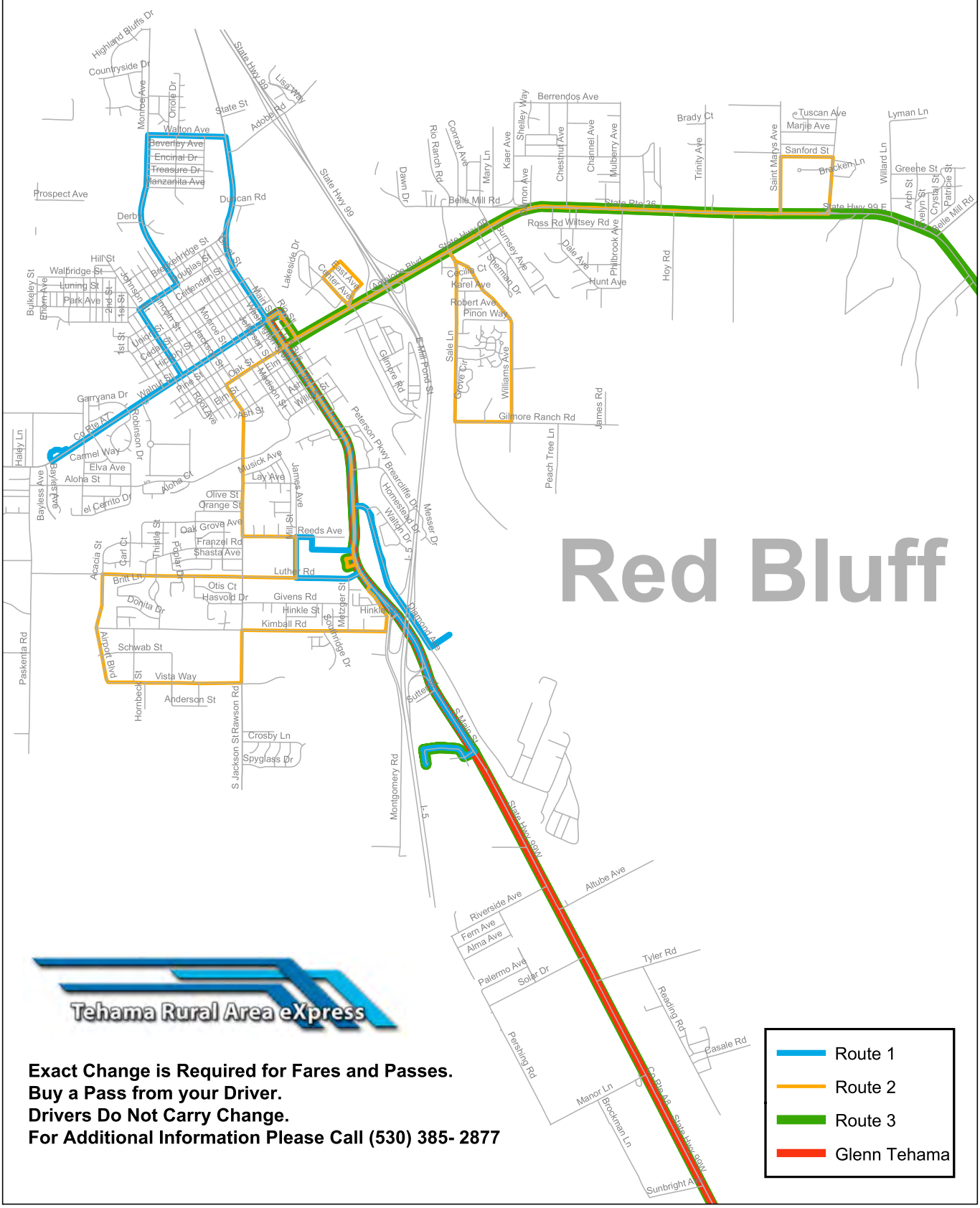
N
W E
S

By:
City of Red Bluff
Planning &
Public Works Dept.
February 4, 2008

0 0.1 0.2 0.4 0.6 0.8
Miles

ESRI

# TRAX Routes




Tehama Rural Area eXpress

**Exact Change is Required for Fares and Passes.**
**Buy a Pass from your Driver.**
**Drivers Do Not Carry Change.**
**For Additional Information Please Call (530) 385- 2877**

# APPENDIX D

EXISTING TRAFFIC COUNTS

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Aloha Street
Weather: Clear

File Name : 01_RBF_Jackson_Aloha AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

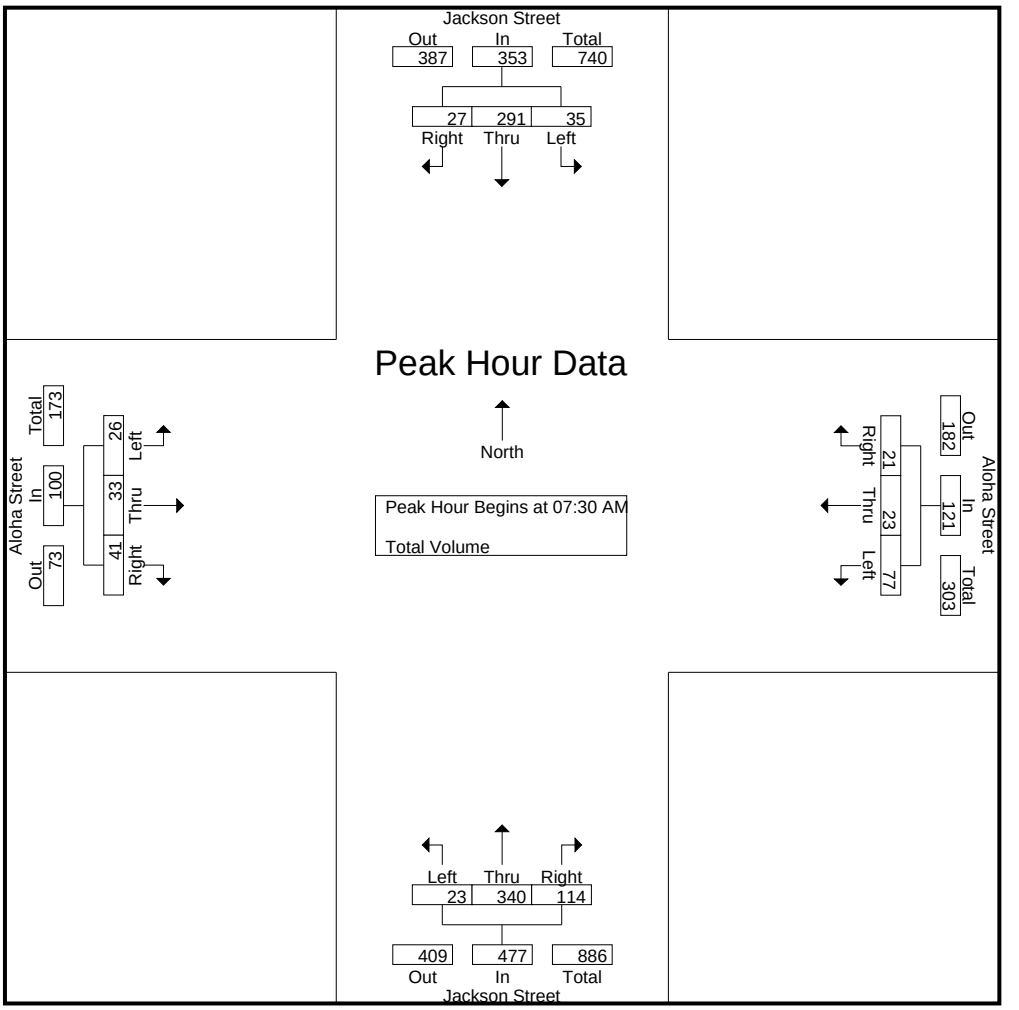
| | Jackson Street Southbound | | | | Aloha Street Westbound | | | | Jackson Street Northbound | | | | Aloha Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 1 | 22 | 3 | 26 | 4 | 3 | 0 | 7 | 2 | 27 | 10 | 39 | 4 | 6 | 8 | 18 | 90 |
| 07:15 AM | 4 | 30 | 1 | 35 | 11 | 3 | 0 | 14 | 6 | 48 | 13 | 67 | 2 | 13 | 4 | 19 | 135 |
| 07:30 AM | 8 | 59 | 2 | 69 | 13 | 4 | 7 | 24 | 5 | 92 | 29 | 126 | 7 | 14 | 10 | 31 | 250 |
| 07:45 AM | 6 | 92 | 9 | 107 | 21 | 9 | 9 | 39 | 7 | 104 | 41 | 152 | 5 | 12 | 11 | 28 | 326 |
| Total | 19 | 203 | 15 | 237 | 49 | 19 | 16 | 84 | 20 | 271 | 93 | 384 | 18 | 45 | 33 | 96 | 801 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 14 | 86 | 11 | 111 | 25 | 4 | 3 | 32 | 5 | 78 | 21 | 104 | 9 | 2 | 10 | 21 | 268 |
| 08:15 AM | 7 | 54 | 5 | 66 | 18 | 6 | 2 | 26 | 6 | 66 | 23 | 95 | 5 | 5 | 10 | 20 | 207 |
| 08:30 AM | 3 | 48 | 1 | 52 | 13 | 4 | 2 | 19 | 6 | 42 | 12 | 60 | 5 | 5 | 12 | 22 | 153 |
| 08:45 AM | 7 | 42 | 3 | 52 | 23 | 5 | 5 | 33 | 5 | 40 | 28 | 73 | 6 | 12 | 10 | 28 | 186 |
| Total | 31 | 230 | 20 | 281 | 79 | 19 | 12 | 110 | 22 | 226 | 84 | 332 | 25 | 24 | 42 | 91 | 814 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 50 | 433 | 35 | 518 | 128 | 38 | 28 | 194 | 42 | 497 | 177 | 716 | 43 | 69 | 75 | 187 | 1615 |
| Apprch % | 9.7 | 83.6 | 6.8 | | 66 | 19.6 | 14.4 | | 5.9 | 69.4 | 24.7 | | 23 | 36.9 | 40.1 | | |
| Total % | 3.1 | 26.8 | 2.2 | 32.1 | 7.9 | 2.4 | 1.7 | 12 | 2.6 | 30.8 | 11 | 44.3 | 2.7 | 4.3 | 4.6 | 11.6 | |

| | Jackson Street Southbound | | | | Aloha Street Westbound | | | | Jackson Street Northbound | | | | Aloha Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM | 8 | 59 | 2 | 69 | 13 | 4 | 7 | 24 | 5 | 92 | 29 | 126 | 7 | **14** | 10 | **31** | 250 |
| 07:45 AM | 6 | **92** | 9 | 107 | 21 | **9** | **9** | **39** | **7** | **104** | **41** | **152** | 5 | 12 | **11** | 28 | **326** |
| 08:00 AM | **14** | 86 | **11** | **111** | **25** | 4 | 3 | 32 | 5 | 78 | 21 | 104 | **9** | 2 | 10 | 21 | 268 |
| 08:15 AM | 7 | 54 | 5 | 66 | 18 | 6 | 2 | 26 | 6 | 66 | 23 | 95 | 5 | 5 | 10 | 20 | 207 |
| Total Volume | 35 | 291 | 27 | 353 | 77 | 23 | 21 | 121 | 23 | 340 | 114 | 477 | 26 | 33 | 41 | 100 | 1051 |
| % App. Total | 9.9 | 82.4 | 7.6 | | 63.6 | 19 | 17.4 | | 4.8 | 71.3 | 23.9 | | 26 | 33 | 41 | | |
| PHF | .625 | .791 | .614 | .795 | .770 | .639 | .583 | .776 | .821 | .817 | .695 | .785 | .722 | .589 | .932 | .806 | .806 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Aloha Street
Weather: Clear

File Name : 01_RBF_Jackson_Aloha AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | | 07:30 AM | | | | 07:30 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 8 | 59 | 2 | 69 | 13 | 4 | 7 | 24 | 5 | 92 | 29 | 126 | 7 | **14** | 10 | **31** |
| +15 mins. | 6 | **92** | 9 | 107 | 21 | **9** | **9** | **39** | **7** | **104** | **41** | **152** | 5 | 12 | **11** | 28 |
| +30 mins. | **14** | 86 | **11** | **111** | **25** | 4 | 3 | 32 | 5 | 78 | 21 | 104 | **9** | 2 | 10 | 21 |
| +45 mins. | 7 | 54 | 5 | 66 | 18 | 6 | 2 | 26 | 6 | 66 | 23 | 95 | 5 | 5 | 10 | 20 |
| Total Volume | 35 | 291 | 27 | 353 | 77 | 23 | 21 | 121 | 23 | 340 | 114 | 477 | 26 | 33 | 41 | 100 |
| % App. Total | 9.9 | 82.4 | 7.6 | | 63.6 | 19 | 17.4 | | 4.8 | 71.3 | 23.9 | | 26 | 33 | 41 | |
| PHF | .625 | .791 | .614 | .795 | .770 | .639 | .583 | .776 | .821 | .817 | .695 | .785 | .722 | .589 | .932 | .806 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Aloha Street
Weather: Clear

File Name : 01_RBF_Jackson_Aloha PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | | Aloha Street Westbound | | | | Jackson Street Northbound | | | | Aloha Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 8 | 85 | 5 | 98 | 27 | 5 | 7 | 39 | 22 | 71 | 29 | 122 | 2 | 6 | 7 | 15 | 274 |
| 04:15 PM | 10 | 66 | 10 | 86 | 20 | 9 | 4 | 33 | 15 | 75 | 25 | 115 | 3 | 10 | 9 | 22 | 256 |
| 04:30 PM | 8 | 66 | 4 | 78 | 28 | 18 | 8 | 54 | 12 | 68 | 20 | 100 | 4 | 4 | 9 | 17 | 249 |
| 04:45 PM | 8 | 62 | 6 | 76 | 26 | 5 | 2 | 33 | 13 | 75 | 26 | 114 | 2 | 10 | 8 | 20 | 243 |
| Total | 34 | 279 | 25 | 338 | 101 | 37 | 21 | 159 | 62 | 289 | 100 | 451 | 11 | 30 | 33 | 74 | 1022 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 12 | 86 | 5 | 103 | 31 | 13 | 8 | 52 | 9 | 67 | 19 | 95 | 7 | 13 | 8 | 28 | 278 |
| 05:15 PM | 7 | 63 | 8 | 78 | 37 | 9 | 6 | 52 | 17 | 74 | 20 | 111 | 4 | 6 | 12 | 22 | 263 |
| 05:30 PM | 6 | 88 | 9 | 103 | 21 | 10 | 3 | 34 | 19 | 68 | 19 | 106 | 4 | 9 | 10 | 23 | 266 |
| 05:45 PM | 4 | 65 | 7 | 76 | 27 | 1 | 5 | 33 | 10 | 58 | 22 | 90 | 3 | 8 | 10 | 21 | 220 |
| Total | 29 | 302 | 29 | 360 | 116 | 33 | 22 | 171 | 55 | 267 | 80 | 402 | 18 | 36 | 40 | 94 | 1027 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 63 | 581 | 54 | 698 | 217 | 70 | 43 | 330 | 117 | 556 | 180 | 853 | 29 | 66 | 73 | 168 | 2049 |
| Apprch % | 9 | 83.2 | 7.7 | | 65.8 | 21.2 | 13 | | 13.7 | 65.2 | 21.1 | | 17.3 | 39.3 | 43.5 | | |
| Total % | 3.1 | 28.4 | 2.6 | 34.1 | 10.6 | 3.4 | 2.1 | 16.1 | 5.7 | 27.1 | 8.8 | 41.6 | 1.4 | 3.2 | 3.6 | 8.2 | |

| | Jackson Street Southbound | | | | Aloha Street Westbound | | | | Jackson Street Northbound | | | | Aloha Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 8 | 62 | 6 | 76 | 26 | 5 | 2 | 33 | 13 | **75** | **26** | **114** | 2 | 10 | 8 | 20 | 243 |
| 05:00 PM | **12** | 86 | 5 | **103** | 31 | **13** | **8** | **52** | 9 | 67 | 19 | 95 | **7** | **13** | 8 | **28** | **278** |
| 05:15 PM | 7 | 63 | 8 | 78 | **37** | 9 | 6 | 52 | 17 | 74 | 20 | 111 | 4 | 6 | **12** | 22 | 263 |
| 05:30 PM | 6 | **88** | **9** | 103 | 21 | 10 | 3 | 34 | **19** | 68 | 19 | 106 | 4 | 9 | 10 | 23 | 266 |
| Total Volume | 33 | 299 | 28 | 360 | 115 | 37 | 19 | 171 | 58 | 284 | 84 | 426 | 17 | 38 | 38 | 93 | 1050 |
| % App. Total | 9.2 | 83.1 | 7.8 | | 67.3 | 21.6 | 11.1 | | 13.6 | 66.7 | 19.7 | | 18.3 | 40.9 | 40.9 | | |
| PHF | .688 | .849 | .778 | .874 | .777 | .712 | .594 | .822 | .763 | .947 | .808 | .934 | .607 | .731 | .792 | .830 | .944 |

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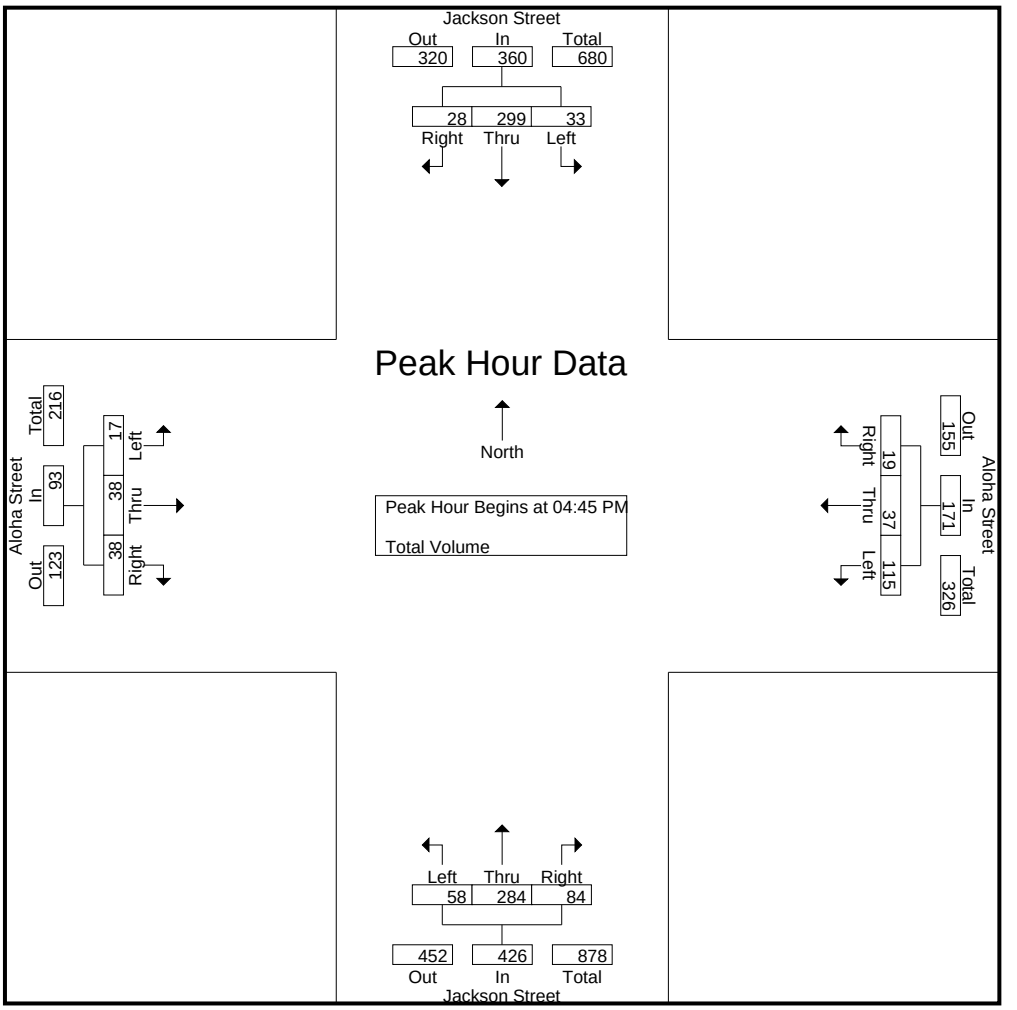
City of Red Bluff
N/S: Jackson Street
E/W: Aloha Street
Weather: Clear

File Name : 01_RBF_Jackson_Aloha PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:30 PM | | | | 04:00 PM | | | | 05:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 8 | 62 | 6 | 76 | 28 | **18** | **8** | **54** | **22** | 71 | **29** | **122** | **7** | **13** | 8 | **28** |
| +15 mins. | **12** | 86 | 5 | **103** | 26 | 5 | 2 | 33 | 15 | **75** | 25 | 115 | 4 | 6 | **12** | 22 |
| +30 mins. | 7 | 63 | 8 | 78 | 31 | 13 | 8 | 52 | 12 | 68 | 20 | 100 | 4 | 9 | 10 | 23 |
| +45 mins. | 6 | **88** | **9** | 103 | **37** | 9 | 6 | 52 | 13 | 75 | 26 | 114 | 3 | 8 | 10 | 21 |
| Total Volume | 33 | 299 | 28 | 360 | 122 | 45 | 24 | 191 | 62 | 289 | 100 | 451 | 18 | 36 | 40 | 94 |
| % App. Total | 9.2 | 83.1 | 7.8 | | 63.9 | 23.6 | 12.6 | | 13.7 | 64.1 | 22.2 | | 19.1 | 38.3 | 42.6 | |
| PHF | .688 | .849 | .778 | .874 | .824 | .625 | .750 | .884 | .705 | .963 | .862 | .924 | .643 | .692 | .833 | .839 |

Counts Unlimited, Inc.
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(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Lay Avenue
Weather: Clear

File Name : 02_RBF_Jackson_Lay AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | Lay Avenue Westbound | | | Jackson Street Northbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 2 | 29 | 31 | 1 | 3 | 4 | 36 | 0 | 36 | 71 |
| 07:15 AM | 1 | 44 | 45 | 0 | 10 | 10 | 56 | 0 | 56 | 111 |
| 07:30 AM | 4 | 73 | 77 | 1 | 8 | 9 | 124 | 0 | 124 | 210 |
| 07:45 AM | 6 | 117 | 123 | 3 | 19 | 22 | 120 | 1 | 121 | 266 |
| Total | 13 | 263 | 276 | 5 | 40 | 45 | 336 | 1 | 337 | 658 |
| | | | | | | | | | | |
| 08:00 AM | 10 | 108 | 118 | 3 | 10 | 13 | 96 | 1 | 97 | 228 |
| 08:15 AM | 6 | 79 | 85 | 0 | 3 | 3 | 83 | 1 | 84 | 172 |
| 08:30 AM | 3 | 67 | 70 | 0 | 3 | 3 | 60 | 0 | 60 | 133 |
| 08:45 AM | 3 | 67 | 70 | 2 | 8 | 10 | 50 | 0 | 50 | 130 |
| Total | 22 | 321 | 343 | 5 | 24 | 29 | 289 | 2 | 291 | 663 |
| | | | | | | | | | | |
| Grand Total | 35 | 584 | 619 | 10 | 64 | 74 | 625 | 3 | 628 | 1321 |
| Apprch % | 5.7 | 94.3 | | 13.5 | 86.5 | | 99.5 | 0.5 | | |
| Total % | 2.6 | 44.2 | 46.9 | 0.8 | 4.8 | 5.6 | 47.3 | 0.2 | 47.5 | |

| | Jackson Street Southbound | | | Lay Avenue Westbound | | | Jackson Street Northbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | |
| 07:30 AM | 4 | 73 | 77 | 1 | 8 | 9 | **124** | 0 | **124** | 210 |
| 07:45 AM | 6 | **117** | **123** | **3** | **19** | **22** | 120 | **1** | 121 | **266** |
| 08:00 AM | **10** | 108 | 118 | 3 | 10 | 13 | 96 | 1 | 97 | 228 |
| 08:15 AM | 6 | 79 | 85 | 0 | 3 | 3 | 83 | 1 | 84 | 172 |
| Total Volume | 26 | 377 | 403 | 7 | 40 | 47 | 423 | 3 | 426 | 876 |
| % App. Total | 6.5 | 93.5 | | 14.9 | 85.1 | | 99.3 | 0.7 | | |
| PHF | .650 | .806 | .819 | .583 | .526 | .534 | .853 | .750 | .859 | .823 |

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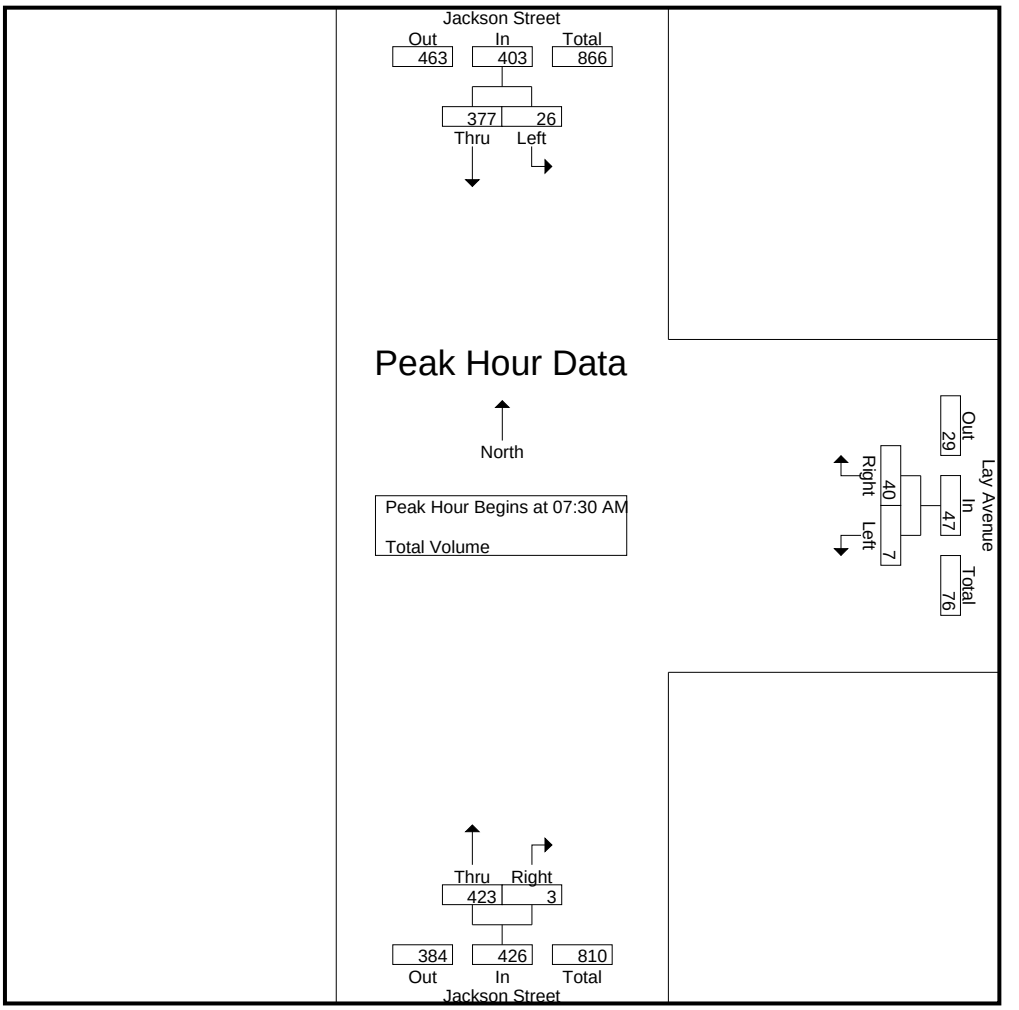
City of Red Bluff
N/S: Jackson Street
E/W: Lay Avenue
Weather: Clear

File Name : 02_RBF_Jackson_Lay AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | 07:15 AM | | | 07:30 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 4 | 73 | 77 | 0 | 10 | 10 | **124** | 0 | **124** |
| +15 mins. | 6 | **117** | **123** | 1 | 8 | 9 | 120 | **1** | 121 |
| +30 mins. | **10** | 108 | 118 | **3** | **19** | **22** | 96 | 1 | 97 |
| +45 mins. | 6 | 79 | 85 | 3 | 10 | 13 | 83 | 1 | 84 |
| Total Volume | 26 | 377 | 403 | 7 | 47 | 54 | 423 | 3 | 426 |
| % App. Total | 6.5 | 93.5 | | 13 | 87 | | 99.3 | 0.7 | |
| PHF | .650 | .806 | .819 | .583 | .618 | .614 | .853 | .750 | .859 |

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City of Red Bluff
N/S: Jackson Street
E/W: Lay Avenue
Weather: Clear

File Name : 02_RBF_Jackson_Lay PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | Lay Avenue Westbound | | | Jackson Street Northbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 5 | 113 | 118 | 2 | 5 | 7 | 107 | 1 | 108 | 233 |
| 04:15 PM | 6 | 85 | 91 | 1 | 12 | 13 | 105 | 1 | 106 | 210 |
| 04:30 PM | 10 | 85 | 95 | 4 | 7 | 11 | 88 | 3 | 91 | 197 |
| 04:45 PM | 8 | 89 | 97 | 2 | 9 | 11 | 103 | 2 | 105 | 213 |
| Total | 29 | 372 | 401 | 9 | 33 | 42 | 403 | 7 | 410 | 853 |
| | | | | | | | | | | |
| 05:00 PM | 6 | 116 | 122 | 2 | 9 | 11 | 89 | 2 | 91 | 224 |
| 05:15 PM | 10 | 102 | 112 | 1 | 3 | 4 | 104 | 1 | 105 | 221 |
| 05:30 PM | 11 | 99 | 110 | 1 | 7 | 8 | 98 | 1 | 99 | 217 |
| 05:45 PM | 8 | 98 | 106 | 2 | 6 | 8 | 78 | 2 | 80 | 194 |
| Total | 35 | 415 | 450 | 6 | 25 | 31 | 369 | 6 | 375 | 856 |
| | | | | | | | | | | |
| Grand Total | 64 | 787 | 851 | 15 | 58 | 73 | 772 | 13 | 785 | 1709 |
| Apprch % | 7.5 | 92.5 | | 20.5 | 79.5 | | 98.3 | 1.7 | | |
| Total % | 3.7 | 46.1 | 49.8 | 0.9 | 3.4 | 4.3 | 45.2 | 0.8 | 45.9 | |

| | Jackson Street Southbound | | | Lay Avenue Westbound | | | Jackson Street Northbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | 8 | 89 | 97 | **2** | **9** | **11** | 103 | **2** | **105** | 213 |
| 05:00 PM | 6 | **116** | **122** | 2 | 9 | 11 | 89 | 2 | 91 | **224** |
| 05:15 PM | 10 | 102 | 112 | 1 | 3 | 4 | **104** | 1 | 105 | 221 |
| 05:30 PM | **11** | 99 | 110 | 1 | 7 | 8 | 98 | 1 | 99 | 217 |
| Total Volume | 35 | 406 | 441 | 6 | 28 | 34 | 394 | 6 | 400 | 875 |
| % App. Total | 7.9 | 92.1 | | 17.6 | 82.4 | | 98.5 | 1.5 | | |
| PHF | .795 | .875 | .904 | .750 | .778 | .773 | .947 | .750 | .952 | .977 |

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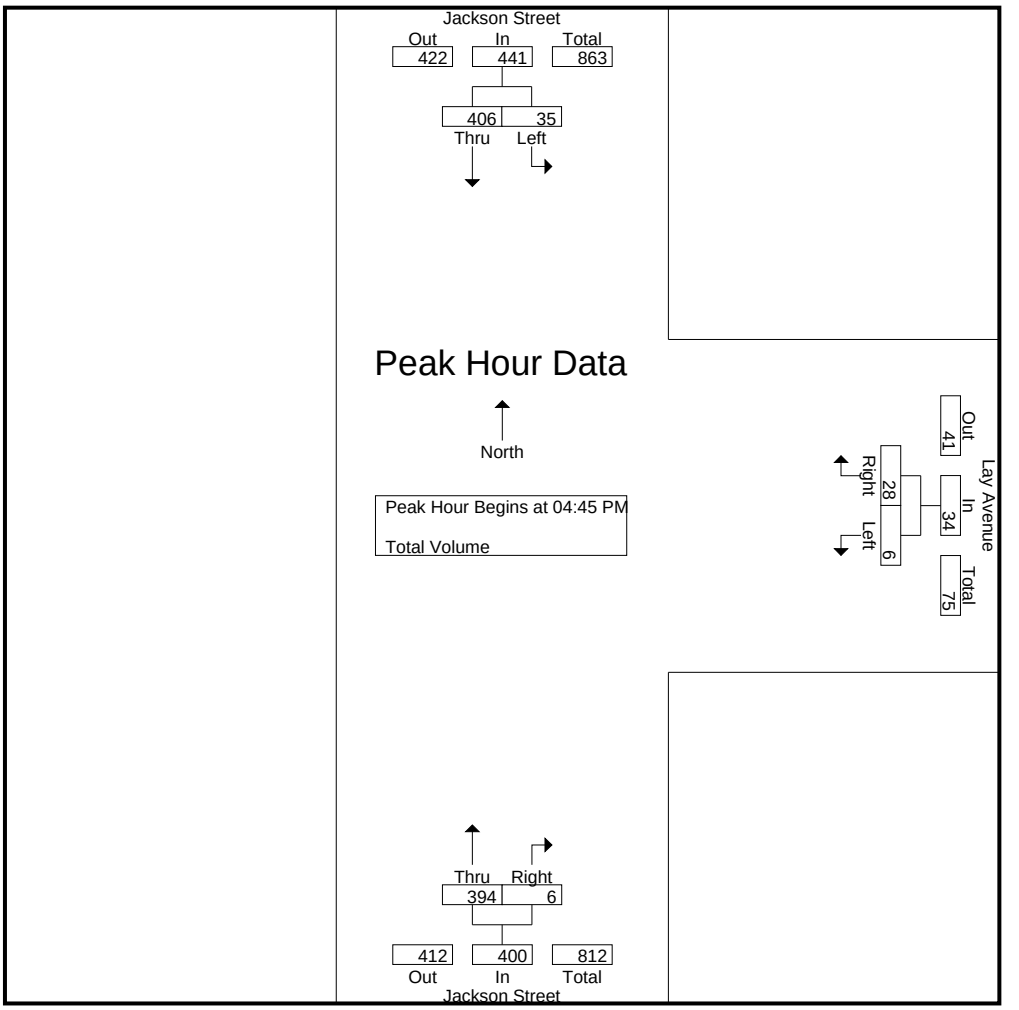
City of Red Bluff
N/S: Jackson Street
E/W: Lay Avenue
Weather: Clear

File Name : 02_RBF_Jackson_Lay PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 05:00 PM | | | 04:15 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 6 | **116** | **122** | 1 | **12** | **13** | **107** | 1 | **108** |
| +15 mins. | 10 | 102 | 112 | **4** | 7 | 11 | 105 | 1 | 106 |
| +30 mins. | **11** | 99 | 110 | 2 | 9 | 11 | 88 | **3** | 91 |
| +45 mins. | 8 | 98 | 106 | 2 | 9 | 11 | 103 | 2 | 105 |
| Total Volume | 35 | 415 | 450 | 9 | 37 | 46 | 403 | 7 | 410 |
| % App. Total | 7.8 | 92.2 | | 19.6 | 80.4 | | 98.3 | 1.7 | |
| PHF | .795 | .894 | .922 | .563 | .771 | .885 | .942 | .583 | .949 |

Counts Unlimited, Inc.
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City of Red Bluff
N/S: Jackson Street
E/W: Reeds Avenue
Weather: Clear

File Name : 03_RBF_Jackson_Reeds AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | | Reeds Avenue Westbound | | | | Jackson Street Northbound | | | | Church Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 3 | 28 | 0 | 31 | 1 | 0 | 9 | 10 | 0 | 29 | 0 | 29 | 0 | 0 | 0 | 0 | 70 |
| 07:15 AM | 7 | 39 | 0 | 46 | 0 | 0 | 8 | 8 | 0 | 48 | 1 | 49 | 0 | 0 | 0 | 0 | 103 |
| 07:30 AM | 10 | 64 | 0 | 74 | 3 | 0 | 19 | 22 | 0 | 90 | 2 | 92 | 0 | 0 | 0 | 0 | 188 |
| 07:45 AM | 24 | 87 | 0 | 111 | 1 | 0 | 15 | 16 | 0 | 96 | 5 | 101 | 0 | 0 | 0 | 0 | 228 |
| Total | 44 | 218 | 0 | 262 | 5 | 0 | 51 | 56 | 0 | 263 | 8 | 271 | 0 | 0 | 0 | 0 | 589 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 16 | 84 | 0 | 100 | 1 | 0 | 4 | 5 | 0 | 84 | 5 | 89 | 0 | 0 | 0 | 0 | 194 |
| 08:15 AM | 22 | 55 | 0 | 77 | 0 | 0 | 7 | 7 | 0 | 76 | 3 | 79 | 0 | 0 | 0 | 0 | 163 |
| 08:30 AM | 16 | 49 | 0 | 65 | 5 | 0 | 12 | 17 | 0 | 47 | 7 | 54 | 0 | 0 | 0 | 0 | 136 |
| 08:45 AM | 17 | 56 | 0 | 73 | 2 | 0 | 15 | 17 | 0 | 57 | 4 | 61 | 0 | 0 | 0 | 0 | 151 |
| Total | 71 | 244 | 0 | 315 | 8 | 0 | 38 | 46 | 0 | 264 | 19 | 283 | 0 | 0 | 0 | 0 | 644 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 115 | 462 | 0 | 577 | 13 | 0 | 89 | 102 | 0 | 527 | 27 | 554 | 0 | 0 | 0 | 0 | 1233 |
| Apprch % | 19.9 | 80.1 | 0 | | 12.7 | 0 | 87.3 | | 0 | 95.1 | 4.9 | | 0 | 0 | 0 | | |
| Total % | 9.3 | 37.5 | 0 | 46.8 | 1.1 | 0 | 7.2 | 8.3 | 0 | 42.7 | 2.2 | 44.9 | 0 | 0 | 0 | 0 | |

| | Jackson Street Southbound | | | | Reeds Avenue Westbound | | | | Jackson Street Northbound | | | | Church Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM | 10 | 64 | 0 | 74 | **3** | 0 | **19** | **22** | 0 | 90 | 2 | 92 | 0 | 0 | 0 | 0 | 188 |
| 07:45 AM | **24** | **87** | 0 | **111** | 1 | 0 | 15 | 16 | 0 | **96** | **5** | **101** | 0 | 0 | 0 | 0 | **228** |
| 08:00 AM | 16 | 84 | 0 | 100 | 1 | 0 | 4 | 5 | 0 | 84 | 5 | 89 | 0 | 0 | 0 | 0 | 194 |
| 08:15 AM | 22 | 55 | 0 | 77 | 0 | 0 | 7 | 7 | 0 | 76 | 3 | 79 | 0 | 0 | 0 | 0 | 163 |
| Total Volume | 72 | 290 | 0 | 362 | 5 | 0 | 45 | 50 | 0 | 346 | 15 | 361 | 0 | 0 | 0 | 0 | 773 |
| % App. Total | 19.9 | 80.1 | 0 | | 10 | 0 | 90 | | 0 | 95.8 | 4.2 | | 0 | 0 | 0 | | |
| PHF | .750 | .833 | .000 | .815 | .417 | .000 | .592 | .568 | .000 | .901 | .750 | .894 | .000 | .000 | .000 | .000 | .848 |

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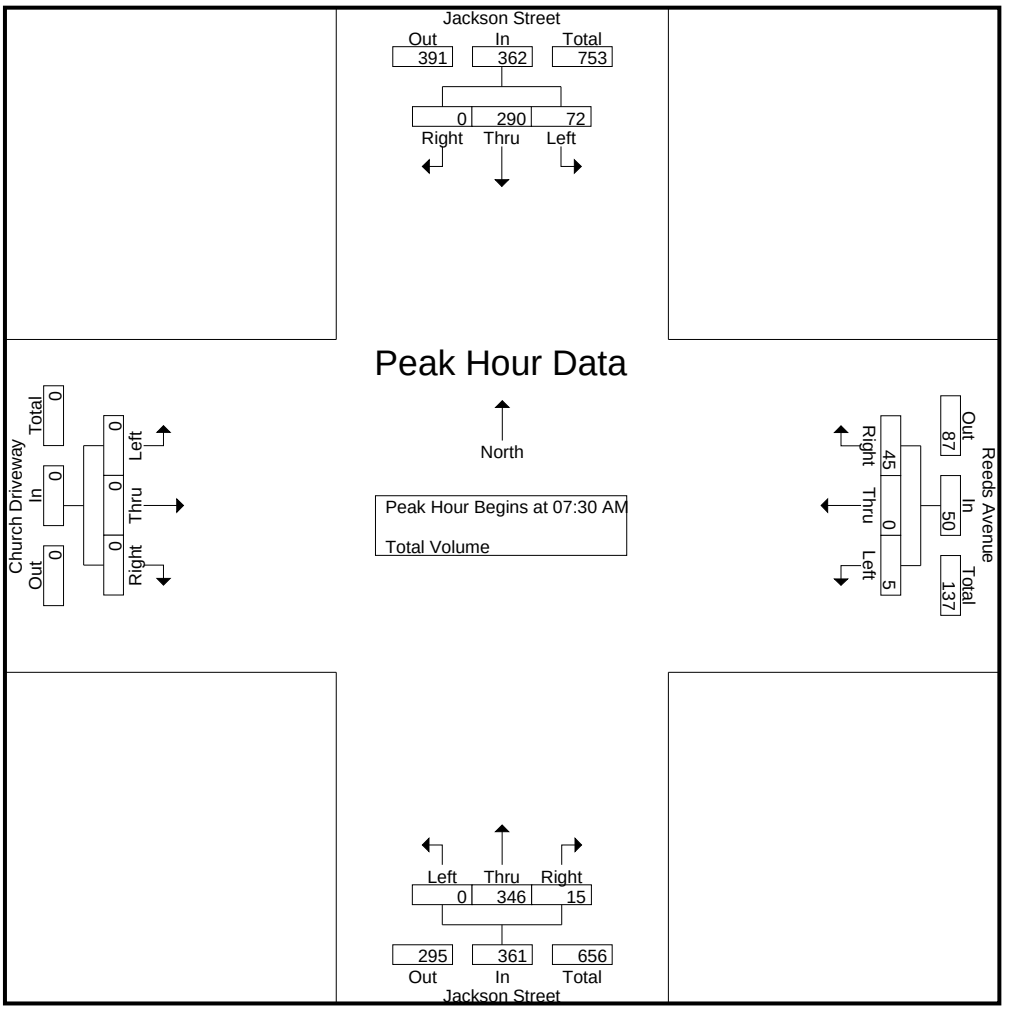
City of Red Bluff
N/S: Jackson Street
E/W: Reeds Avenue
Weather: Clear

File Name : 03_RBF_Jackson_Reeds AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | | 07:00 AM | | | | 07:30 AM | | | | 07:00 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 10 | 64 | 0 | 74 | 1 | 0 | 9 | 10 | 0 | 90 | 2 | 92 | 0 | 0 | 0 | 0 |
| +15 mins. | **24** | **87** | 0 | **111** | 0 | 0 | 8 | 8 | 0 | **96** | **5** | **101** | 0 | 0 | 0 | 0 |
| +30 mins. | 16 | 84 | 0 | 100 | **3** | 0 | **19** | **22** | 0 | 84 | 5 | 89 | 0 | 0 | 0 | 0 |
| +45 mins. | 22 | 55 | 0 | 77 | 1 | 0 | 15 | 16 | 0 | 76 | 3 | 79 | 0 | 0 | 0 | 0 |
| Total Volume | 72 | 290 | 0 | 362 | 5 | 0 | 51 | 56 | 0 | 346 | 15 | 361 | 0 | 0 | 0 | 0 |
| % App. Total | 19.9 | 80.1 | 0 | | 8.9 | 0 | 91.1 | | 0 | 95.8 | 4.2 | | 0 | 0 | 0 | |
| PHF | .750 | .833 | .000 | .815 | .417 | .000 | .671 | .636 | .000 | .901 | .750 | .894 | .000 | .000 | .000 | .000 |

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City of Red Bluff
N/S: Jackson Street
E/W: Reeds Avenue
Weather: Clear

File Name : 03_RBF_Jackson_Reeds PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | | Reeds Avenue Westbound | | | | Jackson Street Northbound | | | | Church Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 23 | 85 | 0 | 108 | 4 | 0 | 34 | 38 | 0 | 64 | 5 | 69 | 0 | 0 | 0 | 0 | 215 |
| 04:15 PM | 22 | 55 | 0 | 77 | 6 | 0 | 35 | 41 | 0 | 72 | 6 | 78 | 0 | 0 | 0 | 0 | 196 |
| 04:30 PM | 30 | 51 | 0 | 81 | 9 | 0 | 31 | 40 | 0 | 59 | 2 | 61 | 0 | 0 | 0 | 0 | 182 |
| 04:45 PM | 20 | 59 | 0 | 79 | 8 | 0 | 32 | 40 | 0 | 62 | 3 | 65 | 0 | 0 | 0 | 0 | 184 |
| Total | 95 | 250 | 0 | 345 | 27 | 0 | 132 | 159 | 0 | 257 | 16 | 273 | 0 | 0 | 0 | 0 | 777 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 33 | 74 | 0 | 107 | 8 | 0 | 31 | 39 | 0 | 52 | 10 | 62 | 0 | 0 | 0 | 0 | 208 |
| 05:15 PM | 34 | 58 | 0 | 92 | 3 | 0 | 45 | 48 | 0 | 68 | 5 | 73 | 0 | 0 | 0 | 0 | 213 |
| 05:30 PM | 24 | 67 | 0 | 91 | 5 | 0 | 38 | 43 | 0 | 66 | 6 | 72 | 0 | 0 | 0 | 0 | 206 |
| 05:45 PM | 28 | 73 | 0 | 101 | 4 | 0 | 27 | 31 | 0 | 49 | 2 | 51 | 0 | 0 | 0 | 0 | 183 |
| Total | 119 | 272 | 0 | 391 | 20 | 0 | 141 | 161 | 0 | 235 | 23 | 258 | 0 | 0 | 0 | 0 | 810 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 214 | 522 | 0 | 736 | 47 | 0 | 273 | 320 | 0 | 492 | 39 | 531 | 0 | 0 | 0 | 0 | 1587 |
| Apprch % | 29.1 | 70.9 | 0 | | 14.7 | 0 | 85.3 | | 0 | 92.7 | 7.3 | | 0 | 0 | 0 | | |
| Total % | 13.5 | 32.9 | 0 | 46.4 | 3 | 0 | 17.2 | 20.2 | 0 | 31 | 2.5 | 33.5 | 0 | 0 | 0 | 0 | |

| | Jackson Street Southbound | | | | Reeds Avenue Westbound | | | | Jackson Street Northbound | | | | Church Driveway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 20 | 59 | 0 | 79 | **8** | 0 | 32 | 40 | 0 | 62 | 3 | 65 | 0 | 0 | 0 | 0 | 184 |
| 05:00 PM | 33 | **74** | 0 | **107** | 8 | 0 | 31 | 39 | 0 | 52 | **10** | 62 | 0 | 0 | 0 | 0 | 208 |
| 05:15 PM | **34** | 58 | 0 | 92 | 3 | 0 | **45** | **48** | 0 | **68** | 5 | **73** | 0 | 0 | 0 | 0 | **213** |
| 05:30 PM | 24 | 67 | 0 | 91 | 5 | 0 | 38 | 43 | 0 | 66 | 6 | 72 | 0 | 0 | 0 | 0 | 206 |
| Total Volume | 111 | 258 | 0 | 369 | 24 | 0 | 146 | 170 | 0 | 248 | 24 | 272 | 0 | 0 | 0 | 0 | 811 |
| % App. Total | 30.1 | 69.9 | 0 | | 14.1 | 0 | 85.9 | | 0 | 91.2 | 8.8 | | 0 | 0 | 0 | | |
| PHF | .816 | .872 | .000 | .862 | .750 | .000 | .811 | .885 | .000 | .912 | .600 | .932 | .000 | .000 | .000 | .000 | .952 |

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City of Red Bluff
N/S: Jackson Street
E/W: Reeds Avenue
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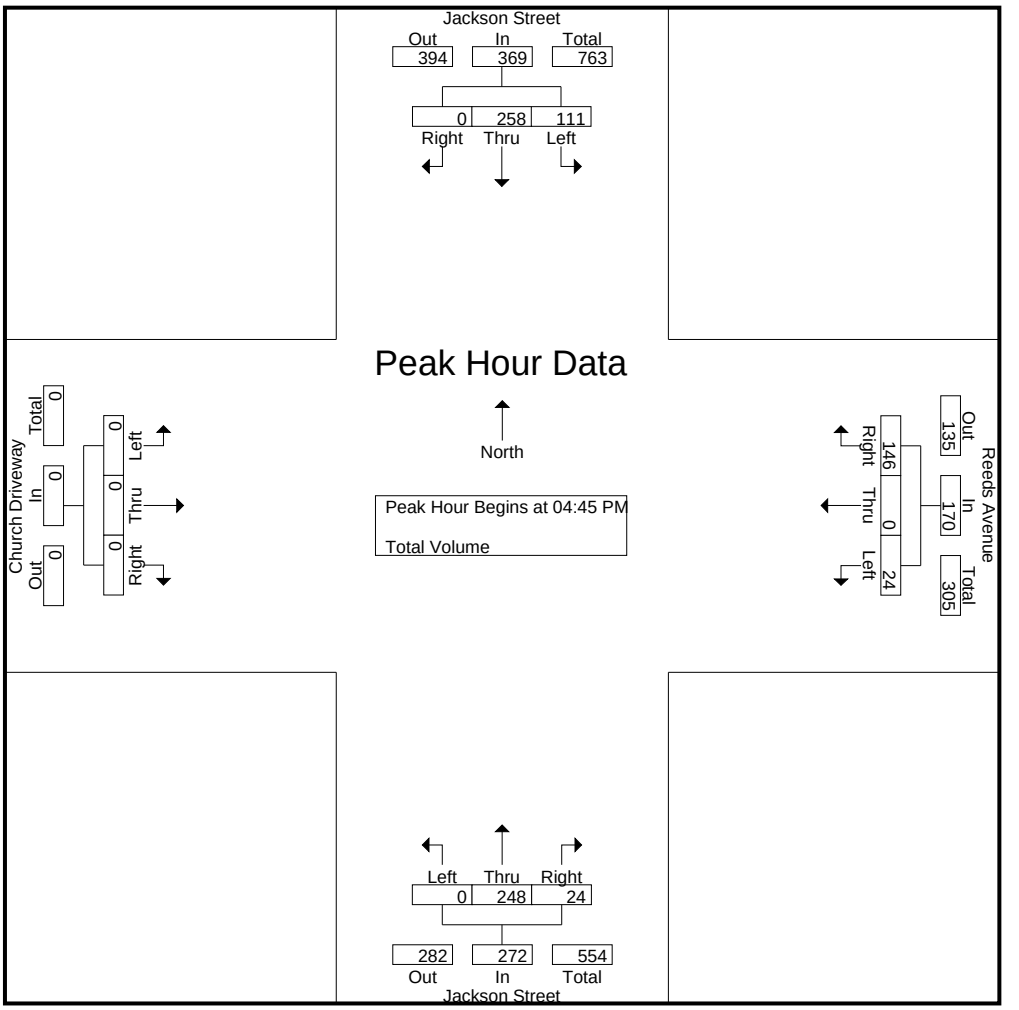
File Name : 03_RBF_Jackson_Reeds PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 05:00 PM | | | | 04:45 PM | | | | 04:00 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 33 | **74** | 0 | **107** | **8** | 0 | 32 | 40 | 0 | 64 | 5 | 69 | 0 | 0 | 0 | 0 |
| +15 mins. | **34** | 58 | 0 | 92 | 8 | 0 | 31 | 39 | 0 | **72** | **6** | **78** | 0 | 0 | 0 | 0 |
| +30 mins. | 24 | 67 | 0 | 91 | 3 | 0 | **45** | **48** | 0 | 59 | 2 | 61 | 0 | 0 | 0 | 0 |
| +45 mins. | 28 | 73 | 0 | 101 | 5 | 0 | 38 | 43 | 0 | 62 | 3 | 65 | 0 | 0 | 0 | 0 |
| Total Volume | 119 | 272 | 0 | 391 | 24 | 0 | 146 | 170 | 0 | 257 | 16 | 273 | 0 | 0 | 0 | 0 |
| % App. Total | 30.4 | 69.6 | 0 | | 14.1 | 0 | 85.9 | | 0 | 94.1 | 5.9 | | 0 | 0 | 0 | |
| PHF | .875 | .919 | .000 | .914 | .750 | .000 | .811 | .885 | .000 | .892 | .667 | .875 | .000 | .000 | .000 | .000 |

Counts Unlimited, Inc.
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Corona, CA 92878
(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Luther Road
Weather: Clear

File Name : 04_RBF_Jackson_Luther AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | | Luther Road Westbound | | | | Jackson Street Northbound | | | | Luther Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 13 | 9 | 6 | 28 | 7 | 21 | 8 | 36 | 0 | 11 | 6 | 17 | 8 | 39 | 3 | 50 | 131 |
| 07:15 AM | 15 | 26 | 4 | 45 | 7 | 23 | 5 | 35 | 2 | 26 | 10 | 38 | 10 | 54 | 0 | 64 | 182 |
| 07:30 AM | 20 | 45 | 10 | 75 | 7 | 37 | 14 | 58 | 5 | 55 | 10 | 70 | 9 | 62 | 11 | 82 | 285 |
| 07:45 AM | 17 | 68 | 6 | 91 | 15 | 53 | 12 | 80 | 6 | 54 | 20 | 80 | 15 | 60 | 18 | 93 | 344 |
| Total | 65 | 148 | 26 | 239 | 36 | 134 | 39 | 209 | 13 | 146 | 46 | 205 | 42 | 215 | 32 | 289 | 942 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 15 | 65 | 13 | 93 | 20 | 37 | 14 | 71 | 9 | 62 | 34 | 105 | 14 | 38 | 12 | 64 | 333 |
| 08:15 AM | 24 | 26 | 14 | 64 | 14 | 35 | 17 | 66 | 7 | 48 | 27 | 82 | 13 | 74 | 6 | 93 | 305 |
| 08:30 AM | 22 | 20 | 13 | 55 | 8 | 28 | 12 | 48 | 1 | 24 | 17 | 42 | 13 | 50 | 4 | 67 | 212 |
| 08:45 AM | 17 | 26 | 12 | 55 | 15 | 31 | 20 | 66 | 2 | 23 | 14 | 39 | 14 | 36 | 0 | 50 | 210 |
| Total | 78 | 137 | 52 | 267 | 57 | 131 | 63 | 251 | 19 | 157 | 92 | 268 | 54 | 198 | 22 | 274 | 1060 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 143 | 285 | 78 | 506 | 93 | 265 | 102 | 460 | 32 | 303 | 138 | 473 | 96 | 413 | 54 | 563 | 2002 |
| Apprch % | 28.3 | 56.3 | 15.4 | | 20.2 | 57.6 | 22.2 | | 6.8 | 64.1 | 29.2 | | 17.1 | 73.4 | 9.6 | | |
| Total % | 7.1 | 14.2 | 3.9 | 25.3 | 4.6 | 13.2 | 5.1 | 23 | 1.6 | 15.1 | 6.9 | 23.6 | 4.8 | 20.6 | 2.7 | 28.1 | |

| | Jackson Street Southbound | | | | Luther Road Westbound | | | | Jackson Street Northbound | | | | Luther Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM | 20 | 45 | 10 | 75 | 7 | 37 | 14 | 58 | 5 | 55 | 10 | 70 | 9 | 62 | 11 | 82 | 285 |
| 07:45 AM | 17 | **68** | 6 | 91 | 15 | **53** | 12 | **80** | 6 | 54 | 20 | 80 | **15** | 60 | **18** | **93** | **344** |
| 08:00 AM | 15 | 65 | 13 | **93** | **20** | 37 | 14 | 71 | **9** | **62** | **34** | **105** | 14 | 38 | 12 | 64 | 333 |
| 08:15 AM | **24** | 26 | **14** | 64 | 14 | 35 | **17** | 66 | 7 | 48 | 27 | 82 | 13 | **74** | 6 | 93 | 305 |
| Total Volume | 76 | 204 | 43 | 323 | 56 | 162 | 57 | 275 | 27 | 219 | 91 | 337 | 51 | 234 | 47 | 332 | 1267 |
| % App. Total | 23.5 | 63.2 | 13.3 | | 20.4 | 58.9 | 20.7 | | 8 | 65 | 27 | | 15.4 | 70.5 | 14.2 | | |
| PHF | .792 | .750 | .768 | .868 | .700 | .764 | .838 | .859 | .750 | .883 | .669 | .802 | .850 | .791 | .653 | .892 | .921 |

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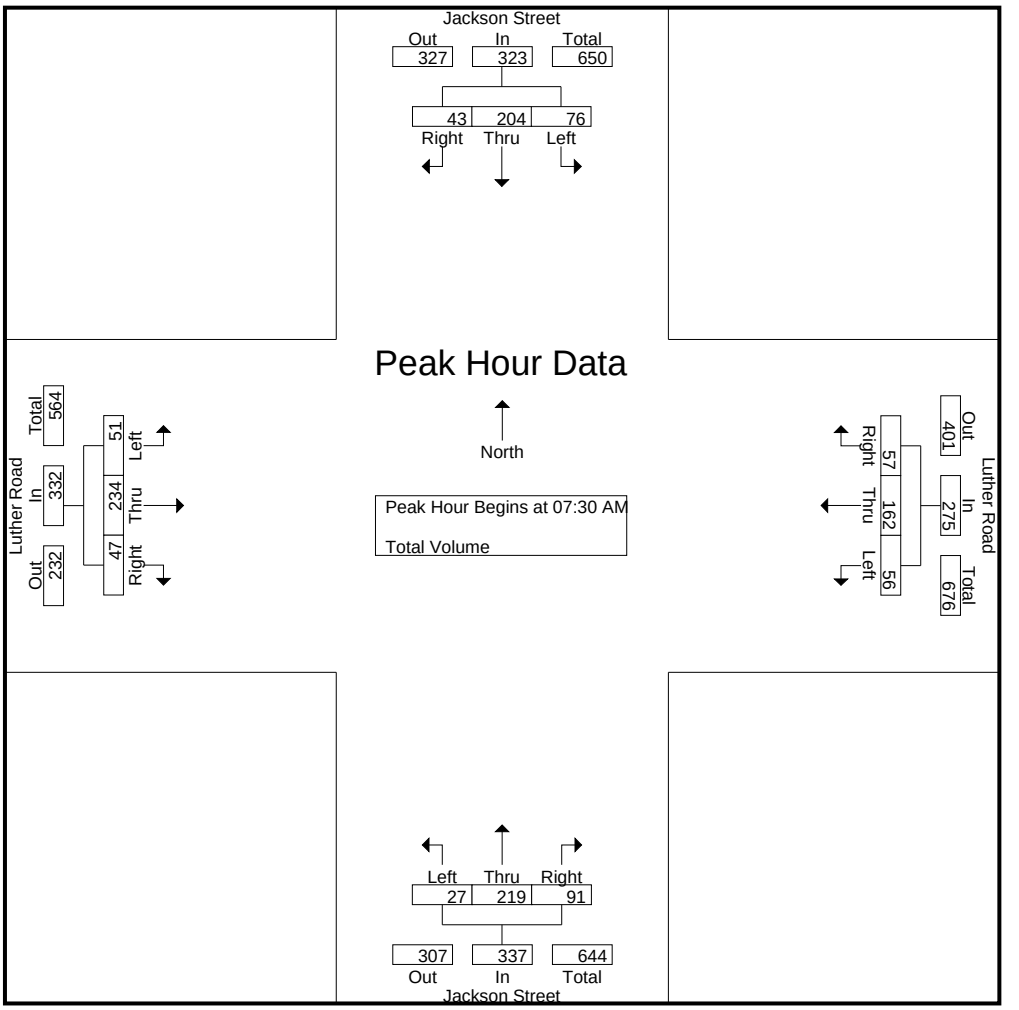
Corona, CA 92878
(951)268-6268

City of Red Bluff
N/S: Jackson Street
E/W: Luther Road
Weather: Clear

File Name : 04_RBF_Jackson_Luther AM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | | 07:30 AM | | | | 07:30 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 20 | 45 | 10 | 75 | 7 | 37 | 14 | 58 | 5 | 55 | 10 | 70 | 9 | 62 | 11 | 82 |
| +15 mins. | 17 | **68** | 6 | 91 | 15 | **53** | 12 | **80** | 6 | 54 | 20 | 80 | **15** | 60 | **18** | **93** |
| +30 mins. | 15 | 65 | 13 | **93** | **20** | 37 | 14 | 71 | **9** | **62** | **34** | **105** | 14 | 38 | 12 | 64 |
| +45 mins. | **24** | 26 | **14** | 64 | 14 | 35 | **17** | 66 | 7 | 48 | 27 | 82 | 13 | **74** | 6 | 93 |
| Total Volume | 76 | 204 | 43 | 323 | 56 | 162 | 57 | 275 | 27 | 219 | 91 | 337 | 51 | 234 | 47 | 332 |
| % App. Total | 23.5 | 63.2 | 13.3 | | 20.4 | 58.9 | 20.7 | | 8 | 65 | 27 | | 15.4 | 70.5 | 14.2 | |
| PHF | .792 | .750 | .768 | .868 | .700 | .764 | .838 | .859 | .750 | .883 | .669 | .802 | .850 | .791 | .653 | .892 |

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City of Red Bluff
N/S: Jackson Street
E/W: Luther Road
Weather: Clear

File Name : 04_RBF_Jackson_Luther PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | | Luther Road Westbound | | | | Jackson Street Northbound | | | | Luther Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 21 | 40 | 14 | 75 | 19 | 56 | 21 | 96 | 4 | 38 | 23 | 65 | 11 | 51 | 5 | 67 | 303 |
| 04:15 PM | 17 | 29 | 15 | 61 | 16 | 56 | 29 | 101 | 0 | 34 | 18 | 52 | 8 | 46 | 2 | 56 | 270 |
| 04:30 PM | 24 | 25 | 7 | 56 | 18 | 58 | 32 | 108 | 2 | 24 | 9 | 35 | 8 | 58 | 5 | 71 | 270 |
| 04:45 PM | 17 | 33 | 12 | 62 | 15 | 46 | 18 | 79 | 3 | 28 | 29 | 60 | 15 | 35 | 5 | 55 | 256 |
| Total | 79 | 127 | 48 | 254 | 68 | 216 | 100 | 384 | 9 | 124 | 79 | 212 | 42 | 190 | 17 | 249 | 1099 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 24 | 41 | 9 | 74 | 20 | 68 | 19 | 107 | 2 | 24 | 23 | 49 | 16 | 60 | 1 | 77 | 307 |
| 05:15 PM | 18 | 18 | 15 | 51 | 21 | 57 | 27 | 105 | 1 | 44 | 20 | 65 | 7 | 21 | 3 | 31 | 252 |
| 05:30 PM | 18 | 31 | 9 | 58 | 23 | 62 | 28 | 113 | 1 | 32 | 23 | 56 | 12 | 36 | 4 | 52 | 279 |
| 05:45 PM | 23 | 31 | 14 | 68 | 20 | 50 | 18 | 88 | 0 | 21 | 20 | 41 | 4 | 35 | 5 | 44 | 241 |
| Total | 83 | 121 | 47 | 251 | 84 | 237 | 92 | 413 | 4 | 121 | 86 | 211 | 39 | 152 | 13 | 204 | 1079 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 162 | 248 | 95 | 505 | 152 | 453 | 192 | 797 | 13 | 245 | 165 | 423 | 81 | 342 | 30 | 453 | 2178 |
| Apprch % | 32.1 | 49.1 | 18.8 | | 19.1 | 56.8 | 24.1 | | 3.1 | 57.9 | 39 | | 17.9 | 75.5 | 6.6 | | |
| Total % | 7.4 | 11.4 | 4.4 | 23.2 | 7 | 20.8 | 8.8 | 36.6 | 0.6 | 11.2 | 7.6 | 19.4 | 3.7 | 15.7 | 1.4 | 20.8 | |

| | Jackson Street Southbound | | | | Luther Road Westbound | | | | Jackson Street Northbound | | | | Luther Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 17 | 29 | **15** | 61 | 16 | 56 | 29 | 101 | 0 | **34** | 18 | 52 | 8 | 46 | 2 | 56 | 270 |
| 04:30 PM | **24** | 25 | 7 | 56 | 18 | 58 | **32** | **108** | 2 | 24 | 9 | 35 | 8 | 58 | **5** | 71 | 270 |
| 04:45 PM | 17 | 33 | 12 | 62 | 15 | 46 | 18 | 79 | **3** | 28 | **29** | **60** | 15 | 35 | 5 | 55 | 256 |
| 05:00 PM | 24 | **41** | 9 | **74** | **20** | **68** | 19 | 107 | 2 | 24 | 23 | 49 | **16** | **60** | 1 | **77** | **307** |
| Total Volume | 82 | 128 | 43 | 253 | 69 | 228 | 98 | 395 | 7 | 110 | 79 | 196 | 47 | 199 | 13 | 259 | 1103 |
| % App. Total | 32.4 | 50.6 | 17 | | 17.5 | 57.7 | 24.8 | | 3.6 | 56.1 | 40.3 | | 18.1 | 76.8 | 5 | | |
| PHF | .854 | .780 | .717 | .855 | .863 | .838 | .766 | .914 | .583 | .809 | .681 | .817 | .734 | .829 | .650 | .841 | .898 |

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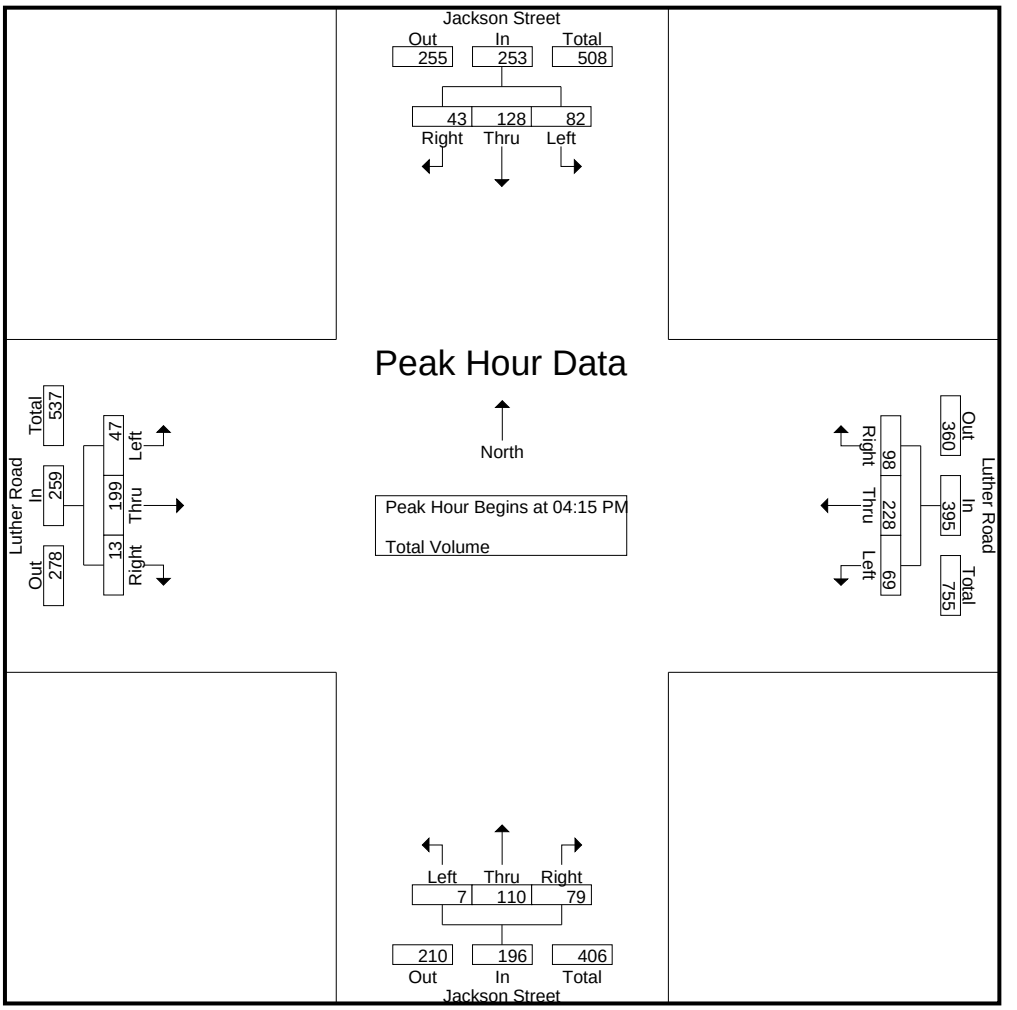
City of Red Bluff
N/S: Jackson Street
E/W: Luther Road
Weather: Clear

File Name : 04_RBF_Jackson_Luther PM
Site Code : 23622164
Start Date : 3/1/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 05:00 PM | | | | 04:45 PM | | | | 04:15 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 21 | **40** | 14 | **75** | 20 | **68** | 19 | 107 | **3** | 28 | **29** | 60 | 8 | 46 | 2 | 56 |
| +15 mins. | 17 | 29 | **15** | 61 | 21 | 57 | 27 | 105 | 2 | 24 | 23 | 49 | 8 | 58 | **5** | 71 |
| +30 mins. | **24** | 25 | 7 | 56 | **23** | 62 | **28** | **113** | 1 | **44** | 20 | **65** | 15 | 35 | 5 | 55 |
| +45 mins. | 17 | 33 | 12 | 62 | 20 | 50 | 18 | 88 | 1 | 32 | 23 | 56 | **16** | **60** | 1 | **77** |
| Total Volume | 79 | 127 | 48 | 254 | 84 | 237 | 92 | 413 | 7 | 128 | 95 | 230 | 47 | 199 | 13 | 259 |
| % App. Total | 31.1 | 50 | 18.9 | | 20.3 | 57.4 | 22.3 | | 3 | 55.7 | 41.3 | | 18.1 | 76.8 | 5 | |
| PHF | .823 | .794 | .800 | .847 | .913 | .871 | .821 | .914 | .583 | .727 | .819 | .885 | .734 | .829 | .650 | .841 |

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counts@countsunlimited.com

City of Red Bluff
N/S: Jackson Street
E/W: Olive Street
Weather: Clear

File Name : 05_RBF_Jackson_Olive AM
Site Code : 23622164
Start Date : 3/15/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | Jackson Street Northbound | | | Olive Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 33 | 1 | 34 | 0 | 40 | 40 | 0 | 1 | 1 | 75 |
| 07:15 AM | 53 | 2 | 55 | 0 | 71 | 71 | 0 | 1 | 1 | 127 |
| 07:30 AM | 70 | 0 | 70 | 1 | 105 | 106 | 0 | 0 | 0 | 176 |
| 07:45 AM | 103 | 1 | 104 | 0 | 116 | 116 | 3 | 0 | 3 | 223 |
| Total | 259 | 4 | 263 | 1 | 332 | 333 | 3 | 2 | 5 | 601 |
| | | | | | | | | | | |
| 08:00 AM | 110 | 1 | 111 | 0 | 104 | 104 | 2 | 0 | 2 | 217 |
| 08:15 AM | 76 | 0 | 76 | 0 | 80 | 80 | 0 | 1 | 1 | 157 |
| 08:30 AM | 53 | 1 | 54 | 1 | 66 | 67 | 1 | 1 | 2 | 123 |
| 08:45 AM | 76 | 1 | 77 | 1 | 51 | 52 | 1 | 0 | 1 | 130 |
| Total | 315 | 3 | 318 | 2 | 301 | 303 | 4 | 2 | 6 | 627 |
| | | | | | | | | | | |
| Grand Total | 574 | 7 | 581 | 3 | 633 | 636 | 7 | 4 | 11 | 1228 |
| Apprch % | 98.8 | 1.2 | | 0.5 | 99.5 | | 63.6 | 36.4 | | |
| Total % | 46.7 | 0.6 | 47.3 | 0.2 | 51.5 | 51.8 | 0.6 | 0.3 | 0.9 | |

| | Jackson Street Southbound | | | Jackson Street Northbound | | | Olive Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | |
| 07:30 AM | 70 | 0 | 70 | **1** | 105 | 106 | 0 | 0 | 0 | 176 |
| 07:45 AM | 103 | **1** | 104 | 0 | **116** | **116** | **3** | 0 | **3** | **223** |
| 08:00 AM | **110** | 1 | **111** | 0 | 104 | 104 | 2 | 0 | 2 | 217 |
| 08:15 AM | 76 | 0 | 76 | 0 | 80 | 80 | 0 | **1** | 1 | 157 |
| Total Volume | 359 | 2 | 361 | 1 | 405 | 406 | 5 | 1 | 6 | 773 |
| % App. Total | 99.4 | 0.6 | | 0.2 | 99.8 | | 83.3 | 16.7 | | |
| PHF | .816 | .500 | .813 | .250 | .873 | .875 | .417 | .250 | .500 | .867 |

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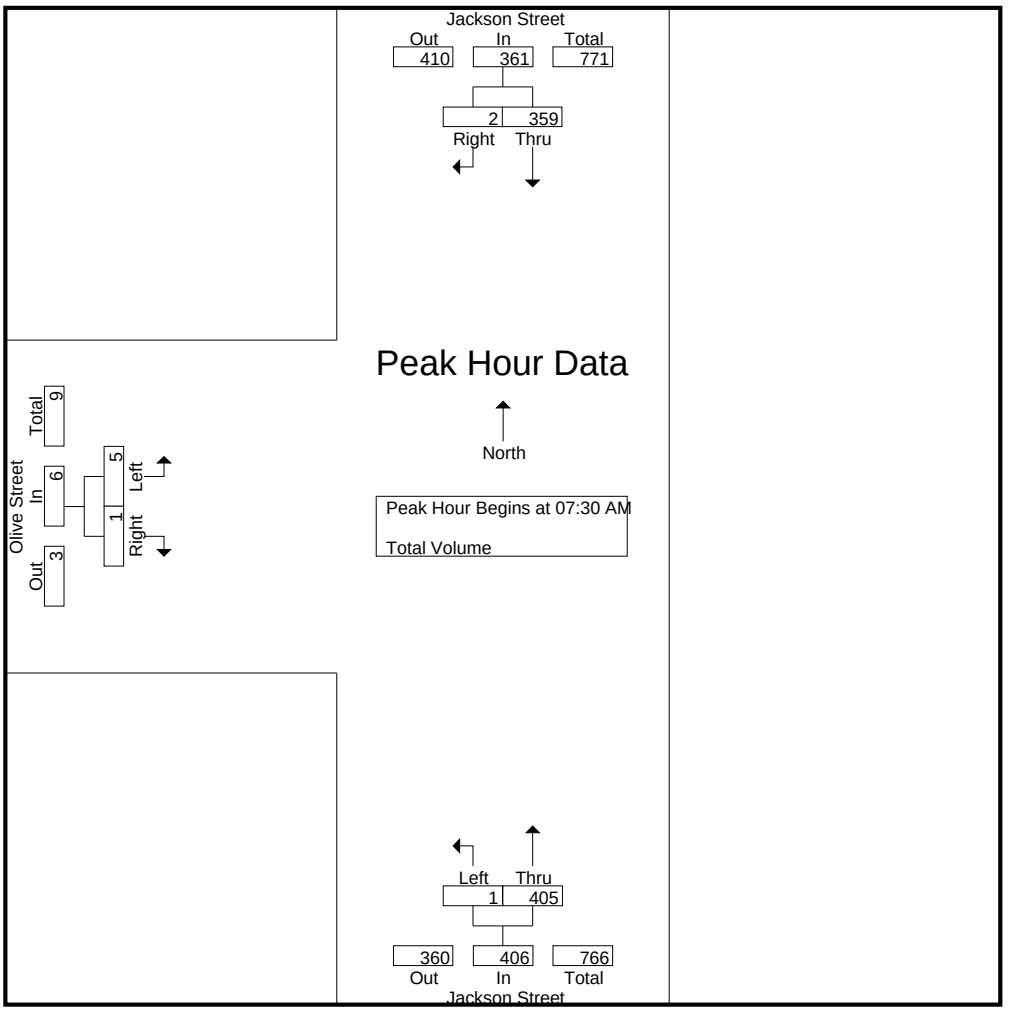
City of Red Bluff
N/S: Jackson Street
E/W: Olive Street
Weather: Clear

File Name : 05_RBF_Jackson_Olive AM
Site Code : 23622164
Start Date : 3/15/2022
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | 07:30 AM | | | 07:45 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 70 | 0 | 70 | **1** | 105 | 106 | **3** | 0 | **3** |
| +15 mins. | 103 | **1** | 104 | 0 | **116** | **116** | 2 | 0 | 2 |
| +30 mins. | **110** | 1 | **111** | 0 | 104 | 104 | 0 | **1** | 1 |
| +45 mins. | 76 | 0 | 76 | 0 | 80 | 80 | 1 | 1 | 2 |
| Total Volume | 359 | 2 | 361 | 1 | 405 | 406 | 6 | 2 | 8 |
| % App. Total | 99.4 | 0.6 | | 0.2 | 99.8 | | 75 | 25 | |
| PHF | .816 | .500 | .813 | .250 | .873 | .875 | .500 | .500 | .667 |

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City of Red Bluff
N/S: Jackson Street
E/W: Olive Street
Weather: Clear

File Name : 05_RBF_Jackson_Olive PM
Site Code : 23622164
Start Date : 3/15/2022
Page No : 1

Groups Printed- Total Volume

| | Jackson Street Southbound | | | Jackson Street Northbound | | | Olive Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 118 | 1 | 119 | 0 | 109 | 109 | 2 | 0 | 2 | 230 |
| 04:15 PM | 92 | 2 | 94 | 2 | 101 | 103 | 2 | 0 | 2 | 199 |
| 04:30 PM | 79 | 2 | 81 | 1 | 90 | 91 | 0 | 0 | 0 | 172 |
| 04:45 PM | 84 | 1 | 85 | 1 | 88 | 89 | 2 | 0 | 2 | 176 |
| Total | 373 | 6 | 379 | 4 | 388 | 392 | 6 | 0 | 6 | 777 |
| 05:00 PM | 105 | 2 | 107 | 0 | 84 | 84 | 1 | 0 | 1 | 192 |
| 05:15 PM | 106 | 0 | 106 | 1 | 112 | 113 | 0 | 0 | 0 | 219 |
| 05:30 PM | 90 | 1 | 91 | 0 | 97 | 97 | 0 | 1 | 1 | 189 |
| 05:45 PM | 104 | 2 | 106 | 1 | 76 | 77 | 2 | 1 | 3 | 186 |
| Total | 405 | 5 | 410 | 2 | 369 | 371 | 3 | 2 | 5 | 786 |
| Grand Total | 778 | 11 | 789 | 6 | 757 | 763 | 9 | 2 | 11 | 1563 |
| Apprch % | 98.6 | 1.4 | | 0.8 | 99.2 | | 81.8 | 18.2 | | |
| Total % | 49.8 | 0.7 | 50.5 | 0.4 | 48.4 | 48.8 | 0.6 | 0.1 | 0.7 | |

| | Jackson Street Southbound | | | Jackson Street Northbound | | | Olive Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | |
| 05:00 PM | 105 | **2** | **107** | 0 | 84 | 84 | 1 | 0 | 1 | 192 |
| 05:15 PM | **106** | 0 | 106 | **1** | **112** | **113** | 0 | 0 | 0 | **219** |
| 05:30 PM | 90 | 1 | 91 | 0 | 97 | 97 | 0 | **1** | 1 | 189 |
| 05:45 PM | 104 | 2 | 106 | 1 | 76 | 77 | **2** | 1 | **3** | 186 |
| Total Volume | 405 | 5 | 410 | 2 | 369 | 371 | 3 | 2 | 5 | 786 |
| % App. Total | 98.8 | 1.2 | | 0.5 | 99.5 | | 60 | 40 | | |
| PHF | .955 | .625 | .958 | .500 | .824 | .821 | .375 | .500 | .417 | .897 |

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City of Red Bluff
N/S: Jackson Street
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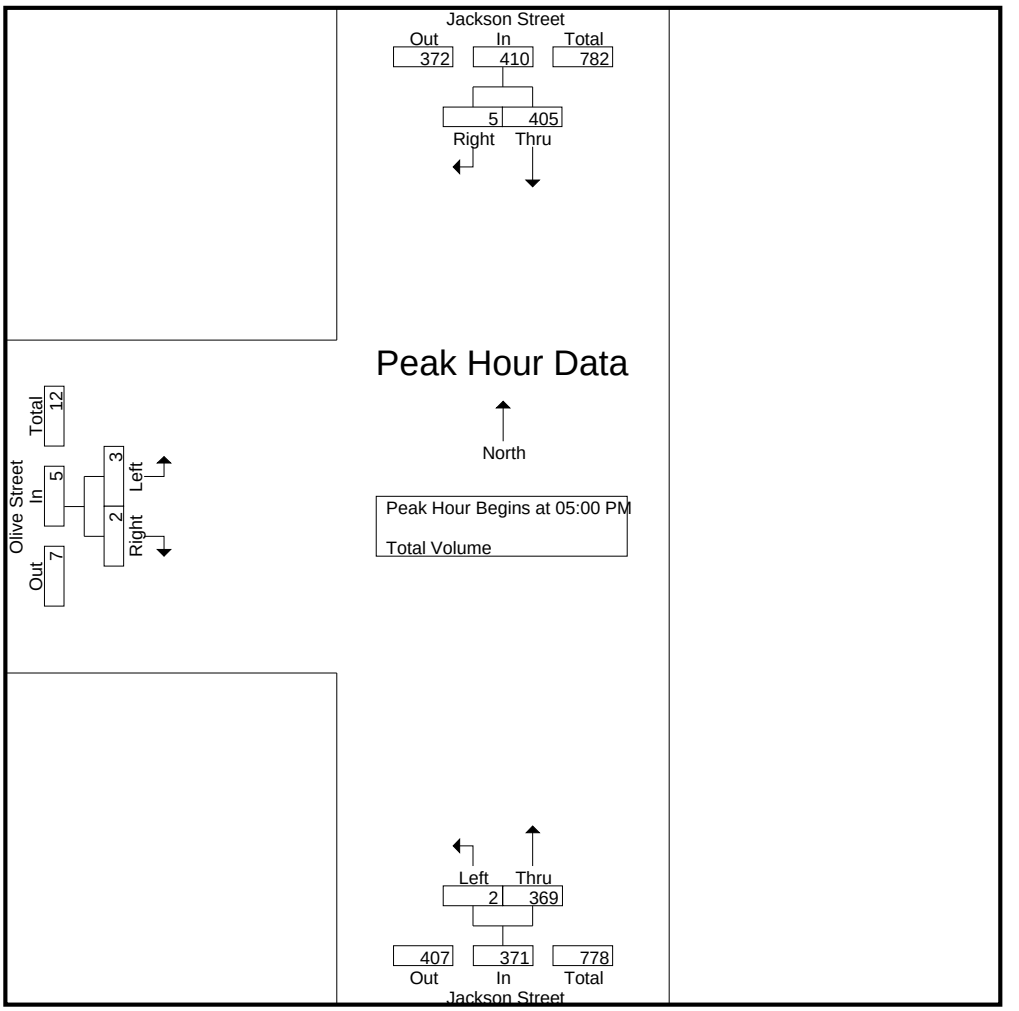
Weather: Clear

File Name : 05_RBF_Jackson_Olive PM
Site Code : 23622164
Start Date : 3/15/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 05:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 105 | **2** | **107** | 0 | **109** | **109** | **2** | 0 | **2** |
| +15 mins. | **106** | 0 | 106 | **2** | 101 | 103 | 2 | 0 | 2 |
| +30 mins. | 90 | 1 | 91 | 1 | 90 | 91 | 0 | 0 | 0 |
| +45 mins. | 104 | 2 | 106 | 1 | 88 | 89 | 2 | 0 | 2 |
| Total Volume | 405 | 5 | 410 | 4 | 388 | 392 | 6 | 0 | 6 |
| % App. Total | 98.8 | 1.2 | | 1 | 99 | | 100 | 0 | |
| PHF | .955 | .625 | .958 | .500 | .890 | .899 | .750 | .000 | .750 |

# Counts Unlimited, Inc.

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Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Red Bluff
Jackson Street
B/ Lay Avenue - Reeds Avenue
24 Hour Directional Volume Count

RBFJALARE
Site Code: 236-22164

| Start Time | 3/1/2022 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 13 | 117 | | | 6 | 98 | | | | |
| 12:15 | | 2 | 90 | | | 8 | 84 | | | | |
| 12:30 | | 2 | 91 | | | 4 | 93 | | | | |
| 12:45 | | 4 | 102 | 21 | 400 | 3 | 82 | 21 | 357 | 42 | 757 |
| 01:00 | | 1 | 76 | | | 3 | 68 | | | | |
| 01:15 | | 6 | 79 | | | 5 | 79 | | | | |
| 01:30 | | 4 | 64 | | | 1 | 74 | | | | |
| 01:45 | | 2 | 91 | 13 | 310 | 7 | 74 | 16 | 295 | 29 | 605 |
| 02:00 | | 6 | 80 | | | 1 | 84 | | | | |
| 02:15 | | 4 | 80 | | | 3 | 102 | | | | |
| 02:30 | | 3 | **110** | | | 2 | 107 | | | | |
| 02:45 | | 2 | **91** | 15 | 361 | 10 | **91** | 16 | 384 | 31 | 745 |
| 03:00 | | 3 | **142** | | | 1 | **116** | | | | |
| 03:15 | | 5 | **104** | | | 3 | **116** | | | | |
| 03:30 | | 4 | 90 | | | 3 | **121** | | | | |
| 03:45 | | 2 | 106 | 14 | 442 | 10 | 91 | 17 | 444 | 31 | 886 |
| 04:00 | | 2 | 94 | | | 11 | 110 | | | | |
| 04:15 | | 5 | 110 | | | 8 | 77 | | | | |
| 04:30 | | 12 | 94 | | | 15 | 81 | | | | |
| 04:45 | | 7 | 105 | 26 | 403 | 24 | 80 | 58 | 348 | 84 | 751 |
| 05:00 | | 12 | 82 | | | 10 | 108 | | | | |
| 05:15 | | 12 | 114 | | | 16 | 96 | | | | |
| 05:30 | | 8 | 104 | | | 16 | 94 | | | | |
| 05:45 | | 11 | 76 | 43 | 376 | 35 | 102 | 77 | 400 | 120 | 776 |
| 06:00 | | 13 | 77 | | | 28 | 70 | | | | |
| 06:15 | | 21 | 72 | | | 27 | 66 | | | | |
| 06:30 | | 28 | 66 | | | 30 | 63 | | | | |
| 06:45 | | 35 | 58 | 97 | 273 | 46 | 62 | 131 | 261 | 228 | 534 |
| 07:00 | | 38 | 41 | | | 35 | 63 | | | | |
| 07:15 | | 58 | 48 | | | 48 | 50 | | | | |
| 07:30 | | **109** | 36 | | | **76** | 40 | | | | |
| 07:45 | | **106** | 44 | 311 | 169 | **113** | 38 | 272 | 191 | 583 | 360 |
| 08:00 | | **88** | 45 | | | **104** | 26 | | | | |
| 08:15 | | **82** | 23 | | | **81** | 29 | | | | |
| 08:30 | | 58 | 29 | | | 64 | 26 | | | | |
| 08:45 | | 74 | 22 | 302 | 119 | 75 | 26 | 324 | 107 | 626 | 226 |
| 09:00 | | 64 | 24 | | | 55 | 31 | | | | |
| 09:15 | | 64 | 24 | | | 54 | 24 | | | | |
| 09:30 | | 53 | 18 | | | 65 | 27 | | | | |
| 09:45 | | 78 | 24 | 259 | 90 | 80 | 25 | 254 | 107 | 513 | 197 |
| 10:00 | | 72 | 21 | | | 67 | 18 | | | | |
| 10:15 | | 78 | 18 | | | 80 | 19 | | | | |
| 10:30 | | 90 | 8 | | | 72 | 13 | | | | |
| 10:45 | | 74 | 15 | 314 | 62 | 68 | 8 | 287 | 58 | 601 | 120 |
| 11:00 | | 84 | 13 | | | 70 | 10 | | | | |
| 11:15 | | 80 | 8 | | | 80 | 10 | | | | |
| 11:30 | | 72 | 11 | | | 71 | 10 | | | | |
| 11:45 | | 102 | 8 | 338 | 40 | 104 | 8 | 325 | 38 | 663 | 78 |
| Total | | 1753 | 3045 | 1753 | 3045 | 1798 | 2990 | 1798 | 2990 | 3551 | 6035 |
| Combined Total | | 4798 | | 4798 | | 4788 | | 4788 | | 9586 | |
| AM Peak | - | 07:30 | - | - | - | 07:30 | - | - | - | - | - |
| Vol. | - | 385 | - | - | - | 374 | - | - | - | - | - |
| P.H.F. | | 0.883 | | | | 0.827 | | | | | |
| PM Peak | - | - | 02:30 | - | - | - | 02:45 | - | - | - | - |
| Vol. | - | - | 447 | - | - | - | 444 | - | - | - | - |
| P.H.F. | | | 0.787 | | | | 0.917 | | | | |
| Percentage | | 36.5% | 63.5% | | | 37.6% | 62.4% | | | | |
| ADT/AADT | | ADT 9,586 | | AADT 9,586 | | | | | | | |

# APPENDIX E

INTERSECTION ANALYSIS WORKSHEETS

# EXISTING (2022) CONDITIONS

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 19.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.764 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 23 | 340 | 114 | 35 | 291 | 27 | 26 | 33 | 41 | 77 | 23 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 23 | 340 | 114 | 35 | 291 | 27 | 26 | 33 | 41 | 77 | 23 | 21 |
| Peak Hour Factor | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 7 | 105 | 35 | 11 | 90 | 8 | 8 | 10 | 13 | 24 | 7 | 7 |
| Total Analysis Volume [veh/h] | 29 | 422 | 141 | 43 | 361 | 33 | 32 | 41 | 51 | 96 | 29 | 26 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 591 | 672 | 535 | 583 | 454 | 513 | 459 | 514 |
| Degree of Utilization, x | 0.76 | 0.21 | 0.08 | 0.68 | 0.07 | 0.18 | 0.21 | 0.11 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 6.94 | 0.79 | 0.26 | 5.13 | 0.23 | 0.65 | 0.78 | 0.36 |
| 95th-Percentile Queue Length [ft] | 173.40 | 19.70 | 6.53 | 128.29 | 5.66 | 16.21 | 19.52 | 8.94 |
| Approach Delay [s/veh] | 21.90 | | 19.70 | | 11.25 | | 11.86 | |
| Approach LOS | C | | C | | B | | B | |
| Intersection Delay [s/veh] | 18.98 | | | | | | | |
| Intersection LOS | C | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 15.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.023 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 423 | 3 | 26 | 377 | 7 | 40 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 423 | 3 | 26 | 377 | 7 | 40 |
| Peak Hour Factor | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 128 | 1 | 8 | 115 | 2 | 12 |
| Total Analysis Volume [veh/h] | 514 | 4 | 32 | 458 | 9 | 49 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.03 | 0.00 | 0.02 | 0.09 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.51 | 0.00 | 15.22 | 12.24 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.09 | 0.00 | 0.37 | 0.37 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.34 | 0.00 | 9.25 | 9.25 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.56 | | 12.70 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.95 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 18.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 346 | 15 | 72 | 290 | 5 | 45 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 346 | 15 | 72 | 290 | 5 | 45 |
| Peak Hour Factor | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 102 | 4 | 21 | 85 | 1 | 13 |
| Total Analysis Volume [veh/h] | 408 | 18 | 85 | 342 | 6 | 53 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.07 | 0.00 | 0.02 | 0.08 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.40 | 0.00 | 18.55 | 11.28 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.24 | 0.00 | 0.34 | 0.34 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 6.01 | 0.00 | 8.59 | 8.59 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.67 | | 12.02 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 1.56 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.743 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 27 | 219 | 91 | 76 | 204 | 43 | 51 | 234 | 47 | 56 | 162 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 27 | 219 | 91 | 76 | 204 | 43 | 51 | 234 | 47 | 56 | 162 | 57 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 7 | 59 | 25 | 21 | 55 | 12 | 14 | 64 | 13 | 15 | 44 | 15 |
| Total Analysis Volume [veh/h] | 29 | 238 | 99 | 83 | 221 | 47 | 55 | 254 | 51 | 61 | 176 | 62 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.02 | 0.21 | 0.21 | 0.05 | 0.17 | 0.17 | 0.03 | 0.19 | 0.03 | 0.04 | 0.19 | 0.19 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.743 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 16.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.016 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 405 | 359 | 2 | 4 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 405 | 359 | 2 | 4 | 1 |
| Peak Hour Factor | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 117 | 104 | 1 | 1 | 0 |
| Total Analysis Volume [veh/h] | 1 | 467 | 414 | 2 | 5 | 1 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 8.12 | 0.00 | 0.00 | 0.00 | 16.48 | 10.78 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.05 |
| 95th-Percentile Queue Length [ft/ln] | 0.07 | 0.07 | 0.00 | 0.00 | 1.32 | 1.32 |
| d_A, Approach Delay [s/veh] | 0.02 | | 0.00 | | 15.53 | |
| Approach LOS | A | | A | | C | |
| d_I, Intersection Delay [s/veh] | 0.11 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 14.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.605 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 284 | 84 | 33 | 299 | 28 | 17 | 38 | 38 | 115 | 37 | 19 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 58 | 284 | 84 | 33 | 299 | 28 | 17 | 38 | 38 | 115 | 37 | 19 |
| Peak Hour Factor | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 15 | 75 | 22 | 9 | 79 | 7 | 5 | 10 | 10 | 30 | 10 | 5 |
| Total Analysis Volume [veh/h] | 61 | 301 | 89 | 35 | 317 | 30 | 18 | 40 | 40 | 122 | 39 | 20 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 598 | 688 | 552 | 605 | 478 | 539 | 490 | 545 |
| Degree of Utilization, x | 0.61 | 0.13 | 0.06 | 0.57 | 0.04 | 0.15 | 0.25 | 0.11 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 4.05 | 0.44 | 0.20 | 3.63 | 0.12 | 0.52 | 0.97 | 0.36 |
| 95th-Percentile Queue Length [ft] | 101.20 | 11.08 | 5.05 | 90.69 | 2.93 | 12.95 | 24.36 | 9.05 |
| Approach Delay [s/veh] | 15.79 | | 15.73 | | 10.53 | | 11.70 | |
| Approach LOS | C | | C | | B | | B | |
| Intersection Delay [s/veh] | 14.64 | | | | | | | |
| Intersection LOS | B | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 13.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.014 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 394 | 6 | 35 | 406 | 6 | 28 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 394 | 6 | 35 | 406 | 6 | 28 |
| Peak Hour Factor | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 101 | 2 | 9 | 104 | 2 | 7 |
| Total Analysis Volume [veh/h] | 403 | 6 | 36 | 416 | 6 | 29 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 | 0.04 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.20 | 0.00 | 13.77 | 10.92 |
| Movement LOS | A | A | A | A | B | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.10 | 0.00 | 0.19 | 0.19 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.40 | 0.00 | 4.66 | 4.66 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.65 | | 11.41 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.78 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 17.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.074 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 248 | 24 | 111 | 258 | 24 | 146 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 248 | 24 | 111 | 258 | 24 | 146 |
| Peak Hour Factor | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 65 | 6 | 29 | 68 | 6 | 38 |
| Total Analysis Volume [veh/h] | 261 | 25 | 117 | 271 | 25 | 153 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.09 | 0.00 | 0.07 | 0.20 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.07 | 0.00 | 17.59 | 11.59 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.30 | 0.00 | 1.09 | 1.09 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 7.48 | 0.00 | 27.13 | 27.13 |
| d_A, Approach Delay [s/veh] | 0.00 | | 2.43 | | 12.43 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 3.71 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.719 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 7 | 110 | 79 | 82 | 128 | 43 | 47 | 199 | 13 | 69 | 228 | 98 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 7 | 110 | 79 | 82 | 128 | 43 | 47 | 199 | 13 | 69 | 228 | 98 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 2 | 30 | 21 | 22 | 35 | 12 | 13 | 54 | 4 | 19 | 62 | 27 |
| Total Analysis Volume [veh/h] | 8 | 119 | 86 | 89 | 139 | 47 | 51 | 216 | 14 | 75 | 248 | 106 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.13 | 0.13 | 0.06 | 0.12 | 0.12 | 0.03 | 0.17 | 0.01 | 0.05 | 0.27 | 0.27 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.719 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 16.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.009 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 2 | 369 | 405 | 5 | 3 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 2 | 369 | 405 | 5 | 3 | 2 |
| Peak Hour Factor | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 103 | 113 | 1 | 1 | 1 |
| Total Analysis Volume [veh/h] | 2 | 411 | 452 | 6 | 3 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 8.24 | 0.00 | 0.00 | 0.00 | 16.19 | 11.00 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.01 | 0.01 | 0.00 | 0.00 | 0.04 | 0.04 |
| 95th-Percentile Queue Length [ft/ln] | 0.13 | 0.13 | 0.00 | 0.00 | 0.95 | 0.95 |
| d_A, Approach Delay [s/veh] | 0.04 | | 0.00 | | 14.11 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.10 | | | | | |
| Intersection LOS | C | | | | | |

# OPENING YEAR (2025) CONDITIONS

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 22.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.829 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 23 | 340 | 114 | 35 | 291 | 27 | 26 | 33 | 41 | 77 | 23 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 24 | 360 | 121 | 37 | 308 | 29 | 28 | 35 | 43 | 82 | 24 | 22 |
| Peak Hour Factor | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 7 | 112 | 38 | 11 | 96 | 9 | 9 | 11 | 13 | 25 | 7 | 7 |
| Total Analysis Volume [veh/h] | 30 | 447 | 150 | 46 | 382 | 36 | 35 | 43 | 53 | 102 | 30 | 27 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 575 | 652 | 521 | 567 | 441 | 495 | 445 | 497 |
| Degree of Utilization, x | 0.83 | 0.23 | 0.09 | 0.74 | 0.08 | 0.19 | 0.23 | 0.11 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 8.58 | 0.88 | 0.29 | 6.30 | 0.26 | 0.71 | 0.87 | 0.39 |
| 95th-Percentile Queue Length [ft] | 214.58 | 22.12 | 7.23 | 157.38 | 6.44 | 17.81 | 21.86 | 9.66 |
| Approach Delay [s/veh] | 26.94 | | 23.35 | | 11.68 | | 12.36 | |
| Approach LOS | D | | C | | B | | B | |
| Intersection Delay [s/veh] | 22.61 | | | | | | | |
| Intersection LOS | C | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 15.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.025 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 423 | 3 | 26 | 377 | 7 | 40 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 448 | 3 | 28 | 400 | 7 | 42 |
| Peak Hour Factor | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 136 | 1 | 9 | 122 | 2 | 13 |
| Total Analysis Volume [veh/h] | 544 | 4 | 34 | 486 | 9 | 51 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.03 | 0.00 | 0.02 | 0.09 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.61 | 0.00 | 15.80 | 12.61 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.10 | 0.00 | 0.40 | 0.40 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.55 | 0.00 | 10.04 | 10.04 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.56 | | 13.09 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.96 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 19.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.023 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 346 | 15 | 72 | 290 | 5 | 45 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 367 | 16 | 76 | 307 | 5 | 48 |
| Peak Hour Factor | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 108 | 5 | 22 | 91 | 1 | 14 |
| Total Analysis Volume [veh/h] | 433 | 19 | 90 | 362 | 6 | 57 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.08 | 0.00 | 0.02 | 0.09 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.50 | 0.00 | 19.76 | 11.58 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.26 | 0.00 | 0.38 | 0.38 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 6.55 | 0.00 | 9.60 | 9.60 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.69 | | 12.36 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 1.60 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.780 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 27 | 219 | 91 | 76 | 204 | 43 | 51 | 234 | 47 | 56 | 162 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 29 | 232 | 96 | 81 | 216 | 46 | 54 | 248 | 50 | 59 | 172 | 60 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 8 | 63 | 26 | 22 | 59 | 12 | 15 | 67 | 14 | 16 | 47 | 16 |
| Total Analysis Volume [veh/h] | 31 | 252 | 104 | 88 | 235 | 50 | 59 | 269 | 54 | 64 | 187 | 65 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.02 | 0.22 | 0.22 | 0.06 | 0.18 | 0.18 | 0.04 | 0.21 | 0.03 | 0.04 | 0.20 | 0.20 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.780 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 17.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.017 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 405 | 359 | 2 | 4 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 429 | 381 | 2 | 4 | 1 |
| Peak Hour Factor | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 124 | 110 | 1 | 1 | 0 |
| Total Analysis Volume [veh/h] | 1 | 495 | 439 | 2 | 5 | 1 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 8.19 | 0.00 | 0.00 | 0.00 | 17.36 | 11.00 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 |
| 95th-Percentile Queue Length [ft/ln] | 0.07 | 0.07 | 0.00 | 0.00 | 1.41 | 1.41 |
| d_A, Approach Delay [s/veh] | 0.02 | | 0.00 | | 16.30 | |
| Approach LOS | A | | A | | C | |
| d_I, Intersection Delay [s/veh] | 0.11 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 16.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.655 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 284 | 84 | 33 | 299 | 28 | 17 | 38 | 38 | 115 | 37 | 19 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 61 | 301 | 89 | 35 | 317 | 30 | 18 | 40 | 40 | 122 | 39 | 20 |
| Peak Hour Factor | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 80 | 24 | 9 | 84 | 8 | 5 | 11 | 11 | 32 | 10 | 5 |
| Total Analysis Volume [veh/h] | 65 | 319 | 94 | 37 | 336 | 32 | 19 | 42 | 42 | 129 | 41 | 21 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 586 | 672 | 542 | 593 | 466 | 524 | 479 | 531 |
| Degree of Utilization, x | 0.66 | 0.14 | 0.07 | 0.62 | 0.04 | 0.16 | 0.27 | 0.12 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 4.79 | 0.48 | 0.22 | 4.27 | 0.13 | 0.57 | 1.08 | 0.39 |
| 95th-Percentile Queue Length [ft] | 119.85 | 12.11 | 5.47 | 106.77 | 3.18 | 14.16 | 26.99 | 9.84 |
| Approach Delay [s/veh] | 17.63 | | 17.46 | | 10.85 | | 12.12 | |
| Approach LOS | C | | C | | B | | B | |
| Intersection Delay [s/veh] | 16.08 | | | | | | | |
| Intersection LOS | C | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 14.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.015 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 394 | 6 | 35 | 406 | 6 | 28 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 418 | 6 | 37 | 430 | 6 | 30 |
| Peak Hour Factor | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 107 | 2 | 9 | 110 | 2 | 8 |
| Total Analysis Volume [veh/h] | 428 | 6 | 38 | 440 | 6 | 31 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 | 0.05 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.28 | 0.00 | 14.19 | 11.15 |
| Movement LOS | A | A | A | A | B | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.10 | 0.00 | 0.20 | 0.20 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.59 | 0.00 | 5.11 | 5.11 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.66 | | 11.64 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.79 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 18.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.082 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 248 | 24 | 111 | 258 | 24 | 146 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 263 | 25 | 118 | 273 | 25 | 155 |
| Peak Hour Factor | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 69 | 7 | 31 | 72 | 7 | 41 |
| Total Analysis Volume [veh/h] | 276 | 26 | 124 | 287 | 26 | 163 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.10 | 0.00 | 0.08 | 0.21 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.14 | 0.00 | 18.67 | 12.01 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.32 | 0.00 | 1.22 | 1.22 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 8.09 | 0.00 | 30.61 | 30.61 |
| d_A, Approach Delay [s/veh] | 0.00 | | 2.46 | | 12.93 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 3.83 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.756 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 7 | 110 | 79 | 82 | 128 | 43 | 47 | 199 | 13 | 69 | 228 | 98 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 7 | 117 | 84 | 87 | 136 | 46 | 50 | 211 | 14 | 73 | 242 | 104 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 2 | 32 | 23 | 24 | 37 | 12 | 14 | 57 | 4 | 20 | 66 | 28 |
| Total Analysis Volume [veh/h] | 8 | 127 | 91 | 94 | 148 | 50 | 54 | 229 | 15 | 79 | 263 | 113 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.14 | 0.14 | 0.06 | 0.12 | 0.12 | 0.03 | 0.18 | 0.01 | 0.05 | 0.28 | 0.28 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.756 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 17.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.010 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Olive Street | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 2 | 369 | 405 | 5 | 3 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 2 | 391 | 429 | 5 | 3 | 2 |
| Peak Hour Factor | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 109 | 120 | 1 | 1 | 1 |
| Total Analysis Volume [veh/h] | 2 | 436 | 478 | 6 | 3 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 8.31 | 0.00 | 0.00 | 0.00 | 17.00 | 11.21 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.01 | 0.01 | 0.00 | 0.00 | 0.04 | 0.04 |
| 95th-Percentile Queue Length [ft/ln] | 0.14 | 0.14 | 0.00 | 0.00 | 1.01 | 1.01 |
| d_A, Approach Delay [s/veh] | 0.04 | | 0.00 | | 14.68 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.10 | | | | | |
| Intersection LOS | C | | | | | |

# OPENING YEAR (2025) WITH PROJECT CONDITIONS

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 23.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.844 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 23 | 340 | 114 | 35 | 291 | 27 | 26 | 33 | 41 | 77 | 23 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 25 | 365 | 123 | 37 | 310 | 29 | 28 | 35 | 43 | 83 | 24 | 22 |
| Peak Hour Factor | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 | 0.8060 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 8 | 113 | 38 | 11 | 96 | 9 | 9 | 11 | 13 | 26 | 7 | 7 |
| Total Analysis Volume [veh/h] | 31 | 453 | 153 | 46 | 385 | 36 | 35 | 43 | 53 | 103 | 30 | 27 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 573 | 649 | 519 | 565 | 438 | 492 | 443 | 494 |
| Degree of Utilization, x | 0.84 | 0.24 | 0.09 | 0.75 | 0.08 | 0.20 | 0.23 | 0.12 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 9.00 | 0.91 | 0.29 | 6.47 | 0.26 | 0.72 | 0.89 | 0.39 |
| 95th-Percentile Queue Length [ft] | 224.99 | 22.79 | 7.26 | 161.87 | 6.48 | 17.93 | 22.27 | 9.71 |
| Approach Delay [s/veh] | 28.25 | | 23.98 | | 11.74 | | 12.44 | |
| Approach LOS | D | | C | | B | | B | |
| Intersection Delay [s/veh] | 23.46 | | | | | | | |
| Intersection LOS | C | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 15.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.025 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 423 | 3 | 26 | 377 | 7 | 40 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 8 | 0 | 0 | 3 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 456 | 3 | 28 | 403 | 7 | 42 |
| Peak Hour Factor | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 | 0.8230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 139 | 1 | 9 | 122 | 2 | 13 |
| Total Analysis Volume [veh/h] | 554 | 4 | 34 | 490 | 9 | 51 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.03 | 0.00 | 0.02 | 0.10 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.64 | 0.00 | 15.94 | 12.72 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.10 | 0.00 | 0.41 | 0.41 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.58 | 0.00 | 10.18 | 10.18 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.56 | | 13.20 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.95 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 20.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.024 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 346 | 15 | 72 | 290 | 5 | 45 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 0 | 4 | 4 | 0 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 368 | 16 | 80 | 311 | 5 | 50 |
| Peak Hour Factor | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 | 0.8480 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 108 | 5 | 24 | 92 | 1 | 15 |
| Total Analysis Volume [veh/h] | 434 | 19 | 94 | 367 | 6 | 59 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.08 | 0.00 | 0.02 | 0.09 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.51 | 0.00 | 20.11 | 11.62 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.27 | 0.00 | 0.40 | 0.40 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 6.87 | 0.00 | 9.96 | 9.96 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.74 | | 12.40 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 1.64 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.782 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 27 | 219 | 91 | 76 | 204 | 43 | 51 | 234 | 47 | 56 | 162 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 29 | 232 | 96 | 83 | 217 | 47 | 54 | 248 | 50 | 59 | 172 | 61 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 8 | 63 | 26 | 23 | 59 | 13 | 15 | 67 | 14 | 16 | 47 | 17 |
| Total Analysis Volume [veh/h] | 31 | 252 | 104 | 90 | 236 | 51 | 59 | 269 | 54 | 64 | 187 | 66 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.02 | 0.22 | 0.22 | 0.06 | 0.18 | 0.18 | 0.04 | 0.21 | 0.03 | 0.04 | 0.20 | 0.20 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.782 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 20.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Olive Street | | | Olive Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | No | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Olive Street | | | Olive Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 405 | 0 | 0 | 359 | 2 | 4 | 0 | 1 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 429 | 3 | 3 | 381 | 2 | 4 | 0 | 1 | 8 | 0 | 8 |
| Peak Hour Factor | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 | 0.8670 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 124 | 1 | 1 | 110 | 1 | 1 | 0 | 0 | 2 | 0 | 2 |
| Total Analysis Volume [veh/h] | 1 | 495 | 3 | 3 | 439 | 2 | 5 | 0 | 1 | 9 | 0 | 9 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop | Stop |
|---|---|---|---|---|
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.04 | 0.00 | 0.02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 8.19 | 0.00 | 0.00 | 8.35 | 0.00 | 0.00 | 20.44 | 19.02 | 11.10 | 20.39 | 19.27 | 11.80 |
| Movement LOS | A | A | A | A | A | A | C | C | B | C | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.07 | 0.07 | 0.07 | 0.17 | 0.17 | 0.17 |
| 95th-Percentile Queue Length [ft/ln] | 0.07 | 0.07 | 0.00 | 0.21 | 0.21 | 0.00 | 1.73 | 1.73 | 1.73 | 4.14 | 4.14 | 4.14 |
| d_A, Approach Delay [s/veh] | 0.02 | | | 0.06 | | | 18.88 | | | 16.10 | | |
| Approach LOS | A | | | A | | | C | | | C | | |
| d_I, Intersection Delay [s/veh] | 0.45 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Jackson St/Aloha St**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 16.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.665 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 75.00 | 100.00 | 100.00 | 70.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Aloha Street | | | Aloha Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 284 | 84 | 33 | 299 | 28 | 17 | 38 | 38 | 115 | 37 | 19 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 3 | 1 | 0 | 6 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 62 | 304 | 90 | 35 | 323 | 30 | 18 | 40 | 41 | 124 | 39 | 20 |
| Peak Hour Factor | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 | 0.9440 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 81 | 24 | 9 | 86 | 8 | 5 | 11 | 11 | 33 | 10 | 5 |
| Total Analysis Volume [veh/h] | 66 | 322 | 95 | 37 | 342 | 32 | 19 | 42 | 43 | 131 | 41 | 21 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 583 | 669 | 539 | 590 | 464 | 521 | 476 | 528 |
| Degree of Utilization, x | 0.67 | 0.14 | 0.07 | 0.63 | 0.04 | 0.16 | 0.27 | 0.12 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 4.96 | 0.49 | 0.22 | 4.46 | 0.13 | 0.58 | 1.11 | 0.40 |
| 95th-Percentile Queue Length [ft] | 123.93 | 12.34 | 5.50 | 111.61 | 3.20 | 14.46 | 27.73 | 9.90 |
| Approach Delay [s/veh] | 18.06 | | 17.99 | | 10.92 | | 12.24 | |
| Approach LOS | C | | C | | B | | B | |
| Intersection Delay [s/veh] | 16.47 | | | | | | | |
| Intersection LOS | C | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 2: Jackson St/Lay Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 14.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.015 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Lay Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 394 | 6 | 35 | 406 | 6 | 28 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 5 | 0 | 0 | 9 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 423 | 6 | 37 | 439 | 6 | 30 |
| Peak Hour Factor | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 | 0.9770 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 108 | 2 | 9 | 112 | 2 | 8 |
| Total Analysis Volume [veh/h] | 433 | 6 | 38 | 449 | 6 | 31 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | Yes |
| Number of Storage Spaces in Median | 0 | 0 | 1 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 | 0.05 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.29 | 0.00 | 14.30 | 11.20 |
| Movement LOS | A | A | A | A | B | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.10 | 0.00 | 0.21 | 0.21 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 2.60 | 0.00 | 5.15 | 5.15 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.65 | | 11.70 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.78 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 3: Jackson St/Reeds Ave**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 19.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.084 |

**Intersection Setup**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | 35.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Jackson Street | | Jackson Street | | Reeds Avenue | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 248 | 24 | 111 | 258 | 24 | 146 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 4 | 0 | 3 | 4 | 0 | 4 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 267 | 25 | 121 | 277 | 25 | 159 |
| Peak Hour Factor | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 | 0.9520 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 70 | 7 | 32 | 73 | 7 | 42 |
| Total Analysis Volume [veh/h] | 280 | 26 | 127 | 291 | 26 | 167 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.10 | 0.00 | 0.08 | 0.22 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.16 | 0.00 | 19.02 | 12.14 |
| Movement LOS | A | A | A | A | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.33 | 0.00 | 1.27 | 1.27 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 8.34 | 0.00 | 31.79 | 31.79 |
| d_A, Approach Delay [s/veh] | 0.00 | | 2.48 | | 13.07 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 3.88 | | | | | |
| Intersection LOS | C | | | | | |

**Intersection Level Of Service Report**
**Intersection 4: Jackson St/Luther Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | - |
| Analysis Method: | ICU 1 | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.761 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 105.00 | 100.00 | 100.00 | 85.00 | 100.00 | 100.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 35.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Luther Road | | | Luther Road | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 7 | 110 | 79 | 82 | 128 | 43 | 47 | 199 | 13 | 69 | 228 | 98 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 7 | 118 | 84 | 89 | 137 | 47 | 51 | 211 | 14 | 73 | 242 | 106 |
| Peak Hour Factor | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 | 0.9210 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 2 | 32 | 23 | 24 | 37 | 13 | 14 | 57 | 4 | 20 | 66 | 29 |
| Total Analysis Volume [veh/h] | 8 | 128 | 91 | 97 | 149 | 51 | 55 | 229 | 15 | 79 | 263 | 115 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Cycle Length [s] | 100 |
| Lost time [s] | 10.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Split | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.14 | 0.14 | 0.06 | 0.13 | 0.13 | 0.03 | 0.18 | 0.01 | 0.05 | 0.29 | 0.29 |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.761 | | | | | | | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Jackson St/Olive St**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 20.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.033 |

**Intersection Setup**

| Name | Jackson Street | | | Jackson Street | | | Olive Street | | | Olive Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 35.00 | | | 35.00 | | | 25.00 | | | 25.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | No | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Jackson Street | | | Jackson Street | | | Olive Street | | | Olive Street | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 2 | 369 | 0 | 0 | 405 | 5 | 3 | 0 | 2 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Growth Factor | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 | 1.0600 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 2 | 391 | 8 | 9 | 429 | 5 | 3 | 0 | 2 | 7 | 0 | 5 |
| Peak Hour Factor | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 | 0.8970 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 109 | 2 | 3 | 120 | 1 | 1 | 0 | 1 | 2 | 0 | 1 |
| Total Analysis Volume [veh/h] | 2 | 436 | 9 | 10 | 478 | 6 | 3 | 0 | 2 | 8 | 0 | 6 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop | Stop |
|---|---|---|---|---|
| Flared Lane | | | No | No |
| Storage Area [veh] | 0 | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 8.31 | 0.00 | 0.00 | 8.23 | 0.00 | 0.00 | 20.27 | 19.06 | 11.27 | 20.40 | 19.31 | 11.25 |
| Movement LOS | A | A | A | A | A | A | C | C | B | C | C | B |
| 95th-Percentile Queue Length [veh/ln] | 0.01 | 0.01 | 0.00 | 0.03 | 0.03 | 0.00 | 0.05 | 0.05 | 0.05 | 0.13 | 0.13 | 0.13 |
| 95th-Percentile Queue Length [ft/ln] | 0.14 | 0.14 | 0.00 | 0.67 | 0.67 | 0.00 | 1.21 | 1.21 | 1.21 | 3.34 | 3.34 | 3.34 |
| d_A, Approach Delay [s/veh] | 0.04 | | | 0.17 | | | 16.67 | | | 16.48 | | |
| Approach LOS | A | | | A | | | C | | | C | | |
| d_I, Intersection Delay [s/veh] | 0.43 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |