# Draft Environmental Impact Report

**SCH# 2024041028**

## Volume 6

**Appendix I through M**

## BUTTONBUSH SOLAR AND STORAGE PROJECT

**by 29SC 8me, LLC.**

***(PP24407)***

**Site 1**
CUP No. 17, Map 98; CUP No. 19, Map 98;
CUP No. 25, Map 99; GPA No. 4, Map 98;
SPA No. 5, Map 98; GPA No. 8, Map 99;
Williamson Act Land Use Contract Cancellations;
Farmland Security Zone Contract Cancellation;
Non-Summary Vacation, Map 99

**Site 2**
CUP No. 14, Map 77; CUP No. 20, Map 77;
CUP No. 18, Map 98; GPA No. 10, Map 77;
Williamson Act Land Use Contract Cancellations

**Site 3**
CUP No. 15, Map 77; GPA No. 11, Map 77;
Williamson Act Land Use Contract Cancellations

**Site 4**
CUP No. 16, Map 77; GPA No. 12, Map 77;
Williamson Act Land Use Contract Cancellation

**Site 5**
CUP No. 26, Map 99; CUP No. 27, Map 99;
CUP No. 28, Map 99; CUP No. 61, Map 100;
GPA No. 10, Map 99; GPA No. 31, Map 100;
Williamson Act Land Use Contract Cancellations;
Non-Summary Vacation, Map 99

**Site 6**
CUP No. 17, Map 78; GPA No. 10, Map 78;
Williamson Act Land Use Contract Cancellations

**Site 8**
CUP No. 12, Map 54; CUP No. 17, Map 77;
CUP No. 18, Map 77; CUP No. 19, Map 77;
GPA No. 1, Map 54; GPA No. 13, Map 77;
Williamson Act Land Use Contract Cancellations

Kern County
Planning and Natural Resources Department
Bakersfield, CA

November 2025

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Kern County
Planning and Natural Resources Department
Bakersfield, CA

November 2025

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# Appendices—Volume 6

**NOTE TO REVIEWER OF ELECTRONIC FILES:**

To assist you in reviewing this electronic document, "bookmarks" and/or "links" have been provided for easier navigation between sections. When available, bookmarks are located in the panel to the left. Links are highlighted in **BLUE** in the Table of Contents. Clicking on either the bookmarks or links will take you to the selected item. This document may consist of multiple linked PDF files. If saving this document to your computer, you must save all corresponding files to a directory on your hard drive to maintain the manner in which these PDF documents are linked.


## Appendix I.1: Preliminary Hydrology Study

## Appendix I.2: Water Supply Assessment

## Appendix I.3: Water District Letter

## Appendix J.1: Noise Acreage Memorandum

## Appendix J.2: Noise Technical Report

## Appendix K: Transportation Impact Study

## Appendix L: Tjaarda Dairy Preliminay Closure Plan

## Appendix M: Pacific Gas & Electric Best Management Practices

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Appendix I

# Hydrology and Water Materials

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Appendix I.1

# Preliminary Hydrology Study

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PRELIMINARY HYDROLOGY STUDY

# Buttonbush Solar & Storage Project

## Kern County, California

**APRIL 30, 2025**

PREPARED FOR:
29SC 8me LLC

PREPARED BY:

Westwood

Westwood

# Preliminary Hydrology Study

## Buttonbush Solar & Storage Project

Kern County, California

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Date: April 30, 2025

Westwood

# Table of Contents

Executive Summary ..... 1

1.0 Data Sources ..... 2

2.0 Coordinate System ..... 2

3.0 Existing Conditions ..... 3
3.1 Proposed Project ..... 3
3.2 Project Location ..... 3
3.3 Project Characteristics ..... 4
3.4 Watershed Hydrology ..... 6
3.5 Onsite Conditions ..... 6
3.6 FEMA Flood Zones ..... 6

4.0 Proposed Conditions ..... 7
4.1 Proposed Conditions ..... 7
4.2 Post-Construction Stormwater Management ..... 7
4.3 Kern County Hydrology (CivilD) ..... 7

5.0 FLO-2D Modeling ..... 8
5.1 FLO-2D Modeling Overview ..... 8
5.2 Elevation Data ..... 8
5.3 Watershed Soils and Land Cover ..... 8
5.4 Precipitation ..... 9
5.5 Inflows ..... 9
5.6 CivilD Model Calibration ..... 9

6.0 Potential On-Site Retention Requirements ..... 9

7.0 Flood Analysis Results ..... 10
7.1 Existing Conditions Flood Analysis ..... 10
7.2 Scour ..... 10

8.0 CEQA Hydrology and Water Quality Assessment ..... 11

9.0 Recommendations ..... 15

10.0 Next Steps ..... 16

11.0 Included Output Files ..... 17

12.0 References Cited ..... 18

# Tables

Table 1 – Data Sources ..... 2
Table 2 – Coordinate System Used ..... 2
Table 3 – CivilD Calibration Watershed Inputs ..... 8
Table 4 – Comparison of Modeling Methods at Calibration Points ..... 9
Table 5– Flood Depths Onsite ..... 10

# Exhibits

Exhibit 1: Location Map .....24
Exhibit 2: Base Hydrologic Map .....25
Exhibit 3: Soils Map .....26
Exhibit 4: Landcover Map .....27
Exhibit 5: Curve Number and Topographic Source Map .....28
Exhibit 6: 100-Year Max Flood Depth Map .....29
Exhibit 6A: 100-Year Max Flood Depth Project Area Map .....30
Exhibit 7: 100-Year Peak Velocity Map .....31
Exhibit 7A: 100-Year Peak Velocity Project Area Map .....32
Exhibit 8: 100-Year Scour Map .....33
Exhibit 9: Spatially Varied Rainfall Depth Map .....34
Exhibit 10: Kern County Hydrology Map .....35

# Appendices

Appendix A: NOAA Atlas 14 Precipitation Data
Appendix B: Curve Number Table
Appendix C: FEMA Flood Insurance Rate Map (FIRM)
Appendix D: Poso Creek Inflow
Appendix E: CivilD Model Printouts
Appendix F: Kern County Hydrology Manual Excerpts
Appendix G: Pre-Post California Water Balance Sheet
Appendix H: Kern County Development Standards
Appendix I: CEQA Hydrology and Water Quality Assessment

# Executive Summary

The purpose of this study is to analyze and review the existing hydrology of the Buttonbush Solar Project (Project or Site) and any impacts that the hydrology may play in the design of the proposed solar array. This report was prepared to be used in the design and layout of the Project and is intended for submittal to reviewing agencies for stormwater permitting. This report is suitable for the purpose of establishing baseline conditions under the California Environmental Quality Act.

The Project as proposed by 29SC 8me LLC (project proponent) would be located on 128 parcels across a leased area of approximately 11,983 acres within a 13,868 acre gross parcel boundary of privately owned land currently under agricultural use in the valley region of Kern County, California. The Project is located approximately 17 miles northwest of Bakersfield, California. The Site is located on relatively flat land that generally slopes to the northwest. The modeled watershed area encompasses approximately 330 square miles and generally drains towards the northwest.

The analysis shows low water depths and low velocities (Exhibits 6 through 7A) across the majority of the Site. The Site tends to experience overland flow due to the flat terrain. Multiple shallow ponding areas exist that are often caused by roads or property edges. Minimal velocities and scour are expected on site due to the flat terrain.

Based on experience with similar projects, the majority of the Site is suitable for the planned development by avoiding or designing to areas of high flood depths.

# 1.0 Data Sources

Table 1 – Data Sources

| Task | Format | Source | Use |
|---|---|---|---|
| Elevation | 1m Tiff | USGS.gov | FLO-2D Model Elevations |
| Crop Data | Shapefile | USDA 2021 Cropland Data Layer | Landcover |
| Soils | Shapefile | USGS SSURGO Dataset | Curve Numbers |
| Precipitation | PDF File | NOAA Atlas 14 | Design Storms |
| HUC-12 Drainage Boundary | Shapefile | USGS | Define Model Extents |
| Site Boundary | Buttonbush Site Map 20240909.kmz | 29SC 8me LLC | Define Model Extents |
| 2014 Aerial Photography | ArcGIS Map Service | USDA FSA | Reference |
| FEMA Flood Zones | PDF; Shapefile | FEMA | Reference |

# 2.0 Coordinate System

Table 2 – Coordinate System Used

| | |
|---|---|
| Projection | State Plane Coordinate System |
| Zone | California Zone 5 (FIPS 0405) |
| Datum | NAD83 |
| Planar Units | Feet (U.S. Survey) |

# 3.0 Existing Conditions

## 3.1 Proposed Project

The Buttonbush Solar & Storage Project (project) as proposed by 29SC 8me LLC (project proponent) would be located on 128 parcels across a leased area of approximately 11,983 acres within a 13,868-acre gross parcel boundary of privately owned land in unincorporated Kern County, California. The majority of the 11,989-acre project area is currently under agricultural use or developed in the valley region of the County.

The project includes the construction and operation of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 2 gigawatts of alternating current (AC) power with an up to 2-gigawatt battery energy storage system (BESS). Additional components of the project include solar modules and racking, inverters, transformers, service roads, a power collection system, communication cables, microwave/ radio towers, meteorological stations, a generation-transmission (gen-tie) line with optical ground wire and overhead and underground transmission lines, electrical switchyards, project substations, security fencing, use of onsite water wells, and operations and maintenance (O&M) facilities.

The project would be supported by one or more 500 kilovolt (kV) gen-tie electrical transmission lines originating from one or more on-site substations and terminating at the existing PG&E Midway Substation. The project study area includes the development footprint and gen-tie/collector line, which includes a 200-foot corridor. PG&E will modify the Midway Substation's 500 kV yard within their property boundary to accommodate the proposed project's interconnection. The PG&E Midway Substation parcels comprise approximately 255 acres; however, only a small portion, up to 38.6 acres, will be impacted by the proposed project. PG&E will install and trench underground several fiber-optic lines to the west of the gen-tie route to facilitate communication between the Midway Substation and the Point of Change of Ownership, approximately 0.25-mile northwest. Up to four 175-foot-tall lattice steel towers (LST) or tubular steel poles (TSPs) would support the proposed transmission line and the project's interconnection.

The proposed facilities are expected to be operational for up to 35 years. The full project description is provided in the project's California Environmental Quality Act (CEQA) environmental impact report and should be referenced for additional details regarding the project description.

## 3.2 Project Location

The project site is in unincorporated Kern County directly north of the community of Buttonwillow, approximately 2 miles west of the City of Shafter and approximately 7 miles southwest of the City of Wasco. The project site straddles

Interstate 5 (I-5) east of Buttonwillow Raceway Park, just north of State Route (SR) 58, and south of SR-46. Several single-family homes and agriculture-related structures are near the project boundary. Properties within the project include a dairy, a few single-family homes, and some varied structures for agricultural use, all of which would be removed during project construction. Vehicular access to the site would likely be from Wasco Way, Merced Avenue, Lerdo Highway, Rowlee Road, Wildwood Road, Riverside Street, Burbank Street, Buttonwillow Drive, 7th Standard Road, Snow Road, State Route 58, and Sullivan Road. Many dirt roads crisscross the project site.

## 3.3 Project Characteristics

### Phasing

It is anticipated that the proposed project may implement phased development. Phased development would be based on the successful execution of one or more power purchase agreements (PPAs), each with a specific megawatt capacity. The project includes multiple sites, some of which are discontinuous and separated from each other by multiple nonparticipating parcels and roads. Phasing may occur with the development of one or more of the sites simultaneously and could include a combination of any of the sites. Where potential impacts have been identified, mitigation has been proposed to reduce, eliminate, avoid or offset impacts. Because the project may be phased, final impacts and mitigation will be based on which phases are built and the timing of the construction.

### Construction & Decommissioning Activities

The construction period for the proposed project, from site preparation through construction, testing, and commercial operation, is expected to extend for up to 60 months. It is estimated that an average of up to 800 workers per day with up to 1,334 workers during peak construction periods would be required during construction of the proposed project. Construction of the proposed project would include the activities associated with the project components listed below:

- Site preparation
- Access and internal circulation roads
- Grading and earthwork
- Concrete foundations
- Structural steelwork
- Panel installation
- Electrical/instrumentation work
- Collector line installation

- Stormwater management facilities
- Gen-tie line(s) including the I-5 overhead crossing

Construction activities would comply with County and local municipalities' noise ordinances. Heavy construction is expected to occur between 7:00 a.m. and 5:00 p.m., Monday through Friday. If weekend work is required, construction would occur between 8:00 a.m. and 9:00 p.m. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, for several days in a given week.[1] Low-level noise activities may potentially occur between the hours of 10:00 p.m. and 7:00 a.m. Nighttime activities could include, but are not limited to, refueling equipment, staging material for the following day's construction activities, gen-tie line crossing work, quality assurance/control, and commissioning.

Solar equipment typically has a lifespan of over 35 years with regular maintenance intervals. The proposed project expects to sell the renewable energy produced by the project under the terms of a long-term Power Purchase Agreement with a utility or other power off-taker. Upon completion of the Power Purchase Agreement term, the project operator may, at its discretion and consistent with necessary approvals, continue to generate and sell power from the project or decommission and remove the system and its components. Upon decommissioning, the solar and storage facility could be converted to other uses in accordance with applicable land use regulations in effect at that time.

### Operations

Once the proposed project is constructed, maintenance would generally be limited to the following:

- Cleaning of PV panels
- Monitoring of electricity generation
- Provision of site security
- Facility maintenance—monitoring of equipment and control systems; replacement or repair of inverters, wiring, and PV modules; road maintenance; fence repairs; and vegetation management
- Utility coordination

It is expected that the proposed project could require an operational staff of up to 20 full-time employees. The facility would operate 7 days a week, 24 hours a day, generating electricity during normal daylight hours when solar energy is available.

[1] Some substation testing will be required prior to the completion of project construction. This testing will include nighttime operation because the substation equipment must be tested continuously for 72 hours for safety reasons.

The BESS could dispatch energy at any time during the day or night; however, emergency maintenance may occur outside these timeframes to ensure BESS output and PV panel output when solar energy is available.

## 3.4 Watershed Hydrology

The modeled watershed area encompasses approximately 330 square miles that generally drains toward the northwest. Jerry Slough River starts in the western portion of the model and flows northwest. The California Aqueduct runs to the west of the Site and flows southeast; however, the aqueduct was not included in the modeling, based on previous experience in the area the water on the western side of the aqueduct does not cross over. There are three canals along the eastern portion of the modeled watershed, Calloway Canal, Friant-Kern Canal, and the Lerdo Canal, they all flow north through the modeled watershed.

## 3.5 Onsite Conditions

The Project is located on Lower West Side Canal, Jerry Slough, 180300040401, Upper West Side Canal, Town of Saco, and Town of Shafter HUC 12 Boundaries. The southeastern portions and northeastern portions of the Project Area slope to the northwest. In general the Site is relatively flat with slopes of less than 1% though there are locations where the slopes reach roughly 3%.

US Fish and Wildlife Service National Wetlands Inventory (NWI Wetlands) provides information on the distribution of US wetlands and are shown in Exhibit 2. The NWI Wetlands dataset is not all-inclusive and other wetlands not shown may exist. The landcover on the Project area is primarily cultivated with areas of chaparral and orchard (Exhibit 4) and has soils that are primarily belonging to Hydrologic Soil Groups (HSG) A, C, and D (Exhibit 3). Typically, A soils are sands, C soils are clay loams, and D soils are clays. Soils belonging to Hydrologic Soil Groups C and D exhibit low to very low infiltration rates opposed to Hydrologic Soil Group A that show high infiltration rates. Standing water will be slow to infiltrated with C and D soils during and after storm events when compared to soils belonging to Hydrologic Soil Groups A or B.

The main potential hydrologic issue on Site is flooding.

## 3.6 FEMA Flood Zones

FEMA has completed a study to determine flood hazards for the selected location; the project area is covered by FIRM panels 06029C17225E, 06029C1250E, 06029C1725E, 06029C1750E, and 06029C1775E. 06029C1250E and 06029C1750E panels are not mapped; the remainder of panels can be found in Appendix C. The Project contains areas of FEMA Zone A flood hazards (Exhibits 2 and 6). A FEMA Zone A flood hazard is a 100-year flood hazard with no defined base flood elevation. No preliminary or pending FEMA changes are proposed within the project area.

There are no California Department of Water Resources (DWR) Floodplain Awareness Zones located onsite (Exhibit 2). The floodplain awareness zones are identified areas of all pertinent flood hazard areas that are not mapped under FEMA's National Flood Insurance Program. The awareness maps identify the 100-year flood hazard areas using approximate assessment procedures.

# 4.0 Proposed Conditions

## 4.1 Proposed Conditions

The majority of the proposed solar facility will consist of above ground mounted solar modules. A small amount of impervious surface will be added from the gravel access roads and electrical equipment pads. The Project's permanent facilities would include solar panels, solar racking, inverters, service roads, a power collection system (230kV – 34.5kV), communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance (O&M) facilities. The Project should be designed to minimize grading and maintain existing drainage patterns. A flood analysis of pre-development and post development depths may need to be completed once civil design is finalized for permitting purposes.

## 4.2 Post-Construction Stormwater Management

A desktop review of Kern County revealed a number of specific county requirements. The Kern County Hydrology Manual (KCHM) (Appendix F) needs to be followed for the design and modeling. The county has a unique set of curve numbers and landcover to be used in the modeling. The FLO-2D model also needs to be calibrated to match the results of the CivilD modeling (Appendix E). The Kern County Development standards will also need to be incorporated into the design. As the Project design advances, the post-construction stormwater management should be reviewed in further detail with the County Engineer.

## 4.3 Kern County Hydrology (CivilD)

CivilD modeling software was used to calculate flow rates and confirm that the FLO-2D model was providing results consistent with the Kern County methods (Appendix E). A point (Exhibit 10) was selected to calibrate the results of the FLO-2D model. This location works reasonably well as a calibration point because it is similar to watersheds throughout the model and is relatively concentrated. Inputs to CivilD were calculated following guidance in the KCHM and modeling inputs/outputs can be found in Appendix E. The peak flow rate for the calibration watershed used in CivilD was 24.18 cfs. Table 3 below shows the inputs into the CivilD model.

Table 3 – CivilD Calibration Watershed Inputs

| Description | Equation | Unit | Value |
|---|---|---|---|
| Watershed Area | Calculated in GIS | Square Mi | 0.42 |
| Watershed Area | Conversion | Acres | 271 |
| 100-Year Aerial Reduction | Figure E-4 | Unitless | 1 |
| Watershed Area with Reduction | Aerial Reduction*Area | Acres | 271 |
| Equation | Lag-24n(l*lca/sqrt(s))^0.38 | Hours | 6.16 |
| Basin Factor | KCHM Page 156 (n) | Unitless | 0.37 |
| Longest Watercourse | Calculated in GIS (l) | Miles | 1.79 |
| Length to Centroid | Calculated in GIS (lca) | Miles | 0.94 |
| Upstream Elevation | From 1-m offsite DTM | Feet | 382’ |
| Elevation at Concentration | From 1-m offsite DTM | Feet | 347’ |
| Difference in Elevation | Upstream – Downstream (H) | Feet | 35’ |
| Slope along Watercourse | Slope (s) | FT/Mi. | 20 |
| Average CN for Watershed (Appendix B) | CN= | Unitless | 75 |

# 5.0 FLO-2D Modeling

## 5.1 FLO-2D Modeling Overview

FLO-2D is a physical process model that routes rainfall runoff and flood hydrographs over flow surfaces or in channels using the dynamic wave approximation to the momentum equation. FLO-2D offers advantages over 1-D models and unit hydrograph methods by allowing for breakout flows and visualization of flows across a potential site. The primary inputs are a DTM (elevation data), curve numbers, and precipitation.

A FLO-2D model with 50-foot grid cells was utilized to model the watershed within and directly impacting the Project Site.

## 5.2 Elevation Data

The elevation data input into the FLO-2D model was 1m DEM data from USGS.gov (Exhibit 5). This data was exported as a single digital terrain model (DTM), which is read directly into FLO-2D.

## 5.3 Watershed Soils and Land Cover

USDA-NRCS SSURGO soil data provides soil types within the Project boundary and full coverage of the contributing watershed. Soils are primarily classified as Hydrologic Soil Groups (HSG) A, C, and D within the Project boundary (Exhibit 3). Land cover was obtained from the USDA 2021 Cropland Data Layer. This landcover class was reviewed and was assigned an applicable Kern County

landcover according to the KCHM. Exhibit 4 displays the land cover classes for the entire watershed based on the KCHM. Curve numbers were applied to each grid cell in the FLO-2D model based on intersecting the grid with the curve numbers (Exhibit 5).

### 5.4 Precipitation

Due to the variance in rainfall patterns throughout the watershed, a spatially varied rainfall pattern based on Atlas 14 rainfall data was utilized for the FLO-2D analysis. Each grid cell within FLO-2D model was assigned a location-specific rainfall depth for the specified storms. The 100-year, 24-hour rainfall depths obtained from Atlas 14 for the entire watershed area varied from 2.9" to 3.7". See Exhibit 14 for the spatially varied 100-year, 24-hour rainfall depths throughout the modeled watershed. All rainfall depths were distributed based on a site-specific nested Atlas 14 distribution pattern (Appendix A)

Precipitation data was downloaded from the NOAA Atlas 14 (Appendix A) for CivilD modeling. The location for CivilD modeling was taken from within the calibration watershed. The 100-year, 24-hour rainfall amount is 3.71 inches, respectively (Appendix A).

### 5.5 Inflows

The Poso Creek enters the modeled watershed from the east and flows northwest to the northeast of the Project area. National Stream Statistics reports a 100-year peak flood of 27,100 cfs (Appendix D). An inflow hydrograph was created using this data and added to the model (Exhibit 6).

### 5.6 CivilD Model Calibration

The FLO-2D model was calibrated to CivilD by comparing peak flow rates and volumes for a small watershed within the FLO-2D model with those in the CivilD model for the same watershed. The model results from the FLO-2D matched closely (<15%) to the Kern County results providing assurances that the FLO-2D software was performing adequately (Table 4).

Table 4 – Comparison of Modeling Methods at Calibration Points

| Measurement | CivilD (Kern County) | FLO-2D |
|---|---|---|
| Volume (ac-ft) | 21.81 | 24.76 |
| Peak Flow (cfs) | 24.18 | 21.42 |

# 6.0 Potential On-Site Retention Requirements

The proposed solar project development may require retention to mitigate the runoff from the new impervious surfaces, primarily panel piles, roads, and

associated infrastructure. The size and location of the basins will be dependent on final site design which will be analyzed as the project progresses.

# 7.0 Flood Analysis Results

## 7.1 Existing Conditions Flood Analysis

The analysis shows low water depths and low velocities (Exhibits 6 through 7A) across the majority of the Site. During a 100-year storm, the flood depths across the majority of the Project Area are less than 0.5 feet with velocities less than 1 foot/second. Ponding in low-lying areas can see depths exceed 2 feet. Small unnamed creeks and the surrounding areas see depths exceed 2 feet. Minimal velocities are seen due to relatively flat terrain with very few channelized areas. See Table 3 below for a breakdown of flood depths within the Project Site.

Table 5– Flood Depths Onsite

| Peak Flow Depth (ft) | Percentage of Project Area Covered by Peak Flow Depths |
|---|---|
| 0.00 - 0.49 | 94.0% |
| 0.50 - 1.00 | 4.6% |
| 1.01 - 1.50 | 0.8% |
| 1.51 - 2.00 | 0.3% |
| 2.01 - 2.50 | 0.1% |
| 2.51 - 3.00 | 0.1% |
| 3.01 - 4.00 | <0.1% |
| 4.01 - 6.00 | <0.1% |
| 6.01+ | <0.1% |

See Exhibits 6 through 7A for areas within the Project with higher flood depths and velocities.

## 7.2 Scour

Minimal scour is expected onsite due to relatively flatter terrain (Exhibit 8). The scour depths calculated for this Project are based on HEC-18 Pier Scour Equations of a 6-inch-wide pile perpendicular to flow. Scour calculations consist of local scour only with unarmored soils and pile bases to provide the conservative local scour results. These scour results do not account for general, rill, or gully scour.

# 8.0 CEQA Hydrology and Water Quality Assessment

The significance criteria used to evaluate the Project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines. CEQA Section 15382 defines a significant effect on the environment as a substantial or potentially substantial adverse change in any of the physical conditions with the area affected by a project for all environmental resources. This assessment depicts potential impacts the Project may have on the environment, drainage patterns, and flood hazards areas.

### *A. Would the Project violate any water quality standards or waste discharge requirements or substantially degrade surface or ground water quality?*

Development of the project could result in impacts on hydrology and water quality if associated construction or decommissioning activities result in the violation of any water quality or waste discharge standards. Development of the site includes the introduction of limited quantities of impervious surfaces, the largest is associated with the development of the substations, O&M facility and BESS yards. During construction activities, soil erosion may result in discharges of sediment-laden stormwater runoff downstream of the project site.

During construction of the project, potential impacts on water quality associated with erosion and sedimentation would be localized and temporary. Construction of the entire project would disturb more than 1 acre and therefore is required to comply with the Kern County NPDES Storm Water Program, as well as the Kern County Grading Code. The project would implement construction BMPs to reduce the risk of erosion and sedimentation in accordance with the Kern County Grading Code, including implementation of SWPPP requirements. Water would be used for dust control and compaction of the roadway. The SWPPP would include the responsible party's construction activities and requirements to install and follow BMPs to ensure water quality impacts from erosion and sediment, and hazardous spills would be minimized to the maximum extent practicable.

The project includes the development of an O&M facility with up to 20 full-time employees. The O&M facility is anticipated to include a water tank(s) for fire prevention, a septic tank and leach field. Project operational activities may include small amount of water for panel washing if required. Operation and maintenance of the project would have little to no potential for impacts on water quality. The project will follow all applicable laws and regulations for water quality standards or waste discharge requirements. The project will, at a minimum, meet water quality standards and waste discharge requirements by implementation of permanent and

temporary stormwater controls. Development of the project would comply with Kern County Code of Building Regulations, as well as with the Kern County Development Standards, and Floodplain Management Ordinance. Compliance with these Kern County standards would reduce the potential impacts on water quality during project operation.

*B. Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management in the basin?*

The project is not anticipated to adversely affect the local groundwater sources. The project will introduce a limited amounts of impervious surfaces and will not interfere with groundwater recharge. Any increase in runoff would be localized and would not result in an appreciable impact on groundwater recharge, due to high soil infiltration rates. This impact criterion is fully addressed in the project's Water Supply Assessment.

*C. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:*

*(i) result in substantial erosion or siltation on- or off-site?*

Construction of the project may result in alterations to the existing drainage pattern in areas with sheetflow, which could result in localized erosion. Construction activities could temporarily concentrate flows from storms and construction water usage, thus resulting in increased sedimentation and erosion of existing soils.

Most of the project site has been disturbed by previous and on-going agricultural activities. Given the relatively flat nature of the project site, grading is anticipated to be minimized in many areas of the site, thus reducing the possibility for erosion or siltation onsite or offsite. Concentrated site development would include the O&M facility, BESS yards, substation sites and communication tower pads; these site features can typically avoid or minimize impacts on drainage channels. Grading permits require acceptable engineering reports, including drainage computations accompanied by drainage plans. The project will also be subject to a stormwater pollution prevention plan (SWPPP) which will further reduce the issue of erosion, sedimentation, and siltation impacts.

*(ii). Would the Project substantially increase the rate or amount of*

*surface runoff in a manner which would result in flooding on- or off-site?*

As noted above, the project contains areas of FEMA Zone A flood hazards. A FEMA Zone A flood hazard is a 100-year flood hazard with no defined base flood elevation. Project activities that occur within this zone would comply with the requirements and construction design specifications of the Kern County Floodplain Management Ordinance. Any increase in surface water runoff resulting from permanent project features is anticipated to be location specific. However, with the addition of the proposed permanent stormwater BMPs could result in slight alterations (decrease) in the volume and velocity of stormwater discharging from the Site. These BMPs will assist in, at a minimum, maintaining the current water quality and discharge rates and volumes onsite.

In accordance with Mitigation Measures Hydro-1, a drainage plan would be prepared that would include engineering recommendations to be incorporated into the project and applied within the site boundary. Engineering recommendations would include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize any potential flooding on- or offsite.

Mitigation Measure Hydro-1: Prior to the issuance of a grading permit, the Project Proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:

A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event.

The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation.

Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.

The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards and approved

by the Kern County Public Works Department prior to the issuance of grading permits.

### *(III). Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The project area does not rely on existing constructed stormwater drainage systems such as an underground stormwater system or human-made culverts. The project will be capturing runoff from the added impervious area with the implementation of permanent stormwater control measures. The project site will not provide any substantial additional sources of polluted runoff.

### *(IV). Would the Project impede or redirect flood flows?*

Given that the design is still preliminary the layout may still change. Westwood recommends avoiding flood hazards onsite. However, any structure(s), including the O&M facility, solar facilities or related appurtenances that are within the FEMA 100-year flood hazard area, such as, but not limited to, the solar array or inverter skid facilities, will need to be elevated above the 100-year flood with proper freeboard in order to not impede or redirect flood flow. With the size of the piles being relatively small compared with the wide FEMA zones it is anticipated that any changes in the flood hazard areas would be insignificant and no impediment or redirection of flood flows will occur.

### *D. Would the Project in flood hazard, tsunami, or seiche zone, risk release of pollutant due to project inundation?*

The project is not located in a flood hazard zone for seiche, tsunami, or mudflow and will not increase risk with regard to these issues.

### *E. Would the Project conflict with or obstruct implementation of a water quality control plan or substantiable groundwater management plan?*

As noted above, construction and operation of the project would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Please see the project's Water Supply Assessment (WSA) for additional details.

# 9.0 Recommendations

Based on experience on similar projects, the Site is suitable for the planned development and hydrologic concerns can be addressed by either avoiding areas of high flood depths or through detailed engineering design. Mitigation Measure Hydro-1 is recommended to reduce impacts.

# 10.0 Next Steps

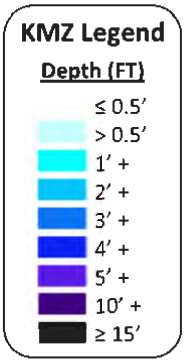
1. Final engineering design should account for the flood depths and velocities presented in Exhibits 6-7A.
2. Facilities to be elevated 1' above the 100-year, 24-hour peak flood elevations.
3. Proposed facilities should avoid FEMA Flood Zones located onsite.
4. Stormwater management should be revisited to ensure the final design meets the local and state requirements.

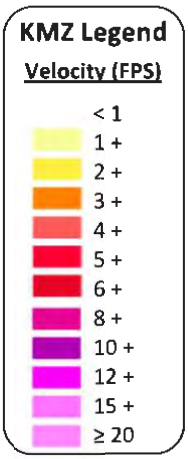
# 11.0 Included Output Files

1. Shapefile of 100-Year Rain Event Flow Depth
   2023-08-11_Buttonbush_PrelimFlowDepthatCell.shp
   Attribute “ID” = Grid Cell Number
   Attribute “VAR” = Max Flow Depth (Feet)

2. Shapefile of 100-Year Rain Event Velocity
   2023-08-11_Buttonbush_PrelimVelocityatCell.shp
   Attribute “ID” = Grid Cell Number
   Attribute “VAR” = Max Velocity (Feet)

3. KMZ of FLO-2D Results
   2023-08-11_Buttonbush_PrelimFLO-2D.kmz
   Overlay in Google Earth for graphical representation.



# 12.0 References Cited

National Engineering Handbook, Part 630 Hydrology. Chapter 9 Hydrologic Soil-Cover Complexes. USDA. NRCS. 210-VI-NEH, July 2004

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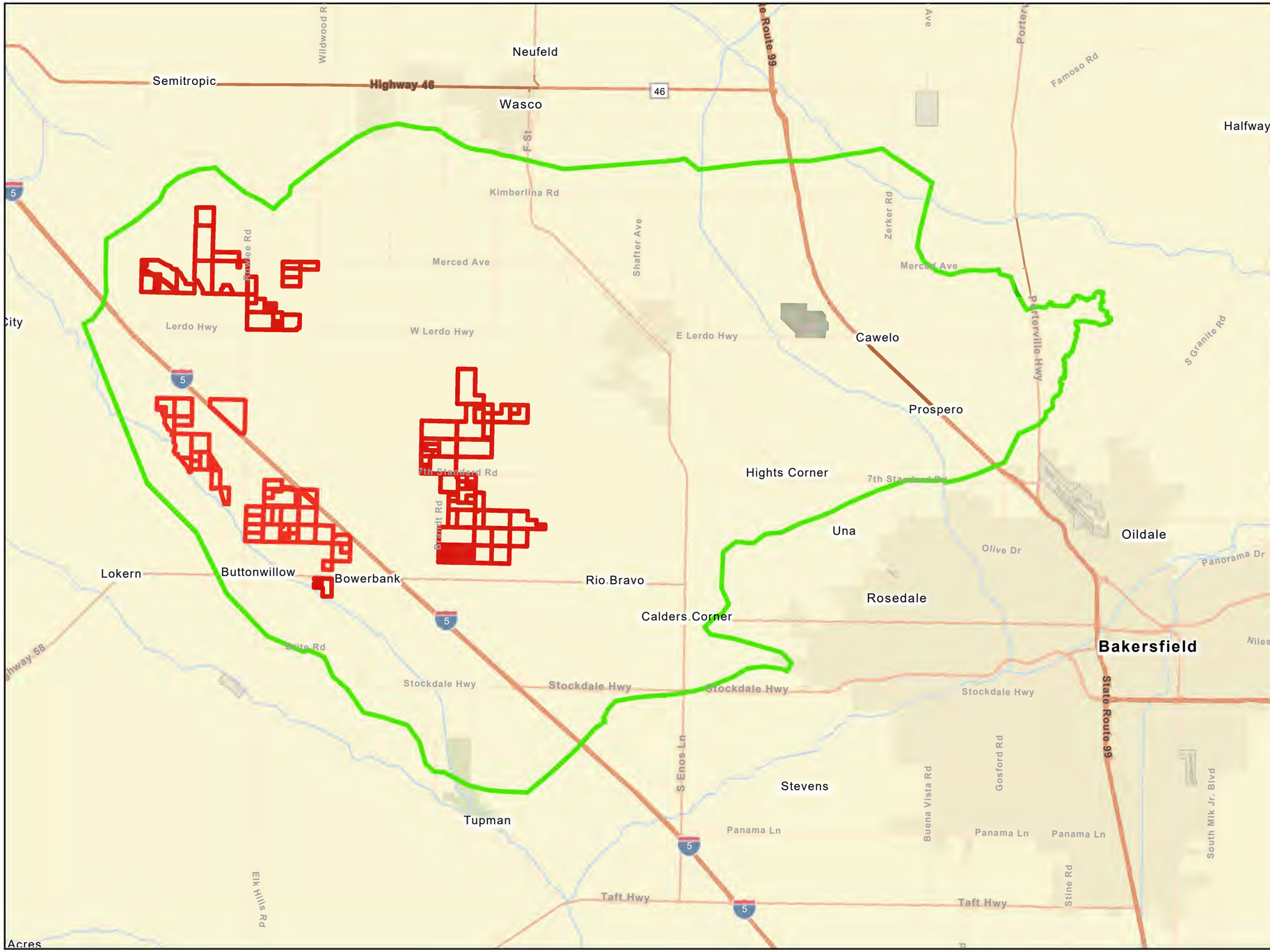
# Exhibits

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary

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# Buttonbush Solar & Storage Project

Kern County, California

N

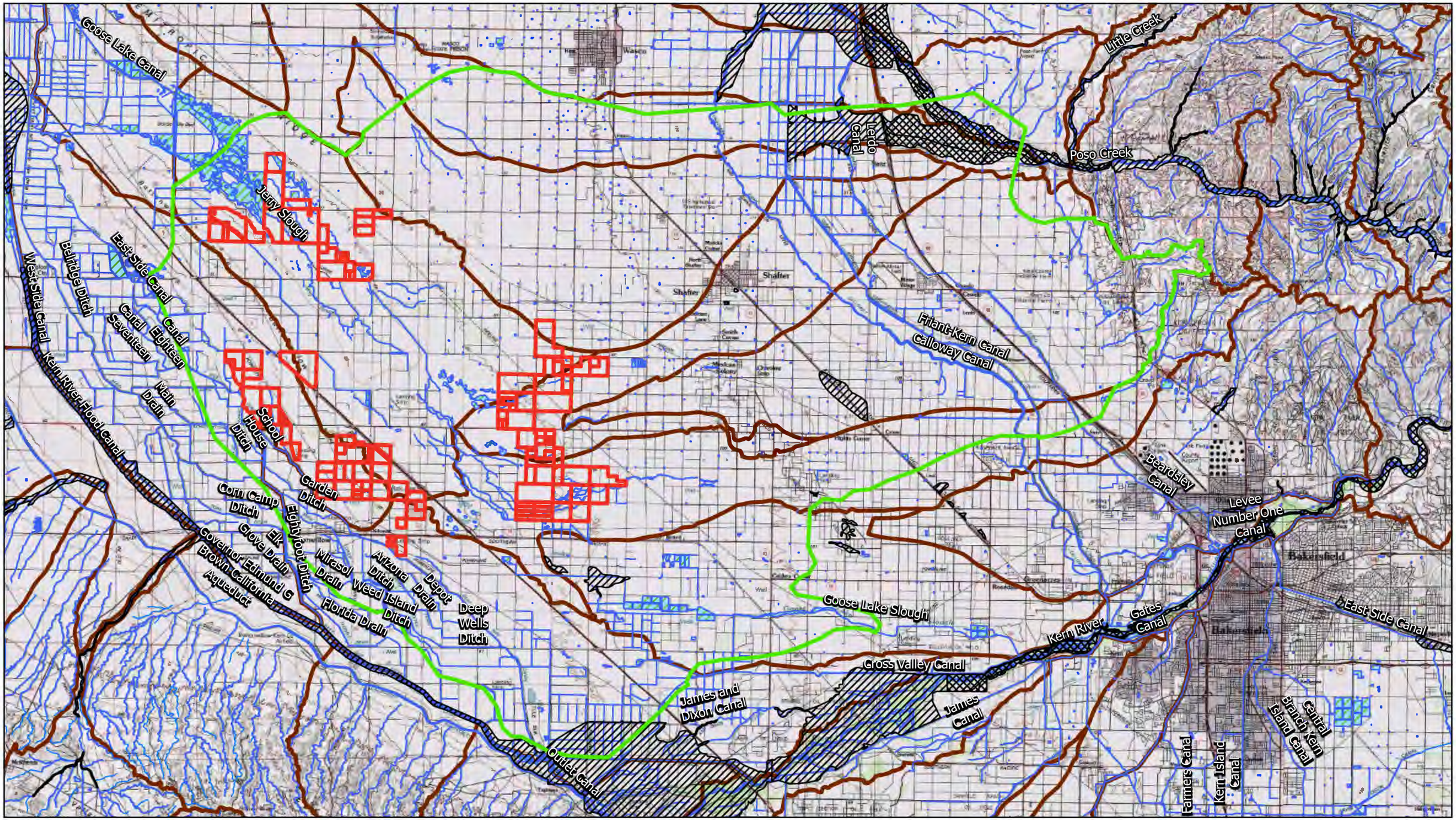
0 Miles 3

## Exhibit 1: Location Map

September 25, 2024

\\westwoodps.local\Global Projects\004271200_GIS_Hydro_Exhibits\Hydro\Buttonbush\Buttonbush.aprx
01 Location Map - Location Map | 9/23/2024 12:01 PM | kaseguin

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- HUC-12 Boundary
- County Boundary
- FEMA Zone A
- FEMA Zone AE
- NWI Wetlands
- NHD Flowlines

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# Buttonbush Solar & Storage Project

Kern County, California

N

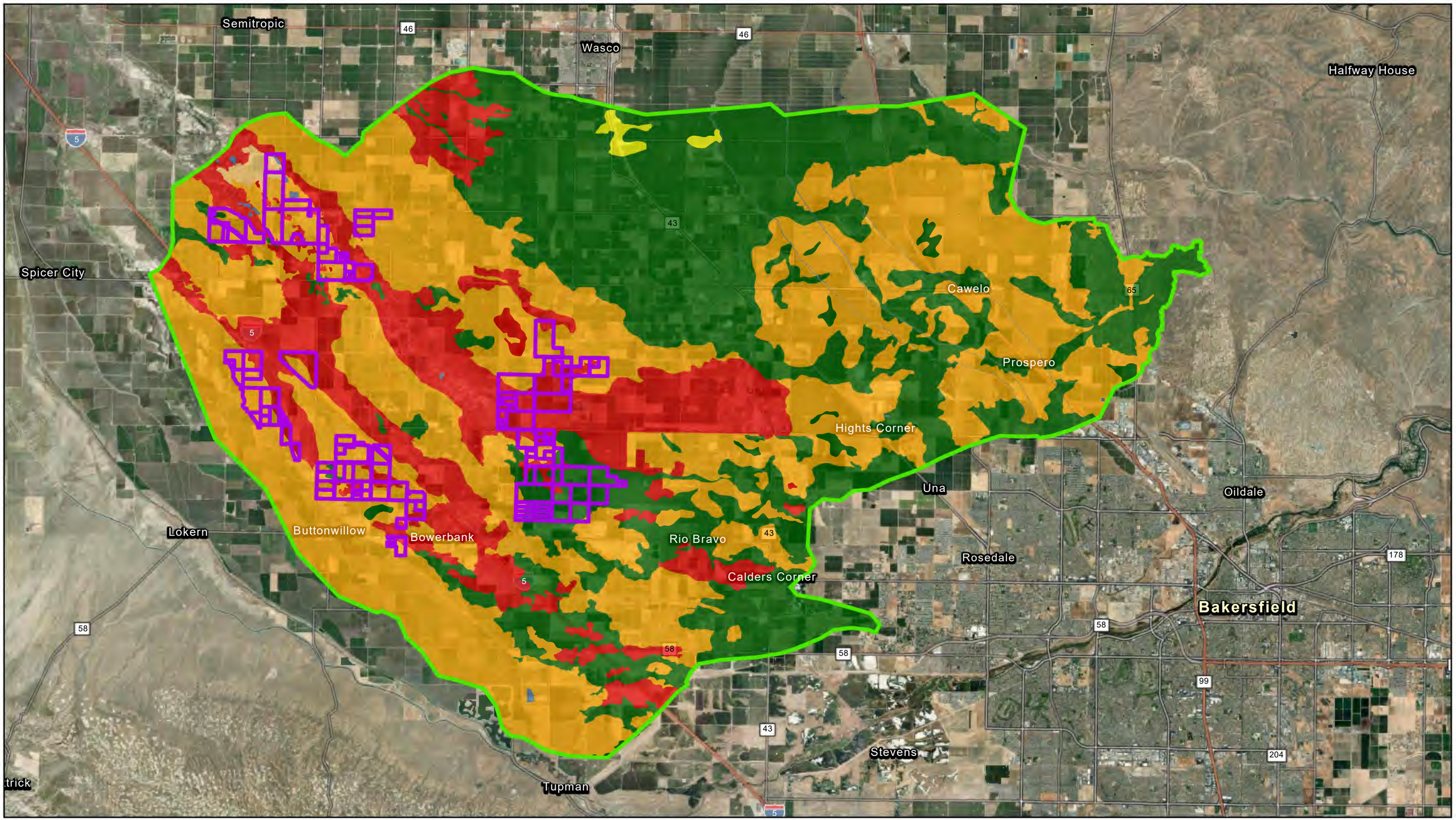
0 Miles 2.5

## Exhibit 2: Base Hydrologic Map

September 25, 2024

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(2)Base Hydrologic Map - USGS & FEMA and NWI Wetlines Map 9/25/2024 12:05 PM Assenuga

© 2024 Westwood




Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary

Hydrologic Soil Group

- A
- B
- C
- C/D
- D
- Water

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# Buttonbush Solar & Storage Project

Kern County, California

N

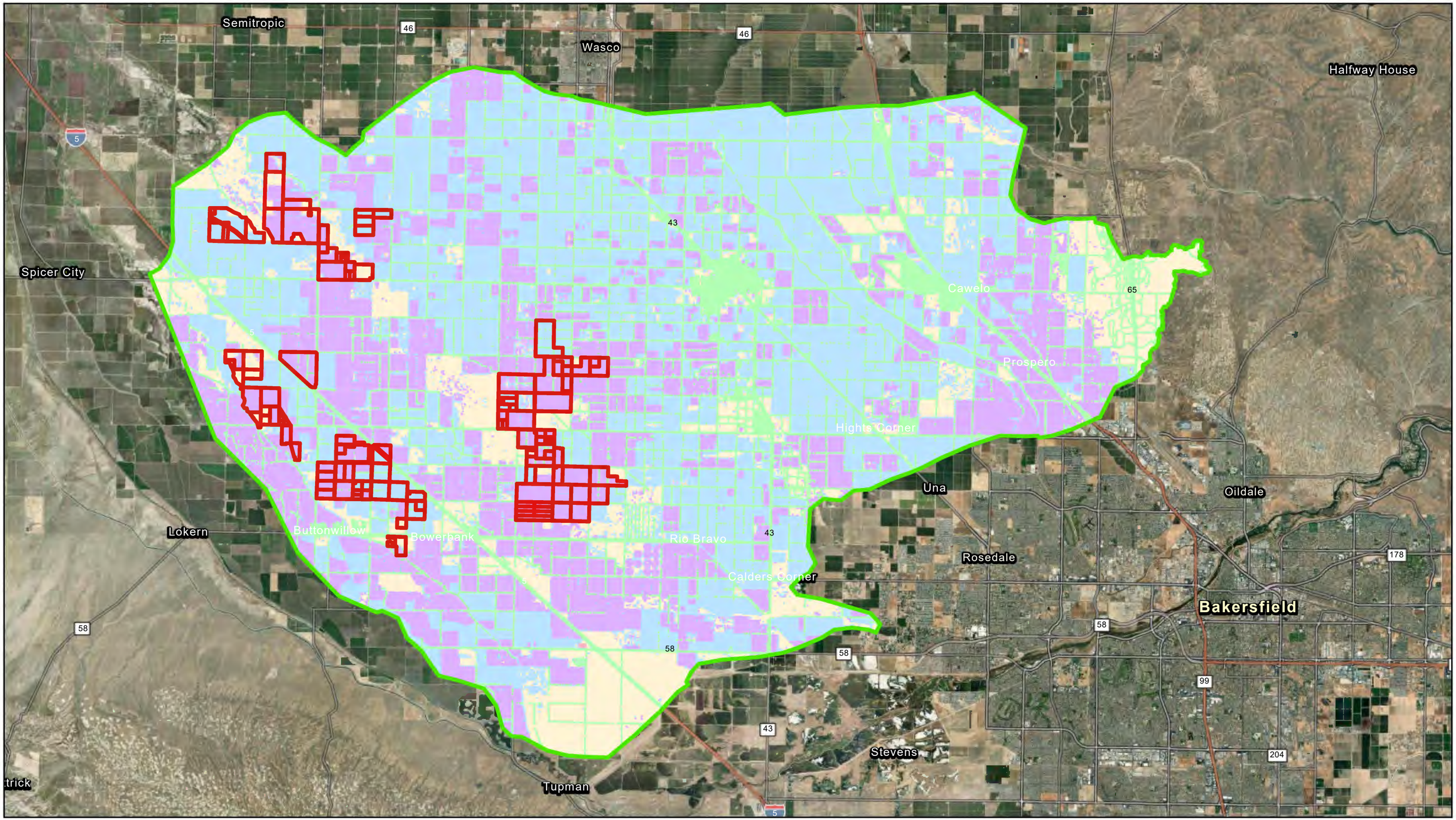
0 2.5 Miles

## Exhibit 3: Soils Map

September 25, 2024

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01-Soils Map_Soils Map 9/23/2024 12:05 PM Assenio

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Boundary
- County Boundary

Landcover

- Chaparral
- Cultivated
- Orchard
- Orchards
- Residential or Commercial Landscaping
- Woodland (4)

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# Buttonbush Solar & Storage Project

Kern County, California

N

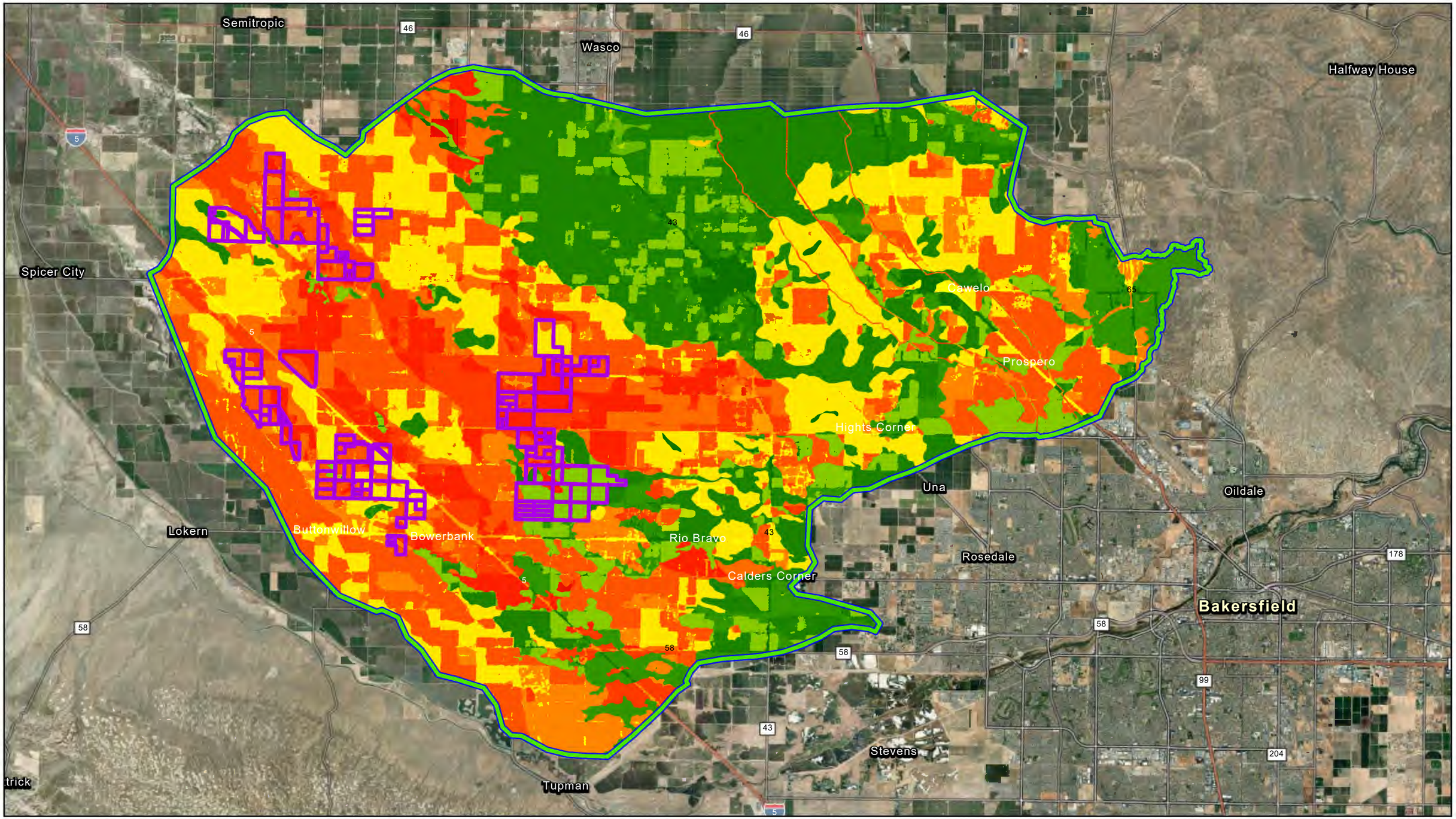
0 Miles 2.5

## Exhibit 4: Landcover Map

September 25, 2024

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04/14/2025 4:09:11 PM by jessica.lopez

© 2024 Westwood




Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- 1m Topography Coverage
- County Boundary

Curve Number

- 40 - 49
- 50 - 59
- 60 - 69
- 70 - 79
- 80 - 89
- 90 - 99

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 5: Curve Number and Topographic Source Map

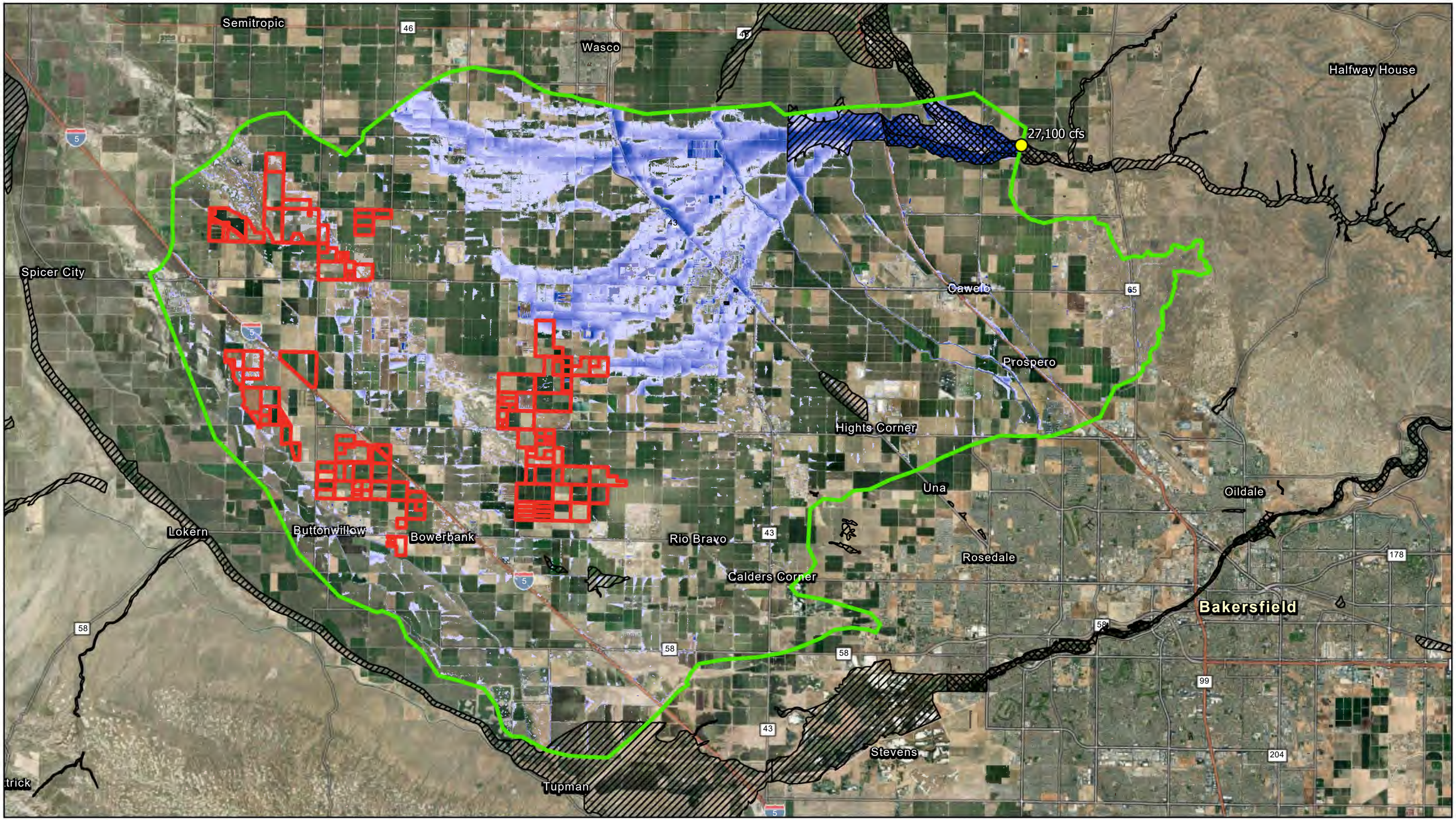
N

0 2.5 Miles

September 25, 2024

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05-24-2024 Data Sources_ON and Flow Sources_1972-2024_1408 PM Alessandra

© 2024 Westwood




Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- FEMA Zone A
- FEMA Zone AE
- Inflow Location

Max Water Depth (ft)

- 0.50 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 2.50
- 2.51 - 3.00
- 3.01 - 4.00
- 4.01 - 6.00
- 6.01 +

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 6: 100-Year Max Water Depth Map

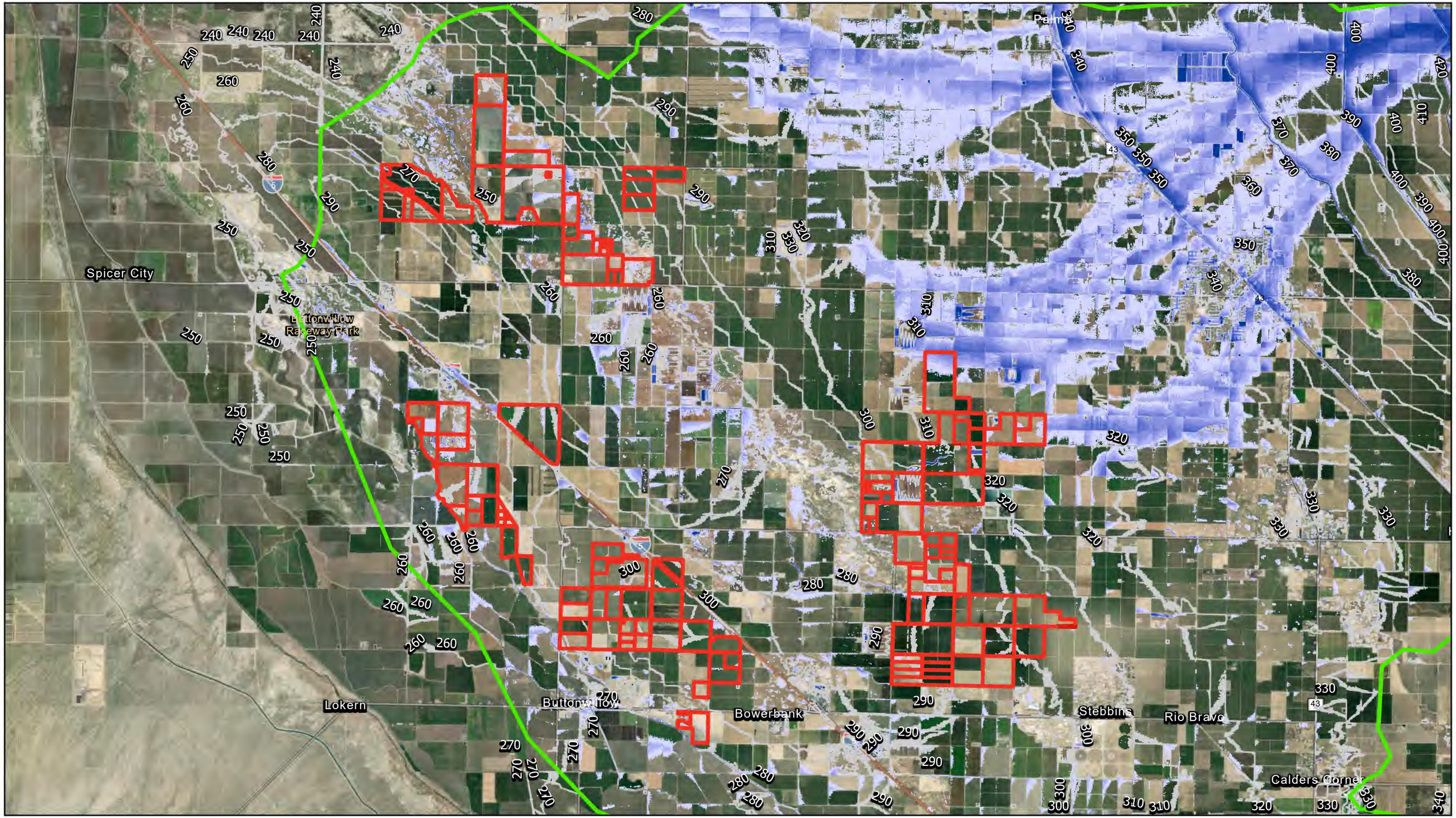
N

0 Miles 2.5

September 25, 2024

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05-100 Yr Max Water Depth Misc 100 Yr Max Water Depth 9/23/2024 7:25:11 PM Associate

© 2024 Westwood




Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- 10' Contours

Max Water Depth (ft)

- 0.50 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 2.50
- 2.51 - 3.00
- 3.01 - 4.00
- 4.01 - 6.00
- 6.01 +

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 6A: 100-Year Max Water Depth Project Area Map

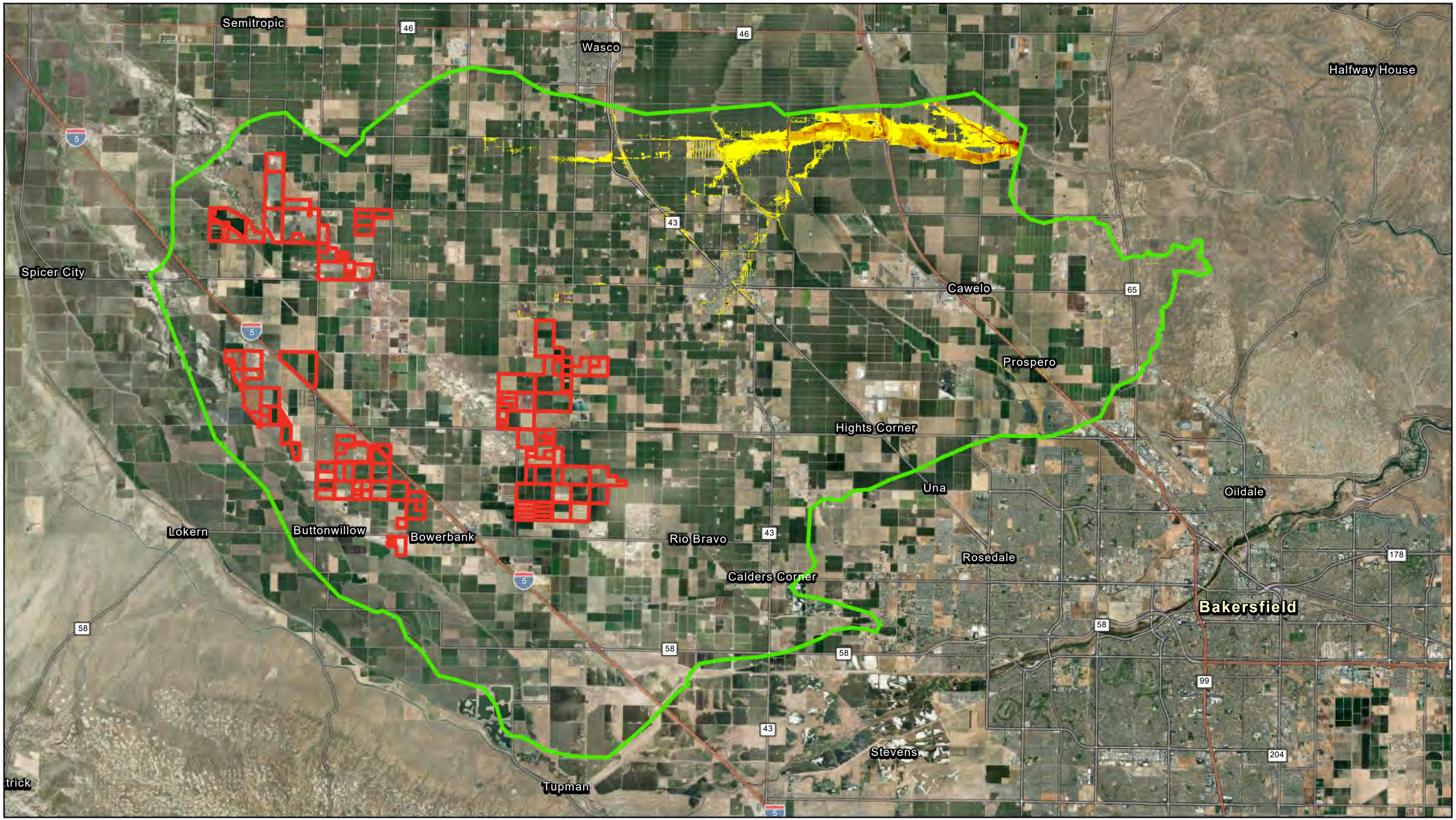
N

0 Miles 1.5

September 25, 2024

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9/24/2024 1:59:59 AM Alexandra 100-Yr Max Water Depth Exhibit Area Mins_100-Yr Max Water Depth Exhibit Area 1 9/24/2024 1:59:59 AM Alexandra

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary

Peak Velocity (fps)

- 1.00 - 1.50
- 1.51 - 2.00
- 2.01 - 2.50
- 2.51 - 3.00
- 3.01 - 4.00
- 4.01 +

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 7: 100-Year Peak Velocity Map

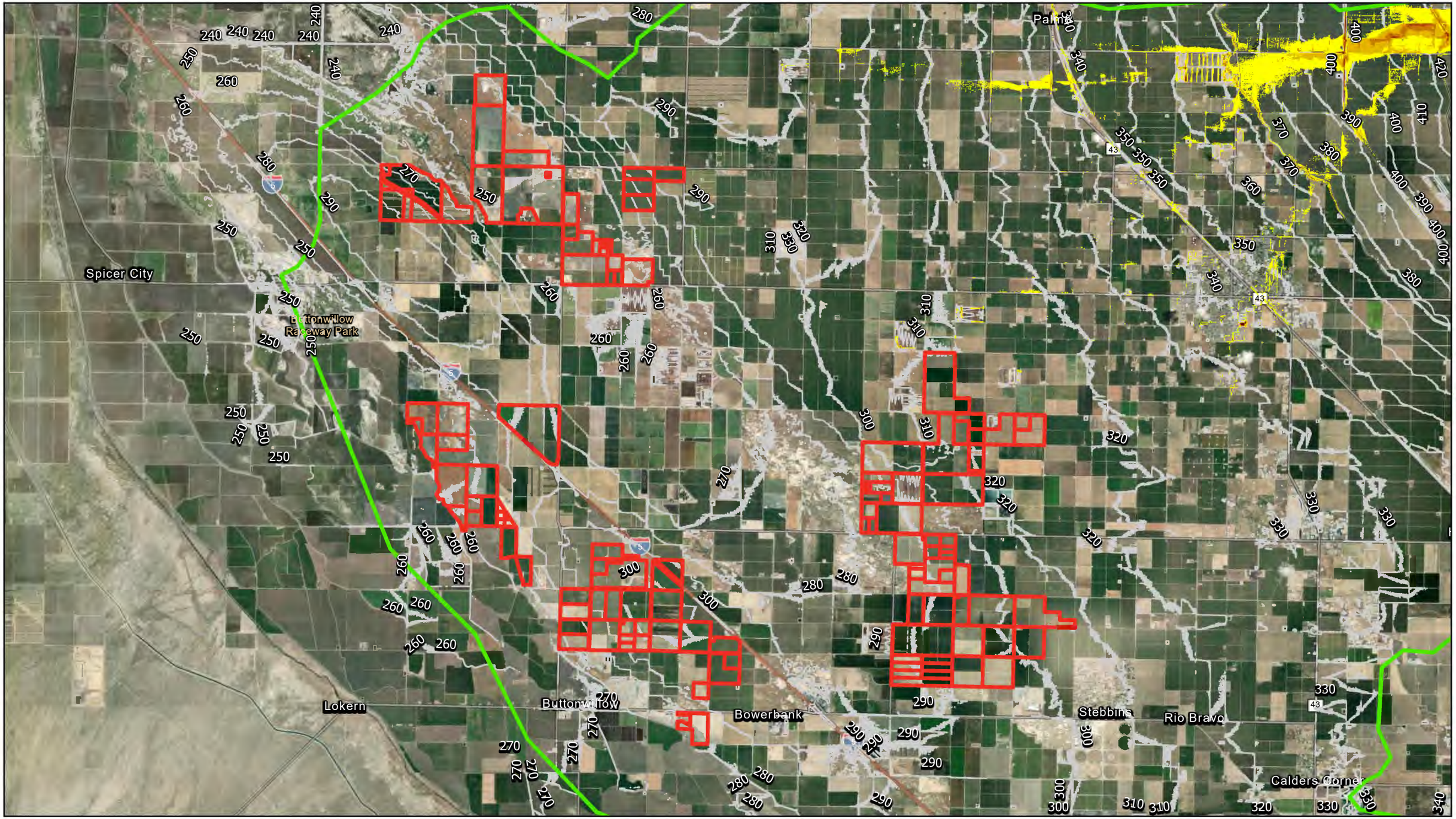
September 25, 2024

N

0 Miles 2.5

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0042712.00 | Peak Velocity Map - 100 yr | Peak Velocity | 9/25/2024 11:59 AM | Cesar Ortiz

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- 10' Contours
- Peak Velocity (fps)
  - 1.00 - 1.50
  - 1.51 - 2.00
  - 2.01 - 2.50
  - 2.51 - 3.00
  - 3.01 - 4.00
  - 4.01 +

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 7A: 100-Year Peak Velocity Project Area Map

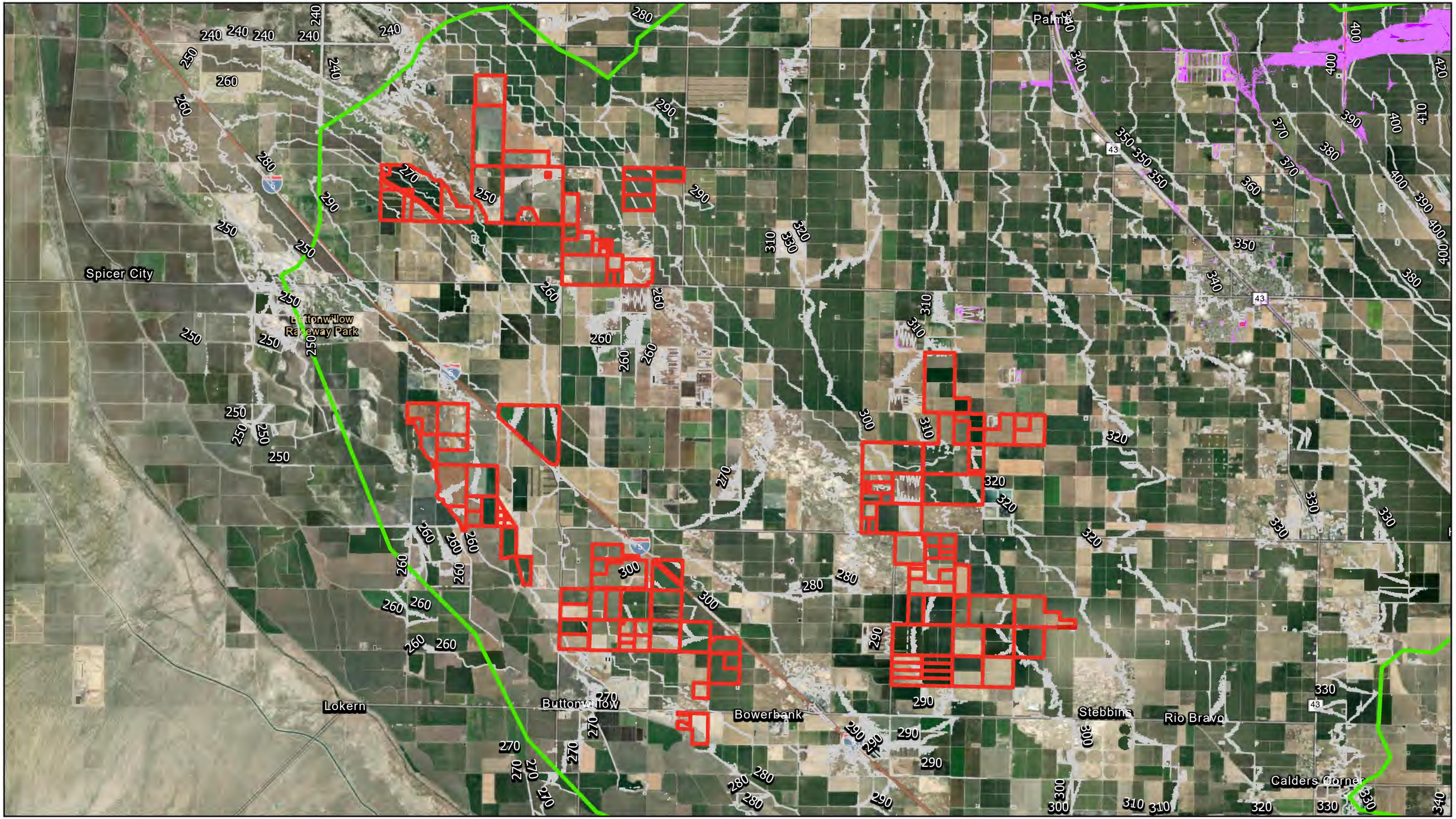
N

0 Miles 1.5

September 25, 2024

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0724-100-Yr Peak Velocity Project Area Map - 100-Yr Peak Velocity Project Area 8/29/2024 7:20:24 AM Assevera

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- 10' Contours
- Scour (ft)
  - 1.00 - 1.50
  - 1.51 - 2.00
  - 2.01 +

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# Buttonbush Solar & Storage Project

Kern County, California

N

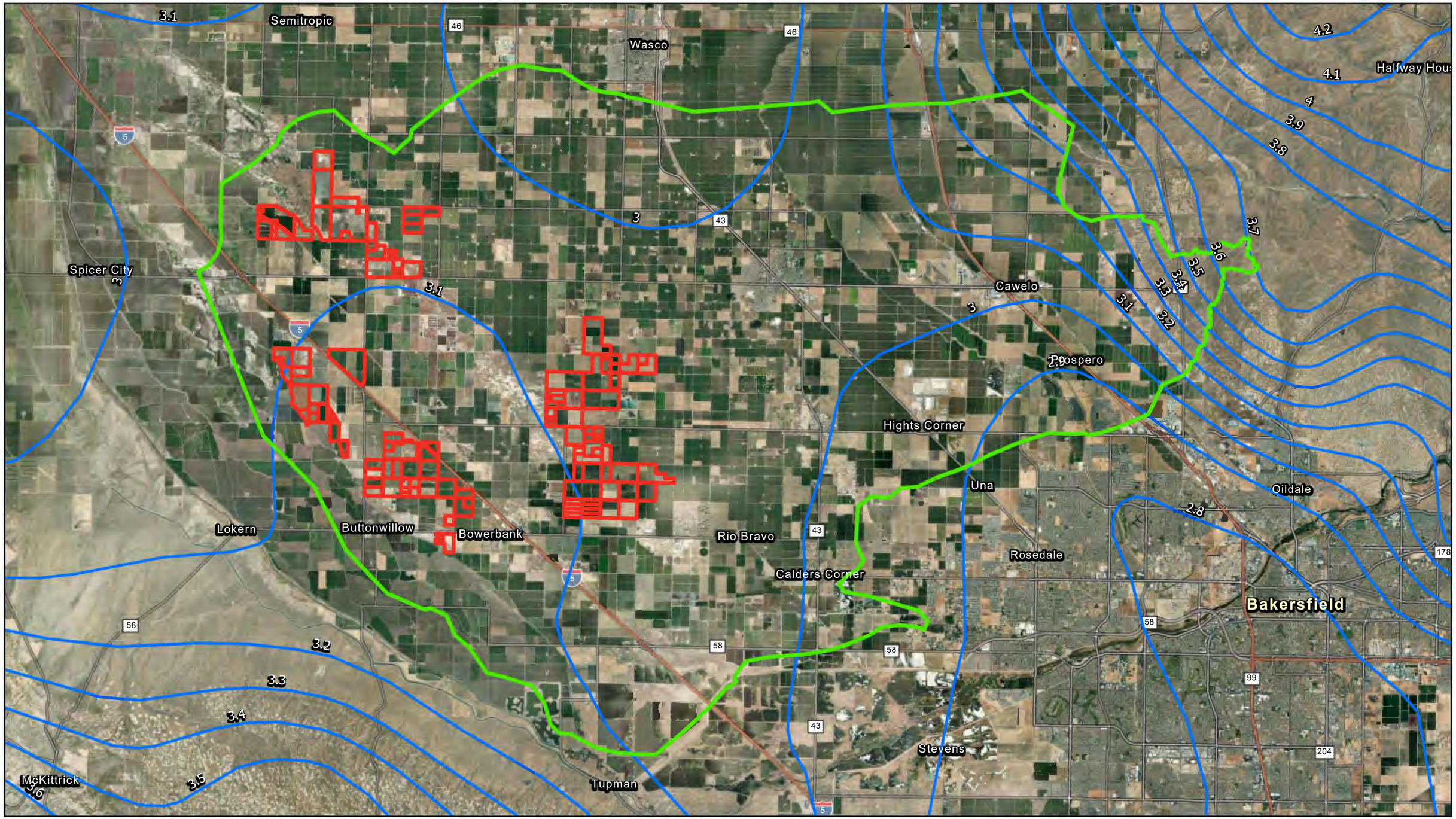
0 Miles 1.5

## Exhibit 8: 100-Year Scour Map

September 25, 2024

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08-100-Yr Scour Map - 100-Yr Scour - 9/20/2024 1:24:01 PM Alexandra

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- 100-Year 24-Hour Rainfall Depth Contours (in)

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# Buttonbush Solar & Storage Project

Kern County, California

## Exhibit 9 Spatially Varied Rainfall Depth Map

September 25, 2024

N

0 Miles 2.5

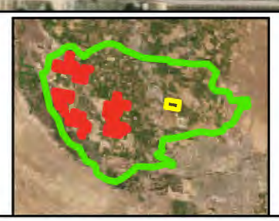
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\Spatially Varied Rainfall Depth Map 1 - Spatially Varied Rainfall Depth Map | 9/24/2024 11:59 AM | Kseverin

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Data Source(s): Westwood (2024); Esri WMS Basemap Imagery (Accessed 2024); USGS (2024); FEMA (2024); USDA (2024)

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**Legend**

- Project Area
- FLO-2D Model Boundary
- County Boundary
- Kern County Calibration Watershed
- Longest Watercourse
- Calibration Point
- Watershed Centroid

# Buttonbush Solar & Storage Project

Kern County, California

N

0 600 Feet

## Exhibit 10: Kern County Hydrology Map

September 25, 2024

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10/Kern County Hydrology Maps - Kern County Hydrology Maps 9/25/2024 7:43:08 PM Alessandra

# Appendix A

## NOAA Atlas 14 Precipitation Data

**NOAA Atlas 14, Volume 6, Version 2**
**Location name: Buttonwillow, California, USA***
**Latitude: 35.4763°, Longitude: -119.4376°**
**Elevation: 265 ft****
* source: ESRI Maps
** source: USGS

## POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

## PF tabular

**PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]**

| Duration | Average recurrence interval (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 500 | 1000 |
| 5-min | 0.057 (0.050-0.066) | 0.074 (0.064-0.086) | 0.098 (0.085-0.115) | 0.121 (0.103-0.142) | 0.155 (0.128-0.190) | 0.185 (0.149-0.232) | 0.219 (0.171-0.282) | 0.257 (0.195-0.342) | 0.317 (0.229-0.441) | 0.369 (0.257-0.534) |
| 10-min | 0.082 (0.071-0.095) | 0.106 (0.092-0.123) | 0.141 (0.122-0.165) | 0.173 (0.148-0.204) | 0.222 (0.183-0.272) | 0.265 (0.214-0.332) | 0.313 (0.246-0.404) | 0.369 (0.280-0.490) | 0.454 (0.329-0.632) | 0.529 (0.369-0.765) |
| 15-min | 0.099 (0.086-0.115) | 0.128 (0.111-0.149) | 0.170 (0.147-0.199) | 0.209 (0.179-0.247) | 0.269 (0.222-0.329) | 0.321 (0.258-0.402) | 0.379 (0.297-0.488) | 0.446 (0.339-0.593) | 0.549 (0.398-0.765) | 0.639 (0.446-0.926) |
| 30-min | 0.138 (0.120-0.160) | 0.178 (0.154-0.207) | 0.237 (0.205-0.277) | 0.291 (0.249-0.343) | 0.374 (0.308-0.458) | 0.446 (0.359-0.559) | 0.527 (0.413-0.679) | 0.620 (0.471-0.825) | 0.763 (0.553-1.06) | 0.889 (0.620-1.29) |
| 60-min | 0.194 (0.169-0.226) | 0.251 (0.218-0.292) | 0.335 (0.289-0.391) | 0.411 (0.352-0.484) | 0.528 (0.435-0.646) | 0.629 (0.507-0.789) | 0.744 (0.583-0.959) | 0.876 (0.665-1.16) | 1.08 (0.781-1.50) | 1.26 (0.875-1.82) |
| 2-hr | 0.292 (0.253-0.339) | 0.369 (0.320-0.430) | 0.481 (0.416-0.561) | 0.580 (0.497-0.683) | 0.728 (0.601-0.891) | 0.853 (0.688-1.07) | 0.992 (0.777-1.28) | 1.15 (0.871-1.52) | 1.38 (0.999-1.92) | 1.58 (1.10-2.28) |
| 3-hr | 0.357 (0.310-0.415) | 0.453 (0.393-0.527) | 0.589 (0.509-0.687) | 0.708 (0.607-0.834) | 0.883 (0.729-1.08) | 1.03 (0.830-1.29) | 1.19 (0.932-1.53) | 1.37 (1.04-1.82) | 1.63 (1.18-2.27) | 1.85 (1.29-2.67) |
| 6-hr | 0.480 (0.417-0.558) | 0.621 (0.539-0.722) | 0.816 (0.706-0.952) | 0.983 (0.842-1.16) | 1.22 (1.01-1.50) | 1.42 (1.14-1.78) | 1.63 (1.28-2.10) | 1.85 (1.41-2.47) | 2.18 (1.58-3.04) | 2.45 (1.71-3.55) |
| 12-hr | 0.588 (0.511-0.683) | 0.807 (0.700-0.939) | 1.10 (0.953-1.29) | 1.35 (1.16-1.59) | 1.69 (1.40-2.07) | 1.96 (1.58-2.46) | 2.25 (1.76-2.90) | 2.55 (1.94-3.39) | 2.97 (2.15-4.14) | 3.31 (2.31-4.79) |
| 24-hr | 0.715 (0.632-0.824) | 1.04 (0.922-1.20) | 1.48 (1.30-1.71) | 1.84 (1.61-2.14) | 2.33 (1.99-2.80) | 2.72 (2.28-3.31) | 3.12 (2.56-3.88) | 3.53 (2.83-4.50) | 4.11 (3.18-5.41) | 4.56 (3.43-6.19) |
| 2-day | 0.835 (0.739-0.963) | 1.22 (1.08-1.41) | 1.74 (1.54-2.02) | 2.17 (1.90-2.53) | 2.78 (2.36-3.32) | 3.25 (2.72-3.96) | 3.74 (3.07-4.65) | 4.26 (3.42-5.42) | 4.98 (3.86-6.56) | 5.56 (4.18-7.54) |
| 3-day | 0.912 (0.806-1.05) | 1.33 (1.18-1.54) | 1.89 (1.67-2.19) | 2.36 (2.07-2.75) | 3.02 (2.58-3.62) | 3.55 (2.97-4.32) | 4.10 (3.36-5.09) | 4.68 (3.75-5.95) | 5.49 (4.25-7.23) | 6.14 (4.62-8.33) |
| 4-day | 0.979 (0.866-1.13) | 1.43 (1.26-1.65) | 2.04 (1.80-2.36) | 2.55 (2.23-2.97) | 3.26 (2.78-3.91) | 3.83 (3.21-4.67) | 4.42 (3.63-5.50) | 5.05 (4.05-6.42) | 5.92 (4.59-7.81) | 6.63 (4.99-8.99) |
| 7-day | 1.10 (0.973-1.27) | 1.66 (1.47-1.92) | 2.40 (2.12-2.78) | 3.00 (2.63-3.50) | 3.83 (3.26-4.59) | 4.47 (3.75-5.45) | 5.13 (4.21-6.38) | 5.82 (4.67-7.41) | 6.77 (5.24-8.92) | 7.52 (5.66-10.2) |
| 10-day | 1.17 (1.04-1.35) | 1.80 (1.59-2.07) | 2.60 (2.30-3.01) | 3.26 (2.85-3.80) | 4.15 (3.54-4.97) | 4.83 (4.05-5.89) | 5.53 (4.54-6.87) | 6.25 (5.01-7.95) | 7.24 (5.60-9.53) | 8.01 (6.03-10.9) |
| 20-day | 1.45 (1.28-1.67) | 2.18 (1.93-2.52) | 3.13 (2.76-3.62) | 3.90 (3.42-4.55) | 4.95 (4.22-5.93) | 5.76 (4.82-7.02) | 6.58 (5.40-8.19) | 7.44 (5.96-9.46) | 8.60 (6.66-11.3) | 9.52 (7.16-12.9) |
| 30-day | 1.74 (1.54-2.01) | 2.55 (2.26-2.95) | 3.62 (3.19-4.18) | 4.49 (3.93-5.23) | 5.68 (4.84-6.80) | 6.60 (5.53-8.04) | 7.55 (6.20-9.39) | 8.54 (6.85-10.9) | 9.90 (7.66-13.0) | 11.0 (8.25-14.9) |
| 45-day | 2.16 (1.91-2.49) | 3.03 (2.68-3.50) | 4.20 (3.71-4.86) | 5.18 (4.53-6.03) | 6.53 (5.56-7.82) | 7.59 (6.36-9.25) | 8.69 (7.13-10.8) | 9.85 (7.90-12.5) | 11.5 (8.88-15.1) | 12.8 (9.60-17.3) |
| 60-day | 2.55 (2.26-2.94) | 3.45 (3.05-3.99) | 4.68 (4.13-5.42) | 5.72 (5.01-6.66) | 7.18 (6.12-8.60) | 8.36 (7.00-10.2) | 9.59 (7.87-11.9) | 10.9 (8.74-13.9) | 12.8 (9.88-16.8) | 14.3 (10.7-19.4) |

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

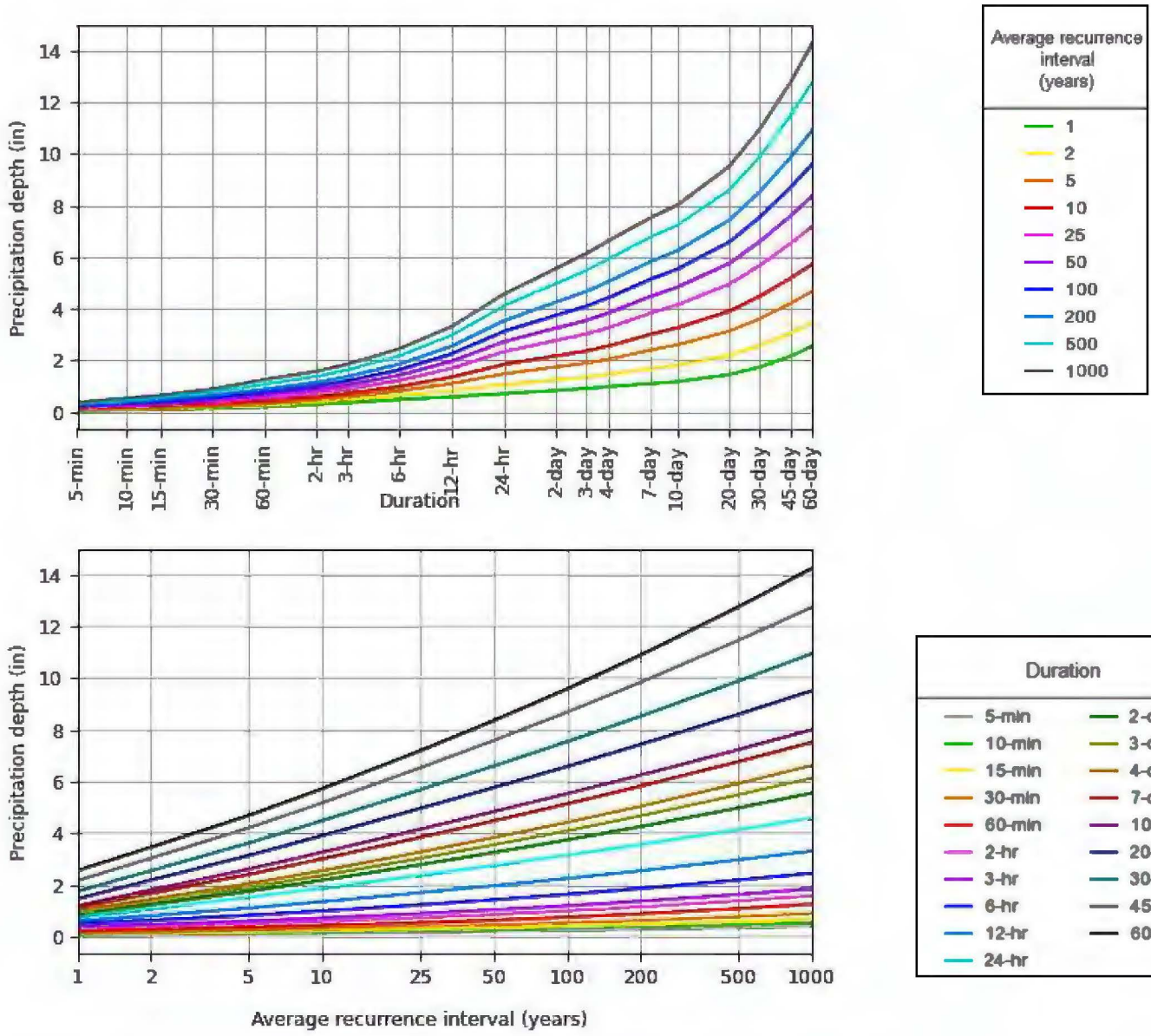
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

## PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 35.4763°, Longitude: -119.4376°



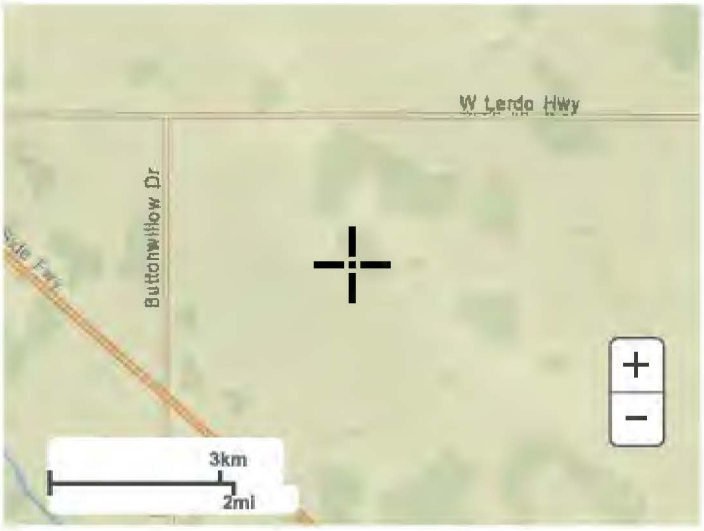

NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Wed Jul 26 16:40:03 2023

Back to Top

## Maps & aerials

**Small scale terrain**




Large scale terrain




Large scale map




Large scale aerial




Back to Top

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

# Appendix B

## Curve Number Table

Residential Landscaping (Lawn, Shrubs, etc.) - The pervious portions of commercial establishments, single and multiple family dwellings, trailer parks and schools where the predominant land cover is lawn, shrubbery and trees.

Row Crops - Lettuce, tomatoes, beets, tulips or any field crop planted in rows far enough apart that most of the soil surface is exposed to rainfall impact throughout the growing season. At plowing, planting and harvest times it is equivalent to fallow.

Small Grain - Wheat, oats, barley, flax, etc. planted in rows close enough that the soil surface is not exposed except during planting and shortly thereafter.

Legumes - Alfalfa, sweetclover, timothy, etc. and combinations are either planted in close rows or broadcast.

Fallow - Fallow land is land plowed but not yet seeded or tilled.

Woodland - grass - Areas with an open cover of broadleaf or coniferous trees usually live oak and pines, with the intervening ground space occupied by annual grasses or weeds. The trees may occur singly or in small clumps. Canopy density, the amount of ground surface shaded at high noon, is from 20 to 50 percent.

Woodland - Areas on which coniferous or broadleaf trees predominate. The canopy density is at least 50 percent. Open areas may have a cover of annual or perennial grasses or of brush. Herbaceous plant cover under the trees is usually sparse because of leaf or needle litter accumulation.

Chaparral - Land on which the principal vegetation consists of evergreen shrubs with broad, hard, stiff leaves such as manzonita, ceanothus and scrub oak. The brush cover is usually dense or moderately dense. Diffusely branched evergreen shrubs with fine needle-like leaves, such as chamise and redchank, with dense high growth are also included in this soil cover.

Annual Grass - Land on which the principal vegetation consists of annual grasses and weeds such as annual bromes, wild barley, soft chess, ryegrass and filaree.

Irrigated Pasture - Irrigated land planted to perennial grasses and legumes for production of forage and which is cultivated only to establish or renew the stand of plants. Dry land pasture is considered as annual grass.

Meadow - Land areas with seasonally high water table, locally called cienegas. Principal vegetation consists of sod-forming grasses interspersed with other plants.

Orchard (Deciduous) - Land planted to such deciduous trees as apples, apricots, pears, walnuts, and almonds.

Orchard (Evergreen) - Land planted to evergreen trees which include citrus and avocados and coniferous plantings.

Turf - Golf courses, parks and similar lands where the predominant cover is irrigated mowed close-grown turf grass. Parks in which trees are dense may be classified as woodland.

**KERN COUNTY**

HYDROLOGY MANUAL

SCS
COVER TYPE
DESCRIPTIONS

FIGURE C-1

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| NATURAL COVERS - | | | | | |
| Barren (Rockland, eroded and graded land) | | 77 | 86 | 91 | 94 |
| Chaparral, Broadleaf (Manzonita, ceanothus and scrub oak) | Poor | 53 | 70 | 80 | 85 |
| | Fair | 40 | 63 | 75 | 81 |
| | Good | 31 | 57 | 71 | 78 |
| Chaparral, Narrowleaf (Chamise and Redskank) | Poor | 71 | 82 | 88 | 91 |
| | Fair | 55 | 72 | 81 | 86 |
| Grass, Annual or Perennial | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |
| Meadows or Cienagas (Areas with seasonally high water table, principal vegatation is sod forming grass) | Poor | 63 | 77 | 85 | 88 |
| | Fair | 51 | 70 | 80 | 84 |
| | Good | 30 | 58 | 71 | 78 |
| Open Brush (Soft wood shrubs-buckwheat,sage,etc.) | Poor | 62 | 76 | 84 | 88 |
| | Fair | 46 | 66 | 77 | 83 |
| | Good | 41 | 63 | 75 | 81 |
| Woodland (4) (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent) | Poor | 45 | 66 | 77 | 83 |
| | Fair | 36 | 60 | 73 | 79 |
| | Good | 30 | 55 | 70 | 77 |
| Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 43 | 65 | 76 | 82 |
| | Good | 32 | 58 | 72 | 79 |
| URBAN COVERS - | | | | | |
| Residential or Commercial Landscaping (Lawns, shrubs, etc.) | Good | 39 | 61 | 74 | 80 |
| Turf (Irrigated and mowed grass) | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |

**KERN COUNTY**
**Hydrology Manual**

**CURVE NUMBERS FOR PERVIOUS AREAS**

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| AGRICULTURAL COVERS - | | | | | |
| Fallow (Bare Soil) | | 77 | 86 | 91 | 94 |
| Close Seeded (alfalfa, sweetclover, timothy, etc.) | Poor | 66 | 77 | 85 | 89 |
| | Good | 58 | 72 | 81 | 85 |
| Orchards, Evergreen (Citrus, avacodos, etc.) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 43 | 65 | 76 | 82 |
| | Good | 32 | 58 | 72 | 79 |
| Pasture (Grassland or range, continuos forage for grazing) | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |
| Row Crops (Straight row, non-contoured) | Poor | 72 | 81 | 88 | 91 |
| | Good | 67 | 78 | 85 | 89 |
| Small Grain (Straight row, non-contoured) | Poor | 65 | 76 | 84 | 88 |
| | Good | 63 | 75 | 83 | 87 |

Notes:

1. Average runoff condition, Ia = 0.2(S)

2. Poor: Heavily grazed, regularly burned areas, or areas of high burn potential. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.

   Fair: Moderate cover with 50 percent to 75 percent of the ground surface protected. In wooded areas the woods are grazed but not burned, and some forest litter covers the soil.

   Good: Heavy or dense cover with more than 75 percent of the ground surface protected. In wooded areas the woods are protected from grazing, litter and brush adequately cover soil.

3. See Figure C-1 for definition of cover types.

**KERN COUNTY**
**Hydrology Manual**

**CURVE NUMBERS FOR PERVIOUS AREAS**

# Appendix C

## FEMA Flood Insurance Rate Map (FIRM)

## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the **same vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

**Base map** information shown on this FIRM was derived from USDA -Farm Service Agency -Aerial Photography Field Office dated 2005 and from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

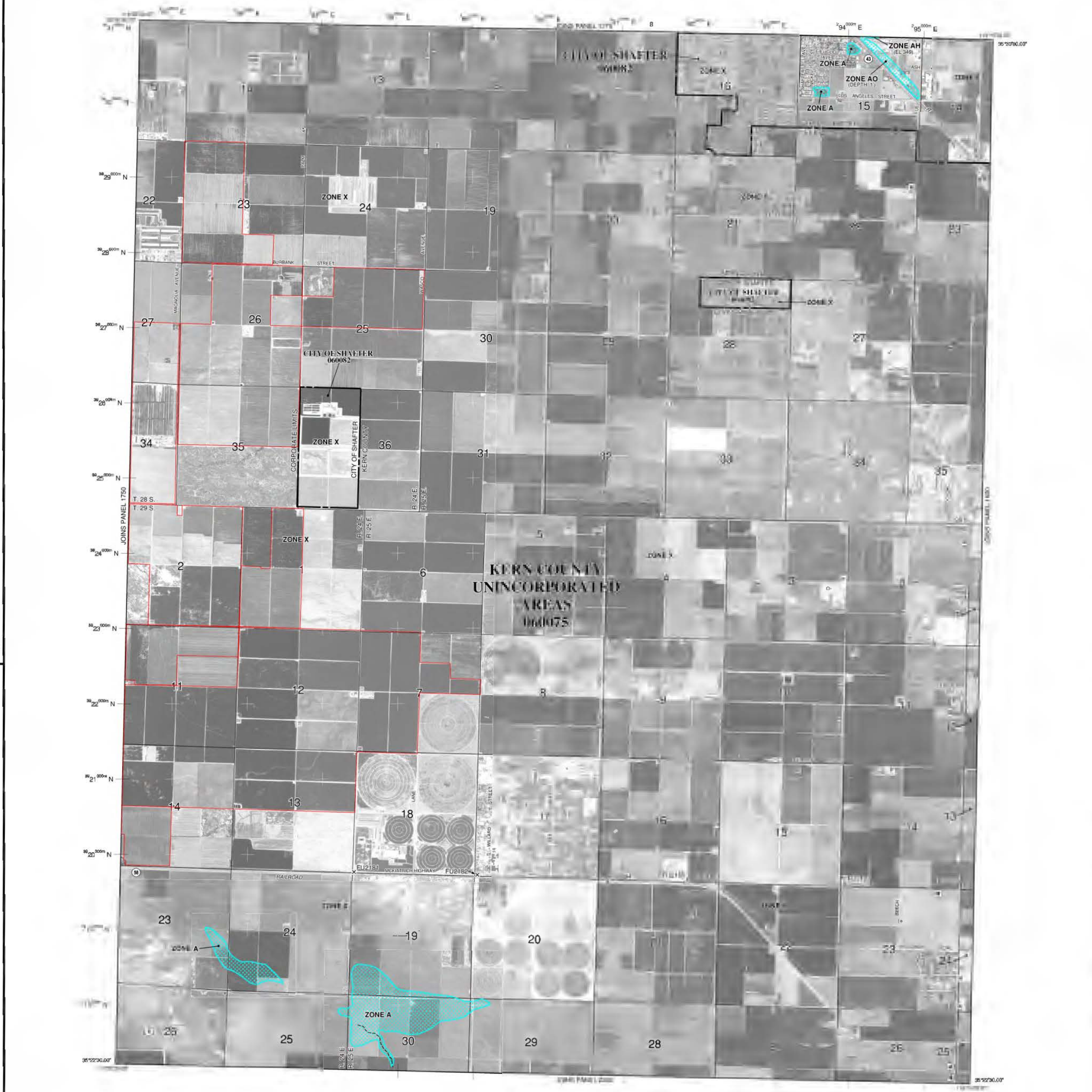
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.




## LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
|---|---|
| ZONE A | No Base Flood Elevations determined. |
| ZONE AE | Base Flood Elevations determined. |
| ZONE AH | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| ZONE AO | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| ZONE AR | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| ZONE A99 | Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| ZONE V | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| ZONE VE | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

| | |
|---|---|
| ZONE X | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

**OTHER AREAS**

| | |
|---|---|
| ZONE X | Areas determined to be outside the 0.2% annual chance floodplain. |
| ZONE D | Areas in which flood hazards are undetermined, but possible. |

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | 1% annual chance floodplain boundary |
| | 0.2% annual chance floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities. |
| ~~~~~ 513 ~~~~~ | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

| | |
|---|---|
| (A)——(A) | Cross section line |
| (23)- - - -(23) | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) |
| $^{42}75^{000m}$N | 1000-meter Universal Transverse Mercator grid ticks, zone 11 |
| 6000000 M | 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic |
| DX5510 × | Bench mark (see explanation in Notes to Users section of this FIRM panel) |
| • M1.5 | River Mile |

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

600 0 600 1200 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 1775E**

# FIRM
## FLOOD INSURANCE RATE MAP
## KERN COUNTY, CALIFORNIA
### AND INCORPORATED AREAS

**PANEL 1775 OF 4125**
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | [illegible] | PANEL | SUFFIX |
|---|---|---|---|
| KERN COUNTY | 060075 | 1775 | E |
| SHAFTER, CITY OF | 060082 | 1775 | E |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**06029C1775E**

**EFFECTIVE DATE**
**SEPTEMBER 26, 2008**

Federal Emergency Management Agency

## NOTES TO USERS

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This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the *Flood Insurance Study report* (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a *Flood Insurance Study* report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.




## LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- B — B — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000 m N — 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 6000000 M — 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES

Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
300 0 600 1200 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1225E

# FIRM

## FLOOD INSURANCE RATE MAP

## KERN COUNTY, CALIFORNIA AND INCORPORATED AREAS

**PANEL 1225 OF 4125**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| KERN COUNTY | 060075 | 1225 | E |

Notice to User: The **Map Number** shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**06029C1225E**

**EFFECTIVE DATE**
**SEPTEMBER 26, 2008**

Federal Emergency Management Agency

# NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

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- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
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The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

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- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- ~~~~~ 513 ~~~~~ Base Flood Elevation line and value; elevation in feet*
- (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- (A)——(A) Cross section line
- (23)- - - -(23) Transect line
- 97°07'30", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- $^{45}75^{000m}$N 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 6000000 M 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)
- • M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
600 0 600 1200 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1725E

# FIRM
## FLOOD INSURANCE RATE MAP
## KERN COUNTY, CALIFORNIA
## AND INCORPORATED AREAS

**PANEL 1725 OF 4125**
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| KERN COUNTY | 060075 | 1725 | E |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**06029C1725E**

**EFFECTIVE DATE**
**SEPTEMBER 26, 2008**

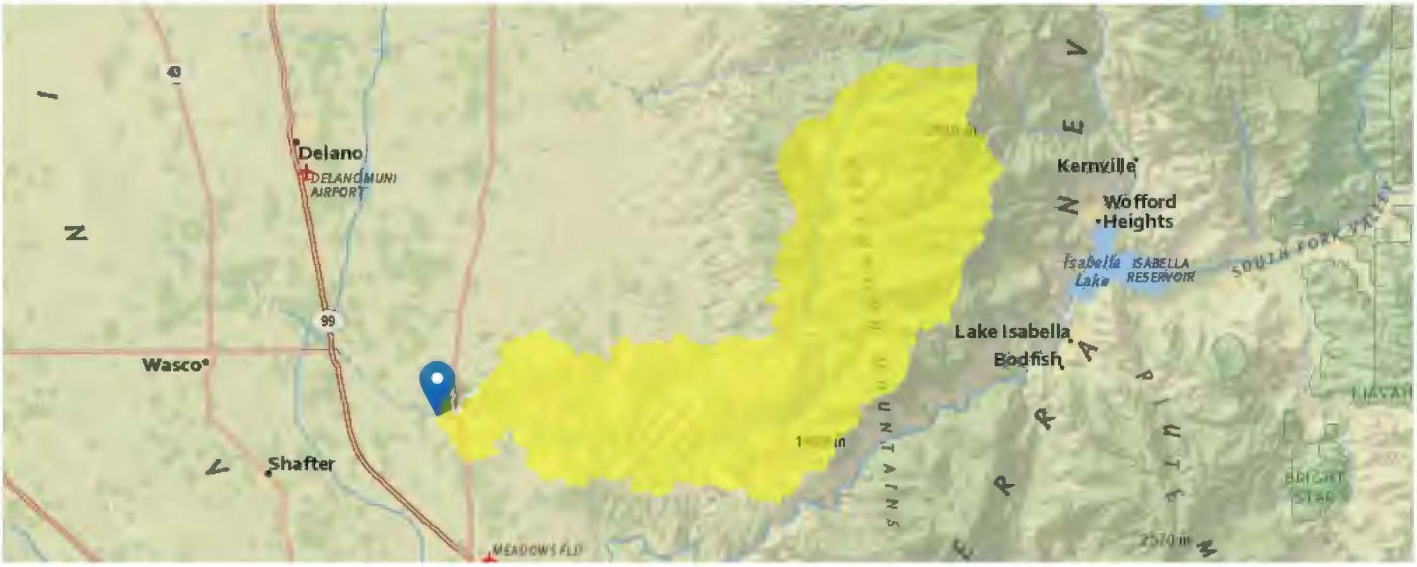
Federal Emergency Management Agency

# Appendix D

## Poso Creek Inflow

# StreamStats Report

**Region ID:** CA
**Workspace ID:** CA20230726171846436000
**Clicked Point (Latitude, Longitude):** 35.54937, -119.10802
**Time:** 2023-07-26 12:19:14 -0500




Collapse All

## Basin Characteristics

| Parameter Code | Parameter Description | Value | Unit |
|---|---|---|---|
| DRNAREA | Area that drains to a point on a stream | 320.9 | square miles |
| ELEV | Mean Basin Elevation | 2984 | feet |
| PRECIP | Mean Annual Precipitation | 19.7 | inches |

## Peak-Flow Statistics

### Peak-Flow Statistics Parameters [9.3 Percent (29.7 square miles) 2012 5113 Region 3 Sierra Nevada]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| DRNAREA | Drainage Area | 320.9 | square miles | 0.07 | 2000 |
| ELEV | Mean Basin Elevation | 2984 | feet | 90 | 11000 |
| PRECIP | Mean Annual Precipitation | 19.7 | inches | 15 | 100 |

### Peak-Flow Statistics Parameters [90.7 Percent (291 square miles) 2012 5113 Region 4 Central Coast]

| Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit |
|---|---|---|---|---|---|
| DRNAREA | Drainage Area | 320.9 | square miles | 0.11 | 4600 |
| PRECIP | Mean Annual Precipitation | 19.7 | inches | 7 | 46 |

### Peak-Flow Statistics Flow Report [9.3 Percent (29.7 square miles) 2012 5113 Region 3 Sierra Nevada]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

| Statistic | Value | Unit | PII | PIu | ASEp |
|---|---|---|---|---|---|
| 50-percent AEP flood | 1330 | ft^3/s | 439 | 4030 | 74.4 |
| 20-percent AEP flood | 3730 | ft^3/s | 1580 | 8830 | 54.4 |
| 10-percent AEP flood | 6110 | ft^3/s | 2680 | 13900 | 51.5 |
| 4-percent AEP flood | 9820 | ft^3/s | 4290 | 22500 | 52.3 |
| 2-percent AEP flood | 13300 | ft^3/s | 5590 | 31600 | 54.6 |
| 1-percent AEP flood | 17400 | ft^3/s | 6990 | 43300 | 58 |
| 0.5-percent AEP flood | 22000 | ft^3/s | 8420 | 57500 | 61.5 |
| 0.2-percent AEP flood | 29100 | ft^3/s | 10300 | 82400 | 67.3 |

## Peak-Flow Statistics Flow Report [90.7 Percent (291 square miles) 2012 5113 Region 4 Central Coast]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

| Statistic | Value | Unit | PII | PIu | ASEp |
|---|---|---|---|---|---|
| 50-percent AEP flood | 1400 | ft^3/s | 217 | 9050 | 162 |
| 20-percent AEP flood | 4770 | ft^3/s | 1250 | 18200 | 97 |
| 10-percent AEP flood | 8550 | ft^3/s | 2730 | 26800 | 79.4 |
| 4-percent AEP flood | 14900 | ft^3/s | 5300 | 41900 | 69.9 |
| 2-percent AEP flood | 20900 | ft^3/s | 7880 | 55400 | 66.2 |
| 1-percent AEP flood | 27100 | ft^3/s | 10200 | 72100 | 66.9 |
| 0.5-percent AEP flood | 34100 | ft^3/s | 12800 | 91000 | 67.6 |
| 0.2-percent AEP flood | 44200 | ft^3/s | 15500 | 126000 | 71.5 |

## Peak-Flow Statistics Flow Report [Area-Averaged]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

| Statistic | Value | Unit | PII | PIu |
|---|---|---|---|---|
| 50-percent AEP flood | 1390 | ft^3/s | 238 | 8580 |
| 20-percent AEP flood | 4670 | ft^3/s | 1280 | 17300 |
| 10-percent AEP flood | 8320 | ft^3/s | 2730 | 25600 |
| 4-percent AEP flood | 14400 | ft^3/s | 5210 | 40100 |
| 2-percent AEP flood | 20200 | ft^3/s | 7670 | 53200 |
| 1-percent AEP flood | 26200 | ft^3/s | 9900 | 69400 |
| 0.5-percent AEP flood | 33000 | ft^3/s | 12400 | 87900 |
| 0.2-percent AEP flood | 42800 | ft^3/s | 15000 | 122000 |

*Peak-Flow Statistics Citations*

**Gotvald, A.J., Barth, N.A., Veilleux, A.G., and Parrett, Charles,2012, Methods for determining magnitude and frequency of floods in California, based on data through water year 2006: U.S. Geological Survey Scientific Investigations Report 2012–5113, 38 p., 1 pl. (http://pubs.usgs.gov/sir/2012/5113/)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.16.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

# Appendix E

## CivilD Model Printouts

U n i t  H y d r o g r a p h  A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 2004-2014, Version 9.0

Study date 08/11/23

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
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Kern County Synthetic Unit Hydrograph Hydrology Method
Manual date - 1992

Program License Serial Number 6271

---

Buttonbush Solar

---

Storm Event Year = 100

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

RAINFALL DATA INPUT:
Slope of Intensity-Duration Curve Slope = 0.650

Zone Designation: San Joaquin Valley Latitude = 35.50

Area averaged rainfall intensity isohyetal data:

| Sub-Area (Ac.) | Duration (hours) | Isohyetal (In) |
|---|---|---|
| Rainfall data for year 2 | | |
| 271.00 | 6 | 0.62 |
| Rainfall data for year 2 | | |
| 271.00 | 24 | 1.04 |
| Rainfall data for year 100 | | |
| 271.00 | 6 | 1.63 |
| Rainfall data for year 100 | | |
| 271.00 | 24 | 3.12 |

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
SAN JOAQUIN VALLEY area of study
Log-Log Rainfall Intensity Slope = 0.65
---

******** Area-averaged max loss rate, Fm ********

| SCS curve Number | Area (Ac.) | Area Fraction | Fp (In/Hr) | Ap (dec.) | Fm (In/Hr) |
|---|---|---|---|---|---|
| 75.0 | 271.00 | 1.000 | 0.470 | 1.000 | 0.470 |

Area-averaged adjusted loss rate Fm (In/Hr) = 0.470

********* Area-Averaged low loss rate fraction, Yb **********

| Area (Ac.) | Area Fract | SCS CN (AMC2) | S | Pervious Yield Fr |
|---|---|---|---|---|
| 271.00 | 1.000 | 75.0 | 3.33 | 0.333 |

Area-averaged catchment yield fraction, Y = 0.333
Area-averaged low loss fraction, Yb = 0.667
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Watercourse length = 9425.00(Ft.)
Length from concentration point to centroid = 4959.00(Ft.)
Elevation difference along watercourse = 34.30(Ft.)
Mannings friction factor along watercourse = 0.370
Watershed area = 271.00(Ac.)
Catchment Lag time = 6.163 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 1.3521
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.470(In/Hr)
Average low loss rate fraction (Yb) = 0.667 (decimal)
VALLEY UNDEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.307(In)
Computed peak 30-minute rainfall = 0.575(In)
Specified peak 1-hour rainfall = 0.733(In)
Computed peak 3-hour rainfall = 1.196(In)
Specified peak 6-hour rainfall = 1.630(In)
Specified peak 24-hour rainfall = 3.120(In)

Note: User specified rainfall values used.
Computed peak 5-minute rainfall = 0.219(In)
Computed peak 30-minute rainfall = 0.527(In)
Specified peak 1-hour rainfall = 0.744(In)
Computed peak 3-hour rainfall = 1.190(In)
Specified peak 6-hour rainfall = 1.630(In)
Specified peak 24-hour rainfall = 3.120(In)

Rainfall depth area reduction factors:
Using a total area of 271.00(Ac.) (Ref: fig. E-4)

5-minute factor = 0.988 Adjusted rainfall = 0.216(In)
30-minute factor = 0.988 Adjusted rainfall = 0.521(In)
1-hour factor = 0.988 Adjusted rainfall = 0.735(In)
3-hour factor = 0.998 Adjusted rainfall = 1.188(In)
6-hour factor = 0.999 Adjusted rainfall = 1.629(In)
24-hour factor = 0.999 Adjusted rainfall = 3.118(In)
---

U n i t H y d r o g r a p h

++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
WARNING: End of hydrograph not reached with this
Unit time interval vs lag time
Unit-Hydrograph terminated after 450  intervals

| Interval Number | 'S' Graph Mean values | Unit Hydrograph ((CFS)) |
|---|---|---|
| | (K = 3277.41 (CFS)) | |
| 1 | 0.113 | 3.693 |
| 2 | 0.338 | 7.386 |
| 3 | 0.563 | 7.386 |
| 4 | 0.789 | 7.386 |
| 5 | 1.014 | 7.386 |
| 6 | 1.239 | 7.386 |
| 7 | 1.465 | 7.386 |
| 8 | 1.690 | 7.386 |
| 9 | 1.916 | 7.405 |
| 10 | 2.188 | 8.906 |
| 11 | 2.488 | 9.848 |
| 12 | 2.789 | 9.848 |
| 13 | 3.089 | 9.848 |
| 14 | 3.390 | 9.848 |
| 15 | 3.690 | 9.848 |
| 16 | 4.000 | 10.157 |
| 17 | 4.374 | 12.265 |
| 18 | 4.761 | 12.662 |
| 19 | 5.147 | 12.662 |
| 20 | 5.533 | 12.662 |
| 21 | 5.922 | 12.752 |
| 22 | 6.357 | 14.243 |
| 23 | 6.808 | 14.772 |
| 24 | 7.258 | 14.772 |
| 25 | 7.709 | 14.772 |
| 26 | 8.193 | 15.851 |
| 27 | 8.733 | 17.695 |
| 28 | 9.274 | 17.726 |
| 29 | 9.814 | 17.726 |
| 30 | 10.355 | 17.726 |
| 31 | 10.896 | 17.726 |
| 32 | 11.437 | 17.726 |
| 33 | 11.992 | 18.193 |
| 34 | 12.648 | 21.510 |
| 35 | 13.325 | 22.158 |
| 36 | 14.029 | 23.084 |
| 37 | 14.902 | 28.624 |
| 38 | 15.795 | 29.249 |
| 39 | 16.529 | 24.060 |
| 40 | 17.205 | 22.158 |
| 41 | 17.893 | 22.545 |
| 42 | 18.743 | 27.856 |
| 43 | 19.644 | 29.544 |
| 44 | 20.546 | 29.544 |
| 45 | 21.447 | 29.544 |
| 46 | 22.348 | 29.544 |
| 47 | 23.250 | 29.544 |
| 48 | 24.151 | 29.544 |
| 49 | 25.053 | 29.544 |
| 50 | 25.954 | 29.544 |

| | | |
|---|---|---|
| 51 | 26.856 | 29.544 |
| 52 | 27.757 | 29.544 |
| 53 | 28.658 | 29.544 |
| 54 | 29.560 | 29.545 |
| 55 | 30.692 | 37.102 |
| 56 | 31.980 | 42.220 |
| 57 | 32.931 | 31.157 |
| 58 | 33.832 | 29.544 |
| 59 | 34.734 | 29.544 |
| 60 | 35.637 | 29.611 |
| 61 | 36.805 | 38.269 |
| 62 | 38.071 | 41.512 |
| 63 | 39.006 | 30.632 |
| 64 | 39.908 | 29.544 |
| 65 | 40.809 | 29.544 |
| 66 | 41.710 | 29.544 |
| 67 | 42.612 | 29.544 |
| 68 | 43.513 | 29.544 |
| 69 | 44.622 | 36.351 |
| 70 | 45.922 | 42.595 |
| 71 | 46.884 | 31.534 |
| 72 | 47.786 | 29.544 |
| 73 | 48.687 | 29.544 |
| 74 | 49.589 | 29.544 |
| 75 | 50.490 | 29.544 |
| 76 | 51.391 | 29.544 |
| 77 | 52.216 | 27.031 |
| 78 | 52.896 | 22.271 |
| 79 | 53.572 | 22.158 |
| 80 | 54.248 | 22.158 |
| 81 | 54.924 | 22.158 |
| 82 | 55.600 | 22.158 |
| 83 | 56.276 | 22.158 |
| 84 | 56.952 | 22.158 |
| 85 | 57.628 | 22.158 |
| 86 | 58.243 | 20.158 |
| 87 | 58.784 | 17.732 |
| 88 | 59.325 | 17.726 |
| 89 | 59.863 | 17.632 |
| 90 | 60.339 | 15.598 |
| 91 | 60.790 | 14.772 |
| 92 | 61.240 | 14.772 |
| 93 | 61.691 | 14.772 |
| 94 | 62.142 | 14.772 |
| 95 | 62.593 | 14.772 |
| 96 | 63.043 | 14.772 |
| 97 | 63.494 | 14.772 |
| 98 | 63.945 | 14.772 |
| 99 | 64.395 | 14.772 |
| 100 | 64.846 | 14.772 |
| 101 | 65.297 | 14.772 |
| 102 | 65.748 | 14.772 |
| 103 | 66.149 | 13.140 |
| 104 | 66.487 | 11.085 |
| 105 | 66.825 | 11.079 |
| 106 | 67.163 | 11.079 |
| 107 | 67.501 | 11.079 |
| 108 | 67.839 | 11.079 |
| 109 | 68.177 | 11.079 |

| | | |
|---|---|---|
| 110 | 68.515 | 11.079 |
| 111 | 68.853 | 11.079 |
| 112 | 69.191 | 11.079 |
| 113 | 69.529 | 11.079 |
| 114 | 69.867 | 11.066 |
| 115 | 70.164 | 9.747 |
| 116 | 70.435 | 8.863 |
| 117 | 70.705 | 8.863 |
| 118 | 70.975 | 8.863 |
| 119 | 71.246 | 8.863 |
| 120 | 71.516 | 8.863 |
| 121 | 71.787 | 8.863 |
| 122 | 72.057 | 8.863 |
| 123 | 72.328 | 8.863 |
| 124 | 72.598 | 8.863 |
| 125 | 72.868 | 8.863 |
| 126 | 73.139 | 8.863 |
| 127 | 73.409 | 8.863 |
| 128 | 73.680 | 8.863 |
| 129 | 73.948 | 8.789 |
| 130 | 74.184 | 7.732 |
| 131 | 74.409 | 7.386 |
| 132 | 74.635 | 7.386 |
| 133 | 74.860 | 7.386 |
| 134 | 75.085 | 7.386 |
| 135 | 75.311 | 7.386 |
| 136 | 75.536 | 7.386 |
| 137 | 75.761 | 7.386 |
| 138 | 75.984 | 7.283 |
| 139 | 76.182 | 6.496 |
| 140 | 76.375 | 6.331 |
| 141 | 76.568 | 6.331 |
| 142 | 76.761 | 6.331 |
| 143 | 76.954 | 6.331 |
| 144 | 77.148 | 6.331 |
| 145 | 77.341 | 6.331 |
| 146 | 77.534 | 6.331 |
| 147 | 77.727 | 6.331 |
| 148 | 77.920 | 6.329 |
| 149 | 78.106 | 6.085 |
| 150 | 78.286 | 5.909 |
| 151 | 78.466 | 5.909 |
| 152 | 78.647 | 5.909 |
| 153 | 78.827 | 5.909 |
| 154 | 79.007 | 5.909 |
| 155 | 79.188 | 5.909 |
| 156 | 79.368 | 5.909 |
| 157 | 79.548 | 5.909 |
| 158 | 79.728 | 5.909 |
| 159 | 79.909 | 5.909 |
| 160 | 80.074 | 5.423 |
| 161 | 80.224 | 4.924 |
| 162 | 80.375 | 4.924 |
| 163 | 80.525 | 4.924 |
| 164 | 80.675 | 4.924 |
| 165 | 80.825 | 4.924 |
| 166 | 80.976 | 4.924 |
| 167 | 81.126 | 4.924 |
| 168 | 81.276 | 4.924 |

| | | |
|---|---|---|
| 169 | 81.426 | 4.924 |
| 170 | 81.577 | 4.924 |
| 171 | 81.727 | 4.924 |
| 172 | 81.877 | 4.924 |
| 173 | 82.022 | 4.761 |
| 174 | 82.152 | 4.256 |
| 175 | 82.281 | 4.221 |
| 176 | 82.410 | 4.221 |
| 177 | 82.538 | 4.221 |
| 178 | 82.667 | 4.221 |
| 179 | 82.796 | 4.221 |
| 180 | 82.925 | 4.221 |
| 181 | 83.054 | 4.221 |
| 182 | 83.182 | 4.221 |
| 183 | 83.311 | 4.221 |
| 184 | 83.440 | 4.221 |
| 185 | 83.569 | 4.221 |
| 186 | 83.697 | 4.221 |
| 187 | 83.826 | 4.221 |
| 188 | 83.955 | 4.213 |
| 189 | 84.070 | 3.789 |
| 190 | 84.179 | 3.545 |
| 191 | 84.287 | 3.545 |
| 192 | 84.395 | 3.545 |
| 193 | 84.503 | 3.545 |
| 194 | 84.611 | 3.545 |
| 195 | 84.719 | 3.545 |
| 196 | 84.828 | 3.545 |
| 197 | 84.936 | 3.545 |
| 198 | 85.044 | 3.545 |
| 199 | 85.152 | 3.545 |
| 200 | 85.260 | 3.545 |
| 201 | 85.368 | 3.545 |
| 202 | 85.477 | 3.545 |
| 203 | 85.585 | 3.545 |
| 204 | 85.693 | 3.545 |
| 205 | 85.801 | 3.545 |
| 206 | 85.909 | 3.545 |
| 207 | 86.014 | 3.416 |
| 208 | 86.105 | 2.988 |
| 209 | 86.195 | 2.954 |
| 210 | 86.285 | 2.954 |
| 211 | 86.375 | 2.954 |
| 212 | 86.465 | 2.954 |
| 213 | 86.555 | 2.954 |
| 214 | 86.646 | 2.954 |
| 215 | 86.736 | 2.954 |
| 216 | 86.826 | 2.954 |
| 217 | 86.916 | 2.954 |
| 218 | 87.006 | 2.954 |
| 219 | 87.096 | 2.954 |
| 220 | 87.186 | 2.954 |
| 221 | 87.277 | 2.954 |
| 222 | 87.367 | 2.954 |
| 223 | 87.457 | 2.954 |
| 224 | 87.547 | 2.954 |
| 225 | 87.637 | 2.954 |
| 226 | 87.727 | 2.954 |
| 227 | 87.817 | 2.954 |

| | | |
|---|---|---|
| 228 | 87.908 | 2.954 |
| 229 | 87.997 | 2.915 |
| 230 | 88.078 | 2.655 |
| 231 | 88.157 | 2.607 |
| 232 | 88.237 | 2.607 |
| 233 | 88.316 | 2.607 |
| 234 | 88.396 | 2.607 |
| 235 | 88.475 | 2.607 |
| 236 | 88.555 | 2.607 |
| 237 | 88.634 | 2.607 |
| 238 | 88.714 | 2.607 |
| 239 | 88.793 | 2.607 |
| 240 | 88.873 | 2.607 |
| 241 | 88.952 | 2.607 |
| 242 | 89.032 | 2.607 |
| 243 | 89.112 | 2.607 |
| 244 | 89.191 | 2.607 |
| 245 | 89.271 | 2.607 |
| 246 | 89.350 | 2.607 |
| 247 | 89.430 | 2.607 |
| 248 | 89.509 | 2.607 |
| 249 | 89.589 | 2.607 |
| 250 | 89.668 | 2.607 |
| 251 | 89.748 | 2.607 |
| 252 | 89.827 | 2.607 |
| 253 | 89.907 | 2.607 |
| 254 | 89.986 | 2.577 |
| 255 | 90.052 | 2.184 |
| 256 | 90.115 | 2.061 |
| 257 | 90.178 | 2.061 |
| 258 | 90.241 | 2.061 |
| 259 | 90.304 | 2.061 |
| 260 | 90.367 | 2.061 |
| 261 | 90.429 | 2.061 |
| 262 | 90.492 | 2.061 |
| 263 | 90.555 | 2.061 |
| 264 | 90.618 | 2.061 |
| 265 | 90.681 | 2.061 |
| 266 | 90.744 | 2.061 |
| 267 | 90.807 | 2.061 |
| 268 | 90.870 | 2.061 |
| 269 | 90.933 | 2.061 |
| 270 | 90.996 | 2.061 |
| 271 | 91.058 | 2.061 |
| 272 | 91.121 | 2.061 |
| 273 | 91.184 | 2.061 |
| 274 | 91.247 | 2.061 |
| 275 | 91.310 | 2.061 |
| 276 | 91.373 | 2.061 |
| 277 | 91.436 | 2.061 |
| 278 | 91.499 | 2.061 |
| 279 | 91.562 | 2.061 |
| 280 | 91.624 | 2.061 |
| 281 | 91.687 | 2.061 |
| 282 | 91.750 | 2.061 |
| 283 | 91.813 | 2.061 |
| 284 | 91.876 | 2.061 |
| 285 | 91.939 | 2.061 |
| 286 | 92.000 | 2.003 |

| | | |
|---|---|---|
| 287 | 92.051 | 1.688 |
| 288 | 92.102 | 1.641 |
| 289 | 92.152 | 1.641 |
| 290 | 92.202 | 1.641 |
| 291 | 92.252 | 1.641 |
| 292 | 92.302 | 1.641 |
| 293 | 92.352 | 1.641 |
| 294 | 92.402 | 1.641 |
| 295 | 92.452 | 1.641 |
| 296 | 92.502 | 1.641 |
| 297 | 92.552 | 1.641 |
| 298 | 92.602 | 1.641 |
| 299 | 92.652 | 1.641 |
| 300 | 92.703 | 1.641 |
| 301 | 92.753 | 1.641 |
| 302 | 92.803 | 1.641 |
| 303 | 92.853 | 1.641 |
| 304 | 92.903 | 1.641 |
| 305 | 92.953 | 1.641 |
| 306 | 93.003 | 1.641 |
| 307 | 93.053 | 1.641 |
| 308 | 93.103 | 1.641 |
| 309 | 93.153 | 1.641 |
| 310 | 93.203 | 1.641 |
| 311 | 93.253 | 1.641 |
| 312 | 93.303 | 1.641 |
| 313 | 93.354 | 1.641 |
| 314 | 93.404 | 1.641 |
| 315 | 93.454 | 1.641 |
| 316 | 93.504 | 1.641 |
| 317 | 93.554 | 1.641 |
| 318 | 93.604 | 1.641 |
| 319 | 93.654 | 1.641 |
| 320 | 93.704 | 1.641 |
| 321 | 93.754 | 1.641 |
| 322 | 93.804 | 1.641 |
| 323 | 93.854 | 1.641 |
| 324 | 93.904 | 1.641 |
| 325 | 93.955 | 1.641 |
| 326 | 94.003 | 1.582 |
| 327 | 94.043 | 1.332 |
| 328 | 94.083 | 1.303 |
| 329 | 94.123 | 1.303 |
| 330 | 94.163 | 1.303 |
| 331 | 94.202 | 1.303 |
| 332 | 94.242 | 1.303 |
| 333 | 94.282 | 1.303 |
| 334 | 94.322 | 1.303 |
| 335 | 94.362 | 1.303 |
| 336 | 94.401 | 1.303 |
| 337 | 94.441 | 1.303 |
| 338 | 94.481 | 1.303 |
| 339 | 94.521 | 1.303 |
| 340 | 94.560 | 1.303 |
| 341 | 94.600 | 1.303 |
| 342 | 94.640 | 1.303 |
| 343 | 94.680 | 1.303 |
| 344 | 94.719 | 1.303 |
| 345 | 94.759 | 1.303 |

| | | |
|---|---|---|
| 346 | 94.799 | 1.303 |
| 347 | 94.839 | 1.303 |
| 348 | 94.879 | 1.303 |
| 349 | 94.918 | 1.303 |
| 350 | 94.958 | 1.303 |
| 351 | 94.998 | 1.303 |
| 352 | 95.038 | 1.303 |
| 353 | 95.077 | 1.303 |
| 354 | 95.117 | 1.303 |
| 355 | 95.157 | 1.303 |
| 356 | 95.197 | 1.303 |
| 357 | 95.236 | 1.303 |
| 358 | 95.276 | 1.303 |
| 359 | 95.316 | 1.303 |
| 360 | 95.356 | 1.303 |
| 361 | 95.396 | 1.303 |
| 362 | 95.435 | 1.303 |
| 363 | 95.475 | 1.303 |
| 364 | 95.515 | 1.303 |
| 365 | 95.555 | 1.303 |
| 366 | 95.594 | 1.303 |
| 367 | 95.634 | 1.303 |
| 368 | 95.674 | 1.303 |
| 369 | 95.714 | 1.303 |
| 370 | 95.753 | 1.303 |
| 371 | 95.793 | 1.303 |
| 372 | 95.833 | 1.303 |
| 373 | 95.873 | 1.303 |
| 374 | 95.913 | 1.303 |
| 375 | 95.952 | 1.303 |
| 376 | 95.991 | 1.283 |
| 377 | 96.021 | 0.969 |
| 378 | 96.047 | 0.860 |
| 379 | 96.074 | 0.860 |
| 380 | 96.100 | 0.860 |
| 381 | 96.126 | 0.860 |
| 382 | 96.152 | 0.860 |
| 383 | 96.179 | 0.860 |
| 384 | 96.205 | 0.860 |
| 385 | 96.231 | 0.860 |
| 386 | 96.257 | 0.860 |
| 387 | 96.284 | 0.860 |
| 388 | 96.310 | 0.860 |
| 389 | 96.336 | 0.860 |
| 390 | 96.362 | 0.860 |
| 391 | 96.389 | 0.860 |
| 392 | 96.415 | 0.860 |
| 393 | 96.441 | 0.860 |
| 394 | 96.467 | 0.860 |
| 395 | 96.494 | 0.860 |
| 396 | 96.520 | 0.860 |
| 397 | 96.546 | 0.860 |
| 398 | 96.572 | 0.860 |
| 399 | 96.599 | 0.860 |
| 400 | 96.625 | 0.860 |
| 401 | 96.651 | 0.860 |
| 402 | 96.677 | 0.860 |
| 403 | 96.704 | 0.860 |
| 404 | 96.730 | 0.860 |

| | | |
|---|---|---|
| 405 | 96.756 | 0.860 |
| 406 | 96.782 | 0.860 |
| 407 | 96.809 | 0.860 |
| 408 | 96.835 | 0.860 |
| 409 | 96.861 | 0.860 |
| 410 | 96.887 | 0.860 |
| 411 | 96.914 | 0.860 |
| 412 | 96.940 | 0.860 |
| 413 | 96.966 | 0.860 |
| 414 | 96.992 | 0.860 |
| 415 | 97.019 | 0.860 |
| 416 | 97.045 | 0.860 |
| 417 | 97.071 | 0.860 |
| 418 | 97.097 | 0.860 |
| 419 | 97.124 | 0.860 |
| 420 | 97.150 | 0.860 |
| 421 | 97.176 | 0.860 |
| 422 | 97.203 | 0.860 |
| 423 | 97.229 | 0.860 |
| 424 | 97.255 | 0.860 |
| 425 | 97.281 | 0.860 |
| 426 | 97.308 | 0.860 |
| 427 | 97.334 | 0.860 |
| 428 | 97.360 | 0.860 |
| 429 | 97.386 | 0.860 |
| 430 | 97.413 | 0.860 |
| 431 | 97.439 | 0.860 |
| 432 | 97.465 | 0.860 |
| 433 | 97.491 | 0.860 |
| 434 | 97.518 | 0.860 |
| 435 | 97.544 | 0.860 |
| 436 | 97.570 | 0.860 |
| 437 | 97.596 | 0.860 |
| 438 | 97.623 | 0.860 |
| 439 | 97.649 | 0.860 |
| 440 | 97.675 | 0.860 |
| 441 | 97.701 | 0.860 |
| 442 | 97.728 | 0.860 |
| 443 | 97.754 | 0.860 |
| 444 | 97.780 | 0.860 |
| 445 | 97.806 | 0.860 |
| 446 | 97.833 | 0.860 |
| 447 | 97.859 | 0.860 |
| 448 | 97.885 | 0.860 |
| 449 | 97.911 | 0.860 |

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Time = 24.00 Hours Total unit rainfall = 3.12(In)

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Total soil rain loss = 1.95(In)
Total effective rainfall = 1.17(In)
Peak flow rate in flood hydrograph = 24.18(CFS)

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24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

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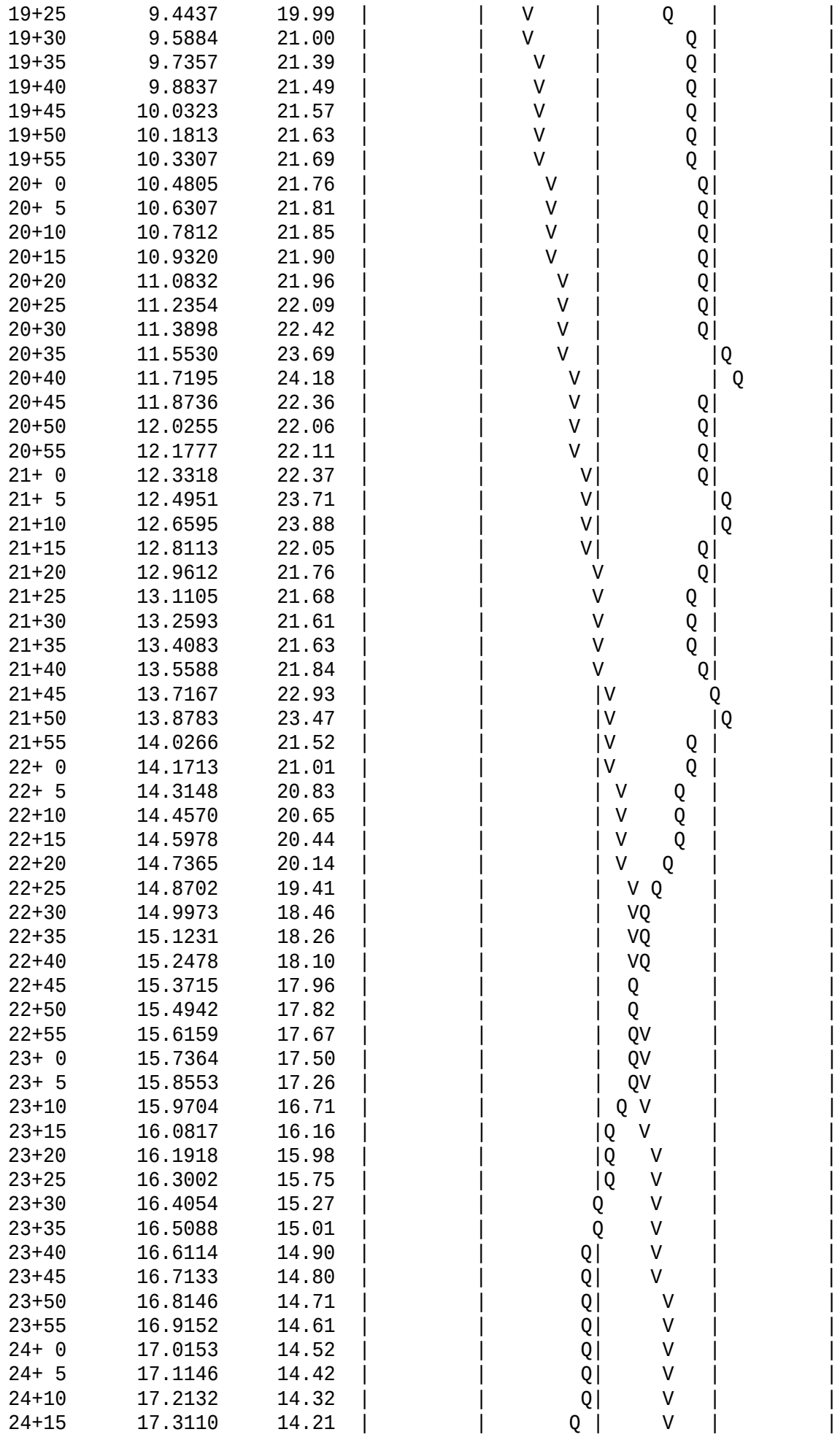
Hydrograph in 5 Minute intervals ((CFS))

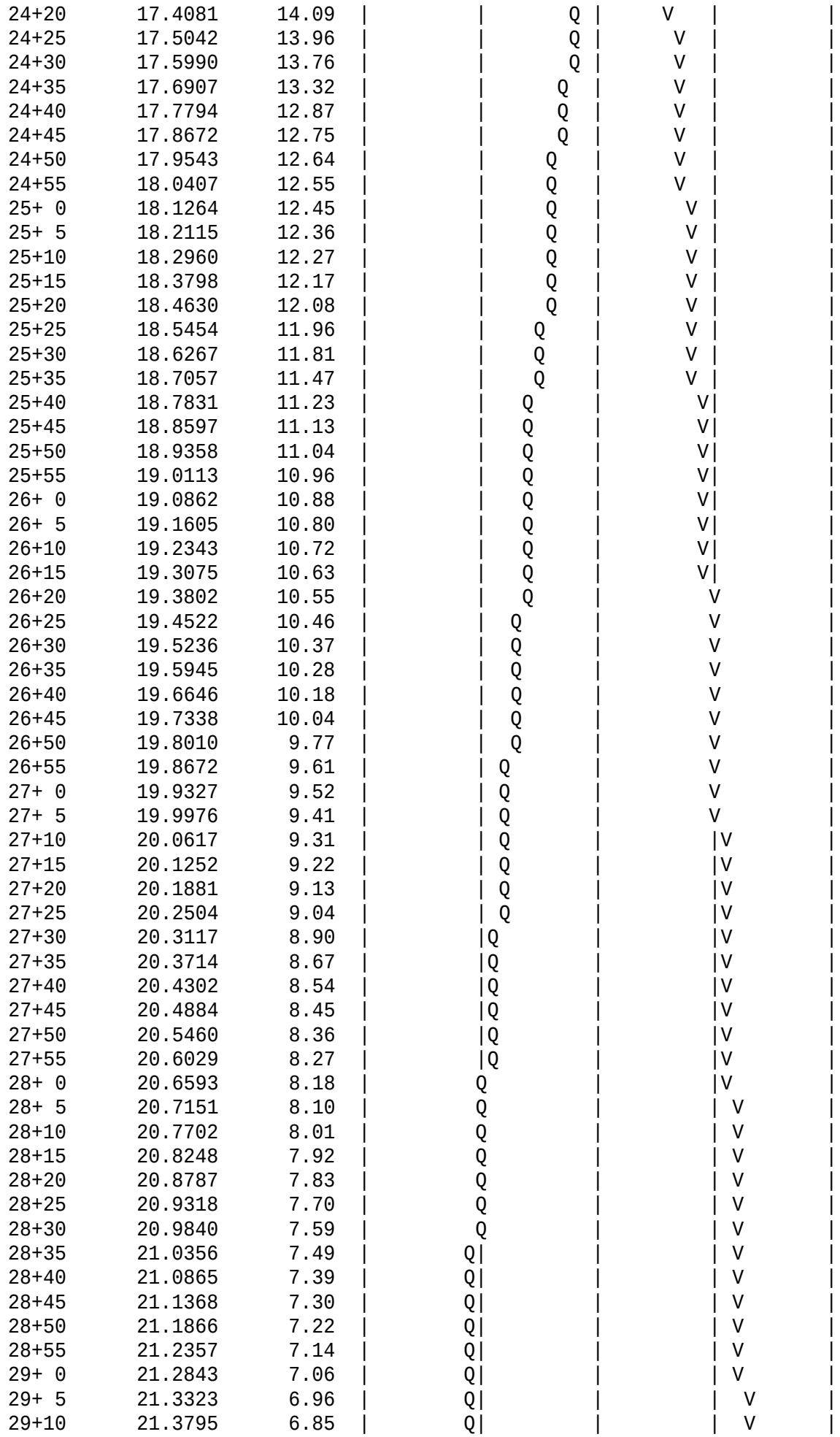
| Time(h+m) | Volume Ac.Ft | Q(CFS) | 0 | 7.5 | 15.0 | 22.5 | 30.0 |
|---|---|---|---|---|---|---|---|
| 0+ 5 | 0.0000 | 0.01 | Q | \| | \| | \| | \| |
| 0+10 | 0.0002 | 0.02 | Q | \| | \| | \| | \| |
| 0+15 | 0.0004 | 0.03 | Q | \| | \| | \| | \| |
| 0+20 | 0.0007 | 0.04 | Q | \| | \| | \| | \| |
| 0+25 | 0.0011 | 0.06 | Q | \| | \| | \| | \| |
| 0+30 | 0.0016 | 0.07 | Q | \| | \| | \| | \| |
| 0+35 | 0.0021 | 0.08 | Q | \| | \| | \| | \| |
| 0+40 | 0.0028 | 0.09 | Q | \| | \| | \| | \| |
| 0+45 | 0.0035 | 0.11 | Q | \| | \| | \| | \| |
| 0+50 | 0.0044 | 0.12 | Q | \| | \| | \| | \| |
| 0+55 | 0.0053 | 0.14 | Q | \| | \| | \| | \| |
| 1+ 0 | 0.0064 | 0.16 | Q | \| | \| | \| | \| |
| 1+ 5 | 0.0076 | 0.17 | Q | \| | \| | \| | \| |
| 1+10 | 0.0089 | 0.19 | Q | \| | \| | \| | \| |
| 1+15 | 0.0103 | 0.21 | Q | \| | \| | \| | \| |
| 1+20 | 0.0119 | 0.23 | Q | \| | \| | \| | \| |
| 1+25 | 0.0136 | 0.25 | Q | \| | \| | \| | \| |
| 1+30 | 0.0155 | 0.27 | Q | \| | \| | \| | \| |
| 1+35 | 0.0175 | 0.29 | Q | \| | \| | \| | \| |
| 1+40 | 0.0196 | 0.31 | Q | \| | \| | \| | \| |
| 1+45 | 0.0220 | 0.34 | Q | \| | \| | \| | \| |
| 1+50 | 0.0245 | 0.36 | Q | \| | \| | \| | \| |
| 1+55 | 0.0271 | 0.39 | Q | \| | \| | \| | \| |
| 2+ 0 | 0.0300 | 0.41 | Q | \| | \| | \| | \| |
| 2+ 5 | 0.0330 | 0.44 | Q | \| | \| | \| | \| |
| 2+10 | 0.0362 | 0.47 | Q | \| | \| | \| | \| |
| 2+15 | 0.0397 | 0.50 | Q | \| | \| | \| | \| |
| 2+20 | 0.0433 | 0.53 | Q | \| | \| | \| | \| |
| 2+25 | 0.0472 | 0.56 | Q | \| | \| | \| | \| |
| 2+30 | 0.0513 | 0.59 | Q | \| | \| | \| | \| |
| 2+35 | 0.0556 | 0.63 | Q | \| | \| | \| | \| |
| 2+40 | 0.0601 | 0.66 | Q | \| | \| | \| | \| |
| 2+45 | 0.0649 | 0.69 | Q | \| | \| | \| | \| |
| 2+50 | 0.0699 | 0.73 | Q | \| | \| | \| | \| |
| 2+55 | 0.0752 | 0.77 | VQ | \| | \| | \| | \| |
| 3+ 0 | 0.0808 | 0.81 | VQ | \| | \| | \| | \| |
| 3+ 5 | 0.0867 | 0.86 | VQ | \| | \| | \| | \| |
| 3+10 | 0.0930 | 0.91 | VQ | \| | \| | \| | \| |
| 3+15 | 0.0996 | 0.96 | VQ | \| | \| | \| | \| |
| 3+20 | 0.1065 | 1.00 | VQ | \| | \| | \| | \| |
| 3+25 | 0.1136 | 1.04 | VQ | \| | \| | \| | \| |
| 3+30 | 0.1211 | 1.09 | VQ | \| | \| | \| | \| |
| 3+35 | 0.1290 | 1.14 | VQ | \| | \| | \| | \| |
| 3+40 | 0.1372 | 1.20 | VQ | \| | \| | \| | \| |
| 3+45 | 0.1458 | 1.25 | VQ | \| | \| | \| | \| |
| 3+50 | 0.1548 | 1.30 | VQ | \| | \| | \| | \| |
| 3+55 | 0.1641 | 1.36 | VQ | \| | \| | \| | \| |
| 4+ 0 | 0.1738 | 1.41 | VQ | \| | \| | \| | \| |
| 4+ 5 | 0.1839 | 1.47 | VQ | \| | \| | \| | \| |
| 4+10 | 0.1944 | 1.52 | V Q | \| | \| | \| | \| |
| 4+15 | 0.2052 | 1.57 | V Q | \| | \| | \| | \| |
| 4+20 | 0.2165 | 1.63 | V Q | \| | \| | \| | \| |
| 4+25 | 0.2281 | 1.68 | V Q | \| | \| | \| | \| |
| 4+30 | 0.2400 | 1.74 | V Q | \| | \| | \| | \| |
| 4+35 | 0.2525 | 1.81 | V Q | \| | \| | \| | \| |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4+40 | 0.2655 | 1.89 | V Q | \| | \| | \| | \| |
| 4+45 | 0.2789 | 1.94 | V Q | \| | \| | \| | \| |
| 4+50 | 0.2926 | 2.00 | V Q | \| | \| | \| | \| |
| 4+55 | 0.3068 | 2.06 | V Q | \| | \| | \| | \| |
| 5+ 0 | 0.3213 | 2.11 | V Q | \| | \| | \| | \| |
| 5+ 5 | 0.3364 | 2.18 | V Q | \| | \| | \| | \| |
| 5+10 | 0.3520 | 2.26 | V Q | \| | \| | \| | \| |
| 5+15 | 0.3679 | 2.32 | V Q | \| | \| | \| | \| |
| 5+20 | 0.3843 | 2.38 | V Q | \| | \| | \| | \| |
| 5+25 | 0.4011 | 2.44 | V Q | \| | \| | \| | \| |
| 5+30 | 0.4183 | 2.49 | V Q | \| | \| | \| | \| |
| 5+35 | 0.4358 | 2.55 | V Q | \| | \| | \| | \| |
| 5+40 | 0.4538 | 2.61 | V Q | \| | \| | \| | \| |
| 5+45 | 0.4723 | 2.68 | V Q | \| | \| | \| | \| |
| 5+50 | 0.4913 | 2.76 | V Q | \| | \| | \| | \| |
| 5+55 | 0.5107 | 2.82 | V Q | \| | \| | \| | \| |
| 6+ 0 | 0.5306 | 2.88 | V Q | \| | \| | \| | \| |
| 6+ 5 | 0.5508 | 2.94 | V Q | \| | \| | \| | \| |
| 6+10 | 0.5715 | 3.00 | V Q | \| | \| | \| | \| |
| 6+15 | 0.5926 | 3.06 | V Q | \| | \| | \| | \| |
| 6+20 | 0.6141 | 3.12 | V Q | \| | \| | \| | \| |
| 6+25 | 0.6360 | 3.18 | V Q | \| | \| | \| | \| |
| 6+30 | 0.6582 | 3.23 | \|V Q | \| | \| | \| | \| |
| 6+35 | 0.6807 | 3.27 | \|V Q | \| | \| | \| | \| |
| 6+40 | 0.7036 | 3.32 | \|V Q | \| | \| | \| | \| |
| 6+45 | 0.7268 | 3.37 | \|V Q | \| | \| | \| | \| |
| 6+50 | 0.7504 | 3.42 | \|V Q | \| | \| | \| | \| |
| 6+55 | 0.7743 | 3.47 | \|V Q | \| | \| | \| | \| |
| 7+ 0 | 0.7985 | 3.52 | \|V Q | \| | \| | \| | \| |
| 7+ 5 | 0.8231 | 3.57 | \|V Q | \| | \| | \| | \| |
| 7+10 | 0.8480 | 3.62 | \|V Q | \| | \| | \| | \| |
| 7+15 | 0.8732 | 3.66 | \|V Q | \| | \| | \| | \| |
| 7+20 | 0.8987 | 3.70 | \|V Q | \| | \| | \| | \| |
| 7+25 | 0.9245 | 3.74 | \|V Q | \| | \| | \| | \| |
| 7+30 | 0.9505 | 3.78 | \|V Q | \| | \| | \| | \| |
| 7+35 | 0.9769 | 3.82 | \|V Q | \| | \| | \| | \| |
| 7+40 | 1.0035 | 3.86 | \|V Q | \| | \| | \| | \| |
| 7+45 | 1.0303 | 3.90 | \|V Q | \| | \| | \| | \| |
| 7+50 | 1.0574 | 3.94 | \|V Q | \| | \| | \| | \| |
| 7+55 | 1.0848 | 3.98 | \|V Q | \| | \| | \| | \| |
| 8+ 0 | 1.1125 | 4.02 | \|V Q | \| | \| | \| | \| |
| 8+ 5 | 1.1405 | 4.06 | \|V Q | \| | \| | \| | \| |
| 8+10 | 1.1687 | 4.10 | \|V Q | \| | \| | \| | \| |
| 8+15 | 1.1972 | 4.14 | \|V Q | \| | \| | \| | \| |
| 8+20 | 1.2260 | 4.18 | \|V Q | \| | \| | \| | \| |
| 8+25 | 1.2550 | 4.22 | \|V Q | \| | \| | \| | \| |
| 8+30 | 1.2844 | 4.26 | \|V Q | \| | \| | \| | \| |
| 8+35 | 1.3140 | 4.30 | \| V Q | \| | \| | \| | \| |
| 8+40 | 1.3438 | 4.33 | \| V Q | \| | \| | \| | \| |
| 8+45 | 1.3739 | 4.37 | \| V Q | \| | \| | \| | \| |
| 8+50 | 1.4043 | 4.41 | \| V Q | \| | \| | \| | \| |
| 8+55 | 1.4349 | 4.44 | \| V Q | \| | \| | \| | \| |
| 9+ 0 | 1.4657 | 4.48 | \| V Q | \| | \| | \| | \| |
| 9+ 5 | 1.4968 | 4.51 | \| V Q | \| | \| | \| | \| |
| 9+10 | 1.5281 | 4.55 | \| V Q | \| | \| | \| | \| |
| 9+15 | 1.5597 | 4.59 | \| V Q | \| | \| | \| | \| |
| 9+20 | 1.5916 | 4.63 | \| V Q | \| | \| | \| | \| |
| 9+25 | 1.6237 | 4.66 | \| V Q | \| | \| | \| | \| |
| 9+30 | 1.6561 | 4.70 | \| V Q | \| | \| | \| | \| |

| | | | | | | |
|---|---|---|---|---|---|---|
| 9+35 | 1.6887 | 4.74 | V Q | | | |
| 9+40 | 1.7216 | 4.77 | V Q | | | |
| 9+45 | 1.7547 | 4.81 | V Q | | | |
| 9+50 | 1.7880 | 4.84 | V Q | | | |
| 9+55 | 1.8216 | 4.88 | V Q | | | |
| 10+ 0 | 1.8555 | 4.91 | V Q | | | |
| 10+ 5 | 1.8896 | 4.95 | V Q | | | |
| 10+10 | 1.9239 | 4.99 | V Q | | | |
| 10+15 | 1.9585 | 5.02 | V Q | | | |
| 10+20 | 1.9934 | 5.06 | V Q | | | |
| 10+25 | 2.0285 | 5.10 | V Q | | | |
| 10+30 | 2.0639 | 5.14 | V Q | | | |
| 10+35 | 2.0995 | 5.18 | V Q | | | |
| 10+40 | 2.1354 | 5.21 | V Q | | | |
| 10+45 | 2.1716 | 5.25 | V Q | | | |
| 10+50 | 2.2080 | 5.29 | V Q | | | |
| 10+55 | 2.2447 | 5.33 | V Q | | | |
| 11+ 0 | 2.2817 | 5.37 | V Q | | | |
| 11+ 5 | 2.3189 | 5.40 | V Q | | | |
| 11+10 | 2.3564 | 5.44 | V Q | | | |
| 11+15 | 2.3941 | 5.48 | V Q | | | |
| 11+20 | 2.4321 | 5.52 | V Q | | | |
| 11+25 | 2.4704 | 5.56 | V Q | | | |
| 11+30 | 2.5090 | 5.60 | V Q | | | |
| 11+35 | 2.5478 | 5.64 | V Q | | | |
| 11+40 | 2.5869 | 5.68 | V Q | | | |
| 11+45 | 2.6263 | 5.72 | V Q | | | |
| 11+50 | 2.6660 | 5.76 | V Q | | | |
| 11+55 | 2.7060 | 5.80 | V Q | | | |
| 12+ 0 | 2.7462 | 5.84 | V Q | | | |
| 12+ 5 | 2.7867 | 5.88 | V Q | | | |
| 12+10 | 2.8275 | 5.93 | V Q | | | |
| 12+15 | 2.8687 | 5.97 | V Q | | | |
| 12+20 | 2.9101 | 6.01 | V Q | | | |
| 12+25 | 2.9518 | 6.06 | V Q | | | |
| 12+30 | 2.9938 | 6.10 | V Q | | | |
| 12+35 | 3.0361 | 6.14 | V Q | | | |
| 12+40 | 3.0787 | 6.19 | V Q | | | |
| 12+45 | 3.1216 | 6.23 | V Q | | | |
| 12+50 | 3.1649 | 6.28 | V Q | | | |
| 12+55 | 3.2085 | 6.33 | V Q | | | |
| 13+ 0 | 3.2524 | 6.38 | V Q | | | |
| 13+ 5 | 3.2967 | 6.42 | V Q | | | |
| 13+10 | 3.3412 | 6.47 | V Q | | | |
| 13+15 | 3.3862 | 6.52 | V Q | | | |
| 13+20 | 3.4315 | 6.58 | V Q | | | |
| 13+25 | 3.4771 | 6.63 | V Q | | | |
| 13+30 | 3.5231 | 6.68 | V Q | | | |
| 13+35 | 3.5694 | 6.73 | V Q | | | |
| 13+40 | 3.6162 | 6.78 | V Q | | | |
| 13+45 | 3.6632 | 6.84 | V Q | | | |
| 13+50 | 3.7107 | 6.89 | V Q | | | |
| 13+55 | 3.7586 | 6.95 | V Q | | | |
| 14+ 0 | 3.8069 | 7.01 | V Q | | | |
| 14+ 5 | 3.8555 | 7.07 | V Q | | | |
| 14+10 | 3.9046 | 7.13 | V Q | | | |
| 14+15 | 3.9541 | 7.19 | V Q | | | |
| 14+20 | 4.0041 | 7.25 | V Q | | | |
| 14+25 | 4.0545 | 7.32 | V Q | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14+30 | 4.1053 | 7.38 | \| V Q\| | \| | \| | \| |
| 14+35 | 4.1566 | 7.45 | \| V Q\| | \| | \| | \| |
| 14+40 | 4.2083 | 7.52 | \| V Q | \| | \| | \| |
| 14+45 | 4.2606 | 7.59 | \| V Q | \| | \| | \| |
| 14+50 | 4.3134 | 7.66 | \| V Q | \| | \| | \| |
| 14+55 | 4.3667 | 7.74 | \| V Q | \| | \| | \| |
| 15+ 0 | 4.4205 | 7.82 | \| V Q | \| | \| | \| |
| 15+ 5 | 4.4749 | 7.90 | \| V Q | \| | \| | \| |
| 15+10 | 4.5298 | 7.98 | \| V Q | \| | \| | \| |
| 15+15 | 4.5854 | 8.07 | \| V Q | \| | \| | \| |
| 15+20 | 4.6417 | 8.17 | \| V Q | \| | \| | \| |
| 15+25 | 4.6986 | 8.27 | \| V \|Q | \| | \| | \| |
| 15+30 | 4.7564 | 8.38 | \| V \|Q | \| | \| | \| |
| 15+35 | 4.8150 | 8.51 | \| V \|Q | \| | \| | \| |
| 15+40 | 4.8744 | 8.64 | \| V \|Q | \| | \| | \| |
| 15+45 | 4.9349 | 8.78 | \| V \|Q | \| | \| | \| |
| 15+50 | 4.9964 | 8.94 | \| V \|Q | \| | \| | \| |
| 15+55 | 5.0594 | 9.14 | \| V \| Q | \| | \| | \| |
| 16+ 0 | 5.1246 | 9.47 | \| V \| Q | \| | \| | \| |
| 16+ 5 | 5.1959 | 10.35 | \| V \| Q | \| | \| | \| |
| 16+10 | 5.2725 | 11.13 | \| V \| Q | \| | \| | \| |
| 16+15 | 5.3504 | 11.30 | \| V \| Q | \| | \| | \| |
| 16+20 | 5.4293 | 11.46 | \| V \| Q | \| | \| | \| |
| 16+25 | 5.5092 | 11.60 | \| V \| Q | \| | \| | \| |
| 16+30 | 5.5900 | 11.73 | \| V \| Q | \| | \| | \| |
| 16+35 | 5.6717 | 11.86 | \| V \| Q | \| | \| | \| |
| 16+40 | 5.7544 | 12.01 | \| V \| Q | \| | \| | \| |
| 16+45 | 5.8385 | 12.21 | \| V\| Q | \| | \| | \| |
| 16+50 | 5.9254 | 12.62 | \| V\| Q | \| | \| | \| |
| 16+55 | 6.0144 | 12.91 | \| V\| Q | \| | \| | \| |
| 17+ 0 | 6.1042 | 13.05 | \| V\| Q | \| | \| | \| |
| 17+ 5 | 6.1951 | 13.19 | \| V\| Q | \| | \| | \| |
| 17+10 | 6.2869 | 13.33 | \| V\| Q | \| | \| | \| |
| 17+15 | 6.3799 | 13.50 | \| V\| Q | \| | \| | \| |
| 17+20 | 6.4747 | 13.76 | \| V Q | \| | \| | \| |
| 17+25 | 6.5729 | 14.26 | \| V Q\| | \| | \| | \| |
| 17+30 | 6.6725 | 14.47 | \| V Q\| | \| | \| | \| |
| 17+35 | 6.7732 | 14.62 | \| V Q\| | \| | \| | \| |
| 17+40 | 6.8750 | 14.78 | \| V Q\| | \| | \| | \| |
| 17+45 | 6.9782 | 14.99 | \| V Q\| | \| | \| | \| |
| 17+50 | 7.0842 | 15.38 | \| V Q | \| | \| | \| |
| 17+55 | 7.1918 | 15.62 | \| \|V Q | \| | \| | \| |
| 18+ 0 | 7.3004 | 15.78 | \| \|V \|Q | \| | \| | \| |
| 18+ 5 | 7.4104 | 15.97 | \| \|V \|Q | \| | \| | \| |
| 18+10 | 7.5230 | 16.35 | \| \|V \|Q | \| | \| | \| |
| 18+15 | 7.6387 | 16.79 | \| \|V \| Q | \| | \| | \| |
| 18+20 | 7.7554 | 16.95 | \| \| V \| Q | \| | \| | \| |
| 18+25 | 7.8732 | 17.10 | \| \| V \| Q | \| | \| | \| |
| 18+30 | 7.9920 | 17.25 | \| \| V \| Q | \| | \| | \| |
| 18+35 | 8.1119 | 17.41 | \| \| V \| Q | \| | \| | \| |
| 18+40 | 8.2332 | 17.61 | \| \| V \| Q | \| | \| | \| |
| 18+45 | 8.3568 | 17.95 | \| \| V \| Q | \| | \| | \| |
| 18+50 | 8.4855 | 18.69 | \| \| V \| Q | \| | \| | \| |
| 18+55 | 8.6168 | 19.05 | \| \| V \| Q | \| | \| | \| |
| 19+ 0 | 8.7513 | 19.53 | \| \| V \| Q | \| | \| | \| |
| 19+ 5 | 8.8926 | 20.52 | \| \| V \| Q | \| | \| | \| |
| 19+10 | 9.0343 | 20.57 | \| \| V \| Q | \| | \| | \| |
| 19+15 | 9.1706 | 19.80 | \| \| V \| Q | \| | \| | \| |
| 19+20 | 9.3060 | 19.66 | \| \| V \| Q | \| | \| | \| |





| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 29+15 | 21.4259 | 6.74 | | Q | | | V |
| 29+20 | 21.4711 | 6.57 | | Q | | | V |
| 29+25 | 21.5153 | 6.40 | | Q | | | V |
| 29+30 | 21.5588 | 6.32 | | Q | | | V |
| 29+35 | 21.6018 | 6.24 | | Q | | | V |
| 29+40 | 21.6443 | 6.17 | | Q | | | V |
| 29+45 | 21.6862 | 6.08 | | Q | | | V |
| 29+50 | 21.7274 | 5.99 | | Q | | | V |
| 29+55 | 21.7681 | 5.91 | | Q | | | V |
| 30+ 0 | 21.8083 | 5.84 | | Q | | | V |

# Appendix F

## Kern County Hydrology Manual Excerpts

Residential Landscaping (Lawn, Shrubs, etc.) - The pervious portions of commercial establishments, single and multiple family dwellings, trailer parks and schools where the predominant land cover is lawn, shrubbery and trees.

Row Crops - Lettuce, tomatoes, beets, tulips or any field crop planted in rows far enough apart that most of the soil surface is exposed to rainfall impact throughout the growing season. At plowing, planting and harvest times it is equivalent to fallow.

Small Grain - Wheat, oats, barley, flax, etc. planted in rows close enough that the soil surface is not exposed except during planting and shortly thereafter.

Legumes - Alfalfa, sweetclover, timothy, etc. and combinations are either planted in close rows or broadcast.

Fallow - Fallow land is land plowed but not yet seeded or tilled.

Woodland - grass - Areas with an open cover of broadleaf or coniferous trees usually live oak and pines, with the intervening ground space occupied by annual grasses or weeds. The trees may occur singly or in small clumps. Canopy density, the amount of ground surface shaded at high noon, is from 20 to 50 percent.

Woodland - Areas on which coniferous or broadleaf trees predominate. The canopy density is at least 50 percent. Open areas may have a cover of annual or perennial grasses or of brush. Herbaceous plant cover under the trees is usually sparse because of leaf or needle litter accumulation.

Chaparral - Land on which the principal vegetation consists of evergreen shrubs with broad, hard, stiff leaves such as manzonita, ceanothus and scrub oak. The brush cover is usually dense or moderately dense. Diffusely branched evergreen shrubs with fine needle-like leaves, such as chamise and redchank, with dense high growth are also included in this soil cover.

Annual Grass - Land on which the principal vegetation consists of annual grasses and weeds such as annual bromes, wild barley, soft chess, ryegrass and filaree.

Irrigated Pasture - Irrigated land planted to perennial grasses and legumes for production of forage and which is cultivated only to establish or renew the stand of plants. Dry land pasture is considered as annual grass.

Meadow - Land areas with seasonally high water table, locally called cienegas. Principal vegetation consists of sod-forming grasses interspersed with other plants.

Orchard (Deciduous) - Land planted to such deciduous trees as apples, apricots, pears, walnuts, and almonds.

Orchard (Evergreen) - Land planted to evergreen trees which include citrus and avocados and coniferous plantings.

Turf - Golf courses, parks and similar lands where the predominant cover is irrigated mowed close-grown turf grass. Parks in which trees are dense may be classified as woodland.

**KERN COUNTY**

HYDROLOGY MANUAL

SCS
COVER TYPE
DESCRIPTIONS

FIGURE C-1

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| NATURAL COVERS - | | | | | |
| Barren (Rockland, eroded and graded land) | | 77 | 86 | 91 | 94 |
| Chaparral, Broadleaf (Manzonita, ceanothus and scrub oak) | Poor | 53 | 70 | 80 | 85 |
| | Fair | 40 | 63 | 75 | 81 |
| | Good | 31 | 57 | 71 | 78 |
| Chaparral, Narrowleaf (Chamise and Redskank) | Poor | 71 | 82 | 88 | 91 |
| | Fair | 55 | 72 | 81 | 86 |
| Grass, Annual or Perennial | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |
| Meadows or Cienagas (Areas with seasonally high water table, principal vegatation is sod forming grass) | Poor | 63 | 77 | 85 | 88 |
| | Fair | 51 | 70 | 80 | 84 |
| | Good | 30 | 58 | 71 | 78 |
| Open Brush (Soft wood shrubs-buckwheat,sage,etc.) | Poor | 62 | 76 | 84 | 88 |
| | Fair | 46 | 66 | 77 | 83 |
| | Good | 41 | 63 | 75 | 81 |
| Woodland (4) (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent) | Poor | 45 | 66 | 77 | 83 |
| | Fair | 36 | 60 | 73 | 79 |
| | Good | 30 | 55 | 70 | 77 |
| Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 43 | 65 | 76 | 82 |
| | Good | 32 | 58 | 72 | 79 |
| URBAN COVERS - | | | | | |
| Residential or Commercial Landscaping (Lawns, shrubs, etc.) | Good | 39 | 61 | 74 | 80 |
| Turf (Irrigated and mowed grass) | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |

**KERN COUNTY**
**Hydrology Manual**

**CURVE NUMBERS FOR PERVIOUS AREAS**

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

| Cover Type (3) | Quality of Cover (2) | Soil Group A | B | C | D |
|---|---|---|---|---|---|
| AGRICULTURAL COVERS - | | | | | |
| Fallow (Bare Soil) | | 77 | 86 | 91 | 94 |
| Close Seeded (alfalfa, sweetclover, timothy, etc.) | Poor | 66 | 77 | 85 | 89 |
| | Good | 58 | 72 | 81 | 85 |
| Orchards, Evergreen (Citrus, avacodos, etc.) | Poor | 57 | 73 | 82 | 86 |
| | Fair | 43 | 65 | 76 | 82 |
| | Good | 32 | 58 | 72 | 79 |
| Pasture (Grassland or range, continuos forage for grazing) | Poor | 68 | 79 | 86 | 89 |
| | Fair | 49 | 69 | 79 | 84 |
| | Good | 39 | 61 | 74 | 80 |
| Row Crops (Straight row, non-contoured) | Poor | 72 | 81 | 88 | 91 |
| | Good | 67 | 78 | 85 | 89 |
| Small Grain (Straight row, non-contoured) | Poor | 65 | 76 | 84 | 88 |
| | Good | 63 | 75 | 83 | 87 |

Notes:

1. Average runoff condition, Ia = 0.2(S)

2. Poor: Heavily grazed, regularly burned areas, or areas of high burn potential. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.

   Fair: Moderate cover with 50 percent to 75 percent of the ground surface protected. In wooded areas the woods are grazed but not burned, and some forest litter covers the soil.

   Good: Heavy or dense cover with more than 75 percent of the ground surface protected. In wooded areas the woods are protected from grazing, litter and brush adequately cover soil.

3. See Figure C-1 for definition of cover types.

**KERN COUNTY**
**Hydrology Manual**

**CURVE NUMBERS FOR PERVIOUS AREAS**

## ACTUAL IMPERVIOUS COVER

| Land Use | Range-Percent | Recommended Value For Average Conditions-Percent (1) |
|---|---|---|
| Natural or Agriculture | 0 - 0 | 0 |
| Public Park | 10 - 25 | 15 |
| School | 30 - 50 | 40 |
| Single Family Residential: (2) | | |
| 2.5 acre lots | 5 - 15 | 10 |
| 1 acre lots | 10 - 25 | 20 |
| 2-3 DU/acre | 20 - 40 | 30 |
| 3-5 DU/acre | 30 - 50 | 40 |
| 5-8 DU/acre | 35 - 55 | 50 |
| 8-10 DU/acre | 50 - 70 | 60 |
| More than 10 DU/acre | 65 - 90 | 80 |
| Multiple Family Residential: | | |
| Condominiums | 45 - 70 | 65 |
| Apartments | 65 - 90 | 80 |
| Mobile Home Parks | 60 - 85 | 75 |
| Commercial, Downtown Business or Industrial | 80 - 100 | 90 |

Notes:

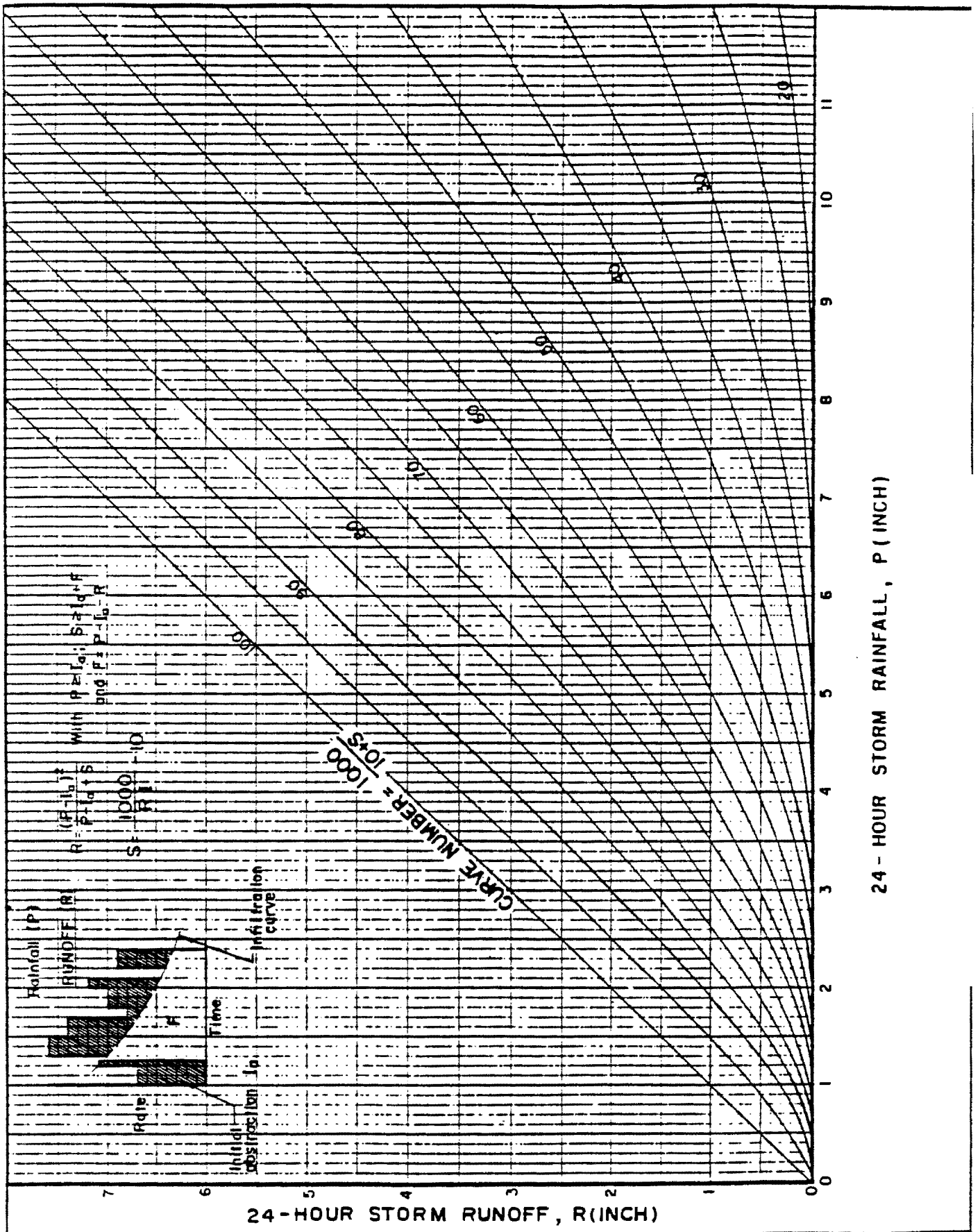
1) Recommended values are based on average conditions which may not apply to a particular study. The percentage impervious may vary greatly even on comparable study sized lots due to differences in in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area shall always be made, and a review of aerial photos, where available, may assist in estimating the percentage of impervious cover in developed areas.

2) For typical equestrian subdivisions increase impervious area 5% over the values recommended in the table above.

**KERN COUNTY**
**Hydrology Manual**

**ACTUAL IMPERVIOUS COVER FOR DEVELOPED AREAS**

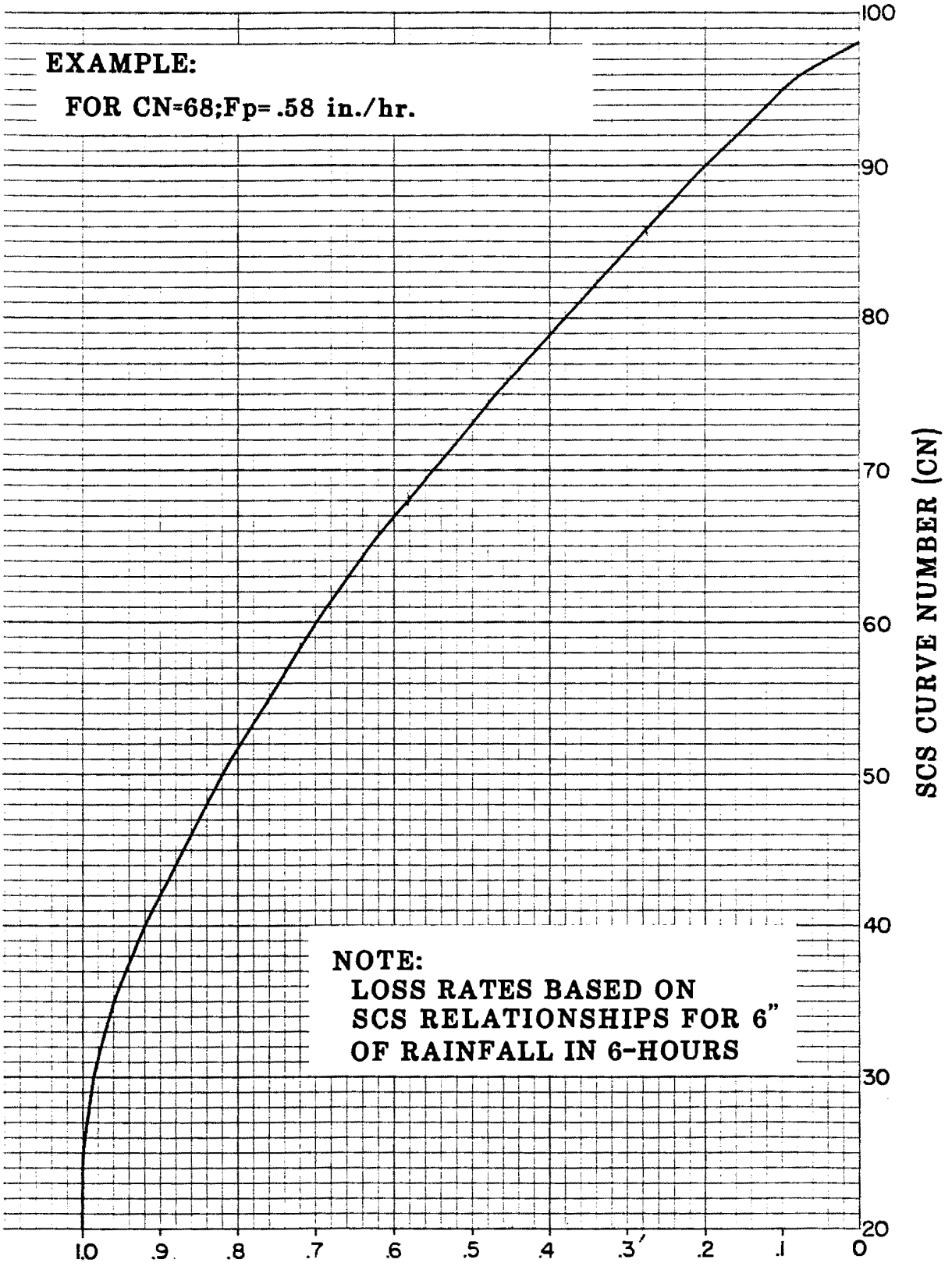
FIGURE C-3




# KERN COUNTY
## HYDROLOGY MANUAL

**SCS 24-HOUR STORM RAINFALL-RUNOFF RELATIONSHIPS**

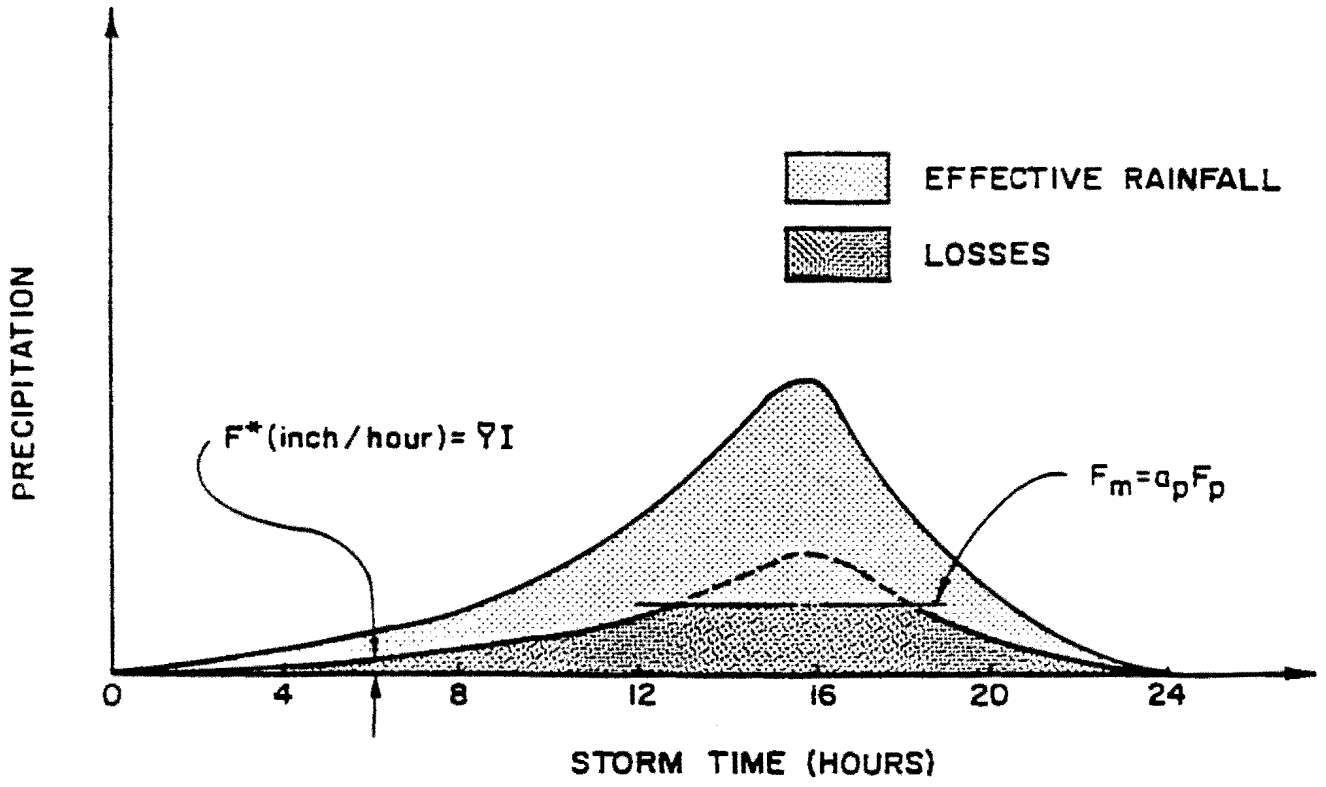
FIGURE C-4




**KERN COUNTY**
**Hydrology Manual**

**INFILTRATION RATE FOR PERVIOUS AREAS VERSUS SCS CURVE NUMBERS**

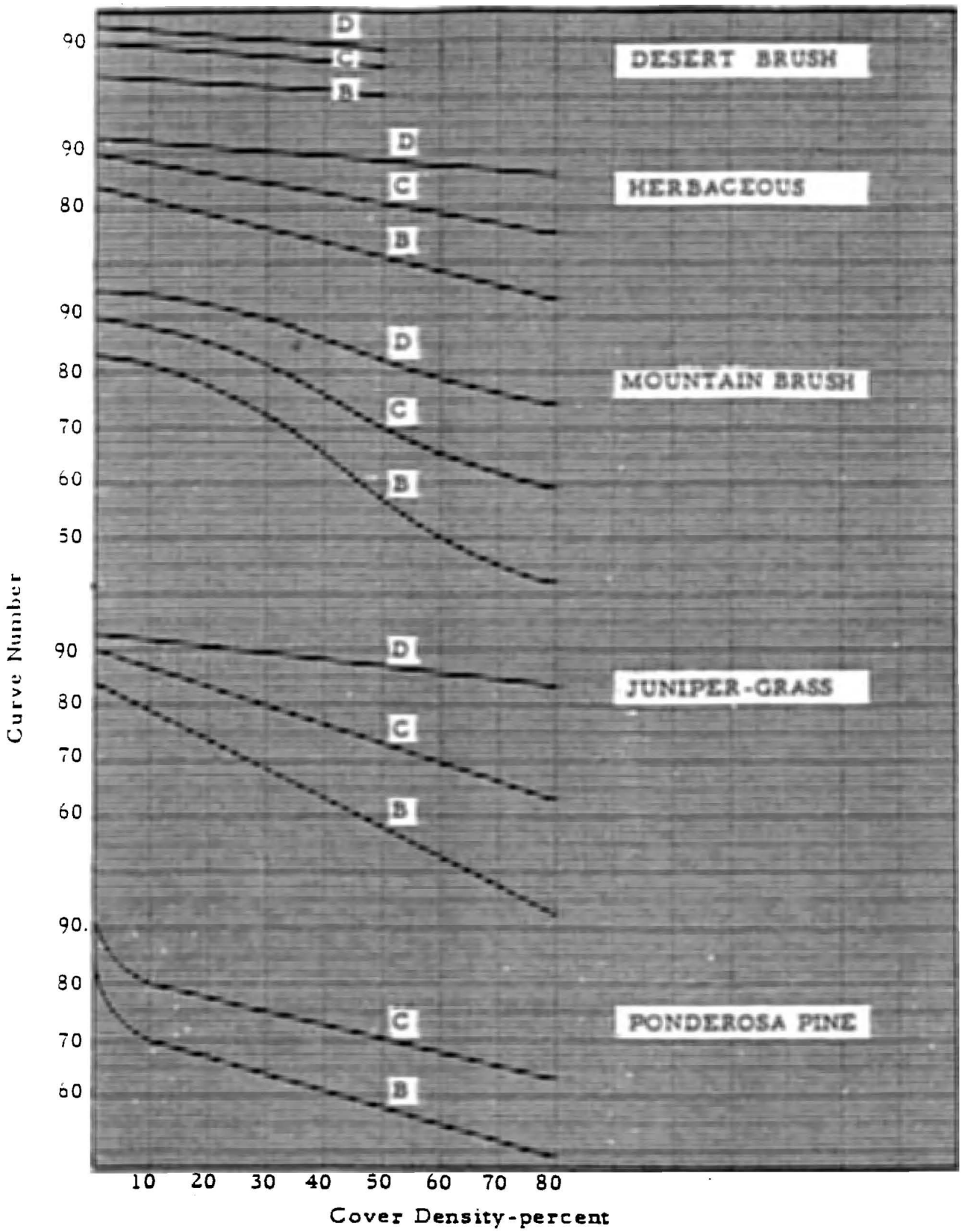
FIGURE C-5




**KERN COUNTY**
HYDROLOGY MANUAL

DESIGN STORM
LOSS FUNCTION

FIGURE C-6




**KERN COUNTY**

HYDROLOGY MANUAL

HYDROLOGIC SOIL COVER COMPLEXES AND ASSOCIATED CURVE NUMBERS

FIGURE C-7

## Section C
## Equations

List of Equations

| Equation No. | Equation |
|---|---|
| C.1 | $Ia = 0.2S$ |
| C.2 | $S = \frac{1000}{CN} - 10$ |
| C.3 | $Y_j = \frac{(P_{24} - Ia)^2}{(P_{24} - Ia + S)P_{24}}$ |
| C.4 | $Y = \frac{Y_1 A_1 + ... + Y_m A_m}{A_1 + A_2 + ... + A_m}$ |
| C.5 | $\overline{Y} = 1 - Y$ |
| C.6 | $F^* = \overline{Y} \cdot I$ |
| C.7 | $Fm = a_p F_p$ |

Variables

| | |
|---|---|
| Ia | Initial Abstraction (inches) |
| S | Estimate soil capacity |
| CN | Area Curve Number |
| $Y_j$ | Yield fraction for 24-hour storm runoff |
| Y | Yield |
| $\overline{Y}$ | Catchment low loss fraction |

# Appendix G

## Pre-Post California Water Balance Sheet

Westwood

INPUT FOR WATERSHED: Enter watershed details and click on the Compute & Save button.

| | |
|---|---|
| I.a. Name: | Buttonbush Solar Project |
| I.b. County: | Kern |
| I.c. Closest Location: | Bakersfield AP |
| I.d. Size(acres): | 13100 |

Pre-Construction INPUT

| | |
|---|---|
| I.e. Dominant Soil Type: | Group D Soils - Very low infiltration. Clay loam, silty clay loam, sandy clay, silty clay, or clay. Infiltration rate 0 to 0.05 inch/hr when wet. |
| I.f. Existing Dominant Non-built Land Use Type: | Cultivated Agricultural crops row, tree, or vine |
| I.g. Existing rooftop impervious area(acres): | 0 |
| I.h. Existing non-rooftop impervious area(acres): | 0 |

Post-Construction INPUT

| | |
|---|---|
| I.i. Proposed Dominant Non-built Land Use Type: | Lawn, Grass, or Pasture covering less than 50% of the open space |
| I.j. Proposed rooftop impervious area(acres): | 0 |
| I.k. Proposed non-rooftop impervious area(acres): | 655 |

Compute & Save

OUTPUT:

| | | | |
|---|---|---|---|
| O.a. Existing Runoff Curve Number: | 92 | O.d. Proposed Runoff Curve Number: | 89.45 |
| O.b. Design Storm(inches): | 0.33 | O.e. Net Credit of Volume Credits(Cubic feet): | 43911.4572 |
| O.c. Pre-project Runoff Volume(Cubic Feet): | 1,129,558.31 | O.f. Post-project Runoff Volume(Cubic Feet): | 330,712.50 |
| O.g. Post-project Runoff Volume minus Volume Credits(Cubic Feet): | -29,221.47 | | |

***Pre-project Runoff Volume >= Post-project Runoff Volume. No further calculation is necessary!

# Appendix H

## Kern County Development Standards

# DIVISION FOUR

## STANDARDS FOR DRAINAGE

## CHAPTER I. GENERAL

### Sec. 401-1 General Purpose

**401-1.01** It is the general purpose of these standards that waters generated by storms, springs, or other sources be mitigated so as to provide reasonable levels of protection for life and property, and the maintenance of necessary access to property or passage of the traveling public on the public highways.

**401-1.02** To meet this general purpose, it is necessary that these standards reasonably protect life from the direct effects of flood waters, the indirect health effects associated with stagnating water, and the attractive nuisance provided by standing waters. It is necessary to reasonably protect property from the damaging effects of flood waters. Property access for the ingress and egress of emergency vehicles, or the general public should be reasonably provided. The passage of public vehicles on the public highways should also be reasonably ensured.

**401-1.03** In general, the mitigation measures for the protection of life and property, and the maintenance of emergency vehicle access are based upon the Capital Storm Design Discharge (CSDD). The issues related to property access (by the public) and passage on public highways, and local drainage facility design are based upon the Intermediate Storm Design Discharge (ISDD).

**401-1.04** The design standards in this section are to be deemed to be minimal, and shall not limit the design engineer from using higher standards based upon the engineer's assessment of the protection needs of the development. Alternatives are permissible which are determined by the Director to be of equal or higher quality.

**401-1.05** The Director may allow such exceptions as he may find to be reasonably required by the specific circumstances, to be in the public interest and in conformity with the general objectives of these standards.

**401-1.06** Special circumstances may exist that require additional mitigation above and beyond these standards as determined by the Director.

## Sec. 401-2 Maintenance

**401-2.01** All facilities intended for public maintenance shall be designed and constructed subject to the approval of the Director and the maintenance entity, or these standards, whichever is more conservative.

**401-2.02** All drainage facilities intended for private maintenance shall provide a maintenance plan, subject to the approval of the Director. All such facility maintenance plans shall include, but not be limited to: (a) schedule of cleaning (or clearing), (b) mosquito and vector abatement measures (if applicable), (c) pump maintenance schedule (if applicable), (d) notarized statement by the owner(s) acknowledging his/her/their responsibility and intent to maintain the proposed facility in accordance with the approved maintenance schedule.

**401-2.03** Subdivisions with privately maintained streets shall have the drainage facilities maintained by a homeowners association or other entity which has the ability to assess fees for maintenance.

# CHAPTER II. DEFINITIONS

## Sec. 402-1 Definitions:

**402-1.01** **AGENCY**: refers to the Department of the County of Kern with jurisdiction.

**402.1.02** **ALLUVIAL FAN**: is a landform originating at an apex and characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

**402-1.03** **APEX**: means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

**402-1.04** **CAPITAL STORM DESIGN DISCHARGE (CSDD)**: is that flow determined based upon a precipitation event having a one percent probability of being equaled or exceeded in any given year, commonly referred to as the 100 year storm.

**402-1.05** **CLOSED CONDUIT**: is any system of underground drainage facilities, other than culverts.

**402-1.06** **COMPREHENSIVE DRAINAGE PLAN**: refers to a storm water runoff mitigation plan for multi-phase developments. Such a plan need not be adopted by the County, but will be kept on file by the Director.

**402-1.07** **CONSTRUCTED CHANNEL**: refers to the physical modification of natural channels or the construction of channels.

**402-1.08** **CONTROL FACILITY**: are those hydraulic structures which mitigate the effects of surface runoff resulting from development, flow pattern modification, or flood flows.

**402-1.09** **CULVERT**: is a hydraulically short conduit which conveys storm runoff flows through a roadway embankment or past some other type of flow obstruction.

**402-1.10** **DESIGN PONDING DEPTH**: is the depth to which the design volume will pond in a storm water basin.

**402-1.11** **DETENTION BASIN**: is a storm water facility designed to affect flood hydrograph peak attenuation.

**402-1.12** **EMBANKMENT AREA**: is an area of compacted fill material.

**402-1.13** **ENCROACHMENT:** refers to any change in land use that materially alters the lands flow conveyance potential.

**402-1.14** **FLOOD CONTROL PLAN**: is a plan for the mitigation of flood flows originating from off-site watersheds, or resulting from on-site development.

**402-1.15** **FLOOD FLOW**: shall be considered to be the CSDD for reference in these standards.

**402-1.16** **FLOW PATTERN**: refers to any physical tracing resultant from the historic or existing runoff of water.

**402-1.17** **INTERMEDIATE STORM DESIGN DISCHARGE (ISDD**): is that flow determined based upon a precipitation event having a ten percent probability of being equaled or exceeded in any given year, commonly referred to as the ten-year storm.

**402-1.18** **LEVEE**: is an embankment whose primary purpose is to furnish drainage or flood protection from storm water runoff and which is, therefore, subject to water loading for periods of only a few days or weeks a year.

**402-1.19** **MASTER DRAINAGE PLAN**: refers to a comprehensive drainage plan or flood control plan adopted by the County which includes adopted funding mechanisms.

**402-1.20** **NATURAL CHANNEL**: is a flow pattern characterized by incised flow channelization with well defined banks and including the overbank flow areas.

**402-1.21** **NUISANCE FLOW**: shall be considered as those waters originating from within, or adjacent to, the development not resulting from storm runoff.

**402-1.22** **ONE PERCENT RISK FLOW**: is the flow on an alluvial fan based upon the joint probability of the flow distribution at the fan apex and the probability of occurring at the development site.

**402-1.23** **REASONABLE:** in the context of this section refers to the balancing of the utility of the facilities or circumstances described against the gravity of the potential for harm.

**402-1.24** **RETENTION BASIN**: is a terminal storm water facility for the storage of runoff. Commonly referred to as a sump.

**402-1.25** **RETARDATION BASIN**: Synonymous with Detention Basin.

**402-1.26** **SLOPE EASEMENT**: shall include the horizontal dimension from the top to toe of slope plus the setback requirements specified by the Grading Ordinance.

**402-1.27** **SOILS ENGINEER (GEOTECHNICAL ENGINEER):** shall mean an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical engineering).

**402-1.28** **SOILS ENGINEERING (GEOTECHNICAL ENGINEERING):** shall mean the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing of the construction thereof.

**402-1.29** **STRESS AREA**: refers to those locations where the erosion potential is greater than a straight, uniform channel reach, and includes junctions, transitions, and curves.

**402-1-30** **WATERWAY**: refers to any natural channel, artificial channel or closed conduit, which provides a course for drainage water to flow.

## Sec. 402-2 Off-Site Capital Storm Design Discharge (CSDD) Mitigation

The CSDD flow determined from the off-site watershed shall consider the total area of the off-site watershed. The watershed development condition may be considered in its existing condition at the time of the proposed development if no control facilities mitigating surface runoff exist, and as undeveloped if adequate control facilities mitigating surface runoff exist.

The design of all structures within the development shall be protected to a minimum of one (1) foot above the water surface associated with the CSDD.

The CSDD flow shall be received into the development without diversion onto adjacent property or causing more than one foot rise in pre-development water surface, and shall be discharged in a manner as similar as possible to the existing condition downstream of the development.

## Sec. 402-3 Off-Site Intermediate Storm Design Discharge (ISDD) Mitigation

The ISDD flow shall be based upon the uncontrolled developed watershed proximate to the development when no defined flow pattern exists. When a flow pattern is defined, the ISDD flow determination shall include the total watershed contributing to the flow pattern.

The off-site ISDD shall be mitigated in conjunction with requirements for on-site ISDD flows.

## Sec. 402-4 Hydrologic Flow Determinations

The CSDD and ISDD flows shall be calculated in accordance with the current Kern County Hydrology Manual.

# CHAPTER III. DRAINAGE PLANS

## Sec. 403-1 Authority

**403-1.01** County Master Drainage Plans

The County administers master drainage plans (MDP) over some portions of the County. In these MDP areas, the design hydrology is governed by the assumption made and methodology used, in the development of the MDP or its most recent revision. Modifications to the MDP's assumed land uses may result in the requirement of additional permanent facilities being constructed to mitigate unanticipated runoff.

If MDP planned facilities have not been constructed at the time of site development, then temporary facilities will be required to be

constructed by the Developer. Such facilities may be abandoned upon completion of the MDP facilities intended to serve the site.

**403-1.02** Special Districts

Special Districts, such as Community Service Districts, may prepare comprehensive drainage and/or flood control plans for areas under their jurisdiction. Such plans are subject to the review and approval of the County.

If the Special Districts planned facilities have not been constructed at the time of site development, then temporary facilities will be required to be constructed. Such facilities may be abandoned upon completion of the planned facilities intended to serve the site.

County Service Areas are typically required to be formed for the maintenance of drainage facilities in the absence of another maintenance entity.

**403-1.03** Subdivisions

These standards shall apply to the drainage/floodplain management requirements specified for subdivisions improvements in the County's Land Division Ordinance.

If the subdivisions storm runoff mitigation measures are to be constructed as part of a comprehensive drainage plan, then each phase of the development shall be designed to function independently or in conjunction with completed development phases.

**403-1.04** Mobile Home/Recreational Vehicle Parks

These standards shall apply to the drainage/floodplain management review of Mobile Home/Recreational Vehicle Parks specified in the County's Zoning Ordinance.

**403-1.05** Site Development

These standards shall apply to the drainage/floodplain management requirements specified for site development in the County's Building Code, Grading Code, Floodplain Management Ordinance, and all other pertinent County Ordinances.

# CHAPTER IV. ALLUVIAL FAN DEVELOPMENT

## Sec. 404-1 Development Policy

Development upon an alluvial fan shall mitigate the effects of the flow at the site of development, which has a one-percent risk of being equaled or exceeded in any given year. Such mitigation shall ensure that the one-percent risk flow will be received into the development site, without causing more than one foot of water surface rise resulting from encroachment at the development site, and discharge the one percent risk flow in a manner, as close as possible, to the flow pattern existing prior to development of the site.

## Sec. 404-2 Flood Control Facility Requirements

The design of structural flood control measures on alluvial fans shall demonstrate that the measures will effectively eliminate alluvial fan flood hazards from the area protected by such measures. The provided analyses must include, but are not limited to, the following:

**404-2.01** Engineering analyses that quantify the discharges and volumes of water, debris, and sediment movement associated with the flood that has a one percent probability of being exceeded in any year at the apex under current watershed conditions and under potential adverse conditions (e.g., deforestation of the watershed by fire). The potential for debris flow and sediment movement must be assessed using an engineering method acceptable to the Director and Federal Emergency Management Agency (FEMA). The assessment should consider the characteristics and availability of sediment in the drainage basin above the apex and on the alluvial fan.

**404-2.02** Engineering analyses showing that the measures will accommodate the estimated peak discharges and volumes of water, debris, and sediment, as determined in accordance with Section 404-2.01, and will withstand the associated hydrodynamic and hydrostatic forces.

**404-2.03** Engineering analyses showing that the measures have been designed to withstand the potential erosion and scour associated with estimated discharges.

**404-2.04** Engineering analyses or evidence showing that the measures will provide protection from hazards associated with the possible relocation of flow paths from other parts of the fan.

**404-2.05** Engineering analyses that assess the effect of the project on flood hazards, including depth and velocity of floodwaters and scour and sediment deposition, on other areas of the fan.

**404-2.06** Engineering analyses demonstrating that flooding from sources other than the fan apex, including local runoff, is either insignificant or has been accounted for in the design.

## CHAPTER V. STREET DRAINAGE

### Sec. 405-1 Design Flow

**405-1.01** The ISDD shall include the evaluation of both on-site and off-site watersheds when applicable.

**405-1.02** Street Conveyance

1. For Type "A" subdivisions, the ISDD may exceed the top of a six (6) inch curb by 0.10 feet.

2. For Type "B" subdivisions, the depth of flow contained within the road right of way shall not exceed 0.60 feet for the ISDD.

3. The depth of flow for the CSDD on major and secondary highways shall be maintained as not to prohibit reasonable access.

4. For mobile home/recreational vehicle parks, the depth of flow for the ISDD shall not exceed the carrying capacity of the travel way.

5. Where the discharge exceeds the above mentioned limits, a stormdrain or other facilities shall be provided to convey the excess flows.

6. The drainage system shall be free flowing and shall not allow the retention of more than one (1) foot of water measured at the flowline after the flows have subsided.

**405-1.03** Sedimentation

In areas suspected of significant sediment yield from an ISDD, the following shall apply:

1. The developer’s engineer shall quantify any sediment yield from on-site or off-site properties based upon the ISDD.

2. Sediment yield shall be independent of the runoff event and is to be mitigated separate from the design discharge.

3. Sediment shall not be deposited on the roadway.

4. Higher levels of mitigation may be required in mudslide-mudflow areas.

**405-1.04** Erosion

1. Erosion protection measures based on the ISDD shall be established upstream, downstream and through the project by the developer's engineer subject to approval by the Director.

## CHAPTER VI. CULVERTS, BRIDGES AND AT-GRADE-CROSSINGS

### Sec. 406-1 General

**406-1.01** All publicly maintained crossings of natural channels shall be bridged or culverted. The minimum length of any culvert shall be from toe-of-slope to toe-of-slope. Additional right-of-way may be required for maintenance of these facilities.

**406-1.02** Roadways shall be required to bridge a floodway where encroachment of the floodway is prohibited.

**406-1.03** Energy losses for bridge piers, interior walls for multiple box culverts, or other obstructions within the channel shall be predicated upon the obstruction width plus two (2) feet of debris allowance for each obstruction.

### Sec. 406-2 Culverts

**406-2.01** The ISDD for the total upstream watershed under existing conditions shall not exceed soffit of culvert.

**406-2.02** The CSDD for the total upstream watershed under existing conditions will be allowed to overtop the roadway until 2.0 feet of specific energy is obtained, at which point additional culverts will be required to meet these minimum requirements.

**406-2.03** The 2.0 feet of specific energy shall be calculated at the crown or high point of the traveled roadway.

**406-2.04** The minimum size of any culvert under a publicly maintained roadway shall be 18 inches. For private roads or public access, which are privately maintained, this requirement may be waived.

**406-2.05** Culverts shall be designed to have a minimum useful life of 50 years.

**Sec. 406-3 Bridges**

**406-3.01** The lowest portion of the bridge span shall be one foot or 0.2 times the specific energy (whichever is greater) above the water surface elevation when the normal depth of flow for the CSDD is subcritical.

**406-3.02** The lowest portion of the bridge span shall be one foot or 0.2 times the specific energy (whichever is greater) above the sequent flow depth when the normal depth of flow for the CSDD is supercritical.

**406-3.03** When levee conditions exist, the lowest portion of the bridge span shall also meet the minimum freeboard requirements of the levee.

**Sec. 406-4 At-Grade-Crossings**

**406-4.01** At-grade-crossings shall not be permitted on a publicly maintained roadway and shall not encroach upon a floodway.

## CHAPTER VII. CLOSED CONDUIT SYSTEMS, CATCH BASINS

**Sec. 407-1 Design**

**407-1.01** Closed conduit system shall be designed for the total ISDD flow less allowable street flow. (see Chapter V Street Drainage)

**407-1.02** A closed conduit system intended to serve on-site lot development shall be designed for the total ISDD originating on-site.

**407-1.03** Closed conduit system shall be designed to have a minimum useful life of 50 years.

**407-1.04** The minimum size of a closed conduit system within the street right-of-way or intended for public maintenance shall be 18 inches.

**407-1.05** The minimum size of a closed conduit system outside of the street right-of-way and intended to be privately maintained shall be eight (8) inches.

**407-1.06** The minimum cover over any closed conduit system shall be 24 inches. The minimum cover required within the street right-of-way shall be 30 inches.

**407-1.07** Closed conduit system shall be free flowing with no continuous standing water within the pipe.

**407-1.08** The designed pipe size shall not be allowed to decrease as the system progresses downstream.

**407-1.09** The minimum slope of any closed conduit system shall be .001(.10 percent) unless otherwise approved by the Director.

**407-1.10** The hydrologic tie-in design criteria for the closed conduit system shall be based on equal recurrence.

**407-1.11** Closed conduit system within the street right-of-way or intended for public maintenance shall be Class III reinforced concrete pipe with rubber gasket joints, or cast-in-place concrete pipe unless otherwise approved or required by the Director.

**407-1.12** The developer's engineer shall plot the hydraulic grade line and the energy grade line profiles for the closed conduit system either on a set of, or on the original, street improvement plans. All calculations and related data for these profiles shall be included with the street improvement plans when submitted.

## Sec. 407-2 Location

**407-2.01** A publicly maintained closed conduit system shall be placed within the road right-of-way or easement unless otherwise approved by the Director.

**407-2.02** The alignment of a publicly maintained closed conduit system shall be parallel or perpendicular with the centerline of the road unless otherwise approved by the Director.

## Sec. 407-3 Freeboard

Within the closed conduit system, the hydraulic grade line shall be at least 0.5 feet below all inlet flowline elevations, and 0.5 feet below the top of non-pressure manholes.

## Sec. 407-4 Manholes

**407-4.01** Within the closed conduit system, manholes shall be provided at all junctions, bends, and at intervals prescribed below:

a. Manholes shall be provided at intervals no greater than 300 feet where the conduit diameter is less than or equal to 30 inches.

b. Manholes shall be provided at intervals no greater than 400 feet where the conduit diameter is larger than 30 inches, but smaller than 48 inches.

c. Manholes shall be provided at intervals no greater than 500 feet where the conduit diameter is 48 inches or larger.

**407-4.02** A pressure manhole shaft and a pressure cover shall be installed in a closed conduit system whenever the energy grade line is less than 0.50 below the top of the manhole.

## Sec. 407-5 Losses

In addition to normal friction losses, energy losses due to entrance and exit conditions, bends, junctions, and transitions shall be computed. The engineer shall supply all data and reference material for calculated losses subject to review and approval by the Director.

## Sec. 407-6 Erosion

**407-6.01** Velocities within the closed conduit system should not exceed 20 feet per second with standard wall RCP, or 10 feet per second for plastic pipe. Where velocities exceed 20 feet per second for RCP, or 10 feet per second for plastic pipe, a special pipe shall be installed as approved by the Director.

**407-6.02** Erosion protection against scour velocities shall be provided at the inlet and outlet of the closed conduit system. The engineer shall supply all data and reference material supporting his/her design, subject to approval by the Director.

## Sec. 407-7 Catch Basins

**407-7.01** The inlet design at closed conduit systems (i.e., location, depression, capacity, structural, etc.) shall be subject to review and approval by the Director.

**407-7.02** Grate type inlets to the closed conduit system within the street right-of-way shall be allowed only in conjunction with side curb openings and shall be bicycle safe.

**407-7.03** The minimum width of opening for any catch basin intended to be publicly maintained shall be three (3) feet and six (6) inches (3.5').

## Sec. 407-8 Rights-of-Way/Easements

**407-8.01** A right-of-way sufficient to contain the closed conduit and appurtenances plus a minimum of five feet on each side, measured from the edge of the conduit or drainage structure, shall be provided but in no case shall the right-of-way be less than 15-feet in width. Whenever possible, rights-of-way for conduits shall be adjacent to property lines and outside areas where structures are planned. Under no circumstances shall closed conduits and appurtenances be constructed less than 10-feet from any planned or existing structure.

**407-8.02** Easements will be required on all closed conduit systems outside of the street right-of-way, which are intended for public maintenance.

**407-8.3** Land rights shall be conveyed to the County in one of the following forms, whichever is appropriate:

1. Separate parcel easement dedicated on a subdivision map.
2. Easement dedicated on a subdivision map as part of adjacent lots.
3. Fee simple or easement offered or granted by separate documents.

## CHAPTER VIII. RETENTION BASIN DESIGN

### Sec. 408-1 Design Volume

The design volume of storm water retention basins shall be based upon the runoff from the ISDD five-day storm event and a volume of nuisance water determined by the engineer. No runoff generated on site from the design storm or from nuisance flows will be allowed to leave the site unless downstream drainage disposal facilities exist to handle the flow. The retention of upstream off-site flows shall not be considered to reduce the size of the required on-site retention facilities or mitigate the runoff from the proposed development. An evaluation of the runoff volumes associated with the site in its existing condition shall not reduce the size of the required drainage facilities. The runoff volume from the ISDD five-day storm shall be calculated using the formula:

$$\text{Runoff Volume} = 0.12\ (D_{10})(a_i)(\text{Area})$$

| | | |
|---|---|---|
| $D_{10}$ | = | 10 yr 24-hr. depth of rainfall (in.) |
| $a_i$ | = | average percentage of impervious area |
| Area | = | Drainage area of total development |
| 0.12 | = | 1.44 x 1/12 |
| 1.44 | = | 5 day mass ratio (KC Hydrology Manual, Table B-1) |
| 1/12 | = | Conversion of rainfall depth in inches to feet |

## Sec. 408-2 Hydraulic Design

In the absence of a hydrologic volume routing analysis, the storm drain hydraulic grade line calculations shall assume that 50% of the design storm volume and 100% of the nuisance volume is in the basin when the peak flow rates occur.

## Sec. 408-3 Freeboard

Freeboard shall be required for all retention basins having a design water depth exceeding 18 inches. Six (6) inches of freeboard will be required when the design ponding depth within the basin is four (4) feet or less. For basins with a design ponding depth greater than four (4) feet the amount of freeboard required shall be one (1) foot. Freeboard shall be measured from the lowest gutter inlet or top of bank, whichever is lower.

## Sec. 408-4 Fencing

Retention basins shall be fenced and provided with gated access when the design ponding depth exceeds 18 inches. All retention basins, regardless of ponding depth, that are maintained by the County or an entity administered by the County shall be enclosed by a six (6) foot high masonry block wall. Exceptions may be made, subject to the Director's approval, for certain master planned facilities intended for multi-purpose use.

**408-4.01** The fence shall consist of a six (6) foot high chain link fence of 9 gage fabric with redwood slats or a six (6) foot masonry block wall or approved equal. Fence post footings shall have a minimum diameter of 12 inches and a minimum depth of 30 inches. Masonry block walls shall be designed in accordance with accepted engineering practices. Retaining walls used for basin fencing requirements shall have their design approved by the Director. See Plates R-77 thru R-82.

**408-4.02** Fence setbacks measured from the top of slope shall provide a reasonable maintenance way for the equipment outlined in the maintenance plan. The following minimum setbacks shall apply:

| Design ponding depth | Setback |
|---|---|
| $\leq$ 18 inches | 2 feet |
| > 18 inches but $\leq$ 4 feet | 5 feet |
| > 4 feet | 10 feet |
| > 8 feet | 10 feet (or in accordance with an approved maint-enance plan). |

**408-4.03** The basin access gate may be chain-link, wrought iron, or other as approved by the Director. The double gate is not to be attached directly to the masonry wall. The opening must be sufficient for the 14-foot double gate and anchor posts. If wrought iron is used, a metal

mesh privacy screen is to be securely attached to the double gate by rivets or equivalent as approved by the Director. Wrought iron double gates will also require a commercial grade latch or equivalent that can be locked with a County padlock (3/8" shackle diameter). See Plates D-11 for specific sizing and material requirements.

## Sec. 408-5 Access

An equipment access ramp to the bottom of the retention basin shall be provided when the design depth exceeds 18 inches or when the facility is intended for County maintenance.

**408-5.01** The ramp shall be a minimum of 12 feet wide with a maximum slope of 15%. The gate to the access ramp shall be 14 feet wide.

Exception - When the design ponding depth is $\leq$ 4 feet, the maximum slope on the ramp may be increased to 20%.

**408-5.02** Ramps shall not be designed to convey drainage water into the sump.

**408-5.03** The ramp alignment shall be no more than 45 degrees from the center of the access gate to facilitate maintenance equipment ingress and egress. Other proposed alignments shall have their design approved by the Director.

## Sec. 408-6 Curbing and Rodent Barriers

**408-6.01** In conjunction with fencing, a six (6) inch wide, eighteen (18) inch deep continuous concrete curb shall be provided around the top of the sump. The top of the curb shall be 0.5 feet above the highest adjacent grade. When the sump is fronting on a street, the top of the curbing shall be a minimum of one (1) foot above the top of the street curb. Ramped access across the curb shall be provided at all gated access points to the sump.

**408-6.02** Rodent barriers will be required on the sides of the sump in proximity to open space, agricultural areas or lot one (1) acre or larger. The bottom of the rodent barrier shall be a minimum of 42 inches below finish grade.

Exception - Rodent barriers may be omitted when the design water depth is 4 feet or less.

## Sec. 408-7 General Construction Requirements

**408-7.01** General construction requirements for retention facilities shall be in accordance with Plates D-1, D-2, and D-3.

**408-7.02** Retention facilities shall have the design volume contained entirely in cut.

**408-7.03** Slopes shall be designed no steeper than is safe and no steeper than two (2) horizontal to one (1) vertical. A slope stability analysis will be required when the design water depth exceeds eight (8) feet and side slopes are steeper than 3:1.

**408-7.04** The minimum bottom dimension for retention basins with a design depth greater than four (4) feet shall be 20 feet. For design water depths 4 feet or less, the minimum bottom width shall be no less than that required for maintenance equipment specified in the maintenance plan.

**408-7.05** The maintenance way shall be sloped away from the top of bank at a minimum 2%.

**408-7.06** Drainage basins intended for County maintenance shall be located on a lot dedicated exclusively for drainage/recreational purposes.

## Sec. 408-8 Testing

**408-8.01** Retention basins shall not be permitted unless it can be demonstrated, to the satisfaction of the Director, that the basin will completely drain the design volume within seven (7) days.

**408-8.02** Testing of the proposed retention basin shall be provided by a Soils Engineer and shall include, but need not be limited to, an analysis of the soils boring logs and the establishment of the drainage rates of the soils encountered. A minimum of one (1) boring shall be logged within the proposed sump location. This boring shall be advanced below the invert of the basin to a depth equivalent to at least three (3) times the design ponding depth. Testing methods used to establish soil drainage rates shall be approved by the Director.

# CHAPTER IX. DETENTION BASIN DESIGN

## Sec. 409-1 Design Flow

The design flow into the basin shall be the ISDD five-day runoff hydrograph. Hydrograph design and mass ratios shall be in accordance with the Kern County Hydrology Manual. The out flow hydrograph shall not extend beyond five days from the end of the inflow hydrograph. Infiltration effects from the detention facility shall not be included in the calculation of the outflow hydrograph.

## Sec. 409-2 Facility Design

Sizing and placement of detention facilities shall not aggravate the potential for downstream flooding.

Requirements for fencing, curbing, setbacks, access, and freeboard shall be in accordance with retention basin design.

**409-2.01** Detention basins shall be provided with a concreted low flow bypass, or approved equivalent, for the conveyance of nuisance flows to the outlet.

**409-2.02** An emergency spillway will be incorporated in the design of all detention basins.

## Sec. 409-3 Sedimentation

Sediment yield shall be determined and mitigation provided by the developer's engineer.

## Sec. 409-4 Duplex Pump Station (Wet Well) Design Specifications

Pumps used in conjunction with detention facilities shall have their design approved by the Director. Specific design criteria shall include the use of an automated duplex pump, and an alarm system. The pump system shall be designed to pass a minimum two (2) inch sphere and for reliability and low maintenance. Pump maintenance shall be included in the facility maintenance plan.

**409-4.01** Pump station shall be designed to drain the sump in 5 to 7 days with one (1) pump running. However, the minimum flow rate shall be 100 gpm.

**409-4.02** Pump station shall be a duplex system which automatically alternates between pumps at the end of each cycle.

**409-4.03** The pump station shall either include a lag pump design or automatic controls, which will start the second pump if the first fails to pump.

**409-4.04** Pumps shall be minimum one (1) HP.

**409-4.05** Pump station shall be designed to allow easy removal of pumps for maintenance, without requiring personnel to enter into a wet well or similar enclosed structure. A "cage" style pump system, where the pump is located in a cage structure at the bottom of the basin, will not be allowed.

**409-4.06** Pumps and pump station inlet structure shall be screened to prohibit plugging by debris.

**409-4.07** The pump station (including the electrical/control panel) shall be located next to the entrance of the basin.

**409-4.08** The receiver wet well shall consist of one 60” diameter concrete precast manhole sections with single offset R-3 rubber gasket joints per ASTM C-478, latest edition or approved equal. Duplex pump system shall be equipped with two 1HP (minimum), 115V, non-clog, explosion proof, sump pumps with alarm and alarm switch, check valves, ball valves, discharge line, pump lift out assembly, and electrical junction box. Include a 30” x 42” hatch with lockable, steel hinged access with safety grate.

**409-4.09** The lifting assembly shall be best suited for the pump arrangement. All cables, etc. are to be stainless steel nylon coated. All slide metal surfaces must be considered non-sparking, by URL, to prevent spark ignition in wet well.

**409-4.10** The valve vault shall consist of one 42” diameter concrete precast manhole section (conforming to ASTM C-478 with single offset R-3 gasket joints) with gate valves, swing check valves, and adjustable pipe supports or equivalent. Include a 24” x 24” hatch with lockable, hinged steel access door with safety grate.

**409-4.11** Sump pump wiring shall be connected to a waterproof electrical control panel in a NEMA 3 enclosure or equivalent.

**409-4.12** A four inch (4”) thick Class 2 concrete pad will be required to encompass the precast top slabs, manholes and control panel.

**409-4.13** All electrical conduits and connectors shall be sealed water-tight and gas-tight using bitumastic paint.

**409-4.14** All pipe or conduit wall penetrations shall be sealed with a neoprene seal.

**409-4.15** All exposed steel (pipe, valves, flanges, elbows, and control box exterior) shall be primed with zinc-chromate primer and painted with an epoxy enamel finish. Color to be grey unless otherwise approved.

**409-4.16** A water level staff shall be placed in the sump. The staff may be either anchored to the sideslope of the sump or be attached to the outlet structure, as approved by the Director. The bottom portion of the staff shall be painted black and white, alternating at one-foot increments, to an elevation equivalent to the half full-depth of the sump. The top portion of the staff shall be painted red and white, alternating at one-foot increments, to one foot above design water surface.

**409-4.17** All controls shall be mounted in a NEMA (3) metal enclosure or equivalent. The control panel and all electrical components shall bear the Underwriter's Laboratory (UL) Label. All circuit breakers shall have operators extending through the control panel door. All motor starter overload resets, selector switches, push buttons and pilot lights shall be mounted on the control panel door. The control panel shall be enclosed in a vandal resistant enclosure with provisions for locking with a County's lock 3/8" shank pad lock or approved equal.

**409-4.18** The control for each pump shall include a thermal magnetic circuit breaker, rotary hand-off-automatic switch, and magnetic motor starter with ambient compensated overload relays and quicktrip heaters. The pump control circuit shall include a door interlock switch to de-energize the control circuit when the control panel door is open, a control mounted transformer with fused 115 volt secondary, and a door mounted control circuit disconnect switch.

**409-4.19** Pump operation shall be controlled by three (3) bulb type liquid level sensors. An intrinsically safe pilot circuit shall be provided for each level sensor to reduce the power to the sensor to a level incapable of releasing sufficient electrical or thermal energy to ignite explosive gases.

**409-4.20** A fourth level sensor, with intrinsically safe circuit, shall be furnished for indication of high water alarm condition. High water alarm shall be indicated by a panel-mounted pilot light and external audible alarm with silence button.

**409-4.21** The controls shall provide for lead/lag sequencing of the pumps, an automatic alternator shall alternate the lead/lag duty on each succeeding pump cycle. An outer pump seal leakage detection system shall be included in the control enclosure. When the motor probes sense the presence of moisture in the oil seal chamber, a

relay coil will illuminate a panel mounted indicating alarm lamp to indicate possible outer motor seal failure and the alarm light.

**409-4.22** The pump station shall have a Hand-Off-Auto switch and an automatic low water shut-off, and have green (run) and red (alarm) indicator lights visible from the road/street.

**409-4.23** Control panel shall contain hour meters for each pump.

**409-4.24** Control panel shall contain a switched GFI 115 volt duplex electrical outlet.

**409-4.25** Control panel shall include an emergency generator hook-up connection.

**409-4.26** System Testing—Installed pumps, controls and pipes shall be tested in accordance with recommendations of the manufacturer prior to acceptance by the Kern County Engineering, Surveying & permit Services Department.

**409-4.27** Prior to acceptance, two (2) complete operation and maintenance manuals, with wiring and interconnect diagrams for all equipment and controls, model and serial numbers of the sump pumps, and a set of as-built drawings on cronar shall be furnished to the County.

## CHAPTER X. CONSTRUCTED CHANNEL DESIGN CRITERIA

### Sec. 410-1 Design Flow

Constructed channels shall be designed to carry the CSDD plus freeboard.

### Sec. 410-2 Freeboard

**410-2.01** The minimum freeboard between the design water surface, and the top of bank of the channel shall be 0.50 feet or 0.20 of the specific energy, whichever is greater.

**410-2.02** If the designed water surface is within the embankment area, the design and construction of the channel shall be in accordance with the levee design criteria, including freeboard requirements.

**410-2.03** The minimum freeboard requirements for bridges, culverts, and utility crossings which span open channels and which are existing, planned

or projected at the time of channel design shall be in accordance with the requirements specified in Sections 406-2 and 406-3.

**410-2.04** Superelevation resultant from directional modification shall be considered prior to computing the required freeboard.

## Sec. 410-3 Hydraulic Design

**410-3.01** Channels shall be designed with proper allowance for hydraulic losses for all planned and projected future crossings or other obstructions to maintain clearance and freeboard as required.

**410-3.02** The water surface and the energy grade line profile shall be computed and plotted for all constructed channels and at locations where natural channels modifications are proposed.

**410-3.03** Constructed channels shall not be designed with a slope in the range of ± 20% of critical slope unless freeboard equal to the height for instability waves is added.

**410-3.04** A minimum velocity of two (2) feet per second shall be maintained for lined channels to prevent sedimentation.

## Sec. 410-4 Structural Design

**410-4.01** The minimum bottom width of constructed channels shall be ten (10) feet. A triangular channel may be permitted when the channel side slopes are four (4) to one (1) or flatter.

**410-4.02** The minimum centerline radii for curves in constructed channels shall be three (3) times the top width of the design water surface.

**410-4.03** Design of slopes shall be predicated upon results of an investigation by a Soil Engineer, subject to the approval of the Director.

**410-4.04** Adequate bank protection and drop structures shall be provided where the slopes in the channel are steep and high velocities are present.

**410-4.05** Bank protection shall be provided based on the design engineer's recommendations, subject to the approval of the Director. Stress area protection shall extend downstream from the end of the stress area a distance equal to ten (10) times the design water depth, unless the engineer can show that the erosion potential is not excessive.

**410-4.06** At drop structures or in other locations where a hydraulic jump may occur, bank protection shall be provided through the hydraulic jump for a minimum distance of six (6) times the sum of the sequent depth and the depth of freeboard. This protection shall cover the invert and extend to the height of the sequent depth plus the height of the freeboard. The protection material may be either concrete, concreted-rock slope protection, sacked concrete, air-blown mortar or other approved alternative.

**410-4.07** All channel lining materials and methods shall be specified by the engineer and approved by the Director.

**410-4.08** All appurtenant drainage facilities shall be constructed and areas adjacent to channels graded so that erosion will be prevented within the channel right-of-way.

**410-4.09** Waterways shall enter the main channel at an angle not exceeding 25 degrees.

## Sec. 410-5 Erosion

The engineer shall provide recommendations on all necessary mitigation measures for erosion including bank protection and bottom stabilization of the channel, subject to the approval of the Director.

## Sec. 410-6 Fencing

**410-6.01** Constructed channels with slopes steeper than four (4) to one (1) with specific energy, at any point, greater than 1.5 feet shall be fenced in its entirety.

**410-6.02** A six (6) foot high nine (9) gage chain link fence fabric with tension wire shall be installed on each side of the right-of-way.

**410-6.03** At all road intersections, fencing shall be installed to prevent public access to constructed channels.

**410-6.04** A 14 foot wide chain link drive gate shall be provided at all points of vehicular access.

## Sec. 410-7 Easements/Right-of Ways and Maintenance Ways

**410-7.01** Right-of-ways for constructed channels with side slopes steeper than four (4) to one (1) shall be provided as follows:

a. The right-of-way for channels with top widths greater than 50 feet, as measured to the top of freeboard, shall include the top width of the channel, two maintenance ways (one on each side of the channel), slope easements (when applicable), and interceptor ditch area (when applicable). The maintenance ways shall be a minimum of 15 feet wide. Runoff from the maintenance ways shall be mitigated.

b. The right-of-way for channels with top widths of 50 feet or less, as measured to the top of freeboard, shall include the top width of the channel, one maintenance way on either side of the channel, slope easements (when applicable), and interceptor ditch area (when applicable). The maintenance way shall be a minimum of 15 feet wide. Runoff from the maintenance way shall be mitigated.

**410-7.02** The right-of-way for constructed channels with side slopes four (4) to one (1) or flatter shall be sufficient to contain the top width of the channel (measured from top of freeboard) plus slope easements as needed. A minimum of five (5) feet on either side of the channel shall be provided for maintenance purposes.

**410-7.03** Right-of-way for turn-around: Turn-around distance and radii:

At the terminus and at intervals not to exceed one channel mile, turn around areas shall be provided. The minimum inside radii for maintenance roads shall be 40 feet.

**410-7.04** Tributary waterways shall be conveyed under maintenance roads in closed conduits or culverts as applicable. Where open channel tributaries cross a maintenance road, a convenient turn-around area shall be provided for maintenance vehicles. The minimum diameter of a turn-around shall be 40 feet.

**410-7.05** Right-of-Way for Channels Intersecting Public Roads:
At intersections of the channel with public roads, sufficient right-of-way shall be provided to permit access from the public road to the maintenance road as approved by the Director.

In the event that the channel right-of-way does not intersect a public road, a turn-around or a 15 foot wide access right-of-way shall be provided from a public road to the channel right-of-way at intervals not to exceed one (1) channel mile.

## Sec. 410-8 Sedimentation

The determination of sediment yield and proposed mitigation measures of such shall be prepared and recommended by a qualified registered civil engineer, subject to the approval of the Director.

# CHAPTER XI. LEVEE DESIGN

## Sec. 411-1 Design Flow

Levees shall be designed to accommodate for the CSDD plus freeboard.

## Sec. 411-2 Freeboard

**411-2.01** The minimum freeboard between the designed CSDD water surface and the levee's top of bank shall be three (3) feet or 0.20 times the specific energy plus one (1) foot, whichever is greater.

**411-2.02** An additional one (1) foot, above this minimum of freeboard, shall be required within 100 feet of either side of structures within the levee or whenever the flow is constricted, such as at bridges. An additional 0.50 foot above the minimum is also required at the upstream end, tapering to the minimum at the downstream end of the levee.

## Sec. 411-3 Hydraulic Design

See Section 410-3 Hydraulic Design for details.

## Sec. 411-4 Structural Design

Levees shall be designed in accordance with the latest revision of the Corps of Engineers Design and Construction of Levees, Engineer Manual, EM1110-2-1913.

## Sec. 411-5 Erosion

Mitigation measure for erosion protection shall be prepared and recommended by a registered civil engineer, subject to the approval of the Director.

## Sec. 411-6 Fencing

Fencing requirements for levees shall be in accordance with the criteria contained in the constructed channel design, Section 410-6.

### Sec. 411-7 Easements/Right-Of-Way

Access, easements and right-of-way shall be in accordance with the requirements set forth in Section 410-7. (Constructed Channels).

### Sec. 411-8 Sedimentation

Mitigation measures shall be prepared and recommended by a qualified, registered engineer, subject to the approval of the Director.

### Sec. 411-9 Maintenance

A maintenance plan and an entity with taxing power to maintain levees shall be established, subject to the approval of the Director. Neither the County nor County Service Area will maintain a levee.

## CHAPTER XII. NATURAL CHANNELS

### Sec. 412-1 Delineation

All natural channels shall be identified and clearly delineated on the plans with the appropriate floodplain designation.

For defined natural channels, the Floodplain and Floodway Boundaries shall be delineated, subject to the approval of the Director.

### Sec. 412-2 Setback

The minimum setback from the top of bank of a natural channel with side slopes steeper than two (2) horizontal to one (1) vertical, shall be a two (2) to one (1) slope plus a 10 foot wide buffer strip. The setback shall be measured from the toe of the slope. Where the slopes are flatter than two (2) to one (1), the required setback shall be a minimum of 10 feet from the Floodway limit.

### Sec. 412-3 Tie-Ins

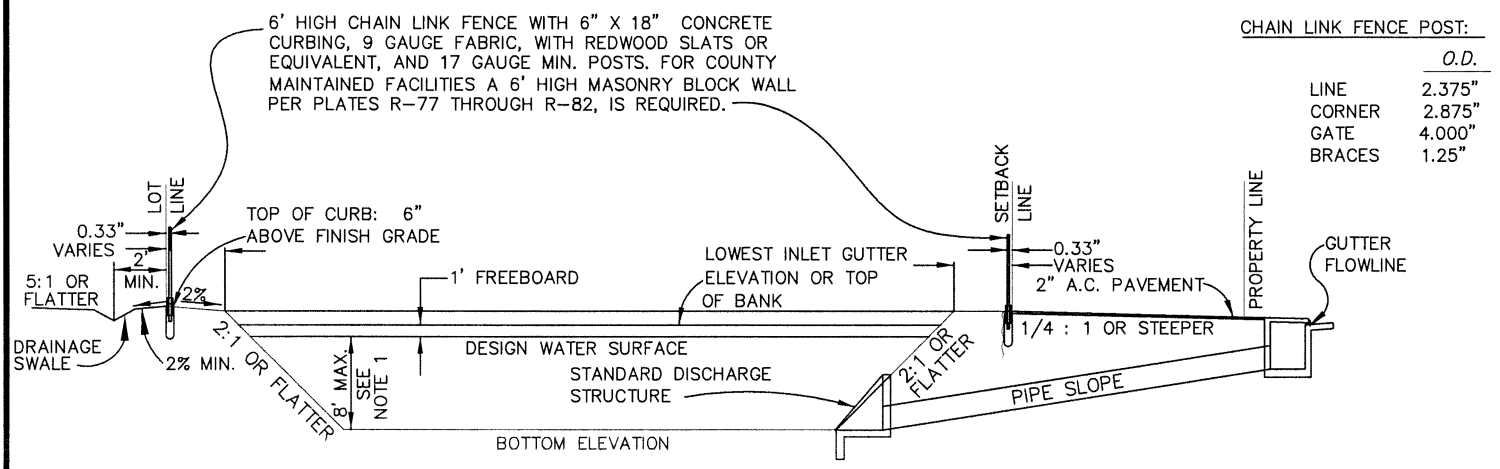
Where natural channels merge into constructed channels, the tie-ins shall be designed in a manner to dissipate energy and protect against erosion. The design for such tie-ins shall be in accordance with acceptable engineering practices and approved by the Director.

### Sec. 412-4 Relocation

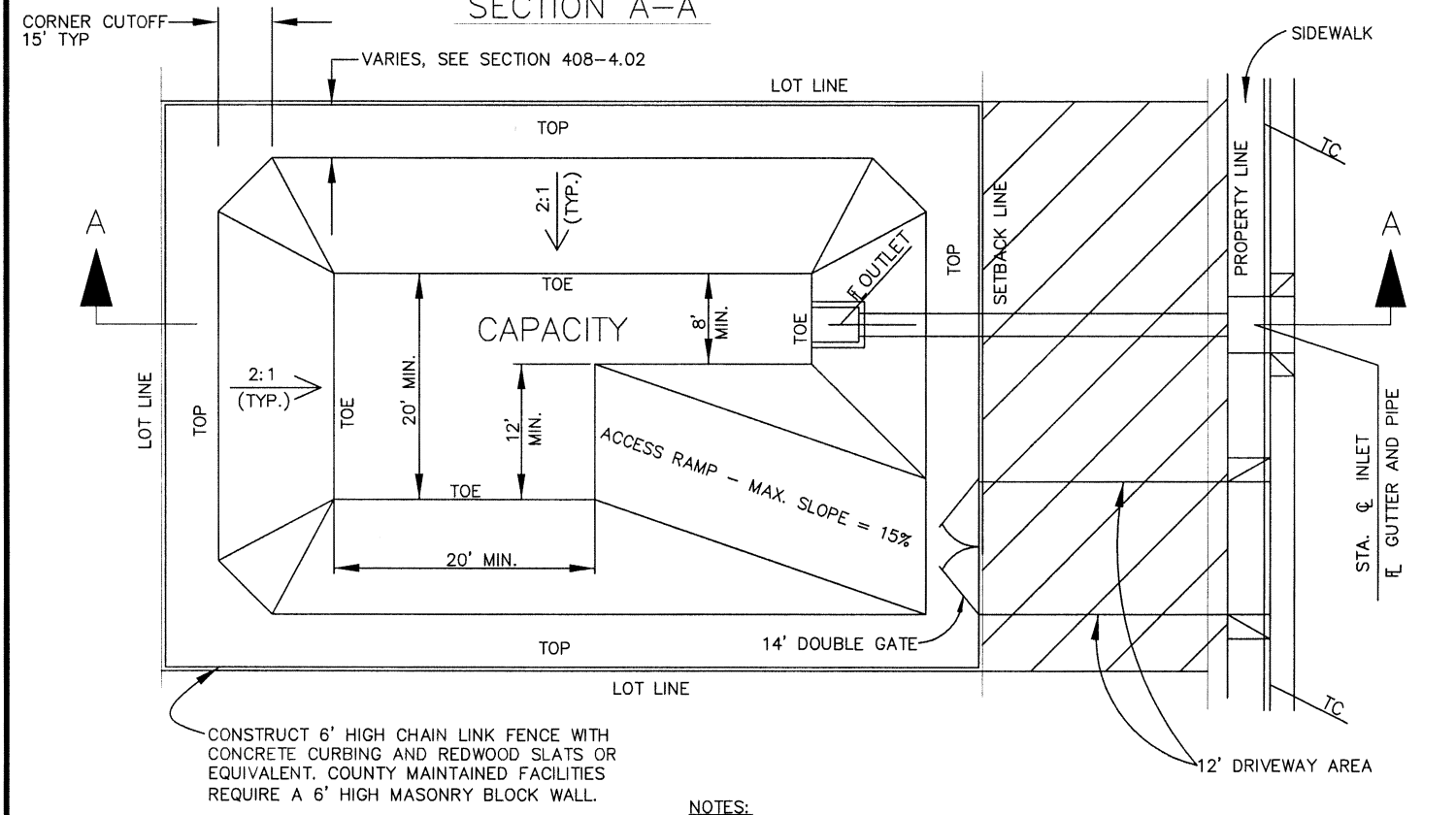
Should an existing natural channel be relocated, the channel shall be designed in accordance with the criteria specified herein for constructed channels.

## Sec. 412-5 Use of Natural Facilities

All applicable Federal and State permits and requirements shall be required for any operation that would discharge dredged or fill material in any waters of the United States (normally channels identified with blue lines on the U.S.G.S. maps).




## SECTION A-A




## SUMP PLAN

### LEGEND

TOP – TOP OF CURB
FG – FINISH GRADE
OG – ORIGINAL GROUND

INDICATES 2" A.C. OVER NATIVE SOIL WHICH HAS BEEN TREATED WITH A PERMANENT SOIL STERILANT SUBJECT TO THE APPROVAL OF THE DIRECTOR.

NOTES:

1. MAY EXCEED 8' IF SIDE SLOPES ARE 3:1 OR FLATTER; OR A SLOPE STABILITY ANALYSIS IS PROVIDED.
2. VARIATIONS TO THE DIMENSION MAY BE APPROVED BY THE DIRECTOR.
3. ADDITIONAL REQUIREMENTS MAY BE IMPOSED AS PART OF THE CONDITIONS ISSUED.
4. COMPACT O.G. TO 95% FOR MINIMUM OF SIX (6) INCHES UNDER 2" A.C.
5. WHEN FENCE IS SET ON FRONT R/W LINE SIDEWALK SHALL BE FULL WIDTH.
6. TACK WELD FABRIC AND HARDWARE TO POSTS.
7. TREAT BLOCK WALL WITH ANTI-GRAFFITI PRODUCT SUBJECT TO APPROVAL OF THE DIRECTOR.
8. CONSTRUCT 6" X 18" CONCRETE CURB UNDER GATE W/ TWO (2) #4 REBAR TOP AND BOTTOM.

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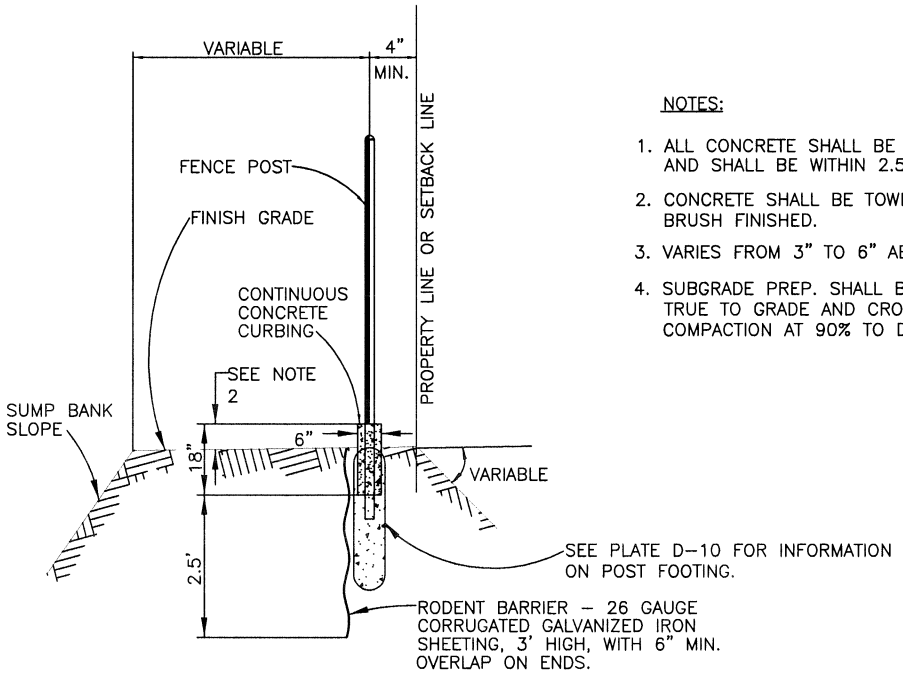
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DATE: 8-18-1995
DESIGNED BY: R.J.L.
DRAWN BY: K.S.
CHECKED BY: A.A.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

SUMP DETAILS

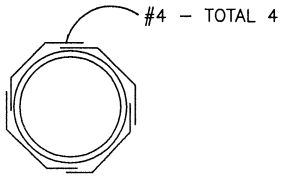
PLATE NO. D-1



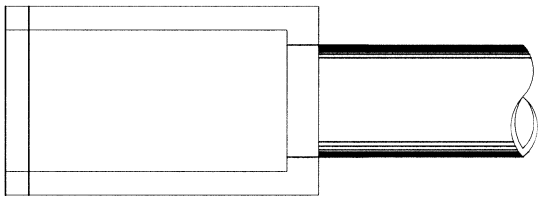

NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE AND SHALL BE WITHIN 2.5" TO 5.5" SLUMP.
2. CONCRETE SHALL BE TOWELED SMOOTH AND BRUSH FINISHED.
3. VARIES FROM 3" TO 6" ABOVE FINISH GRADE.
4. SUBGRADE PREP. SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION AT 90% TO DEPTH OF 6"

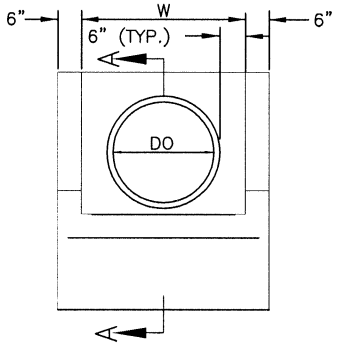
# CURBING AND RODENT BARRIER DETAILS



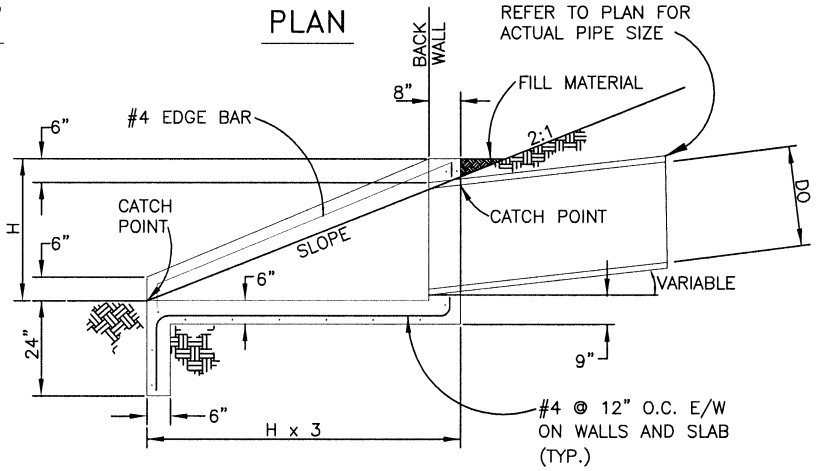

DETAIL "A"



PLAN




FRONT




SECTION A-A

# DISCHARGE STRUCTURE

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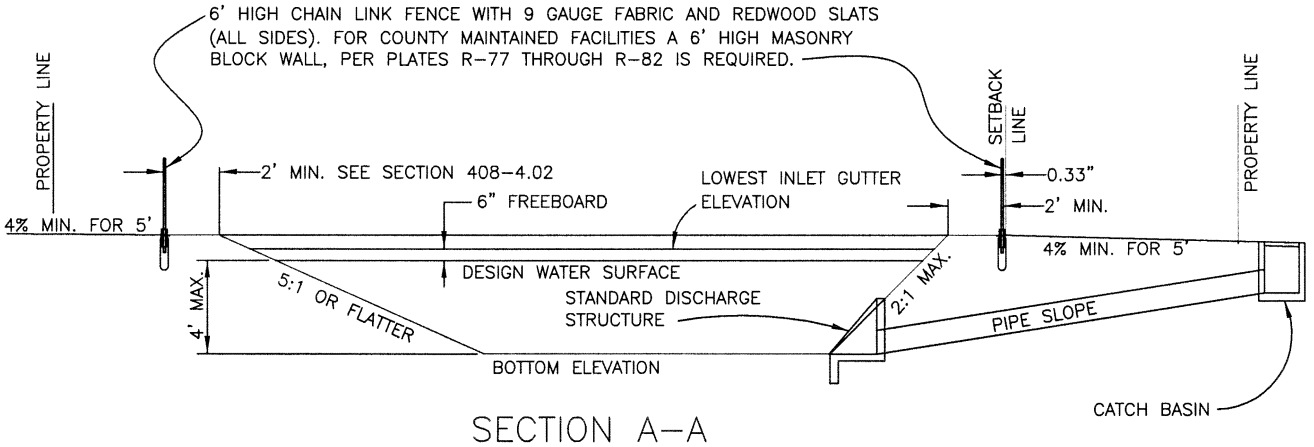
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DATE: 3-31-1995
DESIGNED BY: R.J.L.
DRAWN BY: K.S
CHECKED BY: C.L.

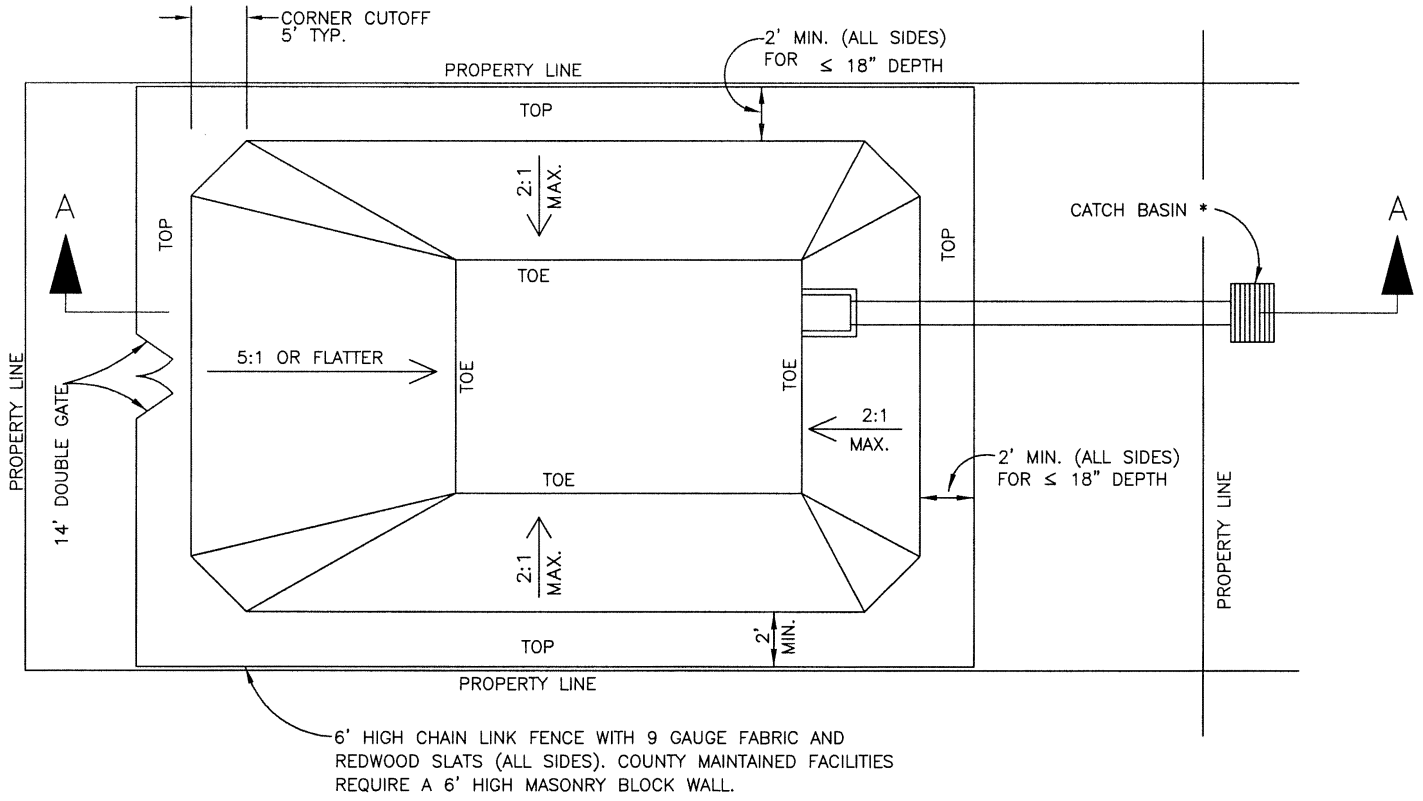
COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

CURBING, RODENT BARRIER, AND DISCHARGE STRUCTURE DETAILS

PLATE NO. D-2




## SECTION A-A




## SUMP PLAN

* NO CURB AND GUTTER SHOWN

NOTE:
SEE ADDITIONAL NOTES AND REQUIREMENTS FOR CHAIN-LINK FENCES AND MASONRY WALLS ON PLATE D-1

PLOTTED: 02/25/2010

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DATE: 8-18-1995
DESIGNED BY: R.J.L.
DRAWN BY: K.S
CHECKED BY: C.L.

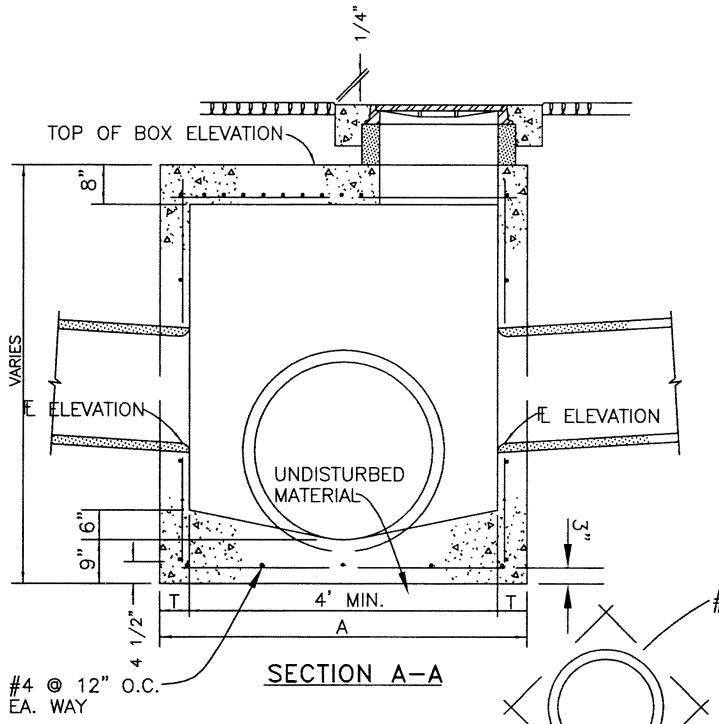
COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

SHALLOW SUMP DETAILS

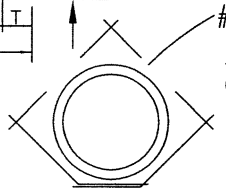
PLATE NO. D-3

# NOTES:

1. ALL CONCRETE SHALL BE MINOR CONCRETE.
2. WALL REINFORCING NOT REQUIRED WHEN H = 8' OR LESS AND THE UNSUPPORTED LENGTH OF ALL WALLS = 7' OR LESS. WALLS EXCEEDING EITHER LIMIT SHALL BE REINFORCED WITH #4 BARS AT 18" CENTERS PLACED 1 1/2" CLEAR TO INSIDE OF BOX UNLESS OTHERWISE SHOWN.
3. GALAVANIZING – SEE STANDARD SPECIFICATIONS OR SPECIAL PROVISIONS.
4. T = 6" WHEN H = 8' OR LESS AND THE UNSUPPORTED LENGTH OF ALL WALLS = 7' OR LESS. WALLS EXCEEDING EITHER LIMIT SHALL HAVE T = 8".
5. LOCATION OF FRAME AND COVER TO BE DETERMINED BY THE ENGINEER.
6. PRECAST ALTERNATIVE IS OPTIONAL. SEE SECTION 51–1.02 OF STANDARD SPECIFICATIONS.

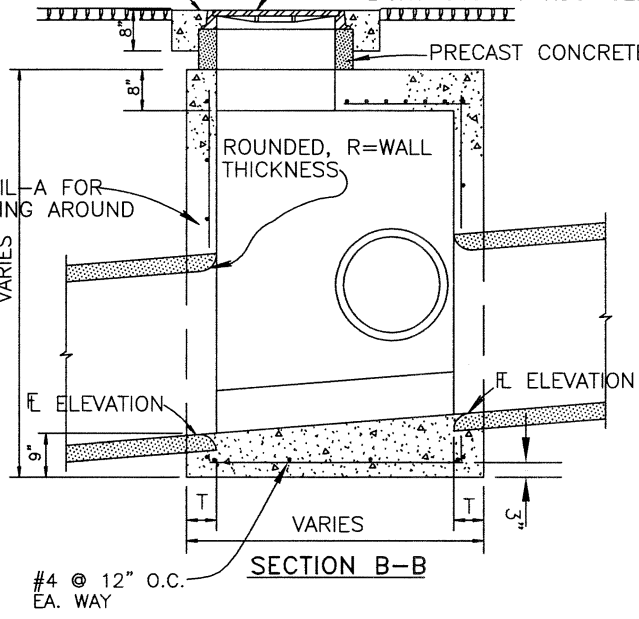



SECTION A–A

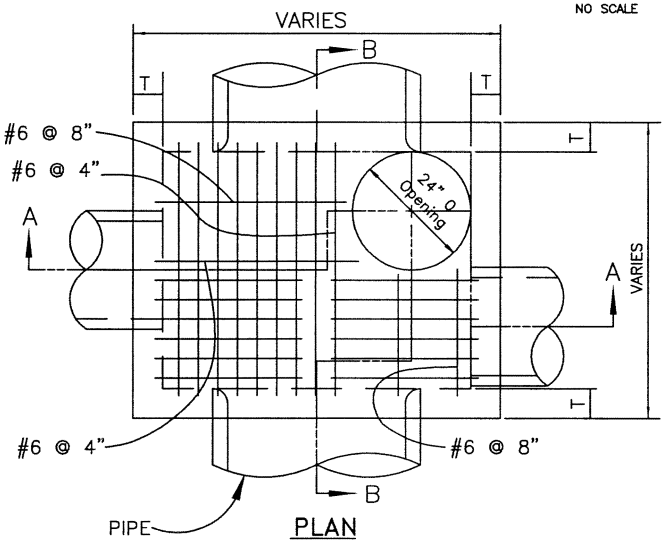



DETAIL A
NO SCALE

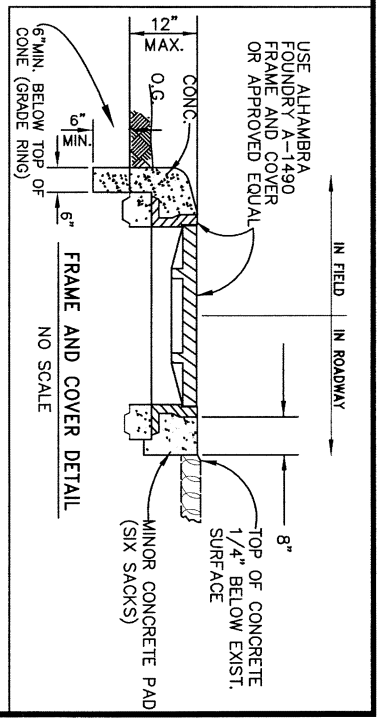
TRAFFIC FRAME AND COVER SET TO GRADE AS DIRECTED BY THE ENGINEER. COVER AND FRAME MACHINED TO FIT. COVER TO HAVE RADIAL BLOCK TREAD, FRAME TO HAVE FLANGE DOWN, APPROXIMATE WEIGHT–315 POUNDS. SEE NOTE #5




SECTION B–B




PLAN




# TYPE "B" MINOR STRUCTURE

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PLOTTED: 02/25/2010

DATE: 8–18–1995
DESIGNED BY: A.A.
DRAWN BY: D.M.
CHECKED BY: G.F.

COUNTY OF KERN
STATE OF CALIFORNIA
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TYPE "B" MINOR STRUCTURE– JUNCTION BOX

PLATE NO. D–4

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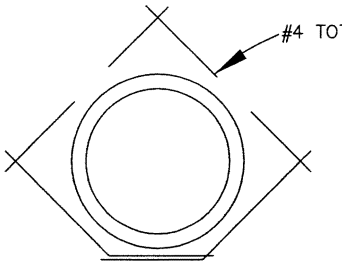
DATE: 8-18-1995
DESIGNED BY: A.A.
DRAWN BY: D.M.
CHECKED BY: G.F.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

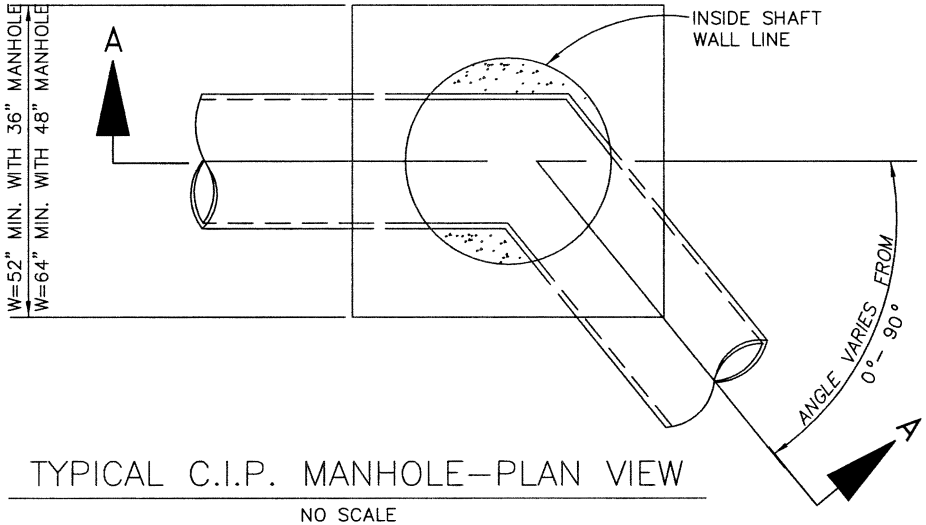
TYPE "C" MINOR STRUCTURE– MANHOLE

PLATE NO. D–5

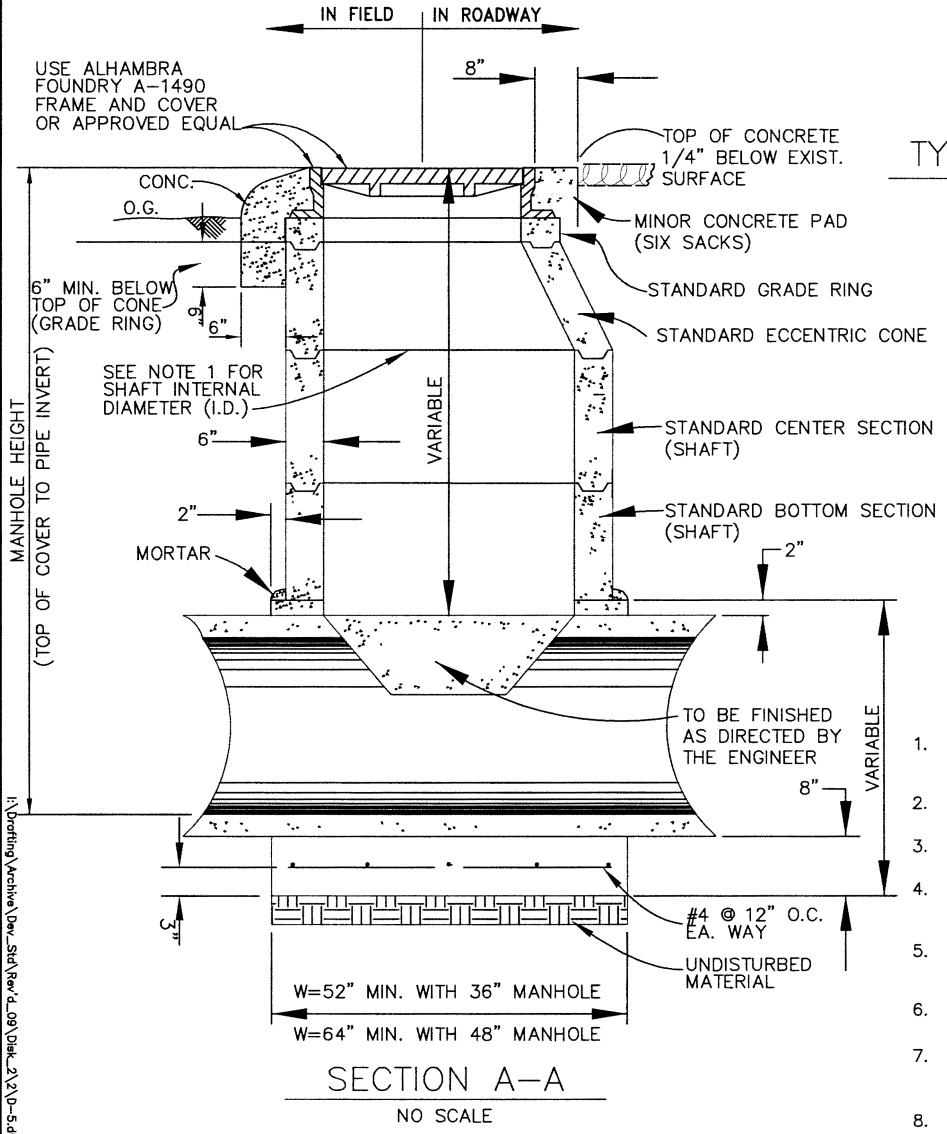
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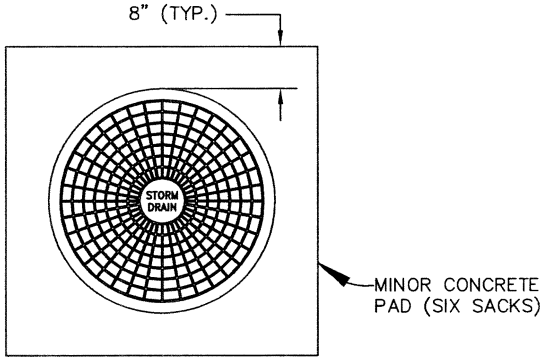

DETAIL A
NO SCALE




TYPICAL C.I.P. MANHOLE–PLAN VIEW
NO SCALE



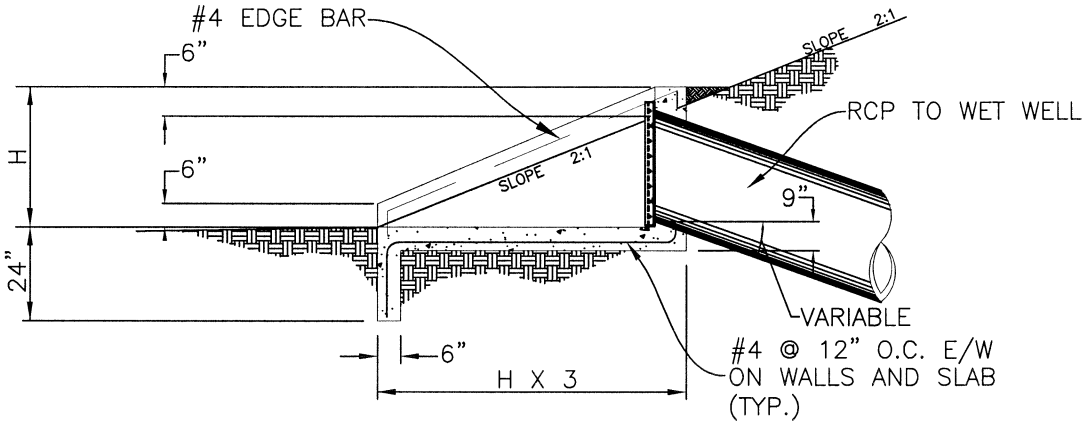

SECTION A–A
NO SCALE



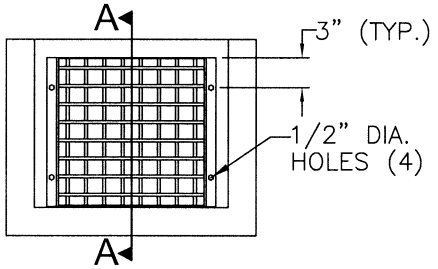

MANHOLE COVER AND CONCRETE PAD
NO SCALE

NOTES:

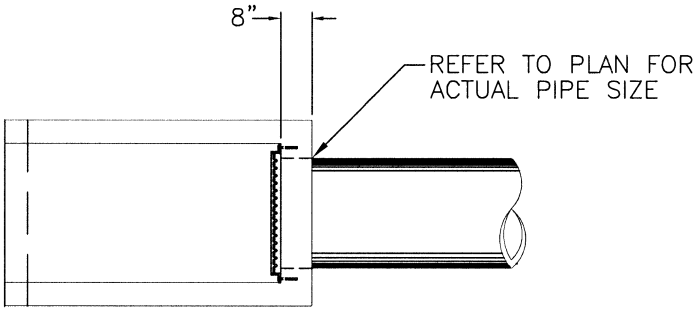
1. MANHOLE CONSTRUCTED ON CONCRETE PIPE OF 36" I.D. OR GREATER SHALL USE 48" SHAFT; CONCRETE PIPE WITH LESS THAN 36" I.D. SHALL USE 36" SHAFT.
2. USE COMBINATION OF CONE AND SHAFT AS DIRECTED BY THE ENGINEER.
3. ALL CONCRETE TO BE MINOR CONCRETE.
4. ALL REINFORCING TO BE NO.4 BARS AT 12" O.C., 1 1/2" CLEAR OF INSIDE FACE UNLESS OTHERWISE NOTED. SEE DETAIL "A" FOR REINFORCING AROUND PIPE.
5. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION EXCEPT FRAME AND COVER.
6. LOCATION OF FRAME AND COVER TO BE DETERMINED BY THE ENGINEER.
7. ALL REINFORCEMENT FOR SURFACES IN CONTACT WITH THE GROUND SHALL BE PROTECTED WITH NOT LESS THAN 2" OF CONCRETE.
8. WORDING ON MANHOLE TO READ "STORM DRAIN".




SECTION A–A




FRONT




PLAN

# INLET STRUCTURE

## GRATE NOTES:

1. GRATE FABRICATED OR EQUIVALENT SHELF ITEM– ALL PARTS & PRODUCTS GALVANIZED
2. FRAME CONSTRUCTED W/ 1/4" x 3/4" x 2" x LENGTH (VARIES TO PIPE SIZE ) ANGLE IRON
3. MIN. FOUR– 3/8"X 3" S.S. RED HEAD ANCHOR BOLTS FLAT LOCK WASHER, 2 EA PER VERTICAL ANGLE 3" FROM TOP & BOTTOM OF FRAME.
4. FOUR–1/2" DIA. HOLES IN FRAME
5. GRATE OPENING $1\frac{3}{16}$" x 2" O.C.
6. 1/4" DIA ROD WELDED TO FRAME ON ALL SIDES

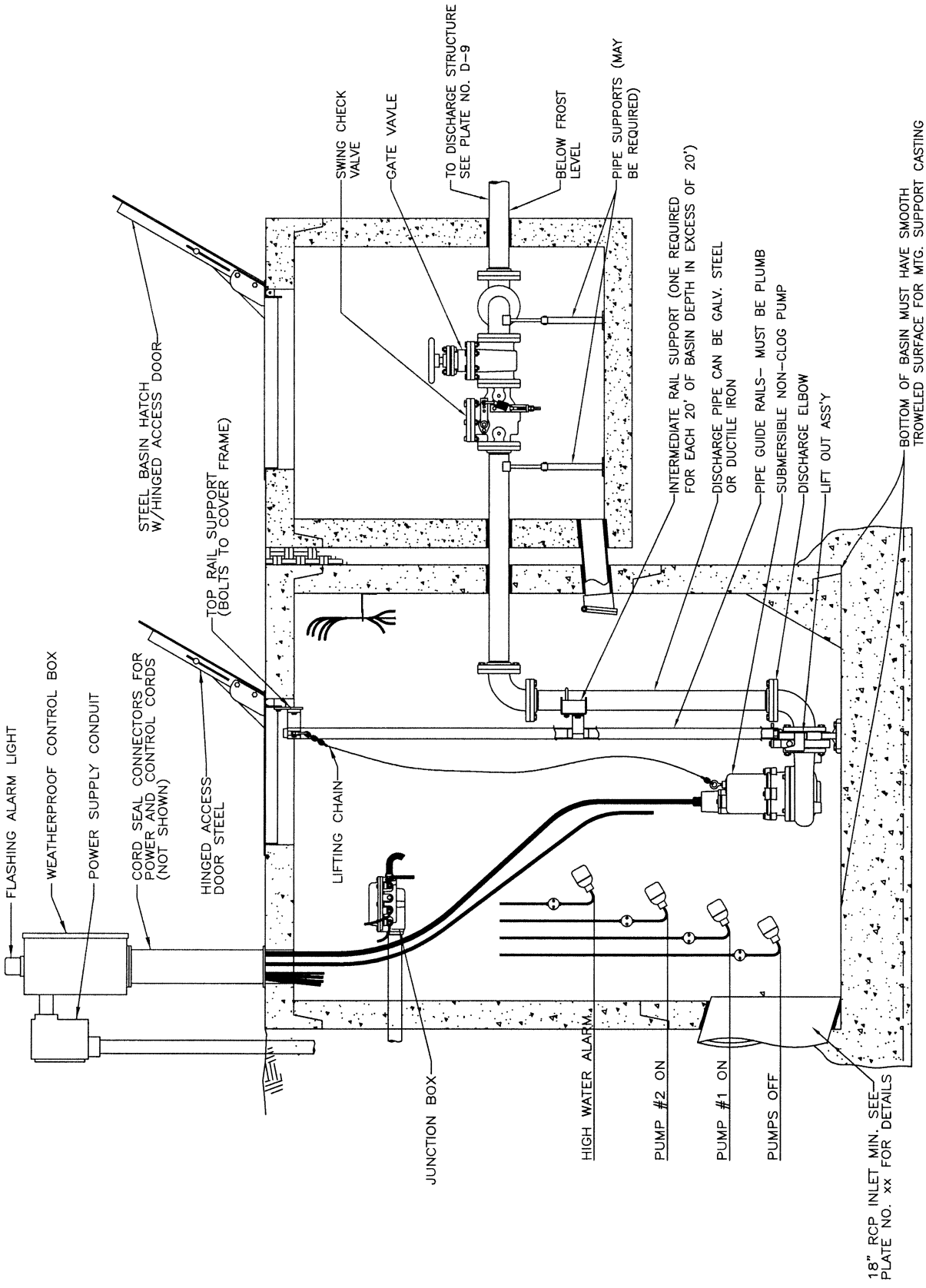
## NOTES:

1. PIPE DETAIL REFER TO PLATE D–2.

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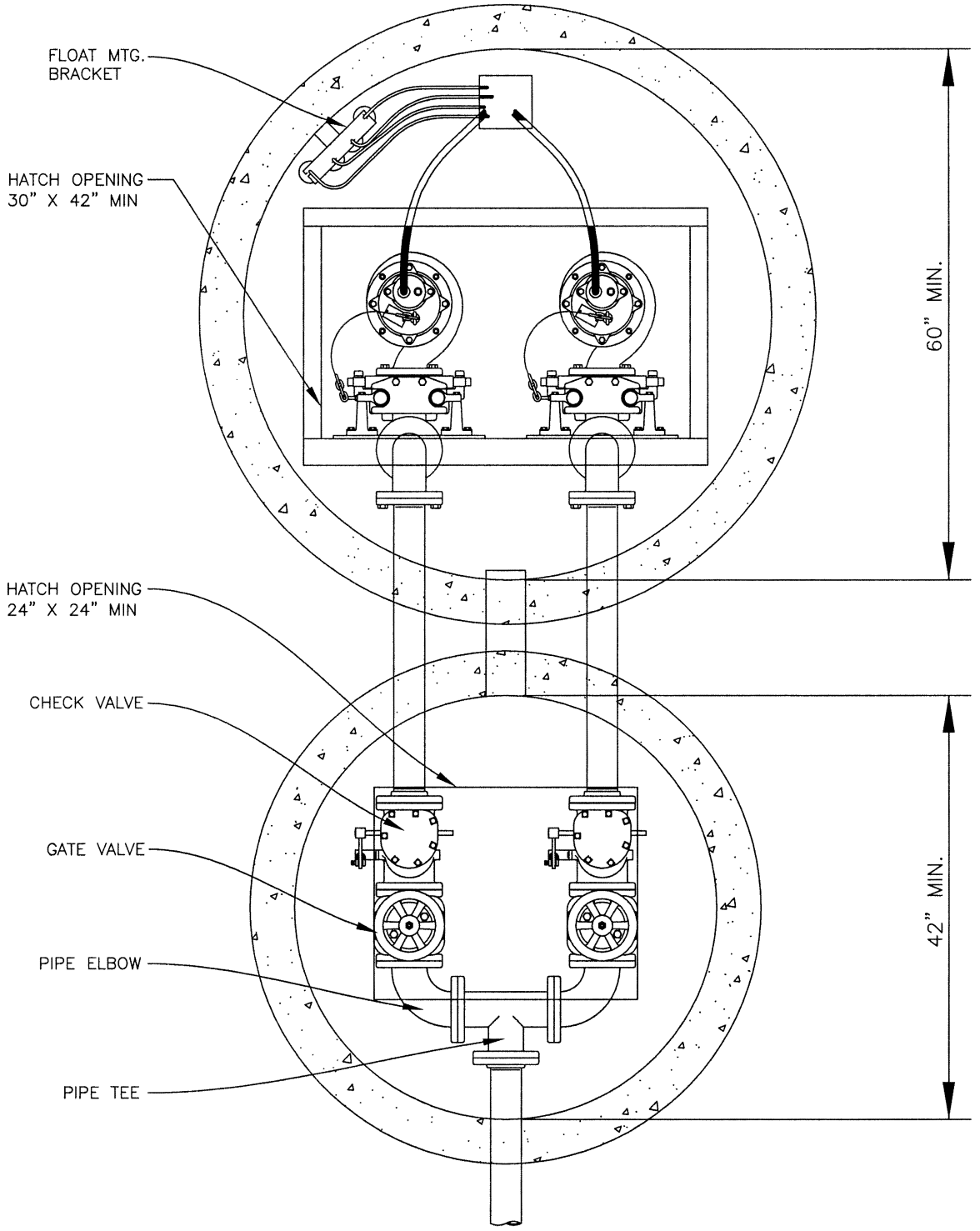
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|---|---|---|---|---|---|
| . | . | DESIGNED BY: K.L.H. | | | |
| . | . | DRAWN BY: B.D.H. | | | |
| . | . | CHECKED BY: A.A. | | | |




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| Revisions Date | Desc | 4-30-2009 | COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD | DUPLEX PUMP STATION | PLATE NO. D-7 |
|---|---|---|---|---|---|
| . | . | DESIGNED BY: F.E.M. | | | |
| . | . | DRAWN BY: B.D.H | | | |
| . | . | CHECKED BY: K.L.H. | | | |
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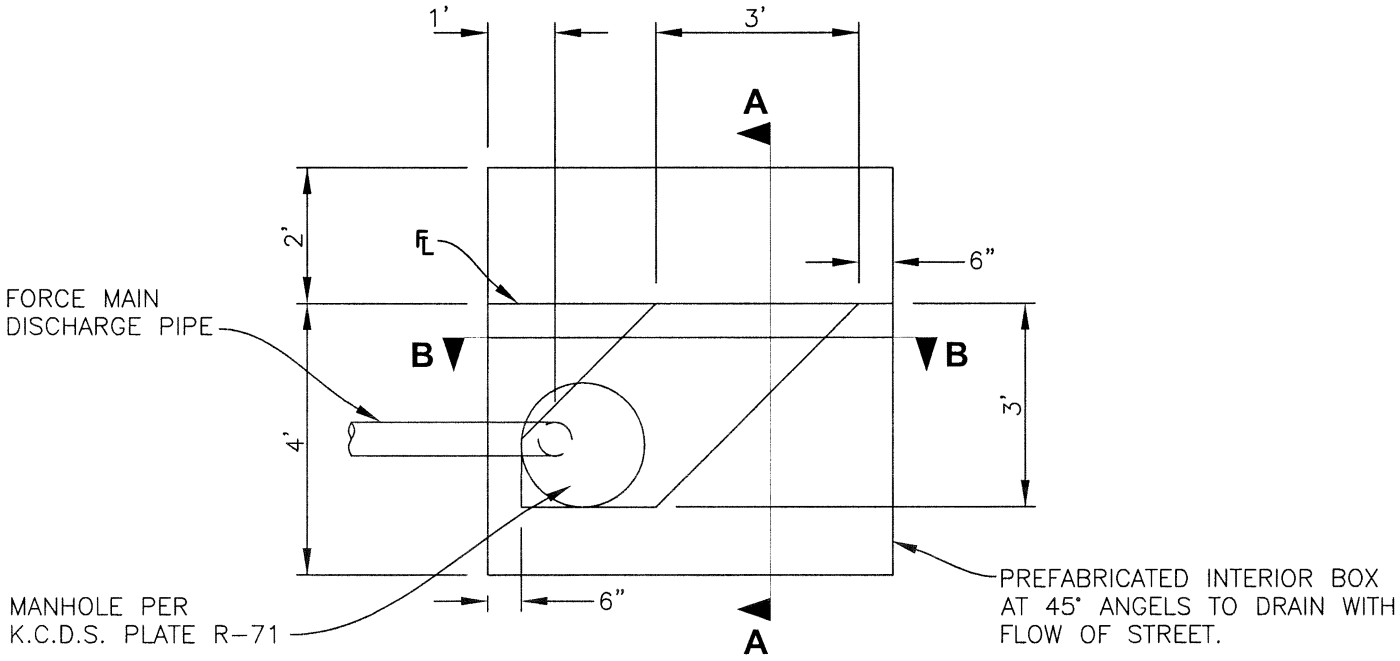



*MODIFIED FROM FEMyers.com NON-CLOG, 3" DISCHARGE, DUPLEX PUMP INSTALLATION DRAWING ESS-2228b

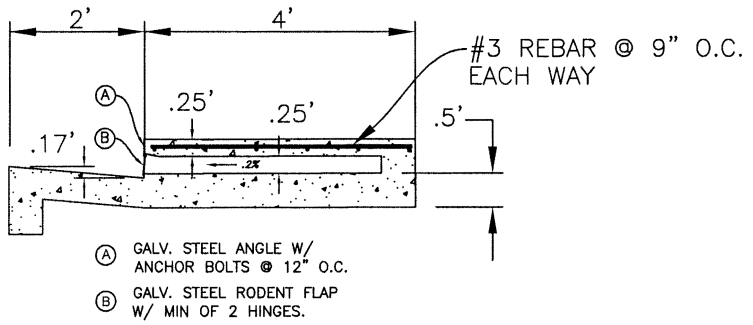
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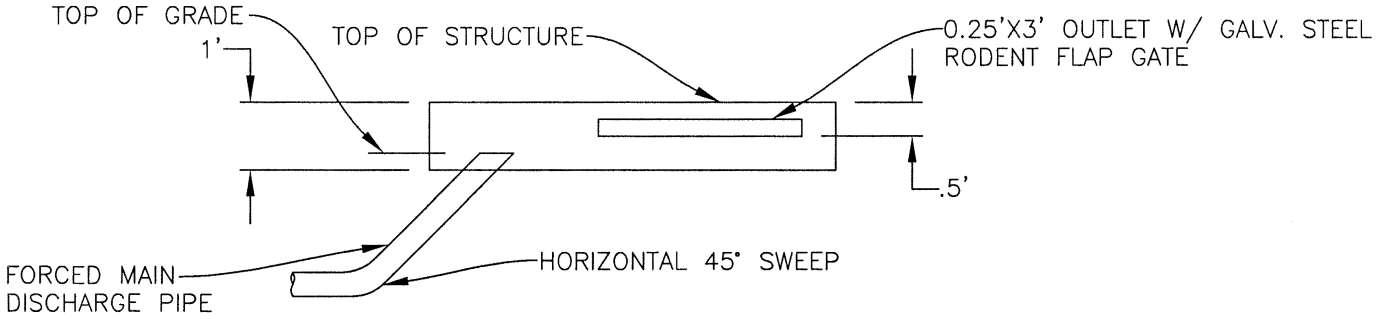
| Revisions Date | Desc | 4-30-2009 | COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD | PLAN VIEW DUPLEX PUMPS | PLATE NO. D-8 |
|---|---|---|---|---|---|
| . | . | DESIGNED BY: F.E.M. | | | |
| . | . | | | | |
| . | . | DRAWN BY: B.D.H. | | | |
| . | . | | | | |
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## DISCHARGE STRUCTURE




## SECTION A-A

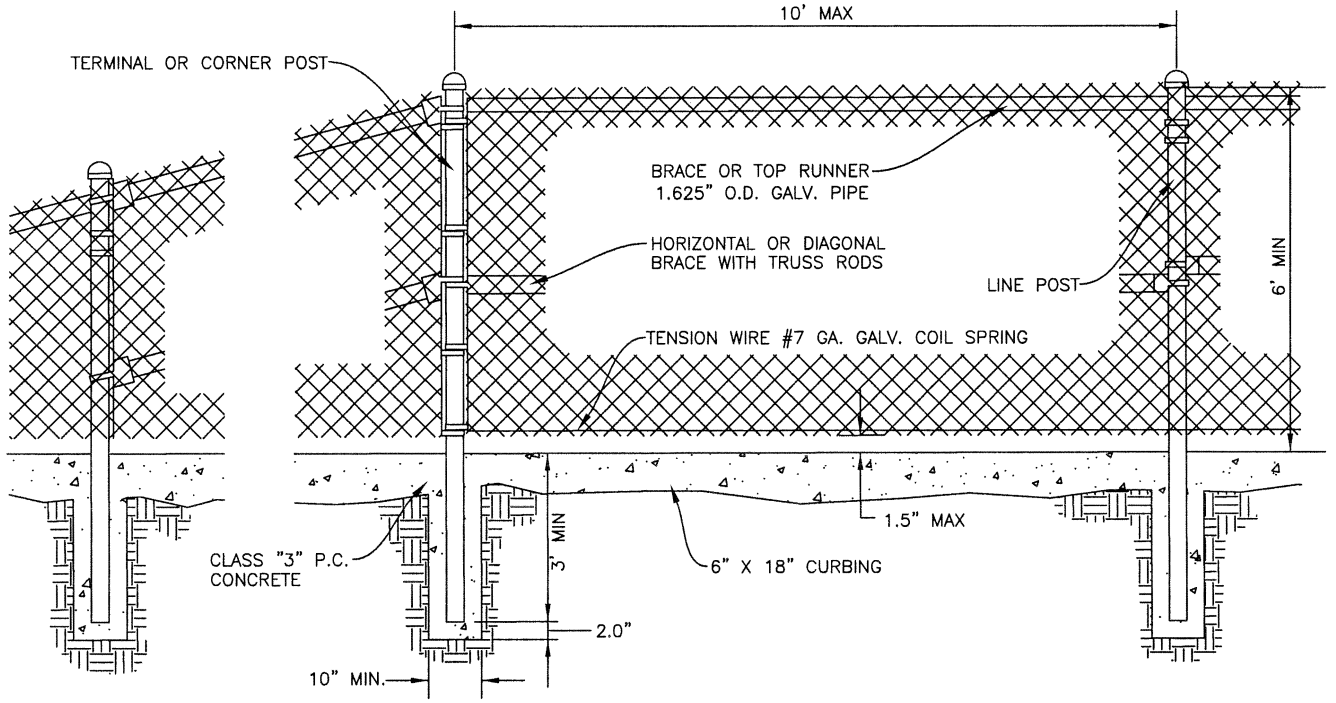



## SECTION B-B

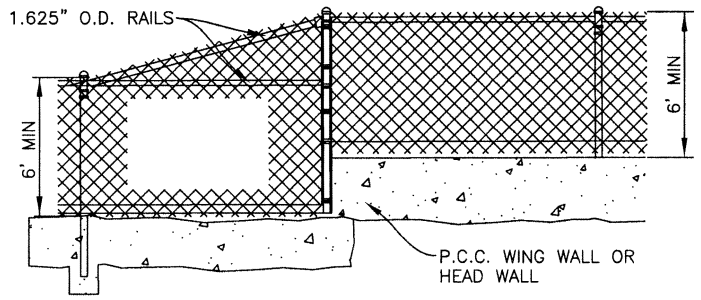
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| Revisions Date | Desc | 4-30-2009 | COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD | PUMP STATION DISCHARGE STRUCTURE | PLATE NO. D-9 |
|---|---|---|---|---|---|
| | | DESIGNED BY: K.L.H. | | | |
| | | DRAWN BY: B.D.H. | | | |
| | | CHECKED BY: A.A. | | | |




## TYPICAL CHAIN LINK FENCE DETAIL




## TYPICAL DETAIL AT CULVERT ENDWALLS

## FENCING SPECIFICATIONS:

1. FENCING FABRIC SHALL BE 9 GUAGE, 2" MESH, AFTER WEAVING, KNUCKLED TOP AND BOTTOM, 6' HIGH GALV.
2. CORNER POSTS SHALL BE 2–⅞" O.D. GALV. PIPE.
3. LINE POST 2–⅜" O.D. GALV. PIPE.
4. PRIVACY SLATS SHALL BE 2–$\frac{3}{16}$" X ¼".

## NOTES:

1. INSTALLATION OF FENCING AND GATES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "STANDARD SPECIFICATION, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION," APPROVED CURRENT EDITION.
2. CONCRETE CURBING SHALL BE CONSTRUCTED UNDER ALL FENCES. CURBING SHALL BE 6" X 18", CLASS 3 CONCRETE.
3. CORNER POST SHALL BE INSTALLED AT ALL ANGLES IN FENCE LINE IN EXCESS OF 10".
4. END, CORNER, AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALV. DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALV. 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENER USED AS TENSION MEMBERS.
5. FABRIC SHALL BE FASTENED TO GATE POST, TERMINAL POST, OR CORNER POST WITH 3" X 3/4" STRETCHER BAR BONDS AT 8" ON CENTER.
6. FABRIC SHALL BE FASTENED TO LINE POST, LAST RUNNER, AND BOTTOM TENSION WIRES WITH FABRIC BONDS SPACED APPROX. 14" APART.
7. FABRIC SHALL CONFORM TO ASTM A–392, CLASS 1.
8. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 85% TO A DEPTH OF 0.5"
9. WHEN REDWOOD SUBURBAN SCREEN, OR EQUIVALENT IS REQUIRED IT SHALL BE CONSTRUCTED SO THAT THE SLATS ARE LOCKED INTO POSITION AND CAN ONLY BE REMOVED WITH TOOLS.
10. FENCE FABRIC IS TO BE TACK WELDED TO POSTS IN THREE PLACES (TOP, CENTER, AND BOTTOM). FENCE HARDWARE IS TO BE TACK WELDED AND GROUND SMOOTH. ALL EXPOSED METAL PARTS ARE TO BE GALV. PRIOR TO INSTALLATION.

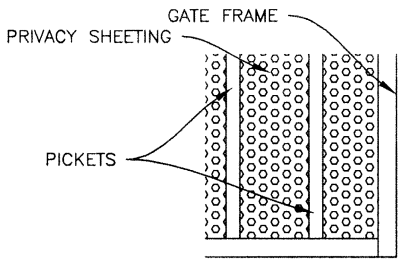
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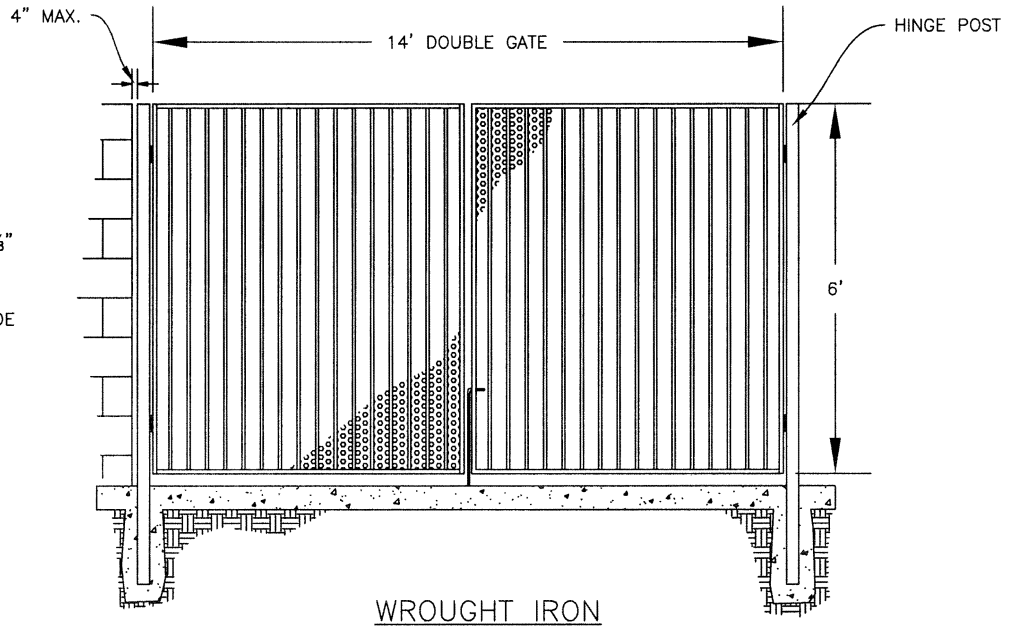
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|---|---|---|---|---|---|
| . | . | DESIGNED BY: K.L.H. | | | |
| . | . | DRAWN BY: B.D.H. | | | |
| . | . | CHECKED BY: A.A. | | | |
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## WROUGHT IRON GATE SPECS:

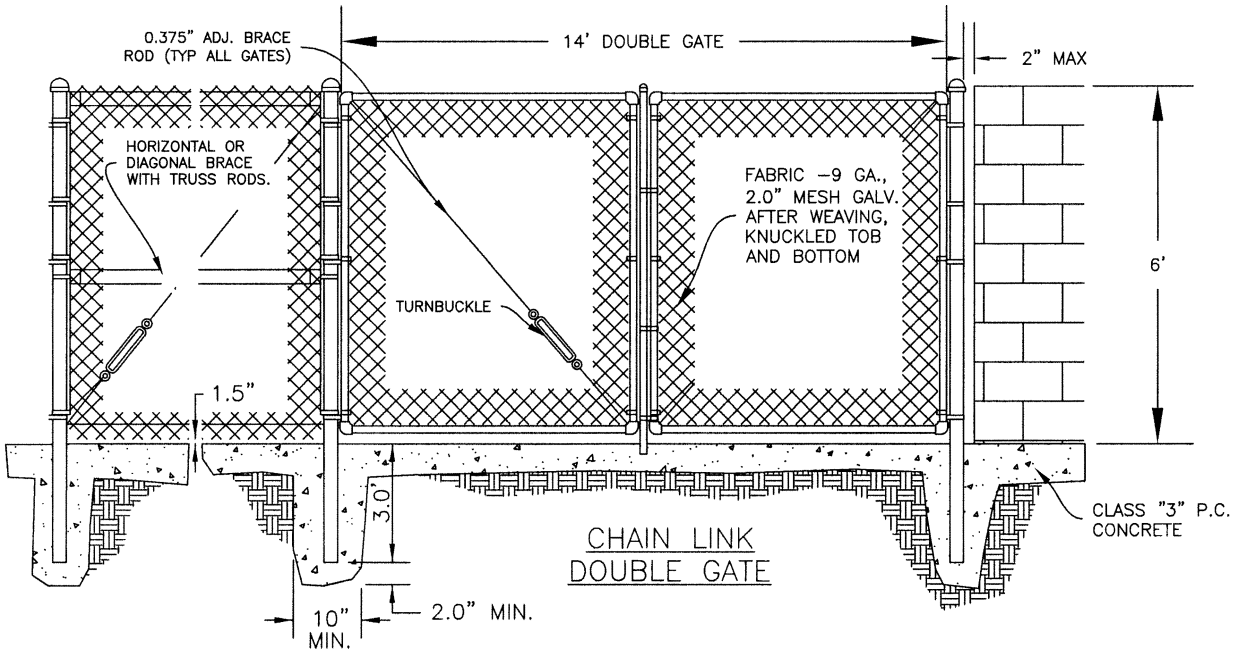
1. HINGE POST SHALL BE A MIN. OF 4x4x 3/16" SQ TUBING.
2. GATE FRAME SHALL BE A MIN. 1-1/2" SQ. TUBING.
3. PICKETS SHALL BE A MIN. 3/4" SQ TUBING WITH 4" MAX CLEAR DIMENSION.
4. PRIVACY SHEETING SHALL BE PERFORATED SHEET METAL, 24 GAUGE, 1/16" DIM HOLE, 1/8" STAGGERED CENTER.
5. GATE SHALL BE A 14' DOUBLE GATE.
6. GATE LATCH SHALL HAVE COMMERCIAL GRADE LOCKING DEVICE FOR 3/8" PADLOCK SHANK OR A LICKING DEVICE THAT CAN BE KEYED TO THE STANDARD K.C.E.S.S. KEY-CORE.




PRIVACY SHEETING DETAIL




WROUGHT IRON DOUBLE GATE




CHAIN LINK DOUBLE GATE

## DOUBLE DRIVE GATE

WIDTH-14'
HEIGHT-6'
FRAME-1.875" O.D. GALV. PIPE 2.72LB/FT
COMMERCIAL LOCKING DEVICE WITH DROP ROD

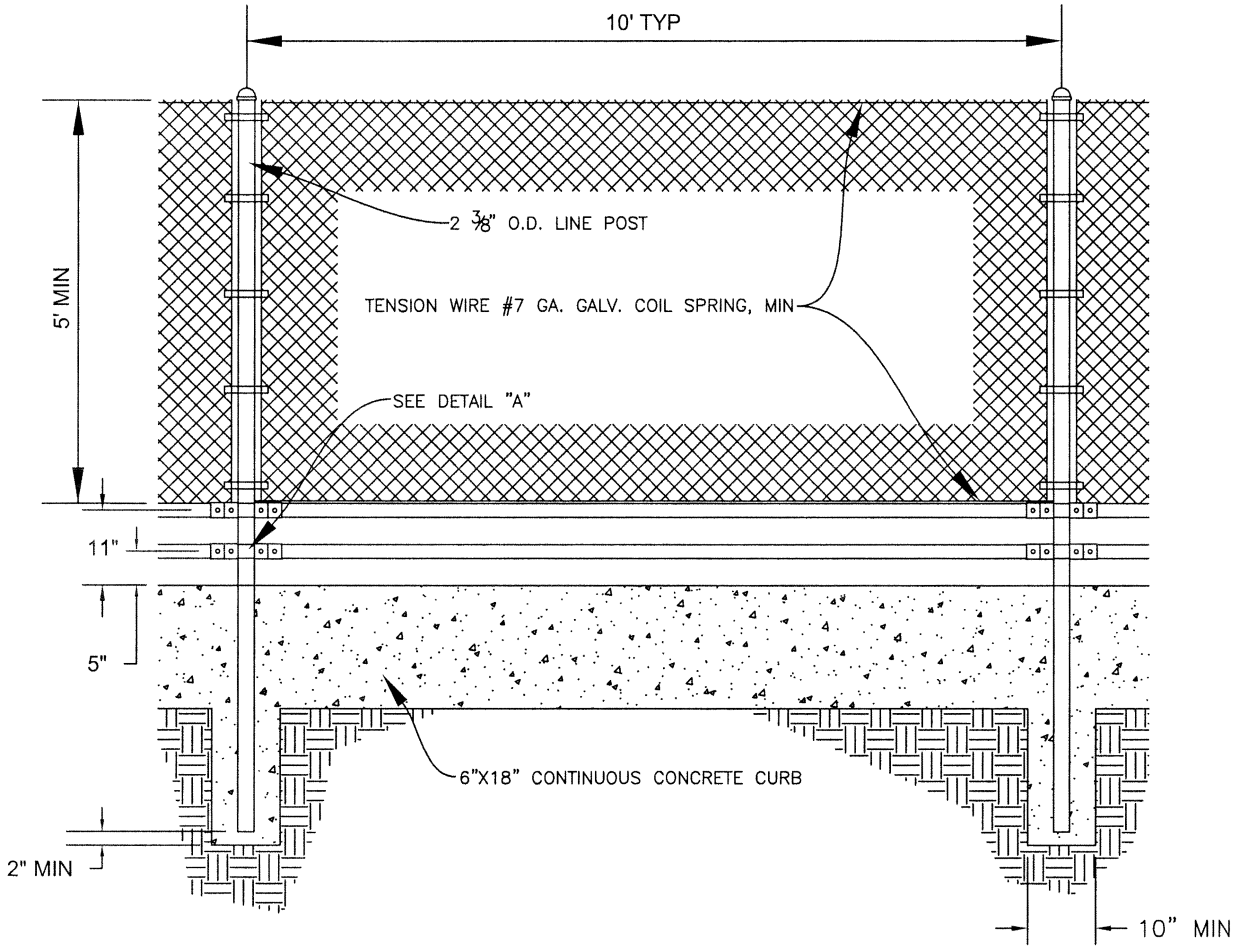
## NOTES:

1. CURBING AS SPECIFIED BY COUNTY OF KERN DEVELOPMENT STANDARDS, PLATE D-2.
2. END, CORNER, AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALV. DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALV. 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENERS USED AS TENSION MEMBERS.
3. WHEN REDWOOD SUBURBAN SCREEN, OR EQUIVALENT, IS REQUIRED IT SHALL BE CONSTRUCTED SO THAT THE SLATS ARE LOCKED INTO POSITION AND CAN ONLY BE REMOVED WITH TOOLS.
4. FRAMES SHALL BE MADE WITH FITTINGS OR WELDS GROUND SMOOTH, AND GALVANIZED.
5. CHAIN LINK FENCE FABRIC SHALL CONFORM TO ASTM: A-392, CLASS 1, AND BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 80-4 OF THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", APPROVED CURRENT EDITION.

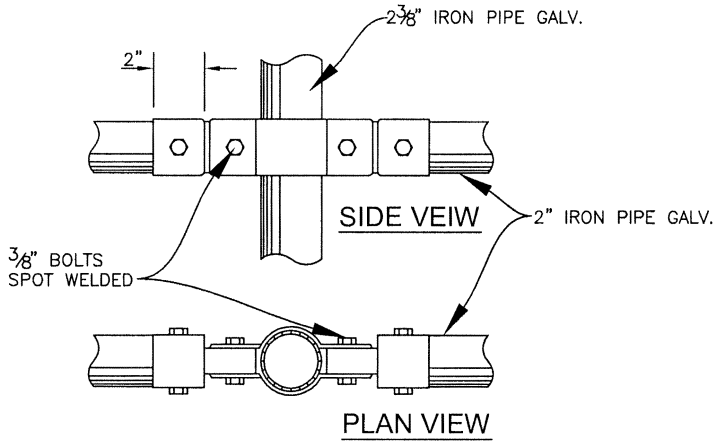
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| Revisions Date | Desc | 6-6-2009 | COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD | DOUBLE GATE SPECIFICATIONS | PLATE NO. D-11 |
|---|---|---|---|---|---|
| . | . | DESIGNED BY: K.L.H. | | | |
| . | . | DRAWN BY: B.D.H. | | | |
| . | . | CHECKED BY: A.A. | | | |




# TRANSVERSE PROTECTION BAR




# DETAIL "A"

NOTES:

1. ALL CONCRETE SHALL BE CLASS 3.
2. SEE PLATE D-10 FOR ADDITIONAL FENCE DETAILS.
3. ALL EXPOSED METAL PARTS ARE TO BE GALV PRIOR TO INSTALLATION.
4. HARDWARE IS TO BE TACK WELDED AND GROUND SMOOTH AND GALV.
5. SEE PLATE D-2 FOR RODENT BARRIER DETAILS.

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| Revisions Date | Desc | 6-5-2009 | COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD | FLOOD ZONE FENCING SPECIFICATIONS | PLATE NO. D-12 |
|---|---|---|---|---|---|
| . | . | DESIGNED BY: K.L.H. | | | |
| . | . | DRAWN BY: B.D.H. | | | |
| . | . | CHECKED BY: A,J.L. | | | |
| . | . | | | | |
| . | . | | | | |

# Appendix I

## CEQA Hydrology and Water Quality Assessment

| IX. HYDROLOGY AND WATER QUALITY -- Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impac | No Impact |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? | ❒ | ❒ | ❒ | ☒ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level<br>which would not support existing land uses or planned uses for which permits have been granted)? | ❒ | ❒ | ❒ | ☒ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ❒ | ❒ | ❒ | ☒ |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ❒ | ❒ | ❒ | ☒ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ❒ | ❒ | ❒ | ☒ |
| f) Otherwise substantially degrade water quality? | ❒ | ❒ | ❒ | ☒ |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ❒ | ❒ | ❒ | ☒ |

| | | | | |
|---|---|---|---|---|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ❒ | ❒ | ❒ | ☒ |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | ❒ | ❒ | ❒ | ☒ |
| j) Inundation by seiche, tsunami, or mudflow? | ❒ | ❒ | ❒ | ☒ |

Appendix I.2

# Water Supply Assessment

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# Water Supply Assessment

# Buttonbush Solar & Storage Project

**MAY 2025**

*Prepared for:*

**29SC 8ME LLC**
4370 Town Center Blvd. Suite 110
El Dorado Hills, California 95762
*Contact: Kevin Brokish*

*Prepared by:*

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Printed on 30% post-consumer recycled material.

# Table of Contents

**SECTION** **PAGE NO.**

Acronyms and Abbreviations ..... iv

1 Introduction ..... 1
1.1 Purpose of Document ..... 1
1.2 Project Description and Location ..... 1
1.3 Water Supply Assessment Applicability ..... 2
1.3.1 Identification of a Public Water System ..... 3
1.3.2 Urban Water Management Plan Coverage ..... 3
1.3.3 Groundwater as a Component of Project Water Supply ..... 4
1.3.4 Sufficiency of Supplies Over the Next 20 Years ..... 4

2 Project Water Demand ..... 5

3 Water Supply Assessment ..... 6
3.1 Water Resources ..... 6
3.1.1 Surface Water ..... 6
3.1.2 Groundwater ..... 6
3.1.3 Imported Water ..... 9
3.1.4 Recycled Water ..... 11
3.2 Water Resources Plans and Programs ..... 11
3.2.1 Sustainable Groundwater Management Act ..... 11
3.2.2 Integrated Regional Water Management Plan ..... 12
3.3 Water Supply Availability ..... 13
3.3.1 Existing Water Use ..... 13
3.3.2 Imported Water Availability ..... 15
3.3.3 Groundwater Availability ..... 16
3.3.4 Water Supply and Demand Comparison ..... 16

4 Conclusion ..... 17

5 References ..... 18

## TABLES

1 Project Water Demand ..... 5
2 On-Site Groundwater Wells ..... 8
3 Monthly Average Reference Evapotranspiration for Zone 15 ..... 14
4 Crop Types and Coefficients ..... 14
5 Crop Evapotranspiration and Estimated Historical Water Demand Summary ..... 15

6 Water Supply and Demand Comparison ..... 16

## FIGURES

1 Project Location ..... 21
2 Water Agencies ..... 23
3 Groundwater Basins ..... 25
4 Hydrologic Areas ..... 27
5 Geologic Setting ..... 29
6 Groundwater Levels ..... 31
7 Groundwater Wells ..... 33
8 Crop Types ..... 35

## APPENDICES

A Will-Serve Letter
B Well Logs

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| AF | acre-feet |
| AFY | acre-feet per year |
| AWMP | Agricultural Water Management Plan |
| bgs | below ground surface |
| BCWD | Buttonwillow County Water District |
| BVWSD | Buena Vista Water Storage District |
| CEQA | California Environmental Quality Act |
| County | Kern County |
| CWC | California Water Code |
| DWR | California Department of Water Resources |
| ETc | crop evapotranspiration |
| ETo | reference evapotranspiration |
| GSA | Groundwater Sustainability Agency |
| GSP | Groundwater Sustainability Plan |
| IRWMP | Integrated Regional Water Management Plan |
| Kc | crop coefficient |
| KCWA | Kern County Water Agency |
| KGA | Kern Groundwater Authority |
| mg/L | milligrams per liter |
| O&M | Operations and maintenance |
| Project | Buttonbush Solar and Storage Project |
| RRBWSD | Rosedale-Rio Bravo Water Storage District |
| SB | Senate Bill |
| SGMA | Sustainable Groundwater Management Act |
| Subbasin | Kern County Groundwater Subbasin |
| SWP | State Water Projects |
| SWSD | Semitropic Water Storage District |
| TDS | total dissolved solids |
| UWMP | Urban Water Management Plan |
| WSA | Water Supply Assessment |

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# 1 Introduction

## 1.1 Purpose of Document

Senate Bill (SB) 610 was passed on January 1, 2002, amending the California Water Code (CWC) to require detailed analysis of water supply availability for certain types of development projects. The primary purpose of SB 610 is to improve the linkage between water and land use planning by ensuring greater communication between water providers and local planning agencies, and to ensure that land use decisions for certain large development projects are fully informed as to whether a sufficient water supply is available to meet project demands. SB 610 requires preparation of a Water Supply Assessment (WSA) for a project that is subject to the California Environmental Quality Act (CEQA) and meets certain requirements. SB 610 is codified in CWC Division 6, Part 2.10 (Sections 10910–10915).

Kern County (County), acting as leady agency, has determined that the Buttonbush Solar Project (Project) is subject to CEQA. The Project satisfies the statutory definition of a "project" for the purpose of determining SB 610 applicability, because it is considered an industrial facility in excess of 40 acres in size, per CWC Section 10912(a)(5). Furthermore, because the Project is not within the service area of a public water system, as defined in CWC Section 10912(c),1 Kern County as CEQA lead agency is responsible for the preparation of this WSA, which will be included in the CEQA documentation for consideration. In compliance with SB 610, this report examines the availability of the identified water supply under normal-year, single-dry-year, and multiple-dry-year conditions over a 20-year projection, accounting for the projected water demand of the Project in addition to other existing and planned future uses of the identified water supply.

## 1.2 Project Description and Location

The Project, as proposed by 29SC 8me LLC (project proponent), would be located on 128 parcels across a leased area of approximately 11,983 acres within a 13,868-acre gross parcel boundary of privately owned land currently under agricultural use in the valley region of Kern County (Figure 1). The Project includes the construction and operation of a photovoltaic solar facility and associated infrastructure necessary to generate up to 2 gigawatts of alternating current power with an up to 2-gigawatt battery energy storage system. Additional components of the Project include solar modules and racking, inverters, transformers, service roads, a power collection system, communication cables, microwave/ radio towers, meteorological stations, a generation-transmission line with optical ground wire and overhead and underground transmission lines, electrical switchyards, project substations, security fencing, use of onsite water wells, and operations and maintenance (O&M) facilities.

The Project would be supported by one or more 500 kilovolt generation transmission lines originating from one or more on-site substations and terminating at the existing PG&E Midway Substation. The Project study area includes the development footprint and generation transmission/collector line, which includes a 200-foot corridor. PG&E will modify the Midway Substation's 500 kilovolt yard within their property boundary to accommodate the proposed Project's interconnection. The PG&E Midway Substation parcels comprise approximately 255 acres; however, only a small portion, up to 38.6 acres, will be impacted by the proposed Project. PG&E will install and trench underground several fiber-optic lines to the west of the generation transmission line route to facilitate communication between the Midway Substation and the Point of Change of Ownership,

approximately 0.25-mile northwest. Up to four 175-foot-tall lattice steel towers or tubular steel poles would support the proposed transmission line and the Project's interconnection.

The Project site is in unincorporated Kern County directly north of the community of Buttonwillow, approximately 2 miles west of the City of Shafter and approximately 7 miles southwest of the City of Wasco. The Project site straddles Interstate 5 east of Buttonwillow Raceway Park, just north of State Route 58, and south of State Route-46. Several single-family homes and agriculture-related structures are near the Project boundary. Properties within the Project include a dairy, a few single-family homes, and some varied structures for agricultural use, all of which would be removed during Project construction. Vehicular access to the site would likely be from Wasco Way, Merced Avenue, Lerdo Highway, Rowlee Road, Wildwood Road, Riverside Street, Burbank Street, Buttonwillow Drive, 7th Standard Road, Snow Road, State Route 58, and Sullivan Road. Many dirt roads crisscross the Project site.

The proposed facilities are expected to be operational for up to 35 years. The full Project description is provided in the Project's CEQA environmental impact report and should be referenced for additional details regarding the Project description.

## 1.3 Water Supply Assessment Applicability

SB 610 amended CWC Sections 10910 and 10912 to create a direct relationship between water supply and land use. SB 610 establishes the legal framework for assessing the sufficiency of water supply for new development which qualify as a "project". Per CWC Section 10912(a), a "project" means any of the following:

- Proposed residential development of more than 500 dwelling units.
- Proposed shopping center or business establishment employing more than 1,000 persons, or having more than 500,000 square-feet of floor space.
- Proposed commercial office building employing more than 1,000 persons or having more than 250,000 square-feet of floor space.
- Proposed hotel or motel or both, having more than 500 rooms.
- Proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square-feet of floor area.
- Proposed mixed-use project that includes one or more of the above components.
- Proposed project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. (CWC Section 10912(a)).

The Project qualifies as a "project" per CWC Section 10912(a) because it is a proposed industrial, manufacturing, or processing plant, or industrial park that occupies more than 40 acres of land, and has more than 650,000 square-feet of floor space. The CWC, as amended by SB 610, requires that a WSA address the following questions:

- Is there a public water system that will service the project?
- Is there a current Urban Water Management Plan (UWMP) that accounts for the project demand?
- Is groundwater a component of the supplies for the project?
- Are there sufficient supplies to serve the project over the next 20 years?

The primary question to be answered in a WSA per the requirements of SB 610 is: *Will the total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection meet the projected water demand of the proposed project, in addition to existing and planned future uses of the identified water supplies, including agricultural and manufacturing uses?*

The response to this question also informs and assists the lead agency in responding to the CEQA Guidelines Utilities and Service Systems question: *Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

### 1.3.1 Identification of a Public Water System

Section 10912 of the CWC defines a "public water system" as a system that has 3,000 or more service connections and provides piped water to the public for human consumption. Under SB 610, WSA reports must be prepared and furnished to local governments by the water utility serving that community for inclusion in any environmental documentation for projects meeting the specified requirements under Section 10912 (a) of the CWC and subject to CEQA. According to CWC Section 10910 (g)(1), "[…] the governing body of each public water system, or the city or county if either is required to comply with this act […] shall approve the assessment prepared pursuant to this section at a regular or special meeting." According to SB 610, the public water system serving the Project area is required to prepare the WSA report.

The Project site has no connection to and is not within the service area of a public water system as defined by CWC Section 10912. The Project site is, however, located within the service area of three water agencies including Kern County Water Agency (KCWA), Semitropic Water Storage District (SWSD), and Rosedale-Rio Bravo Water Storage District (RRBWSD). Additionally, the portion of the Project site occupied by the Midway Substation intersects the service area of Buena Vista Water Storage District (BVWSD) and Buttonwillow County Water District (BCWD), a community water system. The majority of the Project site is located within SWSD (Figure 2). A description of these water districts is provided in Section 3.1.3.

### 1.3.2 Urban Water Management Plan Coverage

Urban Water Management Plans are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies. UWMPs must be updated and submitted to the California Department of Water Resources (DWR) every 5 years for review and approval. DWR has identified the UWMP as a foundational document in the preparation of a WSA, noting that a thorough UWMP can provide the required information to fulfill the standards set forth by SB 610. Every urban water supplier that either delivers more than 3,000 AF per year (AFY) of water annually or serves more than 3,000 connections is required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and multiple dry-year scenarios; these are the same requirements of a WSA, as specified by SB 610. A WSA may also rely on additional water supply data beyond the information in the UWMP.

There are no urban water suppliers in the vicinity of the Project site. The SWSD is a publicly owned agricultural water supplier.[1] Agricultural water suppliers are required to submit to DWR an Agricultural Water Management Plan (AWMP), which are similar to an UWMP. Per CWC Section 10826, AWMPs must include a description of the service

[1] An agricultural water supplier is defined as a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding the acreage that receives recycled water.

area, quantity and quality of water supplies, annual water budget, analysis of the effect of climate change on supplies, description of water management activities, identification of water management objectives, information regarding efficient water management practices, and quantification of the efficiency of agricultural water use. This WSA uses information provided in SWSD's AWMP, where applicable, to assess water supply availability.

### 1.3.3 Groundwater as a Component of Project Water Supply

Groundwater is a potential source of water supply for the Project. The Project overlies the San Joaquin Valley Groundwater Basin – Kern County Subbasin (DWR Basin No. 5-022.14; Figure 3). Should groundwater serve as a component of water supply for the Project, it would be obtained from on-site or off-site well(s) that pump from the Kern County Groundwater Subbasin (Subbasin). This groundwater resource is described in detail in Section 3.1, and water supply availability is discussed in Section 3.3.

### 1.3.4 Sufficiency of Supplies Over the Next 20 Years

As described in Section 3.3, there is adequate water available to supply the proposed Project under normal-year, single-dry-year, and multiple-dry-year conditions over a 20-year projection, accounting for the projected water demand of the Project plus other existing and planned future uses of the identified water supply.

# 2 Project Water Demand

The Project would require up to 3,500 AF of water to support construction over a 3.5-year period and up to 7 AFY over a 35-year period to support O&M activities.[2] The total Project water demand is an estimated 3,745 AF, or approximately 97 AFY when amortized over the entire life of the Project from the start of construction to end of operation. The estimated water demand for each phase of the Project is provided in Table 1.

**Table 1. Project Water Demand**

| Phase/Activity | Estimated Time Period | Estimated Annual Water Demand (acre-feet) | Total Estimated Water Demand (acre-feet) |
|---|---|---|---|
| **Construction** | | | |
| Grading and dust control | 3.5 years | 1,000 | 3,500 |
| **Operation and Maintenance** | | | |
| Panel washing, miscellaneous facility maintenance, and sanitary facilities (operation and maintenance building) | 35 years | 7 | 245 |
| | | **Total** | **3,745** |

The construction period for the Project from site preparation through construction, testing, and commercial operation is expected to commence as early as the fourth quarter of 2025 and would extend for approximately 30 to 60 months.[3] During construction, water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Total water usage during construction is not expected to exceed 3,500 AF (1,000 AFY).

Water demand for panel washing and O&M domestic use is not expected to exceed 7 AFY. SWSD has agreed to supply construction water for the Project (Appendix A). The water would be delivered at district turnouts on the Project site via SWSD's existing water infrastructure network. Additional water may be obtained from new or existing onsite wells or one or more off-site source(s) and delivered to the Project site via truck. If off-site water is used, it would likely be obtained from a commercial source.

One or more plastic or steel above-ground water storage tanks may be placed on-site near the O&M building(s) and or the energy storage system yard(s). The storage tank(s) near the O&M building(s) and energy storage system yard(s) would be sized in accordance with Kern County and fire department requirements and have the appropriate fire department connections to be used for fire suppression purposes.

[2] Construction is anticipated to occur over an up to 5-year period in phases and require up to 3,500 acre-feet total; however, for purposes of this WSA, construction is conservatively assumed to occur over a 3.5-year period with up to 1,000 acre-feet of water used per year.

[3] While construction could last up to 60 months, intensive water use would only last for approximately 42 months (3.5 years).

# 3 Water Supply Assessment

A WSA is required to identify and describe the water supply source(s) that will serve the proposed project. CWC Section 10910(d) requires a WSA to include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years if the source is a public water supplier.

## 3.1 Water Resources

### 3.1.1 Surface Water

The Project site is located in the West Side Canal, Goose Lake Slough-Jerry Slough, and Lower Poso Creek watersheds which are contained within the Tulare Lake Bed and Upper Poso hydrologic subbasins (Figure 4). The Kern River and Poso Creek are the two main natural surface water ways that flow into the Subbasin, both of which originate in the Sierra Nevada. The Kern River is located over 8 miles southeast of the Project site and Poso Creek is located more than 12 miles northeast (Figure 4).

The only natural surface water feature in the vicinity of the Project site is the Jerry Slough, an intermittent drainage that flows through the middle of the northern portion of the Project site. Other surface water features in the Project area consist of manmade conveyances and include the California Aqueduct, East Side Canal, Main Canal, and several other canals. The California Aqueduct is located approximately 4 miles west of the Project site (Figure 4).

The Project site currently receives State Water Project (SWP) water which is delivered by the water agencies that serve the Project area. SWP water is considered an imported source of water supply and is discussed further in Section 3.1.3. The Project site does not receive local surface water deliveries from a water agency.

### 3.1.2 Groundwater

The Project overlies the San Joaquin Valley Groundwater Basin – Kern County Subbasin (Figure 3). The Subbasin covers approximately 1.8 million acres or 2,785 square miles. The Subbasin is bounded by the Temblor Range on the west; the Sierra Nevada Mountains on the east; the Tulare Lake and Tule groundwater subbasins on the north; and the San Emigdio Mountains, Tejon Hills, and the White Wolf groundwater subbasin on the south (Figure 3). The Subbasin receives an annual average of 5 inches of precipitation at the Subbasin interior, and 9 to 13 inches of precipitation along the Subbasin margins (DWR 2006).

#### Hydrogeologic Setting

The Subbasin is located in a structural trough filled with tens of thousands of feet of marine and continental sediments. The major water bearing formations within the Subbasin are Tertiary and Quaternary age continental to marine deposits (Figure 5).[4] The water bearing formations within the Subbasin include the Olcese and Santa Margarita Formations, the Tulare Formation, the Kern River Formation, and alluvial and flood deposits (DWR 2006).

[4] The Tertiary period lasted from about 66 million to 2.6 million years ago and the Quaternary spans from about 2.58 million years ago to the present.

The formations are known to be many thousands of feet thick, but only the upper few thousand feet are considered part of the Subbasin (DWR 2006; KGA 2022). The geologic materials at the Project site include Pliocene to Pleistocene sandstone, shale, and gravel deposits and younger alluvial and flood deposits.[5] Additionally, the Corcoran Clay, a regional fine-grained clay deposit of lacustrine origin, underlies much of the Project site (Figure 5).

Groundwater flow in the Subbasin is restricted vertically by the Corcoran Clay, where it exists, and laterally by various faults, folds, bedrock contacts, and angular unconformities (DWR 2006). Major restricting structures include the Edison fault, Pond-Poso fault, White Wolf fault, and the Elk Hills and Buena Vista Hills folds (Figure 5; DWR 2006). The Corcoran Clay separates the upper unconfined aquifer from the lower confined aquifer (DWR 2006). The majority of groundwater production wells in the Project area source water from the confined aquifer below depths of approximately 300 to 400 feet bgs (SWSD 2019).

The base of freshwater in the Subbasin is considered to be the location of groundwater with a specific conductance of 3,000 micromhos per centimeter, or total dissolved solids (TDS) concentration of 2,000 milligrams per liter (mg/L) (KGA 2022). This base of freshwater ranges from approximately 400 feet below ground surface (bgs) in the Lost Hills area and northwest part of the Subbasin to over 4,000 feet bgs west of Arvin and in the southeast part of the Subbasin. The base of freshwater northeast of Buttonwillow and in the vicinity of the Project site is located at approximately 1,000 feet bgs (SWSD 2019; KGA 2022).

Recharge to the Subbasin occurs primarily from irrigation of agricultural areas, and to a lesser extent, from precipitation and stream seepage. Recharge near the Project site occurs through managed and unmanaged recharge through spreading basins, unlined channels, and waterways (SWSD 2019).

The total volume of groundwater in storage in the Subbasin is estimated to be 40 million AF (DWR 2006). The sustainable yield of the Subbasin is approximately 1,313,000 AFY and native yield is approximately 259,520 AFY (KGA 2022).

## Groundwater Levels

Groundwater levels in the Subbasin generally decline during dry years and increase during wet years, although trends vary locally throughout the Subbasin (DWR 2006). Between 1970 and 2000, average groundwater levels in the Subbasin remained essentially unchanged (DWR 2006). Since 2000, groundwater levels have steadily declined reaching historical lows in recent years (SWSD 2019).

In the Project area, groundwater levels fluctuate based on climatic conditions and the availability of imported water (SWSD 2019). Figure 6 shows groundwater levels for several wells in the vicinity of the Project site. The location of the wells is shown in Figure 7. Current depth to groundwater in the wells ranges from approximately 140 to 345 feet bgs. Groundwater levels in the wells fluctuate on a seasonal basis by approximately 10 to 20 feet. Groundwater levels reached historical lows during the 2012–2016 drought, but have generally remained relatively stable since 2016 (Figure 6).

[5] The Pliocene epoch lasted from about 5.33 to 2.58 million years ago and the Pleistocene epoch lasted from about 2.58 million to 11,700 years ago.

## Groundwater Quality

Groundwater in the eastern portion of the Subbasin is characterized as calcium bicarbonate type in the shallow zones and increases in sodium with depth. Groundwater in the western portion of the Subbasin is characterized as sodium sulfate to calcium-sodium sulfate type. TDS concentrations in the Subbasin range from approximately 150 to 5,000 mg/L while the average TDS concentration is approximately 425 mg/L (DWR 2006).

The primary groundwater quality constituents of concern in the Subbasin include arsenic, nitrate, boron, hexavalent chromium, TDS, sodium, chloride, Dibromochloropropane, and 1,2,3-Trichloropropane (DWR 2006; KGA 2022). Arsenic, boron, and hexavalent chromium are naturally occurring in the Subbasin. Nitrate, TDS, sodium, and chloride are also naturally occurring but tend to be found at higher concentrations in areas with anthropogenic activity. Dibromochloropropane and 1,2,3-Trichloropropane are synthetic organic chemicals that were historically used in agricultural and limited industrial applications and are still present at elevated concentrations in some areas of the Subbasin (SWSD 2019; KGA 2022). In general, concentrations of the above constituents of concern are highest along the axial trough of the Subbasin, from Arvin in the south to McFarland in the north (DWR 2006; KGA 2022). Elevated arsenic concentrations exist in areas of the Subbasin where lakebed deposits or the Corcoran Clay are present (DWR 2006).

Groundwater quality in the Project area is generally considered good to excellent (SWSD 2021). TDS concentrations range from about 100 to 350 mg/L and tend to be higher towards the western boundary of the Subbasin (SWSD 2021; RRBWSD 2022). The primary groundwater quality concerns are salinity (i.e., sodium and chloride) and arsenic (SWSD 2019). Sodium, chloride, and arsenic concentrations are higher in wells screened in the upper unconfined aquifer as compared to wells screened in the lower confined aquifer below the Corcoran Clay (SWSD 2019).

## Groundwater Wells

Based on available well location information from public databases, there are approximately 223 wells on and within a 2-mile radius of the Project site including 21 public supply wells, 10 observation wells, 13 irrigation wells, and 179 other/unknown wells (Figure 7; DWR 2023a; SWRCB 2023a). Of the 223 wells, 28 are located on-site (Table 2). Well logs are available for three of the on-site wells and indicate that the wells range in total depth from 600 to 878 feet (Table 2; Appendix B). Well yield information is not available for any of the on-site wells but based on reported yields of wells in the vicinity of the Project, the average well yield is approximately 2,000 gallons per minute (SWSD 2019).

**Table 2. On-Site Groundwater Wells**

| State Well Number | Log Number | Use | Depth | Latitude | Longitude |
|---|---|---|---|---|---|
| 27S23E33J001M | — | Unknown | — | 35.5325 | -119.4927 |
| 28S23E03G001M | — | Unknown | — | 35.5219 | -119.4829 |
| 28S23E03H001M | — | Unknown | — | 35.5219 | -119.4758 |
| 28S23E03H061M | — | Unknown | — | 35.522 | -119.4759 |
| 28S23E03J002M | — | Unknown | — | 35.5217 | -119.4749 |
| 28S23E03N061M | — | Unknown | — | 35.5162 | -119.4935 |
| 28S23E03P001M | — | Unknown | — | 35.5156 | -119.4841 |

| | | | | | |
|---|---|---|---|---|---|
| 28S23E03R002M | — | Unknown | — | 35.515 | -119.4749 |
| 28S23E04H001M | — | Unknown | — | 35.5217 | -119.4927 |
| 28S23E11E002M | — | Unknown | — | 35.5117 | -119.4704 |
| 28S23E11R061M | — | Unknown | — | 35.5007 | -119.4582 |
| 28S24E34D001M | — | Unknown | — | 35.4567 | -119.3815 |
| 28S24E35C001M | — | Observation | — | 35.4561 | -119.3595 |
| 29S23E12R061M | — | Unknown | — | 35.4135 | -119.4484 |
| 29S23E13C001M | — | Unknown | — | 35.4089 | -119.4639 |
| 29S23E13Q001M | — | Unknown | — | 35.4017 | -119.4521 |
| 29S24E02A001M | 22076 | Irrigation | 798 | 35.4417 | -119.3584 |
| 29S24E02B001M | — | Unknown | — | 35.4417 | -119.367 |
| 29S24E02J001M | — | Unknown | — | 35.4344 | -119.3584 |
| 29S24E07C001M | — | Unknown | — | 35.4239 | -119.4384 |
| 29S24E07C002M | — | Unknown | — | 35.4244 | -119.4384 |
| 29S24E11R001M | 97807 | Irrigation | 600 | 35.4131 | -119.359 |
| 29S24E12P001M | — | Unknown | — | 35.4131 | -119.3501 |
| 29S24E13A001M | 23605 | Irrigation | 878 | 35.4128 | -119.3409 |
| 29S24E13F001M | — | Unknown | — | 35.4092 | -119.3501 |
| 29S24E13H001M | — | Unknown | — | 35.4061 | -119.3446 |
| 29S24E14A001M | — | Unknown | — | 35.4117 | -119.3587 |
| 29S24E18A001M | — | Unknown | — | 35.4131 | -119.4298 |

**Source:** DWR 2023a.
**Notes:** — = not available.

### 3.1.3 Imported Water

Imported water supply at the Project site primarily consists of SWP water delivered by the water districts that serve the Project area. The SWP is the nation's largest state-owned water system extending two thirds the length of California and more than 705 miles. DWR manages and operates the SWP to ensure adequate water supplies are available to meet both human and environmental requirements under various hydrologic conditions. The SWP derives its water from rivers and reservoirs in Northern California and the Sacramento-San Joaquin River Delta and delivers water to 750,000 acres of farmland and 27 million people in Central and Southern California. The SWP contractors consist of 29 public entities that have long-term contracts with DWR for all or a portion of their water needs (DWR 2020).

There are four different types of SWP deliveries including Table A, Article 21, carryover, and turnback pool water. Table A allocations are based on each contractors' proportion of the SWP's maximum delivery capability of up to 4,172,786 AFY, as established in long-term water supply contracts developed between DWR and the contractors. Article 21 water is SWP water that contractors may receive on a short-term basis in addition to their Table A water and is generally available in wet water years when a surplus is available. Carryover water is unused Table A water that may be stored in the SWP's share of San Luis Reservoir for the contractor to use in the following year. Turnback pool water is Table A water that is sold to another contractor when a contractor determines their Table A allocation exceeds their water needs for the year (DWR 2020).

The reliability of SWP water delivery varies and depends on a number of factors including rainfall, snowpack, reservoir storage, pumping capacity of SWP facilities, and legal/regulatory restrictions. The current 2023 allocation is 100 percent of Table A water (DWR 2023b).

## Kern County Water Agency

Kern County Water Agency was created by a special act of the California Legislature in 1961 to contract with DWR and import SWP water to the region to supplement groundwater supplies and mitigate overdraft. KCWA is the second largest participant in the SWP and covers the entire Project site and majority of the County. KCWA serves as the local contracting entity for the SWP and has long-term contracts with 13 local water districts, including SWSD, RRBWSD, and BVWSD. Since 1968, KCWA has delivered over 30 million AF of SWP water to the region. In addition to providing SWP to local water districts, KCWA's responsibilities include management of Improvement District No. 4 (urban area of Bakersfield), the Cross Valley Canal, several groundwater banking projects, and a few flood control projects (KCWA 2023).

Groundwater banking is an important water supply management tool in Kern County. Nearly all the groundwater agencies have banking projects, including KCWA, SWSD, RRBWSD, and BVWSD. Surface water from local rivers, the SWP, and Central Valley Project is banked for future use by both local and non-local users. In total, the water banks can store approximately 5.7 million AF of water during wet years which can then be extracted for use during dry years (KCWA 2023).

## Semitropic Water Storage District

Semitropic Water Storage District was created in 1958 to secure SWP for agricultural use. SWSD is the largest water storage district in Kern County and covers an area of approximately 224,000 acres. SWSD currently provides water to approximately 130,000 irrigated acres and nearly 300 customers. SWSD delivers water directly for agricultural use only. SWSD began importing SWP water in 1973 and has a SWP Table A entitlement of 155,000 AFY, although the actual annual average volume SWSD receives each year has historically been approximately one half of the full allocation. For the period 2010 to 2020, SWSD received an average of 74,682 AFY of Table A water and 9,194 AFY of Article 21 water (SWSD 2021).

SWSD receives SWP water via the California Aqueduct. SWSD has three turnouts connected to the California Aqueduct that can collectively divert approximately 1,740 cubic feet per second of water supply. SWSD also operates 1,434 turnouts, 1,200 of which are farm turnouts used to deliver water to individual water users (SWSD 2021). The quality of SWP water SWSD receives is good, with concentrations of all constituents measured at levels below drinking water maximum contaminant levels The average TDS concentration of SWP water received is approximately 300 mg/L (SWSD 2021).

In addition to delivery of SWP water, SWSD receives surface water deliveries from Poso Creek, water transfers, and leave behind from water banking (10 percent of banked water). SWSD owns 87 production wells that are used to recover banked water for delivery to SWSD's banking partners, and has agreements in place to use private wells within its service area under certain conditions. Similar to the SWP water deliveries, the amount of water SWSD receives from Poso Creek, water transfers, and leave behind from banked water has historically varied from year to year. Between 2010 and 2020, SWSD received an average of 3,042 AFY from Poso Creek, 43,619 AFY from water transfers, and 10,281 AFY from banking leave behind. When combined with the SWP deliveries, SWSD's average

total supply over the period from 2010 to 2020 was 149,048 AFY, ranging from a low of 11,813 AF in 2014 to a high of 290,643 AF in 2017 (SWSD 2021).

### Rosedale-Rio Bravo Water Storage District

Rosedale-Rio Bravo Water Storage District was created in 1959 to offset groundwater overdraft in the Subbasin by diverting Kern River water into the Goose Lake Slough and adjacent recharge basins. RRBWSD delivers water to a select few landowners within Rosedale who have access to turnouts on the Goose Lake Slough, but primarily uses its water supplies to recharge the groundwater Subbasin. RRBWSD has a SWP Table A entitlement of 29,900 AFY. RRBWSD also owns contractual rights to 10,000 AFY of Kern River water, provided the water is used on property within Rosedale. In addition to SWP and Kern River water, RRBWSD obtains supplies from various other sources when available, including Friant-Kern floodwaters, Kern River flood flows, spot-market purchases, beneficial rainfall, and the groundwater basin safe-yield (RRBWSD 2023).

### Buena Vista Water Storage District

Buena Vista Water Storage District was created in 1924 to manage the water rights and irrigation/drainage systems originally held by the Lux Land Company. BVWSD has a SWP Table A entitlement of approximately 21,300 AFY. BVWSD also has an entitlement of approximately 150,000 AFY of Kern River water. BVWSD is continuously involved in many different water management projects in the region, including the Northern Area Pipeline Project, James Groundwater Storage and Recovery Project, Palms Groundwater Recovery Project and others (BVWSD 2023).

### Buttonwillow County Water District

Buttonwillow County Water District is one of several small water systems in the vicinity of the Project, but the only one whose service area intersects the Project site boundary. BCWD (Water System No. CA1510011) is a community water system that provides water to 41 commercial service connections, 374 residential service connections, and a population of 1,508 people. The BCWD water system consists of four groundwater supply wells that pump from the Subbasin (SWRCB 2023b).

## 3.1.4 Recycled Water

Recycled water in the vicinity of the Project site is limited to the North of River Sanitary District's wastewater treatment plant. The Wastewater treatment plant borders the Project site on the east (Figure 2). The Wastewater treatment plant utilizes primary and secondary treatment technologies to treat up to 7.5 million gallons per day. Treated effluent is used to irrigate non-human consumption crops on adjacent farmland (NORSD 2023).

# 3.2 Water Resources Plans and Programs

## 3.2.1 Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 is a package of three bills (Assembly Bill 1739, SB 1168, and SB 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. SGMA establishes minimum standards for sustainable groundwater management; roles and responsibilities for local agencies that manage groundwater resources; and timelines to achieve sustainable

groundwater management within 20 years of adoption of a Groundwater Sustainability Plan (GSP). Central to SGMA are the identification of critically overdrafted basins, prioritization of groundwater basins, establishment of Groundwater Sustainability Agencies (GSA), and preparation and implementation of GSPs for medium- and high-priority basins. SGMA required GSAs to be formed by June 30, 2017. GSPs must consider all beneficial uses and users of groundwater in the basin, as well as include measurable objectives and interim milestones that ensure basin sustainability. A basin may be managed by a single GSP or multiple coordinated GSPs. At the state level, DWR has the primary role in the implementation, administration, and oversight of SGMA, with the State Water Resources Control Board stepping in should a local GSA be found to not be managing groundwater in a sustainable manner. GSAs must follow DWR's approved regulations and guidelines for implementation of SGMA.

DWR identifies the Kern County Groundwater Subbasin as a high-priority, critically overdrafted basin. As such, the Subbasin has 14 GSAs that have developed six GSPs to achieve basin sustainability (KGA 2022). The Project site is located in an area managed by two GSAs and GSPs, including the Kern Groundwater Authority (KGA) GSP and BVWSD GSP. The majority of the Project site is covered by the KGA GSP.

The KGA, through a joint powers agreement, represents 12 member agencies in the Subbasin, including SWSD and RRBWSD (KGA 2022). KGA's comprehensive GSP covers approximately 1.3 million acres of the Subbasin. SWSD also formed a GSA and prepared a GSP in conjunction with, and in support of, the Subbasin wide GSP developed and by KGA. Although SWSD coordinates with KGA for SGMA purposes, its own GSP can act as a standalone GSP governing its management area (SWSD 2019). BVWSD is an independent GSA and as such prepared its own GSP. The BVWSD GSP was developed in coordination with the KGA GSP and the two are in reasonable agreement in terms of the sustainable management criteria and projects and management actions that will be implemented in order to achieve basin sustainability (BVWSD 2020; KGA 2022).

The KGA GSP identifies more than 150 projects and management actions designed to help achieve basin sustainability, such as tiered pricing for groundwater pumping, land fallowing, and enhanced groundwater recharge (KGA 2022). Although the Project would use an estimated 1,000 AFY for construction and 7 AFY for O&M, conversion of the Project site to a less-intensive water use (from agriculture to solar electric) is supportive of the KGA's GSP long-term sustainability goal.

### 3.2.2 Integrated Regional Water Management Plan

The Integrated Regional Water Management Planning Act of 2002 (SB 1672) authorizes a regional water management group to prepare and adopt an integrated regional water management plan (IRWMP) that addresses regional scale water supply and related matters. The Project site falls within the Poso Creek IRWMP area. The Poso Creek Regional Water Management Group was formed in 2005 and is comprised of water districts, agencies, and other stakeholders in the region, including SWSD who is the lead agency. The Poso Creek Regional Water Management Group prepared an IRWMP in 2007 and recently updated the IRWMP in 2019 (Poso Creek RWMG 2019). The Poso Creek IRWMP outlines a number of regional goals and measurable objectives that provide a basis for all regional planning efforts, including to maintain and enhance water supply reliability, improve operational efficiency and flexibility, reduce water demand, and others (Poso Creek RWMG 2019). The Poso Creek IRWMP includes an assessment of the effects of climate change on regional water supplies and agricultural water demand. The assessment determined that "Water Supply" and "Water Demand" have the highest level of vulnerability to potential climate change impacts in the region. That is, the effects of climate change are expected to result in a decrease in average surface water deliveries via the California Aqueduct and are expected to increase evapotranspiration, which in turn will lead to an increase in agricultural water demand for irrigation. To prepare for

these potential impacts of climate change on the region, the Poso Creek IRWMP establishes the following strategies (Poso Creek IRWMP 2019):

- Expand in-lieu service areas in the Region, by expanding water conveyance to lands which are currently dependent solely on groundwater supplies (i.e., reduce dependency on groundwater basin during "wetter" periods).
- Improve agricultural and urban water use efficiency.
- Expand groundwater recharge and banking efforts through expansion of spreading pond acreage to capture surplus wet-period water supplies and thereby help to maintain groundwater levels.
- Encourage changes in regional crop varieties that are more resistant to climate change. The RWMG emphasizes these strategies not only in response to climate, but also to cope with significant surface water supply deficiencies that have already faced the Region.

Conversion of the Project site to a less-intensive water use (from agriculture to solar electric) is supportive of the Poso Creek Regional Water Management Group's strategies to respond to climate change. The Project will result in a significant reduction in the current per acre water use at the Project site, as discussed in Section 3.3.

# 3.3 Water Supply Availability

## 3.3.1 Existing Water Use

Water supply availability was assessed from two sources, local groundwater from private wells on and within the vicinity of the Project site and water supplied by SWSD. Historical well pumping records and SWSD water delivery rates for the Project site were not available for this report. Therefore, existing agricultural water use at the Project site was estimated to compare to the Project water demand. To estimate the existing water use, the water required for the agricultural crops currently grown at the Project site was calculated using the crop evapotranspiration (ETc) method which relies on the following equation:

$$ETc = ETo \times Kc$$

Where:

ETc = crop evapotranspiration
ETo = reference evapotranspiration
Kc = crop coefficient

Reference evapotranspiration (ETo) is based on the potential evapotranspiration from turf grass/alfalfa crop. According to the reference evapotranspiration zones map of California developed by the California Irrigation Management Information System, the Project site is located in ETo Zone 15, with a total of 57.9 inches of ETo per year (Table 3; CIMIS 1999).

## Table 3. Monthly Average Reference Evapotranspiration for Zone 15

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.24 | 2.24 | 3.72 | 5.70 | 7.44 | 8.10 | 8.68 | 7.75 | 5.70 | 4.03 | 2.10 | 1.24 | 57.9 |

**Source:** CIMIS 1999.
**Notes:** All values are in inches.

Crop coefficients (Kc) are numbers specific to each crop type used to estimate ETc by multiplying ETo by Kc, as shown in the equation above. Crop development is divided into three phases—initial growth, mid-season stage, and end of the late season stage (Allen et al. 1998).

Crop coefficients were selected based on the crop types currently grown at the Project site. Crop types currently grown at the Project site were determined based on Kern County's 2021 crop type spatial dataset (Kern County 2021). Crop types currently grown at the Project site are shown in Figure 8 and listed in Table 4. Crop coefficients by crop type are also provided in Table 4. Approximately 10,602 acres of the Project site is currently used for growing crops (Figure 8 and Tables 4 and 5).

## Table 4. Crop Types and Coefficients

| Crop Type | Crop Coefficient | | | |
|---|---|---|---|---|
| | Kc-Initial | Kc-Mid | Kc-End | Average |
| Alfalfa | 0.40 | 0.95 | 0.90 | 0.75 |
| Almond | 0.40 | 0.90 | 0.65 | 0.65 |
| Broccoli | 0.70 | 1.05 | 0.95 | 0.90 |
| Carrot | 0.70 | 1.05 | 0.95 | 0.90 |
| Corn | 0.30 | 1.20 | 0.48 | 0.66 |
| Cotton | 0.35 | 1.18 | 0.60 | 0.71 |
| Garlic | 0.70 | 1.00 | 0.70 | 0.80 |
| Grape | 0.30 | 0.70 | 0.45 | 0.48 |
| Olive | 0.65 | 0.70 | 0.70 | 0.68 |
| Onion | 0.70 | 1.05 | 0.75 | 0.83 |
| Pistachio | 0.40 | 1.10 | 0.45 | 0.65 |
| Pomegranate | 0.45 | 0.95 | 0.70 | 0.70 |
| Watermelon | 0.40 | 1.00 | 0.75 | 0.72 |
| Wheat | 0.30 | 1.15 | 0.33 | 0.59 |

**Source:** Allen et al. 1998.
**Notes:** Kc values represent rounded average of range if range in Kc values were reported (e.g., corn Kc-End = 0.35–0.60, so rounded average is 0.48).

Crop evapotranspiration is affected by many factors including irrigation method, soil type, percent land cover, and depth to groundwater. For the purposes of estimating existing water use at the Project site, several simplifying assumptions were made:

- Only one crop is planted per year and the growing season is conservatively estimated to be six months
- Irrigation water is applied only during the six months when the crop is being cultivated

- Rainfall is not a source of water for the crops
- Uncultivated/idle land is not irrigated
- The groundwater table is beyond the rooting zone of the crops

Based on the crop types, crop coefficients, and simplifying assumptions described above, the estimated annual existing water use at the Project site is approximately 17,159 AFY (Table 5). Therefore, the amortized Project water demand of 97 AFY represents a 99% reduction in the Project site water demand.

**Table 5. Crop Evapotranspiration and Estimated Historical Water Demand Summary**

| Crop Type | Average Kc | Average ETo (in/mo) | ETc (ft/mo) | Irrigation Period (mo) | Area (acres) | Annual Water Demand (AFY) |
|---|---|---|---|---|---|---|
| Alfalfa | 0.75 | 4.83 | 0.30 | 6 | 1,950.68 | 3,533.17 |
| Almond | 0.65 | 4.83 | 0.26 | 6 | 3,948.94 | 6,198.85 |
| Broccoli | 0.90 | 4.83 | 0.36 | 6 | 43.77 | 95.13 |
| Carrot | 0.90 | 4.83 | 0.36 | 6 | 150.08 | 326.19 |
| Corn | 0.66 | 4.83 | 0.27 | 6 | 1,022.34 | 1,629.51 |
| Cotton | 0.71 | 4.83 | 0.29 | 6 | 717.80 | 1,230.77 |
| Garlic | 0.80 | 4.83 | 0.32 | 6 | 142.36 | 275.03 |
| Grape | 0.48 | 4.83 | 0.19 | 6 | 2.62 | 3.06 |
| Olive | 0.68 | 4.83 | 0.28 | 6 | 0.98 | 1.61 |
| Onion | 0.83 | 4.83 | 0.34 | 6 | 148.32 | 298.49 |
| Pistachio | 0.65 | 4.83 | 0.26 | 6 | 161.66 | 253.77 |
| Pomegranate | 0.70 | 4.83 | 0.28 | 6 | 0.28 | 0.48 |
| Watermelon | 0.72 | 4.83 | 0.29 | 6 | 0.31 | 0.53 |
| Wheat | 0.59 | 4.83 | 0.24 | 6 | 2,311.55 | 3,312.23 |
| Uncultivated / Idle | — | — | — | — | 1,381.32 | 0 |
| **Total** | **—** | **—** | **—** | **—** | **11,983** | **17,158.81** |

**Source:** Allen et al. 1998; CIMIS 1999.
**Notes:** Kc = crop coefficient; ETo = reference evapotranspiration; ETc = crop evapotranspiration; in = inches; mo = month; ft = feet; AFY = acre-feet per year; — = not applicable.

## 3.3.2 Imported Water Availability

As described in Section 3.1.3, the SWSD has a SWP Table A entitlement of 155,000 AFY (SWSD 2021). Based on SWSD's Table A entitlement and the current 2023 SWP allocation of 100 percent, SWSD is projected to receive its full entitlement of 155,000 AF of Table A water in 2023 (DWR 2023b). DWR predicts the future average annual Table A allocation to average about 58 percent of contract amounts, which would yield an average supply of approximately 89,900 AFY for SWSD (SWSD 2021). Assuming that SWP water deliveries are evenly distributed across SWSD's 224,000 acre service area, the 11,983-acre Project site would receive approximately 8,292 AF in

2023 and an average future supply of approximately 4,809 AFY, which is significantly more than the Project water demand.[6]

### 3.3.3 Groundwater Availability

As described in Section 3.2.1, the Kern County Groundwater Subbasin is currently critically overdrafted and significant reductions in pumping must occur to achieve sustainability. Based on current groundwater modeling results, the sustainable yield of the Subbasin is approximately 1,313,000 AFY (KGA 2022). This equates to an annual sustainable yield on an acre-feet per acre basis of approximately 0.73 AF/acre. Therefore, the sustainable yield of the 11,983-acre portion of the Subbasin occupied by the Project site is approximately 8,748 AFY. This means the Project can sustainably pump up to 8,748 AFY. The maximum estimated Project water demand of 1,000 AFY for peak construction and 7 AFY for O&M is significantly less than the sustainable yield for the Project site.

### 3.3.4 Water Supply and Demand Comparison

The following provides water availability projections under normal-year, single-dry-year, and multiple-dry-year conditions for the years 2025 through 2064 (3.5 years construction and 35-years O&M) based on estimated SWP Table A allocations and the sustainable groundwater yield at the Project site (Table 6). The sustainable yield is used as a conservative estimate of available groundwater supply. The calculations assume that in a normal-year there will be 4,809 AF (58% allocation) of SWP Table A water available and 8,748 AF of sustainable groundwater supply available for a total of 13,557 AF of available water. In a single-dry-year there will be 2,902 AF (35% allocation) of SWP Table A water available and 8,748 AF of groundwater supply available for a total of 11,650 AF of water. In a multiple-dry-year there will be 415 AF (5% allocation) of SWP Table A water available and 8,748 AF of groundwater supply available for a total of 9,163 AF of available water. Based on these conservative estimates of available water supply at the Project site, the available supplies are able to meet the short- and long-term demand for the Project. Even in a multiple-dry-year during Project construction, there will be an estimated surplus of 8,163 AF of water available at the Project site (Table 6).

**Table 6. Water Supply and Demand Comparison**

| Year | Project Year | Project Phase | Project Demand | Normal Year Surplus | Single Dry Year Surplus | Multiple Dry Year Surplus |
|---|---|---|---|---|---|---|
| 2025 | 0 | Construction | 1,000 | 12,557 | 10,650 | 8,163 |
| 2026 | 0 | Construction | 1,000 | 12,557 | 10,650 | 8,163 |
| 2027 | 0 | Construction | 1,000 | 12,557 | 10,650 | 8,163 |
| 2028 | 0 | Construction | 500 | 13,057 | 11,150 | 8,663 |
| 2038 | 10 | O&M | 7 | 13,550 | 11,643 | 9,156 |
| 2048 | 20 | O&M | 7 | 13,550 | 11,643 | 9,156 |
| 2064 | 35 | O&M | 7 | 13,550 | 11,643 | 9,156 |

**Notes:** All values are in acre-feet unless otherwise noted; O&M = operations and maintenance.

6 Although the assumption that SWP water deliveries are evenly distributed across SWSD's service area is not entirely accurate because actual water deliveries vary by parcel/landowner, use of the assumption allows for one to make a rough order of magnitude estimate of current and future SWP water deliveries to the Project site.

# 4 Conclusion

Based on the water supply and demand analysis, there is substantial evidence to indicate likely that there will be sufficient water for the 38.5-year life of the Project, even during multiple-dry-years. The Project would require a maximum of 3,500 AF of water for construction over a conservative 3.5-year period (1,000 AFY at peak construction) and up to 7 AFY for 35 years for O&M. The total Project water demand is an estimated 3,745 AF, or approximately 97 AFY. This is a 99% reduction from the historical land use water demand for agriculture, which required an estimated 17,159 AFY for crops. The Project site is projected to receive an average future supply of SWP Table A water of approximately 4,809 AFY and can sustainably pump up to approximately 8,748 AFY of groundwater, which results in a surplus of water under all required SB 610 water year type scenarios when compared to the Project demand.

# 5 References

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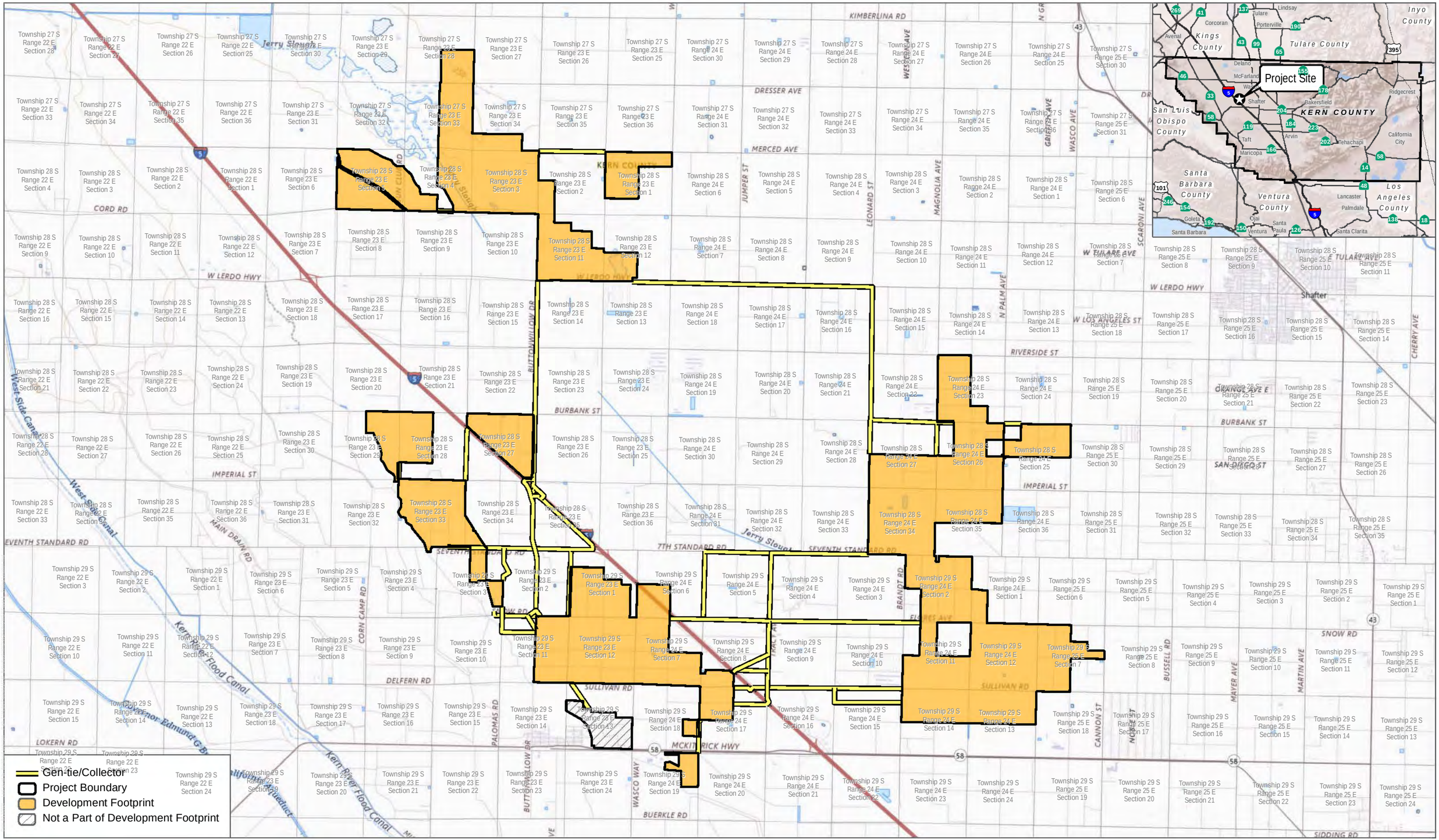
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SOURCE: USGS National Map; Kern County

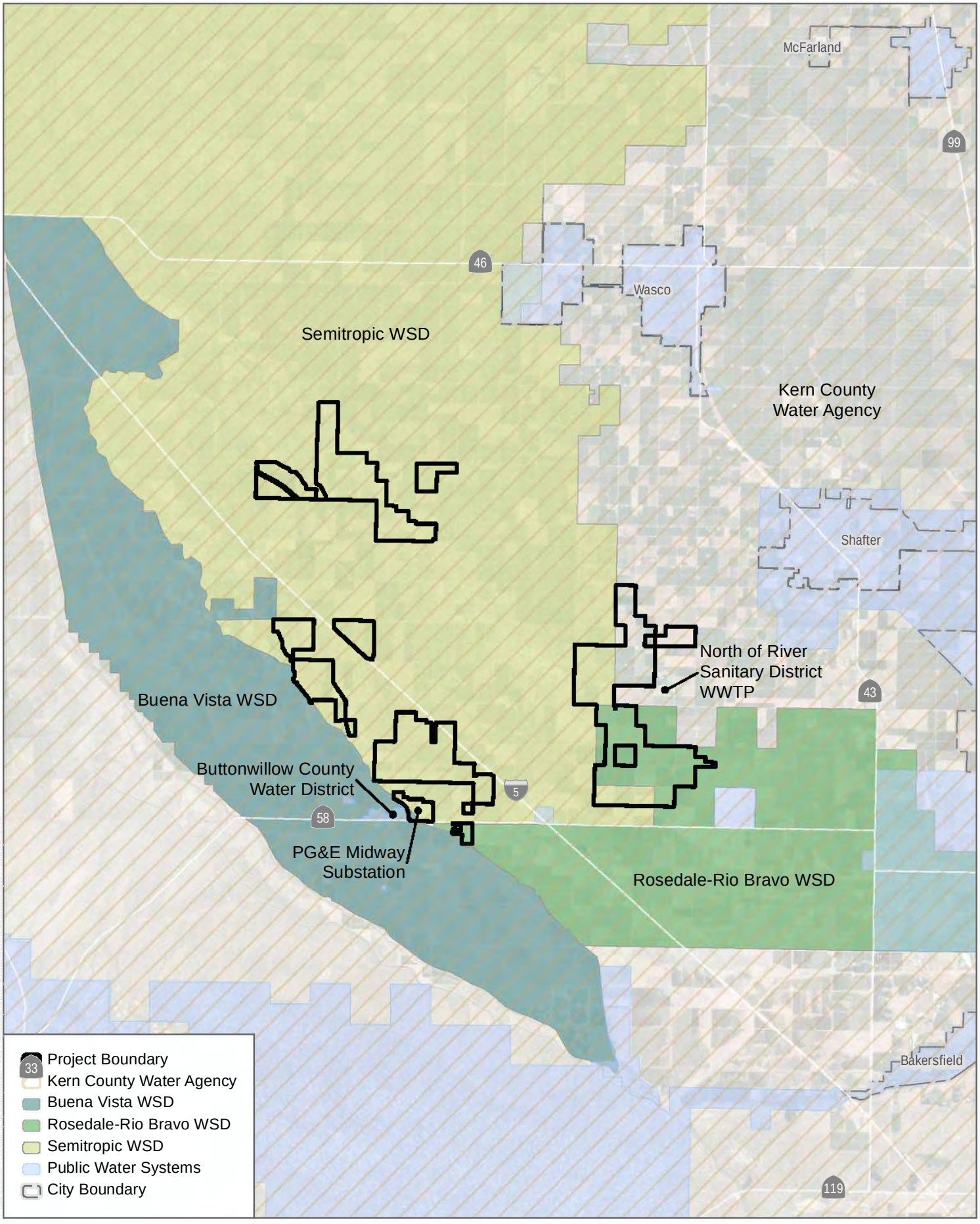
DUDEK

FIGURE 1

Project Location

Buttonbush Solar and Storage Project

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SOURCE: ESRI, DWR; SWRCB

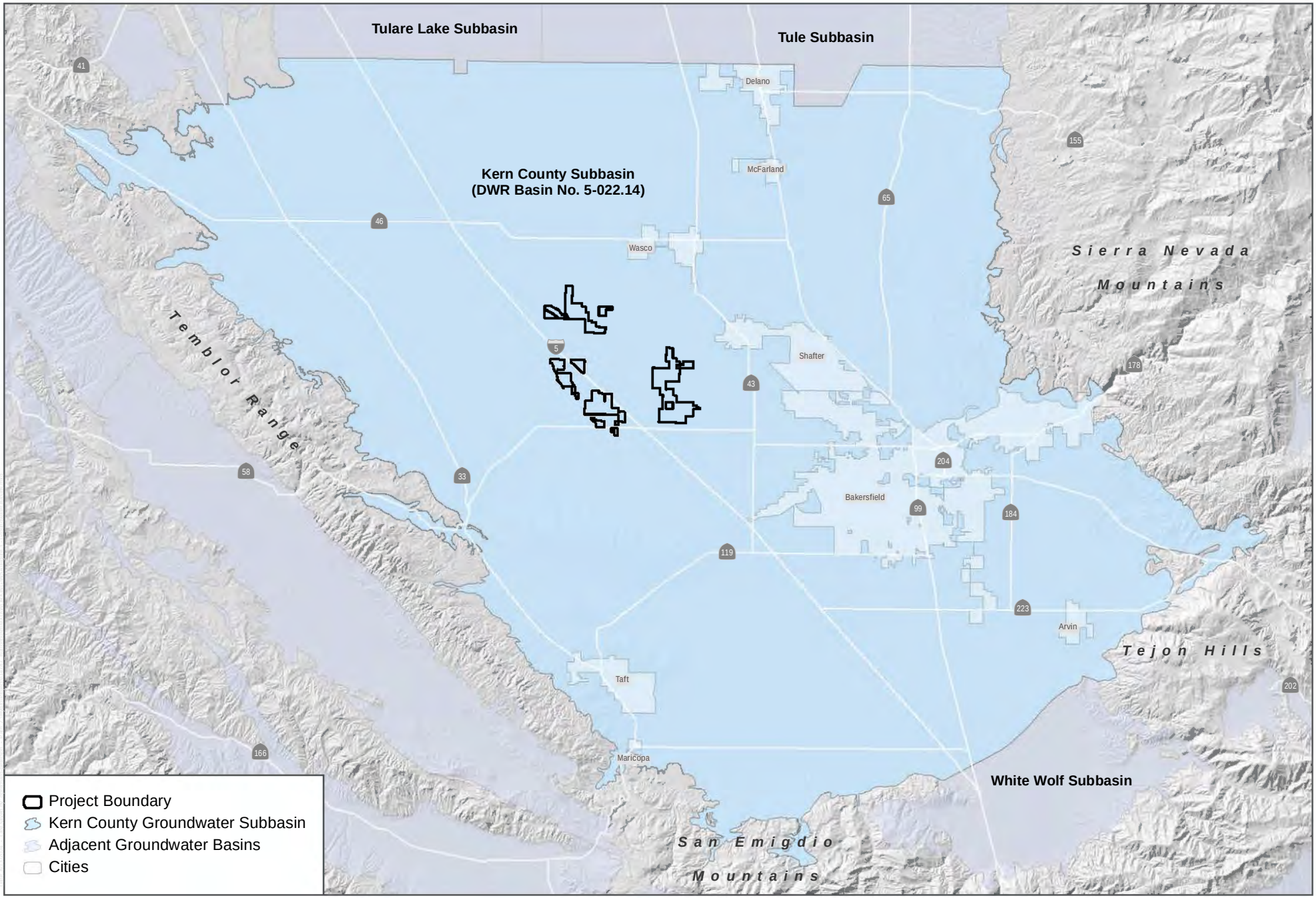
FIGURE 2

Water Agencies

Buttonbush Solar and Storage Project

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SOURCE: DWR; Kern County

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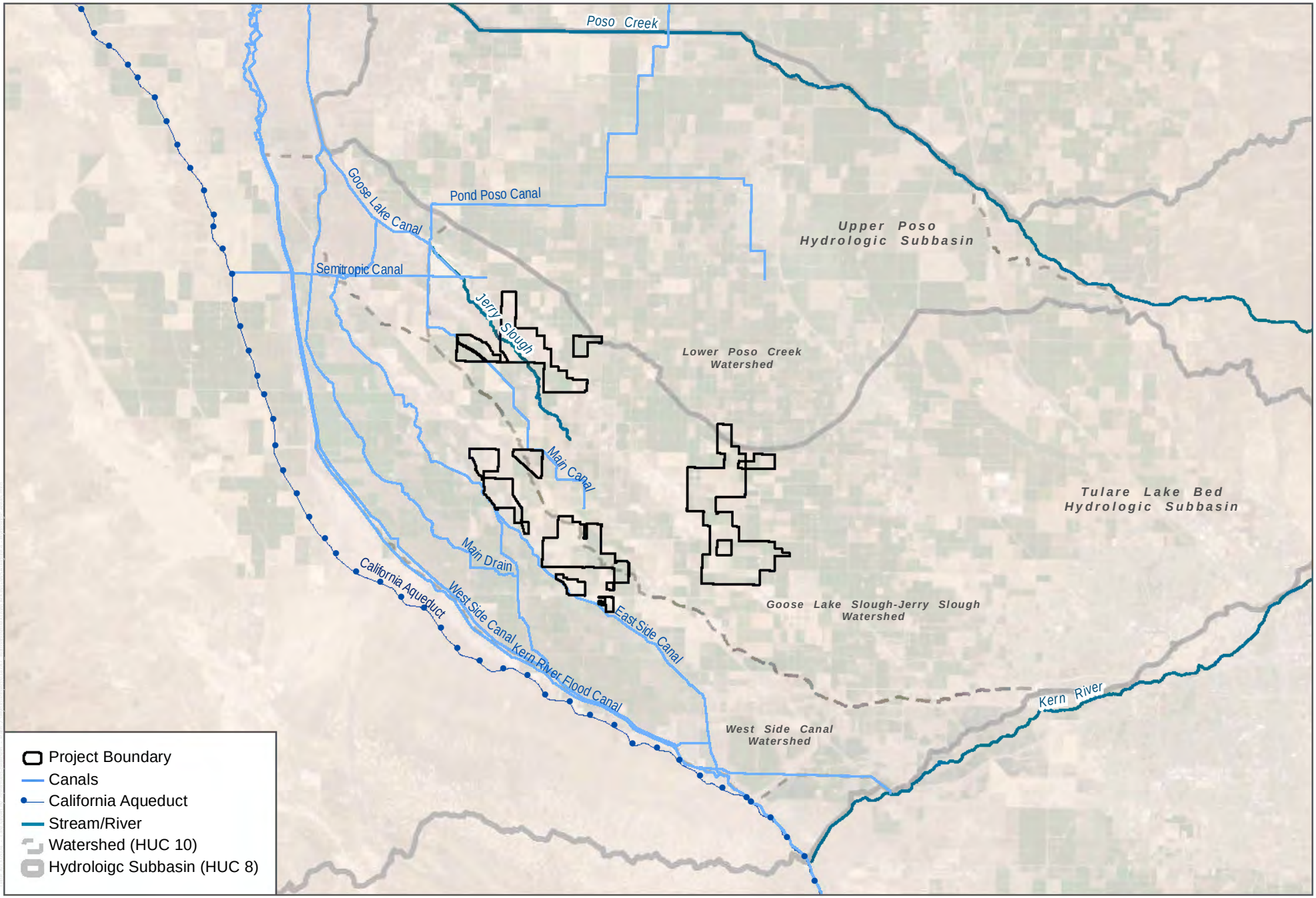
0 5 10 Miles

FIGURE 3

Groundwater Basins

Buttonbush Solar and Storage Project

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SOURCE: USGS; DWR

DUDEK

0 2.5 5 Miles

FIGURE 4

Hydrologic Areas

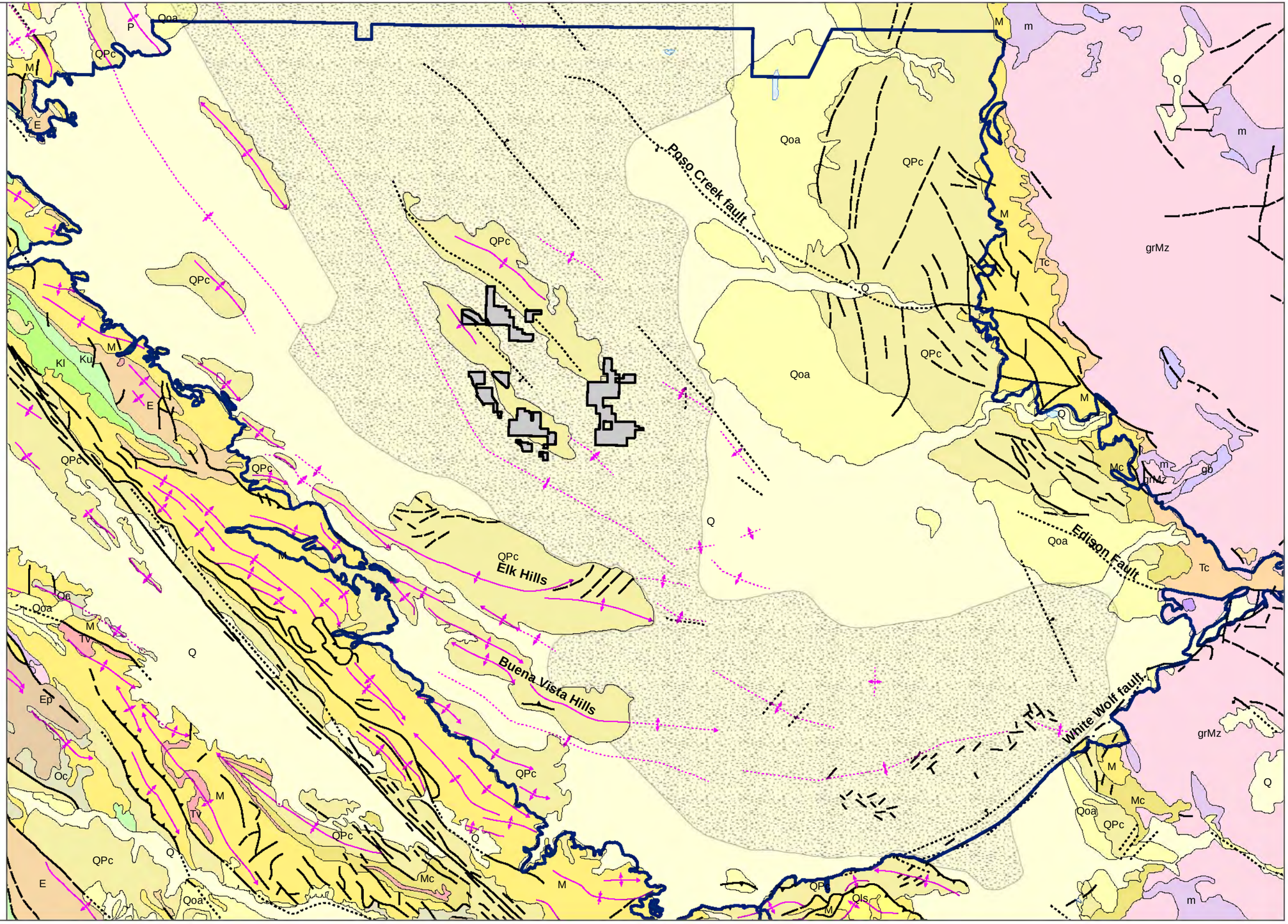
Buttonbush Solar and Storage Project

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- Project Boundary
- Kern County Groundwater Subbasin
- Structural Features
- Contacts and Faults

**Geologic Units**

- Q - Alluvium, lake, playa, and terrace deposits
- Qls - Selected large landslides
- Qoa - Older alluvium, lake, playa, and terrace deposits
- QPc - Pleistocene and/or Pliocene sandstone, shale, and gravels deposits
- Tc - Undivided Tertiary nonmarine sandstone, shale, conglomerate, breccia, and ancient lake deposits
- P - Pliocene marine sandstone, siltstone, shale, and conglomerate
- M - Miocene marine sandstone, shale, siltstone, conglomerate, and breccia
- Mc - Miocene nonmarine sandstone, shale, conglomerate, and fanglomerate
- O - Oligocene marine sandstone, shale, and conglomerate
- Oc - Oligocene nonmarine sandstone, shale, and conglomerate
- E - Eocene marine shale, sandstone, conglomerate, and minor limestone
- Ep - Paleocene marine sandstone, shale, and conglomerate
- Tv - Tertiary volcanic flow rocks
- Ku - Upper Cretaceous sandstone, shale, and conglomerate
- Kl - Lower Cretaceous sandstone, shale, and conglomerate
- grMz - Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite
- um - Ultramafic rocks, mostly serpentine. Minor peridotite, gabbro, and diabase; chiefly Mesozoic
- gb - Gabbro and dark dioritic rocks; chiefly Mesozoic
- m - Undivided pre-Cenozoic metasedimentary and metavolcanic rocks of great variety
- Water
- Corcoran Clay




SOURCE: DOC

DUDEK

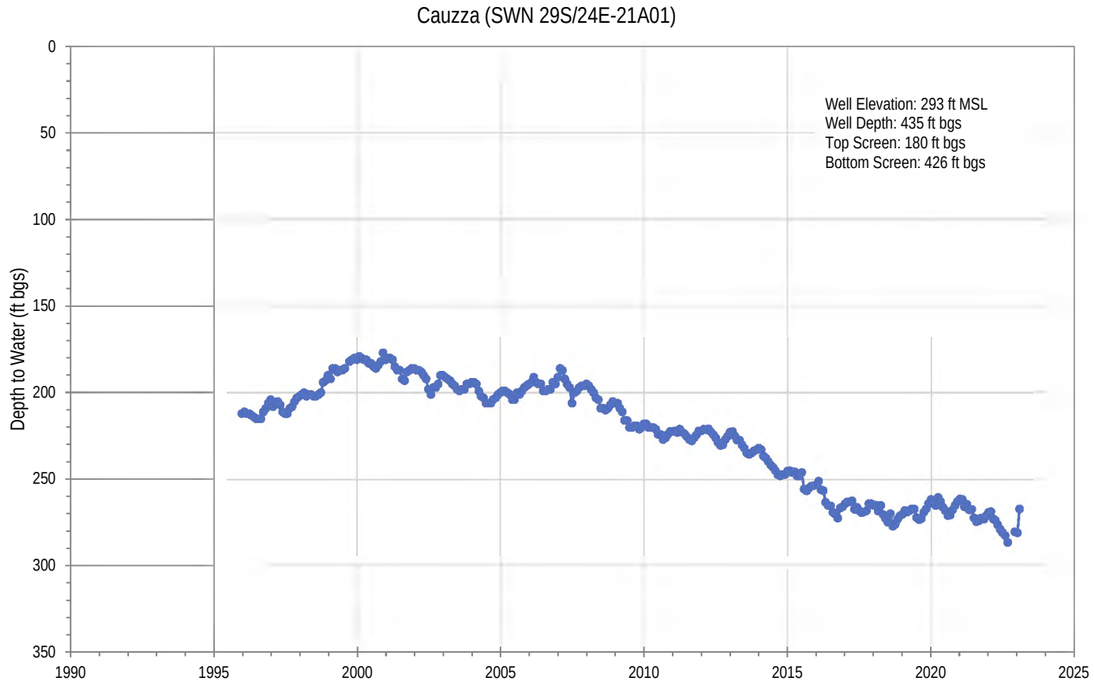
0 5 10 Miles

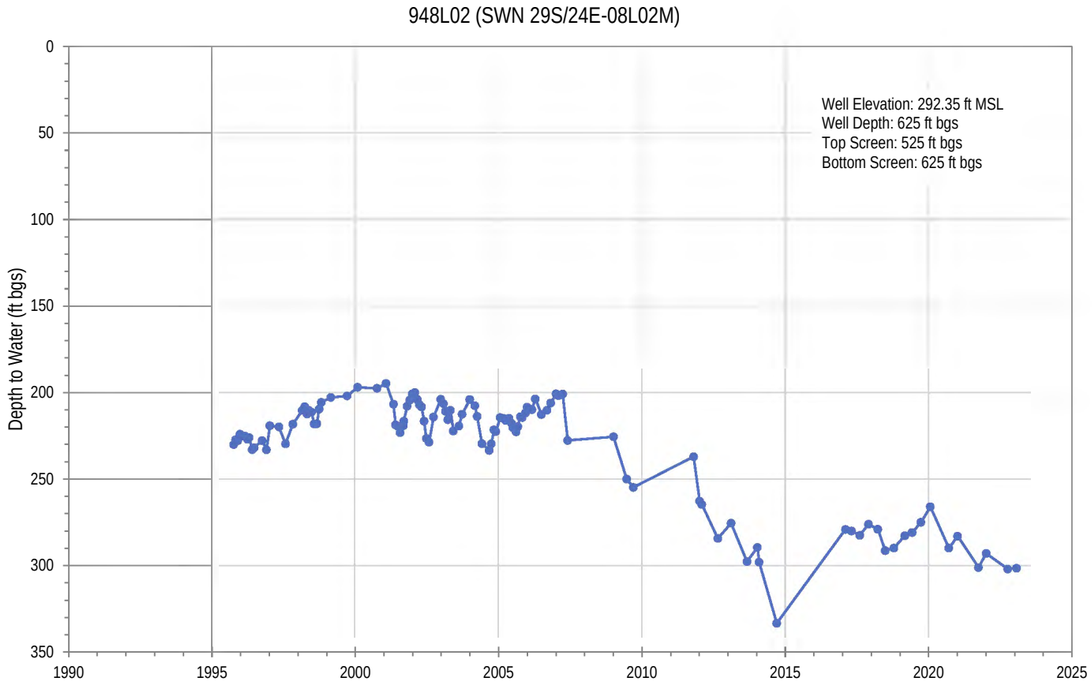
FIGURE 5

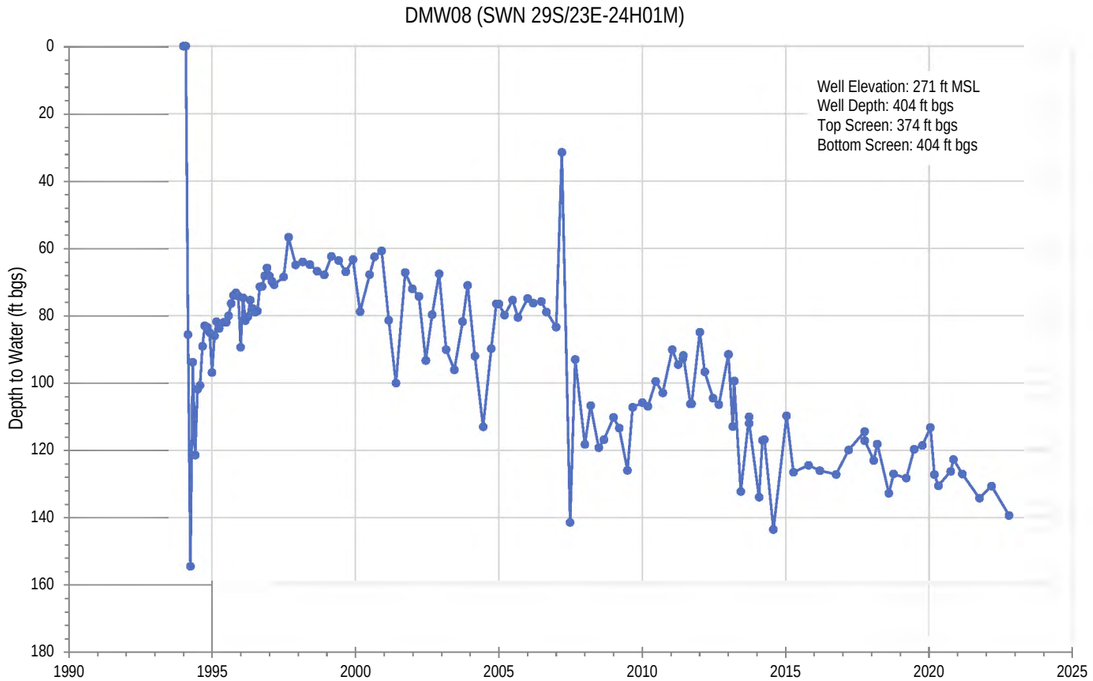
Geologic Setting

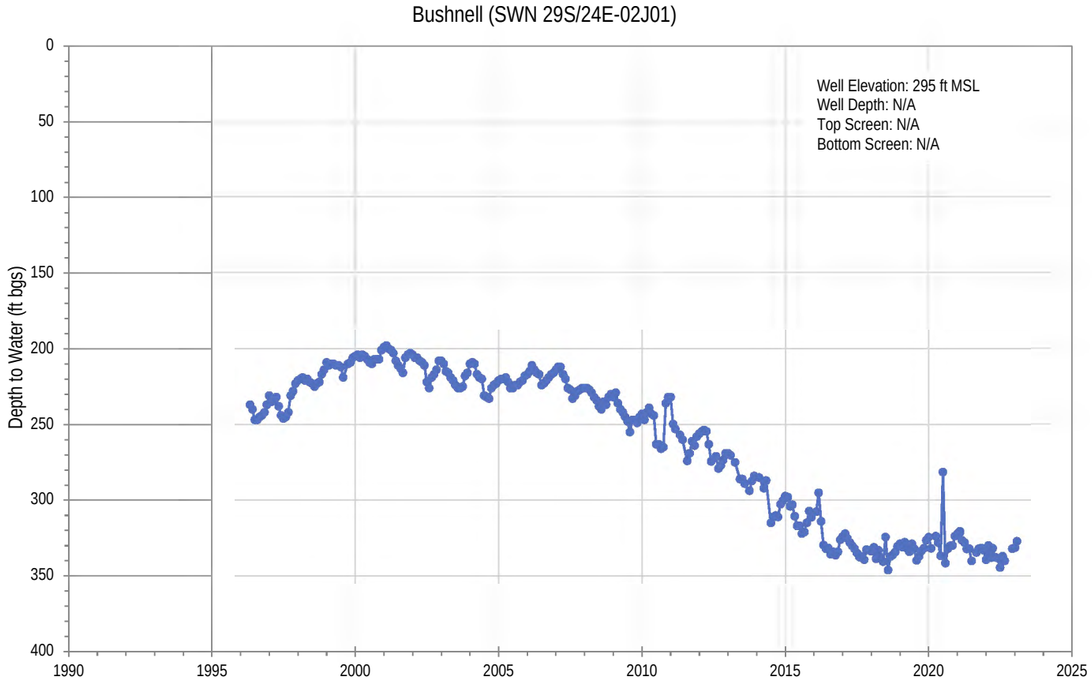
Buttonbush Solar and Storage Project

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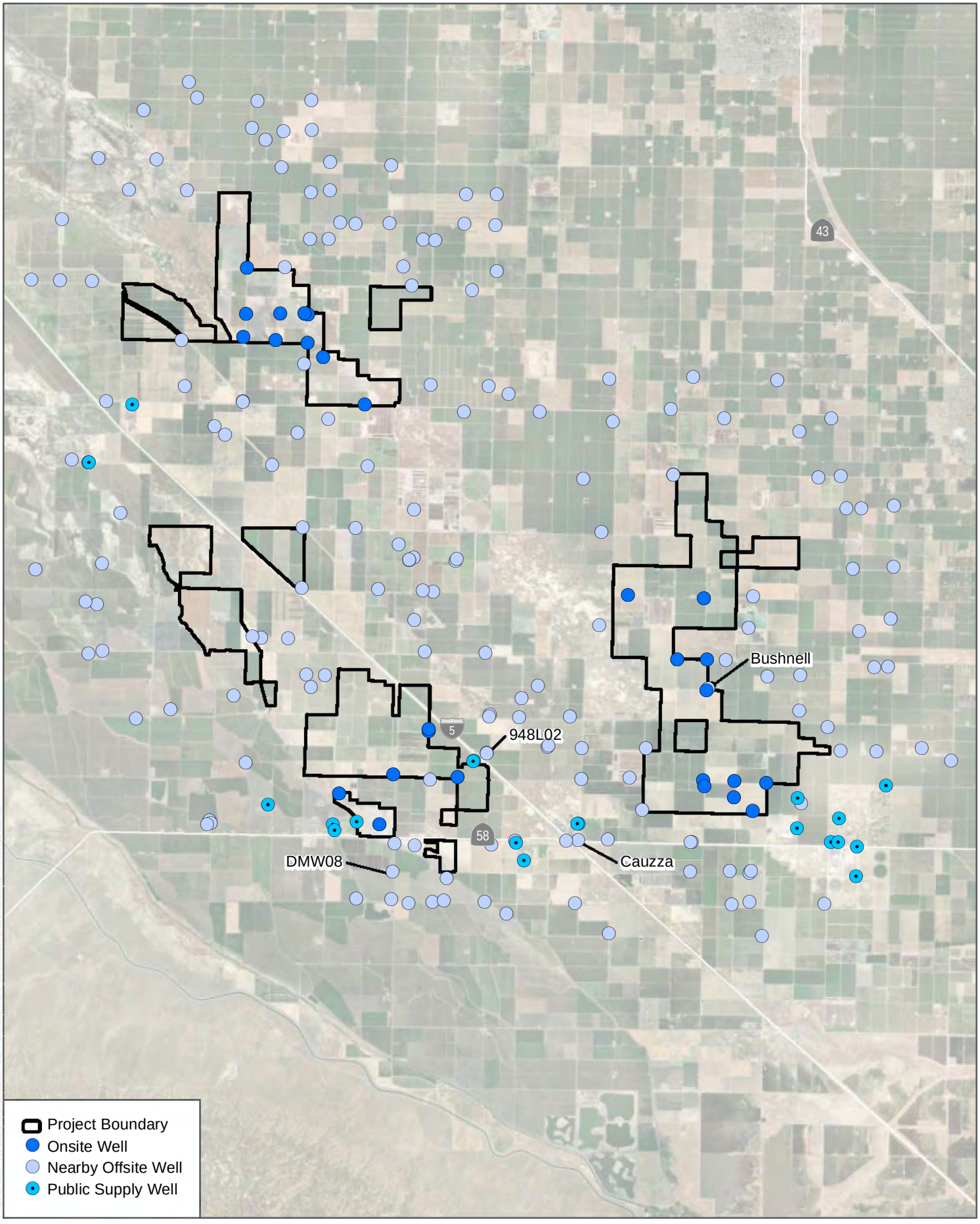

SOURCE: DWR

FIGURE 6

Groundwater Levels

Buttonbush Solar and Storage Project

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SOURCE: DWR; SWRCB

DUDEK

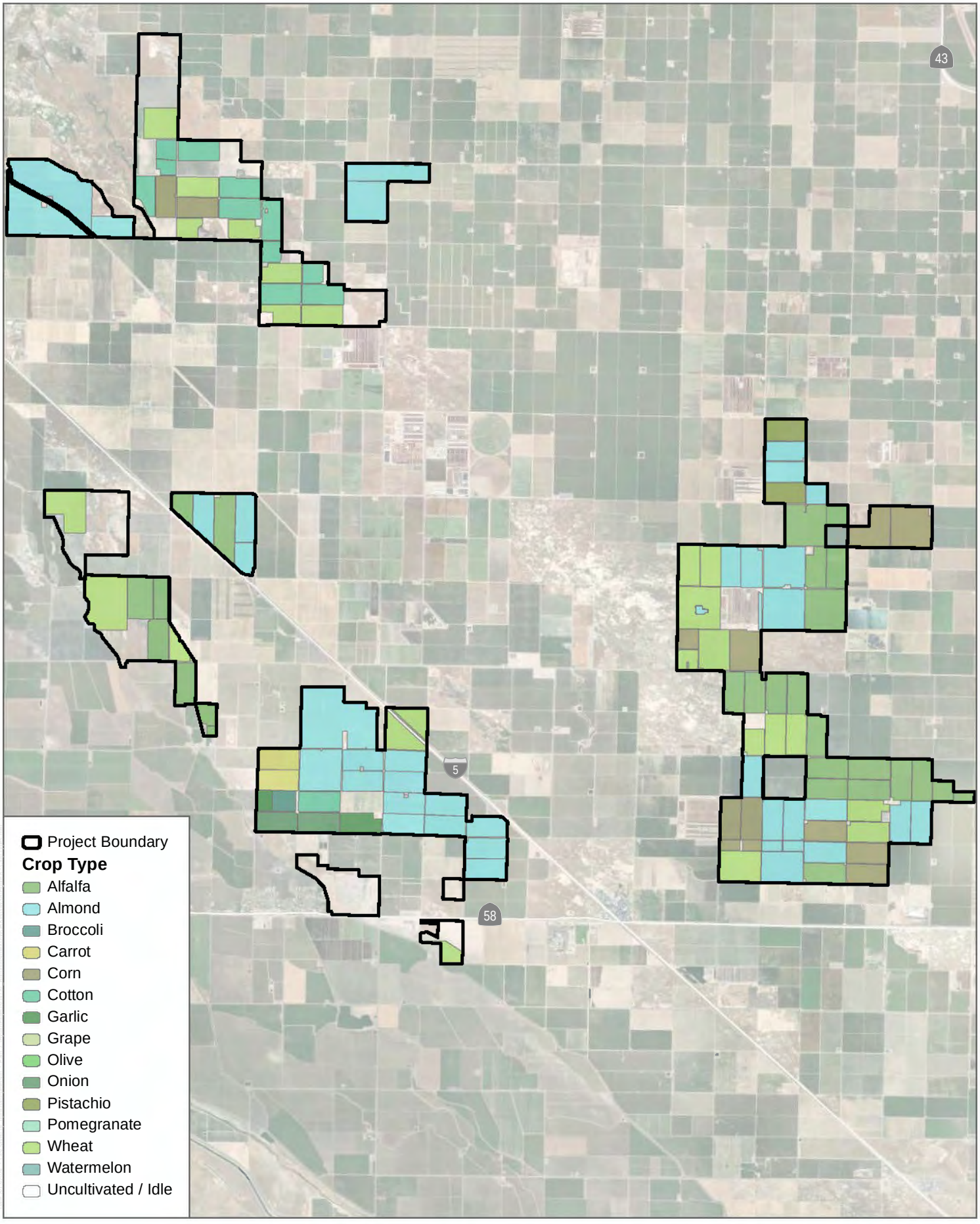
0 1 2 Miles

FIGURE 7

Groundwater Wells

Buttonbush Solar and Storage Project

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SOURCE: Kern County

DUDEK

0 0.5 1 Miles

FIGURE 8

Crop Types

Buttonbush Solar and Storage Project

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# Appendix A
Will-Serve Letter

1101 Central Avenue, P.O. Box 8043, Wasco, California 93280-0877

Telephone: (661) 758-5113 Bakersfield: (661) 327-7144
Facsimile: (661) 758-3219 Email: mail@semitropic.com
Website: www.semitropic.com

29SC 8me, LLC
c/o Avantus
4370 Town Center Blvd, Suite 110
El Dorado Hills, CA 95762

April 4, 2023

To Whom it May Concern:

On February 23, 2023, the Semitropic Water Storage District (District) received the request from Avantus as to whether the District would be willing to provide the water for construction and maintenance of the Avantus Solar Project to be constructed on up to 8,000 Acres of land within the southern portion of the Semitropic Water Storage. In the request, Avantus noted that the Solar Project will be constructed over a period of up to 4 years and will need up to 3,500 Acre Feet for Construction. Further Avantus noted that once the construction of the Solar Project is completed, the Solar Project will need approximately 7 acre-feet per year for panel cleaning and dust control.

At the Semitropic Water Storage District Board Meeting on March 8, 2023, the Board of Directors authorized the General Manager to provide notice to Avantus (8ME LLC) via letter regarding the District's willingness to provide up to 3,500 Acre Feet for construction water and up to 7 Acre Feet of water for panel washing and dust control for the to be constructed Solar facilities generally located within the Southern portion of the Semitropic Water Storage District subject to the following conditions:

1) Each year Avantus will be required enter into a 1-year Special Purpose Water Agreement and to pay for the water up front for the total amount of water estimated to be used for the year; no credit will be provided for any unused water,
2) Water use is limited to the stated use within the boundaries of Semitropic,
3) Pricing for the water will be set by the Board annually, and
4) The specific details as to how Avantus will access the water will require coordination with the District.

Thank you for your request as it relates to meeting the water needs for your project. We look forward to working with you on this project as the project will help the District in reducing its overall demand for groundwater as envisioned under its Groundwater Sustainability Plan.

Sincerely,

Jason Gianquinto
General Manager

CC: Mike Ming, Alliance Appraisal, LLC (Via e-mal)
Kevin Brokish, Avantus (Via e-mail)
Justin Nazerian, Avantus (Via e-mail)
Dennis Harper, Avantus (Via e-mail)

# Appendix B
Well Logs

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

# WATER WELL DRILLERS REPORT

*Do not fill in*

No. 22076

State Well No. 29/24-2

Other Well No. N/A

Notice of Intent No. 110208

Local Permit No. or Date

## (2) LOCATION OF WELL

See Instructions.)

County Kern Owner's Well Number 40-1

Well address if different from above

Township 29 Range 24 Section 2

Distance from cities, roads, railroads, fences, etc. 100 ft. south & 100 ft. west of N.E. Corner of N.E. Quarter

7TH STANDARD RD

100

100

SECTION 2

COMPOSITE

WELL LOCATION SKETCH

## (3) TYPE OF WORK:

New Well X Deepening

Reconstruction

Reconditioning

Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic

Irrigation X

Industrial

Test Well

Stock

Municipal

Other

## (5) EQUIPMENT:

Rotary X Reverse X

Cable Air

Other Bucket

## (6) GRAVEL PACK:

Yes X No Size 5/16 x 1/16

Diameter of bore 28"

Packed from 0 ft. to 820 ft.

## (7) CASING INSTALLED:

Steel X Plastic Concrete

| From ft. | To ft. | Dia. in. | Gage or Wall |
|---|---|---|---|
| 0 | 798 | 16 | 1/4 |
| 0 | 20 | 30 | 14 ga |
| 450 | 468 | 16 | Compression section |

## (8) PERFORATIONS:

Louvre

Type of perforation or size of screen

| From ft. | To ft. | Slot size |
|---|---|---|
| 360 | 798 | 3 x 1/8 |

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes X No If yes, to depth 20 ft.

Were strata sealed against pollution? Yes No X Interval ft

Method of sealing Cement

## (10) WATER LEVELS:

Depth of first water, if known ft

Standing level after well completion ft.

## (11) WELL TESTS:

Was well test made? Yes No X If yes, by whom?

Type of test Pump Bailer Air lift

Depth to water at start of test ft At end of test ft

Discharge gal/min after hours Water temperature

Chemical analysis made? Yes No X If yes, by whom?

Was electric log made? Yes No X If yes, attach copy to this report

## (12) WELL LOG:

Total depth 820 ft. Depth of completed well 798 ft.

| from ft. | to ft. | Formation (Describe by color, character, size of material) |
|---|---|---|
| 0 | 60 | Top Soil & Sand |
| 60 | 110 | Brown Clay |
| 110 | 150 | Brown Sand |
| 150 | 160 | Brown Clay |
| 160 | 170 | Brown Clay & Sand |
| 170 | 190 | Brown Sand |
| 190 | 200 | Brown Clay & Sand |
| 200 | 230 | Brown Sand |
| 230 | 280 | Brown Clay & Sand |
| 280 | 310 | Brown Sand |
| 310 | 320 | Brown Clay & Sand |
| 320 | 340 | Brown Sand |
| 340 | 360 | Brown Sand & Clay |
| 360 | 410 | Brown Sand |
| 410 | 480 | Brown Clay & Sand |
| 480 | 490 | Brown Sand & Gravel |
| 490 | 500 | Brown Sand |
| 500 | 510 | Brown Clay |
| 510 | 520 | Brown Sand & Clay |
| 520 | 540 | Brown Sand |
| 540 | 550 | Brown Clay |
| 550 | 570 | Brown Sand & Clay |
| 570 | 630 | Brown Sand |
| 630 | 640 | Brown Clay |
| 640 | 650 | Blue Sand & Clay |
| 650 | 670 | Brown & Blue Clay |
| 670 | 690 | Brown Clay |
| 690 | 700 | Brown Clay & Sand |
| 700 | 710 | Blue Sand |
| 710 | 730 | Brown Clay |
| 730 | 740 | Blue & Brown Clay |
| 740 | 750 | Blue Sand |
| 750 | 760 | Brown & Blue Clay |
| 760 | 770 | Blue Sand |
| 770 | 780 | Brown & Blue Clay & Sand Streaks |
| 780 | 790 | Brown Clay |
| 790 | 800 | Blue Sand |
| 800 | 820 | Brown & Blue Clay |

Work started 6-20 19 77 Completed 6-23 19 77

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.*

SIGNED Roy D. Ferguson (Well Driller)

NAME BAKERSFIELD PUMP COMPANY (Person, firm, or corporation. Typed or printed)

Address P.O. Box 3216

City Bakersfield, CA Zip 93305

License No. 250368 Date of this report 6-27-77

DWR 188 (REV 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM 438-16-55C 7-76 5CM GUAD OT OSP

DO NOT USE FOR WATER WELL

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

# WATER WELL DRILLERS REPORT

*Do not fill in*

No. 097807

State Well No. 29/24-11

Other Well No.

Notice of Intent No.

Local Permit No. or Date

## (2) LOCATION OF WELL (See instructions):

County Kern Owner's Well Number

Well address if different from above 1 mi. So. of 58 & 1 mi. E of Brandt

Township 29S Range 24E Section 11

Distance from cities, roads, railroads, fences, etc.

Brandt rd

LW / → well @ 60'

WELL LOCATION SKETCH

## (3) TYPE OF WORK:

New Well [X] Deepening [ ]
Reconstruction [ ]
Reconditioning [ ]
Horizontal Well [ ]
Destruction [ ] (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic [ ]
Irrigation [X]
Industrial [ ]
Test Well [ ]
Stock [ ]
Municipal [ ]
Other [ ]

## (5) EQUIPMENT:

Rotary [ ] Reverse [X]
Cable [ ] Air [ ]
Other [ ] Bucket [ ]

## (6) GRAVEL PACK:

Yes [X] No [ ] Size Pea Gravel
Diameter of bore 28"
Packed from 0 to 600 ft.

## (7) CASING INSTALLED:

Steel [X] Plastic [ ] Concrete [ ]

| From ft. | To ft. | Dia. in. | Gage or Wall |
|---|---|---|---|
| 0 | 250 | 16" | 1/4" |
| | | | |
| | | | |

## (8) PERFORATIONS:

Type of perforation or size of screen sawed

| From ft. | To ft. | Slot size |
|---|---|---|
| 250 | 600 | |
| | | |
| | | |

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes [ ] No [X] If yes, to depth ft.
Were strata sealed against pollution? Yes [ ] No [X] Interval ft.
Method of sealing

## (10) WATER LEVELS:

Depth of first water, if known ft.
Standing level after well completion ft.

## (11) WELL TESTS:

Was well test made? Yes [ ] No [ ] If yes, by whom?
Type of test Pump [ ] Bailer [ ] Air lift [ ]
Depth to water at start of test ft. At end of test ft.
Discharge gal/min after hours Water temperature
Chemical analysis made? Yes [ ] No [ ] If yes, by whom?
Was electric log made? Yes [ ] No [ ] If yes, attach copy to this report

## (12) WELL LOG:

Total depth 600 ft. Depth of completed well 600 ft.

| from ft. | to ft. | Formation (Describe by color, character, size or material) |
|---|---|---|
| 0 | -30 | cond, |
| 30 | -50 | fine sand |
| 50 | -53 | clay |
| 53 | -57 | sand |
| 57 | -60 | clay |
| 60 | -70 | sand |
| 70 | -82 | clay |
| 82 | 107 | sand |
| 107 | -130 | clay |
| 130 | -140 | sand |
| 140 | -154 | clay |
| 154 | -168 | sand,grvl |
| 168 | -196 | clay |
| 196 | -204 | sand |
| 204 | -230 | clay |
| 230 | -234 | sand |
| 234 | -257 | clay,sand |
| 257 | -264 | sand |
| 264 | -273 | sand.clay |
| 273 | -280 | sand,grvl |
| 280 | -300 | clay |
| 300 | -318 | sand |
| 318 | -331 | clay |
| 331 | -370 | sand,grvl |
| 370 | -390 | clay |
| 390 | -400 | sand,grvl |
| 400 | -404 | clay |
| 404 | -424 | sand |
| 424 | -438 | clay |
| 438 | -442 | sand |
| 442 | -459 | clay |
| 459 | -490 | sand,grvl |
| 490 | -493 | clay |
| 493 | -498 | sandgrvl |
| 498 | -500 | clay |
| 500 | -535 | sand,grvl |
| 535 | -542 | clay,sand |
| 542 | -585 | sand,grvl |

Work started 8/6/ 19 79 Completed 19

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.*

SIGNED (Well Driller)

NAME Wasco Drilling Co. (Person, firm, or corporation) (Typed or printed)

Address PO Box 181

City Wasco , Calif. Zip 93280

License No. 361837 Date of this report 8/9/79

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

COPY
NOT FOR PUBLIC USE
WATER SUPPLY
COMPOSITE

Con"t of Report #097807

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

# WATER WELL DRILLERS REPORT

*Do not fill in*

No. 097808

Notice of Intent No._____

Local Permit No. or Date_____

State Well No._____

Other Well No._____

## (2) LOCATION OF WELL (See instructions):

County_____ Owner's Well Number_____

Well address if different from above_____

Township_____ Range_____ Section_____

Distance from cities, roads, railroads, fences, etc._____

## (3) TYPE OF WORK:

New Well ☐ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

WELL LOCATION SKETCH

## (5) EQUIPMENT:

Rotary ☐ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

## (6) GRAVEL PACK:

Yes ☐ No ☐ Size_____
Diameter of bore_____
Packed from_____ to_____ ft.

## (7) CASING INSTALLED:

Steel ☐ Plastic ☐ Concrete ☐

| From ft. | To ft. | Dia. in. | Gage or Wall |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## (8) PERFORATIONS:

Type of perforation or size of screen

| From ft. | To ft. | Slot size |
|---|---|---|
| | | |
| | | |
| | | |

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes ☐ No ☐ If yes, to depth_____ ft.
Were strata sealed against pollution? Yes ☐ No ☐ Interval_____ ft.
Method of sealing_____

## (10) WATER LEVELS:

Depth of first water, if known_____ ft.
Standing level after well completion_____ ft.

## (11) WELL TESTS:

Was well test made? Yes ☐ No ☐ If yes, by whom?_____
Type of test Pump ☐ Bailer ☐ Air lift ☐
Depth to water at start of test_____ ft. At end of test_____ ft
Discharge_____ gal./min after_____ hours Water temperature_____
Chemical analysis made? Yes ☐ No ☐ If yes, by whom?_____
Was electric log made? Yes ☐ No ☐ If yes, attach copy to this report

## (12) WELL LOG:

Total depth_____ ft. Depth of completed well_____ ft.

| from ft. | to ft. | Formation (Describe by color, character, size or material) |
|---|---|---|
| 585 | -595 | clay |
| 595 | -600 | sand |

Work started_____ 19____ Completed_____ 19____

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief*

SIGNED M.E. Smith (Well Driller)

NAME_____ (Person, firm, or corporation) (Typed or printed)

Address_____

City_____ Zip_____

License No._____ Date of this report_____

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

SOLD FOR PUBLIC USE
NOT FOR PUBLIC USE
WATER CODE SEC. 13752

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

# WATER WELL DRILLERS REPORT

*Do not fill in*

No. 23605

State Well No. 29/24-13

Other Well No.

Notice of Intent No. 159701

Local Permit No. or Date 9-7-78

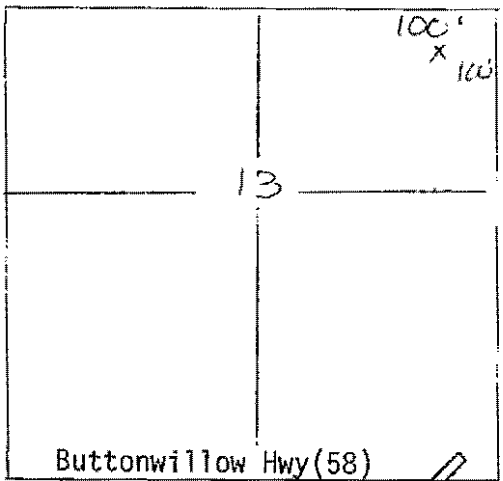
## (2) LOCATION OF WELL (See instructions):

County Kern Owner's Well Number 36-8

Well address if different from above

Township 29S Range 24E Section 13

Distance from cities, roads, railroads, fences, etc. 5 miles West of Enos Lane, 1 mile North of Buttonwillow Highway(Buttonwillow Area)




WELL LOCATION SKETCH

## (3) TYPE OF WORK:

New Well XX Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic ☐
Irrigation XX
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

## (5) EQUIPMENT:

Rotary XX Reverse XX
Cable ☐ Air ☐
Other ☐ Bucket ☐

## (6) GRAVEL PACK:

Yes XX No ☐ Size Birdseye
Diameter of bore 28"
Packed from 0 to 900 ft.

## (7) CASING INSTALLED:

Steel XX Plastic ☐ Concrete ☐

| From ft. | To ft. | Dia. in. | Gage or Wall |
|---|---|---|---|
| 0 | 20 | 30 | 14 |
| 0 | 878 | 16 | ¼" |

## (8) PERFORATIONS:

Type of perforation or size of screen: 1/8 Standard Louvre

| From ft. | To ft. | Slot size |
|---|---|---|
| 398 | 878 | 1/8" |

## (9) WELL SEAL:

Compression Section 380-398

Was surface sanitary seal provided? Yes XX No ☐ If yes, to depth 20 ft.

Were strata sealed against pollution? Yes ☐ No XX Interval ft.

Method of sealing Cement

## (10) WATER LEVELS:

Depth of first water, if known ft.

Standing level after well completion ft.

## (11) WELL TESTS:

Was well test made? Yes ☐ No XX If yes, by whom?

Type of test Pump ☐ Bailer ☐ Air lift ☐

Depth to water at start of test ft. At end of test ft.

Discharge gal/min after hours Water temperature

Chemical analysis made? Yes ☐ No XX If yes, by whom?

Was electric log made? Yes ☐ No XX If yes, attach copy to this report

## (12) WELL LOG:

Total depth 900 ft. Depth of completed well 878 ft.

| from ft. | to ft. | Formation (Describe by color, character, size or material) |
|---|---|---|
| 0 | 20 | Topsoil & Sand |
| 20 | 35 | Brown Clay |
| 35 | 56 | Sand |
| 56 | 74 | Brown Clay & Streaks of Sand |
| 74 | 91 | Sand |
| 91 | 125 | Brown Clay & Streaks of Sand |
| 125 | 142 | Coarse Sand |
| 142 | 163 | Brown Clay |
| 163 | 488 | Coarse Sand |
| 488 | 494 | Brown Sandy Clay |
| 494 | 555 | Coarse Sand |
| 555 | 562 | Brown Sandy Clay |
| 562 | 576 | Coarse Sand |
| 576 | 598 | Brown Sandy Clay |
| 598 | 640 | Coarse Sand |
| 640 | 736 | Brown Sandy Clay |
| 736 | 741 | Brown Sandy Clay & Streaks of Sand |
| 741 | 750 | Coarse Sand |
| 750 | 760 | Medium Grained Sand & Brown Sandy Clay |
| 760 | 770 | Brown Silty Clay, Traces of Sand |
| 770 | 780 | Brown Silty Clay, Med. Grained Sand |
| 780 | 790 | Med. To Coarse Grained Sand |
| 790 | 802 | Brown Silty Clay, Some Coarse Grained Sand |
| 802 | 839 | Brown Silty clay |
| 839 | 845 | Brown Medium Grained Sand |
| 845 | 862 | Med. Grained Blue Sand with some Blue Silty Clay |
| 862 | 878 | Blue Silty Clay |
| 878 | 890 | Brown Medium Grained Sand |
| 890 | 896 | Brown Clay |
| 896 | 900 | Blue Medium Grained Sand, Some Blue Silty Clay |

COMPOSITE

Work started 9-11- 1978 Completed 9-15- 1978

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.*

SIGNED (Well Driller)

NAME BAKERSFIELD WELL & PUMP COMPANY
(Person, firm, or corporation) (Typed or printed)

Address P.O.Box 3216 - 1600 East California Ave.

City Bakersfield, California Zip 93305

License No. 250368 Date of this report 9-20-78

NOT OFFICIAL UNTIL STAMPED BY WATER QUALITY SECTION
DO NOT PUBLISH

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM 42816-950 7-76 50M QUAD ①T OSP

Appendix I.3

# Water District Letter

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# *Shafter~Wasco Irrigation District*

***Board of Directors***

CRAIG D. FULWYLER, ***President***
GEORDY W. WISE, ***Vice President***
DAVID BLOEMHOF III
BENJAMIN P. WILSON
RANDY D. BLOEMHOF

**P.O. Box 1168**
**Wasco, California 93280**
❖
**Business Office: (661) 758-5153**
**Fax: (661) 758-6167**
**Water Department: (661) 758-5369**

***General Manager***
KRIS I. LAWRENCE

***Office Manager/Treasurer***
SARAH K. PITTS

***Legal Counsel***
SCOTT K. KUNEY
ALAN F. DOUD


April 9th, 2025

Kern County Planning and Natural Resources Department
2700 M Street, No. 100
Bakersfield, CA 93301

Re: Support for Buttonbush Solar and Storage Project: Addressing Water Scarcity and Fallowing Lands in Shafter-Wasco Irrigation District 7th Standard Annex

To Whom it May Concern,

I am writing on behalf of the Shafter-Wasco Irrigation District (SWID), which services approximately 49,000 acres of land. As the General Manager of the District, I am reaching out to express our support for the proposed Buttonbush Solar and Storage Project (Buttonbush Project) and to highlight the critical role this project can play in addressing both the challenges of water scarcity and the need for productive land use in this region.

Buttonbush Solar Project is located within the 7th Standard Annex, which was previously un-districted land that was annexed into SWID in 2019 and serves approximately 9,000 acres of farmland in Kern County. The 7th Standard Annex does not share in SWID's surface water supplies, and as such it is heavily reliant on groundwater, which is insufficient to support the water consumption of the annexed area.

The Kern County groundwater basin is critically over drafted, which has put groundwater levels at risk. As part of our Groundwater Sustainability Plan (GSP), the 7th Standard Annex is committed to meeting sustainability goals, which include reducing water usage and managing groundwater levels to ensure a reliable future for our agricultural community. The hallmark of this plan is fallowing farmland. We are implementing a water budget that ramps down water consumption from 3 AF/Acre in 2025 to 0.57 AF/Acre by 2040, unless additional supplemental water is obtained on behalf of the 7th Standard Annex. This difficult decision is rooted in the reality that continued intensive irrigation of crops is no longer feasible in the 7th Standard Annex area.

In this context, we strongly support the Buttonbush Project as a productive and beneficial use of land within the 7th Standard Annex area of SWID. The proposed project offers a "win-win" scenario by repurposing lands that would otherwise be left fallow due to water scarcity. This transition to solar energy production aligns with our long-term goals of sustainability by reducing water demand while simultaneously contributing to California's renewable energy objectives.

Furthermore, it offers a valuable opportunity for economic diversification in an area heavily reliant on agriculture.

The shift to utility-scale solar projects, such as Buttonbush Project, provides benefits to the local community and to Kern County at large. It would generate clean, renewable energy, create jobs, and provide additional tax revenue for the region, helping to mitigate the economic impacts of fallowing land for agricultural use. Transitioning lands from high-water-demand crops to solar energy generation will also help address the critical issue of water scarcity while offering an economically viable alternative for landowners within our district.

We respectfully urge the Kern County Planning and Natural Resources Department to approve the Buttonbush Project, which presents an opportunity to address the water crisis, support local landowners, and contribute to the long-term economic and environmental sustainability of our region.

Please contact the District office if you have any questions.



Kris Lawrence
General Manager

Appendix J

# Noise Materials

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Appendix J.1

# Noise Acreage Memorandum

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# MEMORANDUM

| | |
|---|---|
| **To:** | Jack Foster, Planner II, Planning & Natural Resources Department |
| **From:** | Ronelle Candia, Project Manager, Dudek |
| **Subject:** | Clarification on Project Acreage – Buttonbush Solar & Storage Project, Kern County, CA Final Noise Technical Report |
| **Date:** | May 16, 2025 |
| **cc:** | Pauline Roberts, Director, Permitting, Avantus, Christa Hudson, Permitting Consultant |

## Introduction

In December 2024 Dudek prepared the Final Noise Technical Report (Report) for the Buttonbush Solar and Storage Project (Project) in Kern County, California. The Report assumed the Project would be located on 128 parcels across a leased area of approximately 12,091 acres within an approximately 13,888-acre gross parcel boundary.

## Project Description Revisions

Subsequent to the final Report, the Project area has been revised to be located on 128 parcels across a leased area of approximately 11,983 acres within an approximately 13,868-acre gross parcel boundary. This resulted in a reduction of total acres developed as part of the Project. The modification in the Project acres is because the acres listed by Assessor's Parcel Number (APN) were used to comprise the original Project site acreage total while survey data refinements and minor landowner lease exclusions reduced the total area.

## Findings on Existing Report

The minor reduction in project acreage will not necessitate revisions to the Report, as it does not introduce new significant environmental effects or substantially increase the severity of previously identified impacts. The proposed mitigation measures within the Report remain applicable and do not require revision, despite the slight reduction in acreage from what was analyzed in the technical study.

Additionally, the demolition of specific structures was included in modeling; the modeling inputs related to demolition and grading included sufficient truck trips during the site preparation phase to account for the demolition of all structures and existing uses within the Project area. Therefore, no additional revisions or remodeling are necessary.

Appendix J.2

# Noise Technical Report

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Final Noise Technical Report

# Buttonbush Solar and Storage Project

**DECEMBER 2024**

*Prepared for:*

*29SC 8me LLC*4370 Town Center Blvd, Suite 110,
El Dorado Hills, CA 95762*Contact: Kevin Brokish*

*Prepared by:*

DUDEK

4900 California Avenue
Tower B 2nd Floor, Bakersfield, California 93309
*Contact: Mark Storm, INCE Bd. Cert.*
*Connor Burke, INCE*

Printed on 30% post-consumer recycled material.

# Table of Contents

**SECTION** **PAGE NO.**


Acronyms and Abbreviations ..... iii

Introduction ..... 1

1. Project Background ..... 1
   - 1.1 Project Location ..... 1
   - 1.2 Existing Conditions ..... 1
   - 1.3 Project Characteristics ..... 2
     - 1.3.1 Project Construction ..... 2
     - 1.3.2 Project Operation and Maintenance ..... 3

2 Fundamentals of Noise and Vibration ..... 17
   - 2.1 Sound, Noise, and Acoustics ..... 17
   - 2.2 Vibration ..... 21
   - 2.3 Sensitive Receptors ..... 21

3 Existing Noise Environment ..... 25

4 Regulatory Setting ..... 27
   - 4.1 Federal Regulations ..... 27
   - 4.2 State Regulations ..... 27
   - 4.3 Local Regulations ..... 29

5 Significance Criteria ..... 32
   - 5.1 Significance Thresholds ..... 32

6 Impact Analysis ..... 34
   - 6.1 Significance Threshold A ..... 34
     - 6.1.1 Construction ..... 34
     - 6.1.2 Operation ..... 39
   - 6.2 Significance Threshold B ..... 42
   - 6.3 Significance Threshold C ..... 43

7 Mitigation Measures ..... 45

8 Cumulative Impacts Assessment ..... 47

9 References ..... 51

## TABLES

Table 1. Typical A-Weighted Noise Levels ..... 18
Table 2. Measured Baseline Noise Levels ..... 25
Table 3. Sensitive Receptor Distance to Project Site ..... 26
Table 4. Land Use Compatibility for Community Noise Environments ..... 28
Table 5. Measures of Substantial Increase for Transportation Noise Sources ..... 33
Table 6. Typical Construction Equipment Noise Emission Levels ..... 35
Table 7. Estimated Distances between Construction Activities and the Nearest Noise Sensitive Receptors ..... 36
Table 8. Predicted Construction Noise Levels per Activity Phase ..... 37
Table 9. Sound Power Levels for Modeled Sources of Outdoor Noise Emission ..... 41
Table 10. Operational Noise Levels at Nearest Sensitive Receptors ..... 42

## FIGURES

Figure 1 Project Location ..... 5
Figure 2A Site Plan ..... 7
Figure 2B Site Plan ..... 9
Figure 2C Site Plan ..... 11
Figure 2D Site Plan ..... 13
Figure 2E Site Plan ..... 15
Figure 3 Baseline Sound Measurement Positions, Sensitive Receptor Locations, and Modeled Receptors ..... 23

## APPENDICES

A Field Noise Measurement Data
B Construction Noise Model Input / Output
C CadnaA Sound Propagation Model Input / Output

# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| AC | alternating current |
| ADT | average daily traffic |
| ANSI | American National Standards Institute |
| Caltrans | California Department of Transportation |
| CBC | California Building Code |
| CEQA | California Environmental Quality Act |
| CNEL | community noise equivalent level |
| dB | Decibel |
| dBA | A-weighted decibels |
| DC | direct electrical current |
| ESS | energy storage systems |
| FHWA | Federal Highway Administration |
| FICON | Federal Interagency Committee on Noise |
| FTA | Federal Transit Administration |
| GW | Gigawatts |
| HVAC | heating, ventilation and air conditioning |
| Hz | Hertz |
| ips | inches per second |
| ISO | International Organization of Standardization |
| kHz | Kilohertz |
| $L_{eq}$ | equivalent sound level |
| $L_{dn}$ | day-night level |
| $L_{max}$ | maximum sound level during measurement interval |
| $L_{xx}$ | Percentile-exceeded sound level |
| MM | Mitigation Measure |
| mPA | micro-Pascals |
| OPR | California Governor's Office of Planning and Research |
| O&M | operations and maintenance |
| PG&E | Pacific Gas & Electric |
| PPV | peak particle velocity |
| PV | Photovoltaic |
| RCNM | Roadway Construction Noise Model |
| SPL | sound pressure level |
| ST | short-term noise measurement location |

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# Introduction

The purpose of this Noise Technical Report is to identify any noise or vibration impacts that may be associated with the proposed Buttonbush Solar and Storage Project (project), located in unincorporated Kern County, California. The analysis provided in this report evaluates the potential for short- and long-term noise and vibration impacts associated with the construction and operation of the project. The analysis includes a description of the environmental setting for the project, including existing noise conditions, as well as applicable laws and regulations. It also documents the assumptions, methodologies, and findings used to evaluate the impacts.

# 1. Project Background

## 1.1 Project Location

The project site is located within unincorporated Kern County directly north of the community of Buttonwillow, approximately two miles west of the City of Shafter, and approximately seven miles southwest of the City of Wasco, as shown on **Figure 1**, *Project Location*, and the project site boundaries are illustrated **Figure 2,** *Site Plan*. The project site straddles Interstate 5 (I-5), is east of Buttonwillow Raceway Park, just north of Highway 58, and south of Highway 46. Several single-family homes and agriculture-related structures are near the project boundary. Several properties within the project boundary contain agriculture structures and single-family homes. One single-family home on APN 087-040-04 would be removed during project construction. Vehicular access to the site would likely be from Wasco Way, Merced Avenue, Lerdo Highway, Rowlee Road, Wildwood Road, Buttonwillow Drive, 7th Standard Road, Snow Road, Blue Star Memorial Highway, and Sullivan Road. Many dirt roads cross the project site.

## 1.2 Existing Conditions

The project as proposed by 29SC 8me LLC (project proponent) would be located on 128 parcels across a leased area of approximately 12,091 acres within a 13,888-acre gross parcel boundary of privately owned land currently under agricultural use in the valley region of Kern County. Approximately 10,791 acres of the approximately 12,091 total project acres (102 of 128 parcels within the project site boundaries) are subject to active Williamson Act Land Use contracts. The project site is located on lands designated by the Farm Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance, Unique Farmlands, Grazing Land, Nonagricultural or Natural Vegetation, and Vacant or Disturbed Land.

The project site is not located within a designated Mineral Resource Zone. There are several oil and gas wells located within the project site as well as mineral rights holders that currently have active rights to mineral resources on several of the project parcels. Development of the project would include a 10-foot no-build setback around the oil and gas wells and provide 2.5-acre drilling areas to provide mineral access to mineral rights holders within the project site.

Existing land uses surrounding the project site consist largely of agriculturally zoned parcels which are sparsely occupied by farm or rural residential uses. The primary zoning classification in the 5-mile radius surrounding the project site is Zone A (Exclusive Agriculture). Rural residential buildings are located in the unincorporated

community of Kern County, located within the project site. The nearest school is Buttonwillow Elementary School, located approximately one mile southwest at 42600 Highway 58 Buttonwillow, California 93206.

## 1.3 Project Characteristics

The project would include the construction and operation of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 2 gigawatts (GW) of alternating current (AC) power with an up to 2 GW energy storage system. The project would be supported by a 500-kV gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Pacific Gas & Electric (PG&E) Midway Substation. PG&E will enlarge the Midway Substation's 500 kV yard, within PG&E's Midway Substation property boundary, to accommodate the proposed project's interconnection. The proposed project may also interconnect to the PG&E Ganso Substation via overhead and/or underground gen-tie lines. The project's permanent facilities would include solar panels, solar racking, inverters, service roads, a power collection system (115kV – 34.5kV), communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), meteorological stations, microwave towers. and operations and maintenance (O&M) facilities.

Additionally, portions of the project may be used to power equipment in the existing oil fields approximately 15 miles west of the project site. The transfer of power would be supported by an overhead gen-tie and/or underground electrical transmission line(s) originating from one or more on-site substations, routing west along Lerdo highway, and terminating southeast of the Lerdo Highway and Lost Hills Road intersection, as shown on Figure 2, *Site Plan*.

### 1.3.1 Project Construction

The construction period for the proposed project from site preparation through construction, testing, and commercial operation is expected to commence as early as Q3 2025 and would extend for up to 60 months.

Construction of the proposed project would include the activities associated with the project components listed above.:

- Move on
- Site preparation and grading
- Access road improvements
- Internal roads construction
- Solar array structural, underground and panel, and battery installation
- Electrical substation, O&M facility and microwave tower construction
- Gen-tie line construction

No roadways would be affected by the proposed project, except during the construction period. Construction traffic would access the project site from Wasco Way, Merced Avenue, Lerdo Highway, Rowlee Road, Wildwood Road,

Buttonwillow Drive, 7th Standard Road, Snow Road, Blue Star Memorial Highway, and Sullivan Road. It is estimated that up to 800 workers per day (during peak construction periods) would be required during construction of the proposed project.

Construction activities would comply with Kern County and local municipalities' noise ordinances. Heavy construction is expected to occur between 7:00 am and 5:00 pm, Monday through Friday. If weekend work is required, construction would occur between 8:00 am and 9:00 pm. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, for several days in a given week[1]. Low-level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, staging material for the following day's construction activities, gen-tie crossing, quality assurance/control, and commissioning.

Materials and supplies would be delivered to the project site by truck. Truck deliveries would normally occur during daylight hours. However, there may be offloading and/or transporting to the project site on weekends and during the early evening hours.

Earthmoving activities are expected to be limited to the construction of the access roads, O&M building(s), substation(s), microwave towers, met stations, water storage tank, construction of solar panel foundation supports, inverter foundations, ESSs, and any stormwater protection or storage (detention) facilities. Final grading may include revegetation with low-lying grass or applying earth-binding materials to disturbed areas.

### 1.3.2 Project Operation and Maintenance

Once the proposed project is constructed, maintenance would generally be limited to the following:

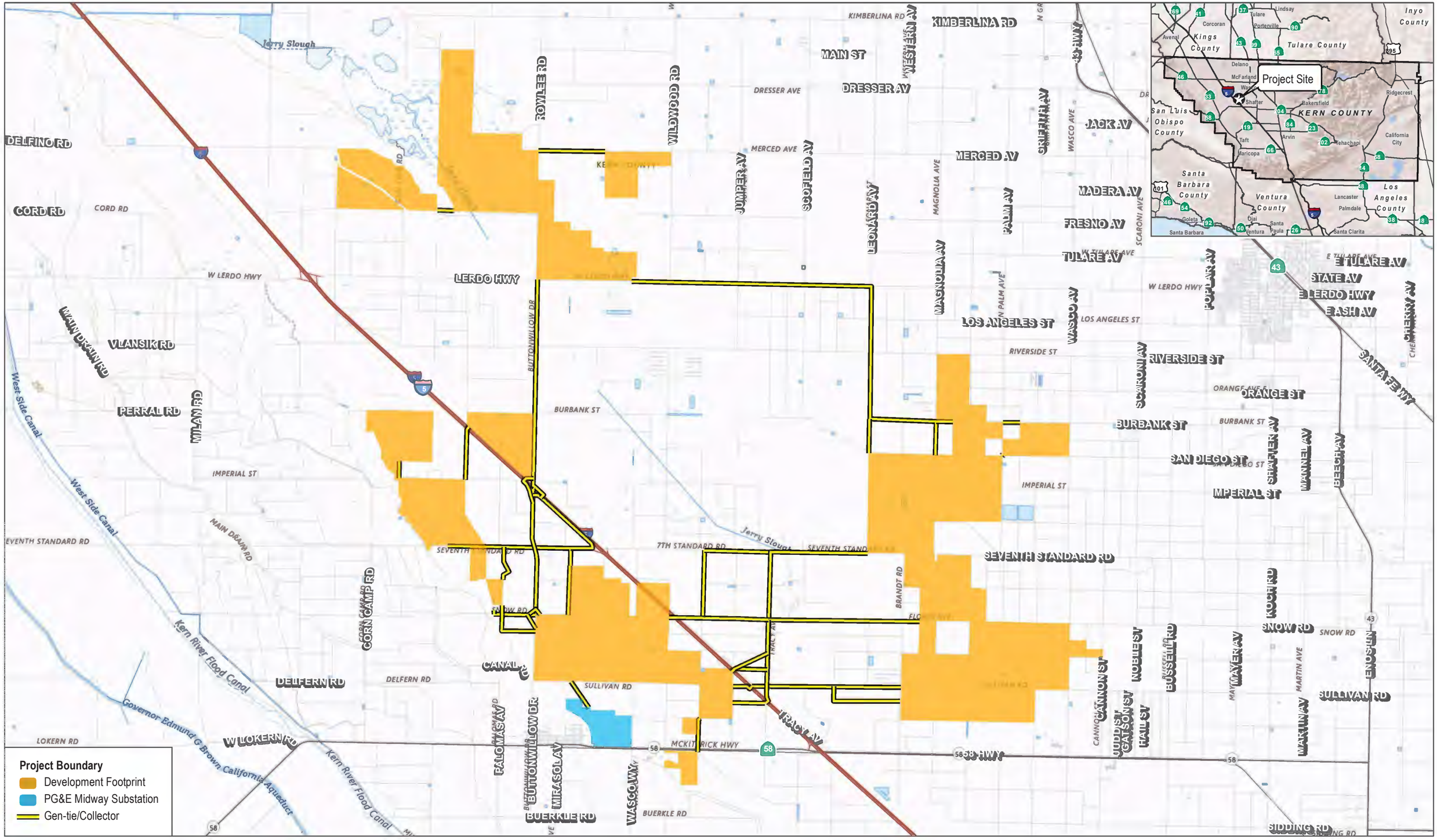
- Cleaning of PV panels
- Monitoring electricity generation
- Providing site security
- Facility maintenance – replacing or repairing inverters, wiring, and PV modules, road maintenance, vegetation management, and or fence repairs

It is expected that the proposed project could require an operational staff of up to 20 full-time employees. As previously mentioned above, it is possible that the proposed project could share O&M, substation, and/or transmission facilities with nearby energy projects. In such a scenario, the projects would share personnel, thereby potentially reducing the project's on-site staff.

The facility would operate seven days a week, 24 hours a day, generating electricity during normal daylight hours when solar energy is available. The ESS could dispatch energy at any time during the day or night. Maintenance activities are anticipated to occur during normal business hours; however, emergency maintenance may occur outside these timeframes to ensure ESS output and PV panel output when solar energy is available.

[1] Some substation testing will be required prior to the completion of project construction. This testing will include nighttime operation because the substation equipment must be tested continuously for 72 hours for safety reasons.

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SOURCE: USGS National Map 2022; Kern County 2022

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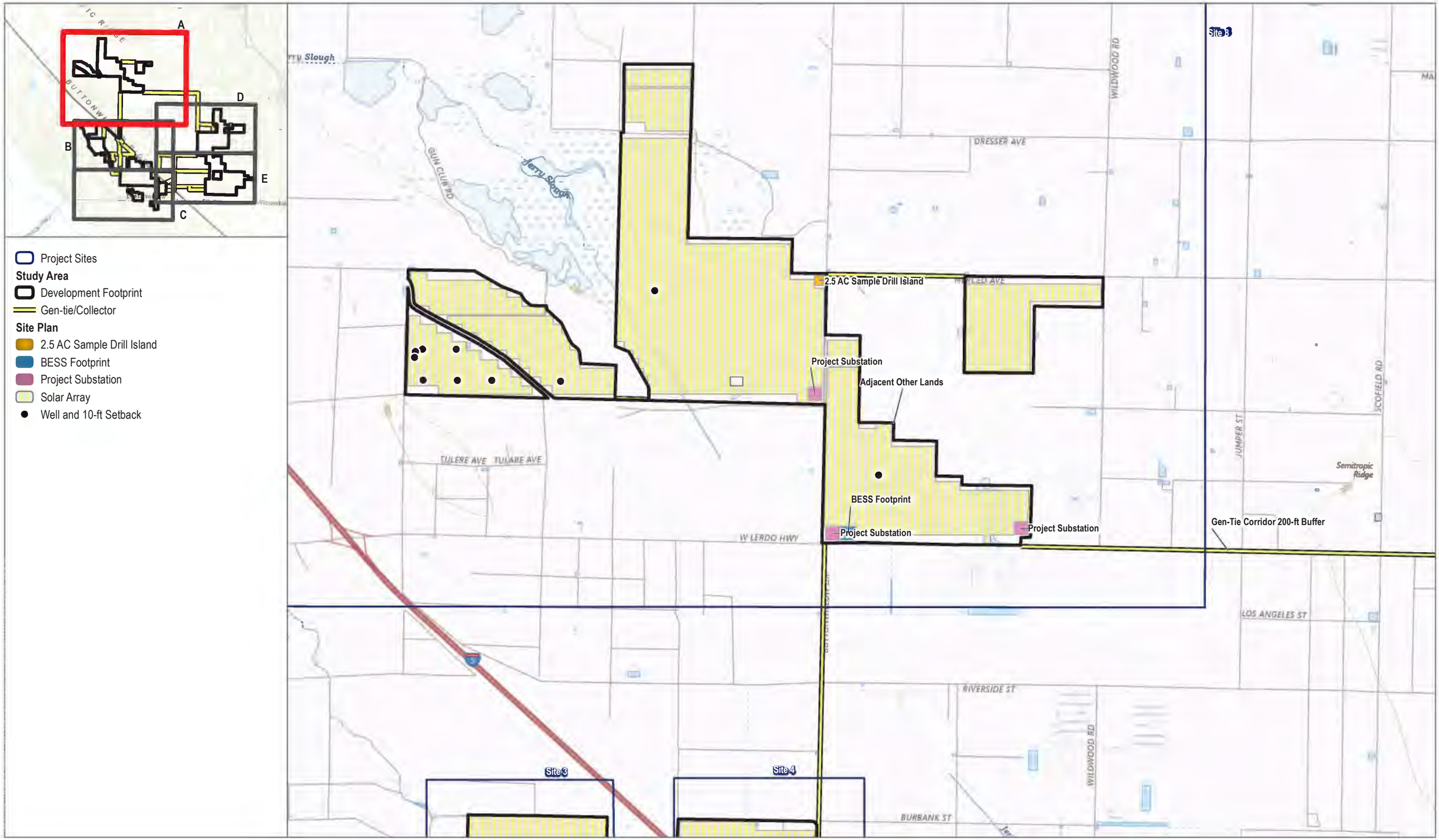
0 1 2 Miles

**FIGURE 1**

Project Location

Buttonbush Solar Energy Project

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SOURCE: USGS National Map 2022; Avantus LLC., 2023

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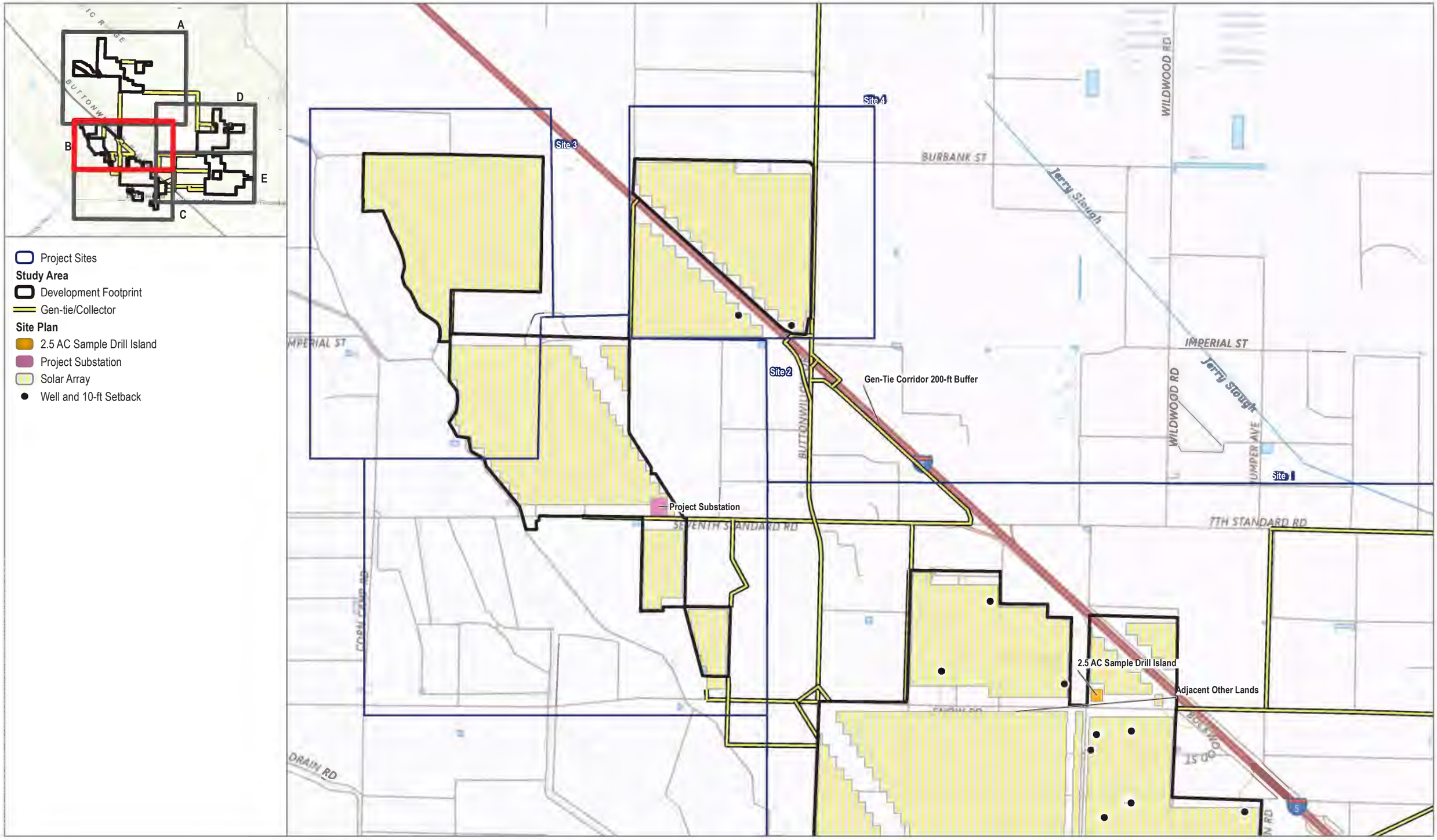
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**FIGURE 2A**

Site Plan

Buttonbush Solar Energy Project

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SOURCE: USGS National Map 2022; Avantus LLC., 2023

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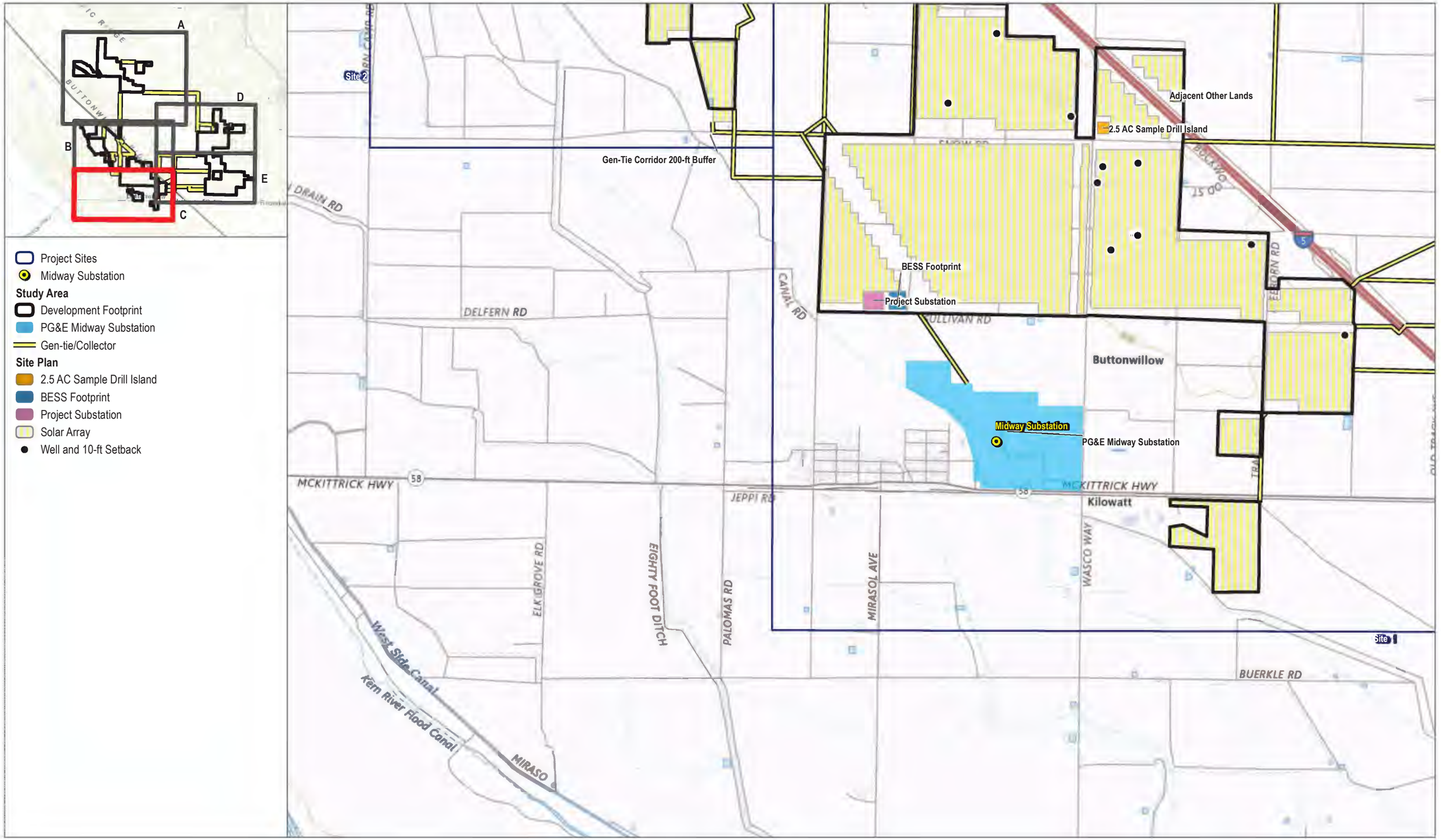
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**FIGURE 2B**

Site Plan

Buttonbush Solar Energy Project

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SOURCE: USGS National Map 2022; Avantus LLC., 2023

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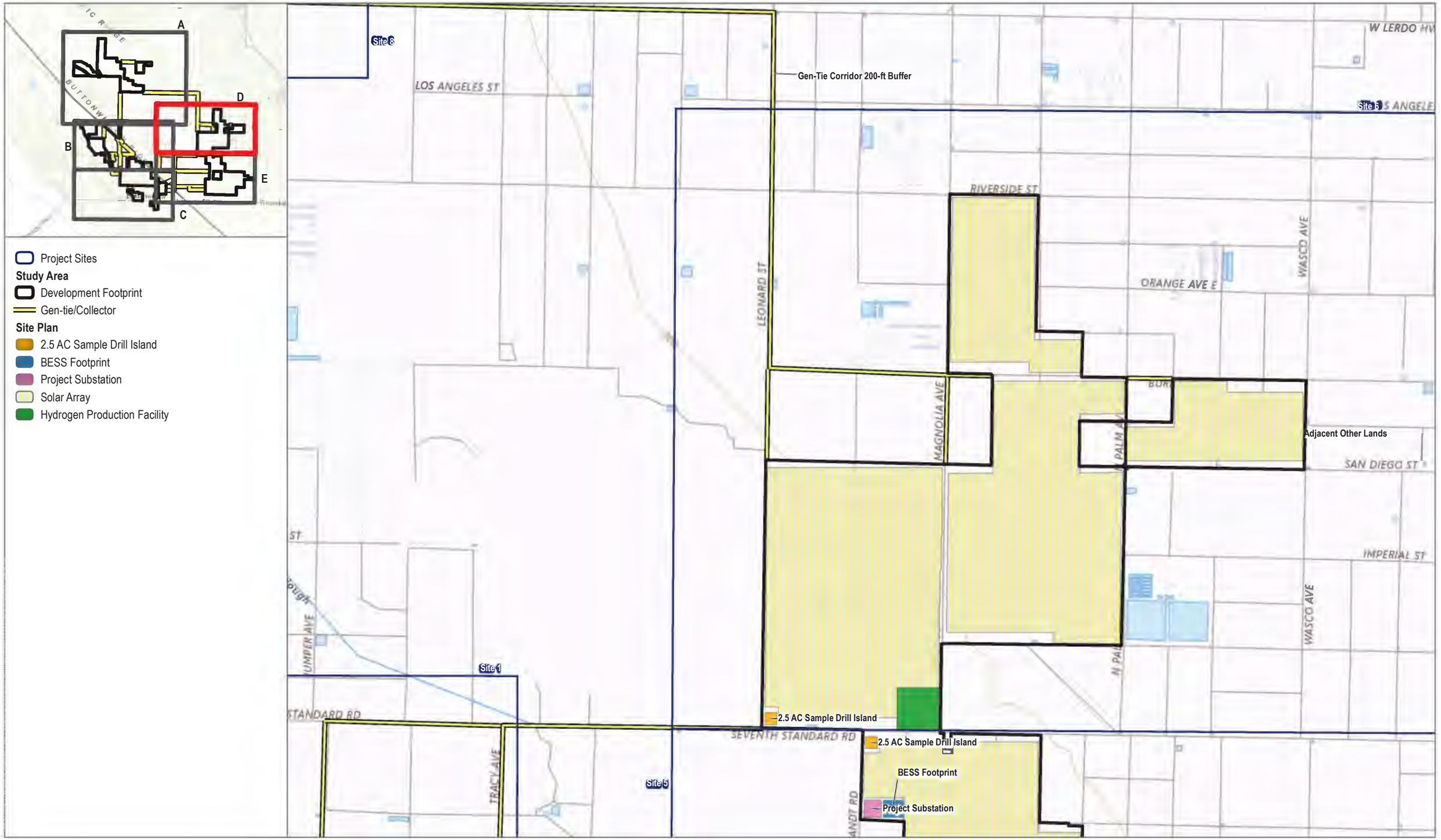
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**FIGURE 2C**

Site Plan

Buttonbush Solar Energy Project

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SOURCE: USGS National Map 2022; Avantus LLC., 2023

DUDEK

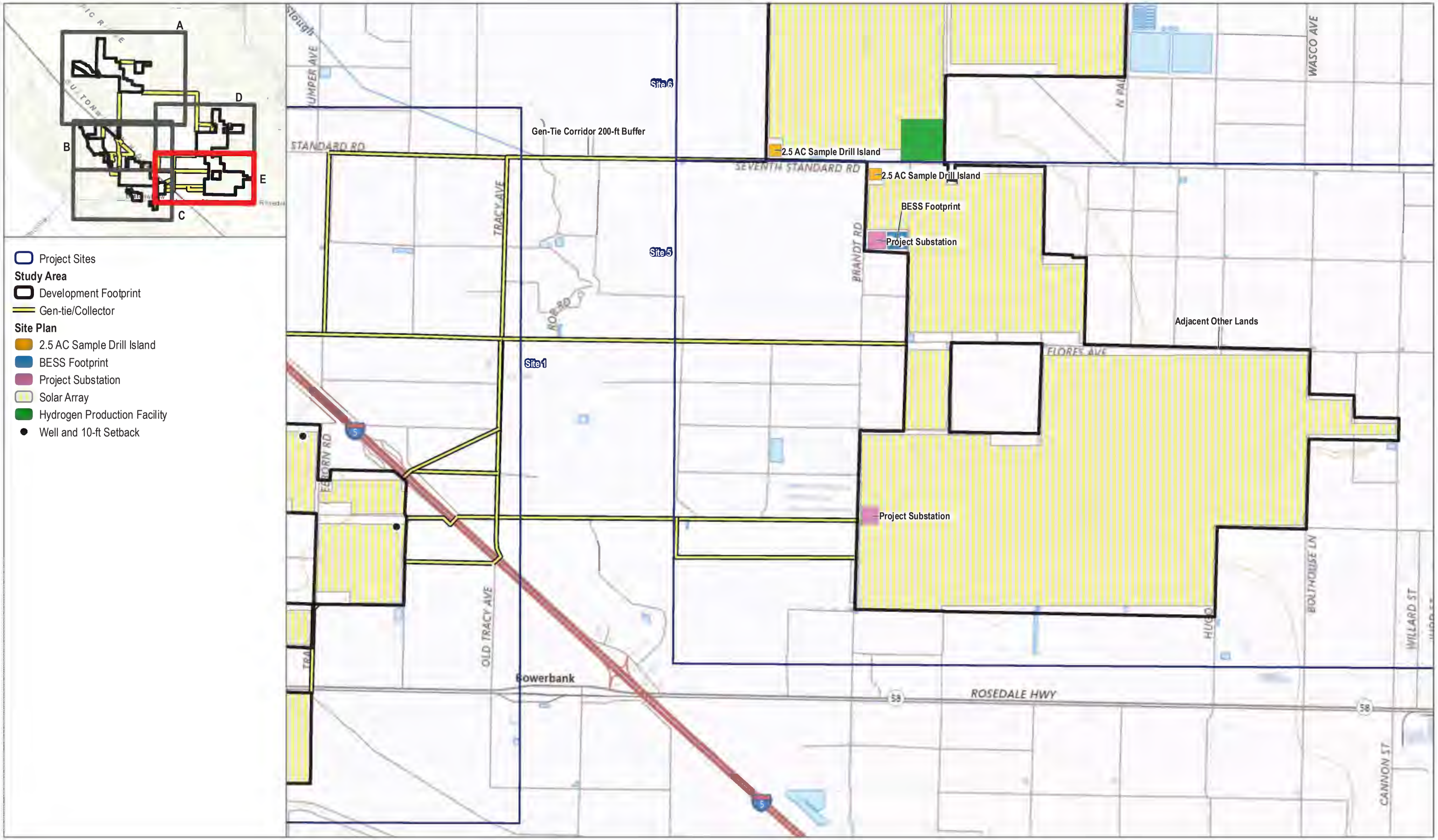
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**FIGURE 2D**

Site Plan

Buttonbush Solar Energy Project

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SOURCE: USGS National Map 2022; Avantus LLC., 2023

DUDEK

0 2,000 4,000 Feet

**FIGURE 2E**

Site Plan

Buttonbush Solar Energy Project

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# 2 Fundamentals of Noise and Vibration

## 2.1 Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as unwanted, unexpected, or annoying sound. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. The field of acoustics deals primarily with the propagation and control of sound.

The following subsections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

### Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

### Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

### Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a receptor equidistant to each sound source would be 3 dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

### A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit

area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of dBA) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, D-, and G-scales), but these scales are rarely used in conjunction with highway traffic noise. Noise levels for traffic noise reports are typically reported in terms of A-weighted decibels (dBA). Table 1 provides typical outdoor and indoor noise sources against a decreasing linear scale of A-weighted sound levels.

## Table 1. Typical A-Weighted Noise Levels

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|---|---|---|
| | — 110 — | Rock band |
| Jet fly-over at 1000 feet | | |
| | — 100 — | |
| Gas lawn mower at 3 feet | | |
| | — 90 — | |
| Diesel truck at 50 feet at 50 mph | | Food blender at 3 feet |
| | — 80 — | Garbage disposal at 3 feet |
| Noisy urban area, daytime | | |
| Gas lawn mower, 100 feet | — 70 — | Vacuum cleaner at 10 feet |
| Commercial area | | Normal speech at 3 feet |
| Heavy traffic at 300 feet | — 60 — | |
| | | Large business office |
| Quiet urban daytime | — 50 — | Dishwasher next room |
| | | |
| Quiet urban nighttime | — 40 — | Theater, large conference room (background) |
| Quiet suburban nighttime | | |
| | — 30 — | Library |
| Quiet rural nighttime | | Bedroom at night, concert hall (background) |
| | — 20 — | |
| | | Broadcast/recording studio |
| | — 10 — | |
| | | |
| Lowest threshold of human hearing | — 0 — | Lowest threshold of human hearing |

**Source:** Caltrans 2013.

## Human Response to Changes in Noise Levels

As discussed above, doubling sound energy results in a 3 dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1 dB changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hz–8,000 Hz) range (Caltrans 2013). In typical noisy environments, however, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical outdoor noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3 dB increase in sound would generally be perceived as barely detectable.

## Noise Descriptors

Noise in our daily environment fluctuates over time at varying rates. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors are utilized in this analysis.

- **Equivalent Sound Level ($L_{eq}$):** $L_{eq}$ represents an energy average of the sound level occurring over a specified period. The 1-hour A-weighted equivalent sound level ($L_{eq}[h]$) is the energy average of A-weighted sound levels occurring during a one-hour period and is the basis for noise abatement criteria used by the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA). Note that $L_{eq}$ is not an arithmetic average of varying dB levels over a period of time, it accounts for greater sound energy represented by higher decibel contributions.
- **Percentile-Exceeded Sound Level ($L_{xx}$):** $L_{xx}$ represents the sound level exceeded for a given percentage of a specified period (e.g., $L_{10}$ is the sound level exceeded 10% of the time, and $L_{90}$ is the sound level exceeded 90% of the time).
- **Maximum Sound Level ($L_{max}$):** $L_{max}$ is the highest instantaneous sound level measured during a specified period.
- **Day-Night Level ($L_{dn}$):** $L_{dn}$ is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10 p.m. and 7 a.m.
- **Community Noise Equivalent Level (CNEL):** Similar to $L_{dn}$, CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m., and a 5 dB penalty applied to the A-weighted sound levels occurring during evening hours between 7 p.m. and 10 p.m.

It is noted that various federal, state, and local agencies have adopted CNEL or Ldn as the measure of community noise. While not identical, CNEL and Ldn are normally within 1 dBA of each other when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

## Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors:

- **Geometric Spreading –** Sound from a localized source (i.e., an ideal point source) propagates uniformly outward in a spherical pattern (or hemispherical when near a surface). The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roadways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.
- **Ground Absorption –** The propagation path of noise from a sound emission source to a receptor is usually horizontal and proximate to the ground. Under these conditions, noise attenuation from ground absorption and reflective-wave canceling can add to the attenuation associated with geometric spreading. For acoustically "hard" paths over which sound may traverse (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or "soft" sites (i.e., those sites with an absorptive ground surface between the source and the receptor, such as fresh-fallen snow, soft dirt, or dense vegetative ground cover), an additional ground-attenuation value of +1.5 dB per doubling of distance is normally assumed. When added to cylindrical spreading for line source sound propagation, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance.
- **Atmospheric Absorption –** In addition to aforementioned geometric spreading, the fluid medium (i.e., the air) through which sound travels yields frequency-dependent attenuation that increases in magnitude with increasing frequency. The effect is influenced by temperature and relative humidity, and typically negligible over short source-to-receptor distances (e.g., less than 500 feet); but it helps explain why lower-frequency sound such as a thunderclap appears to "travel farther" over great distances.
- **Meteorological Effects –** Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound pressure levels can also be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects when distances between a source and receptor are large.
- **Shielding by Natural or Human-Made Features –** A large object or barrier in the direct path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and ridgelines) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. While a line of trees may visually occlude the direct line between a source and a receptor, its actual noise-reducing effect is usually negligible because it does not create an acoustically solid barrier. Deep expanses of dense wooded areas, on the other hand, can offer noise reduction under the right conditions.

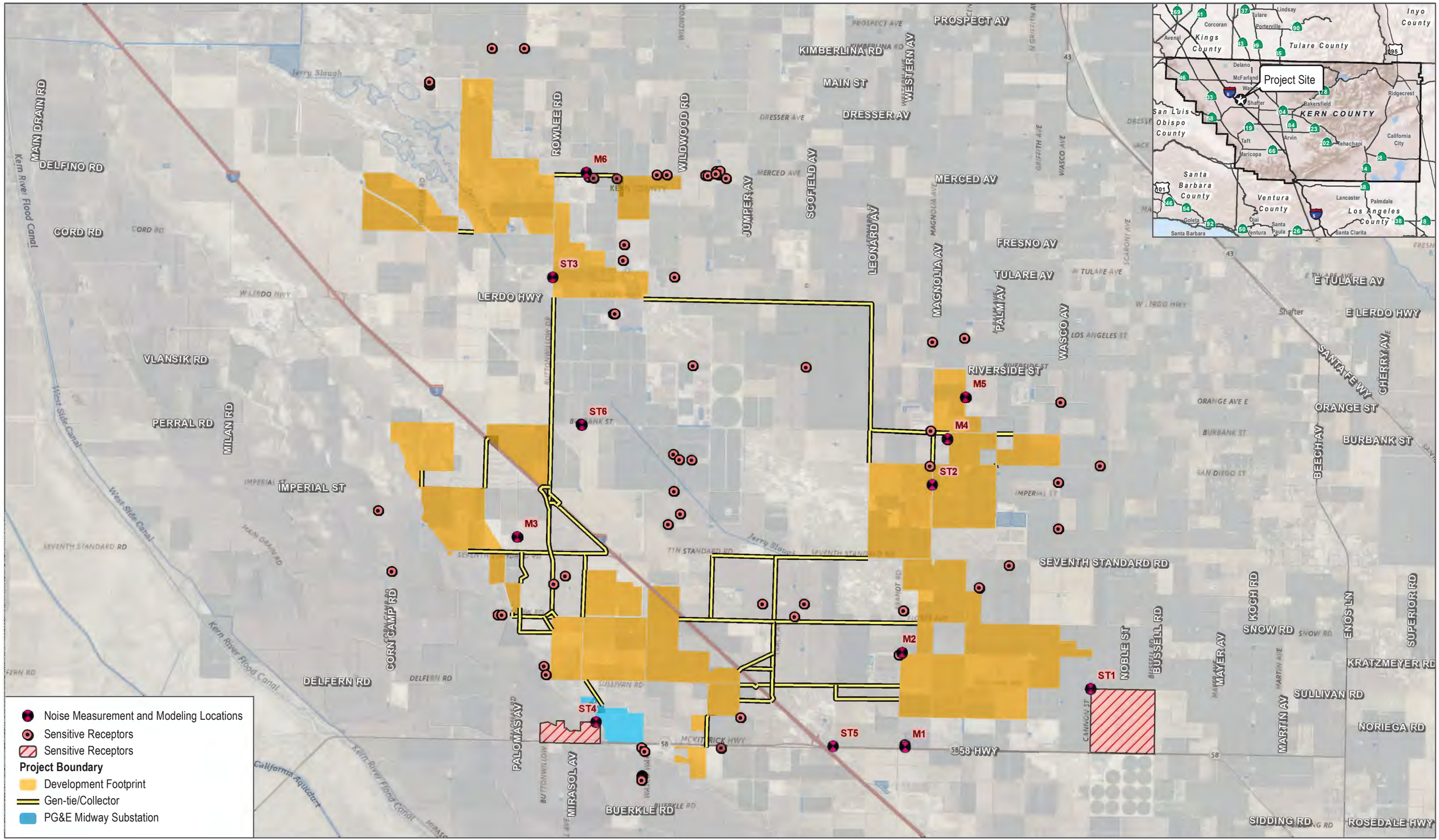
## 2.2 Vibration

Vibration is oscillatory movement of mass (typically a solid) over time. It is described in terms of frequency and amplitude and, unlike sound, can be expressed as displacement, velocity, or acceleration. For environmental studies, vibration is often studied as a velocity that, akin to the discussion of sound pressure levels, can also be expressed in dB as a way to cast a large range of quantities into a more convenient scale. Vibration impacts to buildings are generally discussed in terms of inches per second (ips) peak particle velocity (PPV), which will be used herein to discuss vibration levels for ease of reading and comparison with relevant standards. Vibration can also be annoying and thereby impact occupants of structures, and vibration of sufficient amplitude can disrupt sensitive equipment and processes (Caltrans 2020), such as those involving the use of electron microscopes and lithography equipment. Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities where sudden releases of subterranean energy or powerful impacts of tools on hard materials occur. Depending on their distances to a sensitive receptor, operation of large bulldozers, graders, loaded dump trucks, or other heavy construction equipment and vehicles on a construction site also have the potential to cause high vibration amplitudes. The maximum vibration level standard used by Caltrans for the prevention of structural damage to typical residential buildings is 0.3 ips PPV (Caltrans 2020). For human annoyance, Caltrans guidance indicates that a more stringent threshold of 0.2 ips PPV due to continuous vibration (e.g., nearby roadway traffic) would be “annoying.” Vibration velocity limits for transient or single events tend to be less stringent than those for continuous or “steady state” vibration sources.

## 2.3 Sensitive Receptors

Noise- and vibration-sensitive land uses are typically considered locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, and hospitals are usual examples, with others depending on what the local jurisdiction may have defined or established. Based on context from the Kern County General Plan Noise Element (Kern County 2009), sensitive receptors include residential areas, schools, churches, convalescent and acute care facilities, and parks and recreational areas. Residences and recreational uses are the nearest noise-sensitive land uses in the vicinity of the project site. Existing residences and a park are located near the project site’s southwestern boundary in the community of Buttonwillow, and several single-family residences are located at locations throughout the proposed project area. The nearest receptor is a residential home on APN 087-040-04, located immediately within the project, west of Rowlee Road and south of Merced Avenue. This residential home, however, would be removed as part of the proposed project. The second receptor is a residential home and outbuildings on APN 087-040-06, west of Rowlee Road and north of Lerdo Hwy. A third residential home and outbuildings are located on APNs 103-010-42 and 103-010-43, east of Brandt Road and south of Seventh Standard Road. A residential home and agriculture-related outbuildings are on APN 103-060-04, just east of Brandt Road and north of Flores Road. The owners of the abovementioned residential homes are all participating in the project. These existing sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the project and are located on Figure 3, Baseline Sound Measurement Positions, Sensitive Receptor Locations, and Modeled Receptors.

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SOURCE: USGS National Map 2022; Bing Maps 2022; Kern County 2022

DUDEK

0 1 2 Miles

**FIGURE 3**

Baseline Sound Measurement Positions, Sensitive Receptor Locations, and Modeled Receptors

Buttonbush Solar Energy Project

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# 3 Existing Noise Environment

Outdoor ambient sound level measurements were conducted in the vicinity of the project site to characterize the existing noise environment. The measurements were conducted on January 23rd and 26th, 2023 using a Soft dB Piccolo II Integrating Sound Level Meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 (General Use) sound level meter. The calibration of the sound level meter was verified before and after the measurements, and the measurements were conducted with the measurement microphone covered with a windscreen and positioned approximately five feet above the ground.

Six noise measurement locations were selected (ST1–ST6) representing vicinities of existing noise-sensitive areas in the project vicinity. The measurement locations were distributed throughout the project vicinity with an emphasis on locations that are representative of one or more noise-sensitive receptors (i.e., residential dwellings) near the proposed project site. The measurement locations (a.k.a., survey tags) are shown in Figure 3 and the measured average noise levels and measurement locations are provided in Table 2. Noise measurement data is also included in Appendix A. As shown in Table 2, measured baseline ambient noise levels ranged from approximately 38 dBA $L_{eq}$ at ST4 to 73 dBA $L_{eq}$ at ST2. The primary noise source at the measurement locations consisted of traffic along the adjacent roadways. Secondary noise sources included distant traffic, distant industrial noise, distant landscaping activities, and birdsong.

**Table 2. Measured Baseline Noise Levels**

| Survey Tag* | Location/Address | Date | Time | $L_{eq}$ (dBA) | $L_{max}$ (dBA) |
|---|---|---|---|---|---|
| ST1 | Southeast of project site, adjacent to single-family residences at 5482 Cannon Street | January 23, 2023 | 1:30 p.m. – 1:45 p.m. | 57.3 | 82.2 |
| ST2 | Within project site, adjacent to single-family residence at 19003 Magnolia Avenue | January 23, 2023 | 4:05 p.m. – 4:20 p.m. | 72.6 | 93.5 |
| ST3 | West of project site, between single-family residences at 17815 and 17841 Rowlee Road | January 23, 2023 | 4:35 p.m. – 4:50 p.m. | 71.3 | 90.6 |
| ST4 | Southwest of project site, adjacent to residences and park at Meadow Street and Crespino Avenue | January 26, 2023 | 1:05 p.m. – 1:20 p.m. | 38.1 | 65.0 |
| ST5 | South of project site, adjacent to motel at 33210 Rte-58 | January 26, 2023 | 1:30 p.m. – 1:45 p.m. | 69.7 | 84.8 |
| ST6 | Central portion of project site, adjacent to single-family residence at 26194 Burbank Street | January 26, 2023 | 12:35 p.m. – 12:50 p.m. | 62.6 | 83.5 |

**Source:** Appendix A; *see Figure 3 for baseline noise survey positions in the Project vicinity.

**Notes:** $L_{eq}$ = equivalent continuous sound level (time-averaged sound level); $L_{max}$ = maximum sound level during the measurement interval.

In addition, five specific receptor locations representing the closest sensitive receptors to the project boundary were established for modeling purposes and also appear on Figure 3. Table 3 summarizes the distance from each of these specific receptors to the project site.

### Table 3. Sensitive Receptor Distance to Project Site

| Modeled Receptors | Location/Address | Distance to nearest Project Site Boundary (feet) | Project Site Number |
|---|---|---|---|
| M1 | South of Site 5, North of Hageman Road, east of Brandt Road | 2300 | Site 5 |
| M2 | East of Brandt Road, North of Flores Avenue | 50 | Site 5 |
| M3 | East of Site 2, North of 7th Standard Road | 1500 | Site 2 |
| M4 | South of Burbank Street, east of Magnolia Avenue | 100 | Site 6 |
| M5 | East of Site 6, North of Orange Avenue E. | 50 | Site 6 |
| M6 | Casa Merced Venue (26307 Merced Avenue) | 1900 | Site 8 |

# 4 Regulatory Setting

## 4.1 Federal Regulations

### Federal Transit Administration

Although no federal regulations are applicable to this project, guidance and methodologies from the Federal Transit Administration's (FTA's) Transit Noise and Vibration Impact Assessment Manual (FTA 2018) pertaining to construction noise and vibration are used in this analysis.

### Federal Interagency Committee on Noise

In 1992 the Federal Interagency Committee on Noise (FICON) assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. Although the FICON recommendations were developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to roadway traffic, as detailed in Section 6.1, Thresholds of Significance.

## 4.2 State Regulations

### California Department of Transportation

In its Transportation and Construction Vibration Guidance Manual, Caltrans recommends a vibration velocity threshold of 0.2 ips PPV (Caltrans 2020) for assessing annoying vibration impacts to occupants of residential structures. Although this Caltrans guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the local jurisdictional level. Similarly, thresholds to assess building damage risk due to construction vibration vary with the type of structure and its fragility; for instance, 0.3 ips PPV is recommended for typical older residential structures exposed to continuous or frequently intermittent sources of groundborne vibration (Caltrans 2020).

### Government Code Section 65302(g)

California Government Code Section 65302(g) requires the preparation of a Noise Element in a general plan, which shall identify and appraise the noise problems in the community. The Noise Element shall recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport-related operations
- Local industrial plants
- Other ground stationary noise sources contributing to the community noise environment

## California General Plan Guidelines

The California General Plan Guidelines, published by the Governor's Office of Planning and Research, provides guidance for the acceptability of specific land use types within areas of specific noise exposure. Table 4, Land Use Compatibility for Community Noise Environments, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The Office of Planning and Research guidelines are advisory in nature. Local jurisdictions, including the City of Pomona, have the responsibility to set specific noise standards based on local conditions.

### Table 4. Land Use Compatibility for Community Noise Environments

| Land Use Type | Community Noise Exposure (CNEL) | | | |
|---|---|---|---|---|
| | Normally Acceptable[1] | Conditionally Acceptable[2] | Normally Unacceptable[3] | Clearly Unacceptable[4] |
| Residential-low density, single-family, duplex, mobile homes | 50–60 | 55–70 | 70–75 | 75–85 |
| Residential – multiple-family | 50–65 | 60–70 | 70–75 | 70–85 |
| Transit lodging – motel, hotels | 50–65 | 60–70 | 70–80 | 80–85 |
| Schools, libraries, churches, hospitals, nursing homes | 50–70 | 60–70 | 70–80 | 80–85 |
| Auditoriums, concert halls, amphitheaters | NA | 50–70 | NA | 65–85 |
| Sports arenas, outdoor spectators' sports | NA | 50–75 | NA | 70–85 |
| Playgrounds, neighborhood parks | 50–70 | NA | 67.5–77.5 | 72.5–85 |
| Golf courses, riding stables, water recreation, cemeteries | 50–70 | NA | 70–80 | 80–85 |
| Office buildings, business commercial and professional | 50–70 | 67.5–77.5 | 75–85 | NA |
| Industrial, manufacturing, utilities, agriculture | 50–75 | 70–80 | 75–85 | NA |

**Source:** OPR 2017

CNEL = Community Noise Equivalent Level; NA = not applicable

1 Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

2 Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

3 Normally Unacceptable: New construction or development should be discouraged. If new construction of development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise-insulation features must be included in the design.

4 Clearly Unacceptable: New construction or development should generally not be undertaken.

## California Code of Regulations Title 24

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings,

occupational noise control, and noise insulation. State regulations governing noise levels generated by individual motor vehicles and occupational noise control are not applicable to planning efforts, nor are these areas typically subject to CEQA analysis. State noise regulations and policies applicable to the project include Title 24 requirements and noise exposure limits for various land use categories. The 2019 California Building Code (CBC, Part 2, Title 24, Section 1204.6, California Code of Regulations) stipulates "interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level ($L_{dn}$) or the community noise equivalent level (CNEL)."

# 4.3 Local Regulations

## Kern County General Plan Noise Element

The Noise Element of the Kern County General Plan (Kern County 2009) sets goals and policies that guide the physical development of the unincorporated areas under the County's discretionary land use authority. These goals include ensuring residents of Kern County are protected from excessive noise, that moderate levels of noise are maintained in the County, and ensuring the protection of the economic base of Kern County by preventing the encroachment of incompatible land uses near known noise producing roadways, industries, railroads, airports, oil and gas extraction, and other sources. To help achieve these goals, the Noise Element includes policy requirements for new noise-sensitive land uses, noise level criteria, and enforcing the State Noise Insulation Standards. Implementation Measure F in the Noise Element requires that proposed commercial and industrial uses or operations be designed or arranged so as not to subject residential land uses to exterior noise levels in excess of 65 dBA $L_{dn}$ and interior noise levels in excess of 45 dBA $L_{dn}$. Pursuant to Policy 5, the exterior noise standard applies to outdoor activity areas. Operation of the proposed project would be subject to these County standards.

### Kern County General Plan – Energy Element

Although the *Kern County General Plan* Energy Element (County of Kern 2009) sets forth goals, policies, and implementation measures primarily to protect the county's energy resources and encourage orderly energy development; Policy #10 in the element pertains to noise, as described below.

#### Policy

- 10) The County should require acoustical analysis for energy project proposals that might impact sensitive and highly sensitive uses in accordance with the Noise Element of the General Plan.

## Kern County Code of Ordinances

Noise issues are also addressed in Chapter 8.36 of the Kern County Code. These include acceptable hours of construction and limitations on construction related noise impacts on adjacent sensitive receivers. Noise-producing construction activities that are audible to a person with average hearing ability at a distance of 150 feet from a construction site, if the site is within 1,000 feet of an occupied residential dwelling, are prohibited between the hours of 9:00 PM to 6:00 AM on weekdays, and 9:00 PM to 8:00 AM on weekends. However, the following exceptions are permitted:

1. The resource management director or his designated representative may for good cause exempt some construction work for a limited time.

2. Emergency work is exempt from this section.

With regard to operational noise, Section 19.80.030.S(1) of the Kern County Zoning Ordinance (Kern County 2022) restricts noise generated by commercial or industrial uses within 500 feet of a residential use or residential zone district. The commercial or industrial use shall not generate noise that exceeds an average of 65 dB Ldn between the hours of 7 a.m. and 10 p.m. and shall not generate noise that exceeds 65 dB, or which would result in an increase of 5 dB or more from ambient sound levels, whichever is greater, between the hours of 10 p.m. and 7 a.m. Commercial or industrial facilities that are located in the M-3 zone district are exempt from these noise-generating restrictions.

Kern County has not adopted specific policies or standards pertaining to vibration.

### Buttonwillow Community Plan

Just south of the project lies community of Buttonwillow. The Buttonwillow Community Plan does not put forth any noise or vibration standards that will affect the Project. As shown above Kern County regulations will be used for quantifying impacts to noise.

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# 5 Significance Criteria

## 5.1 Significance Thresholds

The following significance criteria, included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), will determine the significance of a noise impact. Impacts related to noise would be significant if the proposed project would result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
b. Generation of excessive groundborne vibration or groundborne noise levels.
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the exposure of people residing or working in the project area to excessive noise levels.

Quantitative thresholds of significance have been established for the purposes of this analysis based on the local polices and regulations described in Section 4.3 as well as those of federal and State agencies and are listed below.

- **Construction Noise:** Noise generated by construction activities would be considered significant if it occurs outside of the permitted hours established in the County's noise ordinance, which prohibits noise-producing construction activities audible to a person with average hearing ability at a distance of 150 feet from a construction site, if the site is within 1,000 feet of an occupied residential dwelling, between the hours of 9:00 PM to 6:00 AM on weekdays, and 9:00 PM to 8:00 AM on weekends. During allowable construction hours, and as the County lacks a quantitative standard for construction noise limit, for purposes of this assessment the FTA guidance threshold of 80 dBA 8-hour $L_{eq}$ is recommended as a significance criterion at the exterior of receiving residential land uses.
- **Traffic Noise:** Guidance regarding the determination of a substantial permanent increase in transportation noise levels in the project vicinity above existing levels is provided by the 1992 findings of FICON, which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a qualitative measure of the adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

  The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of $L_{dn}$ (and, by extension, CNEL[2]). The changes in noise exposure that are shown in Table 5 are expected to result in equal changes in annoyance at sensitive land uses. Although the FICON recommendations were developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources.[3]

[2] As discussed in Section 3.1, the $L_{dn}$ and CNEL noise metrics are very similar and often used interchangeably.
[3] Traffic noise and other transportation noise sources are similar to aircraft/airport noise in that all of these noise sources can and do operate throughout the daytime and nighttime hours. The FICON recommendations use a weighted 24-hour noise metric, in

**Table 5. Measures of Substantial Increase for Transportation Noise Sources**

| Ambient Noise Level Without Project ($L_{dn}$/CNEL) | Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by: |
|---|---|
| <60 dB | + 5 dB or more |
| 60–65 dB | + 3 dB or more |
| >65 dB | + 2 dB or more |

**Source**: FICON 1992.

- **Project-Related Stationary Noise:** A noise impact would be considered significant if predicted noise from typical operation of mechanical equipment such as heating, ventilation and air conditioning (HVAC) systems and other electro-mechanical systems exceeds applicable Kern County noise standards as detailed in Section 4.3. Specifically, per the County's zoning ordinance, an increase of more than 5 dB to the outdoor ambient noise levels at a noise-sensitive land use due to operation of Project stationary sound emission sources would be considered an exceedance and therefore a significant impact. This relative increase standard has similarly been applied to other proposed renewable energy projects such as the Bellefield Solar Project (Kern County 2021).
- **Construction Vibration:** Groundborne vibration from construction and operation of the project would be considered significant if the project resulted in vibration levels exceeding the Caltrans recommendations (for construction).

For information disclosure purposes, this noise assessment also includes contrast of the predicted construction noise levels associated with the proposed Project with the measured pre-Project outdoor ambient sound environment samples appearing in Table 2.

which noise occurring during nighttime hours has a penalty applied to account for the increased sensitivity of persons to noise at night. Additionally, the graduated levels of the FICON guidance for substantial increase account for the diminishing tolerance of the typical person to noise increases as ambient noise levels are increased. Such is the case whether the dominant noise source is aircraft, or some other transportation source.

# 6 Impact Analysis

The following subsections arrange project noise and vibration analyses by CEQA Appendix G significance threshold criteria as bulleted in the preceding Section 5.1.

## 6.1 Significance Threshold A

***Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

### 6.1.1 Construction

The construction period for the proposed project from site preparation through construction, testing, and commercial operation is expected to commence as early as Q3 2025 and would extend for up to 60 months. Construction of the project components will occur on multiple sites and different areas spread across each project site. Project Components would include:

- Move on
- Site preparation and grading
- Access road improvements
- Internal roads construction
- Solar array structural, underground and panel, and battery installation
- Electrical substation, O&M facility and microwave tower construction
- Gen-tie line construction

The types of construction equipment that would be used to construct the proposed project include standard heavy equipment and vehicles that would be employed for any routine construction project of this scale, such as graders, tractors, loaders, cranes, rubber-tired bulldozers, generators, and paving equipment.

Construction noise can be difficult to quantify because of the many variables involved, including the specific equipment types, size and/or rate power of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate over defined portions of the project site or its entirety. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is shown in Table 6. The noise values represent maximum noise generation, or full- power operation of the equipment. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operations. As one increases the distance between equipment or separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may

involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The energy-averaged noise level ($L_{eq}$) during construction activities is thus lower since maximum noise generation associated with full-power work by most heavy equipment and vehicles may only occur up to 50% of a given time period (FHWA 2006). Consistent with principles of acoustic sound propagation from point-type sources of emission, noise levels from construction equipment operations decrease at a rate of approximately 6 dBA per doubling of distance from the source.

## Table 6. Typical Construction Equipment Noise Emission Levels

| Equipment Type | Typical A-weighted Maximum Sound Level ($L_{max}$) at 50 Feet from Source |
|---|---|
| Air compressor | 80 |
| Backhoe | 80 |
| Compactor | 82 |
| Concrete mixer | 85 |
| Concrete pump | 82 |
| Concrete vibrator | 80 |
| Concrete Saw | 90 |
| Crane, mobile | 85 |
| Dozer | 85 |
| Excavator | 85 |
| Flat bed truck | 84 |
| Generator | 82 |
| Grader | 85 |
| Impact wrench | 85 |
| Jackhammer | 88 |
| Loader | 80 |
| Paver | 85 |
| Pneumatic tool | 85 |
| Pump | 77 |
| Roller | 85 |
| Welder/Torch | 73 |

**Source:** FHWA 2006.

Aggregate noise emission from proposed project construction activities, broken down by sequential phase, was predicted at two evaluation distances to the nearest existing noise-sensitive receptor: 1) from the nearest position of the construction site boundary; and 2) from the geographic center of the construction site, which serves as the time-averaged location or geographic *acoustical centroid* of active construction equipment for the phase under study. The intent of the former distance is to help evaluate anticipated construction noise from a limited quantity of equipment or vehicle activity expected to be at the boundary for some period of time, which would be most appropriate for phases such as site preparation, grading, and paving. The latter distance is used in a manner similar to the general assessment technique as described in the FTA guidance for construction noise assessment, when the location of individual equipment for a given construction phase is uncertain over some extent of (or the entirety of) the construction site area. For the purposes of this analysis, the construction site area nearest to the off-site sensitive receptor is studied. For regions of the project that are much more distant, noise from construction activities attenuating over great distances would yield negligible acoustic contribution. In this studied scenario,

because of the equipment location uncertainty, all the equipment for a construction phase is assumed to operate—on average—from the acoustical centroid position. Table 7 summarizes these two distances to the apparent closest noise-sensitive receptors approximately 50 feet from Site 5, and Site 6 for each of the sequential construction phases. At the site boundary, this analysis assumes that one piece of each of the two loudest equipment types per phase will be involved in the construction activity at this closest 50-foot source-to-receiver distance for a limited portion of the 8-hour period, while the remaining equipment for the phase operate from the acoustical centroid. In other words, at such proximity, the operating equipment cannot "stack" or crowd the vicinity at the site boundary and still operate. For the acoustical centroid case, which intends to be a geographic average position for all equipment during the indicated phase, this analysis assumes that the equipment may be operating up to 8 hours per day.

### Table 7. Estimated Distances between Construction Activities and the Nearest Noise Sensitive Receptors

| Construction Phase (and Equipment Types Involved) | Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet) | Distance from Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (Feet) |
|---|---|---|
| **Solar** | | |
| Site Preparation (grader, flatbed truck, compactor, skid steer, tractor, loader, forklift) | 50 | 1000 |
| Tracker Foundations (generator, flatbed truck, compressor, skid steer, loader, forklift, post driver) | 50 | 1000 |
| Underground Cabling (excavator, trencher, flatbed truck, compactor, loader, skid steer) | 50 | 1000 |
| Mechanical Installation (generator, flatbed truck, compressor, loader, forklift) | 50 | 1000 |
| Electrical Installation (crane, flatbed truck, compressor, trencher, excavator, loader) | 50 | 1000 |

At the end of the Project's useful life (anticipated to be between 30-40 years), the solar facility and associated infrastructure may be decommissioned in accordance with then-current decommissioning practices. Given the Project's operating life cycle and distant time frame for decommissioning activities, it is too speculative to quantify the potential noise impacts that could occur during decommissioning activities. Consistent with the Air Quality / Greenhouse Gas / Energy Report (Dudek 2024) prepared for the proposed Project, the removal of tracker foundations and removal of mechanical components would likely involve the same anticipated types and quantities of construction equipment as studied herein for the Tracker Foundations and Mechanical Installation phases, respectively. Hence, and for informational purposes, predicted noise emission from the two decommissioning phases are hereby assumed to resemble those of these two construction-related phases. Similar to the noise generated during project construction, decommissioning activities would be conducted in accordance with all applicable requirements in effect at the time of Project termination. Potential future environmental effects associated with project decommissioning would be addressed at the time decommissioning is proposed, consistent with regulations in effect at that time. A final decommissioning plan, based on then-current technology, site conditions, and regulations, would be prepared prior to actual decommissioning.

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. (Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction.) Input variables for the predictive modeling consist of the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 6), and the distance from the noise-sensitive receiver. The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. Conservatively, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis, which is detailed in Attachment D, Construction Noise Modeling Input and Output, and produces the predicted results displayed in Table 8.

## Table 8. Predicted Construction Noise Levels per Activity Phase

| Construction Phase (and Equipment Types Involved) | 8-Hour $L_{eq}$ at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA) | 8-Hour $L_{eq}$ at Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (dBA) |
|---|---|---|
| **Solar** | | |
| Site Preparation (grader, flatbed truck, compactor, skid steer, tractor, loader, forklift) | 80 | 64 |
| Tracker Foundations (generator, flatbed truck, compressor, skid steer, loader, forklift, post driver) | 77 | 64 |
| Underground Cabling (excavator, trencher, flatbed truck, compactor, loader, skid steer) | 77 | 62 |
| Mechanical Installation (generator, flatbed truck, compressor, loader, forklift) | 78 | 64 |
| Electrical Installation (crane, flatbed truck, compressor, trencher, excavator, loader) | 75 | 62 |

**Notes:** $L_{eq}$ = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 8, the estimated construction noise levels are predicted to be as high as 80 dBA $L_{eq}$ over an 8-hour period at the nearest existing residences (as close as 50 feet away) when tracker foundation activities take place near the sensitive receptors approximately 50 feet outside of project site. Due to the required setbacks from the property boundaries, most construction activities would actually occur further from nearby noise-sensitive receivers than what was analyzed at the property boundary. Therefore, this would result in lower noise levels, especially in later construction phases when equipment with the loudest equipment, such as pneumatic tools and graders, would no longer be used. Heavy construction activity involving pneumatic tools and graders also would not occur during nighttime hours.

Per Section 8.36.020 of the Kern County Code, construction activities outside of acceptable hours would require approval from the development services agency director or designated representative if audible to a person with average hearing ability at a distance of 150 feet from a construction site, if the site is within 1,000 feet of an occupied residential dwelling. There are several residential dwellings located 50 feet from construction at Project sites 5, and site 6; therefore, nighttime construction activities outside of permitted hours would require approval from the development services agency direction or designated representative. Although the County lawfully permits construction activities during allowable hours and without a quantitative noise threshold to ascertain exceedance, FTA guidance recommends a threshold of 80 dBA 8-hour $L_{eq}$ for the exterior of residential land uses during daytime periods and 70 dBA at night. Hence, as predicted herein construction noise generated from the project parcels during daytime periods would not have the potential to exceed the daytime FTA threshold at offsite sensitive receptors sufficiently close to these activities. But should construction occur at night as allowed by the County, there is the potential for exceedance of the nighttime FTA guidance standard. Therefore, implementation of Mitigation Measure MM-NOI-1 would reduce nighttime construction noise to the extent feasible and result in offsite construction noise exposures less than this 70 dBA 8-hour $L_{eq}$ nighttime limit.

Modeled receptors M2 and M5 that are located at these 50-foot distances to the nearest Project site boundaries and on which construction activities are to occur would be expected to experience pre-existing outdoor ambient sound levels during the day that are comparable to measured samples at ST1 and ST2 shown in Table 3 with $L_{eq}$ values ranging between 57 dBA and 73 dBA depending on conditions. The predicted 8-hour $L_{eq}$ values for Project construction noise associated with this nearest-to-boundary case appearing in Table 8 range between 75 dBA and 80 dBA and could thus be clearly audible or even dominant at these offsite receptors under the right conditions. Proper application of MM-NOI-1 would, by reducing Project construction noise exposure levels, reduce the magnitude of these temporary changes to pre-existing sound levels. For other offsite receptors that are much further away from the Project, such as the 1,000-foot distance to the phase acoustical centroid and for which the predicted range of 8-hour $L_{eq}$ values from 62 dBA to 72 dBA, the anticipated change to the existing outdoor environment would be less. At sufficiently large distances, this change to the outdoor sound environment would likely be imperceptible as existing sound sources would mask acoustical contribution due to distant Project construction activity.

### Combined On-Site Construction Noise

Project components at all sites would be constructed over up to a 60-month period. However, due to the large distances between parcels, combined construction noise from concurrent activities at multiple locations would be minimal. Per Section 8.36.020 of the Kern County Code, construction activities outside of acceptable hours would require approval from the development services agency director or designated representative if audible to a person with average hearing ability at a distance of 150 feet from a construction site, if the site is within 1,000 feet of an occupied residential dwelling. Because sensitive receivers in proximity to the PV solar fields are closer than 1,000 feet away, County approval and implementation of a noise control plan would be required unless nighttime construction noise is determined to be inaudible to a person with average hearing ability at a distance greater than 150 feet.

The combined noise exposure at a common offsite receptor from potential concurrent Project construction activities would be a logarithmic sum of those contributions, which in summary means it will be dominated by the loudest sound source or be no greater than a 3 dB adjustment if both of two sources are equivalent. Therefore, combined construction noise could exceed FTA guidance thresholds at Site 5 and Site 6. However, implementation of Mitigation Measure MM-NOI-1 would reduce these potential noise exposures to residents in Kern County to a

compliant level and reduce the potentially audible change to the outdoor sound environment. Sensitive receptors near the other Project sites are at least 1,000 feet away from the project boundary and would not be exposed to temporary construction noise levels in excess of 80 dBA $L_{eq}$.

### Construction Traffic Noise

Project construction would increase off-site traffic noise from commuting construction workers and haul trucks bringing materials to and from the project site. As mentioned previously, project components would be constructed simultaneously over a 60-month period. This could expose nearby residences to cumulative noise from construction traffic in addition to on-site construction activities. The addition of construction worker commutes and haul truck trips on local roadways could result in increased hourly and daily average traffic noise levels. During the facility construction phases, project construction has the potential to add up to 3,320 daily trips between workers, vendors, and haul trucks. However, the traffic report indicates that the existing average daily traffic (ADT) throughout the project area is over 6,000 trips. A doubling of traffic volumes would be needed to result in a 3 dB increase in traffic noise levels, which is the lowest change perceptible to the human ear in ideal listening conditions. The addition of 3,320 construction trips spread over the workday would not come close to doubling existing volumes on any roadway in the project vicinity. As an example, adding 3,320 trips to an existing volume of 6,000 trips would increase the traffic noise level by approximately 2 dB, which would not be perceptible. Therefore, given the existing high traffic volumes on area roadways, the addition of construction traffic is not expected to result in a perceptible increase in hourly average or daily average traffic noise levels. In addition, these construction trips will be spread out through many of the project parcels across many roadways. Given the existing traffic volumes on project surrounding roadways, highways, and interstate the addition of construction traffic is not expected to result in a perceptible increase in hourly average or daily average traffic noise levels.

## 6.1.2 Operation

### On-Site Operational Noise

#### Outdoor Mechanical Equipment

The project would operate a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 2 GW of AC power with an up to 2 GW energy storage system on approximately 12,091 acres of privately-owned land within Kern County. Stationary noise sources during operation would include PV solar arrays with associated electrical equipment (such as transformers and inverters), energy storage systems, substations, microwave towers, collector lines, and the operations and maintenance facility. Electrical equipment produces a discrete low-frequency humming noise. The noise from transformers is produced by alternating current flux in the core, which causes it to vibrate.

The solar array fields would be arranged in groups called “blocks” with inverter stations generally located centrally within the blocks. Blocks would produce direct electrical current (DC), which is converted to alternating electrical current (AC) at the inverter stations. Inverter stations are typically comprised of one or more inverter modules with a rated power of up to 10 MW each, a unit transformer, and voltage switch gear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) are housed in cabinets. Energy from the inverters would be transferred to the project substation(s) by overhead or underground collector lines ranging from 230kV to 34.5kV. Each substation may contain several components, including auxiliary power transformers, distribution cabinets, revenue metering systems, microwave transmission towers, and voltage switch gear. Each substation would occupy an area of approximately 10 acres.

The proposed project may include one or more Energy Storage Systems (ESS), located in compliance with Kern County's fire department setbacks. The ESS would be located at or near a substation/switchyard (on-site or shared) and/or at the inverter stations, but possibly elsewhere on-site. The collective ESS would be up to 2 GW in capacity and up to 100 acres in total area.

## Gen-Tie

The gen-tie transmission line would generate noise from the corona effect, which is a phenomenon associated with the electrical ionization of the air that occurs near the surface of the energized conductor and suspension hardware due to very high electric field strength. This is audible power line noise that is generated from electric corona discharge, which is usually experienced as a random crackling or hissing sound. The corona effect on the gen-tie transmission line, assuming "fair weather" conditions, would generate a noise level of approximately 20 dBA at a distance of 50 feet (California Valley Solar Project Final EIR, San Luis Obispo County 2011). This is the approximate distance to the nearest residences from the gen-tie route. As observed during a site visit to the area and transmission lines from existing solar farms in the area, noise levels from these transmission lines were not detected over the existing ambient noise sources in the area (wind, vehicles, planes, and trains) just outside of the solar farm properties. Therefore, per site observations and the general low noise of transmission lines, gen-tie noise would not exceed County's standard of 65 dBA $L_{dn}$ at the nearest residences, and impacts would be less than significant.

## PV Solar Fields

### Panel Repositioning

PV panel noise would come from the tracking motors. These systems involve the panels being driven by motors to make brief, incremental adjustments to track the arc of the sun to maximize the solar effect. While these motors may generate noise of up to 44 dBA at 50 feet, these motors would operate briefly throughout an hour (e.g., several minutes per hour) as the sun moves west across the sky, and then would reset at night to face the eastern sky. By operating only several minutes per hour, the hourly noise level would be negligible at the nearest sensitive receivers. In addition, as observed during a site visit to the area and viewing of existing solar farms in the area, noise levels from PV panel tracking were not detected over the existing ambient noise sources in the area (wind, vehicles, planes, and trains) just outside of the solar farm properties. Therefore, noise levels from the PV panels would be less than significant.

### Inverters

Inverter stations are typically comprised of one or more inverter modules with a rated power of up to 10 MW each, a unit transformer, and voltage switch gear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) are housed in cabinets. Depending on the vendor selected, the inverter station may lie within an enclosed or canopied metal structure, typically on a skid or concrete pad. The quantities of inverters on the various non-contiguous solar fields are proportional to the areas of these solar fields, with respect to their share of the total project delivery of 2 GW of power generation. The sound power from these inverters were similarly distributed across the non-contiguous project areas.

### Substation/Energy Storage System

The substations and energy storage system facilities would collect, transmit, and store energy generated by the solar arrays. Noise generated by these facilities would include on-site inverters (i.e., their interior transformers and onboard cooling systems) and cooling systems of the on-site battery containers.

### Combined Mechanical Equipment Noise

Dudek received site plan information that provided facility equipment locations that were used to help derive reference sound power levels for a variety of expected project PV major on-site operating noise-producing system components and features as summarized in the preceding paragraphs. Dudek has modeled the propagation of sound from a combination of these project solar electricity generation, battery energy storage, substation transformer noise sources with commercially available Datakustik CadnaA software, which incorporates relevant International Organization of Standardization (ISO) 9613-2 algorithms and reference data that are generally considered to be industry standard for outdoor noise modeling. In addition to the sound power level inputs appearing in Table 9 for each modeled equipment type, key assumptions and parameters are listed as follows.

- Acoustical ground absorption of the project site and the surrounding topography (conservatively modeled as flat, which generally approximates the site terrain characteristics) is set at 0.8, which on a zero (reflective) to one (absorptive) scale approximates a combination of the grass-covered soils that generally surround the project area and any anticipated loosely graveled project site cover.
- Meteorological conditions presume "calm" wind conditions (i.e., less than 0.5 meters per second in any direction) and average air temperature and relative humidity of 68 degrees Fahrenheit and 70%, respectively.
- The model "configuration" settings include reflection order set to "1", which can be interpreted to mean that a sound emission path from a source will continue to be analyzed after impingement upon and reflection from the first intervening structure or barrier.

**Table 9. Sound Power Levels for Modeled Sources of Outdoor Noise Emission**

| Source | A-weighted Sound Level per Octave Band Center Frequency (OBCF, Hz) | | | | | | | | | Overall Sound Level (dBA) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 31.5 | 63 | 125 | 250 | 500 | 1,000 | 2,000 | 4,000 | 8,000 | |
| PV inverter cluster (10 MVA total)[a] | 61 | 80 | 92 | 94 | 100 | 97 | 93 | 88 | 79 | 103.1 |
| Substation XMFR (333 MVA total)[a] | 64 | 83 | 95 | 97 | 103 | 100 | 96 | 91 | 82 | 106.4 |
| BESS containers (400 total units)[b] | 86 | 92 | 98 | 116 | 112 | 114 | 114 | 111 | 102 | 120.9 |
| MV XMFRs (200 total units)[a] | 51 | 70 | 82 | 84 | 90 | 87 | 83 | 78 | 69 | 93.4 |

**Notes:** OBCF = Octave Band Center Frequency in cycles per second (Hertz [Hz]); dBA = A-weighted decibels; BESS = battery energy storage system; XMFR = transformer; MV = medium voltage.

[a] Based on Applicant-provided information, with overall sound level and OBCF granularity derived from guidance within the Electric Power Plant Environmental Noise Guide (Edison Electric Institute 1984).

[b] Based upon Applicant-provided information, and using confidential candidate supplier reference sound data that represents required 40% capacity setting for cooling fan operation.

Sensitive receivers in the area include single-family residences in Kern County. Noise levels from the project's mechanical operations are shown in Table 10, and noise level contours and receiver locations are shown on Figure C1 within Appendix C, CadnaA Sound Propagation Model Input / Output.

**Table 10. Operational Noise Levels at Nearest Sensitive Receptors**

| Receiver | Receiver Description | dBA $L_{eq}$ | dBA $L_{dn}$ | Exceed |
|---|---|---|---|---|
| M1 | Old Highway 58 | 39.1 | 45.5 | No |
| M2 | Brandt Avenue | 47.4 | 53.8 | No |
| M3 | North of 7th Standard Road | 40.8 | 47.2 | No |
| M4 | South of Burbank Street | 44.4 | 50.8 | No |
| M5 | North of Orange Avenue | 46.8 | 53.2 | No |
| M6 | 26307 Merced Avenue | 38.6 | 45.0 | No |

Note: Operational noise threshold based on the Kern County standard of 65 dBA $L_{dn}$ for exterior noise at the nearest noise-sensitive receptors.

As shown in Table 10, operational noise levels from the project site would reach up to 53.1 dBA $L_{dn}$ at Kern County sensitive receivers near the project site. These noise levels would be below Kern County's standard of 65 dBA $L_{dn}$ for exterior noise at the nearest noise-sensitive receptors. Additionally, these predicted operation noise $L_{eq}$ values of Table 10 are, with the exception of the ST4 sample, all less than the baseline measurements appearing in Table 2. And in the vicinity of ST4, the predicted operation noise level per Figure 2 appears to be not greater than 43 dBA and thus compliant with the allowable 5 dB increase of outdoor ambient per the County's zoning ordinance for stationary noise sources. Thus, the predicted aggregate noise emission associated with operation of on-site equipment, including the inverter/transformer platforms, battery storage container cooling units, and the collector substation, received at these NSLU is anticipated to be compliant with County standards if the proposed project's equipment and layout remains as designed (no closer to the project boundary) and studied within this report.

### Operational Traffic Noise

Once the project is complete, vehicle trips to the project site would be associated with operations and maintenance of the solar facility. In addition, the project would require occasional nighttime activities, including deliveries, repairs, maintenance, office and administrative activities, security personnel, and emergency response. It is expected that the proposed project would require an operational staff of up to 20 full-time employees, generating approximately 50 daily trips (one incoming and one outgoing trips per employee). The minimal number of trips associated with the project is not expected to impact the study area roadway network. It is also possible that the proposed project could share O&M, substation, and/or transmission facilities with nearby energy projects. In such a scenario, the projects would share personnel, thereby potentially reducing the project's on-site staff. Given that these trips will be spread out over a large project area, increases in traffic noise will be minimal.

## 6.2 Significance Threshold B

***Would the project result in generation of excessive groundborne vibration or groundborne noise levels?***

Construction activities may expose persons to excessive groundborne vibration or groundborne noise, causing potentially adverse effects. Caltrans has collected groundborne vibration information related to construction

activities (Caltrans 2020). Information from Caltrans indicates that continuous vibrations with a PPV of approximately 0.2 ips is considered annoying. For context, heavier pieces of construction equipment, such as a bulldozer that may be expected on the project site, have peak particle velocities of approximately 0.089 ips or less at a reference distance of 25 feet (DOT 2006).

Groundborne vibration attenuates rapidly, even over short distances. The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock strata can be estimated with expressions found in FTA and Caltrans guidance. By way of example, for a bulldozer operating on site and as close as 50 feet from the PV solar fields project boundary (i.e., 50 feet from the nearest occupied property) the estimated vibration velocity level would be 0.03 ips per the equation as follows (FTA 2006):

$$PPV_{rcvr} = PPV_{ref} * (25/D)^{1.5} = 0.03 = 0.089 * (25/50)^{1.5}$$

In the above equation, $PPV_{rcvr}$ is the predicted vibration velocity at the receiver position, $PPV_{ref}$ is the reference value at 25 feet from the vibration source (the bulldozer), and D is the actual horizontal distance to the receiver. Therefore, at this predicted PPV, the potential for vibration-induced annoyance to occupants of nearby existing homes would not exceed the Caltrans guidance threshold.

Construction vibration, at sufficiently high levels, can also present a building damage risk. However, anticipated construction vibration associated with the proposed project would yield levels of 0.03 ips, which do not surpass the guidance limit of 0.2 to 0.3 ips PPV for preventing damage to residential structures (Caltrans 2020).

Additionally, at such expected low levels of construction vibration, consequential groundborne noise that relies on such vibrational energy to become airborne noise radiated from interior walls of an occupied structure would likely be imperceptible to occupants.

Once operational, the proposed project would not be expected to feature major producers of groundborne vibration. Anticipated mechanical systems like heating, ventilation, and air-conditioning units are designed and manufactured to feature rotating (fans, motors) and reciprocating (compressors) components that are well-balanced with isolated vibration within or external to the equipment casings. On this basis, potential groundborne vibration and groundborne noise magnitudes due to proposed project operation would not be anticipated to exceed Caltrans standards.

## 6.3 Significance Threshold C

***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No private airstrips exist in the project vicinity. The nearest airport is Elk Hills-Buttonwillow Airport, located approximately 4 miles to the southwest of the project site. The project site is not located within 2 miles of any public airport, nor is it located within the boundaries of any airport land use plans. Therefore, the proposed project would not expose or result in excessive noise for people residing or working in the project area, and no mitigation measures would be needed.

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# 7 Mitigation Measures

***Threshold A: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

## Short-Term Construction

MM-NOI-1 To reduce temporary construction-related noise, the following shall be implemented by the project proponent/operator:

a. Equipment staging shall be located in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during construction to the extent practical. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, where feasible. Alternately, installation of temporary noise barriers (e.g., plywood sheeting, acoustical blankets) near operating stationary equipment can reduce noise emission from those sources and hence help lower aggregate construction activity noise exposures at offsite receptors.

b. Construction equipment shall be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.

c. During all construction or decommissioning phases of the proposed project located within the limits of unincorporated Kern County, the construction contractor shall limit all on-site noise-producing activities to the hours of 6:00 a.m. to 9:00 p.m. Monday through Friday, and to the hours of 8:00 a.m. and 9:00 p.m. on Saturday and Sunday or as required through the Kern County Noise Ordinance (Kern County Code of Ordinances, Title 8, Chapter 8.36.020).

d. If construction-ground disturbing activities must occur outside of permitted hours per Section 8.36.020 of the Kern County Code, the project proponent/operator shall obtain approval from the development services agency director or designated representative for project construction activities occurring between the hours of 9:00 p.m. to 6:00 a.m. on weekdays and 9:00 p.m. to 8:00 a.m. on weekends, within 1,000 feet of an occupied residential building, if audible to a person with average hearing ability at a distance of 150 feet from a construction site. As a condition of approval for exempting construction activity outside of permitted hours, the project proponent/operator shall implement a noise control plan including appropriate noise-reduction measures to the satisfaction of the development services agency director or designated representative, which may include the measures listed above. In addition, the noise control plan may include a requirement to restrict the duration of construction activities outside of permitted hours within 1,000 feet of an occupied residential building.

e. Haul trucks shall not be allowed to idle for periods greater than five minutes, except as needed to perform a specified function (e.g., concrete mixing).

f. On-site vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency).

g. Back-up beepers for all construction equipment and vehicles shall be broadband sound alarms or adjusted to the lowest noise levels possible, provided that the Occupational Safety and Health Administration and California Division of Occupational Safety and Health's safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters shall be employed.

*Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?*

The project would result in groundborne vibration and groundborne noise levels that are compliant with Caltrans guidance. The need for mitigation is not expected.

*Threshold C: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels.*

The project would not involve such excessive airport noise level exposures; hence, need for mitigation is not expected.

# 8 Cumulative Impacts Assessment

## Other Proximate Projects

Noise attenuates geometrically with distance; therefore, potential cumulative noise impacts are highly dependent on a common studied offsite receptor being exposed to one or more nearby projects and the proposed Buttonbush project. As listed below, there are six known projects (i.e., currently under review or proposed to be under construction and operating within a period reasonably concurrent with Buttonbush construction or operation) within one mile of one or more receptors studied herein and thus worthy of evaluation for potential cumulative noise impact:

A. **23-00916** (conditional use permit [CUP] for a recreational vehicle [RV] park) – a 17.49-acre site located approximately 300 feet west of Lerdo Highway and Rowlee Road, having assessor parcel number (APN) 087-070-36;

B. **20-01423 Winston Solar** (CUP to construct and operate a 200 MW solar and battery storage facility with associated electrical interconnection facilities) – a 1,350-acre multi-parcel project located on the eastern corner of Wildwood Road and Seventh Standard Road;

C. **19-00732** (CUP to construct and operate a Biogas Upgrading Facility to receive biogas from nearby dairy digesters for the production of RNG, including installation and operation of a gas meter set assembly [MSA] or point of receipt, gas pipeline extension, and any additional ancillary facilities required to connect to a local existing natural gas pipeline system) – a 240-acre site (APN 103-020-31) located on Seventh Standard Road approximately one half-mile east of Tracy Avenue and Seventh Standard Road;

D. **22-01114 Cal Centre Warehouse Development** (GPA, ZCC, CUP, PD - Cal Centre Warehouse Development) – an 18.69-acre site (APN 87-190-18) located on Buttonwillow Drive approximately 600 feet from Buttonwillow Drive and Rudnick Road;

E. **20-01376** (changing the use from restaurant to Truck Fueling Station) – an 0.8-acre site (APN 103-300-02 and 103-300-03) located on 20672 Tracy Avenue; and

F. **23-00747 HD Holding International LLC** (plan for truck stop) – a 7.94-acre site (APN 103-280-55 and 103-280-70) located approximately 500 feet north of Tracy Avenue and Willow Drive.

Other applicant projects in the region may be at some stage of review, approval, or even construction progress as of this writing; however, they are sufficiently distant from a common receptor studied herein for the Buttonbush project so that the cumulative contribution of such projects, in aggregate, would not be considerable or may even be negligible.

For purposes of organization and in a manner that recites the same three CEQA significance criteria, the following subsections of this report chapter assess potential cumulative noise and vibration impacts associated with each of the six above-listed projects.

***Threshold A: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

### Short-Term Potential Impacts

Similar to the opportunity for concurrent Project construction phases to cause a logarithmically summed noise exposure at a common offsite sensitive receptor, construction activities at other project sites would also contribute their noise emission levels logarithmically to the same assessment position. The magnitude of such acoustic contribution from construction at one or more concurrent project site depends on their activity intensities and distance. Assuming comparable construction intensity on the basis of typical heavy equipment and vehicles being involved for both the Project and other developed projects, the following evaluates this potential for temporary cumulative noise impact on the basis of distance.

- Per Figure 3, the nearest offsite sensitive receptor (apparent residential structures associated with Southern Cross Dairy [26509 Lerdo Highway]) to project A (i.e., from the preceding list of six sufficiently proximate offsite projects) is just over a mile away, and located approximately 1,200 feet from the nearest Project development parcel. As such, construction noise exposure from the Project would be less than the "acoustic centroid" values appearing in Table 8, and the corresponding estimated acoustic contribution from project A construction would likely be negligible—even if the same set of noise emission sources as the Project construction phase, at a distance of one mile, or four times the distance between the Project construction activity and the receptor, the level would be at least 12 dB less. Hence, the added effect of the other project would not be cumulatively considerable.

- Project B appears to be located on the west side of Wildwood Road, opposite sensitive receptors at 19220 and 19270 Wildwood Road, the latter of which is about a mile north of the nearest Project area. In this situation, project B is the dominant source of noise, and Project construction noise would make a negligible logarithmic addition due to the one-mile distance. Hence, the added effect of the Project would not be cumulatively considerable.

- Project C appears to be about 3,300 feet north of the nearest sensitive receptor on Rob Road, which is accessed via Snow Road or Tracy Avenue. This receptor is more than a mile from the nearest Project area east or west and would thus receive negligible noise contribution from Project construction. Hence, the added effect of the Project would not be cumulatively considerable.

- Project D appears to be about 3,300 feet northeast of the sensitive receptor located 1,200 feet north of 7th Standard Rd., and 2,500 feet west of Buttonwillow Drive. This receptor is about 1,300 feet east-northeast of the Project. As such, construction noise exposure from the Project would be less than the "acoustic centroid" values appearing in Table 8, and the corresponding estimated acoustic contribution from project D construction would likely be negligible—even if the same set of noise emission sources as the Project construction phase, at a distance of one kilometer, or over two times the distance between the Project construction activity and the receptor, the level would be at least 9 dB less. Hence, the added effect of the other project would not be cumulatively considerable.

- Project E is 7,000 feet from the nearest sensitive receptor on Brandt Road, located 2,300 feet north of California State Route (SR) 58 and is cornerly adjacent to the Project; hence, construction noise from the

Project will be dominant and the contribution from project E construction will not be cumulatively considerable.

- Project F is 6,000 feet from the nearest sensitive receptor on Brandt Road, located 2,300 feet north of SR 58 and is cornerly adjacent to the Project; hence, construction noise from the Project will be dominant and the contribution from project F construction will not be cumulatively considerable.

### Long-Term Potential Impacts

Similar conclusions regarding cumulatively considerable effects and corresponding less than significant impact assessments can be made, on the basis of Project and other development distance to a common sensitive receptor, with respect to logarithmic combinations of non-temporary operations noise. Additionally, temporary logarithmic additions of construction noise to operations noise, or vice versa, would lead to the same findings as well based on these source-to-distance parameters associated with the six cumulative projects studied herein.

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OPR (Governor's Office of Planning and Research). 2017. State of California General Plan Guidelines 2017: Appendix D, Noise Element Guidelines: Guidelines for the Preparation and Content of the Noise Element of the General Plan.

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# Appendix A

Field Noise Measurement Data

DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT Buttonbush PROJECT # 14787
SITE ID ST1
SITE ADDRESS 5482 Cannon St. OBSERVER(S) Pedro García
START DATE 11/23/23 END DATE 11/23/23
START TIME 1530 END TIME 1545

**METEOROLOGICAL CONDITIONS**

TEMP 61 F HUMIDITY 41 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD 1 MPH DIR. N NE S (SE) S SW W NW VARIABLE (STEADY) GUSTY
SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

**ACOUSTIC MEASUREMENTS**

MEAS. INSTRUMENT Piccolo II TYPE 1 (2) SERIAL # P0218021206
CALIBRATOR Reed R8090 SERIAL # B6085GONR2
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT ____ dBA SPL WINDSCRN Y

SETTINGS (A-WTD) SLOW (FAST) (FRONTAL) RANDOM ANSI OTHER: ____

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3:30:03PM | 3:45:03PM | 57.3 | 82.2 | 33.4 | 35-2 | 40.4 | 52.8 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS

**SOURCE INFO AND TRAFFIC COUNTS**

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Collector DIST. TO RDWY C/L OR (EOP) 15 ft
TRAFFIC COUNT DURATION: 15 MIN SPEED 35

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| AUTOS | 2 | | | |
| MED TRKS | 1 | | | |
| HVY TRKS | 1 | | | |
| BUSES | 1 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE X

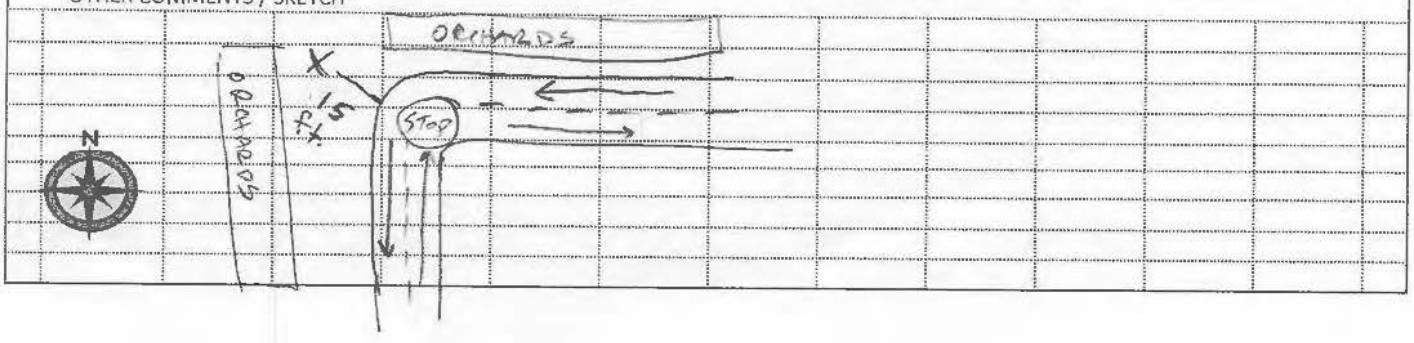
| COUNT 2 (OR RDWY 2) ___ MIN | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| SPEED | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR / (DRIVING THE PACE)
POSTED SPEED LIMIT SIGNS SAY: 35

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: DIST. ROOSTERS

**DESCRIPTION / SKETCH**

TERRAIN (HARD) SOFT MIXED (FLAT) OTHER: ____
PHOTOS ST1-1, ST1-2, ST1-3, ST1-4
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT Buttonbush PROJECT # 14787
SITE ID ST2
SITE ADDRESS 19003 Magnolia Ave. OBSERVER(S) Pedro García
START DATE 1/23/23 END DATE 1/23/23
START TIME 1605 END TIME 1620

**METEOROLOGICAL CONDITIONS**

TEMP 61 F HUMIDITY 41 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD 2.5 MPH DIR. N NE (S) SE S SW W NW VARIABLE (STEADY) GUSTY
SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

**ACOUSTIC MEASUREMENTS**

MEAS. INSTRUMENT Piccolo II TYPE 1 (2) SERIAL # P0218021200
CALIBRATOR Reed R8090 SERIAL # B20850DVR2
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT ____ dBA SPL WINDSCRN Y

SETTINGS A-WTD SLOW FAST FRONTAL RANDOM ANSI OTHER: ____

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 4:05:08PM | 4:20:16PM | 72.6 | 93.5 | 37.6 | 44.0 | 54.7 | 71.1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS

**SOURCE INFO AND TRAFFIC COUNTS**

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Arterial DIST. TO RDWY C/L OR (EOP): 10 ft
TRAFFIC COUNT DURATION: 15 MIN SPEED 55

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| AUTOS | 9 | | | |
| MED TRKS | 14 | | | |
| HVY TRKS | 4 | | | |
| BUSES | 0 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE X

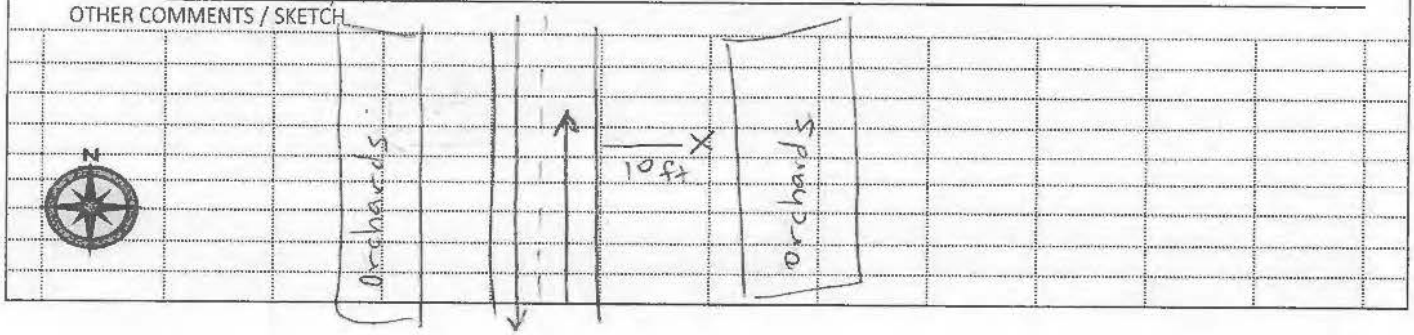
| COUNT 2 (OR RDWY 2) | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| ____ MIN | | | | |
| | | | | |
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| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR (DRIVING THE PACE)
POSTED SPEED LIMIT SIGNS SAY: 55

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) (DIST. GARDENERS/LANDSCAPING NOISE)
OTHER: Tree trimming along the driveway ~500 ft away.

**DESCRIPTION / SKETCH**

TERRAIN (HARD) SOFT MIXED (FLAT) OTHER: ____
PHOTOS ST2-1, ST2-2
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT Buttonbush — PROJECT # 14787
SITE ID ST3
SITE ADDRESS Between 17815 & 17841 Rowlee Rd. — OBSERVER(S) Pedro García
START DATE 1/23/23 — END DATE 1/23/23
START TIME 1635 — END TIME 1650

## METEOROLOGICAL CONDITIONS

TEMP 59.5 F — HUMIDITY 40 % R.H. — WIND (CALM) LIGHT MODERATE
WINDSPD 1 MPH — DIR. (N) NE S SE S SW W NW — VARIABLE (STEADY) GUSTY
SKY (SUNNY) (CLEAR) — OVRCAST — PRTLY CLDY — FOG — RAIN

## ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT Piccolo II — TYPE 1 (2) — SERIAL # P0218021200
CALIBRATOR Reed R3000 — SERIAL # B3085004N2
CALIBRATION CHECK — PRE-MEASUREMENT 94 dBA SPL — POST-MEASUREMENT ____ dBA SPL — WINDSCRN Y

SETTINGS (A-WTD) SLOW (FAST) FRONTAL RANDOM ANSI OTHER: ____

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 4:35:03 PM | 4:50:05 PM | 71.3 | 90.6 | 35.4 | 46 | 57.3 | 74.8 | |

COMMENTS

## SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Arterial — DIST. TO RDWY C/L OR (EOP): 15 ft
TRAFFIC COUNT DURATION: 15 MIN — SPEED ____

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| AUTOS | 17 | | | |
| MED TRKS | 10 | | | |
| HVY TRKS | 5 | | | |
| BUSES | 0 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

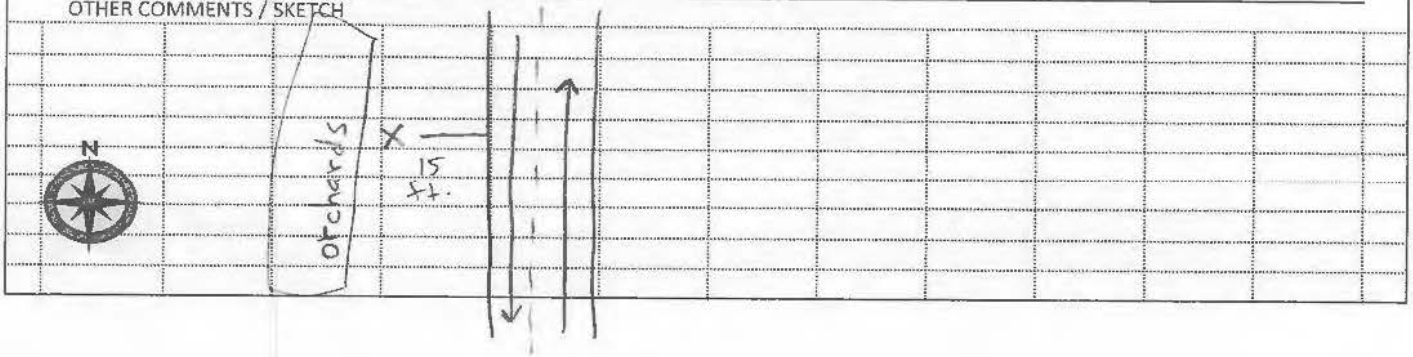
| COUNT 2 (OR RDWY 2) | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| | | | | |
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| | | | | |
| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR / (DRIVING THE PACE)
POSTED SPEED LIMIT SIGNS SAY: 55

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: ____

## DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED (FLAT) OTHER: ____
PHOTOS ST3_1 , ST3_2
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT Buttonbush PROJECT # 14787
SITE ID ST4
SITE ADDRESS Meadow St. & Crespino Ave OBSERVER(S) Pedro García
START DATE 1/26/23 END DATE 1/26/23
START TIME 1305 END TIME 1320

**METEOROLOGICAL CONDITIONS**

TEMP 60 F HUMIDITY 50 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD 3 MPH DIR. N NE S SE S SW W (NW) VARIABLE (STEADY) GUSTY
SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

**ACOUSTIC MEASUREMENTS**

MEAS. INSTRUMENT Piccolo II TYPE 1 (2) SERIAL # P0218021200
CALIBRATOR Reed R8090 SERIAL # B008500V12
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT ____ dBA SPL WINDSCRN Y

SETTINGS (A-WTD) SLOW (FAST) (FRONTAL) RANDOM ANSI OTHER: ____

| REC # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| (S) | 1:04:58PM | 1:19:59PM | 38.1 | 65 | 34.1 | 35.6 | 36.8 | 39.1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS

**SOURCE INFO AND TRAFFIC COUNTS**

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Collector DIST. TO RDWY C/L OR (EOP): 10
TRAFFIC COUNT DURATION: 15 MIN SPEED ____

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| AUTOS | 0 | | | |
| MED TRKS | 0 | | | |
| HVY TRKS | 0 | | | |
| BUSES | 0 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE X

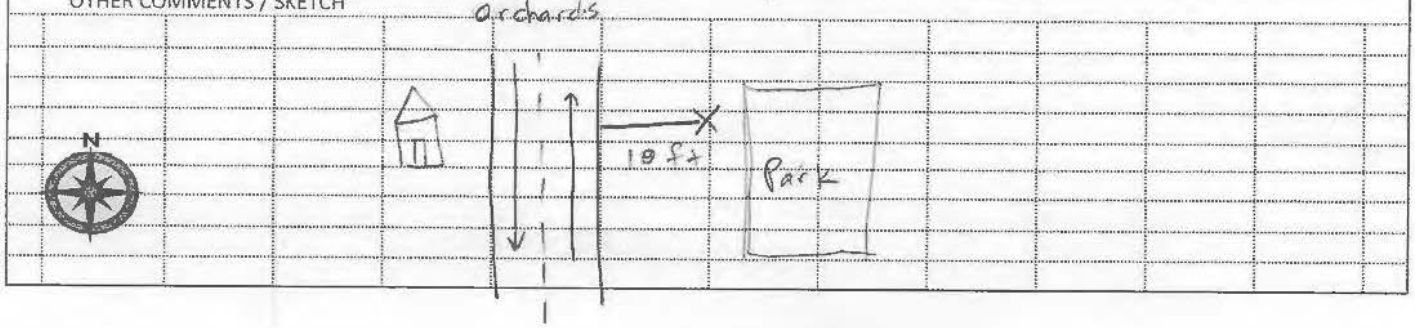
| COUNT 2 (OR RDWY 2) | MIN NB/EB | MIN SB/WB | SPEED NB/EB | SPEED SB/WB |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR / (DRIVING THE PACE)
POSTED SPEED LIMIT SIGNS SAY: 30

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS (DIST. INDUSTRIAL)
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: ____

**DESCRIPTION / SKETCH**

TERRAIN (HARD) SOFT MIXED (FLAT) OTHER: ____
PHOTOS ST4-1, ST4-2
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT Buttonbush PROJECT # 14787
SITE ID ST 5
SITE ADDRESS 33210 Blue Star Memorial Hwy (RT. 58) OBSERVER(S) Pedro García
START DATE 1/26/23 END DATE 1/26/23
START TIME 1330 END TIME 1345

METEOROLOGICAL CONDITIONS
TEMP 61 F HUMIDITY 51 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD 3 MPH DIR. N NE S SE S SW W (NW) VARIABLE (STEADY) GUSTY
SKY ~~SUNNY~~ (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT Piccolo II TYPE 1 (2) SERIAL # P0218021200
CALIBRATOR Reed R8090 SERIAL # B008509DVR2
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT ____ dBA SPL WINDSCRN Y

SETTINGS (A-WTD) SLOW (FAST) (FRONTAL) RANDOM ANSI OTHER: ____

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| (6) | 1:29:58 PM | 1:44:58 PM | 69.7 | 84.8 | 51 | 56.9 | 62.8 | 49.36 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS

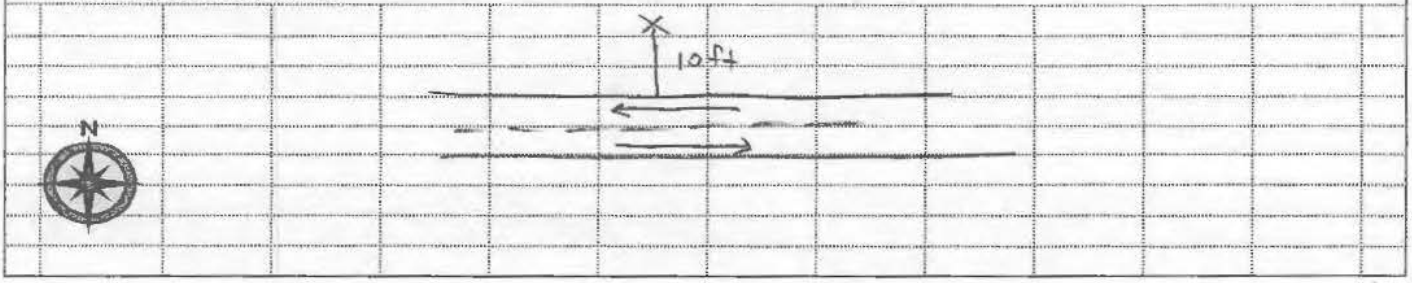
SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Arterial DIST. TO RDWY C/L OR (EOP) 10 ft
TRAFFIC COUNT DURATION: 15 MIN SPEED ____ ____ MIN SPEED

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB | IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ____ | COUNT 2 (OR RDWY 2) | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|---|---|---|---|---|---|
| AUTOS | 22 | | | | | | | | | |
| MED TRKS | 4 | | | | | | | | | |
| HVY TRKS | 12 | | | | | | | | | |
| BUSES | Ø | | | | | | | | | |
| MOTRCLS | Ø | | | | | | | | | |

SPEEDS ESTIMATED BY: RADAR / ~~DRIVING THE PASE~~
POSTED SPEED LIMIT SIGNS SAY: 55

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: I-5

DESCRIPTION / SKETCH
TERRAIN ~~HARD~~ SOFT MIXED (FLAT) OTHER: ____
PHOTOS STS-1, STS-2
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT: Buttonbush — PROJECT #: 14757
SITE ID: ST6
SITE ADDRESS: 26194 Burbank ST. — OBSERVER(S): Pedro García
START DATE: 1/26/23 — END DATE: 1/26/23
START TIME: 1235 — END TIME: 1250

**METEOROLOGICAL CONDITIONS**

TEMP: 60 F — HUMIDITY: 52 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 3 MPH — DIR. N NE S SE S SW W (NW) — VARIABLE (STEADY) GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

**ACOUSTIC MEASUREMENTS**

MEAS. INSTRUMENT: Piccolo II — TYPE 1 (2) — SERIAL # P0218021200
CALIBRATOR: Reed R8090 — SERIAL # B008560VR2
CALIBRATION CHECK — PRE-MEASUREMENT: 94 dBA SPL — POST-MEASUREMENT: ____ dBA SPL — WINDSCRN: Y

SETTINGS: (A-WTD) SLOW (FAST) (FRONTAL) RANDOM ANSI OTHER: ____

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| (4) | 12:35:03 PM | 12:50:03 PM | 62.6 | 83.5 | 44.8 | 56.9 | 59.9 | 62.1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS: ____

**SOURCE INFO AND TRAFFIC COUNTS**

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: Arterial — DIST. TO RDWY C/L OR EOP: 10 ft
TRAFFIC COUNT DURATION: 15 MIN — SPEED: 55

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| AUTOS | 3 | | | |
| MED TRKS | 2 | | | |
| HVY TRKS | 1 | | | |
| BUSES | 0 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: X

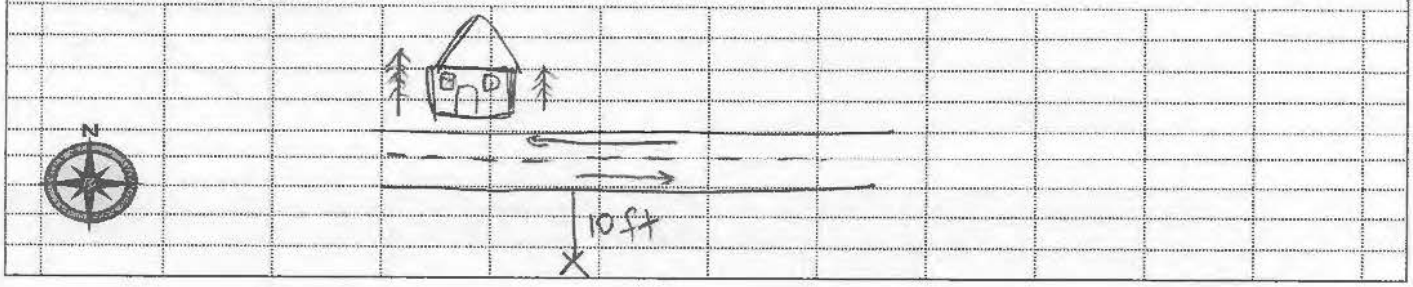
| COUNT 2 (OR RDWY 2) | NB/EB | SB/WB | NB/EB SPEED | SB/WB SPEED |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR / (DRIVING THE PACE)
POSTED SPEED LIMIT SIGNS SAY: 55

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: Lots of Blackbird noise from trees surrounding the nearby house

**DESCRIPTION / SKETCH**

TERRAIN (HARD) SOFT MIXED (FLAT) OTHER: ____
PHOTOS: ST6-1, ST6-2
OTHER COMMENTS / SKETCH



# Appendix B

Construction Noise Model Input / Output

*To User: bordered cells are inputs, unbordered cells have formulae*
*enter "0" to turn off air or grnd absorption terms, "1" to turn on*

air abs? 0
grnd abs? 0

magnitude of threshold (dBA) = 75
allowable hours over which Leq is to be averaged = 8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)
= Barrier of input height inserted between source and receptor

| Project Phase No. | Project Phase Description | Comparable FHWA RCNM Construction Equipment Type | Quantity | AUF % (from FHWA RCNM) | Reference Lmax @ 50 ft. from FHWA RCNM | Source to NSR Distance (ft.) | *Temporary Barrier Insertion Loss (dB)* | *Additional Noise Reduction* | Distance-Adjusted Lmax | Allowable Operation Time (hours) | Allowable Operation Time (minutes) | Predicted 8-hour Leq | Source Elevation (ft) | Receiver Elevation (ft) | Barrier Height (ft) | Source to Barr. ("A") Horiz. (ft) | Rcvr. to Barr. ("B") Horiz. (ft) | Source to Rcvr. ("C") Horiz. (ft) | "A" (ft) | "B" (ft) | "C" (ft) | Path Length Diff. "P" (ft) | Abarr (dB) | Heff (with barrier) | Heff (wout barrier) | G (with barrier) | G (without barrier) | ILbarr (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Grader | 3 | 40 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 60 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Compactor (ground) | 3 | 20 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 4 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | tractor | 1 | 40 | 84 | 50 | 0 | | 83.9 | 4 | 240 | 77 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Front end loader | 3 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 54 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 4 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 48 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Grader | 1 | 40 | 85 | 50 | 0 | | 84.9 | 4 | 240 | 78 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | | Total Aggregate Noise Exposure from Site Preparation Phase | | | **80.6** | | | | | | | | | | | | | | | | |
| 2 | Tracker Foundations | generator | 4 | 50 | 72 | 1000 | 0 | | 45.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 1 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 48 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 8 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 59 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 1 | 40 | 80 | 50 | 0 | | 79.9 | 4 | 240 | 73 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | All Other Equipment > 5 HP | 1 | 50 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Front end loader | 1 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 7 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 50 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Vibratory Pile Driver | 8 | 20 | 95 | 1000 | 0 | | 68.9 | 8 | 480 | 71 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Vibratory Pile Driver | 1 | 20 | 95 | 50 | 0 | | 94.9 | 4 | 240 | 85 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | | Total Aggregate Noise Exposure from Tracker Foundations Phase | | | **85.4** | | | | | | | | | | | | | | | | |
| 3 | Underground Cabling | Excavator | 3 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Excavator | 1 | 40 | 81 | 50 | 0 | | 80.9 | 4 | 240 | 74 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | slurry trenching machine | 1 | 50 | 80 | 50 | 0 | | 79.9 | 4 | 240 | 74 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compactor (ground) | 3 | 20 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 1 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 4 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | | Total Aggregate Noise Exposure from Underground Cabling Phase | | | **77.0** | | | | | | | | | | | | | | | | |
| 4 | Mechanical Installation | Generator | 11 | 50 | 72 | 1000 | 0 | | 45.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Flat bed truck | 8 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 20 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 61 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | skidsteer* | 1 | 40 | 80 | 50 | 0 | | 79.9 | 4 | 240 | 73 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | All Other Equipment > 5 HP | 1 | 50 | 85 | 50 | 0 | | 84.9 | 4 | 240 | 79 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 4 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 55 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 9 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 51 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | | Total Aggregate Noise Exposure from Mechanical Installation Phase | | | **80.0** | | | | | | | | | | | | | | | | |
| 5 | Electrical Installation | crane | 1 | 16 | 81 | 50 | 0 | | 80.9 | 4 | 240 | 70 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 9 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 3 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | slurry trenching machine | 3 | 50 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | excavator | 2 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 54 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | excavator | 1 | 40 | 81 | 50 | 0 | | 80.9 | 4 | 240 | 74 | 5 | 5 | 0 | 5 | 45 | 50 | 7.1 | 45.3 | 50.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 4 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 55 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 5 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | | Total Aggregate Noise Exposure from Electrical Installation Phase | | | **75.6** | | | | | | | | | | | | | | | | |

*To User: bordered cells are inputs, unbordered cells have formulae*
*enter "0" to turn off air or grnd absorption terms, "1" to turn on*

air abs? 0
grnd abs? 0

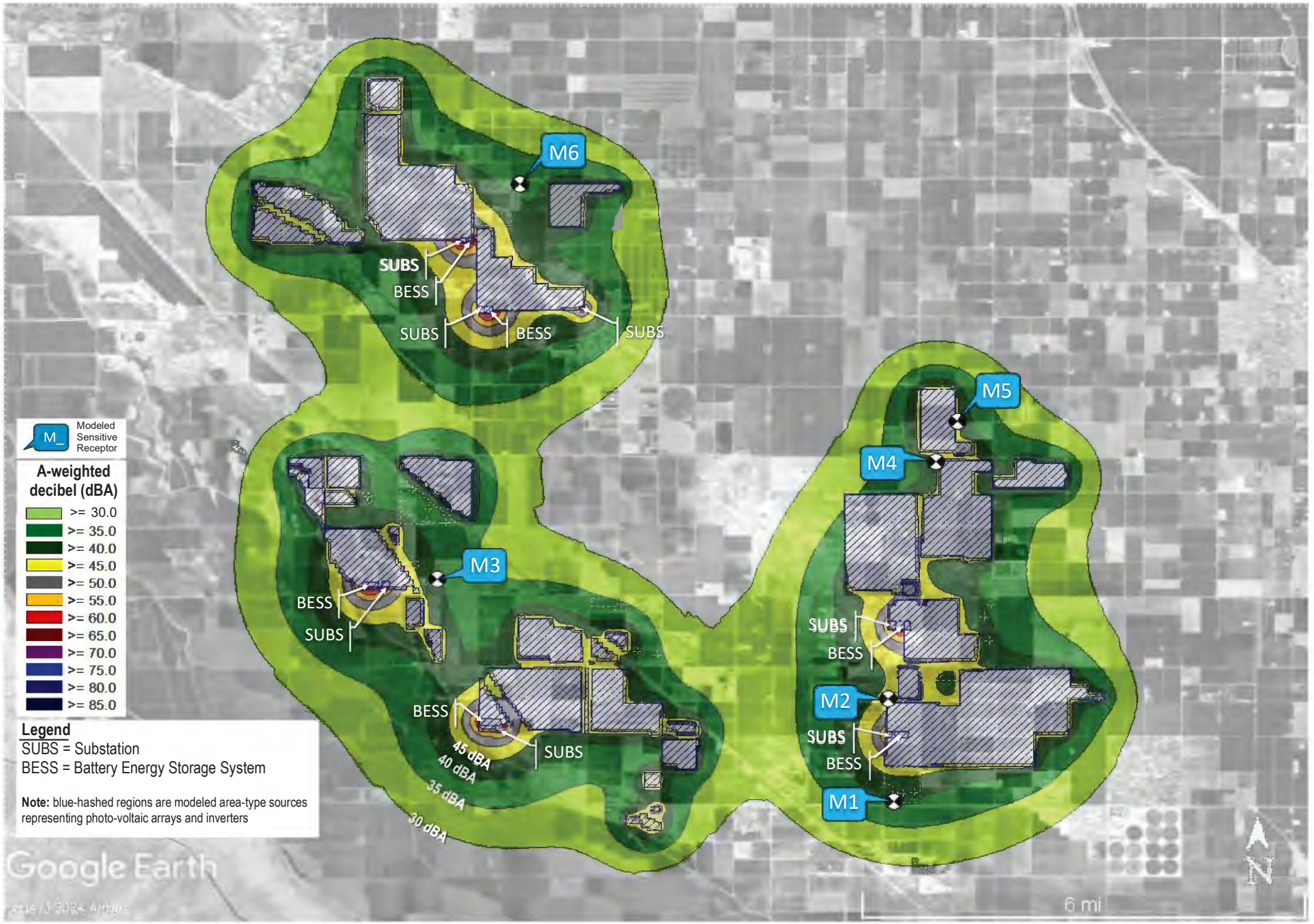
magnitude of threshold (dBA) = 75
allowable hours over which Leq is to be averaged = 8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)
= Barrier of input height inserted between source and receptor

| Project Phase No. | Project Phase Description | Comparable FHWA RCNM Construction Equipment Type | Quantity | AUF % (from FHWA RCNM) | Reference Lmax @ 50 ft. from FHWA RCNM | Source to NSR Distance (ft.) | *Temporary Barrier Insertion Loss (dB)* | *Additional Noise Reduction* | Distance-Adjusted Lmax | Allowable Operation Time (hours) | Allowable Operation Time (minutes) | Predicted 8-hour Leq | Source Elevation (ft) | Receiver Elevation (ft) | Barrier Height (ft) | Source to Barr. ("A") Horiz. (ft) | Rcvr. to Barr. ("B") Horiz. (ft) | Source to Rcvr. ("C") Horiz. (ft) | "A" (ft) | "B" (ft) | "C" (ft) | Path Length Diff. "P" (ft) | Abarr (dB) | Heff (with barrier) | Heff (wout barrier) | G (with barrier) | G (without barrier) | ILbarr (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Grader | 3 | 40 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 60 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Compactor (ground) | 3 | 20 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 4 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | tractor | 1 | 40 | 84 | 1000 | 0 | | 57.9 | 8 | 480 | 54 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Front end loader | 3 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 54 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 4 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 48 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Grader | 1 | 40 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 55 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | Total Aggregate Noise Exposure from Site Preparation Phase | | | | **64.0** | | | | | | | | | | | | | | | | | |
| 2 | Tracker Foundations | generator | 4 | 50 | 72 | 1000 | 0 | | 45.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 1 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 48 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 8 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 59 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 1 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 50 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | All Other Equipment > 5 HP | 1 | 50 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Front end loader | 1 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 7 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 50 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Vibratory Pile Driver | 8 | 20 | 95 | 1000 | 0 | | 68.9 | 8 | 480 | 71 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Vibratory Pile Driver | 1 | 20 | 95 | 1000 | 0 | | 68.9 | 8 | 480 | 62 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | Total Aggregate Noise Exposure from Tracker Foundations Phase | | | | **72.0** | | | | | | | | | | | | | | | | | |
| 3 | Underground Cabling | Excavator | 3 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Excavator | 1 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 51 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | slurry trenching machine | 1 | 50 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 51 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 7 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compactor (ground) | 3 | 20 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 52 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 1 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Skidsteer* | 4 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | Total Aggregate Noise Exposure from Underground Cabling Phase | | | | **61.5** | | | | | | | | | | | | | | | | | |
| 4 | Mechanical Installation | Generator | 11 | 50 | 72 | 1000 | 0 | | 45.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | Flat bed truck | 8 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 20 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 61 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | skidsteer* | 1 | 40 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 50 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | All Other Equipment > 5 HP | 1 | 50 | 85 | 1000 | 0 | | 58.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 4 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 55 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 9 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 51 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | Total Aggregate Noise Exposure from Mechanical Installation Phase | | | | **64.1** | | | | | | | | | | | | | | | | | |
| 5 | Electrical Installation | crane | 1 | 16 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 47 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | flat bed truck | 9 | 40 | 74 | 1000 | 0 | | 47.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | compressor (air) | 3 | 40 | 78 | 1000 | 0 | | 51.9 | 8 | 480 | 53 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | slurry trenching machine | 3 | 50 | 80 | 1000 | 0 | | 53.9 | 8 | 480 | 56 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | excavator | 2 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 54 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | excavator | 1 | 40 | 81 | 1000 | 0 | | 54.9 | 8 | 480 | 51 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | front end loader | 4 | 40 | 79 | 1000 | 0 | | 52.9 | 8 | 480 | 55 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | man lift | 5 | 20 | 75 | 1000 | 0 | | 48.9 | 8 | 480 | 49 | 5 | 5 | 0 | 5 | 995 | 1000 | 7.1 | 995.0 | 1000.0 | 0.00 | 0.1 | 5.0 | 5.0 | 0.7 | 0.7 | 0.1 |
| | | | | | | | | Total Aggregate Noise Exposure from Electrical Installation Phase | | | | **62.0** | | | | | | | | | | | | | | | | | |

# Appendix C

CadnaA Sound Propagation Model Input / Output




SOURCES: Google 2024; Dudek 2024

DUDEK

**FIGURE C1**

**Aggregate Project Operations Noise Prediction Results - Photovoltaic Solar Inverters, Substation Transformers, and Battery Energy Storage Systems**

Buttonbush Project (Dudek No. 14787)

**CadnaA Source Library**

| Name | ID | Type | Oktave Spectrum (dB) | | | | | | | | | A | | Source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Weight. | 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | A | lin | |
| PV inverter cluster - 10MVA total | PV10MVA | Lw | A | 60.7 | 79.7 | 91.7 | 93.7 | 99.7 | 96.7 | 92.7 | 87.7 | 78.7 | 103.1 | 111.8 | EEI EPPENG |
| substation xfmr - 333MVA total | SUBXFMR | Lw | | 103 | 109 | 111 | 106 | 106 | 100 | 95 | 90 | 83 | 106.4 | 115 | EEI EPPENG |
| medium voltage xfmr - 200 total | MVXFMR | Lw | A | 51 | 70 | 82 | 84 | 90 | 87 | 83 | 78 | 69 | 93.4 | 102.1 | EEI EPPENG |
| battery storage containers - 400 total | BC400 | Lw | A | 86.1 | 92.1 | 98.1 | 115.6 | 112.1 | 114.3 | 114.1 | 111.5 | 102 | 120.9 | 129.1 | confidential |

**CadnaA Area Sources**

| Name | Sel. | M. | ID | Result. PWL | | | Result. PWL" | | | Lw / Li | | | Sound Reduction | | Attenuation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Day (dBA) | Evening (dBA) | Night (dBA) | Day (dBA) | Evening (dBA) | Night (dBA) | Type | Value | norm. dB(A) | R | Area (ft²) | |
| PVIC | | - | PVIC-01 | 112.6 | 112.6 | 112.6 | 50.1 | 50.1 | 50.1 | Lw | PV10MVA | | | | -9.54 |
| PVIC | | + | PVIC-01 | 107.9 | 107.9 | 107.9 | 50.8 | 50.8 | 50.8 | Lw | PV10MVA | | | | -4.77 |
| PVIC | | + | PVIC-01 | 115.9 | 115.9 | 115.9 | 49.2 | 49.2 | 49.2 | Lw | PV10MVA | | | | -12.78 |
| PVIC | | + | PVIC-01 | 109.1 | 109.1 | 109.1 | 50.8 | 50.8 | 50.8 | Lw | PV10MVA | | | | -6.02 |
| PVIC | | + | PVIC-01 | 110.9 | 110.9 | 110.9 | 49.7 | 49.7 | 49.7 | Lw | PV10MVA | | | | -7.7815 |
| PVIC | | - | PVIC-01 | 106.1 | 106.1 | 106.1 | 56.4 | 56.4 | 56.4 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 113.1 | 113.1 | 113.1 | 49.5 | 49.5 | 49.5 | Lw | PV10MVA | | | | -10 |
| PVIC | | + | PVIC-01 | 109.1 | 109.1 | 109.1 | 49.5 | 49.5 | 49.5 | Lw | PV10MVA | | | | -6.02 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 51.9 | 51.9 | 51.9 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 52.3 | 52.3 | 52.3 | Lw | PV10MVA | | | | 0 |
| PVIC | | - | PVIC-01 | 103.1 | 103.1 | 103.1 | 59.7 | 59.7 | 59.7 | Lw | PV10MVA | | | | 0 |
| PVIC | | - | PVIC-01 | 110.9 | 110.9 | 110.9 | 52.8 | 52.8 | 52.8 | Lw | PV10MVA | | | | -7.78 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 55 | 55 | 55 | Lw | PV10MVA | | | | 0 |
| PVIC | | - | PVIC-01 | 103.1 | 103.1 | 103.1 | 59.7 | 59.7 | 59.7 | Lw | PV10MVA | | | | 0 |
| PVIC | | - | PVIC-01 | 103.1 | 103.1 | 103.1 | 57.7 | 57.7 | 57.7 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 111.6 | 111.6 | 111.6 | 49.1 | 49.1 | 49.1 | Lw | PV10MVA | | | | -8.45 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 52.2 | 52.2 | 52.2 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 53 | 53 | 53 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | - | PVIC-01 | 106.1 | 106.1 | 106.1 | 56.5 | 56.5 | 56.5 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 112.6 | 112.6 | 112.6 | 51.8 | 51.8 | 51.8 | Lw | PV10MVA | | | | -9.54 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 50.7 | 50.7 | 50.7 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 54.9 | 54.9 | 54.9 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 110.1 | 110.1 | 110.1 | 48.8 | 48.8 | 48.8 | Lw | PV10MVA | | | | -6.98 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 46.2 | 46.2 | 46.2 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 111.6 | 111.6 | 111.6 | 48 | 48 | 48 | Lw | PV10MVA | | | | -8.45 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 52.9 | 52.9 | 52.9 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 112.1 | 112.1 | 112.1 | 50 | 50 | 50 | Lw | PV10MVA | | | | -9.03 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 53.6 | 53.6 | 53.6 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 48.8 | 48.8 | 48.8 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 52.2 | 52.2 | 52.2 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 103.1 | 103.1 | 103.1 | 62.8 | 62.8 | 62.8 | Lw | PV10MVA | | | | 0 |
| PVIC | | + | PVIC-01 | 106.1 | 106.1 | 106.1 | 53.9 | 53.9 | 53.9 | Lw | PV10MVA | | | | -3.01 |
| PVIC | | + | PVIC-01 | 107.9 | 107.9 | 107.9 | 52.1 | 52.1 | 52.1 | Lw | PV10MVA | | | | -4.77 |
| PVIC | | + | PVIC-01 | 118 | 118 | 118 | 49.3 | 49.3 | 49.3 | Lw | PV10MVA | | | | -14.91 |
| PVIC | | + | PVIC-01 | 113.9 | 113.9 | 113.9 | 50.7 | 50.7 | 50.7 | Lw | PV10MVA | | | | -10.79 |
| PVIC | | + | PVIC-01 | 114.2 | 114.2 | 114.2 | 51.7 | 51.7 | 51.7 | Lw | PV10MVA | | | | -11.13 |
| PVIC | | + | PVIC-01 | 107.9 | 107.9 | 107.9 | 48.6 | 48.6 | 48.6 | Lw | PV10MVA | | | | -4.77 |
| PVIC | | + | PVIC-01 | 113.9 | 113.9 | 113.9 | 49.2 | 49.2 | 49.2 | Lw | PV10MVA | | | | -10.79 |
| PVIC | | + | PVIC-01 | 112.6 | 112.6 | 112.6 | 51.6 | 51.6 | 51.6 | Lw | PV10MVA | | | | -9.54 |
| Substation | | + | SUB | 109.4 | 109.4 | 109.4 | 65.2 | 65.2 | 65.2 | Lw | SUBXFMR | | | | -3 |
| BESS | | + | BESS | 120.9 | 120.9 | 120.9 | 78.9 | 78.9 | 78.9 | Lw | MVXFMR++BC400 | | | | 0 |
| Substation | | + | SUB | 109.4 | 109.4 | 109.4 | 67.5 | 67.5 | 67.5 | Lw | SUBXFMR | | | | -3 |
| BESS | | + | BESS | 120.9 | 120.9 | 120.9 | 72.2 | 72.2 | 72.2 | Lw | MVXFMR++BC400 | | | | 0 |
| Substation | | + | SUB | 109.4 | 109.4 | 109.4 | 63.9 | 63.9 | 63.9 | Lw | SUBXFMR | | | | -3 |
| BESS | | + | BESS | 120.9 | 120.9 | 120.9 | 75.8 | 75.8 | 75.8 | Lw | MVXFMR++BC400 | | | | 0 |
| Substation | | + | Sub | 109.4 | 109.4 | 109.4 | 67.2 | 67.2 | 67.2 | Lw | SUBXFMR | | | | -3 |
| Substation | | + | Sub | 109.4 | 109.4 | 109.4 | 69.7 | 69.7 | 69.7 | Lw | SUBXFMR | | | | -3 |
| Substation | | + | Sub | 109.4 | 109.4 | 109.4 | 65.4 | 65.4 | 65.4 | Lw | SUBXFMR | | | | -3 |
| PV | | + | PV | 103.1 | 103.1 | 103.1 | 52.9 | 52.9 | 52.9 | Lw | PV10MVA | | | | |
| Substation | | + | Sub | 109.4 | 109.4 | 109.4 | 66 | 66 | 66 | Lw | SUBXFMR | | | | -3 |
| PV | | + | PV update | 106.1 | 106.1 | 106.1 | 48.7 | 48.7 | 48.7 | Lw | PV10MVA | | | | -3.01 |
| PV | | + | PV Update | 103.1 | 103.1 | 103.1 | 46.8 | 46.8 | 46.8 | Lw | PV10MVA | | | | |
| PV | | - | PV Update | 103.1 | 103.1 | 103.1 | 45.9 | 45.9 | 45.9 | Lw | PV10MVA | | | | |
| PV | | - | PV Update | 103.1 | 103.1 | 103.1 | 51.5 | 51.5 | 51.5 | Lw | PV10MVA | | | | |
| PV | | - | PV Update | 103.1 | 103.1 | 103.1 | 49.6 | 49.6 | 49.6 | Lw | PV10MVA | | | | |
| Bess | | + | PV Update | 120.9 | 120.9 | 120.9 | 73.4 | 73.4 | 73.4 | Lw | MVXFMR++BC400 | | | | |
| Bess | | + | Bess | 120.9 | 120.9 | 120.9 | 78.5 | 78.5 | 78.5 | Lw | MVXFMR++BC400 | | | | |
| Bess | | + | Bess | 120.9 | 120.9 | 120.9 | 74.2 | 74.2 | 74.2 | Lw | MVXFMR++BC400 | | | | |

**Receivers**

| Name | Sel. | M. | ID | Level Lr | | Limit. Value | | Land Use | | | Height | | Coordinates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Day (dBA) | Night (dBA) | Day (dBA) | Night (dBA) | Type | Auto | Noise Type | (ft) | | X (ft) | Y (ft) | Z (ft) |
| Modeled Receptor 1 | | | M1 | 39.1 | 39.1 | 0 | 0 | | x | Total | 5 | r | 63437.84 | 9153.23 | 5 |
| Modeled Receptor 2 | | | M2 | 47.4 | 47.4 | 0 | 0 | | x | Total | 5 | r | 63034.45 | 16972.96 | 5 |
| Modeled Receptor 3 | | | M3 | 40.8 | 40.8 | 0 | 0 | | x | Total | 5 | r | 30976.35 | 26060.43 | 5 |
| Modeled Receptor 4 | | | M4 | 44.4 | 44.4 | 0 | 0 | | x | Total | 5 | r | 66457.55 | 34978.15 | 5 |
| Modeled Receptor 5 | | | M5 | 46.8 | 46.8 | 0 | 0 | | x | Total | 5 | r | 67946.18 | 38042.99 | 5 |
| Modeled Receptor 6 | | | M6 | 38.6 | 38.6 | 0 | 0 | | x | Total | 5 | r | 36828.01 | 56019.7 | 5 |

Appendix K

# Transportation Impact Study

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Transportation Impact Study

# Buttonbush Solar and Storage Project Kern County, California

**MAY 2025**

*Prepared for:*

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# Table of Contents

**SECTION** **PAGE NO.**


1 Introduction ..... 1
1.1 Purpose and Scope of the TIS ..... 1
1.2 Project Location ..... 1
1.3 Project Description ..... 2

2 Study Area ..... 5
2.1 Existing Street Network ..... 5
2.2 Transit, Pedestrian, and Bicycle Facilities ..... 6

3 Project Construction Traffic ..... 7
3.1 Trip Generation ..... 7
3.2 Trip Distribution and Assignment ..... 8

4 Level of Service (LOS) Analysis ..... 9
4.1 Study Intersections and Roadway Segments ..... 9
4.2 Analysis Scenarios ..... 10
4.3 Traffic Volumes ..... 10
4.4 Analysis Methodology ..... 10
4.5 County of Kern General Plan Consistency Requirements ..... 11
4.6 Caltrans Transportation Impact Study Guide ..... 11

5 Existing (2023) Conditions Analysis ..... 13
5.1 Intersection Operations ..... 13
5.2 Roadway Segment Operations ..... 14

6 Near Term (2027) Analysis ..... 17
6.1 Cumulative Projects ..... 17
6.2 Intersection Operations ..... 19
6.3 Roadway Segment Operations ..... 21

7 Project Site Access ..... 23
7.1 Construction Traffic Management Plan ..... 23
7.2 Proposed Circulation Amendments ..... 25
7.2.1 Kern County General Plan Circulation Element ..... 25
7.2.2 Buttonwillow Community Development Plan ..... 26

8 Vehicle Miles Traveled Analysis ..... 28
8.1 VMT Analysis Methodology ..... 28
8.2 Construction ..... 29
8.3 Operation and Maintenance ..... 30

9 Summary ..... 32

10 References ..... 35

## TABLES

Table 1. Project Trip Generation ..... 7
Table 2. Levels of Service for Intersections using HCM Methodology ..... 10
Table 3. Existing plus Project Weekday Peak Hour Intersection LOS ..... 13
Table 4. Existing ADT Roadway Segment Level of Service ..... 14
Table 5. Cumulative Projects ..... 17
Table 6. Cumulative Projects Trip ..... 18
Table 7. Near Term (2027) Weekday Peak Hour Intersection LOS ..... 19
Table 8. Near-term ADT Roadway Segment Level of Service ..... 21

## FIGURES

Figure 1 Project Location and Study Area ..... 37
Figure 2-A Site Plan ..... 39
Figure 2-B Site Plan ..... 41
Figure 2-C Site Plan ..... 43
Figure 2-D Site Plan ..... 45
Figure 2-E Site Plan ..... 47
Figure 3 Kern County General Plan Road Network ..... 49
Figure 4 Project Passenger Vehicle Trip Distribution ..... 51
Figure 5 Project Truck Trip Distribution ..... 53
Figure 6 Project Passenger Vehicle Trip Assignment ..... 55
Figure 7 Project Truck Trip Assignment (PCE) ..... 57
Figure 8 Project Total Trip Assignment (PCE) ..... 59
Figure 9 Existing Intersection Controls and Geometrics ..... 61
Figure 10 Existing Peak Hour Traffic Volumes ..... 63
Figure 11 Existing plus Project Peak Hour Traffic Volumes ..... 65
Figure 12 Cumulative Project Locations ..... 67
Figure 13 Cumulative Project Peak Hour Traffic Volumes ..... 69
Figure 14 Near-Term Year (2027) Peak Hour Traffic Volumes ..... 71
Figure 15 Near-Term Year (2027) plus Project Peak Hour Traffic Volumes ..... 73
Figure 16 Deletion of Existing Road Reservations ..... 75

## APPENDICES

A Raw Traffic Counts
B LOS Worksheets

# 1 Introduction

## 1.1 Purpose and Scope of the TIS

The purpose of this Transportation Impact Study (TIS) is to identify potential traffic impacts associated with the proposed Buttonbush Solar and Storage Project (proposed project or project), an industrial development in Kern County (County). This TIS has been prepared per the County's General Plan Circulation Element (Kern County 2009), and applicable CEQA guidelines, including adherence to Senate Bill (SB) 743 and guidelines from the Governor's Office of Planning and Research (OPR 2018). The permanent operations of the proposed Project would generate up to 40 daily trips related to periodic operations and maintenance activities. This relatively low amount of daily traffic would likely not have a measurable effect to the levels of service (LOS) of the transportation network. All of the study intersections are currently operating at LOS B or better. Therefore, this TIS focuses on the temporary construction-related traffic effects of the Project. As such, all "plus Project" conditions analyzed in this TIS are representative of the addition of construction-related Project traffic.

The objectives of this TIS are to:

- Document existing roadway, pedestrian, bicycle, transit and traffic conditions, including intersection levels of service in the study area;
- Estimate trip generation and trip characteristics for construction-related activities of the solar generation site;
- Document Existing (Year 2023) intersection levels of service in the study area;
- Document Near-Term (Year 2027) intersection levels of service in the study area per traffic volumes derived from adding growth to existing traffic volumes and accounting for cumulative project traffic;
- Analyze the construction related traffic impacts that would occur under the Existing (2023) and Near Term (Year 2027) conditions;
- Provide a Vehicle Miles Traveled (VMT) analysis per Senate Bill 743 and the updated California CEQA Guidelines;
- Identify CEQA-required mitigation measures for significant transportation impacts and/or other improvements needed to meet level of service standards (if any); and,
- Provide findings and recommendations based on the traffic analysis of the proposed project.

Figure 1, Project Location and Study Area, shows the project location and study area. As illustrated in Figure 1, the study area is comprised of 17 intersections and 8 roadway segments.

## 1.2 Project Location

The project site is located within unincorporated Kern County directly north of the community of Buttonwillow, approximately two miles west of the City of Shafter, and approximately seven miles southwest of the City of Wasco. The project site boundaries are illustrated Figure 1, Project Site Boundaries. The project site straddles Interstate 5 (I-5), is east of Buttonwillow Raceway Park, just north of State Route (SR) 58, and south of SR 46. Several single-family homes and agriculture-related structures are near the project boundary. Properties within the project include a dairy, a few single-family homes, and some varied structures for agricultural use, all of which would be removed during project construction. Vehicular access to the site would likely be from Wasco Way, Merced Avenue, Lerdo

Highway, Rowlee Road, Wildwood Road, Buttonwillow Drive, 7th Standard Road, Snow Road, State Route 58 (SR 58) y, and Sullivan Road. Many dirt roads cross the project site.

## 1.3 Project Description

The project as proposed by 29SC 8me LLC (project proponent) would be located on 128 parcels across a leased area of approximately 11,983 acres within a 13,868-acre gross parcel boundary of privately owned land currently under agricultural use in the valley region of Kern County. The project proponent proposes to develop a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 2 GW of AC power with an up to 2 GW energy storage system. Additional components of the project include solar modules and racking, inverters, transformers, service roads, a power collection system, communication cables, microwave/ radio towers, meteorological stations, a generation-transmission (gen-tie) line with optical ground wire and overhead and underground transmission lines, electrical switchyards, project substations, security fencing, use of onsite water wells, and operations and maintenance (O&M) facilities. The Project Site Plan is shown in Figures 2-1 through 2-5.

The project would be supported by a 500-kV, overhead gen-tie and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Pacific Gas & Electric (PG&E) Midway Substation. PG&E will modify the Midway Substation's 500 kV yard, within PG&E's Midway Substation property boundary to accommodate the proposed Project's interconnection. The PG&E Midway Substation parcels comprise approximately 255 acres; however, only a small portion, up to 38.6 acres, will be impacted by the proposed project. PG&E will install and trench underground several fiber-optic lines to the west of the gen-tie route to facilitate communication between the Midway Substation and the Point of Change of Ownership, approximately 0.25-mile northwest. Up to four 175-foot-tall lattice steel towers (LST) or tubular steel poles (TSPs) would support the proposed transmission line and the project's interconnection.

The proposed facilities are expected to be operational for up to 35 years. The full project description is provided in the project's California Environmental Quality Act (CEQA) environmental impact report and should be referenced for additional details regarding the project description.

### Phasing

It is anticipated that the proposed project may implement phased development. Phased development would be based on the successful execution of one or more power purchase agreements (PPAs), each with a specific megawatt capacity. The project includes multiple sites, some of which are discontinuous and separated from each other by multiple nonparticipating parcels and roads. Phasing may occur with the development of one or more of the sites simultaneously and could include a combination of any of the sites. Where potential impacts have been identified, mitigation has been proposed to reduce, eliminate, avoid or offset impacts. Because the project may be phased, final impacts and mitigation will be based on which phases are built and the timing of the construction.

### Construction & Decommissioning Activities

The construction period for the proposed project, from site preparation through construction, testing, and commercial operation, is expected to extend for up to 60 months. It is estimated that an average of up to 800 workers per day with up to 1,334 workers during peak construction periods would be required during construction of the proposed project. Construction of the proposed project would include the activities associated with the project components listed below:

- Site preparation
- Access and internal circulation roads
- Grading and earthwork
- Concrete foundations
- Structural steelwork
- Panel installation
- Electrical/instrumentation work
- Collector line installation
- Stormwater management facilities
- Gen-tie line(s) including the I-5 overhead crossing

Construction activities would comply with County and local municipalities' noise ordinances. Heavy construction is expected to occur between 7:00 a.m. and 5:00 p.m., Monday through Friday. If weekend work is required, construction would occur between 8:00 a.m. and 9:00 p.m. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, for several days in a given week.[1] Low-level noise activities may potentially occur between the hours of 10:00 p.m. and 7:00 a.m. Nighttime activities could include, but are not limited to, refueling equipment, staging material for the following day's construction activities, gen-tie line crossing work, quality assurance/control, and commissioning.

Solar equipment typically has a lifespan of over 35 years with regular maintenance intervals. The proposed project expects to sell the renewable energy produced by the project under the terms of a long-term PPA with a utility or other power off-taker. Upon completion of the PPA term, the project operator may, at its discretion and consistent with necessary approvals, continue to generate and sell power from the project or decommission and remove the system and its components. Upon decommissioning, the solar and storage facility could be converted to other uses in accordance with applicable land use regulations in effect at that time.

## Operations

Once the proposed project is constructed, maintenance would generally be limited to the following:

- Cleaning of PV panels
- Monitoring of electricity generation
- Provision of site security
- Facility maintenance—monitoring of equipment and control systems; replacement or repair of inverters, wiring, and PV modules; road maintenance; fence repairs; and vegetation management
- Utility coordination

It is expected that the proposed project could require an operational staff of up to 20 full-time employees. The facility would operate seven days a week, 24 hours a day, generating electricity during normal daylight hours when solar energy is available. The ESS could dispatch energy at any time during the day or night. Maintenance activities

[1] Some substation testing will be required prior to the completion of project construction. This testing will include nighttime operation because the substation equipment must be tested continuously for 72 hours for safety reasons.

are anticipated to occur during normal business hours; however, emergency maintenance may occur outside these timeframes to ensure ESS output and PV panel output when solar energy is available.

# 2 Study Area

This section provides a summary of the existing street network, including the major roadways serving the site, the existing transit service, and bicycle and pedestrian facilities in the study area.

## 2.1 Existing Street Network

Figure 3 provides the County of Kern General Plan Roadway Network. Regional access to the site would be provided from I-5 and SR-58, with local access from Wasco Way, Merced Avenue, Lerdo Highway, Rowlee Road, Wildwood Road, Buttonwillow Drive, 7th Standard Road, Snow Road, and Sullivan Road. Characteristics of the primary existing road network within the study area are described below.

- I-5 is a north-south, divided, four-lane freeway located mostly on the western portion of the site. I-5 is a major interstate freeway that begins near the Mexico—US Border and extends to Alberta, Canada, and serves as a critical connection for many other regional roadways, freeways, and highways. The nearest interchanges to the site are provided at I-5 and Lerdo Highway, I-5 and Buttonwillow Road, I-5 and 7th Standard Road, and I-5 and SR-58/Hageman Road. The posted speed limit is 65 miles per hour (MPH).
- SR- 58 begins in San Luis Obispo County, enters Kern County near McKittrick, runs east through Bakersfield and Mojave to the County boundary past Boron to end in San Bernardino County. The right of way varies between two and four lanes. The posted speed limit approaching Buttonwillow is 45 MPH.
- Lerdo Highway is an east-west, two-lane, undivided, county-maintained highway, located in the northern portion of the project site. It is an undivided rural road with paved shoulders. No pedestrian or bicycle facilities are present, and the posted speed limit is 55 MPH.
- Buttonwillow Drive is a north-south, two-lane, undivided roadway, located in the eastern portion of the project site. It is an undivided roadway with paved shoulders north of SR-58, and unpaved shoulders south of SR-58. There are no pedestrian or bicycle facilities present. The posted speed limit is 55 MPH starting approximately 0.30 miles north of 4th street, and is 30 MPH for approximately 1.65 miles from the end of the 55 MPH zone to Buerkle Road.
- Wildwood Road is a north-south, two-lane, undivided roadway, located in the northeastern portion of the project site. It is an undivided rural road with no paved shoulders, and no pedestrian or bicycle facilities are present. There is no posted speed limit.
- Wasco Way – Rudnick Road is a north-south, two-lane, undivided roadway that begins as the I-5 southbound off-ramp, and then runs parallel to I-5. It is located in the western portion of the project site. The shoulder is unpaved, no pedestrian or bicycle facilities are present, and there is no posted speed limit.
- Hageman Avenue is an east-west, two-lane, undivided roadway that begins at the eastern terminus of SR-58, at the southern edge of the project site. It is a rural roadway with paved shoulders. There are no pedestrian or bicycle facilities present. The posted speed limit is 55 MPH.
- Tracey Avenue is a north-south, two-lane, undivided roadway that connects 7th Standard Road to Hageman Road, and is located in the southern portion of the project site. Tracey Avenue provides access to and from I-5 via an on and off-ramp. The shoulder is unpaved, no pedestrian or bicycle facilities are present, and there is no posted speed limit.

- 7th Standard Road is an east-west, two-lane, undivided roadway located centrally in the project site. It is an undivided rural road with paved shoulders. There are no pedestrian or bicycle facilities present, and the posted speed limit is 55 MPH.
- Magnolia Avenue is a north-south, two-lane, undivided roadway located in the eastern portion of the project site. The shoulder is unpaved, there are no pedestrian or bicycle facilities present, and there is no posted speed limit.
- Merced Avenue is an east-west, two-lane, undivided roadway located in the northern portion of the project site. The shoulder is unpaved, there are no pedestrian or bicycle facilities present, and there is no posted speed limit.
- Rowlee Road is a north-south, undivided, two-lane, undivided roadway. There are paved shoulders north of Lerdo Highway, and unpaved shoulders south of Lerdo Highway. There are no pedestrian or bicycle facilities present, and there is no posted speed limit.

## 2.2 Transit, Pedestrian, and Bicycle Facilities

Kern Transit provides passenger bus service between and in the rural communities of Kern County. There are 16 fixed transit routes, and Dial-A-Ride (DAR) service is available in most communities. However, the project is in a generally undeveloped area with limited transit and no dedicated pedestrian or bicycle facilities in the vicinity of the project site or along the surrounding street network. Route 120 is the nearest bus route to the site with service provided on SR-58 (Stockdale Highway) and SR-43 approximately 6 miles southeast of the project limits. Route 120 provides service between Taft and Bakersfield.

# 3 Project Construction Traffic

This section documents the trip generation, distribution, and assignment of project traffic in the study area.

## 3.1 Trip Generation

The construction period for the proposed project from site preparation through construction, testing, and commercial operation is expected to commence as early as Q3 2025 and would extend for up to 60 months. Trip generation estimates for the peak construction phase are based on the number of workers and trucks that would be required for the proposed construction activities. Construction traffic includes the number of workers and the amount of truck traffic that would be generated to and from the site daily and during the AM and PM peak commuting hours. The overall peak construction period was utilized to calculate the estimated trip generation for the Project.

The peak period of construction would occur when multiple phases of construction overlap, resulting in peak worker and truck trips, and maximum traffic impacts (e.g., tracker foundations and underground cabling of the solar arrays). Due to the size of the construction area (up to approximately 11,983 acres over multiple discontinuous sites), it is likely that construction would only occur within specific areas of the site at one time. However, as the overall project phasing has not yet been established, construction across the entirety of the project area was analyzed during the peak construction period to provide the most conservative approach such that the highest number of overlapping trips could be analyzed at each study location.

Generally, heavy construction is expected to occur between the hours of 7:00 a.m. and 6:00 p.m. in compliance with Kern County and local municipalities' noise ordinances. As such, typical construction workdays are expected to occur throughout that period, Monday through Friday, excluding federal holidays. To provide a conservative analysis while also accounting for trips beginning or ending prior to peak period and/or multiple shifts throughout the workday, it is assumed that 50% of construction workers would arrive inbound to the site during the AM peak period (7:00 a.m. to 9:00 a.m.) and 50% of construction workers would depart the site during the PM peak period (4:00 p.m. to 6:00 p.m.). Truck deliveries are typically sporadic throughout the workday; therefore, in order to provide a conservative analysis, truck arrivals and departures were assumed to be distributed evenly from the beginning of the AM peak period (7:00 a.m.) to the end of the PM peak period (6:00 p.m.).

The trip generation estimates during the peak construction period for the Project are summarized in Table 1 below. To account for the impact construction-related trucks may have compared to passenger vehicles, passenger car equivalence (PCE) factors were applied to the trip generation estimates to account for truck traffic associated with construction activity. A 1.0 PCE factor was applied to passenger vehicles, 2.0 PCE for vendor trucks (which also includes trucks hauling water from off-site locations), and 3.0 for haul trucks.

**Table 1. Project Trip Generation**

| Vehicle Type | Daily Quantity | | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | Total | In | Out | Total |
| **Non-PCE Adjusted Trip Generation** | | | | | | | | | |
| Construction Workers[1] | 1334 | workers | 2,668 | 668 | 0 | 668 | 0 | 668 | 668 |

**Table 1. Project Trip Generation**

| Vehicle Type | Daily Quantity | | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | Total | In | Out | Total |
| Trucks[2] | 326 | trucks | 652 | 59 | 78 | 137 | 60 | 78 | 138 |
| **Peak Trip Total (Non-PCE)** | | | **3,320** | **727** | **78** | **805** | **60** | **746** | **806** |
| **PCE Adjusted Trip Generation** | | | | | | | | | |
| Construction Workers | 1334 | workers | 2,668 | 668 | 0 | 668 | 0 | 668 | 668 |
| Trucks[3] | 726 | trucks | 1,452 | 132 | 133 | 265 | 133 | 132 | 265 |
| **Peak Trip Total (PCE)** | | | **4,120** | **800** | **133** | **933** | **133** | **800** | **933** |

1 Assumes 50% construction workers arrive in the AM peak hour and depart the site in the PM peak hour.
2 Trucks are assumed to arrive and depart the site evenly throughout the workday.
3 Trucks are the combined total of both vendor and haul trucks across all sites within one day. Vendor trucks use a PCE rate of 2.0 and haul trucks use a PCE rate of 3.0. Water trucks are represented in the vendor truck category.

As shown in Table 1, the peak period of construction for the Project would generate approximately 3,320 daily trips, 805 AM peak hour trips and 806 PM peak hour trips. After trip generation estimates were adjusted utilizing PCE factors, the peak period of construction for the Project would generate approximately 4,120 daily trips, 933 AM peak hour trips, and 933 PM peak hour trips.

For all other phases of construction, the amount of vehicular traffic is estimated to be less than the peak construction period. All construction-related traffic would be temporary and short term and would be removed from the study area roadway network upon completion of the Project.

### Decommissioning

The Project has an operational life of over 35 years. Transportation impacts of decommissioning at the end of the Project's operational life are expected to be similar to the impacts from construction outlined above. However, traffic volumes within the study area cannot be projected that far in the future, and as such a specific analysis and outcome of impacts cannot be determined at this time. A Decommissioning Plan will be prepared for the Project, which will be updated immediately prior to decommissioning. The Decommissioning Plan will include measures specific to transportation impacts of decommissioning if necessary.

## 3.2 Trip Distribution and Assignment

Regional Project trip distribution percentages are based on logical travel paths to and from the project site. The majority of the workers are assumed to travel from Bakersfield, which is the nearest employment center, to the project site. The majority of the truck traffic is assumed to come from the south, via I-5. Project trip distribution percentages are shown in Figures 4 and 5, for passenger vehicle and truck trips, respectively. Project trips were assigned to the study area intersections by applying the above-referenced project trip generation estimates to the trip distribution percentages at each study area roadway segment and intersections. The project trip assignments are shown in Figures 6, 7, and 8 for passenger vehicle, truck, and total trip assignments, respectively.

# 4 Level of Service (LOS) Analysis

The County has vehicle LOS policies to ensure that proposed developments are consistent with the County's General Plan. Therefore, an LOS analysis has been prepared to evaluate the Project's consistency with the County's policies. The study intersections and roadway segments, analysis scenarios, traffic volumes, and LOS methodology and impact criteria are presented in the following section.

## 4.1 Study Intersections and Roadway Segments

The following study intersections and roadways segments are included in the LOS analysis:

1. Rowlee Road/Merced Avenue (two-way stop-control)
2. I-5 SB Ramps /Lerdo Highway (two-way stop-control)
3. I-5 NB Ramps/Lerdo Highway (two-way stop-control)
4. Rowlee Road/Lerdo Highway
5. Wildwood Road/Lerdo Highway
6. Buttonwillow Drive/I-5 Northbound On-Ramp
7. Buttonwillow Drive/I-5 SB Off-Ramp – Wasco Way
8. Buttonwillow Drive/7th Standard Road
9. Wasco Way/7th Standard Road
10. I-5 Southbound Ramps/7th Standard Road
11. I-5 Northbound Off-Ramp/7th Standard Road
12. Magnolia Avenue/7th Standard Road
13. Buttonwillow Drive/SR-58
14. Wasco Way/SR-58
15. I-5 Southbound Ramps/SR-58 – Hageman Road
16. I-5 Northbound Ramps/Tracey Avenue
17. Tracey Avenue/Hageman Road

In addition, the following road segments were selected for analysis:

1. Lerdo Highway, east of I-5 Northbound Ramps
2. Buttonwillow Drive, north of I-5 Northbound On-Ramp
3. Buttonwillow Drive, south of I-5 Southbound Off-Ramp
4. 7th Standard Road, west of I-5 Southbound On-Ramp
5. 7th Standard Road, east of I-5 Northbound Off-Ramp
6. Wasco Way, south of 7th Standard Road
7. Hageman Road, west of I-5 Southbound Ramps
8. Hageman Road, east of Tracey Avenue

## 4.2 Analysis Scenarios

Intersection LOS analyses were prepared for the weekday AM and PM peak hours at the study area intersections and road segments listed above for the following analysis scenarios:

- Existing Conditions
- Existing Conditions Plus Project
- 2027 Near-Term Cumulative without Project
- 2027 Near-Term Cumulative plus Project

## 4.3 Traffic Volumes

Daily, AM and PM peak hour turning movements counts were collected at the study intersections on July 27, 2023. The raw traffic data is provided as Appendix A. Traffic counts were adjusted to passenger car equivalents (PCE) to reflect truck traffic according to following industry standards as shown below:

- Light-duty trucks (2-axle): 1.5 PCE
- Medium-duty trucks (3-axle): 2.0 PCE
- Heavy-duty trucks (4+-axle): 3.0 PCE

The 2027 Near-term condition represents a short-term horizon period (less than 5 years) when the proposed Project is under construction. The peak hour traffic forecasts for the Year 2027 have been projected by increasing the traffic volumes by an annual growth rate of 0.5%, per the County's Guidelines, and adding traffic volumes generated by pending projects. These approved or pending projects are developments in the review process, but not fully approved; or, projects that have been approved, but not fully constructed or occupied. A list of cumulative projects was provided by the County in October 2024, further discussed in Section 6.1.

## 4.4 Analysis Methodology

The Highway Capacity Manual, 6th Edition (HCM 6) methodology (Transportation Research Board 2016) was used to analyze the operation of signalized and unsignalized study intersections. Detailed LOS calculation worksheets, for each scenario analyzed, are included in Appendix B.

The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 12 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM 7 methodology. Table 2 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

**Table 2. Levels of Service for Intersections using HCM Methodology**

| Level of Service | Unsignalized Intersections Control Delay (in seconds per vehicle) | Signalized Intersections Control Delay (in seconds per vehicle) |
|---|---|---|
| A | ≤ 10.0 | ≤ 10.0 |

**Table 2. Levels of Service for Intersections using HCM Methodology**

| Level of Service | Unsignalized Intersections Control Delay (in seconds per vehicle) | Signalized Intersections Control Delay (in seconds per vehicle) |
|---|---|---|
| B | > 10.0 to < 15.0 | > 10.0 to < 20.0 |
| C | > 15.0 to < 25.0 | > 20.0 to < 35.0 |
| D | > 25.0 to < 35.0 | > 35.0 to < 55.0 |
| E | > 35.0 to < 50.0 | > 55.0 to < 80.0 |
| F | > 50.0 | > 80.0 |

**Source:** HCM 7 (Transportation Research Board 2016).

## 4.5 County of Kern General Plan Consistency Requirements

Kern County uses a threshold of LOS D for the minimum acceptable operation of its transportation facilities. The County's General Plan Circulation Element (Kern County 2009) contains the following policies related to transportation compliance and LOS requirements:

Policy 2: The County should monitor development applications as they relate to traffic estimates developed for this plan. Mitigation is required if development causes affected roadways to fall below Level Of Service (LOS) D. However, development proposed as part of a Community Plan or Specific Plan which utilizes Smart Growth Policies that encourage efficient multi-modal movements (See Section 1.10.8) is allowed the flexibility to assess traffic and safety impacts through other means than Level Of Service (LOS). Utilization of the CEQA process would help identify alternatives to or mitigation for such developments. Mitigation could involve amending the Land Use, Open Space and Conservation Element to establish jobs/housing balance if projected trips in any traffic zone exceed trips identified for this Circulation Element. Mitigation could involve exactions to build off-site transportation facilities. These enhancements would reduce traffic congestion to an acceptable level.

Policy 4: As a condition of private development approval, developers shall build roads needed to access the existing road network. Developers shall build these roads to County standards unless improvements along State routes are necessary then roads shall be built to Caltrans standards. Developers shall locate these roads (width to be determined by the Circulation Plan) along centerlines shown on the circulation diagram map unless otherwise authorized by an approved Specific Plan Line. Developers may build local roads along lines other than those on the circulation diagram map. Developers would negotiate necessary easements to allow this.

## 4.6 Caltrans Transportation Impact Study Guide

As the owner and operator of the State Highway System, Caltrans, implements established state planning priorities in all functional plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact state highway facilities. To comply with SB 743 implementation, the Caltrans Transportation Impact Study Guide (May 2020), replaced the

Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Per the 2020 Transportation Impact Study Guide, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses. Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018). In addition to VMT, Caltrans has developed an Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance which may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the State Highway System and connections with the State Highway System (Caltrans 2020).

# 5 Existing (2023) Conditions Analysis

This section details the existing intersection and roadway segment operations within the study area, with and without the project-added traffic. Existing traffic controls and geometrics at all study intersections are shown in Figure 9 and existing peak hour traffic volumes are shown in Figure 10. The existing traffic volumes are based on traffic counts collected in July 2023. The existing plus project traffic volumes are shown on Figure 11.

## 5.1 Intersection Operations

Table 3 summarizes the results of the intersection analysis for the AM and PM peak hours for existing conditions. As shown in the table, all but one of the study intersections will continue to operate at satisfactory LOS with the project-added traffic. The intersection of Magnolia Avenue/7th Standard Road is forecast to operate at LOS E with the project-added traffic during the PM peak hour. This is due to the high volume of eastbound left-turn and through movements and the high volume of westbound through movements that delay the southbound left movements. However, the construction activities would be temporary and would be managed through implementation of a Traffic Management Plan (TMP), as further described in Section 7.1 The TMP would include measures such as timing worker arrivals and departures and material deliveries to avoid peak hours and the use of flaggers to direct construction traffic. Once construction is complete, the LOS would return to acceptable conditions.

**Table 3. Existing plus Project Weekday Peak Hour Intersection LOS**

| No. | Intersection | Traffic Control | Existing | | | | Existing plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] |
| 1 | Rowlee Road/ Merced Avenue | TWSC | 9.3 | A | 9.3 | A | 9.3 | A | 9.3 | A |
| 2 | I-5 SB Ramps/ Lerdo Highway | TWSC | 10.1 | B | 10.8 | B | 10.6 | B | 11.6 | B |
| 3 | I-5 NB Ramps/ Lerdo Highway | TWSC | 10.7 | B | 10.3 | B | 11.1 | B | 10.5 | B |
| 4 | Rowlee Road/ Lerdo Highway | AWSC | 8.4 | A | 8.5 | A | 9.6 | A | 9.4 | A |
| 5 | Wildwood Road/ Lerdo Highway | TWSC | 9.9 | A | 10.4 | B | 10.0 | B | 11.2 | B |
| 6 | Buttonwillow Drive/ I-5 NB On-Ramp[3] | none | 0.218 | A | 0.195 | A | 0.286 | A | 0.215 | A |
| 7 | Buttonwillow Drive/ I-5 SB Off-Ramp – Wasco Way | TWSC | 10.4 | B | 11.8 | B | 11.1 | B | 12.6 | B |
| 8 | Buttonwillow Drive/ 7th Standard Road | AWSC | 8.3 | A | 7.9 | A | 9.2 | A | 9.0 | A |

**Table 3. Existing plus Project Weekday Peak Hour Intersection LOS**

| No. | Intersection | Traffic Control | Existing | | | | Existing plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] |
| 9 | Wasco Way/ 7th Standard Road | TWSC | 10.5 | B | 9.4 | A | 12.7 | B | 10.1 | B |
| 10 | I-5 SB Ramps/ 7th Standard Road | TWSC | 10.3 | B | 12.7 | B | 14.1 | B | 19.1 | C |
| 11 | I-5 NB Off-Ramp/ 7th Standard Road | TWSC | 10.7 | B | 11.8 | B | 12.1 | B | 15.3 | C |
| 12 | Magnolia Avenue/7th Standard Road | TWSC | 11.7 | B | 11.0 | B | 19.3 | C | **36.6** | **E** |
| 13 | Buttonwillow Drive/ SR-58 | TWSC | 10.7 | B | 13.0 | B | 10.8 | B | 15.0 | C |
| 14 | Wasco Way/ SR-58 | TWSC | 12.2 | B | 12.0 | B | 13.4 | B | 15.5 | C |
| 15 | I-5 SB Ramps/ SR-58 – Hageman Road | AWSC | 8.0 | A | 10.4 | B | 8.6 | A | 10.6 | B |
| 16 | I-5 NB Ramps/ Tracey Avenue | TWSC | 19.4 | C | 26.8 | D | 20.4 | C | 24.4 | C |
| 17 | Tracey Avenue/ Hageman Road | TWSC | 14.5 | B | 22.5 | C | 17.3 | C | 28.9 | D |

**Notes:** HCM = Highway Capacity Manual; AWSC = All-way Stop-Controlled; TWSC = Two-Way Stop-Controlled; **Bold** – Unsatisfactory LOS

1 Delay in seconds per vehicle

2 Level of Service (LOS)

3 ICU Value used as HCM does not support all-way, free movements.

## 5.2 Roadway Segment Operations

Table 4 shows the results of the roadway segment LOS analysis. As shown below, the study area roadway segments are operating at acceptable ADT volume-to-capacity conditions under existing conditions, with and without the project-added traffic.

**Table 4. Existing ADT Roadway Segment Level of Service**

| No. | Location | Capacity[1] | Existing ADT[2] | Project Added Trips | Existing plus Project ADT | V/C Ratio | LOS | LOS D or Better? |
|---|---|---|---|---|---|---|---|---|
| 1. | Lerdo Highway, east of I-5 NB Ramps | 15,000 | 2,324 | 164 | 2,488 | 0.166 | A | Yes |
| 2. | Buttonwillow Drive, north of I-5 NB On-Ramp | 15,000 | 1,356 | 363 | 1,719 | 0.115 | A | Yes |

## Table 4. Existing ADT Roadway Segment Level of Service

| No. | Location | Capacity[1] | Existing ADT[2] | Project Added Trips | Existing plus Project ADT | V/C Ratio | LOS | LOS D or Better? |
|---|---|---|---|---|---|---|---|---|
| 3. | Buttonwillow Drive, south of I-5 SB Off-Ramp | 15,000 | 2,039 | 167 | 2,206 | 0.147 | A | Yes |
| 4. | 7th Standard Road, west of I-5 SB On-Ramp | 15,000 | 2,008 | 353 | 2,361 | 0.157 | A | Yes |
| 5. | 7th Standard Road, east of I-5 NB Off-Ramp | 15,000 | 3,933 | 858 | 4,791 | 0.319 | A | Yes |
| 6. | Wasco Way, south of 7th Standard Road | 15,000 | 258 | 219 | 477 | 0.032 | A | Yes |
| 7. | Hageman Road, west of I-5 SB Ramps | 15,000 | 6,365 | 451 | 6,816 | 0.454 | A | Yes |
| 8. | Hageman Road, east of Tracey Avenue | 15,000 | 5,012 | 459 | 5,471 | 0.365 | A | Yes |

**Notes**: ADT = average daily traffic; V/C = volume/capacity; **Bold**: Exceeds "Acceptable" LOS D or better threshold

1 Capacity determined from Table 4.3-2, Roadway Capacities, per the Metropolitan Bakersfield General Plan Update EIR for 2-lane collector roadways.

2 Volume provided from ADT counts conducted on July 27, 2023

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# 6 Near Term (2027) Analysis

This section describes conditions within the study area in the short-term (estimated to be year 2027) when peak construction of the Project and cumulative projects in the area would occur. The existing intersection configurations (shown in Figure 9) have been assumed to be preserved under the Near-term (2027) conditions.

## 6.1 Cumulative Projects

Cumulative projects are projects that are proposed and in the development review process, but not yet fully approved; or projects that have been approved, but not fully constructed or occupied. The following projects listed in Table 5 were provided per communication with County staff. Figure 12 shows the locations of the cumulative projects. The Recreational Vehicle Park, the Cal Centre Warehouse project, and the two truck stops/fueling stations were the only projects carried forward in the cumulative analysis. The remaining projects do not have sufficient information regarding location, schedule, size, land use or trip generation to provide a meaningful analysis of the cumulative conditions.

**Table 5. Cumulative Projects**

| No. | Permit No. | Location | Description | Status |
|---|---|---|---|---|
| BB1 | PLN23-00916 | Northwest Corner of Lerdo Highway and Rowlee Road | CUP for RV Park | In Review |
| BB2 | PLN20-01432 | APN 069-340-289 | Winston Solar LLC.; Map 77 & 98, Cup - Solar Facility & Battery Storage | Applied |
| BB3 | PLN22-01114 | APN 087-190-18 | Cal Centre Warehouse Development; Map 77, GPA, ZCC, CUP, PD - | Applied |
| BB4 | PLN19-00732 | Snow Rd, Buttonwillow, CA | CUP to construct and operate a Biogas Upgrading Facility to receive biogas from nearby dairy digesters for the production of RNG. The proposed project also includes installation and operation of a gas meter set assembly. | In Review |
| BB5 | PLN23-00747 | APN 090-340-45 | PD Plan for truck stop | Applied |
| BB6 | PLN20-01376 | 20672 Tracy Ave., Buttonwillow | PD to change the use from restaurant to Truck Fueling Station. | Applied |

**Source:** Email correspondence with the County of Kern, October 2024

As shown in Table 6, the cumulative projects are forecast to generate approximately 11,403 daily trips, 703 AM peak hour trips, and 784 PM peak hour trips. Figure 13 shows the traffic volumes distributed throughout the network. The project information and locations were reviewed to determine whether they should be included in the Opening Year analysis.

## Table 6. Cumulative Projects Trip

| Project | Size | Unit | ITE Code | Land Use | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In | Out | Total | In | Out | Total |
| BB1-Recreational Vehicle Park Development | 17.49 | Acres | 416 | Campground/Recreational Vehicle Park | N/A | 1 | 3 | 4 | 3 | 2 | 5 |
| **BB3- Cal Centre Warehouse Development[1]** | | | | | | | | | | | |
| Building 1 | 590 | TSF | 157 | High-Cube Cold Storage Warehouse | 1,692 | 74 | 11 | 85 | 41 | 41 | 82 |
| Building 2 | 1,300 | TSF | 155 | High-Cube Fulfillment Center | 2,725 | 96 | 99 | 195 | 61 | 147 | 208 |
| Building 3 | 1,260 | TSF | 154 | High-Cube Transload and Short-Term Storage | 1764 | 70 | 30 | 100 | 38 | 89 | 127 |
| Building 4 | 850 | TSF | 154 | High-Cube Transload and Short-Term Storage | 1190 | 47 | 21 | 68 | 25 | 60 | 85 |
| | | | | *Subtotal* | *7,371* | *287* | *161* | *448* | *165* | *337* | *502* |
| BB5-Truck Stop[2] | 9 | FP | 950 | Truck Stop | 2016 | 62 | 64 | 126 | 74 | 65 | 139 |
| BB6-Truck Fueling Station[2] | 9 | FP | 950 | Truck Stop | 2016 | 62 | 64 | 126 | 74 | 65 | 139 |
| | | | | **Total Trip Generation** | **11,403** | **412** | **291** | **703** | **316** | **468** | **784** |

**Source:** Cumulative projects provided by email correspondence with the County of Kern October 2024.
**Notes:** TSF = thousand square feet; FP= Fueling Positions; Rounding errors may occur.
1 Trip generation referenced to the Cal Centre Warehouse Traffic Study, Ruettgers & Schuler, 2022.
2 Due to a lack of available information for these projects, the average truck stop inputs supplied by ITE were used to determine their trip generation.

## 6.2 Intersection Operations

The existing intersection configurations have been assumed to be preserved under the Near Term Year (2027) conditions. Figure 14 illustrates the Near Term Year (2027) (no project) traffic volumes for the peak hour conditions and Figure 15 illustrates the Near Term Year (2027) (with project) traffic volumes for the peak hour conditions.

Table 7 summarizes the results of the Near Term Year (2027) intersection analysis for the AM and PM peak hours, with and without the project. As shown in the table, the 7th Standard Road/Magnolia Avenue and I-5 NB Ramps/Tracey Avenue intersections are forecast to operate at LOS E during the PM peak hours under Near Term Year (2027) Plus Project conditions. Both intersections would continue to operate within acceptable standards during the AM peak hour.

The 7th Standard Road/Magnolia Avenue intersection's LOS E is caused by the high volume of eastbound left turn and through movements and the high volume of westbound through movements blocking southbound left turn movements. However, the construction activities would be temporary and would be managed through implementation of a TMP, as further described in Section 7.1 The TMP would include measures such as timing worker arrivals and departures and material deliveries to avoid peak hours and the use of flaggers to direct construction traffic. Once construction is complete, the LOS would return to acceptable conditions.

The I-5 NB Ramps/Tracey Avenue intersection's LOS E is caused by the high volume of northbound left turn and through movements and southbound through movements delaying the westbound left turn movements. This is a direct result of the proposed truck stops near the I-5 ramps at Tracey Avenue (cumulative projects BB5 and BB6), and not related to the proposed project traffic. The proposed project construction trips are temporary and once constructed, the project would contribute minimal (if any) trips through this intersection. The proposed truck stops are still in the application phase and will be subject to their own transportation analysis and review by the County and Caltrans, at which time project-specific intersection improvements may be warranted, to improve the intersection LOS. The intersection is also under Caltrans jurisdiction and while LOS is a County threshold, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses.

Furthermore, the timing of the approval and construction of the cumulative projects is not known at this time. Without the proposed truck stops, the I-5 NB Ramps at Tracey Avenue would continue to operate at an acceptable level of service during the PM peak hour with the project-added traffic. Additionally, the project construction activities would be managed through a TMP, and would include measures such as timing worker arrivals and departures and material deliveries to avoid peak hours.

**Table 7. Near Term (2027) Weekday Peak Hour Intersection LOS**

| No. | Intersection | Traffic Control | Near Term Year (2027) | | | | Near Term (2027) Plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] |
| 1 | Rowlee Road/Merced Avenue | TWSC | 9.4 | A | 9.3 | A | 9.4 | A | 9.3 | A |
| 2 | I-5 SB Ramps / Lerdo Highway | TWSC | 10.1 | B | 10.9 | B | 10.6 | B | 11.6 | B |

## Table 7. Near Term (2027) Weekday Peak Hour Intersection LOS

| No. | Intersection | Traffic Control | Near Term Year (2027) | | | | Near Term (2027) Plus Project | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | | | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] | Delay[1] | LOS[2] |
| 3 | I-5 NB Ramps/Lerdo Highway | TWSC | 10.7 | B | 10.4 | B | 11.1 | B | 10.6 | B |
| 4 | Rowlee Road/Lerdo Highway | AWSC | 8.4 | A | 8.8 | A | 9.6 | A | 9.4 | A |
| 5 | Wildwood Road/Lerdo Highway | TWSC | 9.9 | A | 10.5 | B | 10.0 | B | 11.3 | B |
| 6 | Buttonwillow Drive/I-5 NB On-Ramp[3] | none | 0.247 | A | 0.254 | A | 0.321 | A | 0.273 | A |
| 7 | Buttonwillow Drive/I-5 SB Off-Ramp – Wasco Way | TWSC | 11.0 | B | 13.7 | B | 11.7 | B | 14.8 | B |
| 8 | Buttonwillow Drive/7th Standard Road | AWSC | 9.1 | A | 8.8 | A | 9.9 | A | 9.4 | A |
| 9 | Wasco Way/7th Standard Road | TWSC | 14.7 | B | 11.3 | B | 19.6 | C | 12.7 | B |
| 10 | I-5 SB Ramps/ 7th Standard Road | TWSC | 12.2 | B | 15.1 | C | 16.3 | C | 25.4 | D |
| 11 | I-5 NB Off-Ramp/7th Standard Road | TWSC | 13.9 | B | 15.6 | C | 25.4 | D | 22.5 | C |
| 12 | Magnolia Avenue/7th Standard Road | TWSC | 11.8 | B | 14.1 | B | 19.4 | C | **37.8** | **E** |
| 13 | Buttonwillow Drive/SR-58 | TWSC | 10.8 | B | 13.2 | B | 11.2 | B | 15.1 | C |
| 14 | Wasco Way/ SR-58 | TWSC | 12.3 | B | 13.6 | B | 13.5 | B | 15.8 | C |
| 15 | I-5 SB Ramps/ SR-58 – Hageman Road | Signal | 8.1 | A | 11.0 | B | 8.8 | A | 11.2 | B |
| 16 | I-5 NB Ramps/ Tracey Avenue | TWSC | 33.9 | D | 31.9 (22.3)[4] | D (C)[4] | 33.9 | D | **39.2** (25.1)[4] | **E** (D)[4] |
| 17 | Tracey Avenue/ Hageman Road | TWSC | 16.0 | C | 26.0 | D | 19.4 | C | 34.1 | D |

**Notes:** HCM = Highway Capacity Manual; AWSC = All-way Stop-Controlled; TWSC = Two-Way Stop-Controlled; Bold – Unsatisfactory operating conditions/LOS

1 Delay in seconds per vehicle

2 Level of Service (LOS)

[3] ICU Value used as HCM does not support all-way, free movements.
[4] The LOS analysis was rerun to assess the LOS without cumulative projects BB5 and BB6, which are proposed adjacent to the ramps. LOS improves to acceptable standards without the projects.

## 6.3 Roadway Segment Operations

Table 8 shows the results of the roadway segment LOS analysis. As shown below, the study area roadway segments are forecast to operate at acceptable conditions under Near Term Year (2027) conditions, with and without the project traffic.

**Table 8. Near-term ADT Roadway Segment Level of Service**

| No. | Location | Capacity | Near term ADT | Project Added Trips | Near term plus Project ADT | V/C Ratio | LOS | LOS D or Better? |
|---|---|---|---|---|---|---|---|---|
| 1. | Lerdo Highway, east of I-5 NB Ramps | 15,000 | 2,510 | 164 | 2,674 | 0.178 | A | Yes |
| 2. | Buttonwillow Drive, north of I-5 NB On-Ramp | 15,000 | 2,042 | 167 | 2,209 | 0.147 | A | Yes |
| 3. | Buttonwillow Drive, south of I-5 SB Off-Ramp | 15,000 | 4,126 | 159 | 4,285 | 0.286 | A | Yes |
| 4. | 7th Standard Road, west of I-5 SB On-Ramp | 15,000 | 6,281 | 0 | 6,281 | 0.419 | A | Yes |
| 5. | 7th Standard Road, east of I-5 NB Off-Ramp | 15,000 | 5,070 | 259 | 5,329 | 0.355 | A | Yes |
| 6. | Wasco Way, south of 7th Standard Road | 15,000 | 279 | 352 | 631 | 0.042 | A | Yes |
| 7. | Hageman Road, west of I-5 SB Ramps | 15,000 | 6,874 | 478 | 7,352 | 0.490 | A | Yes |
| 8. | Hageman Road, east of Tracey Avenue | 15,000 | 5,413 | 798 | 6,211 | 0.414 | A | Yes |

**Notes**: ADT = average daily traffic; V/C = volume/capacity; **Bold**: Exceeds "Acceptable" LOS D or better threshold
[1] Capacity determined from Table 4.3-2, Roadway Capacities, per the Metropolitan Bakersfield General Plan Update EIR for 2-lane collector roadways.
[2] Volume provided from ADT counts conducted on July 27, 2023

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# 7 Project Site Access

At the time of this writing, the exact location of the driveways had not been identified. Due to the rural nature of the area and low traffic volumes observed along Rowlee Road, Merced Road, Lerdo Highway, Wildwood Road, Buttonwillow Drive, Wasco Way, 7th Standard Road, Magnolia Avenue, Tracey Avenue, Riverside Street, Burbank Street, Snow Road, SR-58, Sullivan Road, and Hageman Road; construction-related traffic is not expected to cause excessive delays for vehicles entering or exiting the project site. The surrounding terrain is flat and no issues with sight distance at the project driveways are anticipated. Oversize vehicles will be subject to comply with oversize load permits and prior to construction the applicant would be required to secure all necessary permits. This would include implementation of traffic control measures, such as a traffic control plan to ensure adequate site access, as further described below.

## 7.1 Construction Traffic Management Plan

All construction related trips would be temporary for the duration of Project construction and background traffic volumes and travel patterns would return to pre-construction conditions upon the completion of construction. However, due to the possible temporary closure of lanes, roads, and because of slow-moving vehicles, a mitigation measure in the form of a Construction Traffic Management Plan is recommended in order to minimize impacts during construction.

### Mitigation Measure Transportation -1 (MM TR-1):

Prior to the issuance of construction or building permits for the Facility, the Project Proponent/operator shall:

A. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department-Development Review and the California Department of Transportation District 6 office, as appropriate, for approval. If the project is constructed in phases, Construction Traffic Control Plans must be submitted and approved for each phase. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues:
    a. The routes, duration and manner of traffic control that will be implemented to accommodate construction related traffic.
    b. Timing of deliveries of heavy equipment and building materials. To the extent feasible, restrict deliveries and vendor vehicle arrivals and departures during either the AM and PM peak periods;
    c. Directing construction traffic with flaggers;
    d. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
    e. Ensuring access for emergency vehicles to the project sites;
    f. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
    g. Ensuring required access from property owners is obtained prior to starting construction.
    h. Maintaining access to adjacent property;

i. Specifying both construction-related vehicle travel and oversize load haul routes and avoiding residential neighborhoods to the maximum extent feasible; and

B. Consult with the County to develop coordinated plans that would address construction-related vehicle routing and detours adjacent to the construction area for the duration of construction overlap with neighboring projects. Key coordination meetings would be held jointly between applicants and contractors of other projects for which the County determines impacts could overlap.

C. Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county-maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department, the Kern County Public Works Department-Development Review, and Caltrans.

D. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or Kern County.

E. Submit documentation that identifies the roads to be used during construction. The Project Proponent/operator shall be responsible for repairing any damage to non- county-maintained roads that may result from construction activities. The Project Proponent/Operator shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Development Review and the Kern County Planning and Natural Resources Department.

F. Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the County. This information shall be submitted in DVD format. The County, in consultation with the Project Proponent/Operator's engineer, shall determine the extent of remediation required, if any.

Upon commissioning, the Project would enter the operational phase. For the duration of the operational phase, the Project would be maintained by up to 20 permanent staff employees and monitored remotely via a SCADA system. On-site maintenance staff would be responsible for security, vegetation management, permit compliance, and Project repairs. Daily trips generated by the project are anticipated to be less than 40 daily trips associated with the O&M permanent employees commuting to the site, visitors, and/or light deliveries. Project maintenance performed on the site would consist of vegetation management, maintaining compliance with Project permits, and inspection and replacement of Project equipment. The permanent operations, or O&M phase, of the Project is expected to have nominal operational vehicular trips associated with routine maintenance and upkeep of facilities including annual panel washing and therefore the number of permanent trips (less than 40 daily trips) associated with the Project are not expected to impact the study area roadway network. The roadway conditions in the Project vicinity would not substantially differ from existing conditions.

Once operational, ingress/egress would be provided at controlled access gates at main entrances to the Project site. The perimeter of the Project site would be enclosed by chain link fence with barbed wire measuring up to eight feet in height from finished grade. Only authorized access will be permitted on-site. The final design for the internal access roads and driveways would be subject to County roadway standards and final approval from Kern County.

Due to the rural nature of the area, transit, bicycle, and pedestrian facilities are limited. No impacts to transit, bicycle, or pedestrian facilities are anticipated.

## 7.2 Proposed Circulation Amendments

The proposed project requests amendments to the Circulation Element of the Kern County General Plan and the Buttonwillow Community Development Plan to remove various section and midsection line road reservations to increase project site optimization- refer to Figure 16, Deletion of Existing Road Reservations. The project is also proposing to vacate certain public access easements within the project area and will adhere to the following General Plan policies as needed.

### 7.2.1 Kern County General Plan Circulation Element

Section 2.3.6 – Vacation of Existing or Recorded Future Streets, Highways, or Public Easements of the County's Circulation Element includes the following policies:

**Vacation of Existing or Recorded Future Streets, Highways, or Public Easements**

Policy 1: A road vacation influencing the construction or operation of expressway, an arterials or collector highway may occur with, or after, amending this Element. Kern County will not vacate any public expressway, arterial or collector highway right-of-way without amendment to this Element. The County will need to amend the right-of way status to local or commercial-industrial streets.

Policy 2: A study, prepared at the applicant's expense, shall accompany the road vacation application. The study should provide information that will aid in finding the importance of the entire length of the right-of-way. The study would include a review of existing and proposed land uses and localized traffic modeling. This will help Kern County decide what corresponding changes are needed to the Land Use, Open Space and Conservation Element, or affected specific plan. This also will help Kern County decide if additional public road services or other traffic management are required elsewhere.

Policy 3: If the road vacation applicant is a private entity, all costs for the public hearing shall be borne by the applicant. Also, costs associated with providing any necessary additional public road services or other traffic management caused by the road vacation shall be paid by the applicant.

Policy 4: The vacation of a road shall not take away legal access to adjacent properties or "land-lock" any legal lot or parcel of record. Legal access shall be determined through a report submitted with the application for road vacation.

Policy 5: If Kern County determines that the right-of-way is not needed for circulation in the general area, a road vacation may be authorized. An acceptable project shall be determined through a report submitted with the road vacation application and in keeping with traffic modeling parameters of this Plan.

Policy 6: A road vacation may be authorized if physical conditions such as natural, or manmade topography prevent rational extension of the facility. Physical conditions affecting roadways shall be determined through a report submitted with the road vacation application.

Policy 7: A road vacation shall only affect public, recorded rights-of-way or public service easements. The potential effects of a road vacation upon rights-of-way and easements are to be determined by a report submitted with the road vacation application. A vacation of private access or private service easement is not under County jurisdiction. Kern County considers these matters "civil" actions. These civil actions should be acted upon accordingly.

Policy 8: A road vacation may be authorized if the right-of-way is not improved or used for its original purpose. Existing improvements and facility use shall be determined by a report submitted with the road vacation application.

Policy 9: A road vacation may be authorized to remove excess right-of-way caused by relocation, or at the beginning of a general plan amendment proceeding. Excess right-of-way shall be determined through a report submitted with the road vacation application.

Policy 10: A road vacation may be approved if there is an agreement to close a public street. A road vacation may be approved with acknowledgment of an impassable street. A road vacation may be approved with a land division map over the area of vacation if the project has comparable methods of vehicular access.

Policy 11: A road vacation procedure may be used for considering public service easement or utility service easement abandonments. The procedure is the same as any public right-of-way vacation.

Policy 12: A vacation of improved road right-of-way, or public service easement, should not occur until the lead agency makes findings. One important finding is the land is no longer needed for public use. A vacation of improved road right-of-way, or public service easement, should not occur until the right-of-way is superseded by relocation, and improved to acceptable Kern County Development standards. The Board of Supervisors shall have accepted the replacement facility into the maintained road system.

Policy 13: A general vacation proceeding (consistent with State of California Streets and Highway Code) will require a public hearing when the vacation affects existing in place facilities or is a project caused by relocating right-of-way.

Policy 14: A summary vacation shall be consistent with State of California Streets and Highway Code. A summary vacation may be used when the right-of-way does not exist, is unused, or moved. A summary vacation may be used where right-of-way is impassable, unnecessary for present or prospective public use, or is excess or public service easement land.

### 7.2.2 Buttonwillow Community Development Plan

The Buttonwillow Community Development Plan was adopted in 1974 to guide land use decisions for the future development within and surrounding the Buttonwillow community. The Buttonwillow Community Development Plan addresses issues of importance in the area by stating goals, recommendations, and implementation measures to accommodate growth while protecting the community's unique business, transportation, and environmental issues. The Plan works in tandem with the Kern County General Plan and Zoning Ordinance to direct land use and development decisions, establishing a single set of community-wide policies and implementation strategies. It contains Community Development, Land Use, Housing, Circulation, Conservation, and Open Space Elements. None

of these elements identify any goals, recommendations, or implementation measures pertaining to the proposed project-related removal of sections and midsection line reservations in the study area.

# 8 Vehicle Miles Traveled Analysis

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which creates a process to change the way that transportation impacts are analyzed under California Environmental Quality Act (CEQA). SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, is no longer considered an environmental impact under CEQA. OPR recommended VMT as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018.

## 8.1 VMT Analysis Methodology

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which created a process to change the way that transportation impacts are analyzed under CEQA. SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, is no longer considered an environmental impact under CEQA. OPR recommended Vehicle Miles Traveled (VMT) as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. The Updated CEQA Guidelines state that "…generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts…" and define VMT as "…the amount and distance of automobile travel attributable to a project…." It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel. The OPR Technical Advisory (OPR 2018) provides guidance and tools for evaluating VMT in CEQA analyses. OPR required that the guidelines be implemented statewide by July 1, 2020.

The County of Kern has not yet adopted transportation guidelines for evaluating potential project-related impacts to VMT. In the interim, the OPR's Technical Advisory and CEQA Guidelines Section 15064.3(b) Criteria for Analyzing Transportation Impacts have been used to evaluate the proposed project.

CEQA Guidelines Section 15064.3(b) focuses on specific criteria (VMT) for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The CEQA Guidelines are accompanied by an OPR Technical Advisory, which includes specifications for how to estimate and forecast VMT for these subdivisions.

The proposed project is not a land use or transportation project, and therefore neither Section 15064.3(b)(1) nor Section 15064.3(b)(2) of the CEQA Guidelines apply. Instead, the proposed project would be categorized under Section 15064.3(b)(3) qualitative analysis. The following paragraph from the Section 15064.3(b)(3) provides guidance regarding qualitative analysis:

> If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit,

proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

The updated CEQA Guidelines do not establish a significance threshold, however, recommend a threshold of significance for land use development (residential, office, and other land uses) and transportation projects. It should be noted that there is no significance threshold for construction or maintenance projects.

The project would involve construction that would generate temporary construction-related traffic for up to 60 months and nominal operations and maintenance traffic; these would be categorized under Section 15064.3(b)(3), qualitative analysis. Section 15064.3(b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type. For many projects, a qualitative analysis of construction traffic may be appropriate.

Therefore, as described below, the VMT generated by the construction of the proposed project would be short-term and temporary and would not require a detailed analysis. The VMT generated by the operation of the proposed project would be less than 110 ADT and hence would be screened from conducting a project specific VMT analysis.

## 8.2 Construction

The project construction related vehicle-trip generation (for workers and trucks) is summarized in Table 1. Per OPR, heavy vehicle traffic is not required to be included in the estimation of a project's VMT. As noted above, construction related trips are temporary and would not generate permanent trips. Therefore, for the purposes of this analysis, the VMT from construction is not required to be quantified per SB 743 requirements. The project construction would be consistent with typical construction activities in terms of the temporary nature of activities, trip generation characteristics, and the types of vehicles and equipment required. There would be no special conditions for constructing the project.

However, in order to establish a baseline for daily VMT in the area, the Kern Council of Governments (COG) provided VMT data by Traffic Analysis Zone (TAZ) in the project study area. The Kern COG data shows a range of home-based work VMT in the study area, with the lowest average VMT per employee equal to 32.5 VMT. As part of the project's air quality and greenhouse gas emissions analysis, the VMT for the overall project (using approximate trip lengths for worker commute, vendor, and haul trips) has been evaluated. Based on this analysis, the average trip length for construction personnel traveling to and from the site was determined to be approximately 18 miles. Therefore, the average VMT per day for construction personnel is less than the lowest baseline average VMT of 32.5 miles. Furthermore, while worker and vendor trips would generate VMT, once construction is completed, the construction-related traffic would cease and VMT would return to pre-construction conditions. Therefore, impacts related to construction VMT would fall below the County's threshold.

## 8.3 Operation and Maintenance

Based on OPR guidance, projects that generate or attract fewer than 110 trips per day[2] generally may be assumed to cause a less-than-significant transportation impact. As noted previously, the operation of the project would require up to 20 full-time employees and is estimated to generate up to 40 daily trips, and therefore would not generate significant VMT.

Therefore, utilizing the guidance provided by OPR, the operation of the project would not generate a significant number of trips and thereby not cause a substantial amount of VMT. VMT impacts related to project operations-would fall below the County's threshold.

[2] CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

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# 9 Summary

Based on the results of the LOS, site access, and VMT analysis presented in this TIS, the following summarizes the key findings of the analysis:

- The peak period of construction for the Project would generate approximately 3,320 daily trips, 805 AM peak hour trips and 806 PM peak hour trips. Utilizing PCE factors, the peak period of construction for the Project would generate approximately 4,120 daily trips, 933 AM peak hour trips, and 933 PM peak hour trips (Table 1).
- All of the 17 study area intersections, except for two, currently and are forecast to operate at LOS D or better under all analysis scenarios, which meets the County's traffic impact thresholds (Table 3 and Table 7).
- The 7th Standard Road/Magnolia Avenue intersection is forecast to operate at LOS E during the PM peak hours under Existing Plus Project and Near Term Year (2027) Plus Project conditions. However, the construction activities would be temporary and would be managed through implementation of a TMP. The TMP would include measures such as timing worker arrivals and departures and material deliveries to avoid peak hours and the use of flaggers to direct construction traffic. Once construction is complete, the LOS would return to acceptable conditions.
- The I-5 NB Ramps/Tracey Avenue intersection is forecast to operate at LOS E during the PM peak hours under Near Term Year (2027) Plus Project conditions. This intersection's LOS E is caused by the high volume of northbound left turn and through movements and southbound through movements delaying the westbound left turn movements. This is a direct result of the proposed truck stops near the I-5 ramps at Tracey Avenue (cumulative projects BB5 and BB6) and not related to the proposed project traffic. The proposed project construction trips are temporary and once constructed, the project would contribute minimal (if any) trips through this intersection. The proposed truck stops are still in the application phase and will be subject to their own transportation analysis and review by the County and Caltrans, at which time project-specific intersection improvements may be warranted. The intersection is also under Caltrans jurisdiction and while LOS is a County threshold, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses. Furthermore, the timing of the approval and construction of the cumulative projects is not known at this time. Without the proposed truck stops, the I-5 NB Ramps at Tracey Avenue would continue to operate at an acceptable level of service during the PM peak hour with the project-added traffic. Additionally, the project construction activities would be managed through a TMP, and would include measures such as timing worker arrivals and departures and material deliveries to avoid peak hours.
- The study area roadway segments are currently and will continue to operate at acceptable conditions under Existing and Near Term Year (2027) conditions, with and without the project traffic.
- Based on a review of the home-based-work VMT for the TAZs in the study area, the lowest average VMT per employee was 32.5 VMT. The average trip length for construction personnel traveling to and from the site was determined to be approximately 18 miles. Therefore, the average VMT per day for construction personnel is less than the baseline average. Furthermore, while worker and vendor trips would generate VMT, once construction is completed, the construction-related traffic would cease and VMT would return to pre-construction conditions. Therefore, impacts related to construction VMT would fall below the County's threshold.

- Additionally, based on OPR guidance, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact. The project is anticipated to generate up to 40 daily trips, and therefore impacts related to operation VMT fall below the County's threshold.

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# 10 References


California Department of Transportation (Caltrans). 2020. Caltrans Transportation Impact Study Guide. May.

Caltrans 2002. Guide for the Preparation of Traffic Impact Studies.

ITE (Institute of Transportation Engineers). 2021. *Trip Generation Manual*. 11th ed.

Kern County Planning Department. 1974. Buttonwillow Community Development Plan. April.

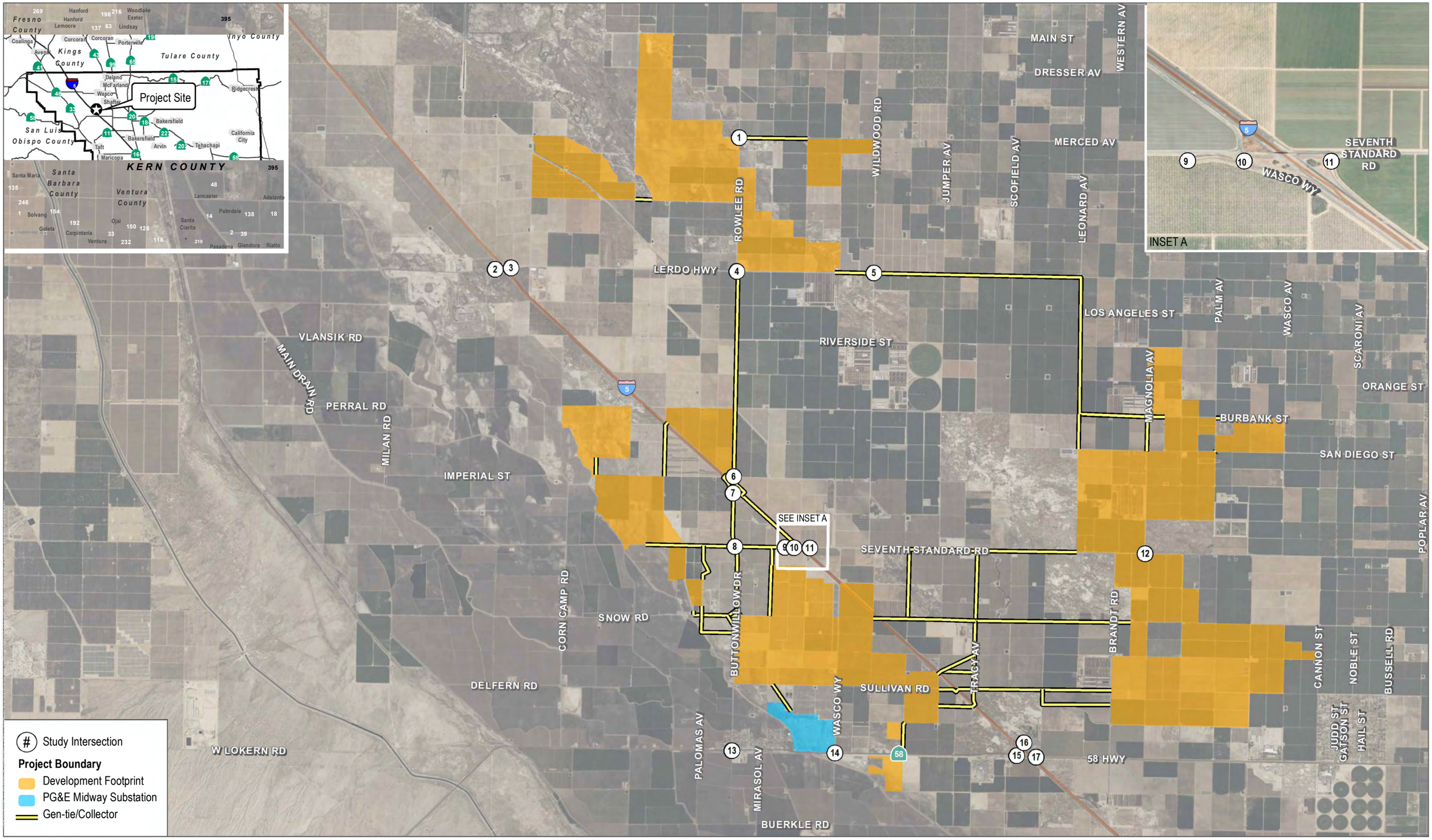
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OPR (California Governor's Office of Planning and Research). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. Accessed February 2021. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

Transportation Research Board. 2016. *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*.

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SOURCE: Bing Maps 2023; Kern County 2022

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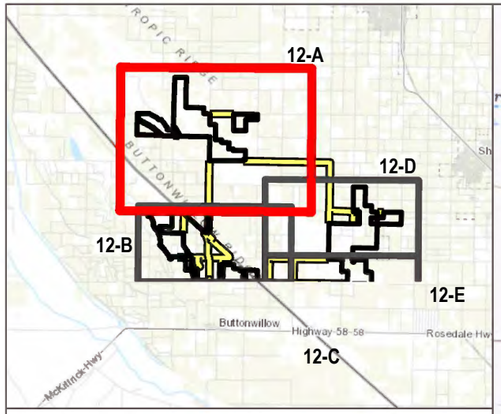
0 1 2 Miles

**FIGURE 1**

Project Location and Study Area

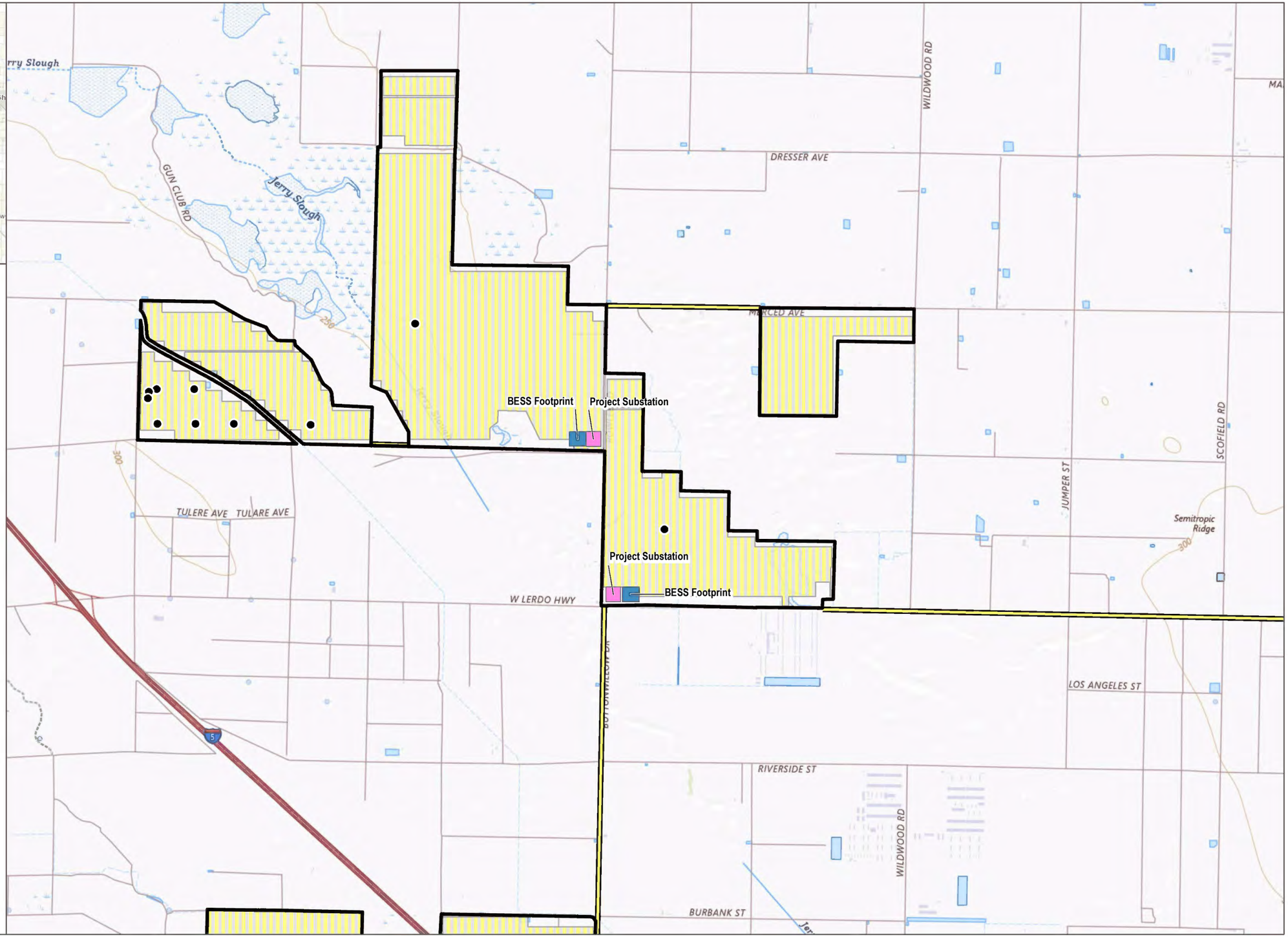
Buttonbush Solar Energy Project

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**Project Boundary**
- Development Footprint
- Gen-tie/Collector

**Site Plan**
- BESS Footprint
- Project Substation
- Solar Array
- Well and 10-ft Setback




SOURCE: USGS National Map 2022; Avantus 2024

DUDEK

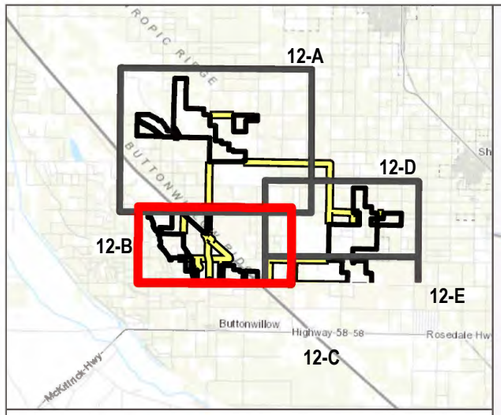
0 2,000 4,000 Feet

**FIGURE 2-A**

Site Plan

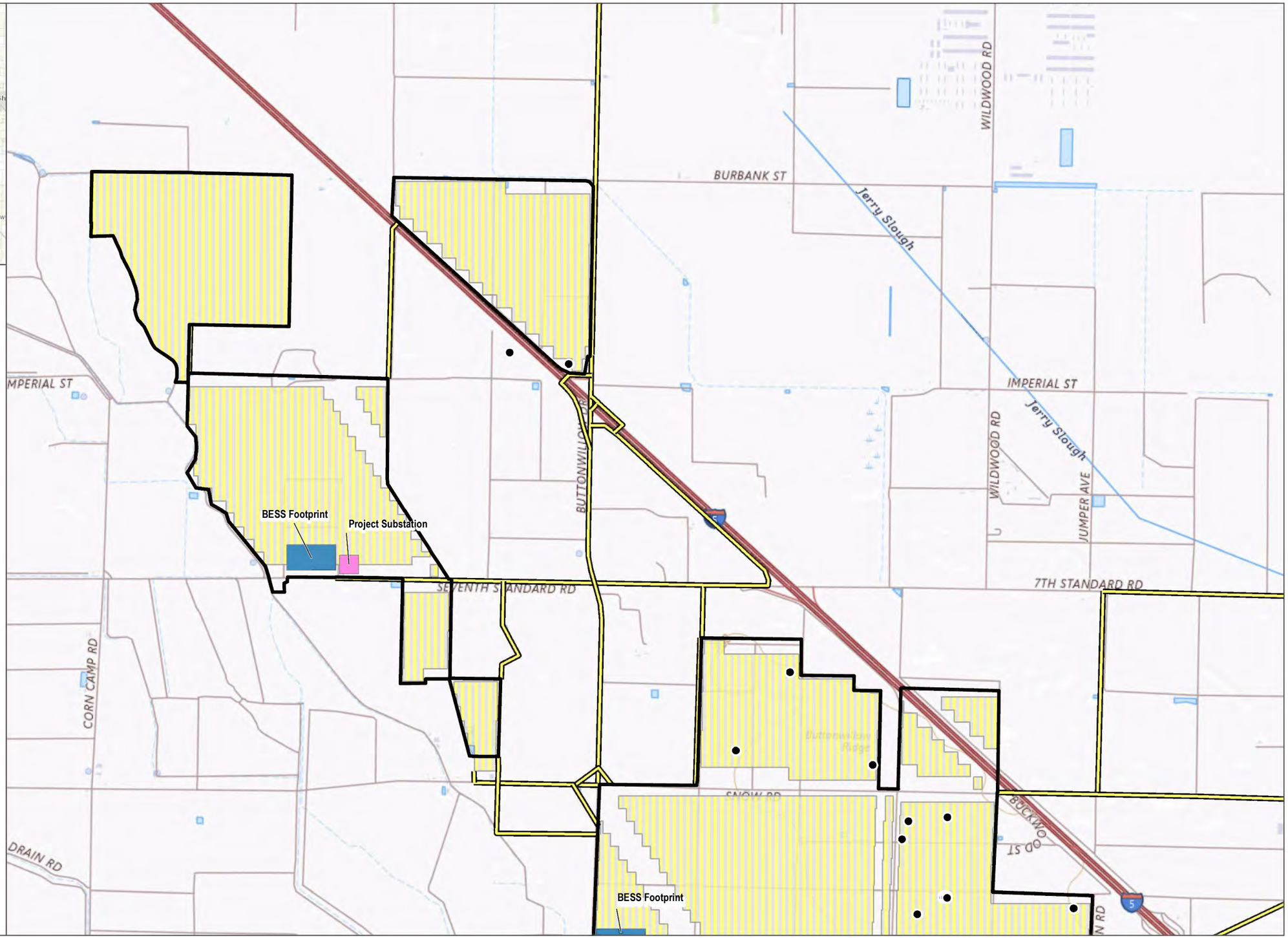
Buttonbush Solar and Storage Project

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**Project Boundary**
- Development Footprint
- Gen-tie/Collector

**Site Plan**
- BESS Footprint
- Project Substation
- Solar Array
- Well and 10-ft Setback




SOURCE: USGS National Map 2022; Avantus 2024

DUDEK

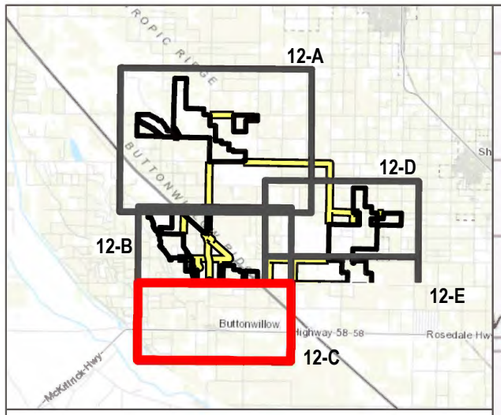
0 2,000 4,000 Feet

**FIGURE 2-B**

Site Plan

Buttonbush Solar and Storage Project

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- Midway Substation

**Project Boundary**

- Development Footprint
- PG&E Midway Substation
- Gen-tie/Collector

**Site Plan**

- BESS Footprint
- Project Substation
- Solar Array
- Well and 10-ft Setback



SOURCE: USGS National Map 2022; Avantus 2024

DUDEK

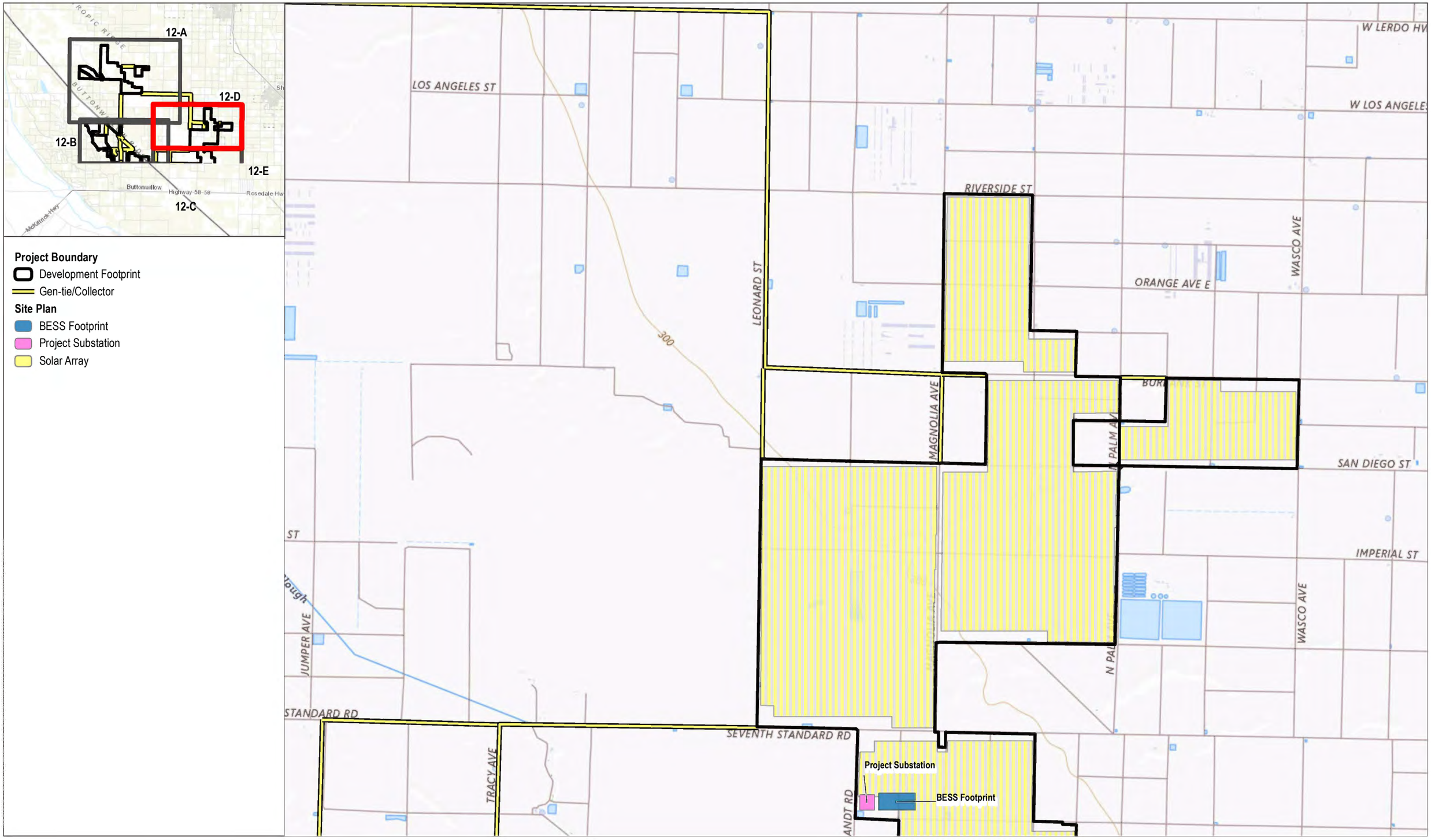
0 2,000 4,000 Feet

**FIGURE 2-C**

Site Plan

Buttonbush Solar and Storage Project

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SOURCE: USGS National Map 2022; Avantus 2024

DUDEK

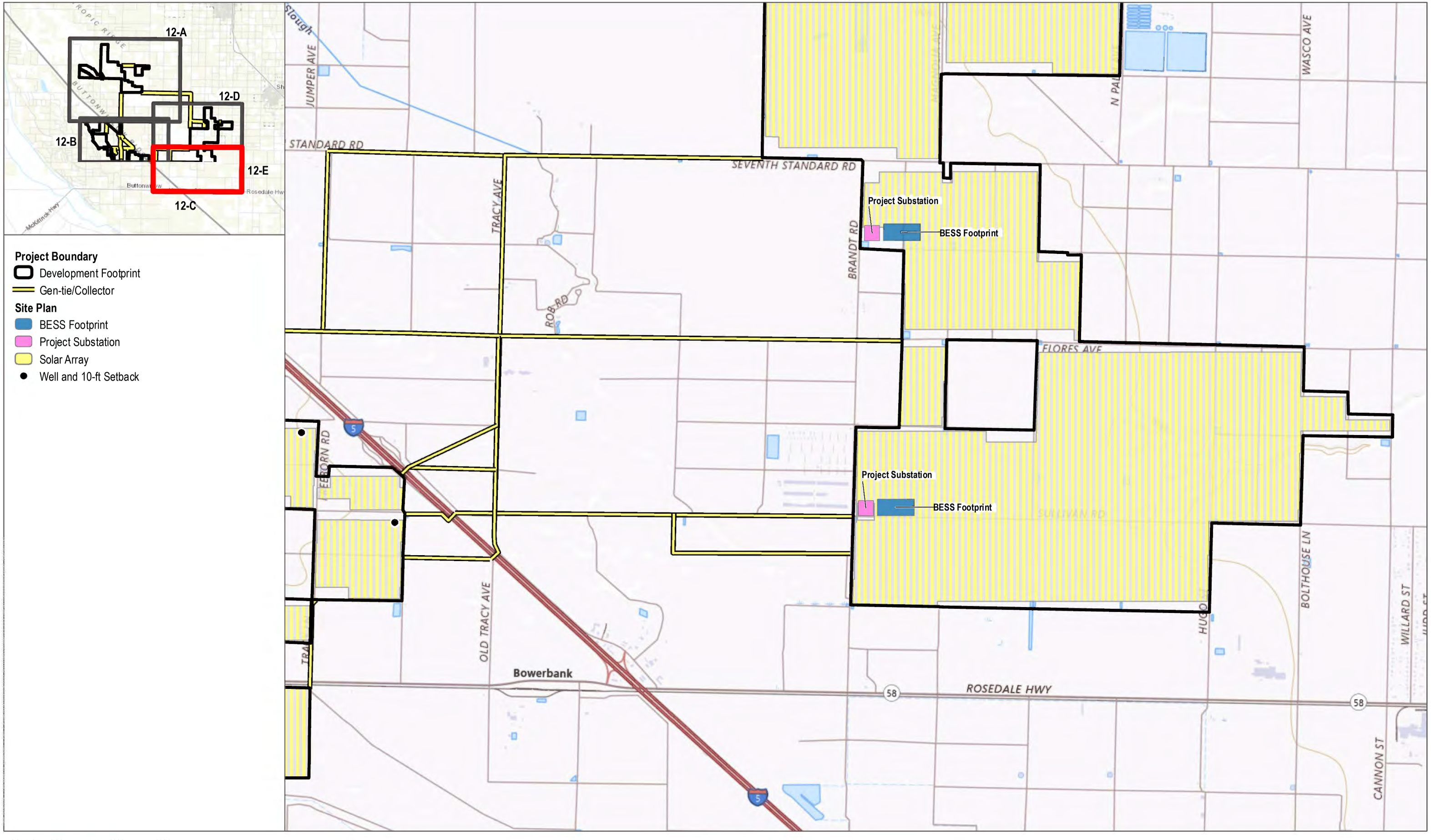
0 2,000 4,000 Feet

**FIGURE 2-D**

Site Plan

Buttonbush Solar and Storage Project

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SOURCE: USGS National Map 2022; Avantus 2024

DUDEK

0 2,000 4,000 Feet

**FIGURE 2-E**

Site Plan

Buttonbush Solar and Storage Project

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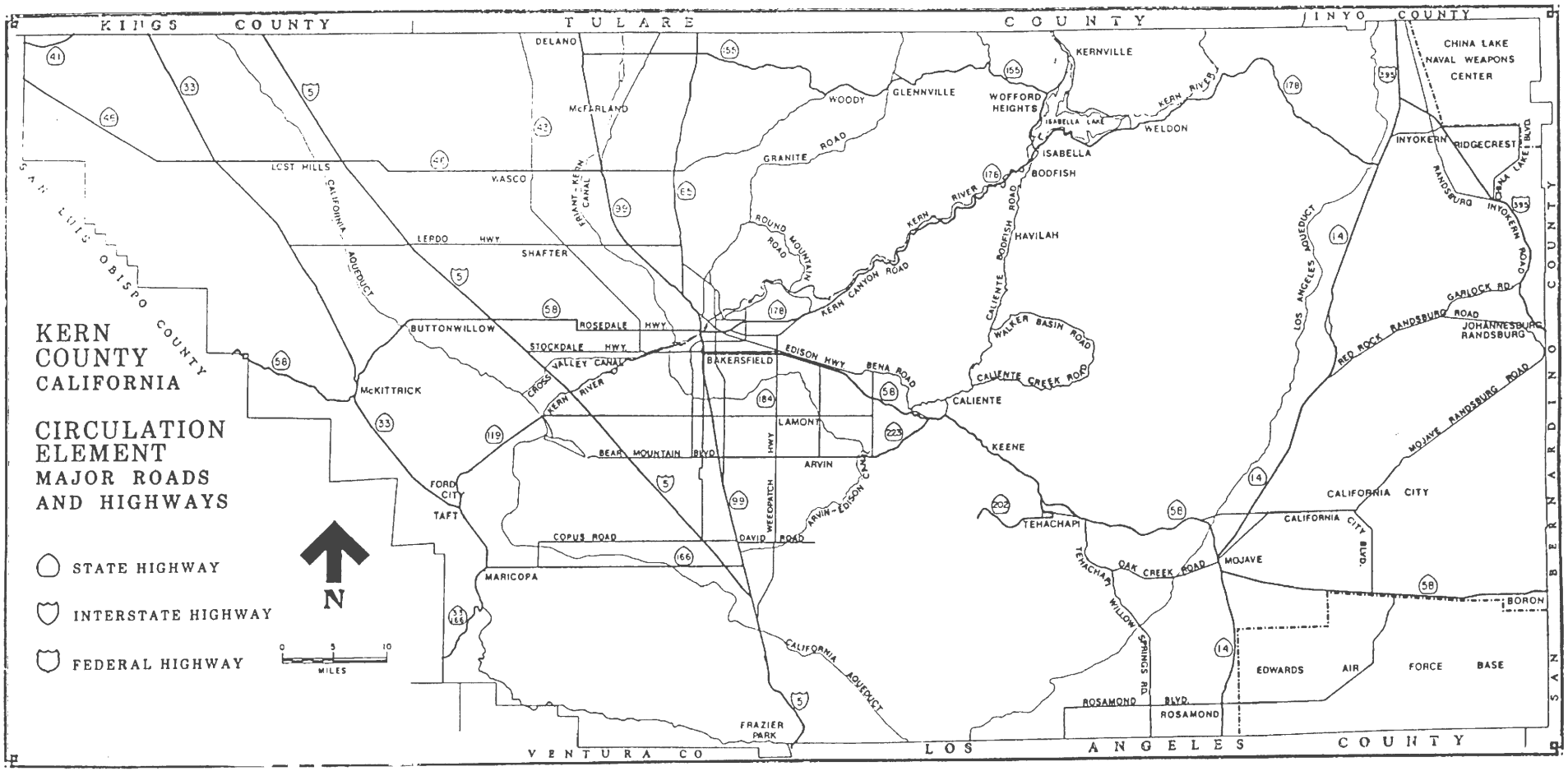



Figure 7

SOURCE: Kern County Circulation Element

**FIGURE 3**

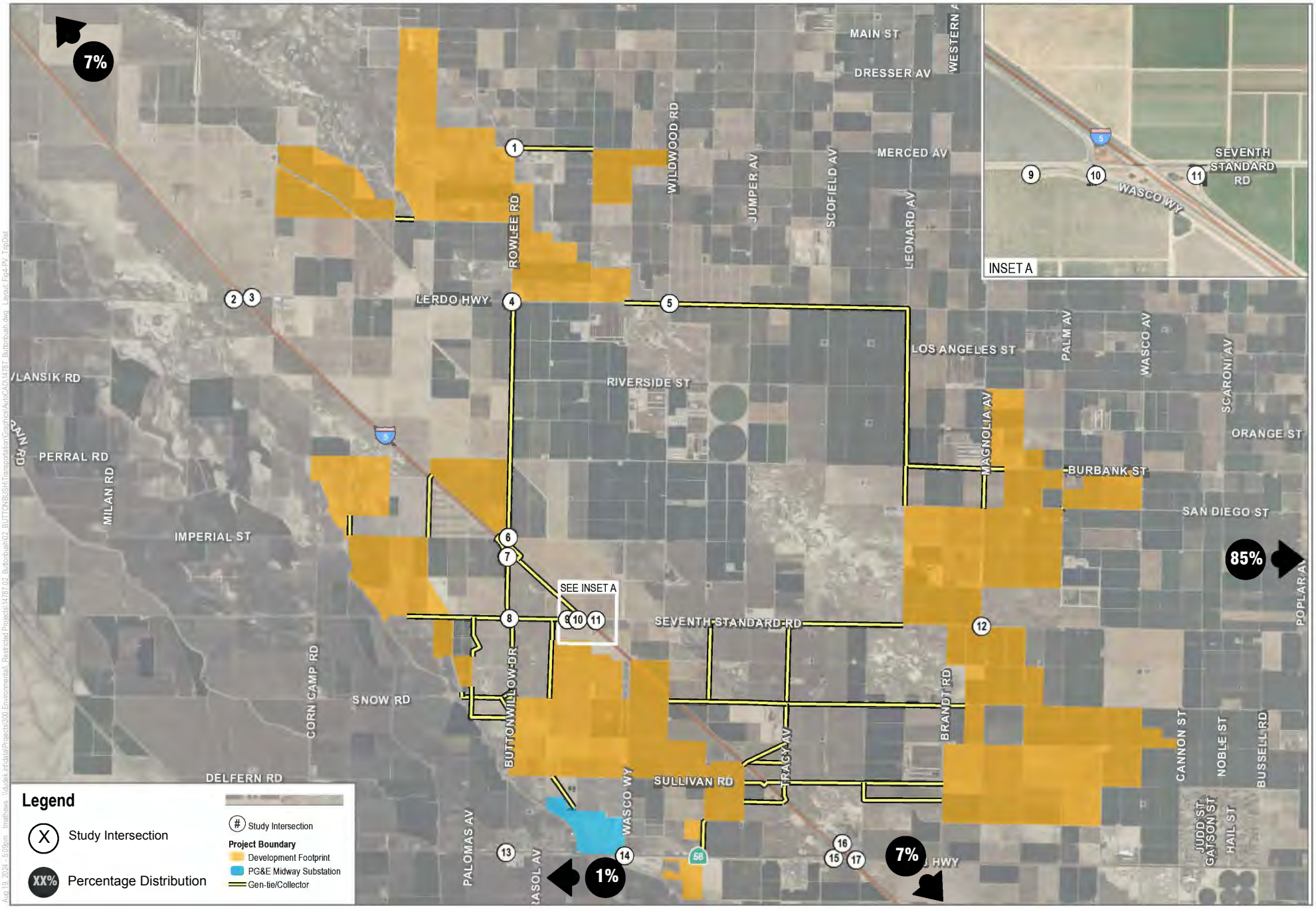
Kern County General Plan Road Network

DUDEK NOT TO SCALE

Buttonbush Solar Project

Dec 07, 2023 - 6:05pm mpopovic P:\300 Environmental_Restricted Projects\14787 Avantus\DUDEK WORK PRODUCTS\02 BUTTONBUSH\Transportation\Graphics\AutoCAD\14787 Buttonbush.dwg Layout: Fig3 Kern

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SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 4**

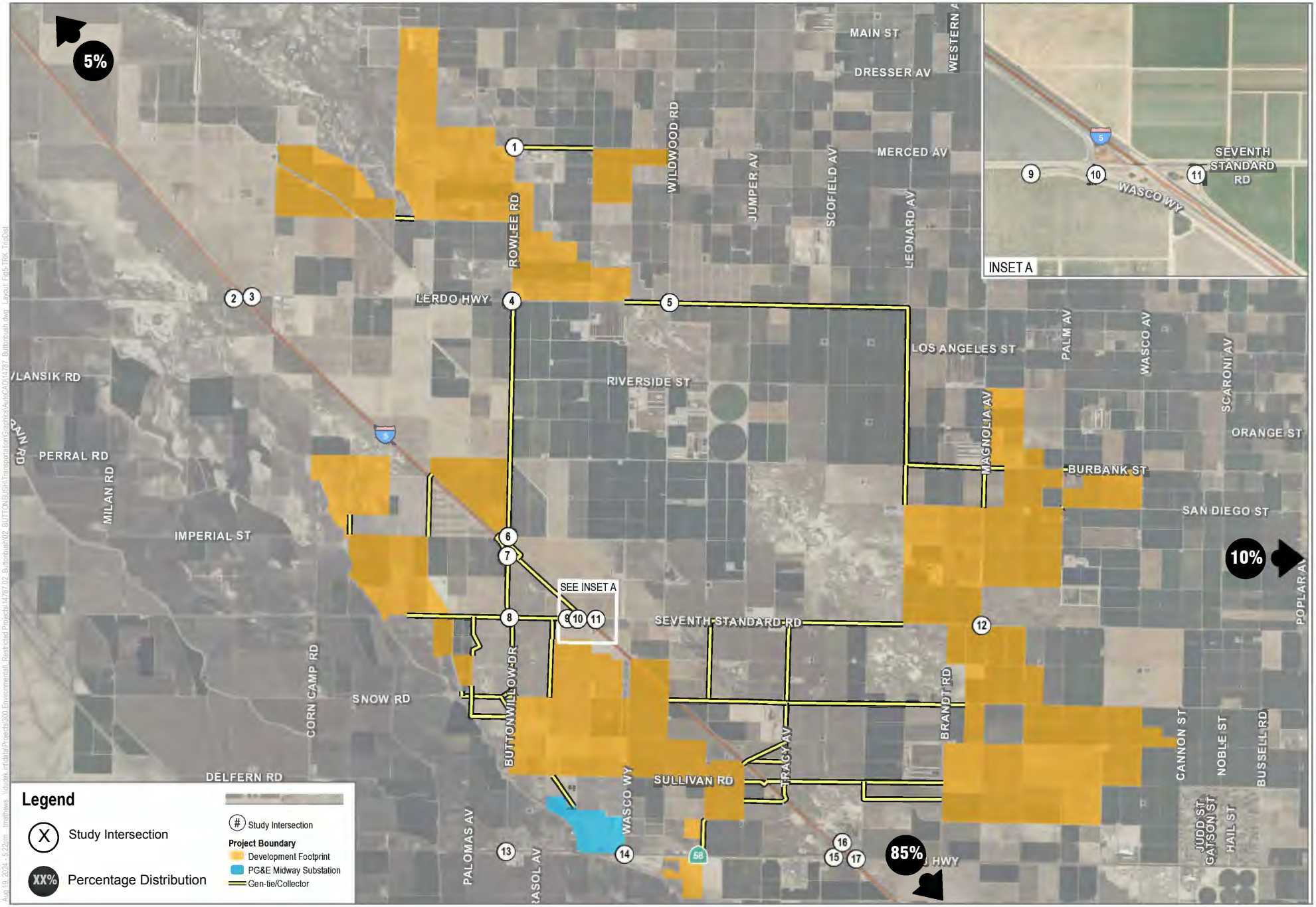
Project Passenger Vehicle Trip Distribution

Buttonbush Solar Project

DUDEK

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SOURCE: Bing Maps 2023; Kern County 2022

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NOT TO SCALE

**FIGURE 5**

Project Truck Trip Distribution

Buttonbush Solar Project

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SOURCE: Bing Maps 2023; Kern County 2022

NOT TO SCALE

**FIGURE 6**

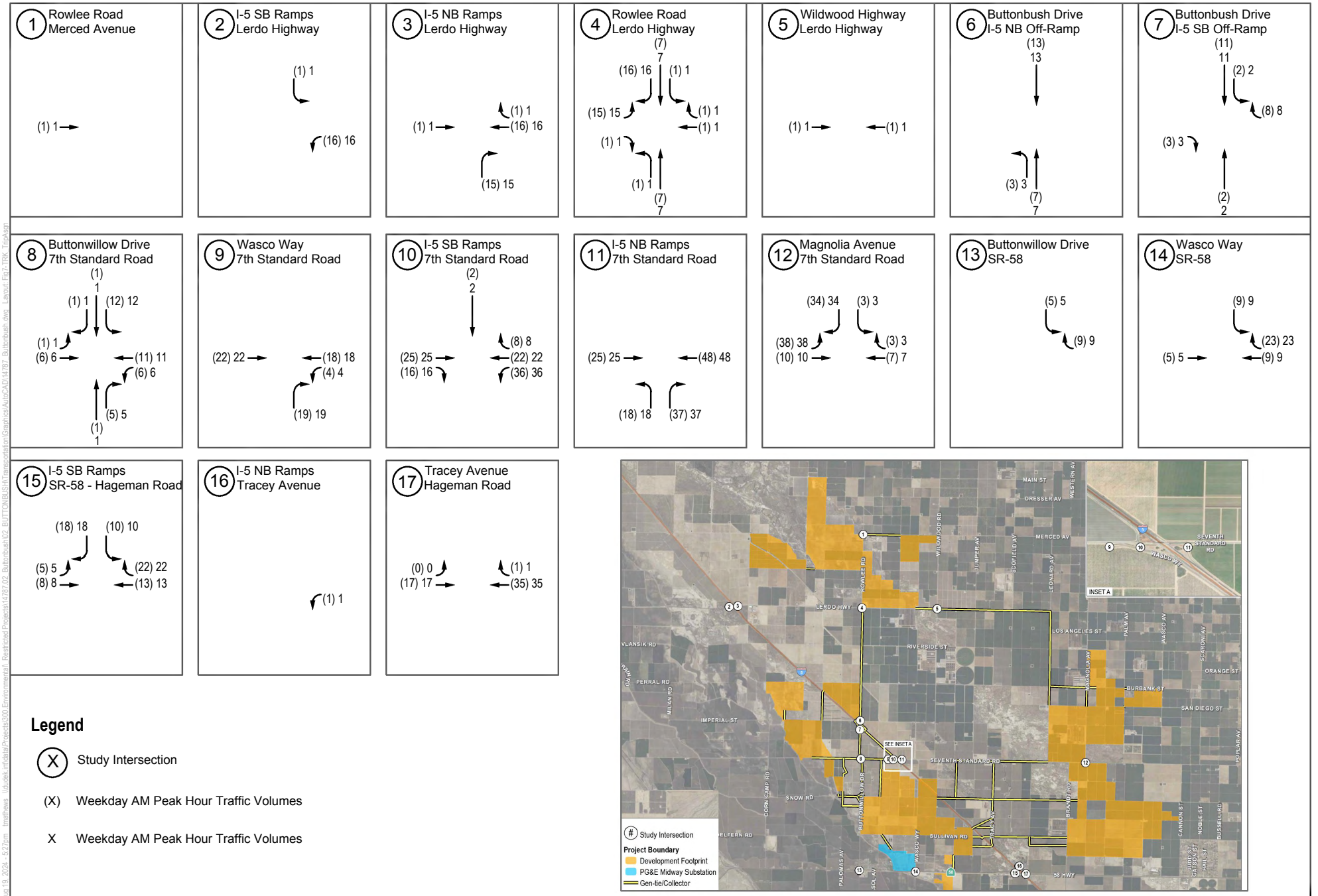
Project Passenger Vehicle Trip Assignment

Buttonbush Solar Project

DUDEK

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SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 7**

Project Truck Trip Assignment (PCE)

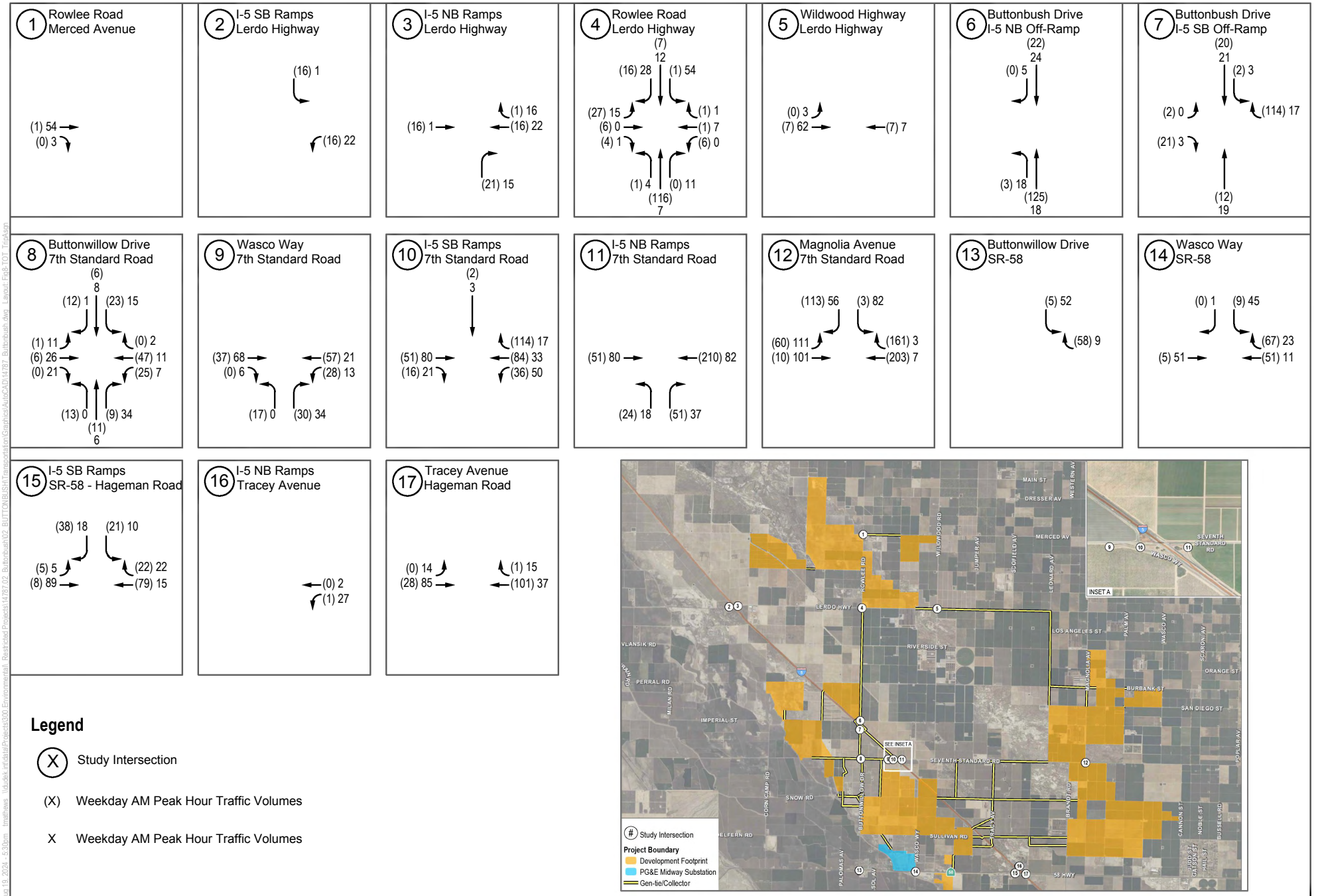
Buttonbush Solar Project

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SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 8**

Project Total Trip Assignment (PCE)

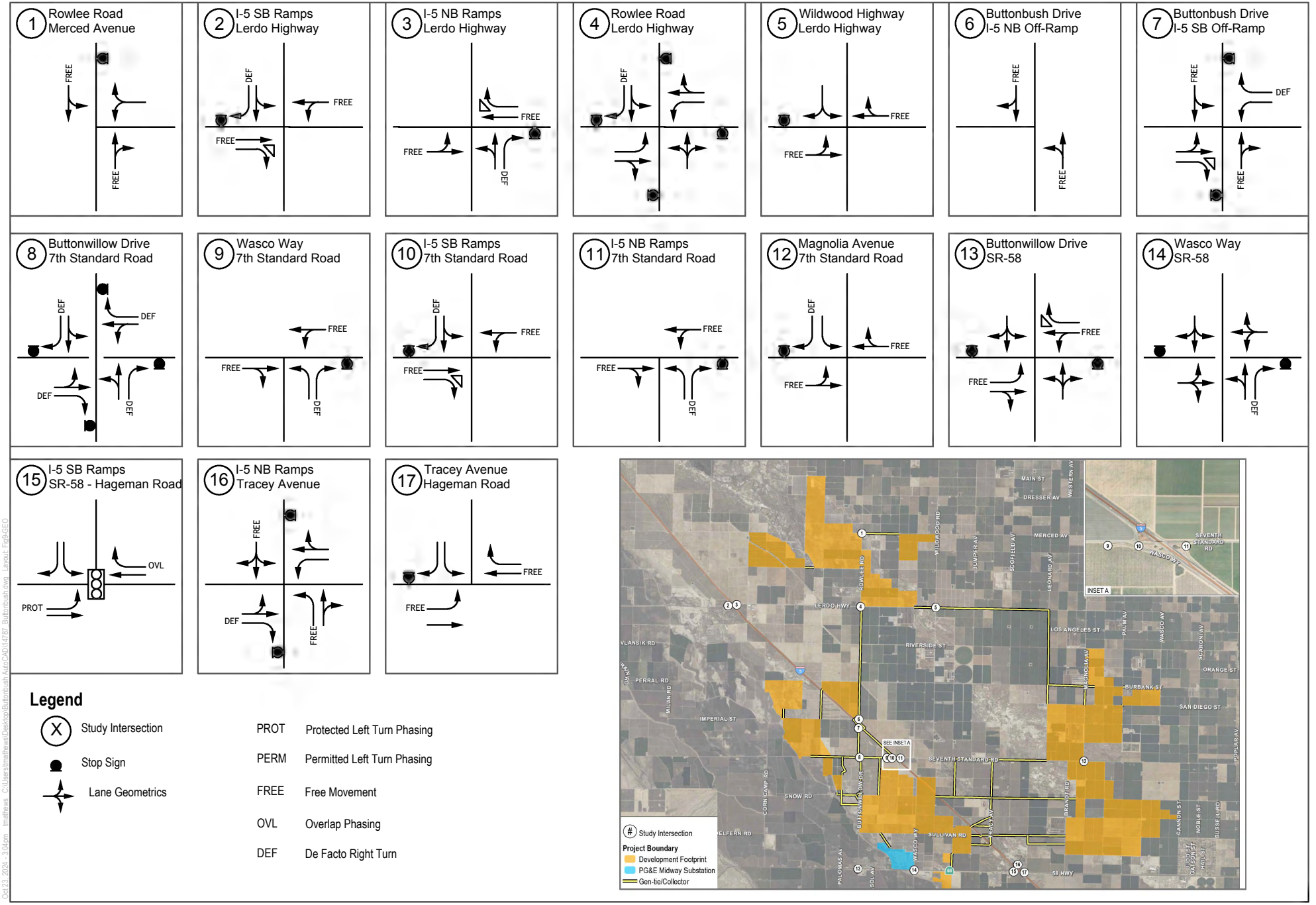
Buttonbush Solar Project

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SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 9**

Existing Intersection Controls and Geometrics

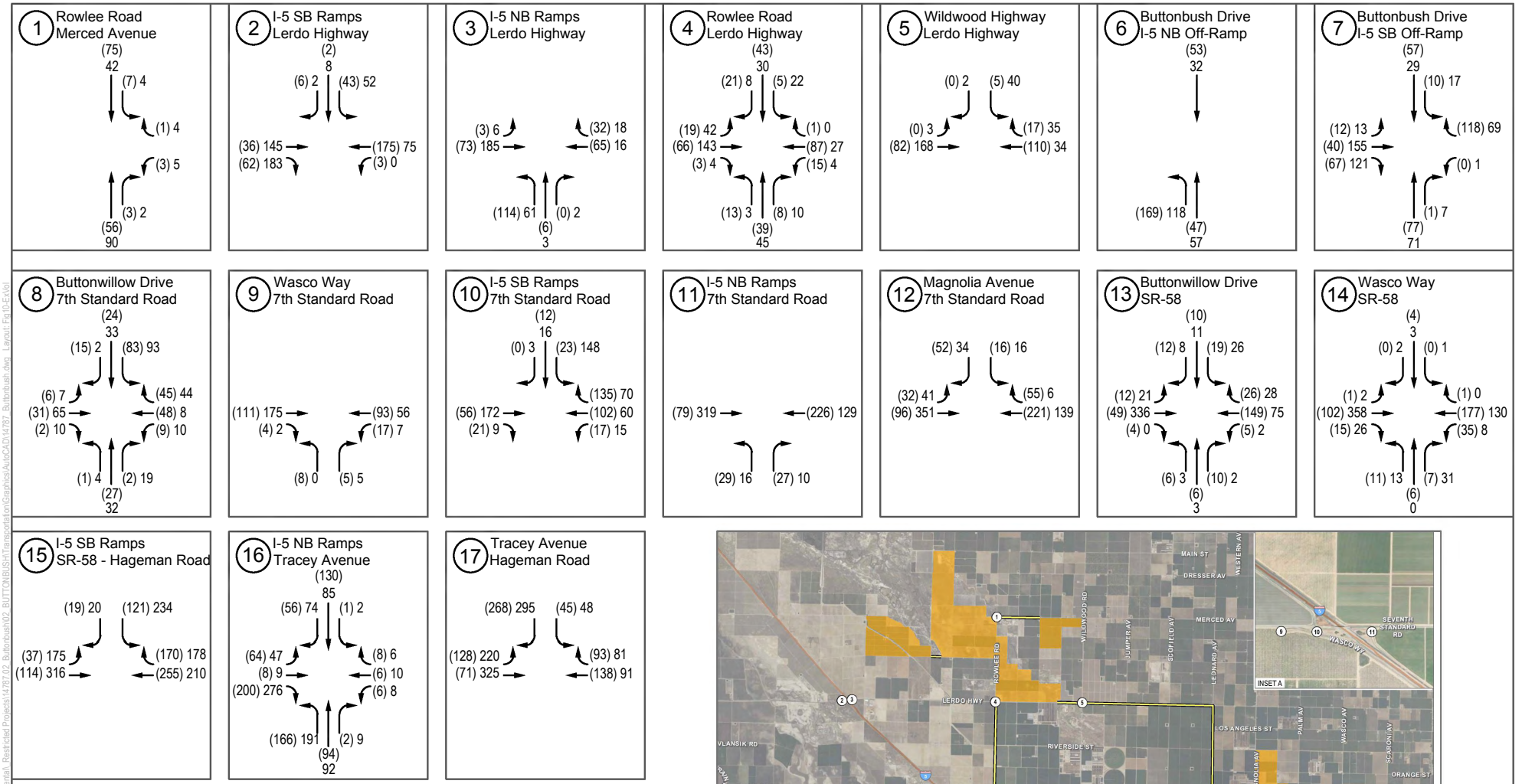
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Buttonbush Solar Project

Oct 23, 2024 - 3:04pm tmathews C:\Users\tmathews\Desktop\Buttonbush\Buttonbush.AutoCAD\14787 Buttonbush.dwg Layout: Fig9-GEO

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## Legend

(X) Study Intersection

(X) Weekday AM Peak Hour Traffic Volumes

X Weekday AM Peak Hour Traffic Volumes

SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 10**

Existing Peak Hour Traffic Volumes

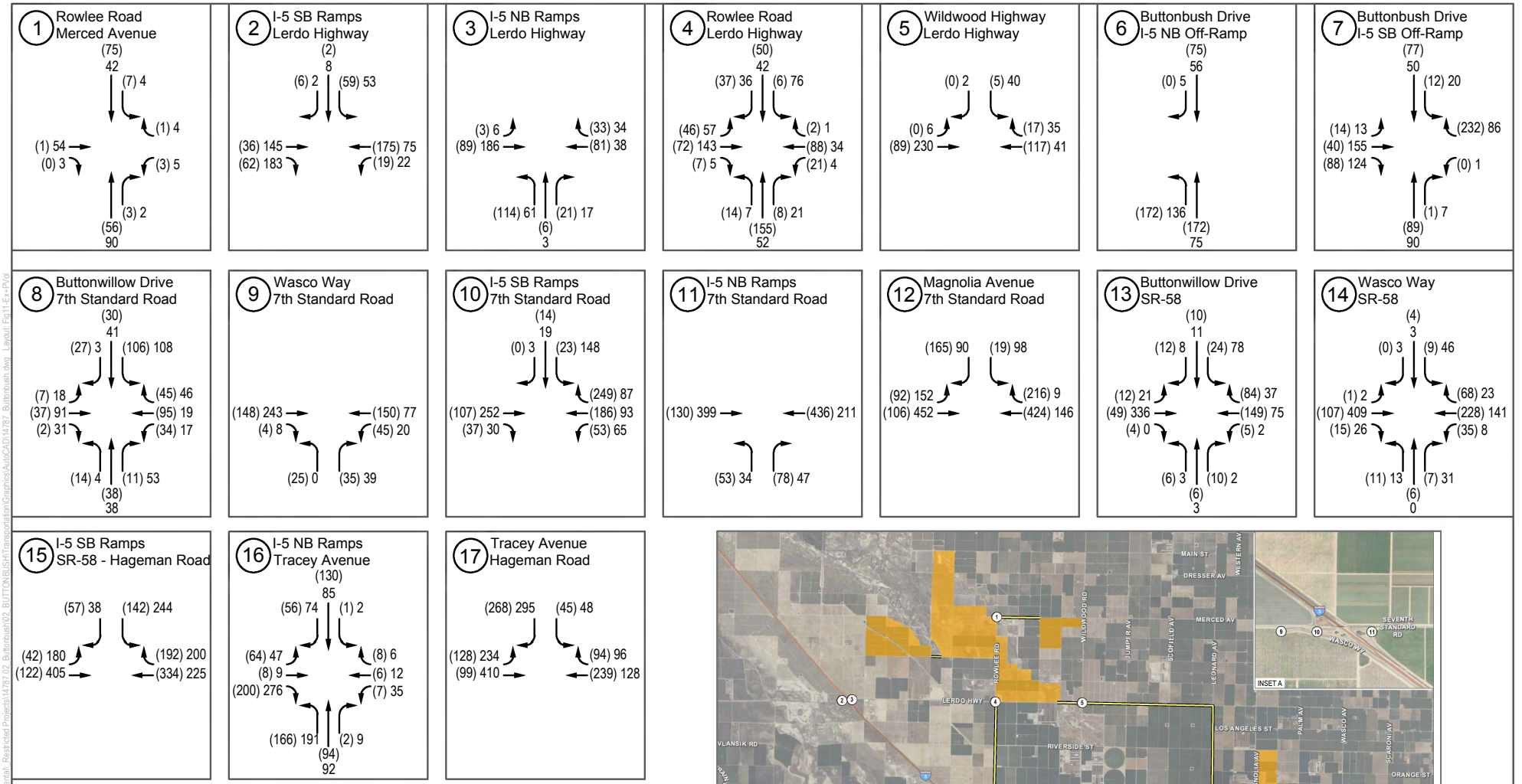
Buttonbush Solar Project

DUDEK

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SOURCE: Bing Maps 2023; Kern County 2022

**FIGURE 11**

Existing plus Project Peak Hour Traffic Volumes

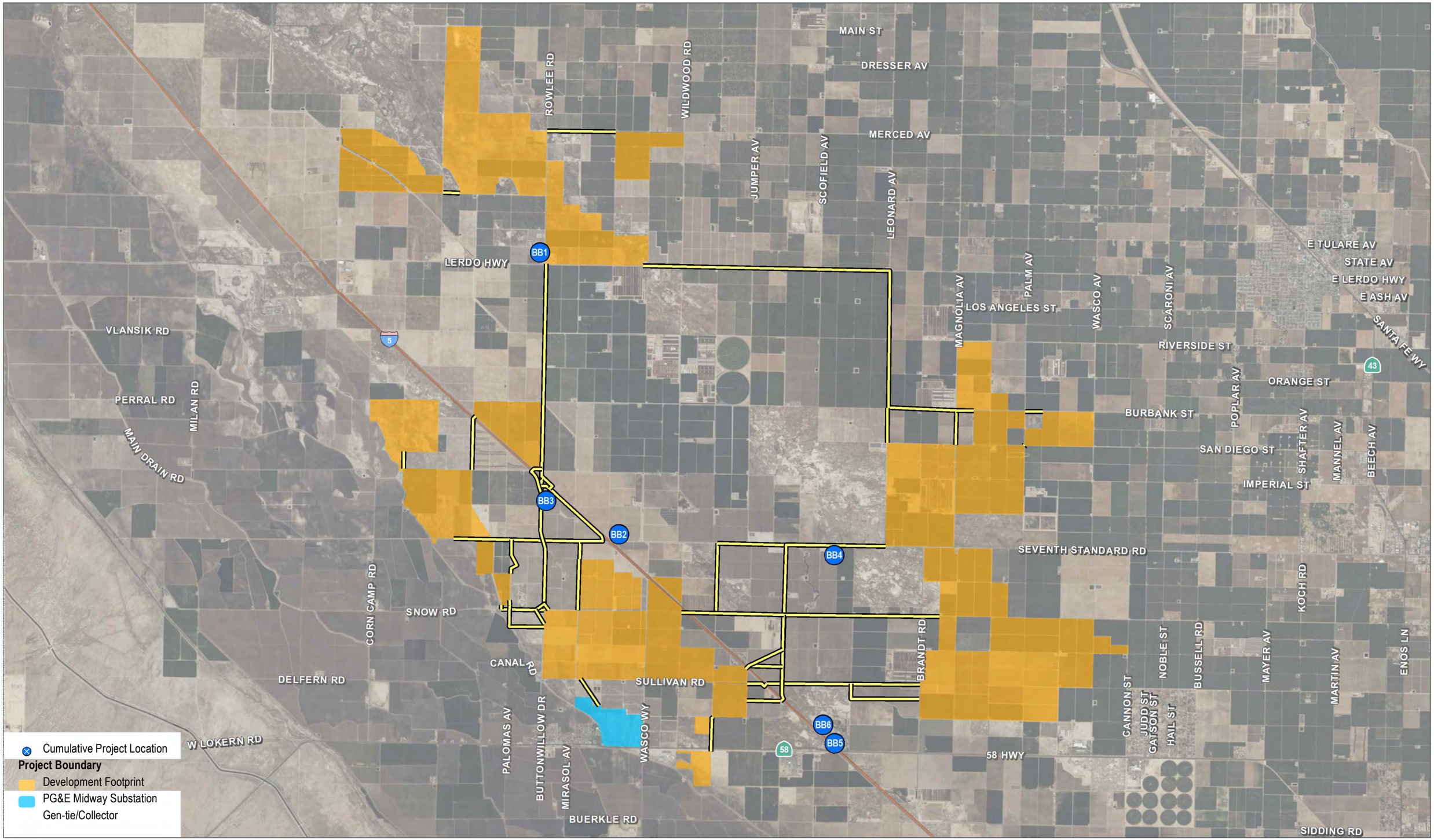
DUDEK

NOT TO SCALE

Buttonbush Solar Project

Aug 19, 2024 - 5:40pm tmathews \\dudek.int\data\Projects\300 Environmental\ Restricted Projects\14787.02 Buttonbush\02 BUTTONBUSH\Transportation\Graphics\AutoCAD\14787 Buttonbush.dwg Layout: Fig11-Ex+P(v)

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SOURCE: Bing Maps 2023; Open Street Map 2023

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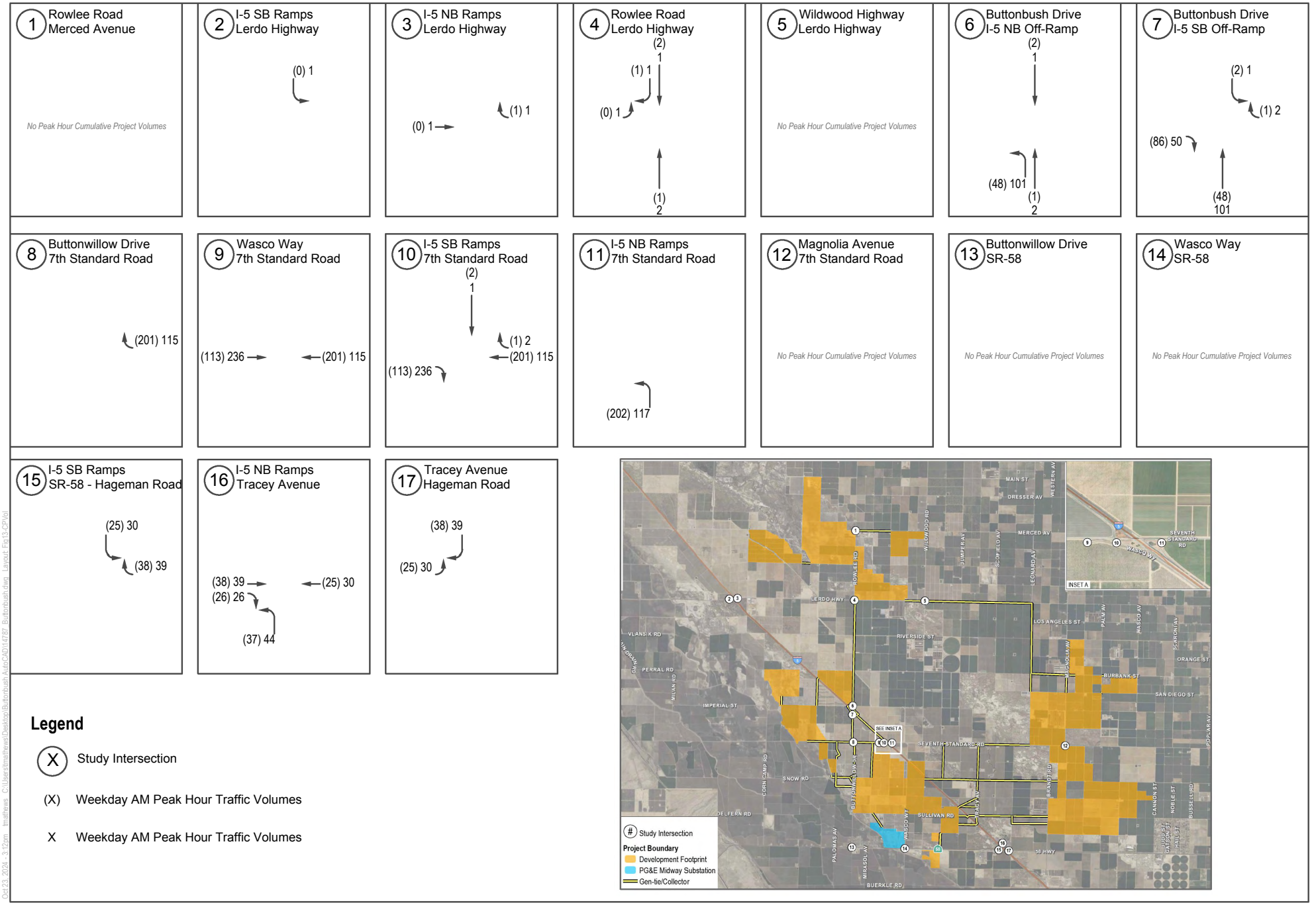
0 1 2 Miles

**FIGURE 12**

Cumulative Project Locations

Buttonbush Solar Energy Project

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SOURCE: Bing Maps 2023; Kern County 2024

**FIGURE 13**

Cumulative Project Peak Hour Traffic Volumes

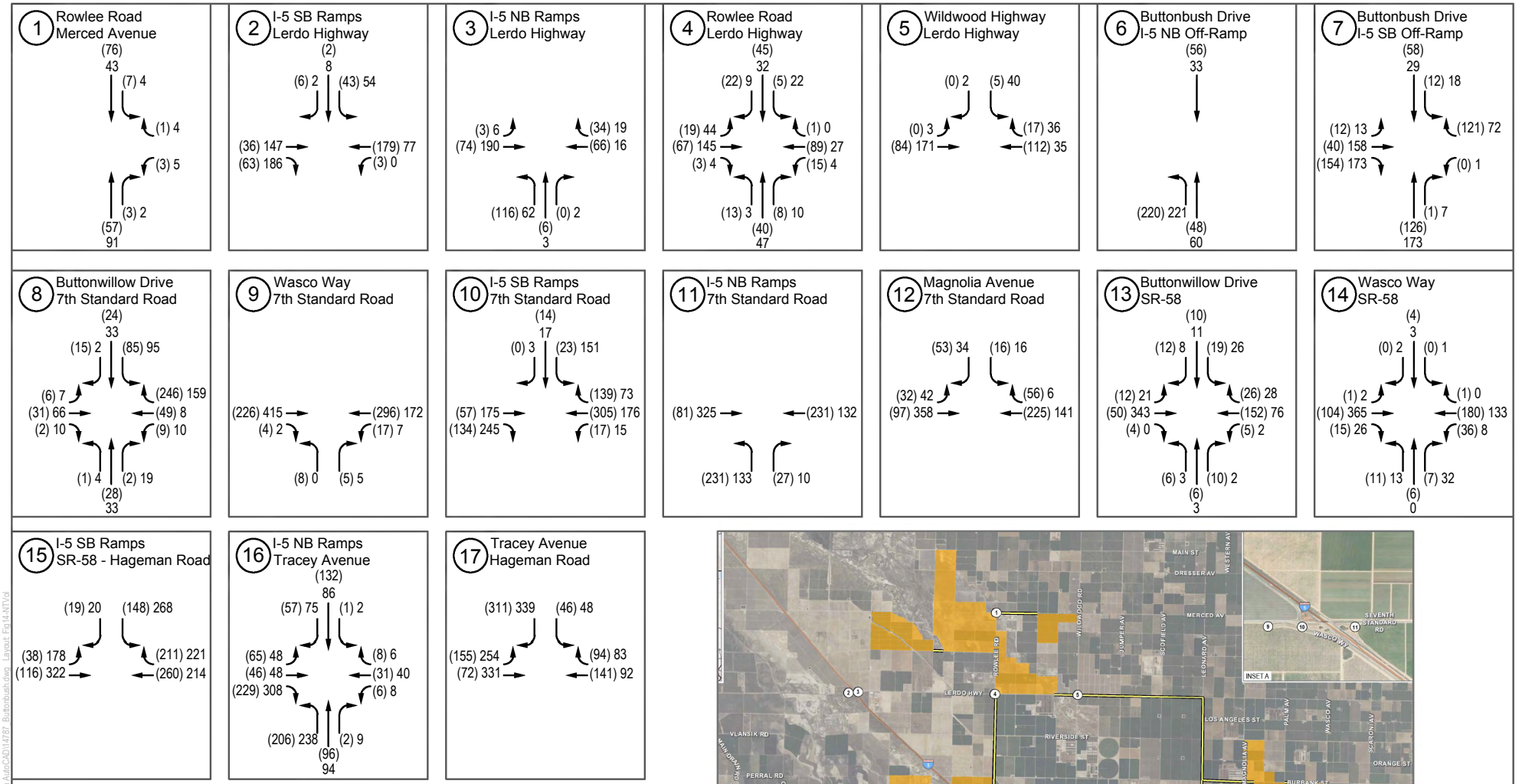
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NOT TO SCALE

Buttonbush Solar Project

Oct 23, 2024 - 3:12pm tmathews C:\Users\tmathews\Desktop\Buttonbush Auto\CAD\14787 Buttonbush.dwg Layout: Fig13-CPVol

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SOURCE: Bing Maps 2023; Kern County 2024

**FIGURE 14**

Near-Term Year (2027) Peak Hour Traffic Volumes

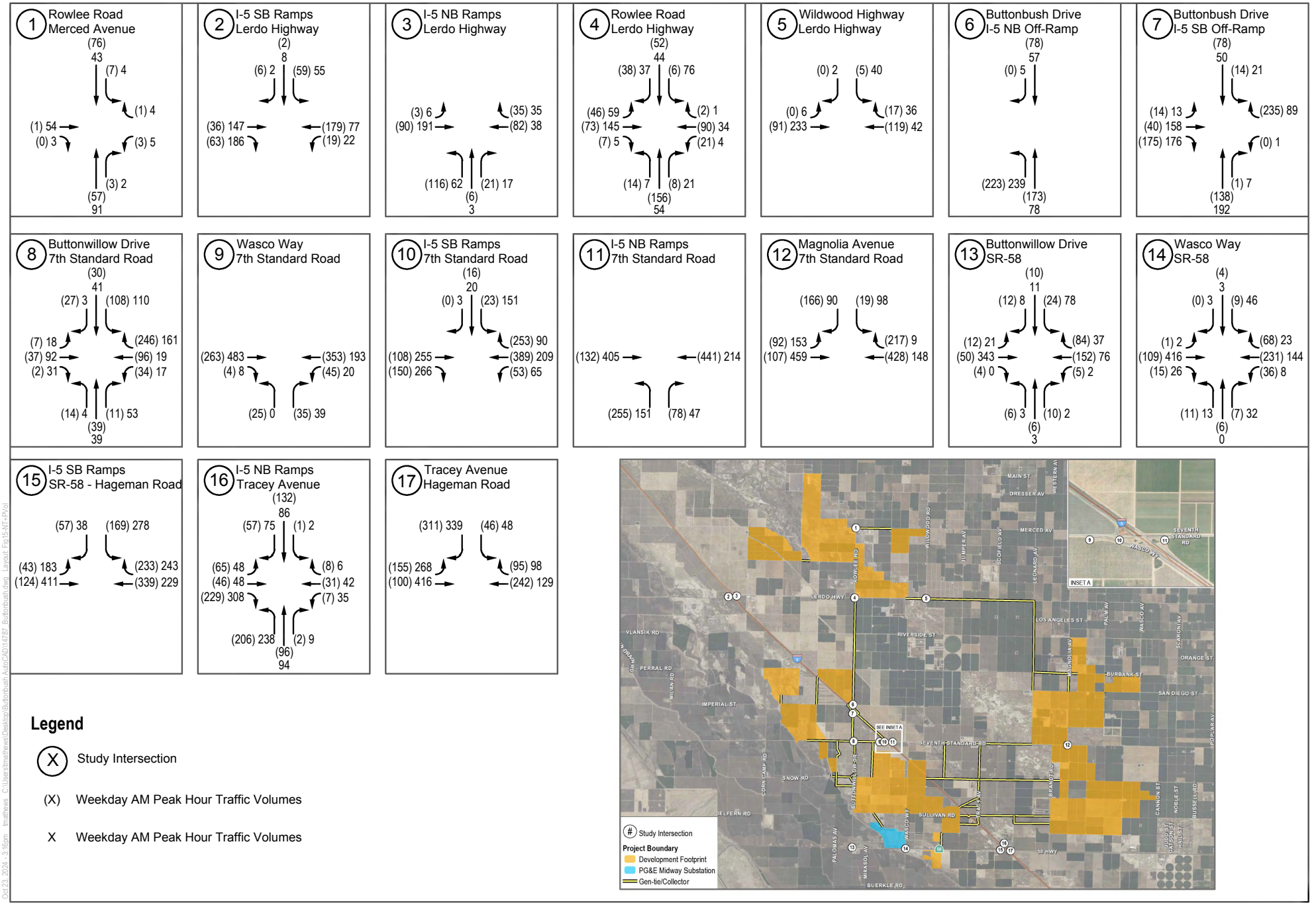
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NOT TO SCALE

Buttonbush Solar Project

Oct 23, 2024 - 3:15pm tmathews C:\Users\tmathews\Desktop\Buttonbush\Buttonbush AutoCAD\14787 Buttonbush.dwg Layout: Fig14-NTVol

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## Legend

X Study Intersection

(X) Weekday AM Peak Hour Traffic Volumes

X Weekday AM Peak Hour Traffic Volumes

SOURCE: Bing Maps 2023; Kern County 2024

NOT TO SCALE

**FIGURE 15**

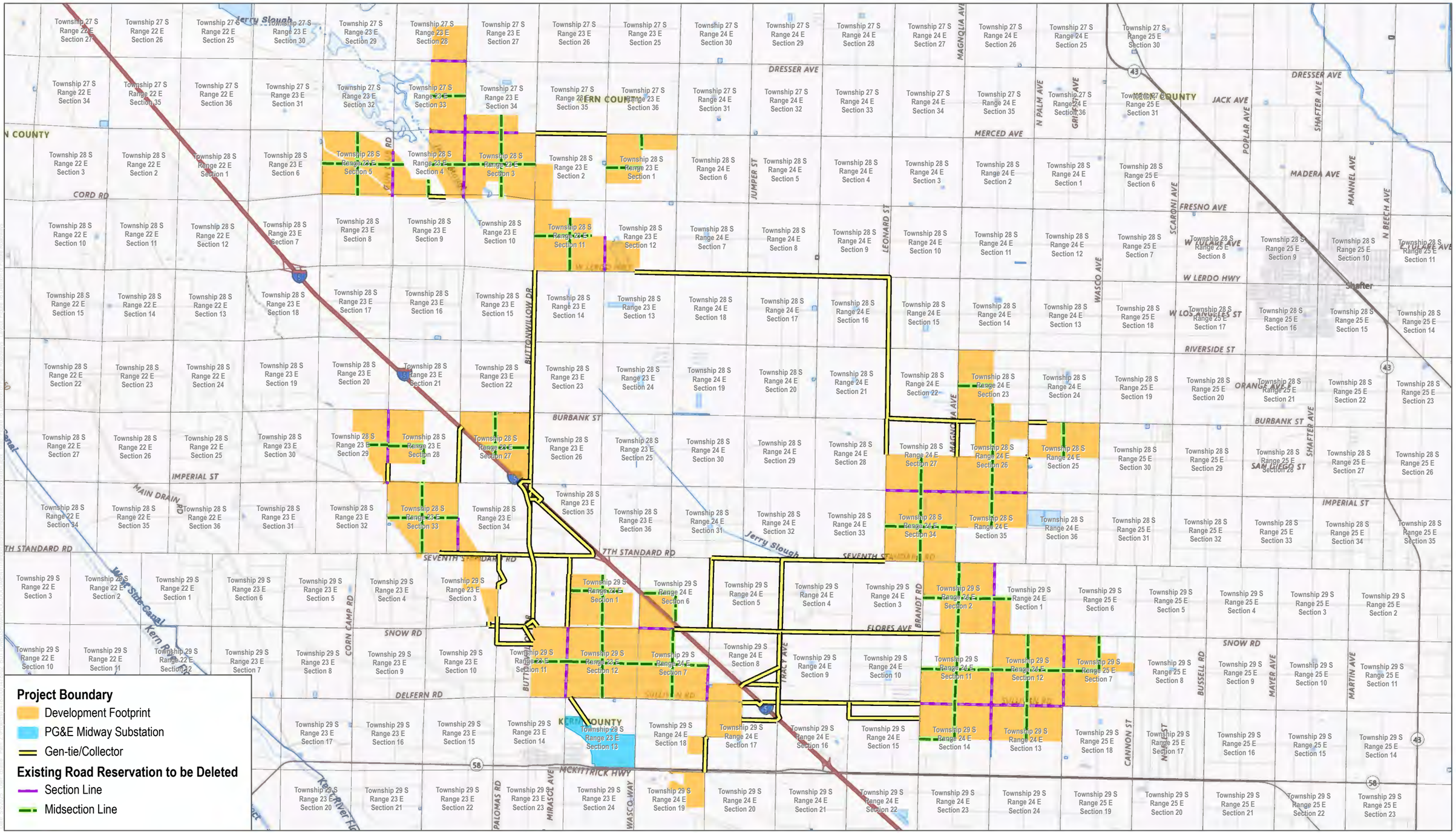
Near-Term Year (2027) plus Project Peak Hour Traffic Volumes

Buttonbush Solar Project

DUDEK

Oct 23, 2024 - 3:16pm tmathews C:\Users\tmathews\Desktop\Buttonbush\Buttonbush.AutoCAD\14787 Buttonbush.dwg Layout: Fig15_NT+PVol

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SOURCE:

DUDEK

0 2.5 5 Miles

**FIGURE 16**

Deletion of Existing Road Reservations

Buttonbush Solar Energy Project

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# Appendix A
Raw Traffic Counts

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

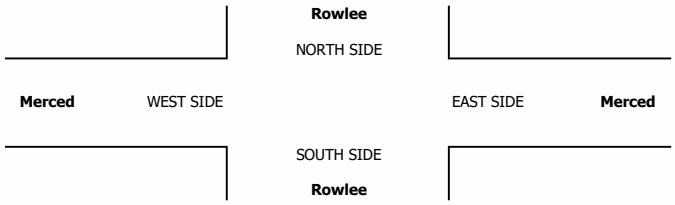
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| Thu, Jul 27, 23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| | EAST & WEST: | Merced | CONTROL: | STOP W |

NOTES:

AM
PM
MD
OTHER
OTHER

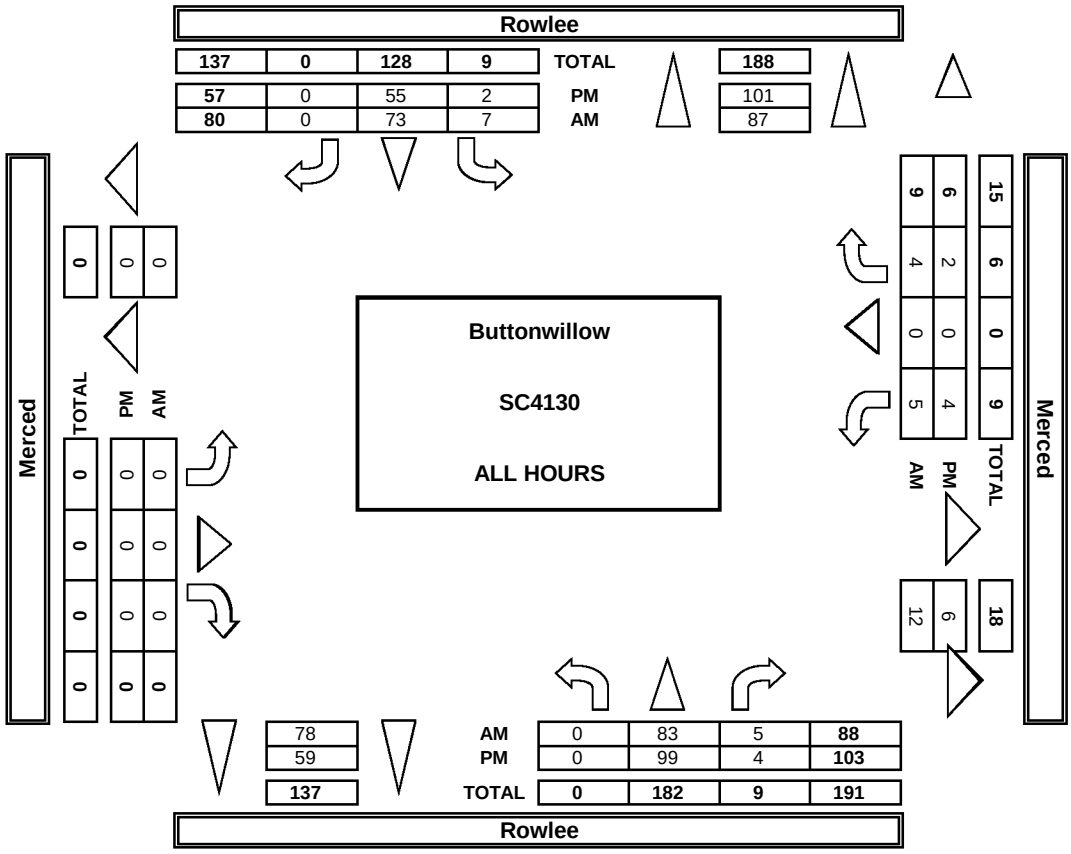
▲ N
◄ W
E ►
S ▼

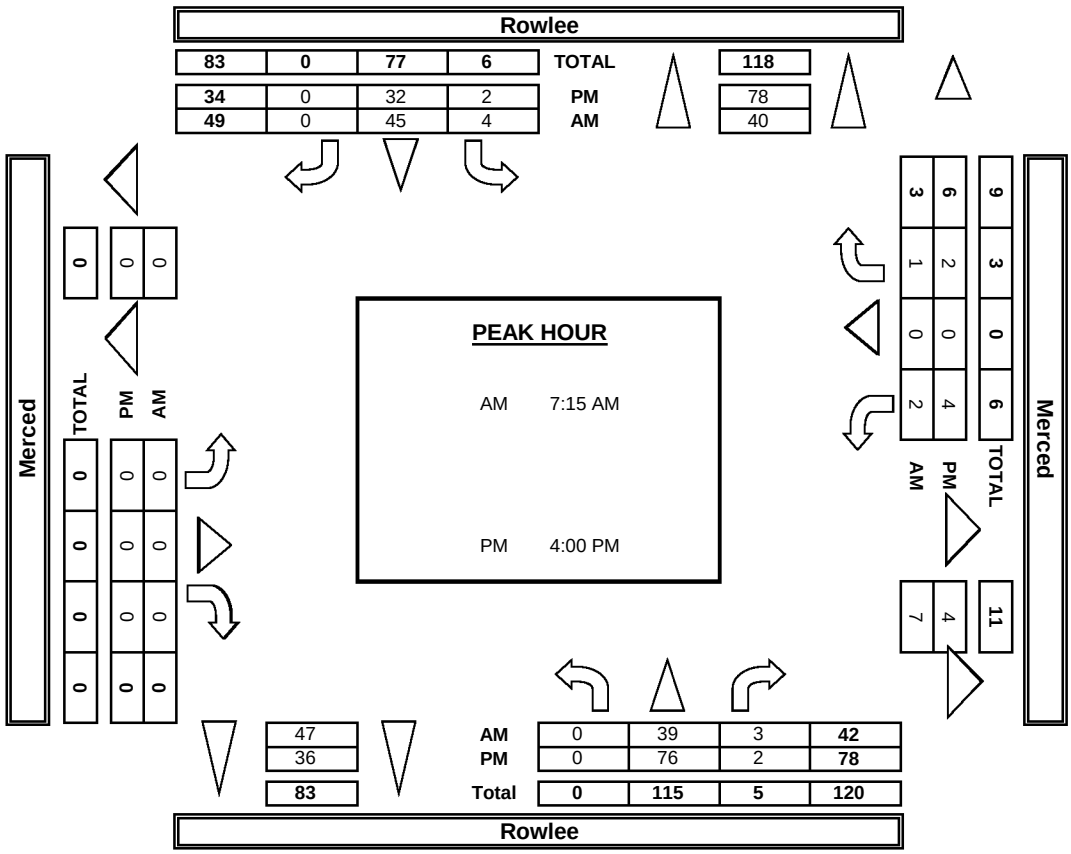
| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>1 | NR<br>0 | SL<br>0 | ST<br>1 | SR<br>X | EL<br>X | ET<br>X | ER<br>X | WL<br>0 | WT<br>X | WR<br>0 | TOTAL | NB<br>0 | SB<br>0 | EB<br>0 | WB<br>0 | TTL |
| AM | 7:00 AM | 0 | 11 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 7 | 2 | 1 | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 13 | 0 | 2 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 6 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 13 | 0 | 1 | 13 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 8 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 12 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 13 | 2 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 83 | 5 | 7 | 73 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 177 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 94% | 6% | 9% | 91% | 0% | 0% | 0% | 0% | 56% | 0% | 44% | | | | | | |
| | APP/DEPART | 88 | / | 87 | 80 | / | 78 | 0 | / | 12 | 9 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 39 | 3 | 4 | 45 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 94 | | | | | |
| | APPROACH % | 0% | 93% | 7% | 8% | 92% | 0% | 0% | 0% | 0% | 67% | 0% | 33% | | | | | | |
| | PEAK HR FACTOR | | 0.808 | | | 0.875 | | | 0.000 | | | 0.375 | | 0.839 | | | | | |
| | APP/DEPART | 42 | / | 40 | 49 | / | 47 | 0 | / | 7 | 3 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 14 | 1 | 2 | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 17 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 31 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 17 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 28 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 4 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 8 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 6 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 99 | 4 | 2 | 55 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 166 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 96% | 4% | 4% | 96% | 0% | 0% | 0% | 0% | 67% | 0% | 33% | | | | | | |
| | APP/DEPART | 103 | / | 101 | 57 | / | 59 | 0 | / | 6 | 6 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 76 | 2 | 2 | 32 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 118 | | | | | |
| | APPROACH % | 0% | 97% | 3% | 6% | 94% | 0% | 0% | 0% | 0% | 67% | 0% | 33% | | | | | | |
| | PEAK HR FACTOR | | 0.696 | | | 0.773 | | | 0.000 | | | 0.375 | | 0.756 | | | | | |
| | APP/DEPART | 78 | / | 78 | 34 | / | 36 | 0 | / | 4 | 6 | / | 0 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| | EAST & WEST: | Merced | CONTROL: | STOP W |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | ◄ W | ▲ N S ▼ | E ► |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | | | |

AM PM MD OTHER OTHER

| | | NORTHBOUND Rowlee | | | SOUTHBOUND Rowlee | | | EASTBOUND Merced | | | WESTBOUND Merced | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 20 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 33 | | | | | 0 |
| | 7:15 AM | 0 | 12 | 2 | 1 | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 28 | | | | | 0 |
| | 7:30 AM | 0 | 18 | 0 | 5 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | | | | | 0 |
| | 7:45 AM | 0 | 8 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | | | | | 0 |
| | 8:00 AM | 0 | 19 | 0 | 1 | 27 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 48 | | | | | 0 |
| | 8:15 AM | 0 | 15 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 26 | | | | | 0 |
| | 8:30 AM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 54 | | | | | 0 |
| | 8:45 AM | 0 | 19 | 2 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | | | | | 0 |
| | VOLUMES | 0 | 135 | 5 | 12 | 124 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 286 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 96% | 4% | 9% | 91% | 0% | 0% | 0% | 0% | 52% | 0% | 48% | | | | | | |
| | APP/DEPART | 140 | / | 140 | 135 | / | 130 | 0 | / | 17 | 12 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 56 | 3 | 7 | 75 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 144 | | | | | |
| | APPROACH % | 0% | 95% | 5% | 8% | 92% | 0% | 0% | 0% | 0% | 71% | 0% | 29% | | | | | | |
| | PEAK HR FACTOR | | 0.776 | | | 0.736 | | | 0.000 | | | 0.438 | | 0.747 | | | | | |
| | APP/DEPART | 59 | / | 57 | 81 | / | 77 | 0 | / | 10 | 4 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 19 | 1 | 4 | 11 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 37 | | | | | 0 |
| | 4:15 PM | 0 | 18 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 35 | | | | | 0 |
| | 4:30 PM | 0 | 22 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | | | | | 0 |
| | 4:45 PM | 0 | 32 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | | | | | 0 |
| | 5:00 PM | 0 | 4 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | | | | | 0 |
| | 5:15 PM | 0 | 10 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | | | | | 0 |
| | 5:30 PM | 0 | 8 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | | | | | 0 |
| | 5:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | | | | | 0 |
| | VOLUMES | 0 | 117 | 4 | 4 | 71 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 205 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 97% | 3% | 5% | 95% | 0% | 0% | 0% | 0% | 56% | 0% | 44% | | | | | | |
| | APP/DEPART | 121 | / | 121 | 75 | / | 76 | 0 | / | 8 | 9 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 90 | 2 | 4 | 42 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 147 | | | | | |
| | APPROACH % | 0% | 98% | 2% | 9% | 91% | 0% | 0% | 0% | 0% | 56% | 0% | 44% | | | | | | |
| | PEAK HR FACTOR | | 0.726 | | | 0.657 | | | 0.000 | | | 0.375 | | 0.747 | | | | | |
| | APP/DEPART | 92 | / | 94 | 46 | / | 47 | 0 | / | 6 | 9 | / | 0 | 0 | | | | | |

**Rowlee**

NORTH SIDE

**Merced** WEST SIDE EAST SIDE **Merced**

SOUTH SIDE

**Rowlee**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

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| | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| **AM** | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 6 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 4 | 2 | 1 | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 17 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 8 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 3 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 10 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 3 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 8 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 47 | 5 | 4 | 38 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 99 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 90% | 10% | 10% | 90% | 0% | 0% | 0% | 0% | 60% | 0% | 40% | | | | | | |
| APP/DEPART | 52 | / | 49 | 42 | / | 41 | 0 | / | 9 | 5 | / | 0 | 0 | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 25 | 3 | 2 | 24 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 56 | | | | | |
| APPROACH % | 0% | 89% | 11% | 8% | 92% | 0% | 0% | 0% | 0% | 50% | 0% | 50% | | | | | | |
| PEAK HR FACTOR | | 0.700 | | | 0.722 | | | 0.000 | | | 0.250 | | 0.824 | | | | | |
| APP/DEPART | 28 | / | 26 | 26 | / | 25 | 0 | / | 5 | 2 | / | 0 | 0 | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | |
| 4:00 PM | 0 | 11 | 1 | 1 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 16 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 27 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 13 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 24 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 4 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 7 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 5 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 85 | 4 | 1 | 44 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 138 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 96% | 4% | 2% | 98% | 0% | 0% | 0% | 0% | 75% | 0% | 25% | | | | | | |
| APP/DEPART | 89 | / | 86 | 45 | / | 47 | 0 | / | 5 | 4 | / | 0 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 64 | 2 | 1 | 24 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 95 | | | | | |
| APPROACH % | 0% | 97% | 3% | 4% | 96% | 0% | 0% | 0% | 0% | 75% | 0% | 25% | | | | | | |
| PEAK HR FACTOR | | 0.688 | | | 0.893 | | | 0.000 | | | 0.333 | | 0.766 | | | | | |
| APP/DEPART | 66 | / | 65 | 25 | / | 27 | 0 | / | 3 | 4 | / | 0 | 0 | | | | | |

**Rowlee**

NORTH SIDE

**Merced** WEST SIDE EAST SIDE **Merced**

SOUTH SIDE

**Rowlee**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

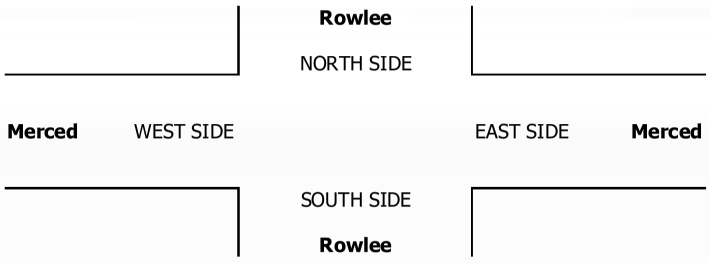
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

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| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 11 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 26 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 8% | 92% | 0% | 0% | 0% | 0% | 67% | 0% | 33% | | | | | | |
| | APP/DEPART | 11 | / | 12 | 12 | / | 13 | 0 | / | 1 | 3 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 6 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 15 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 13% | 88% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.667 | | | 0.000 | | | 0.250 | | 0.625 | | | | | |
| | APP/DEPART | 6 | / | 6 | 8 | / | 8 | 0 | / | 1 | 1 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 7 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 7 | / | 7 | 4 | / | 4 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 7 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.583 | | | 0.500 | | | 0.000 | | | 0.000 | | 0.688 | | | | | |
| | APP/DEPART | 7 | / | 7 | 4 | / | 4 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

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| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

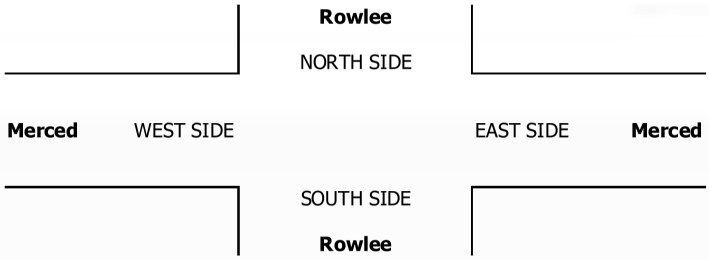
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
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| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 4 | / | 5 | 3 | / | 3 | 0 | / | 0 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.500 | | | 0.000 | | | 0.000 | | 0.500 | | | | | |
| | APP/DEPART | 2 | / | 2 | 2 | / | 2 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 0 | / | 0 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.250 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 0 | / | 0 | 1 | / | 0 | 0 | | | | | |



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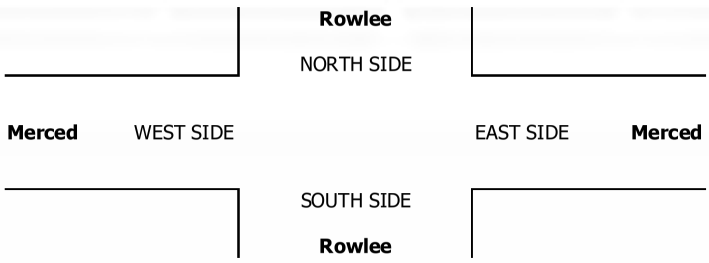
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 3 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 21 | 0 | 2 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 9% | 91% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 21 | / | 21 | 23 | / | 21 | 0 | / | 2 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 6 | 0 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 8% | 92% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.542 | | | 0.000 | | | 0.000 | | 0.528 | | | | | |
| | APP/DEPART | 6 | / | 6 | 13 | / | 12 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 7 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 16 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 13% | 88% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 7 | / | 8 | 8 | / | 7 | 0 | / | 1 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 20% | 80% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.417 | | | 0.000 | | | 0.250 | | 0.688 | | | | | |
| | APP/DEPART | 5 | / | 6 | 5 | / | 4 | 0 | / | 1 | 1 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

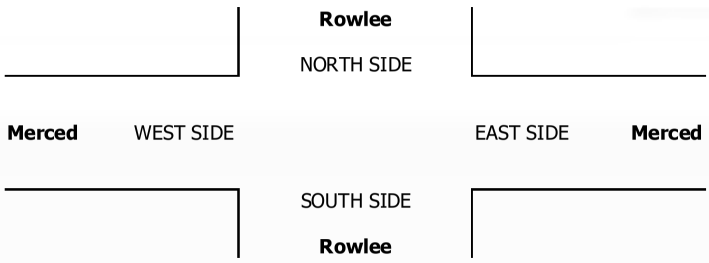
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL X | ET X | ER X | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 1 |
| THURSDAY | EAST & WEST: | Merced | CONTROL: | STOP W |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Merced) | | | WESTBOUND (Merced) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL |
| | | X | 1 | 0 | 0 | 1 | X | X | X | X | 0 | X | 0 | | | | | | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Rowlee** — NORTH SIDE

**Merced** WEST SIDE — EAST SIDE **Merced**

SOUTH SIDE — **Rowlee**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: I-5 SB Ramps
EAST & WEST: Lerdo

PROJECT #: SC4130
LOCATION #: 2
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

N ▲ | ◄ W | E ► | S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 3 | 2 | 0 | 29 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 7 | 2 | 1 | 0 | 4 | 5 | 0 | 27 | 0 | 46 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 5 | 6 | 0 | 30 | 0 | 49 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 5 | 6 | 1 | 36 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 4 | 1 | 2 | 0 | 8 | 9 | 0 | 29 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 7 | 0 | 3 | 0 | 4 | 14 | 1 | 24 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 7 | 13 | 0 | 22 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 5 | 15 | 1 | 26 | 0 | 51 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 42 | 5 | 8 | 0 | 41 | 70 | 3 | 223 | 0 | 392 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 76% | 9% | 15% | 0% | 37% | 63% | 1% | 99% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 55 | / | 78 | 111 | / | 83 | 226 | / | 231 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 23 | 2 | 5 | 0 | 22 | 35 | 2 | 119 | 0 | 208 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 77% | 7% | 17% | 0% | 39% | 61% | 2% | 98% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.792 | | | 0.818 | | 0.981 | | | | | |
| | APP/DEPART | 0 | / | 0 | 30 | / | 39 | 57 | / | 45 | 121 | / | 124 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 11 | 0 | 1 | 0 | 29 | 30 | 0 | 15 | 0 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 29 | 30 | 0 | 15 | 0 | 81 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 8 | 4 | 1 | 0 | 46 | 60 | 0 | 17 | 0 | 136 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 23 | 39 | 0 | 11 | 0 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 13 | 3 | 0 | 0 | 18 | 32 | 0 | 10 | 0 | 76 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 8 | 3 | 0 | 0 | 12 | 47 | 0 | 16 | 0 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 5 | 3 | 1 | 0 | 12 | 17 | 0 | 9 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 8 | 0 | 1 | 0 | 8 | 26 | 0 | 23 | 0 | 66 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 72 | 14 | 4 | 0 | 177 | 281 | 0 | 116 | 0 | 664 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 80% | 16% | 4% | 0% | 39% | 61% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 90 | / | 295 | 458 | / | 249 | 116 | / | 120 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 38 | 5 | 2 | 0 | 127 | 159 | 0 | 58 | 0 | 389 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 84% | 11% | 4% | 0% | 44% | 56% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.865 | | | 0.675 | | | 0.853 | | 0.715 | | | | | |
| | APP/DEPART | 0 | / | 0 | 45 | / | 164 | 286 | / | 165 | 58 | / | 60 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

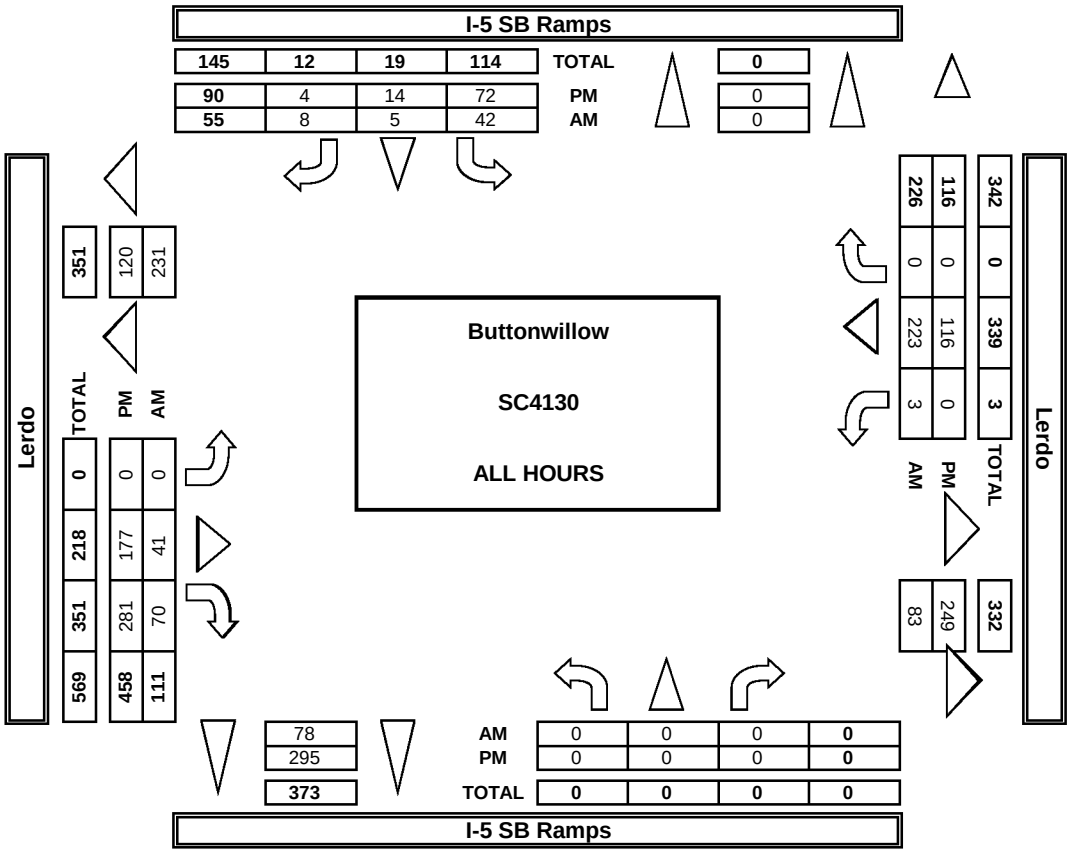
**Lerdo** WEST SIDE EAST SIDE **Lerdo**

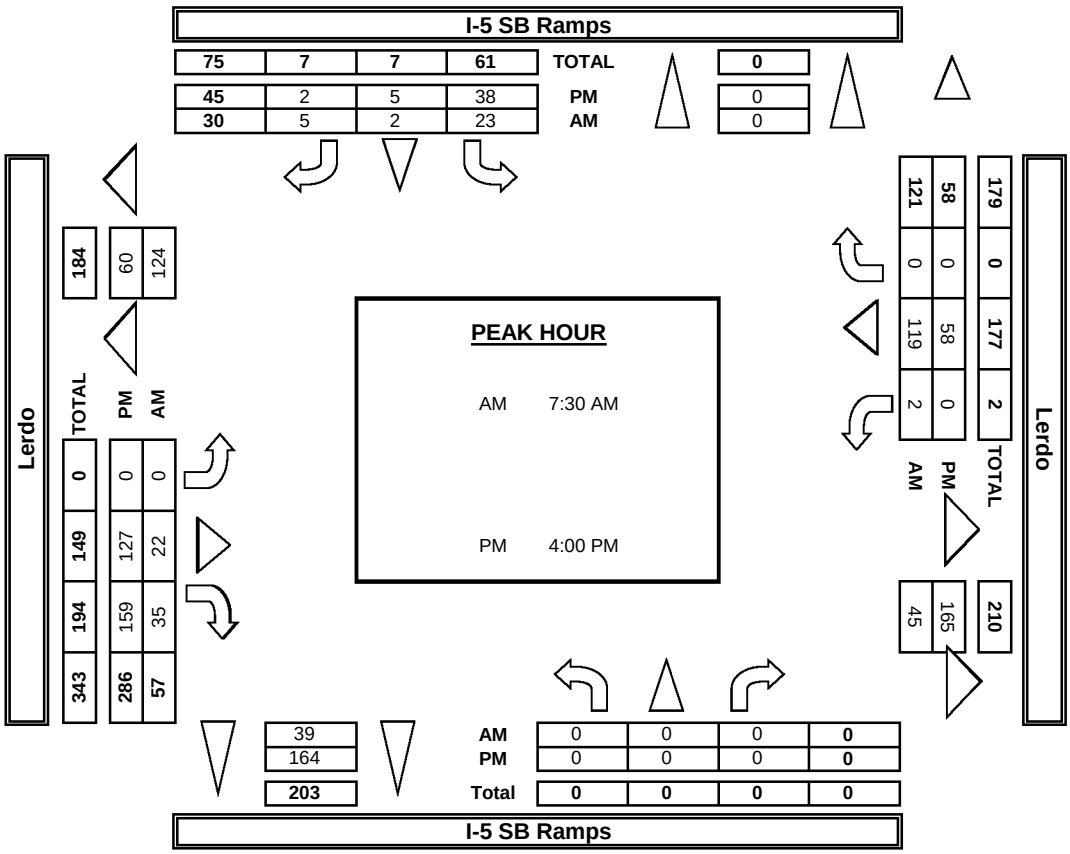
SOUTH SIDE

**I-5 SB Ramps**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**NOTES:**

| PCE Adjusted | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 0 | 0 | 9 | 0 | 2 | 0 | 7 | 2 | 0 | 46 | 0 | 65 | | | | | 0 |
| 7:15 AM | 0 | 0 | 0 | 12 | 6 | 3 | 0 | 8 | 5 | 0 | 39 | 0 | 72 | | | | | 0 |
| 7:30 AM | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 11 | 8 | 0 | 49 | 0 | 80 | | | | | 0 |
| 7:45 AM | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 10 | 14 | 1 | 47 | 0 | 81 | | | | | 0 |
| 8:00 AM | 0 | 0 | 0 | 7 | 1 | 2 | 0 | 9 | 14 | 0 | 44 | 0 | 77 | | | | | 0 |
| 8:15 AM | 0 | 0 | 0 | 15 | 0 | 4 | 0 | 6 | 26 | 2 | 36 | 0 | 88 | | | | | 0 |
| 8:30 AM | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 9 | 22 | 0 | 30 | 0 | 68 | | | | | 0 |
| 8:45 AM | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 8 | 18 | 3 | 38 | 0 | 72 | | | | | 0 |
| AM VOLUMES | 0 | 0 | 0 | 74 | 9 | 11 | 0 | 67 | 109 | 6 | 327 | 0 | 602 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 79% | 10% | 12% | 0% | 38% | 62% | 2% | 98% | 0% | | | | | | |
| APP/DEPART | 0 | / | 0 | 94 | / | 123 | 175 | / | 141 | 333 | / | 338 | 0 | | | | | |
| BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 43 | 2 | 6 | 0 | 36 | 62 | 3 | 175 | 0 | 325 | | | | | |
| APPROACH % | 0% | 0% | 0% | 85% | 4% | 11% | 0% | 36% | 64% | 1% | 99% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.676 | | | 0.762 | | | 0.915 | | 0.923 | | | | | |
| APP/DEPART | 0 | / | 0 | 50 | / | 67 | 98 | / | 78 | 178 | / | 181 | 0 | | | | | |
| 4:00 PM | 0 | 0 | 0 | 17 | 0 | 1 | 0 | 39 | 39 | 0 | 18 | 0 | 113 | | | | | 0 |
| 4:15 PM | 0 | 0 | 0 | 6 | 3 | 0 | 0 | 30 | 33 | 0 | 20 | 0 | 91 | | | | | 0 |
| 4:30 PM | 0 | 0 | 0 | 10 | 5 | 1 | 0 | 51 | 70 | 0 | 21 | 0 | 158 | | | | | 0 |
| 4:45 PM | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 25 | 42 | 0 | 17 | 0 | 103 | | | | | 0 |
| 5:00 PM | 0 | 0 | 0 | 16 | 7 | 0 | 0 | 19 | 34 | 0 | 15 | 0 | 91 | | | | | 0 |
| 5:15 PM | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 15 | 58 | 0 | 19 | 0 | 109 | | | | | 0 |
| 5:30 PM | 0 | 0 | 0 | 7 | 5 | 1 | 0 | 12 | 21 | 0 | 14 | 0 | 60 | | | | | 0 |
| 5:45 PM | 0 | 0 | 0 | 12 | 0 | 1 | 0 | 8 | 31 | 0 | 31 | 0 | 83 | | | | | 0 |
| PM VOLUMES | 0 | 0 | 0 | 95 | 29 | 4 | 0 | 198 | 326 | 0 | 153 | 0 | 804 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 75% | 22% | 3% | 0% | 38% | 62% | 0% | 100% | 0% | | | | | | |
| APP/DEPART | 0 | / | 0 | 128 | / | 355 | 524 | / | 293 | 153 | / | 157 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 52 | 8 | 2 | 0 | 145 | 183 | 0 | 75 | 0 | 463 | | | | | |
| APPROACH % | 0% | 0% | 0% | 84% | 12% | 3% | 0% | 44% | 56% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.803 | | | 0.676 | | | 0.893 | | 0.735 | | | | | |
| APP/DEPART | 0 | / | 0 | 61 | / | 190 | 327 | / | 196 | 75 | / | 77 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

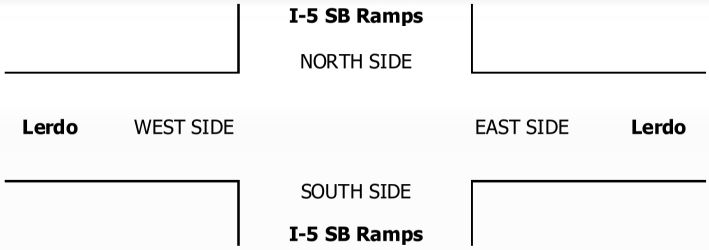
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 2 | 0 | 18 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 5 | 0 | 19 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 2 | 5 | 0 | 20 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 2 | 1 | 29 | 0 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 6 | 5 | 0 | 18 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 3 | 8 | 0 | 16 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 6 | 8 | 0 | 16 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 | 13 | 0 | 17 | 0 | 36 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 24 | 3 | 5 | 0 | 24 | 48 | 1 | 153 | 0 | 258 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 75% | 9% | 16% | 0% | 33% | 67% | 1% | 99% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 32 | / | 52 | 72 | / | 48 | 154 | / | 158 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 12 | 2 | 4 | 0 | 13 | 20 | 1 | 83 | 0 | 135 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 67% | 11% | 22% | 0% | 39% | 61% | 1% | 99% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.900 | | | 0.750 | | | 0.700 | | 0.912 | | | | | |
| | APP/DEPART | 0 | / | 0 | 18 | / | 23 | 33 | / | 25 | 84 | / | 87 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 22 | 25 | 0 | 13 | 0 | 67 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 28 | 28 | 0 | 12 | 0 | 74 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 7 | 3 | 1 | 0 | 42 | 55 | 0 | 15 | 0 | 123 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 22 | 37 | 0 | 8 | 0 | 77 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 10 | 1 | 0 | 0 | 17 | 31 | 0 | 6 | 0 | 65 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 10 | 40 | 0 | 14 | 0 | 71 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 4 | 2 | 1 | 0 | 12 | 15 | 0 | 6 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 8 | 23 | 0 | 17 | 0 | 55 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 56 | 6 | 4 | 0 | 161 | 254 | 0 | 91 | 0 | 572 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 85% | 9% | 6% | 0% | 39% | 61% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 66 | / | 260 | 415 | / | 217 | 91 | / | 95 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 29 | 3 | 2 | 0 | 114 | 145 | 0 | 48 | 0 | 341 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 85% | 9% | 6% | 0% | 44% | 56% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.773 | | | 0.668 | | | 0.800 | | 0.693 | | | | | |
| | APP/DEPART | 0 | / | 0 | 34 | / | 148 | 259 | / | 143 | 48 | / | 50 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

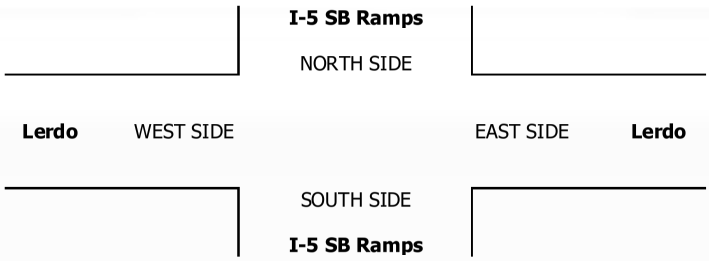
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | I-5 SB Ramps | | | I-5 SB Ramps | | | Lerdo | | | Lerdo | | | | | | | | |
| | LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL |
| | | X | X | X | 0 | 1 | 0 | X | 1 | 0 | 0 | 1 | X | | | | | | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 5 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 3 | 1 | 22 | 0 | 35 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 50% | 0% | 50% | 0% | 63% | 38% | 4% | 96% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 4 | / | 4 | 8 | / | 7 | 23 | / | 24 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 2 | 1 | 10 | 0 | 18 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 50% | 0% | 50% | 0% | 60% | 40% | 9% | 91% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.313 | | | 0.550 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 0 | 2 | / | 3 | 5 | / | 4 | 11 | / | 11 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 7 | 6 | 0 | 8 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 86% | 14% | 0% | 0% | 54% | 46% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 7 | / | 7 | 13 | / | 13 | 8 | / | 8 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 5 | 3 | 0 | 2 | 0 | 14 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 75% | 25% | 0% | 0% | 63% | 38% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.333 | | | 0.667 | | | 0.500 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 0 | 4 | / | 4 | 8 | / | 8 | 2 | / | 2 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND (I-5 SB Ramps) | | | SOUTHBOUND (I-5 SB Ramps) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>X | NR<br>X | SL<br>0 | ST<br>1 | SR<br>0 | EL<br>X | ET<br>1 | ER<br>0 | WL<br>0 | WT<br>1 | WR<br>X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 50% | 50% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 2 | / | 2 | 3 | / | 3 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.250 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 0 | / | 1 | 1 | / | 1 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 1 | / | 1 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramps**
NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE
**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

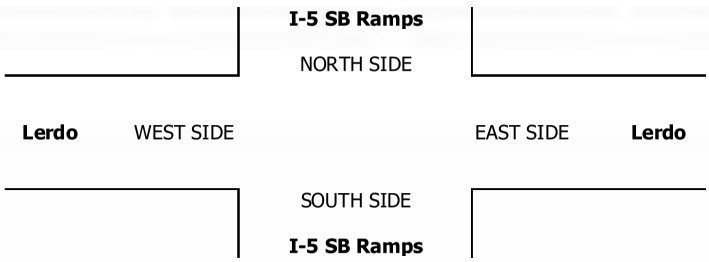
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 9 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 4 | 0 | 5 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 6 | 0 | 5 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 15 | 2 | 1 | 0 | 11 | 18 | 1 | 45 | 0 | 93 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 83% | 11% | 6% | 0% | 38% | 62% | 2% | 98% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 18 | / | 21 | 29 | / | 26 | 46 | / | 46 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 6 | 13 | 0 | 25 | 0 | 53 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 32% | 68% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.563 | | | 0.679 | | | 0.694 | | 0.828 | | | | | |
| | APP/DEPART | 0 | / | 0 | 9 | / | 13 | 19 | / | 15 | 25 | / | 25 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 4 | 0 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 0 | 2 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 5 | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 10 | 7 | 0 | 0 | 8 | 21 | 0 | 16 | 0 | 62 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 59% | 41% | 0% | 0% | 28% | 72% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 17 | / | 28 | 29 | / | 18 | 16 | / | 16 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 7 | 11 | 0 | 8 | 0 | 33 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 86% | 14% | 0% | 0% | 39% | 61% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.583 | | | 0.563 | | | 0.667 | | 0.750 | | | | | |
| | APP/DEPART | 0 | / | 0 | 7 | / | 12 | 18 | / | 13 | 8 | / | 8 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND (I-5 SB Ramps) | | | SOUTHBOUND (I-5 SB Ramps) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

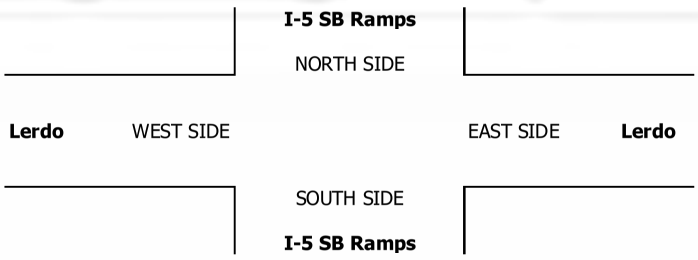
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 2 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: I-5 NB Ramps
EAST & WEST: Lerdo

PROJECT #: SC4130
LOCATION #: 3
CONTROL: STOP N

NOTES:

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S

| | | NORTHBOUND I-5 NB Ramps | | | SOUTHBOUND I-5 NB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 7 | 4 | 41 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 3 | 2 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 21 | 2 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 9 | 11 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 20 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 17 | 3 | 49 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 2 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 0 | 0 | 4 | 4 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 5 | 3 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 | 6 | 41 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 162 | 2 | 0 | 0 | 0 | 0 | 2 | 81 | 0 | 0 | 66 | 35 | 348 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 99% | 1% | 0% | 0% | 0% | 0% | 2% | 98% | 0% | 0% | 65% | 35% | | | | | | |
| | APP/DEPART | 164 | / | 39 | 0 | / | 0 | 83 | / | 81 | 101 | / | 228 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 79 | 2 | 0 | 0 | 0 | 0 | 2 | 43 | 0 | 0 | 42 | 20 | 188 | | | | | |
| | APPROACH % | 98% | 2% | 0% | 0% | 0% | 0% | 4% | 96% | 0% | 0% | 68% | 32% | | | | | | |
| | PEAK HR FACTOR | | 0.844 | | | 0.000 | | | 0.865 | | | 0.775 | | 0.839 | | | | | |
| | APP/DEPART | 81 | / | 24 | 0 | / | 0 | 45 | / | 43 | 62 | / | 121 | 0 | | | | | |
| PM | 4:00 PM | 11 | 1 | 0 | 0 | 0 | 0 | 1 | 39 | 0 | 0 | 4 | 1 | 57 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 7 | 6 | 57 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 4 | 3 | 70 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 35 | 0 | 0 | 0 | 2 | 50 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 30 | 0 | 0 | 2 | 2 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 5 | 2 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 3 | 1 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 12 | 2 | 0 | 0 | 0 | 0 | 1 | 15 | 0 | 0 | 11 | 1 | 42 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 81 | 4 | 3 | 0 | 0 | 0 | 4 | 240 | 0 | 0 | 36 | 18 | 386 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 92% | 5% | 3% | 0% | 0% | 0% | 2% | 98% | 0% | 0% | 67% | 33% | | | | | | |
| | APP/DEPART | 88 | / | 26 | 0 | / | 0 | 244 | / | 243 | 54 | / | 117 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 44 | 1 | 2 | 0 | 0 | 0 | 2 | 158 | 0 | 0 | 15 | 12 | 234 | | | | | |
| | APPROACH % | 94% | 2% | 4% | 0% | 0% | 0% | 1% | 99% | 0% | 0% | 56% | 44% | | | | | | |
| | PEAK HR FACTOR | | 0.839 | | | 0.000 | | | 0.816 | | | 0.519 | | 0.836 | | | | | |
| | APP/DEPART | 47 | / | 15 | 0 | / | 0 | 160 | / | 160 | 27 | / | 59 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

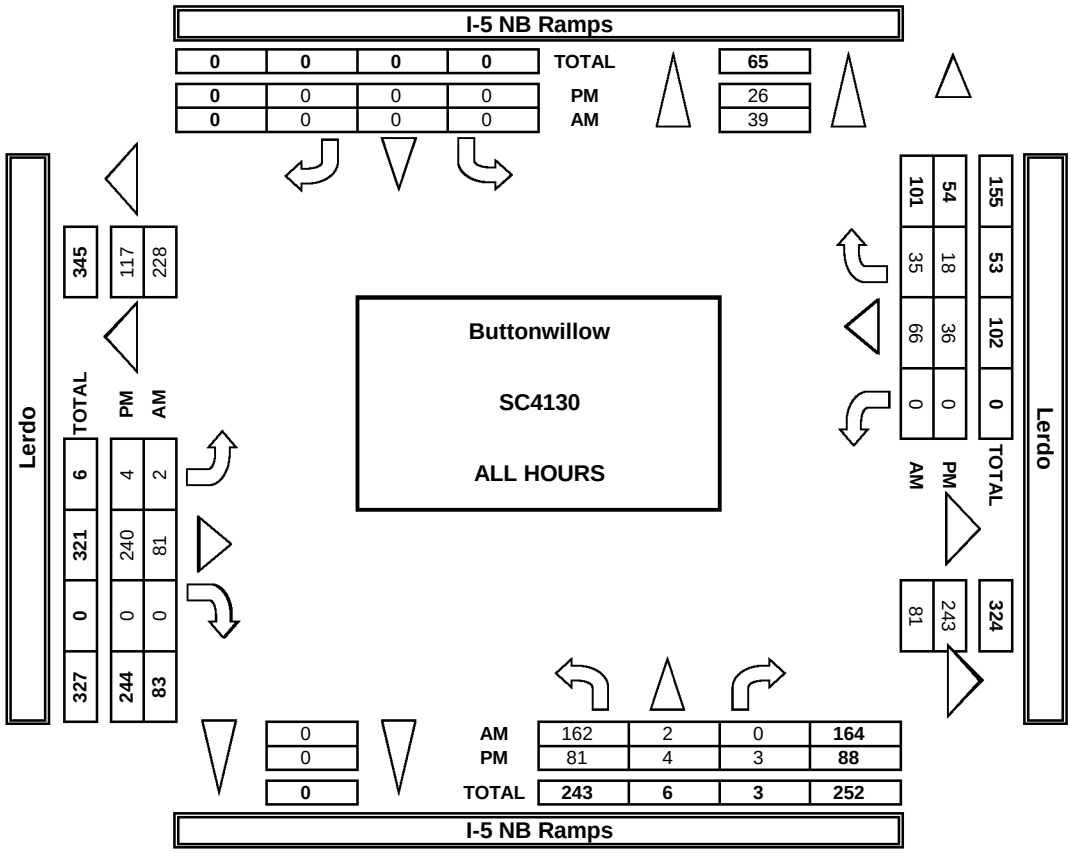
**Lerdo** WEST SIDE EAST SIDE **Lerdo**

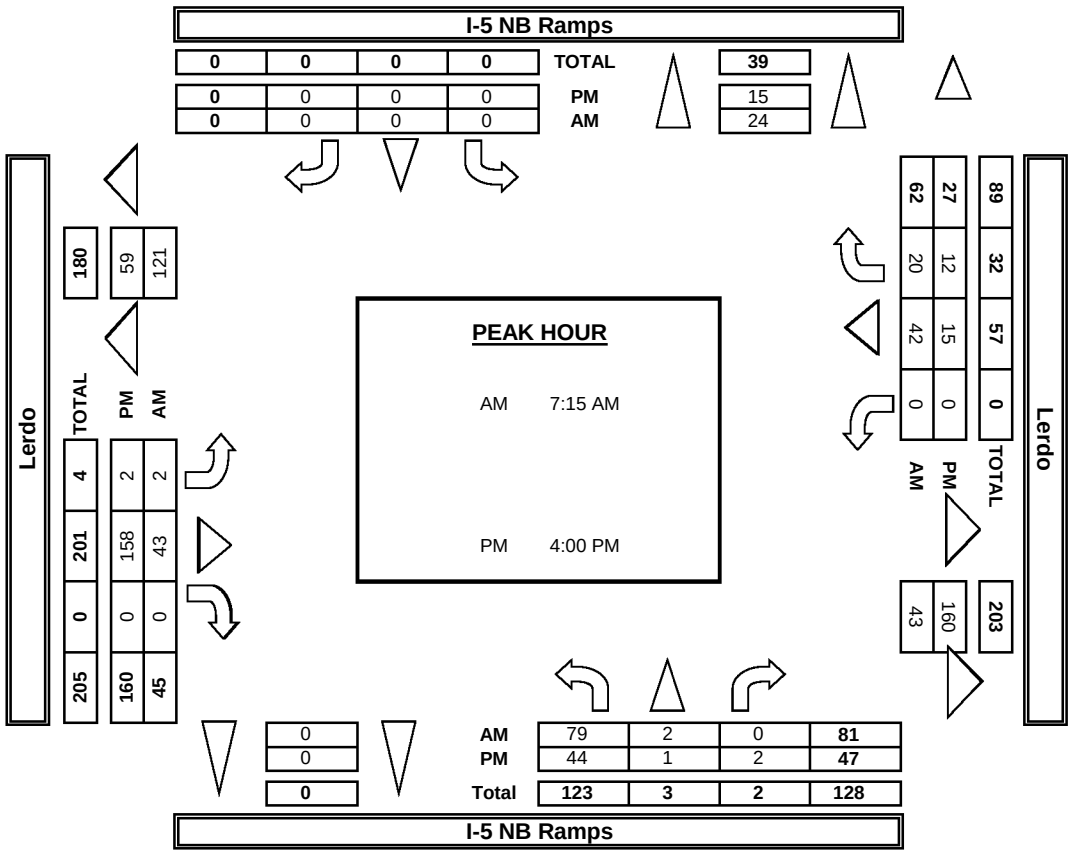
SOUTH SIDE

**I-5 NB Ramps**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| | EAST & WEST: | Lerdo | CONTROL: | STOP N |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM | ▲ N | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | PM MD | ◄ W | E ► |
| | | | | | | | | | | OTHER | S ▼ | |
| | | | | | | | | | | OTHER | | |

| | | NORTHBOUND I-5 NB Ramps | | | SOUTHBOUND I-5 NB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 10 | 4 | 66 | | | | | 0 |
| | 7:15 AM | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 4 | 2 | 60 | | | | | 0 |
| | 7:30 AM | 33 | 6 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 16 | 21 | 99 | | | | | 0 |
| | 7:45 AM | 24 | 0 | 0 | 0 | 0 | 0 | 3 | 15 | 0 | 0 | 24 | 5 | 71 | | | | | 0 |
| | 8:00 AM | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 22 | 4 | 64 | | | | | 0 |
| | 8:15 AM | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 20 | 0 | 0 | 9 | 8 | 67 | | | | | 0 |
| | 8:30 AM | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 7 | 5 | 52 | | | | | 0 |
| | 8:45 AM | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 15 | 11 | 64 | | | | | 0 |
| | VOLUMES | 231 | 6 | 0 | 0 | 0 | 0 | 4 | 137 | 0 | 0 | 104 | 60 | 541 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 97% | 3% | 0% | 0% | 0% | 0% | 3% | 97% | 0% | 0% | 64% | 36% | | | | | | |
| | APP/DEPART | 237 | / | 70 | 0 | / | 0 | 141 | / | 137 | 164 | / | 335 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 114 | 6 | 0 | 0 | 0 | 0 | 3 | 73 | 0 | 0 | 65 | 32 | 293 | | | | | |
| | APPROACH % | 95% | 5% | 0% | 0% | 0% | 0% | 4% | 96% | 0% | 0% | 67% | 33% | | | | | | |
| | PEAK HR FACTOR | | 0.769 | | | 0.000 | | | 0.809 | | | 0.661 | | 0.739 | | | | | |
| | APP/DEPART | 120 | / | 41 | 0 | / | 0 | 76 | / | 73 | 97 | / | 179 | 0 | | | | | |
| PM | 4:00 PM | 15 | 3 | 0 | 0 | 0 | 0 | 3 | 53 | 0 | 0 | 5 | 1 | 79 | | | | | 0 |
| | 4:15 PM | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 8 | 10 | 66 | | | | | 0 |
| | 4:30 PM | 17 | 0 | 1 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 4 | 5 | 83 | | | | | 0 |
| | 4:45 PM | 17 | 0 | 0 | 0 | 0 | 0 | 3 | 41 | 0 | 0 | 0 | 2 | 63 | | | | | 0 |
| | 5:00 PM | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 34 | 0 | 0 | 3 | 2 | 51 | | | | | 0 |
| | 5:15 PM | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 5 | 4 | 46 | | | | | 0 |
| | 5:30 PM | 8 | 3 | 1 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 6 | 1 | 38 | | | | | 0 |
| | 5:45 PM | 17 | 6 | 0 | 0 | 0 | 0 | 3 | 17 | 0 | 0 | 15 | 1 | 58 | | | | | 0 |
| | VOLUMES | 111 | 12 | 3 | 0 | 0 | 0 | 10 | 278 | 0 | 0 | 44 | 26 | 483 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 88% | 10% | 2% | 0% | 0% | 0% | 3% | 97% | 0% | 0% | 63% | 37% | | | | | | |
| | APP/DEPART | 126 | / | 48 | 0 | / | 0 | 288 | / | 281 | 70 | / | 154 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 61 | 3 | 2 | 0 | 0 | 0 | 6 | 185 | 0 | 0 | 16 | 18 | 291 | | | | | |
| | APPROACH % | 92% | 5% | 3% | 0% | 0% | 0% | 3% | 97% | 0% | 0% | 47% | 53% | | | | | | |
| | PEAK HR FACTOR | | 0.910 | | | 0.000 | | | 0.853 | | | 0.486 | | 0.875 | | | | | |
| | APP/DEPART | 66 | / | 27 | 0 | / | 0 | 191 | / | 187 | 34 | / | 77 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 NB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
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OTHER
OTHER

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S ▼

| | | NORTHBOUND I-5 NB Ramps | | | SOUTHBOUND I-5 NB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 | 4 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 2 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 6 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 | 2 | 36 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 5 | 1 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 16 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 2 | 24 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 3 | 2 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 4 | 3 | 25 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 120 | 0 | 0 | 0 | 0 | 0 | 1 | 47 | 0 | 0 | 36 | 22 | 226 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 2% | 98% | 0% | 0% | 62% | 38% | | | | | | |
| | APP/DEPART | 120 | / | 23 | 0 | / | 0 | 48 | / | 47 | 58 | / | 156 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 24 | 11 | 122 | | | | | |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 69% | 31% | | | | | | |
| | PEAK HR FACTOR | | 0.875 | | | 0.000 | | | 0.750 | | | 0.625 | | 0.847 | | | | | |
| | APP/DEPART | 63 | / | 11 | 0 | / | 0 | 24 | / | 24 | 35 | / | 87 | 0 | | | | | |
| PM | 4:00 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 3 | 1 | 41 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 6 | 4 | 51 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 4 | 2 | 62 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 2 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 26 | 0 | 0 | 1 | 2 | 36 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 5 | 1 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 1 | 1 | 24 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 8 | 1 | 32 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 64 | 0 | 3 | 0 | 0 | 0 | 1 | 211 | 0 | 0 | 28 | 14 | 321 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 96% | 0% | 4% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 67% | 33% | | | | | | |
| | APP/DEPART | 67 | / | 15 | 0 | / | 0 | 212 | / | 214 | 42 | / | 92 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 35 | 0 | 2 | 0 | 0 | 0 | 0 | 138 | 0 | 0 | 13 | 9 | 197 | | | | | |
| | APPROACH % | 95% | 0% | 5% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 59% | 41% | | | | | | |
| | PEAK HR FACTOR | | 0.771 | | | 0.000 | | | 0.784 | | | 0.550 | | 0.794 | | | | | |
| | APP/DEPART | 37 | / | 9 | 0 | / | 0 | 138 | / | 140 | 22 | / | 48 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 NB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

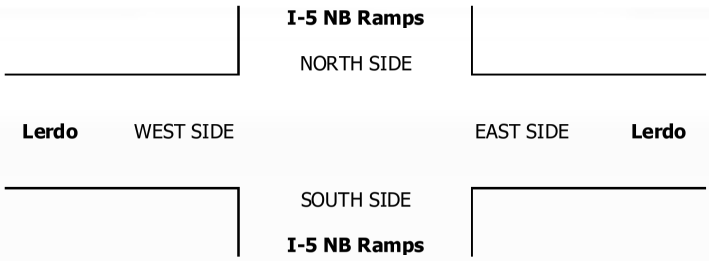
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND (I-5 NB Ramps) | | | SOUTHBOUND (I-5 NB Ramps) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM 7:00 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 14 | 1 | 31 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 93% | 7% | | | | | | |
| APP/DEPART | 9 | / | 1 | 0 | / | 0 | 7 | / | 7 | 15 | / | 23 | 0 | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 7 | 0 | 17 | | | | | |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.750 | | | 0.583 | | 0.607 | | | | | |
| APP/DEPART | 4 | / | 0 | 0 | / | 0 | 6 | / | 6 | 7 | / | 11 | 0 | | | | | |
| PM 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 5 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| APP/DEPART | 3 | / | 0 | 0 | / | 0 | 13 | / | 13 | 5 | / | 8 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 0 | 11 | | | | | |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.400 | | | 0.500 | | 0.458 | | | | | |
| APP/DEPART | 1 | / | 0 | 0 | / | 0 | 8 | / | 8 | 2 | / | 3 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (I-5 NB Ramps) | | | SOUTHBOUND (I-5 NB Ramps) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 2 | / | 0 | 0 | / | 0 | 2 | / | 2 | 1 | / | 3 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.500 | | | 0.000 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 1 | / | 1 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 NB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 NB Ramps | | | SOUTHBOUND I-5 NB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 3 | 5 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 3 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 2 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 31 | 2 | 0 | 0 | 0 | 0 | 1 | 25 | 0 | 0 | 15 | 12 | 86 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 94% | 6% | 0% | 0% | 0% | 0% | 4% | 96% | 0% | 0% | 56% | 44% | | | | | | |
| | APP/DEPART | 33 | / | 15 | 0 | / | 0 | 26 | / | 25 | 27 | / | 46 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 15 | 2 | 0 | 0 | 0 | 0 | 1 | 12 | 0 | 0 | 10 | 7 | 47 | | | | | |
| | APPROACH % | 88% | 12% | 0% | 0% | 0% | 0% | 8% | 92% | 0% | 0% | 59% | 41% | | | | | | |
| | PEAK HR FACTOR | | 0.531 | | | 0.000 | | | 0.650 | | | 0.531 | | 0.560 | | | | | |
| | APP/DEPART | 17 | / | 10 | 0 | / | 0 | 13 | / | 12 | 17 | / | 25 | 0 | | | | | |
| PM | 4:00 PM | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 14 | 4 | 0 | 0 | 0 | 0 | 3 | 15 | 0 | 0 | 2 | 4 | 42 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 78% | 22% | 0% | 0% | 0% | 0% | 17% | 83% | 0% | 0% | 33% | 67% | | | | | | |
| | APP/DEPART | 18 | / | 11 | 0 | / | 0 | 18 | / | 15 | 6 | / | 16 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 8 | 1 | 0 | 0 | 0 | 0 | 2 | 11 | 0 | 0 | 0 | 3 | 25 | | | | | |
| | APPROACH % | 89% | 11% | 0% | 0% | 0% | 0% | 15% | 85% | 0% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.000 | | | 0.542 | | | 0.375 | | 0.694 | | | | | |
| | APP/DEPART | 9 | / | 6 | 0 | / | 0 | 13 | / | 11 | 3 | / | 8 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE

EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 NB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (I-5 NB Ramps) | | | SOUTHBOUND (I-5 NB Ramps) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**I-5 NB Ramps**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**I-5 NB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

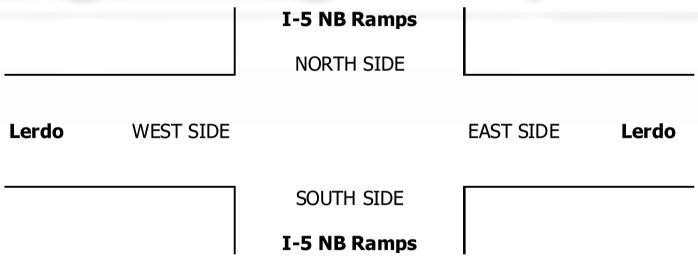
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Ramps | LOCATION #: | 3 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP N |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Ramps | | | SOUTHBOUND I-5 NB Ramps | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL X | ST X | SR X | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Rowlee
EAST & WEST: Lerdo

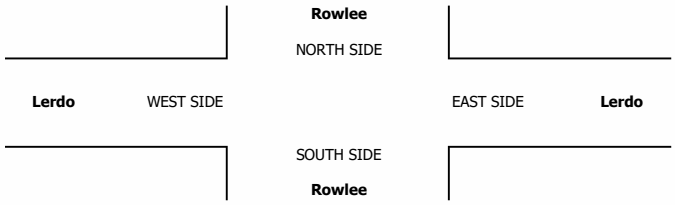
PROJECT #: SC4130
LOCATION #: 4
CONTROL: STOP ALL

NOTES:

AM
PM
MD
OTHER
OTHER

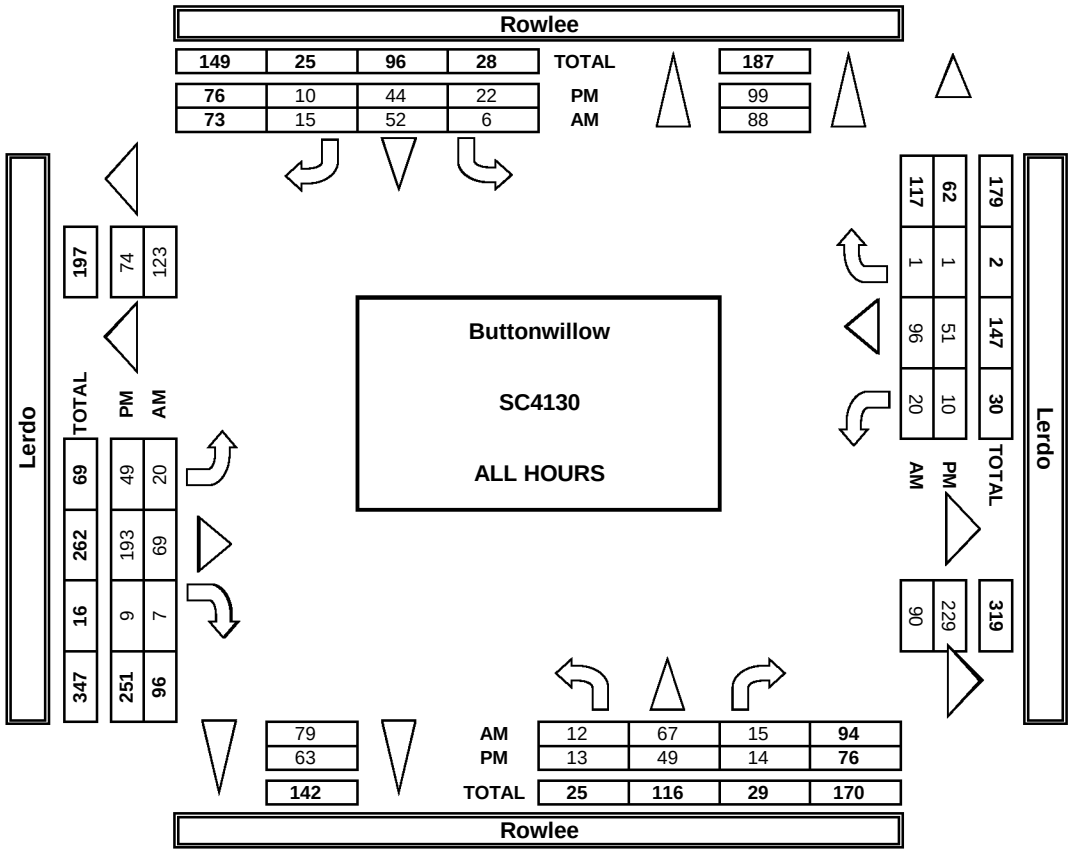
▲ N
◄ W
E ►
S ▼

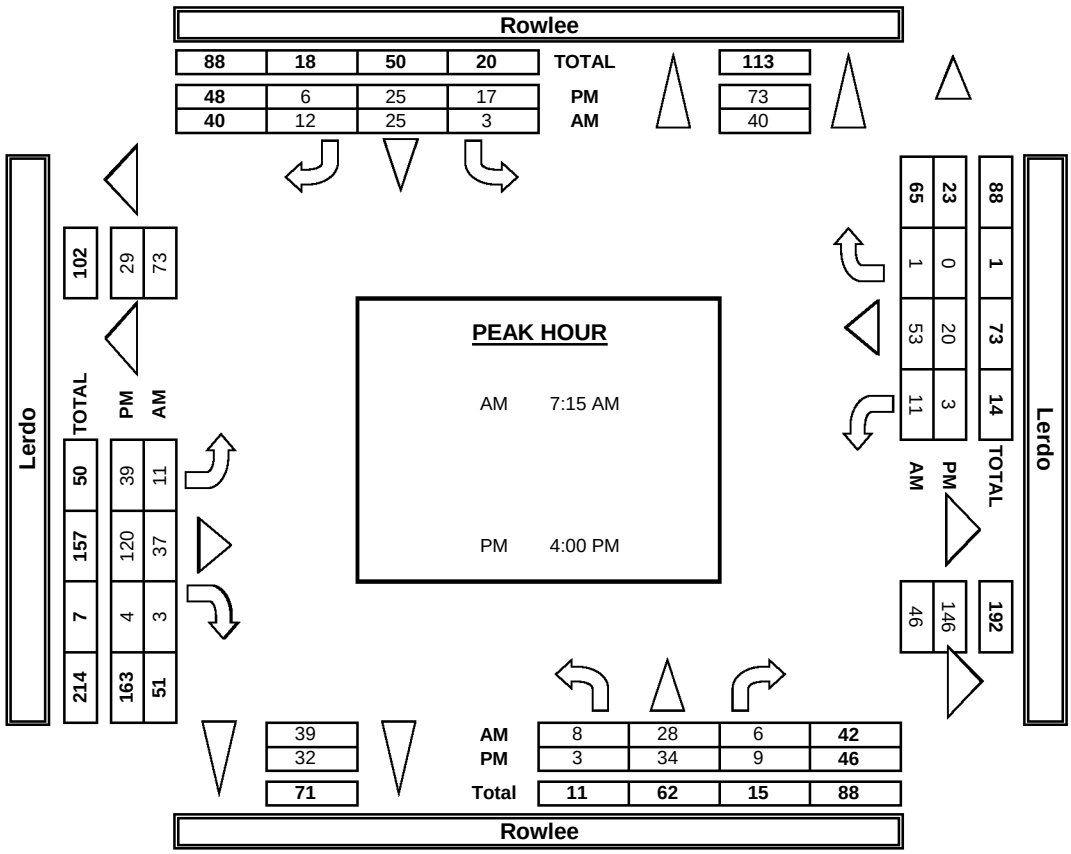
| | | NORTHBOUND Rowlee | | | SOUTHBOUND Rowlee | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 1 | 10 | 3 | 0 | 6 | 1 | 1 | 8 | 0 | 2 | 10 | 0 | 42 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 6 | 2 | 1 | 3 | 4 | 0 | 9 | 1 | 5 | 10 | 1 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 2 | 9 | 1 | 0 | 5 | 3 | 4 | 9 | 2 | 3 | 19 | 0 | 57 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 2 | 3 | 0 | 2 | 10 | 3 | 5 | 6 | 0 | 3 | 13 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 3 | 10 | 3 | 0 | 7 | 2 | 2 | 13 | 0 | 0 | 11 | 0 | 51 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 10 | 0 | 1 | 4 | 0 | 2 | 8 | 1 | 3 | 8 | 0 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 10 | 1 | 1 | 11 | 1 | 4 | 5 | 0 | 3 | 11 | 0 | 48 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 9 | 5 | 1 | 6 | 1 | 2 | 11 | 3 | 1 | 14 | 0 | 54 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 12 | 67 | 15 | 6 | 52 | 15 | 20 | 69 | 7 | 20 | 96 | 1 | 380 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 13% | 71% | 16% | 8% | 71% | 21% | 21% | 72% | 7% | 17% | 82% | 1% | | | | | | |
| | APP/DEPART | 94 | / | 88 | 73 | / | 79 | 96 | / | 90 | 117 | / | 123 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 8 | 28 | 6 | 3 | 25 | 12 | 11 | 37 | 3 | 11 | 53 | 1 | 198 | | | | | |
| | APPROACH % | 19% | 67% | 14% | 8% | 63% | 30% | 22% | 73% | 6% | 17% | 82% | 2% | | | | | | |
| | PEAK HR FACTOR | | 0.656 | | | 0.667 | | | 0.850 | | | 0.739 | | 0.868 | | | | | |
| | APP/DEPART | 42 | / | 40 | 40 | / | 39 | 51 | / | 46 | 65 | / | 73 | 0 | | | | | |
| PM | 4:00 PM | 0 | 7 | 2 | 5 | 8 | 1 | 9 | 32 | 0 | 3 | 6 | 0 | 73 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 8 | 4 | 4 | 7 | 2 | 9 | 25 | 0 | 0 | 8 | 0 | 67 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 2 | 8 | 1 | 3 | 3 | 3 | 9 | 25 | 1 | 0 | 5 | 0 | 60 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 11 | 2 | 5 | 7 | 0 | 12 | 38 | 3 | 0 | 1 | 0 | 80 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 1 | 0 | 2 | 5 | 3 | 3 | 28 | 2 | 2 | 8 | 0 | 54 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 4 | 1 | 0 | 6 | 0 | 3 | 16 | 1 | 0 | 8 | 1 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 2 | 8 | 3 | 3 | 2 | 1 | 2 | 14 | 0 | 3 | 7 | 0 | 45 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 8 | 2 | 1 | 0 | 6 | 0 | 2 | 15 | 2 | 2 | 8 | 0 | 46 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 13 | 49 | 14 | 22 | 44 | 10 | 49 | 193 | 9 | 10 | 51 | 1 | 465 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 17% | 64% | 18% | 29% | 58% | 13% | 20% | 77% | 4% | 16% | 82% | 2% | | | | | | |
| | APP/DEPART | 76 | / | 99 | 76 | / | 63 | 251 | / | 229 | 62 | / | 74 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 34 | 9 | 17 | 25 | 6 | 39 | 120 | 4 | 3 | 20 | 0 | 280 | | | | | |
| | APPROACH % | 7% | 74% | 20% | 35% | 52% | 13% | 24% | 74% | 2% | 13% | 87% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.821 | | | 0.857 | | | 0.769 | | | 0.639 | | 0.875 | | | | | |
| | APP/DEPART | 46 | / | 73 | 48 | / | 32 | 163 | / | 146 | 23 | / | 29 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM | ▲ N | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | PM MD | ◄ W | E ► |
| | | | | | | | | | | OTHER | S ▼ | |
| | | | | | | | | | | OTHER | | |

| | | NORTHBOUND Rowlee | | | SOUTHBOUND Rowlee | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 1 | 21 | 5 | 0 | 10 | 1 | 1 | 14 | 0 | 5 | 15 | 0 | 71 | | | | | 0 |
| | 7:15 AM | 1 | 9 | 4 | 1 | 4 | 5 | 0 | 18 | 1 | 6 | 14 | 1 | 63 | | | | | 0 |
| | 7:30 AM | 3 | 12 | 1 | 0 | 9 | 7 | 9 | 13 | 2 | 4 | 32 | 0 | 91 | | | | | 0 |
| | 7:45 AM | 5 | 6 | 0 | 4 | 15 | 5 | 8 | 14 | 0 | 5 | 21 | 0 | 82 | | | | | 0 |
| | 8:00 AM | 5 | 12 | 3 | 0 | 15 | 5 | 2 | 22 | 0 | 0 | 21 | 0 | 84 | | | | | 0 |
| | 8:15 AM | 3 | 24 | 0 | 1 | 6 | 0 | 2 | 20 | 1 | 4 | 13 | 0 | 73 | | | | | 0 |
| | 8:30 AM | 2 | 18 | 3 | 1 | 22 | 3 | 6 | 6 | 0 | 3 | 20 | 0 | 82 | | | | | 0 |
| | 8:45 AM | 1 | 13 | 7 | 1 | 9 | 2 | 3 | 18 | 5 | 1 | 19 | 0 | 77 | | | | | 0 |
| | VOLUMES | 20 | 114 | 23 | 8 | 89 | 27 | 30 | 123 | 9 | 27 | 153 | 1 | 621 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 13% | 73% | 14% | 6% | 72% | 21% | 19% | 76% | 5% | 15% | 84% | 1% | | | | | | |
| | APP/DEPART | 156 | / | 145 | 124 | / | 125 | 161 | / | 153 | 181 | / | 199 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 13 | 39 | 8 | 5 | 43 | 21 | 19 | 66 | 3 | 15 | 87 | 1 | 319 | | | | | |
| | APPROACH % | 22% | 65% | 13% | 7% | 62% | 31% | 21% | 75% | 3% | 15% | 84% | 1% | | | | | | |
| | PEAK HR FACTOR | | 0.744 | | | 0.729 | | | 0.931 | | | 0.715 | | 0.880 | | | | | |
| | APP/DEPART | 60 | / | 58 | 69 | / | 61 | 88 | / | 79 | 103 | / | 121 | 0 | | | | | |
| PM | 4:00 PM | 0 | 9 | 3 | 5 | 10 | 2 | 11 | 46 | 0 | 4 | 8 | 0 | 96 | | | | | 0 |
| | 4:15 PM | 0 | 8 | 4 | 4 | 8 | 3 | 10 | 27 | 0 | 0 | 11 | 0 | 74 | | | | | 0 |
| | 4:30 PM | 2 | 13 | 1 | 4 | 3 | 3 | 10 | 32 | 1 | 0 | 7 | 0 | 75 | | | | | 0 |
| | 4:45 PM | 1 | 15 | 2 | 9 | 9 | 0 | 12 | 39 | 3 | 0 | 1 | 0 | 90 | | | | | 0 |
| | 5:00 PM | 0 | 1 | 0 | 2 | 10 | 4 | 3 | 34 | 2 | 2 | 10 | 0 | 68 | | | | | 0 |
| | 5:15 PM | 0 | 6 | 1 | 0 | 7 | 0 | 3 | 19 | 1 | 0 | 10 | 1 | 47 | | | | | 0 |
| | 5:30 PM | 2 | 10 | 5 | 3 | 2 | 1 | 2 | 17 | 0 | 3 | 8 | 0 | 52 | | | | | 0 |
| | 5:45 PM | 12 | 3 | 1 | 0 | 6 | 0 | 2 | 18 | 2 | 2 | 11 | 0 | 55 | | | | | 0 |
| | VOLUMES | 17 | 64 | 17 | 27 | 55 | 12 | 52 | 229 | 9 | 11 | 65 | 1 | 556 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 17% | 66% | 17% | 28% | 59% | 13% | 18% | 79% | 3% | 14% | 85% | 1% | | | | | | |
| | APP/DEPART | 97 | / | 117 | 93 | / | 74 | 290 | / | 272 | 76 | / | 93 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 45 | 10 | 22 | 30 | 8 | 42 | 143 | 4 | 4 | 27 | 0 | 335 | | | | | |
| | APPROACH % | 5% | 78% | 17% | 36% | 51% | 13% | 22% | 76% | 2% | 12% | 88% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.814 | | | 0.819 | | | 0.834 | | | 0.652 | | 0.871 | | | | | |
| | APP/DEPART | 57 | / | 87 | 59 | / | 38 | 189 | / | 174 | 30 | / | 37 | 0 | | | | | |

**Rowlee**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**Rowlee**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

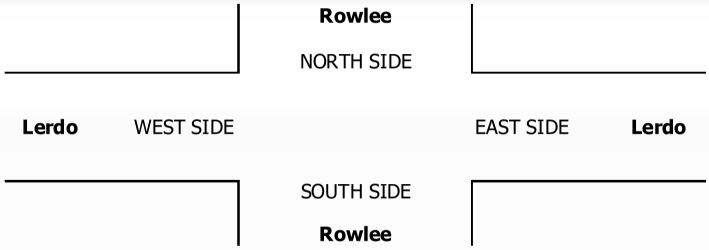
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 1 | 4 | 1 | 0 | 4 | 1 | 1 | 5 | 0 | 0 | 7 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 3 | 1 | 1 | 2 | 3 | 0 | 3 | 1 | 4 | 6 | 1 | 26 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 1 | 7 | 1 | 0 | 3 | 1 | 1 | 6 | 2 | 2 | 11 | 0 | 35 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 1 | 0 | 1 | 5 | 2 | 3 | 2 | 0 | 2 | 9 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 2 | 9 | 3 | 0 | 3 | 0 | 2 | 8 | 0 | 0 | 5 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 1 | 0 | 1 | 3 | 0 | 2 | 1 | 1 | 2 | 3 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 5 | 0 | 1 | 4 | 0 | 3 | 4 | 0 | 3 | 4 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 7 | 4 | 1 | 4 | 0 | 1 | 7 | 1 | 1 | 10 | 0 | 37 | 0 | 0 | 0 | 0 | 0 |
| AM VOLUMES | 6 | 37 | 10 | 5 | 28 | 7 | 13 | 36 | 5 | 14 | 55 | 1 | 217 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 11% | 70% | 19% | 13% | 70% | 18% | 24% | 67% | 9% | 20% | 79% | 1% | | | | | | |
| AM APP/DEPART | 53 | / | 51 | 40 | / | 47 | 54 | / | 51 | 70 | / | 68 | 0 | | | | | |
| AM BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 4 | 20 | 5 | 2 | 13 | 6 | 6 | 19 | 3 | 8 | 31 | 1 | 118 | | | | | |
| AM APPROACH % | 14% | 69% | 17% | 10% | 62% | 29% | 21% | 68% | 11% | 20% | 78% | 3% | | | | | | |
| AM PEAK HR FACTOR | | 0.518 | | | 0.656 | | | 0.700 | | | 0.769 | | 0.843 | | | | | |
| AM APP/DEPART | 29 | / | 27 | 21 | / | 24 | 28 | / | 26 | 40 | / | 41 | 0 | | | | | |
| 4:00 PM | 0 | 6 | 1 | 5 | 7 | 0 | 8 | 22 | 0 | 2 | 5 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 8 | 4 | 4 | 5 | 1 | 8 | 21 | 0 | 0 | 6 | 0 | 57 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 4 | 1 | 2 | 3 | 3 | 8 | 21 | 1 | 0 | 4 | 0 | 49 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 1 | 7 | 2 | 3 | 6 | 0 | 12 | 37 | 3 | 0 | 1 | 0 | 72 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 1 | 0 | 2 | 2 | 2 | 3 | 23 | 2 | 2 | 7 | 0 | 44 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 3 | 1 | 0 | 5 | 0 | 3 | 14 | 1 | 0 | 7 | 1 | 35 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 2 | 7 | 2 | 3 | 2 | 1 | 2 | 12 | 0 | 3 | 6 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 5 | 1 | 1 | 0 | 6 | 0 | 2 | 13 | 2 | 2 | 6 | 0 | 38 | 0 | 0 | 0 | 0 | 0 |
| PM VOLUMES | 10 | 37 | 12 | 19 | 36 | 7 | 46 | 163 | 9 | 9 | 42 | 1 | 391 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 17% | 63% | 20% | 31% | 58% | 11% | 21% | 75% | 4% | 17% | 81% | 2% | | | | | | |
| PM APP/DEPART | 59 | / | 84 | 62 | / | 54 | 218 | / | 194 | 52 | / | 59 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 3 | 25 | 8 | 14 | 21 | 4 | 36 | 101 | 4 | 2 | 16 | 0 | 234 | | | | | |
| PM APPROACH % | 8% | 69% | 22% | 36% | 54% | 10% | 26% | 72% | 3% | 11% | 89% | 0% | | | | | | |
| PM PEAK HR FACTOR | | 0.750 | | | 0.813 | | | 0.678 | | | 0.643 | | 0.813 | | | | | |
| PM APP/DEPART | 36 | / | 61 | 39 | / | 27 | 141 | / | 123 | 18 | / | 23 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

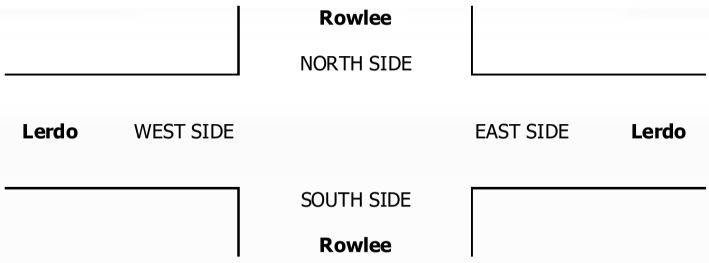
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 7 | 1 | 0 | 6 | 3 | 2 | 7 | 1 | 2 | 15 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 27% | 64% | 9% | 0% | 67% | 33% | 20% | 70% | 10% | 12% | 88% | 0% | | | | | | |
| | APP/DEPART | 11 | / | 9 | 9 | / | 9 | 10 | / | 8 | 17 | / | 21 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 3 | 0 | 0 | 3 | 2 | 1 | 4 | 0 | 0 | 6 | 0 | 21 | | | | | |
| | APPROACH % | 40% | 60% | 0% | 0% | 60% | 40% | 20% | 80% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.417 | | | 0.625 | | | 0.500 | | 0.656 | | | | | |
| | APP/DEPART | 5 | / | 4 | 5 | / | 3 | 5 | / | 4 | 6 | / | 10 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 4 | 0 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 6 | 1 | 1 | 3 | 2 | 2 | 14 | 0 | 1 | 3 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 13% | 75% | 13% | 17% | 50% | 33% | 13% | 88% | 0% | 25% | 75% | 0% | | | | | | |
| | APP/DEPART | 8 | / | 8 | 6 | / | 4 | 16 | / | 16 | 4 | / | 6 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 5 | 1 | 1 | 2 | 1 | 2 | 9 | 0 | 1 | 1 | 0 | 23 | | | | | |
| | APPROACH % | 0% | 83% | 17% | 25% | 50% | 25% | 18% | 82% | 0% | 50% | 50% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.500 | | | 0.550 | | | 0.500 | | 0.719 | | | | | |
| | APP/DEPART | 6 | / | 7 | 4 | / | 3 | 11 | / | 11 | 2 | / | 2 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

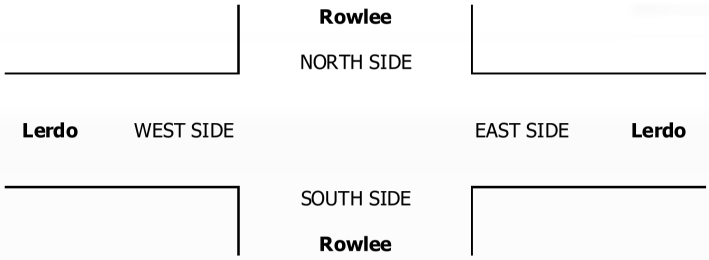
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 3 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 75% | 25% | 0% | 100% | 0% | 33% | 67% | 0% | 40% | 60% | 0% | | | | | | |
| | APP/DEPART | 4 | / | 4 | 2 | / | 4 | 3 | / | 3 | 5 | / | 3 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 8 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 50% | 50% | 0% | 67% | 33% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.500 | | | 0.250 | | | 0.750 | | 0.667 | | | | | |
| | APP/DEPART | 1 | / | 2 | 2 | / | 4 | 2 | / | 1 | 3 | / | 1 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 1 | / | 0 | 2 | / | 1 | 3 | / | 3 | 0 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.250 | | | 0.000 | | 0.375 | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 2 | / | 2 | 0 | / | 1 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

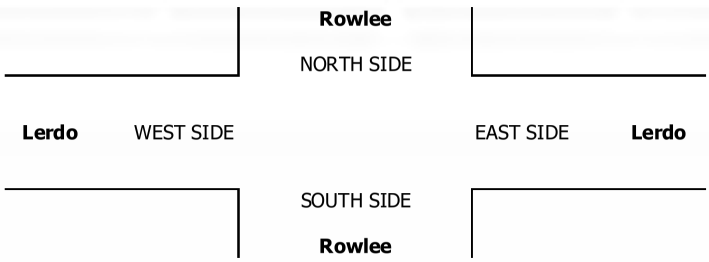
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 5 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 1 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 6 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 4 | 0 | 1 | 4 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 1 | 0 | 0 | 4 | 1 | 0 | 4 | 0 | 0 | 4 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 6 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 3 | 1 | 0 | 5 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 20 | 3 | 1 | 16 | 5 | 4 | 24 | 0 | 2 | 23 | 0 | 101 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 12% | 77% | 12% | 5% | 73% | 23% | 14% | 86% | 0% | 8% | 92% | 0% | | | | | | |
| | APP/DEPART | 26 | / | 24 | 22 | / | 18 | 28 | / | 28 | 25 | / | 31 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 4 | 1 | 1 | 7 | 4 | 3 | 13 | 0 | 1 | 15 | 0 | 51 | | | | | |
| | APPROACH % | 29% | 57% | 14% | 8% | 58% | 33% | 19% | 81% | 0% | 6% | 94% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.875 | | | 0.600 | | | 0.800 | | | 0.667 | | 0.850 | | | | | |
| | APP/DEPART | 7 | / | 7 | 12 | / | 8 | 16 | / | 15 | 16 | / | 21 | 0 | | | | | |
| PM | 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 6 | 1 | 2 | 4 | 0 | 1 | 13 | 0 | 0 | 6 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 13% | 75% | 13% | 33% | 67% | 0% | 7% | 93% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 8 | / | 7 | 6 | / | 4 | 14 | / | 16 | 6 | / | 7 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 4 | 0 | 2 | 2 | 0 | 1 | 8 | 0 | 0 | 3 | 0 | 20 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 50% | 50% | 0% | 11% | 89% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.333 | | | 0.375 | | | 0.750 | | 0.556 | | | | | |
| | APP/DEPART | 4 | / | 5 | 4 | / | 2 | 9 | / | 10 | 3 | / | 3 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Rowlee**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**Rowlee**

# INTERSECTION TURNING MOVEMENT COUNTS

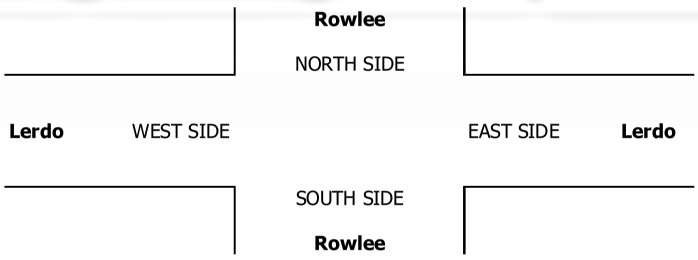
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Rowlee | LOCATION #: | 4 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP ALL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Rowlee) | | | SOUTHBOUND (Rowlee) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 1 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Wildwood
EAST & WEST: Lerdo

PROJECT #: SC4130
LOCATION #: 5
CONTROL: STOP S

NOTES:

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PM
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S

| | | NORTHBOUND Wildwood | | | SOUTHBOUND Wildwood | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 10 | 0 | 0 | 10 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 19 | 4 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 22 | 6 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 0 | 0 | 16 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 17 | 0 | 0 | 11 | 2 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 14 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 8 | 0 | 0 | 10 | 1 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 16 | 0 | 0 | 14 | 1 | 34 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 10 | 0 | 2 | 3 | 86 | 0 | 0 | 116 | 14 | 231 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 83% | 0% | 17% | 3% | 97% | 0% | 0% | 89% | 11% | | | | | | |
| | APP/DEPART | 0 | / | 17 | 12 | / | 0 | 89 | / | 96 | 130 | / | 118 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 44 | 0 | 0 | 68 | 12 | 129 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 85% | 15% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.313 | | | 0.647 | | | 0.714 | | 0.806 | | | | | |
| | APP/DEPART | 0 | / | 12 | 5 | / | 0 | 44 | / | 49 | 80 | / | 68 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 33 | 0 | 0 | 9 | 4 | 52 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 35 | 0 | 0 | 7 | 2 | 49 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 4 | 0 | 1 | 1 | 28 | 0 | 0 | 4 | 1 | 39 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 42 | 0 | 0 | 3 | 6 | 55 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 31 | 0 | 0 | 10 | 2 | 48 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 18 | 0 | 0 | 7 | 2 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 24 | 0 | 0 | 7 | 3 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 10 | 0 | 0 | 13 | 5 | 31 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 31 | 0 | 3 | 3 | 221 | 0 | 0 | 60 | 25 | 343 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 91% | 0% | 9% | 1% | 99% | 0% | 0% | 71% | 29% | | | | | | |
| | APP/DEPART | 0 | / | 28 | 34 | / | 0 | 224 | / | 252 | 85 | / | 63 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 17 | 0 | 1 | 3 | 138 | 0 | 0 | 23 | 13 | 195 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 94% | 0% | 6% | 2% | 98% | 0% | 0% | 64% | 36% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.839 | | | 0.692 | | 0.886 | | | | | |
| | APP/DEPART | 0 | / | 16 | 18 | / | 0 | 141 | / | 155 | 36 | / | 24 | 0 | | | | | |

**Wildwood**

NORTH SIDE

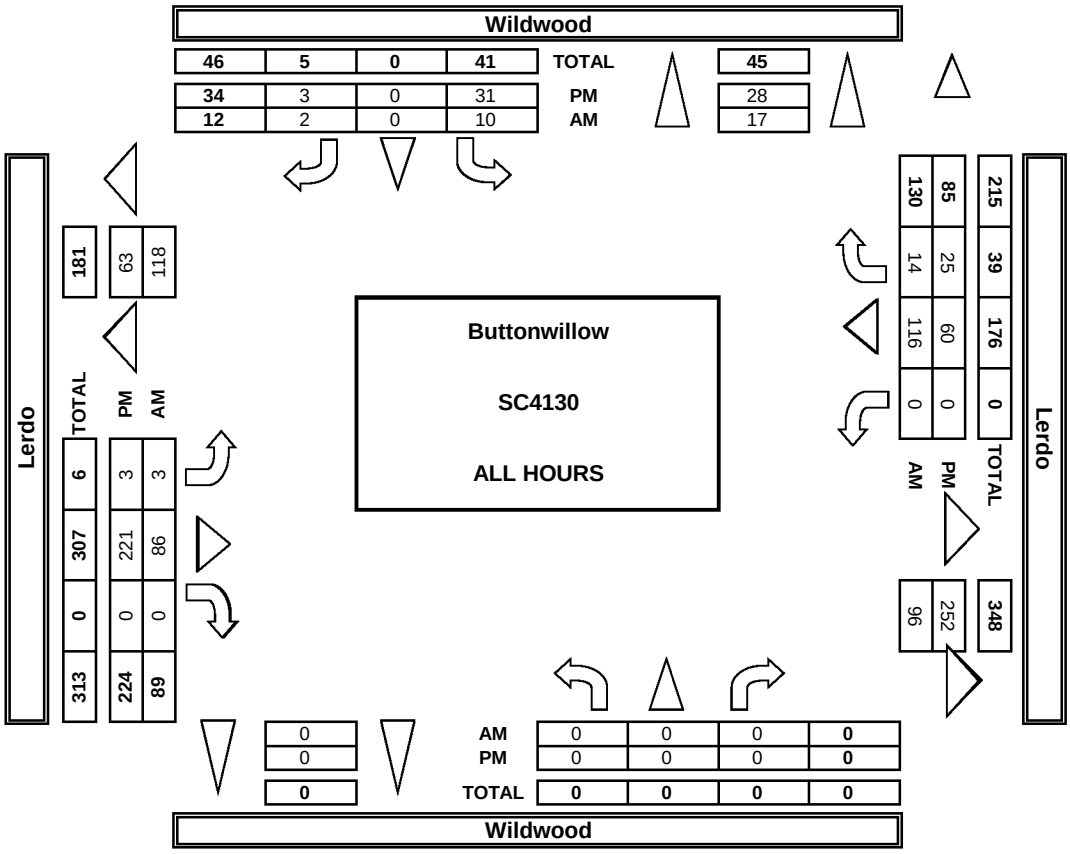
**Lerdo** WEST SIDE EAST SIDE **Lerdo**

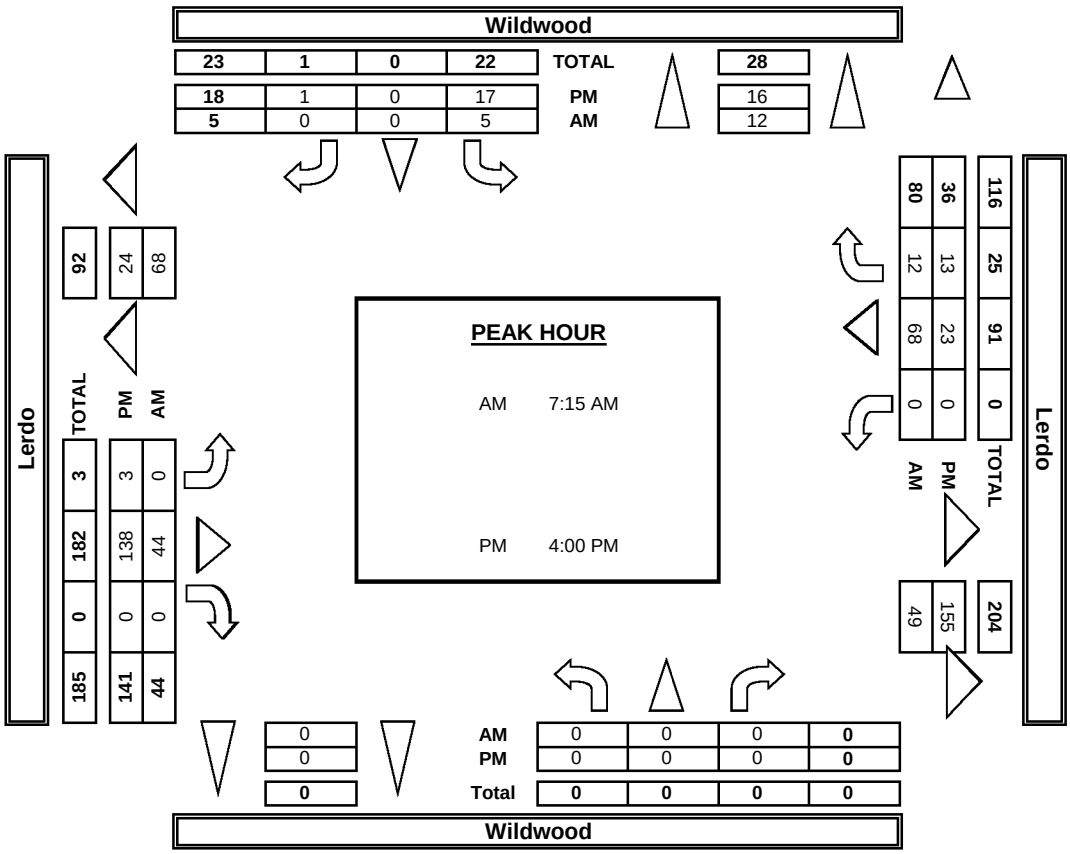
SOUTH SIDE

**Wildwood**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| | EAST & WEST: | Lerdo | CONTROL: | STOP S |

| | NOTES: | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | AM | ▲ N | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | PM MD | ◄ W | E ► |
| | | | | | | | | | OTHER | S ▼ | |
| | | | | | | | | | OTHER | | |

| | | NORTHBOUND Wildwood | | | SOUTHBOUND Wildwood | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 19 | 0 | 0 | 15 | 0 | 37 | | | | | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 28 | 5 | 42 | | | | | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 39 | 6 | 67 | | | | | 0 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 19 | 0 | 0 | 26 | 0 | 46 | | | | | 0 |
| | 8:00 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 31 | 0 | 0 | 18 | 6 | 59 | | | | | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 18 | 0 | 0 | 23 | 0 | 41 | | | | | 0 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 13 | 0 | 0 | 19 | 1 | 37 | | | | | 0 |
| | 8:45 AM | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 24 | 0 | 0 | 17 | 1 | 48 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 14 | 0 | 2 | 4 | 155 | 0 | 0 | 183 | 19 | 376 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 88% | 0% | 13% | 2% | 98% | 0% | 0% | 91% | 9% | | | | | | |
| | APP/DEPART | 0 | / | 22 | 16 | / | 0 | 159 | / | 169 | 202 | / | 185 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 82 | 0 | 0 | 110 | 17 | 214 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 87% | 13% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.313 | | | 0.661 | | | 0.703 | | 0.797 | | | | | |
| | APP/DEPART | 0 | / | 17 | 5 | / | 0 | 82 | / | 87 | 127 | / | 110 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 49 | 0 | 0 | 16 | 12 | 89 | | | | | 0 |
| | 4:15 PM | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 36 | 0 | 0 | 8 | 6 | 57 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 0 | 12 | 0 | 2 | 1 | 37 | 0 | 0 | 6 | 3 | 60 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 47 | 0 | 0 | 5 | 14 | 76 | | | | | 0 |
| | 5:00 PM | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 37 | 0 | 0 | 12 | 6 | 62 | | | | | 0 |
| | 5:15 PM | 0 | 0 | 0 | 12 | 0 | 1 | 0 | 21 | 0 | 0 | 9 | 6 | 49 | | | | | 0 |
| | 5:30 PM | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 30 | 0 | 0 | 7 | 7 | 53 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 10 | 0 | 0 | 19 | 13 | 49 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 74 | 0 | 4 | 3 | 266 | 0 | 0 | 81 | 67 | 494 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 95% | 0% | 5% | 1% | 99% | 0% | 0% | 55% | 45% | | | | | | |
| | APP/DEPART | 0 | / | 70 | 77 | / | 0 | 269 | / | 339 | 148 | / | 85 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 40 | 0 | 2 | 3 | 168 | 0 | 0 | 34 | 35 | 281 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 96% | 0% | 4% | 2% | 98% | 0% | 0% | 49% | 51% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.759 | | | 0.872 | | | 0.627 | | 0.789 | | | | | |
| | APP/DEPART | 0 | / | 38 | 41 | / | 0 | 171 | / | 208 | 69 | / | 36 | 0 | | | | | |

**Wildwood**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**Wildwood**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

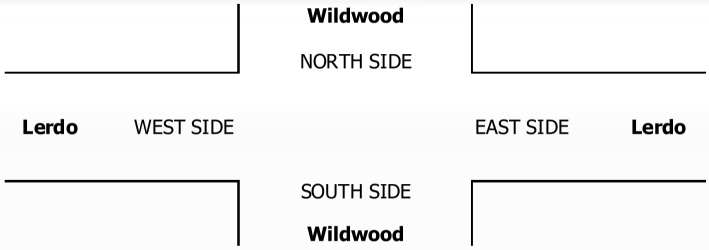
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
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OTHER

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| | NORTHBOUND Wildwood | | | SOUTHBOUND Wildwood | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 5 | 0 | 0 | 6 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 | 3 | 19 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 12 | 6 | 23 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 11 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 3 | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 0 | 0 | 11 | 1 | 25 | 0 | 0 | 0 | 0 | 0 |
| AM VOLUMES | 0 | 0 | 0 | 8 | 0 | 2 | 2 | 44 | 0 | 0 | 67 | 11 | 134 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 0% | 0% | 0% | 80% | 0% | 20% | 4% | 96% | 0% | 0% | 86% | 14% | | | | | | |
| AM APP/DEPART | 0 | / | 13 | 10 | / | 0 | 46 | / | 52 | 78 | / | 69 | 0 | | | | | |
| AM BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 20 | 0 | 0 | 40 | 9 | 74 | | | | | |
| AM APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 82% | 18% | | | | | | |
| AM PEAK HR FACTOR | | 0.000 | | | 0.313 | | | 0.714 | | | 0.681 | | 0.804 | | | | | |
| AM APP/DEPART | 0 | / | 9 | 5 | / | 0 | 20 | / | 25 | 49 | / | 40 | 0 | | | | | |
| 4:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 22 | 0 | 0 | 5 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 33 | 0 | 0 | 6 | 0 | 43 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 21 | 0 | 0 | 3 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 39 | 0 | 0 | 2 | 2 | 44 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 28 | 0 | 0 | 9 | 0 | 41 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 0 | 6 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 7 | 1 | 29 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 1 | 22 | 0 | 0 | 0 | 0 | 0 |
| PM VOLUMES | 0 | 0 | 0 | 9 | 0 | 2 | 3 | 190 | 0 | 0 | 48 | 4 | 256 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 0% | 0% | 0% | 82% | 0% | 18% | 2% | 98% | 0% | 0% | 92% | 8% | | | | | | |
| PM APP/DEPART | 0 | / | 7 | 11 | / | 0 | 193 | / | 199 | 52 | / | 50 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 0 | 0 | 0 | 5 | 0 | 0 | 3 | 115 | 0 | 0 | 16 | 2 | 141 | | | | | |
| PM APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 3% | 97% | 0% | 0% | 89% | 11% | | | | | | |
| PM PEAK HR FACTOR | | 0.000 | | | 0.625 | | | 0.756 | | | 0.750 | | 0.801 | | | | | |
| PM APP/DEPART | 0 | / | 5 | 5 | / | 0 | 118 | / | 120 | 18 | / | 16 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

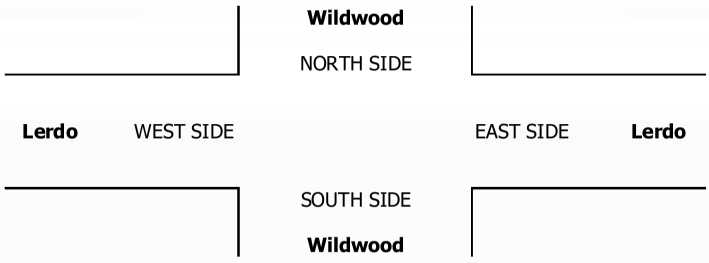
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
PM
MD
OTHER
OTHER

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◄ W E ►
S ▼

| | NORTHBOUND (Wildwood) | | | SOUTHBOUND (Wildwood) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 18 | 1 | 28 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 11% | 89% | 0% | 0% | 95% | 5% | | | | | | |
| APP/DEPART | 0 | / | 2 | 0 | / | 0 | 9 | / | 8 | 19 | / | 18 | 0 | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 8 | 1 | 15 | | | | | |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 89% | 11% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.375 | | | 0.563 | | 0.536 | | | | | |
| APP/DEPART | 0 | / | 1 | 0 | / | 0 | 6 | / | 6 | 9 | / | 8 | 0 | | | | | |
| PM 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 9 | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 50% | 0% | 50% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| APP/DEPART | 0 | / | 0 | 2 | / | 0 | 9 | / | 10 | 2 | / | 3 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 8 | 0 | 0 | 2 | 0 | 12 | | | | | |
| APPROACH % | 0% | 0% | 0% | 50% | 0% | 50% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.667 | | | 0.500 | | 0.750 | | | | | |
| APP/DEPART | 0 | / | 0 | 2 | / | 0 | 8 | / | 9 | 2 | / | 3 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

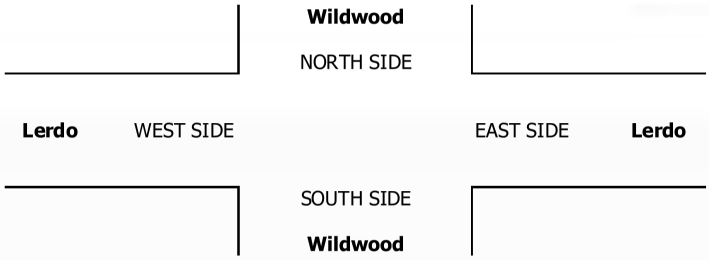
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Wildwood) | | | SOUTHBOUND (Wildwood) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / 0 | | 0 | / 0 | | 3 | / 3 | | 4 | / 4 | | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.500 | | 0.750 | | | | | |
| | APP/DEPART | 0 | / 0 | | 0 | / 0 | | 1 | / 1 | | 2 | / 2 | | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / 0 | | 0 | / 0 | | 4 | / 4 | | 0 | / 0 | | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.333 | | | 0.000 | | 0.333 | | | | | |
| | APP/DEPART | 0 | / 0 | | 0 | / 0 | | 4 | / 4 | | 0 | / 0 | | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

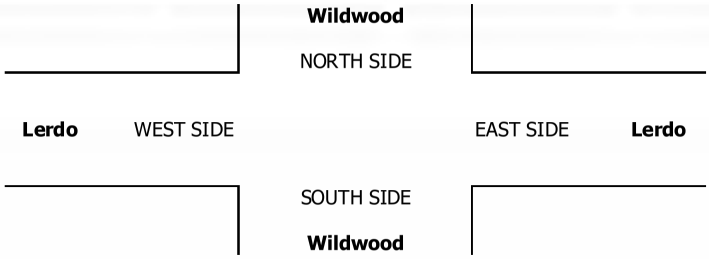
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Wildwood | | | SOUTHBOUND Wildwood | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 8 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 2 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 31 | 0 | 0 | 27 | 2 | 62 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 93% | 7% | | | | | | |
| | APP/DEPART | 0 | / | 2 | 2 | / | 0 | 31 | / | 33 | 29 | / | 27 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 18 | 2 | 37 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 90% | 10% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.708 | | | 0.625 | | 0.771 | | | | | |
| | APP/DEPART | 0 | / | 2 | 0 | / | 0 | 17 | / | 17 | 20 | / | 18 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 6 | 0 | 0 | 3 | 4 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 4 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 2 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 9 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 18 | 0 | 0 | 10 | 21 | 70 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 32% | 68% | | | | | | |
| | APP/DEPART | 0 | / | 21 | 21 | / | 0 | 18 | / | 39 | 31 | / | 10 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 5 | 11 | 38 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 31% | 69% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.688 | | | 0.458 | | | 0.571 | | 0.594 | | | | | |
| | APP/DEPART | 0 | / | 11 | 11 | / | 0 | 11 | / | 22 | 16 | / | 5 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Wildwood) | | | SOUTHBOUND (Wildwood) | | | EASTBOUND (Lerdo) | | | WESTBOUND (Lerdo) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>X | NR<br>X | SL<br>0 | ST<br>X | SR<br>0 | EL<br>0 | ET<br>1 | ER<br>X | WL<br>X | WT<br>1 | WR<br>0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Wildwood**

NORTH SIDE

**Lerdo** WEST SIDE EAST SIDE **Lerdo**

SOUTH SIDE

**Wildwood**

# INTERSECTION TURNING MOVEMENT COUNTS

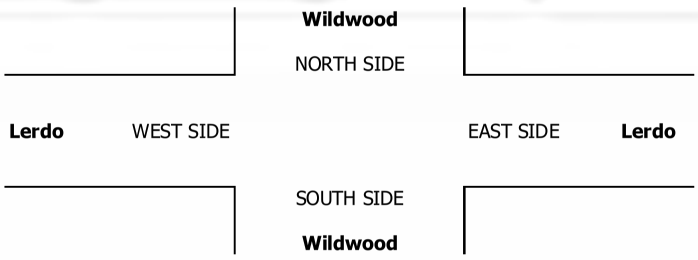
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wildwood | LOCATION #: | 5 |
| THURSDAY | EAST & WEST: | Lerdo | CONTROL: | STOP S |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wildwood | | | SOUTHBOUND Wildwood | | | EASTBOUND Lerdo | | | WESTBOUND Lerdo | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Buttonwillow
EAST & WEST: I-5 NB On-Ramp

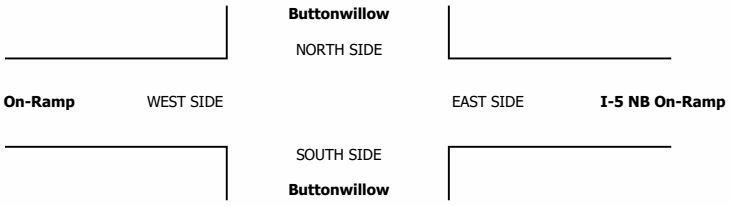
PROJECT #: SC4130
LOCATION #: 6
CONTROL: NO CONTROL

NOTES:

AM / PM / MD / OTHER / OTHER

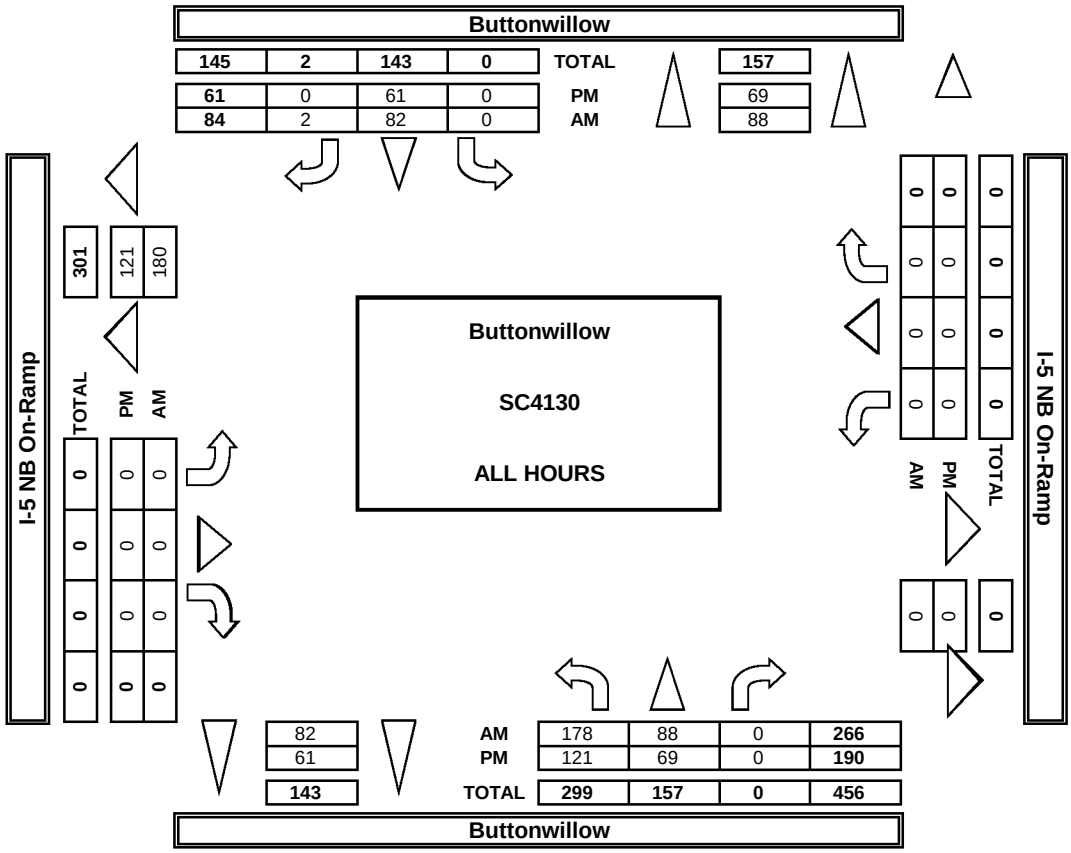
N ▲ | W ◄ | E ► | S ▼

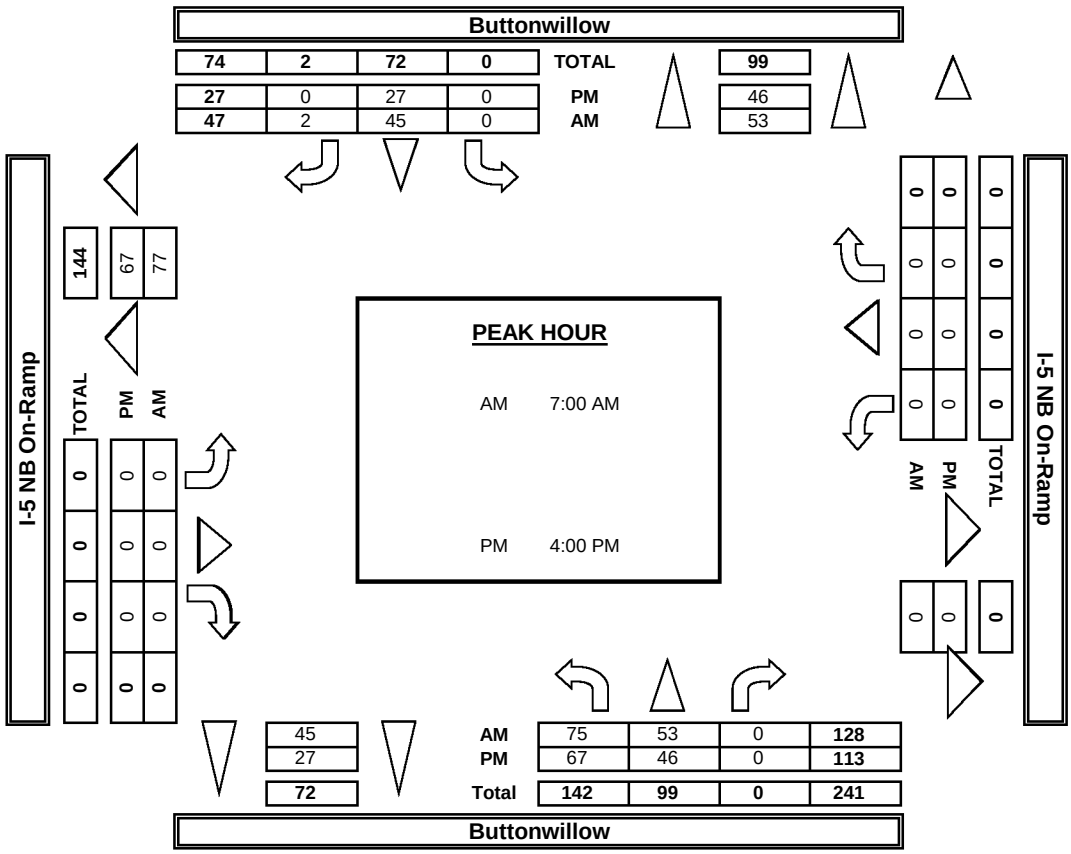
| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 20 | 10 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 27 | 7 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 31 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 25 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 13 | 16 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 20 | 12 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 23 | 11 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 19 | 14 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 178 | 88 | 0 | 0 | 82 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 350 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 67% | 33% | 0% | 0% | 98% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 266 | / | 88 | 84 | / | 82 | 0 | / | 0 | 0 | / | 180 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 75 | 53 | 0 | 0 | 45 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 175 | | | | | |
| | APPROACH % | 59% | 41% | 0% | 0% | 96% | 4% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.821 | | | 0.783 | | | 0.000 | | | 0.000 | | 0.893 | | | | | |
| | APP/DEPART | 128 | / | 53 | 47 | / | 45 | 0 | / | 0 | 0 | / | 77 | 0 | | | | | |
| PM | 4:00 PM | 18 | 9 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 10 | 14 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 18 | 10 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 21 | 13 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 11 | 1 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 14 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 13 | 9 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 16 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 121 | 69 | 0 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 64% | 36% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 190 | / | 69 | 61 | / | 61 | 0 | / | 0 | 0 | / | 121 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 67 | 46 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | | | | | |
| | APPROACH % | 59% | 41% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.831 | | | 0.844 | | | 0.000 | | | 0.000 | | 0.897 | | | | | |
| | APP/DEPART | 113 | / | 46 | 27 | / | 27 | 0 | / | 0 | 0 | / | 67 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM / PM / MD / OTHER / OTHER | ▲ N / ◄ W / E ► / S ▼ | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | | | |

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 34 | 18 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | | | | | 0 |
| | 7:15 AM | 51 | 7 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | | | | | 0 |
| | 7:30 AM | 48 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | | | | | 0 |
| | 7:45 AM | 37 | 11 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | | | | | 0 |
| | 8:00 AM | 21 | 21 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | | | | | 0 |
| | 8:15 AM | 34 | 26 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | | | | | 0 |
| | 8:30 AM | 36 | 15 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | | | | | 0 |
| | 8:45 AM | 31 | 21 | 0 | 0 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | | | | | 0 |
| | VOLUMES | 290 | 129 | 0 | 0 | 123 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 546 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 69% | 31% | 0% | 0% | 97% | 3% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 419 | / | 129 | 127 | / | 123 | 0 | / | 0 | 0 | / | 294 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 169 | 47 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 269 | | | | | |
| | APPROACH % | 78% | 22% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.929 | | | 0.828 | | | 0.000 | | | 0.000 | | 0.932 | | | | | |
| | APP/DEPART | 216 | / | 47 | 53 | / | 53 | 0 | / | 0 | 0 | / | 169 | 0 | | | | | |
| PM | 4:00 PM | 36 | 10 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | | | | | 0 |
| | 4:15 PM | 15 | 20 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | | | | | 0 |
| | 4:30 PM | 31 | 13 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | | | | | 0 |
| | 4:45 PM | 37 | 15 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | | | | | 0 |
| | 5:00 PM | 18 | 1 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | | | | | 0 |
| | 5:15 PM | 28 | 10 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | | | | | 0 |
| | 5:30 PM | 22 | 11 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | | | | | 0 |
| | 5:45 PM | 22 | 9 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | | | | | 0 |
| | VOLUMES | 207 | 88 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 369 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 70% | 30% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 295 | / | 88 | 74 | / | 74 | 0 | / | 0 | 0 | / | 207 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 118 | 57 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 207 | | | | | |
| | APPROACH % | 67% | 33% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.850 | | | 0.788 | | | 0.000 | | | 0.000 | | 0.914 | | | | | |
| | APP/DEPART | 175 | / | 57 | 32 | / | 32 | 0 | / | 0 | 0 | / | 118 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**I-5 NB On-Ramp** WEST SIDE EAST SIDE **I-5 NB On-Ramp**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| THURSDAY | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
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OTHER

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| | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM 7:00 AM | 9 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 12 | 7 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 22 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 16 | 8 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 9 | 12 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 12 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 13 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 11 | 10 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 104 | 60 | 0 | 0 | 57 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 222 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 63% | 37% | 0% | 0% | 98% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| APP/DEPART | 164 | / | 60 | 58 | / | 57 | 0 | / | 0 | 0 | / | 105 | 0 | | | | | |
| BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 59 | 27 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | | | | | |
| APPROACH % | 69% | 31% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.768 | | | 0.778 | | | 0.000 | | | 0.000 | | 0.838 | | | | | |
| APP/DEPART | 86 | / | 27 | 28 | / | 28 | 0 | / | 0 | 0 | / | 59 | 0 | | | | | |
| PM 4:00 PM | 9 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 6 | 11 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 11 | 8 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 12 | 12 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 7 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 7 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 8 | 8 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 13 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 73 | 58 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 56% | 44% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| APP/DEPART | 131 | / | 58 | 54 | / | 54 | 0 | / | 0 | 0 | / | 73 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 38 | 39 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | | | | | |
| APPROACH % | 49% | 51% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.802 | | | 0.750 | | | 0.000 | | | 0.000 | | 0.871 | | | | | |
| APP/DEPART | 77 | / | 39 | 24 | / | 24 | 0 | / | 0 | 0 | / | 38 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**I-5 NB On-Ramp** WEST SIDE EAST SIDE **I-5 NB On-Ramp**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| THURSDAY | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

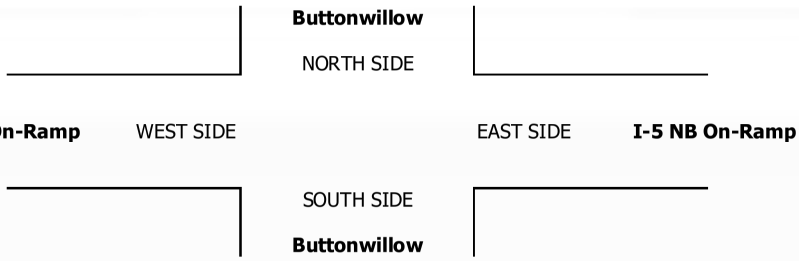
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
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OTHER

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| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 22 | 10 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 69% | 31% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 32 | / | 10 | 4 | / | 4 | 0 | / | 0 | 0 | / | 22 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | | | | | |
| | APPROACH % | 82% | 18% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.708 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.708 | | | | | |
| | APP/DEPART | 17 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 | / | 14 | 0 | | | | | |
| PM | 4:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 6 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 75% | 25% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 8 | / | 2 | 1 | / | 1 | 0 | / | 0 | 0 | / | 6 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 4 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | | | | | |
| | APPROACH % | 67% | 33% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.583 | | | | | |
| | APP/DEPART | 6 | / | 2 | 1 | / | 1 | 0 | / | 0 | 0 | / | 4 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| THURSDAY | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

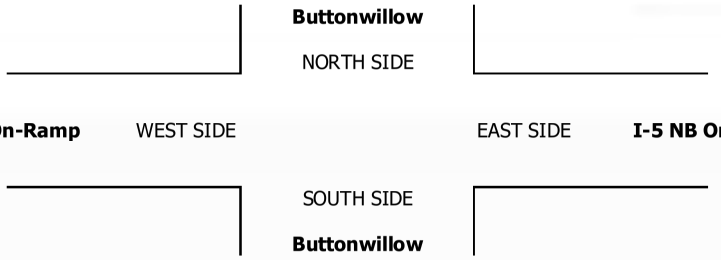
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM
PM
MD
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OTHER

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| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 3 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | / | 3 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | |
| | APPROACH % | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.500 | | | 0.000 | | | 0.000 | | 0.750 | | | | | |
| | APP/DEPART | 1 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | / | 1 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 1 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 1 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

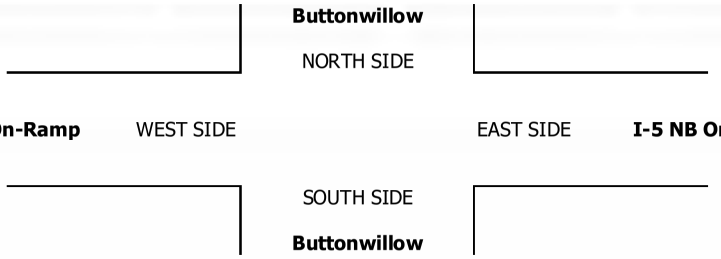
| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 | |
| | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL | |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 5 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 8 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 4 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 6 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 5 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 5 | 3 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 49 | 18 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 73% | 27% | 0% | 0% | 95% | 5% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 67 | / | 18 | 19 | / | 18 | 0 | / | 0 | 0 | / | 50 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 29 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | | | | | |
| | APPROACH % | 85% | 15% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.773 | | | 0.583 | | | 0.000 | | | 0.000 | | 0.854 | | | | | |
| | APP/DEPART | 34 | / | 5 | 7 | / | 7 | 0 | / | 0 | 0 | / | 29 | 0 | | | | | |
| PM | 4:00 PM | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 6 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 41 | 9 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 82% | 18% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 50 | / | 9 | 6 | / | 6 | 0 | / | 0 | 0 | / | 41 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 24 | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | | | | | |
| | APPROACH % | 83% | 17% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.806 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.861 | | | | | |
| | APP/DEPART | 29 | / | 5 | 2 | / | 2 | 0 | / | 0 | 0 | / | 24 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

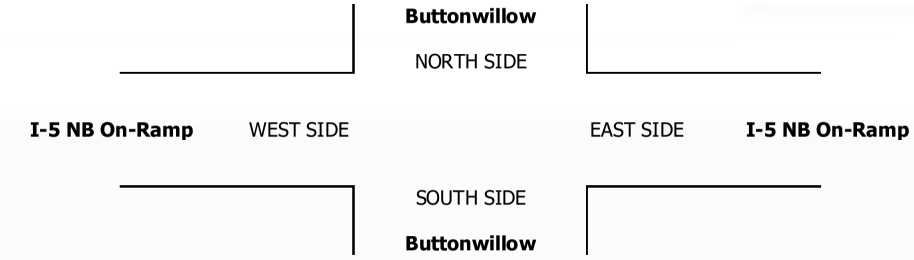
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| THURSDAY | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

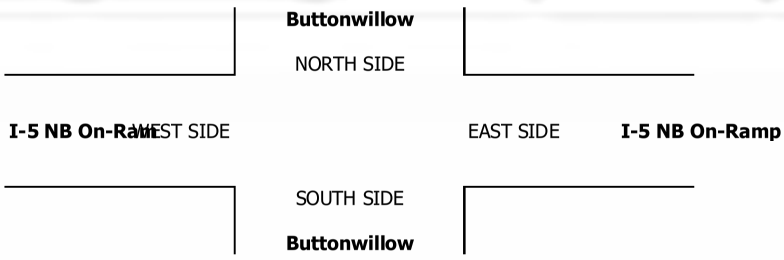
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 6 |
| THURSDAY | EAST & WEST: | I-5 NB On-Ramp | CONTROL: | NO CONTROL |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 NB On-Ramp | | | WESTBOUND I-5 NB On-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 0 | EL X | ET X | ER X | WL X | WT X | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Buttonwillow
EAST & WEST: I-5 SB Off-Ramp

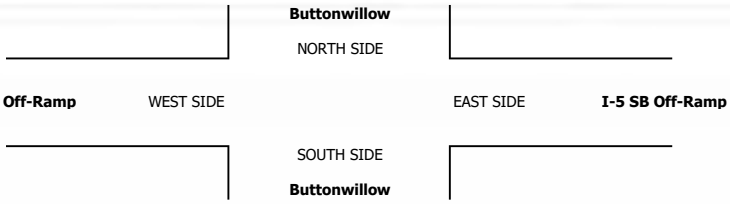
PROJECT #: SC4130
LOCATION #: 7
CONTROL: STOP W

NOTES:

AM
PM
MD
OTHER
OTHER

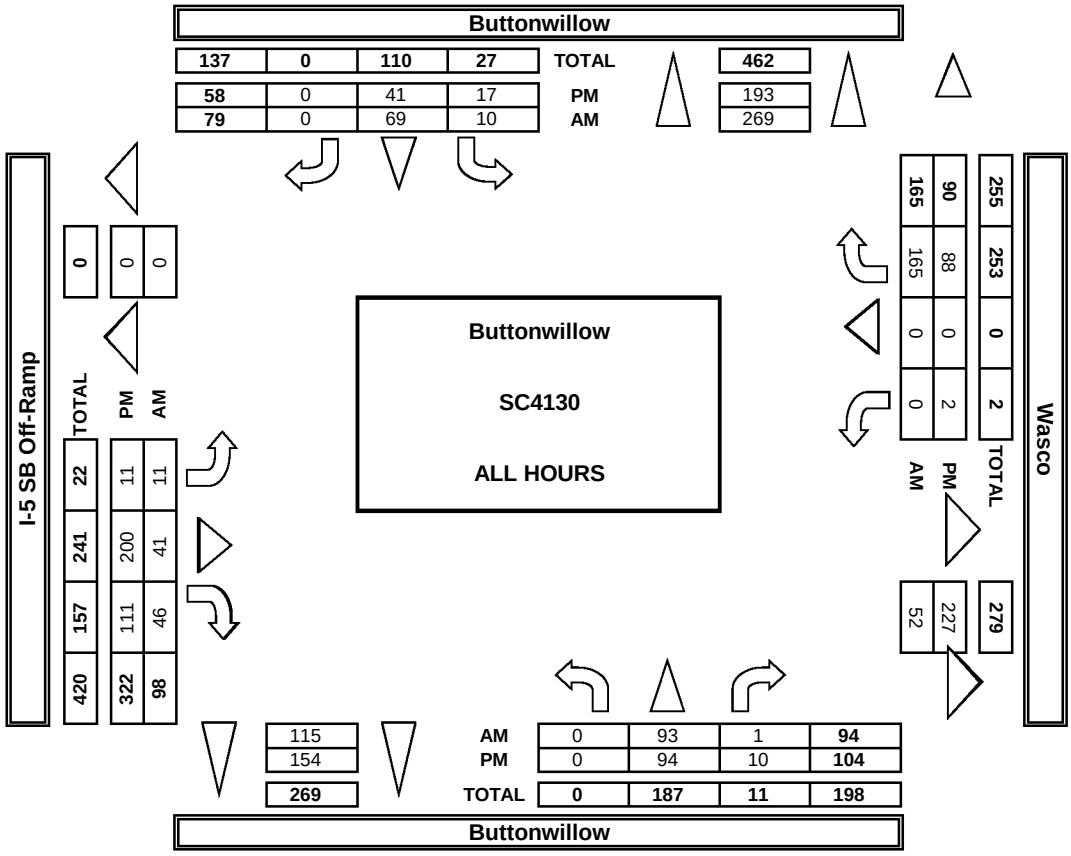
N
W
E
S

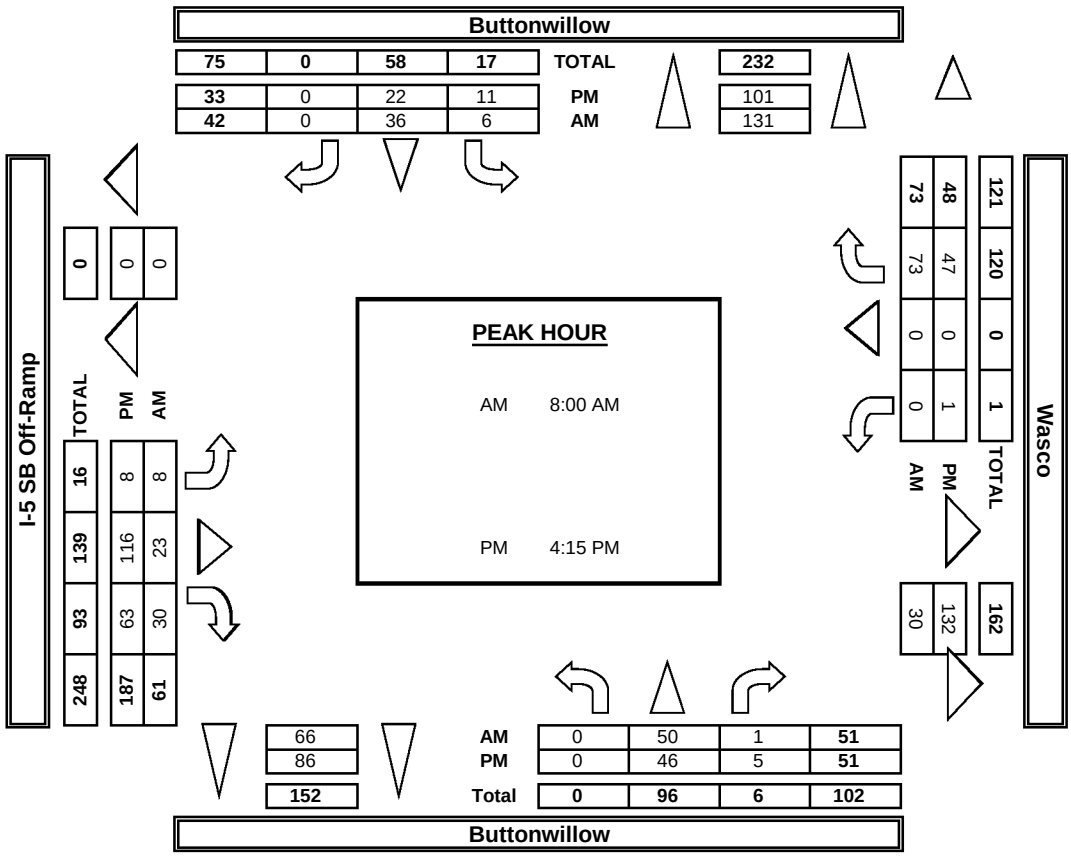
| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND Wasco | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 11 | 0 | 0 | 8 | 0 | 1 | 8 | 6 | 0 | 0 | 18 | 52 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 11 | 0 | 1 | 10 | 0 | 0 | 3 | 2 | 0 | 0 | 23 | 50 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 12 | 0 | 1 | 7 | 0 | 0 | 4 | 3 | 0 | 0 | 27 | 54 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 9 | 0 | 2 | 8 | 0 | 2 | 3 | 5 | 0 | 0 | 24 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 11 | 0 | 2 | 5 | 0 | 3 | 7 | 8 | 0 | 0 | 15 | 51 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 12 | 0 | 0 | 8 | 0 | 1 | 6 | 8 | 0 | 0 | 19 | 54 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 14 | 1 | 3 | 12 | 0 | 3 | 6 | 7 | 0 | 0 | 20 | 66 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 13 | 0 | 1 | 11 | 0 | 1 | 4 | 7 | 0 | 0 | 19 | 56 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 93 | 1 | 10 | 69 | 0 | 11 | 41 | 46 | 0 | 0 | 165 | 436 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 99% | 1% | 13% | 87% | 0% | 11% | 42% | 47% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 94 | / | 269 | 79 | / | 115 | 98 | / | 52 | 165 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 50 | 1 | 6 | 36 | 0 | 8 | 23 | 30 | 0 | 0 | 73 | 227 | | | | | |
| | APPROACH % | 0% | 98% | 2% | 14% | 86% | 0% | 13% | 38% | 49% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.850 | | | 0.700 | | | 0.847 | | | 0.913 | | 0.860 | | | | | |
| | APP/DEPART | 51 | / | 131 | 42 | / | 66 | 61 | / | 30 | 73 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 12 | 0 | 2 | 6 | 0 | 1 | 18 | 11 | 0 | 0 | 14 | 64 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 17 | 1 | 2 | 6 | 0 | 1 | 25 | 14 | 0 | 0 | 9 | 75 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 10 | 0 | 2 | 4 | 0 | 4 | 30 | 12 | 0 | 0 | 14 | 76 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 18 | 0 | 1 | 4 | 0 | 2 | 29 | 21 | 0 | 0 | 15 | 90 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 1 | 4 | 6 | 8 | 0 | 1 | 32 | 16 | 1 | 0 | 9 | 78 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 12 | 1 | 1 | 4 | 0 | 0 | 19 | 17 | 1 | 0 | 10 | 65 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 13 | 2 | 2 | 5 | 0 | 1 | 25 | 9 | 0 | 0 | 8 | 65 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 11 | 2 | 1 | 4 | 0 | 1 | 22 | 11 | 0 | 0 | 9 | 61 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 94 | 10 | 17 | 41 | 0 | 11 | 200 | 111 | 2 | 0 | 88 | 574 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 90% | 10% | 29% | 71% | 0% | 3% | 62% | 34% | 2% | 0% | 98% | | | | | | |
| | APP/DEPART | 104 | / | 193 | 58 | / | 154 | 322 | / | 227 | 90 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 46 | 5 | 11 | 22 | 0 | 8 | 116 | 63 | 1 | 0 | 47 | 319 | | | | | |
| | APPROACH % | 0% | 90% | 10% | 33% | 67% | 0% | 4% | 62% | 34% | 2% | 0% | 98% | | | | | | |
| | PEAK HR FACTOR | | 0.708 | | | 0.589 | | | 0.899 | | | 0.800 | | 0.886 | | | | | |
| | APP/DEPART | 51 | / | 101 | 33 | / | 86 | 187 | / | 132 | 48 | / | 0 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 |
| | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM / PM / MD / OTHER / OTHER | ▲ N / ◄ W / E ► / S ▼ | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | | | |

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 19 | 0 | 0 | 12 | 0 | 1 | 13 | 10 | 0 | 0 | 32 | 86 | | | | | 0 |
| | 7:15 AM | 0 | 21 | 0 | 3 | 11 | 0 | 0 | 4 | 3 | 0 | 0 | 36 | 77 | | | | | 0 |
| | 7:30 AM | 0 | 21 | 0 | 1 | 10 | 0 | 0 | 6 | 8 | 0 | 0 | 39 | 84 | | | | | 0 |
| | 7:45 AM | 0 | 13 | 0 | 4 | 12 | 0 | 2 | 4 | 11 | 0 | 0 | 33 | 79 | | | | | 0 |
| | 8:00 AM | 0 | 16 | 0 | 2 | 14 | 0 | 5 | 10 | 18 | 0 | 0 | 22 | 86 | | | | | 0 |
| | 8:15 AM | 0 | 21 | 0 | 0 | 11 | 0 | 3 | 11 | 17 | 0 | 0 | 37 | 99 | | | | | 0 |
| | 8:30 AM | 0 | 20 | 1 | 5 | 19 | 0 | 3 | 10 | 15 | 0 | 0 | 31 | 103 | | | | | 0 |
| | 8:45 AM | 0 | 21 | 0 | 3 | 15 | 0 | 1 | 9 | 17 | 0 | 0 | 29 | 94 | | | | | 0 |
| | VOLUMES | 0 | 150 | 1 | 18 | 102 | 0 | 15 | 66 | 99 | 0 | 0 | 257 | 707 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 99% | 1% | 15% | 85% | 0% | 8% | 37% | 55% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 151 | / | 422 | 120 | / | 201 | 179 | / | 85 | 257 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 77 | 1 | 10 | 57 | 0 | 12 | 40 | 67 | 0 | 0 | 118 | 381 | | | | | |
| | APPROACH % | 0% | 99% | 1% | 15% | 85% | 0% | 10% | 33% | 57% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.923 | | | 0.713 | | | 0.898 | | | 0.797 | | 0.925 | | | | | |
| | APP/DEPART | 78 | / | 207 | 67 | / | 124 | 119 | / | 51 | 118 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 19 | 0 | 2 | 6 | 0 | 1 | 27 | 14 | 0 | 0 | 26 | 94 | | | | | 0 |
| | 4:15 PM | 0 | 25 | 1 | 2 | 7 | 0 | 1 | 36 | 29 | 0 | 0 | 14 | 113 | | | | | 0 |
| | 4:30 PM | 0 | 17 | 0 | 4 | 6 | 0 | 6 | 37 | 19 | 0 | 0 | 19 | 107 | | | | | 0 |
| | 4:45 PM | 0 | 27 | 0 | 1 | 4 | 0 | 3 | 39 | 42 | 0 | 0 | 24 | 138 | | | | | 0 |
| | 5:00 PM | 0 | 3 | 6 | 10 | 12 | 0 | 3 | 43 | 32 | 1 | 0 | 13 | 123 | | | | | 0 |
| | 5:15 PM | 0 | 18 | 1 | 1 | 4 | 0 | 0 | 26 | 32 | 3 | 0 | 20 | 105 | | | | | 0 |
| | 5:30 PM | 0 | 13 | 2 | 2 | 5 | 0 | 3 | 32 | 11 | 0 | 0 | 16 | 84 | | | | | 0 |
| | 5:45 PM | 0 | 11 | 2 | 1 | 4 | 0 | 3 | 29 | 15 | 0 | 0 | 17 | 82 | | | | | 0 |
| | VOLUMES | 0 | 131 | 12 | 23 | 48 | 0 | 20 | 268 | 192 | 4 | 0 | 148 | 845 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 92% | 8% | 33% | 67% | 0% | 4% | 56% | 40% | 3% | 0% | 97% | | | | | | |
| | APP/DEPART | 143 | / | 298 | 71 | / | 244 | 480 | / | 303 | 152 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 71 | 7 | 17 | 29 | 0 | 13 | 155 | 121 | 1 | 0 | 69 | 481 | | | | | |
| | APPROACH % | 0% | 91% | 9% | 37% | 63% | 0% | 4% | 54% | 42% | 1% | 0% | 99% | | | | | | |
| | PEAK HR FACTOR | | 0.731 | | | 0.517 | | | 0.873 | | | 0.739 | | 0.874 | | | | | |
| | APP/DEPART | 78 | / | 152 | 46 | / | 151 | 288 | / | 179 | 70 | / | 0 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**I-5 SB Off-Ramp** WEST SIDE EAST SIDE **I-5 SB Off-Ramp**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 |
| THURSDAY | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

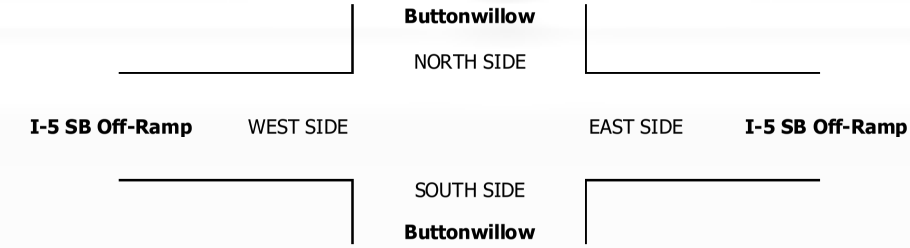
▲ N
◄ W E ►
S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 5 | 0 | 0 | 6 | 0 | 1 | 5 | 4 | 0 | 0 | 9 | 30 |
| | 7:15 AM | 0 | 6 | 0 | 0 | 9 | 0 | 0 | 2 | 1 | 0 | 0 | 15 | 33 |
| | 7:30 AM | 0 | 7 | 0 | 1 | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 19 | 35 |
| | 7:45 AM | 0 | 7 | 0 | 1 | 6 | 0 | 2 | 1 | 2 | 0 | 0 | 15 | 34 |
| | 8:00 AM | 0 | 8 | 0 | 2 | 0 | 0 | 2 | 5 | 3 | 0 | 0 | 11 | 31 |
| | 8:15 AM | 0 | 5 | 0 | 0 | 6 | 0 | 0 | 2 | 3 | 0 | 0 | 8 | 24 |
| | 8:30 AM | 0 | 8 | 1 | 2 | 8 | 0 | 3 | 4 | 3 | 0 | 0 | 14 | 43 |
| | 8:45 AM | 0 | 7 | 0 | 0 | 8 | 0 | 1 | 1 | 2 | 0 | 0 | 14 | 33 |
| | VOLUMES | 0 | 53 | 1 | 6 | 48 | 0 | 9 | 23 | 18 | 0 | 0 | 105 | 263 |
| | APPROACH % | 0% | 98% | 2% | 11% | 89% | 0% | 18% | 46% | 36% | 0% | 0% | 100% | |
| | APP/DEPART | 54 | / | 167 | 54 | / | 66 | 50 | / | 30 | 105 | / | 0 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 28 | 1 | 4 | 22 | 0 | 6 | 12 | 11 | 0 | 0 | 47 | 131 |
| | APPROACH % | 0% | 97% | 3% | 15% | 85% | 0% | 21% | 41% | 38% | 0% | 0% | 100% | |
| | PEAK HR FACTOR | | 0.806 | | | 0.650 | | | 0.725 | | | 0.839 | | 0.762 |
| | APP/DEPART | 29 | / | 81 | 26 | / | 33 | 29 | / | 17 | 47 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 8 | 0 | 2 | 6 | 0 | 1 | 10 | 9 | 0 | 0 | 8 | 44 |
| | 4:15 PM | 0 | 12 | 1 | 2 | 5 | 0 | 1 | 18 | 6 | 0 | 0 | 6 | 51 |
| | 4:30 PM | 0 | 6 | 0 | 1 | 3 | 0 | 3 | 23 | 7 | 0 | 0 | 11 | 54 |
| | 4:45 PM | 0 | 13 | 0 | 1 | 4 | 0 | 1 | 22 | 10 | 0 | 0 | 10 | 61 |
| | 5:00 PM | 0 | 0 | 3 | 4 | 6 | 0 | 0 | 20 | 8 | 1 | 0 | 7 | 49 |
| | 5:15 PM | 0 | 9 | 1 | 1 | 4 | 0 | 0 | 14 | 9 | 0 | 0 | 5 | 43 |
| | 5:30 PM | 0 | 13 | 2 | 2 | 5 | 0 | 0 | 20 | 8 | 0 | 0 | 4 | 54 |
| | 5:45 PM | 0 | 11 | 2 | 1 | 4 | 0 | 0 | 17 | 9 | 0 | 0 | 5 | 49 |
| | VOLUMES | 0 | 72 | 9 | 14 | 37 | 0 | 6 | 144 | 66 | 1 | 0 | 56 | 405 |
| | APPROACH % | 0% | 89% | 11% | 27% | 73% | 0% | 3% | 67% | 31% | 2% | 0% | 98% | |
| | APP/DEPART | 81 | / | 134 | 51 | / | 104 | 216 | / | 167 | 57 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 31 | 4 | 8 | 18 | 0 | 5 | 83 | 31 | 1 | 0 | 34 | 215 |
| | APPROACH % | 0% | 89% | 11% | 31% | 69% | 0% | 4% | 70% | 26% | 3% | 0% | 97% | |
| | PEAK HR FACTOR | | 0.673 | | | 0.650 | | | 0.902 | | | 0.795 | | 0.881 |
| | APP/DEPART | 35 | / | 70 | 26 | / | 50 | 119 | / | 95 | 35 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

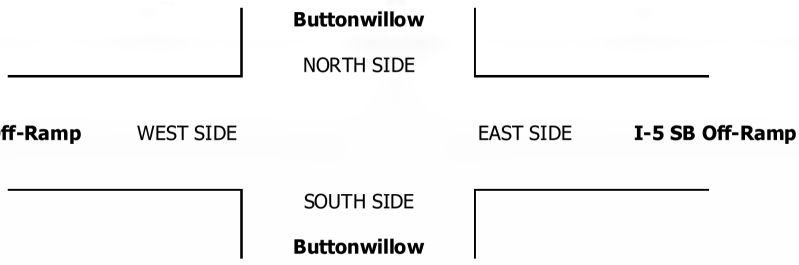
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 |
| THURSDAY | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Buttonwillow) | | | SOUTHBOUND (Buttonwillow) | | | EASTBOUND (I-5 SB Off-Ramp) | | | WESTBOUND (I-5 SB Off-Ramp) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>1 | NR<br>0 | SL<br>0 | ST<br>1 | SR<br>X | EL<br>0 | ET<br>1 | ER<br>0 | WL<br>0 | WT<br>X | WR<br>0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 14 | 0 | 0 | 4 | 0 | 0 | 7 | 1 | 0 | 0 | 18 | 44 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 88% | 13% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 14 | / | 32 | 4 | / | 5 | 8 | / | 7 | 18 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 11 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 22 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.688 | | | 1.000 | | | 0.375 | | | 0.500 | | 0.688 | | | | | |
| | APP/DEPART | 11 | / | 15 | 4 | / | 4 | 3 | / | 3 | 4 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 28 | 6 | 0 | 0 | 3 | 43 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 3% | 80% | 17% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 4 | / | 8 | 1 | / | 7 | 35 | / | 28 | 3 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 17 | 4 | 0 | 0 | 3 | 29 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 5% | 77% | 18% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.250 | | | 0.688 | | | 0.750 | | 0.906 | | | | | |
| | APP/DEPART | 3 | / | 7 | 1 | / | 5 | 22 | / | 17 | 3 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

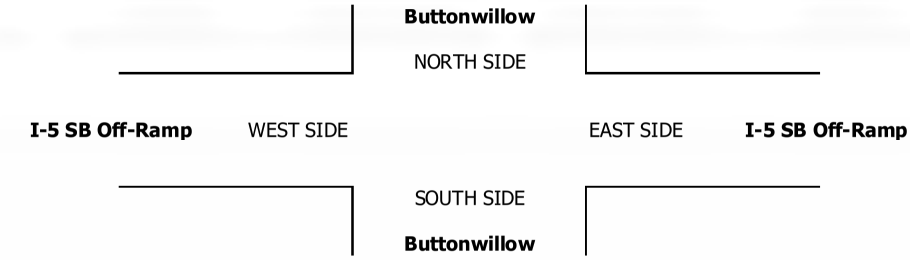
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 |
| THURSDAY | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 33% | 67% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 2 | / | 3 | 2 | / | 4 | 3 | / | 1 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 50% | 50% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.500 | | | 0.250 | | 0.333 | | | | | |
| | APP/DEPART | 1 | / | 2 | 0 | / | 1 | 2 | / | 1 | 1 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 1 | / | 1 | 0 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.500 | | | 0.000 | | 0.750 | | | | | |
| | APP/DEPART | 1 | / | 1 | 0 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

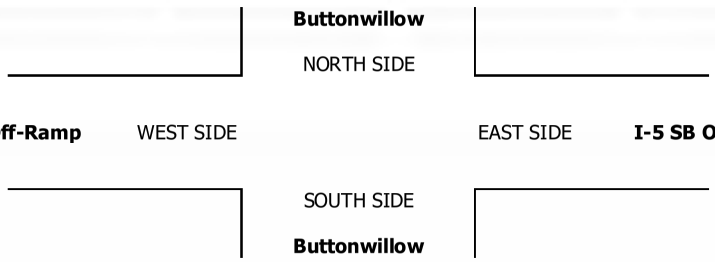
| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 | |
| | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W | |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 6 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 5 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 2 | 0 | 0 | 4 | 0 | 1 | 1 | 5 | 0 | 0 | 3 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 2 | 4 | 0 | 0 | 8 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 2 | 0 | 1 | 3 | 0 | 0 | 2 | 4 | 0 | 0 | 5 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 2 | 5 | 0 | 0 | 5 | 17 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 24 | 0 | 4 | 14 | 0 | 2 | 10 | 25 | 0 | 0 | 41 | 120 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 22% | 78% | 0% | 5% | 27% | 68% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 24 | / | 67 | 18 | / | 39 | 37 | / | 14 | 41 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 10 | 0 | 2 | 9 | 0 | 2 | 7 | 18 | 0 | 0 | 21 | 69 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 18% | 82% | 0% | 7% | 26% | 67% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.833 | | | 0.688 | | | 0.964 | | | 0.656 | | 0.908 | | | | | |
| | APP/DEPART | 10 | / | 33 | 11 | / | 27 | 27 | / | 9 | 21 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 6 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 7 | 0 | 0 | 2 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 3 | 0 | 1 | 1 | 0 | 1 | 2 | 3 | 0 | 0 | 2 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 4 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 3 | 8 | 0 | 0 | 2 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 1 | 0 | 5 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 4 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 4 | 10 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 17 | 1 | 3 | 3 | 0 | 4 | 26 | 39 | 1 | 0 | 29 | 123 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 94% | 6% | 50% | 50% | 0% | 6% | 38% | 57% | 3% | 0% | 97% | | | | | | |
| | APP/DEPART | 18 | / | 50 | 6 | / | 43 | 69 | / | 30 | 30 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 11 | 1 | 3 | 3 | 0 | 2 | 14 | 28 | 0 | 0 | 10 | 72 | | | | | |
| | APPROACH % | 0% | 92% | 8% | 50% | 50% | 0% | 5% | 32% | 64% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.375 | | | 0.786 | | | 0.625 | | 0.818 | | | | | |
| | APP/DEPART | 12 | / | 23 | 6 | / | 31 | 44 | / | 18 | 10 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 |
| THURSDAY | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W |

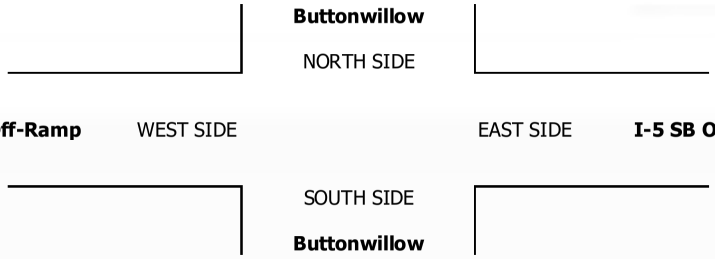
**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



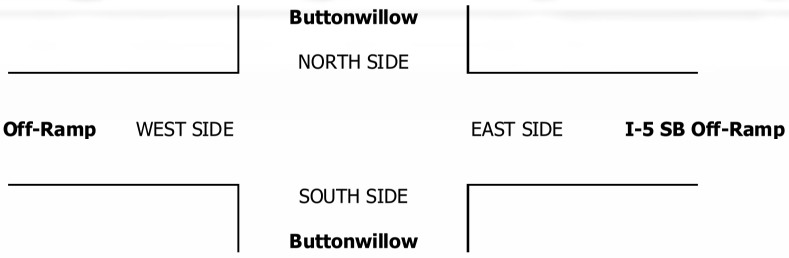
# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 7 | |
| | EAST & WEST: | I-5 SB Off-Ramp | CONTROL: | STOP W | |

| CLASS 6: | NOTES: | AM | ▲ N | |
|---|---|---|---|---|
| BUSES | | PM | | |
| | | MD | ◄ W | E ► |
| | | OTHER | | |
| | | OTHER | S ▼ | |

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND I-5 SB Off-Ramp | | | WESTBOUND I-5 SB Off-Ramp | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT 1 | NR 0 | SL 0 | ST 1 | SR X | EL 0 | ET 1 | ER 0 | WL 0 | WT X | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Buttonwillow
EAST & WEST: 7th Standard

PROJECT #: SC4130
LOCATION #: 8
CONTROL: STOP ALL

NOTES:

AM PM MD OTHER OTHER

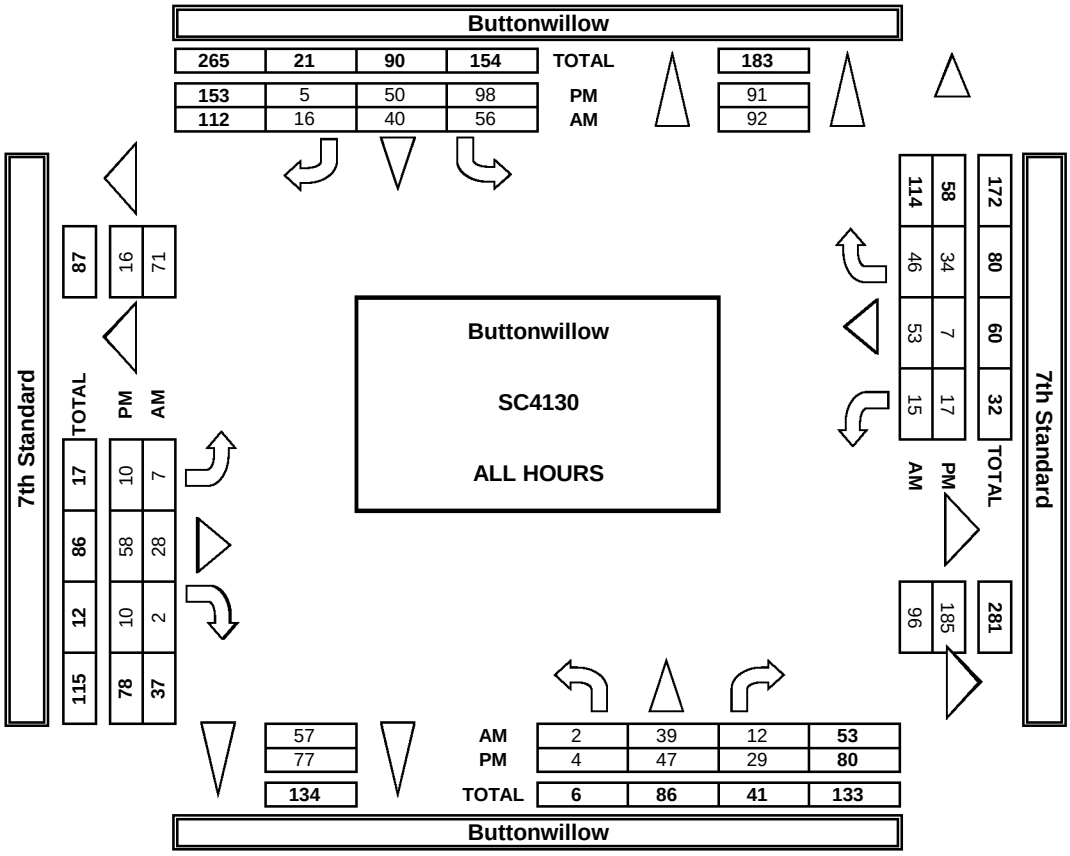
▲ N
◄ W E ►
S ▼

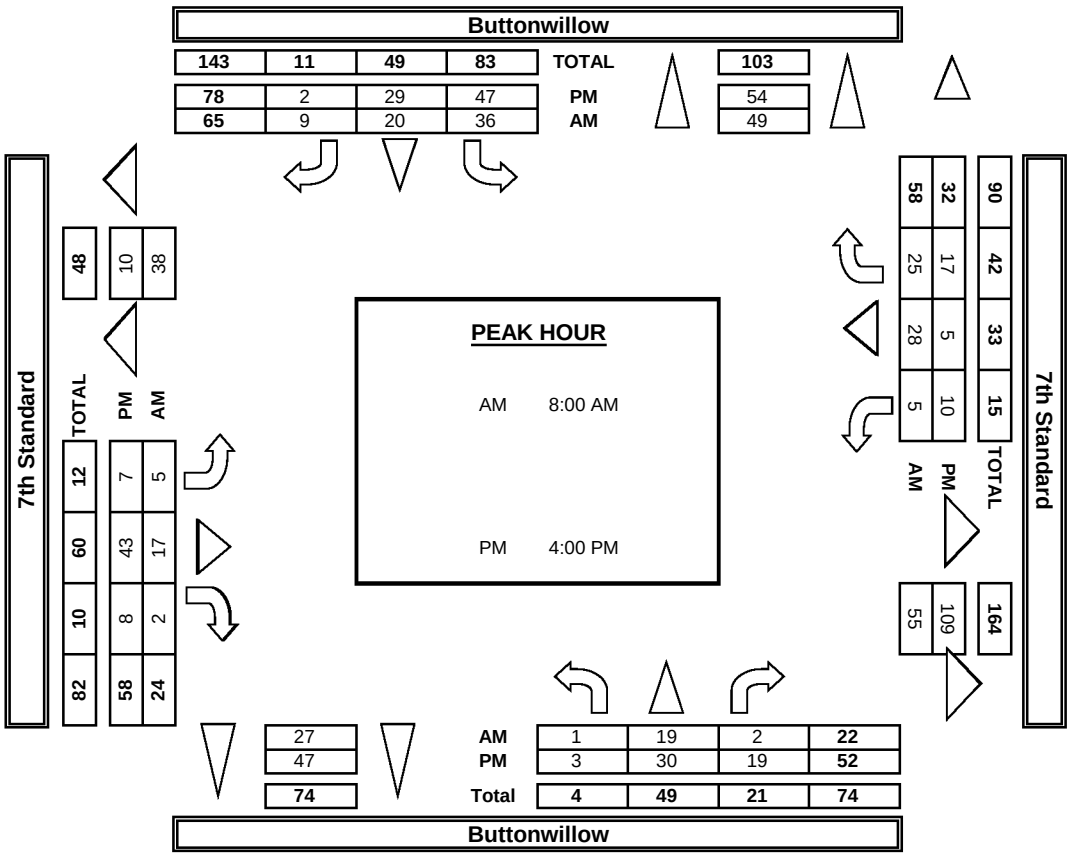
| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 8 | 2 | 5 | 5 | 2 | 0 | 2 | 0 | 4 | 6 | 6 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 3 | 1 | 3 | 10 | 1 | 0 | 2 | 0 | 2 | 9 | 5 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 3 | 4 | 4 | 3 | 2 | 1 | 6 | 0 | 1 | 5 | 8 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 6 | 3 | 8 | 2 | 2 | 1 | 1 | 0 | 3 | 5 | 2 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 5 | 0 | 8 | 1 | 2 | 2 | 2 | 1 | 0 | 6 | 3 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 3 | 1 | 11 | 7 | 1 | 2 | 5 | 1 | 0 | 6 | 6 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 5 | 1 | 8 | 7 | 4 | 1 | 3 | 0 | 2 | 6 | 9 | 46 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 6 | 0 | 9 | 5 | 2 | 0 | 7 | 0 | 3 | 10 | 7 | 50 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 39 | 12 | 56 | 40 | 16 | 7 | 28 | 2 | 15 | 53 | 46 | 316 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 4% | 74% | 23% | 50% | 36% | 14% | 19% | 76% | 5% | 13% | 46% | 40% | | | | | | |
| | APP/DEPART | 53 | / | 92 | 112 | / | 57 | 37 | / | 96 | 114 | / | 71 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 19 | 2 | 36 | 20 | 9 | 5 | 17 | 2 | 5 | 28 | 25 | 169 | | | | | |
| | APPROACH % | 5% | 86% | 9% | 55% | 31% | 14% | 21% | 71% | 8% | 9% | 48% | 43% | | | | | | |
| | PEAK HR FACTOR | | 0.786 | | | 0.855 | | | 0.750 | | | 0.725 | | 0.845 | | | | | |
| | APP/DEPART | 22 | / | 49 | 65 | / | 27 | 24 | / | 55 | 58 | / | 38 | 0 | | | | | |
| PM | 4:00 PM | 1 | 7 | 6 | 8 | 9 | 1 | 3 | 10 | 3 | 5 | 0 | 3 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 7 | 4 | 12 | 7 | 0 | 2 | 12 | 1 | 2 | 2 | 4 | 55 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 6 | 6 | 10 | 4 | 1 | 1 | 15 | 1 | 2 | 0 | 7 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 10 | 3 | 17 | 9 | 0 | 1 | 6 | 3 | 1 | 3 | 3 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 5 | 15 | 6 | 1 | 0 | 7 | 0 | 1 | 1 | 2 | 39 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 8 | 2 | 14 | 5 | 0 | 2 | 4 | 1 | 3 | 1 | 5 | 45 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 5 | 2 | 11 | 4 | 2 | 1 | 1 | 0 | 2 | 0 | 3 | 31 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 4 | 1 | 11 | 6 | 0 | 0 | 3 | 1 | 1 | 0 | 7 | 34 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 4 | 47 | 29 | 98 | 50 | 5 | 10 | 58 | 10 | 17 | 7 | 34 | 369 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 5% | 59% | 36% | 64% | 33% | 3% | 13% | 74% | 13% | 29% | 12% | 59% | | | | | | |
| | APP/DEPART | 80 | / | 91 | 153 | / | 77 | 78 | / | 185 | 58 | / | 16 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 30 | 19 | 47 | 29 | 2 | 7 | 43 | 8 | 10 | 5 | 17 | 220 | | | | | |
| | APPROACH % | 6% | 58% | 37% | 60% | 37% | 3% | 12% | 74% | 14% | 31% | 16% | 53% | | | | | | |
| | PEAK HR FACTOR | | 0.929 | | | 0.750 | | | 0.853 | | | 0.889 | | 0.982 | | | | | |
| | APP/DEPART | 52 | / | 54 | 78 | / | 47 | 58 | / | 109 | 32 | / | 10 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 14 | 2 | 11 | 5 | 2 | 0 | 2 | 0 | 5 | 7 | 13 | 60 | | | | | 0 |
| 7:15 AM | 1 | 4 | 1 | 6 | 11 | 1 | 0 | 4 | 0 | 2 | 17 | 12 | 57 | | | | | 0 |
| 7:30 AM | 0 | 3 | 5 | 11 | 4 | 2 | 2 | 8 | 0 | 2 | 7 | 16 | 58 | | | | | 0 |
| 7:45 AM | 0 | 9 | 3 | 18 | 2 | 2 | 1 | 1 | 0 | 3 | 8 | 4 | 51 | | | | | 0 |
| 8:00 AM | 0 | 8 | 0 | 23 | 1 | 4 | 2 | 4 | 1 | 0 | 7 | 5 | 54 | | | | | 0 |
| 8:15 AM | 0 | 5 | 1 | 24 | 8 | 1 | 3 | 13 | 1 | 0 | 10 | 14 | 80 | | | | | 0 |
| 8:30 AM | 0 | 8 | 1 | 18 | 10 | 6 | 1 | 4 | 0 | 4 | 13 | 13 | 76 | | | | | 0 |
| 8:45 AM | 1 | 7 | 0 | 19 | 6 | 4 | 0 | 10 | 0 | 5 | 19 | 13 | 83 | | | | | 0 |
| AM VOLUMES | 2 | 56 | 13 | 129 | 46 | 22 | 9 | 45 | 2 | 20 | 87 | 89 | 518 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 3% | 79% | 18% | 65% | 23% | 11% | 15% | 81% | 4% | 10% | 44% | 46% | | | | | | |
| AM APP/DEPART | 71 | / | 154 | 197 | / | 68 | 56 | / | 186 | 196 | / | 111 | 0 | | | | | |
| AM BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 1 | 27 | 2 | 83 | 24 | 15 | 6 | 31 | 2 | 9 | 48 | 45 | 292 | | | | | |
| AM APPROACH % | 3% | 90% | 7% | 68% | 20% | 12% | 16% | 79% | 5% | 9% | 47% | 44% | | | | | | |
| AM PEAK HR FACTOR | | 0.882 | | | 0.910 | | | 0.566 | | | 0.695 | | 0.885 | | | | | |
| AM APP/DEPART | 30 | / | 78 | 122 | / | 35 | 39 | / | 116 | 102 | / | 64 | 0 | | | | | |
| 4:00 PM | 2 | 7 | 6 | 11 | 9 | 1 | 3 | 20 | 3 | 5 | 0 | 7 | 74 | | | | | 0 |
| 4:15 PM | 2 | 8 | 4 | 26 | 10 | 0 | 2 | 13 | 1 | 2 | 4 | 9 | 79 | | | | | 0 |
| 4:30 PM | 0 | 7 | 6 | 19 | 5 | 1 | 1 | 24 | 1 | 2 | 0 | 19 | 84 | | | | | 0 |
| 4:45 PM | 0 | 11 | 3 | 38 | 10 | 0 | 1 | 9 | 5 | 1 | 4 | 9 | 89 | | | | | 0 |
| 5:00 PM | 1 | 0 | 5 | 33 | 7 | 1 | 0 | 9 | 0 | 1 | 3 | 2 | 62 | | | | | 0 |
| 5:15 PM | 0 | 8 | 2 | 30 | 6 | 0 | 2 | 5 | 2 | 3 | 1 | 12 | 70 | | | | | 0 |
| 5:30 PM | 0 | 5 | 3 | 17 | 4 | 2 | 1 | 1 | 0 | 2 | 0 | 5 | 40 | | | | | 0 |
| 5:45 PM | 0 | 6 | 1 | 18 | 6 | 0 | 0 | 5 | 1 | 1 | 0 | 10 | 47 | | | | | 0 |
| PM VOLUMES | 5 | 51 | 30 | 191 | 55 | 5 | 10 | 84 | 12 | 17 | 12 | 72 | 542 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 5% | 60% | 35% | 76% | 22% | 2% | 9% | 79% | 11% | 17% | 12% | 72% | | | | | | |
| PM APP/DEPART | 85 | / | 132 | 251 | / | 84 | 106 | / | 305 | 100 | / | 21 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 4 | 32 | 19 | 93 | 33 | 2 | 7 | 65 | 10 | 10 | 8 | 44 | 324 | | | | | |
| PM APPROACH % | 6% | 59% | 35% | 73% | 25% | 2% | 9% | 80% | 12% | 16% | 12% | 71% | | | | | | |
| PM PEAK HR FACTOR | | 0.940 | | | 0.678 | | | 0.779 | | | 0.726 | | 0.915 | | | | | |
| PM APP/DEPART | 55 | / | 83 | 128 | / | 52 | 81 | / | 177 | 61 | / | 13 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 4 | 2 | 2 | 5 | 2 | 0 | 2 | 0 | 3 | 4 | 2 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 2 | 1 | 1 | 9 | 1 | 0 | 1 | 0 | 2 | 4 | 1 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 3 | 3 | 0 | 2 | 2 | 0 | 4 | 0 | 0 | 2 | 4 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 4 | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 3 | 2 | 1 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 3 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 4 | 2 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 2 | 1 | 4 | 6 | 1 | 0 | 1 | 1 | 0 | 4 | 1 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 3 | 1 | 3 | 5 | 3 | 1 | 1 | 0 | 1 | 2 | 5 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 4 | 0 | 3 | 3 | 1 | 0 | 5 | 0 | 0 | 5 | 4 | 26 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 25 | 11 | 16 | 33 | 13 | 4 | 16 | 2 | 9 | 27 | 20 | 178 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 5% | 66% | 29% | 26% | 53% | 21% | 18% | 73% | 9% | 16% | 48% | 36% | | | | | | |
| | APP/DEPART | 38 | / | 49 | 62 | / | 44 | 22 | / | 43 | 56 | / | 42 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 12 | 2 | 10 | 15 | 6 | 3 | 8 | 2 | 1 | 15 | 12 | 87 | | | | | |
| | APPROACH % | 7% | 80% | 13% | 32% | 48% | 19% | 23% | 62% | 15% | 4% | 54% | 43% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.705 | | | 0.650 | | | 0.778 | | 0.837 | | | | | |
| | APP/DEPART | 15 | / | 27 | 31 | / | 18 | 13 | / | 20 | 28 | / | 22 | 0 | | | | | |
| PM | 4:00 PM | 0 | 7 | 6 | 5 | 9 | 1 | 3 | 3 | 3 | 5 | 0 | 1 | 43 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 6 | 4 | 4 | 5 | 0 | 2 | 11 | 1 | 2 | 1 | 1 | 39 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 5 | 6 | 4 | 3 | 1 | 1 | 10 | 1 | 2 | 0 | 1 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 8 | 3 | 6 | 8 | 0 | 1 | 4 | 1 | 1 | 2 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 5 | 6 | 5 | 1 | 0 | 5 | 0 | 1 | 0 | 2 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 8 | 2 | 6 | 4 | 0 | 2 | 3 | 0 | 3 | 1 | 1 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 5 | 1 | 8 | 4 | 2 | 1 | 1 | 0 | 2 | 0 | 2 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 1 | 1 | 6 | 6 | 0 | 0 | 2 | 1 | 1 | 0 | 3 | 21 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 40 | 28 | 45 | 44 | 5 | 10 | 39 | 7 | 17 | 4 | 11 | 253 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 4% | 56% | 39% | 48% | 47% | 5% | 18% | 70% | 13% | 53% | 13% | 34% | | | | | | |
| | APP/DEPART | 71 | / | 61 | 94 | / | 68 | 56 | / | 112 | 32 | / | 12 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 26 | 19 | 19 | 25 | 2 | 7 | 28 | 6 | 10 | 3 | 3 | 150 | | | | | |
| | APPROACH % | 4% | 55% | 40% | 41% | 54% | 4% | 17% | 68% | 15% | 63% | 19% | 19% | | | | | | |
| | PEAK HR FACTOR | | 0.904 | | | 0.767 | | | 0.732 | | | 0.667 | | 0.872 | | | | | |
| | APP/DEPART | 47 | / | 36 | 46 | / | 41 | 41 | / | 66 | 16 | / | 7 | 0 | | | | | |

**Buttonwillow**
NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE
**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 4 |
| | 7:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 |
| | 7:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 6 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | 8:00 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 3 | 8 |
| | 8:45 AM | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 9 |
| | VOLUMES | 0 | 6 | 1 | 3 | 4 | 0 | 3 | 4 | 0 | 4 | 11 | 4 | 40 |
| | APPROACH % | 0% | 86% | 14% | 43% | 57% | 0% | 43% | 57% | 0% | 21% | 58% | 21% | |
| | APP/DEPART | 7 | / | 13 | 7 | / | 8 | 7 | / | 8 | 19 | / | 11 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 4 | 0 | 2 | 4 | 0 | 2 | 3 | 0 | 2 | 4 | 3 | 24 |
| | APPROACH % | 0% | 100% | 0% | 33% | 67% | 0% | 40% | 60% | 0% | 22% | 44% | 33% | |
| | PEAK HR FACTOR | | 0.500 | | | 0.500 | | | 0.625 | | | 0.563 | | 0.667 |
| | APP/DEPART | 4 | / | 9 | 6 | / | 6 | 5 | / | 5 | 9 | / | 4 | 0 |
| PM | 4:00 PM | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 |
| | 4:15 PM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 5 |
| | 4:30 PM | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| | 4:45 PM | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 7 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 |
| | 5:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:45 PM | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 |
| | VOLUMES | 1 | 7 | 1 | 8 | 4 | 0 | 0 | 6 | 2 | 0 | 1 | 5 | 35 |
| | APPROACH % | 11% | 78% | 11% | 67% | 33% | 0% | 0% | 75% | 25% | 0% | 17% | 83% | |
| | APP/DEPART | 9 | / | 12 | 12 | / | 6 | 8 | / | 15 | 6 | / | 2 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 1 | 4 | 0 | 6 | 3 | 0 | 0 | 5 | 1 | 0 | 1 | 1 | 22 |
| | APPROACH % | 20% | 80% | 0% | 67% | 33% | 0% | 0% | 83% | 17% | 0% | 50% | 50% | |
| | PEAK HR FACTOR | | 0.625 | | | 0.750 | | | 0.750 | | | 0.500 | | 0.786 |
| | APP/DEPART | 5 | / | 5 | 9 | / | 4 | 6 | / | 11 | 2 | / | 2 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Buttonwillow**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| | 7:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | VOLUMES | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 2 | 3 | 13 |
| | APPROACH % | 0% | 100% | 0% | 50% | 50% | 0% | 0% | 100% | 0% | 17% | 33% | 50% | |
| | APP/DEPART | 2 | / | 5 | 4 | / | 3 | 1 | / | 3 | 6 | / | 2 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 4 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 33% | 0% | 67% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.375 | | 0.333 |
| | APP/DEPART | 0 | / | 2 | 1 | / | 1 | 0 | / | 1 | 3 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 6 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 75% | 25% | 0% | 0% | 100% | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 2 | 4 | / | 3 | 1 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 50% | 50% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.500 | | | 0.000 | | 0.500 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 2 | / | 1 | 0 | / | 0 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Buttonwillow**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

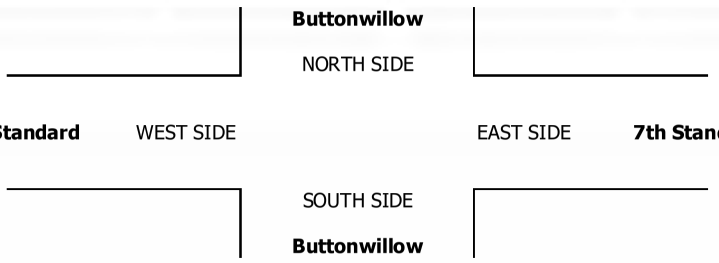
| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 | |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL | |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 0 | 7 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 3 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 5 | 1 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 4 | 3 | 13 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 6 | 0 | 34 | 1 | 3 | 0 | 7 | 0 | 1 | 13 | 19 | 84 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 89% | 3% | 8% | 0% | 100% | 0% | 3% | 39% | 58% | | | | | | |
| | APP/DEPART | 6 | / | 25 | 38 | / | 2 | 7 | / | 41 | 33 | / | 16 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 3 | 0 | 22 | 1 | 3 | 0 | 6 | 0 | 1 | 9 | 8 | 53 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 85% | 4% | 12% | 0% | 100% | 0% | 6% | 50% | 44% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.813 | | | 0.375 | | | 0.643 | | 0.828 | | | | | |
| | APP/DEPART | 3 | / | 11 | 26 | / | 2 | 6 | / | 28 | 18 | / | 12 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 44 | 1 | 0 | 0 | 10 | 0 | 0 | 2 | 17 | 74 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 98% | 2% | 0% | 0% | 100% | 0% | 0% | 11% | 89% | | | | | | |
| | APP/DEPART | 0 | / | 17 | 45 | / | 1 | 10 | / | 54 | 19 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 21 | 1 | 0 | 0 | 9 | 0 | 0 | 1 | 13 | 45 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 95% | 5% | 0% | 0% | 100% | 0% | 0% | 7% | 93% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.550 | | | 0.563 | | | 0.583 | | 0.804 | | | | | |
| | APP/DEPART | 0 | / | 13 | 22 | / | 1 | 9 | / | 30 | 14 | / | 1 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

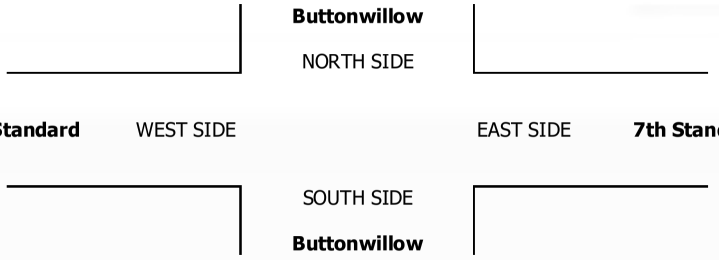
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 8 | |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP ALL | |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 0 | ST 1 | SR 1 | EL 0 | ET 1 | ER 0 | WL 0 | WT 1 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 0 | / | 1 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 0 | / | 1 | 0 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Buttonwillow**

NORTH SIDE

**7th Standard** WEST SIDE

EAST SIDE **7th Standard**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Wasco
EAST & WEST: 7th Standard

PROJECT #: SC4130
LOCATION #: 9
CONTROL: STOP N

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 2 | 16 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 2 | 1 | 19 | 0 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 12 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 14 | 0 | 1 | 9 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 8 | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 2 | 8 | 13 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 11 | 0 | 1 | 16 | 0 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 0 | 1 | 15 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 7 | 0 | 9 | 0 | 0 | 0 | 0 | 93 | 4 | 14 | 108 | 0 | 235 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 44% | 0% | 56% | 0% | 0% | 0% | 0% | 96% | 4% | 11% | 89% | 0% | | | | | | |
| | APP/DEPART | 16 | / | 0 | 0 | / | 18 | 97 | / | 102 | 122 | / | 115 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 6 | 0 | 4 | 0 | 0 | 0 | 0 | 53 | 2 | 10 | 52 | 0 | 127 | | | | | |
| | APPROACH % | 60% | 0% | 40% | 0% | 0% | 0% | 0% | 96% | 4% | 16% | 84% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.764 | | | 0.738 | | 0.794 | | | | | |
| | APP/DEPART | 10 | / | 0 | 0 | / | 12 | 55 | / | 57 | 62 | / | 58 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 1 | 8 | 0 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 8 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 30 | 2 | 2 | 9 | 0 | 44 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 7 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 31 | 0 | 4 | 3 | 0 | 40 | 0 | 0 | 0 | 1 | 1 |
| | 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 1 | 7 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 1 | 6 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 8 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 182 | 2 | 9 | 56 | 0 | 257 | 0 | 0 | 0 | 1 | 1 |
| | APPROACH % | 25% | 0% | 75% | 0% | 0% | 0% | 0% | 99% | 1% | 14% | 86% | 0% | | | | | | |
| | APP/DEPART | 8 | / | 0 | 0 | / | 10 | 184 | / | 189 | 65 | / | 58 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 107 | 2 | 6 | 27 | 0 | 147 | | | | | |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 98% | 2% | 18% | 82% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.000 | | | 0.852 | | | 0.750 | | 0.835 | | | | | |
| | APP/DEPART | 5 | / | 0 | 0 | / | 7 | 109 | / | 113 | 33 | / | 27 | 0 | | | | | |

**Wasco**

NORTH SIDE

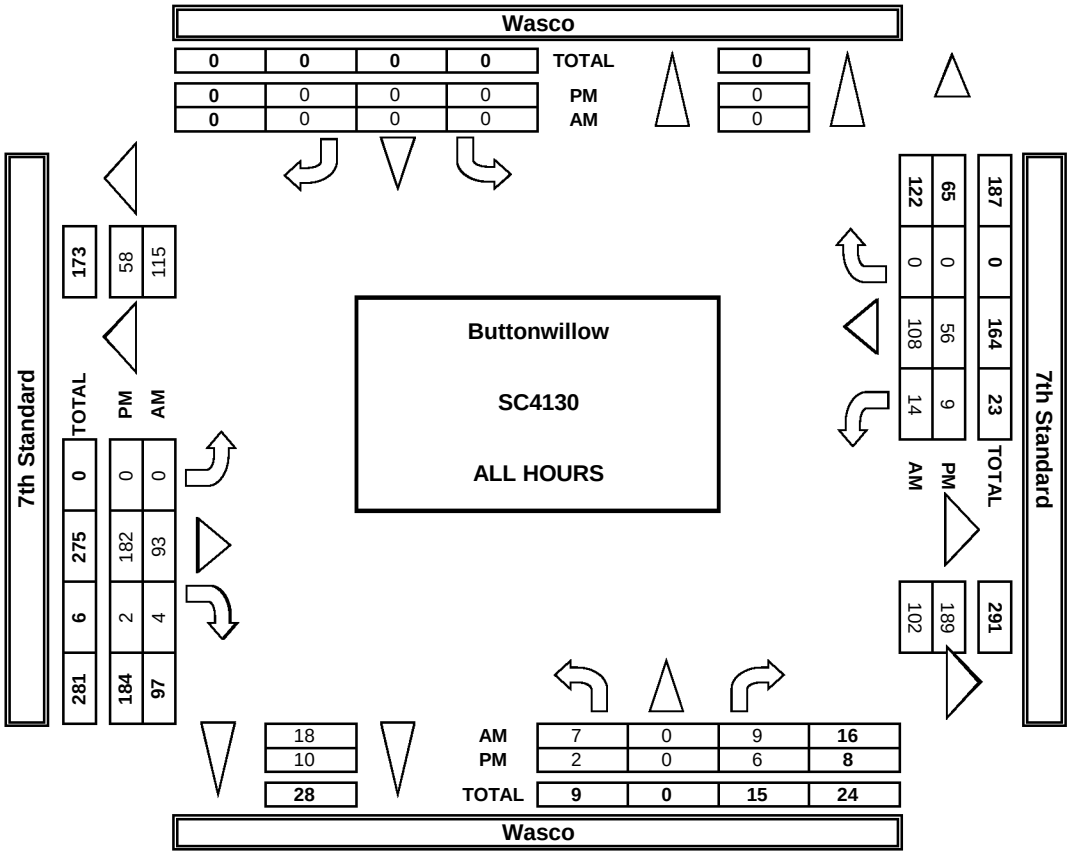
**7th Standard** WEST SIDE EAST SIDE **7th Standard**

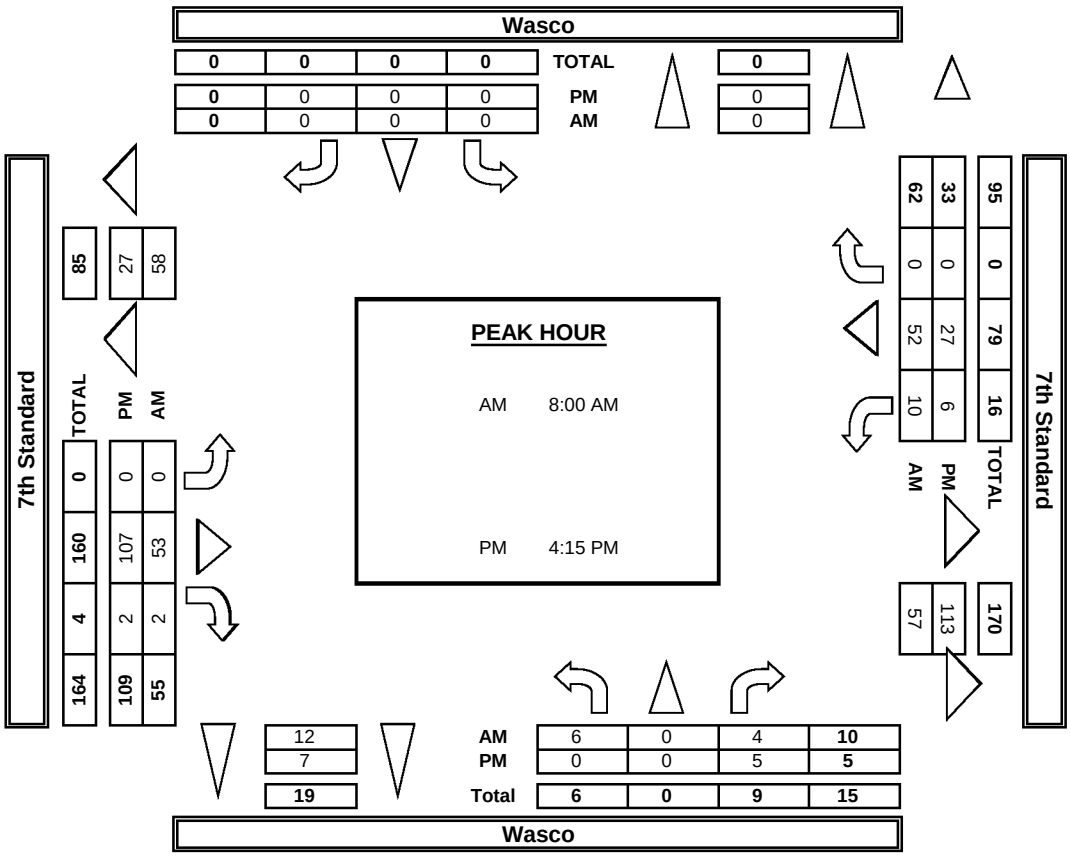
SOUTH SIDE

**Wasco**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

| | NOTES: | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM / PM / MD / OTHER / OTHER | ▲ N / ◄ W / E ► / S ▼ |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | | |

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 3 | 23 | 0 | 43 | | | | | 0 |
| | 7:15 AM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 11 | 2 | 2 | 35 | 0 | 53 | | | | | 0 |
| | 7:30 AM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 23 | 0 | 45 | | | | | 0 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 25 | 0 | 2 | 14 | 0 | 42 | | | | | 0 |
| | 8:00 AM | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 11 | 0 | 38 | | | | | 0 |
| | 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 35 | 4 | 13 | 26 | 0 | 78 | | | | | 0 |
| | 8:30 AM | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 20 | 0 | 3 | 27 | 0 | 57 | | | | | 0 |
| | 8:45 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 1 | 30 | 0 | 64 | | | | | 0 |
| | VOLUMES | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 182 | 6 | 24 | 188 | 0 | 419 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 51% | 0% | 49% | 0% | 0% | 0% | 0% | 97% | 3% | 11% | 89% | 0% | | | | | | |
| | APP/DEPART | 20 | / | 0 | 0 | / | 30 | 188 | / | 192 | 211 | / | 198 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 8 | 0 | 5 | 0 | 0 | 0 | 0 | 111 | 4 | 17 | 93 | 0 | 237 | | | | | |
| | APPROACH % | 64% | 0% | 36% | 0% | 0% | 0% | 0% | 97% | 3% | 15% | 85% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.446 | | | 0.000 | | | 0.744 | | | 0.714 | | 0.760 | | | | | |
| | APP/DEPART | 13 | / | 0 | 0 | / | 21 | 115 | / | 115 | 110 | / | 101 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 1 | 12 | 0 | 54 | | | | | 0 |
| | 4:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 15 | 0 | 51 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 48 | 2 | 2 | 21 | 0 | 74 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 14 | 0 | 53 | | | | | 0 |
| | 5:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 55 | 0 | 5 | 7 | 0 | 69 | | | | | 0 |
| | 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 1 | 12 | 0 | 57 | | | | | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 1 | 8 | 0 | 28 | | | | | 0 |
| | 5:45 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 12 | 0 | 38 | | | | | 0 |
| | VOLUMES | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 302 | 2 | 10 | 100 | 0 | 422 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 29% | 0% | 71% | 0% | 0% | 0% | 0% | 99% | 1% | 9% | 91% | 0% | | | | | | |
| | APP/DEPART | 9 | / | 0 | 0 | / | 12 | 304 | / | 308 | 110 | / | 102 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 175 | 2 | 7 | 56 | 0 | 245 | | | | | |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 99% | 1% | 11% | 89% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.000 | | | 0.812 | | | 0.685 | | 0.833 | | | | | |
| | APP/DEPART | 5 | / | 0 | 0 | / | 9 | 177 | / | 180 | 63 | / | 56 | 0 | | | | | |

**Wasco**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 11 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 6 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 6 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 5 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 1 | 3 | 5 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 9 | 0 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 5 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 40 | 3 | 5 | 52 | 0 | 113 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 38% | 0% | 62% | 0% | 0% | 0% | 0% | 93% | 7% | 9% | 91% | 0% | | | | | | |
| | APP/DEPART | 13 | / | 0 | 0 | / | 8 | 43 | / | 48 | 57 | / | 57 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 19 | 1 | 4 | 24 | 0 | 56 | | | | | |
| | APPROACH % | 63% | 0% | 38% | 0% | 0% | 0% | 0% | 95% | 5% | 14% | 86% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.714 | | | 0.778 | | 0.778 | | | | | |
| | APP/DEPART | 8 | / | 0 | 0 | / | 5 | 20 | / | 22 | 28 | / | 29 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 1 | 6 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 4 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 19 | 2 | 2 | 3 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 3 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 18 | 0 | 3 | 1 | 0 | 24 | 0 | 0 | 0 | 1 | 1 |
| | 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 4 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 5 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 4 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 109 | 2 | 8 | 30 | 0 | 156 | 0 | 0 | 0 | 1 | 1 |
| | APPROACH % | 14% | 0% | 86% | 0% | 0% | 0% | 0% | 98% | 2% | 21% | 79% | 0% | | | | | | |
| | APP/DEPART | 7 | / | 0 | 0 | / | 9 | 111 | / | 116 | 38 | / | 31 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 66 | 2 | 4 | 11 | 0 | 89 | | | | | |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 97% | 3% | 25% | 69% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.000 | | | 0.810 | | | 0.800 | | 0.824 | | | | | |
| | APP/DEPART | 5 | / | 0 | 0 | / | 6 | 68 | / | 72 | 16 | / | 11 | 0 | | | | | |

**Wasco**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

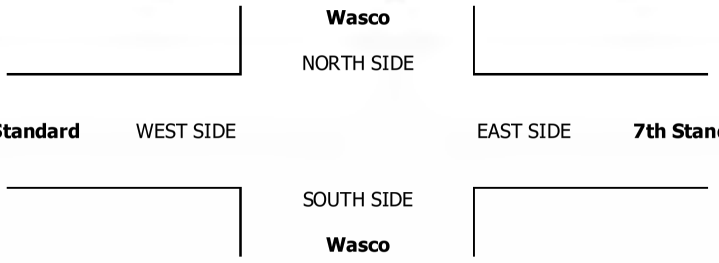
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Wasco) | | | SOUTHBOUND (Wasco) | | | EASTBOUND (7th Standard) | | | WESTBOUND (7th Standard) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 0 | 7 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 |
| | 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 4 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 4 |
| | VOLUMES | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 19 | 0 | 29 |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 5% | 95% | 0% | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 1 | 8 | / | 9 | 20 | / | 19 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 8 | 0 | 14 |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.625 | | | 0.667 | | 0.875 |
| | APP/DEPART | 1 | / | 0 | 0 | / | 0 | 5 | / | 6 | 8 | / | 8 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 4 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 5 | 0 | 21 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 0 | 15 | / | 15 | 5 | / | 6 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 0 | 10 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.667 | | | 0.500 | | 0.833 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 8 | / | 8 | 2 | / | 2 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 2 | 0 | 9 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 7 | 4 | 0 | 16 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 64% | 36% | 0% | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 7 | 4 | / | 4 | 11 | / | 5 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 3 | 0 | 10 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 63% | 38% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.286 | | 0.278 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 5 | 2 | / | 2 | 8 | / | 3 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 5 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 50% | 50% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 3 | / | 3 | 2 | / | 1 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.250 | | 0.250 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 1 | / | 1 | 1 | / | 0 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Wasco**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

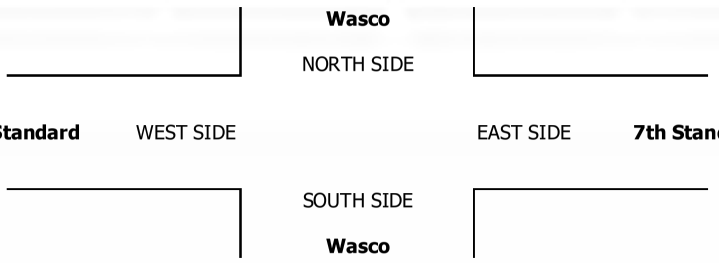
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 5 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 5 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 6 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 1 | 1 | 33 | 0 | 76 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 98% | 2% | 3% | 97% | 0% | | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 2 | 41 | / | 40 | 34 | / | 34 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 1 | 1 | 17 | 0 | 46 | | | | | |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 96% | 4% | 6% | 94% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.750 | | | 0.750 | | 0.821 | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 2 | 27 | / | 26 | 18 | / | 18 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 3 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 20 | 0 | 74 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 54 | / | 54 | 20 | / | 20 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 14 | 0 | 45 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.705 | | | 0.583 | | 0.804 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 31 | / | 31 | 14 | / | 14 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |

**Wasco**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 9 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER 0 | WL 0 | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Wasco**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: I-5 SB Ramp
EAST & WEST: 7th Standard

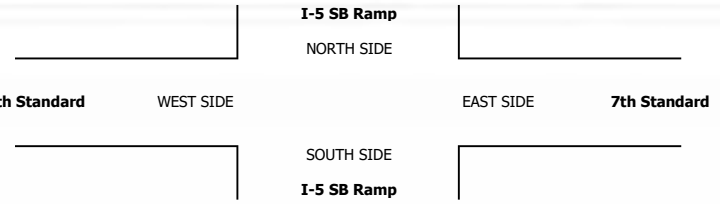
PROJECT #: SC4130
LOCATION #: 10
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

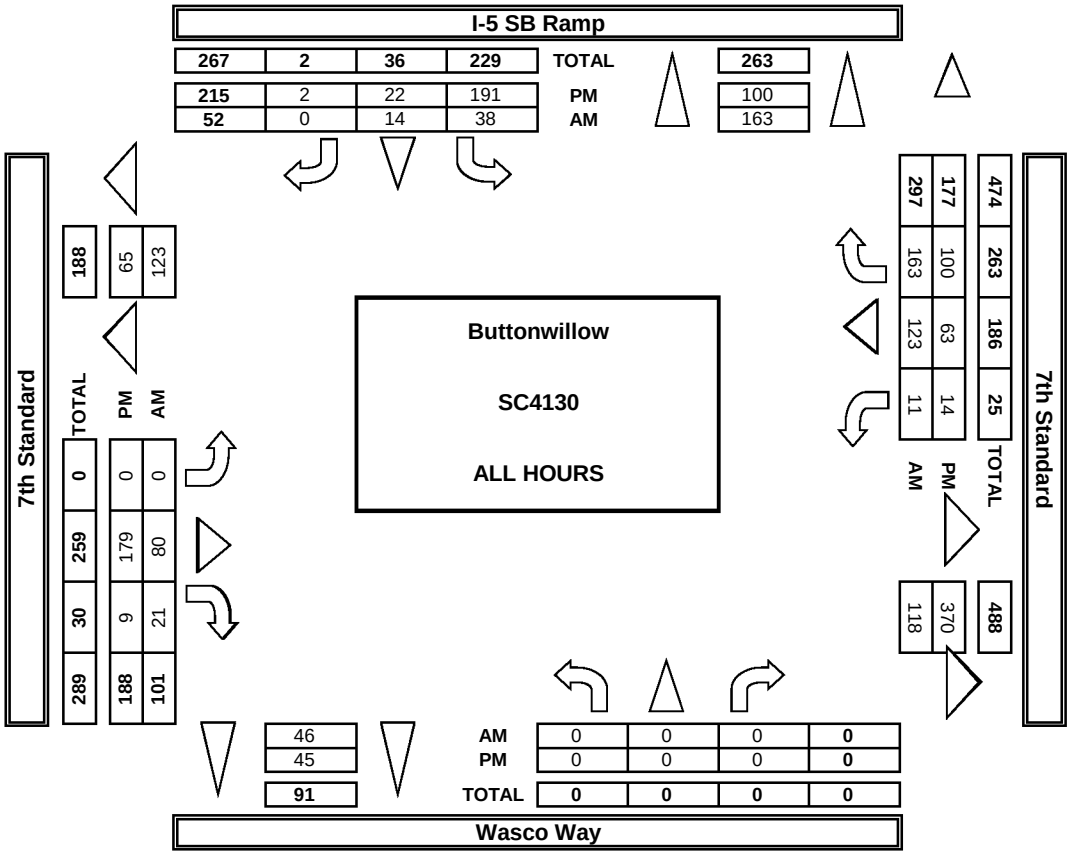
N
W
E
S

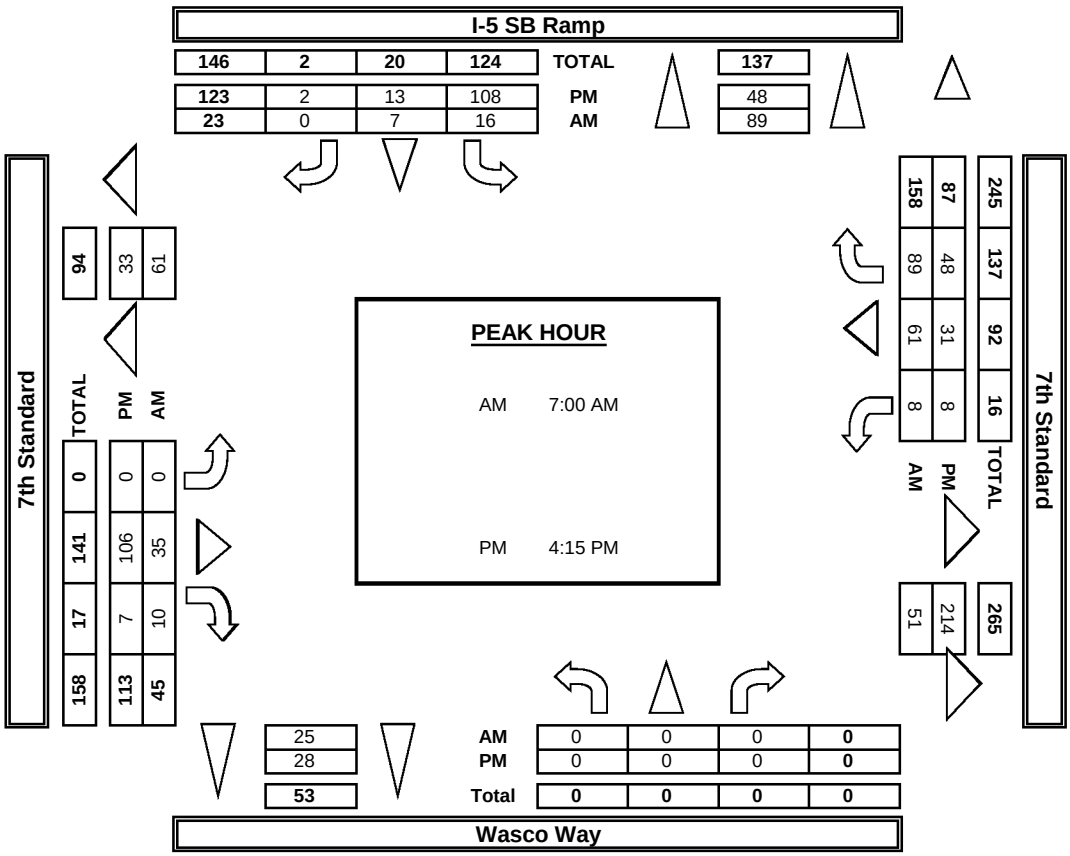
| | | NORTHBOUND Wasco Way | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 7 | 2 | 0 | 0 | 6 | 3 | 2 | 18 | 18 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 7 | 0 | 1 | 21 | 22 | 55 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 12 | 2 | 2 | 12 | 29 | 61 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 10 | 5 | 3 | 10 | 20 | 54 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 5 | 5 | 2 | 8 | 14 | 41 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 17 | 0 | 1 | 21 | 21 | 67 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 11 | 1 | 0 | 17 | 20 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 12 | 5 | 0 | 16 | 19 | 60 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 38 | 14 | 0 | 0 | 80 | 21 | 11 | 123 | 163 | 450 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 73% | 27% | 0% | 0% | 79% | 21% | 4% | 41% | 55% | | | | | | |
| | APP/DEPART | 0 | / | 163 | 52 | / | 46 | 101 | / | 118 | 297 | / | 123 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 16 | 7 | 0 | 0 | 35 | 10 | 8 | 61 | 89 | 226 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 70% | 30% | 0% | 0% | 78% | 22% | 5% | 39% | 56% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.639 | | | 0.750 | | | 0.898 | | 0.926 | | | | | |
| | APP/DEPART | 0 | / | 89 | 23 | / | 25 | 45 | / | 51 | 158 | / | 61 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 22 | 1 | 0 | 0 | 28 | 0 | 2 | 9 | 14 | 76 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 19 | 4 | 0 | 0 | 25 | 1 | 5 | 8 | 13 | 75 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 32 | 2 | 0 | 0 | 29 | 2 | 2 | 11 | 14 | 92 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 25 | 1 | 0 | 0 | 22 | 0 | 0 | 7 | 12 | 67 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 32 | 6 | 2 | 0 | 30 | 4 | 1 | 5 | 9 | 89 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 18 | 2 | 0 | 0 | 18 | 2 | 2 | 8 | 9 | 59 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 33 | 3 | 0 | 0 | 13 | 0 | 0 | 7 | 14 | 70 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 10 | 3 | 0 | 0 | 14 | 0 | 2 | 8 | 15 | 52 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 191 | 22 | 2 | 0 | 179 | 9 | 14 | 63 | 100 | 580 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 89% | 10% | 1% | 0% | 95% | 5% | 8% | 36% | 56% | | | | | | |
| | APP/DEPART | 0 | / | 100 | 215 | / | 45 | 188 | / | 370 | 177 | / | 65 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 108 | 13 | 2 | 0 | 106 | 7 | 8 | 31 | 48 | 323 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 88% | 11% | 2% | 0% | 94% | 6% | 9% | 36% | 55% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.769 | | | 0.831 | | | 0.806 | | 0.878 | | | | | |
| | APP/DEPART | 0 | / | 48 | 123 | / | 28 | 113 | / | 214 | 87 | / | 33 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**NOTES:**

| PCE Adjusted | 1 | 2 | 3 | 4 | 5 | 6 | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 9 | 5 | 0 | 0 | 10 | 7 | 4 | 26 | 35 | 95 | | | | | 0 |
| | 7:15 AM | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 12 | 0 | 3 | 38 | 33 | 92 | | | | | 0 |
| | 7:30 AM | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 18 | 5 | 3 | 23 | 41 | 94 | | | | | 0 |
| | 7:45 AM | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 17 | 9 | 7 | 16 | 27 | 85 | | | | | 0 |
| | 8:00 AM | 0 | 0 | 0 | 7 | 3 | 0 | 0 | 14 | 12 | 5 | 11 | 21 | 71 | | | | | 0 |
| | 8:15 AM | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 36 | 0 | 1 | 39 | 41 | 126 | | | | | 0 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 8 | 0 | 0 | 20 | 1 | 0 | 30 | 29 | 91 | | | | | 0 |
| | 8:45 AM | 0 | 0 | 0 | 15 | 3 | 0 | 0 | 25 | 8 | 0 | 31 | 31 | 111 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 58 | 26 | 0 | 0 | 150 | 41 | 22 | 212 | 256 | 764 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 69% | 31% | 0% | 0% | 78% | 22% | 4% | 43% | 52% | | | | | | |
| | APP/DEPART | 0 | / | 256 | 84 | / | 89 | 191 | / | 207 | 490 | / | 212 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 23 | 12 | 0 | 0 | 56 | 21 | 17 | 102 | 135 | 365 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 66% | 34% | 0% | 0% | 73% | 27% | 7% | 40% | 53% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.648 | | | 0.750 | | | 0.856 | | 0.966 | | | | | |
| | APP/DEPART | 0 | / | 135 | 35 | / | 49 | 77 | / | 79 | 254 | / | 102 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 32 | 1 | 0 | 0 | 41 | 0 | 3 | 13 | 24 | 114 | | | | | 0 |
| | 4:15 PM | 0 | 0 | 0 | 26 | 7 | 0 | 0 | 35 | 1 | 7 | 15 | 20 | 110 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 0 | 43 | 2 | 0 | 0 | 47 | 2 | 6 | 23 | 19 | 141 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 0 | 34 | 1 | 0 | 0 | 39 | 0 | 0 | 14 | 19 | 106 | | | | | 0 |
| | 5:00 PM | 0 | 0 | 0 | 46 | 6 | 3 | 0 | 52 | 6 | 2 | 9 | 13 | 136 | | | | | 0 |
| | 5:15 PM | 0 | 0 | 0 | 24 | 4 | 0 | 0 | 40 | 3 | 4 | 13 | 19 | 107 | | | | | 0 |
| | 5:30 PM | 0 | 0 | 0 | 43 | 3 | 0 | 0 | 18 | 0 | 0 | 9 | 22 | 95 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 0 | 11 | 6 | 0 | 0 | 25 | 0 | 3 | 12 | 23 | 79 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 258 | 29 | 3 | 0 | 296 | 12 | 24 | 107 | 158 | 885 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 89% | 10% | 1% | 0% | 96% | 4% | 8% | 37% | 55% | | | | | | |
| | APP/DEPART | 0 | / | 158 | 290 | / | 65 | 308 | / | 553 | 288 | / | 110 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 148 | 16 | 3 | 0 | 172 | 9 | 15 | 60 | 70 | 492 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 89% | 9% | 2% | 0% | 95% | 5% | 10% | 42% | 48% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.757 | | | 0.787 | | | 0.761 | | 0.875 | | | | | |
| | APP/DEPART | 0 | / | 70 | 167 | / | 39 | 181 | / | 320 | 145 | / | 63 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

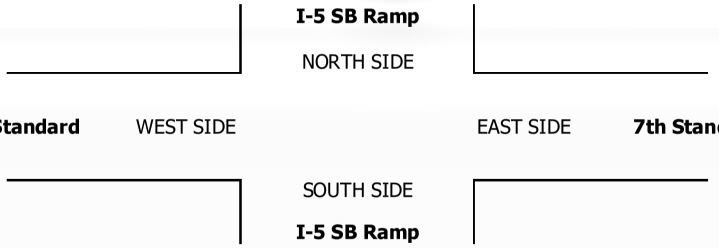
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL |
| LANES: | X | X | X | 0 | 1 | 0 | X | 1 | 1 | 0 | 1 | 0 | | | | | | |
| AM 7:00 AM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 4 | 1 | 1 | 12 | 9 | 33 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 0 | 0 | 7 | 15 | 28 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 8 | 0 | 1 | 6 | 21 | 39 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 6 | 3 | 1 | 5 | 12 | 30 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 10 | 21 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 1 | 8 | 9 | 28 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 5 | 1 | 0 | 9 | 14 | 34 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 3 | 0 | 6 | 12 | 28 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 24 | 6 | 0 | 0 | 38 | 9 | 4 | 58 | 102 | 241 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 80% | 20% | 0% | 0% | 81% | 19% | 2% | 35% | 62% | | | | | | |
| APP/DEPART | 0 | / | 102 | 30 | / | 19 | 47 | / | 62 | 164 | / | 58 | 0 | | | | | |
| BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 11 | 3 | 0 | 0 | 22 | 4 | 3 | 30 | 57 | 130 | | | | | |
| APPROACH % | 0% | 0% | 0% | 79% | 21% | 0% | 0% | 85% | 15% | 3% | 33% | 63% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.583 | | | 0.722 | | | 0.804 | | 0.833 | | | | | |
| APP/DEPART | 0 | / | 57 | 14 | / | 10 | 26 | / | 33 | 90 | / | 30 | 0 | | | | | |
| PM 4:00 PM | 0 | 0 | 0 | 12 | 1 | 0 | 0 | 18 | 0 | 1 | 7 | 9 | 48 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 14 | 2 | 0 | 0 | 18 | 1 | 4 | 4 | 8 | 51 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 21 | 2 | 0 | 0 | 18 | 2 | 0 | 5 | 11 | 59 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 17 | 1 | 0 | 0 | 12 | 0 | 0 | 3 | 8 | 41 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 20 | 6 | 1 | 0 | 18 | 3 | 0 | 3 | 7 | 58 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 12 | 1 | 0 | 0 | 7 | 1 | 1 | 5 | 4 | 31 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 26 | 3 | 0 | 0 | 9 | 0 | 0 | 6 | 10 | 54 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 8 | 0 | 1 | 4 | 11 | 33 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 130 | 17 | 1 | 0 | 108 | 7 | 7 | 37 | 68 | 375 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 88% | 11% | 1% | 0% | 94% | 6% | 6% | 33% | 61% | | | | | | |
| APP/DEPART | 0 | / | 68 | 148 | / | 31 | 115 | / | 238 | 112 | / | 38 | 0 | | | | | |
| BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 72 | 11 | 1 | 0 | 66 | 6 | 4 | 15 | 34 | 209 | | | | | |
| APPROACH % | 0% | 0% | 0% | 86% | 13% | 1% | 0% | 92% | 8% | 8% | 28% | 64% | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.778 | | | 0.857 | | | 0.828 | | 0.886 | | | | | |
| APP/DEPART | 0 | / | 34 | 84 | / | 21 | 72 | / | 138 | 53 | / | 16 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

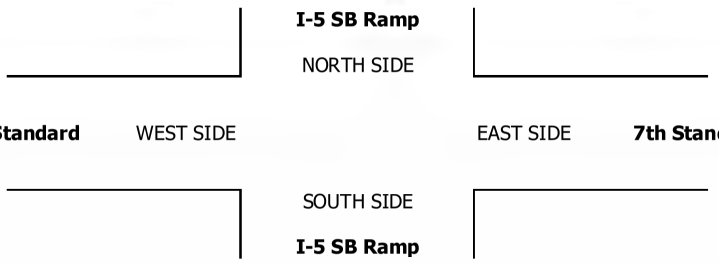
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (I-5 SB Ramp) | | | SOUTHBOUND (I-5 SB Ramp) | | | EASTBOUND (7th Standard) | | | WESTBOUND (7th Standard) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 6 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 6 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 7 | 2 | 2 | 20 | 18 | 56 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 71% | 29% | 0% | 0% | 78% | 22% | 5% | 50% | 45% | | | | | | |
| | APP/DEPART | 0 | / | 18 | 7 | / | 6 | 9 | / | 12 | 40 | / | 20 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 12 | 12 | 32 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 50% | 50% | 0% | 0% | 67% | 33% | 4% | 48% | 48% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.750 | | | 0.781 | | 0.727 | | | | | |
| | APP/DEPART | 0 | / | 12 | 4 | / | 4 | 3 | / | 4 | 25 | / | 12 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 35 | 2 | 0 | 0 | 15 | 0 | 3 | 5 | 4 | 64 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 95% | 5% | 0% | 0% | 100% | 0% | 25% | 42% | 33% | | | | | | |
| | APP/DEPART | 0 | / | 4 | 37 | / | 5 | 15 | / | 50 | 12 | / | 5 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 20 | 1 | 0 | 0 | 8 | 0 | 1 | 2 | 4 | 36 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 95% | 5% | 0% | 0% | 100% | 0% | 14% | 29% | 57% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.667 | | | 0.583 | | 0.818 | | | | | |
| | APP/DEPART | 0 | / | 4 | 21 | / | 2 | 8 | / | 28 | 7 | / | 2 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

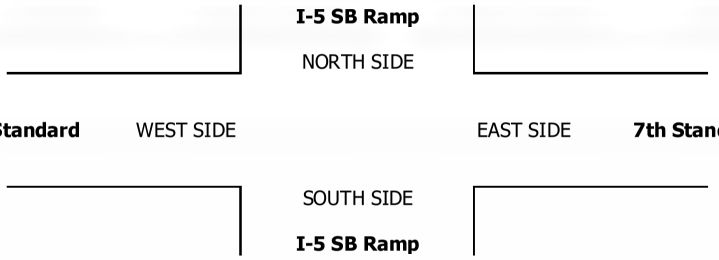
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 0 | 0 | 11 | 2 | 19 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 50% | 50% | 0% | 0% | 100% | 0% | 0% | 85% | 15% | | | | | | |
| | APP/DEPART | 0 | / | 2 | 2 | / | 1 | 4 | / | 5 | 13 | / | 11 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 5 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.375 | | 0.625 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 2 | / | 2 | 3 | / | 3 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 2 | 1 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 75% | 0% | 25% | 0% | 67% | 33% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 4 | / | 1 | 3 | / | 5 | 1 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 67% | 0% | 33% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.375 | | | 0.250 | | | 0.000 | | 0.333 | | | | | |
| | APP/DEPART | 0 | / | 0 | 3 | / | 0 | 1 | / | 3 | 0 | / | 1 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

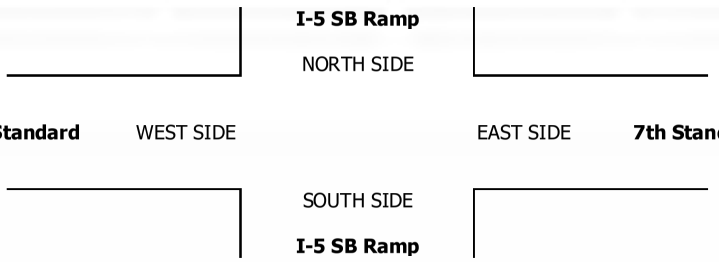
| DATE: | | | | |
|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 3 | 8 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 6 | 5 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 5 | 5 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 2 | 2 | 2 | 2 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 3 | 1 | 1 | 3 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 5 | 9 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 6 | 4 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 6 | 1 | 0 | 6 | 5 | 22 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 31 | 9 | 5 | 34 | 41 | 133 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 62% | 38% | 0% | 0% | 78% | 23% | 6% | 43% | 51% | | | | | | |
| | APP/DEPART | 0 | / | 41 | 13 | / | 19 | 40 | / | 39 | 80 | / | 34 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 9 | 5 | 4 | 16 | 20 | 59 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 60% | 40% | 0% | 0% | 64% | 36% | 10% | 40% | 50% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.625 | | | 0.700 | | | 0.833 | | 0.819 | | | | | |
| | APP/DEPART | 0 | / | 20 | 5 | / | 11 | 14 | / | 12 | 40 | / | 16 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 5 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 1 | 3 | 3 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 8 | 0 | 2 | 6 | 2 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 8 | 0 | 0 | 3 | 3 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 10 | 1 | 0 | 2 | 2 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 11 | 0 | 1 | 2 | 5 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 4 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 1 | 4 | 11 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 23 | 3 | 0 | 0 | 53 | 1 | 4 | 20 | 28 | 132 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 88% | 12% | 0% | 0% | 98% | 2% | 8% | 38% | 54% | | | | | | |
| | APP/DEPART | 0 | / | 28 | 26 | / | 8 | 54 | / | 76 | 52 | / | 20 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 14 | 1 | 0 | 0 | 30 | 1 | 3 | 14 | 10 | 73 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 93% | 7% | 0% | 0% | 97% | 3% | 11% | 52% | 37% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.705 | | | 0.675 | | 0.869 | | | | | |
| | APP/DEPART | 0 | / | 10 | 15 | / | 5 | 31 | / | 44 | 27 | / | 14 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST 1 | SR 0 | EL X | ET 1 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramp**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 SB Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramp | LOCATION #: | 10 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramp | | | SOUTHBOUND I-5 SB Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>X | NR<br>X | SL<br>0 | ST<br>1 | SR<br>0 | EL<br>X | ET<br>1 | ER<br>1 | WL<br>0 | WT<br>1 | WR<br>0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 1 | 1 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramp**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 SB Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: I-5 NB Off-Ramp
EAST & WEST: 7th Standard

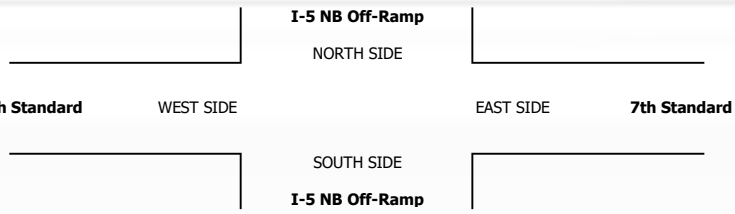
PROJECT #: SC4130
LOCATION #: 11
CONTROL: STOP N

NOTES:

AM
PM
MD
OTHER
OTHER

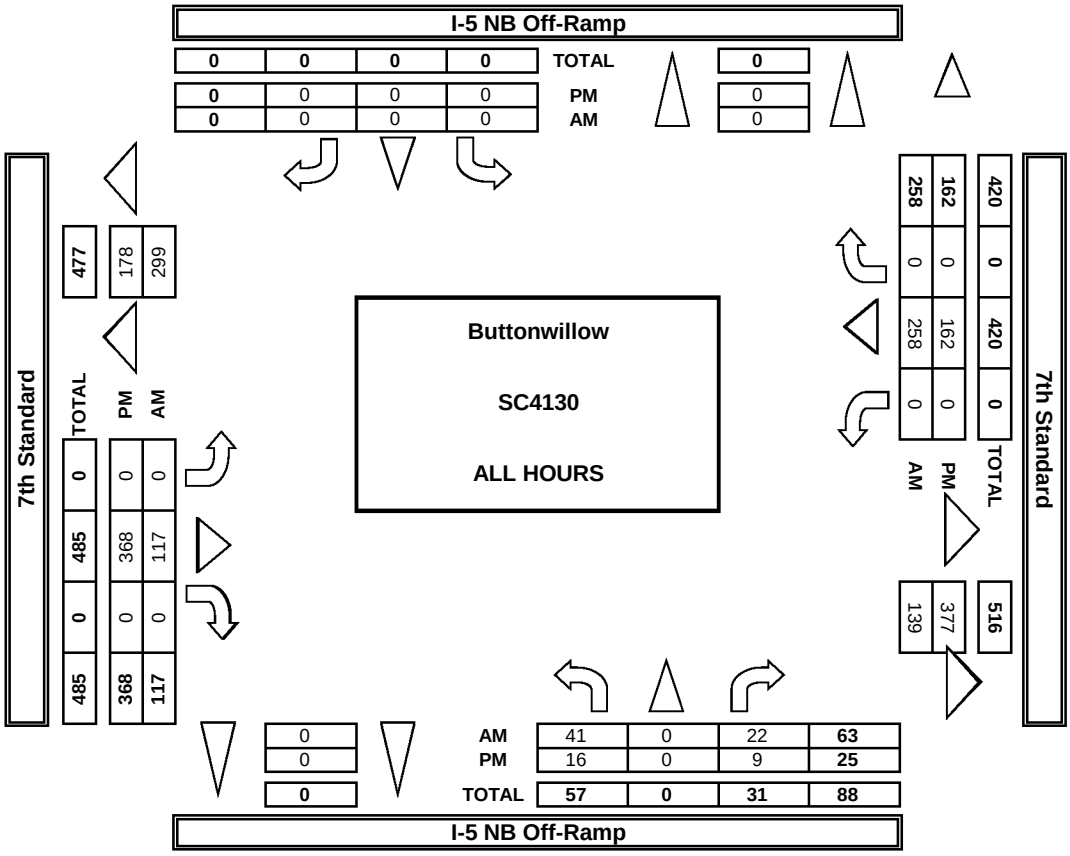
N
W E
S

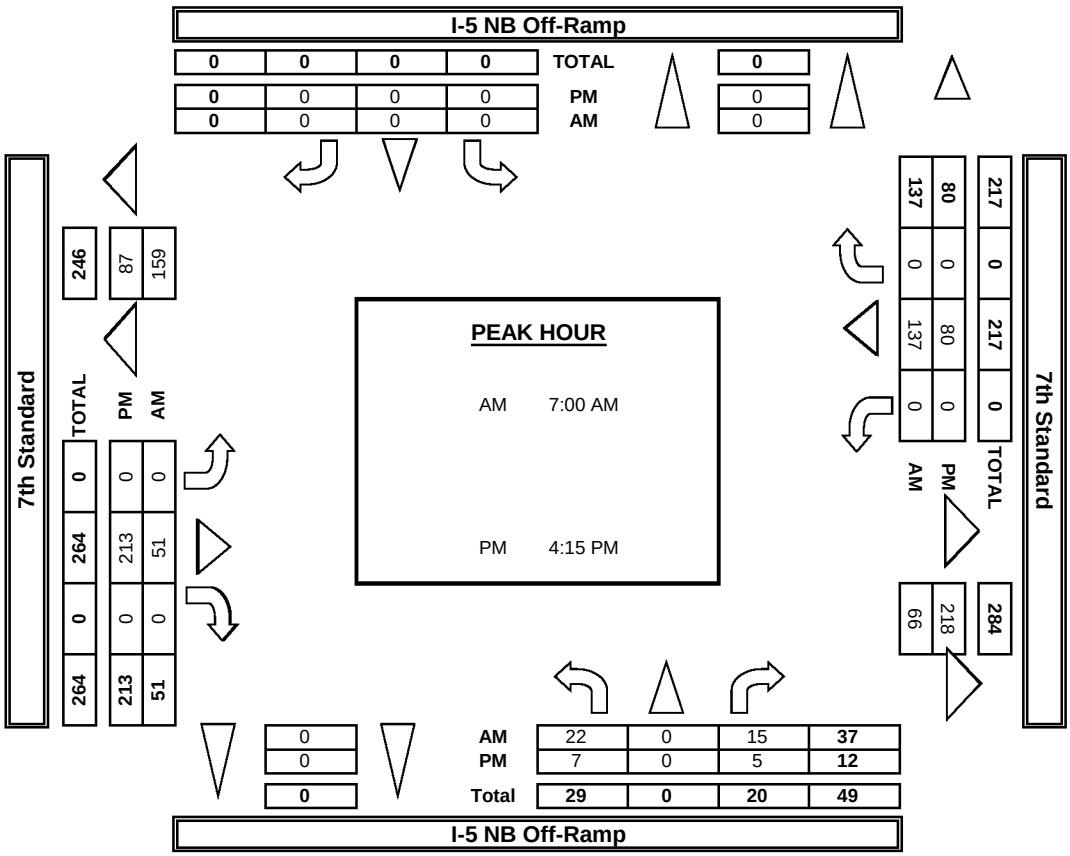
| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 28 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 40 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 38 | 0 | 64 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 31 | 0 | 52 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 20 | 0 | 37 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 36 | 0 | 66 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 33 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 32 | 0 | 57 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 41 | 0 | 22 | 0 | 0 | 0 | 0 | 117 | 0 | 0 | 258 | 0 | 438 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 65% | 0% | 35% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 63 | / | 0 | 0 | / | 0 | 117 | / | 139 | 258 | / | 299 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 22 | 0 | 15 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 137 | 0 | 225 | | | | | |
| | APPROACH % | 59% | 0% | 41% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.771 | | | 0.000 | | | 0.850 | | | 0.856 | | 0.879 | | | | | |
| | APP/DEPART | 37 | / | 0 | 0 | / | 0 | 51 | / | 66 | 137 | / | 159 | 0 | | | | | |
| PM | 4:00 PM | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 22 | 0 | 76 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 24 | 0 | 71 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 26 | 0 | 91 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 17 | 0 | 66 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 13 | 0 | 77 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 17 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 19 | 0 | 69 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 24 | 0 | 49 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 16 | 0 | 9 | 0 | 0 | 0 | 0 | 368 | 0 | 0 | 162 | 0 | 555 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 64% | 0% | 36% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 25 | / | 0 | 0 | / | 0 | 368 | / | 377 | 162 | / | 178 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 7 | 0 | 5 | 0 | 0 | 0 | 0 | 213 | 0 | 0 | 80 | 0 | 305 | | | | | |
| | APPROACH % | 58% | 0% | 42% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.000 | | | 0.873 | | | 0.769 | | 0.838 | | | | | |
| | APP/DEPART | 12 | / | 0 | 0 | / | 0 | 213 | / | 218 | 80 | / | 87 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 15 | 0 | 4 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 50 | 0 | 87 | | | | | 0 |
| | 7:15 AM | 4 | 0 | 6 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 70 | 0 | 95 | | | | | 0 |
| | 7:30 AM | 7 | 0 | 11 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 59 | 0 | 99 | | | | | 0 |
| | 7:45 AM | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 48 | 0 | 79 | | | | | 0 |
| | 8:00 AM | 6 | 0 | 4 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 30 | 0 | 61 | | | | | 0 |
| | 8:15 AM | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 63 | 0 | 125 | | | | | 0 |
| | 8:30 AM | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 53 | 0 | 85 | | | | | 0 |
| | 8:45 AM | 7 | 0 | 6 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 55 | 0 | 107 | | | | | 0 |
| | VOLUMES | 66 | 0 | 39 | 0 | 0 | 0 | 0 | 206 | 0 | 0 | 427 | 0 | 737 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 63% | 0% | 37% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 105 | / | 0 | 0 | / | 0 | 206 | / | 245 | 427 | / | 492 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 29 | 0 | 27 | 0 | 0 | 0 | 0 | 79 | 0 | 0 | 226 | 0 | 360 | | | | | |
| | APPROACH % | 52% | 0% | 48% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.743 | | | 0.000 | | | 0.859 | | | 0.807 | | 0.909 | | | | | |
| | APP/DEPART | 55 | / | 0 | 0 | / | 0 | 79 | / | 106 | 226 | / | 255 | 0 | | | | | |
| PM | 4:00 PM | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 35 | 0 | 116 | | | | | 0 |
| | 4:15 PM | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 36 | 0 | 106 | | | | | 0 |
| | 4:30 PM | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 89 | 0 | 0 | 46 | 0 | 142 | | | | | 0 |
| | 4:45 PM | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 0 | 28 | 0 | 105 | | | | | 0 |
| | 5:00 PM | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 97 | 0 | 0 | 20 | 0 | 121 | | | | | 0 |
| | 5:15 PM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 0 | 34 | 0 | 101 | | | | | 0 |
| | 5:30 PM | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 27 | 0 | 94 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 37 | 0 | 73 | | | | | 0 |
| | VOLUMES | 29 | 0 | 16 | 0 | 0 | 0 | 0 | 551 | 0 | 0 | 261 | 0 | 856 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 65% | 0% | 35% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 44 | / | 0 | 0 | / | 0 | 551 | / | 567 | 261 | / | 289 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 16 | 0 | 10 | 0 | 0 | 0 | 0 | 319 | 0 | 0 | 129 | 0 | 473 | | | | | |
| | APPROACH % | 62% | 0% | 38% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.694 | | | 0.000 | | | 0.826 | | | 0.701 | | 0.833 | | | | | |
| | APP/DEPART | 25 | / | 0 | 0 | / | 0 | 319 | / | 329 | 129 | / | 145 | 0 | | | | | |

**I-5 NB Off-Ramp**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 NB Off-Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 15 | 0 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 18 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 24 | 0 | 41 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 16 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 17 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 20 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 17 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 27 | 0 | 10 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 139 | 0 | 237 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 73% | 0% | 27% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 37 | / | 0 | 0 | / | 0 | 61 | / | 71 | 139 | / | 166 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 18 | 0 | 7 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 73 | 0 | 131 | | | | | |
| | APPROACH % | 72% | 0% | 28% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.781 | | | 0.000 | | | 0.825 | | | 0.760 | | 0.799 | | | | | |
| | APP/DEPART | 25 | / | 0 | 0 | / | 0 | 33 | / | 40 | 73 | / | 91 | 0 | | | | | |
| PM | 4:00 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 15 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 16 | 0 | 48 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 16 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 10 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 9 | 0 | 48 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 8 | 0 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 15 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 15 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 9 | 0 | 5 | 0 | 0 | 0 | 0 | 236 | 0 | 0 | 104 | 0 | 354 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 64% | 0% | 36% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 14 | / | 0 | 0 | / | 0 | 236 | / | 241 | 104 | / | 113 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 137 | 0 | 0 | 51 | 0 | 192 | | | | | |
| | APPROACH % | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.878 | | | 0.797 | | 0.857 | | | | | |
| | APP/DEPART | 4 | / | 0 | 0 | / | 0 | 137 | / | 139 | 51 | / | 53 | 0 | | | | | |

**I-5 NB Off-Ramp**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 NB Off-Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

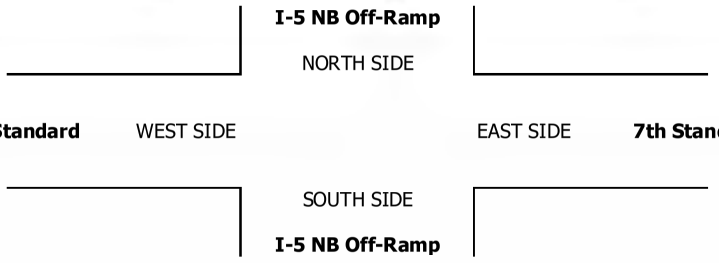
**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 |
| | 7:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 | 0 | 10 |
| | 7:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 6 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 | 0 | 12 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 5 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 6 |
| | 8:30 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 7 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 6 |
| | VOLUMES | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 39 | 0 | 56 |
| | APPROACH % | 20% | 0% | 80% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 5 | / | 0 | 0 | / | 0 | 12 | / | 16 | 39 | / | 40 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 24 | 0 | 32 |
| | APPROACH % | 25% | 0% | 75% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 1.000 | | | 0.000 | | | 0.333 | | | 0.750 | | 0.667 |
| | APP/DEPART | 4 | / | 0 | 0 | / | 0 | 4 | / | 7 | 24 | / | 25 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 11 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 |
| | 4:30 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 12 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 2 | 0 | 9 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 8 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 5 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 6 |
| | VOLUMES | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 11 | 0 | 63 |
| | APPROACH % | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 2 | / | 0 | 0 | / | 0 | 50 | / | 51 | 11 | / | 12 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 6 | 0 | 36 |
| | APPROACH % | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.700 | | | 0.500 | | 0.750 |
| | APP/DEPART | 2 | / | 0 | 0 | / | 0 | 28 | / | 29 | 6 | / | 7 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 10 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| | VOLUMES | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 11 | 0 | 19 |
| | APPROACH % | 67% | 0% | 33% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 3 | / | 0 | 0 | / | 0 | 5 | / | 6 | 11 | / | 13 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 5 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.375 | | 0.625 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 2 | / | 2 | 3 | / | 3 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 6 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 5 | / | 5 | 1 | / | 1 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.375 | | | 0.000 | | 0.375 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 3 | / | 3 | 0 | / | 0 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**I-5 NB Off-Ramp**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 NB Off-Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

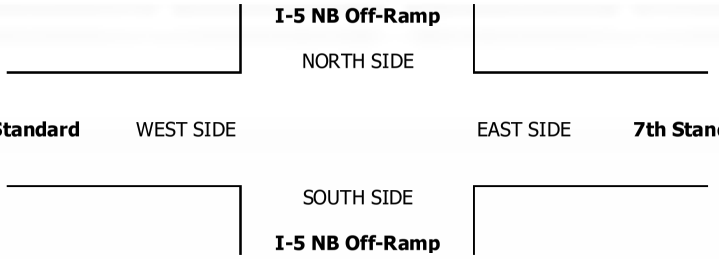
| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 | |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP N | |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 10 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 12 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 4 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 9 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 10 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 11 | 0 | 7 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 69 | 0 | 126 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 61% | 0% | 39% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 18 | / | 0 | 0 | / | 0 | 39 | / | 46 | 69 | / | 80 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 37 | 0 | 57 | | | | | |
| | APPROACH % | 38% | 0% | 63% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.667 | | | 0.000 | | | 1.000 | | | 0.771 | | 0.891 | | | | | |
| | APP/DEPART | 8 | / | 0 | 0 | / | 0 | 12 | / | 17 | 37 | / | 40 | 0 | | | | | |
| PM | 4:00 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 10 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 5 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 3 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 8 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 4 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 76 | 0 | 0 | 46 | 0 | 131 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 67% | 0% | 33% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 9 | / | 0 | 0 | / | 0 | 76 | / | 79 | 46 | / | 52 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 23 | 0 | 73 | | | | | |
| | APPROACH % | 67% | 0% | 33% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.733 | | | 0.575 | | 0.830 | | | | | |
| | APP/DEPART | 6 | / | 0 | 0 | / | 0 | 44 | / | 46 | 23 | / | 27 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 NB Off-Ramp | LOCATION #: | 11 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP N |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 NB Off-Ramp | | | SOUTHBOUND I-5 NB Off-Ramp | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT X | NR 1 | SL X | ST X | SR X | EL X | ET 1 | ER X | WL X | WT 1 | WR X | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**I-5 NB Off-Ramp**

NORTH SIDE

**7th Standard** WEST SIDE

EAST SIDE **7th Standard**

SOUTH SIDE

**I-5 NB Off-Ramp**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Magnolia
EAST & WEST: 7th Standard

PROJECT #: SC4130
LOCATION #: 12
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

| | | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 5 | 0 | 11 | 2 | 17 | 0 | 0 | 33 | 3 | 71 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 8 | 10 | 15 | 0 | 0 | 37 | 16 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 7 | 4 | 14 | 0 | 0 | 47 | 13 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 10 | 6 | 20 | 0 | 0 | 28 | 5 | 70 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 3 | 0 | 2 | 3 | 19 | 0 | 0 | 31 | 8 | 66 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 5 | 0 | 4 | 6 | 18 | 0 | 0 | 27 | 4 | 64 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 0 | 9 | 12 | 23 | 0 | 0 | 32 | 4 | 83 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 3 | 0 | 12 | 8 | 24 | 0 | 0 | 32 | 4 | 83 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 21 | 0 | 63 | 51 | 150 | 0 | 0 | 267 | 57 | 609 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 25% | 0% | 75% | 25% | 75% | 0% | 0% | 82% | 18% | | | | | | |
| | APP/DEPART | 0 | / | 108 | 84 | / | 0 | 201 | / | 171 | 324 | / | 330 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 7 | 0 | 36 | 22 | 66 | 0 | 0 | 145 | 37 | 313 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 16% | 0% | 84% | 25% | 75% | 0% | 0% | 80% | 20% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.672 | | | 0.846 | | | 0.758 | | 0.910 | | | | | |
| | APP/DEPART | 0 | / | 59 | 43 | / | 0 | 88 | / | 73 | 182 | / | 181 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 9 | 0 | 3 | 8 | 62 | 0 | 0 | 19 | 1 | 102 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 3 | 0 | 3 | 11 | 59 | 0 | 0 | 23 | 1 | 100 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 2 | 0 | 10 | 12 | 62 | 0 | 0 | 24 | 2 | 112 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 2 | 0 | 8 | 4 | 68 | 0 | 0 | 23 | 1 | 106 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 2 | 0 | 5 | 7 | 61 | 0 | 0 | 18 | 1 | 94 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 5 | 0 | 6 | 7 | 52 | 0 | 0 | 18 | 2 | 90 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 2 | 0 | 3 | 6 | 49 | 0 | 0 | 24 | 3 | 87 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 1 | 0 | 7 | 10 | 33 | 0 | 0 | 24 | 4 | 79 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 26 | 0 | 45 | 65 | 446 | 0 | 0 | 173 | 15 | 770 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 37% | 0% | 63% | 13% | 87% | 0% | 0% | 92% | 8% | | | | | | |
| | APP/DEPART | 0 | / | 80 | 71 | / | 0 | 511 | / | 472 | 188 | / | 218 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 16 | 0 | 24 | 35 | 251 | 0 | 0 | 89 | 5 | 420 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 40% | 0% | 60% | 12% | 88% | 0% | 0% | 95% | 5% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.833 | | | 0.966 | | | 0.904 | | 0.938 | | | | | |
| | APP/DEPART | 0 | / | 40 | 40 | / | 0 | 286 | / | 267 | 94 | / | 113 | 0 | | | | | |

**Magnolia**

NORTH SIDE

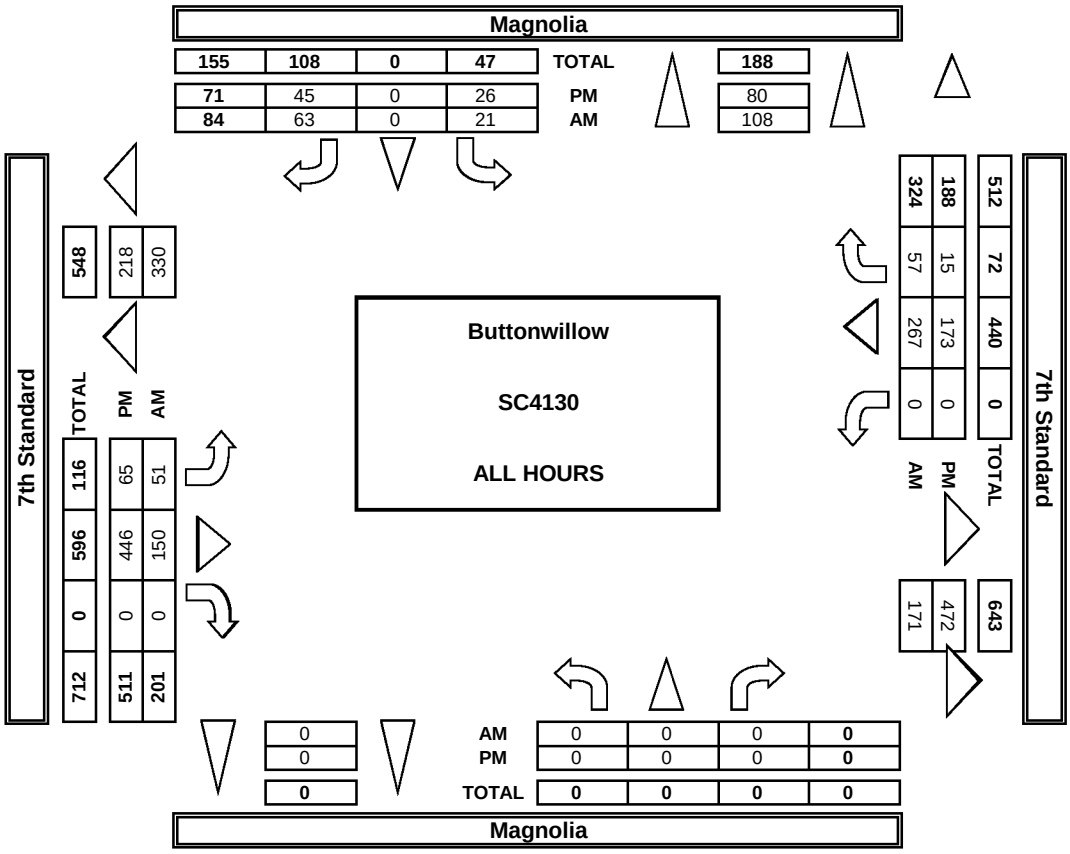
**7th Standard** WEST SIDE EAST SIDE **7th Standard**

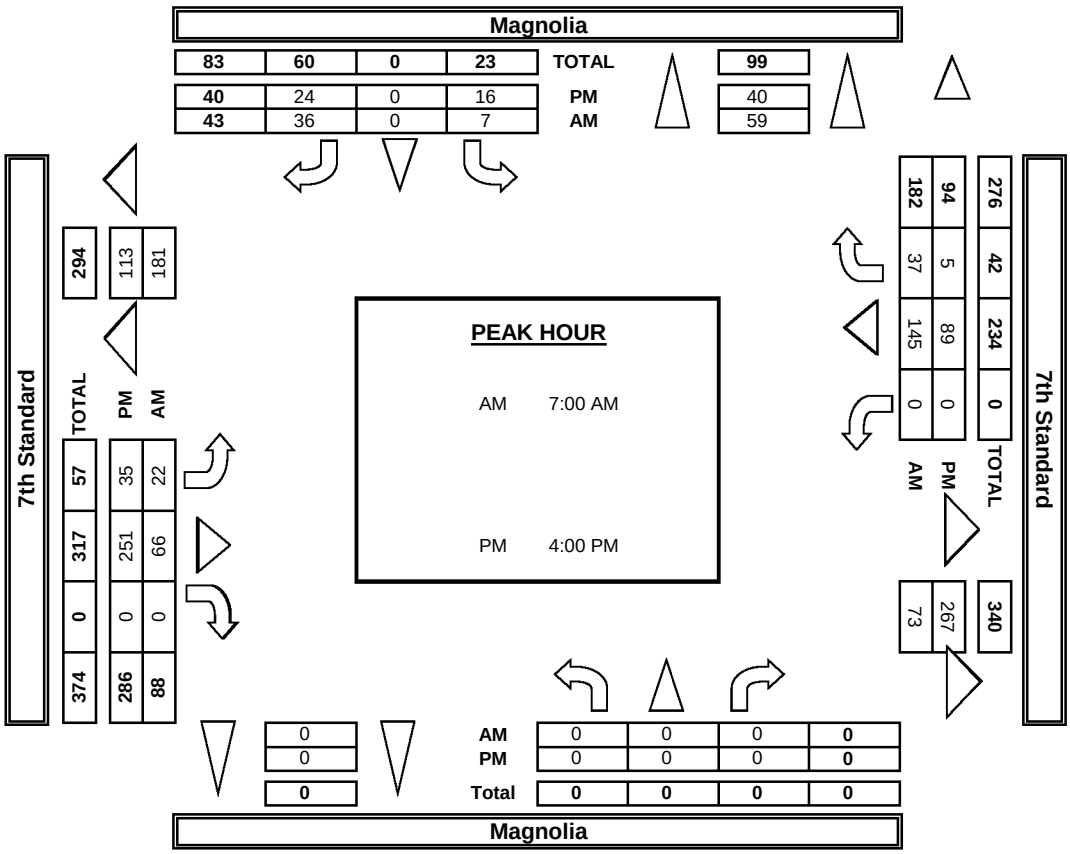
SOUTH SIDE

**Magnolia**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | AM | | ▲ N | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | PM MD | ◄ W | | E ► |
| | | | | | | | | | OTHER | | S ▼ | |
| | | | | | | | | | OTHER | | | |

| | | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 10 | 0 | 17 | 2 | 24 | 0 | 0 | 55 | 3 | 110 | | | | | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 8 | 15 | 22 | 0 | 0 | 61 | 24 | 130 | | | | | 0 |
| | 7:30 AM | 0 | 0 | 0 | 3 | 0 | 10 | 4 | 21 | 0 | 0 | 64 | 17 | 118 | | | | | 0 |
| | 7:45 AM | 0 | 0 | 0 | 3 | 0 | 18 | 11 | 29 | 0 | 0 | 42 | 11 | 113 | | | | | 0 |
| | 8:00 AM | 0 | 0 | 0 | 7 | 0 | 5 | 6 | 34 | 0 | 0 | 47 | 13 | 110 | | | | | 0 |
| | 8:15 AM | 0 | 0 | 0 | 11 | 0 | 8 | 12 | 29 | 0 | 0 | 54 | 8 | 120 | | | | | 0 |
| | 8:30 AM | 0 | 0 | 0 | 5 | 0 | 20 | 27 | 40 | 0 | 0 | 52 | 11 | 154 | | | | | 0 |
| | 8:45 AM | 0 | 0 | 0 | 7 | 0 | 26 | 17 | 46 | 0 | 0 | 56 | 8 | 160 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 45 | 0 | 110 | 94 | 243 | 0 | 0 | 429 | 94 | 1,014 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 29% | 0% | 71% | 28% | 72% | 0% | 0% | 82% | 18% | | | | | | |
| | APP/DEPART | 0 | / | 188 | 155 | / | 0 | 337 | / | 288 | 523 | / | 538 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 16 | 0 | 52 | 32 | 96 | 0 | 0 | 221 | 55 | 470 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 23% | 0% | 77% | 25% | 75% | 0% | 0% | 80% | 20% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.649 | | | 0.804 | | | 0.815 | | 0.907 | | | | | |
| | APP/DEPART | 0 | / | 86 | 68 | / | 0 | 127 | / | 111 | 276 | / | 273 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 9 | 0 | 5 | 8 | 91 | 0 | 0 | 28 | 1 | 142 | | | | | 0 |
| | 4:15 PM | 0 | 0 | 0 | 3 | 0 | 4 | 13 | 78 | 0 | 0 | 38 | 1 | 137 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 0 | 2 | 0 | 15 | 15 | 86 | 0 | 0 | 44 | 3 | 164 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 0 | 2 | 0 | 10 | 5 | 96 | 0 | 0 | 29 | 1 | 143 | | | | | 0 |
| | 5:00 PM | 0 | 0 | 0 | 2 | 0 | 5 | 9 | 100 | 0 | 0 | 27 | 1 | 143 | | | | | 0 |
| | 5:15 PM | 0 | 0 | 0 | 7 | 0 | 6 | 8 | 84 | 0 | 0 | 26 | 2 | 132 | | | | | 0 |
| | 5:30 PM | 0 | 0 | 0 | 2 | 0 | 3 | 9 | 64 | 0 | 0 | 37 | 3 | 118 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 0 | 1 | 0 | 13 | 13 | 46 | 0 | 0 | 36 | 5 | 113 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 28 | 0 | 61 | 78 | 644 | 0 | 0 | 264 | 16 | 1,090 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 32% | 0% | 68% | 11% | 89% | 0% | 0% | 94% | 6% | | | | | | |
| | APP/DEPART | 0 | / | 94 | 89 | / | 0 | 722 | / | 672 | 280 | / | 324 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 16 | 0 | 34 | 41 | 351 | 0 | 0 | 139 | 6 | 585 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 32% | 0% | 68% | 10% | 90% | 0% | 0% | 96% | 4% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.969 | | | 0.774 | | 0.892 | | | | | |
| | APP/DEPART | 0 | / | 47 | 50 | / | 0 | 392 | / | 367 | 144 | / | 172 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 0 | 0 | 2 | 0 | 7 | 2 | 12 | 0 | 0 | 20 | 3 | 46 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 8 | 6 | 10 | 0 | 0 | 19 | 9 | 52 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 8 | 0 | 0 | 37 | 9 | 63 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 14 | 0 | 0 | 13 | 2 | 38 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 11 | 0 | 0 | 18 | 5 | 36 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 12 | 0 | 0 | 9 | 2 | 28 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 14 | 0 | 0 | 19 | 0 | 39 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 10 | 0 | 0 | 17 | 2 | 36 | 0 | 0 | 0 | 0 | 0 |
| AM VOLUMES | 0 | 0 | 0 | 7 | 0 | 32 | 24 | 91 | 0 | 0 | 152 | 32 | 338 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 0% | 0% | 0% | 18% | 0% | 82% | 21% | 79% | 0% | 0% | 83% | 17% | | | | | | |
| AM APP/DEPART | 0 | / | 56 | 39 | / | 0 | 115 | / | 98 | 184 | / | 184 | 0 | | | | | |
| AM BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 0 | 0 | 0 | 2 | 0 | 26 | 15 | 44 | 0 | 0 | 89 | 23 | 199 | | | | | |
| AM APPROACH % | 0% | 0% | 0% | 7% | 0% | 93% | 25% | 75% | 0% | 0% | 79% | 21% | | | | | | |
| AM PEAK HR FACTOR | | 0.000 | | | 0.778 | | | 0.868 | | | 0.609 | | 0.790 | | | | | |
| AM APP/DEPART | 0 | / | 38 | 28 | / | 0 | 59 | / | 46 | 112 | / | 115 | 0 | | | | | |
| 4:00 PM | 0 | 0 | 0 | 9 | 0 | 2 | 8 | 40 | 0 | 0 | 13 | 1 | 73 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 3 | 0 | 2 | 10 | 43 | 0 | 0 | 14 | 1 | 73 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 2 | 0 | 7 | 9 | 45 | 0 | 0 | 14 | 1 | 78 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 2 | 0 | 7 | 3 | 45 | 0 | 0 | 18 | 1 | 76 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 2 | 0 | 5 | 5 | 38 | 0 | 0 | 13 | 1 | 64 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 4 | 0 | 6 | 6 | 28 | 0 | 0 | 14 | 2 | 60 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 2 | 0 | 3 | 4 | 37 | 0 | 0 | 17 | 3 | 66 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 1 | 0 | 4 | 8 | 25 | 0 | 0 | 16 | 3 | 57 | 0 | 0 | 0 | 0 | 0 |
| PM VOLUMES | 0 | 0 | 0 | 25 | 0 | 36 | 53 | 301 | 0 | 0 | 119 | 13 | 547 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 0% | 0% | 0% | 41% | 0% | 59% | 15% | 85% | 0% | 0% | 90% | 10% | | | | | | |
| PM APP/DEPART | 0 | / | 66 | 61 | / | 0 | 354 | / | 326 | 132 | / | 155 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 0 | 0 | 0 | 16 | 0 | 18 | 30 | 173 | 0 | 0 | 59 | 4 | 300 | | | | | |
| PM APPROACH % | 0% | 0% | 0% | 47% | 0% | 53% | 15% | 85% | 0% | 0% | 94% | 6% | | | | | | |
| PM PEAK HR FACTOR | | 0.000 | | | 0.773 | | | 0.940 | | | 0.829 | | 0.962 | | | | | |
| PM APP/DEPART | 0 | / | 34 | 34 | / | 0 | 203 | / | 189 | 63 | / | 77 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Magnolia) | | | SOUTHBOUND (Magnolia) | | | EASTBOUND (7th Standard) | | | WESTBOUND (7th Standard) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 8 | 3 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 2 | 2 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 9 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 7 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 5 | 3 | 16 | 0 | 0 | 41 | 6 | 73 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 29% | 0% | 71% | 16% | 84% | 0% | 0% | 87% | 13% | | | | | | |
| | APP/DEPART | 0 | / | 9 | 7 | / | 0 | 19 | / | 18 | 47 | / | 46 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 9 | 0 | 0 | 22 | 5 | 42 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 33% | 0% | 67% | 25% | 75% | 0% | 0% | 81% | 19% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.375 | | | 0.750 | | | 0.614 | | 0.700 | | | | | |
| | APP/DEPART | 0 | / | 8 | 3 | / | 0 | 12 | / | 10 | 27 | / | 24 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 2 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 2 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 0 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 3 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 1 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 59 | 0 | 0 | 11 | 2 | 79 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 9% | 91% | 0% | 0% | 85% | 15% | | | | | | |
| | APP/DEPART | 0 | / | 8 | 1 | / | 0 | 65 | / | 59 | 13 | / | 12 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 35 | 0 | 0 | 7 | 1 | 46 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 5% | 95% | 0% | 0% | 88% | 13% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.771 | | | 0.667 | | 0.767 | | | | | |
| | APP/DEPART | 0 | / | 3 | 1 | / | 0 | 37 | / | 35 | 8 | / | 8 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 2 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 8 | 7 | 1 | 0 | 0 | 7 | 4 | 28 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 11% | 0% | 89% | 88% | 13% | 0% | 0% | 64% | 36% | | | | | | |
| | APP/DEPART | 0 | / | 11 | 9 | / | 0 | 8 | / | 2 | 11 | / | 15 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 3 | 8 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 50% | 50% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.250 | | | 0.500 | | 0.667 | | | | | |
| | APP/DEPART | 0 | / | 3 | 1 | / | 0 | 1 | / | 1 | 6 | / | 4 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 40% | 60% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 2 | 1 | / | 0 | 5 | / | 3 | 1 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 5 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 25% | 75% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.500 | | | 0.000 | | 0.625 | | | | | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 0 | 4 | / | 3 | 0 | / | 1 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 0 | 10 | 0 | 17 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 10 | 2 | 17 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 8 | 1 | 13 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 4 | 2 | 4 | 0 | 0 | 3 | 3 | 17 |
| | 8:00 AM | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 7 | 0 | 0 | 6 | 2 | 19 |
| | 8:15 AM | 0 | 0 | 0 | 2 | 0 | 1 | 3 | 5 | 0 | 0 | 11 | 2 | 24 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 4 | 5 | 8 | 0 | 0 | 8 | 3 | 29 |
| | 8:45 AM | 0 | 0 | 0 | 2 | 0 | 5 | 4 | 10 | 0 | 0 | 11 | 2 | 34 |
| | VOLUMES | 0 | 0 | 0 | 11 | 0 | 18 | 17 | 42 | 0 | 0 | 67 | 15 | 170 |
| | APPROACH % | 0% | 0% | 0% | 38% | 0% | 62% | 29% | 71% | 0% | 0% | 82% | 18% | |
| | APP/DEPART | 0 | / | 32 | 29 | / | 0 | 59 | / | 53 | 82 | / | 85 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 4 | 0 | 7 | 4 | 12 | 0 | 0 | 31 | 6 | 64 |
| | APPROACH % | 0% | 0% | 0% | 36% | 0% | 64% | 25% | 75% | 0% | 0% | 84% | 16% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.550 | | | 0.667 | | | 0.771 | | 0.941 |
| | APP/DEPART | 0 | / | 10 | 11 | / | 0 | 16 | / | 16 | 37 | / | 38 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 11 | 0 | 0 | 4 | 0 | 16 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 7 | 0 | 15 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 10 | 0 | 0 | 10 | 0 | 23 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 11 | 0 | 0 | 2 | 0 | 14 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 4 | 0 | 22 |
| | 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 13 | 0 | 0 | 4 | 0 | 18 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 6 | 0 | 13 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 6 | 0 | 0 | 5 | 0 | 15 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 7 | 4 | 82 | 0 | 0 | 42 | 0 | 136 |
| | APPROACH % | 0% | 0% | 0% | 13% | 0% | 88% | 5% | 95% | 0% | 0% | 100% | 0% | |
| | APP/DEPART | 0 | / | 4 | 8 | / | 0 | 86 | / | 83 | 42 | / | 49 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 39 | 0 | 0 | 23 | 0 | 68 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 5% | 95% | 0% | 0% | 100% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.932 | | | 0.575 | | 0.739 |
| | APP/DEPART | 0 | / | 2 | 4 | / | 0 | 41 | / | 39 | 23 | / | 27 | 0 |

**U-TURNS**

| AM | NB | SB | EB | WB | TTL |
|---|---|---|---|---|---|
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |

| PM | NB | SB | EB | WB | TTL |
|---|---|---|---|---|---|
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Magnolia) | | | SOUTHBOUND (Magnolia) | | | EASTBOUND (7th Standard) | | | WESTBOUND (7th Standard) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>X | NR<br>X | SL<br>0 | ST<br>X | SR<br>0 | EL<br>0 | ET<br>1 | ER<br>X | WL<br>X | WT<br>1 | WR<br>0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Magnolia | LOCATION #: | 12 |
| THURSDAY | EAST & WEST: | 7th Standard | CONTROL: | STOP S |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Magnolia | | | SOUTHBOUND Magnolia | | | EASTBOUND 7th Standard | | | WESTBOUND 7th Standard | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0 | ST X | SR 0 | EL 0 | ET 1 | ER X | WL X | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Magnolia**

NORTH SIDE

**7th Standard** WEST SIDE

EAST SIDE **7th Standard**

SOUTH SIDE

**Magnolia**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| Thu, Jul 27, 23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

NOTES:

AM / PM / MD / OTHER / OTHER

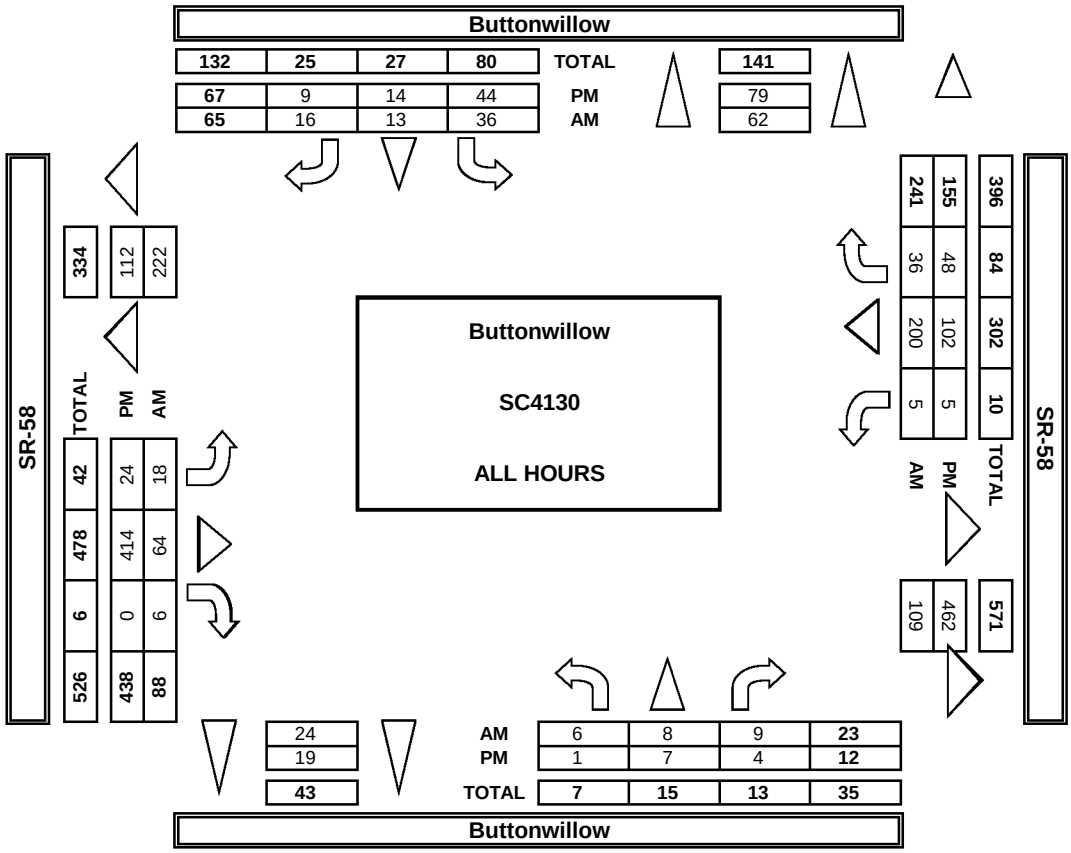
▲ N ◄ W E ► S ▼

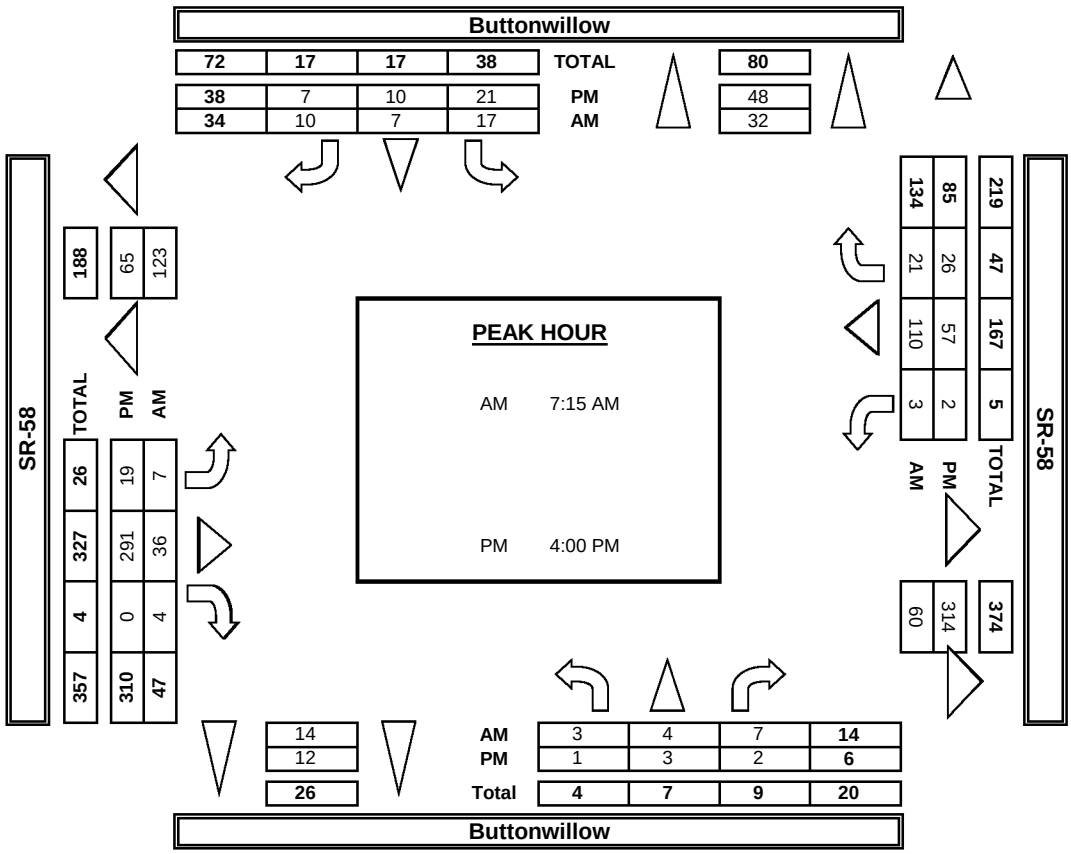
| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 1 | 1 | 3 | 3 | 1 | 4 | 6 | 0 | 2 | 25 | 1 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 1 | 8 | 1 | 1 | 0 | 13 | 1 | 1 | 30 | 6 | 63 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 2 | 2 | 6 | 3 | 1 | 2 | 8 | 0 | 1 | 32 | 8 | 65 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 2 | 0 | 2 | 2 | 0 | 5 | 2 | 4 | 1 | 1 | 30 | 4 | 53 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 1 | 2 | 1 | 3 | 3 | 3 | 11 | 2 | 0 | 18 | 3 | 48 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 1 | 2 | 3 | 0 | 2 | 11 | 2 | 0 | 22 | 8 | 52 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 2 | 1 | 0 | 6 | 0 | 2 | 3 | 3 | 0 | 0 | 18 | 0 | 35 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 2 | 0 | 8 | 0 | 3 | 2 | 8 | 0 | 0 | 25 | 6 | 54 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 6 | 8 | 9 | 36 | 13 | 16 | 18 | 64 | 6 | 5 | 200 | 36 | 417 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 26% | 35% | 39% | 55% | 20% | 25% | 20% | 73% | 7% | 2% | 83% | 15% | | | | | | |
| | APP/DEPART | 23 | / | 62 | 65 | / | 24 | 88 | / | 109 | 241 | / | 222 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 4 | 7 | 17 | 7 | 10 | 7 | 36 | 4 | 3 | 110 | 21 | 229 | | | | | |
| | APPROACH % | 21% | 29% | 50% | 50% | 21% | 29% | 15% | 77% | 9% | 2% | 82% | 16% | | | | | | |
| | PEAK HR FACTOR | | 0.875 | | | 0.850 | | | 0.734 | | | 0.817 | | 0.881 | | | | | |
| | APP/DEPART | 14 | / | 32 | 34 | / | 14 | 47 | / | 60 | 134 | / | 123 | 0 | | | | | |
| PM | 4:00 PM | 1 | 0 | 1 | 9 | 2 | 0 | 6 | 76 | 0 | 1 | 16 | 8 | 120 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 3 | 2 | 3 | 3 | 60 | 0 | 0 | 15 | 4 | 91 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 4 | 3 | 3 | 6 | 96 | 0 | 0 | 12 | 6 | 130 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 2 | 1 | 5 | 3 | 1 | 4 | 59 | 0 | 1 | 14 | 8 | 98 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 1 | 1 | 6 | 1 | 0 | 0 | 39 | 0 | 2 | 14 | 8 | 72 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 5 | 2 | 0 | 3 | 35 | 0 | 0 | 9 | 4 | 59 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 2 | 1 | 4 | 0 | 1 | 0 | 37 | 0 | 0 | 13 | 7 | 65 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 8 | 1 | 1 | 2 | 12 | 0 | 1 | 9 | 3 | 37 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 7 | 4 | 44 | 14 | 9 | 24 | 414 | 0 | 5 | 102 | 48 | 672 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 8% | 58% | 33% | 66% | 21% | 13% | 5% | 95% | 0% | 3% | 66% | 31% | | | | | | |
| | APP/DEPART | 12 | / | 79 | 67 | / | 19 | 438 | / | 462 | 155 | / | 112 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 3 | 2 | 21 | 10 | 7 | 19 | 291 | 0 | 2 | 57 | 26 | 439 | | | | | |
| | APPROACH % | 17% | 50% | 33% | 55% | 26% | 18% | 6% | 94% | 0% | 2% | 67% | 31% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.864 | | | 0.760 | | | 0.850 | | 0.844 | | | | | |
| | APP/DEPART | 6 | / | 48 | 38 | / | 12 | 310 | / | 314 | 85 | / | 65 | 0 | | | | | |



**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 | |
| | EAST & WEST: | SR-58 | CONTROL: | STOP N/S | |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 1 | 1 | 4 | 3 | 2 | 6 | 9 | 0 | 3 | 29 | 3 | 60 | | | | | 0 |
| | 7:15 AM | 0 | 1 | 2 | 9 | 1 | 1 | 0 | 14 | 1 | 1 | 38 | 7 | 73 | | | | | 0 |
| | 7:30 AM | 0 | 3 | 3 | 8 | 5 | 2 | 3 | 15 | 0 | 2 | 46 | 11 | 96 | | | | | 0 |
| | 7:45 AM | 5 | 0 | 3 | 2 | 0 | 6 | 6 | 7 | 1 | 2 | 41 | 5 | 78 | | | | | 0 |
| | 8:00 AM | 1 | 2 | 3 | 1 | 4 | 4 | 3 | 13 | 2 | 0 | 25 | 4 | 59 | | | | | 0 |
| | 8:15 AM | 1 | 0 | 2 | 2 | 3 | 0 | 2 | 20 | 2 | 0 | 33 | 12 | 77 | | | | | 0 |
| | 8:30 AM | 2 | 1 | 0 | 6 | 0 | 4 | 3 | 4 | 0 | 0 | 24 | 0 | 44 | | | | | 0 |
| | 8:45 AM | 0 | 2 | 0 | 11 | 0 | 4 | 3 | 13 | 0 | 0 | 34 | 8 | 73 | | | | | 0 |
| | VOLUMES | 9 | 10 | 12 | 41 | 16 | 21 | 25 | 95 | 6 | 8 | 269 | 48 | 558 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 30% | 31% | 39% | 53% | 20% | 27% | 20% | 75% | 5% | 2% | 83% | 15% | | | | | | |
| | APP/DEPART | 31 | / | 83 | 78 | / | 29 | 126 | / | 148 | 324 | / | 299 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 6 | 6 | 10 | 19 | 10 | 12 | 12 | 49 | 4 | 5 | 149 | 26 | 305 | | | | | |
| | APPROACH % | 29% | 26% | 45% | 47% | 23% | 30% | 18% | 76% | 6% | 3% | 83% | 14% | | | | | | |
| | PEAK HR FACTOR | | 0.656 | | | 0.723 | | | 0.896 | | | 0.765 | | 0.798 | | | | | |
| | APP/DEPART | 21 | / | 43 | 41 | / | 18 | 65 | / | 78 | 179 | / | 167 | 0 | | | | | |
| PM | 4:00 PM | 3 | 0 | 1 | 12 | 2 | 0 | 6 | 90 | 0 | 1 | 23 | 9 | 147 | | | | | 0 |
| | 4:15 PM | 0 | 1 | 0 | 3 | 2 | 4 | 4 | 73 | 0 | 0 | 23 | 5 | 113 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 0 | 5 | 4 | 4 | 8 | 107 | 0 | 0 | 14 | 6 | 146 | | | | | 0 |
| | 4:45 PM | 0 | 2 | 1 | 6 | 3 | 1 | 4 | 67 | 0 | 1 | 15 | 8 | 108 | | | | | 0 |
| | 5:00 PM | 0 | 1 | 1 | 6 | 1 | 0 | 0 | 45 | 0 | 2 | 15 | 8 | 79 | | | | | 0 |
| | 5:15 PM | 0 | 1 | 0 | 8 | 2 | 0 | 4 | 43 | 0 | 0 | 11 | 4 | 73 | | | | | 0 |
| | 5:30 PM | 0 | 2 | 1 | 5 | 0 | 1 | 0 | 39 | 0 | 0 | 13 | 9 | 69 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 0 | 8 | 1 | 1 | 2 | 16 | 0 | 1 | 10 | 3 | 42 | | | | | 0 |
| | VOLUMES | 3 | 7 | 4 | 52 | 15 | 10 | 27 | 478 | 0 | 5 | 124 | 51 | 775 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 21% | 50% | 29% | 68% | 19% | 13% | 5% | 95% | 0% | 3% | 69% | 28% | | | | | | |
| | APP/DEPART | 14 | / | 85 | 77 | / | 20 | 505 | / | 534 | 180 | / | 137 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 3 | 2 | 26 | 11 | 8 | 21 | 336 | 0 | 2 | 75 | 28 | 513 | | | | | |
| | APPROACH % | 38% | 38% | 25% | 58% | 24% | 18% | 6% | 94% | 0% | 2% | 72% | 26% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.786 | | | 0.779 | | | 0.788 | | 0.872 | | | | | |
| | APP/DEPART | 8 | / | 52 | 44 | / | 13 | 357 | / | 364 | 104 | / | 86 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

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OTHER

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| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 1 | 1 | 2 | 3 | 0 | 3 | 4 | 0 | 0 | 20 | 0 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 0 | 7 | 1 | 1 | 0 | 11 | 1 | 1 | 19 | 5 | 47 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 1 | 3 | 1 | 0 | 1 | 4 | 0 | 0 | 19 | 5 | 35 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 2 | 1 | 0 | 21 | 2 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 10 | 2 | 0 | 11 | 2 | 35 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 2 | 3 | 0 | 2 | 5 | 2 | 0 | 13 | 6 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 2 | 1 | 0 | 6 | 0 | 1 | 3 | 2 | 0 | 0 | 12 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 2 | 0 | 6 | 0 | 2 | 1 | 5 | 0 | 0 | 16 | 3 | 35 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 4 | 6 | 3 | 29 | 10 | 10 | 13 | 43 | 6 | 1 | 131 | 23 | 279 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 31% | 46% | 23% | 59% | 20% | 20% | 21% | 69% | 10% | 1% | 85% | 15% | | | | | | |
| | APP/DEPART | 13 | / | 42 | 49 | / | 17 | 62 | / | 75 | 155 | / | 145 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 2 | 2 | 13 | 4 | 7 | 4 | 27 | 4 | 1 | 70 | 14 | 149 | | | | | |
| | APPROACH % | 20% | 40% | 40% | 54% | 17% | 29% | 11% | 77% | 11% | 1% | 82% | 16% | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.667 | | | 0.583 | | | 0.850 | | 0.793 | | | | | |
| | APP/DEPART | 5 | / | 20 | 24 | / | 9 | 35 | / | 42 | 85 | / | 78 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 1 | 6 | 2 | 0 | 6 | 63 | 0 | 1 | 8 | 6 | 93 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 3 | 2 | 2 | 2 | 47 | 0 | 0 | 9 | 3 | 69 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 3 | 2 | 2 | 3 | 83 | 0 | 0 | 9 | 6 | 108 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 2 | 1 | 3 | 3 | 1 | 4 | 50 | 0 | 1 | 13 | 8 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 1 | 1 | 6 | 1 | 0 | 0 | 35 | 0 | 2 | 12 | 8 | 66 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 2 | 2 | 0 | 1 | 26 | 0 | 0 | 8 | 4 | 44 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 2 | 1 | 3 | 0 | 1 | 0 | 34 | 0 | 0 | 13 | 4 | 58 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 8 | 1 | 1 | 2 | 10 | 0 | 1 | 7 | 3 | 33 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 7 | 4 | 34 | 13 | 7 | 18 | 348 | 0 | 5 | 79 | 42 | 557 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 64% | 36% | 63% | 24% | 13% | 5% | 95% | 0% | 4% | 63% | 33% | | | | | | |
| | APP/DEPART | 11 | / | 67 | 54 | / | 18 | 366 | / | 386 | 126 | / | 86 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 3 | 2 | 15 | 9 | 5 | 15 | 243 | 0 | 2 | 39 | 23 | 356 | | | | | |
| | APPROACH % | 0% | 60% | 40% | 52% | 31% | 17% | 6% | 94% | 0% | 3% | 61% | 36% | | | | | | |
| | PEAK HR FACTOR | | 0.417 | | | 0.906 | | | 0.750 | | | 0.727 | | 0.824 | | | | | |
| | APP/DEPART | 5 | / | 41 | 29 | / | 11 | 258 | / | 260 | 64 | / | 44 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**SR-58** WEST SIDE EAST SIDE **SR-58**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

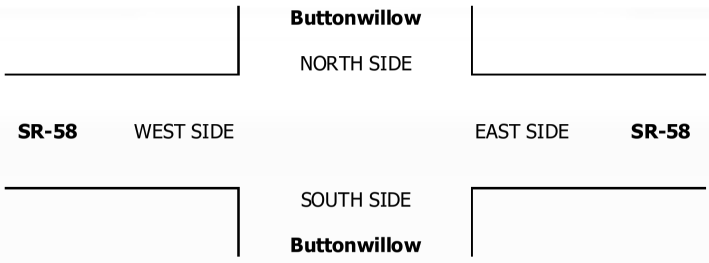
**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM
PM
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| | | NORTHBOUND (Buttonwillow) | | | SOUTHBOUND (Buttonwillow) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 1 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 1 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 8 | 1 | 15 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 5 | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 5 | 3 | 11 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 1 | 6 | 6 | 1 | 4 | 2 | 5 | 0 | 3 | 43 | 8 | 79 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 14% | 86% | 55% | 9% | 36% | 29% | 71% | 0% | 6% | 80% | 15% | | | | | | |
| | APP/DEPART | 7 | / | 11 | 11 | / | 4 | 7 | / | 17 | 54 | / | 47 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 5 | 4 | 1 | 2 | 1 | 2 | 0 | 1 | 26 | 5 | 48 | | | | | |
| | APPROACH % | 0% | 17% | 83% | 57% | 14% | 29% | 33% | 67% | 0% | 3% | 81% | 16% | | | | | | |
| | PEAK HR FACTOR | | 0.750 | | | 0.438 | | | 0.375 | | | 0.800 | | 0.800 | | | | | |
| | APP/DEPART | 6 | / | 7 | 7 | / | 2 | 3 | / | 11 | 32 | / | 28 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 0 | 6 | 2 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 2 | 1 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 10 | 0 | 0 | 3 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 8 | 1 | 2 | 6 | 45 | 0 | 0 | 15 | 6 | 83 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 73% | 9% | 18% | 12% | 88% | 0% | 0% | 71% | 29% | | | | | | |
| | APP/DEPART | 0 | / | 12 | 11 | / | 1 | 51 | / | 53 | 21 | / | 17 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 5 | 1 | 2 | 4 | 34 | 0 | 0 | 11 | 3 | 60 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 63% | 13% | 25% | 11% | 89% | 0% | 0% | 79% | 21% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.667 | | | 0.731 | | | 0.438 | | 0.789 | | | | | |
| | APP/DEPART | 0 | / | 7 | 8 | / | 1 | 38 | / | 39 | 14 | / | 13 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

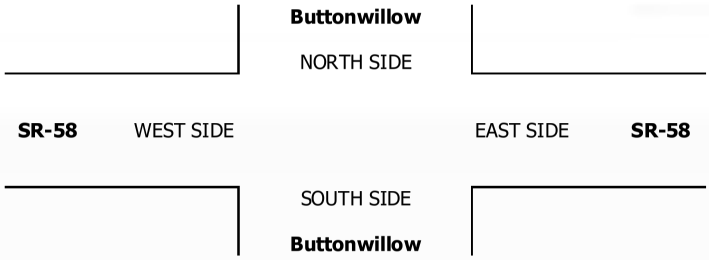
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM
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OTHER

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| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 4 | 0 | 1 | 5 | 2 | 17 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 50% | 50% | 0% | 0% | 67% | 33% | 0% | 100% | 0% | 13% | 63% | 25% | | | | | | |
| | APP/DEPART | 2 | / | 3 | 3 | / | 3 | 4 | / | 4 | 8 | / | 7 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 1 | 2 | 2 | 12 | | | | | |
| | APPROACH % | 50% | 50% | 0% | 0% | 67% | 33% | 0% | 100% | 0% | 20% | 40% | 40% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.375 | | | 0.500 | | | 0.417 | | 0.429 | | | | | |
| | APP/DEPART | 2 | / | 3 | 3 | / | 3 | 2 | / | 2 | 5 | / | 4 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 1 | / | 1 | 2 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.500 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 2 | / | 2 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

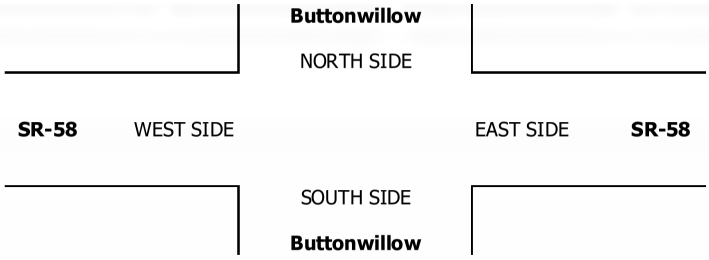
| DATE: | | | | |
|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 12 | 0 | 0 | 21 | 3 | 42 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 50% | 0% | 50% | 20% | 80% | 0% | 0% | 88% | 13% | | | | | | |
| APP/DEPART | 1 | / | 6 | 2 | / | 0 | 15 | / | 13 | 24 | / | 23 | 0 | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 12 | 0 | 20 | | | | | |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 29% | 71% | 0% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.583 | | | 0.600 | | 0.625 | | | | | |
| APP/DEPART | 1 | / | 2 | 0 | / | 0 | 7 | / | 5 | 12 | / | 13 | 0 | | | | | |
| PM 4:00 PM | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 2 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 0 | 0 | 6 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| APP/DEPART | 1 | / | 0 | 2 | / | 0 | 20 | / | 22 | 6 | / | 7 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| VOLUMES | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14 | 0 | 0 | 5 | 0 | 21 | | | | | |
| APPROACH % | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| PEAK HR FACTOR | | 0.250 | | | 0.250 | | | 0.700 | | | 0.417 | | 0.583 | | | | | |
| APP/DEPART | 1 | / | 0 | 1 | / | 0 | 14 | / | 15 | 5 | / | 6 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Buttonwillow) | | | SOUTHBOUND (Buttonwillow) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**SR-58** WEST SIDE EAST SIDE **SR-58**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Buttonwillow | LOCATION #: | 13 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Buttonwillow | | | SOUTHBOUND Buttonwillow | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 1 | ER 0 | WL 0 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Buttonwillow**

NORTH SIDE

**SR-58** WEST SIDE EAST SIDE **SR-58**

SOUTH SIDE

**Buttonwillow**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Wasco
EAST & WEST: SR-58

PROJECT #: SC4130
LOCATION #: 14
CONTROL: STOP N/S

NOTES:

AM
PM
MD
OTHER
OTHER

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S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 0 | 0 | 5 | 0 | 2 | 0 | 0 | 15 | 3 | 6 | 26 | 0 | 57 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 3 | 2 | 4 | 0 | 1 | 0 | 1 | 25 | 3 | 5 | 33 | 0 | 77 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 22 | 4 | 11 | 41 | 0 | 83 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 16 | 0 | 5 | 36 | 1 | 63 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 23 | 3 | 5 | 26 | 0 | 61 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 13 | 3 | 1 | 25 | 2 | 51 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 2 | 3 | 2 | 1 | 1 | 0 | 2 | 11 | 1 | 3 | 18 | 1 | 45 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 20 | 5 | 4 | 27 | 0 | 61 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 17 | 9 | 15 | 3 | 8 | 0 | 3 | 145 | 22 | 40 | 232 | 4 | 498 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 41% | 22% | 37% | 27% | 73% | 0% | 2% | 85% | 13% | 14% | 84% | 1% | | | | | | |
| | APP/DEPART | 41 | / | 16 | 11 | / | 70 | 170 | / | 163 | 276 | / | 249 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 10 | 5 | 6 | 0 | 3 | 0 | 1 | 86 | 10 | 26 | 136 | 1 | 284 | | | | | |
| | APPROACH % | 48% | 24% | 29% | 0% | 100% | 0% | 1% | 89% | 10% | 16% | 83% | 1% | | | | | | |
| | PEAK HR FACTOR | | 0.583 | | | 0.750 | | | 0.836 | | | 0.784 | | 0.855 | | | | | |
| | APP/DEPART | 21 | / | 7 | 3 | / | 39 | 97 | / | 92 | 163 | / | 146 | 0 | | | | | |
| PM | 4:00 PM | 8 | 0 | 10 | 1 | 1 | 0 | 0 | 69 | 7 | 0 | 26 | 0 | 122 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 9 | 0 | 0 | 0 | 2 | 84 | 4 | 1 | 27 | 0 | 129 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 2 | 0 | 4 | 0 | 2 | 1 | 0 | 89 | 6 | 2 | 30 | 0 | 136 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 71 | 3 | 5 | 34 | 0 | 119 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 1 | 6 | 0 | 0 | 0 | 1 | 49 | 2 | 2 | 26 | 0 | 88 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 8 | 0 | 2 | 0 | 0 | 48 | 4 | 3 | 24 | 0 | 89 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 4 | 0 | 5 | 0 | 0 | 1 | 0 | 43 | 2 | 1 | 23 | 0 | 79 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 31 | 3 | 2 | 25 | 0 | 66 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 20 | 3 | 47 | 1 | 5 | 3 | 3 | 484 | 31 | 16 | 215 | 0 | 828 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 29% | 4% | 67% | 11% | 56% | 33% | 1% | 93% | 6% | 7% | 93% | 0% | | | | | | |
| | APP/DEPART | 70 | / | 6 | 9 | / | 52 | 518 | / | 532 | 231 | / | 238 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 12 | 0 | 28 | 1 | 3 | 2 | 2 | 313 | 20 | 8 | 117 | 0 | 506 | | | | | |
| | APPROACH % | 30% | 0% | 70% | 17% | 50% | 33% | 1% | 93% | 6% | 6% | 94% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.556 | | | 0.500 | | | 0.882 | | | 0.801 | | 0.930 | | | | | |
| | APP/DEPART | 40 | / | 2 | 6 | / | 31 | 335 | / | 342 | 125 | / | 131 | 0 | | | | | |

**Wasco**

NORTH SIDE

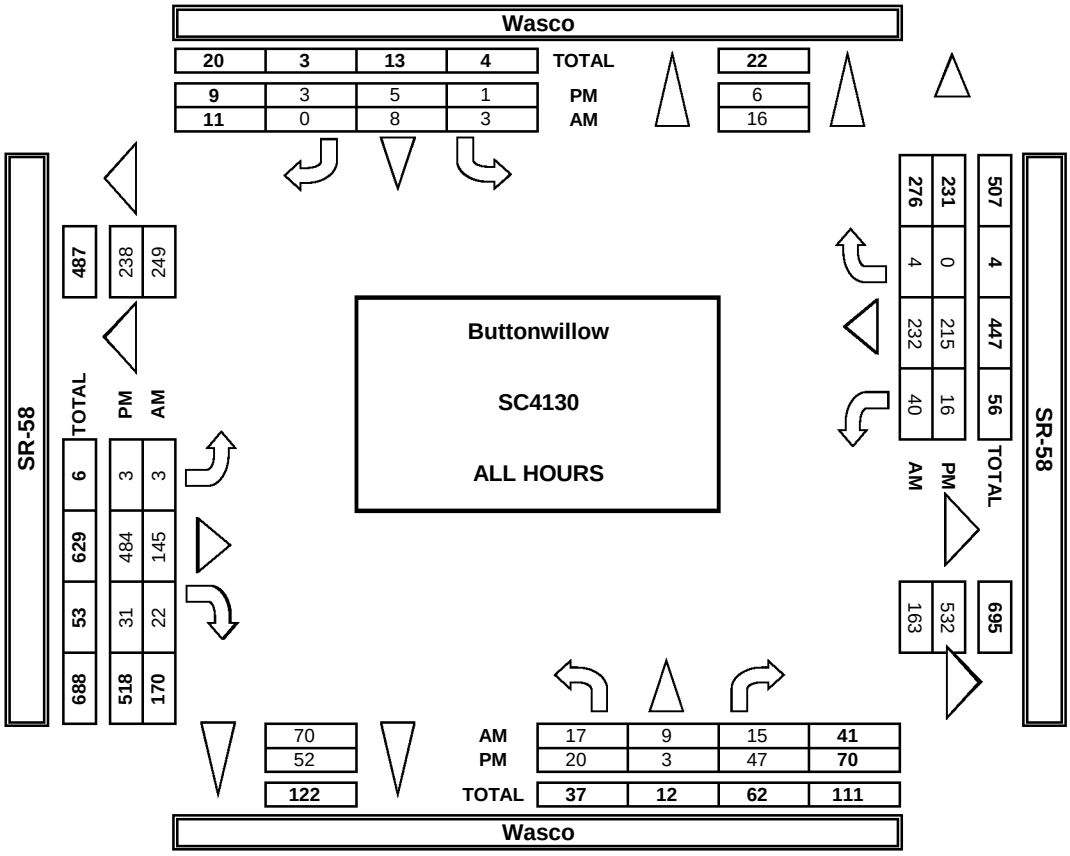
**SR-58** WEST SIDE EAST SIDE **SR-58**

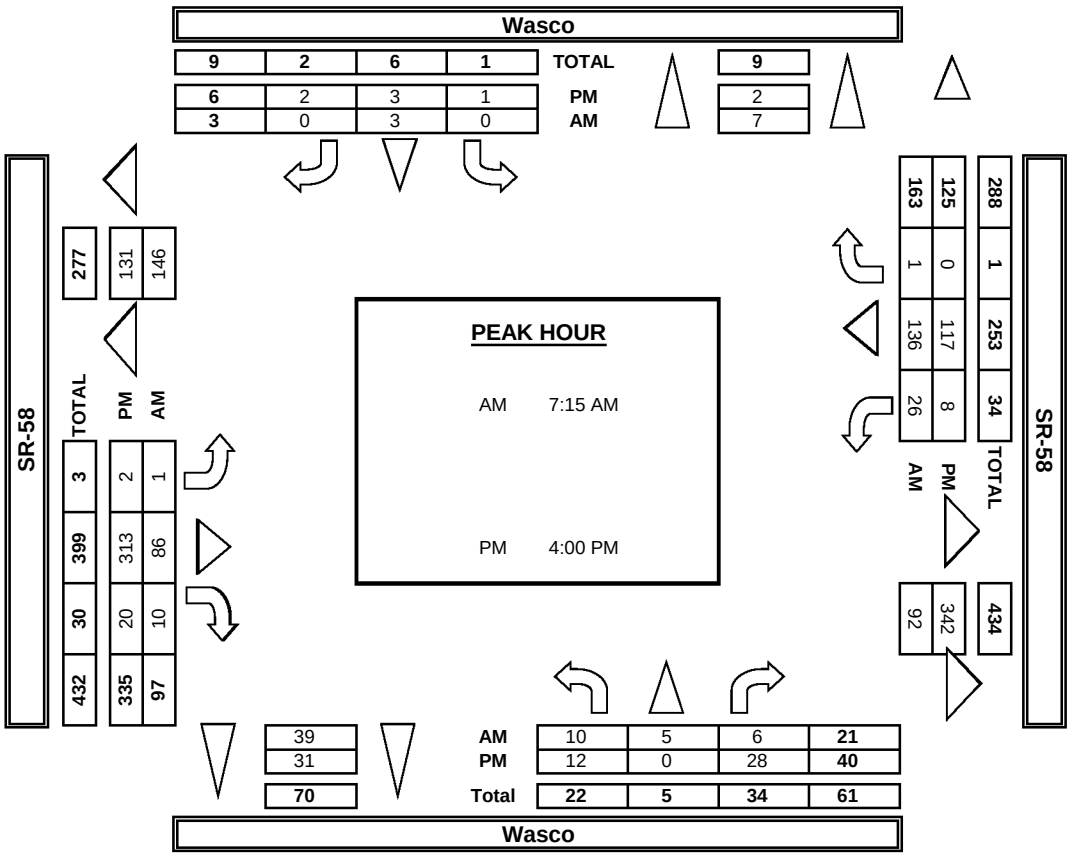
SOUTH SIDE

**Wasco**

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 | |
| THURSDAY | NORTH & SOUTH: | Wasco | LOCATION #: | 14 | |
| | EAST & WEST: | SR-58 | CONTROL: | STOP N/S | |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 6 | 0 | 3 | 0 | 0 | 19 | 4 | 7 | 33 | 0 | 70 | | | | | 0 |
| | 7:15 AM | 3 | 3 | 4 | 0 | 1 | 0 | 1 | 26 | 4 | 5 | 45 | 0 | 91 | | | | | 0 |
| | 7:30 AM | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 28 | 8 | 14 | 49 | 0 | 104 | | | | | 0 |
| | 7:45 AM | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 20 | 0 | 7 | 46 | 1 | 80 | | | | | 0 |
| | 8:00 AM | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 29 | 3 | 10 | 38 | 0 | 83 | | | | | 0 |
| | 8:15 AM | 2 | 1 | 1 | 2 | 2 | 0 | 0 | 15 | 5 | 2 | 33 | 2 | 65 | | | | | 0 |
| | 8:30 AM | 4 | 5 | 4 | 1 | 1 | 0 | 2 | 15 | 1 | 3 | 32 | 1 | 69 | | | | | 0 |
| | 8:45 AM | 4 | 0 | 2 | 0 | 1 | 0 | 0 | 23 | 6 | 5 | 37 | 0 | 77 | | | | | 0 |
| | VOLUMES | 21 | 12 | 19 | 3 | 11 | 0 | 3 | 173 | 30 | 51 | 311 | 4 | 636 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 40% | 24% | 36% | 22% | 78% | 0% | 1% | 84% | 15% | 14% | 85% | 1% | | | | | | |
| | APP/DEPART | 51 | / | 19 | 14 | / | 92 | 206 | / | 195 | 366 | / | 331 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 11 | 6 | 7 | 0 | 4 | 0 | 1 | 102 | 15 | 35 | 177 | 1 | 357 | | | | | |
| | APPROACH % | 46% | 26% | 28% | 0% | 100% | 0% | 1% | 87% | 12% | 16% | 83% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.575 | | | 0.500 | | | 0.813 | | | 0.850 | | 0.861 | | | | | |
| | APP/DEPART | 23 | / | 8 | 4 | / | 54 | 117 | / | 108 | 213 | / | 187 | 0 | | | | | |
| PM | 4:00 PM | 9 | 0 | 12 | 1 | 1 | 0 | 0 | 80 | 12 | 0 | 34 | 0 | 148 | | | | | 0 |
| | 4:15 PM | 2 | 0 | 10 | 0 | 0 | 0 | 2 | 97 | 4 | 1 | 31 | 0 | 147 | | | | | 0 |
| | 4:30 PM | 2 | 0 | 5 | 0 | 2 | 1 | 0 | 101 | 7 | 2 | 31 | 0 | 151 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 80 | 3 | 5 | 35 | 0 | 129 | | | | | 0 |
| | 5:00 PM | 1 | 1 | 7 | 0 | 0 | 0 | 1 | 51 | 2 | 2 | 27 | 0 | 91 | | | | | 0 |
| | 5:15 PM | 0 | 0 | 8 | 0 | 2 | 0 | 0 | 59 | 5 | 3 | 27 | 0 | 103 | | | | | 0 |
| | 5:30 PM | 4 | 0 | 8 | 0 | 0 | 1 | 0 | 45 | 3 | 1 | 23 | 0 | 85 | | | | | 0 |
| | 5:45 PM | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 35 | 3 | 2 | 28 | 0 | 73 | | | | | 0 |
| | VOLUMES | 21 | 4 | 54 | 1 | 5 | 3 | 3 | 548 | 38 | 16 | 234 | 0 | 925 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 27% | 4% | 69% | 11% | 56% | 33% | 1% | 93% | 6% | 6% | 94% | 0% | | | | | | |
| | APP/DEPART | 78 | / | 7 | 9 | / | 59 | 588 | / | 602 | 250 | / | 258 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 13 | 0 | 31 | 1 | 3 | 2 | 2 | 358 | 26 | 8 | 130 | 0 | 573 | | | | | |
| | APPROACH % | 30% | 0% | 70% | 17% | 50% | 33% | 1% | 93% | 7% | 6% | 94% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.537 | | | 0.500 | | | 0.891 | | | 0.873 | | 0.952 | | | | | |
| | APP/DEPART | 44 | / | 2 | 6 | / | 37 | 385 | / | 390 | 138 | / | 145 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

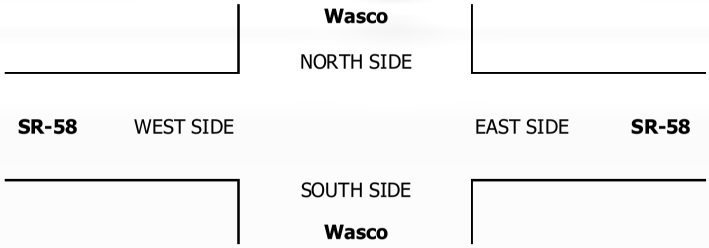
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

| | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 11 | 2 | 5 | 19 | 0 | 42 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 3 | 1 | 4 | 0 | 1 | 0 | 1 | 24 | 2 | 5 | 22 | 0 | 63 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 16 | 2 | 9 | 31 | 0 | 63 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 4 | 26 | 1 | 47 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 19 | 3 | 2 | 17 | 0 | 44 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 2 | 1 | 1 | 2 | 0 | 0 | 0 | 12 | 2 | 0 | 16 | 2 | 38 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 1 | 2 | 1 | 1 | 1 | 0 | 2 | 6 | 1 | 3 | 9 | 1 | 28 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 18 | 4 | 2 | 16 | 0 | 43 | 0 | 0 | 0 | 0 | 0 |
| AM VOLUMES | 14 | 7 | 11 | 3 | 5 | 0 | 3 | 119 | 16 | 30 | 156 | 4 | 368 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 44% | 22% | 34% | 38% | 63% | 0% | 2% | 86% | 12% | 16% | 82% | 2% | | | | | | |
| AM APP/DEPART | 32 | / | 14 | 8 | / | 51 | 138 | / | 133 | 190 | / | 170 | 0 | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 9 | 4 | 5 | 0 | 2 | 0 | 1 | 72 | 7 | 20 | 96 | 1 | 217 | | | | | |
| AM APPROACH % | 50% | 22% | 28% | 0% | 100% | 0% | 1% | 90% | 9% | 17% | 82% | 1% | | | | | | |
| AM PEAK HR FACTOR | | 0.563 | | | 0.500 | | | 0.741 | | | 0.731 | | 0.861 | | | | | |
| AM APP/DEPART | 18 | / | 6 | 2 | / | 29 | 80 | / | 77 | 117 | / | 105 | 0 | | | | | |
| 4:00 PM | 6 | 0 | 8 | 1 | 1 | 0 | 0 | 56 | 4 | 0 | 20 | 0 | 96 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 2 | 0 | 8 | 0 | 0 | 0 | 2 | 72 | 4 | 1 | 24 | 0 | 113 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 0 | 3 | 0 | 2 | 1 | 0 | 75 | 4 | 2 | 29 | 0 | 118 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 61 | 3 | 5 | 33 | 0 | 107 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 1 | 5 | 0 | 0 | 0 | 1 | 48 | 2 | 2 | 25 | 0 | 85 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 8 | 0 | 2 | 0 | 0 | 37 | 3 | 3 | 22 | 0 | 75 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 4 | 0 | 3 | 0 | 0 | 1 | 0 | 39 | 1 | 1 | 23 | 0 | 72 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 29 | 3 | 2 | 23 | 0 | 61 | 0 | 0 | 0 | 0 | 0 |
| PM VOLUMES | 18 | 2 | 39 | 1 | 5 | 3 | 3 | 417 | 24 | 16 | 199 | 0 | 727 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 31% | 3% | 66% | 11% | 56% | 33% | 1% | 94% | 5% | 7% | 93% | 0% | | | | | | |
| PM APP/DEPART | 59 | / | 5 | 9 | / | 45 | 444 | / | 457 | 215 | / | 220 | 0 | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 10 | 0 | 23 | 1 | 3 | 2 | 2 | 264 | 15 | 8 | 106 | 0 | 434 | | | | | |
| PM APPROACH % | 30% | 0% | 70% | 17% | 50% | 33% | 1% | 94% | 5% | 7% | 93% | 0% | | | | | | |
| PM PEAK HR FACTOR | | 0.589 | | | 0.500 | | | 0.889 | | | 0.750 | | 0.919 | | | | | |
| PM APP/DEPART | 33 | / | 2 | 6 | / | 26 | 281 | / | 288 | 114 | / | 118 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

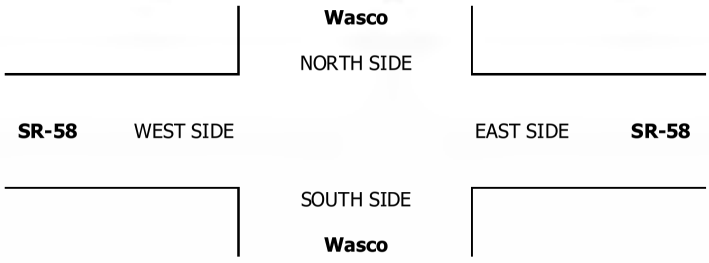
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Wasco) | | | SOUTHBOUND (Wasco) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 1 | 5 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 5 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 8 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 8 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 14 | 2 | 6 | 43 | 0 | 70 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 25% | 0% | 75% | 0% | 100% | 0% | 0% | 88% | 13% | 12% | 88% | 0% | | | | | | |
| | APP/DEPART | 4 | / | 0 | 1 | / | 9 | 16 | / | 17 | 49 | / | 44 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 1 | 2 | 23 | 0 | 35 | | | | | |
| | APPROACH % | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 88% | 13% | 8% | 92% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.500 | | | 0.694 | | 0.673 | | | | | |
| | APP/DEPART | 2 | / | 0 | 0 | / | 3 | 8 | / | 8 | 25 | / | 24 | 0 | | | | | |
| PM | 4:00 PM | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 1 | 0 | 3 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 1 | 5 | 0 | 0 | 0 | 0 | 43 | 5 | 0 | 7 | 0 | 63 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 25% | 13% | 63% | 0% | 0% | 0% | 0% | 90% | 10% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 8 | / | 1 | 0 | / | 5 | 48 | / | 48 | 7 | / | 9 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 33 | 3 | 0 | 4 | 0 | 46 | | | | | |
| | APPROACH % | 33% | 0% | 67% | 0% | 0% | 0% | 0% | 92% | 8% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.000 | | | 0.750 | | | 0.333 | | 0.676 | | | | | |
| | APP/DEPART | 6 | / | 0 | 0 | / | 3 | 36 | / | 37 | 4 | / | 6 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

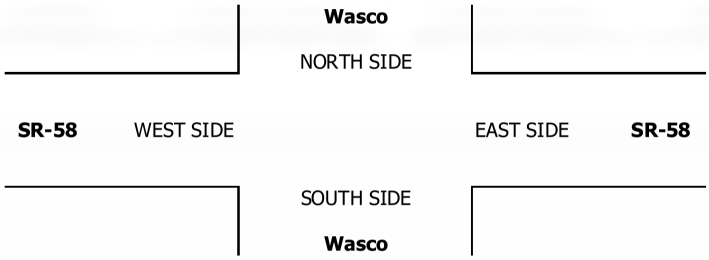
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Wasco) | | | SOUTHBOUND (Wasco) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 0 | 9 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 50% | 50% | 0% | 0% | 100% | 0% | 0% | 75% | 25% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 2 | / | 1 | 2 | / | 3 | 4 | / | 3 | 9 | / | 10 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 9 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.250 | | | 0.500 | | | 0.417 | | 0.563 | | | | | |
| | APP/DEPART | 1 | / | 1 | 1 | / | 1 | 2 | / | 2 | 5 | / | 5 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 3 | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 2 | / | 0 | 0 | / | 0 | 6 | / | 8 | 3 | / | 3 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 8 | | | | | |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.500 | | | 0.375 | | 0.500 | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 0 | 4 | / | 5 | 3 | / | 3 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

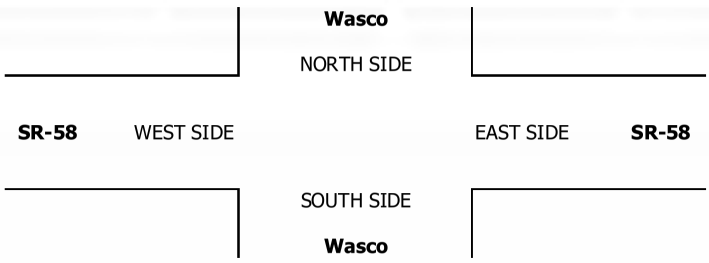
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Wasco) | | | SOUTHBOUND (Wasco) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 9 | 3 | 4 | 24 | 0 | 43 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 33% | 33% | 33% | 0% | 0% | 0% | 0% | 75% | 25% | 14% | 86% | 0% | | | | | | |
| | APP/DEPART | 3 | / | 1 | 0 | / | 7 | 12 | / | 10 | 28 | / | 25 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 4 | 12 | 0 | 23 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 71% | 29% | 25% | 75% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.438 | | | 0.667 | | 0.719 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 6 | 7 | / | 5 | 16 | / | 12 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 3 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 18 | 2 | 0 | 6 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 90% | 10% | 0% | 100% | 0% | | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 2 | 20 | / | 19 | 6 | / | 6 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 2 | 0 | 4 | 0 | 18 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 86% | 14% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.700 | | | 0.333 | | 0.563 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 2 | 14 | / | 12 | 4 | / | 4 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Wasco) | | | SOUTHBOUND (Wasco) | | | EASTBOUND (SR-58) | | | WESTBOUND (SR-58) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Wasco**

NORTH SIDE

**SR-58** WEST SIDE EAST SIDE **SR-58**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Wasco | LOCATION #: | 14 |
| THURSDAY | EAST & WEST: | SR-58 | CONTROL: | STOP N/S |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND Wasco | | | SOUTHBOUND Wasco | | | EASTBOUND SR-58 | | | WESTBOUND SR-58 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 0 | ET 2 | ER 0 | WL 0 | WT 2 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Wasco**

NORTH SIDE

**SR-58** WEST SIDE EAST SIDE **SR-58**

SOUTH SIDE

**Wasco**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| Thu, Jul 27, 23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 10 | 0 | 1 | 1 | 19 | 0 | 0 | 39 | 18 | 88 |
| | 7:15 AM | 0 | 0 | 0 | 12 | 0 | 1 | 8 | 27 | 0 | 0 | 38 | 26 | 112 |
| | 7:30 AM | 0 | 0 | 0 | 24 | 0 | 1 | 9 | 21 | 0 | 0 | 59 | 23 | 137 |
| | 7:45 AM | 0 | 0 | 0 | 22 | 0 | 3 | 4 | 15 | 0 | 0 | 48 | 16 | 108 |
| | 8:00 AM | 0 | 0 | 0 | 24 | 0 | 2 | 9 | 23 | 0 | 0 | 34 | 27 | 119 |
| | 8:15 AM | 0 | 0 | 0 | 19 | 0 | 3 | 3 | 19 | 0 | 0 | 33 | 26 | 103 |
| | 8:30 AM | 0 | 0 | 0 | 29 | 0 | 0 | 10 | 13 | 0 | 0 | 28 | 30 | 110 |
| | 8:45 AM | 0 | 0 | 0 | 40 | 0 | 4 | 7 | 23 | 0 | 0 | 37 | 27 | 138 |
| | VOLUMES | 0 | 0 | 0 | 180 | 0 | 15 | 51 | 160 | 0 | 0 | 316 | 193 | 915 |
| | APPROACH % | 0% | 0% | 0% | 92% | 0% | 8% | 24% | 76% | 0% | 0% | 62% | 38% | |
| | APP/DEPART | 0 | / | 244 | 195 | / | 0 | 211 | / | 340 | 509 | / | 331 | 0 |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 82 | 0 | 7 | 30 | 86 | 0 | 0 | 179 | 92 | 476 |
| | APPROACH % | 0% | 0% | 0% | 92% | 0% | 8% | 26% | 74% | 0% | 0% | 66% | 34% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.856 | | | 0.829 | | | 0.826 | | 0.869 |
| | APP/DEPART | 0 | / | 122 | 89 | / | 0 | 116 | / | 168 | 271 | / | 186 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 33 | 0 | 3 | 32 | 62 | 0 | 0 | 38 | 21 | 189 |
| | 4:15 PM | 0 | 0 | 0 | 40 | 0 | 2 | 33 | 82 | 0 | 0 | 36 | 43 | 236 |
| | 4:30 PM | 0 | 0 | 0 | 42 | 0 | 0 | 34 | 49 | 0 | 0 | 47 | 29 | 201 |
| | 4:45 PM | 0 | 0 | 0 | 42 | 0 | 3 | 41 | 59 | 0 | 0 | 40 | 33 | 218 |
| | 5:00 PM | 0 | 0 | 0 | 43 | 0 | 1 | 25 | 45 | 0 | 0 | 37 | 29 | 180 |
| | 5:15 PM | 0 | 0 | 0 | 45 | 0 | 0 | 27 | 42 | 0 | 0 | 34 | 22 | 170 |
| | 5:30 PM | 0 | 0 | 0 | 43 | 0 | 1 | 19 | 34 | 0 | 0 | 27 | 33 | 157 |
| | 5:45 PM | 0 | 0 | 0 | 27 | 0 | 1 | 21 | 23 | 0 | 0 | 30 | 26 | 128 |
| | VOLUMES | 0 | 0 | 0 | 315 | 0 | 11 | 232 | 396 | 0 | 0 | 289 | 236 | 1,479 |
| | APPROACH % | 0% | 0% | 0% | 97% | 0% | 3% | 37% | 63% | 0% | 0% | 55% | 45% | |
| | APP/DEPART | 0 | / | 468 | 326 | / | 0 | 628 | / | 711 | 525 | / | 300 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 157 | 0 | 8 | 140 | 252 | 0 | 0 | 161 | 126 | 844 |
| | APPROACH % | 0% | 0% | 0% | 95% | 0% | 5% | 36% | 64% | 0% | 0% | 56% | 44% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.917 | | | 0.852 | | | 0.908 | | 0.894 |
| | APP/DEPART | 0 | / | 266 | 165 | / | 0 | 392 | / | 409 | 287 | / | 169 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**I-5 SB Ramps**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

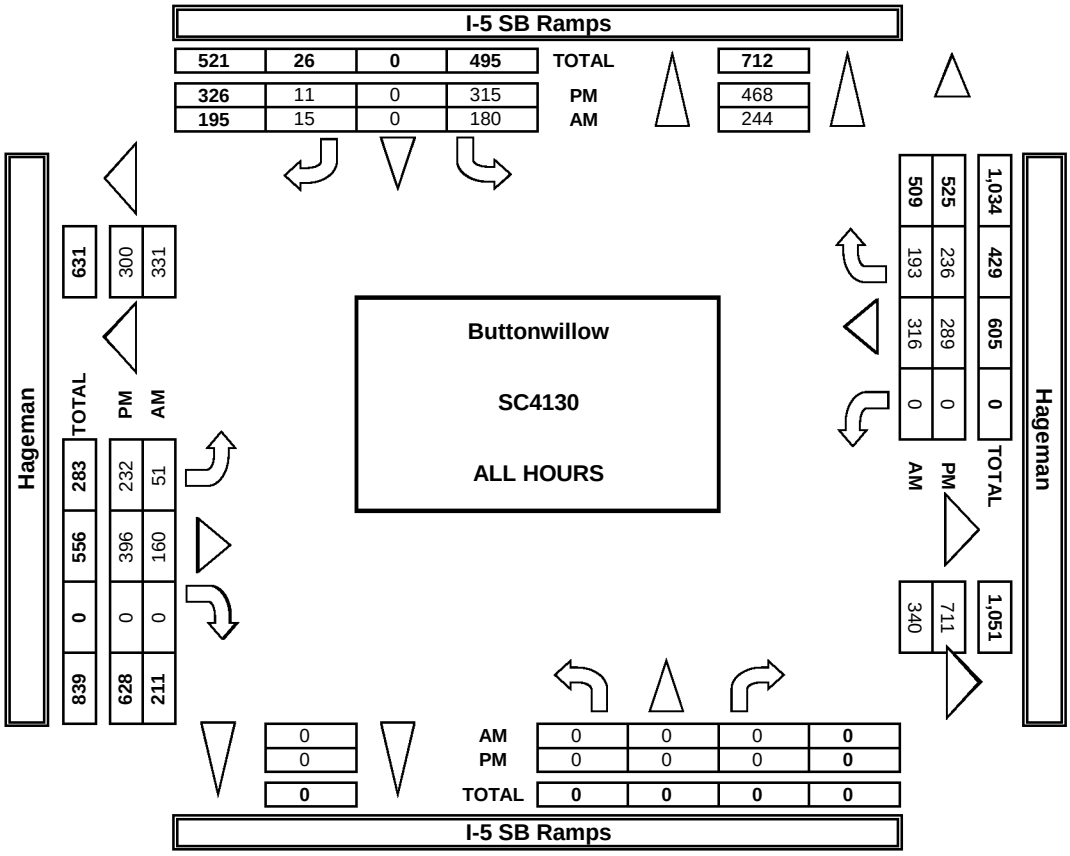
SOUTH SIDE

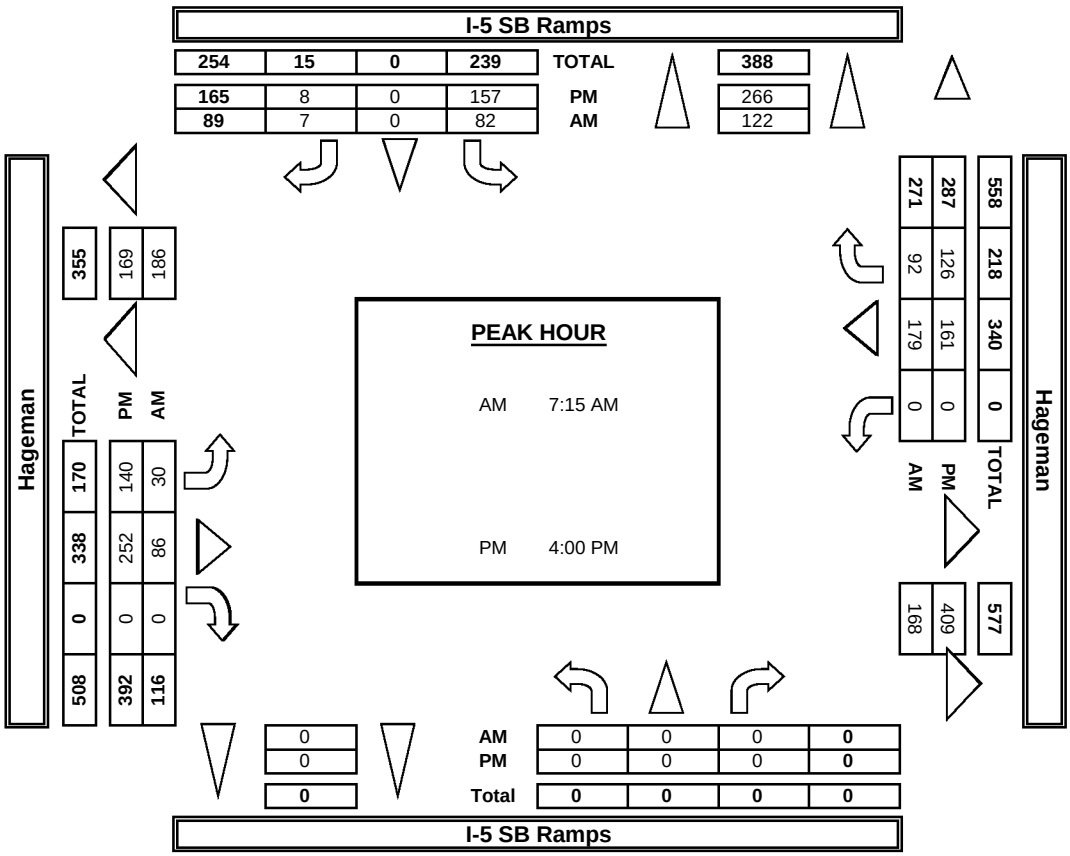
**I-5 SB Ramps**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | NS | SS | ES | WS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 0 | 0 | 0 | 18 | 0 | 1 | 1 | 23 | 0 | 0 | 51 | 34 | 127 | | | | | 0 |
| 7:15 AM | 0 | 0 | 0 | 22 | 0 | 3 | 10 | 31 | 0 | 0 | 48 | 56 | 170 | | | | | 0 |
| 7:30 AM | 0 | 0 | 0 | 35 | 0 | 3 | 10 | 29 | 0 | 0 | 78 | 42 | 196 | | | | | 0 |
| 7:45 AM | 0 | 0 | 0 | 30 | 0 | 9 | 7 | 24 | 0 | 0 | 74 | 32 | 175 | | | | | 0 |
| 8:00 AM | 0 | 0 | 0 | 34 | 0 | 4 | 11 | 31 | 0 | 0 | 56 | 40 | 176 | | | | | 0 |
| 8:15 AM | 0 | 0 | 0 | 31 | 0 | 8 | 3 | 30 | 0 | 0 | 52 | 35 | 157 | | | | | 0 |
| 8:30 AM | 0 | 0 | 0 | 34 | 0 | 0 | 21 | 20 | 0 | 0 | 44 | 43 | 161 | | | | | 0 |
| 8:45 AM | 0 | 0 | 0 | 61 | 0 | 10 | 15 | 33 | 0 | 0 | 55 | 40 | 213 | | | | | 0 |
| AM VOLUMES | 0 | 0 | 0 | 264 | 0 | 38 | 77 | 219 | 0 | 0 | 455 | 321 | 1,372 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 0% | 0% | 0% | 88% | 0% | 12% | 26% | 74% | 0% | 0% | 59% | 41% | | | | | | |
| AM APP/DEPART | 0 | / | 398 | 301 | / | 0 | 296 | / | 482 | 776 | / | 492 | 0 | | | | | |
| AM BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 0 | 0 | 0 | 121 | 0 | 19 | 37 | 114 | 0 | 0 | 255 | 170 | 715 | | | | | |
| AM APPROACH % | 0% | 0% | 0% | 86% | 0% | 14% | 25% | 75% | 0% | 0% | 60% | 40% | | | | | | |
| AM PEAK HR FACTOR | | 0.000 | | | 0.894 | | | 0.899 | | | 0.888 | | 0.914 | | | | | |
| AM APP/DEPART | 0 | / | 207 | 140 | / | 0 | 151 | / | 235 | 425 | / | 274 | 0 | | | | | |
| 4:00 PM | 0 | 0 | 0 | 46 | 0 | 7 | 47 | 77 | 0 | 0 | 51 | 29 | 256 | | | | | 0 |
| 4:15 PM | 0 | 0 | 0 | 54 | 0 | 4 | 39 | 101 | 0 | 0 | 51 | 55 | 303 | | | | | 0 |
| 4:30 PM | 0 | 0 | 0 | 61 | 0 | 0 | 38 | 59 | 0 | 0 | 61 | 43 | 260 | | | | | 0 |
| 4:45 PM | 0 | 0 | 0 | 74 | 0 | 9 | 51 | 80 | 0 | 0 | 48 | 52 | 313 | | | | | 0 |
| 5:00 PM | 0 | 0 | 0 | 71 | 0 | 2 | 38 | 54 | 0 | 0 | 46 | 49 | 258 | | | | | 0 |
| 5:15 PM | 0 | 0 | 0 | 73 | 0 | 0 | 46 | 55 | 0 | 0 | 45 | 33 | 252 | | | | | 0 |
| 5:30 PM | 0 | 0 | 0 | 63 | 0 | 1 | 26 | 40 | 0 | 0 | 31 | 50 | 209 | | | | | 0 |
| 5:45 PM | 0 | 0 | 0 | 42 | 0 | 1 | 32 | 27 | 0 | 0 | 35 | 40 | 177 | | | | | 0 |
| PM VOLUMES | 0 | 0 | 0 | 482 | 0 | 24 | 316 | 491 | 0 | 0 | 366 | 349 | 2,026 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 0% | 0% | 0% | 95% | 0% | 5% | 39% | 61% | 0% | 0% | 51% | 49% | | | | | | |
| PM APP/DEPART | 0 | / | 665 | 506 | / | 0 | 806 | / | 973 | 715 | / | 389 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 0 | 0 | 0 | 234 | 0 | 20 | 175 | 316 | 0 | 0 | 210 | 178 | 1,131 | | | | | |
| PM APPROACH % | 0% | 0% | 0% | 92% | 0% | 8% | 36% | 64% | 0% | 0% | 54% | 46% | | | | | | |
| PM PEAK HR FACTOR | | 0.000 | | | 0.768 | | | 0.875 | | | 0.923 | | 0.905 | | | | | |
| PM APP/DEPART | 0 | / | 353 | 254 | / | 0 | 490 | / | 549 | 388 | / | 230 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 6 | 0 | 1 | 1 | 15 | 0 | 0 | 25 | 10 | 58 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 23 | 0 | 0 | 27 | 11 | 75 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 18 | 0 | 0 | 8 | 12 | 0 | 0 | 40 | 12 | 90 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 18 | 0 | 0 | 2 | 8 | 0 | 0 | 28 | 8 | 64 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 17 | 0 | 1 | 8 | 17 | 0 | 0 | 18 | 19 | 80 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 12 | 0 | 0 | 3 | 13 | 0 | 0 | 20 | 19 | 67 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 26 | 0 | 0 | 3 | 9 | 0 | 0 | 17 | 23 | 78 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 29 | 0 | 1 | 3 | 15 | 0 | 0 | 21 | 20 | 89 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 133 | 0 | 3 | 35 | 112 | 0 | 0 | 196 | 122 | 601 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 98% | 0% | 2% | 24% | 76% | 0% | 0% | 62% | 38% | | | | | | |
| | APP/DEPART | 0 | / | 157 | 136 | / | 0 | 147 | / | 245 | 318 | / | 199 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 60 | 0 | 1 | 25 | 60 | 0 | 0 | 113 | 50 | 309 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 98% | 0% | 2% | 29% | 71% | 0% | 0% | 69% | 31% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.847 | | | 0.708 | | | 0.784 | | 0.858 | | | | | |
| | APP/DEPART | 0 | / | 75 | 61 | / | 0 | 85 | / | 120 | 163 | / | 114 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 25 | 0 | 1 | 18 | 48 | 0 | 0 | 28 | 17 | 137 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 32 | 0 | 1 | 25 | 64 | 0 | 0 | 28 | 36 | 186 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 30 | 0 | 0 | 26 | 40 | 0 | 0 | 39 | 21 | 156 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 22 | 0 | 0 | 30 | 40 | 0 | 0 | 34 | 19 | 145 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 29 | 0 | 0 | 15 | 34 | 0 | 0 | 32 | 16 | 126 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 29 | 0 | 0 | 16 | 30 | 0 | 0 | 27 | 15 | 117 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 32 | 0 | 1 | 15 | 27 | 0 | 0 | 23 | 24 | 122 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 18 | 0 | 1 | 14 | 21 | 0 | 0 | 26 | 18 | 98 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 217 | 0 | 4 | 159 | 304 | 0 | 0 | 237 | 166 | 1,087 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 98% | 0% | 2% | 34% | 66% | 0% | 0% | 59% | 41% | | | | | | |
| | APP/DEPART | 0 | / | 325 | 221 | / | 0 | 463 | / | 521 | 403 | / | 241 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 109 | 0 | 2 | 99 | 192 | 0 | 0 | 129 | 93 | 624 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 98% | 0% | 2% | 34% | 66% | 0% | 0% | 58% | 42% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.841 | | | 0.817 | | | 0.867 | | 0.839 | | | | | |
| | APP/DEPART | 0 | / | 192 | 111 | / | 0 | 291 | / | 301 | 222 | / | 131 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

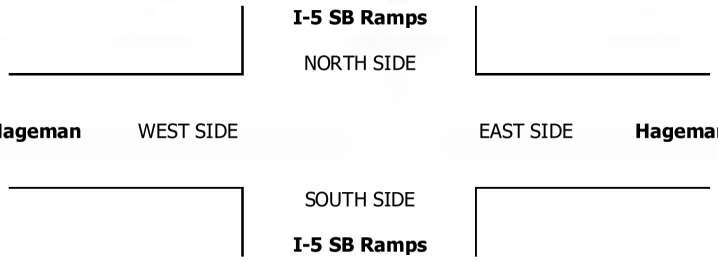
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (I-5 SB Ramps) | | | SOUTHBOUND (I-5 SB Ramps) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 11 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 | 0 | 0 | 13 | 2 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 9 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 2 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 3 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 9 | 1 | 15 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 5 | 0 | 1 | 4 | 23 | 0 | 0 | 61 | 8 | 102 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 83% | 0% | 17% | 15% | 85% | 0% | 0% | 88% | 12% | | | | | | |
| | APP/DEPART | 0 | / | 12 | 6 | / | 0 | 27 | / | 28 | 69 | / | 62 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 14 | 0 | 0 | 33 | 4 | 56 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 13% | 88% | 0% | 0% | 89% | 11% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.375 | | | 0.571 | | | 0.617 | | 0.609 | | | | | |
| | APP/DEPART | 0 | / | 6 | 3 | / | 0 | 16 | / | 17 | 37 | / | 33 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 9 | 0 | 0 | 4 | 0 | 24 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 10 | 0 | 0 | 1 | 1 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 3 | 0 | 0 | 8 | 5 | 0 | 0 | 1 | 1 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 5 | 0 | 0 | 8 | 11 | 0 | 0 | 3 | 6 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 9 | 0 | 0 | 1 | 4 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 6 | 0 | 0 | 2 | 2 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 | 0 | 0 | 3 | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 7 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 16 | 0 | 1 | 41 | 55 | 0 | 0 | 17 | 16 | 146 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 94% | 0% | 6% | 43% | 57% | 0% | 0% | 52% | 48% | | | | | | |
| | APP/DEPART | 0 | / | 57 | 17 | / | 0 | 96 | / | 71 | 33 | / | 18 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 11 | 0 | 0 | 31 | 35 | 0 | 0 | 9 | 8 | 94 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 47% | 53% | 0% | 0% | 53% | 47% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.550 | | | 0.868 | | | 0.472 | | 0.712 | | | | | |
| | APP/DEPART | 0 | / | 39 | 11 | / | 0 | 66 | / | 46 | 17 | / | 9 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 10 | 1 | 16 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 91% | 9% | | | | | | |
| | APP/DEPART | 0 | / | 1 | 2 | / | 0 | 3 | / | 5 | 11 | / | 10 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 7 | 0 | 11 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.750 | | | 0.583 | | 0.550 | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 3 | / | 4 | 7 | / | 7 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 7 | 0 | 0 | 2 | 3 | 18 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 13% | 88% | 0% | 0% | 40% | 60% | | | | | | |
| | APP/DEPART | 0 | / | 4 | 5 | / | 0 | 8 | / | 12 | 5 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 2 | 2 | 12 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 20% | 80% | 0% | 0% | 50% | 50% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.417 | | | 0.500 | | 0.600 | | | | | |
| | APP/DEPART | 0 | / | 3 | 3 | / | 0 | 5 | / | 7 | 4 | / | 2 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

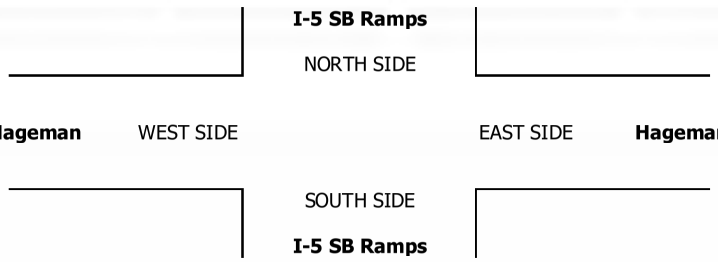
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 8 | 16 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 5 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 15 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 2 | 0 | 0 | 6 | 9 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 4 | 0 | 3 | 1 | 3 | 0 | 0 | 10 | 8 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 4 | 0 | 1 | 1 | 3 | 0 | 0 | 8 | 6 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 5 | 0 | 0 | 8 | 3 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 3 | 0 | 0 | 6 | 6 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 10 | 0 | 3 | 4 | 4 | 0 | 0 | 6 | 6 | 33 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 39 | 0 | 11 | 12 | 22 | 0 | 0 | 49 | 61 | 194 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 78% | 0% | 22% | 35% | 65% | 0% | 0% | 45% | 55% | | | | | | |
| | APP/DEPART | 0 | / | 73 | 50 | / | 0 | 34 | / | 61 | 110 | / | 60 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 18 | 0 | 6 | 3 | 9 | 0 | 0 | 26 | 38 | 100 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 75% | 0% | 25% | 25% | 75% | 0% | 0% | 41% | 59% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.857 | | | 0.750 | | | 0.889 | | 0.862 | | | | | |
| | APP/DEPART | 0 | / | 41 | 24 | / | 0 | 12 | / | 27 | 64 | / | 32 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 6 | 0 | 2 | 5 | 5 | 0 | 0 | 5 | 4 | 27 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 6 | 0 | 1 | 1 | 6 | 0 | 0 | 7 | 5 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 6 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 14 | 0 | 3 | 3 | 7 | 0 | 0 | 3 | 8 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 14 | 0 | 0 | 5 | 2 | 0 | 0 | 4 | 9 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 13 | 0 | 0 | 9 | 4 | 0 | 0 | 5 | 5 | 36 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 9 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 8 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 7 | 0 | 0 | 5 | 2 | 0 | 0 | 2 | 6 | 22 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 77 | 0 | 6 | 31 | 30 | 0 | 0 | 33 | 51 | 228 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 93% | 0% | 7% | 51% | 49% | 0% | 0% | 39% | 61% | | | | | | |
| | APP/DEPART | 0 | / | 82 | 83 | / | 0 | 61 | / | 107 | 84 | / | 39 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 34 | 0 | 6 | 9 | 21 | 0 | 0 | 21 | 23 | 114 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 85% | 0% | 15% | 30% | 70% | 0% | 0% | 48% | 52% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.588 | | | 0.750 | | | 0.917 | | 0.750 | | | | | |
| | APP/DEPART | 0 | / | 32 | 40 | / | 0 | 30 | / | 55 | 44 | / | 27 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (I-5 SB Ramps) | | | SOUTHBOUND (I-5 SB Ramps) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL |
| | | X | X | X | 0.5 | X | 0.5 | 1 | 1 | X | X | 1 | 1 | | | | | | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 0 | 0 | / | 1 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | I-5 SB Ramps | LOCATION #: | 15 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | SIGNAL |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND I-5 SB Ramps | | | SOUTHBOUND I-5 SB Ramps | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 0.5 | ST X | SR 0.5 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**I-5 SB Ramps**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**I-5 SB Ramps**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Tracey
EAST & WEST: I-5 NB Ramps

PROJECT #: SC4130
LOCATION #: 16
CONTROL: STOP E/W

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

| | | NORTHBOUND Tracey | | | SOUTHBOUND Tracey | | | EASTBOUND I-5 NB Ramps | | | WESTBOUND I-5 NB Ramps | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL |
| AM | 7:00 AM | 19 | 16 | 0 | 0 | 23 | 11 | 16 | 2 | 32 | 2 | 3 | 2 | 126 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:15 AM | 29 | 19 | 0 | 0 | 22 | 10 | 5 | 1 | 20 | 0 | 0 | 1 | 107 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:30 AM | 25 | 22 | 1 | 0 | 33 | 12 | 15 | 3 | 40 | 1 | 0 | 3 | 155 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:45 AM | 25 | 24 | 1 | 1 | 14 | 12 | 16 | 2 | 37 | 2 | 3 | 2 | 139 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:00 AM | 22 | 14 | 4 | 1 | 20 | 13 | 8 | 0 | 27 | 0 | 0 | 1 | 110 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:15 AM | 30 | 15 | 1 | 1 | 13 | 16 | 12 | 1 | 29 | 1 | 1 | 2 | 122 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:30 AM | 20 | 21 | 4 | 1 | 23 | 13 | 10 | 3 | 31 | 3 | 1 | 1 | 131 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:45 AM | 20 | 28 | 3 | 1 | 12 | 12 | 11 | 1 | 30 | 3 | 4 | 1 | 126 | 0 | 0 | 0 | 0 | 0 |
| AM | VOLUMES | 190 | 159 | 14 | 5 | 160 | 99 | 93 | 13 | 246 | 12 | 12 | 13 | 1,016 | 0 | 0 | 0 | 0 | 0 |
| AM | APPROACH % | 52% | 44% | 4% | 2% | 61% | 38% | 26% | 4% | 70% | 32% | 32% | 35% | | | | | | |
| AM | APP/DEPART | 363 | / | 265 | 264 | / | 418 | 352 | / | 32 | 37 | / | 301 | 0 | | | | | |
| AM | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| AM | VOLUMES | 98 | 81 | 2 | 1 | 92 | 45 | 52 | 8 | 129 | 5 | 6 | 8 | 527 | | | | | |
| AM | APPROACH % | 54% | 45% | 1% | 1% | 67% | 33% | 28% | 4% | 68% | 26% | 32% | 42% | | | | | | |
| AM | PEAK HR FACTOR | | 0.905 | | | 0.767 | | | 0.815 | | | 0.679 | | 0.850 | | | | | |
| AM | APP/DEPART | 181 | / | 141 | 138 | / | 226 | 189 | / | 11 | 19 | / | 149 | 0 | | | | | |
| PM | 4:00 PM | 24 | 23 | 1 | 0 | 21 | 8 | 14 | 2 | 39 | 1 | 2 | 2 | 137 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:15 PM | 28 | 23 | 2 | 1 | 18 | 15 | 14 | 3 | 41 | 2 | 0 | 1 | 148 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:30 PM | 25 | 14 | 2 | 0 | 23 | 12 | 6 | 3 | 38 | 3 | 4 | 2 | 132 | 1 | 0 | 0 | 0 | 1 |
| PM | 4:45 PM | 29 | 19 | 4 | 1 | 13 | 16 | 4 | 1 | 35 | 2 | 4 | 1 | 129 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:00 PM | 20 | 23 | 1 | 0 | 23 | 8 | 12 | 1 | 32 | 1 | 1 | 1 | 123 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:15 PM | 21 | 27 | 3 | 0 | 17 | 11 | 12 | 3 | 24 | 0 | 3 | 2 | 123 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:30 PM | 19 | 20 | 1 | 0 | 27 | 8 | 17 | 0 | 29 | 2 | 1 | 2 | 126 | 0 | 0 | 1 | 0 | 1 |
| PM | 5:45 PM | 17 | 14 | 3 | 0 | 17 | 9 | 14 | 2 | 14 | 3 | 1 | 1 | 95 | 0 | 0 | 0 | 0 | 0 |
| PM | VOLUMES | 183 | 163 | 17 | 2 | 159 | 87 | 93 | 15 | 252 | 14 | 16 | 12 | 1,013 | 1 | 0 | 1 | 0 | 2 |
| PM | APPROACH % | 50% | 45% | 5% | 1% | 64% | 35% | 26% | 4% | 70% | 33% | 38% | 29% | | | | | | |
| PM | APP/DEPART | 363 | / | 267 | 248 | / | 426 | 360 | / | 34 | 42 | / | 286 | 0 | | | | | |
| PM | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM | VOLUMES | 106 | 79 | 9 | 2 | 75 | 51 | 38 | 9 | 153 | 8 | 10 | 6 | 546 | | | | | |
| PM | APPROACH % | 55% | 41% | 5% | 2% | 59% | 40% | 19% | 5% | 77% | 33% | 42% | 25% | | | | | | |
| PM | PEAK HR FACTOR | | 0.915 | | | 0.914 | | | 0.862 | | | 0.667 | | 0.922 | | | | | |
| PM | APP/DEPART | 194 | / | 123 | 128 | / | 237 | 200 | / | 20 | 24 | / | 166 | 0 | | | | | |

**Tracey**

NORTH SIDE

**I-5 NB Ramps** WEST SIDE EAST SIDE **I-5 NB Ramps**

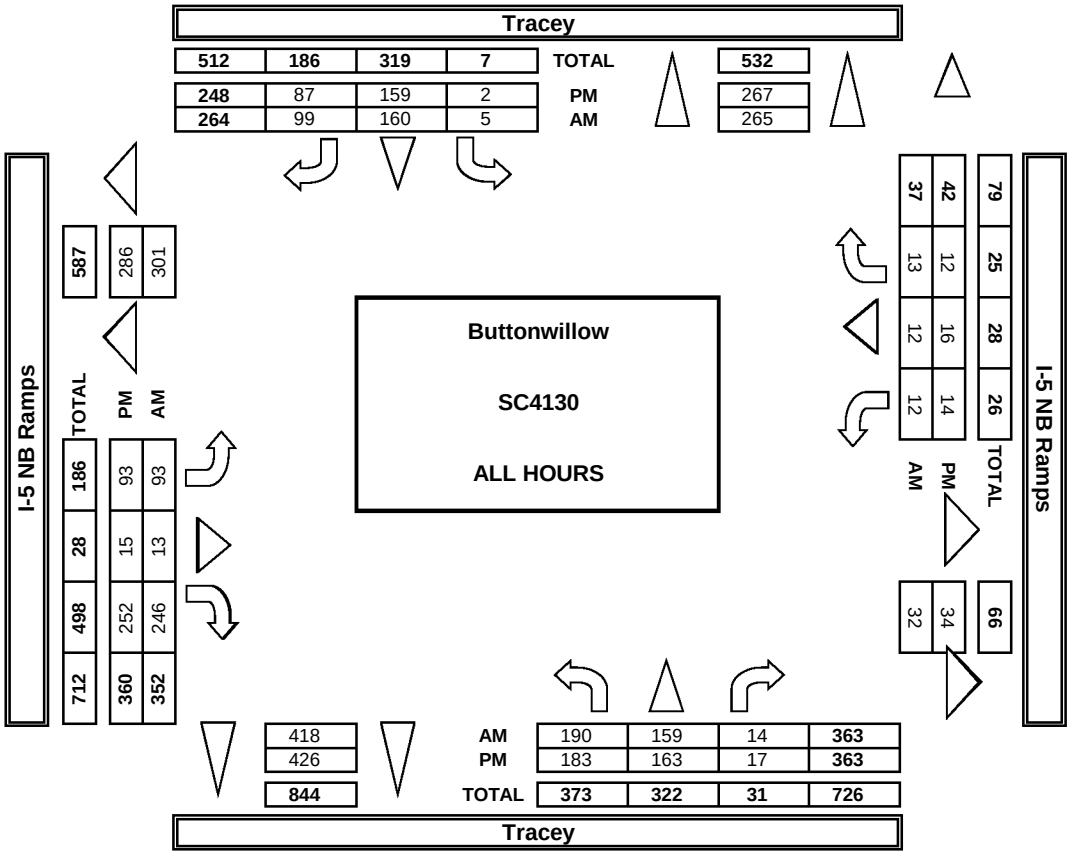
SOUTH SIDE

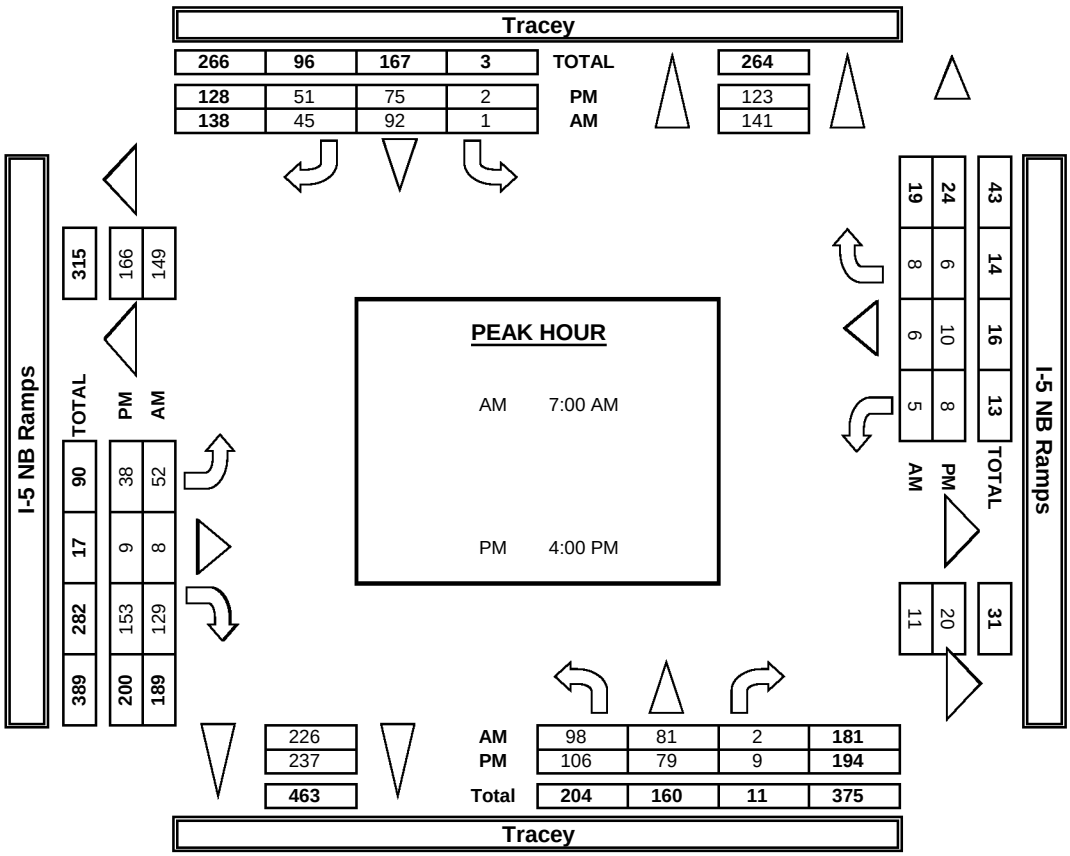
**Tracey**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | NS | SS | ES | WS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:15 AM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | TOTAL | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:15 PM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:30 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:45 PM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**NOTES:**

| PCE Adjusted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Class | 1 | 2 | 3 | 4 | 5 | 6 | | |
| Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (I-5 NB Ramps) | | | WESTBOUND (I-5 NB Ramps) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| 7:00 AM | 26 | 17 | 0 | 0 | 39 | 11 | 18 | 2 | 47 | 3 | 3 | 2 | 167 | | | | | 0 |
| 7:15 AM | 55 | 23 | 0 | 0 | 34 | 12 | 7 | 1 | 30 | 0 | 0 | 1 | 163 | | | | | 0 |
| 7:30 AM | 39 | 29 | 1 | 0 | 39 | 13 | 21 | 3 | 62 | 1 | 0 | 3 | 209 | | | | | 0 |
| 7:45 AM | 47 | 25 | 1 | 1 | 18 | 20 | 18 | 2 | 61 | 2 | 3 | 2 | 200 | | | | | 0 |
| 8:00 AM | 42 | 16 | 4 | 1 | 28 | 18 | 10 | 0 | 41 | 0 | 0 | 1 | 160 | | | | | 0 |
| 8:15 AM | 54 | 18 | 1 | 3 | 16 | 20 | 15 | 1 | 46 | 3 | 1 | 2 | 180 | | | | | 0 |
| 8:30 AM | 27 | 22 | 4 | 1 | 29 | 13 | 12 | 3 | 61 | 3 | 1 | 1 | 176 | | | | | 0 |
| 8:45 AM | 40 | 36 | 4 | 1 | 15 | 14 | 18 | 1 | 51 | 3 | 4 | 1 | 186 | | | | | 0 |
| AM VOLUMES | 329 | 186 | 15 | 7 | 216 | 120 | 119 | 13 | 398 | 15 | 12 | 13 | 1,441 | 0 | 0 | 0 | 0 | 0 |
| AM APPROACH % | 62% | 35% | 3% | 2% | 63% | 35% | 22% | 2% | 75% | 37% | 30% | 33% | | | | | | |
| AM APP/DEPART | 529 | / | 317 | 343 | / | 629 | 530 | / | 35 | 40 | / | 461 | 0 | | | | | |
| AM BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| AM VOLUMES | 166 | 94 | 2 | 1 | 130 | 56 | 64 | 8 | 200 | 6 | 6 | 8 | 739 | | | | | |
| AM APPROACH % | 63% | 36% | 1% | 1% | 70% | 30% | 24% | 3% | 73% | 28% | 31% | 41% | | | | | | |
| AM PEAK HR FACTOR | | 0.840 | | | 0.912 | | | 0.794 | | | 0.650 | | 0.884 | | | | | |
| AM APP/DEPART | 262 | / | 166 | 186 | / | 335 | 272 | / | 11 | 20 | / | 228 | 0 | | | | | |
| 4:00 PM | 43 | 24 | 1 | 0 | 24 | 13 | 21 | 2 | 75 | 1 | 2 | 2 | 206 | | | | | 0 |
| 4:15 PM | 49 | 29 | 2 | 1 | 21 | 24 | 16 | 3 | 73 | 2 | 0 | 1 | 219 | | | | | 0 |
| 4:30 PM | 42 | 18 | 2 | 0 | 27 | 18 | 6 | 3 | 69 | 3 | 4 | 2 | 194 | | | | | 0 |
| 4:45 PM | 58 | 22 | 4 | 1 | 14 | 20 | 4 | 1 | 60 | 2 | 4 | 1 | 190 | | | | | 0 |
| 5:00 PM | 42 | 28 | 1 | 0 | 28 | 12 | 18 | 2 | 59 | 1 | 1 | 1 | 193 | | | | | 0 |
| 5:15 PM | 48 | 35 | 3 | 0 | 20 | 11 | 16 | 3 | 47 | 0 | 3 | 2 | 187 | | | | | 0 |
| 5:30 PM | 38 | 26 | 1 | 0 | 37 | 10 | 26 | 0 | 50 | 2 | 1 | 4 | 194 | | | | | 0 |
| 5:45 PM | 28 | 26 | 3 | 0 | 24 | 16 | 19 | 2 | 27 | 3 | 1 | 1 | 148 | | | | | 0 |
| PM VOLUMES | 346 | 207 | 17 | 2 | 193 | 123 | 125 | 16 | 458 | 14 | 16 | 14 | 1,529 | 0 | 0 | 0 | 0 | 0 |
| PM APPROACH % | 61% | 36% | 3% | 1% | 61% | 39% | 21% | 3% | 77% | 32% | 36% | 32% | | | | | | |
| PM APP/DEPART | 570 | / | 346 | 317 | / | 664 | 598 | / | 35 | 44 | / | 485 | 0 | | | | | |
| PM BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| PM VOLUMES | 191 | 92 | 9 | 2 | 85 | 74 | 47 | 9 | 276 | 8 | 10 | 6 | 808 | | | | | |
| PM APPROACH % | 65% | 32% | 3% | 1% | 53% | 46% | 14% | 3% | 83% | 33% | 42% | 25% | | | | | | |
| PM PEAK HR FACTOR | | 0.878 | | | 0.892 | | | 0.851 | | | 0.667 | | 0.922 | | | | | |
| PM APP/DEPART | 292 | / | 145 | 161 | / | 369 | 332 | / | 20 | 24 | / | 275 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (I-5 NB Ramps) | | | WESTBOUND (I-5 NB Ramps) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 15 | 14 | 0 | 0 | 15 | 11 | 15 | 2 | 21 | 1 | 3 | 2 | 99 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 16 | 14 | 0 | 0 | 16 | 9 | 4 | 1 | 12 | 0 | 0 | 1 | 73 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 16 | 17 | 1 | 0 | 28 | 11 | 10 | 3 | 24 | 1 | 0 | 3 | 114 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 14 | 22 | 1 | 1 | 12 | 6 | 15 | 2 | 23 | 2 | 3 | 2 | 103 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 12 | 13 | 4 | 1 | 15 | 10 | 7 | 0 | 18 | 0 | 0 | 1 | 81 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 17 | 13 | 1 | 0 | 11 | 14 | 10 | 1 | 19 | 0 | 1 | 2 | 89 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 16 | 19 | 4 | 1 | 18 | 13 | 9 | 3 | 15 | 3 | 1 | 1 | 103 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 9 | 23 | 2 | 1 | 10 | 11 | 7 | 1 | 17 | 3 | 4 | 1 | 89 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 115 | 135 | 13 | 4 | 125 | 85 | 77 | 13 | 149 | 10 | 12 | 13 | 751 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 44% | 51% | 5% | 2% | 58% | 40% | 32% | 5% | 62% | 29% | 34% | 37% | | | | | | |
| | APP/DEPART | 263 | / | 225 | 214 | / | 284 | 239 | / | 30 | 35 | / | 212 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 61 | 67 | 2 | 1 | 71 | 37 | 44 | 8 | 80 | 4 | 6 | 8 | 389 | | | | | |
| | APPROACH % | 47% | 52% | 2% | 1% | 65% | 34% | 33% | 6% | 61% | 22% | 33% | 44% | | | | | | |
| | PEAK HR FACTOR | | 0.878 | | | 0.699 | | | 0.825 | | | 0.643 | | 0.853 | | | | | |
| | APP/DEPART | 130 | / | 119 | 109 | / | 155 | 132 | / | 11 | 18 | / | 104 | 0 | | | | | |
| PM | 4:00 PM | 14 | 21 | 1 | 0 | 19 | 5 | 10 | 2 | 20 | 1 | 2 | 2 | 97 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 17 | 19 | 2 | 1 | 16 | 10 | 13 | 3 | 23 | 2 | 0 | 1 | 107 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 16 | 12 | 2 | 0 | 18 | 9 | 6 | 3 | 21 | 3 | 4 | 2 | 96 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 14 | 17 | 4 | 1 | 11 | 14 | 4 | 1 | 22 | 2 | 4 | 1 | 95 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 8 | 19 | 1 | 0 | 19 | 6 | 9 | 0 | 17 | 1 | 1 | 1 | 82 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 7 | 21 | 3 | 0 | 14 | 11 | 10 | 3 | 12 | 0 | 3 | 2 | 86 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 8 | 17 | 1 | 0 | 21 | 7 | 12 | 0 | 18 | 2 | 1 | 1 | 88 | 0 | 0 | 1 | 0 | 1 |
| | 5:45 PM | 11 | 8 | 3 | 0 | 13 | 5 | 11 | 2 | 7 | 3 | 1 | 1 | 65 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 95 | 134 | 17 | 2 | 131 | 67 | 75 | 14 | 140 | 14 | 16 | 11 | 716 | 0 | 0 | 1 | 0 | 1 |
| | APPROACH % | 39% | 54% | 7% | 1% | 66% | 34% | 33% | 6% | 61% | 34% | 39% | 27% | | | | | | |
| | APP/DEPART | 246 | / | 219 | 200 | / | 285 | 229 | / | 33 | 41 | / | 179 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 61 | 69 | 9 | 2 | 64 | 38 | 33 | 9 | 86 | 8 | 10 | 6 | 395 | | | | | |
| | APPROACH % | 44% | 50% | 6% | 2% | 62% | 37% | 26% | 7% | 67% | 33% | 42% | 25% | | | | | | |
| | PEAK HR FACTOR | | 0.914 | | | 0.963 | | | 0.821 | | | 0.667 | | 0.923 | | | | | |
| | APP/DEPART | 139 | / | 108 | 104 | / | 158 | 128 | / | 20 | 24 | / | 109 | 0 | | | | | |

**Tracey**

NORTH SIDE

**I-5 NB Ramps** WEST SIDE EAST SIDE **I-5 NB Ramps**

SOUTH SIDE

**Tracey**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

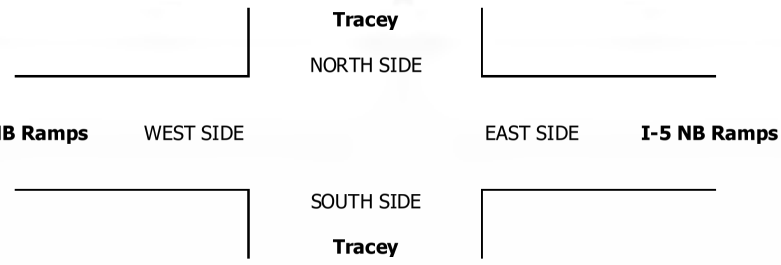
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (I-5 NB Ramps) | | | WESTBOUND (I-5 NB Ramps) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 3 | 2 | 0 | 0 | 3 | 1 | 2 | 0 | 7 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 5 | 13 | 1 | 0 | 6 | 4 | 3 | 0 | 24 | 1 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 26% | 68% | 5% | 0% | 60% | 40% | 11% | 0% | 89% | 100% | 0% | 0% | | | | | | |
| | APP/DEPART | 19 | / | 16 | 10 | / | 31 | 27 | / | 1 | 1 | / | 9 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 4 | 10 | 0 | 0 | 3 | 3 | 2 | 0 | 17 | 1 | 0 | 0 | 40 | | | | | |
| | APPROACH % | 29% | 71% | 0% | 0% | 50% | 50% | 11% | 0% | 89% | 100% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.700 | | | 0.375 | | | 0.528 | | | 0.250 | | 0.556 | | | | | |
| | APP/DEPART | 14 | / | 12 | 6 | / | 21 | 19 | / | 0 | 1 | / | 7 | 0 | | | | | |
| PM | 4:00 PM | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 6 | 9 | 0 | 0 | 13 | 3 | 2 | 1 | 11 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 40% | 60% | 0% | 0% | 81% | 19% | 14% | 7% | 79% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 15 | / | 11 | 16 | / | 24 | 14 | / | 1 | 0 | / | 9 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 4 | 0 | 0 | 7 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 22 | | | | | |
| | APPROACH % | 43% | 57% | 0% | 0% | 78% | 22% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.583 | | | 0.750 | | | 0.750 | | | 0.000 | | 0.917 | | | | | |
| | APP/DEPART | 7 | / | 4 | 9 | / | 13 | 6 | / | 0 | 0 | / | 5 | 0 | | | | | |



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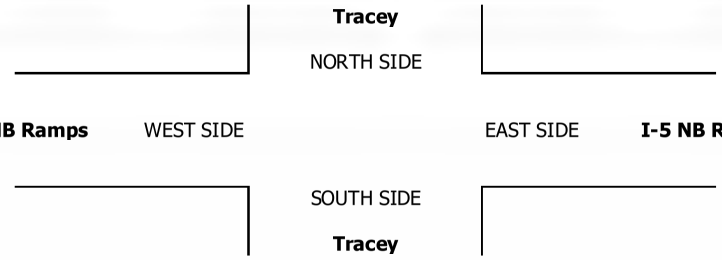
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (I-5 NB Ramps) | | | WESTBOUND (I-5 NB Ramps) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 6 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 75% | 25% | 0% | 0% | 75% | 25% | 14% | 0% | 86% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 4 | / | 2 | 4 | / | 9 | 7 | / | 0 | 0 | / | 4 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 4 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 33% | 0% | 67% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.750 | | | 0.000 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 2 | 3 | / | 0 | 0 | / | 1 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 1 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 67% | 33% | 0% | 0% | 100% | 0% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 3 | / | 2 | 3 | / | 4 | 2 | / | 0 | 0 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | | | | | |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.250 | | | 0.250 | | | 0.000 | | 0.625 | | | | | |
| | APP/DEPART | 1 | / | 2 | 2 | / | 3 | 2 | / | 0 | 0 | / | 0 | 0 | | | | | |



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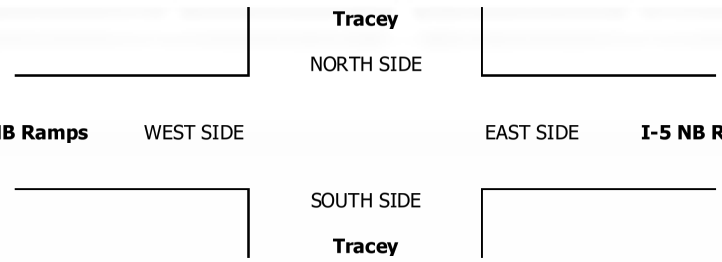
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Tracey | | | SOUTHBOUND Tracey | | | EASTBOUND I-5 NB Ramps | | | WESTBOUND I-5 NB Ramps | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 3 | 0 | 0 | 0 | 8 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 13 | 1 | 0 | 0 | 6 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 6 | 3 | 0 | 0 | 2 | 0 | 2 | 0 | 9 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 11 | 0 | 0 | 0 | 2 | 3 | 1 | 0 | 11 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 10 | 1 | 0 | 0 | 3 | 2 | 1 | 0 | 6 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 11 | 1 | 0 | 1 | 1 | 2 | 1 | 0 | 8 | 1 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 14 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 9 | 3 | 0 | 0 | 1 | 1 | 3 | 0 | 9 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 66 | 9 | 0 | 1 | 24 | 9 | 11 | 0 | 67 | 1 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 88% | 12% | 0% | 3% | 71% | 26% | 14% | 0% | 86% | 100% | 0% | 0% | | | | | | |
| | APP/DEPART | 75 | / | 20 | 34 | / | 92 | 78 | / | 1 | 1 | / | 75 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 33 | 4 | 0 | 0 | 18 | 4 | 5 | 0 | 30 | 0 | 0 | 0 | 94 | | | | | |
| | APPROACH % | 89% | 11% | 0% | 0% | 82% | 18% | 14% | 0% | 86% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.661 | | | 0.688 | | | 0.729 | | | 0.000 | | 0.839 | | | | | |
| | APP/DEPART | 37 | / | 9 | 22 | / | 48 | 35 | / | 0 | 0 | / | 37 | 0 | | | | | |
| PM | 4:00 PM | 9 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 17 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 10 | 2 | 0 | 0 | 1 | 4 | 1 | 0 | 15 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 8 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 15 | 0 | 0 | 0 | 28 | 1 | 0 | 0 | 0 | 1 |
| | 4:45 PM | 14 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 12 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 10 | 2 | 0 | 0 | 2 | 2 | 3 | 0 | 13 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 13 | 3 | 0 | 0 | 1 | 0 | 2 | 0 | 11 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 9 | 3 | 0 | 0 | 4 | 1 | 4 | 0 | 10 | 0 | 0 | 1 | 32 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 5 | 6 | 0 | 0 | 3 | 3 | 2 | 0 | 6 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 78 | 19 | 0 | 0 | 12 | 17 | 15 | 0 | 99 | 0 | 0 | 1 | 241 | 1 | 0 | 0 | 0 | 1 |
| | APPROACH % | 80% | 20% | 0% | 0% | 41% | 59% | 13% | 0% | 87% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 97 | / | 35 | 29 | / | 112 | 114 | / | 0 | 1 | / | 94 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 40 | 5 | 0 | 0 | 2 | 11 | 4 | 0 | 59 | 0 | 0 | 0 | 122 | | | | | |
| | APPROACH % | 87% | 11% | 0% | 0% | 15% | 85% | 6% | 0% | 94% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.767 | | | 0.650 | | | 0.788 | | | 0.000 | | 0.924 | | | | | |
| | APP/DEPART | 46 | / | 9 | 13 | / | 62 | 63 | / | 0 | 0 | / | 51 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

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| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

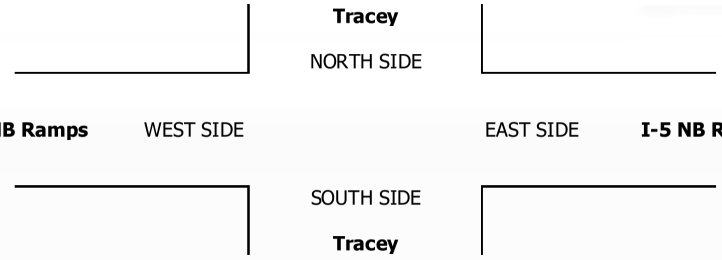
**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (I-5 NB Ramps) | | | WESTBOUND (I-5 NB Ramps) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 50% | 50% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 2 | / | 2 | 2 | / | 2 | 1 | / | 0 | 0 | / | 1 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 2 | / | 0 | 0 | / | 1 | 1 | / | 0 | 0 | / | 2 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | | | | | |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.500 | | | | | |
| | APP/DEPART | 1 | / | 0 | 0 | / | 1 | 1 | / | 0 | 0 | / | 1 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 16 |
| THURSDAY | EAST & WEST: | I-5 NB Ramps | CONTROL: | STOP E/W |

**CLASS 6:** **NOTES:**

BUSES

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND Tracey | | | SOUTHBOUND Tracey | | | EASTBOUND I-5 NB Ramps | | | WESTBOUND I-5 NB Ramps | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1 | NR 0 | SL 0 | ST 1 | SR 0 | EL 1 | ET 0 | ER 1 | WL 0 | WT 1 | WR 0 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |

**U-TURNS**

| AM NB | AM SB | AM EB | AM WB | AM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| PM NB | PM SB | PM EB | PM WB | PM TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

**Tracey**

NORTH SIDE

**I-5 NB Ramps** WEST SIDE EAST SIDE **I-5 NB Ramps**

SOUTH SIDE

**Tracey**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jul 27, 23

LOCATION: Buttonwillow
NORTH & SOUTH: Tracey
EAST & WEST: Hageman

PROJECT #: SC4130
LOCATION #: 17
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

| | | NORTHBOUND Tracey | | | SOUTHBOUND Tracey | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 5 | 0 | 38 | 14 | 13 | 0 | 0 | 28 | 17 | 115 |
| | 7:15 AM | 0 | 0 | 0 | 7 | 0 | 42 | 25 | 14 | 0 | 0 | 17 | 19 | 124 |
| | 7:30 AM | 0 | 0 | 0 | 14 | 0 | 51 | 26 | 17 | 0 | 0 | 29 | 19 | 156 |
| | 7:45 AM | 0 | 0 | 0 | 3 | 0 | 41 | 26 | 7 | 0 | 0 | 18 | 17 | 112 |
| | 8:00 AM | 0 | 0 | 0 | 8 | 0 | 40 | 22 | 12 | 0 | 0 | 14 | 13 | 109 |
| | 8:15 AM | 0 | 0 | 0 | 10 | 0 | 35 | 19 | 13 | 0 | 0 | 13 | 16 | 106 |
| | 8:30 AM | 0 | 0 | 0 | 6 | 0 | 41 | 27 | 11 | 0 | 0 | 13 | 11 | 109 |
| | 8:45 AM | 0 | 0 | 0 | 3 | 0 | 41 | 42 | 18 | 0 | 0 | 20 | 15 | 139 |
| | VOLUMES | 0 | 0 | 0 | 56 | 0 | 329 | 201 | 105 | 0 | 0 | 152 | 127 | 970 |
| | APPROACH % | 0% | 0% | 0% | 15% | 0% | 85% | 66% | 34% | 0% | 0% | 54% | 46% | |
| | APP/DEPART | 0 | / | 330 | 385 | / | 0 | 306 | / | 159 | 279 | / | 481 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 29 | 0 | 172 | 91 | 51 | 0 | 0 | 92 | 72 | 507 |
| | APPROACH % | 0% | 0% | 0% | 14% | 0% | 86% | 64% | 36% | 0% | 0% | 56% | 44% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.773 | | | 0.826 | | | 0.854 | | 0.813 |
| | APP/DEPART | 0 | / | 165 | 201 | / | 0 | 142 | / | 78 | 164 | / | 264 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 15 | 0 | 39 | 39 | 54 | 0 | 0 | 14 | 9 | 170 |
| | 4:15 PM | 0 | 0 | 0 | 12 | 0 | 54 | 35 | 71 | 0 | 0 | 17 | 18 | 207 |
| | 4:30 PM | 0 | 0 | 0 | 14 | 0 | 54 | 26 | 73 | 0 | 0 | 19 | 9 | 195 |
| | 4:45 PM | 0 | 0 | 0 | 4 | 0 | 43 | 45 | 48 | 0 | 0 | 21 | 17 | 178 |
| | 5:00 PM | 0 | 0 | 0 | 9 | 0 | 49 | 34 | 51 | 0 | 0 | 16 | 13 | 172 |
| | 5:15 PM | 0 | 0 | 0 | 9 | 0 | 33 | 35 | 52 | 0 | 0 | 19 | 8 | 156 |
| | 5:30 PM | 0 | 0 | 0 | 10 | 0 | 47 | 34 | 34 | 0 | 0 | 10 | 8 | 143 |
| | 5:45 PM | 0 | 0 | 0 | 7 | 0 | 37 | 30 | 29 | 0 | 0 | 18 | 12 | 133 |
| | VOLUMES | 0 | 0 | 0 | 80 | 0 | 356 | 278 | 412 | 0 | 0 | 134 | 94 | 1,354 |
| | APPROACH % | 0% | 0% | 0% | 18% | 0% | 82% | 40% | 60% | 0% | 0% | 59% | 41% | |
| | APP/DEPART | 0 | / | 373 | 436 | / | 0 | 690 | / | 489 | 228 | / | 492 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 39 | 0 | 200 | 140 | 243 | 0 | 0 | 73 | 57 | 752 |
| | APPROACH % | 0% | 0% | 0% | 16% | 0% | 84% | 37% | 63% | 0% | 0% | 56% | 44% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.879 | | | 0.903 | | | 0.855 | | 0.908 |
| | APP/DEPART | 0 | / | 197 | 239 | / | 0 | 383 | / | 282 | 130 | / | 273 | 0 |

**U-TURNS**

| NB | SB | EB | WB | TTL |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 2 |
| 0 | 1 | 2 | 0 | 3 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 | 2 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 3 | 2 | 0 | 5 |

**Tracey**
NORTH SIDE

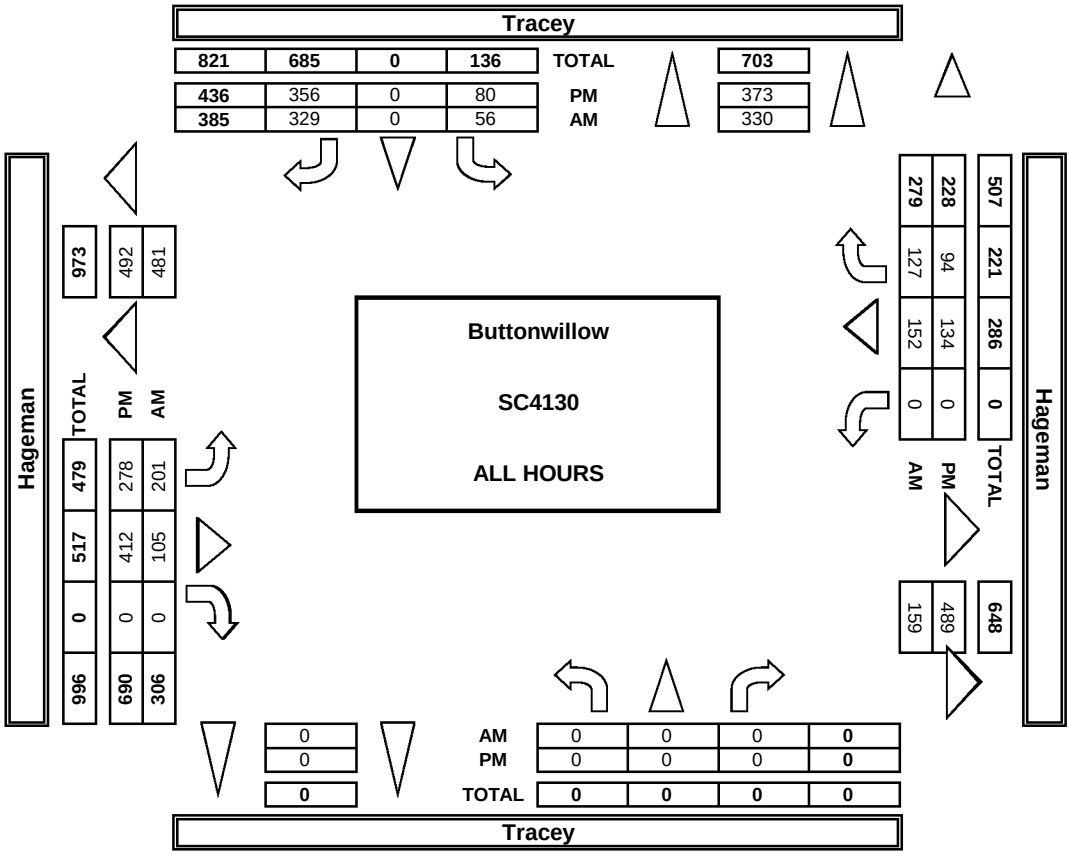
**Hageman** WEST SIDE EAST SIDE **Hageman**

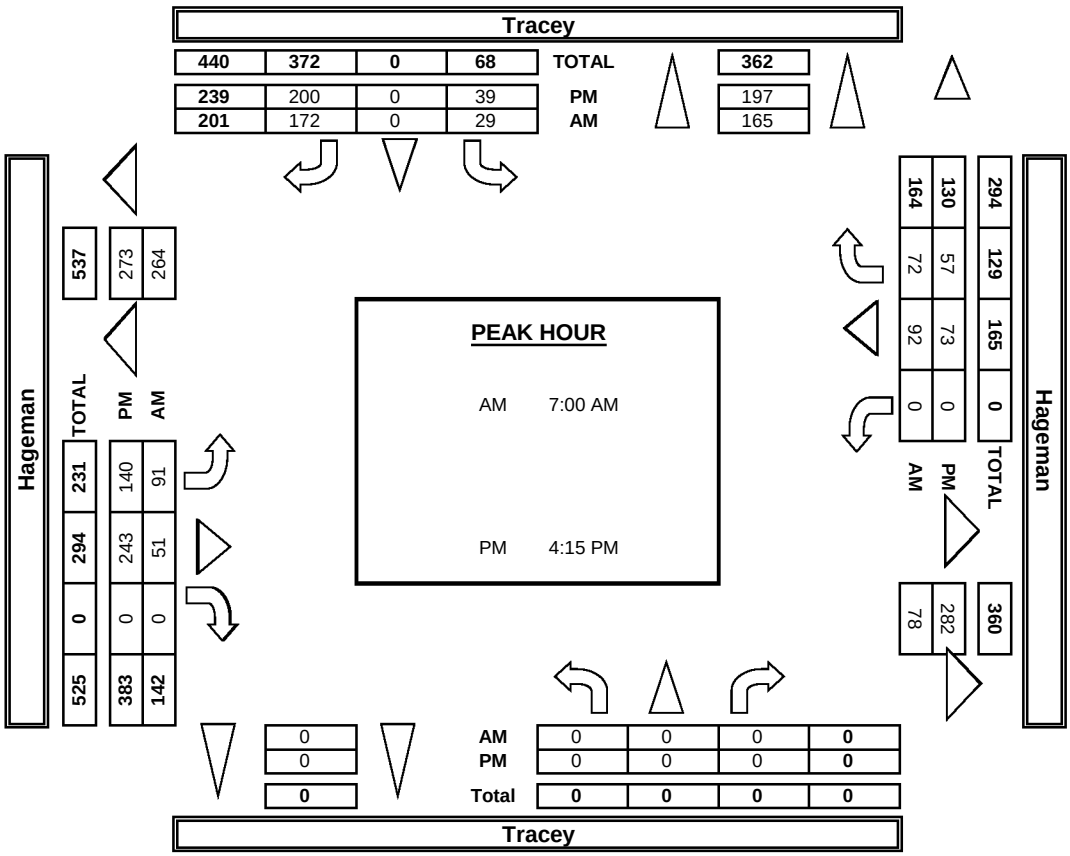
SOUTH SIDE
**Tracey**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | N SIDE | S SIDE | E SIDE | W SIDE | TOTAL | NS | SS | ES | WS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | | |
|---|---|---|---|---|---|
| 7/27/23 | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
| THURSDAY | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| | EAST & WEST: | Hageman | CONTROL: | STOP S |

| | NOTES: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCE Adjusted | Class | 1 | 2 | 3 | 4 | 5 | 6 | | | AM / PM / MD / OTHER / OTHER | ▲ N / ◄ W / E ► / S ▼ | |
| | Factor | 1 | 1.5 | 2 | 3 | 2 | 2 | | | | | |

| | | NORTHBOUND Tracey | | | SOUTHBOUND Tracey | | | EASTBOUND Hageman | | | WESTBOUND Hageman | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 9 | 0 | 59 | 17 | 20 | 0 | 0 | 39 | 23 | 166 | | | | | 0 |
| | 7:15 AM | 0 | 0 | 0 | 10 | 0 | 70 | 38 | 18 | 0 | 0 | 23 | 26 | 184 | | | | | 0 |
| | 7:30 AM | 0 | 0 | 0 | 21 | 0 | 73 | 33 | 23 | 0 | 0 | 49 | 27 | 224 | | | | | 0 |
| | 7:45 AM | 0 | 0 | 0 | 6 | 0 | 67 | 40 | 10 | 0 | 0 | 28 | 18 | 168 | | | | | 0 |
| | 8:00 AM | 0 | 0 | 0 | 12 | 0 | 65 | 34 | 16 | 0 | 0 | 21 | 18 | 164 | | | | | 0 |
| | 8:15 AM | 0 | 0 | 0 | 16 | 0 | 53 | 33 | 22 | 0 | 0 | 21 | 21 | 165 | | | | | 0 |
| | 8:30 AM | 0 | 0 | 0 | 11 | 0 | 64 | 32 | 18 | 0 | 0 | 19 | 17 | 159 | | | | | 0 |
| | 8:45 AM | 0 | 0 | 0 | 5 | 0 | 64 | 63 | 28 | 0 | 0 | 27 | 17 | 204 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 88 | 0 | 513 | 289 | 153 | 0 | 0 | 226 | 165 | 1,432 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 15% | 0% | 85% | 65% | 35% | 0% | 0% | 58% | 42% | | | | | | |
| | APP/DEPART | 0 | / | 453 | 601 | / | 0 | 442 | / | 241 | 390 | / | 738 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 45 | 0 | 268 | 128 | 71 | 0 | 0 | 138 | 93 | 741 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 14% | 0% | 86% | 64% | 36% | 0% | 0% | 60% | 40% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.840 | | | 0.884 | | | 0.763 | | 0.827 | | | | | |
| | APP/DEPART | 0 | / | 220 | 313 | / | 0 | 198 | / | 116 | 231 | / | 406 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 20 | 0 | 56 | 61 | 66 | 0 | 0 | 17 | 12 | 231 | | | | | 0 |
| | 4:15 PM | 0 | 0 | 0 | 15 | 0 | 74 | 49 | 93 | 0 | 0 | 27 | 25 | 282 | | | | | 0 |
| | 4:30 PM | 0 | 0 | 0 | 17 | 0 | 86 | 35 | 94 | 0 | 0 | 20 | 9 | 260 | | | | | 0 |
| | 4:45 PM | 0 | 0 | 0 | 6 | 0 | 59 | 82 | 64 | 0 | 0 | 25 | 23 | 258 | | | | | 0 |
| | 5:00 PM | 0 | 0 | 0 | 10 | 0 | 77 | 55 | 74 | 0 | 0 | 19 | 24 | 259 | | | | | 0 |
| | 5:15 PM | 0 | 0 | 0 | 12 | 0 | 48 | 51 | 76 | 0 | 0 | 28 | 9 | 223 | | | | | 0 |
| | 5:30 PM | 0 | 0 | 0 | 14 | 0 | 68 | 51 | 43 | 0 | 0 | 10 | 10 | 195 | | | | | 0 |
| | 5:45 PM | 0 | 0 | 0 | 11 | 0 | 54 | 47 | 34 | 0 | 0 | 23 | 18 | 186 | | | | | 0 |
| | VOLUMES | 0 | 0 | 0 | 104 | 0 | 520 | 429 | 542 | 0 | 0 | 168 | 130 | 1,891 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 17% | 0% | 83% | 44% | 56% | 0% | 0% | 56% | 44% | | | | | | |
| | APP/DEPART | 0 | / | 559 | 623 | / | 0 | 971 | / | 646 | 298 | / | 687 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 48 | 0 | 295 | 220 | 325 | 0 | 0 | 91 | 81 | 1,058 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 14% | 0% | 86% | 40% | 60% | 0% | 0% | 53% | 47% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.834 | | | 0.936 | | | 0.833 | | 0.940 | | | | | |
| | APP/DEPART | 0 | / | 301 | 342 | / | 0 | 545 | / | 372 | 172 | / | 385 | 0 | | | | | |

**Tracey**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**Tracey**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 24 | 11 | 8 | 0 | 0 | 19 | 12 | 76 |
| | 7:15 AM | 0 | 0 | 0 | 5 | 0 | 26 | 17 | 12 | 0 | 0 | 11 | 14 | 85 |
| | 7:30 AM | 0 | 0 | 0 | 10 | 0 | 35 | 21 | 12 | 0 | 0 | 16 | 13 | 107 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 25 | 18 | 4 | 0 | 0 | 9 | 16 | 73 |
| | 8:00 AM | 0 | 0 | 0 | 6 | 0 | 24 | 15 | 7 | 0 | 0 | 7 | 10 | 69 |
| | 8:15 AM | 0 | 0 | 0 | 6 | 0 | 24 | 11 | 7 | 0 | 0 | 6 | 13 | 67 |
| | 8:30 AM | 0 | 0 | 0 | 3 | 0 | 26 | 24 | 7 | 0 | 0 | 8 | 8 | 76 |
| | 8:45 AM | 0 | 0 | 0 | 2 | 0 | 26 | 30 | 10 | 0 | 0 | 12 | 13 | 93 |
| | VOLUMES | 0 | 0 | 0 | 35 | 0 | 210 | 147 | 67 | 0 | 0 | 88 | 99 | 646 |
| | APPROACH % | 0% | 0% | 0% | 14% | 0% | 86% | 69% | 31% | 0% | 0% | 47% | 53% | |
| | APP/DEPART | 0 | / | 248 | 245 | / | 0 | 214 | / | 100 | 187 | / | 298 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 16 | 0 | 110 | 67 | 36 | 0 | 0 | 55 | 55 | 341 |
| | APPROACH % | 0% | 0% | 0% | 13% | 0% | 86% | 65% | 35% | 0% | 0% | 50% | 50% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.711 | | | 0.780 | | | 0.887 | | 0.797 |
| | APP/DEPART | 0 | / | 124 | 128 | / | 0 | 103 | / | 52 | 110 | / | 165 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 12 | 0 | 28 | 26 | 42 | 0 | 0 | 11 | 6 | 125 |
| | 4:15 PM | 0 | 0 | 0 | 9 | 0 | 42 | 27 | 51 | 0 | 0 | 11 | 14 | 154 |
| | 4:30 PM | 0 | 0 | 0 | 12 | 0 | 36 | 21 | 56 | 0 | 0 | 17 | 9 | 151 |
| | 4:45 PM | 0 | 0 | 0 | 3 | 0 | 33 | 23 | 30 | 0 | 0 | 19 | 14 | 122 |
| | 5:00 PM | 0 | 0 | 0 | 7 | 0 | 33 | 22 | 32 | 0 | 0 | 13 | 7 | 114 |
| | 5:15 PM | 0 | 0 | 0 | 7 | 0 | 24 | 24 | 35 | 0 | 0 | 14 | 7 | 111 |
| | 5:30 PM | 0 | 0 | 0 | 8 | 0 | 34 | 23 | 27 | 0 | 0 | 10 | 7 | 109 |
| | 5:45 PM | 0 | 0 | 0 | 5 | 0 | 27 | 21 | 26 | 0 | 0 | 15 | 9 | 103 |
| | VOLUMES | 0 | 0 | 0 | 63 | 0 | 257 | 187 | 299 | 0 | 0 | 110 | 73 | 989 |
| | APPROACH % | 0% | 0% | 0% | 20% | 0% | 80% | 38% | 62% | 0% | 0% | 60% | 40% | |
| | APP/DEPART | 0 | / | 262 | 320 | / | 0 | 486 | / | 359 | 183 | / | 368 | 0 |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 31 | 0 | 144 | 93 | 169 | 0 | 0 | 60 | 44 | 541 |
| | APPROACH % | 0% | 0% | 0% | 18% | 0% | 82% | 35% | 65% | 0% | 0% | 58% | 42% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.858 | | | 0.840 | | | 0.788 | | 0.878 |
| | APP/DEPART | 0 | / | 137 | 175 | / | 0 | 262 | / | 200 | 104 | / | 204 | 0 |

**U-TURNS**

| | NB | SB | EB | WB | TTL |
|---|---|---|---|---|---|
| 7:00 AM | 0 | 1 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 1 | 0 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| | 0 | 2 | 0 | 0 | 2 |
| 4:00 PM | 0 | 1 | 1 | 0 | 2 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 2 | 0 | 0 | 2 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| | 0 | 3 | 1 | 0 | 4 |

**Tracey**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**Tracey**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

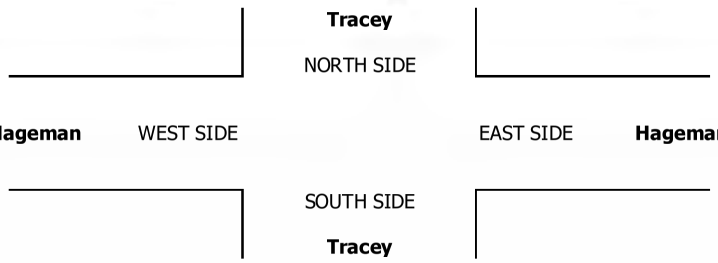
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 2:** 2-AXLE WORK VEHICLES/ TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 2 | 0 | 0 | 5 | 3 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 2 | 10 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 7 | 2 | 3 | 0 | 0 | 4 | 3 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 2 | 0 | 0 | 5 | 1 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 3 | 0 | 0 | 4 | 1 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 4 | 1 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 4 | 0 | 0 | 6 | 0 | 16 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 4 | 0 | 31 | 11 | 16 | 0 | 0 | 33 | 11 | 106 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 11% | 0% | 89% | 41% | 59% | 0% | 0% | 75% | 25% | | | | | | |
| | APP/DEPART | 0 | / | 22 | 35 | / | 0 | 27 | / | 20 | 44 | / | 64 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 2 | 0 | 19 | 7 | 7 | 0 | 0 | 16 | 9 | 60 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 10% | 0% | 90% | 50% | 50% | 0% | 0% | 64% | 36% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.656 | | | 0.700 | | | 0.781 | | 0.750 | | | | | |
| | APP/DEPART | 0 | / | 16 | 21 | / | 0 | 14 | / | 9 | 25 | / | 35 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 8 | 0 | 0 | 2 | 2 | 19 | 0 | 0 | 1 | 0 | 1 |
| | 4:15 PM | 0 | 0 | 0 | 2 | 0 | 3 | 1 | 10 | 0 | 0 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 8 | 0 | 0 | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 13 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 2 | 0 | 3 | 2 | 10 | 0 | 0 | 2 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 1 | 0 | 2 | 4 | 5 | 0 | 0 | 1 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 7 | 0 | 21 | 19 | 58 | 0 | 0 | 9 | 2 | 116 | 0 | 0 | 1 | 0 | 1 |
| | APPROACH % | 0% | 0% | 0% | 25% | 0% | 75% | 25% | 75% | 0% | 0% | 82% | 18% | | | | | | |
| | APP/DEPART | 0 | / | 20 | 28 | / | 0 | 77 | / | 65 | 11 | / | 31 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 5 | 0 | 11 | 8 | 41 | 0 | 0 | 5 | 0 | 70 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 31% | 0% | 69% | 16% | 84% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.800 | | | 0.721 | | | 0.625 | | 0.875 | | | | | |
| | APP/DEPART | 0 | / | 8 | 16 | / | 0 | 49 | / | 46 | 5 | / | 16 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

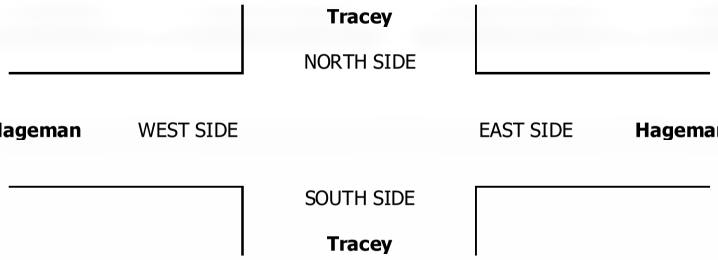
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 4 | 0 | 7 | 3 | 4 | 0 | 0 | 5 | 2 | 25 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 36% | 0% | 64% | 43% | 57% | 0% | 0% | 71% | 29% | | | | | | |
| | APP/DEPART | 0 | / | 5 | 11 | / | 0 | 7 | / | 8 | 7 | / | 12 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 8 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.375 | | | 0.250 | | | 0.333 | | 0.667 | | | | | |
| | APP/DEPART | 0 | / | 1 | 3 | / | 0 | 1 | / | 3 | 4 | / | 4 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 9 | 0 | 0 | 1 | 2 | 18 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 25% | 75% | 0% | 0% | 33% | 67% | | | | | | |
| | APP/DEPART | 0 | / | 5 | 3 | / | 0 | 12 | / | 9 | 3 | / | 4 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 0 | 0 | 1 | 1 | 10 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 29% | 71% | 0% | 0% | 50% | 50% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.438 | | | 0.500 | | 0.500 | | | | | |
| | APP/DEPART | 0 | / | 3 | 1 | / | 0 | 7 | / | 5 | 2 | / | 2 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

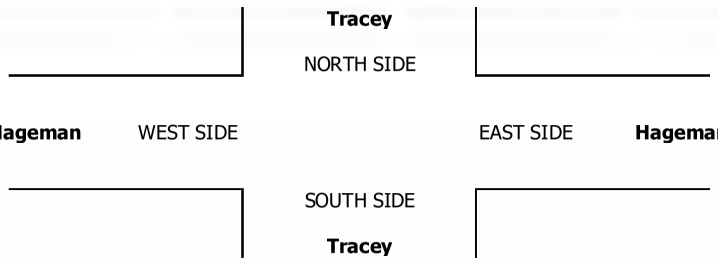
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 1 | 0 | 9 | 1 | 3 | 0 | 0 | 4 | 2 | 20 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 0 | 13 | 6 | 2 | 0 | 0 | 1 | 3 | 26 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 3 | 0 | 9 | 3 | 2 | 0 | 0 | 9 | 3 | 29 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 1 | 0 | 12 | 6 | 1 | 0 | 0 | 3 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 2 | 0 | 10 | 5 | 0 | 0 | 0 | 2 | 2 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 2 | 0 | 8 | 6 | 3 | 0 | 0 | 3 | 2 | 24 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 2 | 0 | 9 | 2 | 3 | 0 | 0 | 2 | 3 | 21 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 0 | 10 | 10 | 4 | 0 | 0 | 2 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 13 | 0 | 80 | 39 | 18 | 0 | 0 | 26 | 15 | 191 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 14% | 0% | 86% | 68% | 32% | 0% | 0% | 63% | 37% | | | | | | |
| | APP/DEPART | 0 | / | 54 | 93 | / | 0 | 57 | / | 31 | 41 | / | 106 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 6 | 0 | 43 | 16 | 8 | 0 | 0 | 17 | 8 | 98 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 12% | 0% | 88% | 67% | 33% | 0% | 0% | 68% | 32% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.875 | | | 0.750 | | | 0.521 | | 0.845 | | | | | |
| | APP/DEPART | 0 | / | 24 | 49 | / | 0 | 24 | / | 14 | 25 | / | 60 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 2 | 0 | 7 | 10 | 4 | 0 | 0 | 1 | 1 | 25 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 1 | 0 | 9 | 6 | 7 | 0 | 0 | 4 | 3 | 30 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 1 | 0 | 15 | 4 | 8 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 1 | 0 | 7 | 17 | 4 | 0 | 0 | 2 | 3 | 34 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 13 | 10 | 9 | 0 | 0 | 1 | 5 | 38 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 1 | 0 | 7 | 7 | 9 | 0 | 0 | 4 | 0 | 28 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 2 | 0 | 9 | 7 | 3 | 0 | 0 | 0 | 1 | 22 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 0 | 8 | 8 | 2 | 0 | 0 | 2 | 3 | 25 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 10 | 0 | 75 | 69 | 46 | 0 | 0 | 14 | 16 | 230 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 12% | 0% | 88% | 60% | 40% | 0% | 0% | 47% | 53% | | | | | | |
| | APP/DEPART | 0 | / | 85 | 85 | / | 0 | 115 | / | 56 | 30 | / | 89 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 3 | 0 | 44 | 37 | 28 | 0 | 0 | 7 | 11 | 130 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 6% | 0% | 94% | 57% | 43% | 0% | 0% | 39% | 61% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.734 | | | 0.774 | | | 0.643 | | 0.855 | | | | | |
| | APP/DEPART | 0 | / | 48 | 47 | / | 0 | 65 | / | 31 | 18 | / | 51 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

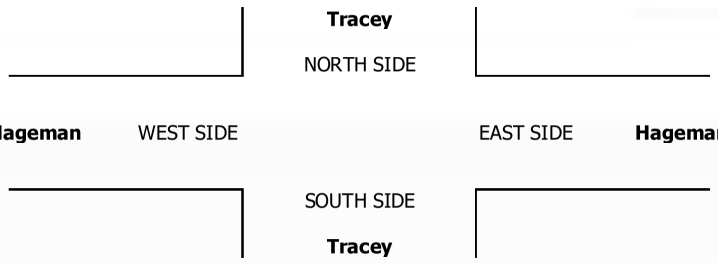
| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 5:** RV

**NOTES:**

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL X | NT X | NR X | SL 1 | ST X | SR 1 | EL 1 | ET 1 | ER X | WL X | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 0 | 1 | / | 0 | 0 | / | 1 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | APP/DEPART | 0 | / | 1 | 0 | / | 0 | 0 | / | 0 | 1 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.250 | | 0.250 | | | | | |
| | APP/DEPART | 0 | / | 1 | 0 | / | 0 | 0 | / | 0 | 1 | / | 0 | 0 | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Buttonwillow | PROJECT #: | SC4130 |
|---|---|---|---|---|
| 7/27/23 | NORTH & SOUTH: | Tracey | LOCATION #: | 17 |
| THURSDAY | EAST & WEST: | Hageman | CONTROL: | STOP S |

**CLASS 6:** BUSES

**NOTES:**

AM / PM / MD / OTHER / OTHER — ◄ W, ▲ N, S ▼, E ►

| | | NORTHBOUND (Tracey) | | | SOUTHBOUND (Tracey) | | | EASTBOUND (Hageman) | | | WESTBOUND (Hageman) | | | | U-TURNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL<br>X | NT<br>X | NR<br>X | SL<br>1 | ST<br>X | SR<br>1 | EL<br>1 | ET<br>1 | ER<br>X | WL<br>X | WT<br>1 | WR<br>1 | TOTAL | NB | SB | EB | WB | TTL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | |

**Tracey**

NORTH SIDE

**Hageman** WEST SIDE EAST SIDE **Hageman**

SOUTH SIDE

**Tracey**

# Appendix B
LOS Worksheets

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 1 | 56 | 3 | 7 | 75 |
| Future Vol, veh/h | 3 | 1 | 56 | 3 | 7 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 1 | 75 | 4 | 9 | 100 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 195 | 77 | 0 | 0 | 79 | 0 |
| Stage 1 | 77 | - | - | - | - | - |
| Stage 2 | 119 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 798 | 990 | - | - | 1532 | - |
| Stage 1 | 951 | - | - | - | - | - |
| Stage 2 | 911 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 793 | 990 | - | - | 1532 | - |
| Mov Cap-2 Maneuver | 793 | - | - | - | - | - |
| Stage 1 | 951 | - | - | - | - | - |
| Stage 2 | 906 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.34 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 834 | 154 | - |
| HCM Lane V/C Ratio | - | - | 0.006 | 0.006 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 36 | 62 | 3 | 175 | 0 | 0 | 0 | 0 | 43 | 2 | 6 |
| Future Vol, veh/h | 0 | 36 | 62 | 3 | 175 | 0 | 0 | 0 | 0 | 43 | 2 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 39 | 67 | 3 | 190 | 0 | 0 | 0 | 0 | 47 | 2 | 7 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 39 | 0 | 0 | | | 236 | 236 | 190 |
| Stage 1 | - | - | - | - | - | - | | | 197 | 197 | - |
| Stage 2 | - | - | - | - | - | - | | | 39 | 39 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1584 | - | 0 | | | 757 | 668 | 857 |
| Stage 1 | 0 | - | 0 | - | - | 0 | | | 841 | 742 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | | | 989 | 866 | - |
| Platoon blocked, % | | - | | | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1584 | - | - | | | 755 | 0 | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 755 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 841 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 986 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.12 | 10 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 30 | - | 755 | 857 |
| HCM Lane V/C Ratio | - | 0.002 | - | 0.065 | 0.008 |
| HCM Control Delay (s/veh) | - | 7.3 | 0 | 10.1 | 9.2 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.2 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 3 | 73 | 0 | 0 | 65 | 32 | 114 | 6 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 3 | 73 | 0 | 0 | 65 | 32 | 114 | 6 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 99 | 0 | 0 | 88 | 43 | 154 | 8 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 88 | 0 | - | - | - | 0 | 195 | 195 | 99 |
| Stage 1 | - | - | - | - | - | - | 107 | 107 | - |
| Stage 2 | - | - | - | - | - | - | 88 | 88 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1521 | - | 0 | 0 | - | 0 | 799 | 704 | 963 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 923 | 811 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 941 | 826 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1521 | - | - | - | - | - | 797 | 0 | 963 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 797 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 920 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 941 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.29 | 0 | 10.67 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 797 | - | 71 | - | - |
| HCM Lane V/C Ratio | 0.204 | - | 0.003 | - | - |
| HCM Control Delay (s/veh) | 10.7 | 0 | 7.4 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 19 | 66 | 3 | 15 | 87 | 1 | 13 | 39 | 8 | 5 | 43 | 21 |
| Future Vol, veh/h | 19 | 66 | 3 | 15 | 87 | 1 | 13 | 39 | 8 | 5 | 43 | 21 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 22 | 75 | 3 | 17 | 99 | 1 | 15 | 44 | 9 | 6 | 49 | 24 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.3 | 8.5 | 8.7 | 8 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 22% | 100% | 0% | 100% | 0% | 10% | 0% |
| Vol Thru, % | 65% | 0% | 96% | 0% | 99% | 90% | 0% |
| Vol Right, % | 13% | 0% | 4% | 0% | 1% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 60 | 19 | 69 | 15 | 88 | 48 | 21 |
| LT Vol | 13 | 19 | 0 | 15 | 0 | 5 | 0 |
| Through Vol | 39 | 0 | 66 | 0 | 87 | 43 | 0 |
| RT Vol | 8 | 0 | 3 | 0 | 1 | 0 | 21 |
| Lane Flow Rate | 68 | 22 | 78 | 17 | 100 | 55 | 24 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.097 | 0.033 | 0.108 | 0.026 | 0.138 | 0.078 | 0.029 |
| Departure Headway (Hd) | 5.103 | 5.484 | 4.952 | 5.469 | 4.959 | 5.165 | 4.41 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 703 | 654 | 725 | 656 | 725 | 695 | 813 |
| Service Time | 3.127 | 3.204 | 2.672 | 3.189 | 2.679 | 2.888 | 2.133 |
| HCM Lane V/C Ratio | 0.097 | 0.034 | 0.108 | 0.026 | 0.138 | 0.079 | 0.03 |
| HCM Control Delay, s/veh | 8.7 | 8.4 | 8.3 | 8.3 | 8.5 | 8.3 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.1 | 0.4 | 0.1 | 0.5 | 0.3 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 82 | 110 | 17 | 5 | 0 |
| Future Vol, veh/h | 0 | 82 | 110 | 17 | 5 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 103 | 138 | 21 | 6 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 159 | 0 | - | 0 | 251 | 148 |
| Stage 1 | - | - | - | - | 148 | - |
| Stage 2 | - | - | - | - | 103 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1433 | - | - | - | 742 | 904 |
| Stage 1 | - | - | - | - | 884 | - |
| Stage 2 | - | - | - | - | 927 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1433 | - | - | - | 742 | 904 |
| Mov Cap-2 Maneuver | - | - | - | - | 742 | - |
| Stage 1 | - | - | - | - | 884 | - |
| Stage 2 | - | - | - | - | 927 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 9.89 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1433 | - | - | - | 742 |
| HCM Lane V/C Ratio | - | - | - | - | 0.008 |
| HCM Control Delay (s/veh) | 0 | - | - | - | 9.9 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 169 | 47 | 53 | 0 |
| Future Volume (vph) | 0 | 0 | 169 | 47 | 53 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.962 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Flt Permitted | | | | 0.962 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 182 | 51 | 57 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 233 | 57 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 21.8% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↰ | ↱ | | ↰ | ↱ | | ↱ | | | ↰ | |
| Traffic Vol, veh/h | 12 | 40 | 67 | 0 | 0 | 118 | 0 | 77 | 1 | 10 | 57 | 0 |
| Future Vol, veh/h | 12 | 40 | 67 | 0 | 0 | 118 | 0 | 77 | 1 | 10 | 57 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 43 | 72 | 0 | 0 | 127 | 0 | 83 | 1 | 11 | 61 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 166 | 167 | - | 188 | 166 | 83 | - | 0 | 0 | 84 | 0 | 0 |
| Stage 1 | 83 | 83 | - | 83 | 83 | - | - | - | - | - | - | - |
| Stage 2 | 83 | 84 | - | 104 | 83 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 803 | 730 | 0 | 777 | 730 | 982 | 0 | - | - | 1526 | - | 0 |
| Stage 1 | 930 | 830 | 0 | 930 | 830 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 930 | 829 | 0 | 906 | 830 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 694 | 724 | - | 726 | 725 | 982 | - | - | - | 1526 | - | - |
| Mov Cap-2 Maneuver | 694 | 724 | - | 726 | 725 | - | - | - | - | - | - | - |
| Stage 1 | 924 | 824 | - | 930 | 830 | - | - | - | - | - | - | - |
| Stage 2 | 810 | 829 | - | 853 | 824 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 10.44 | 9.21 | 0 | 1.1 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 717 | - | - | 982 | 269 | - |
| HCM Lane V/C Ratio | - | - | 0.078 | - | - | 0.129 | 0.007 | - |
| HCM Control Delay (s/veh) | - | - | 10.4 | 0 | 0 | 9.2 | 7.4 | 0 |
| HCM Lane LOS | - | - | B | A | A | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | - | - | 0.4 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.3 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 31 | 2 | 9 | 48 | 45 | 1 | 27 | 2 | 83 | 24 | 15 |
| Future Vol, veh/h | 6 | 31 | 2 | 9 | 48 | 45 | 1 | 27 | 2 | 83 | 24 | 15 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 35 | 2 | 10 | 54 | 51 | 1 | 30 | 2 | 93 | 27 | 17 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.1 | 7.9 | 7.9 | 8.9 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 4% | 0% | 16% | 0% | 16% | 0% | 78% | 0% |
| Vol Thru, % | 96% | 0% | 84% | 0% | 84% | 0% | 22% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 28 | 2 | 37 | 2 | 57 | 45 | 107 | 15 |
| LT Vol | 1 | 0 | 6 | 0 | 9 | 0 | 83 | 0 |
| Through Vol | 27 | 0 | 31 | 0 | 48 | 0 | 24 | 0 |
| RT Vol | 0 | 2 | 0 | 2 | 0 | 45 | 0 | 15 |
| Lane Flow Rate | 31 | 2 | 42 | 2 | 64 | 51 | 120 | 17 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.044 | 0.003 | 0.059 | 0.003 | 0.09 | 0.06 | 0.177 | 0.02 |
| Departure Headway (Hd) | 5.032 | 4.312 | 5.132 | 4.348 | 5.069 | 4.287 | 5.303 | 4.212 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 714 | 832 | 700 | 825 | 709 | 838 | 679 | 852 |
| Service Time | 2.749 | 2.029 | 2.849 | 2.065 | 2.783 | 2.002 | 3.017 | 1.926 |
| HCM Lane V/C Ratio | 0.043 | 0.002 | 0.06 | 0.002 | 0.09 | 0.061 | 0.177 | 0.02 |
| HCM Control Delay, s/veh | 8 | 7 | 8.2 | 7.1 | 8.3 | 7.3 | 9.2 | 7 |
| HCM Lane LOS | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.1 | 0 | 0.2 | 0 | 0.3 | 0.2 | 0.6 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 111 | 4 | 17 | 93 | 8 | 5 |
| Future Vol, veh/h | 111 | 4 | 17 | 93 | 8 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 146 | 5 | 22 | 122 | 11 | 7 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 151 | 0 | 316 | 149 |
| Stage 1 | - | - | - | - | 149 | - |
| Stage 2 | - | - | - | - | 167 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1442 | - | 681 | 903 |
| Stage 1 | - | - | - | - | 884 | - |
| Stage 2 | - | - | - | - | 867 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1442 | - | 670 | 903 |
| Mov Cap-2 Maneuver | - | - | - | - | 670 | - |
| Stage 1 | - | - | - | - | 884 | - |
| Stage 2 | - | - | - | - | 853 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.16 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 670 | 903 | - | - | 278 | - |
| HCM Lane V/C Ratio | 0.016 | 0.007 | - | - | 0.016 | - |
| HCM Control Delay (s/veh) | 10.5 | 9 | - | - | 7.5 | 0 |
| HCM Lane LOS | B | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 56 | 21 | 17 | 102 | 135 | 0 | 0 | 0 | 23 | 12 | 0 |
| Future Vol, veh/h | 0 | 56 | 21 | 17 | 102 | 135 | 0 | 0 | 0 | 23 | 12 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 58 | 22 | 18 | 105 | 139 | 0 | 0 | 0 | 24 | 12 | 0 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 244 | 0 | - | 58 | 0 | 0 | | | 268 | 268 | 175 |
| Stage 1 | - | - | - | - | - | - | | | 210 | 210 | - |
| Stage 2 | - | - | - | - | - | - | | | 58 | 58 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1334 | - | 0 | 1559 | - | - | | | 726 | 642 | 874 |
| Stage 1 | - | - | 0 | - | - | - | | | 830 | 732 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 970 | 851 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1334 | - | - | 1559 | - | - | | | 716 | 0 | 874 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 716 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 830 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 957 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.49 | 10.29 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1334 | - | 108 | - | - | 716 | - |
| HCM Lane V/C Ratio | - | - | 0.011 | - | - | 0.05 | - |
| HCM Control Delay (s/veh) | 0 | - | 7.3 | 0 | - | 10.3 | 0 |
| HCM Lane LOS | A | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 79 | 0 | 0 | 226 | 29 | 27 |
| Future Vol, veh/h | 79 | 0 | 0 | 226 | 29 | 27 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 87 | 0 | 0 | 248 | 32 | 30 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 335 | 87 |
| Stage 1 | - | - | - | - | 87 | - |
| Stage 2 | - | - | - | - | 248 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 664 | 977 |
| Stage 1 | - | 0 | 0 | - | 942 | - |
| Stage 2 | - | 0 | 0 | - | 798 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 664 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | 664 | - |
| Stage 1 | - | - | - | - | 942 | - |
| Stage 2 | - | - | - | - | 798 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 9.78 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 664 | 977 | - | - |
| HCM Lane V/C Ratio | 0.048 | 0.03 | - | - |
| HCM Control Delay (s/veh) | 10.7 | 8.8 | - | - |
| HCM Lane LOS | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 32 | 96 | 221 | 55 | 16 | 52 |
| Future Vol, veh/h | 32 | 96 | 221 | 55 | 16 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 35 | 105 | 243 | 60 | 18 | 57 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 303 | 0 | - | 0 | 449 | 273 |
| Stage 1 | - | - | - | - | 273 | - |
| Stage 2 | - | - | - | - | 176 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1269 | - | - | - | 571 | 770 |
| Stage 1 | - | - | - | - | 778 | - |
| Stage 2 | - | - | - | - | 860 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1269 | - | - | - | 555 | 770 |
| Mov Cap-2 Maneuver | - | - | - | - | 555 | - |
| Stage 1 | - | - | - | - | 755 | - |
| Stage 2 | - | - | - | - | 860 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 1.98 | 0 | 10.44 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 450 | - | - | - | 555 | 770 |
| HCM Lane V/C Ratio | 0.028 | - | - | - | 0.032 | 0.074 |
| HCM Control Delay (s/veh) | 7.9 | 0 | - | - | 11.7 | 10 |
| HCM Lane LOS | A | A | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 49 | 4 | 5 | 149 | 26 | 6 | 6 | 10 | 19 | 10 | 12 |
| Future Vol, veh/h | 12 | 49 | 4 | 5 | 149 | 26 | 6 | 6 | 10 | 19 | 10 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 61 | 5 | 6 | 186 | 33 | 8 | 8 | 13 | 24 | 13 | 15 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 219 | 0 | 0 | 66 | 0 | 0 | 299 | 325 | 64 | 294 | 295 | 186 |
| Stage 1 | - | - | - | - | - | - | 94 | 94 | - | 199 | 199 | - |
| Stage 2 | - | - | - | - | - | - | 205 | 231 | - | 95 | 96 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1363 | - | - | 1548 | - | - | 657 | 596 | 1006 | 662 | 620 | 861 |
| Stage 1 | - | - | - | - | - | - | 918 | 821 | - | 808 | 740 | - |
| Stage 2 | - | - | - | - | - | - | 802 | 717 | - | 917 | 819 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1363 | - | - | 1548 | - | - | 623 | 587 | 1006 | 636 | 610 | 861 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 623 | 587 | - | 636 | 610 | - |
| Stage 1 | - | - | - | - | - | - | 908 | 812 | - | 804 | 737 | - |
| Stage 2 | - | - | - | - | - | - | 771 | 714 | - | 887 | 810 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 1.42 | 0.2 | 10.06 | 10.72 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 739 | 1363 | - | - | 58 | - | - | 681 |
| HCM Lane V/C Ratio | 0.037 | 0.011 | - | - | 0.004 | - | - | 0.075 |
| HCM Control Delay (s/veh) | 10.1 | 7.7 | - | - | 7.3 | 0 | - | 10.7 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.2 |

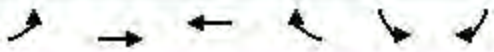
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 1 | 102 | 15 | 35 | 177 | 1 | 11 | 6 | 7 | 0 | 4 | 0 |
| Future Vol, veh/h | 1 | 102 | 15 | 35 | 177 | 1 | 11 | 6 | 7 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 119 | 17 | 41 | 206 | 1 | 13 | 7 | 8 | 0 | 5 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 207 | 0 | 0 | 136 | 0 | 0 | 419 | 418 | 127 | 412 | 426 | 206 |
| Stage 1 | - | - | - | - | - | - | 130 | 130 | - | 288 | 288 | - |
| Stage 2 | - | - | - | - | - | - | 290 | 288 | - | 124 | 138 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1376 | - | - | 1461 | - | - | 548 | 529 | 928 | 554 | 523 | 839 |
| Stage 1 | - | - | - | - | - | - | 879 | 793 | - | 724 | 677 | - |
| Stage 2 | - | - | - | - | - | - | 723 | 677 | - | 884 | 786 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1376 | - | - | 1461 | - | - | 525 | 512 | 928 | 524 | 506 | 839 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 525 | 512 | - | 524 | 506 | - |
| Stage 1 | - | - | - | - | - | - | 878 | 792 | - | 701 | 656 | - |
| Stage 2 | - | - | - | - | - | - | 695 | 656 | - | 868 | 785 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.06 | 1.24 | 11.23 | 12.17 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 521 | 928 | 15 | - | - | 295 | - | - | 506 |
| HCM Lane V/C Ratio | 0.038 | 0.009 | 0.001 | - | - | 0.028 | - | - | 0.009 |
| HCM Control Delay (s/veh) | 12.2 | 8.9 | 7.6 | 0 | - | 7.5 | 0 | - | 12.2 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0.1 | - | - | 0 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 114 | 255 | 170 | 121 | 19 |
| Future Volume (veh/h) | 37 | 114 | 255 | 170 | 121 | 19 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 125 | 280 | 187 | 133 | 21 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 89 | 908 | 496 | 721 | 337 | 300 |
| Arrive On Green | 0.05 | 0.48 | 0.26 | 0.26 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 41 | 125 | 280 | 187 | 133 | 21 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 0.6 | 1.0 | 3.4 | 1.9 | 1.7 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 1.0 | 3.4 | 1.9 | 1.7 | 0.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 89 | 908 | 496 | 721 | 337 | 300 |
| V/C Ratio(X) | 0.46 | 0.14 | 0.56 | 0.26 | 0.39 | 0.07 |
| Avail Cap(c_a), veh/h | 439 | 2161 | 1382 | 1471 | 1383 | 1231 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.4 | 3.9 | 8.6 | 4.6 | 9.6 | 9.0 |
| Incr Delay (d2), s/veh | 3.7 | 0.1 | 1.0 | 0.2 | 0.7 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 0.0 | 0.6 | 0.4 | 0.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 16.1 | 4.0 | 9.6 | 4.8 | 10.3 | 9.1 |
| LnGrp LOS | B | A | A | A | B | A |
| Approach Vol, veh/h | | 166 | 467 | | 154 | |
| Approach Delay, s/veh | | 7.0 | 7.7 | | 10.2 | |
| Approach LOS | | A | A | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 17.3 | | 9.5 | 5.8 | 11.5 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | | 3.0 | | 3.7 | 2.6 | 5.4 |
| Green Ext Time (p_c), s | | | | 0.5 | | 0.3 | 0.0 | 1.7 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 8.0 |
| HCM 7th LOS | A |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 64 | 8 | 200 | 6 | 6 | 8 | 166 | 94 | 2 | 1 | 130 | 56 |
| Future Vol, veh/h | 64 | 8 | 200 | 6 | 6 | 8 | 166 | 94 | 2 | 1 | 130 | 56 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 73 | 9 | 227 | 7 | 7 | 9 | 189 | 107 | 2 | 1 | 148 | 64 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 669 | 668 | 180 | 640 | 699 | 108 | 211 | 0 | 0 | 109 | 0 | 0 |
| Stage 1 | 182 | 182 | - | 485 | 485 | - | - | - | - | - | - | - |
| Stage 2 | 488 | 486 | - | 155 | 214 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 374 | 379 | 868 | 388 | 364 | 946 | 1371 | - | - | 1481 | - | - |
| Stage 1 | 825 | 749 | - | 563 | 551 | - | - | - | - | - | - | - |
| Stage 2 | 565 | 551 | - | 848 | 726 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 313 | 327 | 868 | 241 | 314 | 946 | 1371 | - | - | 1481 | - | - |
| Mov Cap-2 Maneuver | 313 | 327 | - | 241 | 314 | - | - | - | - | - | - | - |
| Stage 1 | 824 | 748 | - | 486 | 476 | - | - | - | - | - | - | - |
| Stage 2 | 476 | 475 | - | 618 | 725 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 13.21 | 14.74 | 5.1 | 0.04 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1371 | - | - | 314 | 868 | 241 | 507 | 9 | - | - |
| HCM Lane V/C Ratio | 0.138 | - | - | 0.26 | 0.262 | 0.028 | 0.031 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 20.4 | 10.6 | 20.4 | 12.3 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 1 | 1 | 0.1 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 128 | 71 | 138 | 93 | 45 | 268 |
| Future Vol, veh/h | 128 | 71 | 138 | 93 | 45 | 268 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 154 | 86 | 166 | 112 | 54 | 323 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 278 | 0 | - | 0 | 560 | 166 |
| Stage 1 | - | - | - | - | 166 | - |
| Stage 2 | - | - | - | - | 394 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1296 | - | - | - | 493 | 883 |
| Stage 1 | - | - | - | - | 868 | - |
| Stage 2 | - | - | - | - | 686 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1296 | - | - | - | 434 | 883 |
| Mov Cap-2 Maneuver | - | - | - | - | 434 | - |
| Stage 1 | - | - | - | - | 765 | - |
| Stage 2 | - | - | - | - | 686 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 5.24 | 0 | 11.85 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1296 | - | - | - | 434 | 883 |
| HCM Lane V/C Ratio | 0.119 | - | - | - | 0.125 | 0.366 |
| HCM Control Delay (s/veh) | 8.2 | - | - | - | 14.5 | 11.4 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.4 | 1.7 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 90 | 2 | 4 | 42 |
| Future Vol, veh/h | 5 | 4 | 90 | 2 | 4 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 120 | 3 | 5 | 56 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 188 | 121 | 0 | 0 | 123 | 0 |
| Stage 1 | 121 | - | - | - | - | - |
| Stage 2 | 67 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 806 | 935 | - | - | 1477 | - |
| Stage 1 | 909 | - | - | - | - | - |
| Stage 2 | 961 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 803 | 935 | - | - | 1477 | - |
| Mov Cap-2 Maneuver | 803 | - | - | - | - | - |
| Stage 1 | 909 | - | - | - | - | - |
| Stage 2 | 958 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.26 | 0 | 0.65 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 857 | 157 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 145 | 183 | 0 | 75 | 0 | 0 | 0 | 0 | 52 | 8 | 2 |
| Future Vol, veh/h | 0 | 145 | 183 | 0 | 75 | 0 | 0 | 0 | 0 | 52 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 0 | 103 | 0 | 0 | 0 | 0 | 71 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | 301 | 301 | 103 |
| Stage 1 | - | - | - | - | - | - | 103 | 103 | - |
| Stage 2 | - | - | - | - | - | - | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | 694 | 615 | 958 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 926 | 814 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | 694 | 0 | 958 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 694 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 926 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 840 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 10.81 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 1386 | - | 694 | 958 |
| HCM Lane V/C Ratio | - | - | - | 0.118 | 0.003 |
| HCM Control Delay (s/veh) | - | 0 | - | 10.9 | 8.8 |
| HCM Lane LOS | - | A | - | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.4 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 185 | 0 | 0 | 16 | 18 | 61 | 3 | 2 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 185 | 0 | 0 | 16 | 18 | 61 | 3 | 2 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 210 | 0 | 0 | 18 | 20 | 69 | 3 | 2 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 18 | 0 | - | - | - | 0 | 242 | 242 | 210 |
| Stage 1 | - | - | - | - | - | - | 224 | 224 | - |
| Stage 2 | - | - | - | - | - | - | 18 | 18 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1612 | - | 0 | 0 | - | 0 | 751 | 663 | 835 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 818 | 722 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 1010 | 884 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1612 | - | - | - | - | - | 747 | 0 | 835 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 747 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 814 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 1010 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.23 | 0 | 10.31 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 747 | 835 | 57 | - | - |
| HCM Lane V/C Ratio | 0.097 | 0.003 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.3 | 9.3 | 7.2 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.7 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 42 | 143 | 4 | 4 | 27 | 0 | 3 | 45 | 10 | 22 | 30 | 8 |
| Future Vol, veh/h | 42 | 143 | 4 | 4 | 27 | 0 | 3 | 45 | 10 | 22 | 30 | 8 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 48 | 164 | 5 | 5 | 31 | 0 | 3 | 52 | 11 | 25 | 34 | 9 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.9 | 8 | 8.7 | 8.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 5% | 100% | 0% | 100% | 0% | 42% | 0% |
| Vol Thru, % | 78% | 0% | 97% | 0% | 100% | 58% | 0% |
| Vol Right, % | 17% | 0% | 3% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 58 | 42 | 147 | 4 | 27 | 52 | 8 |
| LT Vol | 3 | 42 | 0 | 4 | 0 | 22 | 0 |
| Through Vol | 45 | 0 | 143 | 0 | 27 | 30 | 0 |
| RT Vol | 10 | 0 | 4 | 0 | 0 | 0 | 8 |
| Lane Flow Rate | 67 | 48 | 169 | 5 | 31 | 60 | 9 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.095 | 0.072 | 0.229 | 0.007 | 0.044 | 0.09 | 0.011 |
| Departure Headway (Hd) | 5.121 | 5.393 | 4.873 | 5.562 | 5.059 | 5.409 | 4.493 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 701 | 666 | 738 | 644 | 709 | 663 | 797 |
| Service Time | 3.144 | 3.112 | 2.591 | 3.287 | 2.784 | 3.133 | 2.217 |
| HCM Lane V/C Ratio | 0.096 | 0.072 | 0.229 | 0.008 | 0.044 | 0.09 | 0.011 |
| HCM Control Delay, s/veh | 8.7 | 8.5 | 9 | 8.3 | 8 | 8.7 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.2 | 0.9 | 0 | 0.1 | 0.3 | 0 |

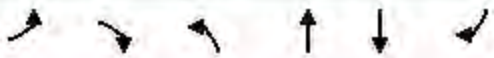
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 168 | 34 | 35 | 40 | 2 |
| Future Vol, veh/h | 3 | 168 | 34 | 35 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 213 | 43 | 44 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 87 | 0 | - | 0 | 285 | 65 |
| Stage 1 | - | - | - | - | 65 | - |
| Stage 2 | - | - | - | - | 220 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1521 | - | - | - | 709 | 1004 |
| Stage 1 | - | - | - | - | 963 | - |
| Stage 2 | - | - | - | - | 821 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1521 | - | - | - | 707 | 1004 |
| Mov Cap-2 Maneuver | - | - | - | - | 707 | - |
| Stage 1 | - | - | - | - | 960 | - |
| Stage 2 | - | - | - | - | 821 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.13 | 0 | 10.42 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 32 | - | - | - | 717 |
| HCM Lane V/C Ratio | 0.002 | - | - | - | 0.074 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 10.4 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 118 | 57 | 32 | 0 |
| Future Volume (vph) | 0 | 0 | 118 | 57 | 32 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.967 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1837 | 1900 | 0 |
| Flt Permitted | | | | 0.967 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1837 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 130 | 63 | 35 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 193 | 35 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 19.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↓ | ↱ | | ↑↓ | ↱ | | ↳ | | | ↑↓ | |
| Traffic Vol, veh/h | 13 | 155 | 121 | 1 | 0 | 69 | 0 | 71 | 7 | 17 | 29 | 0 |
| Future Vol, veh/h | 13 | 155 | 121 | 1 | 0 | 69 | 0 | 71 | 7 | 17 | 29 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 178 | 139 | 1 | 0 | 79 | 0 | 82 | 8 | 20 | 33 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 154 | 162 | - | 247 | 158 | 86 | - | 0 | 0 | 90 | 0 | 0 |
| Stage 1 | 72 | 72 | - | 86 | 86 | - | - | - | - | - | - | - |
| Stage 2 | 82 | 90 | - | 161 | 72 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 817 | 734 | 0 | 711 | 738 | 979 | 0 | - | - | 1518 | - | 0 |
| Stage 1 | 942 | 839 | 0 | 927 | 828 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 932 | 825 | 0 | 845 | 839 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 741 | 724 | - | 531 | 728 | 979 | - | - | - | 1518 | - | - |
| Mov Cap-2 Maneuver | 741 | 724 | - | 531 | 728 | - | - | - | - | - | - | - |
| Stage 1 | 930 | 828 | - | 927 | 828 | - | - | - | - | - | - | - |
| Stage 2 | 856 | 825 | - | 655 | 828 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 11.75 | 9.04 | 0 | 2.74 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 726 | - | 531 | 979 | 665 | - |
| HCM Lane V/C Ratio | - | - | 0.266 | - | 0.002 | 0.081 | 0.013 | - |
| HCM Control Delay (s/veh) | - | - | 11.8 | 0 | 11.8 | 9 | 7.4 | 0 |
| HCM Lane LOS | - | - | B | A | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.1 | - | 0 | 0.3 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.5 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 65 | 10 | 10 | 8 | 44 | 4 | 32 | 19 | 93 | 33 | 2 |
| Future Vol, veh/h | 7 | 65 | 10 | 10 | 8 | 44 | 4 | 32 | 19 | 93 | 33 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 71 | 11 | 11 | 9 | 48 | 4 | 35 | 21 | 101 | 36 | 2 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.3 | 7.7 | 7.8 | 9.4 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 11% | 0% | 10% | 0% | 56% | 0% | 74% | 0% |
| Vol Thru, % | 89% | 0% | 90% | 0% | 44% | 0% | 26% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 36 | 19 | 72 | 10 | 18 | 44 | 126 | 2 |
| LT Vol | 4 | 0 | 7 | 0 | 10 | 0 | 93 | 0 |
| Through Vol | 32 | 0 | 65 | 0 | 8 | 0 | 33 | 0 |
| RT Vol | 0 | 19 | 0 | 10 | 0 | 44 | 0 | 2 |
| Lane Flow Rate | 39 | 21 | 78 | 11 | 20 | 48 | 137 | 2 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.055 | 0.025 | 0.112 | 0.013 | 0.029 | 0.059 | 0.202 | 0.003 |
| Departure Headway (Hd) | 5.074 | 4.316 | 5.131 | 4.38 | 5.388 | 4.406 | 5.306 | 4.234 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 707 | 830 | 700 | 818 | 666 | 814 | 678 | 846 |
| Service Time | 2.796 | 2.037 | 2.851 | 2.099 | 3.109 | 2.127 | 3.025 | 1.953 |
| HCM Lane V/C Ratio | 0.055 | 0.025 | 0.111 | 0.013 | 0.03 | 0.059 | 0.202 | 0.002 |
| HCM Control Delay, s/veh | 8.1 | 7.1 | 8.5 | 7.2 | 8.3 | 7.4 | 9.4 | 7 |
| HCM Lane LOS | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.2 | 0.1 | 0.4 | 0 | 0.1 | 0.2 | 0.8 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 175 | 2 | 7 | 56 | 0 | 5 |
| Future Vol, veh/h | 175 | 2 | 7 | 56 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 211 | 2 | 8 | 67 | 0 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 213 | 0 | 296 | 212 |
| Stage 1 | - | - | - | - | 212 | - |
| Stage 2 | - | - | - | - | 84 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1369 | - | 699 | 833 |
| Stage 1 | - | - | - | - | 828 | - |
| Stage 2 | - | - | - | - | 944 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1369 | - | 695 | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | 695 | - |
| Stage 1 | - | - | - | - | 828 | - |
| Stage 2 | - | - | - | - | 938 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.85 | 9.35 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 833 | - | - | 200 | - |
| HCM Lane V/C Ratio | - | 0.007 | - | - | 0.006 | - |
| HCM Control Delay (s/veh) | 0 | 9.4 | - | - | 7.6 | 0 |
| HCM Lane LOS | A | A | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 172 | 9 | 15 | 60 | 70 | 0 | 0 | 0 | 148 | 16 | 3 |
| Future Vol, veh/h | 0 | 172 | 9 | 15 | 60 | 70 | 0 | 0 | 0 | 148 | 16 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 195 | 10 | 17 | 68 | 80 | 0 | 0 | 0 | 168 | 18 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 148 | 0 | - | 195 | 0 | 0 | | | 338 | 338 | 108 |
| Stage 1 | - | - | - | - | - | - | | | 142 | 142 | - |
| Stage 2 | - | - | - | - | - | - | | | 195 | 195 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1446 | - | 0 | 1390 | - | - | | | 662 | 587 | 951 |
| Stage 1 | - | - | 0 | - | - | - | | | 890 | 783 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 842 | 743 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1446 | - | - | 1390 | - | - | | | 653 | 0 | 951 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 653 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 890 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 831 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.79 | 12.63 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1446 | - | 168 | - | - | 653 | 951 |
| HCM Lane V/C Ratio | - | - | 0.012 | - | - | 0.285 | 0.004 |
| HCM Control Delay (s/veh) | 0 | - | 7.6 | 0 | - | 12.7 | 8.8 |
| HCM Lane LOS | A | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - | 1.2 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 319 | 0 | 0 | 129 | 16 | 10 |
| Future Vol, veh/h | 319 | 0 | 0 | 129 | 16 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 384 | 0 | 0 | 155 | 19 | 12 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 540 | 384 |
| Stage 1 | - | - | - | - | 384 | - |
| Stage 2 | - | - | - | - | 155 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 506 | 668 |
| Stage 1 | - | 0 | 0 | - | 693 | - |
| Stage 2 | - | 0 | 0 | - | 878 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 506 | 668 |
| Mov Cap-2 Maneuver | - | - | - | - | 506 | - |
| Stage 1 | - | - | - | - | 693 | - |
| Stage 2 | - | - | - | - | 878 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 11.66 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 506 | 668 | - | - |
| HCM Lane V/C Ratio | 0.038 | 0.018 | - | - |
| HCM Control Delay (s/veh) | 12.4 | 10.5 | - | - |
| HCM Lane LOS | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 41 | 351 | 139 | 6 | 16 | 34 |
| Future Vol, veh/h | 41 | 351 | 139 | 6 | 16 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 46 | 394 | 156 | 7 | 18 | 38 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 163 | 0 | - | 0 | 646 | 160 |
| Stage 1 | - | - | - | - | 160 | - |
| Stage 2 | - | - | - | - | 487 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1428 | - | - | - | 439 | 891 |
| Stage 1 | - | - | - | - | 874 | - |
| Stage 2 | - | - | - | - | 622 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1428 | - | - | - | 421 | 891 |
| Mov Cap-2 Maneuver | - | - | - | - | 421 | - |
| Stage 1 | - | - | - | - | 838 | - |
| Stage 2 | - | - | - | - | 622 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.8 | 0 | 10.73 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 188 | - | - | - | 421 | 891 |
| HCM Lane V/C Ratio | 0.032 | - | - | - | 0.043 | 0.043 |
| HCM Control Delay (s/veh) | 7.6 | 0 | - | - | 13.9 | 9.2 |
| HCM Lane LOS | A | A | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 336 | 0 | 2 | 75 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Future Vol, veh/h | 21 | 336 | 0 | 2 | 75 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 386 | 0 | 2 | 86 | 32 | 3 | 3 | 2 | 30 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 118 | 0 | 0 | 386 | 0 | 0 | 532 | 557 | 386 | 527 | 525 | 86 |
| Stage 1 | - | - | - | - | - | - | 434 | 434 | - | 91 | 91 | - |
| Stage 2 | - | - | - | - | - | - | 97 | 123 | - | 436 | 434 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1482 | - | - | 1183 | - | - | 462 | 441 | 666 | 465 | 460 | 978 |
| Stage 1 | - | - | - | - | - | - | 604 | 584 | - | 921 | 824 | - |
| Stage 2 | - | - | - | - | - | - | 914 | 798 | - | 603 | 584 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1482 | - | - | 1183 | - | - | 437 | 433 | 666 | 451 | 452 | 978 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 437 | 433 | - | 451 | 452 | - |
| Stage 1 | - | - | - | - | - | - | 594 | 575 | - | 919 | 822 | - |
| Stage 2 | - | - | - | - | - | - | 890 | 796 | - | 587 | 575 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.44 | 0.15 | 12.71 | 13.04 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 476 | 1482 | - | - | 47 | - | - | 499 |
| HCM Lane V/C Ratio | 0.019 | 0.016 | - | - | 0.002 | - | - | 0.104 |
| HCM Control Delay (s/veh) | 12.7 | 7.5 | - | - | 8 | 0 | - | 13 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

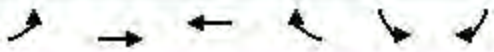
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 358 | 26 | 8 | 130 | 0 | 13 | 0 | 31 | 1 | 3 | 2 |
| Future Vol, veh/h | 2 | 358 | 26 | 8 | 130 | 0 | 13 | 0 | 31 | 1 | 3 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 377 | 27 | 8 | 137 | 0 | 14 | 0 | 33 | 1 | 3 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 137 | 0 | 0 | 404 | 0 | 0 | 550 | 548 | 391 | 535 | 562 | 137 |
| Stage 1 | - | - | - | - | - | - | 395 | 395 | - | 154 | 154 | - |
| Stage 2 | - | - | - | - | - | - | 155 | 154 | - | 381 | 408 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1460 | - | - | 1165 | - | - | 449 | 447 | 662 | 459 | 439 | 917 |
| Stage 1 | - | - | - | - | - | - | 634 | 608 | - | 853 | 774 | - |
| Stage 2 | - | - | - | - | - | - | 852 | 774 | - | 645 | 600 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1460 | - | - | 1165 | - | - | 440 | 442 | 662 | 433 | 434 | 917 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 440 | 442 | - | 433 | 434 | - |
| Stage 1 | - | - | - | - | - | - | 633 | 607 | - | 847 | 768 | - |
| Stage 2 | - | - | - | - | - | - | 840 | 768 | - | 612 | 599 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.04 | 0.47 | 11.52 | 11.92 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 440 | 662 | 9 | - | - | 104 | - | - | 526 |
| HCM Lane V/C Ratio | 0.031 | 0.049 | 0.001 | - | - | 0.007 | - | - | 0.012 |
| HCM Control Delay (s/veh) | 13.4 | 10.7 | 7.5 | 0 | - | 8.1 | 0 | - | 11.9 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 175 | 316 | 210 | 178 | 234 | 20 |
| Future Volume (veh/h) | 175 | 316 | 210 | 178 | 234 | 20 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 192 | 347 | 231 | 196 | 257 | 22 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 247 | 947 | 415 | 696 | 388 | 345 |
| Arrive On Green | 0.14 | 0.50 | 0.22 | 0.22 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 192 | 347 | 231 | 196 | 257 | 22 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.2 | 3.5 | 3.4 | 2.5 | 4.1 | 0.3 |
| Cycle Q Clear(g_c), s | 3.2 | 3.5 | 3.4 | 2.5 | 4.1 | 0.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 247 | 947 | 415 | 696 | 388 | 345 |
| V/C Ratio(X) | 0.78 | 0.37 | 0.56 | 0.28 | 0.66 | 0.06 |
| Avail Cap(c_a), veh/h | 375 | 1849 | 1182 | 1347 | 1184 | 1053 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.1 | 4.8 | 10.9 | 5.7 | 11.3 | 9.8 |
| Incr Delay (d2), s/veh | 5.6 | 0.2 | 1.2 | 0.2 | 1.9 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 0.2 | 0.9 | 0.7 | 1.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 18.7 | 5.1 | 12.1 | 6.0 | 13.2 | 9.9 |
| LnGrp LOS | B | A | B | A | B | A |
| Approach Vol, veh/h | | 539 | 427 | | 279 | |
| Approach Delay, s/veh | | 9.9 | 9.3 | | 13.0 | |
| Approach LOS | | A | A | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 20.1 | | 11.2 | 8.8 | 11.3 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | | 5.5 | | 6.1 | 5.2 | 5.4 |
| Green Ext Time (p_c), s | | | | 1.7 | | 0.6 | 0.1 | 1.5 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 10.4 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 47 | 9 | 276 | 8 | 10 | 6 | 191 | 92 | 9 | 2 | 85 | 74 |
| Future Vol, veh/h | 47 | 9 | 276 | 8 | 10 | 6 | 191 | 92 | 9 | 2 | 85 | 74 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 51 | 10 | 300 | 9 | 11 | 7 | 208 | 100 | 10 | 2 | 92 | 80 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 658 | 662 | 133 | 622 | 697 | 105 | 173 | 0 | 0 | 110 | 0 | 0 |
| Stage 1 | 137 | 137 | - | 520 | 520 | - | - | - | - | - | - | - |
| Stage 2 | 521 | 525 | - | 102 | 177 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 381 | 382 | 922 | 399 | 365 | 950 | 1416 | - | - | 1480 | - | - |
| Stage 1 | 871 | 783 | - | 539 | 532 | - | - | - | - | - | - | - |
| Stage 2 | 542 | 529 | - | 904 | 753 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 312 | 326 | 922 | 224 | 311 | 950 | 1416 | - | - | 1480 | - | - |
| Mov Cap-2 Maneuver | 312 | 326 | - | 224 | 311 | - | - | - | - | - | - | - |
| Stage 1 | 870 | 782 | - | 460 | 454 | - | - | - | - | - | - | - |
| Stage 2 | 449 | 452 | - | 602 | 751 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 12.19 | 16.61 | 5.22 | 0.09 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1416 | - | - | 314 | 922 | 224 | 416 | 20 | - | - |
| HCM Lane V/C Ratio | 0.147 | - | - | 0.194 | 0.325 | 0.039 | 0.042 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 19.2 | 10.8 | 21.8 | 14 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0.7 | 1.4 | 0.1 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 220 | 325 | 91 | 81 | 48 | 295 |
| Future Vol, veh/h | 220 | 325 | 91 | 81 | 48 | 295 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 234 | 346 | 97 | 86 | 51 | 314 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 183 | 0 | - | 0 | 911 | 97 |
| Stage 1 | - | - | - | - | 97 | - |
| Stage 2 | - | - | - | - | 814 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1404 | - | - | - | 307 | 965 |
| Stage 1 | - | - | - | - | 932 | - |
| Stage 2 | - | - | - | - | 439 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1404 | - | - | - | 256 | 965 |
| Mov Cap-2 Maneuver | - | - | - | - | 256 | - |
| Stage 1 | - | - | - | - | 777 | - |
| Stage 2 | - | - | - | - | 439 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.26 | 0 | 12.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1404 | - | - | - | 256 | 965 |
| HCM Lane V/C Ratio | 0.167 | - | - | - | 0.2 | 0.325 |
| HCM Control Delay (s/veh) | 8.1 | - | - | - | 22.5 | 10.5 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.7 | 1.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 1 | 56 | 3 | 7 | 75 |
| Future Vol, veh/h | 3 | 1 | 56 | 3 | 7 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 1 | 75 | 4 | 9 | 100 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 195 | 77 | 0 | 0 | 79 | 0 |
| Stage 1 | 77 | - | - | - | - | - |
| Stage 2 | 119 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 798 | 990 | - | - | 1532 | - |
| Stage 1 | 951 | - | - | - | - | - |
| Stage 2 | 911 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 793 | 990 | - | - | 1532 | - |
| Mov Cap-2 Maneuver | 793 | - | - | - | - | - |
| Stage 1 | 951 | - | - | - | - | - |
| Stage 2 | 906 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.34 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 834 | 154 | - |
| HCM Lane V/C Ratio | - | - | 0.006 | 0.006 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 36 | 62 | 19 | 175 | 0 | 0 | 0 | 0 | 59 | 2 | 6 |
| Future Vol, veh/h | 0 | 36 | 62 | 19 | 175 | 0 | 0 | 0 | 0 | 59 | 2 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 39 | 67 | 21 | 190 | 0 | 0 | 0 | 0 | 64 | 2 | 7 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 39 | 0 | 0 | | | 271 | 271 | 190 |
| Stage 1 | - | - | - | - | - | - | | | 232 | 232 | - |
| Stage 2 | - | - | - | - | - | - | | | 39 | 39 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1584 | - | 0 | | | 723 | 639 | 857 |
| Stage 1 | 0 | - | 0 | - | - | 0 | | | 812 | 717 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | | | 989 | 866 | - |
| Platoon blocked, % | | - | | | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1584 | - | - | | | 712 | 0 | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 712 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 812 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 974 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.72 | 10.45 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 176 | - | 712 | 857 |
| HCM Lane V/C Ratio | - | 0.013 | - | 0.093 | 0.008 |
| HCM Control Delay (s/veh) | - | 7.3 | 0 | 10.6 | 9.2 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 3 | 89 | 0 | 0 | 81 | 33 | 114 | 6 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 3 | 89 | 0 | 0 | 81 | 33 | 114 | 6 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 120 | 0 | 0 | 109 | 45 | 154 | 8 | 28 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 109 | 0 | - | - | - | 0 | 238 | 238 | 120 |
| Stage 1 | - | - | - | - | - | - | 128 | 128 | - |
| Stage 2 | - | - | - | - | - | - | 109 | 109 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1493 | - | 0 | 0 | - | 0 | 755 | 667 | 937 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 902 | 794 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 920 | 809 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1493 | - | - | - | - | - | 753 | 0 | 937 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 753 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 900 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 920 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.24 | 0 | 10.78 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 753 | 937 | 59 | - | - |
| HCM Lane V/C Ratio | 0.215 | 0.03 | 0.003 | - | - |
| HCM Control Delay (s/veh) | 11.1 | 9 | 7.4 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.8 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.6 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 46 | 72 | 7 | 21 | 88 | 2 | 14 | 155 | 8 | 6 | 50 | 37 |
| Future Vol, veh/h | 46 | 72 | 7 | 21 | 88 | 2 | 14 | 155 | 8 | 6 | 50 | 37 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 52 | 82 | 8 | 24 | 100 | 2 | 16 | 176 | 9 | 7 | 57 | 42 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.1 | 9.2 | 10.7 | 8.4 |
| HCM LOS | A | A | B | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 8% | 100% | 0% | 100% | 0% | 11% | 0% |
| Vol Thru, % | 88% | 0% | 91% | 0% | 98% | 89% | 0% |
| Vol Right, % | 5% | 0% | 9% | 0% | 2% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 177 | 46 | 79 | 21 | 90 | 56 | 37 |
| LT Vol | 14 | 46 | 0 | 21 | 0 | 6 | 0 |
| Through Vol | 155 | 0 | 72 | 0 | 88 | 50 | 0 |
| RT Vol | 8 | 0 | 7 | 0 | 2 | 0 | 37 |
| Lane Flow Rate | 201 | 52 | 90 | 24 | 102 | 64 | 42 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.298 | 0.086 | 0.134 | 0.04 | 0.155 | 0.097 | 0.055 |
| Departure Headway (Hd) | 5.329 | 5.953 | 5.386 | 5.974 | 5.454 | 5.489 | 4.73 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 672 | 599 | 662 | 596 | 654 | 649 | 752 |
| Service Time | 3.384 | 3.718 | 3.151 | 3.74 | 3.219 | 3.253 | 2.494 |
| HCM Lane V/C Ratio | 0.299 | 0.087 | 0.136 | 0.04 | 0.156 | 0.099 | 0.056 |
| HCM Control Delay, s/veh | 10.7 | 9.3 | 9 | 9 | 9.2 | 8.8 | 7.8 |
| HCM Lane LOS | B | A | A | A | A | A | A |
| HCM 95th-tile Q | 1.2 | 0.3 | 0.5 | 0.1 | 0.5 | 0.3 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 89 | 117 | 17 | 5 | 0 |
| Future Vol, veh/h | 0 | 89 | 117 | 17 | 5 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 111 | 146 | 21 | 6 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 168 | 0 | - | 0 | 268 | 157 |
| Stage 1 | - | - | - | - | 157 | - |
| Stage 2 | - | - | - | - | 111 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1423 | - | - | - | 725 | 894 |
| Stage 1 | - | - | - | - | 876 | - |
| Stage 2 | - | - | - | - | 918 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1423 | - | - | - | 725 | 894 |
| Mov Cap-2 Maneuver | - | - | - | - | 725 | - |
| Stage 1 | - | - | - | - | 876 | - |
| Stage 2 | - | - | - | - | 918 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 10.01 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1423 | - | - | - | 725 |
| HCM Lane V/C Ratio | - | - | - | - | 0.009 |
| HCM Control Delay (s/veh) | 0 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 172 | 172 | 75 | 0 |
| Future Volume (vph) | 0 | 0 | 172 | 172 | 75 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.976 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1854 | 1900 | 0 |
| Flt Permitted | | | | 0.976 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1854 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 185 | 185 | 81 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 370 | 81 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 28.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↰ | ↱ | | ↰ | ↱ | | ↱ | | | ↰ | |
| Traffic Vol, veh/h | 14 | 40 | 88 | 0 | 0 | 232 | 0 | 89 | 1 | 12 | 77 | 0 |
| Future Vol, veh/h | 14 | 40 | 88 | 0 | 0 | 232 | 0 | 89 | 1 | 12 | 77 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 15 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 43 | 95 | 0 | 0 | 249 | 0 | 96 | 1 | 13 | 83 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 204 | 205 | - | 226 | 205 | 96 | - | 0 | 0 | 97 | 0 | 0 |
| Stage 1 | 109 | 109 | - | 96 | 96 | - | - | - | - | - | - | - |
| Stage 2 | 96 | 97 | - | 130 | 109 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 758 | 695 | 0 | 733 | 695 | 966 | 0 | - | - | 1509 | - | 0 |
| Stage 1 | 902 | 809 | 0 | 915 | 819 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 916 | 819 | 0 | 878 | 809 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 557 | 688 | - | 682 | 689 | 966 | - | - | - | 1509 | - | - |
| Mov Cap-2 Maneuver | 557 | 688 | - | 682 | 689 | - | - | - | - | - | - | - |
| Stage 1 | 894 | 802 | - | 915 | 819 | - | - | - | - | - | - | - |
| Stage 2 | 679 | 819 | - | 824 | 802 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 11.09 | 10.02 | 0 | 1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 649 | - | - | 966 | 243 | - |
| HCM Lane V/C Ratio | - | - | 0.089 | - | - | 0.258 | 0.009 | - |
| HCM Control Delay (s/veh) | - | - | 11.1 | 0 | 0 | 10 | 7.4 | 0 |
| HCM Lane LOS | - | - | B | A | A | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | - | - | 1 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.2 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 37 | 2 | 34 | 95 | 45 | 14 | 38 | 11 | 106 | 30 | 27 |
| Future Vol, veh/h | 7 | 37 | 2 | 34 | 95 | 45 | 14 | 38 | 11 | 106 | 30 | 27 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 42 | 2 | 38 | 107 | 51 | 16 | 43 | 12 | 119 | 34 | 30 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.6 | 9.1 | 8.5 | 9.7 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 27% | 0% | 16% | 0% | 26% | 0% | 78% | 0% |
| Vol Thru, % | 73% | 0% | 84% | 0% | 74% | 0% | 22% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 52 | 11 | 44 | 2 | 129 | 45 | 136 | 27 |
| LT Vol | 14 | 0 | 7 | 0 | 34 | 0 | 106 | 0 |
| Through Vol | 38 | 0 | 37 | 0 | 95 | 0 | 30 | 0 |
| RT Vol | 0 | 11 | 0 | 2 | 0 | 45 | 0 | 27 |
| Lane Flow Rate | 58 | 12 | 49 | 2 | 145 | 51 | 153 | 30 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.089 | 0.016 | 0.075 | 0.003 | 0.216 | 0.064 | 0.237 | 0.038 |
| Departure Headway (Hd) | 5.464 | 4.624 | 5.462 | 4.677 | 5.361 | 4.525 | 5.593 | 4.498 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 654 | 771 | 654 | 762 | 670 | 790 | 642 | 794 |
| Service Time | 3.212 | 2.372 | 3.209 | 2.424 | 3.098 | 2.262 | 3.335 | 2.239 |
| HCM Lane V/C Ratio | 0.089 | 0.016 | 0.075 | 0.003 | 0.216 | 0.065 | 0.238 | 0.038 |
| HCM Control Delay, s/veh | 8.7 | 7.4 | 8.7 | 7.4 | 9.6 | 7.6 | 10.1 | 7.4 |
| HCM Lane LOS | A | A | A | A | A | A | B | A |
| HCM 95th-tile Q | 0.3 | 0 | 0.2 | 0 | 0.8 | 0.2 | 0.9 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 148 | 4 | 45 | 150 | 25 | 35 |
| Future Vol, veh/h | 148 | 4 | 45 | 150 | 25 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 195 | 5 | 59 | 197 | 33 | 46 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 200 | 0 | 513 | 197 |
| Stage 1 | - | - | - | - | 197 | - |
| Stage 2 | - | - | - | - | 316 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1384 | - | 525 | 849 |
| Stage 1 | - | - | - | - | 841 | - |
| Stage 2 | - | - | - | - | 744 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1384 | - | 499 | 849 |
| Mov Cap-2 Maneuver | - | - | - | - | 499 | - |
| Stage 1 | - | - | - | - | 841 | - |
| Stage 2 | - | - | - | - | 708 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.78 | 10.83 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 499 | 849 | - | - | 415 | - |
| HCM Lane V/C Ratio | 0.066 | 0.054 | - | - | 0.043 | - |
| HCM Control Delay (s/veh) | 12.7 | 9.5 | - | - | 7.7 | 0 |
| HCM Lane LOS | B | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | 0.2 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 107 | 37 | 53 | 186 | 249 | 0 | 0 | 0 | 23 | 14 | 0 |
| Future Vol, veh/h | 0 | 107 | 37 | 53 | 186 | 249 | 0 | 0 | 0 | 23 | 14 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 110 | 38 | 55 | 192 | 257 | 0 | 0 | 0 | 24 | 14 | 0 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 448 | 0 | - | 110 | 0 | 0 | | | 540 | 540 | 320 |
| Stage 1 | - | - | - | - | - | - | | | 429 | 429 | - |
| Stage 2 | - | - | - | - | - | - | | | 110 | 110 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1123 | - | 0 | 1492 | - | - | | | 506 | 452 | 725 |
| Stage 1 | - | - | 0 | - | - | - | | | 661 | 587 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 919 | 808 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1123 | - | - | 1492 | - | - | | | 481 | 0 | 725 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 481 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 661 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 873 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.81 | 13.13 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1123 | - | 175 | - | - | 481 | - |
| HCM Lane V/C Ratio | - | - | 0.037 | - | - | 0.079 | - |
| HCM Control Delay (s/veh) | 0 | - | 7.5 | 0 | - | 13.1 | 0 |
| HCM Lane LOS | A | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - | 0.3 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 130 | 0 | 0 | 436 | 53 | 78 |
| Future Vol, veh/h | 130 | 0 | 0 | 436 | 53 | 78 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 143 | 0 | 0 | 479 | 58 | 86 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 622 | 143 |
| Stage 1 | - | - | - | - | 143 | - |
| Stage 2 | - | - | - | - | 479 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 454 | 910 |
| Stage 1 | - | 0 | 0 | - | 889 | - |
| Stage 2 | - | 0 | 0 | - | 627 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 454 | 910 |
| Mov Cap-2 Maneuver | - | - | - | - | 454 | - |
| Stage 1 | - | - | - | - | 889 | - |
| Stage 2 | - | - | - | - | 627 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 11.28 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 454 | 910 | - | - |
| HCM Lane V/C Ratio | 0.128 | 0.094 | - | - |
| HCM Control Delay (s/veh) | 14.1 | 9.4 | - | - |
| HCM Lane LOS | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.4 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 92 | 106 | 424 | 216 | 19 | 165 |
| Future Vol, veh/h | 92 | 106 | 424 | 216 | 19 | 165 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 101 | 116 | 466 | 237 | 21 | 181 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 703 | 0 | - | 0 | 903 | 585 |
| Stage 1 | - | - | - | - | 585 | - |
| Stage 2 | - | - | - | - | 319 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 904 | - | - | - | 310 | 515 |
| Stage 1 | - | - | - | - | 561 | - |
| Stage 2 | - | - | - | - | 742 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 904 | - | - | - | 273 | 515 |
| Mov Cap-2 Maneuver | - | - | - | - | 273 | - |
| Stage 1 | - | - | - | - | 494 | - |
| Stage 2 | - | - | - | - | 742 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 4.41 | 0 | 16.11 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 836 | - | - | - | 273 | 515 |
| HCM Lane V/C Ratio | 0.112 | - | - | - | 0.076 | 0.352 |
| HCM Control Delay (s/veh) | 9.5 | 0 | - | - | 19.3 | 15.7 |
| HCM Lane LOS | A | A | - | - | C | C |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.2 | 1.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 49 | 4 | 5 | 149 | 84 | 6 | 6 | 10 | 24 | 10 | 12 |
| Future Vol, veh/h | 12 | 49 | 4 | 5 | 149 | 84 | 6 | 6 | 10 | 24 | 10 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 61 | 5 | 6 | 186 | 105 | 8 | 8 | 13 | 30 | 13 | 15 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 291 | 0 | 0 | 66 | 0 | 0 | 299 | 398 | 64 | 294 | 295 | 186 |
| Stage 1 | - | - | - | - | - | - | 94 | 94 | - | 199 | 199 | - |
| Stage 2 | - | - | - | - | - | - | 205 | 304 | - | 95 | 96 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1282 | - | - | 1548 | - | - | 657 | 543 | 1006 | 662 | 620 | 861 |
| Stage 1 | - | - | - | - | - | - | 918 | 821 | - | 808 | 740 | - |
| Stage 2 | - | - | - | - | - | - | 802 | 667 | - | 917 | 819 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1282 | - | - | 1548 | - | - | 623 | 534 | 1006 | 635 | 609 | 861 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 623 | 534 | - | 635 | 609 | - |
| Stage 1 | - | - | - | - | - | - | 907 | 812 | - | 804 | 737 | - |
| Stage 2 | - | - | - | - | - | - | 770 | 663 | - | 886 | 810 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 1.45 | 0.15 | 10.24 | 10.83 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 714 | 1282 | - | - | 58 | - | - | 675 |
| HCM Lane V/C Ratio | 0.039 | 0.012 | - | - | 0.004 | - | - | 0.085 |
| HCM Control Delay (s/veh) | 10.2 | 7.8 | - | - | 7.3 | 0 | - | 10.8 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

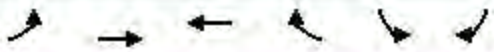
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 107 | 15 | 35 | 228 | 68 | 11 | 6 | 7 | 9 | 4 | 0 |
| Future Vol, veh/h | 1 | 107 | 15 | 35 | 228 | 68 | 11 | 6 | 7 | 9 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 124 | 17 | 41 | 265 | 79 | 13 | 7 | 8 | 10 | 5 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 344 | 0 | 0 | 142 | 0 | 0 | 484 | 561 | 133 | 516 | 530 | 305 |
| Stage 1 | - | - | - | - | - | - | 135 | 135 | - | 386 | 386 | - |
| Stage 2 | - | - | - | - | - | - | 349 | 426 | - | 130 | 144 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1226 | - | - | 1453 | - | - | 496 | 439 | 921 | 473 | 457 | 740 |
| Stage 1 | - | - | - | - | - | - | 873 | 788 | - | 641 | 614 | - |
| Stage 2 | - | - | - | - | - | - | 672 | 590 | - | 878 | 781 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1226 | - | - | 1453 | - | - | 473 | 423 | 921 | 444 | 441 | 740 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 473 | 423 | - | 444 | 441 | - |
| Stage 1 | - | - | - | - | - | - | 872 | 787 | - | 619 | 592 | - |
| Stage 2 | - | - | - | - | - | - | 643 | 569 | - | 862 | 781 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.06 | 0.8 | 12.02 | 13.41 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 454 | 921 | 14 | - | - | 182 | - | - | 443 |
| HCM Lane V/C Ratio | 0.043 | 0.009 | 0.001 | - | - | 0.028 | - | - | 0.034 |
| HCM Control Delay (s/veh) | 13.3 | 8.9 | 7.9 | 0 | - | 7.5 | 0 | - | 13.4 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0.1 | - | - | 0.1 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 42 | 122 | 334 | 192 | 142 | 57 |
| Future Volume (veh/h) | 42 | 122 | 334 | 192 | 142 | 57 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 46 | 134 | 367 | 211 | 156 | 63 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 97 | 980 | 582 | 772 | 313 | 279 |
| Arrive On Green | 0.05 | 0.52 | 0.31 | 0.31 | 0.17 | 0.17 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 46 | 134 | 367 | 211 | 156 | 63 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 0.7 | 1.1 | 4.8 | 2.3 | 2.3 | 1.0 |
| Cycle Q Clear(g_c), s | 0.7 | 1.1 | 4.8 | 2.3 | 2.3 | 1.0 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 97 | 980 | 582 | 772 | 313 | 279 |
| V/C Ratio(X) | 0.48 | 0.14 | 0.63 | 0.27 | 0.50 | 0.23 |
| Avail Cap(c_a), veh/h | 407 | 2005 | 1282 | 1365 | 1284 | 1142 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 3.6 | 8.6 | 4.5 | 10.8 | 10.3 |
| Incr Delay (d2), s/veh | 3.6 | 0.1 | 1.1 | 0.2 | 1.2 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 0.9 | 0.4 | 0.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 16.9 | 3.7 | 9.7 | 4.7 | 12.0 | 10.7 |
| LnGrp LOS | B | A | A | A | B | B |
| Approach Vol, veh/h | | 180 | 578 | | 219 | |
| Approach Delay, s/veh | | 7.1 | 7.9 | | 11.7 | |
| Approach LOS | | A | A | | B | |

| Timer - Assigned Phs | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | 19.4 | | 9.5 | 6.0 | 13.4 |
| Change Period (Y+Rc), s | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | 3.1 | | 4.3 | 2.7 | 6.8 |
| Green Ext Time (p_c), s | | | 0.6 | | 0.5 | 0.0 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 8.6 |
| HCM 7th LOS | A |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 64 | 8 | 200 | 7 | 6 | 8 | 166 | 94 | 2 | 1 | 130 | 56 |
| Future Vol, veh/h | 64 | 8 | 200 | 7 | 6 | 8 | 166 | 94 | 2 | 1 | 130 | 56 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 73 | 9 | 227 | 8 | 7 | 9 | 189 | 107 | 2 | 1 | 148 | 64 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 669 | 668 | 180 | 640 | 699 | 108 | 211 | 0 | 0 | 109 | 0 | 0 |
| Stage 1 | 182 | 182 | - | 485 | 485 | - | - | - | - | - | - | - |
| Stage 2 | 488 | 486 | - | 155 | 214 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 374 | 379 | 868 | 388 | 364 | 946 | 1371 | - | - | 1481 | - | - |
| Stage 1 | 825 | 749 | - | 563 | 551 | - | - | - | - | - | - | - |
| Stage 2 | 565 | 551 | - | 848 | 726 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 313 | 327 | 868 | 241 | 314 | 946 | 1371 | - | - | 1481 | - | - |
| Mov Cap-2 Maneuver | 313 | 327 | - | 241 | 314 | - | - | - | - | - | - | - |
| Stage 1 | 824 | 748 | - | 486 | 476 | - | - | - | - | - | - | - |
| Stage 2 | 476 | 475 | - | 618 | 725 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 13.21 | 15.03 | 5.1 | 0.04 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1371 | - | - | 314 | 868 | 241 | 507 | 9 | - | - |
| HCM Lane V/C Ratio | 0.138 | - | - | 0.26 | 0.262 | 0.033 | 0.031 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 20.4 | 10.6 | 20.4 | 12.3 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 1 | 1 | 0.1 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 128 | 99 | 239 | 94 | 45 | 268 |
| Future Vol, veh/h | 128 | 99 | 239 | 94 | 45 | 268 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 154 | 119 | 288 | 113 | 54 | 323 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 401 | 0 | - | 0 | 716 | 288 |
| Stage 1 | - | - | - | - | 288 | - |
| Stage 2 | - | - | - | - | 428 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1168 | - | - | - | 400 | 756 |
| Stage 1 | - | - | - | - | 766 | - |
| Stage 2 | - | - | - | - | 662 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1168 | - | - | - | 347 | 756 |
| Mov Cap-2 Maneuver | - | - | - | - | 347 | - |
| Stage 1 | - | - | - | - | 665 | - |
| Stage 2 | - | - | - | - | 662 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 4.82 | 0 | 13.84 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1168 | - | - | - | 347 | 756 |
| HCM Lane V/C Ratio | 0.132 | - | - | - | 0.156 | 0.427 |
| HCM Control Delay (s/veh) | 8.5 | - | - | - | 17.3 | 13.3 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.5 | 2.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 90 | 2 | 4 | 42 |
| Future Vol, veh/h | 5 | 4 | 90 | 2 | 4 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 120 | 3 | 5 | 56 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 188 | 121 | 0 | 0 | 123 | 0 |
| Stage 1 | 121 | - | - | - | - | - |
| Stage 2 | 67 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 806 | 935 | - | - | 1477 | - |
| Stage 1 | 909 | - | - | - | - | - |
| Stage 2 | 961 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 803 | 935 | - | - | 1477 | - |
| Mov Cap-2 Maneuver | 803 | - | - | - | - | - |
| Stage 1 | 909 | - | - | - | - | - |
| Stage 2 | 958 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.26 | 0 | 0.65 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 857 | 157 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 145 | 183 | 22 | 75 | 0 | 0 | 0 | 0 | 53 | 8 | 2 |
| Future Vol, veh/h | 0 | 145 | 183 | 22 | 75 | 0 | 0 | 0 | 0 | 53 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 30 | 103 | 0 | 0 | 0 | 0 | 73 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | 362 | 362 | 103 |
| Stage 1 | - | - | - | - | - | - | 163 | 163 | - |
| Stage 2 | - | - | - | - | - | - | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | 641 | 569 | 958 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 871 | 767 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | 627 | 0 | 958 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 627 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 871 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 820 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.74 | 11.54 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 408 | - | 627 | 958 |
| HCM Lane V/C Ratio | - | 0.022 | - | 0.133 | 0.003 |
| HCM Control Delay (s/veh) | - | 7.7 | 0 | 11.6 | 8.8 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0.1 | - | 0.5 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 186 | 0 | 0 | 38 | 34 | 61 | 3 | 17 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 186 | 0 | 0 | 38 | 34 | 61 | 3 | 17 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 211 | 0 | 0 | 43 | 39 | 69 | 3 | 19 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 43 | 0 | - | - | - | 0 | 268 | 268 | 211 |
| Stage 1 | - | - | - | - | - | - | 225 | 225 | - |
| Stage 2 | - | - | - | - | - | - | 43 | 43 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1578 | - | 0 | 0 | - | 0 | 725 | 641 | 834 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 817 | 721 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 984 | 863 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1578 | - | - | - | - | - | 722 | 0 | 834 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 722 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 813 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 984 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.23 | 0 | 10.31 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 722 | 834 | 56 | - | - |
| HCM Lane V/C Ratio | 0.101 | 0.023 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.5 | 9.4 | 7.3 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 57 | 143 | 5 | 4 | 34 | 1 | 7 | 52 | 21 | 76 | 42 | 36 |
| Future Vol, veh/h | 57 | 143 | 5 | 4 | 34 | 1 | 7 | 52 | 21 | 76 | 42 | 36 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 66 | 164 | 6 | 5 | 39 | 1 | 8 | 60 | 24 | 87 | 48 | 41 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.6 | 8.6 | 9.2 | 9.4 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 9% | 100% | 0% | 100% | 0% | 64% | 0% |
| Vol Thru, % | 65% | 0% | 97% | 0% | 97% | 36% | 0% |
| Vol Right, % | 26% | 0% | 3% | 0% | 3% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 80 | 57 | 148 | 4 | 35 | 118 | 36 |
| LT Vol | 7 | 57 | 0 | 4 | 0 | 76 | 0 |
| Through Vol | 52 | 0 | 143 | 0 | 34 | 42 | 0 |
| RT Vol | 21 | 0 | 5 | 0 | 1 | 0 | 36 |
| Lane Flow Rate | 92 | 66 | 170 | 5 | 40 | 136 | 41 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.136 | 0.105 | 0.247 | 0.008 | 0.061 | 0.213 | 0.053 |
| Departure Headway (Hd) | 5.314 | 5.762 | 5.235 | 5.982 | 5.457 | 5.649 | 4.622 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 672 | 620 | 684 | 596 | 653 | 633 | 771 |
| Service Time | 3.369 | 3.51 | 2.983 | 3.745 | 3.22 | 3.398 | 2.37 |
| HCM Lane V/C Ratio | 0.137 | 0.106 | 0.249 | 0.008 | 0.061 | 0.215 | 0.053 |
| HCM Control Delay, s/veh | 9.2 | 9.2 | 9.7 | 8.8 | 8.6 | 9.9 | 7.6 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.5 | 0.4 | 1 | 0 | 0.2 | 0.8 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 230 | 41 | 35 | 40 | 2 |
| Future Vol, veh/h | 6 | 230 | 41 | 35 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 291 | 52 | 44 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 96 | 0 | - | 0 | 380 | 74 |
| Stage 1 | - | - | - | - | 74 | - |
| Stage 2 | - | - | - | - | 306 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1510 | - | - | - | 626 | 993 |
| Stage 1 | - | - | - | - | 954 | - |
| Stage 2 | - | - | - | - | 751 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1510 | - | - | - | 622 | 993 |
| Mov Cap-2 Maneuver | - | - | - | - | 622 | - |
| Stage 1 | - | - | - | - | 948 | - |
| Stage 2 | - | - | - | - | 751 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.19 | 0 | 11.21 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 46 | - | - | - | 633 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.084 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 136 | 75 | 56 | 5 |
| Future Volume (vph) | 0 | 0 | 136 | 75 | 56 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.990 | |
| Flt Protected | | | | 0.969 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1841 | 1881 | 0 |
| Flt Permitted | | | | 0.969 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1841 | 1881 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 149 | 82 | 62 | 5 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 231 | 67 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 21.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↓ | ↱ | | ↑↓ | ↱ | | ↱ | | | ↑↓ | |
| Traffic Vol, veh/h | 13 | 155 | 124 | 1 | 0 | 86 | 0 | 90 | 7 | 20 | 50 | 0 |
| Future Vol, veh/h | 13 | 155 | 124 | 1 | 0 | 86 | 0 | 90 | 7 | 20 | 50 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 1 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 178 | 143 | 1 | 0 | 99 | 0 | 103 | 8 | 23 | 57 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 207 | 215 | - | 300 | 211 | 107 | - | 0 | 0 | 111 | 0 | 0 |
| Stage 1 | 103 | 103 | - | 107 | 107 | - | - | - | - | - | - | - |
| Stage 2 | 103 | 111 | - | 193 | 103 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 755 | 686 | 0 | 656 | 690 | 952 | 0 | - | - | 1491 | - | 0 |
| Stage 1 | 907 | 813 | 0 | 903 | 810 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 907 | 807 | 0 | 814 | 813 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 666 | 675 | - | 477 | 679 | 952 | - | - | - | 1491 | - | - |
| Mov Cap-2 Maneuver | 666 | 675 | - | 477 | 679 | - | - | - | - | - | - | - |
| Stage 1 | 893 | 800 | - | 903 | 810 | - | - | - | - | - | - | - |
| Stage 2 | 813 | 807 | - | 623 | 800 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 12.46 | 9.26 | 0 | 2.13 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 675 | - | 477 | 952 | 514 | - |
| HCM Lane V/C Ratio | - | - | 0.286 | - | 0.002 | 0.104 | 0.015 | - |
| HCM Control Delay (s/veh) | - | - | 12.5 | 0 | 12.6 | 9.2 | 7.5 | 0 |
| HCM Lane LOS | - | - | B | A | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.2 | - | 0 | 0.3 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 18 | 91 | 31 | 17 | 19 | 46 | 4 | 38 | 53 | 108 | 41 | 3 |
| Future Vol, veh/h | 18 | 91 | 31 | 17 | 19 | 46 | 4 | 38 | 53 | 108 | 41 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 20 | 99 | 34 | 18 | 21 | 50 | 4 | 41 | 58 | 117 | 45 | 3 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.9 | 8.1 | 8.1 | 10.1 |
| HCM LOS | A | A | A | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 10% | 0% | 17% | 0% | 47% | 0% | 72% | 0% |
| Vol Thru, % | 90% | 0% | 83% | 0% | 53% | 0% | 28% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 42 | 53 | 109 | 31 | 36 | 46 | 149 | 3 |
| LT Vol | 4 | 0 | 18 | 0 | 17 | 0 | 108 | 0 |
| Through Vol | 38 | 0 | 91 | 0 | 19 | 0 | 41 | 0 |
| RT Vol | 0 | 53 | 0 | 31 | 0 | 46 | 0 | 3 |
| Lane Flow Rate | 46 | 58 | 118 | 34 | 39 | 50 | 162 | 3 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.068 | 0.073 | 0.177 | 0.043 | 0.061 | 0.065 | 0.25 | 0.004 |
| Departure Headway (Hd) | 5.332 | 4.58 | 5.378 | 4.591 | 5.606 | 4.664 | 5.564 | 4.496 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 670 | 778 | 666 | 778 | 637 | 765 | 645 | 792 |
| Service Time | 3.082 | 2.33 | 3.119 | 2.332 | 3.352 | 2.409 | 3.311 | 2.243 |
| HCM Lane V/C Ratio | 0.069 | 0.075 | 0.177 | 0.044 | 0.061 | 0.065 | 0.251 | 0.004 |
| HCM Control Delay, s/veh | 8.5 | 7.7 | 9.3 | 7.5 | 8.7 | 7.7 | 10.2 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | B | A |
| HCM 95th-tile Q | 0.2 | 0.2 | 0.6 | 0.1 | 0.2 | 0.2 | 1 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 243 | 8 | 20 | 77 | 0 | 39 |
| Future Vol, veh/h | 243 | 8 | 20 | 77 | 0 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 293 | 10 | 24 | 93 | 0 | 47 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 302 | 0 | 439 | 298 |
| Stage 1 | - | - | - | - | 298 | - |
| Stage 2 | - | - | - | - | 141 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1270 | - | 579 | 747 |
| Stage 1 | - | - | - | - | 758 | - |
| Stage 2 | - | - | - | - | 891 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1270 | - | 568 | 747 |
| Mov Cap-2 Maneuver | - | - | - | - | 568 | - |
| Stage 1 | - | - | - | - | 758 | - |
| Stage 2 | - | - | - | - | 873 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.63 | 10.15 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 747 | - | - | 371 | - |
| HCM Lane V/C Ratio | - | 0.063 | - | - | 0.019 | - |
| HCM Control Delay (s/veh) | 0 | 10.1 | - | - | 7.9 | 0 |
| HCM Lane LOS | A | B | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0.2 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 252 | 30 | 65 | 93 | 87 | 0 | 0 | 0 | 148 | 19 | 3 |
| Future Vol, veh/h | 0 | 252 | 30 | 65 | 93 | 87 | 0 | 0 | 0 | 148 | 19 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 286 | 34 | 74 | 106 | 99 | 0 | 0 | 0 | 168 | 22 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 205 | 0 | - | 286 | 0 | 0 | | | 589 | 589 | 155 |
| Stage 1 | - | - | - | - | - | - | | | 303 | 303 | - |
| Stage 2 | - | - | - | - | - | - | | | 286 | 286 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1379 | - | 0 | 1287 | - | - | | | 474 | 423 | 896 |
| Stage 1 | - | - | 0 | - | - | - | | | 754 | 667 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 767 | 678 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1379 | - | - | 1287 | - | - | | | 443 | 0 | 896 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 443 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 754 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 717 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 2.11 | 18.9 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1379 | - | 435 | - | - | 443 | 896 |
| HCM Lane V/C Ratio | - | - | 0.057 | - | - | 0.428 | 0.004 |
| HCM Control Delay (s/veh) | 0 | - | 8 | 0 | - | 19.1 | 9 |
| HCM Lane LOS | A | - | A | A | - | C | A |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - | 2.1 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 399 | 0 | 0 | 211 | 34 | 47 |
| Future Vol, veh/h | 399 | 0 | 0 | 211 | 34 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 481 | 0 | 0 | 254 | 41 | 57 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 735 | 481 |
| Stage 1 | - | - | - | - | 481 | - |
| Stage 2 | - | - | - | - | 254 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 390 | 589 |
| Stage 1 | - | 0 | 0 | - | 626 | - |
| Stage 2 | - | 0 | 0 | - | 793 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 390 | 589 |
| Mov Cap-2 Maneuver | - | - | - | - | 390 | - |
| Stage 1 | - | - | - | - | 626 | - |
| Stage 2 | - | - | - | - | 793 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 13.25 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 390 | 589 | - | - |
| HCM Lane V/C Ratio | 0.105 | 0.096 | - | - |
| HCM Control Delay (s/veh) | 15.3 | 11.8 | - | - |
| HCM Lane LOS | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 152 | 452 | 146 | 9 | 98 | 90 |
| Future Vol, veh/h | 152 | 452 | 146 | 9 | 98 | 90 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 171 | 508 | 164 | 10 | 110 | 101 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 174 | 0 | - | 0 | 1019 | 169 |
| Stage 1 | - | - | - | - | 169 | - |
| Stage 2 | - | - | - | - | 849 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1415 | - | - | - | 265 | 880 |
| Stage 1 | - | - | - | - | 866 | - |
| Stage 2 | - | - | - | - | 423 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1415 | - | - | - | 220 | 880 |
| Mov Cap-2 Maneuver | - | - | - | - | 220 | - |
| Stage 1 | - | - | - | - | 720 | - |
| Stage 2 | - | - | - | - | 423 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 1.99 | 0 | 23.68 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 453 | - | - | - | 220 | 880 |
| HCM Lane V/C Ratio | 0.121 | - | - | - | 0.5 | 0.115 |
| HCM Control Delay (s/veh) | 7.9 | 0 | - | - | 36.6 | 9.6 |
| HCM Lane LOS | A | A | - | - | E | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 2.5 | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 336 | 0 | 2 | 75 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Future Vol, veh/h | 21 | 336 | 0 | 2 | 75 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 386 | 0 | 2 | 86 | 43 | 3 | 3 | 2 | 90 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 129 | 0 | 0 | 386 | 0 | 0 | 532 | 568 | 386 | 527 | 525 | 86 |
| Stage 1 | - | - | - | - | - | - | 434 | 434 | - | 91 | 91 | - |
| Stage 2 | - | - | - | - | - | - | 97 | 133 | - | 436 | 434 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1470 | - | - | 1183 | - | - | 462 | 435 | 666 | 465 | 460 | 978 |
| Stage 1 | - | - | - | - | - | - | 604 | 584 | - | 921 | 824 | - |
| Stage 2 | - | - | - | - | - | - | 914 | 790 | - | 603 | 584 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1470 | - | - | 1183 | - | - | 437 | 427 | 666 | 451 | 452 | 978 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 437 | 427 | - | 451 | 452 | - |
| Stage 1 | - | - | - | - | - | - | 594 | 575 | - | 919 | 822 | - |
| Stage 2 | - | - | - | - | - | - | 890 | 788 | - | 587 | 575 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.44 | 0.14 | 12.75 | 14.97 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 473 | 1470 | - | - | 47 | - | - | 472 |
| HCM Lane V/C Ratio | 0.019 | 0.016 | - | - | 0.002 | - | - | 0.236 |
| HCM Control Delay (s/veh) | 12.8 | 7.5 | - | - | 8 | 0 | - | 15 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 0.9 |

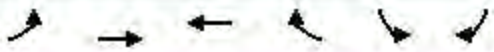
| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 409 | 26 | 8 | 141 | 23 | 13 | 0 | 31 | 46 | 3 | 3 |
| Future Vol, veh/h | 2 | 409 | 26 | 8 | 141 | 23 | 13 | 0 | 31 | 46 | 3 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 431 | 27 | 8 | 148 | 24 | 14 | 0 | 33 | 48 | 3 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 173 | 0 | 0 | 458 | 0 | 0 | 615 | 638 | 444 | 612 | 639 | 161 |
| Stage 1 | - | - | - | - | - | - | 448 | 448 | - | 177 | 177 | - |
| Stage 2 | - | - | - | - | - | - | 167 | 189 | - | 435 | 462 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1416 | - | - | 1114 | - | - | 406 | 397 | 618 | 408 | 396 | 890 |
| Stage 1 | - | - | - | - | - | - | 594 | 576 | - | 829 | 756 | - |
| Stage 2 | - | - | - | - | - | - | 840 | 747 | - | 604 | 568 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1416 | - | - | 1114 | - | - | 397 | 393 | 618 | 383 | 392 | 890 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 397 | 393 | - | 383 | 392 | - |
| Stage 1 | - | - | - | - | - | - | 592 | 575 | - | 822 | 750 | - |
| Stage 2 | - | - | - | - | - | - | 826 | 741 | - | 571 | 567 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.03 | 0.38 | 12.11 | 15.54 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 397 | 618 | 8 | - | - | 81 | - | - | 396 |
| HCM Lane V/C Ratio | 0.034 | 0.053 | 0.001 | - | - | 0.008 | - | - | 0.138 |
| HCM Control Delay (s/veh) | 14.4 | 11.2 | 7.5 | 0 | - | 8.3 | 0 | - | 15.5 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0.5 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 180 | 405 | 225 | 200 | 244 | 38 |
| Future Volume (veh/h) | 180 | 405 | 225 | 200 | 244 | 38 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 198 | 445 | 247 | 220 | 268 | 42 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 254 | 959 | 429 | 717 | 397 | 353 |
| Arrive On Green | 0.14 | 0.50 | 0.23 | 0.23 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 198 | 445 | 247 | 220 | 268 | 42 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.4 | 4.9 | 3.8 | 2.9 | 4.4 | 0.7 |
| Cycle Q Clear(g_c), s | 3.4 | 4.9 | 3.8 | 2.9 | 4.4 | 0.7 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 254 | 959 | 429 | 717 | 397 | 353 |
| V/C Ratio(X) | 0.78 | 0.46 | 0.58 | 0.31 | 0.68 | 0.12 |
| Avail Cap(c_a), veh/h | 361 | 1778 | 1137 | 1316 | 1138 | 1013 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.5 | 5.2 | 11.2 | 5.8 | 11.7 | 10.2 |
| Incr Delay (d2), s/veh | 6.8 | 0.4 | 1.2 | 0.2 | 2.0 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.4 | 1.0 | 0.8 | 1.2 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 20.3 | 5.6 | 12.4 | 6.0 | 13.7 | 10.3 |
| LnGrp LOS | C | A | B | A | B | B |
| Approach Vol, veh/h | | 643 | 467 | | 310 | |
| Approach Delay, s/veh | | 10.1 | 9.4 | | 13.2 | |
| Approach LOS | | B | A | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 20.9 | | 11.6 | 9.1 | 11.9 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | | 6.9 | | 6.4 | 5.4 | 5.8 |
| Green Ext Time (p_c), s | | | | 2.3 | | 0.7 | 0.1 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 10.6 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 47 | 9 | 276 | 35 | 12 | 6 | 191 | 92 | 9 | 2 | 85 | 74 |
| Future Vol, veh/h | 47 | 9 | 276 | 35 | 12 | 6 | 191 | 92 | 9 | 2 | 85 | 74 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 51 | 10 | 300 | 38 | 13 | 7 | 208 | 100 | 10 | 2 | 92 | 80 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 659 | 662 | 133 | 622 | 697 | 105 | 173 | 0 | 0 | 110 | 0 | 0 |
| Stage 1 | 137 | 137 | - | 520 | 520 | - | - | - | - | - | - | - |
| Stage 2 | 522 | 525 | - | 102 | 177 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 380 | 382 | 922 | 399 | 365 | 950 | 1416 | - | - | 1480 | - | - |
| Stage 1 | 871 | 783 | - | 539 | 532 | - | - | - | - | - | - | - |
| Stage 2 | 542 | 529 | - | 904 | 753 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 310 | 326 | 922 | 224 | 311 | 950 | 1416 | - | - | 1480 | - | - |
| Mov Cap-2 Maneuver | 310 | 326 | - | 224 | 311 | - | - | - | - | - | - | - |
| Stage 1 | 870 | 782 | - | 460 | 454 | - | - | - | - | - | - | - |
| Stage 2 | 446 | 452 | - | 602 | 751 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 12.21 | 21 | 5.22 | 0.09 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1416 | - | - | 312 | 922 | 224 | 401 | 20 | - | - |
| HCM Lane V/C Ratio | 0.147 | - | - | 0.195 | 0.325 | 0.17 | 0.049 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 19.3 | 10.8 | 24.4 | 14.4 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0.7 | 1.4 | 0.6 | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 234 | 410 | 128 | 96 | 48 | 295 |
| Future Vol, veh/h | 234 | 410 | 128 | 96 | 48 | 295 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 249 | 436 | 136 | 102 | 51 | 314 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 238 | 0 | - | 0 | 1070 | 136 |
| Stage 1 | - | - | - | - | 136 | - |
| Stage 2 | - | - | - | - | 934 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1340 | - | - | - | 247 | 918 |
| Stage 1 | - | - | - | - | 895 | - |
| Stage 2 | - | - | - | - | 386 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1340 | - | - | - | 201 | 918 |
| Mov Cap-2 Maneuver | - | - | - | - | 201 | - |
| Stage 1 | - | - | - | - | 729 | - |
| Stage 2 | - | - | - | - | 386 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.01 | 0 | 13.46 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1340 | - | - | - | 201 | 918 |
| HCM Lane V/C Ratio | 0.186 | - | - | - | 0.254 | 0.342 |
| HCM Control Delay (s/veh) | 8.3 | - | - | - | 28.9 | 10.9 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 1 | 1.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 1 | 57 | 3 | 7 | 76 |
| Future Vol, veh/h | 3 | 1 | 57 | 3 | 7 | 76 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 1 | 76 | 4 | 9 | 101 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 198 | 78 | 0 | 0 | 80 | 0 |
| Stage 1 | 78 | - | - | - | - | - |
| Stage 2 | 120 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 795 | 988 | - | - | 1531 | - |
| Stage 1 | 950 | - | - | - | - | - |
| Stage 2 | 910 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 790 | 988 | - | - | 1531 | - |
| Mov Cap-2 Maneuver | 790 | - | - | - | - | - |
| Stage 1 | 950 | - | - | - | - | - |
| Stage 2 | 904 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.36 | 0 | 0.62 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 832 | 152 | - |
| HCM Lane V/C Ratio | - | - | 0.006 | 0.006 | - |
| HCM Control Delay (s/veh) | - | - | 9.4 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 36 | 63 | 3 | 179 | 0 | 0 | 0 | 0 | 43 | 2 | 6 |
| Future Vol, veh/h | 0 | 36 | 63 | 3 | 179 | 0 | 0 | 0 | 0 | 43 | 2 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 39 | 68 | 3 | 195 | 0 | 0 | 0 | 0 | 47 | 2 | 7 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 39 | 0 | 0 | 240 | 240 | 195 |
| Stage 1 | - | - | - | - | - | - | 201 | 201 | - |
| Stage 2 | - | - | - | - | - | - | 39 | 39 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1584 | - | 0 | 752 | 665 | 852 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 838 | 739 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 989 | 866 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1584 | - | - | 751 | 0 | 852 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 751 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 838 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 986 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.12 | 10.03 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 30 | - | 751 | 852 |
| HCM Lane V/C Ratio | - | 0.002 | - | 0.065 | 0.008 |
| HCM Control Delay (s/veh) | - | 7.3 | 0 | 10.1 | 9.3 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.2 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 3 | 74 | 0 | 0 | 66 | 34 | 116 | 6 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 3 | 74 | 0 | 0 | 66 | 34 | 116 | 6 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 100 | 0 | 0 | 89 | 46 | 157 | 8 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 89 | 0 | - | - | - | 0 | 197 | 197 | 100 |
| Stage 1 | - | - | - | - | - | - | 108 | 108 | - |
| Stage 2 | - | - | - | - | - | - | 89 | 89 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1519 | - | 0 | 0 | - | 0 | 796 | 702 | 961 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 921 | 810 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 939 | 825 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1519 | - | - | - | - | - | 794 | 0 | 961 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 794 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 919 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 939 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.29 | 0 | 10.72 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 794 | - | 70 | - | - |
| HCM Lane V/C Ratio | 0.208 | - | 0.003 | - | - |
| HCM Control Delay (s/veh) | 10.7 | 0 | 7.4 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 19 | 67 | 3 | 15 | 89 | 1 | 13 | 40 | 8 | 5 | 45 | 22 |
| Future Vol, veh/h | 19 | 67 | 3 | 15 | 89 | 1 | 13 | 40 | 8 | 5 | 45 | 22 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 22 | 76 | 3 | 17 | 101 | 1 | 15 | 45 | 9 | 6 | 51 | 25 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.3 | 8.5 | 8.7 | 8.1 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 21% | 100% | 0% | 100% | 0% | 10% | 0% |
| Vol Thru, % | 66% | 0% | 96% | 0% | 99% | 90% | 0% |
| Vol Right, % | 13% | 0% | 4% | 0% | 1% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 61 | 19 | 70 | 15 | 90 | 50 | 22 |
| LT Vol | 13 | 19 | 0 | 15 | 0 | 5 | 0 |
| Through Vol | 40 | 0 | 67 | 0 | 89 | 45 | 0 |
| RT Vol | 8 | 0 | 3 | 0 | 1 | 0 | 22 |
| Lane Flow Rate | 69 | 22 | 80 | 17 | 102 | 57 | 25 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.099 | 0.033 | 0.11 | 0.026 | 0.141 | 0.082 | 0.031 |
| Departure Headway (Hd) | 5.119 | 5.497 | 4.965 | 5.481 | 4.971 | 5.175 | 4.422 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 701 | 652 | 722 | 654 | 722 | 694 | 811 |
| Service Time | 3.143 | 3.222 | 2.69 | 3.206 | 2.696 | 2.897 | 2.144 |
| HCM Lane V/C Ratio | 0.098 | 0.034 | 0.111 | 0.026 | 0.141 | 0.082 | 0.031 |
| HCM Control Delay, s/veh | 8.7 | 8.4 | 8.3 | 8.4 | 8.5 | 8.4 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.1 | 0.4 | 0.1 | 0.5 | 0.3 | 0.1 |

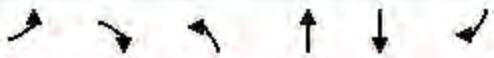
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 84 | 112 | 17 | 5 | 0 |
| Future Vol, veh/h | 0 | 84 | 112 | 17 | 5 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 105 | 140 | 21 | 6 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 161 | 0 | - | 0 | 256 | 151 |
| Stage 1 | - | - | - | - | 151 | - |
| Stage 2 | - | - | - | - | 105 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1430 | - | - | - | 737 | 901 |
| Stage 1 | - | - | - | - | 882 | - |
| Stage 2 | - | - | - | - | 924 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1430 | - | - | - | 737 | 901 |
| Mov Cap-2 Maneuver | - | - | - | - | 737 | - |
| Stage 1 | - | - | - | - | 882 | - |
| Stage 2 | - | - | - | - | 924 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 9.92 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1430 | - | - | - | 737 |
| HCM Lane V/C Ratio | - | - | - | - | 0.008 |
| HCM Control Delay (s/veh) | 0 | - | - | - | 9.9 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 220 | 48 | 56 | 0 |
| Future Volume (vph) | 0 | 0 | 220 | 48 | 56 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.961 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1826 | 1900 | 0 |
| Flt Permitted | | | | 0.961 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1826 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 237 | 52 | 60 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 289 | 60 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 24.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↰ | ↱ | | ↰ | ↱ | | ↱ | | | ↰ | |
| Traffic Vol, veh/h | 12 | 40 | 154 | 0 | 0 | 121 | 0 | 126 | 1 | 12 | 58 | 0 |
| Future Vol, veh/h | 12 | 40 | 154 | 0 | 0 | 121 | 0 | 126 | 1 | 12 | 58 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 13 | 43 | 166 | 0 | 0 | 130 | 0 | 135 | 1 | 13 | 62 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 224 | 225 | - | 246 | 224 | 136 | - | 0 | 0 | 137 | 0 | 0 |
| Stage 1 | 88 | 88 | - | 136 | 136 | - | - | - | - | - | - | - |
| Stage 2 | 135 | 137 | - | 110 | 88 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 736 | 678 | 0 | 712 | 678 | 918 | 0 | - | - | 1460 | - | 0 |
| Stage 1 | 924 | 826 | 0 | 872 | 788 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 873 | 787 | 0 | 900 | 826 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 626 | 672 | - | 661 | 672 | 918 | - | - | - | 1460 | - | - |
| Mov Cap-2 Maneuver | 626 | 672 | - | 661 | 672 | - | - | - | - | - | - | - |
| Stage 1 | 916 | 818 | - | 872 | 788 | - | - | - | - | - | - | - |
| Stage 2 | 749 | 787 | - | 845 | 818 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 10.95 | 9.57 | 0 | 1.28 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 661 | - | - | 918 | 309 | - |
| HCM Lane V/C Ratio | - | - | 0.085 | - | - | 0.142 | 0.009 | - |
| HCM Control Delay (s/veh) | - | - | 11 | 0 | 0 | 9.6 | 7.5 | 0 |
| HCM Lane LOS | - | - | B | A | A | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | - | - | 0.5 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.1 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 31 | 2 | 9 | 49 | 246 | 1 | 28 | 2 | 85 | 24 | 15 |
| Future Vol, veh/h | 6 | 31 | 2 | 9 | 49 | 246 | 1 | 28 | 2 | 85 | 24 | 15 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 35 | 2 | 10 | 55 | 276 | 1 | 31 | 2 | 96 | 27 | 17 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.4 | 9 | 8.5 | 9.7 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 3% | 0% | 16% | 0% | 16% | 0% | 78% | 0% |
| Vol Thru, % | 97% | 0% | 84% | 0% | 84% | 0% | 22% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 29 | 2 | 37 | 2 | 58 | 246 | 109 | 15 |
| LT Vol | 1 | 0 | 6 | 0 | 9 | 0 | 85 | 0 |
| Through Vol | 28 | 0 | 31 | 0 | 49 | 0 | 24 | 0 |
| RT Vol | 0 | 2 | 0 | 2 | 0 | 246 | 0 | 15 |
| Lane Flow Rate | 33 | 2 | 42 | 2 | 65 | 276 | 122 | 17 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.05 | 0.003 | 0.062 | 0.003 | 0.093 | 0.333 | 0.197 | 0.022 |
| Departure Headway (Hd) | 5.548 | 4.825 | 5.371 | 4.585 | 5.114 | 4.334 | 5.788 | 4.692 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 643 | 738 | 666 | 779 | 702 | 829 | 620 | 761 |
| Service Time | 3.3 | 2.577 | 3.11 | 2.324 | 2.837 | 2.057 | 3.532 | 2.435 |
| HCM Lane V/C Ratio | 0.051 | 0.003 | 0.063 | 0.003 | 0.093 | 0.333 | 0.197 | 0.022 |
| HCM Control Delay, s/veh | 8.6 | 7.6 | 8.5 | 7.3 | 8.4 | 9.2 | 10 | 7.5 |
| HCM Lane LOS | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.2 | 0 | 0.2 | 0 | 0.3 | 1.5 | 0.7 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 226 | 4 | 17 | 296 | 8 | 5 |
| Future Vol, veh/h | 226 | 4 | 17 | 296 | 8 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 297 | 5 | 22 | 389 | 11 | 7 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 303 | 0 | 734 | 300 |
| Stage 1 | - | - | - | - | 300 | - |
| Stage 2 | - | - | - | - | 434 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1270 | - | 390 | 744 |
| Stage 1 | - | - | - | - | 756 | - |
| Stage 2 | - | - | - | - | 657 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1270 | - | 381 | 744 |
| Mov Cap-2 Maneuver | - | - | - | - | 381 | - |
| Stage 1 | - | - | - | - | 756 | - |
| Stage 2 | - | - | - | - | 643 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.43 | 12.85 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 381 | 744 | - | - | 98 | - |
| HCM Lane V/C Ratio | 0.028 | 0.009 | - | - | 0.018 | - |
| HCM Control Delay (s/veh) | 14.7 | 9.9 | - | - | 7.9 | 0 |
| HCM Lane LOS | B | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 57 | 134 | 17 | 305 | 139 | 0 | 0 | 0 | 23 | 14 | 0 |
| Future Vol, veh/h | 0 | 57 | 134 | 17 | 305 | 139 | 0 | 0 | 0 | 23 | 14 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 59 | 138 | 18 | 314 | 143 | 0 | 0 | 0 | 24 | 14 | 0 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 458 | 0 | - | 59 | 0 | 0 | | | 480 | 480 | 386 |
| Stage 1 | - | - | - | - | - | - | | | 421 | 421 | - |
| Stage 2 | - | - | - | - | - | - | | | 59 | 59 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1114 | - | 0 | 1558 | - | - | | | 548 | 488 | 666 |
| Stage 1 | - | - | 0 | - | - | - | | | 666 | 592 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 969 | 850 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1114 | - | - | 1558 | - | - | | | 540 | 0 | 666 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 540 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 666 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 954 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.27 | 12.17 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1114 | - | 62 | - | - | 540 | - |
| HCM Lane V/C Ratio | - | - | 0.011 | - | - | 0.071 | - |
| HCM Control Delay (s/veh) | 0 | - | 7.3 | 0 | - | 12.2 | 0 |
| HCM Lane LOS | A | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 81 | 0 | 0 | 231 | 231 | 27 |
| Future Vol, veh/h | 81 | 0 | 0 | 231 | 231 | 27 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 89 | 0 | 0 | 254 | 254 | 30 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 343 | 89 |
| Stage 1 | - | - | - | - | 89 | - |
| Stage 2 | - | - | - | - | 254 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 657 | 975 |
| Stage 1 | - | 0 | 0 | - | 940 | - |
| Stage 2 | - | 0 | 0 | - | 793 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 657 | 975 |
| Mov Cap-2 Maneuver | - | - | - | - | 657 | - |
| Stage 1 | - | - | - | - | 940 | - |
| Stage 2 | - | - | - | - | 793 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 13.35 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 657 | 975 | - | - |
| HCM Lane V/C Ratio | 0.386 | 0.03 | - | - |
| HCM Control Delay (s/veh) | 13.9 | 8.8 | - | - |
| HCM Lane LOS | B | A | - | - |
| HCM 95th %tile Q(veh) | 1.8 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 32 | 97 | 225 | 56 | 16 | 53 |
| Future Vol, veh/h | 32 | 97 | 225 | 56 | 16 | 53 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 35 | 107 | 247 | 62 | 18 | 58 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 309 | 0 | - | 0 | 455 | 278 |
| Stage 1 | - | - | - | - | 278 | - |
| Stage 2 | - | - | - | - | 177 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1263 | - | - | - | 567 | 766 |
| Stage 1 | - | - | - | - | 774 | - |
| Stage 2 | - | - | - | - | 859 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1263 | - | - | - | 550 | 766 |
| Mov Cap-2 Maneuver | - | - | - | - | 550 | - |
| Stage 1 | - | - | - | - | 751 | - |
| Stage 2 | - | - | - | - | 859 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 1.97 | 0 | 10.48 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 447 | - | - | - | 550 | 766 |
| HCM Lane V/C Ratio | 0.028 | - | - | - | 0.032 | 0.076 |
| HCM Control Delay (s/veh) | 7.9 | 0 | - | - | 11.8 | 10.1 |
| HCM Lane LOS | A | A | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 50 | 4 | 5 | 152 | 26 | 6 | 6 | 10 | 19 | 10 | 12 |
| Future Vol, veh/h | 12 | 50 | 4 | 5 | 152 | 26 | 6 | 6 | 10 | 19 | 10 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 63 | 5 | 6 | 190 | 33 | 8 | 8 | 13 | 24 | 13 | 15 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 223 | 0 | 0 | 68 | 0 | 0 | 304 | 330 | 65 | 299 | 300 | 190 |
| Stage 1 | - | - | - | - | - | - | 95 | 95 | - | 203 | 203 | - |
| Stage 2 | - | - | - | - | - | - | 209 | 235 | - | 96 | 98 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1358 | - | - | 1547 | - | - | 653 | 592 | 1005 | 657 | 616 | 857 |
| Stage 1 | - | - | - | - | - | - | 917 | 820 | - | 804 | 738 | - |
| Stage 2 | - | - | - | - | - | - | 798 | 714 | - | 915 | 818 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1358 | - | - | 1547 | - | - | 618 | 583 | 1005 | 631 | 606 | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 618 | 583 | - | 631 | 606 | - |
| Stage 1 | - | - | - | - | - | - | 907 | 811 | - | 800 | 734 | - |
| Stage 2 | - | - | - | - | - | - | 767 | 711 | - | 886 | 809 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 1.4 | 0.2 | 10.09 | 10.76 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 735 | 1358 | - | - | 57 | - | - | 676 |
| HCM Lane V/C Ratio | 0.037 | 0.011 | - | - | 0.004 | - | - | 0.076 |
| HCM Control Delay (s/veh) | 10.1 | 7.7 | - | - | 7.3 | 0 | - | 10.8 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.2 |

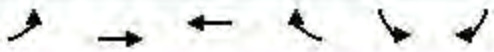
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 1 | 104 | 15 | 36 | 180 | 1 | 11 | 6 | 7 | 0 | 4 | 0 |
| Future Vol, veh/h | 1 | 104 | 15 | 36 | 180 | 1 | 11 | 6 | 7 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 121 | 17 | 42 | 209 | 1 | 13 | 7 | 8 | 0 | 5 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 210 | 0 | 0 | 138 | 0 | 0 | 427 | 426 | 130 | 420 | 434 | 210 |
| Stage 1 | - | - | - | - | - | - | 132 | 132 | - | 294 | 294 | - |
| Stage 2 | - | - | - | - | - | - | 295 | 294 | - | 127 | 141 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1372 | - | - | 1458 | - | - | 541 | 523 | 925 | 547 | 518 | 835 |
| Stage 1 | - | - | - | - | - | - | 876 | 791 | - | 719 | 674 | - |
| Stage 2 | - | - | - | - | - | - | 717 | 673 | - | 882 | 784 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1372 | - | - | 1458 | - | - | 518 | 506 | 925 | 517 | 501 | 835 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 518 | 506 | - | 517 | 501 | - |
| Stage 1 | - | - | - | - | - | - | 876 | 790 | - | 696 | 652 | - |
| Stage 2 | - | - | - | - | - | - | 689 | 651 | - | 866 | 783 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.06 | 1.25 | 11.3 | 12.26 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 514 | 925 | 15 | - | - | 298 | - | - | 501 |
| HCM Lane V/C Ratio | 0.038 | 0.009 | 0.001 | - | - | 0.029 | - | - | 0.009 |
| HCM Control Delay (s/veh) | 12.3 | 8.9 | 7.6 | 0 | - | 7.5 | 0 | - | 12.3 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0.1 | - | - | 0 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 38 | 116 | 260 | 211 | 148 | 19 |
| Future Volume (veh/h) | 38 | 116 | 260 | 211 | 148 | 19 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 42 | 127 | 286 | 232 | 163 | 21 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 90 | 920 | 511 | 729 | 333 | 296 |
| Arrive On Green | 0.05 | 0.48 | 0.27 | 0.27 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 42 | 127 | 286 | 232 | 163 | 21 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 0.6 | 1.0 | 3.5 | 2.5 | 2.2 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 1.0 | 3.5 | 2.5 | 2.2 | 0.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 90 | 920 | 511 | 729 | 333 | 296 |
| V/C Ratio(X) | 0.46 | 0.14 | 0.56 | 0.32 | 0.49 | 0.07 |
| Avail Cap(c_a), veh/h | 433 | 2134 | 1364 | 1453 | 1366 | 1216 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.5 | 3.9 | 8.5 | 4.7 | 9.9 | 9.2 |
| Incr Delay (d2), s/veh | 3.7 | 0.1 | 1.0 | 0.2 | 1.1 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 0.0 | 0.6 | 0.5 | 0.5 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 16.2 | 3.9 | 9.5 | 5.0 | 11.0 | 9.3 |
| LnGrp LOS | B | A | A | A | B | A |
| Approach Vol, veh/h | | 169 | 518 | | 184 | |
| Approach Delay, s/veh | | 7.0 | 7.5 | | 10.8 | |
| Approach LOS | | A | A | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 17.7 | | 9.5 | 5.9 | 11.8 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | | 3.0 | | 4.2 | 2.6 | 5.5 |
| Green Ext Time (p_c), s | | | | 0.5 | | 0.4 | 0.0 | 1.8 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 8.1 |
| HCM 7th LOS | A |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 65 | 46 | 230 | 6 | 31 | 8 | 206 | 96 | 2 | 1 | 132 | 57 |
| Future Vol, veh/h | 65 | 46 | 230 | 6 | 31 | 8 | 206 | 96 | 2 | 1 | 132 | 57 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 74 | 52 | 261 | 7 | 35 | 9 | 234 | 109 | 2 | 1 | 150 | 65 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 780 | 764 | 182 | 757 | 795 | 110 | 215 | 0 | 0 | 111 | 0 | 0 |
| Stage 1 | 185 | 185 | - | 578 | 578 | - | - | - | - | - | - | - |
| Stage 2 | 595 | 580 | - | 178 | 217 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 315 | 334 | 865 | 324 | 320 | 943 | 1367 | - | - | 1478 | - | - |
| Stage 1 | 822 | 747 | - | 501 | 501 | - | - | - | - | - | - | - |
| Stage 2 | 494 | 500 | - | 823 | 723 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 229 | 276 | 865 | 157 | 265 | 943 | 1367 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 229 | 276 | - | 157 | 265 | - | - | - | - | - | - | - |
| Stage 1 | 821 | 746 | - | 415 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 371 | 415 | - | 534 | 723 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 18.42 | 19.89 | 5.54 | 0.04 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1367 | - | - | 247 | 865 | 157 | 311 | 9 | - | - |
| HCM Lane V/C Ratio | 0.171 | - | - | 0.511 | 0.302 | 0.043 | 0.143 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8.2 | - | - | 33.9 | 11 | 29 | 18.5 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | D | B | D | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 2.7 | 1.3 | 0.1 | 0.5 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 155 | 72 | 141 | 94 | 46 | 311 |
| Future Vol, veh/h | 155 | 72 | 141 | 94 | 46 | 311 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 187 | 87 | 170 | 113 | 55 | 375 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 283 | 0 | - | 0 | 630 | 170 |
| Stage 1 | - | - | - | - | 170 | - |
| Stage 2 | - | - | - | - | 460 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1291 | - | - | - | 449 | 879 |
| Stage 1 | - | - | - | - | 865 | - |
| Stage 2 | - | - | - | - | 640 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1291 | - | - | - | 384 | 879 |
| Mov Cap-2 Maneuver | - | - | - | - | 384 | - |
| Stage 1 | - | - | - | - | 740 | - |
| Stage 2 | - | - | - | - | 640 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 5.64 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1291 | - | - | - | 384 | 879 |
| HCM Lane V/C Ratio | 0.145 | - | - | - | 0.144 | 0.426 |
| HCM Control Delay (s/veh) | 8.3 | - | - | - | 16 | 12.1 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.5 | 2.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Future Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 121 | 3 | 5 | 57 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 191 | 123 | 0 | 0 | 124 | 0 |
| Stage 1 | 123 | - | - | - | - | - |
| Stage 2 | 68 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 803 | 934 | - | - | 1475 | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 960 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 800 | 934 | - | - | 1475 | - |
| Mov Cap-2 Maneuver | 800 | - | - | - | - | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 956 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.27 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 854 | 153 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 147 | 186 | 0 | 77 | 0 | 0 | 0 | 0 | 54 | 8 | 2 |
| Future Vol, veh/h | 0 | 147 | 186 | 0 | 77 | 0 | 0 | 0 | 0 | 54 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 0 | 104 | 0 | 0 | 0 | 0 | 73 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | 303 | 303 | 104 |
| Stage 1 | - | - | - | - | - | - | 104 | 104 | - |
| Stage 2 | - | - | - | - | - | - | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | 693 | 614 | 956 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 925 | 813 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | 693 | 0 | 956 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 693 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 925 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 840 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 10.84 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 1386 | - | 693 | 956 |
| HCM Lane V/C Ratio | - | - | - | 0.121 | 0.003 |
| HCM Control Delay (s/veh) | - | 0 | - | 10.9 | 8.8 |
| HCM Lane LOS | - | A | - | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.4 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 190 | 0 | 0 | 16 | 19 | 62 | 3 | 2 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 190 | 0 | 0 | 16 | 19 | 62 | 3 | 2 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 216 | 0 | 0 | 18 | 22 | 70 | 3 | 2 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 18 | 0 | - | - | - | 0 | 248 | 248 | 216 |
| Stage 1 | - | - | - | - | - | - | 230 | 230 | - |
| Stage 2 | - | - | - | - | - | - | 18 | 18 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1612 | - | 0 | 0 | - | 0 | 745 | 658 | 829 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 813 | 718 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 1010 | 884 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1612 | - | - | - | - | - | 742 | 0 | 829 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 742 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 809 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 1010 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.22 | 0 | 10.36 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 742 | 829 | 55 | - | - |
| HCM Lane V/C Ratio | 0.1 | 0.003 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.4 | 9.4 | 7.2 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.8 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 145 | 4 | 4 | 27 | 0 | 3 | 47 | 10 | 22 | 32 | 9 |
| Future Vol, veh/h | 44 | 145 | 4 | 4 | 27 | 0 | 3 | 47 | 10 | 22 | 32 | 9 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 51 | 167 | 5 | 5 | 31 | 0 | 3 | 54 | 11 | 25 | 37 | 10 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9 | 8 | 8.7 | 8.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 5% | 100% | 0% | 100% | 0% | 41% | 0% |
| Vol Thru, % | 78% | 0% | 97% | 0% | 100% | 59% | 0% |
| Vol Right, % | 17% | 0% | 3% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 60 | 44 | 149 | 4 | 27 | 54 | 9 |
| LT Vol | 3 | 44 | 0 | 4 | 0 | 22 | 0 |
| Through Vol | 47 | 0 | 145 | 0 | 27 | 32 | 0 |
| RT Vol | 10 | 0 | 4 | 0 | 0 | 0 | 9 |
| Lane Flow Rate | 69 | 51 | 171 | 5 | 31 | 62 | 10 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.098 | 0.076 | 0.233 | 0.007 | 0.044 | 0.093 | 0.013 |
| Departure Headway (Hd) | 5.141 | 5.409 | 4.888 | 5.584 | 5.082 | 5.418 | 4.511 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 698 | 664 | 736 | 642 | 705 | 662 | 794 |
| Service Time | 3.165 | 3.127 | 2.607 | 3.31 | 2.807 | 3.141 | 2.234 |
| HCM Lane V/C Ratio | 0.099 | 0.077 | 0.232 | 0.008 | 0.044 | 0.094 | 0.013 |
| HCM Control Delay, s/veh | 8.7 | 8.6 | 9.1 | 8.3 | 8 | 8.7 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.2 | 0.9 | 0 | 0.1 | 0.3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 171 | 35 | 36 | 40 | 2 |
| Future Vol, veh/h | 3 | 171 | 35 | 36 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 216 | 44 | 46 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 90 | 0 | - | 0 | 291 | 67 |
| Stage 1 | - | - | - | - | 67 | - |
| Stage 2 | - | - | - | - | 224 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1518 | - | - | - | 704 | 1002 |
| Stage 1 | - | - | - | - | 961 | - |
| Stage 2 | - | - | - | - | 818 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1518 | - | - | - | 702 | 1002 |
| Mov Cap-2 Maneuver | - | - | - | - | 702 | - |
| Stage 1 | - | - | - | - | 958 | - |
| Stage 2 | - | - | - | - | 818 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.13 | 0 | 10.46 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 31 | - | - | - | 712 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.075 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 10.5 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 221 | 60 | 33 | 0 |
| Future Volume (vph) | 0 | 0 | 221 | 60 | 33 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.962 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Flt Permitted | | | | 0.962 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 243 | 66 | 36 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 309 | 36 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 25.4% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↓ | ↱ | | ↑↓ | ↱ | | ↑↓ | | | ↑↓ | |
| Traffic Vol, veh/h | 13 | 158 | 173 | 1 | 0 | 72 | 0 | 173 | 7 | 18 | 29 | 0 |
| Future Vol, veh/h | 13 | 158 | 173 | 1 | 0 | 72 | 0 | 173 | 7 | 18 | 29 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 182 | 199 | 1 | 0 | 83 | 0 | 199 | 8 | 21 | 33 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 274 | 282 | - | 368 | 278 | 203 | - | 0 | 0 | 207 | 0 | 0 |
| Stage 1 | 75 | 75 | - | 203 | 203 | - | - | - | - | - | - | - |
| Stage 2 | 199 | 207 | - | 166 | 75 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 683 | 630 | 0 | 592 | 634 | 843 | 0 | - | - | 1376 | - | 0 |
| Stage 1 | 940 | 837 | 0 | 804 | 737 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 808 | 734 | 0 | 841 | 837 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 606 | 621 | - | 414 | 624 | 843 | - | - | - | 1376 | - | - |
| Mov Cap-2 Maneuver | 606 | 621 | - | 414 | 624 | - | - | - | - | - | - | - |
| Stage 1 | 925 | 824 | - | 804 | 737 | - | - | - | - | - | - | - |
| Stage 2 | 728 | 734 | - | 646 | 824 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 13.49 | 9.79 | 0 | 2.93 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 620 | - | 414 | 843 | 689 | - |
| HCM Lane V/C Ratio | - | - | 0.317 | - | 0.003 | 0.098 | 0.015 | - |
| HCM Control Delay (s/veh) | - | - | 13.5 | 0 | 13.7 | 9.7 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.4 | - | 0 | 0.3 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.8 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 66 | 10 | 10 | 8 | 159 | 4 | 33 | 19 | 95 | 33 | 2 |
| Future Vol, veh/h | 7 | 66 | 10 | 10 | 8 | 159 | 4 | 33 | 19 | 95 | 33 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 72 | 11 | 11 | 9 | 173 | 4 | 36 | 21 | 103 | 36 | 2 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.5 | 8.4 | 8.2 | 9.9 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 11% | 0% | 10% | 0% | 56% | 0% | 74% | 0% |
| Vol Thru, % | 89% | 0% | 90% | 0% | 44% | 0% | 26% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 37 | 19 | 73 | 10 | 18 | 159 | 128 | 2 |
| LT Vol | 4 | 0 | 7 | 0 | 10 | 0 | 95 | 0 |
| Through Vol | 33 | 0 | 66 | 0 | 8 | 0 | 33 | 0 |
| RT Vol | 0 | 19 | 0 | 10 | 0 | 159 | 0 | 2 |
| Lane Flow Rate | 40 | 21 | 79 | 11 | 20 | 173 | 139 | 2 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.06 | 0.026 | 0.116 | 0.014 | 0.029 | 0.213 | 0.216 | 0.003 |
| Departure Headway (Hd) | 5.374 | 4.615 | 5.272 | 4.52 | 5.423 | 4.441 | 5.591 | 4.514 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 665 | 773 | 680 | 791 | 661 | 809 | 641 | 791 |
| Service Time | 3.119 | 2.36 | 3.006 | 2.254 | 3.151 | 2.169 | 3.331 | 2.254 |
| HCM Lane V/C Ratio | 0.06 | 0.027 | 0.116 | 0.014 | 0.03 | 0.214 | 0.217 | 0.003 |
| HCM Control Delay, s/veh | 8.5 | 7.5 | 8.7 | 7.3 | 8.3 | 8.4 | 9.9 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.2 | 0.1 | 0.4 | 0 | 0.1 | 0.8 | 0.8 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 415 | 2 | 7 | 172 | 0 | 5 |
| Future Vol, veh/h | 415 | 2 | 7 | 172 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 500 | 2 | 8 | 207 | 0 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 502 | 0 | 725 | 501 |
| Stage 1 | - | - | - | - | 501 | - |
| Stage 2 | - | - | - | - | 224 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1072 | - | 395 | 574 |
| Stage 1 | - | - | - | - | 613 | - |
| Stage 2 | - | - | - | - | 818 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1072 | - | 391 | 574 |
| Mov Cap-2 Maneuver | - | - | - | - | 391 | - |
| Stage 1 | - | - | - | - | 613 | - |
| Stage 2 | - | - | - | - | 811 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.33 | 11.34 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 574 | - | - | 70 | - |
| HCM Lane V/C Ratio | - | 0.01 | - | - | 0.008 | - |
| HCM Control Delay (s/veh) | 0 | 11.3 | - | - | 8.4 | 0 |
| HCM Lane LOS | A | B | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 175 | 245 | 15 | 176 | 73 | 0 | 0 | 0 | 151 | 17 | 3 |
| Future Vol, veh/h | 0 | 175 | 245 | 15 | 176 | 73 | 0 | 0 | 0 | 151 | 17 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 278 | 17 | 200 | 83 | 0 | 0 | 0 | 172 | 19 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 283 | 0 | - | 199 | 0 | 0 | | | 474 | 474 | 241 |
| Stage 1 | - | - | - | - | - | - | | | 276 | 276 | - |
| Stage 2 | - | - | - | - | - | - | | | 199 | 199 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1291 | - | 0 | 1386 | - | - | | | 552 | 492 | 802 |
| Stage 1 | - | - | 0 | - | - | - | | | 776 | 686 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 839 | 740 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1291 | - | - | 1386 | - | - | | | 544 | 0 | 802 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 544 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 776 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 827 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.43 | 15.05 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1291 | - | 97 | - | - | 544 | 802 |
| HCM Lane V/C Ratio | - | - | 0.012 | - | - | 0.351 | 0.004 |
| HCM Control Delay (s/veh) | 0 | - | 7.6 | 0 | - | 15.1 | 9.5 |
| HCM Lane LOS | A | - | A | A | - | C | A |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - | 1.6 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 325 | 0 | 0 | 132 | 133 | 10 |
| Future Vol, veh/h | 325 | 0 | 0 | 132 | 133 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 392 | 0 | 0 | 159 | 160 | 12 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 551 | 392 |
| Stage 1 | - | - | - | - | 392 | - |
| Stage 2 | - | - | - | - | 159 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 499 | 661 |
| Stage 1 | - | 0 | 0 | - | 687 | - |
| Stage 2 | - | 0 | 0 | - | 875 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 499 | 661 |
| Mov Cap-2 Maneuver | - | - | - | - | 499 | - |
| Stage 1 | - | - | - | - | 687 | - |
| Stage 2 | - | - | - | - | 875 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 15.23 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 499 | 661 | - | - |
| HCM Lane V/C Ratio | 0.321 | 0.018 | - | - |
| HCM Control Delay (s/veh) | 15.6 | 10.5 | - | - |
| HCM Lane LOS | C | B | - | - |
| HCM 95th %tile Q(veh) | 1.4 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 42 | 358 | 141 | 6 | 16 | 34 |
| Future Vol, veh/h | 42 | 358 | 141 | 6 | 16 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 47 | 402 | 158 | 7 | 18 | 38 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 165 | 0 | - | 0 | 658 | 162 |
| Stage 1 | - | - | - | - | 162 | - |
| Stage 2 | - | - | - | - | 497 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1425 | - | - | - | 432 | 888 |
| Stage 1 | - | - | - | - | 872 | - |
| Stage 2 | - | - | - | - | 616 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1425 | - | - | - | 414 | 888 |
| Mov Cap-2 Maneuver | - | - | - | - | 414 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 616 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.8 | 0 | 10.79 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 189 | - | - | - | 414 | 888 |
| HCM Lane V/C Ratio | 0.033 | - | - | - | 0.043 | 0.043 |
| HCM Control Delay (s/veh) | 7.6 | 0 | - | - | 14.1 | 9.2 |
| HCM Lane LOS | A | A | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Future Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 394 | 0 | 2 | 87 | 32 | 3 | 3 | 2 | 30 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 120 | 0 | 0 | 394 | 0 | 0 | 541 | 567 | 394 | 536 | 534 | 87 |
| Stage 1 | - | - | - | - | - | - | 443 | 443 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 124 | - | 444 | 443 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1481 | - | - | 1175 | - | - | 455 | 436 | 659 | 458 | 455 | 977 |
| Stage 1 | - | - | - | - | - | - | 598 | 579 | - | 920 | 823 | - |
| Stage 2 | - | - | - | - | - | - | 913 | 797 | - | 597 | 579 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1481 | - | - | 1175 | - | - | 430 | 428 | 659 | 445 | 446 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 430 | 428 | - | 445 | 446 | - |
| Stage 1 | - | - | - | - | - | - | 588 | 570 | - | 918 | 821 | - |
| Stage 2 | - | - | - | - | - | - | 889 | 795 | - | 581 | 570 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.43 | 0.15 | 12.81 | 13.16 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 470 | 1481 | - | - | 46 | - | - | 493 |
| HCM Lane V/C Ratio | 0.02 | 0.016 | - | - | 0.002 | - | - | 0.105 |
| HCM Control Delay (s/veh) | 12.8 | 7.5 | - | - | 8.1 | 0 | - | 13.2 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

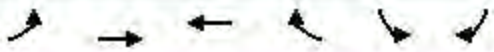
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 365 | 26 | 8 | 133 | 0 | 13 | 0 | 32 | 1 | 3 | 2 |
| Future Vol, veh/h | 2 | 365 | 26 | 8 | 133 | 0 | 13 | 0 | 32 | 1 | 3 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 384 | 27 | 8 | 140 | 0 | 14 | 0 | 34 | 1 | 3 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 140 | 0 | 0 | 412 | 0 | 0 | 561 | 559 | 398 | 545 | 573 | 140 |
| Stage 1 | - | - | - | - | - | - | 402 | 402 | - | 157 | 157 | - |
| Stage 2 | - | - | - | - | - | - | 158 | 157 | - | 388 | 416 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1456 | - | - | 1158 | - | - | 442 | 440 | 656 | 452 | 433 | 913 |
| Stage 1 | - | - | - | - | - | - | 629 | 604 | - | 850 | 772 | - |
| Stage 2 | - | - | - | - | - | - | 849 | 772 | - | 639 | 595 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1456 | - | - | 1158 | - | - | 433 | 436 | 656 | 425 | 428 | 913 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 433 | 436 | - | 425 | 428 | - |
| Stage 1 | - | - | - | - | - | - | 628 | 603 | - | 843 | 766 | - |
| Stage 2 | - | - | - | - | - | - | 836 | 766 | - | 606 | 594 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.04 | 0.46 | 11.59 | 12.01 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 433 | 656 | 9 | - | - | 102 | - | - | 520 |
| HCM Lane V/C Ratio | 0.032 | 0.051 | 0.001 | - | - | 0.007 | - | - | 0.012 |
| HCM Control Delay (s/veh) | 13.6 | 10.8 | 7.5 | 0 | - | 8.1 | 0 | - | 12 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 178 | 322 | 214 | 221 | 268 | 20 |
| Future Volume (veh/h) | 178 | 322 | 214 | 221 | 268 | 20 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 198 | 358 | 238 | 246 | 298 | 22 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 254 | 943 | 420 | 731 | 422 | 376 |
| Arrive On Green | 0.14 | 0.50 | 0.22 | 0.22 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 198 | 358 | 238 | 246 | 298 | 22 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.5 | 3.9 | 3.7 | 3.3 | 5.0 | 0.4 |
| Cycle Q Clear(g_c), s | 3.5 | 3.9 | 3.7 | 3.3 | 5.0 | 0.4 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 254 | 943 | 420 | 731 | 422 | 376 |
| V/C Ratio(X) | 0.78 | 0.38 | 0.57 | 0.34 | 0.71 | 0.06 |
| Avail Cap(c_a), veh/h | 353 | 1740 | 1113 | 1319 | 1114 | 991 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.8 | 5.2 | 11.6 | 5.9 | 11.7 | 9.9 |
| Incr Delay (d2), s/veh | 7.2 | 0.3 | 1.2 | 0.3 | 2.2 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.4 | 1.0 | 1.0 | 1.4 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 21.1 | 5.5 | 12.8 | 6.1 | 13.9 | 10.0 |
| LnGrp LOS | C | A | B | A | B | A |
| Approach Vol, veh/h | | 556 | 484 | | 320 | |
| Approach Delay, s/veh | | 11.0 | 9.4 | | 13.6 | |
| Approach LOS | | B | A | | B | |

| Timer - Assigned Phs | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | 21.0 | | 12.3 | 9.2 | 11.9 |
| Change Period (Y+Rc), s | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | 5.9 | | 7.0 | 5.5 | 5.7 |
| Green Ext Time (p_c), s | | | 1.8 | | 0.7 | 0.1 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 11.0 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 9.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 48 | 48 | 308 | 8 | 40 | 6 | 238 | 94 | 9 | 2 | 86 | 75 |
| Future Vol, veh/h | 48 | 48 | 308 | 8 | 40 | 6 | 238 | 94 | 9 | 2 | 86 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 52 | 52 | 335 | 9 | 43 | 7 | 259 | 102 | 10 | 2 | 93 | 82 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 780 | 768 | 134 | 748 | 804 | 107 | 175 | 0 | 0 | 112 | 0 | 0 |
| Stage 1 | 139 | 139 | - | 624 | 624 | - | - | - | - | - | - | - |
| Stage 2 | 641 | 629 | - | 124 | 179 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 315 | 332 | 920 | 328 | 317 | 947 | 1414 | - | - | 1478 | - | - |
| Stage 1 | 869 | 782 | - | 473 | 478 | - | - | - | - | - | - | - |
| Stage 2 | 466 | 475 | - | 880 | 751 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 219 | 271 | 920 | 143 | 258 | 947 | 1414 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 219 | 271 | - | 143 | 258 | - | - | - | - | - | - | - |
| Stage 1 | 868 | 781 | - | 386 | 390 | - | - | - | - | - | - | - |
| Stage 2 | 336 | 388 | - | 522 | 750 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 15.77 | 22 | 5.66 | 0.09 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1414 | - | - | 242 | 920 | 143 | 285 | 20 | - | - |
| HCM Lane V/C Ratio | 0.183 | - | - | 0.431 | 0.364 | 0.061 | 0.175 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8.1 | - | - | 30.7 | 11.1 | 31.9 | 20.3 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | D | B | D | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.7 | - | - | 2 | 1.7 | 0.2 | 0.6 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 254 | 331 | 92 | 83 | 48 | 339 |
| Future Vol, veh/h | 254 | 331 | 92 | 83 | 48 | 339 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 270 | 352 | 98 | 88 | 51 | 361 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 186 | 0 | - | 0 | 990 | 98 |
| Stage 1 | - | - | - | - | 98 | - |
| Stage 2 | - | - | - | - | 893 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1400 | - | - | - | 275 | 964 |
| Stage 1 | - | - | - | - | 931 | - |
| Stage 2 | - | - | - | - | 403 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1400 | - | - | - | 222 | 964 |
| Mov Cap-2 Maneuver | - | - | - | - | 222 | - |
| Stage 1 | - | - | - | - | 751 | - |
| Stage 2 | - | - | - | - | 403 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.55 | 0 | 12.81 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1400 | - | - | - | 222 | 964 |
| HCM Lane V/C Ratio | 0.193 | - | - | - | 0.23 | 0.374 |
| HCM Control Delay (s/veh) | 8.2 | - | - | - | 26 | 11 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 0.9 | 1.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 1 | 57 | 3 | 7 | 76 |
| Future Vol, veh/h | 3 | 1 | 57 | 3 | 7 | 76 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 1 | 76 | 4 | 9 | 101 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 198 | 78 | 0 | 0 | 80 | 0 |
| Stage 1 | 78 | - | - | - | - | - |
| Stage 2 | 120 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 795 | 988 | - | - | 1531 | - |
| Stage 1 | 950 | - | - | - | - | - |
| Stage 2 | 910 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 790 | 988 | - | - | 1531 | - |
| Mov Cap-2 Maneuver | 790 | - | - | - | - | - |
| Stage 1 | 950 | - | - | - | - | - |
| Stage 2 | 904 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.36 | 0 | 0.62 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 832 | 152 | - |
| HCM Lane V/C Ratio | - | - | 0.006 | 0.006 | - |
| HCM Control Delay (s/veh) | - | - | 9.4 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 36 | 63 | 19 | 179 | 0 | 0 | 0 | 0 | 59 | 2 | 6 |
| Future Vol, veh/h | 0 | 36 | 63 | 19 | 179 | 0 | 0 | 0 | 0 | 59 | 2 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 39 | 68 | 21 | 195 | 0 | 0 | 0 | 0 | 64 | 2 | 7 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 39 | 0 | 0 | 275 | 275 | 195 |
| Stage 1 | - | - | - | - | - | - | 236 | 236 | - |
| Stage 2 | - | - | - | - | - | - | 39 | 39 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1584 | - | 0 | 719 | 636 | 852 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 808 | 714 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 989 | 866 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1584 | - | - | 708 | 0 | 852 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 708 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 808 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 974 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.7 | 10.49 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 173 | - | 708 | 852 |
| HCM Lane V/C Ratio | - | 0.013 | - | 0.094 | 0.008 |
| HCM Control Delay (s/veh) | - | 7.3 | 0 | 10.6 | 9.3 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 3 | 90 | 0 | 0 | 82 | 35 | 116 | 6 | 21 | 0 | 0 | 0 |
| Future Vol, veh/h | 3 | 90 | 0 | 0 | 82 | 35 | 116 | 6 | 21 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 122 | 0 | 0 | 111 | 47 | 157 | 8 | 28 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 111 | 0 | - | - | - | 0 | 241 | 241 | 122 |
| Stage 1 | - | - | - | - | - | - | 130 | 130 | - |
| Stage 2 | - | - | - | - | - | - | 111 | 111 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1492 | - | 0 | 0 | - | 0 | 752 | 664 | 935 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 901 | 793 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 919 | 808 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1492 | - | - | - | - | - | 750 | 0 | 935 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 750 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 899 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 919 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.24 | 0 | 10.83 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 750 | 935 | 58 | - | - |
| HCM Lane V/C Ratio | 0.22 | 0.03 | 0.003 | - | - |
| HCM Control Delay (s/veh) | 11.1 | 9 | 7.4 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.8 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.6 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 46 | 73 | 7 | 21 | 90 | 2 | 14 | 156 | 8 | 6 | 52 | 38 |
| Future Vol, veh/h | 46 | 73 | 7 | 21 | 90 | 2 | 14 | 156 | 8 | 6 | 52 | 38 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 52 | 83 | 8 | 24 | 102 | 2 | 16 | 177 | 9 | 7 | 59 | 43 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.1 | 9.2 | 10.7 | 8.5 |
| HCM LOS | A | A | B | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 8% | 100% | 0% | 100% | 0% | 10% | 0% |
| Vol Thru, % | 88% | 0% | 91% | 0% | 98% | 90% | 0% |
| Vol Right, % | 4% | 0% | 9% | 0% | 2% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 178 | 46 | 80 | 21 | 92 | 58 | 38 |
| LT Vol | 14 | 46 | 0 | 21 | 0 | 6 | 0 |
| Through Vol | 156 | 0 | 73 | 0 | 90 | 52 | 0 |
| RT Vol | 8 | 0 | 7 | 0 | 2 | 0 | 38 |
| Lane Flow Rate | 202 | 52 | 91 | 24 | 105 | 66 | 43 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.3 | 0.087 | 0.136 | 0.04 | 0.159 | 0.101 | 0.057 |
| Departure Headway (Hd) | 5.344 | 5.967 | 5.4 | 5.988 | 5.468 | 5.5 | 4.743 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 670 | 597 | 659 | 595 | 651 | 648 | 749 |
| Service Time | 3.402 | 3.737 | 3.17 | 3.757 | 3.237 | 3.267 | 2.509 |
| HCM Lane V/C Ratio | 0.301 | 0.087 | 0.138 | 0.04 | 0.161 | 0.102 | 0.057 |
| HCM Control Delay, s/veh | 10.7 | 9.3 | 9 | 9 | 9.3 | 8.9 | 7.8 |
| HCM Lane LOS | B | A | A | A | A | A | A |
| HCM 95th-tile Q | 1.3 | 0.3 | 0.5 | 0.1 | 0.6 | 0.3 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 91 | 119 | 17 | 5 | 0 |
| Future Vol, veh/h | 0 | 91 | 119 | 17 | 5 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 114 | 149 | 21 | 6 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 170 | 0 | - | 0 | 273 | 159 |
| Stage 1 | - | - | - | - | 159 | - |
| Stage 2 | - | - | - | - | 114 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1420 | - | - | - | 721 | 891 |
| Stage 1 | - | - | - | - | 874 | - |
| Stage 2 | - | - | - | - | 916 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1420 | - | - | - | 721 | 891 |
| Mov Cap-2 Maneuver | - | - | - | - | 721 | - |
| Stage 1 | - | - | - | - | 874 | - |
| Stage 2 | - | - | - | - | 916 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 10.04 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1420 | - | - | - | 721 |
| HCM Lane V/C Ratio | - | - | - | - | 0.009 |
| HCM Control Delay (s/veh) | 0 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 223 | 185 | 104 | 0 |
| Future Volume (vph) | 0 | 0 | 223 | 185 | 104 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.973 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1849 | 1900 | 0 |
| Flt Permitted | | | | 0.973 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1849 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 240 | 199 | 112 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 439 | 112 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 32.1% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↰ | ↱ | | ↰ | ↱ | | ↱ | | | ↰ | |
| Traffic Vol, veh/h | 14 | 40 | 175 | 0 | 0 | 235 | 0 | 138 | 1 | 14 | 78 | 0 |
| Future Vol, veh/h | 14 | 40 | 175 | 0 | 0 | 235 | 0 | 138 | 1 | 14 | 78 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 43 | 188 | 0 | 0 | 253 | 0 | 148 | 1 | 15 | 84 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 262 | 263 | - | 284 | 263 | 149 | - | 0 | 0 | 149 | 0 | 0 |
| Stage 1 | 114 | 114 | - | 149 | 149 | - | - | - | - | - | - | - |
| Stage 2 | 148 | 149 | - | 135 | 114 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 695 | 645 | 0 | 672 | 646 | 903 | 0 | - | - | 1444 | - | 0 |
| Stage 1 | 896 | 805 | 0 | 858 | 778 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 859 | 777 | 0 | 873 | 805 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 495 | 638 | - | 620 | 639 | 903 | - | - | - | 1444 | - | - |
| Mov Cap-2 Maneuver | 495 | 638 | - | 620 | 639 | - | - | - | - | - | - | - |
| Stage 1 | 886 | 796 | - | 858 | 778 | - | - | - | - | - | - | - |
| Stage 2 | 619 | 777 | - | 816 | 796 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 11.72 | 10.53 | 0 | 1.14 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 594 | - | - | 903 | 274 | - |
| HCM Lane V/C Ratio | - | - | 0.098 | - | - | 0.28 | 0.01 | - |
| HCM Control Delay (s/veh) | - | - | 11.7 | 0 | 0 | 10.5 | 7.5 | 0 |
| HCM Lane LOS | - | - | B | A | A | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | - | - | 1.1 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.9 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 37 | 2 | 34 | 96 | 246 | 14 | 39 | 11 | 108 | 30 | 27 |
| Future Vol, veh/h | 7 | 37 | 2 | 34 | 96 | 246 | 14 | 39 | 11 | 108 | 30 | 27 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 42 | 2 | 38 | 108 | 276 | 16 | 44 | 12 | 121 | 34 | 30 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.9 | 9.8 | 9.2 | 10.5 |
| HCM LOS | A | A | A | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 26% | 0% | 16% | 0% | 26% | 0% | 78% | 0% |
| Vol Thru, % | 74% | 0% | 84% | 0% | 74% | 0% | 22% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 53 | 11 | 44 | 2 | 130 | 246 | 138 | 27 |
| LT Vol | 14 | 0 | 7 | 0 | 34 | 0 | 108 | 0 |
| Through Vol | 39 | 0 | 37 | 0 | 96 | 0 | 30 | 0 |
| RT Vol | 0 | 11 | 0 | 2 | 0 | 246 | 0 | 27 |
| Lane Flow Rate | 60 | 12 | 49 | 2 | 146 | 276 | 155 | 30 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.099 | 0.018 | 0.079 | 0.003 | 0.22 | 0.352 | 0.261 | 0.042 |
| Departure Headway (Hd) | 5.964 | 5.124 | 5.744 | 4.957 | 5.419 | 4.584 | 6.066 | 4.966 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 596 | 690 | 618 | 714 | 660 | 779 | 588 | 714 |
| Service Time | 3.757 | 2.916 | 3.531 | 2.743 | 3.173 | 2.337 | 3.847 | 2.746 |
| HCM Lane V/C Ratio | 0.101 | 0.017 | 0.079 | 0.003 | 0.221 | 0.354 | 0.264 | 0.042 |
| HCM Control Delay, s/veh | 9.4 | 8 | 9 | 7.8 | 9.7 | 9.8 | 11 | 8 |
| HCM Lane LOS | A | A | A | A | A | A | B | A |
| HCM 95th-tile Q | 0.3 | 0.1 | 0.3 | 0 | 0.8 | 1.6 | 1 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 263 | 4 | 45 | 353 | 25 | 35 |
| Future Vol, veh/h | 263 | 4 | 45 | 353 | 25 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 346 | 5 | 59 | 464 | 33 | 46 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 351 | 0 | 932 | 349 |
| Stage 1 | - | - | - | - | 349 | - |
| Stage 2 | - | - | - | - | 583 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1219 | - | 298 | 699 |
| Stage 1 | - | - | - | - | 719 | - |
| Stage 2 | - | - | - | - | 562 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1219 | - | 279 | 699 |
| Mov Cap-2 Maneuver | - | - | - | - | 279 | - |
| Stage 1 | - | - | - | - | 719 | - |
| Stage 2 | - | - | - | - | 525 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.92 | 14.31 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 279 | 699 | - | - | 204 | - |
| HCM Lane V/C Ratio | 0.118 | 0.066 | - | - | 0.049 | - |
| HCM Control Delay (s/veh) | 19.6 | 10.5 | - | - | 8.1 | 0 |
| HCM Lane LOS | C | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | 0.2 | - | - | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 108 | 150 | 53 | 389 | 253 | 0 | 0 | 0 | 23 | 16 | 0 |
| Future Vol, veh/h | 0 | 108 | 150 | 53 | 389 | 253 | 0 | 0 | 0 | 23 | 16 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 111 | 155 | 55 | 401 | 261 | 0 | 0 | 0 | 24 | 16 | 0 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 662 | 0 | - | 111 | 0 | 0 | | | 752 | 752 | 531 |
| Stage 1 | - | - | - | - | - | - | | | 641 | 641 | - |
| Stage 2 | - | - | - | - | - | - | | | 111 | 111 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 936 | - | 0 | 1491 | - | - | | | 381 | 342 | 552 |
| Stage 1 | - | - | 0 | - | - | - | | | 529 | 473 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 918 | 807 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 936 | - | - | 1491 | - | - | | | 358 | 0 | 552 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 358 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 529 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 863 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.57 | 16.34 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 936 | - | 127 | - | - | 358 | - |
| HCM Lane V/C Ratio | - | - | 0.037 | - | - | 0.112 | - |
| HCM Control Delay (s/veh) | 0 | - | 7.5 | 0 | - | 16.3 | 0 |
| HCM Lane LOS | A | - | A | A | - | C | A |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - | 0.4 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 132 | 0 | 0 | 441 | 255 | 78 |
| Future Vol, veh/h | 132 | 0 | 0 | 441 | 255 | 78 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 145 | 0 | 0 | 485 | 280 | 86 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 630 | 145 |
| Stage 1 | - | - | - | - | 145 | - |
| Stage 2 | - | - | - | - | 485 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 449 | 908 |
| Stage 1 | - | 0 | 0 | - | 887 | - |
| Stage 2 | - | 0 | 0 | - | 623 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 449 | 908 |
| Mov Cap-2 Maneuver | - | - | - | - | 449 | - |
| Stage 1 | - | - | - | - | 887 | - |
| Stage 2 | - | - | - | - | 623 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 21.66 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 449 | 908 | - | - |
| HCM Lane V/C Ratio | 0.624 | 0.094 | - | - |
| HCM Control Delay (s/veh) | 25.4 | 9.4 | - | - |
| HCM Lane LOS | D | A | - | - |
| HCM 95th %tile Q(veh) | 4.2 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 92 | 107 | 428 | 217 | 19 | 166 |
| Future Vol, veh/h | 92 | 107 | 428 | 217 | 19 | 166 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 101 | 118 | 470 | 238 | 21 | 182 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 709 | 0 | - | 0 | 909 | 590 |
| Stage 1 | - | - | - | - | 590 | - |
| Stage 2 | - | - | - | - | 320 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 899 | - | - | - | 308 | 512 |
| Stage 1 | - | - | - | - | 558 | - |
| Stage 2 | - | - | - | - | 741 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 899 | - | - | - | 271 | 512 |
| Mov Cap-2 Maneuver | - | - | - | - | 271 | - |
| Stage 1 | - | - | - | - | 491 | - |
| Stage 2 | - | - | - | - | 741 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 4.4 | 0 | 16.25 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 832 | - | - | - | 271 | 512 |
| HCM Lane V/C Ratio | 0.112 | - | - | - | 0.077 | 0.357 |
| HCM Control Delay (s/veh) | 9.5 | 0 | - | - | 19.4 | 15.9 |
| HCM Lane LOS | A | A | - | - | C | C |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.2 | 1.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 12 | 50 | 4 | 5 | 152 | 84 | 6 | 6 | 10 | 24 | 10 | 12 |
| Future Vol, veh/h | 12 | 50 | 4 | 5 | 152 | 84 | 6 | 6 | 10 | 24 | 10 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 63 | 5 | 6 | 190 | 105 | 8 | 8 | 13 | 30 | 13 | 15 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 295 | 0 | 0 | 68 | 0 | 0 | 304 | 403 | 65 | 299 | 300 | 190 |
| Stage 1 | - | - | - | - | - | - | 95 | 95 | - | 203 | 203 | - |
| Stage 2 | - | - | - | - | - | - | 209 | 308 | - | 96 | 98 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1278 | - | - | 1547 | - | - | 653 | 540 | 1005 | 657 | 616 | 857 |
| Stage 1 | - | - | - | - | - | - | 917 | 820 | - | 804 | 738 | - |
| Stage 2 | - | - | - | - | - | - | 798 | 664 | - | 915 | 818 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1278 | - | - | 1547 | - | - | 618 | 531 | 1005 | 630 | 605 | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 618 | 531 | - | 630 | 605 | - |
| Stage 1 | - | - | - | - | - | - | 906 | 811 | - | 800 | 734 | - |
| Stage 2 | - | - | - | - | - | - | 767 | 661 | - | 885 | 809 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 1.43 | 0.15 | 10.27 | 10.7 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 710 | 1278 | - | - | 57 | - | - | 622 | 857 |
| HCM Lane V/C Ratio | 0.039 | 0.012 | - | - | 0.004 | - | - | 0.068 | 0.018 |
| HCM Control Delay (s/veh) | 10.3 | 7.9 | - | - | 7.3 | 0 | - | 11.2 | 9.3 |
| HCM Lane LOS | B | A | - | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.2 | 0.1 |

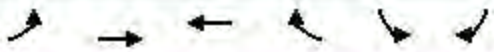
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 109 | 15 | 36 | 231 | 68 | 11 | 6 | 7 | 9 | 4 | 0 |
| Future Vol, veh/h | 1 | 109 | 15 | 36 | 231 | 68 | 11 | 6 | 7 | 9 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 127 | 17 | 42 | 269 | 79 | 13 | 7 | 8 | 10 | 5 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 348 | 0 | 0 | 144 | 0 | 0 | 492 | 569 | 135 | 524 | 538 | 308 |
| Stage 1 | - | - | - | - | - | - | 138 | 138 | - | 392 | 392 | - |
| Stage 2 | - | - | - | - | - | - | 355 | 431 | - | 133 | 147 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1222 | - | - | 1451 | - | - | 490 | 435 | 919 | 467 | 452 | 737 |
| Stage 1 | - | - | - | - | - | - | 870 | 786 | - | 637 | 610 | - |
| Stage 2 | - | - | - | - | - | - | 667 | 586 | - | 876 | 780 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1222 | - | - | 1451 | - | - | 467 | 418 | 919 | 438 | 436 | 737 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 467 | 418 | - | 438 | 436 | - |
| Stage 1 | - | - | - | - | - | - | 869 | 786 | - | 614 | 588 | - |
| Stage 2 | - | - | - | - | - | - | 638 | 565 | - | 859 | 779 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.06 | 0.81 | 12.1 | 13.52 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 449 | 919 | 14 | - | - | 185 | - | - | 437 |
| HCM Lane V/C Ratio | 0.044 | 0.009 | 0.001 | - | - | 0.029 | - | - | 0.035 |
| HCM Control Delay (s/veh) | 13.4 | 9 | 7.9 | 0 | - | 7.6 | 0 | - | 13.5 |
| HCM Lane LOS | B | A | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0.1 | - | - | 0.1 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 43 | 124 | 339 | 233 | 169 | 57 |
| Future Volume (veh/h) | 43 | 124 | 339 | 233 | 169 | 57 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 47 | 136 | 373 | 256 | 186 | 63 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 98 | 981 | 590 | 791 | 327 | 291 |
| Arrive On Green | 0.05 | 0.52 | 0.31 | 0.31 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 47 | 136 | 373 | 256 | 186 | 63 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 0.7 | 1.1 | 5.0 | 2.9 | 2.8 | 1.0 |
| Cycle Q Clear(g_c), s | 0.7 | 1.1 | 5.0 | 2.9 | 2.8 | 1.0 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 98 | 981 | 590 | 791 | 327 | 291 |
| V/C Ratio(X) | 0.48 | 0.14 | 0.63 | 0.32 | 0.57 | 0.22 |
| Avail Cap(c_a), veh/h | 396 | 1951 | 1247 | 1348 | 1249 | 1111 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.6 | 3.7 | 8.8 | 4.6 | 11.1 | 10.4 |
| Incr Delay (d2), s/veh | 3.6 | 0.1 | 1.1 | 0.2 | 1.6 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 1.0 | 0.6 | 0.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 17.3 | 3.8 | 9.9 | 4.8 | 12.7 | 10.7 |
| LnGrp LOS | B | A | A | A | B | B |
| Approach Vol, veh/h | | 183 | 629 | | 249 | |
| Approach Delay, s/veh | | 7.3 | 7.8 | | 12.2 | |
| Approach LOS | | A | A | | B | |

| Timer - Assigned Phs | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | 19.8 | | 9.9 | 6.1 | 13.7 |
| Change Period (Y+Rc), s | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | 3.1 | | 4.8 | 2.7 | 7.0 |
| Green Ext Time (p_c), s | | | 0.6 | | 0.6 | 0.0 | 2.2 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 8.8 |
| HCM 7th LOS | A |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 65 | 46 | 230 | 7 | 31 | 8 | 206 | 96 | 2 | 1 | 132 | 57 |
| Future Vol, veh/h | 65 | 46 | 230 | 7 | 31 | 8 | 206 | 96 | 2 | 1 | 132 | 57 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 74 | 52 | 261 | 8 | 35 | 9 | 234 | 109 | 2 | 1 | 150 | 65 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 780 | 764 | 182 | 757 | 795 | 110 | 215 | 0 | 0 | 111 | 0 | 0 |
| Stage 1 | 185 | 185 | - | 578 | 578 | - | - | - | - | - | - | - |
| Stage 2 | 595 | 580 | - | 178 | 217 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 315 | 334 | 865 | 324 | 320 | 943 | 1367 | - | - | 1478 | - | - |
| Stage 1 | 822 | 747 | - | 501 | 501 | - | - | - | - | - | - | - |
| Stage 2 | 494 | 500 | - | 823 | 723 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 229 | 276 | 865 | 157 | 265 | 943 | 1367 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 229 | 276 | - | 157 | 265 | - | - | - | - | - | - | - |
| Stage 1 | 821 | 746 | - | 415 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 371 | 415 | - | 534 | 723 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 18.42 | 20.12 | 5.54 | 0.04 |
| HCM LOS | C | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1367 | - | - | 247 | 865 | 157 | 311 | 9 | - | - |
| HCM Lane V/C Ratio | 0.171 | - | - | 0.511 | 0.302 | 0.051 | 0.143 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8.2 | - | - | 33.9 | 11 | 29.2 | 18.5 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | D | B | D | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 2.7 | 1.3 | 0.2 | 0.5 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 155 | 100 | 242 | 95 | 46 | 311 |
| Future Vol, veh/h | 155 | 100 | 242 | 95 | 46 | 311 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 187 | 120 | 292 | 114 | 55 | 375 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 406 | 0 | - | 0 | 786 | 292 |
| Stage 1 | - | - | - | - | 292 | - |
| Stage 2 | - | - | - | - | 494 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1164 | - | - | - | 364 | 752 |
| Stage 1 | - | - | - | - | 763 | - |
| Stage 2 | - | - | - | - | 617 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1164 | - | - | - | 306 | 752 |
| Mov Cap-2 Maneuver | - | - | - | - | 306 | - |
| Stage 1 | - | - | - | - | 640 | - |
| Stage 2 | - | - | - | - | 617 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 5.28 | 0 | 15.07 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1164 | - | - | - | 306 | 752 |
| HCM Lane V/C Ratio | 0.16 | - | - | - | 0.181 | 0.498 |
| HCM Control Delay (s/veh) | 8.7 | - | - | - | 19.4 | 14.4 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.7 | 2.8 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Future Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 121 | 3 | 5 | 57 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 191 | 123 | 0 | 0 | 124 | 0 |
| Stage 1 | 123 | - | - | - | - | - |
| Stage 2 | 68 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 803 | 934 | - | - | 1475 | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 960 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 800 | 934 | - | - | 1475 | - |
| Mov Cap-2 Maneuver | 800 | - | - | - | - | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 956 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.27 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 854 | 153 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 147 | 186 | 22 | 77 | 0 | 0 | 0 | 0 | 55 | 8 | 2 |
| Future Vol, veh/h | 0 | 147 | 186 | 22 | 77 | 0 | 0 | 0 | 0 | 55 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 30 | 104 | 0 | 0 | 0 | 0 | 74 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | 362 | 362 | 104 |
| Stage 1 | - | - | - | - | - | - | 164 | 164 | - |
| Stage 2 | - | - | - | - | - | - | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | 641 | 568 | 956 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 871 | 767 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | 626 | 0 | 956 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 626 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 871 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 821 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.7 | 11.56 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 400 | - | 626 | 956 |
| HCM Lane V/C Ratio | - | 0.021 | - | 0.136 | 0.003 |
| HCM Control Delay (s/veh) | - | 7.7 | 0 | 11.6 | 8.8 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0.1 | - | 0.5 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 191 | 0 | 0 | 38 | 35 | 62 | 3 | 17 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 191 | 0 | 0 | 38 | 35 | 62 | 3 | 17 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 217 | 0 | 0 | 43 | 40 | 70 | 3 | 19 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 43 | 0 | - | - | - | 0 | 274 | 274 | 217 |
| Stage 1 | - | - | - | - | - | - | 231 | 231 | - |
| Stage 2 | - | - | - | - | - | - | 43 | 43 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1578 | - | 0 | 0 | - | 0 | 720 | 637 | 828 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 812 | 717 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 984 | 863 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1578 | - | - | - | - | - | 716 | 0 | 828 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 716 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 808 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 984 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.22 | 0 | 10.36 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 716 | 828 | 55 | - | - |
| HCM Lane V/C Ratio | 0.103 | 0.023 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.6 | 9.5 | 7.3 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 59 | 145 | 5 | 4 | 34 | 1 | 7 | 54 | 21 | 76 | 44 | 37 |
| Future Vol, veh/h | 59 | 145 | 5 | 4 | 34 | 1 | 7 | 54 | 21 | 76 | 44 | 37 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 68 | 167 | 6 | 5 | 39 | 1 | 8 | 62 | 24 | 87 | 51 | 43 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.6 | 8.6 | 9.3 | 9.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 9% | 100% | 0% | 100% | 0% | 63% | 0% |
| Vol Thru, % | 66% | 0% | 97% | 0% | 97% | 37% | 0% |
| Vol Right, % | 26% | 0% | 3% | 0% | 3% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 82 | 59 | 150 | 4 | 35 | 120 | 37 |
| LT Vol | 7 | 59 | 0 | 4 | 0 | 76 | 0 |
| Through Vol | 54 | 0 | 145 | 0 | 34 | 44 | 0 |
| RT Vol | 21 | 0 | 5 | 0 | 1 | 0 | 37 |
| Lane Flow Rate | 94 | 68 | 172 | 5 | 40 | 138 | 43 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.14 | 0.109 | 0.251 | 0.008 | 0.061 | 0.217 | 0.055 |
| Departure Headway (Hd) | 5.335 | 5.777 | 5.25 | 6.005 | 5.48 | 5.66 | 4.638 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 669 | 618 | 681 | 593 | 650 | 633 | 768 |
| Service Time | 3.391 | 3.528 | 3.001 | 3.771 | 3.246 | 3.41 | 2.388 |
| HCM Lane V/C Ratio | 0.141 | 0.11 | 0.253 | 0.008 | 0.062 | 0.218 | 0.056 |
| HCM Control Delay, s/veh | 9.3 | 9.2 | 9.8 | 8.8 | 8.6 | 10 | 7.7 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.5 | 0.4 | 1 | 0 | 0.2 | 0.8 | 0.2 |

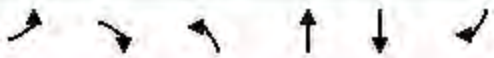
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 233 | 42 | 36 | 40 | 2 |
| Future Vol, veh/h | 6 | 233 | 42 | 36 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 295 | 53 | 46 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 99 | 0 | - | 0 | 386 | 76 |
| Stage 1 | - | - | - | - | 76 | - |
| Stage 2 | - | - | - | - | 310 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1507 | - | - | - | 621 | 991 |
| Stage 1 | - | - | - | - | 952 | - |
| Stage 2 | - | - | - | - | 748 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1507 | - | - | - | 617 | 991 |
| Mov Cap-2 Maneuver | - | - | - | - | 617 | - |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 748 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.19 | 0 | 11.26 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 45 | - | - | - | 629 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.085 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 11.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 239 | 78 | 57 | 5 |
| Future Volume (vph) | 0 | 0 | 239 | 78 | 57 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.990 | |
| Flt Protected | | | | 0.964 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1832 | 1881 | 0 |
| Flt Permitted | | | | 0.964 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1832 | 1881 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 263 | 86 | 63 | 5 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 349 | 68 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 27.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↓ | ↱ | | ↑↓ | ↱ | | ↑↓ | | | ↑↓ | |
| Traffic Vol, veh/h | 13 | 158 | 176 | 1 | 0 | 89 | 0 | 192 | 7 | 21 | 50 | 0 |
| Future Vol, veh/h | 13 | 158 | 176 | 1 | 0 | 89 | 0 | 192 | 7 | 21 | 50 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 182 | 202 | 1 | 0 | 102 | 0 | 221 | 8 | 24 | 57 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 326 | 334 | - | 421 | 330 | 225 | - | 0 | 0 | 229 | 0 | 0 |
| Stage 1 | 106 | 106 | - | 225 | 225 | - | - | - | - | - | - | - |
| Stage 2 | 221 | 229 | - | 197 | 106 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 631 | 589 | 0 | 546 | 592 | 820 | 0 | - | - | 1351 | - | 0 |
| Stage 1 | 905 | 812 | 0 | 782 | 721 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 786 | 719 | 0 | 810 | 812 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 542 | 578 | - | 370 | 581 | 820 | - | - | - | 1351 | - | - |
| Mov Cap-2 Maneuver | 542 | 578 | - | 370 | 581 | - | - | - | - | - | - | - |
| Stage 1 | 888 | 797 | - | 782 | 721 | - | - | - | - | - | - | - |
| Stage 2 | 688 | 719 | - | 614 | 797 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 14.47 | 10.07 | 0 | 2.28 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 575 | - | 370 | 820 | 532 | - |
| HCM Lane V/C Ratio | - | - | 0.342 | - | 0.003 | 0.125 | 0.018 | - |
| HCM Control Delay (s/veh) | - | - | 14.5 | 0 | 14.8 | 10 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | B | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.5 | - | 0 | 0.4 | 0.1 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 18 | 92 | 31 | 17 | 19 | 161 | 4 | 39 | 53 | 110 | 41 | 3 |
| Future Vol, veh/h | 18 | 92 | 31 | 17 | 19 | 161 | 4 | 39 | 53 | 110 | 41 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 20 | 100 | 34 | 18 | 21 | 175 | 4 | 42 | 58 | 120 | 45 | 3 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.2 | 8.9 | 8.5 | 10.7 |
| HCM LOS | A | A | A | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 9% | 0% | 16% | 0% | 47% | 0% | 73% | 0% |
| Vol Thru, % | 91% | 0% | 84% | 0% | 53% | 0% | 27% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 43 | 53 | 110 | 31 | 36 | 161 | 151 | 3 |
| LT Vol | 4 | 0 | 18 | 0 | 17 | 0 | 110 | 0 |
| Through Vol | 39 | 0 | 92 | 0 | 19 | 0 | 41 | 0 |
| RT Vol | 0 | 53 | 0 | 31 | 0 | 161 | 0 | 3 |
| Lane Flow Rate | 47 | 58 | 120 | 34 | 39 | 175 | 164 | 3 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.073 | 0.078 | 0.184 | 0.044 | 0.061 | 0.229 | 0.267 | 0.004 |
| Departure Headway (Hd) | 5.642 | 4.889 | 5.54 | 4.752 | 5.65 | 4.707 | 5.859 | 4.787 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 630 | 725 | 643 | 748 | 631 | 758 | 609 | 740 |
| Service Time | 3.424 | 2.67 | 3.307 | 2.519 | 3.411 | 2.467 | 3.635 | 2.562 |
| HCM Lane V/C Ratio | 0.075 | 0.08 | 0.187 | 0.045 | 0.062 | 0.231 | 0.269 | 0.004 |
| HCM Control Delay, s/veh | 8.9 | 8.1 | 9.6 | 7.7 | 8.8 | 8.9 | 10.8 | 7.6 |
| HCM Lane LOS | A | A | A | A | A | A | B | A |
| HCM 95th-tile Q | 0.2 | 0.3 | 0.7 | 0.1 | 0.2 | 0.9 | 1.1 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 483 | 8 | 20 | 193 | 0 | 39 |
| Future Vol, veh/h | 483 | 8 | 20 | 193 | 0 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 582 | 10 | 24 | 233 | 0 | 47 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 592 | 0 | 867 | 587 |
| Stage 1 | - | - | - | - | 587 | - |
| Stage 2 | - | - | - | - | 281 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 994 | - | 326 | 513 |
| Stage 1 | - | - | - | - | 560 | - |
| Stage 2 | - | - | - | - | 771 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 994 | - | 317 | 513 |
| Mov Cap-2 Maneuver | - | - | - | - | 317 | - |
| Stage 1 | - | - | - | - | 560 | - |
| Stage 2 | - | - | - | - | 750 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.82 | 12.72 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 513 | - | - | 169 | - |
| HCM Lane V/C Ratio | - | 0.092 | - | - | 0.024 | - |
| HCM Control Delay (s/veh) | 0 | 12.7 | - | - | 8.7 | 0 |
| HCM Lane LOS | A | B | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0.3 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 255 | 266 | 65 | 209 | 90 | 0 | 0 | 0 | 151 | 20 | 3 |
| Future Vol, veh/h | 0 | 255 | 266 | 65 | 209 | 90 | 0 | 0 | 0 | 151 | 20 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 290 | 302 | 74 | 238 | 102 | 0 | 0 | 0 | 172 | 23 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 340 | 0 | - | 290 | 0 | 0 | | | 726 | 726 | 289 |
| Stage 1 | - | - | - | - | - | - | | | 436 | 436 | - |
| Stage 2 | - | - | - | - | - | - | | | 290 | 290 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1231 | - | 0 | 1284 | - | - | | | 394 | 353 | 755 |
| Stage 1 | - | - | 0 | - | - | - | | | 656 | 583 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 764 | 676 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1231 | - | - | 1284 | - | - | | | 366 | 0 | 755 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 366 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 656 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 709 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.42 | 25.17 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1231 | - | 303 | - | - | 366 | 755 |
| HCM Lane V/C Ratio | - | - | 0.058 | - | - | 0.531 | 0.005 |
| HCM Control Delay (s/veh) | 0 | - | 8 | 0 | - | 25.4 | 9.8 |
| HCM Lane LOS | A | - | A | A | - | D | A |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - | 3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 405 | 0 | 0 | 214 | 151 | 47 |
| Future Vol, veh/h | 405 | 0 | 0 | 214 | 151 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 488 | 0 | 0 | 258 | 182 | 57 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 746 | 488 |
| Stage 1 | - | - | - | - | 488 | - |
| Stage 2 | - | - | - | - | 258 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 384 | 584 |
| Stage 1 | - | 0 | 0 | - | 621 | - |
| Stage 2 | - | 0 | 0 | - | 790 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 384 | 584 |
| Mov Cap-2 Maneuver | - | - | - | - | 384 | - |
| Stage 1 | - | - | - | - | 621 | - |
| Stage 2 | - | - | - | - | 790 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 19.99 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 384 | 584 | - | - |
| HCM Lane V/C Ratio | 0.474 | 0.097 | - | - |
| HCM Control Delay (s/veh) | 22.5 | 11.8 | - | - |
| HCM Lane LOS | C | B | - | - |
| HCM 95th %tile Q(veh) | 2.5 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 153 | 459 | 148 | 9 | 98 | 90 |
| Future Vol, veh/h | 153 | 459 | 148 | 9 | 98 | 90 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 172 | 516 | 166 | 10 | 110 | 101 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 176 | 0 | - | 0 | 1031 | 171 |
| Stage 1 | - | - | - | - | 171 | - |
| Stage 2 | - | - | - | - | 860 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1412 | - | - | - | 261 | 878 |
| Stage 1 | - | - | - | - | 864 | - |
| Stage 2 | - | - | - | - | 418 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1412 | - | - | - | 216 | 878 |
| Mov Cap-2 Maneuver | - | - | - | - | 216 | - |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 418 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 1.98 | 0 | 24.31 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 450 | - | - | - | 216 | 878 |
| HCM Lane V/C Ratio | 0.122 | - | - | - | 0.51 | 0.115 |
| HCM Control Delay (s/veh) | 7.9 | 0 | - | - | 37.8 | 9.6 |
| HCM Lane LOS | A | A | - | - | E | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 2.6 | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Future Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 394 | 0 | 2 | 87 | 43 | 3 | 3 | 2 | 90 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 130 | 0 | 0 | 394 | 0 | 0 | 541 | 577 | 394 | 536 | 534 | 87 |
| Stage 1 | - | - | - | - | - | - | 443 | 443 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 134 | - | 444 | 443 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1468 | - | - | 1175 | - | - | 455 | 430 | 659 | 458 | 455 | 977 |
| Stage 1 | - | - | - | - | - | - | 598 | 579 | - | 920 | 823 | - |
| Stage 2 | - | - | - | - | - | - | 913 | 789 | - | 597 | 579 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1468 | - | - | 1175 | - | - | 430 | 422 | 659 | 445 | 446 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 430 | 422 | - | 445 | 446 | - |
| Stage 1 | - | - | - | - | - | - | 588 | 570 | - | 918 | 821 | - |
| Stage 2 | - | - | - | - | - | - | 889 | 787 | - | 581 | 570 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.43 | 0.14 | 12.86 | 15.14 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 467 | 1468 | - | - | 46 | - | - | 466 |
| HCM Lane V/C Ratio | 0.02 | 0.016 | - | - | 0.002 | - | - | 0.239 |
| HCM Control Delay (s/veh) | 12.9 | 7.5 | - | - | 8.1 | 0 | - | 15.1 |
| HCM Lane LOS | B | A | - | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 0.9 |

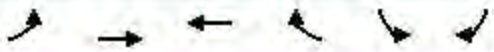
| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 416 | 26 | 8 | 144 | 23 | 13 | 0 | 32 | 46 | 3 | 3 |
| Future Vol, veh/h | 2 | 416 | 26 | 8 | 144 | 23 | 13 | 0 | 32 | 46 | 3 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 438 | 27 | 8 | 152 | 24 | 14 | 0 | 34 | 48 | 3 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 176 | 0 | 0 | 465 | 0 | 0 | 626 | 648 | 452 | 623 | 650 | 164 |
| Stage 1 | - | - | - | - | - | - | 456 | 456 | - | 181 | 181 | - |
| Stage 2 | - | - | - | - | - | - | 170 | 193 | - | 442 | 469 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1413 | - | - | 1107 | - | - | 400 | 392 | 612 | 402 | 391 | 886 |
| Stage 1 | - | - | - | - | - | - | 588 | 572 | - | 826 | 754 | - |
| Stage 2 | - | - | - | - | - | - | 837 | 745 | - | 598 | 564 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1413 | - | - | 1107 | - | - | 391 | 388 | 612 | 376 | 387 | 886 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 391 | 388 | - | 376 | 387 | - |
| Stage 1 | - | - | - | - | - | - | 587 | 571 | - | 819 | 747 | - |
| Stage 2 | - | - | - | - | - | - | 823 | 739 | - | 564 | 563 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.03 | 0.38 | 12.18 | 15.76 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 391 | 612 | 8 | - | - | 80 | - | - | 389 |
| HCM Lane V/C Ratio | 0.035 | 0.055 | 0.001 | - | - | 0.008 | - | - | 0.141 |
| HCM Control Delay (s/veh) | 14.5 | 11.2 | 7.6 | 0 | - | 8.3 | 0 | - | 15.8 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0.5 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 183 | 411 | 229 | 243 | 278 | 38 |
| Future Volume (veh/h) | 183 | 411 | 229 | 243 | 278 | 38 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 203 | 457 | 254 | 270 | 309 | 42 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 260 | 953 | 434 | 751 | 431 | 384 |
| Arrive On Green | 0.14 | 0.50 | 0.23 | 0.23 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 203 | 457 | 254 | 270 | 309 | 42 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.7 | 5.5 | 4.1 | 3.7 | 5.4 | 0.7 |
| Cycle Q Clear(g_c), s | 3.7 | 5.5 | 4.1 | 3.7 | 5.4 | 0.7 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 260 | 953 | 434 | 751 | 431 | 384 |
| V/C Ratio(X) | 0.78 | 0.48 | 0.59 | 0.36 | 0.72 | 0.11 |
| Avail Cap(c_a), veh/h | 340 | 1675 | 1071 | 1291 | 1072 | 954 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.3 | 5.7 | 11.9 | 5.9 | 12.1 | 10.3 |
| Incr Delay (d2), s/veh | 8.4 | 0.4 | 1.3 | 0.3 | 2.2 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.6 | 1.2 | 1.2 | 1.5 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 22.7 | 6.0 | 13.2 | 6.2 | 14.4 | 10.4 |
| LnGrp LOS | C | A | B | A | B | B |
| Approach Vol, veh/h | | 660 | 524 | | 351 | |
| Approach Delay, s/veh | | 11.2 | 9.6 | | 13.9 | |
| Approach LOS | | B | A | | B | |

| Timer - Assigned Phs | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | 21.9 | | 12.7 | 9.5 | 12.4 |
| Change Period (Y+Rc), s | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | 7.5 | | 7.4 | 5.7 | 6.1 |
| Green Ext Time (p_c), s | | | 2.4 | | 0.8 | 0.0 | 1.8 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 11.2 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 48 | 48 | 308 | 35 | 42 | 6 | 238 | 94 | 9 | 2 | 86 | 75 |
| Future Vol, veh/h | 48 | 48 | 308 | 35 | 42 | 6 | 238 | 94 | 9 | 2 | 86 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 52 | 52 | 335 | 38 | 46 | 7 | 259 | 102 | 10 | 2 | 93 | 82 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 781 | 768 | 134 | 748 | 804 | 107 | 175 | 0 | 0 | 112 | 0 | 0 |
| Stage 1 | 139 | 139 | - | 624 | 624 | - | - | - | - | - | - | - |
| Stage 2 | 642 | 629 | - | 124 | 179 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 315 | 332 | 920 | 328 | 317 | 947 | 1414 | - | - | 1478 | - | - |
| Stage 1 | 869 | 782 | - | 473 | 478 | - | - | - | - | - | - | - |
| Stage 2 | 466 | 475 | - | 880 | 751 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 217 | 271 | 920 | 143 | 258 | 947 | 1414 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 217 | 271 | - | 143 | 258 | - | - | - | - | - | - | - |
| Stage 1 | 868 | 781 | - | 386 | 390 | - | - | - | - | - | - | - |
| Stage 2 | 334 | 388 | - | 522 | 750 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 15.83 | 28.38 | 5.66 | 0.09 |
| HCM LOS | C | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1414 | - | - | 241 | 920 | 143 | 284 | 20 | - | - |
| HCM Lane V/C Ratio | 0.183 | - | - | 0.433 | 0.364 | 0.267 | 0.184 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8.1 | - | - | 30.9 | 11.1 | 39.2 | 20.5 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | D | B | E | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.7 | - | - | 2 | 1.7 | 1 | 0.7 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Future Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 121 | 3 | 5 | 57 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 191 | 123 | 0 | 0 | 124 | 0 |
| Stage 1 | 123 | - | - | - | - | - |
| Stage 2 | 68 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 803 | 934 | - | - | 1475 | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 960 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 800 | 934 | - | - | 1475 | - |
| Mov Cap-2 Maneuver | 800 | - | - | - | - | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 956 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.27 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 854 | 153 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 147 | 186 | 0 | 77 | 0 | 0 | 0 | 0 | 54 | 8 | 2 |
| Future Vol, veh/h | 0 | 147 | 186 | 0 | 77 | 0 | 0 | 0 | 0 | 54 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 0 | 104 | 0 | 0 | 0 | 0 | 73 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | | | 303 | 303 | 104 |
| Stage 1 | - | - | - | - | - | - | | | 104 | 104 | - |
| Stage 2 | - | - | - | - | - | - | | | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | | | 693 | 614 | 956 |
| Stage 1 | 0 | - | 0 | - | - | 0 | | | 925 | 813 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | | | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | | | 693 | 0 | 956 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 693 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 925 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 840 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 10.84 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 1386 | - | 693 | 956 |
| HCM Lane V/C Ratio | - | - | - | 0.121 | 0.003 |
| HCM Control Delay (s/veh) | - | 0 | - | 10.9 | 8.8 |
| HCM Lane LOS | - | A | - | B | A |
| HCM 95th %tile Q(veh) | - | 0 | - | 0.4 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 190 | 0 | 0 | 16 | 19 | 62 | 3 | 2 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 190 | 0 | 0 | 16 | 19 | 62 | 3 | 2 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 216 | 0 | 0 | 18 | 22 | 70 | 3 | 2 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 18 | 0 | - | - | - | 0 | 248 | 248 | 216 |
| Stage 1 | - | - | - | - | - | - | 230 | 230 | - |
| Stage 2 | - | - | - | - | - | - | 18 | 18 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1612 | - | 0 | 0 | - | 0 | 745 | 658 | 829 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 813 | 718 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 1010 | 884 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1612 | - | - | - | - | - | 742 | 0 | 829 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 742 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 809 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 1010 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.22 | 0 | 10.36 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 742 | 829 | 55 | - | - |
| HCM Lane V/C Ratio | 0.1 | 0.003 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.4 | 9.4 | 7.2 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.8 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 145 | 4 | 4 | 27 | 0 | 3 | 47 | 10 | 22 | 32 | 9 |
| Future Vol, veh/h | 44 | 145 | 4 | 4 | 27 | 0 | 3 | 47 | 10 | 22 | 32 | 9 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 51 | 167 | 5 | 5 | 31 | 0 | 3 | 54 | 11 | 25 | 37 | 10 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9 | 8 | 8.7 | 8.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 5% | 100% | 0% | 100% | 0% | 41% | 0% |
| Vol Thru, % | 78% | 0% | 97% | 0% | 100% | 59% | 0% |
| Vol Right, % | 17% | 0% | 3% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 60 | 44 | 149 | 4 | 27 | 54 | 9 |
| LT Vol | 3 | 44 | 0 | 4 | 0 | 22 | 0 |
| Through Vol | 47 | 0 | 145 | 0 | 27 | 32 | 0 |
| RT Vol | 10 | 0 | 4 | 0 | 0 | 0 | 9 |
| Lane Flow Rate | 69 | 51 | 171 | 5 | 31 | 62 | 10 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.098 | 0.076 | 0.233 | 0.007 | 0.044 | 0.093 | 0.013 |
| Departure Headway (Hd) | 5.141 | 5.409 | 4.888 | 5.584 | 5.082 | 5.418 | 4.511 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 698 | 664 | 736 | 642 | 705 | 662 | 794 |
| Service Time | 3.165 | 3.127 | 2.607 | 3.31 | 2.807 | 3.141 | 2.234 |
| HCM Lane V/C Ratio | 0.099 | 0.077 | 0.232 | 0.008 | 0.044 | 0.094 | 0.013 |
| HCM Control Delay, s/veh | 8.7 | 8.6 | 9.1 | 8.3 | 8 | 8.7 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.3 | 0.2 | 0.9 | 0 | 0.1 | 0.3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 171 | 35 | 36 | 40 | 2 |
| Future Vol, veh/h | 3 | 171 | 35 | 36 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 4 | 216 | 44 | 46 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 90 | 0 | - | 0 | 291 | 67 |
| Stage 1 | - | - | - | - | 67 | - |
| Stage 2 | - | - | - | - | 224 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1518 | - | - | - | 704 | 1002 |
| Stage 1 | - | - | - | - | 961 | - |
| Stage 2 | - | - | - | - | 818 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1518 | - | - | - | 702 | 1002 |
| Mov Cap-2 Maneuver | - | - | - | - | 702 | - |
| Stage 1 | - | - | - | - | 958 | - |
| Stage 2 | - | - | - | - | 818 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.13 | 0 | 10.46 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 31 | - | - | - | 712 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.075 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 10.5 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 221 | 60 | 33 | 0 |
| Future Volume (vph) | 0 | 0 | 221 | 60 | 33 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | 0.962 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Flt Permitted | | | | 0.962 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1828 | 1900 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 243 | 66 | 36 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 309 | 36 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 25.4% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↓ | ↱ | | ↑↓ | ↱ | | ↑↓ | | | ↑↓ | |
| Traffic Vol, veh/h | 13 | 158 | 173 | 1 | 0 | 72 | 0 | 173 | 7 | 18 | 29 | 0 |
| Future Vol, veh/h | 13 | 158 | 173 | 1 | 0 | 72 | 0 | 173 | 7 | 18 | 29 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 182 | 199 | 1 | 0 | 83 | 0 | 199 | 8 | 21 | 33 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 274 | 282 | - | 368 | 278 | 203 | - | 0 | 0 | 207 | 0 | 0 |
| Stage 1 | 75 | 75 | - | 203 | 203 | - | - | - | - | - | - | - |
| Stage 2 | 199 | 207 | - | 166 | 75 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 683 | 630 | 0 | 592 | 634 | 843 | 0 | - | - | 1376 | - | 0 |
| Stage 1 | 940 | 837 | 0 | 804 | 737 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 808 | 734 | 0 | 841 | 837 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 606 | 621 | - | 414 | 624 | 843 | - | - | - | 1376 | - | - |
| Mov Cap-2 Maneuver | 606 | 621 | - | 414 | 624 | - | - | - | - | - | - | - |
| Stage 1 | 925 | 824 | - | 804 | 737 | - | - | - | - | - | - | - |
| Stage 2 | 728 | 734 | - | 646 | 824 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 13.49 | 9.79 | 0 | 2.93 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 620 | - | 414 | 843 | 689 | - |
| HCM Lane V/C Ratio | - | - | 0.317 | - | 0.003 | 0.098 | 0.015 | - |
| HCM Control Delay (s/veh) | - | - | 13.5 | 0 | 13.7 | 9.7 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | B | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.4 | - | 0 | 0.3 | 0 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.8 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 66 | 10 | 10 | 8 | 159 | 4 | 33 | 19 | 95 | 33 | 2 |
| Future Vol, veh/h | 7 | 66 | 10 | 10 | 8 | 159 | 4 | 33 | 19 | 95 | 33 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 72 | 11 | 11 | 9 | 173 | 4 | 36 | 21 | 103 | 36 | 2 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 8.5 | 8.4 | 8.2 | 9.9 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 11% | 0% | 10% | 0% | 56% | 0% | 74% | 0% |
| Vol Thru, % | 89% | 0% | 90% | 0% | 44% | 0% | 26% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 37 | 19 | 73 | 10 | 18 | 159 | 128 | 2 |
| LT Vol | 4 | 0 | 7 | 0 | 10 | 0 | 95 | 0 |
| Through Vol | 33 | 0 | 66 | 0 | 8 | 0 | 33 | 0 |
| RT Vol | 0 | 19 | 0 | 10 | 0 | 159 | 0 | 2 |
| Lane Flow Rate | 40 | 21 | 79 | 11 | 20 | 173 | 139 | 2 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.06 | 0.026 | 0.116 | 0.014 | 0.029 | 0.213 | 0.216 | 0.003 |
| Departure Headway (Hd) | 5.374 | 4.615 | 5.272 | 4.52 | 5.423 | 4.441 | 5.591 | 4.514 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 665 | 773 | 680 | 791 | 661 | 809 | 641 | 791 |
| Service Time | 3.119 | 2.36 | 3.006 | 2.254 | 3.151 | 2.169 | 3.331 | 2.254 |
| HCM Lane V/C Ratio | 0.06 | 0.027 | 0.116 | 0.014 | 0.03 | 0.214 | 0.217 | 0.003 |
| HCM Control Delay, s/veh | 8.5 | 7.5 | 8.7 | 7.3 | 8.3 | 8.4 | 9.9 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.2 | 0.1 | 0.4 | 0 | 0.1 | 0.8 | 0.8 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 415 | 2 | 7 | 172 | 0 | 5 |
| Future Vol, veh/h | 415 | 2 | 7 | 172 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 500 | 2 | 8 | 207 | 0 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 502 | 0 | 725 | 501 |
| Stage 1 | - | - | - | - | 501 | - |
| Stage 2 | - | - | - | - | 224 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 1072 | - | 395 | 574 |
| Stage 1 | - | - | - | - | 613 | - |
| Stage 2 | - | - | - | - | 818 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1072 | - | 391 | 574 |
| Mov Cap-2 Maneuver | - | - | - | - | 391 | - |
| Stage 1 | - | - | - | - | 613 | - |
| Stage 2 | - | - | - | - | 811 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.33 | 11.34 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 574 | - | - | 70 | - |
| HCM Lane V/C Ratio | - | 0.01 | - | - | 0.008 | - |
| HCM Control Delay (s/veh) | 0 | 11.3 | - | - | 8.4 | 0 |
| HCM Lane LOS | A | B | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0 | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 175 | 245 | 15 | 176 | 73 | 0 | 0 | 0 | 151 | 17 | 3 |
| Future Vol, veh/h | 0 | 175 | 245 | 15 | 176 | 73 | 0 | 0 | 0 | 151 | 17 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 278 | 17 | 200 | 83 | 0 | 0 | 0 | 172 | 19 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 283 | 0 | - | 199 | 0 | 0 | | | 474 | 474 | 241 |
| Stage 1 | - | - | - | - | - | - | | | 276 | 276 | - |
| Stage 2 | - | - | - | - | - | - | | | 199 | 199 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1291 | - | 0 | 1386 | - | - | | | 552 | 492 | 802 |
| Stage 1 | - | - | 0 | - | - | - | | | 776 | 686 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 839 | 740 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1291 | - | - | 1386 | - | - | | | 544 | 0 | 802 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 544 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 776 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 827 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.43 | 15.05 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1291 | - | 97 | - | - | 544 | 802 |
| HCM Lane V/C Ratio | - | - | 0.012 | - | - | 0.351 | 0.004 |
| HCM Control Delay (s/veh) | 0 | - | 7.6 | 0 | - | 15.1 | 9.5 |
| HCM Lane LOS | A | - | A | A | - | C | A |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - | 1.6 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 325 | 0 | 0 | 132 | 133 | 10 |
| Future Vol, veh/h | 325 | 0 | 0 | 132 | 133 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 392 | 0 | 0 | 159 | 160 | 12 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 551 | 392 |
| Stage 1 | - | - | - | - | 392 | - |
| Stage 2 | - | - | - | - | 159 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 499 | 661 |
| Stage 1 | - | 0 | 0 | - | 687 | - |
| Stage 2 | - | 0 | 0 | - | 875 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 499 | 661 |
| Mov Cap-2 Maneuver | - | - | - | - | 499 | - |
| Stage 1 | - | - | - | - | 687 | - |
| Stage 2 | - | - | - | - | 875 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 15.23 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 499 | 661 | - | - |
| HCM Lane V/C Ratio | 0.321 | 0.018 | - | - |
| HCM Control Delay (s/veh) | 15.6 | 10.5 | - | - |
| HCM Lane LOS | C | B | - | - |
| HCM 95th %tile Q(veh) | 1.4 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 42 | 358 | 141 | 6 | 16 | 34 |
| Future Vol, veh/h | 42 | 358 | 141 | 6 | 16 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 47 | 402 | 158 | 7 | 18 | 38 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 165 | 0 | - | 0 | 658 | 162 |
| Stage 1 | - | - | - | - | 162 | - |
| Stage 2 | - | - | - | - | 497 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1425 | - | - | - | 432 | 888 |
| Stage 1 | - | - | - | - | 872 | - |
| Stage 2 | - | - | - | - | 616 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1425 | - | - | - | 414 | 888 |
| Mov Cap-2 Maneuver | - | - | - | - | 414 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 616 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.8 | 0 | 10.79 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 189 | - | - | - | 414 | 888 |
| HCM Lane V/C Ratio | 0.033 | - | - | - | 0.043 | 0.043 |
| HCM Control Delay (s/veh) | 7.6 | 0 | - | - | 14.1 | 9.2 |
| HCM Lane LOS | A | A | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Future Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 28 | 3 | 3 | 2 | 26 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 394 | 0 | 2 | 87 | 32 | 3 | 3 | 2 | 30 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 120 | 0 | 0 | 394 | 0 | 0 | 541 | 567 | 394 | 536 | 534 | 87 |
| Stage 1 | - | - | - | - | - | - | 443 | 443 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 124 | - | 444 | 443 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1481 | - | - | 1175 | - | - | 455 | 436 | 659 | 458 | 455 | 977 |
| Stage 1 | - | - | - | - | - | - | 598 | 579 | - | 920 | 823 | - |
| Stage 2 | - | - | - | - | - | - | 913 | 797 | - | 597 | 579 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1481 | - | - | 1175 | - | - | 430 | 428 | 659 | 445 | 446 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 430 | 428 | - | 445 | 446 | - |
| Stage 1 | - | - | - | - | - | - | 588 | 570 | - | 918 | 821 | - |
| Stage 2 | - | - | - | - | - | - | 889 | 795 | - | 581 | 570 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.43 | 0.15 | 12.81 | 13.16 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 470 | 1481 | - | - | 46 | - | - | 493 |
| HCM Lane V/C Ratio | 0.02 | 0.016 | - | - | 0.002 | - | - | 0.105 |
| HCM Control Delay (s/veh) | 12.8 | 7.5 | - | - | 8.1 | 0 | - | 13.2 |
| HCM Lane LOS | B | A | - | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

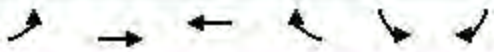
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 365 | 26 | 8 | 133 | 0 | 13 | 0 | 32 | 1 | 3 | 2 |
| Future Vol, veh/h | 2 | 365 | 26 | 8 | 133 | 0 | 13 | 0 | 32 | 1 | 3 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 384 | 27 | 8 | 140 | 0 | 14 | 0 | 34 | 1 | 3 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 140 | 0 | 0 | 412 | 0 | 0 | 561 | 559 | 398 | 545 | 573 | 140 |
| Stage 1 | - | - | - | - | - | - | 402 | 402 | - | 157 | 157 | - |
| Stage 2 | - | - | - | - | - | - | 158 | 157 | - | 388 | 416 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1456 | - | - | 1158 | - | - | 442 | 440 | 656 | 452 | 433 | 913 |
| Stage 1 | - | - | - | - | - | - | 629 | 604 | - | 850 | 772 | - |
| Stage 2 | - | - | - | - | - | - | 849 | 772 | - | 639 | 595 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1456 | - | - | 1158 | - | - | 433 | 436 | 656 | 425 | 428 | 913 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 433 | 436 | - | 425 | 428 | - |
| Stage 1 | - | - | - | - | - | - | 628 | 603 | - | 843 | 766 | - |
| Stage 2 | - | - | - | - | - | - | 836 | 766 | - | 606 | 594 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.04 | 0.46 | 11.59 | 12.01 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 433 | 656 | 9 | - | - | 102 | - | - | 520 |
| HCM Lane V/C Ratio | 0.032 | 0.051 | 0.001 | - | - | 0.007 | - | - | 0.012 |
| HCM Control Delay (s/veh) | 13.6 | 10.8 | 7.5 | 0 | - | 8.1 | 0 | - | 12 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 178 | 322 | 214 | 182 | 238 | 20 |
| Future Volume (veh/h) | 178 | 322 | 214 | 182 | 238 | 20 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 198 | 358 | 238 | 202 | 264 | 22 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 255 | 954 | 420 | 705 | 392 | 349 |
| Arrive On Green | 0.14 | 0.50 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 198 | 358 | 238 | 202 | 264 | 22 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.4 | 3.7 | 3.6 | 2.6 | 4.3 | 0.3 |
| Cycle Q Clear(g_c), s | 3.4 | 3.7 | 3.6 | 2.6 | 4.3 | 0.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 255 | 954 | 420 | 705 | 392 | 349 |
| V/C Ratio(X) | 0.78 | 0.38 | 0.57 | 0.29 | 0.67 | 0.06 |
| Avail Cap(c_a), veh/h | 367 | 1811 | 1158 | 1330 | 1159 | 1031 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 4.9 | 11.1 | 5.8 | 11.5 | 10.0 |
| Incr Delay (d2), s/veh | 6.4 | 0.2 | 1.2 | 0.2 | 2.0 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.2 | 0.9 | 0.7 | 1.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 19.7 | 5.1 | 12.3 | 6.0 | 13.5 | 10.0 |
| LnGrp LOS | B | A | B | A | B | B |
| Approach Vol, veh/h | | 556 | 440 | | 286 | |
| Approach Delay, s/veh | | 10.3 | 9.4 | | 13.2 | |
| Approach LOS | | B | A | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 20.6 | | 11.4 | 9.0 | 11.6 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | | 5.7 | | 6.3 | 5.4 | 5.6 |
| Green Ext Time (p_c), s | | | | 1.8 | | 0.7 | 0.1 | 1.5 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 10.7 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 48 | 9 | 282 | 8 | 10 | 6 | 194 | 94 | 9 | 2 | 86 | 75 |
| Future Vol, veh/h | 48 | 9 | 282 | 8 | 10 | 6 | 194 | 94 | 9 | 2 | 86 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 52 | 10 | 307 | 9 | 11 | 7 | 211 | 102 | 10 | 2 | 93 | 82 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 668 | 672 | 134 | 632 | 708 | 107 | 175 | 0 | 0 | 112 | 0 | 0 |
| Stage 1 | 139 | 139 | - | 529 | 529 | - | - | - | - | - | - | - |
| Stage 2 | 529 | 534 | - | 103 | 179 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 375 | 377 | 920 | 393 | 359 | 947 | 1414 | - | - | 1478 | - | - |
| Stage 1 | 869 | 782 | - | 533 | 527 | - | - | - | - | - | - | - |
| Stage 2 | 537 | 525 | - | 903 | 751 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 306 | 320 | 920 | 217 | 305 | 947 | 1414 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 306 | 320 | - | 217 | 305 | - | - | - | - | - | - | - |
| Stage 1 | 868 | 781 | - | 454 | 449 | - | - | - | - | - | - | - |
| Stage 2 | 442 | 446 | - | 594 | 750 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 12.32 | 16.88 | 5.22 | 0.09 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1414 | - | - | 308 | 920 | 217 | 409 | 20 | - | - |
| HCM Lane V/C Ratio | 0.149 | - | - | 0.201 | 0.333 | 0.04 | 0.042 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 19.6 | 10.9 | 22.3 | 14.2 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0.7 | 1.5 | 0.1 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 224 | 331 | 92 | 83 | 48 | 300 |
| Future Vol, veh/h | 224 | 331 | 92 | 83 | 48 | 300 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 238 | 352 | 98 | 88 | 51 | 319 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 186 | 0 | - | 0 | 927 | 98 |
| Stage 1 | - | - | - | - | 98 | - |
| Stage 2 | - | - | - | - | 829 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1400 | - | - | - | 301 | 964 |
| Stage 1 | - | - | - | - | 931 | - |
| Stage 2 | - | - | - | - | 432 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1400 | - | - | - | 249 | 964 |
| Mov Cap-2 Maneuver | - | - | - | - | 249 | - |
| Stage 1 | - | - | - | - | 773 | - |
| Stage 2 | - | - | - | - | 432 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.27 | 0 | 12.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1400 | - | - | - | 249 | 964 |
| HCM Lane V/C Ratio | 0.17 | - | - | - | 0.205 | 0.331 |
| HCM Control Delay (s/veh) | 8.1 | - | - | - | 23.1 | 10.6 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.7 | 1.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Future Vol, veh/h | 5 | 4 | 91 | 2 | 4 | 43 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 5 | 121 | 3 | 5 | 57 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 191 | 123 | 0 | 0 | 124 | 0 |
| Stage 1 | 123 | - | - | - | - | - |
| Stage 2 | 68 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 803 | 934 | - | - | 1475 | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 960 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 800 | 934 | - | - | 1475 | - |
| Mov Cap-2 Maneuver | 800 | - | - | - | - | - |
| Stage 1 | 908 | - | - | - | - | - |
| Stage 2 | 956 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 9.27 | 0 | 0.63 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 854 | 153 | - |
| HCM Lane V/C Ratio | - | - | 0.014 | 0.004 | - |
| HCM Control Delay (s/veh) | - | - | 9.3 | 7.4 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑ | ↱ | | ↰ | | | | | | ↰ | ↱ |
| Traffic Vol, veh/h | 0 | 147 | 186 | 22 | 77 | 0 | 0 | 0 | 0 | 55 | 8 | 2 |
| Future Vol, veh/h | 0 | 147 | 186 | 22 | 77 | 0 | 0 | 0 | 0 | 55 | 8 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | Stop |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 199 | 251 | 30 | 104 | 0 | 0 | 0 | 0 | 74 | 11 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 199 | 0 | 0 | 362 | 362 | 104 |
| Stage 1 | - | - | - | - | - | - | 164 | 164 | - |
| Stage 2 | - | - | - | - | - | - | 199 | 199 | - |
| Critical Hdwy | - | - | - | 4.1 | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | - | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 | 1386 | - | 0 | 641 | 568 | 956 |
| Stage 1 | 0 | - | 0 | - | - | 0 | 871 | 767 | - |
| Stage 2 | 0 | - | 0 | - | - | 0 | 840 | 740 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | - | - | - | 1386 | - | - | 626 | 0 | 956 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 626 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 871 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 821 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.7 | 11.56 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBT | WBL | WBT | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | 400 | - | 626 | 956 |
| HCM Lane V/C Ratio | - | 0.021 | - | 0.136 | 0.003 |
| HCM Control Delay (s/veh) | - | 7.7 | 0 | 11.6 | 8.8 |
| HCM Lane LOS | - | A | A | B | A |
| HCM 95th %tile Q(veh) | - | 0.1 | - | 0.5 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 191 | 0 | 0 | 38 | 35 | 62 | 3 | 17 | 0 | 0 | 0 |
| Future Vol, veh/h | 6 | 191 | 0 | 0 | 38 | 35 | 62 | 3 | 17 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Free | Free | Free |
| RT Channelized | - | - | None | - | - | Free | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 100 | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 217 | 0 | 0 | 43 | 40 | 70 | 3 | 19 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 43 | 0 | - | - | - | 0 | 274 | 274 | 217 |
| Stage 1 | - | - | - | - | - | - | 231 | 231 | - |
| Stage 2 | - | - | - | - | - | - | 43 | 43 | - |
| Critical Hdwy | 4.1 | - | - | - | - | - | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | - | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1578 | - | 0 | 0 | - | 0 | 720 | 637 | 828 |
| Stage 1 | - | - | 0 | 0 | - | 0 | 812 | 717 | - |
| Stage 2 | - | - | 0 | 0 | - | 0 | 984 | 863 | - |
| Platoon blocked, % | | - | | | - | | | | |
| Mov Cap-1 Maneuver | 1578 | - | - | - | - | - | 716 | 0 | 828 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 716 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 808 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 984 | 0 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.22 | 0 | 10.36 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 716 | 828 | 55 | - | - |
| HCM Lane V/C Ratio | 0.103 | 0.023 | 0.004 | - | - |
| HCM Control Delay (s/veh) | 10.6 | 9.5 | 7.3 | 0 | - |
| HCM Lane LOS | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 59 | 145 | 5 | 4 | 34 | 1 | 7 | 54 | 21 | 76 | 44 | 37 |
| Future Vol, veh/h | 59 | 145 | 5 | 4 | 34 | 1 | 7 | 54 | 21 | 76 | 44 | 37 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 68 | 167 | 6 | 5 | 39 | 1 | 8 | 62 | 24 | 87 | 51 | 43 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.6 | 8.6 | 9.3 | 9.5 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Vol Left, % | 9% | 100% | 0% | 100% | 0% | 63% | 0% |
| Vol Thru, % | 66% | 0% | 97% | 0% | 97% | 37% | 0% |
| Vol Right, % | 26% | 0% | 3% | 0% | 3% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 82 | 59 | 150 | 4 | 35 | 120 | 37 |
| LT Vol | 7 | 59 | 0 | 4 | 0 | 76 | 0 |
| Through Vol | 54 | 0 | 145 | 0 | 34 | 44 | 0 |
| RT Vol | 21 | 0 | 5 | 0 | 1 | 0 | 37 |
| Lane Flow Rate | 94 | 68 | 172 | 5 | 40 | 138 | 43 |
| Geometry Grp | 4b | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.14 | 0.109 | 0.251 | 0.008 | 0.061 | 0.217 | 0.055 |
| Departure Headway (Hd) | 5.335 | 5.777 | 5.25 | 6.005 | 5.48 | 5.66 | 4.638 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 669 | 618 | 681 | 593 | 650 | 633 | 768 |
| Service Time | 3.391 | 3.528 | 3.001 | 3.771 | 3.246 | 3.41 | 2.388 |
| HCM Lane V/C Ratio | 0.141 | 0.11 | 0.253 | 0.008 | 0.062 | 0.218 | 0.056 |
| HCM Control Delay, s/veh | 9.3 | 9.2 | 9.8 | 8.8 | 8.6 | 10 | 7.7 |
| HCM Lane LOS | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.5 | 0.4 | 1 | 0 | 0.2 | 0.8 | 0.2 |

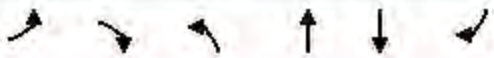
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 233 | 42 | 36 | 40 | 2 |
| Future Vol, veh/h | 6 | 233 | 42 | 36 | 40 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 79 | 79 | 79 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 295 | 53 | 46 | 51 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 99 | 0 | - | 0 | 386 | 76 |
| Stage 1 | - | - | - | - | 76 | - |
| Stage 2 | - | - | - | - | 310 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1507 | - | - | - | 621 | 991 |
| Stage 1 | - | - | - | - | 952 | - |
| Stage 2 | - | - | - | - | 748 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1507 | - | - | - | 617 | 991 |
| Mov Cap-2 Maneuver | - | - | - | - | 617 | - |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 748 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0.19 | 0 | 11.26 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 45 | - | - | - | 629 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.085 |
| HCM Control Delay (s/veh) | 7.4 | 0 | - | - | 11.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 239 | 78 | 57 | 5 |
| Future Volume (vph) | 0 | 0 | 239 | 78 | 57 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.990 | |
| Flt Protected | | | | 0.964 | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1832 | 1881 | 0 |
| Flt Permitted | | | | 0.964 | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1832 | 1881 | 0 |
| Link Speed (mph) | 55 | | | 55 | 55 | |
| Link Distance (ft) | 1723 | | | 1259 | 5268 | |
| Travel Time (s) | 21.4 | | | 15.6 | 65.3 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 0% | 0% | 0% | 0% | 0% | 0% |
| Adj. Flow (vph) | 0 | 0 | 263 | 86 | 63 | 5 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 349 | 68 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 0 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Free | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 27.3% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↑↑ | ↱ | | ↑↑ | ↱ | | ↑↑ | | | ↑↑ | |
| Traffic Vol, veh/h | 13 | 158 | 176 | 1 | 0 | 89 | 0 | 192 | 7 | 21 | 50 | 0 |
| Future Vol, veh/h | 13 | 158 | 176 | 1 | 0 | 89 | 0 | 192 | 7 | 21 | 50 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 300 | - | - | 25 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 182 | 202 | 1 | 0 | 102 | 0 | 221 | 8 | 24 | 57 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 326 | 334 | - | 421 | 330 | 225 | - | 0 | 0 | 229 | 0 | 0 |
| Stage 1 | 106 | 106 | - | 225 | 225 | - | - | - | - | - | - | - |
| Stage 2 | 221 | 229 | - | 197 | 106 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | - | 7.1 | 6.5 | 6.2 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | - | 3.5 | 4 | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 631 | 589 | 0 | 546 | 592 | 820 | 0 | - | - | 1351 | - | 0 |
| Stage 1 | 905 | 812 | 0 | 782 | 721 | - | 0 | - | - | - | - | 0 |
| Stage 2 | 786 | 719 | 0 | 810 | 812 | - | 0 | - | - | - | - | 0 |
| Platoon blocked, % | | | | | | | | - | - | | - | |
| Mov Cap-1 Maneuver | 542 | 578 | - | 370 | 581 | 820 | - | - | - | 1351 | - | - |
| Mov Cap-2 Maneuver | 542 | 578 | - | 370 | 581 | - | - | - | - | - | - | - |
| Stage 1 | 888 | 797 | - | 782 | 721 | - | - | - | - | - | - | - |
| Stage 2 | 688 | 719 | - | 614 | 797 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 14.47 | 10.07 | 0 | 2.28 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 575 | - | 370 | 820 | 532 | - |
| HCM Lane V/C Ratio | - | - | 0.342 | - | 0.003 | 0.125 | 0.018 | - |
| HCM Control Delay (s/veh) | - | - | 14.5 | 0 | 14.8 | 10 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | B | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 1.5 | - | 0 | 0.4 | 0.1 | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 18 | 92 | 31 | 17 | 19 | 161 | 4 | 39 | 53 | 110 | 41 | 3 |
| Future Vol, veh/h | 18 | 92 | 31 | 17 | 19 | 161 | 4 | 39 | 53 | 110 | 41 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 20 | 100 | 34 | 18 | 21 | 175 | 4 | 42 | 58 | 120 | 45 | 3 |
| Number of Lanes | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay, s/veh | 9.2 | 8.9 | 8.5 | 10.7 |
| HCM LOS | A | A | A | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 9% | 0% | 16% | 0% | 47% | 0% | 73% | 0% |
| Vol Thru, % | 91% | 0% | 84% | 0% | 53% | 0% | 27% | 0% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 43 | 53 | 110 | 31 | 36 | 161 | 151 | 3 |
| LT Vol | 4 | 0 | 18 | 0 | 17 | 0 | 110 | 0 |
| Through Vol | 39 | 0 | 92 | 0 | 19 | 0 | 41 | 0 |
| RT Vol | 0 | 53 | 0 | 31 | 0 | 161 | 0 | 3 |
| Lane Flow Rate | 47 | 58 | 120 | 34 | 39 | 175 | 164 | 3 |
| Geometry Grp | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Degree of Util (X) | 0.073 | 0.078 | 0.184 | 0.044 | 0.061 | 0.229 | 0.267 | 0.004 |
| Departure Headway (Hd) | 5.642 | 4.889 | 5.54 | 4.752 | 5.65 | 4.707 | 5.859 | 4.787 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 630 | 725 | 643 | 748 | 631 | 758 | 609 | 740 |
| Service Time | 3.424 | 2.67 | 3.307 | 2.519 | 3.411 | 2.467 | 3.635 | 2.562 |
| HCM Lane V/C Ratio | 0.075 | 0.08 | 0.187 | 0.045 | 0.062 | 0.231 | 0.269 | 0.004 |
| HCM Control Delay, s/veh | 8.9 | 8.1 | 9.6 | 7.7 | 8.8 | 8.9 | 10.8 | 7.6 |
| HCM Lane LOS | A | A | A | A | A | A | B | A |
| HCM 95th-tile Q | 0.2 | 0.3 | 0.7 | 0.1 | 0.2 | 0.9 | 1.1 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 483 | 8 | 20 | 193 | 0 | 39 |
| Future Vol, veh/h | 483 | 8 | 20 | 193 | 0 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 582 | 10 | 24 | 233 | 0 | 47 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 592 | 0 | 867 | 587 |
| Stage 1 | - | - | - | - | 587 | - |
| Stage 2 | - | - | - | - | 281 | - |
| Critical Hdwy | - | - | 4.1 | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | 2.2 | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | - | 994 | - | 326 | 513 |
| Stage 1 | - | - | - | - | 560 | - |
| Stage 2 | - | - | - | - | 771 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 994 | - | 317 | 513 |
| Mov Cap-2 Maneuver | - | - | - | - | 317 | - |
| Stage 1 | - | - | - | - | 560 | - |
| Stage 2 | - | - | - | - | 750 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0.82 | 12.72 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | 513 | - | - | 169 | - |
| HCM Lane V/C Ratio | - | 0.092 | - | - | 0.024 | - |
| HCM Control Delay (s/veh) | 0 | 12.7 | - | - | 8.7 | 0 |
| HCM Lane LOS | A | B | - | - | A | A |
| HCM 95th %tile Q(veh) | - | 0.3 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 255 | 266 | 65 | 209 | 90 | 0 | 0 | 0 | 151 | 20 | 3 |
| Future Vol, veh/h | 0 | 255 | 266 | 65 | 209 | 90 | 0 | 0 | 0 | 151 | 20 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop |
| RT Channelized | - | - | Free | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | - | - | - | - | - | - | 25 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 290 | 302 | 74 | 238 | 102 | 0 | 0 | 0 | 172 | 23 | 3 |

| Major/Minor | Major1 | | | Major2 | | | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 340 | 0 | - | 290 | 0 | 0 | | | 726 | 726 | 289 |
| Stage 1 | - | - | - | - | - | - | | | 436 | 436 | - |
| Stage 2 | - | - | - | - | - | - | | | 290 | 290 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | | | 6.4 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | | | 5.4 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | | | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1231 | - | 0 | 1284 | - | - | | | 394 | 353 | 755 |
| Stage 1 | - | - | 0 | - | - | - | | | 656 | 583 | - |
| Stage 2 | - | - | 0 | - | - | - | | | 764 | 676 | - |
| Platoon blocked, % | | - | | | - | - | | | | | |
| Mov Cap-1 Maneuver | 1231 | - | - | 1284 | - | - | | | 366 | 0 | 755 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | | | 366 | 0 | - |
| Stage 1 | - | - | - | - | - | - | | | 656 | 0 | - |
| Stage 2 | - | - | - | - | - | - | | | 709 | 0 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 1.42 | 25.17 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1231 | - | 303 | - | - | 366 | 755 |
| HCM Lane V/C Ratio | - | - | 0.058 | - | - | 0.531 | 0.005 |
| HCM Control Delay (s/veh) | 0 | - | 8 | 0 | - | 25.4 | 9.8 |
| HCM Lane LOS | A | - | A | A | - | D | A |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - | 3 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 405 | 0 | 0 | 214 | 151 | 47 |
| Future Vol, veh/h | 405 | 0 | 0 | 214 | 151 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 488 | 0 | 0 | 258 | 182 | 57 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | - | - | - | 746 | 488 |
| Stage 1 | - | - | - | - | 488 | - |
| Stage 2 | - | - | - | - | 258 | - |
| Critical Hdwy | - | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | - | 0 | 0 | - | 384 | 584 |
| Stage 1 | - | 0 | 0 | - | 621 | - |
| Stage 2 | - | 0 | 0 | - | 790 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | 384 | 584 |
| Mov Cap-2 Maneuver | - | - | - | - | 384 | - |
| Stage 1 | - | - | - | - | 621 | - |
| Stage 2 | - | - | - | - | 790 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s/v | 0 | 0 | 19.99 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | WBT |
|---|---|---|---|---|
| Capacity (veh/h) | 384 | 584 | - | - |
| HCM Lane V/C Ratio | 0.474 | 0.097 | - | - |
| HCM Control Delay (s/veh) | 22.5 | 11.8 | - | - |
| HCM Lane LOS | C | B | - | - |
| HCM 95th %tile Q(veh) | 2.5 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 153 | 459 | 148 | 9 | 98 | 90 |
| Future Vol, veh/h | 153 | 459 | 148 | 9 | 98 | 90 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | 25 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 172 | 516 | 166 | 10 | 110 | 101 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 176 | 0 | - | 0 | 1031 | 171 |
| Stage 1 | - | - | - | - | 171 | - |
| Stage 2 | - | - | - | - | 860 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1412 | - | - | - | 261 | 878 |
| Stage 1 | - | - | - | - | 864 | - |
| Stage 2 | - | - | - | - | 418 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1412 | - | - | - | 216 | 878 |
| Mov Cap-2 Maneuver | - | - | - | - | 216 | - |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 418 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 1.98 | 0 | 24.31 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 450 | - | - | - | 216 | 878 |
| HCM Lane V/C Ratio | 0.122 | - | - | - | 0.51 | 0.115 |
| HCM Control Delay (s/veh) | 7.9 | 0 | - | - | 37.8 | 9.6 |
| HCM Lane LOS | A | A | - | - | E | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 2.6 | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Future Vol, veh/h | 21 | 343 | 0 | 2 | 76 | 37 | 3 | 3 | 2 | 78 | 11 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | - | - | 150 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 24 | 394 | 0 | 2 | 87 | 43 | 3 | 3 | 2 | 90 | 13 | 9 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 130 | 0 | 0 | 394 | 0 | 0 | 541 | 577 | 394 | 536 | 534 | 87 |
| Stage 1 | - | - | - | - | - | - | 443 | 443 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 134 | - | 444 | 443 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1468 | - | - | 1175 | - | - | 455 | 430 | 659 | 458 | 455 | 977 |
| Stage 1 | - | - | - | - | - | - | 598 | 579 | - | 920 | 823 | - |
| Stage 2 | - | - | - | - | - | - | 913 | 789 | - | 597 | 579 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1468 | - | - | 1175 | - | - | 430 | 422 | 659 | 445 | 446 | 977 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 430 | 422 | - | 445 | 446 | - |
| Stage 1 | - | - | - | - | - | - | 588 | 570 | - | 918 | 821 | - |
| Stage 2 | - | - | - | - | - | - | 889 | 787 | - | 581 | 570 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.43 | 0.14 | 12.86 | 15.14 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 467 | 1468 | - | - | 46 | - | - | 466 |
| HCM Lane V/C Ratio | 0.02 | 0.016 | - | - | 0.002 | - | - | 0.239 |
| HCM Control Delay (s/veh) | 12.9 | 7.5 | - | - | 8.1 | 0 | - | 15.1 |
| HCM Lane LOS | B | A | - | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 0.9 |

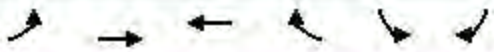
| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↰ | ↱ | | ↕ | |
| Traffic Vol, veh/h | 2 | 416 | 26 | 8 | 144 | 23 | 13 | 0 | 32 | 46 | 3 | 3 |
| Future Vol, veh/h | 2 | 416 | 26 | 8 | 144 | 23 | 13 | 0 | 32 | 46 | 3 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 25 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 438 | 27 | 8 | 152 | 24 | 14 | 0 | 34 | 48 | 3 | 3 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 176 | 0 | 0 | 465 | 0 | 0 | 626 | 648 | 452 | 623 | 650 | 164 |
| Stage 1 | - | - | - | - | - | - | 456 | 456 | - | 181 | 181 | - |
| Stage 2 | - | - | - | - | - | - | 170 | 193 | - | 442 | 469 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1413 | - | - | 1107 | - | - | 400 | 392 | 612 | 402 | 391 | 886 |
| Stage 1 | - | - | - | - | - | - | 588 | 572 | - | 826 | 754 | - |
| Stage 2 | - | - | - | - | - | - | 837 | 745 | - | 598 | 564 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1413 | - | - | 1107 | - | - | 391 | 388 | 612 | 376 | 387 | 886 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 391 | 388 | - | 376 | 387 | - |
| Stage 1 | - | - | - | - | - | - | 587 | 571 | - | 819 | 747 | - |
| Stage 2 | - | - | - | - | - | - | 823 | 739 | - | 564 | 563 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 0.03 | 0.38 | 12.18 | 15.76 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 391 | 612 | 8 | - | - | 80 | - | - | 389 |
| HCM Lane V/C Ratio | 0.035 | 0.055 | 0.001 | - | - | 0.008 | - | - | 0.141 |
| HCM Control Delay (s/veh) | 14.5 | 11.2 | 7.6 | 0 | - | 8.3 | 0 | - | 15.8 |
| HCM Lane LOS | B | B | A | A | - | A | A | - | C |
| HCM 95th %tile Q(veh) | 0.1 | 0.2 | 0 | - | - | 0 | - | - | 0.5 |



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 183 | 411 | 229 | 204 | 248 | 38 |
| Future Volume (veh/h) | 183 | 411 | 229 | 204 | 248 | 38 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 203 | 457 | 254 | 227 | 276 | 42 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 260 | 964 | 434 | 726 | 402 | 358 |
| Arrive On Green | 0.14 | 0.51 | 0.23 | 0.23 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Grp Volume(v), veh/h | 203 | 457 | 254 | 227 | 276 | 42 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1900 | 1610 | 1810 | 1610 |
| Q Serve(g_s), s | 3.6 | 5.2 | 4.0 | 3.0 | 4.7 | 0.7 |
| Cycle Q Clear(g_c), s | 3.6 | 5.2 | 4.0 | 3.0 | 4.7 | 0.7 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 260 | 964 | 434 | 726 | 402 | 358 |
| V/C Ratio(X) | 0.78 | 0.47 | 0.59 | 0.31 | 0.69 | 0.12 |
| Avail Cap(c_a), veh/h | 353 | 1741 | 1113 | 1301 | 1114 | 992 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.7 | 5.3 | 11.4 | 5.8 | 11.9 | 10.3 |
| Incr Delay (d2), s/veh | 7.6 | 0.4 | 1.3 | 0.2 | 2.1 | 0.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.4 | 1.1 | 0.9 | 1.3 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 21.3 | 5.7 | 12.7 | 6.1 | 14.0 | 10.5 |
| LnGrp LOS | C | A | B | A | B | B |
| Approach Vol, veh/h | | 660 | 481 | | 318 | |
| Approach Delay, s/veh | | 10.5 | 9.6 | | 13.5 | |
| Approach LOS | | B | A | | B | |

| Timer - Assigned Phs | | | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | 21.4 | | 11.9 | 9.3 | 12.1 |
| Change Period (Y+Rc), s | | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | 30.5 | | 20.5 | 6.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | | | 7.2 | | 6.7 | 5.6 | 6.0 |
| Green Ext Time (p_c), s | | | 2.4 | | 0.7 | 0.0 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 7th Control Delay, s/veh | 10.8 |
| HCM 7th LOS | B |

**Notes**

User approved changes to right turn type.

| Intersection | |
|---|---|
| Int Delay, s/veh | 8.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 48 | 9 | 282 | 35 | 12 | 6 | 194 | 94 | 9 | 2 | 86 | 75 |
| Future Vol, veh/h | 48 | 9 | 282 | 35 | 12 | 6 | 194 | 94 | 9 | 2 | 86 | 75 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 25 | 0 | - | - | 80 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 |
| Mvmt Flow | 52 | 10 | 307 | 38 | 13 | 7 | 211 | 102 | 10 | 2 | 93 | 82 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 669 | 672 | 134 | 632 | 708 | 107 | 175 | 0 | 0 | 112 | 0 | 0 |
| Stage 1 | 139 | 139 | - | 529 | 529 | - | - | - | - | - | - | - |
| Stage 2 | 530 | 534 | - | 103 | 179 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.52 | 6.2 | 7.12 | 6.52 | 6.22 | 4.1 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4.018 | 3.3 | 3.518 | 4.018 | 3.318 | 2.2 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 374 | 377 | 920 | 393 | 359 | 947 | 1414 | - | - | 1478 | - | - |
| Stage 1 | 869 | 782 | - | 533 | 527 | - | - | - | - | - | - | - |
| Stage 2 | 536 | 525 | - | 903 | 751 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 304 | 320 | 920 | 217 | 305 | 947 | 1414 | - | - | 1478 | - | - |
| Mov Cap-2 Maneuver | 304 | 320 | - | 217 | 305 | - | - | - | - | - | - | - |
| Stage 1 | 868 | 781 | - | 454 | 449 | - | - | - | - | - | - | - |
| Stage 2 | 440 | 446 | - | 594 | 750 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s/v | 12.34 | 21.53 | 5.22 | 0.09 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1414 | - | - | 306 | 920 | 217 | 394 | 20 | - | - |
| HCM Lane V/C Ratio | 0.149 | - | - | 0.202 | 0.333 | 0.175 | 0.05 | 0.001 | - | - |
| HCM Control Delay (s/veh) | 8 | - | - | 19.7 | 10.9 | 25.1 | 14.6 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | D | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0.7 | 1.5 | 0.6 | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 238 | 416 | 129 | 98 | 48 | 300 |
| Future Vol, veh/h | 238 | 416 | 129 | 98 | 48 | 300 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 253 | 443 | 137 | 104 | 51 | 319 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 241 | 0 | - | 0 | 1086 | 137 |
| Stage 1 | - | - | - | - | 137 | - |
| Stage 2 | - | - | - | - | 949 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1337 | - | - | - | 242 | 917 |
| Stage 1 | - | - | - | - | 894 | - |
| Stage 2 | - | - | - | - | 379 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1337 | - | - | - | 196 | 917 |
| Mov Cap-2 Maneuver | - | - | - | - | 196 | - |
| Stage 1 | - | - | - | - | 725 | - |
| Stage 2 | - | - | - | - | 379 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.03 | 0 | 13.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1337 | - | - | - | 196 | 917 |
| HCM Lane V/C Ratio | 0.189 | - | - | - | 0.261 | 0.348 |
| HCM Control Delay (s/veh) | 8.3 | - | - | - | 29.8 | 11 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.7 | - | - | - | 1 | 1.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 268 | 416 | 129 | 98 | 48 | 339 |
| Future Vol, veh/h | 268 | 416 | 129 | 98 | 48 | 339 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 85 | - | - | 225 | 200 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 285 | 443 | 137 | 104 | 51 | 361 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 241 | 0 | - | 0 | 1150 | 137 |
| Stage 1 | - | - | - | - | 137 | - |
| Stage 2 | - | - | - | - | 1013 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1337 | - | - | - | 221 | 917 |
| Stage 1 | - | - | - | - | 894 | - |
| Stage 2 | - | - | - | - | 354 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1337 | - | - | - | 174 | 917 |
| Mov Cap-2 Maneuver | - | - | - | - | 174 | - |
| Stage 1 | - | - | - | - | 704 | - |
| Stage 2 | - | - | - | - | 354 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s/v | 3.3 | 0 | 14.26 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1337 | - | - | - | 174 | 917 |
| HCM Lane V/C Ratio | 0.213 | - | - | - | 0.293 | 0.393 |
| HCM Control Delay (s/veh) | 8.4 | - | - | - | 34.1 | 11.5 |
| HCM Lane LOS | A | - | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - | 1.2 | 1.9 |

Appendix L

# Tjaarda Dairy Preliminary Closure Plan

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# Preliminary Closure Plan

# Tjaarda Dairy

**AUGUST 2025**

*Prepared for:*

**29SC 8ME LLC**

*Prepared by:*

DUDEK

4900 California Avenue, Tower B, 2nd Floor
Bakersfield, California 93309
*Contact: Ronelle Candia*

# Table of Contents

**SECTION** **PAGE NO.**

Acronyms and Abbreviations ..... iii

1 Executive Summary ..... 1

2 Introduction ..... 2
2.1 Purpose ..... 2
2.2 Preliminary Closure Plan Contents ..... 2

3 Site Description ..... 3
3.1 Regional Context ..... 3

4 Regulatory Framework ..... 4
4.1 Regulatory Setting ..... 4
4.1.1 Central Valley Regional Water Quality Control Board ..... 4
4.1.2 San Joaquin Valley Air Pollution Control District ..... 5
4.1.3 Kern County ..... 5

5 Closure Plan ..... 6

6 Timeline ..... 7
6.1 Facility Closure ..... 7
6.1.1 Cattle Removal ..... 7
6.1.2 Waste Ponds/Lagoons/Corrals ..... 7
6.1.3 Hazardous Waste ..... 7
6.1.4 Structure Demolition ..... 8
6.1.5 Tanks and Process Equipment ..... 9
6.2 Regulatory Closure ..... 9
6.2.1 CVRWQCB ..... 9
6.2.2 SJVAPCD ..... 10
6.2.3 Certified Unified Program Agency ..... 10

7 References ..... 11

## TABLES

1 Approximate Closure Timeline ..... 1
2 Regulatory Permit Summary ..... 4

## FIGURE

1 Tjaarda Dairy Features ..... 12

## ATTACHMENTS

A Nearby Composting Facilities

B Dairy Closure Plan

# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| CalEPA | California Environmental Protection Agency |
| CVRWQCB | Central Valley Regional Water Quality Control Board |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |
| WDR | Waste Discharge Requirement |

# 1 Executive Summary

Dudek has prepared this Preliminary Closure Plan (plan) for the Tjaarda Dairy (Dairy) on behalf of 29SC 8me LLC. The Dairy is located at 19211 Magnolia Avenue in an unincorporated portion of Kern County (County) near the City of Shafter, California. This plan was prepared to outline the procedures and timelines associated with the regulatory closure of the Dairy to allow for the permitting and construction of a renewable energy project, Buttonbush Solar and Storage Project (project), in the area. Table 1 shows the tasks necessary to achieve closure, the section of the plan where the task is discussed, and the estimated timeline.

**Table 1. Approximate Closure Timeline**

| Task | Estimated Time to Complete (Months) | Months (Timeline) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Agency Notification, Permitting, and Coordination (Section 5) | 1 | | | | | | | | | | | | |
| Cattle Removal (Section 6.1.1) | 1–2 | | | | | | | | | | | | |
| Waste Ponds/Lagoons/Corrals (Section 6.1.2) | 2–9 | | | | | | | | | | | | |
| Hazardous Waste (Section 6.1.3) | 2–3 | | | | | | | | | | | | |
| Structure Demolition (Section 6.1.4) | 3–5 | | | | | | | | | | | | |
| Tanks and Process Equipment (Section 6.1.5) | 3 | | | | | | | | | | | | |
| Regulatory Agency Closure (Section 6.2) | 2 | | | | | | | | | | | | |

# 2 Introduction

The project, as proposed by 29SC 8me LLC (project proponent), would be located on 128 parcels across a leased area of approximately 11,983 acres (project site) within a 13,868-acre gross parcel boundary of privately owned land in unincorporated Kern County, California. The solar facility and associated infrastructure would enable the generation of up to 2 gigawatts of renewable electrical energy and a 2-gigawatt Battery Energy Storage System capable of storing approximately 16,000 megawatt-hours or 16 gigawatt-hours of energy. Clean air and water are important to the residents of the County. Solar is a clean, renewable energy that provides power for clean air and water facilities for County residents. It is estimated that the project will provide local residents with 800 jobs per day and up to 1,334 jobs during peak construction periods of the proposed project. In order to construct the project on the property within Site 6, Conditional Use Permit 78, removal of the Dairy (which is located in a small portion of the project site) will be necessary.

The Dairy is at 19211 Magnolia Avenue on the project site (Figure 1, Tjaarda Dairy Features). This plan describes the initial steps, the regulatory framework, the approach to removal, and the estimated timeline associated with the full decommissioning of facilities and equipment associated with Dairy operations.

## 2.1 Purpose

The purpose of this plan is to address the activities associated with the removal and closure of the Dairy. Understanding the steps and the timeline for the closure is important to sequencing. This plan outlines the process and regulatory framework necessary to facilitate the proper decommissioning and closure of the Dairy in order to construct the proposed project.

## 2.2 Preliminary Closure Plan Contents

This plan consists of the following:

1. A description of the site history
2. A brief description of the regulatory framework
3. A discussion of the anticipated steps for closure
4. An estimated timeline

# 3 Site Description

The Dairy, at 19211 Magnolia Avenue, is located in an unincorporated portion of Kern County near the City of Shafter, California (Figure 1). The Dairy is an active 10,000-square-foot milking facility that has been operating since 1999. Background information about the Dairy was obtained from the Dairy owner/operator, as well as from a Phase I Environmental Site Assessment (Dudek 2023).

The Dairy property contains several agricultural water supply wells, a milking facility, several cattle corrals, a feed area, and cattle waste management areas. The waste management areas include four settling ponds and a holding lagoon. Liquid and solid waste from the feed corral lanes are separated in the settling ponds, which results in the removal of approximately 80% to 90% of the solids. The liquid waste is then directed into the lagoon for holding and the eventual irrigation of feed crops. The liquid waste may be applied directly to fields but is usually mixed with well water prior to application. The lagoon is approximately 20 feet deep and contains a liner that was constructed using a compacted clay layer (about 1 foot to 2 feet thick) to maintain minimal hydraulic conductivity. Water levels inside the lagoon are managed by pumping out to apply to fields during appropriate crop/seasonal windows.

Corrals are typically cleaned out twice per year. The manure is stockpiled and is eventually either (1) applied to adjacent fields and cropland for nutrient recycling or (2) composted on site and distributed to other farmers in the region. Manure for composting is laid out in windrows and allowed to compost in the open for approximately 60 to 90 days before it is transported off site. Uncomposted manure is generally applied to fields twice per year, in April and August/September, as site preparation before sowing of a new crop, such as winter wheat or corn. Compost distributed to neighboring farmers is tracked through a waste tracking manifest (manure manifest); however, raw waste (uncomposted manure) is not sold.

## 3.1 Regional Context

The dairy industry is an important part of California's historical agricultural economy. The California State Water Resources Control Board's Draft Revised Dairy General Order WQ 2024-00xx states that "Dairy cows in the Central Valley excrete approximately one pound of nitrogen and 1.29 pounds of inorganic salts per cow per day. Thus, a 1,000-cow dairy generates approximately 365,000 pounds of nitrogen and 470,000 pounds of inorganic salts per year" (SWRCB 2024). Nitrate is the most common chemical contaminant in the world's groundwater aquifers. Nitrate is produced in the atmosphere from nitrogen and occurs naturally in groundwater at concentrations typically below 2 milligrams per liter as N (SWRCB 2017). As results of a Kern County Subbasin study on groundwater quality indicated, high and moderate concentrations of nitrogen generally occur as a result of human activities, such as applying fertilizer to crops. Livestock, when in concentrated numbers, also produce nitrogenous waste that can leach into groundwater (USGS 2011).

The California Energy Commission's Renewables Portfolio Standard under Senate Bill 350 (2015) requires that 50% of all electricity sold in the state be generated from renewable energy sources by 2030. Senate Bill 100 was approved in September 2018 and would increase the Renewables Portfolio Standard to a 100% goal by 2045.

# 4 Regulatory Framework

## 4.1 Regulatory Setting

As detailed in Table 2, operations at the Dairy are governed by the Central Valley Regional Water Quality Control Board (CVRWQCB), the San Joaquin Valley Air Pollution Control District (SJVAPCD), and the County. A list of permits associated with the Dairy is presented in Table 2.

**Table 2. Regulatory Permit Summary**

| Regulatory Agency | Regulatory Program/Permit | Contact Information/Contact Agency | Facility ID |
|---|---|---|---|
| Central Valley Regional Water Quality Control Board[1] | Animal Wastewater Discharger; R5-2013-0122 | **Site Inspector:**<br>Brian Hitz<br>Engineering Geologist<br>559.445.5170<br>Brian.Hitz@Waterboards.ca.gov<br>**Permitting Advisor:**<br>Balraj Tammali<br>Confined Animals Facilities Unit<br>559.445.5568<br>Balraj.Tammali@waterboards.ca.gov | WDID:<br>5D155080001 |
| San Joaquin Valley Air Pollution Control District[2] | S-5060-1-2<br>S-5060-2-2<br>S-5060-3-2<br>S-5060-4-2<br>S-5060-8-0<br>S-5060-9-0<br>S-5060-10-1<br>S-5060-19-0<br>S-5060-20-0 | Entor Pineda<br>Air Quality Engineer<br>661.392.5617<br>Entor.Pineda@valleyair.org | Facility ID:<br>S-5060 |
| Kern County Environmental Health | Chemical Storage Facility[3] | Certified Unified Program Agency (CUPA)[4] | CalEPA ID:<br>CAL000269661 |
| | Hazardous Waste Generator[5] | CUPA<br>California Department of Toxic Substances Control | CalEPA ID:<br>CAL000269661 |
| | Aboveground Petroleum Storage | CUPA<br>California Environmental Protection Agency | CalEPA ID:<br>CAL000269661 |

**Notes:** WDID = Wastewater Discharger Identification; CalEPA = California Environmental Protection Agency.
1 CIWQS 2025.
2 SJVAPCD 2025.
3 CalEPA 2025.
4 KCPH 2025.
5 DTSC 2025.

### 4.1.1 Central Valley Regional Water Quality Control Board

Currently, the facility is regulated by CVRWQCB under Order R5-2013-0122 as an Animal Waste Discharger (CVRWQCB 2013). This order requires the development of a Nutrient Management Plan if manure is applied to land

areas, and a Waste Management Plan is required for the cattle production area. In addition to these plans, off-site exports of manure or process wastewater requires a Manure/Process Wastewater Tracking Manifest that includes information on the manure hauler, destination of the manure, dates hauled, amount hauled, and certification.

### 4.1.2 San Joaquin Valley Air Pollution Control District

SJVAPCD's goals are to improve public health and reduce criteria pollutant emissions. SJVAPCD regulates the emissions from Dairy operations from a number of activities performed on site. As a member of SJVAPCD, the Dairy holds nine active permits for various operations on site, as follows:

- S-5060-1-2: Cow Milking Operation
- S-5060-2-2: Cow Housing and Open Corrals with a Scrape/Flush System
- S-5060-3-2: Liquid Manure Handling System Consisting of Settling Basin(s) and one Storage Pond; Manure Is Land Applied Through Flood and Sprinkler Irrigation
- S-5060-4-2: Solid Manure Handling Consisting of Manure Stockpiles; Solid Manure Application to Land and/or Hauled Offsite
- S-5060-8-0: 400 BHP Detroit Model 12V71T Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator
- S-5060-9-0: Agricultural Gasoline Dispensing Operation
- S-5060-10-1: Feed Storage and Handling Consisting of Commodity Barn(s) and Silage Pile(s)
- S-5060-19-0: 150 BHP Caterpillar Model C4.4 Tier 4F Diesel IC Engine/Booster Pump
- S-5060-20-0: 320 BHP Cummins Model QSL9 Tier 4f Diesel IC Engine/Pump

### 4.1.3 Kern County

#### 4.1.3.1 Certified Unified Program Agency

The site is listed under the Certified Unified Program Agency as a Chemical Storage Facility, Hazardous Waste Generator, and Aboveground Petroleum Storage holder under the oversight of Kern County Public Health (KPHD 2025). Because the site is listed as a Hazardous Waste Generator, the Dairy operator is required to maintain and implement a Hazardous Waste Business Plan. The County has regulatory oversight of the Dairy as part of the Milk Inspector Program.

The selected construction contractors will be responsible for ensuring that the Dairy decommissioning is carried out in accordance with all federal, state, and local regulations.

#### 4.1.3.2 Planning and Natural Resources Department

The County Planning and Natural Resources Department acts as an overseeing agency for the issuance of building and grading permits for the project once the California Environmental Quality Act process has been completed. This plan may be updated if required. Prior to the issuance of building or grading permits for the proposed project within the removal footprint of the Dairy, the project proponent will provide documentation to the Planning and Natural Resources Department of the Dairy's decommissioning compliance.

# 5 Closure Plan

To achieve full closure, all active permits for the Dairy will need to be closed and the site must be restored to pre-operation conditions. The process to decommission and close a dairy in California generally begins with a formal notification to all regulatory oversight agencies of the intent to cease dairy operations. The notification process and reporting is specific to each oversight agency. Closure requirements vary by agency but generally include the submittal of a proposed schedule for closure (this includes a statement of intent to remove all cattle, waste management systems, lagoons, ponds, corrals, processing equipment, and manure storage areas) and a request to terminate all existing permits.

The Dairy will continue to comply with its existing permits until full closure, including, but not limited to, the facility's Waste Discharge Requirements (WDRs), CVRWQCB Regulations for Confined Animal Facility (17 CCR 22560), General Order for Confined Animal Facilities Reissued WDR General Order for Existing Milk Cow Dairies (Order No. R5-2013-0122), WDR Program for Dairy Manure Digester and Co-Digester Facilities (Order No. R5-2010-0116), and SJVAPCD and Certified Unified Program Agency requirements. These closure requirements follow the provisions of the State Antidegradation Policy (State Water Resources Control Board Resolution No. 68-16). This process helps ensure the protection of California's water resources during and after the cessation of dairy operations.

Once a closure plan is approved, implementation must be conducted according to the approved timeline and specifications. Dairy operators must maintain documentation of waste removal, transport, and disposal, and submit periodic progress updates to the per agency requests. After closure activities are complete, the dairy operator will submit a final plan to the required regulatory agencies. Most regulatory agencies require a final inspection and submission of supporting documentation, such as a form or report including, but not limited to, photographs, waste manifests, and sampling results. If approved, a notice of closure and a permit termination letter from each agency will be sent; only then can the dairy be considered officially decommissioned from a regulatory standpoint.

The preliminary process for closure of the Dairy is outlined below:

1. Notification to all overseeing regulatory agencies of intention to cease operations.
2. Develop and submit a closure plan per each overseeing agency's closure requirements.
3. Implement closure plan and return the site to pre-operating conditions, while adhering to all federal, state, and local regulations.
4. Submit required closure documentation to each regulatory agency and prepare for final closure inspections.
5. Close out all permits with each agency's guidance.
6. Obtain formal recission and termination letters.

# 6 Timeline

Sections 6.1 and 6.2 present the various components of the closure process as well as estimated timelines. Preparatory activities will include regulatory agency coordination, permitting (as necessary), and subcontractor coordination. Site decommissioning may take 1 year or longer because multiple agencies will be involved and various phases of work will be required. In general, the site decommissioning activities include animal removal, waste removal, demolition and removal of buildings, and equipment and tank removal. Although multiple decommissioning activities may be performed concurrently, factors such as regulatory agency turnaround times and contractor availability may result in timeline alterations. The total process is estimated at 6 to 12 months.

## 6.1 Facility Closure

### 6.1.1 Cattle Removal

To begin the process of decommissioning, the cattle must be removed. The facility currently maintains approximately 3,300 head of cattle. The cattle will be removed from the facility via truck. It is anticipated that the cattle will be removed from the facility and either sold or relocated to another dairy. After the cattle are removed, decommissioning of the Dairy will begin.

**Estimated Time to Complete:** 30 to 60 days

### 6.1.2 Waste Ponds/Lagoons/Corrals

Waste ponds and lagoons will need to be removed per the requirements of order R5-2013-0122. To begin removal, a contractor will pump out and remove the accumulated solids from the bottom. The lagoon has never been fully pumped and is anticipated to have a large volume of accumulated solids. The remaining solid “mud” (compost/manure) in the waste ponds, lagoons, and corrals will be scraped from bottom and stockpiled on site. The stockpiled mud will be used in accordance with the Nutrient Management Plan and spread on applicable fields and crop land at the appropriate time. It is estimated that the mud will be stockpiled until crop harvest is completed and then will be spread on adjacent fields before the planting of a new crop—for example, in April or August/September. It is anticipated that the remaining mud will only be spread once to expedite closure from CVRWQCB. It is estimated that about 1 million gallons of waste will be generated for disposal. Any remaining mud will be used on applicable crops or sold to local companies. Alternatively, the waste may be trucked to a composting facility that can accept animal waste (see Attachment A, Nearby Composting Facilities, for a list of potential composting facilities in the area).

**Estimated Time to Complete:** 2 to 9 months

### 6.1.3 Hazardous Waste

The site is listed as a Chemical Storage Facility that stores hazardous chemicals. The site is also listed as a Hazardous Waste Generator that generates either federally or state-regulated hazardous waste. Prior to the decommissioning of the structures, a Hazardous Waste Inventory and Building Survey will need to be conducted to ensure proper characterization and disposal of all hazardous waste. The Hazardous Waste Inventory and Building

Survey is anticipated to take approximately 2 days to complete, followed by reporting 2 weeks later. Hazardous waste, if present, would likely be removed and transported off site for proper disposal within 45 days.

**Estimated Time to Complete:** 2 to 3 months

### 6.1.4 Structure Demolition

Structures on the site include, but are not limited to, shade structures, a milking barn, production equipment, a cattle hoof wash, a feed area, and several small outbuildings.

Asbestos has been specifically designated a hazardous substance pursuant to Comprehensive Environmental Response, Compensation, and Liability Act Section 102 (42 USC 9602), but abatement costs are generally not recoverable under the Act. Many building materials commonly contained asbestos until the late 1970s, and a smaller list of building materials contained asbestos in the 1980s, such as drywall, joint compounds, vinyl flooring, roofing, asbestos-cement products, and stucco. Under the Toxic Substances Control Act, the U.S. Environmental Protection Agency banned the use of asbestos in many products, with partial bans occurring in 1989 and 1993. However, a full ban of asbestos products did not occur until 2019. Therefore, if a building was constructed prior to 1989, there is a likely chance it contains asbestos. If it was constructed between 1989 and 2019, asbestos is less likely to be present, but there is still a chance that asbestos was used.

Paint manufacturers frequently used lead as a primary paint ingredient through the 1940s, and gradually decreased its use in the 1950s and 1960s. The federal Department of Housing and Urban Development estimates that 75% of homes built in the United States before 1978 contain some lead-based paint (HUD 1996). The Consumer Product Safety Commission prohibited the use of lead-based paints in residential buildings in 1978 (EPA 2023), but the use of lead-based paints in commercial and industrial buildings is not prohibited. California Code of Regulations Title 17, Section 35043 defines presumed lead-based paint as “paint or surface coating affixed to a component in or on a structure, excluding paint or surface coating affixed to a … residential dwelling constructed on or after January 1, 1979, or a school constructed on or after January 1, 1993.” Commercial, industrial, and military structures may have lead-based paint in surface coatings, regardless of construction date.

There are twenty 20 by 1,000–foot shade structures consisting of shallow foundations with standing steel supports and a lightweight roofing system designed to blow off in high winds rather than potentially pulling up the foundations. The milking barn contains production equipment that could potentially be sold prior to dismantling the milking barn structure. The milking barn equipment will be assessed and inventoried at the start of Dairy closure. The milking barn structure contains limited insulation due to the high temperatures in the area; with limited insulation there is a low asbestos risk. The construction is a typical cinder-block or concrete structure and may have plastic liners on the base flooring. The cattle hoof wash and the feed areas contain minimal structures that would pose no risk during their removal.

It is anticipated that above- and belowground removal and disposal of the shade structures can be completed by the property owner and will take up to 1 month. Prior to any demolition activities, a hazardous materials building survey shall be conducted to evaluate the potential for lead-based paint and asbestos-containing building materials. Contractors will be used for the assessment and inventory and the dismantling of the structures. It is anticipated to take 1 month to dismantle the milking barn and production equipment. The small structures within the cattle hoof wash and feed areas are anticipated to be removed simultaneously with the removal of the shade structures, milking barn, and production equipment.

**Estimated Time to Complete:** 3 to 8 months

### 6.1.5 Tanks and Process Equipment

The facility includes tanks and process equipment that hold/handle hazardous and non-hazardous materials. Decommissioning processes will be different depending on the oversight agency and tank contents. According to the California Environmental Protection Agency (CalEPA) Regulated Site Portal, the site is regulated under the Aboveground Petroleum Storage Act for diesel storage tanks (CalEPA 2025); tanks with hazardous materials will need to be properly decommissioned in accordance with the California Fire Code; the California Code of Regulations Title 22, Chapter 32, Management of Tanks; and Title 40 of the Code of Federal Regulations, Part 112. A 'permanently closed' container, as defined in Title 40 of the Code of Federal Regulations, Section 112.2, means: "(1) All liquid and sludge has been removed from each container and connecting line; and (2) All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure." After the tanks have been permanently closed, the removal of the tanks will begin.

It is anticipated that formal closure of the tanks will take about 2 months, and the dismantling and removal of the tanks can be done in 1 month. This, however, is largely dependent on regulatory agency permitting and inspection turnaround times.

**Estimated Time to Complete:** 3 months

## 6.2 Regulatory Closure

The following sections describe the agency-specific processes required to cease operations and close the facility.

### 6.2.1 CVRWQCB

The regulatory process to decommission a dairy within CVRWQCB's jurisdiction begins with formally notifying CVRWQCB of the intention to cease dairy operations. The attached form should be filled in and should include the proposed schedule for closure and a description of the existing facility, including all waste management systems, lagoons, corals, and manure storage areas (Attachment B, Dairy Closure Plan). The Dairy operator must continue to comply with their existing permits, including but not limited to the facility's WDR, CVRWQCB Regulations for Confined Animal Facility (17 CCR 22560), General Order for Confined Animal Facilities, Reissued WDR General Order for Existing Milk Cow Dairies Order No. R5-2013-0122, and the WDR Program for Dairy Manure Digester and Co-Digester Facilities (Order No. R5-2010-0116), until CVRWQCB determines that the facility no longer poses a potential risk to water quality.

Following formal notification to CVRWQCB, an initial inspection will occur prior to the start of decommissioning. The inspection will ensure that decommissioning has not begun and will document the necessary cleanup areas. In accordance with Reissued WDR General Order R5-2013-0122 Existing Milk Cow Dairies, Section G: Provisions, No. 11, the Dairy operator will develop and submit a final Facility Closure Plan to CVRWQCB in compliance with the regulation mandates. This Facility Closure Plan will detail how all cattle, manure, process wastewater, and potentially impacted soils will be managed, removed, or treated to prevent discharge to surface water or groundwater. The Facility Closure Plan must also address the decommissioning of waste handling systems like lagoons and sumps, ensuring that any residual waste is removed and properly disposed of or beneficially reused.

The Facility Closure Plan is subject to CVRWQCB review and approval, and in some cases, site-specific monitoring or additional studies (such as soil and groundwater sampling) may be required.

After all waste has been removed, a final inspection from CVRWQCB will occur and closure status will be determined. If approved, a recission letter for the order will be sent to the Dairy owner.

### 6.2.2 SJVAPCD

Air quality permit compliance will need to be met during the entire decommissioning process. Per communications with air quality engineer Entor Pineda, there are no special requirements for the decommissioning of a dairy facility; facilities with active SJVAPCD permits require the owner to submit a cancellation request (Pineda, pers. comm., 2025).

### 6.2.3 Certified Unified Program Agency

A Certified Unified Program Agency is a local agency certified by CalEPA to implement and enforce six state hazardous waste and hazardous materials regulatory management programs. Currently the Dairy is regulated by three of the CalEPA regulatory management programs: the Aboveground Petroleum Storage Act, the Chemical Storage Facility regulations, and Hazardous Waste Generator regulations. In order to achieve closure, all hazardous waste generation must cease, hazardous waste must be removed from the site for proper disposal, and all required regulatory timelines must be met. Under the Aboveground Petroleum Storage Act, all storage must be removed and/or properly abandoned in place before termination of the permit.

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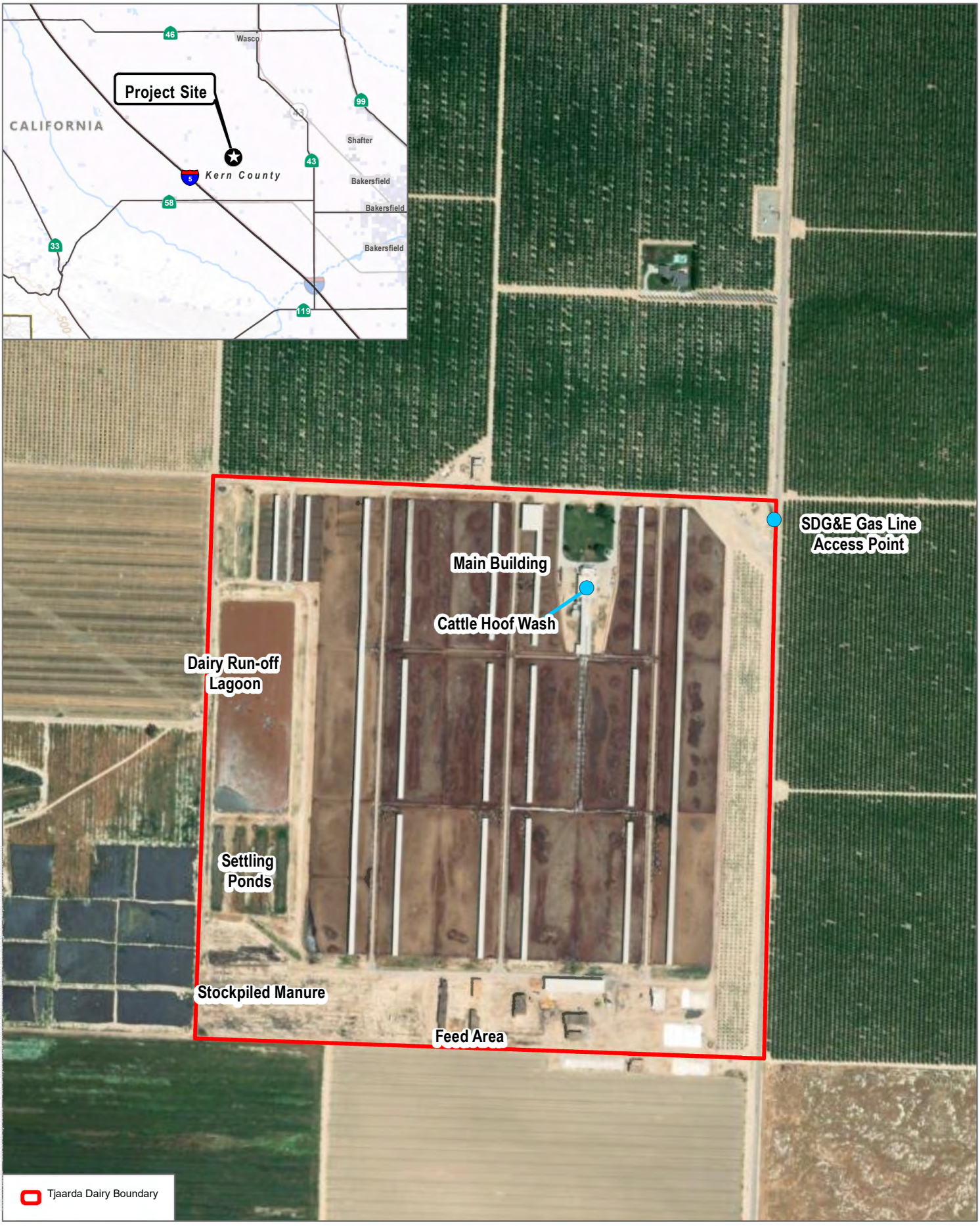
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SOURCE: ESRI Imagery

DUDEK

0 250 500 Feet

**FIGURE 1**

Tjaarda Dairy Features

Phase I ESA Buttonbush Energy Project

# Attachment A

Nearby Composting Facilities

# 1 Introduction

The closure of the Tjaarda Dairy may necessitate the off-site removal of manure to ensure proper disposal and environmental compliance. As outlined in Section 2, there are three nearby composting facilities that could serve as viable options for manure transport and processing:

- R&M Farm Service, Inc.
- Shafter-Wasco Landfill, which is scheduled to open a green material composting facility in fall 2025
- South Kern Industrial Center
- Liberty Composting

Figure 1, Nearby Composting Facilities, illustrates the geographic relationship between these facilities and the Tjaarda Dairy site, providing context for potential cleanup logistics.

# 2 Permitted Compost Facilities

## R&M Farm Service, Inc

**Facility Address:** 6041 Brandt Road, Buttonwillow, California 93206
**Distance from Dairy:** Approximately 3.2 miles
**Maximum Permitted Capacity:** 60,000 tons per year (approximately 164 tons per day)
**Accepts Manure:** Yes

## Shafter-Wasco Landfill – Planned and Permitted Green Material Composting Facility

**Facility Address:** 17621 Scofield Avenue, Shafter, California
**Distance from Dairy:** Approximately 6.2 miles
**Maximum Permitted Capacity:** 100,000 tons per year (approximately 273 tons per day)
**Accepts Manure:** Yes

## South Kern Industrial Center, LLC (15-AA-0381)

**Facility Address:** 2653 Santiago Road, Taft, California
**Distance from Dairy:** Approximately 33.4 miles
**Maximum Permitted Throughput**: 5,700 tons per day
**Maximum Capacity:** 670,000
**Accepts Manure:** Yes

## Liberty Composting (15-AA-0287)

**Facility Address:** 12421 Holloway Road, Lost Hills, California
**Distance from Dairy:** Approximately 35.0 miles
**Maximum Permitted Throughput:** 786,000 tons per year (approximately 3,153 tons per day)

**Maximum Capacity:** 1,310,000 cubic yards
**Accepts Manure:** Yes

# 3 References

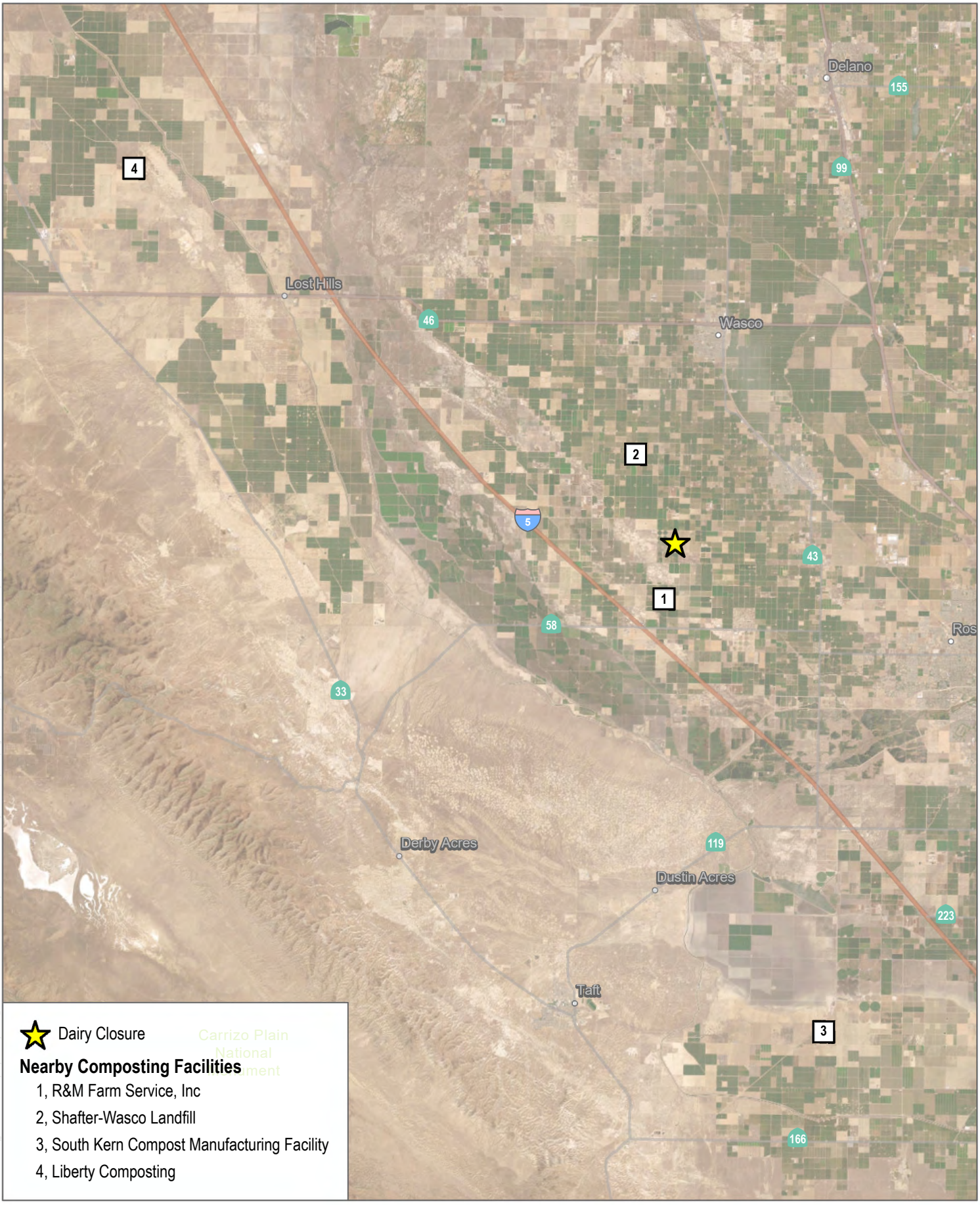
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SOURCE: Maxar 2024; Esri 2025

DUDEK

0 3 6 Miles

**FIGURE 1**

Nearby Composting Facilities

Buttonbush Dairy Closure Plan

# Attachment B

Dairy Closure Plan

**Yana Garcia**
*Secretary for*
*Environmental Protection*

# California Regional Water Quality Control Board
## Central Valley Region
**Nicholas Avdis, Chair**

http://www.waterboards.ca.gov/centralvalley

**Gavin Newsome**
*Governor*

## DAIRY CLOSURE PLAN/POST CLOSURE REPORT
## REISSUED WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR EXISTING MILK COW DAIRIES, ORDER R5-2013-0122 (REISSUED GENERAL ORDER)

Name of Dairy (when last operated): _____

Physical Address of Dairy: _____

Dairy Operator: _____ Property Owner _____

Mailing Address: _____ Mailing Address: _____

_____ _____

**Please indicate the date that all milk cows were removed from the facility and all milking operations at the facility ceased** _____

*Note – Confirmation of the last known milking operations may be secured from the local milk inspection agency*.

| **1. Future Use** - My dairy will (select one): | Complete this column to show which tasks need to be done (this is your Closure Plan) | Complete this column with the date each task was finished (this is your Post-closure Report). |
|---|---|---|
| No longer be a milk cow dairy and will no longer house animals | | |
| No longer be a milk cow dairy but will house animals (specify type and number) | | |

**DAIRY CLOSURE PLAN/POST CLOSURE REPORT**
**REISSUED WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR EXISTING MILK COW DAIRIES, ORDER R5-2013-0122 (REISSUED GENERAL ORDER)**

| | | |
|---|---|---|
| Temporarily cease to be a milk cow dairy. I expect to resume milk cow dairy operations in (specify month and year) | | |
| **2. Corrals** (select one): | | |
| I will continue to keep animals other than mature dairy cows in some or all of my corrals (specify which corrals will remain in use; residual manure at other corrals that will not be used for livestock must removed by scraping to dirt) | Number of corrals to stay in use _____<br><br>Number of corrals to be taken out of use _____ | |
| None of my corrals will be used for animals<br><br>*Note: Residual manure at areas formerly used for livestock corrals must be removed by scraping to dirt* | ☐ (Mark here if all corrals will be taken out of use) | |
| **3. Wastewater Settling Ponds** | | |
| My facility has settling ponds (If yes, say how many. If no, state "none" and go to Question 4) | | |
| I intend to use my settling ponds for livestock wastewater retention and manure settling in the future (state yes or no) | | |
| Any ponds that will remain in use must be maintained in good working condition. Specify what actions you will take as part of the closure process to maintain the settling ponds. | List actions to be taken: | Date actions completed<br><br>_____<br><br>I certify that I have a maintenance plan for the ponds that will stay in use<br><br>_____ (initial here) |

| | | |
|---|---|---|
| **3. Wastewater Settling Ponds** (continued) | | |
| Wastewater ponds that will not be used for wastewater settling or retention in the future must be dried, completely emptied of manure, and scraped to clean soil. Specify when you expect to complete these activities and where the material removed from the pond(s) will go.<br><br>*Note: Vegetation needs to be cleared from wastewater ponds before the closure inspection so that Regional Water Quality Control Board staff can verify the completeness of manure removal efforts.* | I expect to complete the cleanout by<br><br>_____.<br>(date)<br><br>I expect to remove _____ cubic yards<br><br>or _____ tons of material from the ponds.<br><br>I expect to put the removed manure<br><br>_____ . | Date cleanout completed _____.<br><br>Cubic yards removed _____; or<br><br>Tons removed _____..<br><br>Describe where manure was applied and how much (attach separate map showing location(s) where applied). |
| **4. Wastewater Storage Pond(s)** | | |
| My facility has wastewater storage ponds (If yes, say how many. If no, state "none" and go to Question 5) | | |
| I will use my wastewater storage ponds for manure wastewater in the future (state yes or no) | | |
| If yes, ponds must be maintained in good working condition. Specify what actions you will take as part of the closure process to maintain the ponds. | List actions to be taken: | Date actions completed _____<br><br>I certify that I have a maintenance plan for the ponds that will stay in use _____ (initial here) |

| | | |
|---|---|---|
| **4. Wastewater Pond(s)** (continued) | | |
| Wastewater ponds that will not be used for wastewater settling or retention in the future must be dried, completely emptied of manure, and scraped to clean soil. Specify when you expect to complete these activities and where the material removed from the pond(s) will go.<br><br>*Note: Vegetation needs to be cleared from wastewater ponds before the closure inspection so that Regional Water Quality Control Board staff can verify the completeness of manure removal efforts*. | I expect to complete the cleanout by _____.<br><br>I expect to remove _____ cubic yards or _____ tons of material from the ponds.<br><br>I expect to put the removed manure<br><br>_____ . | Date cleanout completed _____.<br><br>Cubic yards removed _____; or Tons removed _____..<br><br>Describe where manure was applied and how much (attach separate map showing location(s) where applied). |
| **5. Manure and Feed Storage Areas:** | | |
| My facility has manure and/or feed storage areas (If yes, say how many of each. If no, state "none" and go to "Certification") | Number of manure storage areas:<br><br>_____<br><br>Number of feed storage areas:<br><br>_____ | |
| I will use my manure or feed storage areas in the future (state yes or no for each area) | Manure storage areas to be used?_____(state yes/no and give the name of any to be used)<br><br>Feed storage areas to be used?_____ (state yes/no and give the name of any to be used) | |

| **5. Manure and Feed Storage Areas:** (continued) | | |
|---|---|---|
| Any manure or feed storage areas that will be kept in use must be maintained in good working condition. Specify what actions you will take as part of the closure process to maintain the manure or feed storage areas. | List actions to be taken: | I certify that I have a maintenance plan for the manure or feed storage areas that will stay in use<br><br>_____ (initial here) |
| If any manure or feed storage areas will not be used, complete this section.<br><br>*Note: Residual manure needs to be removed from former manure storage areas prior to the closure inspection by scraping to dirt.* | I expect to finish the cleanout of the feed and manure storage areas by<br><br>_____.<br><br>I expect to remove _____ cubic yards or _____ tons of material from the manure storage areas.<br><br>I expect to put the removed manure<br><br>_____. | Date manure storage area cleanout completed _____<br><br>Cubic yards removed _____; or Tons removed _____..<br><br>Describe where manure was applied and how much (on a separate sheet of paper).<br><br>I certify that feed storage areas were cleaned out:<br><br>_____(initial here) |

Certification: *"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

For the Closure Plan, owner signs here: _____ _____
(Date)

For the Post-Closure Report, owner signs here:_____ _____
(Date)

Appendix M

# Pacific Gas & Electric Best Management Practices

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# Table of Contents

General BMPs for All VM Activities
BMPs Generales Para Actividades de VM Page 2

Water Quality/Sediment Control BMPs
BMPs Relativas a la Calidad del Agua y al Control de Sedimentos Page 4

Environmental/Biological BMPs
BMPs Relativas al Medio Ambiente y a la Biología Page 6

Fire BMPs
BMPs Relativas a Incendios Page 10

Herbicide BMPs
BMPs Relativas a Herbicidas Page 12

Mechanical Clearing Operations BMPs
BMPs Relativas a Operaciones de Remoción Mecánica Page 14

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**Guidance Document References:**

TD-7102P-01, "Vegetation Management Distribution Inspection"

**Level of Use: Reference**

| ENGLISH | SPANISH |
|---|---|
| During the performance of Vegetation Management (VM) activities the following Best Management Practices (BMPs) must be implemented where practicable. BMPs are considered practicable where physically possible and not conflicting with other regulatory obligations or safety considerations (GO 95 Rule 35 and Public Resource Codes 4292 and 4293) or emergency response situations.<br><br>These BMPs are designed to ensure that PG&E VM activities are performed in an environmentally sensitive manner to minimize environmental impacts. | Durante la ejecución de actividades relativas al Manejo de Vegetación (Vegetation Management, VM, por sus siglas en inglés) las siguientes Mejores Prácticas de Gestión (Best Management Practices, BPM, por sus siglas en inglés) deberán ser implementadas donde sea factible. Las BMPs son consideradas factibles donde resulte físicamente posible realizarlas y donde no exista conflicto con otras regulaciones o consideraciones relativas a la seguridad (GO 95 Rule 35 and Public Resource Codes 4292 and 4293) o con situaciones de respuesta a emergencias.<br><br>Estas BMPs están diseñadas para asegurar que las actividades de manejo de vegetación por parte de PG&E sean ejecutadas respetando el medio ambiente de manera de minimizar el impacto ambiental. |

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| General BMPs for All VM Activities<br>BMPs Generales Para Actividades de VM | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 1 | VM employees and contractors must conduct ongoing training of environmental laws and procedures. VM employees and Contractors performing vegetation management activities must comply with these laws and procedures to minimize or avoid effects on natural resources during work activities. | Los empleados y contratistas dedicados al manejo de la vegetación deben recibir capacitación continua sobre las leyes y los procedimientos relativos al medio ambiente. Las actividades de estos empleados y contratistas deben ajustarse a estas leyes y procedimientos para que durante la ejecución de los trabajos se minimicen o se eviten efectos sobre los recursos naturales. |
| BMP 2 | On federal, state, local and tribal agency land the land managers should be notified of pending work as far in advance as possible. | Ya sea en tierras federales, estatales, locales o de agencias tribales, los responsables de la administración de las tierras deben ser notificados con la máxima anticipación posible. |
| BMP 3 | Roads, erosion control measures, fences, and structures damaged as a result of vegetation management operations must be repaired and reported to the work group supervisor and the VM PG&E Representative. Gates must be left as they are found. | Los daños en caminos, elementos para control de erosión, cercos y estructuras ocasionados durante operaciones de manejo de la vegetación, deben ser reparados y reportados al supervisor del grupo de trabajo y al Representante de PG&E a cargo de VM. Los portones deben quedar tal como se encontraron. |
| BMP 4 | Vehicles and equipment must use pavement, existing roads, and previously disturbed areas to the extent practicable. | En la medida de lo posible, los vehículos y equipos deben circular por el pavimento, caminos existentes y áreas que han sido utilizadas con anterioridad. |
| BMP 5 | Motorized equipment must comply with Air Resources Board permitting requirements. | Los equipos motorizados deben cumplir con los requerimientos del Air Resources Board. |

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| General BMPs for All VM Activities<br>BMPs Generales Para Actividades de VM | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 6 | Vehicle idling, noise, and odor must be minimized to the extent practicable when working near residences, public buildings, or commercial buildings. Within 100 feet of school facilities work vehicle must not stand idling for more than five minutes, unless necessary for work purposes. Diesel-fueled work vehicles must not stand idling for more than five minutes at any location, unless necessary for work purposes. | En los vehículos operando con el motor al ralentí, los ruidos y los olores deben minimizarse al punto de lo prácticamente posible cuando estén trabajando cerca de áreas residenciales, de edificios públicos y de edificios comerciales. Dentro de un radio de cien pies de cercanía a escuelas, los vehículos no deben permanecer con el motor al ralentí por más de cinco minutos, salvo que sea necesario por cuestiones relativas al trabajo realizado. Los vehículos con motores diesel no deben permanecer al ralentí por más de cinco minutos en ningún lugar, salvo que sea necesario por cuestiones operativas. |
| BMP 7 | Contractors must have the ability to communicate quickly with their supervisor and/or PG&E by having a working cell phone or radio on the job site at all times, or by identifying the closest area of cell phone reception or closest public phone and familiarizing all employees with that location. | Los contratistas deben tener la posibilidad de poder comunicarse rápidamente con sus supervisores y/o con PG&E teniendo en el área de trabajo y en todo momento, un teléfono celular operativo o una radio; también deben identificar el área más cercana con buena recepción para teléfonos celulares o el teléfono público más próximo, y deben familiarizar a los empleados con dichas ubicaciones. |



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| Water Quality/Sediment Control BMPs<br>BMPs Relativas a la Calidad del Agua y al Control de Sedimentos | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 8 | Vehicles and heavy equipment must be refueled at least 100 feet away from riparian areas. Handheld tools must be refueled outside of riparian areas. The fueling operator must stay with the fueling operation at all times. Do not top off tanks. | Los vehículos y equipos pesados deben ser reabastecidos de combustible a una distancia mayor de 100 pies de áreas ribereñas. Las herramientas de mano deben ser reabastecidas de combustible fuera de áreas ribereñas. El operador de reabastecimiento de combustible debe permanecer en el área de reabastecimiento en forma permanente. No llene a tope los tanques de combustible. |
| BMP 9 | Petroleum and herbicide spill containment and cleanup materials must be available at the job site. Spills must be immediately cleaned up and contaminated materials disposed of properly. Spills of any amount must be reported immediately to the supervisor and the VM PG&E Representative for appropriate management. | Materiales de limpieza específicos para derrames de petróleo y de herbicidas deben estar disponibles en el área de trabajo. Los derrames deben limpiarse en forma inmediata y los materiales contaminados deben ser desechados de la forma apropiada. Los derrames de cualquier cantidad deben ser reportados inmediatamente al supervisor y al representante de PG&E encargado de VM, para que los mismos sean tratados apropiadamente. |
| BMP 10 | Immediately after vegetation management activities, if the amount of contiguous, bare soil exposed in one location exceeds 0.1 acres, erosion control measures must be implemented. These measures may include lop & scatter, broadcasting chipped material or compliance with other PG&E Erosion control measures. | Si inmediatamente después de un trabajo de control de vegetación, la cantidad contigua de suelo expuesto superase los 0.1 acres, se deben implementar medidas de control de erosión. Estas medidas podrían incluir "lop & scatter" (poda selectiva y esparsión de residuos), dispersión de material astillado o alguna otra medida de control de erosión aprobada por PG&E. |

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| Water Quality/Sediment Control BMPs<br>BMPs Relativas a la Calidad del Agua y al Control de Sedimentos | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 11 | Vehicle use within riparian areas is limited to existing roads and dry crossings, and they must be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be harmful to aquatic life. | El uso de vehículos dentro de áreas ribereñas está limitado a caminos existentes y cruces secos; éstos deben ser controlados y mantenidos diariamente para prevenir eventuales pérdidas de materiales en el agua, que podrían causar riesgo a la vida acuática. |
| BMP 12 | Cleared or pruned vegetation and woody debris (including chips) must be disposed of in a manner to ensure that it does not enter surface water or a watercourse. All cleared vegetation and woody debris (including chips) must be removed from surface water or watercourses, and placed or secured where it cannot re-enter the watercourse. | Los restos de vegetación podada y los restos de madera (incluyendo trozos pequeños) deben ser eliminados de manera que no lleguen a la superficie del agua o que no entren en un curso de agua. Todo resto de vegetación podada y de madera (incluyendo trozos pequeños) debe ser removida de la superficie del agua o de cursos de agua y se los debe ubicar o confinar en lugares seguros donde no tengan la oportunidad de volver a entrar al curso de agua. |



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| Environmental/Biological BMPs<br>BMPs Relativas al Medio Ambiente y a la Biología | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 13 | Vehicles should not exceed 15 mph on un-surfaced roads such as agricultural field roads and transmission right-of-way (ROW) access roads. | Los vehículos no deben exceder las 15 millas por hora en caminos no asfaltados tales como caminos en campos de agricultura y caminos con derecho a paso de acceso a líneas de transmisión (right-of-way, ROW por sus siglas en inglés). |
| BMP 14 | Vehicles and heavy equipment must not be operated off roads within 25 feet of the edge of a vernal pool unless a biologist or natural resource professional evaluates and prescribes site specific AMMs. | Los vehículos y equipos pesados no deben ser operados fuera de rutas dentro de un radio de 25 pies del borde de un charco vernal, a menos que un biólogo o un profesional en recursos naturales evalúe y prescriba AMMs específicas para el lugar. |
| BMP 15 | VM activities in Valley Elderberry Longhorn Beetle (VELB) habitat must follow PG&E VELB Utility Standard ENV-7001S and Utility Procedure ENV-7001P-01. | Las actividades de manejo de la vegetación en el hábitat del Escarabajo de cuernos largos del saúco del valle (Valley Elderberry Longhorn Beetle, VELB, por sus siglas en inglés) deben seguir la norma ENV-7001S y el procedimiento ENV-7001P-01. |
| BMP 16 | VM activities impacting birds must follow Utility Procedure TD-7110P-01, to comply with the Migratory Bird Treaty Act. | Las actividades de manejo de vegetación que impactan a las aves deben seguir el Procedimiento de servicios públicos TD-7110P-01, para cumplir con la Ley del Tratado de Aves Migratorias. |
| BMP 17 | Sudden Oak Death: VM activities in counties subject to the Sudden Oak Death quarantine must follow the guidance of the California Oak Mortality Task Force. | Muerte súbita del roble: las actividades de VM en los condados sujetos a la cuarentena por Muerte súbita del roble deben seguir la guía del Grupo de Trabajo de Mortalidad de California Oak. |

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| Environmental/Biological BMPs<br>BMPs Relativas al Medio Ambiente y a la Biología | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 18 | Environmental screening for mowing locations, fee strip weed abatement, and for electric transmission ROW reclamation work must be conducted by the VM environmental group prior to work. | Los controles ambientales para zonas de segado, de control de maleza y para trabajos de restauración en zonas con derecho a paso en líneas de transmisión eléctricas (ROW), deben ser realizados por el grupo ambiental VM antes de iniciar el trabajo. |
| BMP 19 | VM must verify that the environmental screening process for capital and other non-VM work was conducted by the work owner prior to VM starting vegetation management activities. VM personnel and contractors must implement the environmental protection measures prescribed for the work. | Antes de comenzar tareas de manejo de vegetación, VM debe verificar que el proceso de control ambiental para trabajos primordiales y otros no relacionados al control de vegetación, fue realizado por el dueño de la obra. El personal de VM y los contratistas deben implementar las medidas de protección ambiental recomendadas para la obra. |



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**Environmental/Biological BMPs**
**BMPs Relativas al Medio Ambiente y a la Biología**

| BMP # | ENGLISH | SPANISH |
|---|---|---|
| BMP 20 | Cultural Resources:<br>*Items identified through Patrols/Screenings*: When previously identified cultural resources are found (i.e., old bottles, cans, buildings), they must be left in place and undisturbed. If it is necessary to move or disturb them to complete the work, or if human remains are found, stop work and contact the VM PG&E Representative.<br>*Unanticipated Discovery*: If any new cultural resources (e.g., structure features, bone, shell, artifacts, or architectural remains) are encountered and site disturbance cannot be avoided during work activities, or if human remains are suspected:<br>• Stop all work within 100 feet of the discovery<br>• Notify the VM PG&E representative who will contact the Cultural Resource Specialist<br>• Secure location, but do not touch or remove remains and associated artifacts;<br>• Do not remove associated spoils or pick through them;<br>• Note the location and document all calls and events;<br>• Keep the location confidential. | Recursos Culturales:<br>*Elementos identificados a través de Patrullajes/Controles*: cuando se encuentren recursos culturales previamente identificados (por ejemplo botellas viejas, latas, edificaciones), se deben dejar en el lugar tal como se los encontraron. Si es necesario moverlos o alterarlos para completar el trabajo, o si restos humanos son encontrados, detenga el trabajo y contacte un Representante VM de PG&E.<br>*Descubrimiento No Anticipado*: Si cualquier recurso cultural nuevo (por ejemplo restos de estructuras, huesos, conchas, artefactos o ruinas arquitectónicas) son descubiertos y la alteración del lugar no puede ser evitada durante el trabajo o ante la sospecha de presencia de restos humanos:<br>• Detenga todo trabajo dentro de un radio de 100 pies del descubrimiento<br>• Notifique al representante VM de PG&E quien contactará al especialista en recursos culturales<br>• Proteja el área, pero no toque o remueva los restos o artefactos asociados;<br>• No remueva el hallazgo ni lo revise;<br>• Anote la ubicación y documente todas las llamadas y eventos;<br>• Mantenga la ubicación confidencial. |

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| Environmental/Biological BMPs<br>BMPs Relativas al Medio Ambiente y a la Biología | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 21 | If a protected wildlife species is killed or injured as a result of current VM activities, the incident must be reported immediately to a supervisor and the VM PG&E Representative for appropriate management. | Si alguna especie protegida de vida salvaje es muerta o herida como resultado de alguna actividad VM, el incidente debe ser reportado en forma inmediata a un supervisor y al Representante VM de PG&E para que sea manejado apropiadamente. |
| BMP 22 | Disturbance or removal of non-target vegetation within a work area should not exceed the minimum necessary to complete operations, subject to other public, health and safety directives governing the safe operations and maintenance of electric and gas facilities. | La perturbación o remoción de vegetación que no sea el objetivo de trabajo debe ser la mínima necesaria que permita completar las operaciones. Debe estar sujeta a directivas públicas, de salud y de seguridad que rijan operaciones y mantenimiento de plantas eléctricas y de gas. |
| BMP 23 | During designated Fire Season, motorized equipment must have federal or state approved spark arrestors; all vehicles must be equipped with firefighting tools as appropriate and in accordance with all applicable laws, rules, regulations, orders, and ordinances. When the fire adjective rating is Very High or Extreme, no vehicular travel is permitted off cleared roads except in case of emergency. | Durante la Temporada de Incendios los equipos motorizados deben contar con sistemas de contención de chispas aprobados por el estado o por el gobierno federal; todos los vehículos deben contar con equipos extinguidores de fuego para la situación apropiada, debiendo cumplir los mismos con todas las leyes, regulaciones, reglas, órdenes y ordenanzas que les corresponda aplicar. Cuando el riesgo de incendio está en el nivel Muy Alto o Extremo, no se permite ninguna circulación vehicular fuera de los caminos habilitados excepto en casos de emergencia. |

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| Fire BMPs<br>BMPs Relativas a Incendios | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 24 | During designated Fire Season, the contractor must check and follow the requirements of the daily Project Activity Level (PAL) when working on USFS or other required properties, or the Fire Adjective Index rating in hazardous fire areas and SRAs. These are measures of fire weather conditions and may restrict activities otherwise permitted. | Durante la Temporada de Incendios el contratista debe verificar y seguir los requerimientos del Nivel diario de Actividad del Proyecto (Project Activity Level, PAL, por sus siglas en inglés) cuando esté trabajando en USFS u otras propiedades o debe seguir el Índice de Calificación de Riesgo de Incendio en áreas de alto riesgo y áreas de responsabilidad del estado (SRA, por sus siglas en inglés). Estas son medidas de condiciones de clima relativas a riesgo de incendios que podrían restringir actividades que normalmente serían permitidas. |
| BMP 25 | During designated Fire Season in grass and wildland areas:<br>• Smoking is not allowed while walking, working, or operating light or heavy equipment.<br>• Smoking is allowed in a barren area, or within an area cleared to mineral soil at least three feet in diameter.<br><br>During Fire Adjective Index ratings of Very High or Extreme smoking is not allowed at any time in grass and wildland areas. | Durante la Temporada de Incendios en áreas con pasto y terrenos vírgenes:<br>• No está permitido fumar mientras se camina, trabaja u opera equipo liviano o pesado.<br>• Fumar está permitido en áreas yermas o dentro de un área de por lo menos 3 pies de diámetro donde se ha removido vegetación hasta dejar solo suelo mineral.<br>Cuando el Índice de Calificación de Riesgo de Incendios es Muy Alto o Extremo no está permitido fumar en ningún momento en áreas con pasto o en terrenos vírgenes. |

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| Fire BMPs<br>BMPs Relativas a Incendios | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 26 | Hunting, firearms, portable stoves, open fires (such as barbecues) not required by the VM activity, and pets (except for safety in remote locations) are prohibited in VM work activity sites. All trash, food items and human-generated debris must be properly contained and/or removed from the site. | En áreas de trabajo de manejo de la vegetación, está prohibido cazar, usar armas de fuego, utilizar cocinas portátiles, realizar fuegos abiertos si no lo requiriese la actividad VM (barbacoas por ejemplo). También están prohibidos los animales domésticos, excepto que sean requeridos por razones de seguridad en ubicaciones remotas. |
| BMP 27 | Woody debris created by chipping, lop and scatter, or brush mowing operations must be left at an average depth of less than 18 inches from the ground surface unless otherwise specified in an easement or landowner agreement. | Los restos de madera originados por triturado, por "lop & scatter" (poda selectiva y esparsión de residuos), o por operaciones de segado de arbustos deben ser dejados a una profundidad promedio de menos de 18 pulgadas de la superficie del suelo, excepto que se especifique de otra forma a través de una servidumbre o de un acuerdo con el dueño de la propiedad. |

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| Herbicide BMPs<br>BMPs Relativas a Herbicidas | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 28 | A Licensed Pest Control Advisor must write prescriptions for all herbicide and tree growth regulator applications. Contractors must use a Qualified Applicator when applying herbicides and tree growth regulators for VM. | Todas las aplicaciones de herbicidas y reguladores del crecimiento de árboles deben ser prescriptas por un asesor Licenciado en Control de Pestes. Los contratistas deben usar un Aplicador Calificado cuando se apliquen herbicidas y reguladores de crecimientos de árboles, como parte de actividades VM. |
| BMP 29 | Nozzle tip, pressure and sprayer configuration should be set to produce a coarser droplet to minimize drift. | La punta de la boquilla, la configuración del rociador y su presión deben ser tal que produzcan gotas de un tamaño suficientemente grande que minimicen el rocío a la deriva. |
| BMP 30 | Pesticides must not be transported in the same compartment with persons, food, or feed. Pesticide containers must be secured to the vehicle during transportation in a manner that will prevent spilling into or off the vehicle. | Los pesticidas no deben ser transportados en el mismo compartimento que personas, comida o alimento para ganado. Durante su transporte, los contenedores de pesticidas deben estar firmemente sujetos al vehículo para prevenir derrames dentro o fuera del vehículo. |
| BMP 31 | Selective application techniques should be used for VM ROW maintenance operations wherever practicable so that desirable vegetation is not adversely affected. | Cuando sea posible, técnicas de aplicación selectivas deberían ser utilizadas en operaciones de mantenimiento VM en caminos con derecho a paso (ROW) de forma tal que la vegetación deseada no sea adversamente afectada. |
| BMP 32 | The contractor must have a written training program for employees who handle pesticides. The written program must describe the materials and the information that will be provided and used to train the employees. | EL contratista debe tener un programa de entrenamiento escrito para empleados acerca de cómo manipular pesticidas. El programa escrito debe describir los materiales y la información que será provista y utilizada para entrenar a los empleados. |

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| Herbicide BMPs<br>BMPs Relativas a Herbicidas | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 33 | Training must be completed before an employee is allowed to handle any pesticide and must be continually updated to cover any new pesticides that will be handled. Training must be repeated at least annually thereafter. | El entrenamiento debe ser finalizado antes de que un empleado sea autorizado a la manipulación de pesticidas y se debe actualizar en forma continua para cubrir cualquier pesticida nuevo a ser utilizado. Se debe repetir el entrenamiento al menos una vez al año. |
| BMP 34 | These special precautions must be observed during periods of inclement weather:<br>• Applications must not be made in, immediately prior to, or immediately following rain when runoff could be expected.<br>• Applications must not be made when wind and/or fog conditions have the potential to cause drift.<br>• Basal bark applications must not be made when stems are wet with rain, snow or ice. | Las siguientes precauciones especiales deben ser tenidas en cuenta durante los periodos de clima riguroso:<br>• Las aplicaciones no deben realizarse durante lluvias, o inmediatamente antes o inmediatamente después de las mismas, cuando escorrentías pueden esperarse.<br>• Las aplicaciones no deben realizarse si las condiciones de viento o de niebla pudieran causar que el rocío quede a la deriva.<br>• Las aplicaciones de corteza basal no deben realizarse cuando los tallos están húmedos por lluvia, nieve o hielo. |
| BMP 35 | Herbicide Buffer Width from Stream, Wetland, or Other Sensitive Habitat<br><br>Herbicide designation or usage | Ancho de la zona de protección desde arroyos, pantanos u otros hábitats sensibles<br><br>Uso o designación del herbicida |
| | No buffer requirement<br>Approved for aquatic use | No se requiere zona de protección<br>Aprobado para uso acuático |
| | 25 feet<br>Not approved for aquatic use | 25 pies<br>No aprobado para uso acuático |
| | 200 feet<br>Mixing, Loading, Cleaning | 200 pies<br>Mezclado, Carga, Limpieza |

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| Mechanical Clearing Operations BMPs<br>BMPs Relativas a Operaciones de Remoción Mecánica | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 36 | Mechanical clearing equipment must not be used to clear vegetation within 10 feet of towers, poles or guy wires. Only handheld tools such as chainsaws and weed eaters may be used in these areas. | No se debe usar equipos mecánicos de remoción de vegetación dentro de un radio de 10 pies de torres, de postes o de cables de amarre. Solo herramientas de mano como sierras a cadena y cortador de malezas, pueden ser utilizadas en estas áreas. |
| BMP 37 | Contractor must flag guy wires 200 feet ahead of working an area, using bright colored flagging, and a minimum of three flags per wire. | El contratista debe señalizar los cables de amarre a 200 pies por delante del área de trabajo, usando señales de colores vivos, con un mínimo de tres señales por cable. |
| BMP 38 | During fire season, contractor must have a water source containing a minimum of 300 gallons of water and 250 feet of 1-inch hose on site at all times during operation. The water source must either be self-propelled or always attached to a vehicle capable of moving it to where it is needed. Where access/terrain allows, contractor's water source must always be within 500 feet of the mowing/cutting operation. Excess water must be disposed of in accordance with all laws and regulations. | Durante la temporada de incendio el contratista debe tener en el lugar de trabajo y en todo momento, una reserva de agua de por lo menos 300 galones y una manguera de 250 pies de longitud por 1 pulgada de diámetro. La fuente de agua debe poseer motorización propia o estar siempre acoplada a un vehículo capaz de trasladarse a donde sea necesario. Donde el acceso/terreno lo permita, la fuente de agua del contratista debe estar siempre dentro de un radio de 500 pies de la operación de siega/tala. El exceso de agua debe ser desechado de acuerdo a todas las leyes y regulaciones vigentes. |
| BMP 39 | Mechanical clearing equipment must have at least one 5 lb. or more Class ABC fire extinguisher with current inspection tag mounted in the cab and accessible by the operator. | Los equipos de remoción mecánicos deben tener al menos un extintor de fuego Clase ABC de 5 libras o más con su correspondiente tarjeta de inspección vigente, y debe estar montado en la cabina de forma accesible al operador. |

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| Mechanical Clearing Operations BMPs<br>BMPs Relativas a Operaciones de Remoción Mecánica | | |
|---|---|---|
| **BMP #** | **ENGLISH** | **SPANISH** |
| BMP 40 | During Fire Season or High Fire Hazard levels, contractor must stay on site for a minimum of ½ hour after mechanical clearing operations end for the day to ensure fire safety. During extreme fire levels, an additional support person must be dedicated to follow the equipment with a water type back pump and fire line tool. During extreme fire levels, mechanical clearing will be limited to the hours of 5:00 AM to 12:30 PM. | Durante la temporada de incendios o de niveles de Peligro Alto de Incendio, el contratista debe permanecer en el lugar de trabajo por lo menos durante media hora después de haber efectuado la última operación de remoción mecánica del día para asegurarse que no existan riesgos de incendio. Cuando se alcancen niveles extremos de riesgo de incendio una persona de soporte adicional debe ser asignada para que siga a los equipos con una de bomba de agua tipo mochila y con herramientas para contención de fuego. Durante niveles de riesgo de incendio extremos, las operaciones de remoción deben limitarse al horario de 5:00 AM a 12:30 PM. |
| BMP 41 | Watercourse protection zones must be marked with brightly colored flagging prior to the start of any mechanical clearing or timber operation. Water classes are defined by the California Forest Practice Rules: 14 CCR 916.5. The following watercourse protection zone widths must be maintained at all times, except on existing roadways:<br><br>• Class I & II watercourses with a slope < 30%---No heavy equip. within 50 feet<br><br>• Class I & II watercourses with a slope > 30%---No heavy equip. within 75 feet<br><br>• Class III & IV watercourse---No heavy equip. within 25 feet<br><br>Protection zones may be increased in areas with steep slopes or highly erodible soils. | Las zonas de protección de cursos de agua deben ser marcadas con señales de colores vivos previo al comienzo de cualquier operación de remoción mecánica y de talado. Los cursos de agua están definidos por le reglamento 14 CCR 916.5 de las Prácticas Forestales de California. Se deberán mantener en todo momento las siguientes dimensiones de zona de protección a cursos de agua:<br><br>• Cursos de agua clase I y II con una pendiente <30%---Sin equipo pesado, dentro de 50 pies<br><br>• Cursos de agua clase I y II con una pendiente >30%---in equipo pesado, dentro de 75 pies<br><br>• Cursos de agua clase III y IV---Sin equipo pesado, dentro de 25 pies<br><br>Las zonas de protección deben ser incrementadas en áreas con pendientes mayores o con suelos altamente erosionables. |

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