CITY OF FOWLER

TENTATIVE SUBDIVISION MAP NO. 6519

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

CITY OF FOWLER
JUNE 2026

PREPARED FOR:
City of Fowler

PREPARED BY:
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Appendix C - Cultural Resources Information
Appendix D - Traffic Study

ACRONYMS & ABBREVIATIONS

AB---------- Assembly Bill
APN---------- Assessor's Parcel Number
BPS---------- Best Performance Standards
BMP---------- Best Management Practices
CalEEMod---------- California Emissions Estimator Modeling (software)
Calfire---------- California Department of Forestry and Fire Protection
Caltrans---------- California Department of Transportation
CARB---------- California Air Resources Board
CBC---------- California Building Code
CCAA---------- California Clean Air Act
CEQA---------- California Environmental Quality Act
CFCs---------- Cholorfluorocarbons
CGS---------- California Geological Survey
CH_4---------- Methane
CHRIS---------- City of Fowler
City---------- tons per year
CO---------- Carbone Monoxide
CO_2---------- Carbon dioxide
CO_2e---------- Carbon dioxide equivalent
County---------- County of Fresno
DTSC---------- Department of Toxic Substances Control
EIR---------- Environmental Impact Report
FCFPD---------- Fresno County Fire Protection District
FEMA---------- Federal Emergency Management Agency
FMMP---------- Farmland Mapping and Monitoring Program
GHG---------- Greenhouse Gas
GPA---------- tons per year
GWP---------- General Plan Amendment
HFCs---------- Hydrofluorocarbons
IS---------- Initial Study
IS/MND---------- Initial Study/Mitigated Negative Declaration
km---------- kilometers
LAFCo---------- Local Agency Formation Commission
LOS---------- Level of Service
LUCI---------- Governor's Office of Land Use and Climate Innovation
MMRP---------- Mitigation Monitoring and Reporting Program
MND---------- Mitigated Negative Declaration
MRZ---------- Mineral Resources Zone
MT---------- metric tons
NAHC---------- Native American Heritage Commission
ND---------- Negative Declaration
NO_2---------- Nitrogen dioxide
NO_2---------- Nitrogen dioxide
NOx---------- Oxides of nitrogen
O_3---------- Ozone
Pb---------- Lead
PFCs---------- Perfluorocarbons
PG&E---------- Pacific Gas & Electric Company

PM_{10} ---------- particulate matter 10 microns in size
$PM_{2.5}$ ---------- particulate matter 2.5 microns in size
ppb ---------- parts per billion
ppm ---------- parts per million
Project ---------- Tentative Subdivision Map No. 6519 Project
ROG ---------- Reactive Organic Gases
SB ---------- Senate Bill
SF_6 ---------- Sulfur Hexafluoride
SJVAB ---------- San Joaquin Valley Air Basin
SJVAPCD ---------- San Joaquin Valley Air Pollution Control District
SKFCSD ---------- Selma Kingsburg Fowler County Sanitation District
sqft ---------- square feet
SO_2 ---------- Sulfur Dioxide
SSJVIC ---------- Southern San Joaquin Valley Information Center
SR ---------- State Route
SRA ---------- State Responsibility Area
SWPPP ---------- Storm Water Pollution Prevention Plan
SWRCB ---------- State Water Resources Control Board
TAC ---------- Toxic Air Contaminants
TPY ---------- tons per year
TSM ---------- tentative subdivision map
USEPA ---------- United States Environmental Protection Agency
UST ---------- underground storage tank
µg/m3 ---------- micrograms per cubic meter
VHFHSZ ---------- Very High Fire Hazard Severity Zone

CHAPTER 1 INTRODUCTION

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the City of Fowler (City) to address the environmental effects of the development of Tentative Subdivision Map No. 6519 Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. The City is the CEQA lead agency for this Project.

The site and the Project are described in detail in Chapter 2 Project Description.

1.1 REGULATORY INFORMATION

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines--Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is no substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or
b. The IS identified potentially significant effects, but:
    1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
    2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project, as revised, may have a significant effect on the environment.

1.2 DOCUMENT FORMAT

This IS/MND contains six chapters Chapter 1 Introduction, provides an overview of the Project and the CEQA process Chapter 2 Project Description, provides a detailed description of proposed Project components and objectives. Chapter 3 Determination, the Lead Agency's determination based upon this initial evaluation. Chapter 4 Environmental Impact Analysis presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 5 Mitigation, Monitoring, and Reporting Program (MMRP), provides the proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation. Chapter 6 References details the documents and reports this document relies upon to provide its analysis.

The CalEEMod Output Files, Biological Desktop Review for the Project, Cultural Resources Information, and Traffic Study, are provided as technical Appendix A, Appendix B, Appendix C, and Appendix D respectively, at the end of this document.

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

2.1.1 PROJECT TITLE

Tentative Subdivision Map No. 6519

2.1.2 LEAD AGENCY NAME AND ADDRESS

City of Fowler
128 S. 5th St,
Fowler, CA 93625

2.1.3 CONTACT PERSON AND PHONE NUMBER

City of Fowler
Dawn Marple, City Planner
(559) 834-3113

2.1.4 CEQA CONSULTANT

Provost & Pritchard Consulting Group
Wyatt Czeshinski, AICP, Project Manager
(559) 449-2700

2.1.5 PROJECT LOCATION

The Project is located in Fowler, California, approximately 4.5 miles south of the City of Fresno and 23 miles north of the City of Visalia (see Figure 2-1 and Figure 2-2). The Project would be located on Assessor's Parcel Number (APN) 345-100-08S, with the centroid of the site being located approximately at 36° 36' 53" N 119° 41' 37" W.

2.1.6 GENERAL PLAN DESIGNATION AND ZONING

The Project site is designated Low Density Residential by the City of Fowler General Plan and is zoned AE-20 (Exclusive Agriculture) by the County of Fresno (see Figure 2-4 and Figure 2-5). As a part of the Project, the site's General Plan land use designation would be amended to Medium Low Density Residential and the site would be prezoned R-1-6 (single family residential).

2.1.7 DESCRIPTION OF THE PROJECT

2.1.7.1 PROJECT DESCRIPTION

Yamabe & Horn Engineering, on behalf of Joseph Crown and Crown Homes, has proposed a Tentative Subdivision Map (TSM) on APN 345-100-08S, a parcel of approximately 39.93 acres in size (Project site) (see Figure 2-2). As described above, the Project site is designated as Low Density Residential by the City's General Plan and is zoned Exclusive Agriculture by the County of Fresno. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's General Plan land use designation to Medium Low Density Residential. Additionally, the Project site would be annexed to the City and given a mapping prezone designation of R-1-6 with an implementing zone district prezone designation of R-3, consistent with the Medium Low Density Residential land use (See Figure 2-6). The Project would

subdivide the Project Site into 183 single family residential lots, meeting the density requirements of the Medium Low Density Residential land use. As a part of the Project, an approximately 85,867 square foot (sqft) park would be constructed. Other landscaping areas would also be included throughout the TSM, including internal paseos and a trail alignment along the Project site's South Sunnyside Avenue street frontage. Lots proposed would range from 5,000 sqft in size to 13,459 sqft in size. Access to the proposed subdivision would be provided from two points of access along both South Sunnyside Avenue and East Parlier Avenue. East Parlier Avenue becomes West Parlier once annexed to Fowler City. The Consolidated Irrigation District canal existing on the northeastern portion of the site is proposed to be undergrounded.

2.1.8 OTHER PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED

- *Fresno County Local Agency Formation Commission (LAFCo)*
- *Consolidated Irrigation District*
- *Selma- Kingsburg- Fowler County Sanitation District*
- *San Joaquin Valley Air Pollution Control District*

2.1.9 CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES

Public Ressources Code Section 21080.3.1, *et seq. (codification of Assembly Bill [AB] 52, 2013-14)*) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

The City of Fowler has received written correspondence from the Santa Rosa Rancheria Tachi Yokut tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of the proposed project. Additionally, because the Project proposes to amend the General Plan land use designation for the Project site, the City has sent out letters to Tribes that may have sacred lands within the Project site and its vicinity pursuant to Senate Bill [SB] 18, discussed in further detail in Section 4.18 Tribal Cultural Resources.

Figure 2-1: Regional Location Map

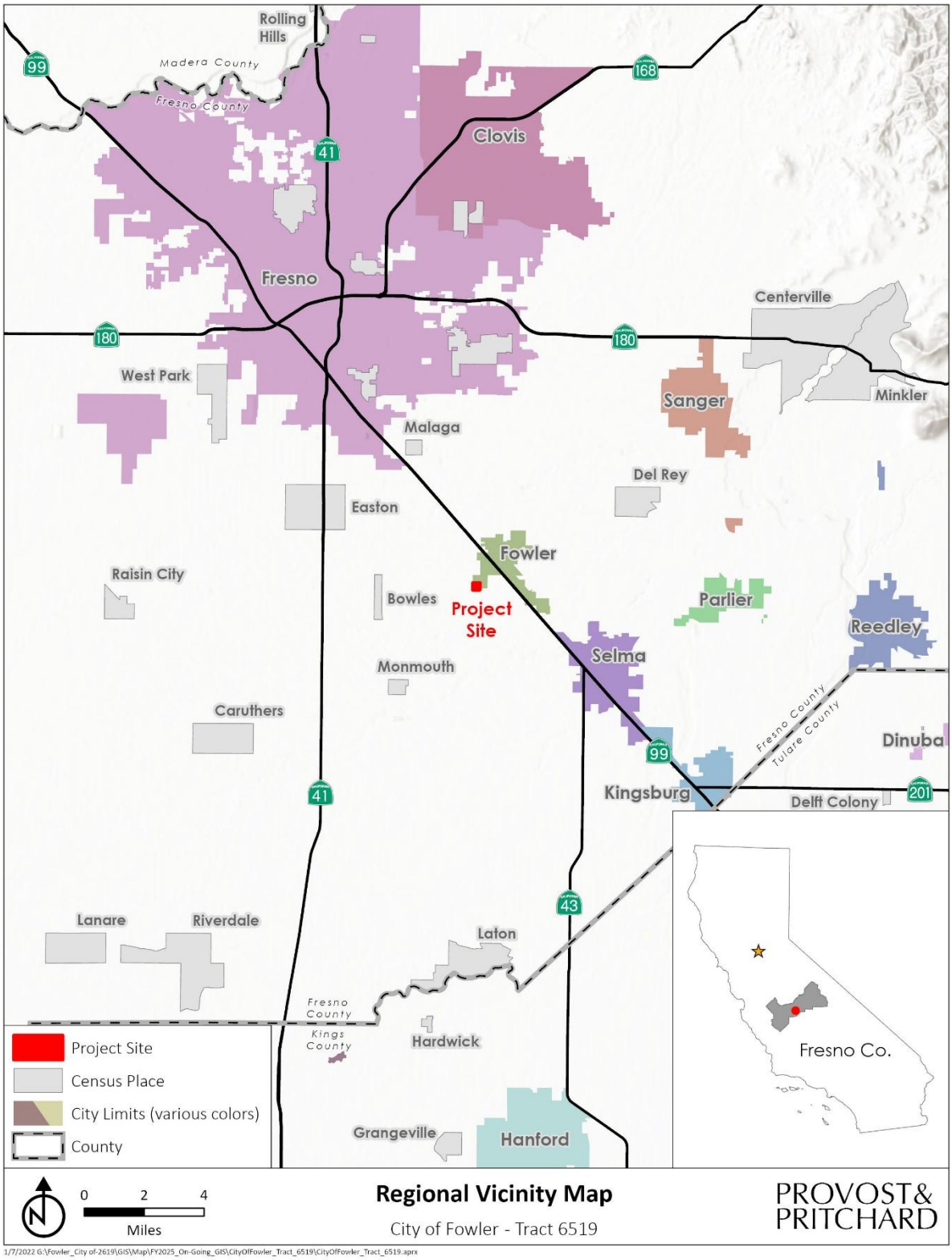


Figure 2-2: Aerial Site Map

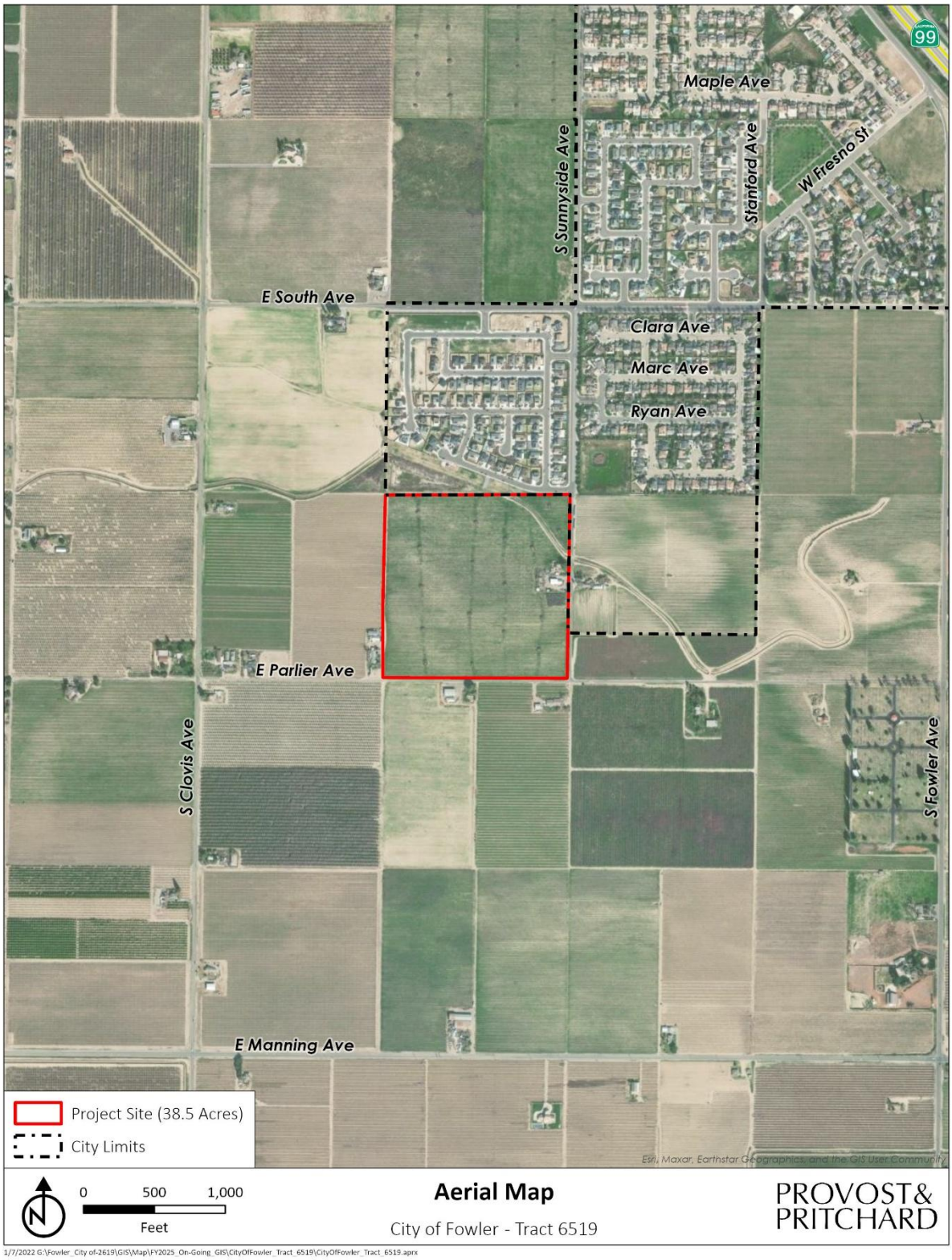


Figure 2-3: Topo Quad Map

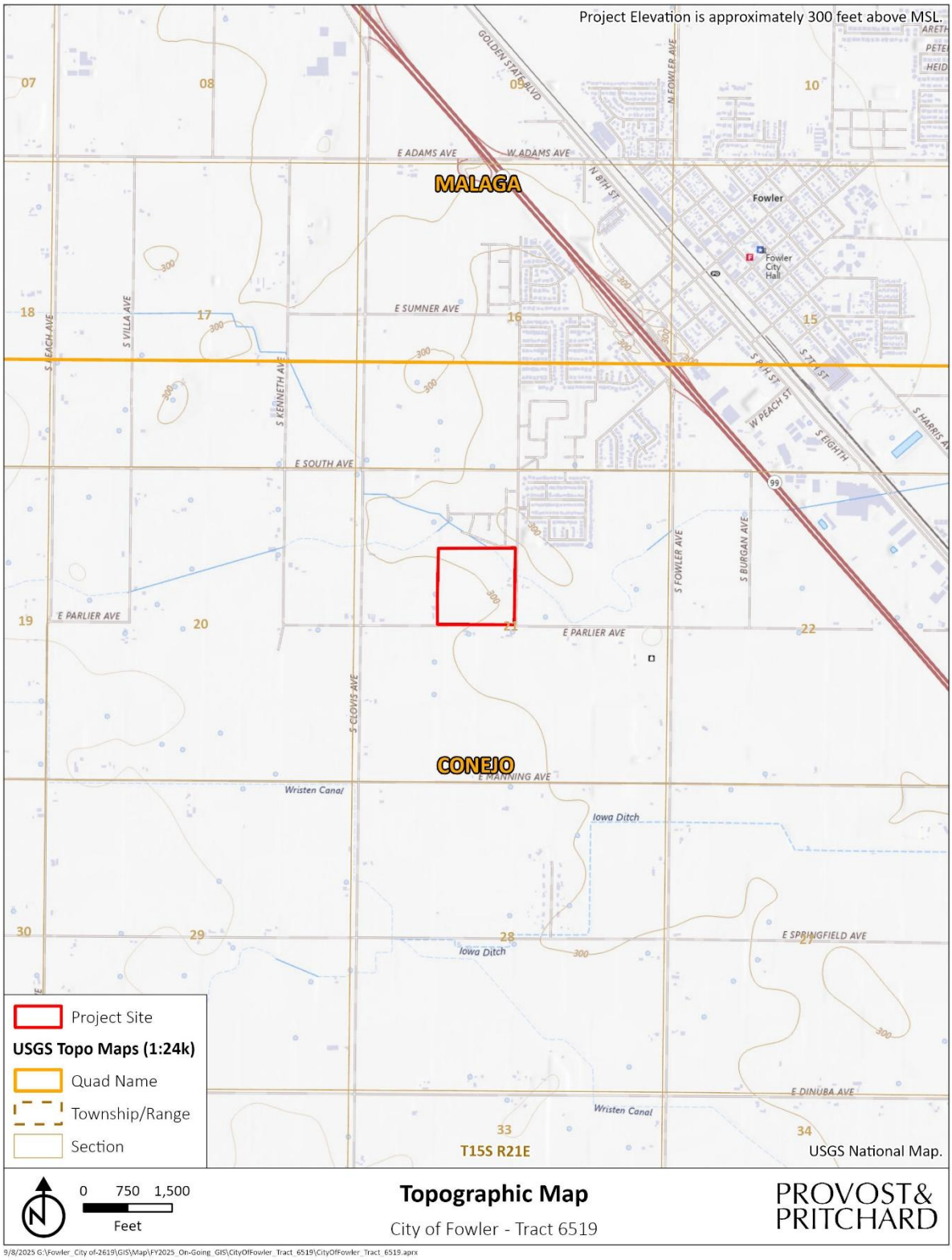


Figure 2-4: General Plan Land Use Map (Existing)

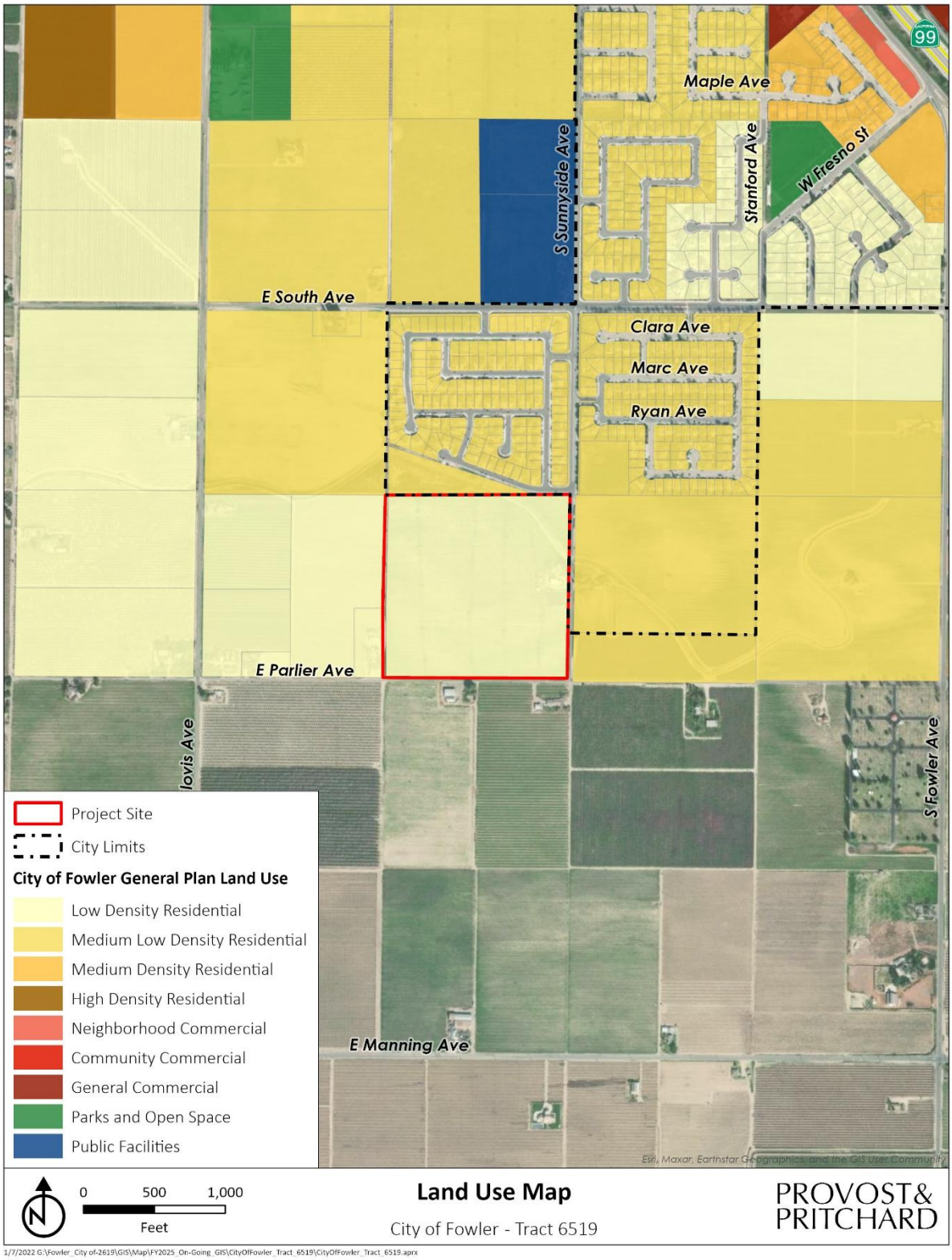


Figure 2-5: General Plan Land Use Map (Proposed)

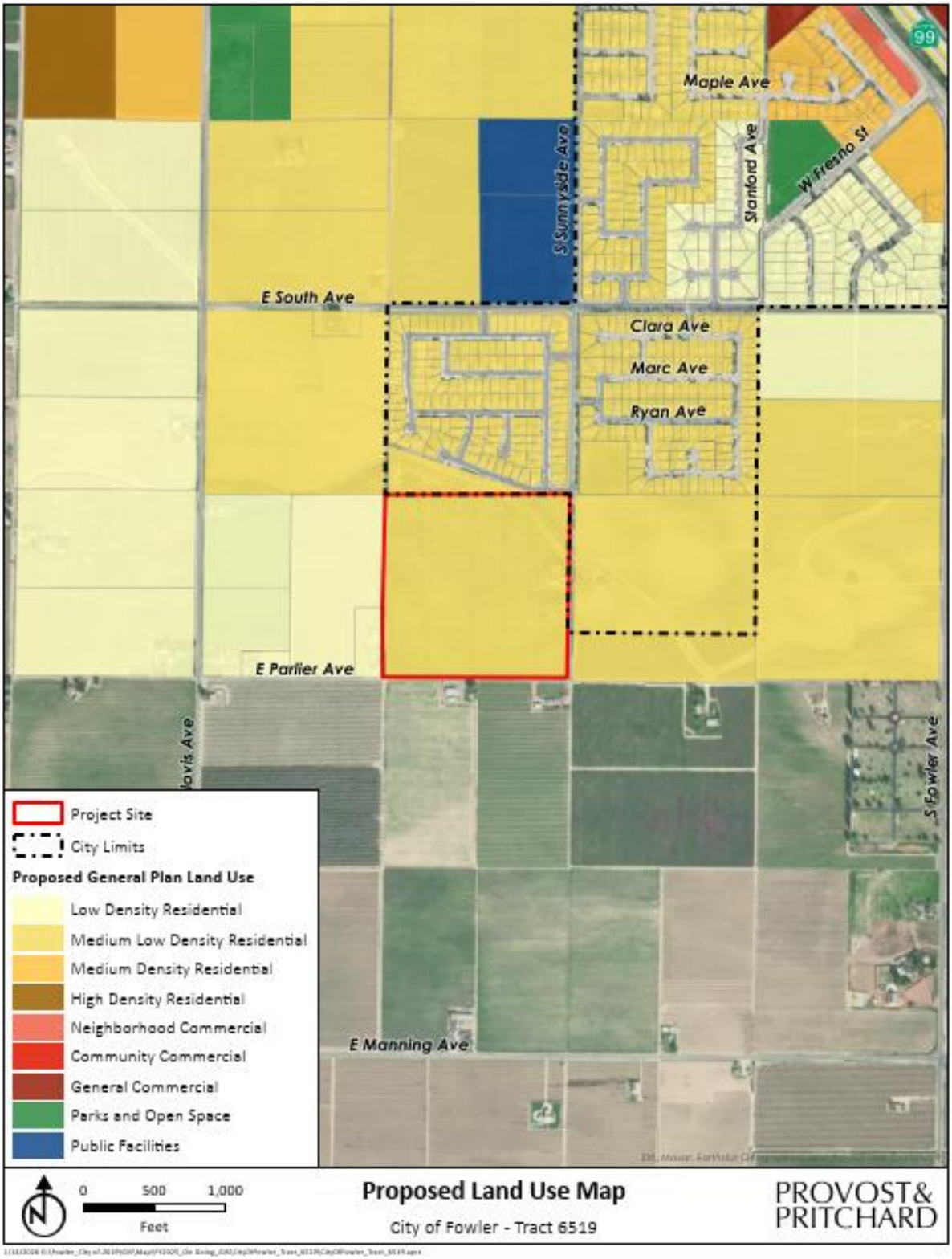
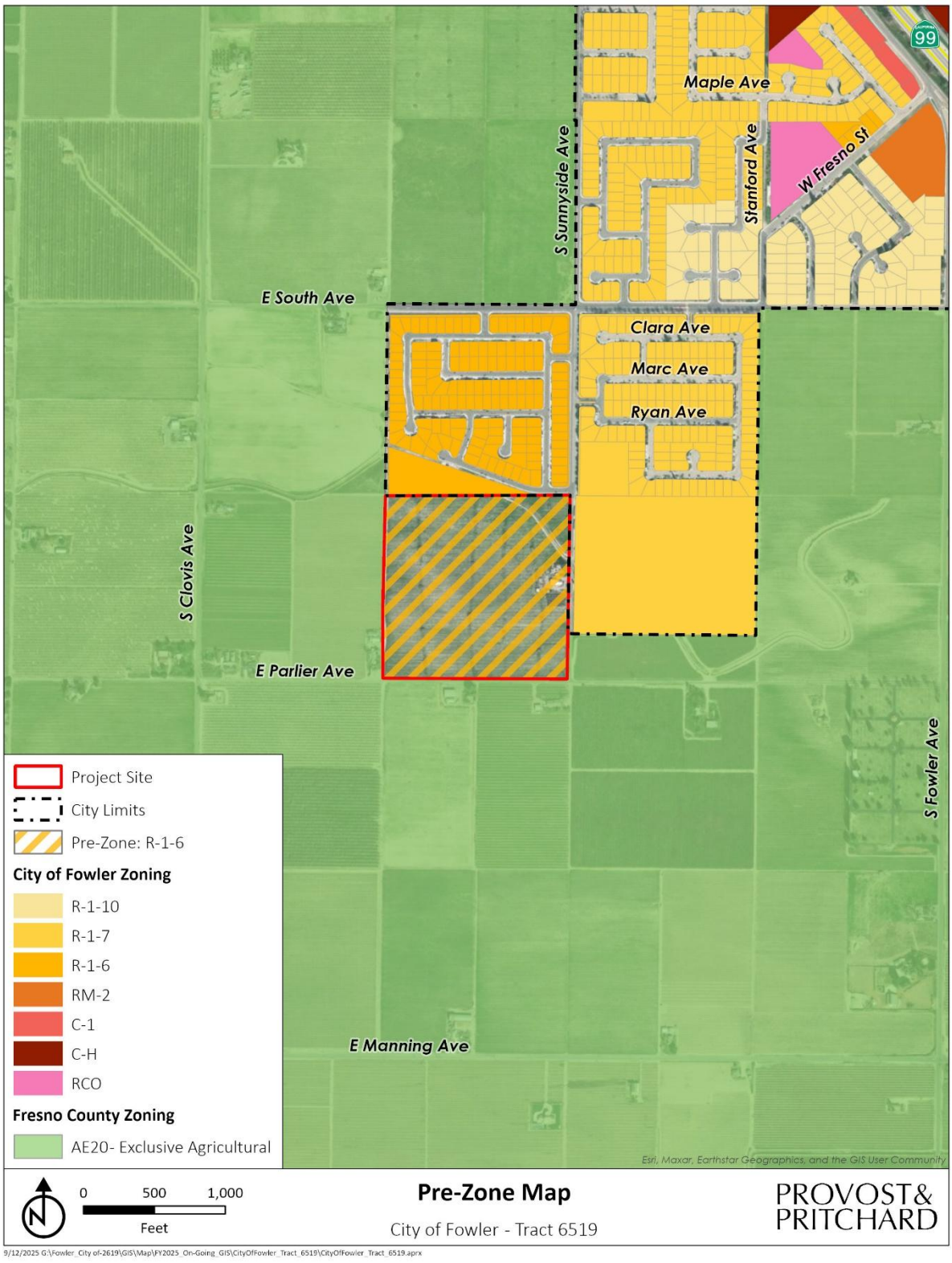


Figure 2-6: Zoning Map



CHAPTER 3 DETERMINATION

3.1 POTENTIAL ENVIRONMENTAL IMPACTS

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are. checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

The analyses of environmental impacts in Chapter 4 Impact Analysis result in an impact statement, which shall have the following meanings.

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

3.2 DETERMINATION

On the basis of this initial evaluation (to be completed by the Lead Agency):

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Dawn Marple
Signature

June 16, 2026
Date

Dawn Marple, City Planner
Printed Name/Position

CHAPTER 4 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

Table 4-1: Aesthetics Impacts

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.1 BASELINE CONDITIONS

The Project site is located along the floor of the San Joaquin Valley just southwest of the City of Fowler. The predominant landscape feature of the San Joaquin Valley is agricultural land. Regional views from the Valley floor are generally limited due to the flat landscape, but the Sierra Nevada Mountains are visible to the east.

The Project site has historically been used to grow vineyards; however, the vineyards were removed in approximately May of 2023. Additionally, two primary structures are located on the site, with other small accessory structures located near to the primary structures. Excluding the existing residential neighborhood to the north, the surrounding area is generally considered rural, containing agricultural land and rural residential homes. According to the City of Fowler General Plan, there are no scenic vistas on the Project site or in the vicinity.[1] Additionally, there are no designated State Scenic Highways within the City or the surrounding area.[2] In Fresno County, a portion of State Route (SR) 180 has been officially identified by the California Department of Transportation (Caltrans) as a "designated State Scenic Highway." However, that segment is approximately 15 miles northeast of the Project site.[3]

[1] (City of Fowler, 2023)
[2] (California State Scenic Highway System Map, 2018)
[3] Ibid.

4.1.2 IMPACT ANALYSIS

a) Have substantial adverse effect on a scenic vista?

Less than Significant Impact. According to the City of Fowler General Plan, the City has not designated any scenic vistas in the vicinity of the Project site.[4] Agriculture and views of the Sierra Nevada Mountains are generally regarded as resources of aesthetic value within the Valley. The Project would result in the construction of 183 single-family residences on a parcel that is planned for residential use. Therefore, impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

c) **No Impact.** In Fresno County, a portion of SR 180 has been officially identified by Caltrans as a "designated State Scenic Highway." Project activities would take place approximately 15 miles southwest of this designation and would not have the potential to impact this highway. Therefore, there would be no impact. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The Project would result in the annexation and prezoning of a parcel to the City of Fowler. Subsequent to these actions, construction of the proposed residences, park, basin, landscaping, and roadways would be required to meet all applicable City development standards. The architectural renderings, elevations, and color schemes of the 183 single-family residences would be developed in a manner not to degrade the existing visual character. The implementation of the Project would not degrade the setting; it would provide development intended to be consistent with the character of the neighboring residential development. The Project would be developed to the standards of the R-3 implementing zone district once annexation of the property is finalized and would not conflict with any zoning standards governing scenic quality. Therefore, impacts would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. Development of the site would not create a new source of substantial light or glare within the area. The Project would result in the development of a residential subdivision on land that abuts a similar existing development, resulting in a contiguous development pattern. Further, the site is planned for residential development by the City's General Plan. Prior to construction, a lighting plan would be required to be reviewed and approved by the City Engineer. Therefore, impacts would be less than significant.

[4] (City of Fowler, 2023)

4.2 AGRICULTURE AND FORESTRY RESOURCES

Table 4-2: Agriculture and Forest Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

4.2.1 BASELINE CONDITIONS

The Project is located in California's San Joaquin Valley in Fresno County, and more specifically within the City of Fowler's Sphere of Influence, adjacent to the City's existing city limits. The City of Fowler, Fresno County, and the larger San Joaquin Valley as a whole are one of the largest producers of agricultural products in the state. As described above, the Project site has been in agricultural production previously, as recently as 2023.

Farmland Mapping and Monitoring Program:

The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The California Department of Conservation's 2022 FMMP is a non-regulatory program that produces "Important Farmland" maps and statistical data used for analyzing impacts on California's agricultural resources. The Important Farmland maps identify eight land use categories, five of which are agriculture-related: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land — rated according to soil quality and irrigation status. Each is summarized below:

- *PRIME FARMLAND: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and*

moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- *FARMLAND OF STATEWIDE IMPORTANCE: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.*
- *UNIQUE FARMLAND: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non- irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.*
- *FARMLAND OF LOCAL IMPORTANCE: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.*
- *GRAZING LAND: Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.*
- *URBAN AND BUILT-UP LAND: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.*
- *OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and disturbed land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.*

As demonstrated in

Figure 4-1, the FMMP designation for the Project site is Prime Farmland.[5] The Project site is also subject to a Williamson Act contract.[6]

4.2.2 IMPACT ANALYSIS

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less than Significant Impact. The entirety of the Project site consists of land that is designated Prime Farmland by the FMMP and that would be converted to non-agricultural use through the development of a 183-home residential subdivision as a part of the Project. The site is currently designated as Low Density Residential by the City's General Plan and has been proposed to be amended to Medium Low Density Residential as a part of the Project. While the Project would result in the conversion of Prime Farmland to a non-agricultural use, the Project site is planned for residential uses and would be developed accordingly under the Project. The City of Fowler General Plan Environmental Impact Report found that buildout of the City's General Plan would result in significant and unavoidable impacts related to the conversion of lands designated as important farmland under the FMMP.[7] The City Council considered these impacts and adopted a Statement of Overriding Considerations via Resolution No. 2634, declaring that the benefits resulting from the buildout of the City's General Plan would exceed the negative impacts related to the conversion of important farmland, such as those located on the Project Site. The Project would amend the City's General Plan to increase the density allowed for the site, however the site is already planned for residential development and the Project site would be converted to a non-agricultural use regardless of the density allowed on the site. As a result, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance that has not already been analyzed by the City's General Plan and General Plan Environmental Impact Report and which has not already been declared by the City of Fowler as a net benefit for the City's and its residents, despite the negative impacts stemming from the conversion of Prime Farmland. Therefore, impacts would be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is currently located within Fresno County and holds a County of Fresno zoning designation of AE-20 (Exclusive Agriculture). As a part of the Project, the Project site would be annexed to the City of Fowler and would be prezoned with a mapping designation of R-1-6 with an implementing zone district of R3, consistent with the Medium Low Density Residential land use that has been proposed. Following annexation and prezoning of the site consistent with the proposed General Plan Land use designation, the Project would not conflict with zoning for agricultural use. As a regulatory requirement, prior to TSM approval, the applicant would be required to secure a cancellation of its Williamson Act contract. Once the contract is canceled, implementation of the Project would not conflict with the Williamson Act, as the site would no longer be encumbered by such a contract. Therefore, there would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

[5] (California Department of Conservation, 2022)
[6] (California Department of Conservation, 2024)
[7] (City of Fowler, 2022)

d) Result in the loss of forest land or conversion of forest land to non-forest use?

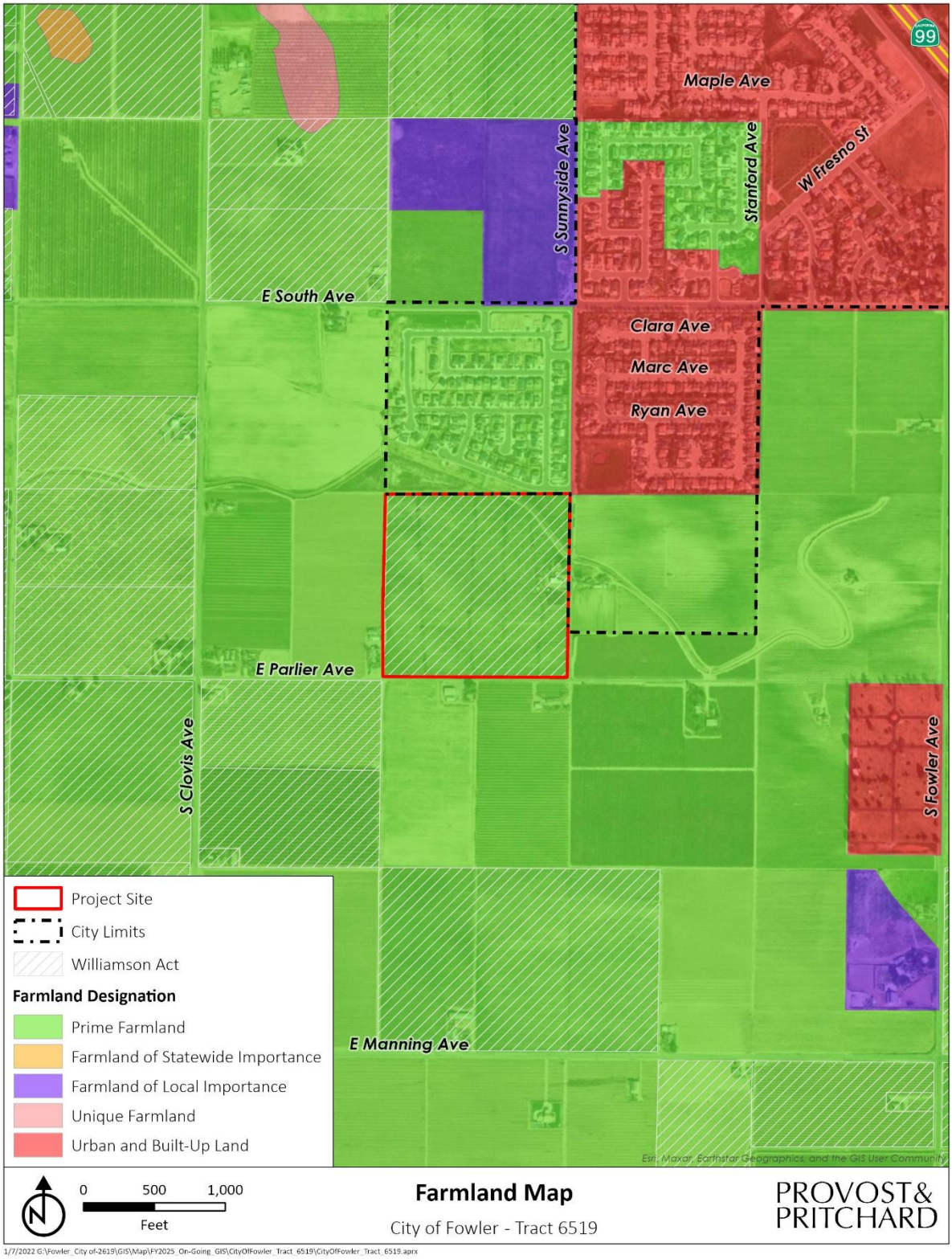
c and d) No Impact. According to the City's General Plan and official zoning map, there are no forest lands or timberlands within the Project site or its vicinity.[8] [9] Therefore, there would be no impact.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less than Significant Impact. The Project would not involve other changes in the existing environment, which, due to their location or nature, would result in the conversion of farmland to a non-agricultural use or conversion of forest land to non-forest use. As discussed above, the Project would result in the conversion of Prime Farmland, however the conversion of this land was analyzed under the City's General Plan and General Plan Environmental Impact Report. The City adopted a Statement of Overriding Considerations declaring that buildout of the City's General Plan and conversion of important farmland located within is Planning Area (now Sphere of Influence) would provide a net benefit to the City and its residents. Therefore, impacts would be less than significant.

[8] (City of Fowler, 2023)
[9] (City of Fowler, 2026)

Figure 4-1: Farmland Designation Map



4.3 AIR QUALITY

Table 4-3: Air Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 BASELINE CONDITIONS

The Project site is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the San Joaquin Valley Air Basin (SJVAB). The SJVAB is positioned within the San Joaquin Valley of California. The San Joaquin Valley is bounded by the Sierra Nevada Mountain Range to the east and the Coastal Mountain Range to the west. Wind within the SJVAB typically channels south-southwest during the summer months, while wind flows to the north-northwest during the winter months. Wind velocity for the region is considered low for an area of such size.[10] Due to a lack of strong winds and the natural confinement of the mountain ranges surrounding the SJVAB, the region experiences some of the worst air quality in the world.

4.3.2 REGULATORY ATTAINMENT DESIGNATIONS

Under the California Clean Air Act (CCAA), the California Air Resources Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The United States Environmental Protection Agency (USEPA) designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary

[10] (San Joaquin Council of Governments, 2018)

standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The USEPA uses the same subcategories for nonattainment status: serious, severe, and extreme. In 1991, USEPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

According to the USEPA, Fresno County was in non-attainment for two pollutant concentrations, with $PM_{2.5}$ (2012) being classified as in serious non-attainment, and 8-hour Ozone (2015) classified as being in extreme non-attainment as of April 2, 2026.[11]

Table 4-4: Summary of Ambient Air Quality Standards and Attainment Designation

Pollutant	Averaging Time	State Standard	Federal Standard	State Attainment Status	Federal Attainment Status
O_3	1 hour	0.09 ppm	N/A	Nonattainment/ Severe	N/A
O_3	8 hours	0.070 ppm	0.070 ppm (4th highest in 3 years)	Nonattainment	Nonattainment/ Extreme
CO	1 hour	20 ppm	35 ppm	Attainment/ Unclassified	Attainment/ Unclassified
CO	8 hours	9.0 ppm	9 ppm	Attainment/ Unclassified	Attainment/ Unclassified
PM_{10}	24 hours	50 µg/m^3	150 µg/m^3 (expected number of days above standard < or equal to 1)	Nonattainment	Attainment
PM_{10}	Annual	20 µg/m^3	N/A	Nonattainment	N/A
$PM_{2.5}$	24 hours	N/A	35 µg/m^3	N/A	Nonattainment
$PM_{2.5}$	Annual	12 µg/m^3	12.0 µg/m^3	Nonattainment	Nonattainment
NO_2	1 hour	0.18 ppm	0.100 ppm	Attainment	Attainment/ Unclassified
NO_2	Annual	0.030 ppm	0.053 ppm	Attainment	Attainment/ Unclassified
SO_2	1 hour	0.25 ppm	0.075 ppm (99th percentile over 3 years)	Attainment	Attainment/ Unclassified
SO_2	3 hours	N/A	0.5 ppm	N/A	Attainment/ Unclassified
SO_2	24 hours	0.04 ppm	0.14 ppm	Attainment	Attainment/ Unclassified
SO_2	Annual	N/A	0.030 ppm	N/A	Attainment/ Unclassified
Pb	Monthly	1.5 µg/m^3	N/A	Attainment	N/A
Pb	Rolling 3-month average	N/A	0.15 µg/m^3	N/A	Attainment/ Unclassified
Sulfates	24 hours	25 µg/m^3	N/A	Attainment	N/A
H_2S	1 hour	0.03 ppm	N/A	Unclassified	N/A
Visibility Reducing Particles (VRP)	8 hours	Visibility of 10 miles or more at relative humidity less than 70 %	N/A	Unclassified	N/A
Vinyl Chloride	24 hours	0.01 ppm	N/A	Attainment	N/A

** For more information on standards visit: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf*
*** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard [4/2/2026].*
****Secondary Standard*
Source: http://www.valleyair.org/aqinfo/attainment.htm . Accessed 4/2/2026.

[11] (United States Environmental Protection Agency, 2026)

4.3.3 CONSTRUCTION-GENERATED EMISSIONS

Construction of the Project is assumed to be completed over approximately 47 months. Emissions associated with the Project were calculated using the CalEEMod Air Quality Model, Version 2022.1.1.41 (California Emissions Estimator Modeling). The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and the default parameters contained in the model. Localized air quality impacts associated with the Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in Appendix A.

4.3.4 THRESHOLDS OF SIGNIFICANCE

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the Project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the Project. Localized emissions from Project construction and operation are also assessed using concentration-based thresholds that determine if the Project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during Project construction and operation are ROG (reactive organic gases), NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts, adopted in 2015, contains thresholds for ROG and Nitrogen Oxides (NO_X); Sulfur Oxides (SO_X), CO, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NOx are termed ozone precursors. The SJVAB often exceeds the State and national ozone standards. Therefore, if a project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM_{10} and $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The SJVAPCD adopted significance thresholds for construction-related and operational ROG, NO_X, PM, CO, and SOX. These thresholds are included in Table 4-5.

Table 4-5: Project-Level Air Quality CEQA Thresholds of Significance

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emissions (tons/year)
CO	100	100
NO_x	10	10
ROG	10	10
SO_x	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Source: SJVAPCD. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/media/g4nl3p0g/gamaqi.pdf . Accessed April 2, 2026.

4.3.5 IMPACT ANALYSIS

Short-Term Construction Generated Emissions

Estimated construction-generated emissions are summarized in Table 4-6.

Table 4-6: Unmitigated Short-Term Construction Generated Emissions of Criteria Air Pollutants

Source	Annual Emissions (Tons per Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Annual Project Construction Emissions	0.84	2.30	2.70	0.005	0.28	0.16
SJVAPCD Threshold	*10*	*10*	*100*	*27*	*15*	*15*
Threshold Exceeded?	No	No	No	No	No	No

Long-Term Operational Generated Emissions

Estimated operational-generated emissions are summarized in Table 4-7.

Table 4-7: Unmitigated Long-Term Operational Generated Emissions of Criteria Air Pollutants

Source	Annual Emissions (Tons per Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Annual Project Operational Emissions	2.00	1.91	6.99	0.02	1.78	0.48
SJVAPCD Threshold	*10*	*10*	*100*	*27*	*15*	*15*
Threshold Exceeded?	No	No	No	No	No	No

Maximum Daily Emissions of Criteria Air Pollutants

Daily construction and operational emissions generated by the Project are summarized in Table 4-8.

Table 4-8: Maximum Daily Emissions of Criteria Air Pollutants

Source	Daily Emissions Maximum (in pounds)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction – Summer	27.42	27.48	28.87	0.06	6.35	3.70
Construction – Winter	27.42	27.49	28.77	0.05	6.36	3.70
Operational – Summer	11.53	7.70	50.31	0.13	10.23	2.84
Operational – Winter	10.16	8.18	34.07	0.12	10.22	2.84
SJVAPCD Threshold	*100*	*100*	*100*	*100*	*100*	*100*
Threshold Exceeded?	No	No	No	No	No	No

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The Project would not conflict with or obstruct the implementation of any applicable air quality plan. The proposed Project would not exceed any threshold for air quality emissions that has been set by the SJVAPCD. Therefore, there would be no impact.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment. As shown in Table 4-6, Table 4-7, and Table 4-8, the Project would not exceed an emissions threshold that has been set by the SJVAPCD for construction or operation-related emissions. Therefore, impacts would be less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. As discussed above, the proposed Project would not result in significant long-term operational emissions. Constructed related emissions, shown in Table 4-6 and Table 4-8, would be temporary in nature and would cease upon Project construction. Short-term construction activities, however, could result in temporary increases in pollutant concentrations that could impact nearby sensitive receptors. Sensitive Receptors are groups that would be more affected by air, noise, and light pollution, pesticides, and other toxic chemicals than others. This includes infants, children under 16, the elderly over 65, athletes, and people with cardiovascular and respiratory diseases. High concentrations of these groups would include daycares, residential areas, hospitals, elder care facilities, schools, and parks. While the Project would be located in an area near sensitive receptors, such as the residential neighborhoods to the north of the site, the Project would not exceed the daily emission thresholds set by the SJVAPCD. Therefore, impacts would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. During construction activities, construction equipment exhaust and the application of asphalt, structural coating, and other construction applications would temporarily emit odors. Construction would be completed on land currently in the City of Fowler's southern city limit once annexed. There could be an effect on some residences that would be located near the construction area of the Project. Construction of the Project would be temporary, and odors would not remain after Project completion. Therefore, impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Table 4-9: Biological Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 BASELINE CONDITIONS

The Project site is approximately 39.93 acres in size and located in Fresno County within the Sphere of Influence of the City of Fowler. The site includes rural residential development and was previously used for agricultural purposes. The nearest surface water is the Kirby Canal, which traverses the northeast portion of the site. The United States Fish and Wildlife Service classifies the canal as a riverine.[12] Database searches were completed to determine the likelihood of special status species to occur on the Project site. Table 4-10 below summarizes the results of the database searches.

[12] (United States Fish and Wildlife Service, 2026)

A biological resources memo describing these database searches in more detail is contained in Appendix B. There are no regionally recorded observations of special status plants within two miles of the site. There are regional recorded observations of one special status animal species within five miles of the site, which is listed in Table 4-10, below.

Table 4-10: Special Status Species with the Potential to Occur on the Project Site

Species	Status*	Habitat	*Occurrence within the Site*
Swainson's hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	**Possible.** There are trees large enough for nesting within 0.5 miles of the proposed Project site. The nearest recorded observation of this species was approximately five miles south-southwest of the site in 2016.

***EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES**
Possible: Species not observed on the site, but it could occur there from time to time.

STATUS CODES
CT California Threatened

4.4.2 IMPACT ANALYSIS

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. The Project has the potential to impact migratory birds and one special status species in the Swainson's Hawk. In particular Swainson's hawk could nest within the vicinity of the site and be disturbed by Project-related activities when they are nesting. In order to reduce the potential for impact on potentially sensitive resources, mitigation measures **BIO-1A**, **BIO-1B**, and **BIO-1C** would be implemented. These mitigation measures include avoidance, preconstruction surveys (during nesting bird season), and use of avoidance buffers. Additionally, wildlife may utilize the open channel of the Kirby Canal that traverses the northeastern portion of the site. In order to avoid any potential impacts during construction, mitigation measure **BIO-2** would be implemented to maintain wildlife access to the Kriby Canal adjacent to the portions of the canal that would be undergrounded as a part of the Project. Incorporation of mitigation measures would reduce the potential for impacts to be less than significant.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. According to the California Natural Diversity Database and Information for Planning and Consultation searches (see Appendix B), designated critical habitat is absent from the site and vicinity. According to the United States Fish and Wildlife Service's National Wetlands Inventory, the Kirby Canal is designated as Riverine.[13] No other areas of the site are designated on this database. The site currently

[13] (United States Fish and Wildlife Service, 2026)

contains rural residential development and while it has been historically used for agriculture, vineyards located on the site were removed in 2023. Therefore, there would be no impact.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact. The Project site lacks typical riparian habitats, wetlands, and other wetland features as defined by Section 404 of the Clean Water Act. The nearest water body is the Kirby Canal, which traverses the northeastern portion of the site. The National Wetlands Inventory designates the Kirby Canal as a Riverine.[14] No other portions of the site hold a designation. The portion of the Kirby Canal that runs through the site would be undergrounded as a part of the Project. The Project would not impact a federally protected wetland. Therefore, impacts would be less than significant impact.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. The Project site is located within Fowler's Sphere of Influence, surrounded by a residential neighborhood to the north and agricultural lands to the east, south, and west. The area has experienced constant disturbance from vehicular traffic and the use of farm equipment from the surrounding agricultural lands. The frequency of disturbances from farm machinery and traffic could deter wildlife from using the site as a corridor, however wildlife may utilize the open channel of the Kirby Canal as a movement corridor. Despite the Project undergrounding a portion of the canal, this would not constitute a significant impact, however blocking access to the open portions of the canal outside of the Project site could result in significant impacts. In order to avoid impacts related to blocking access to the Kirby Canal, mitigation measure BIO-2 would be implemented. Therefore, impacts would be less than significant with mitigation incorporated.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project site currently has two primary structures and several accessory structures that will be demolished as part of the Project. The site also contains several trees. The Project would be required to comply with all local policies and regulations protecting biological resources, including the City's tree preservation ordinance. Therefore, there would be no impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not located within adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. The Project would be required to comply with all local policies and regulations protecting biological resources. Therefore, there would be no impact.

[14] Ibid.

4.4.3 MITIGATION

BIO-1 **1-A) Nesting Bird Avoidance:** Project activities should occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.

1-B) Migratory Nesting Bird Pre-Activity Survey: If Project activities must occur within the migratory bird nesting season (February 1 to September 15), a qualified biologist shall complete a pre-activity survey for active nests within five (5) calendar days prior to the start of Project activities. The survey shall be completed within the Project site, and all accessible lands up to 100 feet outside of the Project site for nesting migratory birds and up to 500 feet outside of the Project site for nesting raptors. Raptor nests would be considered "active" upon the nest-building stage. If no active nests are observed, the Project may proceed. The biologist shall also conduct a one-time take avoidance pre-construction survey for Swainson's hawk nests onsite and within a 0.5-mile radius. This one time take avoidance survey will be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000), or current guidance.

1-C) Nesting Bird Avoidance Buffers: On discovery of any active nests or breeding colonies near work areas, a qualified biologist shall determine appropriate avoidance buffer distances based on applicable California Department of Fish and Wildlife and/or United States Fish and Wildlife Service guidelines, the biology of the species, conditions of the nest(s), and the level of Project disturbance. If needed, avoidance buffers shall be identified with flagging, fencing, or other easily visible means, and should be maintained until the biologist has determined that the nestlings have fledged.

BIO-2 **Wildlife Access:** Access within Kirby Ditch shall not be blocked outside of construction hours or during overnight hours, or weekends. The following best management practices will also be implemented during construction activities:

i. All open trenches, holes, sumps, and other excavations greater than 6-inches with sidewalls steeper than a 1:1 (45 degree) slope within Kirby Ditch will have an escape ramp of earth or a non-slip material with a less than 1:1 slope or these will be covered with barrier material such that animals are unable to dig or squeeze under the barrier and become entrapped.

ii. A litter control program will be implemented during Project activities. All workers will place their foodstuffs, trash, and other waste in covered or closed trash containers. Contents of the trash containers will be properly disposed of at the end of each working day.

iii. If work within the Project site is occurring at night, spotlights will face away from Kirby Ditch, and all generators and construction activities will be located at least 50 ft. away from the banks of Kirby Ditch.

4.5 CULTURAL RESOURCES

Table 4-11: Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

4.5.1 BASELINE CONDITIONS

Following the completion of the transcontinental railroad in 1869, the Central Pacific Railroad, predecessor to the Southern Pacific Railroad, began construction of a Central Valley route to connect southern California with the commerce center of the San Francisco Bay. The segment through Fowler was laid around 1872. Thomas Fowler, a State Senator from 1869–1872, owned the ranch where a railroad switch was built by the Central Pacific Railroad. The town developed around the railroad switch and became known as Fowler's Switch. The Valley branch of the historic Southern Pacific Railroad is presently owned and operated by the Union Pacific Railroad. A post office branch was established in Fowler in 1882, the name was eventually shortened, and the City of Fowler was incorporated in 1908. In May 1973, Fowler's Switch was registered as a California Point of Interest for its local significance to Fowler. The marker for the Fowler Switch is located at the intersection of East Merced Street and South 7th Street and is not visible from the Project site.

The Project site is located on a previously farmed piece of land. Throughout the years of farming the site, it has been heavily disturbed through planting, harvesting, discing, and general agricultural machinery use.

4.5.1.1 RECORDS SEARCH

A records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), located at California State University, Bakersfield, was conducted in September 2025. The SSJVIC records search includes a review of all recorded archaeological and built-environment resources, as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Built Environment Resources Directory listings were reviewed for the Project site and an additional ½-mile radius. According to the search one cultural study has been completed within a ½-mile radius, with no recorded cultural resources having been discovered within the Project site or within ½ miles.

4.5.2 IMPACT ANALYSIS

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

a and b) Less than Significant Impact with Mitigation Incorporated. A CHRIS records search was conducted in September 2025 and confirmed that there are no recorded resources at the Project site or within ½ miles of the Project site. It is unlikely that the Project has the potential to result in significant impacts or adverse effects to cultural or historical resources, such as archaeological remains, artifacts, or historic properties. In the unlikely event that unidentified historical or archaeological resources are encountered during Project construction, Mitigation Measure **CUL-1** would be implemented to reduce any impacts to less than significant.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. There is no evidence that the Project site has the potential to be an unknown burial site or the site of buried human remains. In the unlikely event human remains are discovered in the Project area, mitigation shall be implemented. Mitigation measure **CUL-2** outlined below would be implemented and any impacts resulting from the discovery of remains would be reduced to less than significant.

4.5.3 MITIGATION

CUL-1 (Archaeological Remains) Should archeological remains or artifacts be unearthed during any stage of project activities, work in the area of the discovery shall cease until the area is evaluated by a qualified archaeologist. If mitigation is warranted, the project proponent shall abide by recommendations of the archaeologist.

CUL-2 (Human Remains) In the event that human remains are discovered on the Project site, the Fresno County Coroner must be notified of that discovery (Health and Safety Code Section 7050.5) and all activities in the immediate area if the find or in any nearby area reasonably suspected of overlie adjacent human remains must cease until appropriate and lawful measures have been implemented. If the Coroner determines that the remains are not recent, but rather of Native American origin, the Coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours to permit the NAHC to determine the most likely descendent of the deceased Native American.

4.6 ENERGY

Table 4-12: Energy Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

4.6.1 BASELINE CONDITIONS

The Project site is currently located adjacent to the City of Fowler city limits and would be annexed to the City as a part of the Project. The Project area is served by Pacific Gas and Electric Company (PG&E) for its electricity and natural gas needs.

4.6.2 IMPACT ANALYSIS

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. For heavy-duty construction equipment, horsepower and load factor were assumed using default data from the CalEEMod model. Fuel use associated with construction vehicle trips generated by the Project was also estimated; trips include construction worker trips, haul trucks trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the Project was based on (1) the projected number of trips the Project would generate (CalEEMod default values), (2) default average trip distance by land use in CalEEMod, and (3) fuel efficiencies estimated in the ARB 2017 Emissions Factors model (EMFAC2017) mobile source emission model.

Construction is estimated to consume a total of 35,656.17 gallons of diesel fuel and 3,415.59 gallons of gasoline fuel (see Appendix A). California Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(2), Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel because of unproductive idling of construction equipment. In addition, the energy consumption for construction activities would not be ongoing as they would be limited to the duration of the Project construction.

The development's anticipated annual energy consumption is approximately 1,710,424 kilowatt-hours and 7,120.954 therms of natural gas (see Appendix A). Energy consumption of residential uses is currently governed by the 2025 California Building Code, Part 6 for structures, and Title 20 of the California Code of Regulations for appliances. Energy consumption is anticipated to decrease over time as more energy-efficient standards take effect and energy-consuming equipment reaches its end-of-life and necessitates replacement. Therefore, impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. State and local authorities regulate energy use and consumption. These regulations at the State level are intended to reduce energy use and GHG (greenhouse gas) emissions. These include, among others, AB 1493 – Light-Duty Vehicle Standards; California Code of Regulations Title 24, Part 6 – Energy Efficiency Standards; and California Code of Regulations Title 24, Parts 6 and 11 – California Energy Code and Green Building Standards. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, there would be no impact.

4.7 GEOLOGY AND SOILS

Table 4-13: Geology and Soils Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

4.7.1 BASELINE CONDITIONS

4.7.1.1 GEOLOGY AND SOILS

The proposed Project is located in Fresno County, in the southern section of California's Great Valley Geomorphic Province, or Central Valley. The Sacramento Valley makes up the northern third, and the San Joaquin Valley makes up the southern two-thirds of the geomorphic province. Both valleys are watered by large rivers flowing west from the Sierra Nevada Mountain Range, with smaller tributaries flowing east from the Coastal Mountain Range. Most of the surface of the Central Valley is covered by Quaternary (present

day to 1.6 million years ago) alluvium.[15] From the time the Central Valley first began to form, sediments derived from the erosion of igneous and metamorphic rocks and consolidated marine sediments in the surrounding mountains have been transported into the Central Valley by streams. Soils present on the Project site consist of Delhi loamy sand, Hanford sandy loam, Hanford fine sandy loam/silty substratum, and Hesperia fine sandy loam (see Appendix B).

4.7.1.2 FAULTS AND SEISMICITY

The Project area is not located on any known fault or fault zone, but it could experience seismic activity as a result of fault activity in other parts of the state. The nearest major active fault is the San Andreas Fault, approximately 66 miles to the west of the Project site.[16] The Kern Canyon Fault is located approximately 76 miles to the east of the Project site. Other small, minor faults exist within Fresno County, outside of the vicinity of the Project site.

4.7.1.3 LIQUEFACTION

Liquefaction is a seismic phenomenon in which loose, saturated granular and non-plastic, fine-grained soils lose their structure or strength when subjected to high-intensity ground shaking. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction more commonly occurs in loose, saturated materials. The Project site is not known to be an area that experiences liquefaction.[17]

4.7.1.4 SOIL SUBSIDENCE

Subsidence occurs below the surface when subsurface pressure is reduced by the withdrawal of fluids (e.g., groundwater, natural gas, oil), resulting in sinking of the ground. While the Central Valley of California is known as an area that has experienced soil subsidence due to groundwater overdraft, the Project is not located in the immediate vicinity of an area that has been subject to subsidence. Caruthers, a census-designated place in Fresno County that is 10 miles southwest of the Project site, is the nearest location that is impacted by soil subsidence.[18]

4.7.1.5 DAM AND LEVEE FAILURE

According to the California Department of Water Resources Dam Breach Inundation Map, the Project site is not in an area that would be susceptible to flooding as a result of dam or levee failure.[19]

4.7.2 IMPACT ANALYSIS

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. Ground shaking intensity is a function of distance from an earthquake's epicenter and underlying geology. The most common impact associated with ground shaking is damage to structures. The Project would result in the construction of 183 single-family residences that would

[15] (Harden, 2004)
[16] (California Department of Conservation, 2015)
[17] (California Department of Conservation, 2026)
[18] (United States Geological Survey, 2026)
[19] (California Department of Water Resources, 2026)

meet California Building Code (CBC) requirements governing potential structural damage due to earthquakes. Moreover, the Project site is not located near any known fault or fault zone – the nearest major active fault is the San Andreas Fault, approximately 66 miles to the west of the Project site. Other minor faults exist within Fresno County, but are not located within the vicinity of the Project site. As such, the Project would not cause potential substantial adverse effects, including the risk of loss, injury, or death as a result in a rupture of a known earthquake fault, nor would it result in strong seismic activity from Project inundations. Therefore, impacts would be less than significant.

ii. Strong seismic ground shaking?

No Impact. The Project site is not located in an area traditionally characterized by high levels of seismic activity. Future development would be required to comply with current seismic protection standards in the CBC, which would significantly limit potential damage to structures and thereby reduce potential impacts, including the risk of loss, injury, or death. Compliance with the CBC would ensure there would be no impact.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. As mentioned above, the Project would not be located in an area that is known to experience liquefaction. The Project would result in the construction of 183 new single-family residences. The new construction would not increase the likelihood for liquefaction to occur within the Project area. Therefore, there would be no impact.

iv. Landslides?

No Impact. Characteristic of the Central Valley, the topography of the Project site is relatively flat. Soils on the Project site are native and stable. No large slopes deriving from rivers or streams are found within the Project site that would be susceptible to landslides. Therefore, there would be no impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Soil erosion and loss of topsoil can be caused by natural factors, such as wind, flowing water, and human activity. Construction of the Project would require typical site preparation activities such as grading and trenching, which may result in the potential for short-term soil disturbance or erosion impacts. Construction would also involve the use of water that may cause further soil disturbance. Such impacts would be addressed through compliance with regulations set by the State Water Resources Control Board (SWRCB). Namely, the SWRCB requires sites larger than one (1) acre to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity. The General Permit Order No. 2022-0057-DWQ requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer prior to the start of construction activities. The SWPPP estimates the sediment risk associated with construction activities and soil erosion and loss of topsoil can be caused by natural factors, such as wind, flowing water, and human activity. Best management practices (BMPs) are documents designed to help guide activities to meet the requirements of the Sustainable Groundwater Management Act and to control erosion. BMPs specific to erosion control cover sediment, tracking, and waste management controls. Implementation of the SWPPP minimizes the potential for the Project to result in substantial soil erosion or loss of topsoil. Furthermore, development of the Project site would comply with Section 8-14.08 (Grading Permit and Site Improvement Requirements) of the Fowler Municipal Code to control soil erosion and erosion potential during Project operations. With these provisions in place, impacts to soil and topsoil by the Project would be considered less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. Land subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. Soils with high silt or clay content are subject to subsidence. Subsidence typically occurs in areas with groundwater withdrawal or oil or natural gas extraction. The Project site is not within an identified by the United States Geological Survey as experiencing subsidence due to groundwater depletion.[20] The topography of the site is relatively flat with stable, native soils and no apparent unique or significant landforms. Furthermore, the Project site is in an area of low significance for seismic activity due to its distance from faults. Such factors minimize the potential for other geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, any development on the native, stable soils is unlikely to become unstable and result in geologic hazards. In addition, the Project would be required to comply with current seismic protection standards in the CBC, which would significantly limit potential seismic-related hazards such as landslides, lateral spreading, subsidence, liquefaction, or collapse. Compliance with the CBC would ensure a less than significant impact.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. The Project site is relatively flat with and comprised of native soils including loamy sand, sandy loam, and fine sandy loam, which are not expansive as defined in Table 18-1-B of the Uniform Building Code, and would not create substantial direct or indirect risks to life or property. Therefore, there would be no impact.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. Once annexed, the Project site would be located within the Fowler city limits and would connect to the City's wastewater services, provided by the Selma Kingsburg Fowler County Sanitation District (SKFCSD). Thus, no permanent septic tanks or alternative wastewater disposal systems would be installed. Therefore, there would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant Impact with Mitigation Incorporated. There are no known unique paleontological resources or geological features on the Project site; however, during construction unique paleontological or geological resources could be unearthed. In this event, all construction would be required to stop, the City would be notified, and a qualified geologist and/or paleontologist would be consulted. Employment of mitigation measure GEO-1 would lower any potential significant impacts to a less than significant level. Therefore, impacts would be less than significant with mitigation incorporated.

4.7.3 MITIGATION

GEO-1 Should a unique paleontological resource, site, or unique geological feature be unearthed during any stage of Project activities, work in the area of discovery will cease until the area is evaluated by a qualified geologist and/or paleontologist. If discoveries

[20] (United States Geological Survey, 2026)

are uncovered, the Project proponent will abide by recommendations of the geologist or paleontologist.

4.8 GREENHOUSE GAS EMISSIONS

Table 4-14: Greenhouse Gas Emissions Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

4.8.1 BASELINE CONDITIONS

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas. CO_2 is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH_4) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizers containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.
Water vapor is the most abundant and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

Ozone (O_3) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. O_3 is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human-made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2, CH_4, and N_2O have increased by at least 40 percent, 150 percent, and 20 percent, respectively, since the year 1750. GHG emissions are typically expressed in carbon dioxide equivalents (CO_2e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 25 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2. In accordance with SJVAPCD's *CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects* proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact.[21] Projects not complying with BPS would be considered less than significant if operational GHG emissions were reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

4.8.2 IMPACT ANALYSIS

Project Related Emissions

Short-term construction emissions associated with the Project were calculated using CalEEMod, Version 2022.1.1.41. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on an anticipated construction schedule of approximately 47 months. Remaining assumptions were based on the default parameters contained in the model. Modeling assumptions and output files are included in Appendix A. Estimated construction-generated and operational related emissions are summarized in Table 4-15 and Table 4-16. GHGs impact the environment over time as they increase and contribute to climate change.

[21] (San Joaquin Valley Air Pollution Control District, 2009)

Table 4-15: Short Term Construction Related GHG Emissions

	Emissions (MT CO2e) in Tons per Year
Maximum Annual Construction CO2e Emissions	521.75
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
AB 32 Consistency Threshold for Stationary Source Projects*	10,000
Threshold Exceeded?	No

* As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed 4/8/2026.

Table 4-16: Long Term Operational Related GHG Emissions

	Emissions (MT CO2e) in Tons per Year
Annual Operational CO2e Emissions	2,375.67
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
AB 32 Consistency Threshold for Stationary Source Projects*	10,000
Threshold Exceeded?	Yes

* As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed 4/8/2026.

Construction related generation of GHGs would be a maximum of 521.75 Metric Tons of Carbon Dioxide Equivalent (MT CO2e) per year, while operational emissions are expected to be 2,375.67 MTCO2e per year. The Project would not exceed the AB 32 consistency threshold for land use projects for short term construction emissions, but would exceed the threshold for long-term operational emissions.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

a & b) Less than Significant Impact with Mitigation Incorporated. Construction of the Project would generate a maximum annual amount of 521.75 $MTCO_2e$. Operation of the Project would generate approximately 2,375.67 $MTCO_2e$ annually. While construction related emissions would fall below the applicable threshold, operational emissions would be more than the applicable threshold, which could resulting in potentially significant impacts if not mitigated. The City of Fowler has not adopted an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs, however the City's General Plan and General Plan Environmental Impact Report was developed taking into account the GHG reduction strategies contained in the 2022 Fresno Council of Governments Regional Transportation Plan/Sustainable Communities Strategy; as well as State's 2022 Climate Change Scoping Plan. While the Project would amend the General Plan designation for the Project site, allowing for denser development to occur on-site, the City found in a Statement of Overriding Considerations adopted via Resolution No. 2634 that buildout of the City's General Plan would result in significant and unavoidable impacts related to the generation of GHGs. The City's General Plan Environmental Impact Report did however provide mitigation measures for developments projects that would exceed the applicable threshold for GHG generation. As a result, mitigation measures GHG-1 and GHG-2 would be implemented to diminish any potential impacts created by the Project to the greatest extent feasible. With implementation of these mitigation measures, impacts would be less than significant.

4.8.3 MITIGATION

GHG-1 Buildings in the subdivision shall be constructed with electrically-powered appliances and building mechanical equipment in place of natural-gas fueled equipment.

GHG-2 To the maximum extent feasible, the subdivision shall exceed the California Green Building Standard Code Tier 2 requirements for electric vehicle charging infrastructure.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Table 4-17: Hazards and Hazardous Materials Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

4.9.1 BASELINE CONDITIONS

4.9.1.1 HAZARDOUS MATERIALS

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop, at least annually, an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of the Cortese List data. In addition to the EnviroStor database, the SWRCB GeoTracker database provides

information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB GeoTracker performed on November 24, 2025, determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity.[22] [23]

4.9.1.2 AIRPORTS

The Project site is not located within the boundaries of an adopted Airport Land Use Compatibility Plan. The nearest airport or airstrip to the Project site is the Selma Airport, located approximately two and a half miles to the southeast of the Project site.

4.9.1.3 EMERGENCY RESPONSE PLAN

The City of Fowler has not adopted an Emergency Response Plan, but is in the process of doing so. The County of Fresno has developed a Hazard Mitigation Plan, addressing risks within the County, such as fire, law enforcement, public health threats, and other risks.[24]

4.9.1.4 SENSITIVE RECEPTORS

Sensitive Receptors are groups that would be more affected by air, noise, and light pollution, pesticides, and other toxic chemicals than others. This includes infants, children under 16, the elderly over 65, athletes, and people with cardiovascular and respiratory diseases. High concentrations of these groups would include daycares, residential areas, hospitals, elder care facilities, schools, and parks. The nearest sensitive receptors to the area would include the residential development immediately north of the site.

4.9.2 IMPACT ANALYSIS

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

a) and b) Less than Significant Impact. The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The Project would result in the construction of 183 single-family residences. During construction, equipment would be used that could result in the spill of hazardous materials, such as diesel fuel, lubricants, and solvents. However, the contractor would comply with all California Department of Occupational Safety and Health Administration regulations regarding regular maintenance and inspection of equipment, spill prevention, and spill remediation in order to reduce the potential for incidental release of pollutants or hazardous substances on-site. Furthermore, any potential accidental hazardous material spills during construction are the responsibility of the contractor to remediate in accordance with industry best management practices and State and local regulations. Therefore, impacts would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

[22] (California Department of Toxic Substances Control, 2025)
[23] (State Water Resources Control Board, 2025)
[24] (County of Fresno, 2024)

No Impact. The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school. No school, public or private, exists within one quarter mile of the Project site, nor is one currently proposed within one quarter mile of the site. Therefore, there would be no impact.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As discussed above, a search of the EnviroStor and GeoTracker databases was conducted, and the Project site and its vicinity have not been identified to contain a known hazardous material spill. Therefore, there would be no impact.

e) For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The Project would not be located within the vicinity of a private airstrip or an airport land use plan, or within two miles of a public or private airport where such a plan has not been adopted. The Project is located approximately two and a half miles northwest of the nearest airport, the Selma Airport, and is not located within an adopted airport land use compatibility plan. Therefore, there would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Project would result in truck deliveries during construction; however, no detours or road closures are expected to occur as a result of construction activities. In addition, any potential work within existing roadways would be required to be reviewed and approved by the City Engineer. Therefore, there would be no impact.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project site is currently located adjacent to the city limits of the City of Fowler and would be annexed to the City as a part of the Project. This area is characterized by urban development to the immediate north, where wildland fires are unlikely to occur. In addition, the Project site is not located within the vicinity of a State Responsibility Area (SRA) or a very high fire hazard severity zone (see Section 4.20 Wildfire). Therefore, there would be no impact.

4.10 HYDROLOGY AND WATER QUALITY

Table 4-18: Hydrology and Water Quality Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. 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; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

4.10.1 BASELINE CONDITIONS

The Project is located within the San Joaquin Valley Basin and the Kings Subbasin. The City of Fowler is located within the boundaries of the South Kings Groundwater Sustainability Agency. The nearest body of water is the Kirby Canal, traversing the northeastern portion of the Project site. The site is also located within the boundaries of the Fresno County Sole Source Aquifer.[25] This aquifer provides for the majority of drinking water for the area, making water quality protection increasingly important in the Project area. According to the Federal Emergency Management Agency (FEMA), the Project site is located approximately 1.25 miles from the nearest flood zone (see Figure 4-2).[26]

[25] (United States Environmental Protection Agency, 2026)
[26] (Federal Emergency Management Agency, 2025)

4.10.2 IMPACT ANALYSIS

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. In compliance with State regulations, all development within the Project site would be required to comply with State regulations adopted to reduce groundwater degradation. The SWRCB requires the preparation of a SWPPP for projects that exceed one acre in size. The Project would be required to obtain SWRCB approval of its SWPPP prior to construction. Therefore, the Project would have a less than significant impact through implementation of planned Project design features and through compliance with adopted SWPPP regulations. Impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The Project would include the development of 183 residential lots on the Project site. The site would be annexed to the City of Fowler, and the City would be the sole water provider for the development. The City is within the South Kings Basin, which is not adjudicated; therefore, there are presently no limitations placed on groundwater pumping volumes. The Project site is currently planned for Low Density Residential land uses, with the Project proposing to amend the land use for the site to Medium Low Density Residential land uses. While this change could result in denser development with an increase in the water demanded for the site by the Project, the increased demand expected as a result of denser development being allowed is not expected to be substantial. The City is currently in the process of constructing a new well on the west side of the City that will provide additional supply and redundancy for the City's west side, serving homes that would be constructed by the Project. Adequate water supply at the time of final map consideration will be required to be available to serve the Project. Therefore, impacts would be less than significant.

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 or through the addition of impervious surfaces, in a manner which would:

i. result in substantial erosion or siltation on- or off-site;

Less than Significant Impact. The Project site contains an existing irrigation canal that would be undergrounded as a part of the Project. No other surface waters exist on the Project site. The Project would require grading and soil exposure during construction. If soils are not controlled, the transport of these materials via local stormwater systems into local waterways could temporarily increase sediment concentrations. To minimize this impact, the proposed Project would be required to comply with all of the requirements of the State General Construction Permit and would be required to submit a SWPPP to the SWRCB prior to the start of construction activities. Mandatory compliance with State regulations would ensure that impacts from erosion and siltation would be less than significant.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii. 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; or

ii-iii) **Less than Significant Impact.** Although the Project would increase the rate of surface runoff, the Project would construct a drainage basin that would be adequately sized to collect storm runoff from the proposed development. Impacts would be less than significant.

iv. impede or redirect flood flows?

No Impact. The Project site is not located in a flood plain. As discussed above, the nearest flood zone is located approximately 1.25 miles northeast from the Project site (see Figure 4-2). Therefore, it would not impede or redirect flood flows. There would be no impact.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

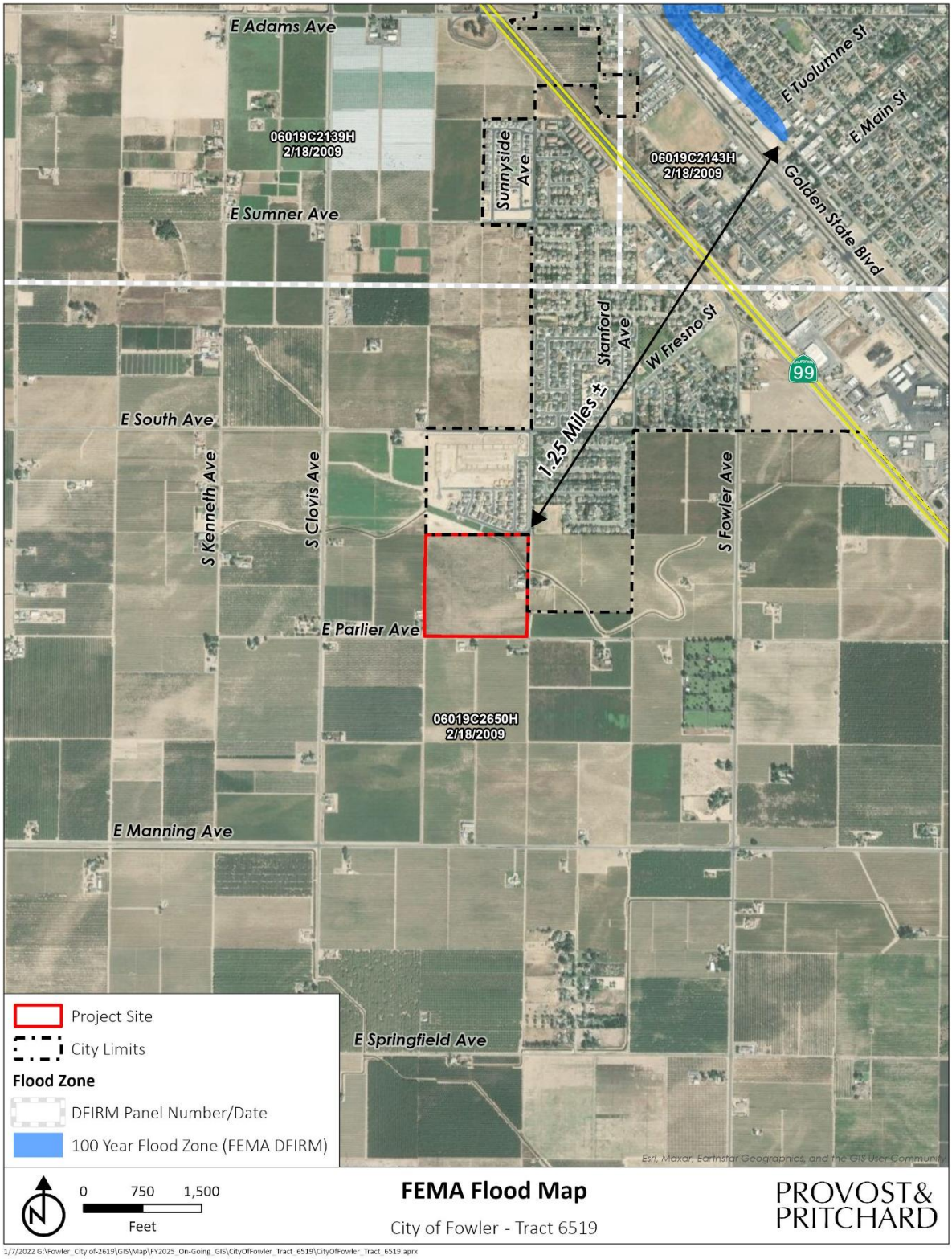
No Impact. The Project site is not located within a flood zone, tsunami, or seiche zone. Therefore, there would be no impact.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The City of Fowler is located within the South Kings Groundwater Sustainability Agency.[27] Once, annexed the Project site would be located within the South Kings Groundwater Sustainability Agency as well. The South Kings Groundwater Sustainability Agency has adopted a Groundwater Sustainability Plan, and the Project would not be in conflict with the plan.[28] Therefore, there would be no impact.

[27] (South Kings Groundwater Sustainability Agency, 2018)
[28] (South Kings Groundwater Sustainability Agency, 2019)

Figure 4-2: FEMA Flood Map



4.11 LAND USE AND PLANNING

Table 4-19: Land Use and Planning Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

4.11.1 BASELINE CONDITIONS

The Project site is currently located in Fresno County with a zoning designation of AE-20. The Project is also located within the City of Fowler's Sphere of Influence and has a General Plan land use designation of Low-Density Residential. As a part of the Project, the site would be annexed to the City, the site's land use designation would be amended to Medium Low Density Residential, and the site would be prezoned with an R-1-6 mapping designation and R-3 implementing zone district designation.

4.11.2 IMPACT ANALYSIS

a) Would the project physically divide an established community?

No Impact. The Project would include an annexation of the site from the County of Fresno to the City of Fowler. The site is located in the southwest portion of the Fowler Sphere of Influence and, once annexed, would be located at the westernmost extent of the Fowler city limits. As the Project site is located adjacent to the current city limits, annexation of this parcel would be done in a contiguous manner. In order for the Project to be approved, Fresno LAFCo would be required to approve an application for annexation. Therefore, there would be no impact.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Project is designated as Low Density Residential by the City's General Plan, and as a part of the Project a GPA has been proposed to amend the site's land use designation to Medium Low Density Residential. The Project site would be annexed to the City and given a mapping prezone designation R-1-6 with an implementing zone district designation of R-3, consistent with the Medium Low Density Residential land use. Therefore, following the proposed annexation, prezone, and GPA, the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, there would be no impact.

4.12 MINERAL RESOURCES

Table 4-20: Mineral Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.1 BASELINE CONDITIONS

The California Geological Survey (CGS) is responsible for the classification and designation of areas within California containing or potentially containing significant mineral resources. The CGS classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geologic Board, as mandated by the Surface Mining and Reclamation Act of 1975. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZ resource areas delineated by the State into their general plans.[29]

According to the CGS Mineral Land Classification map, the Fresno County area, including the Project site, could possibly produce aggregate materials.[30] The City of Fowler General Plan has not identified the Project site or land in its vicinity as containing mineral resources. The nearest known mineral-producing site (sand and gravel) is along the Kings River, over 8 miles to the northeast of the site.[31]

4.12.2 IMPACT ANALYSIS

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

a & b) No Impact. As described above, the Project site is not within the vicinity of an area being used for aggregate production, nor are there any active or inactive mines in the vicinity. In addition, California's Division of Oil, Gas, and Geothermal Resources has no record of active or inactive oil or gas wells or petroleum resources on the Project site or in the vicinity.[32] The Project site has not been identified as containing a locally important mineral resource by the City of Fowler General Plan, a specific plan, or any

[29] Public Resources Code section 2762
[30] (California Department of Conservation, 2026)
[31] (City of Fowler, 2023)
[32] (California Department of Conservation, 2026)

other land use plan. The Project would not result in the loss of any locally important mineral resource, nor a mineral resource that would be of value to the residents of the region or State. Therefore, there would be no impact.

4.13 NOISE

Table 4-21: Noise Impacts

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 ground borne vibration or ground borne 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, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 BASELINE CONDITIONS

According to the City's General Plan, the City requires that daytime noise sources within single-family residential areas remain below 60 decibels during the day.[33] The site is located adjacent to lands used for agricultural purposes and which are accustomed to heavy machinery use to the east, south, and west. The land to the north of the Project site is developed with single-family houses and is accustomed to typical urban neighborhood noise levels.

4.13.2 IMPACT ANALYSIS

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?

Less than Significant Impact. The Project would not result in the 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 City of Fowler General Plan, the City's noise performance standards contained in its zoning ordinance, or applicable standards of other agencies. During construction, the Project would temporarily utilize equipment that would exceed 60 decibels. While noise levels may temporarily be exceeded during such activities, construction noise would diminish with distance from the source. Construction noise would also be temporary and cease upon completion. As a result, construction noise is not anticipated to result in a significant impact.

[33] (City of Fowler, 2023)

Noise sources associated with the operation of the Project would consist of low-speed on-site vehicular noise, landscaping maintenance, and mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] units). Due to the distances and low noise levels associated with general site activities, on-site traffic, and landscape maintenance, these sources are not considered substantial and are not analyzed further. Therefore, impacts would be less than significant.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. The Project would not result in the generation of excessive ground-borne vibration or ground-borne noise levels. Like ordinary noise levels, ground-borne noise levels diminish in amplitude with distance from the source. Construction activities can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. The generation of vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight damage at the highest levels. Given the type of improvements, it is not anticipated that the Project would generate excessive ground-borne vibration or ground-borne noise levels. The Project would be required to adhere to all applicable City policies and regulations governing ground-borne vibration. Therefore, impacts would be less than significant.

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 Impact. The Project would not be located within the vicinity of a private airstrip or an airport land use plan, or within two miles of a public or private airport where such a plan has not been adopted. The Project is located approximately two and a half miles northwest of the nearest airport, the Selma Airport, and is not located within an adopted airport land use compatibility plan. Therefore, there would be no impact.

4.14 POPULATION AND HOUSING

Table 4-22: Population and Housing Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 BASELINE CONDITIONS

The Project is located in Fresno County, within the Sphere of Influence of the City of Fowler and unincorporated Fresno County and would be annexed to the City as a apart of the Project. According to the United States Census Bureau, the City of Fowler had an estimated population of 7,470 people in 2024. Additionally, it is estimated that in 2024 the City had a rate of 3.18 people per household.

4.14.2 IMPACT ANALYSIS

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The Project would not create a substantial increase in population in the area, either directly or indirectly. The Project would result in the construction of 183 single-family residential lots on land that would be annexed into the City as a part of the Project. At 3.18 residents per household, the Project would add approximately 581 new residents to the City's population. The Project proposes to increase the potential density of the Project site through a GPA to amend the site's land use designation from Low Density Residential to Medium Low Density Residential. While the Project would result in population growth through the construction of 183 homes and would increase the density potential for the site, the Project is not expected to induce a substantial amount of unplanned population. Therefore, impacts would be less than significant.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The Project would result in the construction of 183 homes on land that would be annexed into the City of Fowler as a part of the Project. Land being developed as part of the Project has historically been used for agricultural purposes, containing one single-family residence that would be demolished. While the existing rural residential

single family home would be demolished, this demolition is proposed by the applicant and property owner and would not result in the displacement of any individuals or families. Therefore, there would be no impact.

4.15 PUBLIC SERVICES

Table 4-23: Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

4.15.1 BASELINE CONDITIONS

FIRE PROTECTION:

The City of Fowler contracts with the Fresno County Fire Protection District (FCFPD) for primary fire protection within the city limits. The nearest Fresno County Fire Protection District station, Fresno County Fire Station 89 is located approximately 9.9 miles west-northwest of the Project site..

POLICE PROTECTION:

The Project would be served by the Fowler Police Department, located approximately 1.25 miles to the northeast of the Project site.

SCHOOLS:

Fowler Unified School District operates several schools within the City. The nearest public school to the site is John Sutter Middle School, 1.35 miles northeast. In total, there are seven schools within Fowler Unified School District: Fowler Academy, Fowler Early Learning Education Center, Fowler High School, Fremont Elementary School, John Sutter Middle School, Malaga Elementary School, and Marshall Elementary School.

PARKS

The City of Fowler has five designated City Parks, all of which are managed by the City's Department of Recreation. Donny Wright Park is the closest park, about 0.5 miles to the northeast.

LANDFILLS

The City of Fowler provides garbage, recycling, and green waste disposal services through a contract with Waste Management.

4.15.2 IMPACT ANALYSIS

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire Protection:

Less than Significant Impact. The Project would be served by the City of Fowler by way of the Fresno County Fire Protection District. The Project would be subject to the development impact fees for construction and acquisition costs for improvements to fire protection services and facilities. For these reasons, it can be determined that the Project can be served by existing facilities and would not result in the need for new or altered facilities Impacts would be less than significant.

ii. Police Protection:

Less than Significant Impact. The Fowler Police Department, located approximately 1.25 miles from the site, would provide police protection for the Project once it is annexed to the City. Construction of the Project would not substantially increase the service area for the Police Department, nor would it require the hiring of additional personnel. In addition, payment of impact fees to police facilities, included in the "Public Safety" fees, is a requirement prior to issuance of building permits. With the payment of impact fees, impacts would be less than significant.

iii. Schools:

Less than Significant Impact. The Project would result in the construction of 183 single-family residences. The student generation factor within Fowler Unified has ranged between 0.5 and 0.6 students per household, indicating that the proposed Project would generate approximately 91.5 to 109.8 students. However, payment of fees to a school district is considered full mitigation for project impacts on school facilities (Senate Bill 50: Government Code Section 65996(a)). Therefore, the Project applicant would be required to pay the statutory fees to accommodate the impact of Project-generated students, reducing impacts to a less than significant level. Senate Bill 50 deems payment of the fees "to provide full and complete school facilities mitigation." As payment of these fees is required prior to issuance of building permits, impacts would be less than significant.

iv. Parks:

Less than Significant Impact. The Project proposes to construct 183 single-family residences, which would result in population growth as a direct result. The City of Fowler General Plan uses a standard of three acres of park space per every 1,000 residents for its neighborhood parks and one acre of park space per every 1,000 residents for its community parks. At 3.18 residents per household, the Project would add approximately 591 new residents to the City's population. As such, the Project would need to add approximately 1.77 acres of park space to meet the requirements under the General Plan. General Plan Policy OS-3 also requires that a minimum of 5% of the Project site be developed with usable open space. At 39.93 acres in size, the Project would be required to provide approximately two acres of usable open space. The Project proposes a park of 2.07 acres in size, meeting this requirement. As such, the impacts would be less than significant.

v. Landfills:

Less than Significant Impact. The Project would result in the generation of solid waste during construction and operational activities. During construction, the waste produced would be the responsibility of the contractor to dispose of. Refuse collected from the site would be disposed of at the Waste Management Fresno Transfer Station, approximately 2.8 miles to the north of the site, or other waste centers within the Fresno metropolitan area. Subsequent to the construction of the single-family residences, operations would result in the generation of solid waste, recyclables, and organics. The City contracts with Waste Management for trash collection services. Refuse collected from the site would be disposed of at the American Avenue Landfill, approximately 24 miles to the northwest of the site. According to CalRecycle, the American Avenue Landfill is projected to have remaining capacity of 29,358,535 cubic yards.[34] Therefore, impacts would be less than significant.

[34] (California Department of Resources Recycling and Recovery, 2026)

4.16 RECREATION

Table 4-24: Recreation Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

4.16.1 BASELINE CONDITIONS

Parks within the City are administered by the City's Recreation Department. Donny Wright Park is the nearest community park to the Project site, located approximately 0.5 miles away, and covers an area of approximately six acres. The park includes an expanse of irrigated lawn, playground equipment, and pedestrian paths for recreation. A small neighborhood park is also located in the subdivision adjacent to the Project site to its north. There are no State or regional parks within the City's jurisdiction. In addition to park facilities, the City of Fowler also operates the Edwin Blayney Senior Center, which offers a meeting place and specialized recreation opportunities for senior citizens. The senior center is in the process of moving into a new location and is currently operating out of the Fowler Baptist Church.

4.16.2 IMPACT ANALYSIS

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact. The Project would result in the construction of a 183-unit residential subdivision. As a part of the Project, an approximately 2.07 acre park would be constructed to serve as open space for the development. As discussed above, the Project would result in the increase of the City's population by approximately 591 residents. While these new residents may use existing City parks, construction of the park proposed by the Project would ensure that the parks per resident ratio outlined in the City's General Plan is maintained. Therefore, the impacts would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less than Significant Impact. As discussed above, the Project would include construction of a 2.07 acre park. Any adverse physical effect on the environment because of this Project is discussed in the appropriate impact topic throughout this document. Therefore, impacts would be less than significant.

4.17 TRANSPORTATION

Table 4-25: Transportation Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

4.17.1 BASELINE CONDITIONS

The Project site is within the southwest region of the City of Fowler's sphere of influence. Major transportation routes within the City include SR 99 as well as Golden State Boulevard. The Project site's frontage includes East Parlier Avenue to the south and South Sunnyside Avenue to the east.

In December 2018, modifications to the CEQA Guidelines were adopted by the Governor's Office of Land Use and Climate Innovation (LUCI) (formerly the Office of Planning and Research), which requires all lead agencies to adopt Vehicle Miles Traveled (VMT) as a replacement for automobile delay-based level of service as the new measure for identifying transportation impacts for land use projects. This statewide mandate, enacted by the State Legislature through SB 743, took effect July 1, 2020. This analysis relies on the Fresno County SB 743 Implementation Regional Guidelines, prepared in January of 2021. If the guidelines do not apply, the analysis will rely on information prepared by LUCI as part of their December 2018 publication entitled Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which provides guidance for evaluating transportation impacts based on VMT.[35]

4.17.2 IMPACT ANALYSIS

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact with Mitigation Incorporated. The Project would contribute to the failure of two intersections – SR 99 and Merced Street Northbound on and off ramps and SR 99 and Merced Street Southbound off ramp. Both intersections currently have a Level of Service of D at these intersections during the AM peak hour period and with the Project and other approved projects, would fall to a Level of Service of E, which is considered an unsafe and failing intersection. City of Fowler General Plan Policy MOB-5 reads as follows: "Encourage a Level of Service (LOS) "C" throughout the local circulation network.

[35] (Governor's Office of Planning and Research, 2018)

LOS "D" may be allowed during peak hours at intersections of major streets, at State Route 99 interchanges, and along street segments where additional improvements are not feasible. LOS "D" may also be allowed along streets with the potential for a high level of pedestrian and bicyclist activity. LOS "E" may be permitted during peak hour use of certain road intersections and segments where pedestrian and bicycle activity is prioritized." As these two intersections comprise a major street intersection, falling to Level of Service E would result in a conflict with the City's General Plan if not adequately mitigated. The Project's Traffic Study (see Appendix D), indicates that the construction of a roundabout at each intersection would elevate the Level of Service for the two intersections, with construction of the Project, to a level of Service of B during both AM and PM peak hours. As a result, the Project will be required to implement Mitigation Measure TRA-1, described in detail below, to pay the Project's equitable fair share contribution for the construction of two roundabouts at the two aforementioned intersections. With implementation of Mitigation Measure TRA-1, impacts would be lessened to a less than significant level. Therefore, impacts would be less than significant with mitigation incorporated.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

Less than Significant Impact. The City of Fowler General Plan found that buildout of thew land uses designated on the General Plan land use diagram would result in a VMT per capita of 12.3, which was less than the County average of 16.1, and less than the applicable significance threshold of 14.0. While the Project would result in a build out that is more dense than what the Project site was originally planned for under the City's General Plan, the increased density of the site from Low Density Residential to Medium Low Density Residential, would result in a negligible change in the VMT being generated by the site and the City as a whole. Therefore impacts would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would not substantially increase hazards due to a geometric design feature or incompatible uses. The Project would result in the construction of 183 single-family residences on the Project site. The Project does not propose the construction of a hazardous geometric design feature, nor does it propose an incompatible use for the site. All roadways constructed or altered as a part of the Project would conform to the adopted City of Fowler street standards. Therefore, there would be no impact.

d) Would the project result in inadequate emergency access?

No Impact. The Project would not result in inadequate emergency access. No road closures would be necessary in order for the Project to be developed. The Project would be required to be reviewed and approved by the City Engineer prior to approval, ensuring that access would be maintained. In addition, construction of the Project would not create a conflict with designated emergency routes. Therefore, there would be no impact.

4.17.3 MITIGATION

TRA-1 The Project shall pay its equitable fair share costs for the future construction of two roundabouts, which will be designed and constructed to the satisfaction of Caltrans and the City Engineer, at the intersections of Sumner Avenue/Merced Street and

Highway 99 southbound off-ramp and Merced Street and Highway 99 northbound on- and off-ramps. The equitable fair share cost for improvements at each of these two intersections will be 14.3% (southbound) and 11% (northbound). The two roundabouts shall be constructed prior to occupancy being granted for any portion of the Project.

4.18 TRIBAL CULTURAL RESOURCES

Table 4-26: Tribal Cultural Resources Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

4.18.1 BASELINE CONDITIONS

Public Ressources Code Section 21080.3.1, et seq. (codification of AB 52, 2013-14) requires that a lead agency, within 14 days of determining that it would undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate a formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement would be made.

The City of Fowler has received written correspondence from the Santa Rosa Rancheria Tachi Yokut tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of the proposed project. Additionally, because the Project proposes to amend the General Plan land use designation for the Project site, the City has sent out letters to Tribes that may have sacred lands within the Project site and its vicinity pursuant to SB 18.

4.18.1.1 RECORDS SEARCH

A records search from the SSJVIC of the CHRIS, located at California State University, Bakersfield, was conducted in September of 2025 (see Appendix C). The SSJVIC records search includes a review of all recorded archaeological and built-environment resources, as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Built Environment Resources Directory listings were reviewed for the Project site, as well as an additional one-half mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. Additional sources included the State Historic Preservation Office Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources. The records search of the Project site indicated that there were no known tribal cultural resources on-site.

4.18.1.2 NATIVE AMERICAN OUTREACH

Ad discussed above, tribal letters pursuant to both AB 52 (Santa Rosa Tachi Yokut Tribe) and SB 18 were sent to tribes who may have sacred lands on or within the vicinity of the Project site. This list of tribes was provided by the NAHC in October of 2025, along with a Sacred Lands File search that determined that there were no know sacred sites on the Project site. Tribal letters pursuant to AB 52 and SB 18 were sent to the following tribes and tribal contacts on October 3, 2025:

- Delia Dominguez, Chairperson, Kitanemuk & Yowlumne Tejon Indians
- Shana Powers, THPO, Santa Rosa Tachi Yokut Tribe
- Samantha McCarty, Cultural Specialist II, Santa Rosa Tachi Yokut Tribe
- Nichole Escalon, Cultural Specialist I, Santa Rosa Tachi Yokut Tribe
- Bob Pennell, Cultural Resource Director, Table Mountain Rancheria
- Michelle Heredia-Cordova, Chairperson, Table Mountain Rancheria
- Felix Christman, THPO, Tule Indian Tribe
- Neil Peyron, Chairperson, Tule Indian Tribe
- Kerri Vera, Environmental Department, Tule Indian Tribe
- Kenneth Woodrow, Chairperson, Wuksachi Indian Tribe/Eshom Valley Band

No responses were received within the respective 30- and 90-day timelines under AB 52 and SB 18.

4.18.2 IMPACT ASESSMENT

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

vi. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or

vii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public

Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation Incorporated. The City has not received any responses to the AB 52 and SB 18 letters sent to tribes who may have sacred lands within the vicinity of the Project site. Additionally, a records search of the Project site indicated that there were no known tribal cultural resources on-site. In the unlikely event of a discovery, mitigation will be implemented. With incorporation of mitigation measure **CUL-1** and **CUL-2** described above in Section 4.5, impacts resulting from the discovery of remains interred on the Project site or the discovery of another tribal cultural resource would be less than significant.

4.18.3 MITIGATION

See **CUL-1** and **CUL-2** above in Section 4.5.3.

4.19 UTILITIES AND SERVICE SYSTEMS

Table 4-27: Utilities and Service Systems Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

4.19.1 BASELINE CONDITIONS

The Project site would be annexed into the City of Fowler as a part of the Project. The City provides water and stormwater services for residents of the City, with solid waste services provided by Waste Management.[36] The Selma Kingsburg Fowler County Sanitation District is the sewer facilities provider for the City. PG&E is the natural gas and electricity provider for the area.[37] The Project site is adjacent to residential units to the north and agricultural land to the east, south, and west.

4.19.2 IMPACT ANALYSIS

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. As the Project site is located adjacent to existing development to the north, utility connections, existing water, and wastewater infrastructure are available within the immediate

[36] (Fowler City, 2025)
[37] (Fowler City, 2025)

vicinity of the Project site to connect to. No substantial extension of any utility service would be required for the Project. Therefore, impacts would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. The Project would result in an additional 183 single family residences demanding water from the City's current supply. In August of 2025, the City approved a subdivision map and reported that 512 remaining equivalent single family homes of water supply following the approval of that map. Since this approval, the City has approved one more map with 179 total single family lots, leaving a remaining capacity of 333 single family homes. Additionally, the City has been constructing a new well (Well No. 9) that will provide for increased supply and is expected to be online by September of 2026. As a result, Sufficient water supply is available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years. Therefore, impacts would be less than significant.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. The Project would require a new sewer connection to existing wastewater facilities. While the Project would include a new sewer connection to serve the residential development, existing infrastructure exists to the immediate north of the Project site which the Project would be able to connect to. Currently there is existing capacity within the sewer lines within Sout Sunnyside Avenue and East South Avenue to serve the Project, however should there not be adequate capacity at the time that the Project's final map is being considered, the Project would be required to upsize the existing sewer lines to serve the Project, being reimbursed for any costs in excess of the Project's fair share. In addition, the Project would also be required to file all necessary applications and pay fees to the SKFCSD. Therefore, impacts would be less than significant.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The Project would result in the generation of solid waste during construction and operational activities. During construction, the contractor would be responsible for any solid waste produced. Subsequent to the construction of the 183 single-family residences, operational activities would result in the generation of solid waste, recyclables, and organics. The City contracts with Waste Management for trash collection services. Refuse collected from the site would be disposed of at such facilities as the Waste Management Fresno Transfer Station, approximately two and a half miles north of the Project site, or at the American Avenue Landfill, approximately 24 miles to the west of the site. According to CalRecycle, the American Avenue Landfill is projected to have capacity through the year 2031.[38] Therefore, impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

[38] (California Department of Resources Recycling and Recovery, 2025)

No Impact. The Project would be required to comply with all applicable federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, there would be no impact.

4.20 WILDFIRE

Table 4-28: Wildfire Impacts

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.20.1 BASELINE CONDITIONS

The Project site, which would be annexed to the City of Fowler as a part of the Project, is comprised of natural vegetation and a single-family residence. Historically, the site has been used for agricultural purposes. As discussed above, the Project site would be served by FCFPD for its fire protection needs.. Subsequent to annexation, the site would be served by the City of Fowler Fire Department.

According to the California Department of Forestry and Fire Protection (CalFire), the Project site is not located within an SRA, meaning CalFire does not assume responsibility for wildfire prevention and protection, but rather, the site is managed at the local level. The nearest SRA is located approximately 15 miles East of the Project Site.[39] Furthermore, according to CalFire, the Project site is not located within a Very High Fire Hazard Severity Zone. The nearest Very High Fire Hazard Severity Zone (VHFHSZ) is located approximately 13.5 miles east of the Project Site.[40]

[39] (California Department of Forestry and Fire Protection, 2024)
[40] (California Department of Forestry and Fire Protection, 2020)

4.20.2 IMPACT ANALYSIS

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

a-d) No Impact. The Project site is not located within a VHFHSZ or an SRA. The nearest SRA is located approximately 15 miles east of the Project site, and the nearest VHFHSZ is approximately 13.5 miles east of the Project site. The site is located on a relatively flat, vacant, and undeveloped site that is surrounded by urban and agricultural uses, making wildfire unlikely to occur at the site. Therefore, there would be no impact

4.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Table 4-29: CEQA Mandatory Findings of Significance

Does the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.21.1 STATEMENT OF FINDINGS

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. The analysis conducted in this IS/MND results in a determination that the Project, with incorporation of mitigation measures, would have a less than significant effect on the environment. The potential for impacts to biological resources, cultural resources, geology and soils, transportation, and tribal cultural resources from the implementation of the Project would be less than significant with the incorporation of the mitigation measures identified in this analysis. Accordingly, the Project would involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community, or the elimination of examples of a major period of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. The Project involves the construction of 183 single-family residential lots and a neighborhood park on 39.93 acres, the effects of which would not result in significant cumulative considerable impacts. Implementation of the Project would not result in significant cumulative impacts, and all potential impacts would be less than significant through the implementation of basic regulatory requirements and Project design.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. The analysis conducted in this IS/MND results in a determination that the Project would have a less than significant effect on the environment. All potential impacts to human beings are unsubstantial and would be considered less than significant.

CHAPTER 5 MITIGATION, MONITORING, AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Project in the City of Fowler. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1: Mitigation, Monitoring, and Reporting Program presents the mitigation measures identified for the Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of Table 5-1: Mitigation, Monitoring, and Reporting Program identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring of the mitigation measure. The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the Lead and Responsible Agencies to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1: Mitigation, Monitoring, and Reporting Program

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources						
BIO-1	**1-A) Nesting Bird Avoidance:** Project activities should occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds. **1-B) Migratory Nesting Bird Pre-Activity Survey:** If Project activities must occur within the migratory bird nesting season (February 1 to September 15), a qualified biologist shall complete a pre-activity survey for active nests within five (5) calendar days prior to the start of Project activities. The survey shall be completed within the Project site, and all accessible lands up to 100 feet outside of the Project site for nesting migratory birds and up to 500 feet outside of the Project site for nesting raptors. Raptor nests would be considered "active" upon the nest-building stage. If no active nests are observed, the Project may proceed. The biologist shall also conduct a one-time take avoidance pre-construction survey for Swainson's hawk nests onsite and within a 0.5-mile radius. This one time take avoidance survey will be conducted in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000), or current guidance. **1-C) Nesting Bird Avoidance Buffers:** On discovery of any active nests or breeding colonies near work areas, a qualified biologist shall determine appropriate avoidance buffer distances based on applicable California Department of Fish and Wildlife and/or United States Fish and Wildlife Service guidelines, the biology of the species,	Five days prior to ground disturbance	Prior to ground disturbance	City of Fowler and/or construction contractor	City of Fowler with assistance of a qualified biologist	

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	conditions of the nest(s), and the level of Project disturbance. If needed, avoidance buffers shall be identified with flagging, fencing, or other easily visible means, and should be maintained until the biologist has determined that the nestlings have fledged.					
BIO-2	**Wildlife Access**: Access within Kirby Ditch shall not be blocked outside of construction hours or during overnight hours, or weekends. The following best management practices will also be implemented during construction activities: i. All open trenches, holes, sumps, and other excavations greater than 6-inches with sidewalls steeper than a 1:1 (45 degree) slope within Kirby Ditch will have an escape ramp of earth or a non-slip material with a less than 1:1 slope or these will be covered with barrier material such that animals are unable to dig or squeeze under the barrier and become entrapped. ii. A litter control program will be implemented during Project activities. All workers will place their foodstuffs, trash, and other waste in covered or closed trash containers. Contents of the trash containers will be properly disposed of at the end of each working day. iii. If work within the Project site is occurring at night, spotlights will face away from Kirby Ditch, and all generators and construction activities will be located at least 50 ft. away from the banks of Kirby Ditch.	During Construction Activities	Daily	City of Fowler and/or construction contractor	City of Fowler with assistance of a qualified biologist	
Cultural Resources						
CUL-1	**Archaeological Remains:** Should archeological remains or artifacts be unearthed during any stage of project activities, work in the area of the discovery shall cease until the area is evaluated by a qualified archaeologist. If mitigation is warranted,	During Construction Activities	Daily	City of Fowler and/or construction contractor	City of Fowler with assistance of a qualified archaeologist	

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	the project proponent shall abide by recommendations of the archaeologist.					
CUL-2	**Human Remains:** In the event that human remains are discovered on the Project site, the Fresno County Coroner must be notified of that discovery (Health and Safety Code Section 7050.5) and all activities in the immediate area if the find or in any nearby area reasonably suspected of overlie adjacent human remains must cease until appropriate and lawful measures have been implemented. If the Coroner determines that the remains are not recent, but rather of Native American origin, the Coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours to permit the NAHC to determine the most likely descendent of the deceased Native American.	During Construction Activities	Daily	City of Fowler and/or construction contractor	City of Fowler with assistance of a qualified archaeologist	
Geology and Soils						
GEO-1	Should a unique paleontological resource, site, or unique geological feature be unearthed during any stage of Project activities, work in the area of discovery will cease until the area is evaluated by a qualified geologist and/or paleontologist. If discoveries are uncovered, the Project proponent will abide by recommendations of the geologist or paleontologist	During Construction Activities	Daily	City of Fowler and/or construction contractor	City of Fowler with assistance of a qualified geologist and/or paleontologist	
Greenhouse Gas Emissions						
GHG-1	Buildings in the subdivision shall be constructed with electrically-powered appliances and building mechanical equipment in place of natural-gas fueled equipment.	During building permit stage	Per building permit	City of Fowler and/or construction contractor	City of Fowler Building Department	
GHG-2	To the maximum extent feasible, the subdivision shall exceed the California Green Building Standard Code Tier 2 requirements for electric vehicle charging infrastructure.	During building permit stage	Per building permit	City of Fowler and/or construction contractor	City of Fowler Building and Engineering Department	
Transportation						

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
TRA-1	The Project shall pay its equitable fair share costs for the future construction of two roundabouts, which will be designed and constructed to the satisfaction of Caltrans and the City Engineer, at the intersections of Sumner Avenue/Merced Street and Highway 99 southbound off-ramp and Merced Street and Highway 99 northbound on- and off-ramps. The equitable fair share cost for improvements at each of these two intersections will be 14.3% (southbound) and 11% (northbound). The two roundabouts shall be constructed prior to occupancy being granted for any portion of the Project.	Fair shares fees shall be paid at building permit stage	Fee to be paid per building permit	City of Fowler	Payment of fees	
Tribal Cultural Resources						
See **CUL-1** and **CUL-2.**						

CHAPTER 6 REFERENCES

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Tract 6519 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Tract 6519
Construction Start Date	1/4/2028
Operational Year	2032
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	25.4000
Location	36.61472248601066, -119.69374649052867
County	Fresno
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2536
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.41

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	183.000	Dwelling Unit	39.9300	239,802	2,143,453	85,867.0	586.000	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	27.4434	27.4225	27.4835	28.8683	0.06093	1.14375	5.20603	6.34978	1.05225	2.64895	3.70121	—	6,712.27	6,712.27	0.27074	0.07122	1.55986	6,736.73
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	27.4396	27.4187	27.4914	28.7683	0.04893	1.14375	5.20603	6.34978	1.05225	2.64895	3.70121	—	5,388.63	5,388.63	0.21846	0.07267	0.04047	5,408.26
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.66685	4.58448	12.5932	14.7690	0.02803	0.48769	1.06923	1.55692	0.44875	0.44873	0.89748	—	3,136.06	3,136.06	0.12522	0.04963	0.42756	3,151.38
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.85170	0.83667	2.29825	2.69534	0.00512	0.08900	0.19513	0.28414	0.08190	0.08189	0.16379	—	519.211	519.211	0.02073	0.00822	0.07079	521.746

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.67753	3.09627	27.4835	28.8683	0.06093	1.14375	5.20603	6.34978	1.05225	2.64895	3.70121	—	6,712.27	6,712.27	0.27074	0.07122	1.55986	6,736.73
2029	1.39863	1.18797	9.03950	14.8786	0.02512	0.27909	0.42405	0.70314	0.25704	0.10215	0.35919	—	3,000.08	3,000.08	0.11198	0.06949	1.38725	3,024.97
2030	1.35737	1.15155	8.83698	14.7313	0.02512	0.26357	0.42405	0.68761	0.24276	0.10215	0.34490	—	2,986.79	2,986.79	0.11025	0.05787	1.22669	3,008.02
2031	27.4434	27.4225	8.54102	14.5853	0.02512	0.24668	0.42405	0.67073	0.22550	0.10215	0.32764	—	2,973.87	2,973.87	0.10880	0.05615	1.08153	2,994.40
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.67058	3.08894	27.4914	28.7683	0.04893	1.14375	5.20603	6.34978	1.05225	2.64895	3.70121	—	5,388.63	5,388.63	0.21846	0.07267	0.04047	5,408.26
2029	1.37453	1.16241	9.09242	14.5398	0.02512	0.27909	0.42405	0.70314	0.25704	0.10215	0.35919	—	2,959.46	2,959.46	0.11634	0.07094	0.03600	2,983.55
2030	1.32209	1.12556	8.87699	14.4208	0.02512	0.26357	0.42405	0.68761	0.24276	0.10215	0.34490	—	2,946.98	2,946.98	0.11316	0.06949	0.03181	2,970.54
2031	27.4396	27.4187	8.58001	14.2837	0.02512	0.24668	0.42405	0.67073	0.22550	0.10215	0.32764	—	2,934.77	2,934.77	0.11171	0.06776	0.02807	2,957.79
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.78177	1.50210	12.5932	14.7690	0.02803	0.48769	1.06923	1.55692	0.44875	0.44873	0.89748	—	3,136.06	3,136.06	0.12522	0.04007	0.24352	3,151.38
2029	0.98346	0.83164	6.47640	10.3953	0.01794	0.19935	0.29807	0.49742	0.18360	0.07176	0.25536	—	2,122.01	2,122.01	0.08102	0.04963	0.42756	2,139.26
2030	0.95472	0.80770	6.32375	10.3089	0.01794	0.18826	0.29807	0.48633	0.17340	0.07176	0.24515	—	2,112.94	2,112.94	0.07979	0.04933	0.37910	2,130.01
2031	4.66685	4.58448	3.79552	6.32901	0.01042	0.11221	0.15665	0.26885	0.10276	0.03756	0.14032	—	1,214.26	1,214.26	0.04600	0.02031	0.17101	1,221.63
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.32517	0.27413	2.29825	2.69534	0.00512	0.08900	0.19513	0.28414	0.08190	0.08189	0.16379	—	519.211	519.211	0.02073	0.00663	0.04032	521.746
2029	0.17948	0.15177	1.18194	1.89715	0.00327	0.03638	0.05440	0.09078	0.03351	0.01310	0.04660	—	351.324	351.324	0.01341	0.00822	0.07079	354.179
2030	0.17424	0.14741	1.15408	1.88138	0.00327	0.03436	0.05440	0.08876	0.03165	0.01310	0.04474	—	349.821	349.821	0.01321	0.00817	0.06276	352.647
2031	0.85170	0.83667	0.69268	1.15504	0.00190	0.02048	0.02859	0.04907	0.01875	0.00685	0.02561	—	201.035	201.035	0.00762	0.00336	0.02831	202.255

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.61333	3.03620	27.4549	28.3524	0.06093	1.14375	5.11082	6.25458	1.05225	2.62664	3.67889	—	6,598.26	6,598.26	0.26765	0.05353	0.00000	6,620.90
2029	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	0.00000	0.27564	0.25359	0.00000	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
2030	1.12372	0.94034	8.39196	12.8848	0.02340	0.26012	0.00000	0.26012	0.23931	0.00000	0.23931	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
2031	27.4051	27.3851	8.11856	12.8454	0.02340	0.24323	0.00000	0.24323	0.22377	0.00000	0.22377	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.61333	3.03620	27.4549	28.3524	0.04893	1.14375	5.11082	6.25458	1.05225	2.62664	3.67889	—	5,300.02	5,300.02	0.21499	0.04300	0.00000	5,318.21
2029	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	0.00000	0.27564	0.25359	0.00000	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
2030	1.12372	0.94034	8.39196	12.8848	0.02340	0.26012	0.00000	0.26012	0.23931	0.00000	0.23931	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
2031	27.4051	27.3851	8.11856	12.8454	0.02340	0.24323	0.00000	0.24323	0.22377	0.00000	0.22377	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.69036	1.41885	12.4359	14.0894	0.02755	0.48673	0.91177	1.39849	0.44779	0.41109	0.85888	—	2,932.01	2,932.01	0.11893	0.02379	0.00000	2,942.07
2029	0.82383	0.68938	6.12975	9.21517	0.01671	0.19689	0.00000	0.19689	0.18114	0.00000	0.18114	—	1,712.02	1,712.02	0.06945	0.01389	0.00000	1,717.90
2030	0.80266	0.67167	5.99426	9.20340	0.01671	0.18580	0.00000	0.18580	0.17093	0.00000	0.17093	—	1,712.02	1,712.02	0.06945	0.01389	0.00000	1,717.90
2031	4.59432	4.51583	3.64564	5.77813	0.00987	0.11110	0.00000	0.11110	0.10221	0.00000	0.10221	—	1,016.99	1,016.99	0.04125	0.00825	0.00000	1,020.48
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.30849	0.25894	2.26955	2.57131	0.00503	0.08883	0.16640	0.25522	0.08172	0.07502	0.15674	—	485.427	485.427	0.01969	0.00394	0.00000	487.093
2029	0.15035	0.12581	1.11868	1.68177	0.00305	0.03593	0.00000	0.03593	0.03306	0.00000	0.03306	—	283.445	283.445	0.01150	0.00230	0.00000	284.418
2030	0.14649	0.12258	1.09395	1.67962	0.00305	0.03391	0.00000	0.03391	0.03120	0.00000	0.03120	—	283.445	283.445	0.01150	0.00230	0.00000	284.418
2031	0.83846	0.82414	0.66533	1.05451	0.00180	0.02028	0.00000	0.02028	0.01865	0.00000	0.01865	—	168.374	168.374	0.00683	0.00137	0.00000	168.951

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.26023	0.23908	0.48428	2.11151	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	616.606	616.606	0.01620	0.05177	1.55986	633.998
2029	0.24527	0.22283	0.45784	1.97733	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	603.246	603.246	0.01475	0.05004	1.38725	619.915
2030	0.23365	0.21121	0.44502	1.84650	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	589.953	589.953	0.01303	0.03843	1.22669	602.957
2031	0.20940	0.19814	0.42246	1.73992	0.00173	0.00345	0.42405	0.42750	0.00173	0.10215	0.10387	—	577.035	577.035	0.01157	0.03670	1.08153	589.344
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.23279	0.21105	0.53720	1.74252	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	575.134	575.134	0.01911	0.05322	0.04047	591.512
2029	0.22117	0.19728	0.51076	1.63856	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	562.632	562.632	0.01911	0.05150	0.03600	578.491
2030	0.19837	0.18522	0.48503	1.53605	0.00173	0.00345	0.42405	0.42750	0.00345	0.10215	0.10560	—	550.143	550.143	0.01593	0.05004	0.03181	565.486
2031	0.18879	0.17753	0.46145	1.43833	0.00173	0.00345	0.42405	0.42750	0.00173	0.10215	0.10387	—	537.941	537.941	0.01448	0.04832	0.02807	552.730
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.09141	0.08324	0.15727	0.67963	0.00048	0.00097	0.15747	0.15843	0.00097	0.03764	0.03860	—	204.056	204.056	0.00628	0.01628	0.24352	209.309
2029	0.15963	0.14226	0.34664	1.18018	0.00123	0.00246	0.29807	0.30054	0.00246	0.07176	0.07422	—	409.990	409.990	0.01157	0.03575	0.42756	421.359
2030	0.15206	0.13603	0.32949	1.10551	0.00123	0.00246	0.29807	0.30054	0.00246	0.07176	0.07422	—	400.911	400.911	0.01034	0.03544	0.37910	412.109
2031	0.07254	0.06864	0.14988	0.55087	0.00055	0.00111	0.15665	0.15776	0.00055	0.03756	0.03811	—	197.274	197.274	0.00474	0.01206	0.17101	201.158
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.01668	0.01519	0.02870	0.12403	0.00009	0.00018	0.02874	0.02891	0.00018	0.00687	0.00705	—	33.7839	33.7839	0.00104	0.00270	0.04032	34.6534
2029	0.02913	0.02596	0.06326	0.21538	0.00022	0.00045	0.05440	0.05485	0.00045	0.01310	0.01355	—	67.8785	67.8785	0.00192	0.00592	0.07079	69.7608
2030	0.02775	0.02483	0.06013	0.20175	0.00022	0.00045	0.05440	0.05485	0.00045	0.01310	0.01355	—	66.3755	66.3755	0.00171	0.00587	0.06276	68.2294
2031	0.01324	0.01253	0.02735	0.10053	0.00010	0.00020	0.02859	0.02879	0.00010	0.00685	0.00696	—	32.6610	32.6610	0.00079	0.00200	0.02831	33.3039

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.1110	11.5314	7.70068	50.3066	0.12861	0.34082	9.88849	10.2293	0.33566	2.50668	2.84234	101.803	16,187.8	16,289.6	10.9729	0.56380	21.6845	16,753.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.7061	10.1594	8.18165	34.0709	0.11912	0.33619	9.88849	10.2247	0.33219	2.50668	2.83887	101.803	15,244.9	15,346.7	11.0224	0.59674	2.23521	15,802.3
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.9721	10.4877	6.67721	38.3126	0.11215	0.24180	9.51013	9.75193	0.23732	2.41132	2.64864	101.803	13,794.8	13,896.6	10.9594	0.56509	10.1467	14,349.2
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.00240	1.91400	1.21859	6.99205	0.02047	0.04413	1.73560	1.77973	0.04331	0.44007	0.48338	16.8547	2,283.89	2,300.75	1.81446	0.09356	1.67991	2,375.67

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.23267	4.89761	4.28863	38.4680	0.10700	0.06805	9.88849	9.95654	0.06406	2.50668	2.57074	—	10,928.9	10,928.9	0.35662	0.50117	19.9670	11,107.2
Area	6.66789	6.52857	1.61411	11.0735	0.01014	0.12740	—	0.12740	0.12624	—	0.12624	0.00000	1,954.37	1,954.37	0.03744	0.00386	—	1,956.46
Energy	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	3,238.04	3,238.04	0.35661	0.02304	—	3,253.83
Water	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Waste	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Total	12.1110	11.5314	7.70068	50.3066	0.12861	0.34082	9.88849	10.2293	0.33566	2.50668	2.84234	101.803	16,187.8	16,289.6	10.9729	0.56380	21.6845	16,753.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	4.77511	4.42246	4.86589	32.6599	0.09795	0.06811	9.88849	9.95660	0.06411	2.50668	2.57079	—	10,013.8	10,013.8	0.40725	0.53434	0.51775	10,183.7
Area	5.72059	5.63179	1.51782	0.64588	0.00969	0.12272	—	0.12272	0.12272	—	0.12272	0.00000	1,926.61	1,926.61	0.03628	0.00363	—	1,928.60
Energy	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	3,238.04	3,238.04	0.35661	0.02304	—	3,253.83
Water	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Waste	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Total	10.7061	10.1594	8.18165	34.0709	0.11912	0.33619	9.88849	10.2247	0.33219	2.50668	2.83887	101.803	15,244.9	15,346.7	11.0224	0.59674	2.23521	15,802.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.71161	4.37729	4.49080	32.2600	0.09827	0.06656	9.51013	9.57668	0.06265	2.41132	2.47397	—	10,043.8	10,043.8	0.37185	0.50539	8.42926	10,212.1
Area	6.05004	6.00518	0.38848	5.28750	0.00240	0.02988	—	0.02988	0.02931	—	0.02931	0.00000	446.517	446.517	0.00872	0.00093	—	447.012
Energy	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	3,238.04	3,238.04	0.35661	0.02304	—	3,253.83
Water	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Waste	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Total	10.9721	10.4877	6.67721	38.3126	0.11215	0.24180	9.51013	9.75193	0.23732	2.41132	2.64864	101.803	13,794.8	13,896.6	10.9594	0.56509	10.1467	14,349.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.85987	0.79886	0.81957	5.88745	0.01793	0.01215	1.73560	1.74774	0.01143	0.44007	0.45150	—	1,662.87	1,662.87	0.06156	0.08367	1.39556	1,690.74
Area	1.10413	1.09595	0.07090	0.96497	0.00044	0.00545	—	0.00545	0.00535	—	0.00535	0.00000	73.9261	73.9261	0.00144	0.00015	—	74.0080
Energy	0.03840	0.01920	0.32812	0.13963	0.00209	0.02653	—	0.02653	0.02653	—	0.02653	—	536.095	536.095	0.05904	0.00381	—	538.708
Water	—	—	—	—	—	—	—	—	—	—	—	2.33949	11.0030	13.3425	0.24167	0.00592	—	21.1470
Waste	—	—	—	—	—	—	—	—	—	—	—	14.5152	0.00000	14.5152	1.45074	0.00000	—	50.7838
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.28435	0.28435
Total	2.00240	1.91400	1.21859	6.99205	0.02047	0.04413	1.73560	1.77973	0.04331	0.44007	0.48338	16.8547	2,283.89	2,300.75	1.81446	0.09356	1.67991	2,375.67

3. Construction Emissions Details

3.1. Demolition (2028)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.61361	2.19353	19.5832	18.6629	0.03255	0.77585	—	0.77585	0.71378	—	0.71378	—	3,428.57	3,428.57	0.13908	0.02782	—	3,440.33
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35803	0.30048	2.68263	2.55656	0.00446	0.10628	—	0.10628	0.09778	—	0.09778	—	469.667	469.667	0.01905	0.00381	—	471.279
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06534	0.05484	0.48958	0.46657	0.00081	0.01940	—	0.01940	0.01784	—	0.01784	—	77.7587	77.7587	0.00315	0.00063	—	78.0256
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04907	0.04521	0.03128	0.35649	0.00000	0.00000	0.08161	0.08161	0.00000	0.01913	0.01913	—	75.9497	75.9497	0.00298	0.00387	0.00652	77.1836
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00681	0.00628	0.00380	0.04982	0.00000	0.00000	0.01100	0.01100	0.00000	0.00257	0.00257	—	10.7746	10.7746	0.00036	0.00048	0.01486	10.9430
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00124	0.00115	0.00069	0.00909	0.00000	0.00000	0.00201	0.00201	0.00000	0.00047	0.00047	—	1.78386	1.78386	0.00006	0.00008	0.00246	1.81174
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2. Site Preparation (2028)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.61333	3.03620	27.4549	28.3524	0.04893	1.14375	—	1.14375	1.05225	—	1.05225	—	5,300.02	5,300.02	0.21499	0.04300	—	5,318.21
Dust From Material Movement	—	—	—	—	—	—	5.11082	5.11082	—	2.62664	2.62664	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.61333	3.03620	27.4549	28.3524	0.04893	1.14375	—	1.14375	1.05225	—	1.05225	—	5,300.02	5,300.02	0.21499	0.04300	—	5,318.21
Dust From Material Movement	—	—	—	—	—	—	5.11082	5.11082	—	2.62664	2.62664	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29699	0.24955	2.25656	2.33033	0.00402	0.09401	—	0.09401	0.08649	—	0.08649	—	435.618	435.618	0.01767	0.00353	—	437.113
Dust From Material Movement	—	—	—	—	—	—	0.42007	0.42007	—	0.21589	0.21589	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05420	0.04554	0.41182	0.42529	0.00073	0.01716	—	0.01716	0.01578	—	0.01578	—	72.1216	72.1216	0.00293	0.00059	—	72.3691
Dust From Material Movement	—	—	—	—	—	—	0.07666	0.07666	—	0.03940	0.03940	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06420	0.06007	0.02863	0.51587	0.00000	0.00000	0.09521	0.09521	0.00000	0.02232	0.02232	—	99.7586	99.7586	0.00270	0.00413	0.29312	101.349
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05725	0.05274	0.03650	0.41590	0.00000	0.00000	0.09521	0.09521	0.00000	0.02232	0.02232	—	88.6080	88.6080	0.00347	0.00451	0.00760	90.0475
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00477	0.00440	0.00266	0.03488	0.00000	0.00000	0.00770	0.00770	0.00000	0.00180	0.00180	—	7.54224	7.54224	0.00025	0.00034	0.01041	7.66010
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00087	0.00080	0.00049	0.00636	0.00000	0.00000	0.00140	0.00140	0.00000	0.00033	0.00033	—	1.24870	1.24870	0.00004	0.00006	0.00172	1.26822
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2028)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.42509	2.87803	24.3289	27.1688	0.06093	0.98510	—	0.98510	0.90629	—	0.90629	—	6,598.26	6,598.26	0.26765	0.05353	—	6,620.90
Dust From Material Movement	—	—	—	—	—	—	2.39293	2.39293	—	0.94998	0.94998	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70379	0.59138	4.99910	5.58264	0.01252	0.20242	—	0.20242	0.18622	—	0.18622	—	1,355.81	1,355.81	0.05500	0.01100	—	1,360.46
Dust From Material Movement	—	—	—	—	—	—	0.49170	0.49170	—	0.19520	0.19520	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12844	0.10793	0.91234	1.01883	0.00228	0.03694	—	0.03694	0.03399	—	0.03399	—	224.469	224.469	0.00911	0.00182	—	225.240
Dust From Material Movement	—	—	—	—	—	—	0.08973	0.08973	—	0.03562	0.03562	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07337	0.06865	0.03272	0.58956	0.00000	0.00000	0.10881	0.10881	0.00000	0.02550	0.02550	—	114.010	114.010	0.00309	0.00472	0.33500	115.828
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01363	0.01257	0.00760	0.09964	0.00000	0.00000	0.02199	0.02199	0.00000	0.00515	0.00515	—	21.5493	21.5493	0.00072	0.00097	0.02973	21.8860
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00249	0.00229	0.00139	0.01818	0.00000	0.00000	0.00401	0.00401	0.00000	0.00094	0.00094	—	3.56773	3.56773	0.00012	0.00016	0.00492	3.62348

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Building Construction (2028)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18481	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33156	0.27745	2.49759	3.61984	0.00655	0.08402	—	0.08402	0.07730	—	0.07730	—	670.913	670.913	0.02722	0.00544	—	673.215
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.06051	0.05063	0.45581	0.66062	0.00120	0.01533	—	0.01533	0.01411	—	0.01411	—	111.077	111.077	0.00451	0.00090	—	111.458
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24168	0.22614	0.10777	1.94201	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	375.548	375.548	0.01017	0.01554	1.10348	381.537
Vendor	0.01855	0.01294	0.37651	0.16949	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	241.058	241.058	0.00604	0.03623	0.45638	252.461
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21554	0.19854	0.13740	1.56569	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	333.571	333.571	0.01307	0.01699	0.02863	338.990
Vendor	0.01725	0.01251	0.39980	0.17683	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	241.563	241.563	0.00604	0.03623	0.01184	252.522
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06113	0.05637	0.03410	0.44701	0.00000	0.00000	0.09866	0.09866	0.00000	0.02310	0.02310	—	96.6724	96.6724	0.00325	0.00435	0.13337	98.1831
Vendor	0.00507	0.00362	0.10911	0.04828	0.00048	0.00097	0.01812	0.01908	0.00097	0.00501	0.00598	—	67.5178	67.5178	0.00169	0.01014	0.05516	70.6364
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01116	0.01029	0.00622	0.08158	0.00000	0.00000	0.01801	0.01801	0.00000	0.00422	0.00422	—	16.0052	16.0052	0.00054	0.00072	0.02208	16.2553
Vendor	0.00093	0.00066	0.01991	0.00881	0.00009	0.00018	0.00331	0.00348	0.00018	0.00091	0.00109	—	11.1783	11.1783	0.00028	0.00168	0.00913	11.6947
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2029)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	—	0.27564	0.25359	—	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15336	0.96514	8.58166	12.9012	0.02340	0.27564	—	0.27564	0.25359	—	0.25359	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82383	0.68938	6.12975	9.21517	0.01671	0.19689	—	0.19689	0.18114	—	0.18114	—	1,712.02	1,712.02	0.06945	0.01389	—	1,717.90
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15035	0.12581	1.11868	1.68177	0.00305	0.03593	—	0.03593	0.03306	—	0.03306	—	283.445	283.445	0.01150	0.00230	—	284.418

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22716	0.21162	0.09513	1.81086	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	368.607	368.607	0.00871	0.01554	0.98513	374.442
Vendor	0.01811	0.01121	0.36271	0.16648	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	234.638	234.638	0.00604	0.03450	0.40211	245.473
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20392	0.18692	0.12476	1.46475	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	327.484	327.484	0.01307	0.01699	0.02559	332.901
Vendor	0.01725	0.01035	0.38600	0.17381	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	235.148	235.148	0.00604	0.03450	0.01041	245.591
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14669	0.13455	0.07801	1.05911	0.00000	0.00000	0.25183	0.25183	0.00000	0.05896	0.05896	—	242.239	242.239	0.00726	0.01110	0.30386	246.033
Vendor	0.01294	0.00770	0.26863	0.12107	0.00123	0.00246	0.04624	0.04870	0.00246	0.01279	0.01526	—	167.751	167.751	0.00431	0.02464	0.12370	175.326
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02677	0.02456	0.01424	0.19329	0.00000	0.00000	0.04596	0.04596	0.00000	0.01076	0.01076	—	40.1055	40.1055	0.00120	0.00184	0.05031	40.7335
Vendor	0.00236	0.00141	0.04902	0.02209	0.00022	0.00045	0.00844	0.00889	0.00045	0.00233	0.00278	—	27.7730	27.7730	0.00071	0.00408	0.02048	29.0273
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Building Construction (2030)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12372	0.94034	8.39196	12.8848	0.02340	0.26012	—	0.26012	0.23931	—	0.23931	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12372	0.94034	8.39196	12.8848	0.02340	0.26012	—	0.26012	0.23931	—	0.23931	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80266	0.67167	5.99426	9.20340	0.01671	0.18580	—	0.18580	0.17093	—	0.17093	—	1,712.02	1,712.02	0.06945	0.01389	—	1,717.90
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14649	0.12258	1.09395	1.67962	0.00305	0.03391	—	0.03391	0.03120	—	0.03120	—	283.445	283.445	0.01150	0.00230	—	284.418
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21554	0.20000	0.09223	1.68261	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	362.058	362.058	0.00871	0.00436	0.87639	364.451
Vendor	0.01811	0.01121	0.35279	0.16389	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	227.895	227.895	0.00431	0.03407	0.35031	238.506
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18111	0.17531	0.11067	1.36526	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	321.735	321.735	0.01162	0.01554	0.02271	326.680
Vendor	0.01725	0.00992	0.37435	0.17079	0.00173	0.00345	0.06564	0.06909	0.00345	0.01813	0.02158	—	228.408	228.408	0.00431	0.03450	0.00910	238.807
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13943	0.12833	0.06795	0.98629	0.00000	0.00000	0.25183	0.25183	0.00000	0.05896	0.05896	—	237.977	237.977	0.00726	0.01110	0.27073	241.737
Vendor	0.01263	0.00770	0.26154	0.11922	0.00123	0.00246	0.04624	0.04870	0.00246	0.01279	0.01526	—	162.935	162.935	0.00308	0.02434	0.10837	170.373
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02545	0.02342	0.01240	0.18000	0.00000	0.00000	0.04596	0.04596	0.00000	0.01076	0.01076	—	39.3997	39.3997	0.00120	0.00184	0.04482	40.0223
Vendor	0.00231	0.00141	0.04773	0.02176	0.00022	0.00045	0.00844	0.00889	0.00045	0.00233	0.00278	—	26.9757	26.9757	0.00051	0.00403	0.01794	28.2071
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2031)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09751	0.91839	8.11856	12.8454	0.02340	0.24323	—	0.24323	0.22377	—	0.22377	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09751	0.91839	8.11856	12.8454	0.02340	0.24323	—	0.24323	0.22377	—	0.22377	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35223	0.29475	2.60556	4.12259	0.00751	0.07806	—	0.07806	0.07182	—	0.07182	—	769.238	769.238	0.03120	0.00624	—	771.877
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06428	0.05379	0.47552	0.75237	0.00137	0.01425	—	0.01425	0.01311	—	0.01311	—	127.356	127.356	0.00517	0.00103	—	127.793
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19128	0.18692	0.07959	1.57818	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	356.072	356.072	0.00726	0.00436	0.77563	358.327
Vendor	0.01811	0.01121	0.34287	0.16173	0.00173	0.00345	0.06564	0.06909	0.00173	0.01813	0.01986	—	220.964	220.964	0.00431	0.03235	0.30590	231.017
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17240	0.16804	0.09658	1.27013	0.00000	0.00000	0.35841	0.35841	0.00000	0.08401	0.08401	—	316.459	316.459	0.01017	0.01554	0.02015	321.365
Vendor	0.01639	0.00949	0.36487	0.16820	0.00173	0.00345	0.06564	0.06909	0.00173	0.01813	0.01986	—	221.482	221.482	0.00431	0.03278	0.00792	231.365
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05580	0.05440	0.03007	0.41495	0.00000	0.00000	0.11315	0.11315	0.00000	0.02649	0.02649	—	105.170	105.170	0.00280	0.00140	0.10727	105.763
Vendor	0.00554	0.00332	0.11378	0.05260	0.00055	0.00111	0.02078	0.02188	0.00055	0.00575	0.00630	—	70.9859	70.9859	0.00138	0.01038	0.04220	74.1563
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01018	0.00993	0.00549	0.07573	0.00000	0.00000	0.02065	0.02065	0.00000	0.00484	0.00484	—	17.4120	17.4120	0.00046	0.00023	0.01776	17.5104
Vendor	0.00101	0.00061	0.02076	0.00960	0.00010	0.00020	0.00379	0.00399	0.00010	0.00105	0.00115	—	11.7525	11.7525	0.00023	0.00172	0.00699	12.2774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Paving (2031)

3.8.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.74689	0.62759	6.12541	9.88333	0.01395	0.20981	—	0.20981	0.19303	—	0.19303	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.81
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.11254	0.09457	0.92301	1.48927	0.00210	0.03162	—	0.03162	0.02909	—	0.02909	—	227.629	227.629	0.00923	0.00185	—	228.410
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.02054	0.01726	0.16845	0.27179	0.00038	0.00577	—	0.00577	0.00531	—	0.00531	—	37.6866	37.6866	0.00153	0.00031	—	37.8159
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04355	0.04256	0.01812	0.35933	0.00000	0.00000	0.08161	0.08161	0.00000	0.01913	0.01913	—	81.0728	81.0728	0.00165	0.00099	0.17660	81.5863
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00596	0.00582	0.00321	0.04436	0.00000	0.00000	0.01210	0.01210	0.00000	0.00283	0.00283	—	11.2428	11.2428	0.00030	0.00015	0.01147	11.3063
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00109	0.00106	0.00059	0.00810	0.00000	0.00000	0.00221	0.00221	0.00000	0.00052	0.00052	—	1.86137	1.86137	0.00005	0.00002	0.00190	1.87189
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Architectural Coating (2031)

3.9.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11542	0.09539	0.77690	1.10346	0.00173	0.00943	—	0.00943	0.00867	—	0.00867	—	133.518	133.518	0.00542	0.00108	—	133.976
Architectural Coatings	27.2897	27.2897	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11542	0.09539	0.77690	1.10346	0.00173	0.00943	—	0.00943	0.00867	—	0.00867	—	133.518	133.518	0.00542	0.00108	—	133.976
Architectural Coatings	27.2897	27.2897	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01739	0.01437	0.11707	0.16628	0.00026	0.00142	—	0.00142	0.00131	—	0.00131	—	20.1191	20.1191	0.00082	0.00016	—	20.1881
Architectural Coatings	4.11214	4.11214	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00317	0.00262	0.02136	0.03035	0.00005	0.00026	—	0.00026	0.00024	—	0.00024	—	3.33095	3.33095	0.00014	0.00003	—	3.34238
Architectural Coatings	0.75047	0.75047	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03826	0.03738	0.01592	0.31564	0.00000	0.00000	0.07168	0.07168	0.00000	0.01680	0.01680	—	71.2143	71.2143	0.00145	0.00087	0.15513	71.6654
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03448	0.03361	0.01932	0.25403	0.00000	0.00000	0.07168	0.07168	0.00000	0.01680	0.01680	—	63.2918	63.2918	0.00203	0.00311	0.00403	64.2729
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00524	0.00511	0.00282	0.03897	0.00000	0.00000	0.01063	0.01063	0.00000	0.00249	0.00249	—	9.87568	9.87568	0.00026	0.00013	0.01007	9.93145
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00096	0.00093	0.00052	0.00711	0.00000	0.00000	0.00194	0.00194	0.00000	0.00045	0.00045	—	1.63503	1.63503	0.00004	0.00002	0.00167	1.64426
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.23267	4.89761	4.28863	38.4680	0.10700	0.06805	9.88849	9.95654	0.06406	2.50668	2.57074	—	10,928.9	10,928.9	0.35662	0.50117	19.9670	11,107.2
Total	5.23267	4.89761	4.28863	38.4680	0.10700	0.06805	9.88849	9.95654	0.06406	2.50668	2.57074	—	10,928.9	10,928.9	0.35662	0.50117	19.9670	11,107.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	4.77511	4.42246	4.86589	32.6599	0.09795	0.06811	9.88849	9.95660	0.06411	2.50668	2.57079	—	10,013.8	10,013.8	0.40725	0.53434	0.51775	10,183.7
Total	4.77511	4.42246	4.86589	32.6599	0.09795	0.06811	9.88849	9.95660	0.06411	2.50668	2.57079	—	10,013.8	10,013.8	0.40725	0.53434	0.51775	10,183.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.85987	0.79886	0.81957	5.88745	0.01793	0.01215	1.73560	1.74774	0.01143	0.44007	0.45150	—	1,662.87	1,662.87	0.06156	0.08367	1.39556	1,690.74
Total	0.85987	0.79886	0.81957	5.88745	0.01793	0.01215	1.73560	1.74774	0.01143	0.44007	0.45150	—	1,662.87	1,662.87	0.06156	0.08367	1.39556	1,690.74

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	955.884	955.884	0.15464	0.01874	—	965.335
Total	—	—	—	—	—	—	—	—	—	—	—	—	955.884	955.884	0.15464	0.01874	—	965.335
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	955.884	955.884	0.15464	0.01874	—	965.335
Total	—	—	—	—	—	—	—	—	—	—	—	—	955.884	955.884	0.15464	0.01874	—	965.335
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	158.257	158.257	0.02560	0.00310	—	159.822
Total	—	—	—	—	—	—	—	—	—	—	—	—	158.257	158.257	0.02560	0.00310	—	159.822

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	2,282.16	2,282.16	0.20197	0.00430	—	2,288.49
Total	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	2,282.16	2,282.16	0.20197	0.00430	—	2,288.49
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	2,282.16	2,282.16	0.20197	0.00430	—	2,288.49

Total	0.21040	0.10520	1.79793	0.76508	0.01148	0.14536	—	0.14536	0.14536	—	0.14536	—	2,282.16	2,282.16	0.20197	0.00430	—	2,288.49
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03840	0.01920	0.32812	0.13963	0.00209	0.02653	—	0.02653	0.02653	—	0.02653	—	377.838	377.838	0.03344	0.00071	—	378.886
Total	0.03840	0.01920	0.32812	0.13963	0.00209	0.02653	—	0.02653	0.02653	—	0.02653	—	377.838	377.838	0.03344	0.00071	—	378.886

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.17762	0.08881	1.51782	0.64588	0.00969	0.12272	—	0.12272	0.12272	—	0.12272	0.00000	1,926.61	1,926.61	0.03628	0.00363	—	1,928.60
Consumer Products	5.13176	5.13176	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.41121	0.41121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.94730	0.89679	0.09629	10.4276	0.00045	0.00468	—	0.00468	0.00352	—	0.00352	—	27.7588	27.7588	0.00116	0.00023	—	27.8564
Total	6.66789	6.52857	1.61411	11.0735	0.01014	0.12740	—	0.12740	0.12624	—	0.12624	0.00000	1,954.37	1,954.37	0.03744	0.00386	—	1,956.46
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.17762	0.08881	1.51782	0.64588	0.00969	0.12272	—	0.12272	0.12272	—	0.12272	0.00000	1,926.61	1,926.61	0.03628	0.00363	—	1,928.60

Consumer	5.13176	5.13176	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.41121	0.41121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.72059	5.63179	1.51782	0.64588	0.00969	0.12272	—	0.12272	0.12272	—	0.12272	0.00000	1,926.61	1,926.61	0.03628	0.00363	—	1,928.60
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00728	0.00364	0.06223	0.02648	0.00040	0.00503	—	0.00503	0.00503	—	0.00503	0.00000	71.6597	71.6597	0.00135	0.00013	—	71.7336
Consumer Products	0.93655	0.93655	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07505	0.07505	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08526	0.08071	0.00867	0.93849	0.00004	0.00042	—	0.00042	0.00032	—	0.00032	—	2.26641	2.26641	0.00009	0.00002	—	2.27439
Total	1.10413	1.09595	0.07090	0.96497	0.00044	0.00545	—	0.00545	0.00535	—	0.00535	0.00000	73.9261	73.9261	0.00144	0.00015	—	74.0080

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729

Total	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Total	—	—	—	—	—	—	—	—	—	—	—	14.1306	66.4586	80.5893	1.45969	0.03573	—	127.729
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.33949	11.0030	13.3425	0.24167	0.00592	—	21.1470
Total	—	—	—	—	—	—	—	—	—	—	—	2.33949	11.0030	13.3425	0.24167	0.00592	—	21.1470

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Total	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737
Total	—	—	—	—	—	—	—	—	—	—	—	87.6727	0.00000	87.6727	8.76257	0.00000	—	306.737

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.5152	0.00000	14.5152	1.45074	0.00000	—	50.7838
Total	—	—	—	—	—	—	—	—	—	—	—	14.5152	0.00000	14.5152	1.45074	0.00000	—	50.7838

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.71746	1.71746
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.28435	0.28435
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.28435	0.28435

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/4/2028	3/14/2028	5.00000	50.0000	—
Site Preparation	Site Preparation	3/15/2028	4/26/2028	5.00000	30.0000	—
Grading	Grading	4/27/2028	8/10/2028	5.00000	75.0000	—
Building Construction	Building Construction	8/11/2028	6/13/2031	5.00000	740.000	—
Paving	Paving	6/14/2031	8/30/2031	5.00000	55.0000	—
Architectural Coating	Architectural Coating	8/31/2031	11/16/2031	5.00000	55.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000

Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	7.70000	LDA,LDT1,LDT2
Demolition	Vendor	—	4.00000	HHDT,MHDT
Demolition	Hauling	0.00000	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	7.70000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	20.0000	7.70000	LDA,LDT1,LDT2
Grading	Vendor	—	4.00000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	65.8800	7.70000	LDA,LDT1,LDT2
Building Construction	Vendor	19.5627	4.00000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	7.70000	LDA,LDT1,LDT2
Paving	Vendor	—	4.00000	HHDT,MHDT

Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	13.1760	7.70000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	485,599	161,866	0.00000	0.00000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	—	0.00000
Site Preparation	—	—	45.0000	0.00000	0.00000
Grading	—	—	225.000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	2.01653

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Single Family Housing	2.01653	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00000	203.983	0.03300	0.00400
2029	0.00000	203.983	0.03300	0.00400
2030	0.00000	203.983	0.03300	0.00400
2031	0.00000	203.983	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,727.52	1,745.82	1,564.65	623,006	13,852.0	13,998.8	12,546.1	4,995,541

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Single Family Housing	Wood Fireplaces	0	0
Single Family Housing	Gas Fireplaces	92	92
Single Family Housing	Propane Fireplaces	0	0

Single Family Housing	Electric Fireplaces	0	0
Single Family Housing	No Fireplaces	92	92
Single Family Housing	Conventional Wood Stoves	0	0
Single Family Housing	Catalytic Wood Stoves	0	0
Single Family Housing	Non-Catalytic Wood Stoves	0	0
Single Family Housing	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
485,599	161,866	0.00000	0.00000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	1,710,424	203.983	0.0330	0.0040	7,120,954

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Single Family Housing	7,374,168	37,140,931

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	162.676	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.1100	annual days of extreme heat
Extreme Precipitation	1.15000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.5800
AQ-PM	94.8849
AQ-DPM	65.0280
Drinking Water	96.3782
Lead Risk Housing	55.4883
Pesticides	93.4828
Toxic Releases	62.0530
Traffic	35.2375
Effect Indicators	—
CleanUp Sites	50.3173
Groundwater	61.5474

Haz Waste Facilities/Generators	27.0814
Impaired Water Bodies	0.00000
Solid Waste	98.0527
Sensitive Population	—
Asthma	88.8210
Cardio-vascular	65.5658
Low Birth Weights	73.7619
Socioeconomic Factor Indicators	—
Education	79.2711
Housing	13.0925
Linguistic	63.0397
Poverty	66.4322
Unemployment	71.6684

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	27.9481586
Employed	28.26895932
Median HI	33.88938791
Education	—
Bachelor's or higher	21.73745669
High school enrollment	23.59810086
Preschool enrollment	32.91415373
Transportation	—
Auto Access	81.29090209
Active commuting	8.956756063

Social	—
2-parent households	54.69010651
Voting	36.35313743
Neighborhood	—
Alcohol availability	76.64570769
Park access	6.865135378
Retail density	6.916463493
Supermarket access	37.66200436
Tree canopy	4.504042089
Housing	—
Homeownership	49.74977544
Housing habitability	37.64917233
Low-inc homeowner severe housing cost burden	52.76530219
Low-inc renter severe housing cost burden	58.00076992
Uncrowded housing	21.40382394
Health Outcomes	—
Insured adults	26.25433081
Arthritis	0.0
Asthma ER Admissions	14.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	13.6
Cognitively Disabled	36.6
Physically Disabled	60.6

Heart Attack ER Admissions	19.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	93.2
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	13.5
Elderly	45.2
English Speaking	30.1
Foreign-born	55.0
Outdoor Workers	2.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	92.1
Traffic Density	38.2
Traffic Access	0.0
Other Indices	—
Hardship	81.9
Other Decision Support	—
2016 Voting	22.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	93.0000
Healthy Places Index Score for Project Location (b)	25.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Changed the lot acreage default value to the actual lot acreage of the project.
Operations: Hearths	To conform with the City of Fowler's General Plan EIR greenhouse gas mitigation number 1. This project would just have electric fireplaces if they were to have any fireplaces.

8.3. Land Use

Model Parameter	Units	Default Value	New Value

Lot Area	acre	59.4156	39.9300
Building Area	sq. ft	356,850	239,802
Special Landscape Area	sq. ft	—	85,867.0

Appendix B - Biological Desktop Review for TTM 6519 NW Corner of Parlier and Sunnyside

PROVOST&PRITCHARD
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Memorandum

To:	Dawn Marple, City Planner – City of Fowler
From:	Jenny McCarthy
Subject:	Biological Desktop Review for TTM 6519 NW Corner of Parlier and Sunnyside
Date:	November 26, 2025

PROJECT BACKGROUND AND LOCATION

Yamabe & Horn Engineering (applicant), on behalf of Joseph Crown and Crown Homes (owner and subdivider), the applicant is proposing to develop 183 single-family residential homes on approximately 38.5 acres, plus an 85,867 square foot park, Assessor's Parcel Number (APN) 345-100-08S (Project). Other landscaping for the Project site would be added, including an internal paseo and a trail alignment along the Project site near South Sunnyside Avenue street frontage. The Project site (site) is located 1.25 miles northeast of the City of Fowler and 19.5 miles south of the City of Hanford (see Appendix A).

STUDY METHODOLOGY

Provost & Pritchard Consulting Group biologist, Jenny McCarthy, conducted a desktop analysis of potential Project-related impacts to biological resources based on the resources known to occur, or with potential to occur, within the Project site. Sources of information used in preparation of this analysis included: CDFW's California Natural Diversity Database (CNDDB; see Appendix B for the species list) and California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California; CalFlora's online database of California native plants; Jepson Herbarium's online database (i.e., Jepson eFlora); United States Fish and Wildlife Service's (USFWS) Environmental Conservation Online System (ECOS), Information for Planning and Consultation (IPaC; see **Appendix C** for the species list) system, and National Wetlands Inventory (NWI); iNaturalist; NatureServe Explorer's online database; United States Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) Web Soil Survey, California Herps website; and various manuals, reports, and references related to plants and animals of the San Joaquin Valley region. No field survey was conducted. The assessment of habitats within the site was completed utilizing satellite and historical imagery. Recommendations were then developed to avoid any potential impacts to protected resources that may occur on or near the site.

EXISTING CONDITIONS

As follows are details on the topography, climate, waters, soils, and biotic habitats of the site.

TOPOGRAPHY

The Project site is located within the United States Geological Survey *Conejo* 7.5-minute quadrangles. The Project site is located in the northwest section corner of Section 21, Township 15 south, Range 21 East in the southern portion of Fresno County. The topography within the site is relatively flat, with elevations of approximately 300 feet above mean sea level.

CLIMATE

Like most of California, the site experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. In the summer, average high temperatures range between 90- and 98 degrees Fahrenheit (°F), but do not often exceed 105 °F, and the humidity is generally low. Winter temperatures are often below 31°F during the day and rarely exceed 39°F. On average, the City of Fowler receives approximately 13 inches of precipitation in the form of rain yearly, most of which occurs between October and April (Weatherspark), and the site would be expected to receive similar amounts of precipitation.

WATERS

The nearest surface water feature is Kirby Ditch, and approximately 630 feet of the ditch is located within the northeastern portion of the Project site. Kirby Ditch is proposed to be converted into an underground channel as part of the Project. This would be an extension of the underground portion of Kirby Ditch which is currently located directly north of the Project site. Stormwater and snowmelt runoff from upland areas of the Sierra Nevada foothills to the Fiant Kern Canal and Kings River, which merge and flow into Consolidated Canal, eventually making its way to Kirby Ditch. Kirby Ditch deposits into Winsten Canal, then to Harlen Stevens Ditch and stops over 9 miles away at Elkhorn Ditch and an underground pipe or channel.

SOILS

Four soil mapping units representing three soil types were identified within the Project sites and are listed in Table 1 (see **Appendix D** for the Web Soil Survey Report). The soils are displayed with their core properties in the table below, according to the Major Land Resource Area of California. All the soils are used for wildlife habitat, growing general crops, alfalfa, field and row crops, development, and dairies.

Table 1: List of Soils Located on the Project site and Their Basic Properties

Soil	Soil Map Unit	Percent of Site	Hydric Soil Category	Drainage	Permeability	Runoff
Delhi	Loamy sand, 0 to 3 percent slopes, MLRA 17	9.1%	Predominantly Nonhydric	Somewhat excessively drained	Rapid permeability	Negligible to slow runoff
Hanford	Sandy loam	30.2%	Nonhydric	Well drained	Moderately rapid	Negligible to low runoff
	Fine sandy loam, silty substratum	36.7%	Nonhydric	Well drained	Moderately rapid	Negligible to low runoff
Hesperia	Fine sandy loam, very deep	24.0%	Nonhydric	Well drained	Moderately rapid	Negligible to low runoff

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported. Hydric soil ratings are derived from specific soil properties as well as climate, parent material, vegetation, landform type, and biological activity of a certain location. None of the major soil mapping units located on the Project sites were identified as hydric, but one of the minor soil mapping units was identified as hydric.

BIOTIC HABITAT

The Project site appears to consist mostly of an agricultural field, a dirt-lined ditch, a residential home, dirt roads, and a large storage structure. The agricultural field could provide nesting and foraging habitat for ground-nesting birds such as horned larks (*Eremophila alpestris*) as well as raptors such as northern harriers (*Circus hudsonius*). The agricultural field could also provide foraging habitat for nocturnal species such as striped skunk (*Mephitis mephitis*) and coyote (*Canis latrans*). The residential home could provide nesting and foraging habitat for a variety of birds, such as American robin (*Turdus migratorius*) and California scrub jay (*Aphelocoma californica*). The residential home could also provide foraging habitat for nocturnal species such as northern raccoon (*Procyon lotor*) and Virginia opossum (*Didelphis virginiana*). The dirt roads would provide little to no value to wildlife. The auxiliary structure could provide nesting habitat for some species of birds, such as barn owl (*Tyto alba*) and mourning dove (*Zenaida macroura*).

SENSITIVE RESOURCES

As follows are details on the special status species, migratory birds, designated habitat and communities, and wildlife movement corridors, and native wildlife nursery sites that could be impacted by Project-related activities.

SPECIAL STATUS SPECIES

A query of the CNDDB for occurrences of special status plant and animal species was conducted for the *Conejo* USGS 7.5-Minute quadrangle and the adjacent quadrangle, *Malaga.* A query of the IPaC was also completed for the site. Species within two miles of the Project site were evaluated for their potential to occur within the Project site. These species are listed in **Table 2** below.

Table 2: Special Status Plant and Animal Species with the Potential to Occur on the Project Site

Species	Status*	Habitat	Occurrence within the Site
Swainson's hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	**Possible.** There are trees large enough for nesting within 0.5 miles of the proposed Project site. The nearest recorded observation of this species was approximately five miles south-southwest of the site in 2016.

*EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES
Possible: Species not observed on the site, but it could occur there from time to time.

STATUS CODES
CT California Threatened

RECOMMENDATIONS

While there were no special status species observations within the two miles of the Project site, suitable habitat for nesting birds and Swainson's hawk is present within the proposed Project site and 0.5 miles of the Project site. Swainson's hawk, listed as Threatened on the California Endangered Species list, could occur on the site prior to or during Project activities. In order to comply with state and federal laws protecting special status species, the following recommendations have been provided to reduce potential Project-related impacts to biological resources within and around the site. Additionally, Kirby Ditch could act as a movement

corridor for wildlife. The conversion of Kirby Ditch from an open canal to an underground tunnel would not be considered a significant impact, however, wildlife have the potential to be harmed during Project activities while utilizing Kirby Ditch as a movement corridor. This would be considered a potentially significant impact and therefore must be mitigated.

Recommendation 1(a) Nesting Bird Avoidance: Project activities should occur, if feasible, between September 16 and January 31 (outside of the nesting bird season) to avoid impacts to nesting birds.

Recommendation 1(b) Migratory Nesting Bird Pre-Activity Survey: If Project activities must occur within the migratory bird nesting season (February 1 to September 15), a qualified biologist should complete a pre-activity survey for active nests within five (5) calendar days prior to the start of Project activities. The survey should be completed within the Project site, and all accessible lands up to 100 feet outside of the Project site for nesting migratory birds and up to 500 feet outside of the Project site for nesting raptors. Raptor nests would be considered "active" upon the nest-building stage. If no active nests are observed, the Project may proceed. The biologist should also conduct a one-time take avoidance pre-construction survey for Swainson's hawk nests onsite and within a 0.5-mile radius. This one time take avoidance survey will be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000), or current guidance.

Recommendation 1(c) Nesting Bird Avoidance Buffers: On discovery of any active nests or breeding colonies near work areas, a qualified biologist should determine appropriate avoidance buffer distances based on applicable CDFW and/or USFWS guidelines, the biology of the species, conditions of the nest(s), and the level of Project disturbance. If needed, avoidance buffers should be identified with flagging, fencing, or other easily visible means, and should be maintained until the biologist has determined that the nestlings have fledged.

Recommendation 2(a) Wildlife Access: Access within Kirby Ditch should not be blocked outside of construction hours or during overnight hours, or weekends. The following best management practices will also be implemented during construction activities:

1. All open trenches, holes, sumps, and other excavations greater than 6-inches with sidewalls steeper than a 1:1 (45 degree) slope within Kirby Ditch will have an escape ramp of earth or a non-slip material with a less than 1:1 slope or these will be covered with barrier material such that animals are unable to dig or squeeze under the barrier and become entrapped.
2. A litter control program will be implemented during Project activities. All workers will place their foodstuffs, trash, and other waste in covered or closed trash containers. Contents of the trash containers will be properly disposed of at the end of each working day.
3. If work within the Project site is occurring at night, spotlights will face away from Kirby Ditch, and all generators and construction activities will be located at least 50 ft. away from the banks of Kirby Ditch.

Implementation of **Recommendations 1a-1c** and **Recommendations 2a** would avoid impacts to sensitive biological resources. If you have any questions or need further information, please do not hesitate to contact me at jmccarthy@ppeng.com.

Sincerely,

Jenny McCarthy

APPENDICES:

Appendix A – Aerial Map
Appendix B - CNDDB Species List
Appendix C - IPaC Species List
Appendix D – Soil Mapper

APPENDIX A- Aerial Map



0 500 1,000

Feet

Aerial Map

City of Fowler - Tract 6519

PROVOST& PRITCHARD

1/7/2022 G:\Fowler_City of-2619\GIS\Map\FY2025_On-Going_GIS\CityOfFowler_Tract_6519\CityOfFowler_Tract_6519.aprx

APPENDIX B – CNDDB SPECIES LIST

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Conejo (3611956) OR Malaga (3611966))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus pensylvanicus American bumble bee	IIHYM24260	None	None	G3G4	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Caulanthus californicus California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Efferia antiochi Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
Imperata brevifolia California satintail	PMPOA3D020	None	None	G3	S3	2B.1
Lasthenia chrysantha alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
Leptosiphon serrulatus Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
Lytta molesta molestan blister beetle	IICOL4C030	None	None	G2	S2	
Metapogon hurdi Hurd's metapogon robberfly	IIDIP08010	None	None	G1G2	S1S2	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC

Record Count: 15

APPENDIX C - IPAC SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 09/16/2025 17:21:54 UTC
Project Code: 2025-0150240
Project Name: Tract 6519

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2025-0150240
Project Name: Tract 6519
Project Type: Residential Construction
Project Description: Yamabe & Horn Engineering (applicant), on behalf of Joseph Crown and Crown Homes (owner and subdivider), has proposed a Tentative Subdivision Map (TSM) on Assessor's Parcel Number (APN) 345-100-08S (Project), a parcel of approximately 38.5 acres in size. The Project site is designated as Low Density Residential by the City of Fowler's (City) General Plan and is zoned Exclusive Agriculture by the County of Fresno. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential. Additionally, the Project site would be annexed to the City and given a mapping prezone designation R-1-6 with an implementing zone district prezone designation of R-3, consistent with the Medium Low Density Residential land use. The Project would subdivide the subject property into 183 single family residential lots, meeting the density requirements of the Medium Low Density Residential land use. As a part of the Project, an approximately 85,867 square foot (sqft) park would be constructed. Other landscaping areas would also be included throughout the TSM, including internal paseos and a trail alignment along the Project site's South Sunnyside Avenue street frontage. Lots proposed would range from 5,000 sqft in size to 13,459 sqft in size. Access to the proposed subdivision would be provided from two points of access along both South Sunnyside Avenue and East Parlier Avenue. The Consolidated Irrigation District canal existing on the northeastern portion of the site is proposed to be undergrounded.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.61458035,-119.6933305499946,14z



Counties: Fresno County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

REPTILES

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Western Spadefoot *Spea hammondii* Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jenny McCarthy
Address: 1518 Mill Rock Way, Suite 100
City: Bakersfield
State: CA
Zip: 93311
Email jmccarthy@ppeng.com
Phone: 7073842510

APPENDIX D -NRCS SOIL REPORT

United States Department of Agriculture

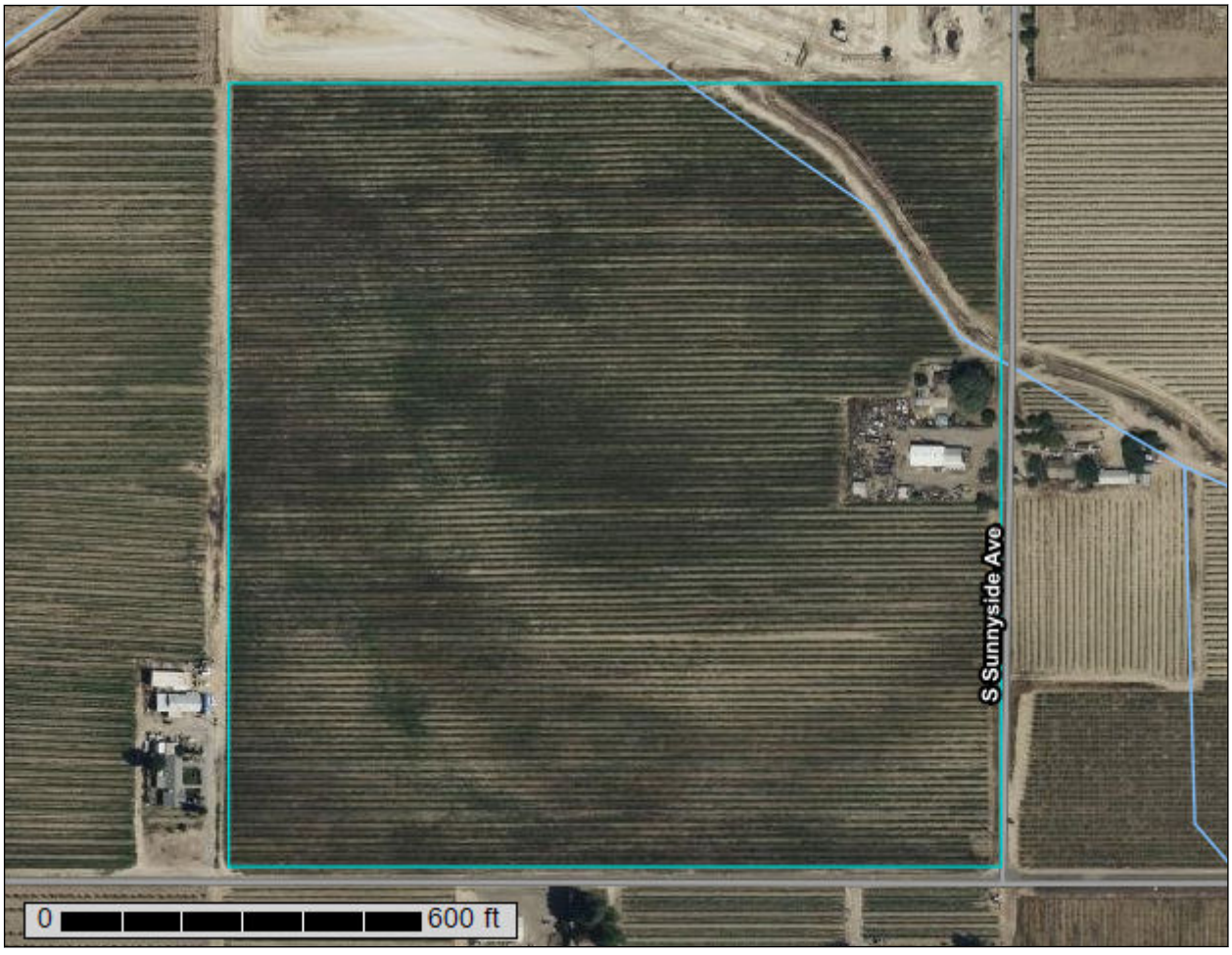
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eastern Fresno Area, California

Tract 5619



September 16, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,030 if printed on A portrait (8.5" x 11") sheet.

N

0 40 80 160 240 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 17, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 16, 2022—May 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DhA	Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	3.5	9.1%
Hc	Hanford sandy loam	11.6	30.2%
Ho	Hanford fine sandy loam, silty substratum	14.1	36.7%
Hsr	Hesperia fine sandy loam, very deep	9.2	24.0%
Totals for Area of Interest		**38.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eastern Fresno Area, California

DhA—Delhi loamy sand, 0 to 3 percent slopes, MLRA 17

Map Unit Setting

National map unit symbol: 2ss8r
Elevation: 30 to 430 feet
Mean annual precipitation: 9 to 16 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 225 to 310 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Delhi and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Delhi

Setting

Landform: Dunes on fan remnants
Landform position (two-dimensional): Shoulder, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandy alluvium derived from granite

Typical profile

A - 0 to 7 inches: loamy sand
C1 - 7 to 25 inches: loamy sand
C2 - 25 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: No

Minor Components

Hanford

Percent of map unit: 6 percent

Landform: Depressions on fan remnants
Hydric soil rating: No

Dello
Percent of map unit: 6 percent
Landform: Depressions on fan remnants
Hydric soil rating: Yes

Grangeville
Percent of map unit: 1 percent
Hydric soil rating: No

Hilmar
Percent of map unit: 1 percent
Hydric soil rating: No

Dinuba
Percent of map unit: 1 percent
Hydric soil rating: No

Hc—Hanford sandy loam

Map Unit Setting
National map unit symbol: hl5f
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting
Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile
Ap - 0 to 16 inches: sandy loam
C - 16 to 72 inches: sandy loam

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Flood plains, alluvial fans
Hydric soil rating: No

Unnamed, channeled

Percent of map unit: 5 percent
Landform: Channels on alluvial fans
Hydric soil rating: No

Ho—Hanford fine sandy loam, silty substratum

Map Unit Setting

National map unit symbol: hl5r
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear

Parent material: Alluvium derived from granite

Typical profile

A - 0 to 16 inches: fine sandy loam
C - 16 to 40 inches: fine sandy loam
2C - 40 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 40 inches to abrupt textural change
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: R017XY905CA - Dry Alluvial Fans and Terraces
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent
Landform: Alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hsr—Hesperia fine sandy loam, very deep

Map Unit Setting

National map unit symbol: 2yc9f
Elevation: 240 to 320 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 63 to 64 degrees F
Frost-free period: 316 to 327 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hesperia and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hesperia

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap1 - 0 to 5 inches: fine sandy loam
Ap2 - 5 to 11 inches: fine sandy loam
Bt - 11 to 32 inches: fine sandy loam
Btk - 32 to 60 inches: fine sandy loam
2Bdk - 60 to 67 inches: stratified silt loam
2Cd - 67 to 79 inches: stratified silt loam

Properties and qualities

Slope: 0 percent
Depth to restrictive feature: 60 inches to densic material
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: R017XY905CA - Dry Alluvial Fans and Terraces
Hydric soil rating: No

Minor Components

Unnamed, loam surface

Percent of map unit: 10 percent
Landform: Alluvial fans
Hydric soil rating: No

Unnamed

Percent of map unit: 5 percent
Landform: Alluvial fans
Hydric soil rating: No

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Appendix C - Cultural Resources Information

City of Fowler

Tentative Subdivision Map No. 6519

Cultural Resources Information

Southern San Joaquin Valley Information Center, California State University, Bakersfield; California Historical Resources Information System: Record Search 25-411, dated October 13, 2025.

- There has been one previous cultural resource studies completed within the project area or within a one-half mile radius.
- There are no recorded resources within the project area, and it is not known if any exist.
- There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Native American Heritage Commission (NAHC): Sacred Lands File & Native American Contacts List Request, dated October 2, 2025.

- A Record Search of the NAHC Sacred Lands File was completed for the Area of Potential Effect (APE) with negative results.

Assembly Bill (AB) 52 Consultation pursuant to Public Resource Code Section 21080.3.1

- The Lead Agency has received a letter from the Santa Rosa Rancheria Tachi Yokut Tribe requesting notification of all projects.
- The Lead Agency mailed a notification letter to the Tribe on October 3, 2023.
- No responses have been received by the Lead Agency pursuant to the AB 52 Tribal Consultation Notification Request Letter.

Senate Bill (SB) 18 Consultation pursuant to Government Code Section 65352.3

- In addition, SB 18 Notifications were sent to all nine tribal contacts from the NAHC list, dated October 3, 2025.
- No responses have been received by the Lead Agency pursuant to the SB 18 Tribal Consultation Notification Letter.

CHRIS – Record Search Results

California Historical Resources Information System



Fresno
Inyo
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
Email: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Mitchell Moore
Provost & Pritchard Consulting Group
455 W. Fir Ave.
Clovis, CA 93611

Record Search 25-411

Date: October 13, 2025

Re: City of Fowler Tract 6519 Subdivision 02619-25-029

County: Fresno

Map(s): Conejo 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there has been one previous cultural resource studies completed within the project area or within a one-half mile radius.

Record Search 25-411

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

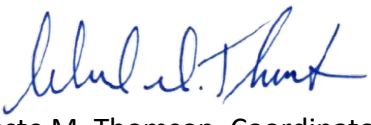
According to the information in our files, there are no recorded cultural resources within the project area or a one-half mile radius, and it is not known if any exist there.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of subdividing an approximately 38.5-acre parcel into 183 single family residential lots. Development will also include neighborhood amenities, such as a park. Further, we understand this project area has been used for agricultural purposes. It should be noted that agriculture does not constitute previous development, as it does not destroy cultural resources but merely moves them around within the plow zone. Because a cultural resource study has not been previously conducted in this project area, it is unknown if any cultural resources are present. Therefore, prior to any ground disturbance activities associated with this project, we recommend a qualified, professional consultant conduct a field survey to determine if any cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By: 

Celeste M. Thomson, Coordinator **Date**: October 13, 2025

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

NAHC – Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
REGINALD PAGALING
CHUMASH

VICE-CHAIRPERSON
BUFFY MCQUILLEN
YOKAYO POMO, YUKI, NOMLAKI

SECRETARY
ISAAC BOJORQUEZ
OHLONE-COSTANOAN

PARLIAMENTARIAN
WAYNE NELSON
LUISEÑO

COMMISSIONER
SARA DUTSCHKE
MIWOK

COMMISSIONER
STANLEY RODRIGUEZ
KUMEYAAY

COMMISSIONER
BENNAE CALAC
PAUMA-YUIMA BAND OF LUISEÑO INDIANS

COMMISSIONER
VACANT

COMMISSIONER
VACANT

ACTING EXECUTIVE SECRETARY
MICHELLE CARR

NAHC HEADQUARTERS
1550 HARBOR BOULEVARD
SUITE 100
WEST SACRAMENTO,
CALIFORNIA 95691
(916) 373-3710
NAHC@NAHC.CA.GOV

October 2, 2025

Mitchell Moore
Provost & Pritchard Consulting

Submitted via Electronic
***Via Email to*: mmoore@ppeng.com**

Re: City of Fowler 6519 Project, Fresno County

To Whom It May Concern:

As requested, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were negative. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes that are traditionally and culturally affiliated with the project's geographic area. Please contact all of the listed tribes as they may have information about sacred sites within the project area that is not listed with the NAHC.

If within two weeks of notification, a response has not been received, the Commission requests that you follow up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please inform the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) information center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

AB 52 Tribal Consultation

October 3, 2025

Santa Rosa Rancheria Tachi Yokut Tribe
Samantha McCarty, Cultural Specialist ll
P.O. Box 8
Lemoore, CA, 93245

Subject: Notification pursuant to Assembly Bill 52 and Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Samantha McCarty:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill 52) and Government Code Section 65352.3 (Senate Bill 18), the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Assembly Bill 52 and Senate Bill 18, the tribe has 30 and 90 days, respectfully, to request formal consultation. The 30-day window under Assembly Bill 52 begins from the date that this letter is received. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Santa Rosa Rancheria Tachi Yokut Tribe
Shana Powers, THPO
P.O. Box 8
Lemoore, CA, 93245

Subject: Notification pursuant to Assembly Bill 52 and Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Shana Powers:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill 52) and Government Code Section 65352.3 (Senate Bill 18), the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Assembly Bill 52 and Senate Bill 18, the tribe has 30 and 90 days, respectfully, to request formal consultation. The 30-day window under Assembly Bill 52 begins from the date that this letter is received. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Santa Rosa Rancheria Tachi Yokut Tribe
Nichole Escalon, Cultural Specialist l
P.O. Box 8
Lemoore, CA, 93245

Subject: Notification pursuant to Assembly Bill 52 and Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Nichole Escalon:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill 52) and Government Code Section 65352.3 (Senate Bill 18), the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Assembly Bill 52 and Senate Bill 18, the tribe has 30 and 90 days, respectfully, to request formal consultation. The 30-day window under Assembly Bill 52 begins from the date that this letter is received. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

SB 18 Tribal Consultation

October 3, 2025

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Delia Dominguez, Chairperson:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Senate Bill 18, the tribe has 90 days to request formal consultation. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Table Mountain Rancheria
Felix Christman, Tribal Historic Preservation Officer
340 North Reservation Road
Porterville, CA, 93257

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Felix Christman, THPO:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Senate Bill 18, the tribe has 90 days to request formal consultation. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Table Mountain Rancheria
Michelle Heredia-Cordova, Chairperson
P.O. Box 410
Friant, CA, 93626

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Michelle Heredia-Cordova, Chairperson:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

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Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Table Mountain Rancheria
Bob Pennell, Cultural Resource Director
P.O. Box 410
Friant, CA, 93626

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Bob Pennell, Cultural Resource Director:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

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Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Tule River Indian Tribe
Kerri Vera, Environmental Department
340 North Reservation Road
Porterville, CA, 93257

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Kerri Vera, Environmental Department:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

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Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

October 3, 2025

Wuksachi Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA, 93906

Subject: Notification pursuant to Senate Bill 18 for *Fowler General Plan Amendments,* City of Fowler, Fresno County, CA

Dear Kenneth Woodrow, Chairperson:

The City of Fowler is processing a package of General Plan Amendments throughout the City that are designed to promote consistency between the City's General Plan land use map, the City's Zoning Map, and the existing development throughout the City. Pursuant to Government Code Section 65352.3 (Senate Bill 18) the City is requesting your review to determine if formal consultation is appropriate for the project. As a part of the Project, the applicant has proposed a General Plan Amendment (GPA) to amend the site's land use designation to Medium Low Density Residential from Low Density Residential. In total, the applicant will develop 38.5 acres at a density of 4.5 dwelling units per acre, meeting the density requirements of the Medium Low Density Residential land use. Additionally, the Project site would be annexed to the City and given a zoning map designation of R-1-6 (Single Family Residential) with an implementing zone district of R-3. The Project would subdivide the subject property into 183 single-family residential lots.

Pursuant to Senate Bill 18, the tribe has 90 days to request formal consultation. The 90-day window under Senate Bill 18 begins from the date on which this letter is sent.

Please feel free to contact me with any questions or comments at 559.834.3113 ext 122 or at 559.449.2700 or at dmarple@ppeng.com. Thank you.

Respectfully,

Dawn E. Marple
City Planner

Enclosure: APE Map

Appendix D - Traffic Study

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS

TRACT 6519

On the Northwest Quadrant of
Sunnyside Avenue and Parlier Avenue in the
City of Fowler, California

TRAFFIC IMPACT ANALYSIS

Prepared for:
Crown Homes
5320 E. Pine Avenue
Fresno, CA 93727

Prepared by:
Yamabe & Horn Engineering, Inc.
2985 N Burl Ave #101
Fresno, CA 93727

May 27, 2026

Traffic Impact Analysis

For Tract 6519 residential development located on the Northwest Quadrant of Sunnyside Avenue and Parlier Avenue.

In the City of Fowler, CA

May 27, 2026

This Traffic Impact Study has been prepared under the direction of Brandon A. Broussard, P.E. Brandon A. Broussard attests to the technical information contained therein and has judged the qualifications of recommendations, conclusions, and decisions are based on City of Fowler guidelines, general engineering standards, and California/Federal laws.

Prepared by:

Brandon A. Broussard, P.E.

Principal Engineer



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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

This Traffic Impact Analysis (TIA) was prepared to assess the traffic impacts of the proposed Tract 6519 residential development (Project) located on the Northwest Quadrant of Sunnyside Avenue and Parlier Avenue in the City of Fowler. The Project consists of two phases with Phase 1 developing 96 single family residential units and Phase 2 developing 87 single family residential units for a total of 183 single family residential units. For the purposes of this TIA, the Project will be studied at full build out (Phase 1 plus Phase 2). Based on the information provided to YH, the Project land use will need to be rezoned from low density residential to medium low density residential as well as require City annexation. The Project site plan as shown in Figure 1 and Figure 2 shows the overall location of the Project and surrounding roadway network. Per conversations with City of Fowler Staff, the Project does not require a VMT analysis per the City of Fowler 2040 General Plan Draft Environmental Impact Report (EIR).

The scope of work was prepared in consultation with and approved by the City of Fowler, County of Fresno, and Caltrans staff. Correspondence and approved scoping can be found in Appendix B. The scope of work identified the following intersection(s) to be studied for potential traffic impacts:

1. Clovis Avenue and Parlier Avenue
2. Parlier Avenue and Sunnyside Avenue
3. Parlier Avenue and Fowler Avenue
4. Sunnyside Avenue and South Avenue
5. South Avenue and Fowler Avenue
6. Sunnyside Avenue and Sumner Avenue
7. Sumner Avenue/ Merced Street and Highway 99 SB Off-Ramp
8. Merced Street and Highway 99 NB Ramps
9. Fowler Avenue and Fresno Street
10. Fowler Avenue and Highway 99 SB On-Ramp

Potential Level of Service (LOS) traffic impacts were evaluated per the City of Fowler Traffic Impact Analysis Guidelines (TIAG) dated January 2025. Per Section 3.3 of the City of Fowler TIAG, city roadway segments and intersections are encouraged to operate at LOS C or better. LOS D may be allowed during peak hours at intersections of major streets, at State Route 99 interchanges, and along street segments where additional improvements are not feasible. The traffic impacts are as follows:

Existing Conditions

- All study intersections currently operate within acceptable LOS.
- Intersection 7: Merced Street and Highway 99 SB off Ramp and Intersection 8: Merced Street and Highway 99 NB On and Off Ramps currently operate at LOS C and LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

Existing Plus Project

- Considering only existing plus Project volumes, all study intersections are projected to operate within acceptable LOS under this scenario.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp will operate at LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps will operate at LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

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Near Term Build Out (Plus Project plus Pending/Approved) Projects

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8 once pending and approved projects are added to the Existing plus Project traffic volume.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp is projected to operate at LOS E during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation Option 1: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.
    - Mitigation Option 2: Signalizing the intersection with the following will improve the LOS to C in the AM and PM peak hours:
        - Add a channelized 100' right turn pocket to the Highway 99 SB Off Ramp.
        - Adding a 100' right turn pocket to northeast approach of Merced Street.
        - Add a 100' left turn pocket to the northwest approach of Fowler Avenue.
        - Extend the storage of the left turn lane for the southwest bound approach of Merced Street.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps is projected to operate at LOS E the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.

Year 2046 No Project

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8.
- All study intersections operates within acceptable LOS under this scenario, except Intersections 7 & 8 in the AM peak hour.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp operates at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

Cumulative Year 2046 Plus Project

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp is projected to operate at LOS F during the AM peak hour, which is below the City of Fowler's acceptable LOS threshold.

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  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps is projected to operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

Queuing Analysis

The City should consider right-turn and left-turn storage lengths analyzed in Section 11 of this TIA.

- Merced Street and Highway 99 SB Off Ramp westbound left turn lane experiences an existing deficiency in available storage during the AM and PM peak hours. This deficiency increases in all future scenarios. With existing intersection geometrics and control, the westbound left turn lane would require a minimum of 200' of storage which will not be achievable without affecting the available storage of the eastbound left turn lane at Merced Street and Highway 99 NB On-Off Ramp intersection. This is due to Merced Street's short 250' roadway segment between these two intersections.

Project's Equitable Fair Share

It is recommended that the Project contribute its equitable fair share per Table 16 of this TIA for future improvements/mitigations not covered by an existing impact fee program or grant funds.

2.0 PROJECT SCOPE

The scope of work was prepared in consultation with and approved by the City of Fowler, County of Fresno, and Caltrans staff. Correspondence and approved scoping can be found in Appendix B. In addition to the scoping document, Caltrans requested a safety review of all State Highway System (SHS) facilities the Project adds trips to. A qualitative analysis of existing and planned transit routes, walkways, and bikeways in the vicinity of the Project are also included in this TIA.

3.0 STUDY AREA AND SCENARIOS

The scope of work identified the following intersection(s) to be studied for potential traffic impacts. The locations of the study intersections are shown in Figure 3.

1. Clovis Avenue and Parlier Avenue
2. Parlier Avenue and Sunnyside Avenue
3. Parlier Avenue and Fowler Avenue
4. Sunnyside Avenue and South Avenue
5. South Avenue and Fowler Avenue
6. Sunnyside Avenue and Sumner Avenue
7. Sumner Avenue/ Merced Street and Highway 99 SB Off-Ramp
8. Merced Street and Highway 99 NB Ramps
9. Fowler Avenue and Fresno Street
10. Fowler Avenue and Highway 99 SB On-Ramp

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Scenarios to be Analyzed are as follows:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Near Term Build Out (Project Plus Pending and Approved Projects)
4. Year 2046 No Project
5. Cumulative Year 2046 Plus Project

The time periods for the operational analysis are as follows:

- Weekday AM peak hour between 7:00 and 9:00 AM
- Weekday PM peak hour between 4:00 and 6:00 PM

4.0 LEVEL OF SERVICE AND THRESHOLDS

4.1 LEVEL OF SERVICE

The State of California no longer considers LOS as an environmental impact criteria under CEQA. Mitigation must be tied to safety, multimodal improvements, or VMT reductions to be considered supportable and enforceable by Caltrans.

The City of Fowler General Plan and TIAG states that city roadway segments and intersections are encouraged to operate at LOS C or better. LOS D may be allowed during peak hours at intersections of major streets, at State Route 99 interchanges, and along street segments where additional improvements are not feasible. For the purposes of this study, the City of Fowler's LOS thresholds will be applied to all study intersections. For the purposes of this traffic study, the LOS thresholds provided by the City of Fowler will be used.

Level of service analyses was performed for all the study intersections using Synchro 12 software which utilizes Highway Capacity Manual (HCM) 7 methodologies in its calculation of approach control delays.

For signalized and all-way stop controlled intersections, results of analyses of different scenarios will be presented showing the average control delay. For two-way stop controlled intersections, the worst-case scenario for one of the approaches will be presented as the result.

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Table 1: Level of Service Criteria for Unsignalized Intersections

Average Control Delay (s/veh)	Level of Service v/c ≤ 1.0
0-10	A
> 10-15	B
> 15-25	C
> 25-35	D
> 35-50	E
> 50	F

Source: Highway Capacity Manual 7th Edition

Table 2: Level of Service Criteria for Signalized Intersections

Average Control Delay (s/veh)	Level of Service By volume to capacity ratio v/c ≤1.0	Description
0-10	A	Progression is very favorable, or cycle length is very short. Most vehicles arrive during green signal and do not stop.
> 10-20	B	Progression is highly favorable, or cycle length is very short. More vehicles stop than with LOS A.
> 20-35	C	Progression is favorable or the cycle length is moderate. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.
> 35-55	D	Volume to capacity ratio is high and progression is ineffective, or cycle lengths are long. Many vehicles stop, and the proportion of vehicles not stopping diminishes. Individual cycle failures are noticeable.
> 55-80	E	Volume to capacity ratio is high, progression is unfavorable, and cycle lengths are long. Individual cycle failures are frequent.
> 80	F	Progression is very poor, and cycle lengths are long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual 7th Edition

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4.2 SIGNAL WARRANTS

The investigation of the need for a traffic control signal at any intersection is standardized by California Manual on Uniform Traffic Control Devices (CAMUTCD) signal warrants. If the LOS of a study intersection with stop control falls below the acceptable LOS as defined in Section 4.1, traffic signal warrants were performed to explore the potential of a traffic signal as a mitigation measure. Per the City of Fowler TIAG, Signal warrants 1 (Eight-Hour Volume), 2 (Four-Hour Volume), 3 (Peak Hour), and 7 (Crash Experience) are to be performed. Due to the nature of the study and application of only AM and PM peak hour trips, signal warrants 1 and 2 can only be performed for the Existing Conditions scenario where 24-hour traffic counts have been obtained.

It is to be noted that the CAMUTCD states 'the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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5.0 EXISTING CONDITIONS SCENARIO

5.1 EXISTING ROADWAY NETWORK

The existing conditions of the roadway network within the vicinity of the Project are described below. Roadway classifications were determined based on the City of Fowler General Plan.

Clovis Avenue: two-lane undivided arterial roadway running north and south. Highway 99 northbound and southbound interchange is located along Clovis Avenue north of Adams Avenue.

Fowler Avenue: two-lane undivided arterial roadway running north and south from South Avenue to Fresno Street and then northwest and southwest from Fresno Street to Merced Street. Highway 99 SB on ramp exists on Fowler Avenue just southeast of Fresno Street.

Merced Street: two-lane (with an two way left turn lane) undivided collector roadway running northeast and southwest. Merced Street becomes Sumner Avenue west of the Fowler Avenue/Highway 99 southbound off ramp intersection.

Parlier Avenue: two-lane undivided local roadway running east and west between Sunnyside Avenue and Fowler Avenue.

South Avenue: two-lane undivided collector roadway running east and west. Highway 99 SB on ramp exists on Fowler Avenue just southeast of Fresno Street. Portions of South Avenue west of Fowler Avenue to Clovis Avenue along more recent residential developments have been widened and have bike lanes. A two-way left turn lane exists between Sandy Avenue and Hill Avenue.

Sumner Avenue: two-lane undivided collector roadway running east and west. Sumner Avenue becomes Merced Street east of the Fowler Avenue/Highway 99 southbound off ramp intersection.

Sunnyside Avenue: two-lane local roadway running north and south. Portions of Sunnyside Avenue north of Sumner Avenue toward the Highway 99 and from Maple Avenue to Randy Avenue along/ adjacent more recent residential developments have been widened to a two-lane (with a two way left turn lane) modified collector street. North of Sumner Avenue and south of South Avenue have bike lanes with the widening of the road to a modified collector street section.

Existing study intersection locations, lane configurations and intersection control are shown on Figures 3.

5.2 SAFETY ANALYSIS OF STATE HIGHWAY FACILITIES

A safety analysis was performed for SHS study intersections. Yamabe and Horn requested collision data from Caltrans. Table 3 summarizes the collision data. All study intersections actual fatal collisions rates and actual total collisions rates that are below the average rates for similar facilities statewide.

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Table 3: SHS Collisions

Intersection	Total No. of Collisions	ACTUAL (per million vehicles)			AVERAGE (per million vehicles)		
		Fatal Collisions	Fatal + Injury Collisions	Total	Fatal Collisions	Fatal + Injury Collisions	Total
Merced St & HWY 99 SB Off Ramp	0	0.000	0.00	0.00	0.002	0.09	0.31
Merced St & HWY 99 NB Off Ramp	2	0.000	0.00	0.44	0.003	0.38	1.04
Merced St & HWY 99 NB On Ramp	1	0.000	0.00	0.15	0.002	0.25	0.63
Fowler Ave & HWY 99 SB On Ramp	4	0.000	0.62	0.62	0.003	0.38	1.04

5.3 EXISTING TRAFFIC COUNTS

Existing traffic counts were taken midweek while Fowler Unified School District school year was in session and can be found in Appendix C. Existing peak hour traffic volumes are shown in Figure 4.

5.4 EXISTING CONDITIONS ANALYSIS RESULTS

The results of the existing conditions analysis are summarized in Table 4 and shown in Figure 5.

Under this scenario:

- All study intersections currently operate within acceptable LOS.
- Intersection 7: Merced Street and Highway 99 SB off Ramp and Intersection 8: Merced Street and Highway 99 NB On and Off Ramps currently operate at LOS C & D during the AM peak hour and PM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

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Table 4: Existing Conditions LOS

Node	Intersection	Peak Hour	Existing	
			Delay (s)	LOS
1	Clovis Ave & Parlier Ave	AM	11.0	B
		PM	10.0	A
2	Parlier Ave & Sunnyside Ave	AM	8.6	A
		PM	8.5	A
3	Fowler Ave & Parlier Ave	AM	9.7	A
		PM	12.9	B
4	Sunnyside Ave & South Ave	AM	9.8	A
		PM	10.5	B
5	Fowler Ave & South Ave	AM	13.3	B
		PM	12.5	B
6	Sunnyside Ave & Sumner Ave	AM	10.6	B
		PM	10.9	B
7	Sumner Ave & HWY 99 SB Off Ramp	AM	22.9	C
		PM	15.1	C
8	Merced St & HWY 99 NB On/Off Ramps	AM	26.0	D
		PM	17.4	C
9	Fresno St & Fowler Ave	AM	15.2	C
		PM	13.9	B
10	Fowler Ave & HWY 99 SB On Ramp	AM	11.1	B
		PM	10.9	B

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6.0 EXISTING PLUS PROJECT SCENARIO

The Project will develop 183 single family residential units. Figure 1 shows the latest Project Site Plan. Access to and from the Project site for construction will be provided at 4 locations. Two access points are located along the east side of the site on Sunnyside Avenue approximately 550 feet south of Randy Avenue and approximately 340 feet north of Parlier Avenue. The remaining two access points are located along the south side of the site on Parlier Avenue approximately 550 feet and 1,650 feet west of Parlier Avenue. All access points will be full access. It is assumed that the existing surrounding roadway geometrics and traffic controls will remain in place for this scenario.

6.1 Transit Routes, Walkways and Bikeways Analysis

The Fresno County Rural Transit Agency (FCRTA) provides fixed-route bus services and on-demand transportation linking the City of Fowler with the cities of Selma, Kingsburg, and Fresno. Currently, two bus stops exist in the City of Fowler which are located at 7th Street & Merced Street and at the Adventist Health/Valley Children's Hospital across from 230 S 9th Street. No additional bus stop or routes are proposed with the Project.

The Project proposes a trail extension from Randy Avenue and Tract 5952 just north of this project to the first project site entry. Talks of a high visibility crosswalk for future trail connectivity which helps meet state and federal agendas and mandates promoting balanced motorized/ non-motorized uses, public health, and general equitable pedestrian access or connectivity between parks and areas of recreation.

The Project proposes the construction of ADA compliant sidewalks and access ramps throughout the internal Project site circulation as well as along the Project's frontages along the north side of Parlier Avenue and the west side of Sunnyside Avenue. Bike lanes will also be constructed along said frontages, connecting to the City of Fowlers existing bike lanes along Sumner Avenue from Sunnyside Avenue to 8th Street and along Sunnyside Avenue north of Sumner Avenue.

6.2 PROJECT TRIP GENERATION

Table 5 presents the project trip generation for Phase 1 and Phase 2 of the Project. Phase 1 will generate approximately 905 total daily weekday trips, 68 AM peak hour trips, and 87 PM peak hour trips. Phase 2 will generate approximately 821 total daily weekday trips, 61 AM peak hour trips, and 82 PM peak hour trips. This will result in a total of 1,726 daily weekday trips, 129 AM peak hour, and 173 PM peak hour trips. Figure 6 and Figure 7 show the Project trips and distributions. Project trip distributions were determined based on Fresno Council of Governments (FCOG) Project Select Zone modeling and engineering knowledge and judgement of existing surrounding travel patterns and land uses. FCOG model outputs can be found in Appendix E. Figure 8 presents the total existing plus Project trip volumes for the study intersections.

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Table 5: Project Trip Generation

Land Use/Zoning	Size Unit	Weekday		7-9 AM Peak Hour			4-6 PM Peak Hour		
		Rate	Total	Rate % Split	Enter	Exit	Rate % Split	Enter	Exit
Phase 1 SF Detached Homes (ITE LU 210)	96.00 DU	9.43	905	0.70 25 / 75	17	51	0.94 63 / 37	57	34
Phase 2 SF Detached Homes (ITE LU 210)	87.00 DU	9.43	821	0.70 25 / 75	16	45	0.94 63 / 37	52	30
TOTAL			1,726		33	96		109	64

6.3 EXISTING PLUS PROJECT ANALYSIS RESULTS

The results of the Existing Plus Project analysis are summarized in Table 6 and shown on Figure 9.

Under this scenario:

- All study intersections operates within acceptable LOS under this scenario.
- Merced Street and Highway 99 NB On and Off Ramps will operate at LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

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Table 6: Existing Plus Project LOS

Node	Intersection	Peak Hour	Plus Project	
			Delay (s)	LOS
1	Clovis Ave & Parlier Ave	AM	11.3	B
		PM	10.2	B
2	Parlier Ave & Sunnyside Ave	AM	8.7	A
		PM	8.7	A
3	Fowler Ave & Parlier Ave	AM	9.3	A
		PM	13.8	B
4	Sunnyside Ave & South Ave	AM	10.3	B
		PM	11.3	B
5	Fowler Ave & South Ave	AM	13.9	B
		PM	13.0	B
6	Sunnyside Ave & Sumner Ave	AM	10.9	B
		PM	11.5	B
7	Sumner Ave & HWY 99 SB Off Ramp	AM	25.9	D
		PM	16.4	C
8	Merced St & HWY 99 NB On/Off Ramps	AM	28.1	D
		PM	18.3	C
9	Fresno St & Fowler Ave	AM	15.6	C
		PM	14.3	B
10	Fowler Ave & HWY 99 SB On Ramp	AM	11.3	B
		PM	11.0	B

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7.0 NEAR TERM PLUS PENDING/APPROVED PROJECTS SCENARIO

The Near Term Plus Pending/Approved Projects scenario assumes the same roadway and intersection control conditions as the Existing Conditions scenario described in Section 5 and shown in Figure 3. Pending and approved project trips within a half mile of the Project site are added to the Existing Plus Project traffic volumes.

7.1 NEAR TERM PENDING/APPROVED PROJECTS TRIP GENERATION

Table 7 lists the pending and approved projects provided by the City of Fowler to be included in this study along with their estimated trip generations. The pending and approved projects will generate an estimated total of 3,771 weekday trips, 269 AM peak hour trips, and 358 PM peak hour trips. Figure 10 shows pending and approved project trip distribution and Figure 11 shows the total Near Term Plus Pending/Approved traffic volumes for the study intersections.

Table 7: Approved and Pending Projects Trip Generation

Land Use/Zoning	APN	Size Unit	Weekday		7-9 AM Peak Hour			4-6 PM Peak Hour		
			Rate	Total	Rate % Split	Enter	Exit	Rate % Split	Enter	Exit
CUP NO. 25-04 Low-rise Multifamily (ITE LU 220)	343-020-18	116.00 DU	6.74	**782**	0.40 24 / 76	11	35	0.51 63 / 37	37	22
Tract No. 6405* Single-Family Detached Homes (ITE LU 210)	345-010-25	34.00 DU	9.43	**321**	0.70 25 / 75	6	18	0.94 63 / 37	20	12
Tract No. 6501 Single-Family Detached Homes (ITE LU 210)	343-040-26	103.00 DU	9.43	**971**	0.70 25 / 75	18	54	0.94 63 / 37	61	36
Tract No. 6520 Single-Family Detached Homes (ITE LU 937)	343-040-26	180.00 DU	9.43	**1697**	0.70 25 / 75	33	94	0.94 63 / 37	108	62
			TOTAL	**3,771**		**68**	**201**		**226**	**132**

*Remaining units

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7.2 NEAR TERM PLUS PENDING/APPROVED PROJECT ANALYSIS RESULTS

The results of the Near Term Plus Pending/Approved Project analysis are summarized in Table 8 and shown on Figure 12. LOS results of the proposed mitigations are shown in Table 9.

Under this scenario:

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp is projected to operate at LOS E during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation Option 1: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.
    - Mitigation Option 2: Signalizing the intersection with the following will improve the LOS to C in the AM and PM peak hours:
        - Add a channelized 100' right turn pocket to the Highway 99 SB Off Ramp.
        - Adding a 100' right turn pocket to northeast approach of Merced Street.
        - Add a 100' left turn pocket to the northwest approach of Fowler Avenue.
        - Extend the storage of the left turn lane for the southwest bound approach of Merced Street.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps is projected to operate at LOS E the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.

Please note that it is typically not ideal to have a roundabout located near a traffic signal due to potential queueing into the roundabout. It should also be noted that the satisfaction of a traffic signal warrant shall not in itself require the installation of a traffic signal.

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Table 8: Near Term Intersection LOS

Node	Intersection	Peak Hour	Plus Project	
			Delay (s)	LOS
1	Clovis Ave & Parlier Ave	AM	11.3	B
		PM	10.1	B
2	Parlier Ave & Sunnyside Ave	AM	8.7	A
		PM	8.7	A
3	Fowler Ave & Parlier Ave	AM	9.3	A
		PM	13.8	B
4	Sunnyside Ave & South Ave	AM	10.6	B
		PM	11.6	B
5	Fowler Ave & South Ave	AM	14.5	B
		PM	13.7	B
6	Sunnyside Ave & Sumner Ave	AM	11.6	B
		PM	13.0	B
7	**Sumner Ave & HWY 99 SB Off Ramp**	**AM**	**37.3**	**E**
		PM	21.3	C
8	**Merced St & HWY 99 NB On/Off Ramps**	**AM**	**38.9**	**E**
		PM	23.4	C
9	Fresno St & Fowler Ave	AM	16.1	C
		PM	14.8	B
10	Fowler Ave & HWY 99 SB On Ramp	AM	15.1	C
		PM	11.1	B

Table 9: Near Term Mitigation Intersection LOS

Node	Intersection	Peak Hour	Mitigated	
			Delay (s)	LOS
7	Sumner Ave & HWY 99 SB Off Ramp (Signalization)	AM	27.0	C
		PM	30.4	C
7	Sumner Ave & HWY 99 SB Off Ramp (Roundabout)	AM	12.9	B
		PM	11.0	B
8	Merced St & HWY 99 NB On/Off Ramps (Roundabout)	AM	13.3	B
		PM	10.2	B

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8.0 YEAR 2046 NO PROJECT SCENARIO

The Year 2046 No Project scenario assumes the same roadway and intersection control conditions as the Existing Conditions scenario described in Section 5 and shown on Figure 3. Existing traffic count volumes were projected to Year 2046 No Project volumes by utilizing the traffic growth calculated between the FCOG Base Year 2019 model and Cumulative Year 2046 No Project model. Figure 13 presents the total Year 2046 No Project traffic volumes for the study intersections.

8.1 YEAR 2046 NO PROJECT ANALYSIS RESULTS

The results of the Year 2046 No Project analysis are summarized in Table 10 and shown in Figure 14. LOS results of the proposed mitigations are shown in Table 11.

Under this scenario:

- All study intersections operates within acceptable LOS under this scenario, except Intersections 7 & 8 in the AM peak hour.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp operates at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

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Table 10: Year 2046 No Project LOS

Node	Intersection	Peak Hour	Existing	
			Delay (s)	LOS
1	Clovis Ave & Parlier Ave	AM	11.4	B
		PM	10.5	B
2	Parlier Ave & Sunnyside Ave	AM	8.6	A
		PM	8.5	A
3	Fowler Ave & Parlier Ave	AM	10.1	B
		PM	13.3	B
4	Sunnyside Ave & South Ave	AM	10.1	B
		PM	10.8	B
5	Fowler Ave & South Ave	AM	15.1	C
		PM	13.8	B
6	Sunnyside Ave & Sumner Ave	AM	11.6	B
		PM	11.7	B
7	**Sumner Ave & HWY 99 SB Off Ramp**	**AM**	**72.6**	**F**
		PM	21.6	C
8	**Merced St & HWY 99 NB On/Off Ramps**	**AM**	**65.4**	**F**
		PM	25.6	D
9	Fresno St & Fowler Ave	AM	19.1	C
		PM	16.0	C
10	Fowler Ave & HWY 99 SB On Ramp	AM	12.1	B
		PM	11.8	B

Table 11: Year 2046 No Project Mitigation LOS

Node	Intersection	Peak Hour	Existing	
			Delay (s)	LOS
7	Sumner Ave & HWY 99 SB Off Ramp (Roundabout)	AM	16.3	C
		PM	11.1	B
8	Merced St & HWY 99 NB On/Off Ramps (Roundabout)	AM	17.1	C
		PM	11.2	B

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9.0 CUMULATIVE YEAR 2046 PLUS PROJECT SCENARIO

The Cumulative Year 2046 Plus Project scenario assumes the same roadway and intersection control conditions as the Existing Conditions scenario described in Section 5 and shown on Figure 3. Cumulative Year 2046 Plus Project traffic volumes were calculated by adding Project trips to the Year 2046 No Project volumes. Figure 15 presents the total Cumulative Year 2046 Plus Project traffic volumes for the study intersections.

9.1 CUMULATIVE YEAR 2046 PLUS PROJECT ANALYSIS RESULTS

The results of the Cumulative Year 2046 Plus Project analysis are summarized in Table 12 and shown on Figure 16. LOS results of the proposed mitigations are shown in Table 13.

Under this scenario:

- All study intersections operates within acceptable LOS under this scenario, except Intersections 7 & 8 in the AM peak hour.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp operates at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

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Table 12: Cumulative Year 2046 Plus Project LOS

Node	Intersection	Peak Hour	Existing	
			Delay (s)	LOS
1	Clovis Ave & Parlier Ave	AM	11.7	B
		PM	10.6	B
2	Parlier Ave & Sunnyside Ave	AM	8.7	A
		PM	8.7	A
3	Fowler Ave & Parlier Ave	AM	9.6	A
		PM	14.1	B
4	Sunnyside Ave & South Ave	AM	10.5	B
		PM	11.6	B
5	Fowler Ave & South Ave	AM	15.8	C
		PM	14.5	B
6	Sunnyside Ave & Sumner Ave	AM	11.9	B
		PM	12.4	B
7	**Sumner Ave & HWY 99 SB Off Ramp**	**AM**	**85.1**	**F**
		PM	25.1	D
8	**Merced St & HWY 99 NB On/Off Ramps**	**AM**	**77.7**	**F**
		PM	28.1	D
9	Fresno St & Fowler Ave	AM	19.7	C
		PM	16.5	C
10	Fowler Ave & HWY 99 SB On Ramp	AM	12.3	B
		PM	12.0	B

Table 13: Cumulative Year 2046 Plus Project Mitigation LOS

Node	Intersection	Peak Hour	Existing	
			Delay (s)	LOS
7	Sumner Ave & HWY 99 SB Off Ramp (Roundabout)	AM	17.8	C
		PM	11.9	B
8	Merced St & HWY 99 NB On/Off Ramps (Roundabout)	AM	18.1	C
		PM	12.4	B

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10.0 QUEUING ANALYSIS

Queueing results for right turn and left turn lanes are presented in Table 14 and Table 15 for the various analysis scenarios. For non-signalized intersections, queue length was determined by multiplying the 95th percentile queue by 25 feet which is the typical value for the average spacing of a vehicle in queue. For any signalized intersections, the queue lengths are provided in 95th percentile queue vehicles or in feet directly provided by specific Synchro report style and metric. Synchro reports can be found in Appendix D.

Table 14: Queuing Results

Node	Intersection	Approach	Existing Storage (ft)	Existing	Existing Plus Project	Near Term	Year 2046 No Project	Cumulative Year 2046 Plus Project
				Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)
4	Sunnyside Ave & South Ave	EBR	100	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
		NBL	100	5 / 3	8 / 5	10 / 5	5 / 3	10 / 5
		SBL	>500	3 / 3	5 / 5	5 / 5	3 / 3	3 / 3
6	Sunnyside Ave & Sumner Ave	EBR	150	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
		WBR	105	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
		SBR	105	0 / 0	0 / 0	0 / 0	3 / 0	3 / 0
7	Sumner Ave & HWY 99 SB Off Ramp	WBL	65	**75 / 68**	**80 / 75**	**95 / 90**	**150 / 108**	**155 / 120**
		SB Off-Ramp	1450	130 / 98	130 / 113	175 / 178	275 / 168	290 / 205
8	Merced St & HWY 99 NB On/Off Ramps	EBL	65	25 / 10	28 / 13	33 / 15	38 / 15	40 / 18
		NB Off-Ramp	1250	73 / 35	78 / 38	108 / 53	175 / 65	193 / 70
9	Fresno St & Fowler Ave	NBL	70	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

***Bold** denotes queue exceeding available storage length.*

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Mitigation is only needed per Level of Service by Near Term Opening scenario. For non-signalized intersections, queue length was determined by multiplying the 95th percentile queue by 25 feet which is the typical value for the average spacing of a vehicle in queue. For any signalized intersections, the queue lengths are provided in 95th percentile queue vehicles or in feet directly provided by specific Synchro report style and metric. Synchro reports can be found in Appendix D.

Table 15: Queuing Results (Mitigated)

Node	Intersection	Approach	Existing/ Proposed Storage (ft)	Existing	Existing Plus Project	Near Term	Year 2046 No Project	Cumulative Year 2046 Plus Project
				Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)	Queue (AM/PM) (ft)
7 AWS	Sumner Ave & HWY 99 SB Off Ramp	WBL	200	NA	NA	108 / 90	NA	NA
		SB	1450	NA	NA	200 / 178	NA	NA
7 TS	Sumner Ave & HWY 99 SB Off Ramp	WBL	200	NA	NA	186 **/ 209**	**220 / 231**	**221 / 240**
		SB Off-Ramp	1450	NA	NA	170 / 159	202 / 163	207 / 171
7 RDA	Sumner Ave & HWY 99 SB Off Ramp	SB	1450	NA	NA	50 / 75	50 / 75	50 / 75
		EB	> 300	NA	NA	200 / 25	75 / 25	100 / 25
		NB	100	NA	NA	75 / 25	125 / 25	125 / 25
		WB	65	NA	NA	25 / 50	25 / 50	25 / 50
8 RDA	Merced St & HWY 99 NB On/Off Ramps	EB	225	NA	NA	175 / 50	200 / 50	225 / 75
		NB	1250	NA	NA	50 / 25	75 / 25	75 / 25
		WB	200	NA	NA	100 / 100	150 / 100	150 / 125

NA or Text denotes not applicable or not a mitigated improvement
***Bold** denotes queue exceeding available storage length.*
AWS denotes all way stop improvements mitigation scenario
TS denotes Traffic Signal improvements mitigation scenario
RDA denotes Roundabout improvements mitigation scenario

As the queues shown are still outside compliance and outside constraints imposed by surrounding Caltrans infrastructure roundabout infrastructure and improvements are recommended for both intersections.

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11.0 PROJECT'S EQUITABLE FAIR SHARE

For the mitigation improvements discussed in this study, the Project's fair share percentage has been calculated if said mitigation improvements are not covered under an existing impact fee program. The fair share percentage was calculated pursuant to the Caltrans Guide for preparation of Traffic Impact Studies. Table 16 provides the equitable fair share for the study intersections.

$$P = \frac{T}{T_B - T_E}$$

Where:

P = Equitable fair share of the project's traffic impact.

T = Project vehicle trip generated during the peak hour of the adjacent facility.

T_B = Forecasted (future with project) traffic volume on the affected facility.

T_E = Existing traffic volume of the affected facility.

Table 16: Project's Equitable Fair Share

Study Intersection	Peak Hour	T	T_E	T_B	P
Merced St & HWY 99 SB Off Ramp	AM	38	1,262	1,528	14.3%
Merced St & HWY 99 NB On/Off Ramps	AM	33	1,483	1,784	11.0%

Per Caltrans review of the TIA scoping document (Appendix B):

"Should the traffic analysis identify deficiencies at SHS intersections, Caltrans supports proportional fair share contributions for mitigation. However, Caltrans cannot collect or support fair share contributions that are based solely on Level of Service (LOS) impacts, as LOS is no longer considered a significant impact under CEQA. Mitigation must be tied to safety, multimodal improvements, or VMT reductions to be considered supportable and enforceable by Caltrans."

Per Section 5.3 Safety Analysis of State Highway Facilities of this TIA, Merced Street and Highway 99 SB Off Ramp and Merced Street and Highway 99 NB On and Off ramp intersections have actual fatal collisions and fatal plus injury collision rates that are below the average rates for similar facilities. Per Section 11.0 Queuing Analysis of this TIA, the before mentioned intersections do not exhibit issues with queuing along the SHS off ramps. Therefore, mitigation improvements presented for these intersections primarily serve as a capacity based improvement towards LOS and not necessarily to improve upon any significant safety issue concern(s) currently present. It is recommended that the Project contributes its fair share percentage per Table 16 to the City of Fowler whereas proposed mitigations may be implemented in the future when warranted to address emerging safety or multimodal concerns.

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12.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations for the proposed Project and its impacts are presented below.

Existing Conditions

- All study intersections currently operate within acceptable LOS.
- Intersection 7: Merced Street and Highway 99 SB off Ramp and Intersection 8: Merced Street and Highway 99 NB On and Off Ramps currently operate at LOS C and LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

Existing Plus Project

- Considering only existing plus Project volumes, all study intersections are projected to operate within acceptable LOS under this scenario.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp will operate at LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps will operate at LOS D during the AM peak hour, which is acceptable per Section 3.3 of the City of Fowler TIAG.

Near Term Build Out (Plus Project plus Pending/Approved) Projects

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8 once pending and approved projects are added to the Existing plus Project traffic volume.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp is projected to operate at LOS E during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation Option 1: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.
    - Mitigation Option 2: Signalizing the intersection with the following will improve the LOS to C in the AM and PM peak hours:
        - Add a channelized 100' right turn pocket to the Highway 99 SB Off Ramp.
        - Adding a 100' right turn pocket to northeast approach of Merced Street.
        - Add a 100' left turn pocket to the northwest approach of Fowler Avenue.
        - Extend the storage of the left turn lane for the southwest bound approach of Merced Street.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps is projected to operate at LOS E the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
    - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to B in the AM peak hour and B in the PM peak hour.

Year 2046 No Project

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8.
- All study intersections operates within acceptable LOS under this scenario, except Intersections 7 & 8 in the AM peak hour.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp operates at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.

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  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

Cumulative Year 2046 Plus Project

- All study intersections are projected to operate within acceptable LOS under this scenario, except Intersection 7 & 8.
- Intersection 7: Merced Street and Highway 99 SB Off Ramp is projected to operate at LOS F during the AM peak hour, which is below the City of Fowler's acceptable LOS threshold.
  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.
- Intersection 8: Merced Street and Highway 99 NB On and Off Ramps is projected to operate at LOS F during the AM peak hour which is below the City of Fowler's acceptable LOS threshold.
  - Mitigation: Construct roundabout with one circulatory lane and one approach lane in each direction. This will improve the LOS to C in the AM peak hour and B in the PM peak hour.

Queuing Analysis

The City should consider right-turn and left-turn storage lengths analyzed in Section 11 of this TIA.

- Merced Street and Highway 99 SB Off Ramp westbound left turn lane experiences an existing deficiency in available storage during the AM and PM peak hours. This deficiency increases in all future scenarios. With existing intersection geometrics and control, the westbound left turn lane would require a minimum of 200' of storage which will not be achievable without affecting the available storage of the eastbound left turn lane at Merced Street and Highway 99 NB On-Off Ramp intersection. This is due to Merced Street's short 250' roadway segment between these two intersections.

Project's Equitable Fair Share

It is recommended that the Project contribute its equitable fair share per Table 16 of this TIA for future improvements/mitigations not covered by an existing impact fee program or grant funds.

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13.0 References

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APPENDIX A

Figures

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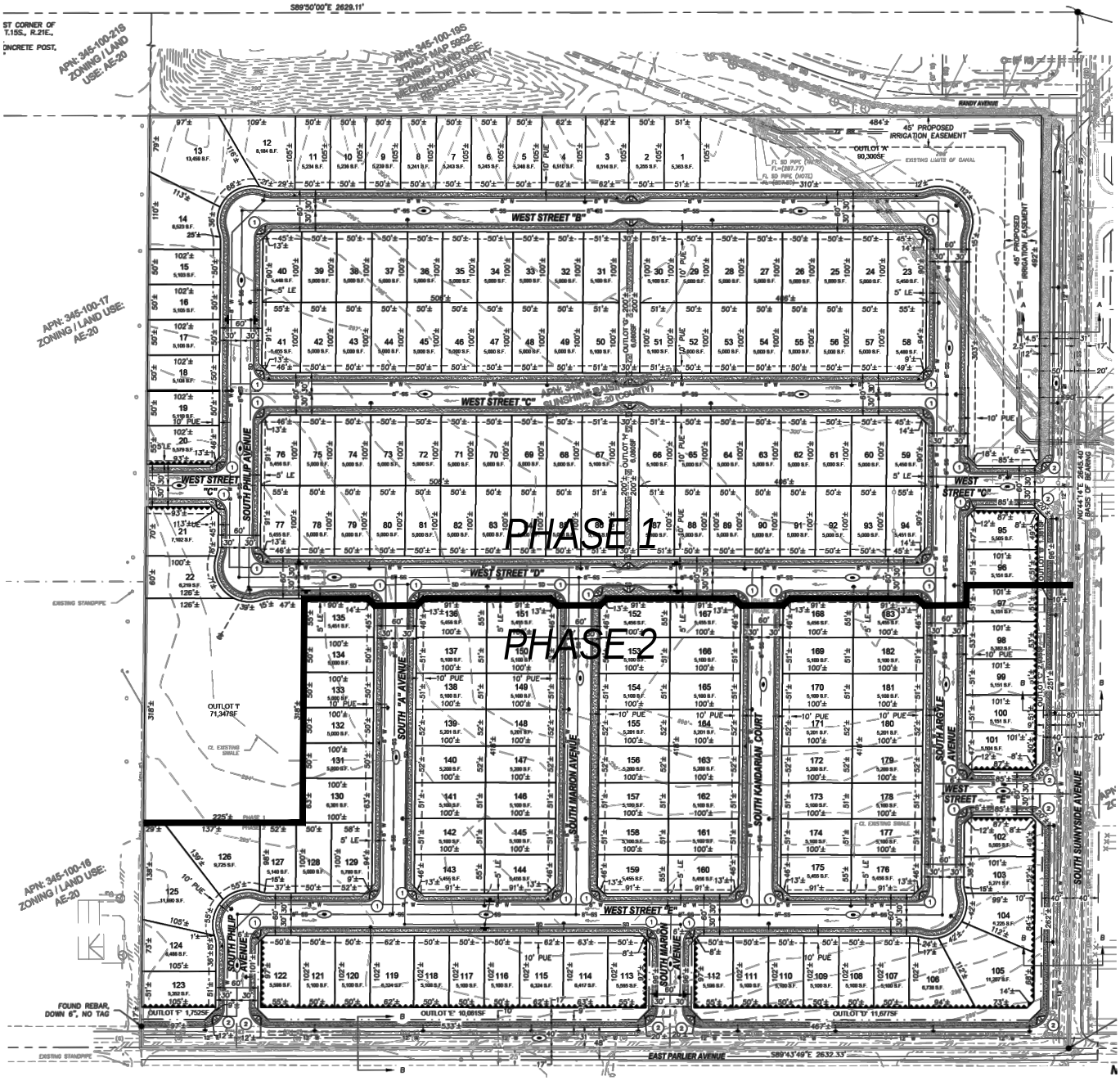

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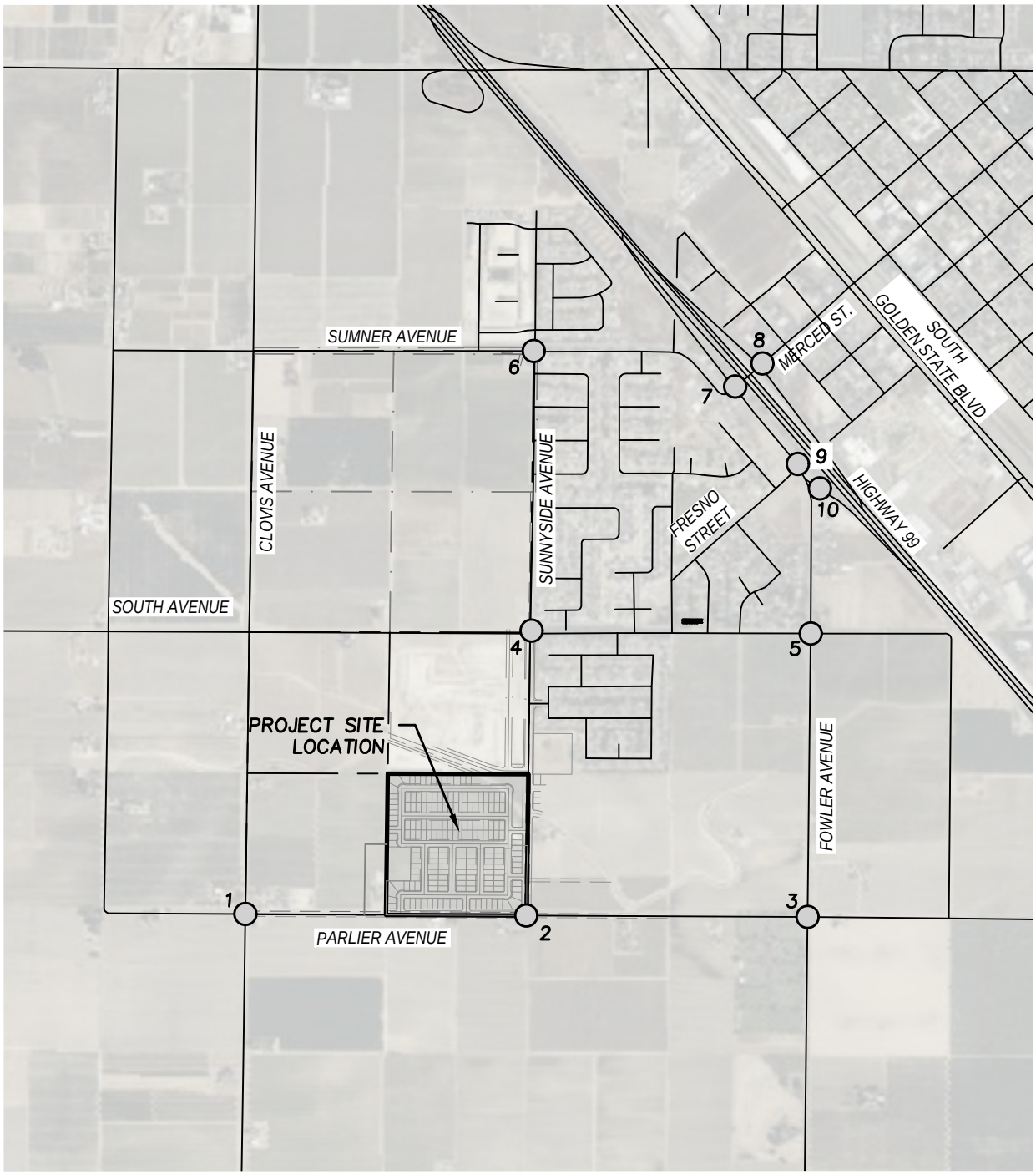
PROJECT TITLE
TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION
FIGURE 1
PROJECT SITE MAP

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

Plot By: Andrew Vongphachanh Plot Date: 2/6/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.dwg



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PROJECT TITLE
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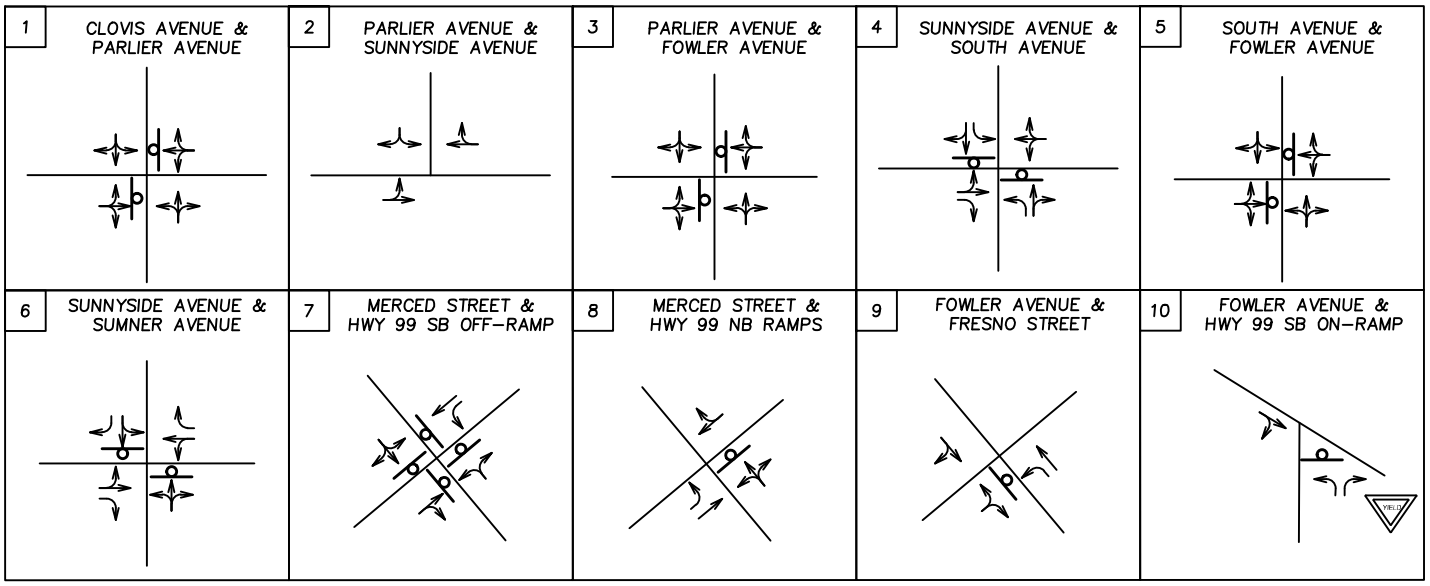
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION
FIGURE 2
VICINITY MAP

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

Plot By: Andrew Vongphachanh Plot Date: 2/6/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.dwg



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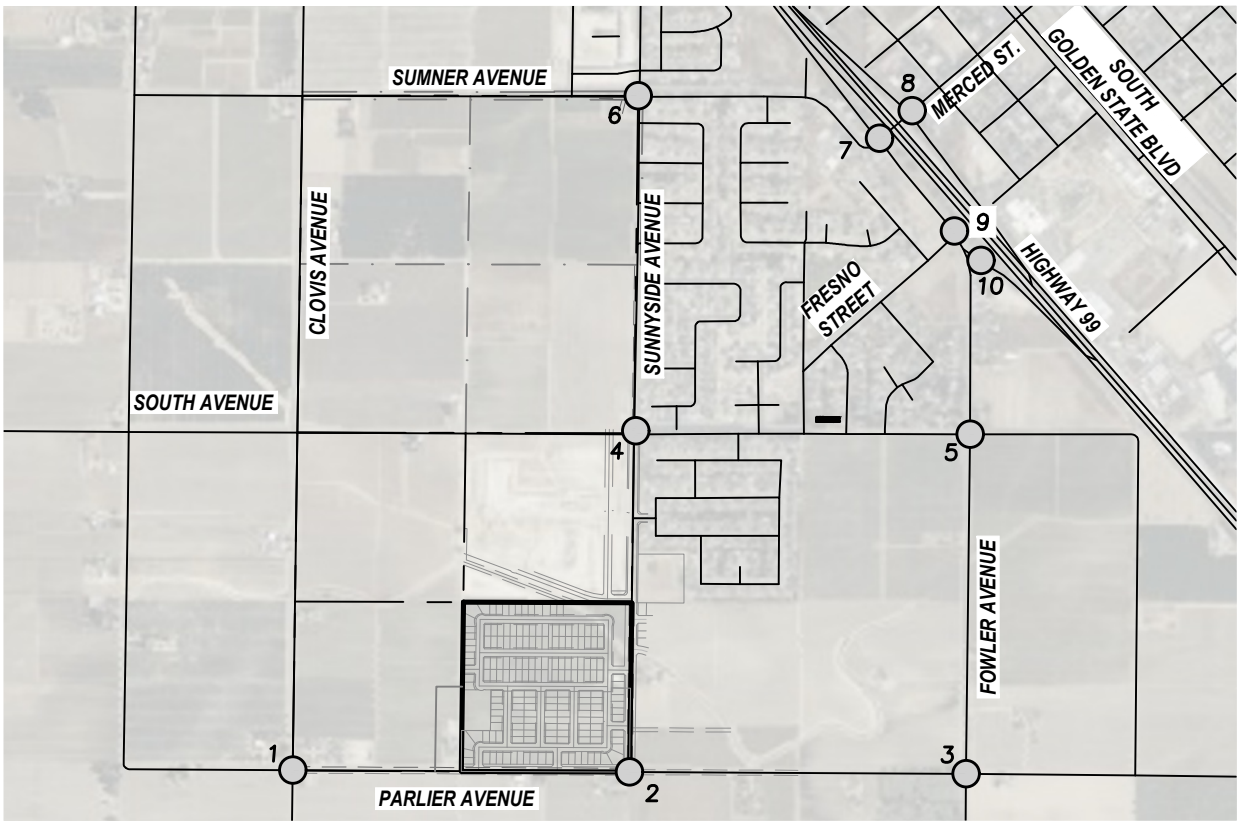
- STUDY INTERSECTION
- STOP SIGN
- TRAFFIC SIGNAL
- YIELD SIGN



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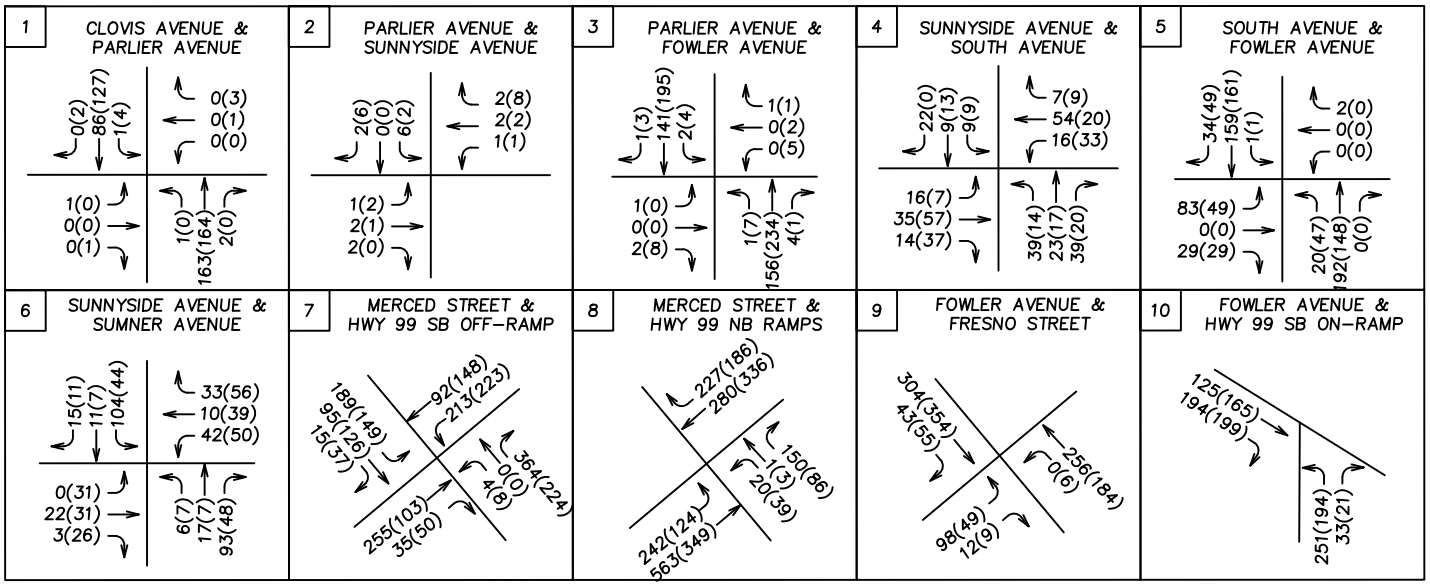
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION

FIGURE 3
EXISTING LANE CONFIGURATION

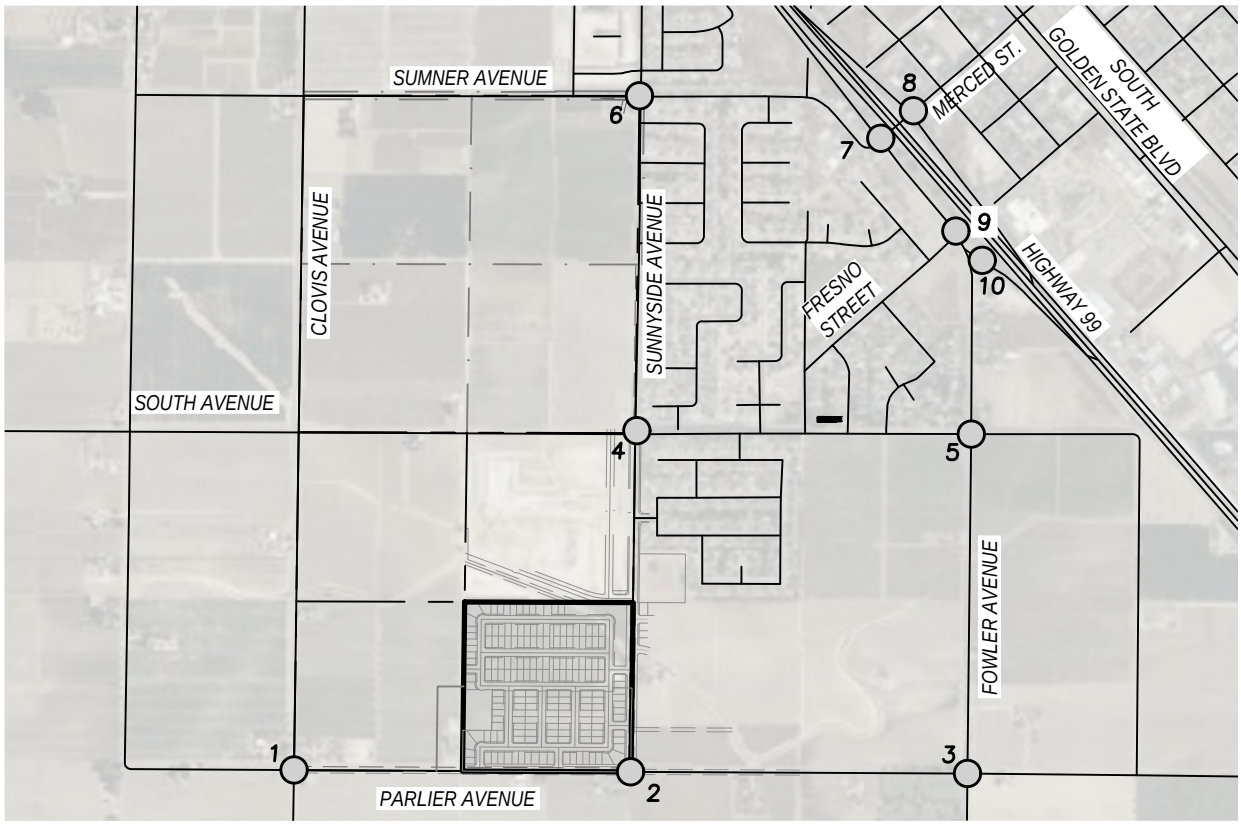
Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets



LEGEND:

STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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SHEET DESCRIPTION

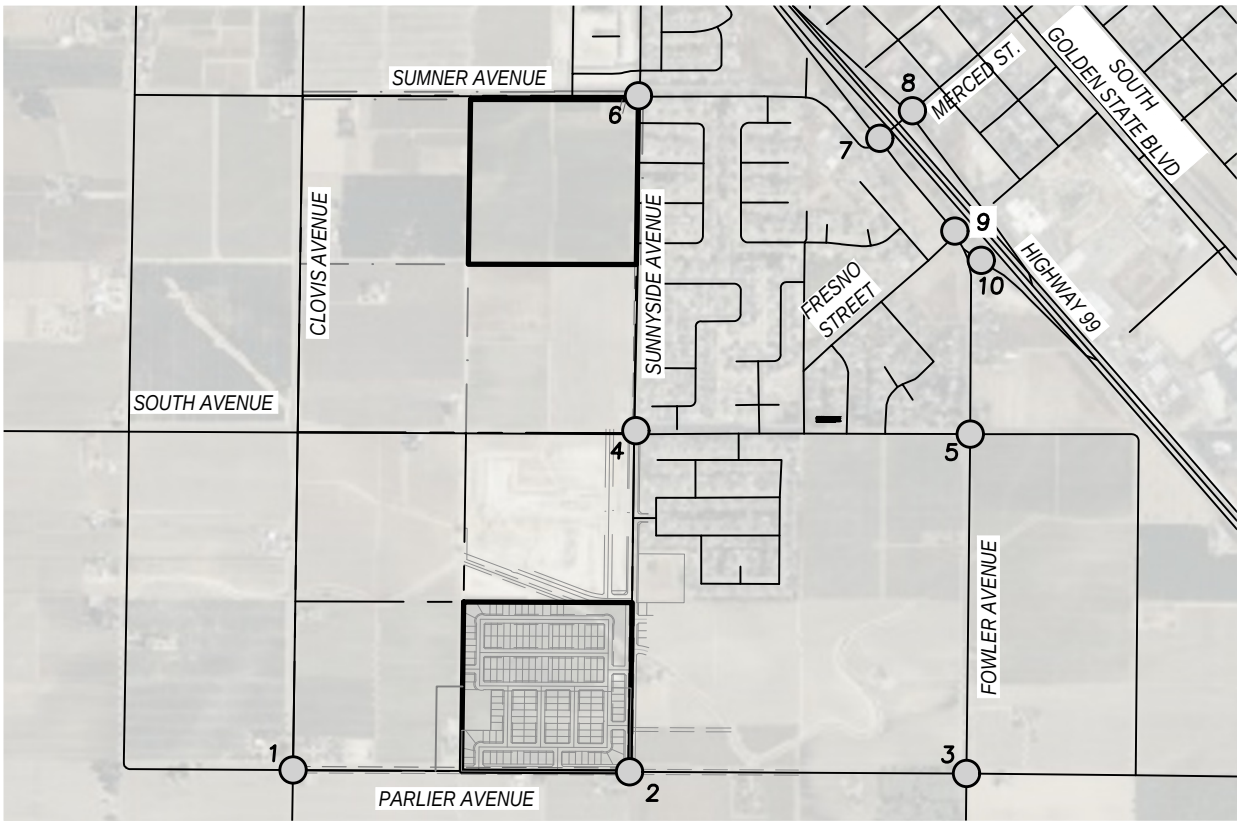
FIGURE 4
EXISTING VOLUMES: AM & PM PEAK

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

1	2	3	4	5
CLOVIS AVENUE & PARLIER AVENUE	PARLIER AVENUE & SUNNYSIDE AVENUE	PARLIER AVENUE & FOWLER AVENUE	SUNNYSIDE AVENUE & SOUTH AVENUE	SOUTH AVENUE & FOWLER AVENUE
B (A)	A (A)	A (B)	A (B)	B (B)
6	**7**	**8**	**9**	**10**
SUNNYSIDE AVENUE & SUMNER AVENUE	MERCED STREET & HWY 99 SB OFF-RAMP	MERCED STREET & HWY 99 NB RAMPS	FOWLER AVENUE & FRESNO STREET	FOWLER AVENUE & HWY 99 SB ON-RAMP
B (B)	C (C)	D (C)	C (B)	B (B)

LEGEND:

- ○ STUDY INTERSECTION
- A LOS DURING AM PEAK HOURS
- (A) LOS DURING PM PEAK HOURS



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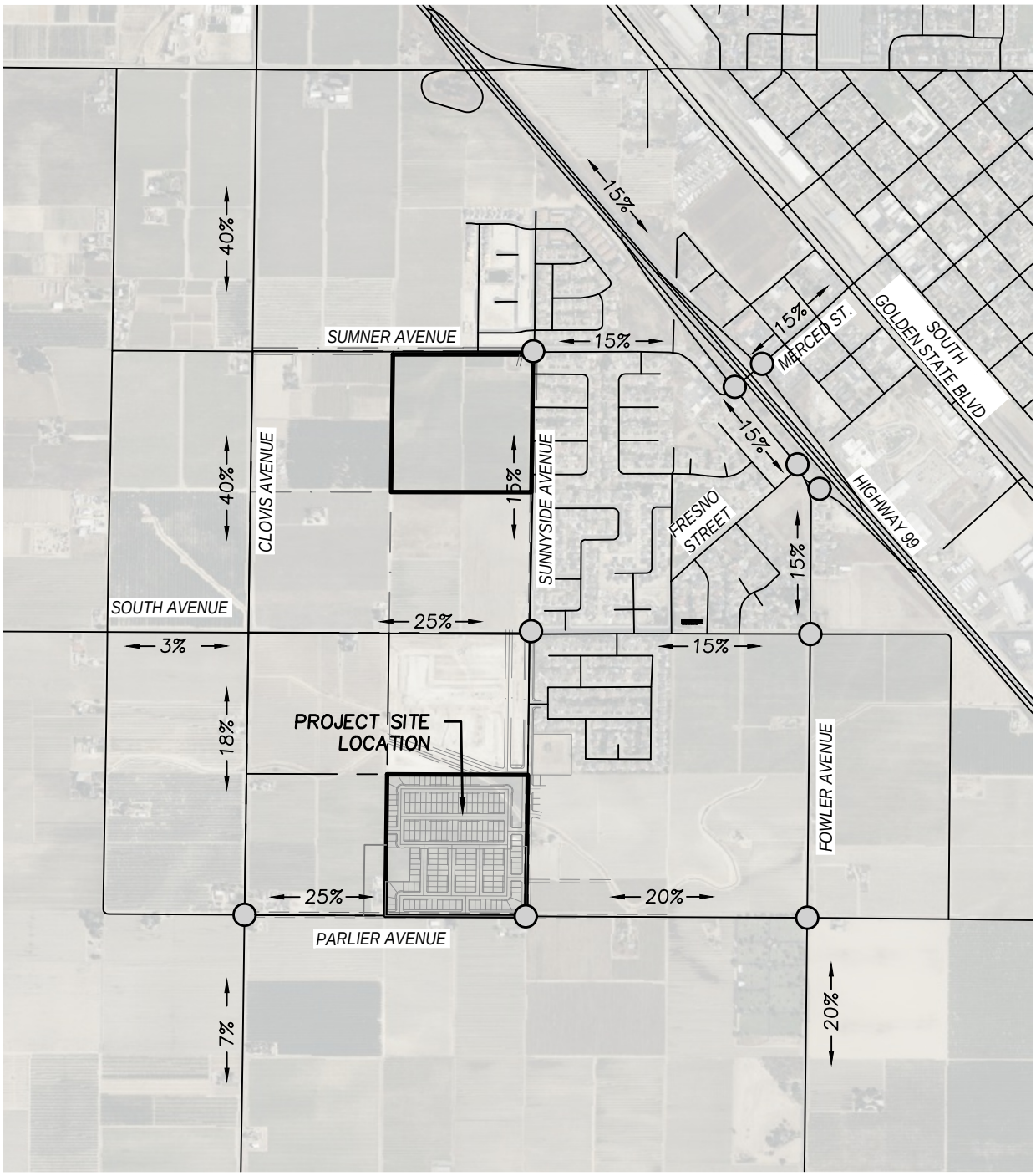
TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION

FIGURE 5
EXISTING LEVEL OF SERVICE

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

Plot By: Andrew Vongphachanh Plot Date: 2/6/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.dwg



LEGEND:

○ STUDY INTERSECTION	##%/ (##%)	PERCENTAGE TRIP DISTRIBUTION AM/ (PM)

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PROJECT TITLE
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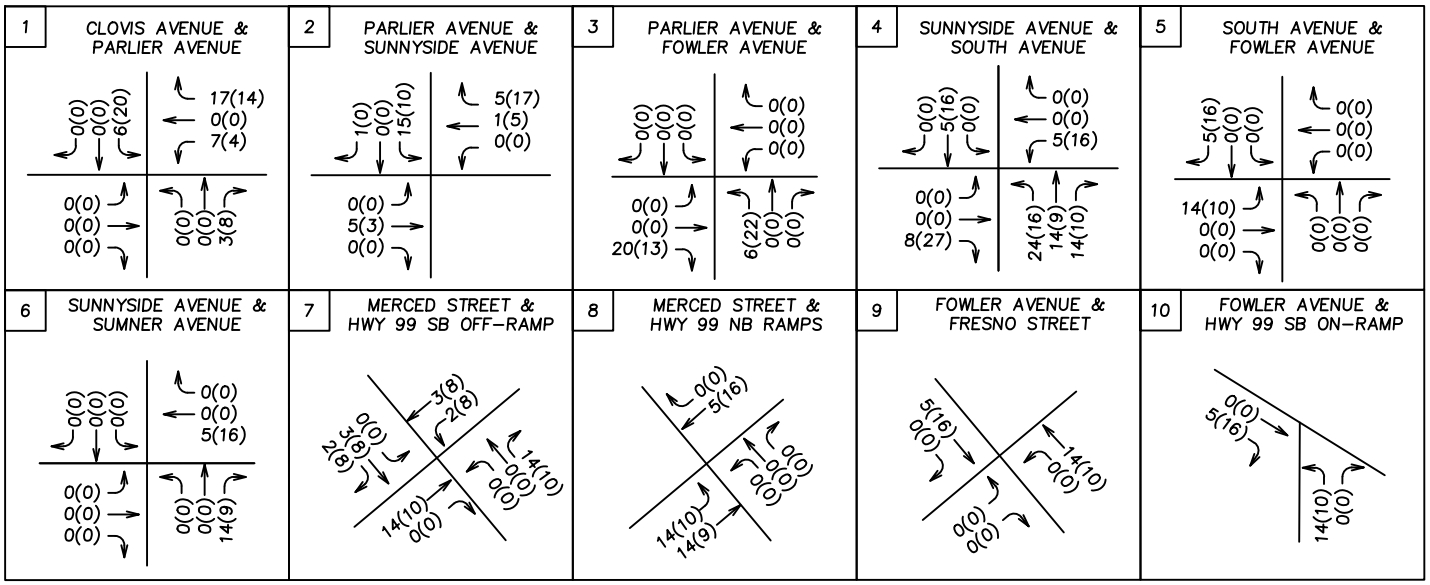
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION
FIGURE 6
PROJECT TRIP DISTRIBUTION

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

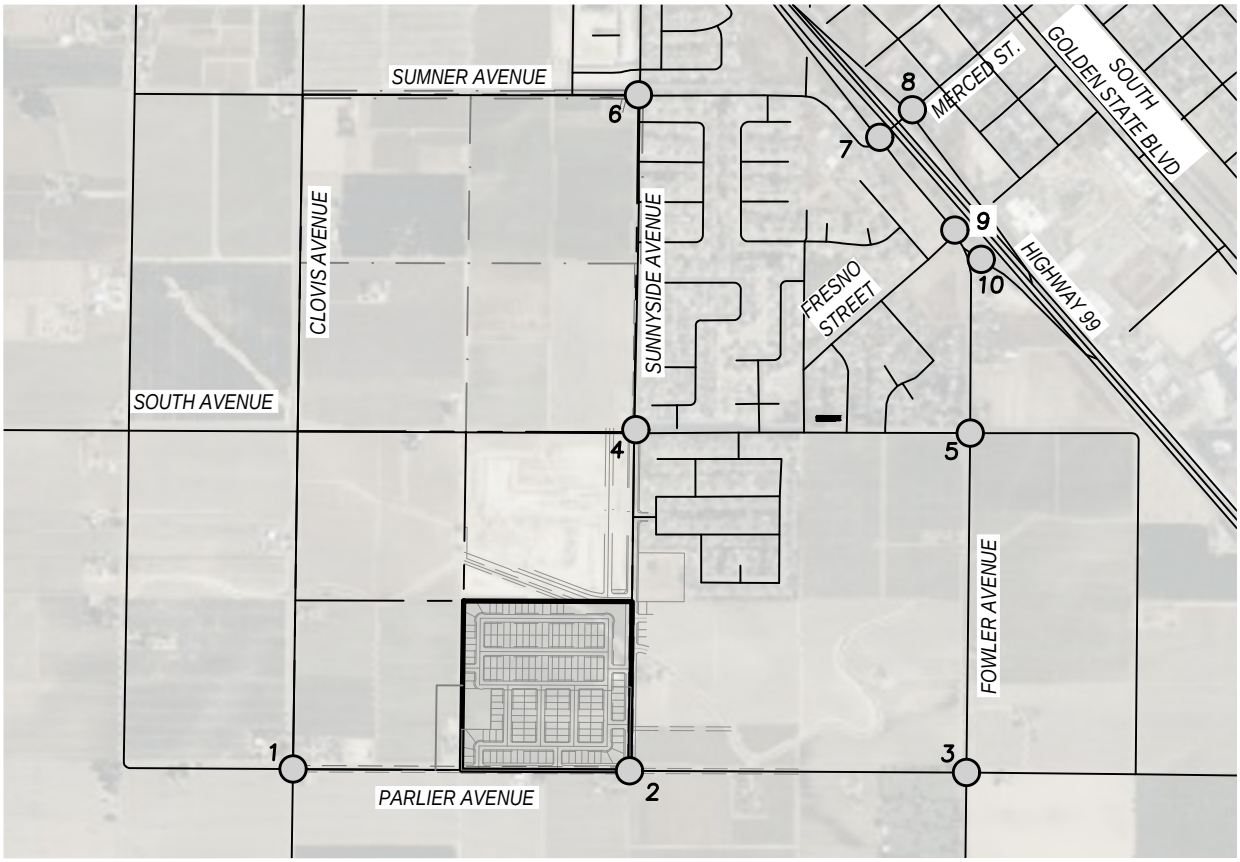
Plot By: Andrew Vongphachanh Plot Date: 2/6/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.dwg



LEGEND:

STUDY INTERSECTION

129(173) TRAFFIC VOLUMES: AM(PM)



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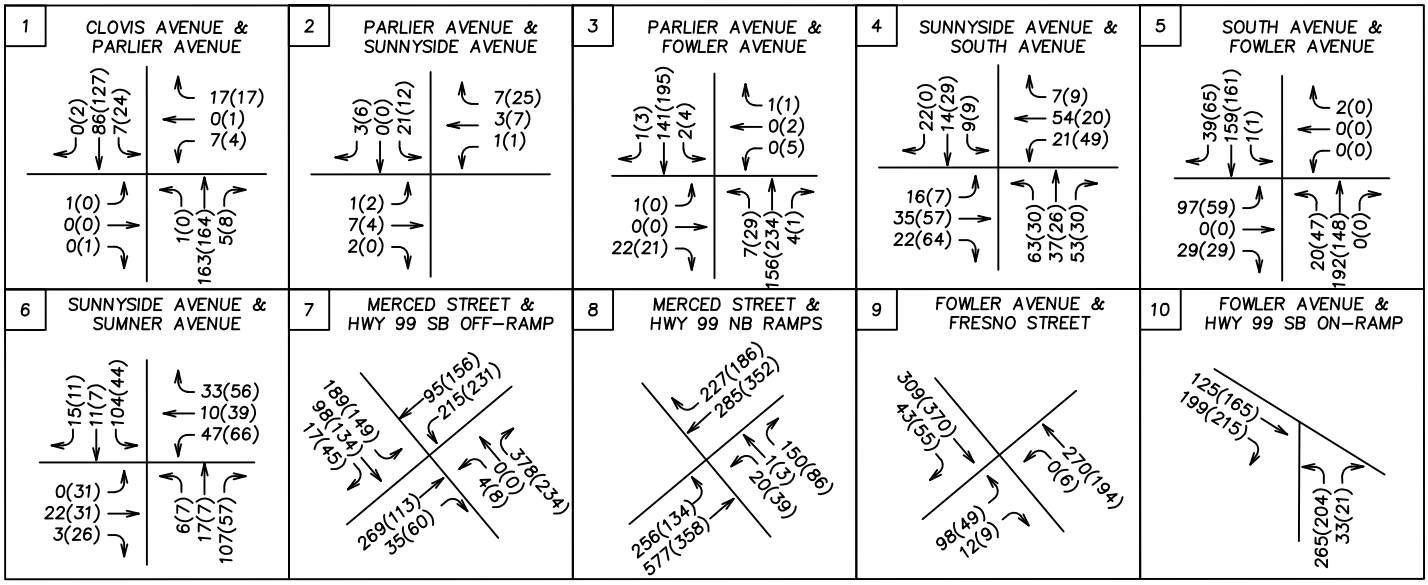
SHEET DESCRIPTION

FIGURE 7
PROJECT TRIPS

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets



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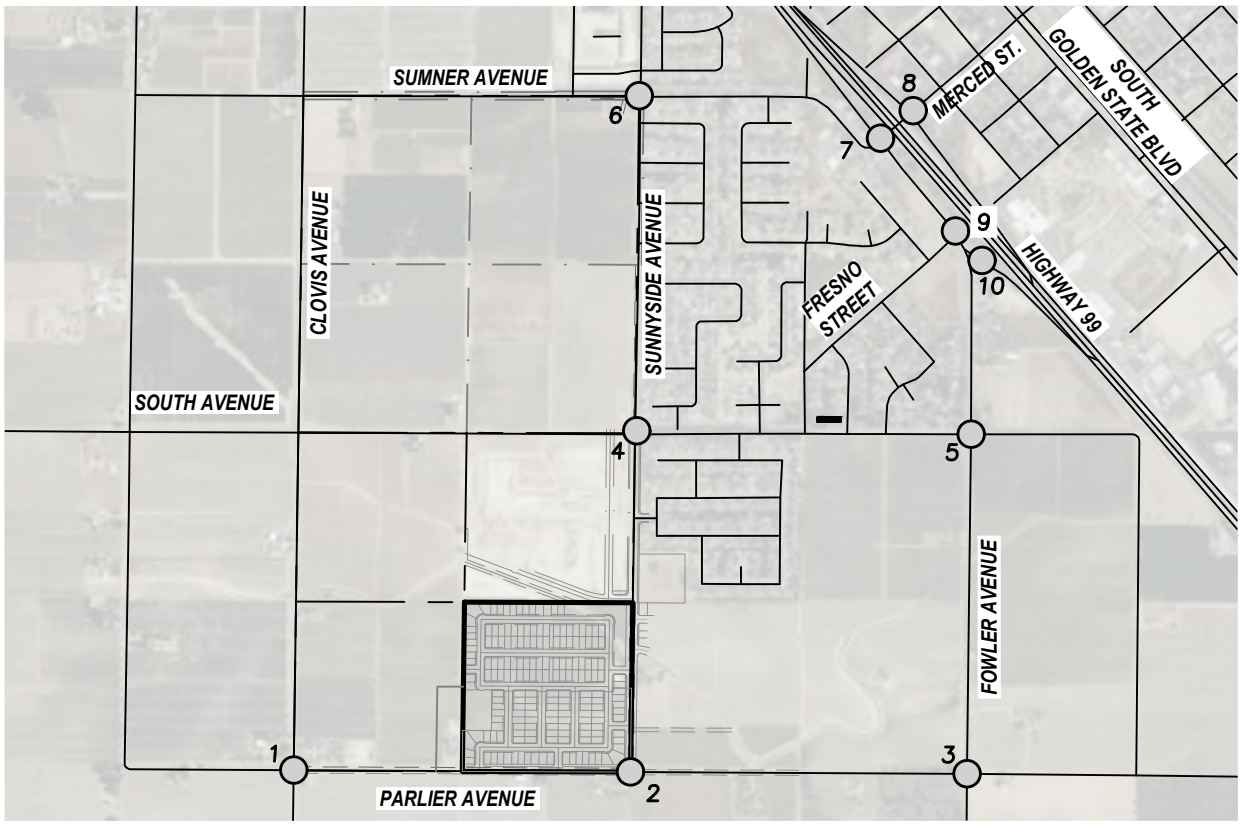
STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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SHEET DESCRIPTION

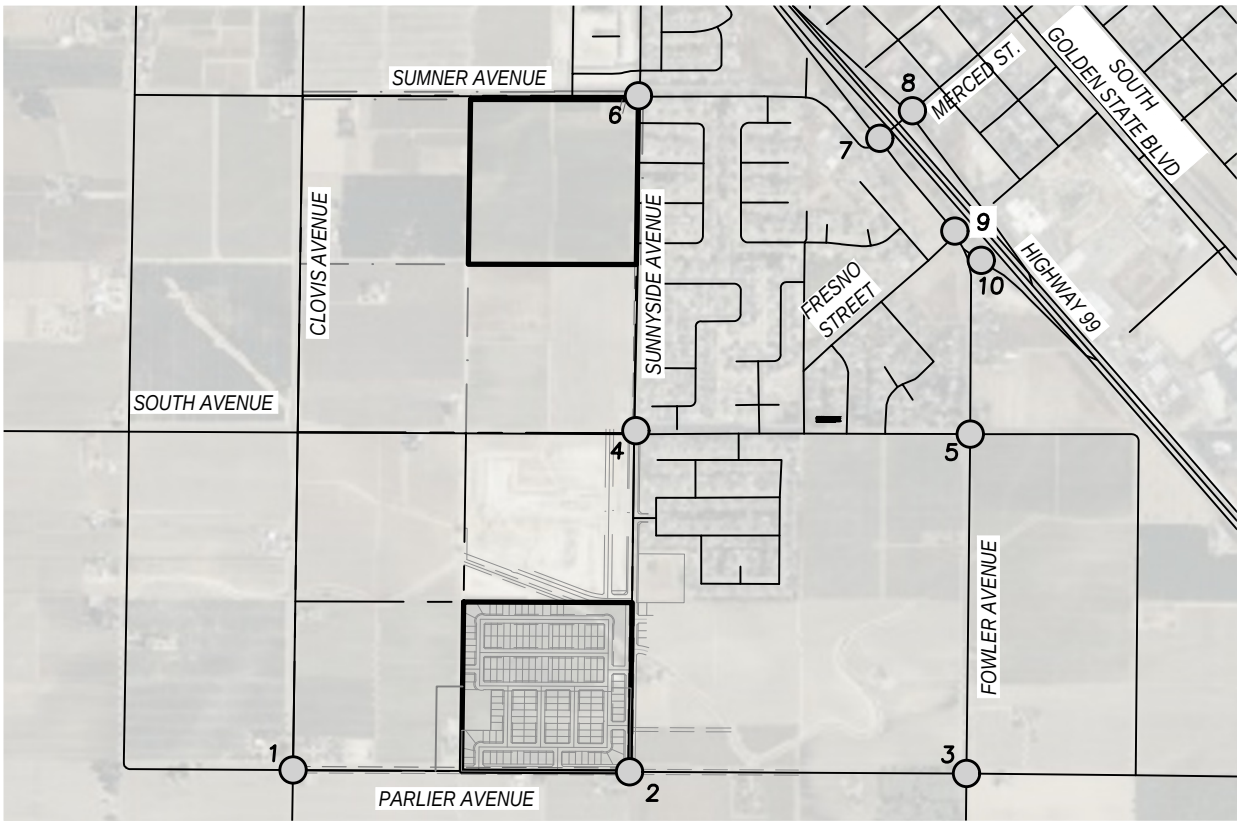
FIGURE 8
EXISTING PLUS PROJECT VOLUMES

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

1	2	3	4	5
CLOVIS AVENUE & PARLIER AVENUE	PARLIER AVENUE & SUNNYSIDE AVENUE	PARLIER AVENUE & FOWLER AVENUE	SUNNYSIDE AVENUE & SOUTH AVENUE	SOUTH AVENUE & FOWLER AVENUE
B (B)	A (A)	A (B)	B (B)	B (B)
6	**7**	**8**	**9**	**10**
SUNNYSIDE AVENUE & SUMNER AVENUE	MERCED STREET & HWY 99 SB OFF-RAMP	MERCED STREET & HWY 99 NB RAMPS	FOWLER AVENUE & FRESNO STREET	FOWLER AVENUE & HWY 99 SB ON-RAMP
B (B)	D (C)	D (C)	C (B)	B (B)

LEGEND:

- ○ STUDY INTERSECTION
- A LOS DURING AM PEAK HOURS
- (A) LOS DURING PM PEAK HOURS



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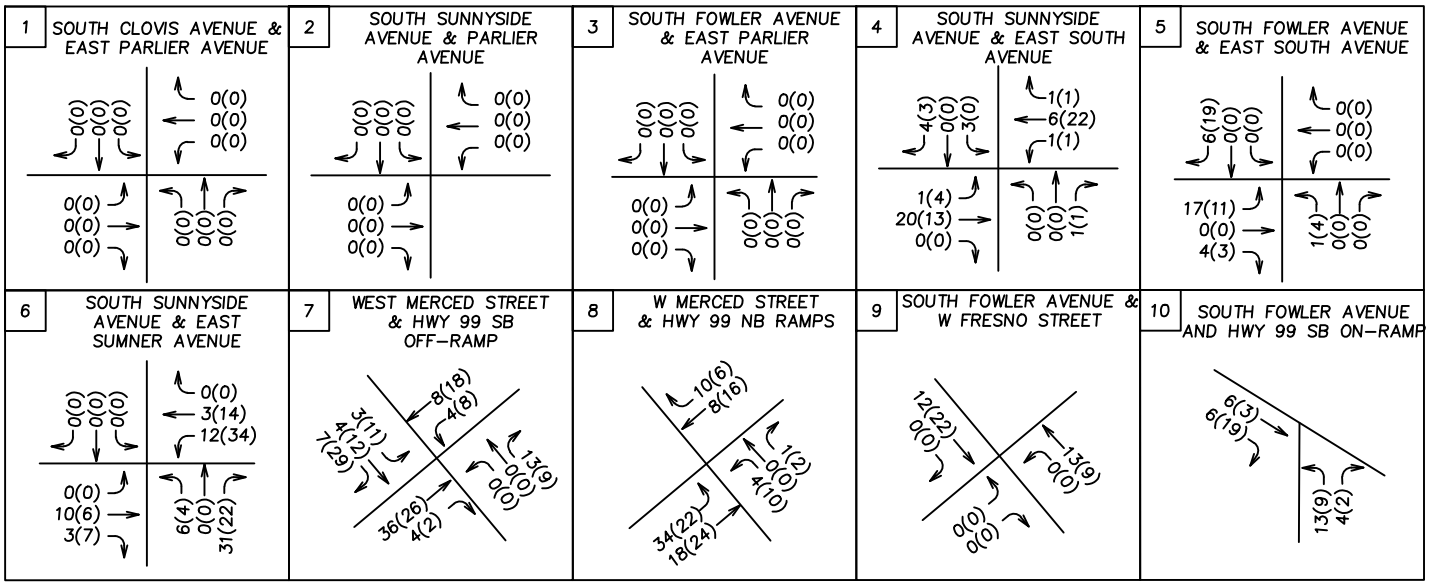
SHEET DESCRIPTION

FIGURE 9
EXISTING PLUS PROJECT LOS

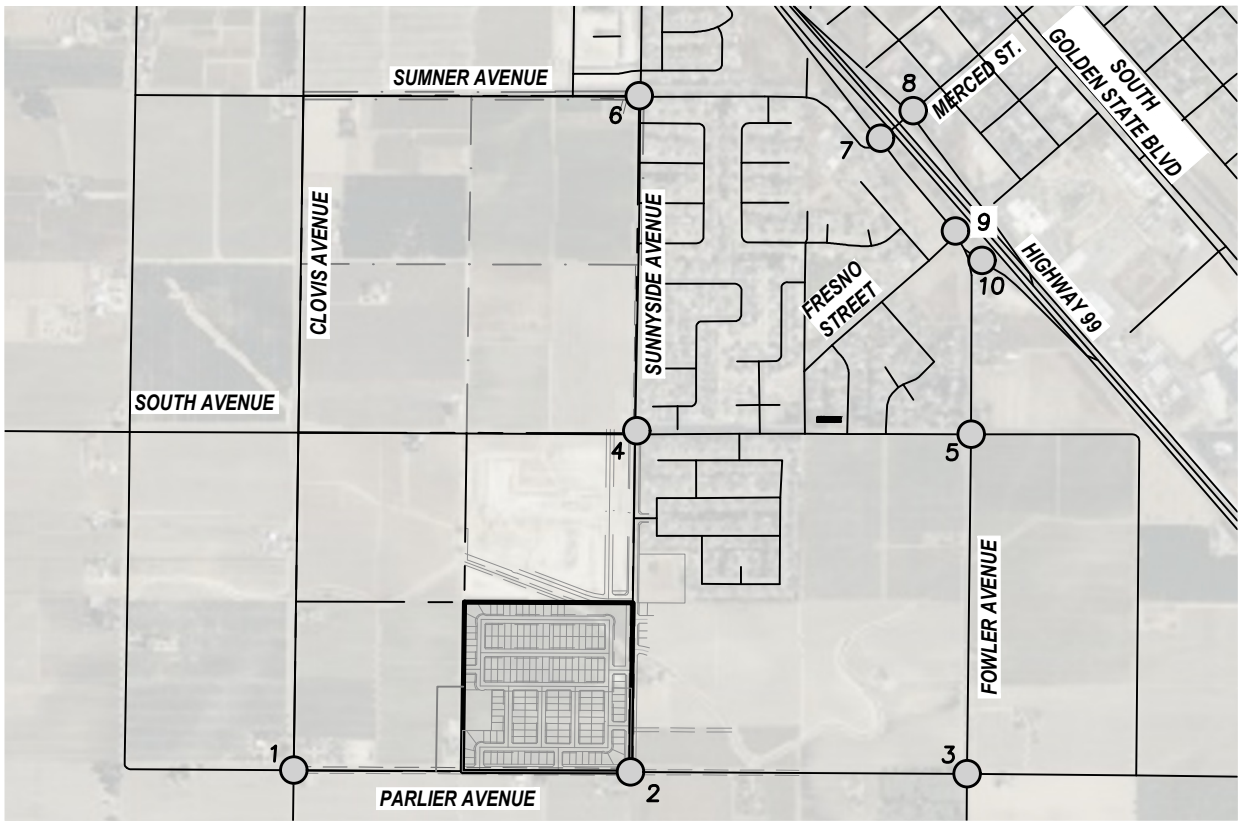
Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets



LEGEND:

STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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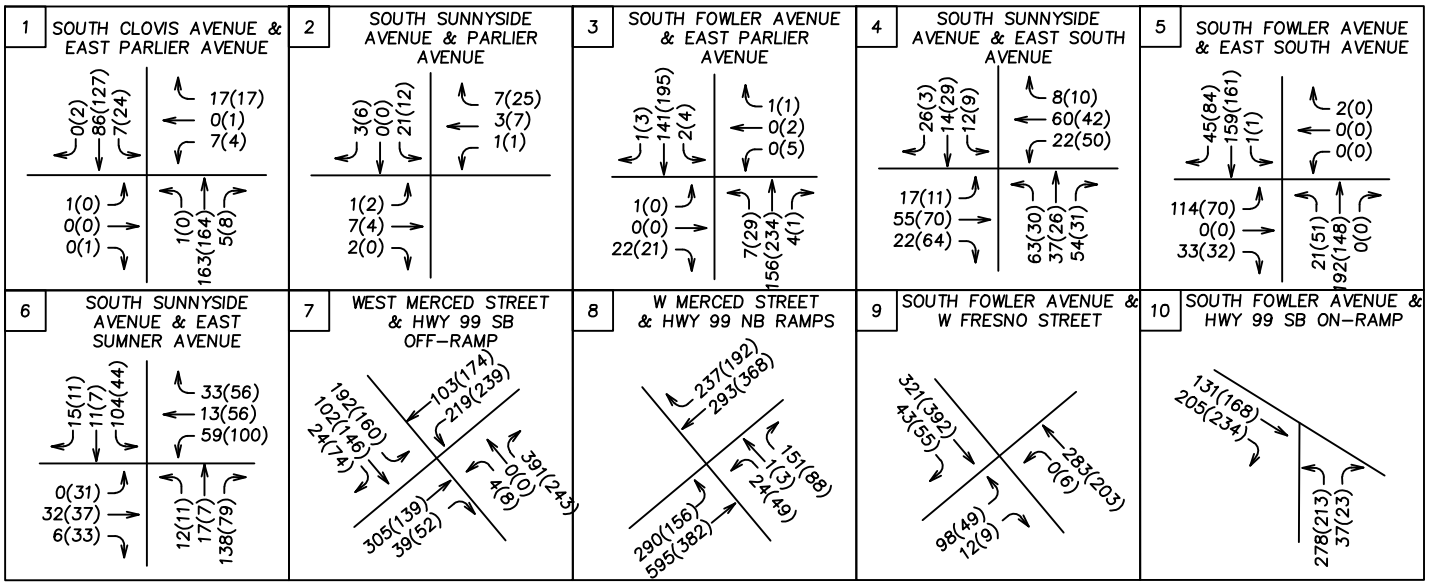
PROJECT TITLE
TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION
FIGURE 10
PENDING AND APPROVED PROJECT TRIPS

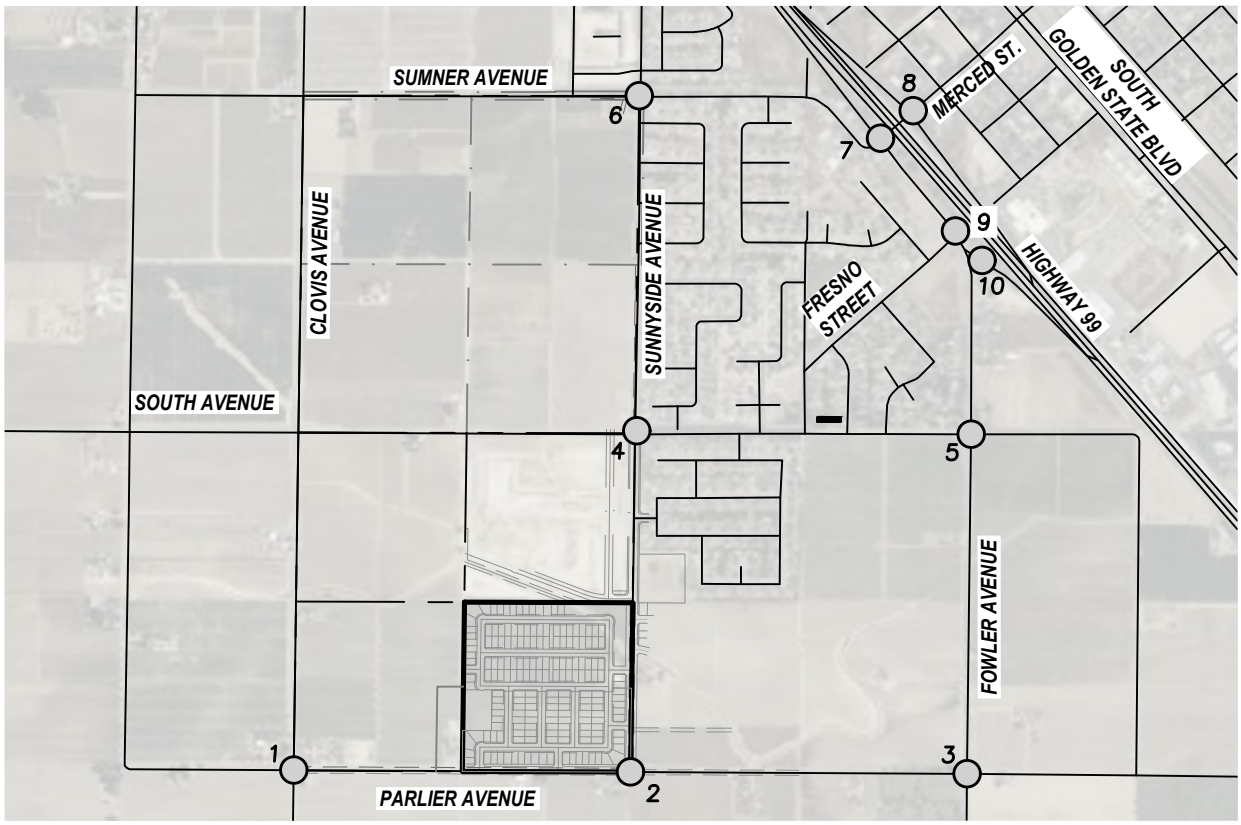
Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets



LEGEND:

STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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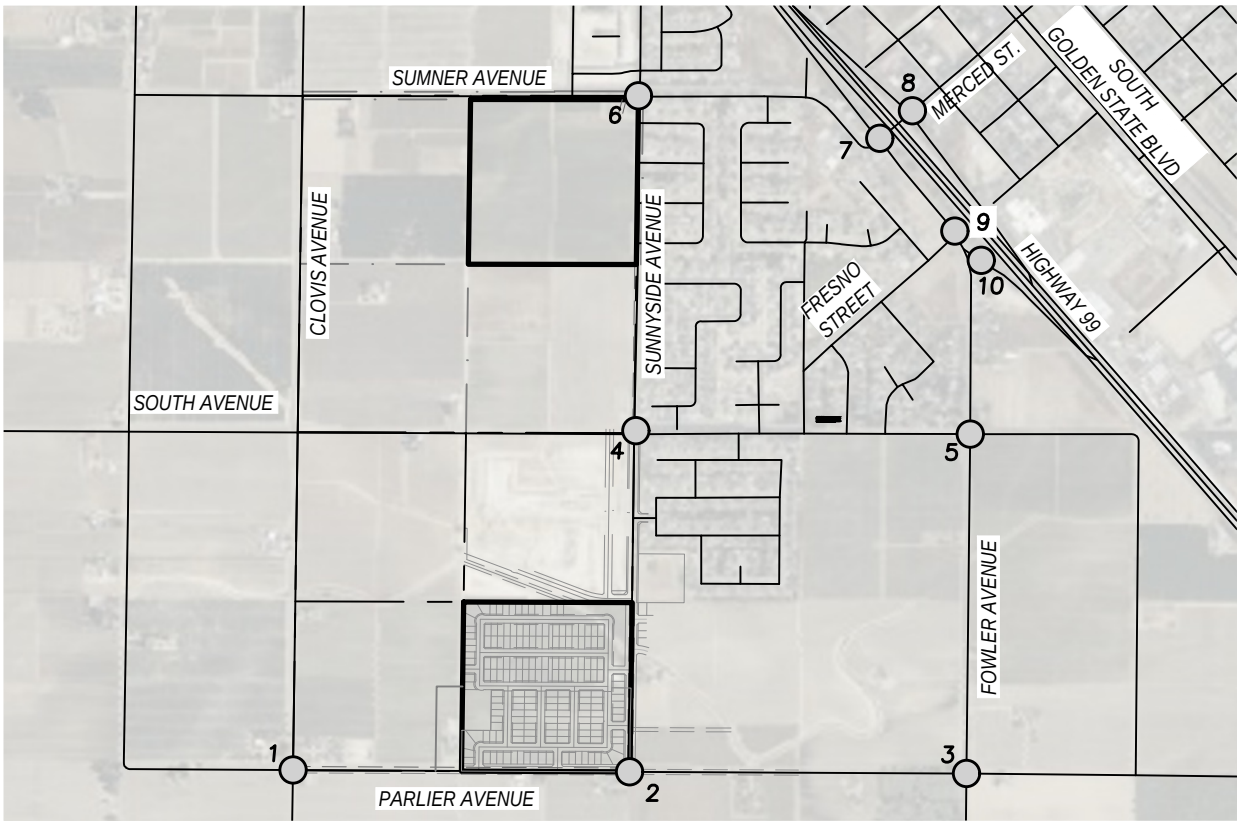
Plot By: Jared Jones Plot Date: 2/20/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.DWG

1 CLOVIS AVENUE & PARLIER AVENUE B (B)	2 PARLIER AVENUE & SUNNYSIDE AVENUE A (A)	3 PARLIER AVENUE & FOWLER AVENUE A (B)	4 SUNNYSIDE AVENUE & SOUTH AVENUE B (B)	5 SOUTH AVENUE & FOWLER AVENUE B (B)
6 SUNNYSIDE AVENUE & SUMNER AVENUE B (B)	7 MERCED STREET & HWY 99 SB OFF-RAMP E (C)	8 MERCED STREET & HWY 99 NB RAMPS E (C)	9 FOWLER AVENUE & FRESNO STREET C (B)	10 FOWLER AVENUE & HWY 99 SB ON-RAMP C (B)

LEGEND:

- ○ STUDY INTERSECTION
- A LOS DURING AM PEAK HOURS
- (A) LOS DURING PM PEAK HOURS



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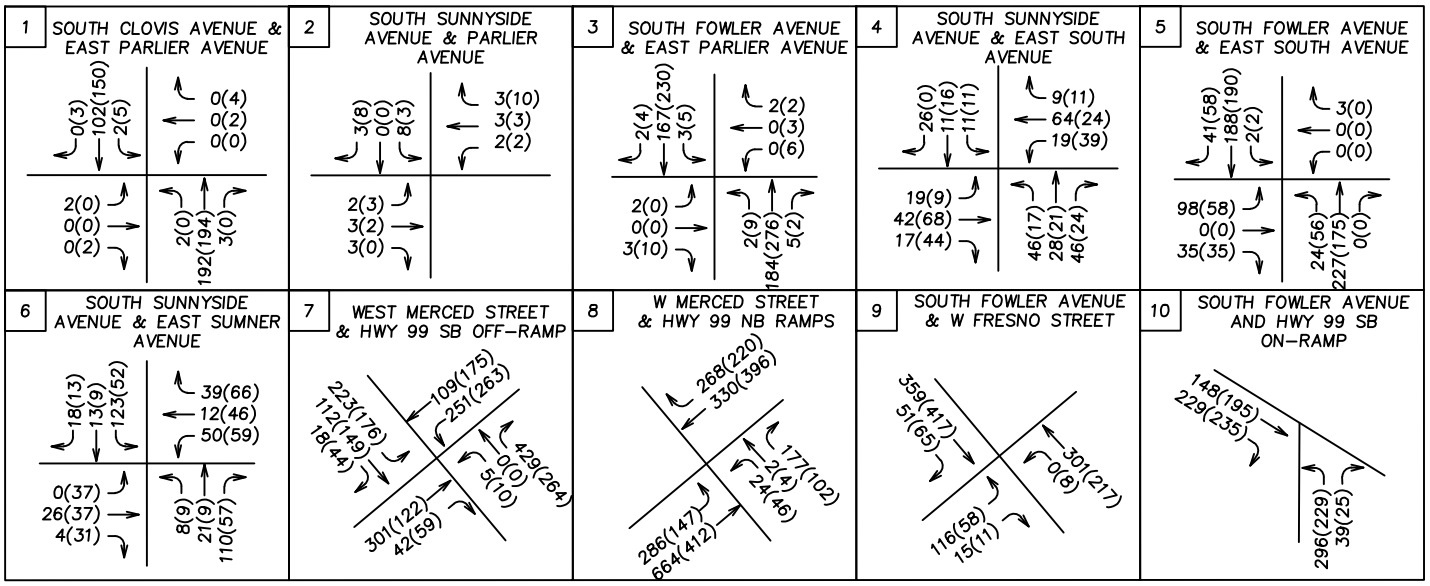
PROJECT TITLE
TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION
FIGURE 12
NEAR TERM LOS

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

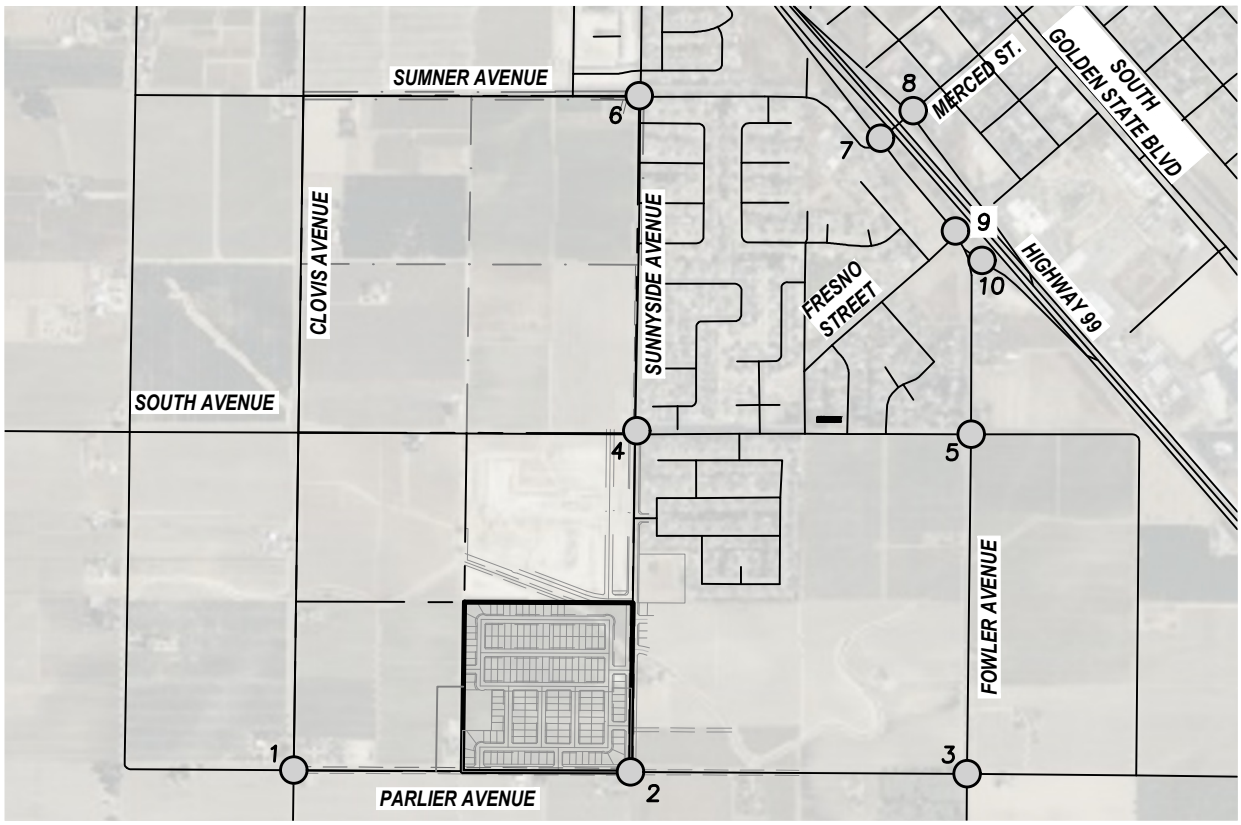
Plot By: Andrew Vongphachanh Plot Date: 2/6/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.dwg



LEGEND:

STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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PROJECT TITLE
TRACT 6519
TRAFFIC IMPACT ANALYSIS

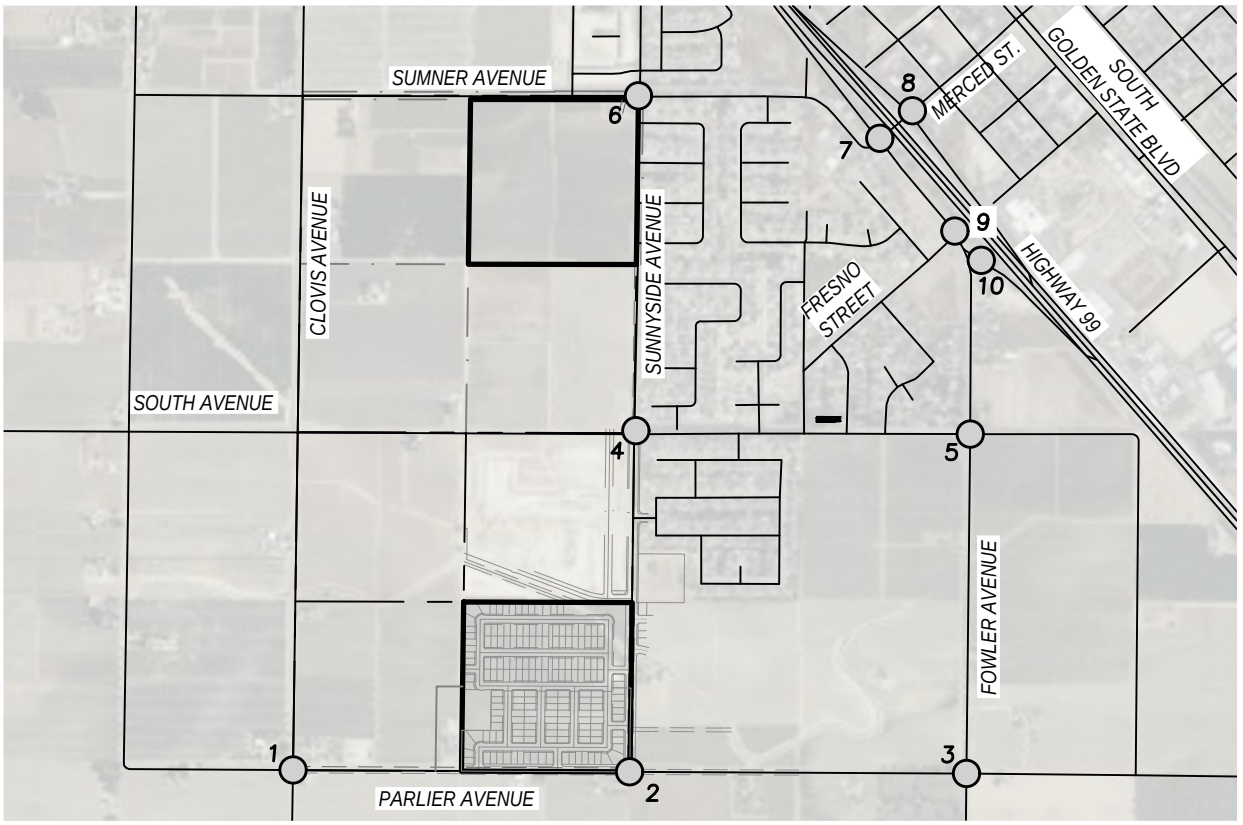
SHEET DESCRIPTION
FIGURE 13
2046 NO PROJECT VOLUMES

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

1	2	3	4	5
CLOVIS AVENUE & PARLIER AVENUE	PARLIER AVENUE & SUNNYSIDE AVENUE	PARLIER AVENUE & FOWLER AVENUE	SUNNYSIDE AVENUE & SOUTH AVENUE	SOUTH AVENUE & FOWLER AVENUE
B (B)	A (A)	B (B)	B (B)	C (B)
6	**7**	**8**	**9**	**10**
SUNNYSIDE AVENUE & SUMNER AVENUE	MERCED STREET & HWY 99 SB OFF-RAMP	MERCED STREET & HWY 99 NB RAMPS	FOWLER AVENUE & FRESNO STREET	FOWLER AVENUE & HWY 99 SB ON-RAMP
B (B)	F (C)	F (D)	C (C)	B (B)

LEGEND:

- ○ STUDY INTERSECTION
- A LOS DURING AM PEAK HOURS
- (A) LOS DURING PM PEAK HOURS



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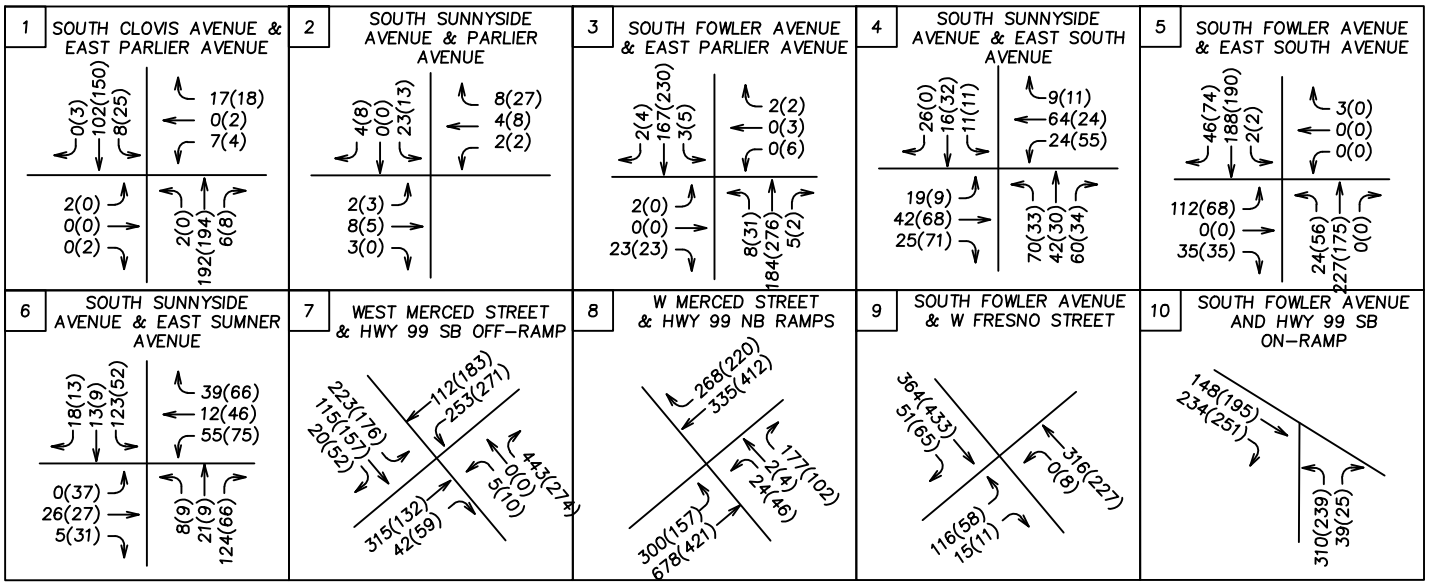
PROJECT TITLE

TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION

FIGURE 14
YEAR 2046 NO PROJECT LOS

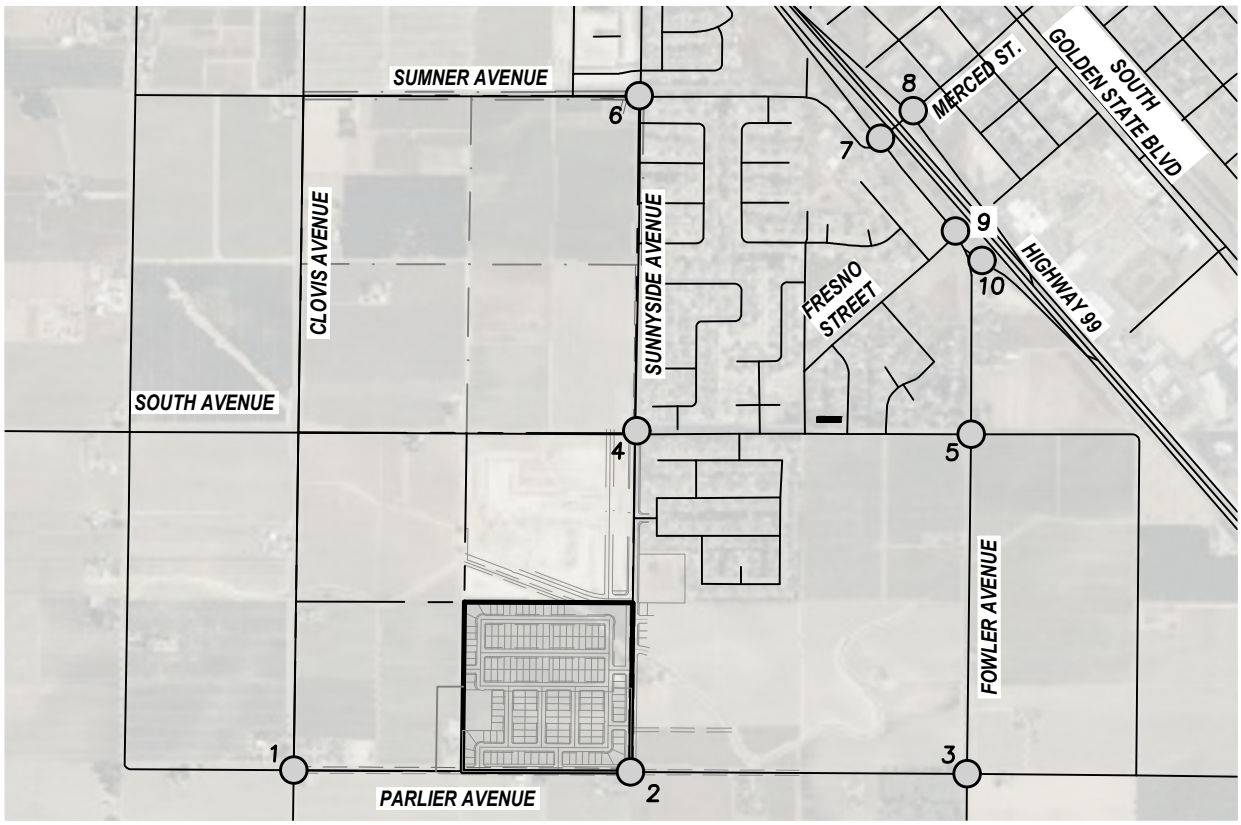
Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets



LEGEND:

STUDY INTERSECTION

26(256) TRAFFIC VOLUMES: AM(PM)



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PROJECT TITLE
TRACT 6519
TRAFFIC IMPACT ANALYSIS

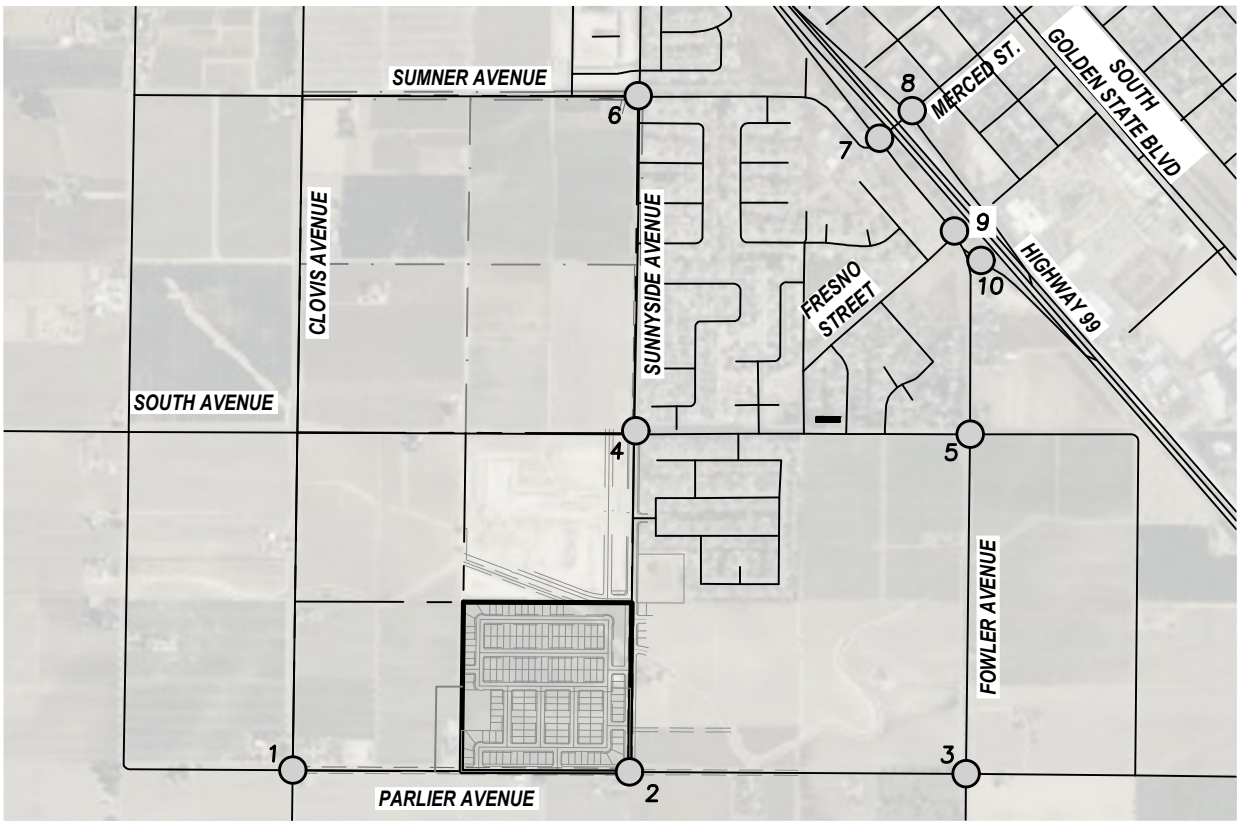
SHEET DESCRIPTION
FIGURE 15
2046 PLUS PROJECT VOLUMES

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

1	2	3	4	5
CLOVIS AVENUE & PARLIER AVENUE	PARLIER AVENUE & SUNNYSIDE AVENUE	PARLIER AVENUE & FOWLER AVENUE	SUNNYSIDE AVENUE & SOUTH AVENUE	SOUTH AVENUE & FOWLER AVENUE
B (B)	A (A)	A (B)	B (B)	C (B)
6	**7**	**8**	**9**	**10**
SUNNYSIDE AVENUE & SUMNER AVENUE	MERCED STREET & HWY 99 SB OFF-RAMP	MERCED STREET & HWY 99 NB RAMPS	FOWLER AVENUE & FRESNO STREET	FOWLER AVENUE & HWY 99 SB ON-RAMP
B (B)	F (D)	F (D)	C (C)	B (B)

LEGEND:

- ○ STUDY INTERSECTION
- A LOS DURING AM PEAK HOURS
- (A) LOS DURING PM PEAK HOURS



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PROJECT TITLE

TRACT 6519
TRAFFIC IMPACT ANALYSIS

SHEET DESCRIPTION

FIGURE 16
2046 PLUS PROJECT LOS

Date: 2/6/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

Plot By: Jared Jones Plot Date: 2/20/2026 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_TRAFFIC IMPACT_T6519.DWG

APPENDIX B

Scoping Letter

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Andrew Vongphachanh

From: Wyatt Czeshinski <wczeshinski@ppeng.com>
Sent: Friday, October 3, 2025 11:56 AM
To: Derek Sylvester; Soo Ho Park
Cc: Joe Crown (jcrown@crownliving.com); Alison Baker; HLuna@fresnocountyca.gov; Padilla, Dave@DOT; Dawn Marple; Andrew Vongphachanh; Yelton, Elizabeth@DOT; Adrienne Burns; Community Development
Subject: RE: Caltrans Comments - T6519 Traffic scoping Letter

Received, thank you!

I will at a conference and out of the office 10/7 – 10/10.

Wyatt Czeshinski, AICP
Associate Planner
PROVOST & PRITCHARD CONSULTING GROUP
455 W Fir Ave, Clovis, CA 93611
Office: (559) 449-2700
www.provostandpritchard.com | LinkedIn

CONFIDENTIALITY NOTE
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From: Derek Sylvester <DSylvester@yhmail.com>
Sent: Friday, October 3, 2025 11:18 AM
To: Wyatt Czeshinski <wczeshinski@ppeng.com>; Soo Ho Park <SPark@ppeng.com>
Cc: Joe Crown (jcrown@crownliving.com) <jcrown@crownliving.com>; Alison Baker <abaker@yhmail.com>; HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Dawn Marple <dmarple@ppeng.com>; Andrew Vongphachanh <AndrewV@yhmail.com>; Yelton, Elizabeth@DOT <Elizabeth.Yelton@dot.ca.gov>; Adrienne Burns <ABurns@yhmail.com>; Community Development <development@ci.fowler.ca.us>
Subject: RE: Caltrans Comments - T6519 Traffic scoping Letter

Good morning,

Attached is the final TIS scoping letter with recent City comments addressed. Let us know if there are any additional questions.

Thank you,

Derek Sylvester
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123 | M: (559) 360-5006
yandhengr.com

From: Wyatt Czeshinski <wczeshinski@ppeng.com>
Sent: Monday, September 29, 2025 9:35 AM
To: Derek Sylvester <DSylvester@yhmail.com>; Soo Ho Park <SPark@ppeng.com>
Cc: Joe Crown (jcrown@crownliving.com) <jcrown@crownliving.com>; Alison Baker <abaker@yhmail.com>;

HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Dawn Marple <dmarple@ppeng.com>; Andrew Vongphachanh <AndrewV@yhmail.com>; Yelton, Elizabeth@DOT <Elizabeth.Yelton@dot.ca.gov>; Adrienne Burns <ABurns@yhmail.com>
Subject: RE: Caltrans Comments - T6519 Traffic scoping Letter

Hi Derek,

Please find attached the TIS Scoping Letter with comments from the City. Please let me know if you have any questions about the comments.

Thank you,

I will be out of the office 9/29 – 10/1.

Wyatt Czeshinski, AICP
Associate Planner
PROVOST & PRITCHARD CONSULTING GROUP
455 W Fir Ave, Clovis, CA 93611
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From: Derek Sylvester <DSylvester@yhmail.com>
Sent: Monday, September 29, 2025 8:50 AM
To: Soo Ho Park <SPark@ppeng.com>
Cc: Joe Crown (jcrown@crownliving.com) <jcrown@crownliving.com>; Alison Baker <abaker@yhmail.com>; HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Dawn Marple <dmarple@ppeng.com>; Andrew Vongphachanh <AndrewV@yhmail.com>; Wyatt Czeshinski <wczeshinski@ppeng.com>; Yelton, Elizabeth@DOT <Elizabeth.Yelton@dot.ca.gov>; Adrienne Burns <ABurns@yhmail.com>
Subject: RE: Caltrans Comments - T6519 Traffic scoping Letter

Good morning Soo Ho,

Checking in here to see if you've had an opportunity to review and confirm the revised scoping letter so we can begin the traffic study work.

Let us know if you have any questions. Thank you!

Derek Sylvester
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123 | M: (559) 360-5006
yandhengr.com

From: Adrienne Burns <aburns@yhmail.com>
Sent: Monday, September 22, 2025 8:07 AM
To: Soo Ho Park <SPark@ppeng.com>
Cc: Joe Crown (jcrown@crownliving.com) <jcrown@crownliving.com>; Alison Baker <abaker@yhmail.com>; HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Dawn Marple <dmarple@ppeng.com>; Andrew Vongphachanh <AndrewV@yhmail.com>; wczeshinski@ppeng.com; Yelton, Elizabeth@DOT

<Elizabeth.Yelton@dot.ca.gov>; Derek Sylvester <DSylvester@yhmail.com>
Subject: RE: Caltrans Comments - T6519 Traffic scoping Letter

Hello Soo Ho,

We have received all comments related to the scope of traffic study for T6519. Attached is the updated Traffic Scoping Letter that we would like the City to confirm is final so we can begin the traffic study work. Please confirm so we can get this moving forward.

Thank you.

Adrienne Burns
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123 | M: (559) 779-3971
yandhengr.com

From: Yelton, Elizabeth@DOT <Elizabeth.Yelton@dot.ca.gov>
Sent: Wednesday, September 3, 2025 4:20 PM
To: Alison Baker <abaker@yhmail.com>; HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>; Dawn Marple <dmarple@ppeng.com>; wczeshinski@ppeng.com; Soo Ho Park <SPark@ppeng.com>; Adrienne Burns <aburns@yhmail.com>; Andrew Vongphachanh <AndrewV@yhmail.com>
Subject: Caltrans Comments - T6519 Traffic scoping Letter

Good afternoon,

Attached you will find comments from Caltrans regarding the TIS Scoping Document for the project located at the northwest corner of Sunnyside and Parlier.

If you have any questions, please reach out.

Cordially,

Elizabeth Yelton
Transportation Planner
California Department of Transportation
Office of Regional and Community Planning,
Local Development Review
Caltrans District 6
Phone: (559) 365-5140
1352 W. Olive Avenue
Fresno, CA 93778-2616

From: Alison Baker <abaker@yhmail.com>
Sent: Tuesday, August 5, 2025 10:04 AM
To: HLuna@fresnocountyca.gov; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>
Cc: Dawn Marple <dmarple@ppeng.com>; Wyatt Czeshinski <wczeshinski@ppeng.com>; Soo Ho Park <SPark@ppeng.com>; Adrienne Burns <ABurns@yhmail.com>; Andrew Vongphachanh <AndrewV@yhmail.com>
Subject: T6519 Traffic scoping Letter

EXTERNAL EMAIL. Links/attachments may not be safe.

Good morning,

Please see attached TIS Scoping Letter for T6519 which in in the City of Fowler, please review & comment. Feel free to reach out with any questions.

Thank you,
Alison

Alison Baker
Project Services Administrator

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS

2985 N. Burl Ave. Suite 101 Fresno, CA 93727
O: (559) 244-3123
yandhengr.com

"A committed team providing high quality engineering services for our clients and community."

August 19, 2025

Soo Ho Park, City Engineer
City of Fowler
128 S 5th Street
Fowler, CA 93625

Subject: **Proposed Scope of Work for the Preparation for a Traffic Impact Analysis for Crown Homes Residential Development, TTM 6519 Located at the Northwest Quadrant of Sunnyside Avenue and Parlier Avenue in the City of Fowler (APN 345-100-08S)**

Dear Mr. Park,

Yamabe & Horn Engineering, Inc. (YH) is requesting review and approval of the proposed scope of work for preparation of a Traffic Impact Analysis (TIA) located at the northwest quadrant of Sunnyside Avenue and Parlier Avenue in the City of Fowler. The Project proposes to develop 183 single family residential units. Based on the information provided to YH, the Project land use will need to be rezoned from low density residential to medium low density residential as well as require City annexation. An aerial of the Project vicinity is shown in Exhibit 1.

Project Trip Generation

To estimate the number of trips generated by the proposed Project, data from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition* was used. Utilizing trip generation data for LU 210 (Single-Family Detached Housing) as shown on Table 1. The Project will generate approximately 1,726 total daily weekday trips, 129 total AM peak hour trips, and 173 total PM peak hours trips.

TABLE 1 – TRIP GENERATION (TTM 6519)

Land Use/Zoning	Size Unit	Weekday		7-9 AM Peak Hour			4-6 PM Peak Hour		
		Rate	Total	Rate % Split	Enter	Exit	Rate % Split	Enter	Exit
Single Family Detached Homes (ITE LU 210)	183.00 DU	9.43	**1,726**	0.70 25 / 75	33	96	0.94 63 / 37	109	64
TOTAL					**33**	**96**		**109**	**64**

Trip generation rates and splits per ITE Trip Generation Manual, 11th Edition.

Intersections to be Analyzed

1. Sunnyside Avenue and Parlier Avenue
2. Fowler Avenue and Parlier Avenue
3. Sunnyside Avenue and South Avenue
4. Sunnyside Avenue and Sumner Avenue
5. Merced Street and Highway 99 SB Off-Ramp
6. Merced Street and Highway 99 NB Ramps
7. Fowler Avenue and Highway 99 SB On-Ramp
8. Fowler Avenue and South Avenue
9. Clovis Avenue and Parlier Avenue

Locations of the study intersections shown in Exhibit 2.

Scenarios to be Analyzed

1. Existing Conditions
2. Existing plus Project Conditions
3. Near Term Plus Pending/Approved Projects
4. Year 2046 No Project
5. Cumulative Year 2046 Conditions

Analysis performed pursuant to the City of Fowler TIA guidelines dated January 2025. A qualitative analysis of existing and planned transit routes, walkways, and bikeways in the vicinity of the Project will be included with the TIA.

Data Collection

Recent (less than 12 months) 24-hour traffic counts will be obtained for the study intersections. Time periods of said traffic analysis intersection and scenarios will be consistent with the City of Fowler TIA guidelines. Traffic counts to be collected on Tuesday, Wednesday, or Thursday. Counts will include pedestrians and bicyclists, as well as truck traffic volume (unclassified) to determine percent truck traffic for modeling purposes.

Existing traffic counts for the intersections listed below will be utilized for this TIA as they are less than 12 months old:

Intersection	Date of Count Taken
Sunnyside Avenue and South Avenue	5/20/2025
Merced Street and Highway 99 SB Off-Ramp	5/20/2025
Merced Street and Highway 99 NB Ramps	5/20/2025
Fowler Avenue and Highway 99 SB On-Ramp	5/20/2025
Fowler Avenue and South Avenue	5/20/2025

Information Request:

YH is requesting the following information from the City of Fowler for the preparation of the TIA:

- Project descriptions, trip generations, and if available, trip distributions of pending and approved projects within the vicinity of the Project to incorporate into both Near Term Plus Pending/Approved Projects scenario.

Other Scope of Work Items

Other YH scope of work items include:

Use the highest growth between the 2046 COG model and incremental growth.

- Request and obtain Fresno Council of Government (Fresno COG) Project Select Zone Analysis traffic forecast models for Base Year, Select Zone Project Only Trips, and Cumulative Year 2046.
- Use Increment Method to estimate future traffic growth volumes for Year 2046 scenarios.
- Determine Project trip distribution by applying engineering judgement based on the Project's vicinity to surrounding land uses, roadway circulation, and the Fresno COG Project Select Zone forecast modeling.
- Perform site visits to observe existing traffic patterns, conditions, and confirm existing geometric layouts of the study intersections.
- Perform queuing analysis for all study intersections and scenarios.
- Perform traffic signal warrants 1 (Eight-Hour Volume), 2 (Four-Hour Volume), 3 (Peak Hour), and 7 (Crash Experience) where signalization is a recommended mitigation.
- Perform safety review of State Highway System (SHS) facility that the Project adds trips to.

Please review and comment. Thank you for your time and assistance in this matter.

Sincerely,

Brandon Broussard, PE
Principal Engineer

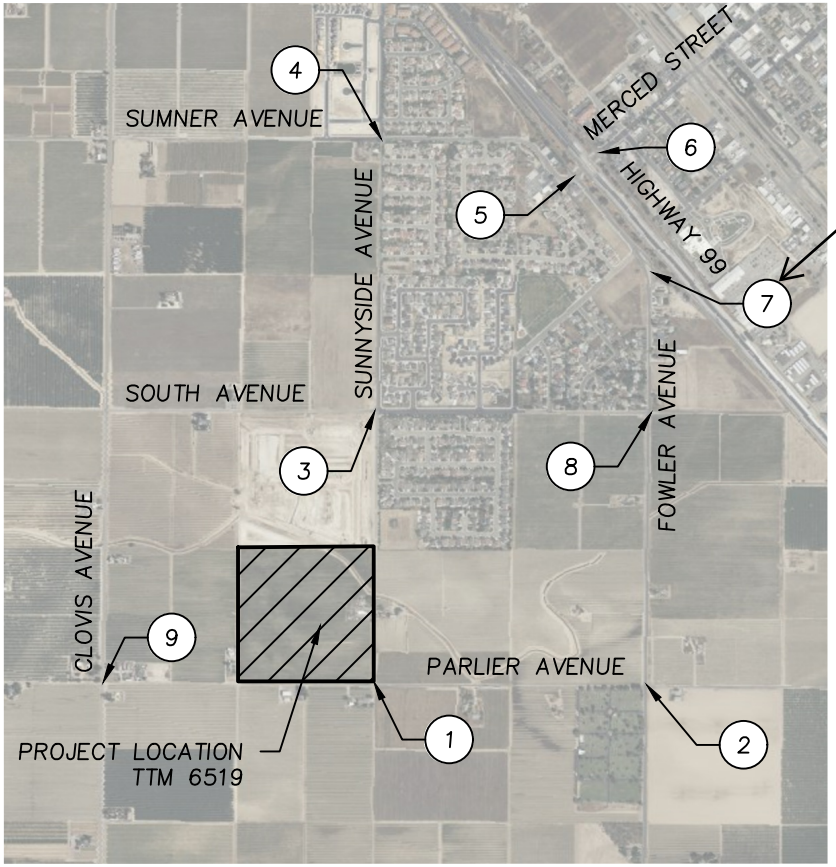
Attachment:
Exhibit 1 – Aerial of Project Vicinity
Exhibit 2 – Study Intersections

CC: David Padilla – dave.padilla@dot.ca.gov
Caltrans District 6 Transportation Planning

Hector Lluna – HLuna@fresnocountyca.gov
Fresno County Design Division, Transportation Planning

EXHIBIT 1 – AERIAL OF PROJECT VICINITY TTM 6519





NTS

STUDY INTERSECTIONS

Location 7 shall be two intersections - Fowler at Fresno and Fowler at on-ramp

1. SUNNYSIDE AVENUE AND PARLIER AVENUE
2. FOWLER AVENUE AND PARLIER AVENUE
3. SUNNYSIDE AVENUE AND SOUTH AVENUE
4. SUNNYSIDE AVENUE AND SUMNER AVENUE
5. MERCED STREET AND HIGHWAY 99 SB OFF-RAMP
6. MERCED STREET AND HIGHWAY 99 NB RAMPS
7. FOWLER AVENUE AND HIGHWAY 99 SB ON-RAMP
8. FOWLER AVENUE AND SOUTH AVENUE
9. CLOVIS AVENUE AND PARLIER AVENUE

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS
2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANDHENGR.COM

PROJECT TITLE: CROWN HOMES - SUNNYSIDE & PARLIER
TTM 6519 TIA SCOPING DOCUMENT

SHEET DESCRIPTION: EXHIBIT 2
STUDY INTERSECTIONS

Date: 9/19/2025
Scale: As Noted
YH Job No. 24-325
Sheet No. 1
of 1 Sheets

Plot By: Andrew Vongphachanh Plot Date: 9/19/2025 File Location: F:\2024\24-325\dwg\Exhibits\Traffic\24-325_Study Intersection Map.dwg

Andrew Vongphachanh

From: Luna, Hector <HLuna@fresnocountyca.gov>
Sent: Wednesday, September 3, 2025 9:22 AM
To: Adrienne Burns; Alison Baker; dave.padilla@dot.ca.gov
Cc: Andrew Vongphachanh; Hines, Brody
Subject: RE: T6519 Traffic scoping Letter

Yes, no additional comments. It appears that residential development in Fowler is expanding westward toward Clovis Avenue, which will require further analysis as future development occurs.

Regards,

Hector E. Luna| Principal Planner
Department of Public Works and Planning |
Water and Natural Resources Division
2220 Tulare St. 6th Floor Fresno, CA 93721
Main Office: (559) 600-4292 | Direct: (559) 600-9672
Email: hluna@FresnoCountyCa.gov
Your input matters! Customer Service Survey

From: Adrienne Burns <ABurns@yhmail.com>
Sent: Wednesday, September 3, 2025 8:38 AM
To: Luna, Hector <HLuna@fresnocountyca.gov>; Alison Baker <abaker@yhmail.com>; dave.padilla@dot.ca.gov
Cc: Andrew Vongphachanh <AndrewV@yhmail.com>; Hines, Brody <bhines@fresnocountyca.gov>
Subject: RE: T6519 Traffic scoping Letter

Okay. Is that the extent of the County comments? I appreciate the quick response on this.

Adrienne Burns
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123 | M: (559) 779-3971
yandhengr.com

From: Luna, Hector <HLuna@fresnocountyca.gov>
Sent: Wednesday, September 3, 2025 8:33 AM
To: Adrienne Burns <ABurns@yhmail.com>; Alison Baker <abaker@yhmail.com>; dave.padilla@dot.ca.gov
Cc: Andrew Vongphachanh <AndrewV@yhmail.com>; Hines, Brody <bhines@fresnocountyca.gov>
Subject: RE: T6519 Traffic scoping Letter

Adrienne,

The County requests the intersection of Clovis and Parlier Avenues to be included in the scope.

Regards,

Hector E. Luna| Principal Planner
Department of Public Works and Planning |

Water and Natural Resources Division
2220 Tulare St. 6th Floor Fresno, CA 93721
Main Office: (559) 600-4292 | Direct: (559) 600-9672
Email: hluna@FresnoCountyCa.gov
Your input matters! Customer Service Survey

From: Adrienne Burns <ABurns@yhmail.com>
Sent: Wednesday, September 3, 2025 7:49 AM
To: Luna, Hector <HLuna@fresnocountyca.gov>; Alison Baker <abaker@yhmail.com>; dave.padilla@dot.ca.gov
Cc: Andrew Vongphachanh <AndrewV@yhmail.com>; Hines, Brody <bhines@fresnocountyca.gov>
Subject: RE: T6519 Traffic scoping Letter

Hello Hector,

Attached is the Scoping Letter along with the DRAFT Tentative Map for your use in review and comments. Thank you for your attention on this so we can move forward with our traffic study.

Please let us know if you need anything further. Have a great day!

Adrienne Burns
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123 | M: (559) 779-3971
yandhengr.com

From: Luna, Hector <HLuna@fresnocountyca.gov>
Sent: Wednesday, September 3, 2025 7:37 AM
To: Alison Baker <abaker@yhmail.com>; dave.padilla@dot.ca.gov
Cc: Adrienne Burns <ABurns@yhmail.com>; Andrew Vongphachanh <AndrewV@yhmail.com>; Hines, Brody <bhines@fresnocountyca.gov>
Subject: RE: T6519 Traffic scoping Letter

Good morning,

Please provide a copy of the site plan for the tract, comments should be submitted by the end of the week, if not sooner.

Regards,

Hector E. Luna| Principal Planner
Department of Public Works and Planning |
Water and Natural Resources Division
2220 Tulare St. 6th Floor Fresno, CA 93721
Main Office: (559) 600-4292 | Direct: (559) 600-9672
Email: hluna@FresnoCountyCa.gov
Your input matters! Customer Service Survey

From: Alison Baker <abaker@yhmail.com>
Sent: Tuesday, September 2, 2025 12:30 PM
To: Luna, Hector <HLuna@fresnocountyca.gov>; dave.padilla@dot.ca.gov
Cc: Adrienne Burns <ABurns@yhmail.com>; Andrew Vongphachanh <AndrewV@yhmail.com>
Subject: RE: T6519 Traffic scoping Letter

Good morning,

I wanted to check in and see if you have any comments on the scoping letter that I sent previously. Can you please let us know when we should hear something back, appreciate it.

Thank you,
Alison

Alison Baker
Yamabe & Horn Engineering, Inc.
O: (559) 244-3123
yandhengr.com

From: Alison Baker
Sent: Tuesday, August 5, 2025 10:04 AM
To: HLuna@fresnocountyca.gov; dave.padilla@dot.ca.gov
Cc: Dawn Marple <dmarple@ppeng.com>; Wyatt Czeshinski <wczeshinski@ppeng.com>; Soo Ho Park <spark@ppeng.com>; Adrienne Burns <ABurns@yhmail.com>; Andrew Vongphachanh <AndrewV@yhmail.com>
Subject: T6519 Traffic scoping Letter

Good morning,

Please see attached TIS Scoping Letter for T6519 which in in the City of Fowler, please review & comment. Feel free to reach out with any questions.

Thank you,
Alison

Alison Baker
Project Services Administrator

Yamabe & Horn Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS

2985 N. Burl Ave. Suite 101 Fresno, CA 93727
O: (559) 244-3123
yandhengr.com

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California Department of Transportation

DISTRICT 6 OFFICE
1352 WEST OLIVE AVENUE | P.O. BOX 12616 | FRESNO, CA 93778-2616
(559) 981-1041 | FAX (559) 488-4195 | TTY 711
www.dot.ca.gov

September 3, 2025

FRE-99-10.73
TTM 6519
NWC Sunnyside/Parlier
GTS: 37448

SENT VIA EMAIL

Ms. Alison Baker
Yamabe and Horn Engineering Inc.
2985 N. Burl Ave. Suite 101
Fresno, CA 93727

Dear Ms. Baker:

Thank you for the opportunity to complete a review of TTM 6519, the proposed scope of work for a Traffic Impact Analysis (TIA) for a proposed residential development. The project is located at the northwest quadrant of Sunnyside Avenue and Parlier Avenue in the City of Fowler, approximately 2.08 miles from the Manning Avenue and State Route (SR) 99 interchange and 1.20 miles from the Merced Street and SR 99 interchange.

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) process reviews land use projects and plans through the lenses of our mission and state planning priorities of infill, conservation, and travel-efficient development. To ensure a safe and efficient transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network.

Caltrans provides the following comments consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:

Traffic Operations Comments:

1. The consultant proposed the following study scenarios:
    - Existing Conditions
    - Existing plus Project Conditions
    - Near Term Plus Pending/Approved Projects
    - Year 2046 No Project
    - Cumulative Year 2046 Conditions

    Caltrans concurs with the proposed scenarios.

2. The following 8 intersections study were proposed by consultant (queuing analysis is included in the proposed Scope of Work for the study intersections listed below under all scenarios):
    - Sunnyside Avenue and Parlier Avenue
    - Fowler Avenue and Parlier Avenue
    - Sunnyside Avenue and South Avenue
    - Sunnyside Avenue and Sumner Avenue
    - Merced Street and SR99 SB Off-Ramp
    - Merced Street and SR99 NB Ramps
    - Fowler Avenue and SR99 SB On-Ramp
    - Fowler Avenue and South Avenue

    Caltrans concurs with the proposed study intersection.

3. The consultant proposed the following estimate project trip generation based on the Institute of Transportation Engineers (ITE) trip generation Manual, 11th ed:
    - Single-Family Detached Housing (210): 129 AM Peak Hour, 173 PM Peak Hour

    Caltrans concurs with the proposed trip generation.

4. The Office of Traffic Operations has the following comments regarding the submitted information:
    - According to the Caltrans Local Development Review Safety Practitioner's Guidance dated February 2024, a safety review for a development is not required if the project makes no physical modification to the State Highway System (SHS) and the project results in zero additional trips by any mode on the SHS. Since the proposed development is adding trips to the SHS, a safety review will be required. The safety review should identify and analyze any potential safety impacts due to the increased conflicts. The developer should request Caltrans crash data summary for the involved SHS facility using the included Crash Data Request Form.
    - The queuing analysis will need to comply with Caltrans HDM standards for State Routes.

<u>Planning Comments</u>

5. Alternative transportation policies should be applied to the development. An assessment of multi-modal facilities should be conducted to develop an integrated multi-modal transportation system to serve and help alleviate traffic congestion caused by the project and related development in this area of the City or County. The assessment should include the following:

    a. Pedestrian walkways should link this proposal to an internal project area walkway, transit facilities, as well as other walkways in the surrounding area.

b. The Project might also consider coordinating connections to local and regional bicycle pathways to further encourage the use of bicycles for commuter and recreational purposes.

c. If transit is not available within ¼-mile of the site, transit should be extended to provide services to what will be a high activity center.

6. Caltrans recommends the Project implement "smart growth" principles regarding parking solutions, to provide alternative transportation choices to residents and employees. Alternative transportation choices may include but are not limited to parking for carpools/vanpools, car-share and/or ride-share programs.

7. Active Transportation Plans and Smart Growth efforts support the state's 2050 Climate goals. Caltrans supports reducing Vehicle Miles Traveled (VMT) and Green House Gas (GHG) emissions in ways that increase the likelihood people will use and benefit from a multimodal transportation network.

8. Based on Caltrans VMT-Focused Transportation Impact Study Guide, dated May 20, 2020, and effective as of July 1, 2020, Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita Vehicle Miles Traveled (VMT), increase accessibility to destinations via cycling, walking, carpooling, transit and reduce greenhouse gas (GHG) emissions. Caltrans recommends that the project proponent continue to work with the City or County to further implement improvements to reduce vehicles miles traveled and offer a variety of transportation modes for its employees.

Conclusion:

- According to the Caltrans Local Development Review Safety Practitioner's Guidance dated February 2024, a safety review for a development is not required if the project makes no physical modification to the State Highway System (SHS) and the project results in zero additional trips by any mode on the SHS. Since the proposed development is adding trips to the SHS, a safety review will be required. The safety review should identify and analyze any potential safety impacts due to the increased conflicts. The developer should request Caltrans crash data summary for the involved SHS facility using the included Crash Data Request Form.
- The queuing analysis will need to comply with Caltrans HDM standards for State Routes.

If you have any other questions, please call Elizabeth Yelton, Transportation Planner at (559) 365-5140.

Sincerely,

Mr. DAVE PADILLA, Branch Chief
Local Development Branch

APPENDIX C

Traffic Counts

2985 North Burl Ave., Suite 101 • Fresno, CA 93727 • P: 559.244.3123 • F: 559.244.3120 • yandhengr.com

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Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Clovis Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6126952

LONGITUDE -119.7002795

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
12:00 AM	to	12:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
12:30 AM	to	12:45 AM	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 AM	to	1:00 AM	0	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 AM	to	1:45 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	to	2:15 AM	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
2:15 AM	to	2:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
2:30 AM	to	2:45 AM	0	0	3	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
2:45 AM	to	3:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	to	3:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 AM	to	3:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 AM	to	3:45 AM	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45 AM	to	4:00 AM	0	0	3	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	8
4:00 AM	to	4:15 AM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 AM	to	4:30 AM	0	0	2	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	1	0	7
4:30 AM	to	4:45 AM	0	0	5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
4:45 AM	to	5:00 AM	0	0	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	9
5:00 AM	to	5:15 AM	0	0	6	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	10
5:15 AM	to	5:30 AM	0	0	7	0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	1	0	17
5:30 AM	to	5:45 AM	0	0	7	0	0	0	0	23	0	3	0	0	0	0	0	0	0	0	0	0	30
5:45 AM	to	6:00 AM	0	0	8	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	1	0	29
6:00 AM	to	6:15 AM	0	0	12	0	2	0	0	13	0	1	0	0	0	0	0	0	1	0	0	0	26
6:15 AM	to	6:30 AM	0	0	12	0	0	0	0	21	0	2	0	0	0	0	0	0	0	0	1	0	34
6:30 AM	to	6:45 AM	0	0	17	0	0	0	2	18	0	2	0	1	0	0	0	0	0	0	2	0	40
6:45 AM	to	7:00 AM	0	0	16	1	3	0	0	24	0	0	0	1	0	0	0	0	0	0	0	0	42
7:00 AM	to	7:15 AM	0	0	41	0	20	0	0	15	0	4	0	0	0	0	0	0	0	0	0	0	56
7:15 AM	to	7:30 AM	0	1	44	1	21	0	1	24	0	1	0	0	0	0	0	0	0	0	0	0	71
7:30 AM	to	7:45 AM	0	0	42	1	23	0	0	27	0	4	0	1	0	0	0	0	0	0	0	0	71
7:45 AM	to	8:00 AM	0	0	36	0	15	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	56
8:00 AM	to	8:15 AM	0	0	31	0	10	0	0	18	0	2	0	0	0	0	0	0	1	0	0	0	50
8:15 AM	to	8:30 AM	0	0	37	0	18	0	0	19	1	2	0	0	0	0	0	0	0	0	0	1	57
8:30 AM	to	8:45 AM	0	0	24	1	14	0	0	26	0	1	0	0	0	0	0	0	0	0	2	0	53
8:45 AM	to	9:00 AM	0	1	39	0	26	0	0	20	0	0	0	0	0	0	0	0	1	0	0	0	61
9:00 AM	to	9:15 AM	0	0	28	0	19	0	0	17	1	3	0	0	0	0	0	0	0	0	0	0	46
9:15 AM	to	9:30 AM	0	0	28	0	14	0	1	24	0	3	0	0	0	0	0	0	0	0	0	0	53
9:30 AM	to	9:45 AM	0	0	34	0	18	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	44
9:45 AM	to	10:00 AM	0	1	35	0	18	0	0	11	0	1	0	0	0	0	0	0	0	0	2	0	49
10:00 AM	to	10:15 AM	0	0	39	0	24	0	0	18	1	4	0	2	0	2	0	0	0	0	1	0	63
10:15 AM	to	10:30 AM	0	0	27	0	16	0	0	21	0	2	0	0	0	1	0	0	0	0	0	0	49
10:30 AM	to	10:45 AM	0	0	31	0	17	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	53
10:45 AM	to	11:00 AM	0	1	33	0	15	0	1	15	0	1	0	0	0	0	0	0	0	0	1	0	51
11:00 AM	to	11:15 AM	0	0	22	0	13	0	1	28	0	3	0	0	0	0	0	0	1	0	0	0	52

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
11:15 AM	to	11:30 AM	0	0	27	0	19	0	0	14	0	1	0	0	1	0	0	0	0	0	0	0	42
11:30 AM	to	11:45 AM	0	0	36	0	21	0	0	12	1	0	0	0	0	0	0	0	0	1	0	0	50
11:45 AM	to	12:00 PM	0	0	32	0	17	0	1	26	0	1	0	0	0	0	0	0	0	0	0	0	59
12:00 PM	to	12:15 PM	0	0	29	0	11	0	1	18	0	3	0	0	0	0	0	0	0	0	0	0	48
12:15 PM	to	12:30 PM	0	0	23	0	13	0	0	23	0	3	0	0	0	0	0	0	0	0	1	0	47
12:30 PM	to	12:45 PM	0	0	40	0	23	0	1	21	0	2	0	0	0	0	0	0	0	0	0	0	62
12:45 PM	to	1:00 PM	0	0	32	1	15	0	0	17	0	3	0	0	0	0	0	0	0	0	0	0	50
1:00 PM	to	1:15 PM	0	0	26	0	18	0	1	20	0	3	0	0	0	1	0	0	0	0	1	0	49
1:15 PM	to	1:30 PM	0	0	27	0	14	0	2	15	0	1	0	0	0	0	0	0	2	0	0	0	46
1:30 PM	to	1:45 PM	0	0	28	0	14	0	0	25	0	2	0	0	0	0	0	0	0	0	0	0	53
1:45 PM	to	2:00 PM	0	1	41	0	24	0	0	23	0	3	0	0	0	0	0	0	0	0	2	0	67
2:00 PM	to	2:15 PM	0	0	29	0	16	0	0	18	0	2	0	0	0	0	0	0	0	0	2	0	49
2:15 PM	to	2:30 PM	0	1	39	0	19	0	0	24	0	4	0	0	0	0	0	0	0	0	0	0	64
2:30 PM	to	2:45 PM	0	0	51	0	11	0	0	25	0	3	0	0	0	1	0	0	0	0	0	0	77
2:45 PM	to	3:00 PM	0	0	34	1	16	0	0	21	0	1	0	0	0	1	0	0	0	1	1	1	59
3:00 PM	to	3:15 PM	0	0	43	0	24	0	0	29	0	1	0	0	0	0	0	0	0	1	0	0	73
3:15 PM	to	3:30 PM	0	1	38	0	17	0	0	24	0	3	0	0	1	0	0	0	1	0	1	1	66
3:30 PM	to	3:45 PM	0	1	35	0	14	0	0	33	0	2	0	1	0	0	0	0	1	0	0	0	71
3:45 PM	to	4:00 PM	0	0	43	0	13	0	1	37	0	5	0	0	0	0	0	0	0	0	0	0	81
4:00 PM	to	4:15 PM	0	0	36	0	13	0	3	31	0	2	0	0	0	0	0	0	0	0	2	0	72
4:15 PM	to	4:30 PM	0	0	44	0	19	0	0	28	1	3	0	0	0	0	0	0	0	1	1	0	75
4:30 PM	to	4:45 PM	0	0	41	0	15	0	0	31	1	3	0	0	0	1	0	0	0	0	0	0	74
4:45 PM	to	5:00 PM	0	0	26	0	4	0	1	27	0	3	0	0	0	2	1	0	1	0	0	0	57
5:00 PM	to	5:15 PM	0	0	28	0	1	0	0	35	1	3	0	0	0	0	0	0	1	0	0	1	65
5:15 PM	to	5:30 PM	0	0	19	0	1	0	1	40	0	3	0	0	0	0	0	0	0	0	0	0	60
5:30 PM	to	5:45 PM	0	0	27	0	1	0	1	37	0	1	0	0	0	0	0	0	0	0	0	0	65
5:45 PM	to	6:00 PM	0	0	11	0	0	0	1	29	0	2	0	0	0	0	0	0	0	0	0	0	41
6:00 PM	to	6:15 PM	0	0	19	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	37
6:15 PM	to	6:30 PM	0	0	16	0	1	0	0	21	0	2	0	0	0	0	0	0	0	0	0	0	37
6:30 PM	to	6:45 PM	0	0	15	0	1	0	1	12	0	0	0	0	0	0	0	0	1	0	1	0	30
6:45 PM	to	7:00 PM	0	1	8	0	1	0	1	15	0	1	0	0	0	0	0	0	0	0	2	0	27
7:00 PM	to	7:15 PM	0	0	11	0	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	23
7:15 PM	to	7:30 PM	0	0	15	0	0	0	0	17	0	1	0	1	0	0	0	0	0	0	0	0	33
7:30 PM	to	7:45 PM	0	0	11	1	0	0	0	8	0	2	0	0	0	0	0	0	0	0	0	0	20
7:45 PM	to	8:00 PM	0	0	6	0	0	0	0	11	0	1	0	0	0	0	0	0	0	0	0	0	17
8:00 PM	to	8:15 PM	0	0	13	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	33
8:15 PM	to	8:30 PM	0	0	8	0	2	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	15
8:30 PM	to	8:45 PM	0	0	8	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	18
8:45 PM	to	9:00 PM	0	0	8	0	0	0	0	7	0	1	0	0	0	0	0	0	0	0	1	0	16
9:00 PM	to	9:15 PM	0	0	5	0	0	0	0	11	0	2	0	0	0	0	0	0	0	0	1	0	17
9:15 PM	to	9:30 PM	0	0	7	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	14
9:30 PM	to	9:45 PM	0	0	3	0	0	0	1	9	0	1	0	0	0	0	0	0	0	0	0	0	13
9:45 PM	to	10:00 PM	0	0	5	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	8
10:00 PM	to	10:15 PM	0	0	8	0	0	0	0	11	0	0	0	0	0	0	0	0	1	0	1	0	21
10:15 PM	to	10:30 PM	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30 PM	to	10:45 PM	0	0	3	0	0	0	3	8	0	0	0	0	0	0	0	0	0	0	0	0	14
10:45 PM	to	11:00 PM	0	0	5	0	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	12
11:00 PM	to	11:15 PM	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6
11:15 PM	to	11:30 PM	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6
11:30 PM	to	11:45 PM	0	1	2	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	6
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
DAILY TOTALS			**0**	**10**	**1759**	**8**	**691**	**0**	**31**	**1402**	**8**	**118**	**0**	**8**	**2**	**9**	**1**	**0**	**12**	**4**	**30**	**5**	**3283**

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
7:00 AM	to	8:00 AM	0	1	163	2	79	0	1	86	0	9	0	1	0	0	0	0	0	0	0	0	254
3:45 PM	to	4:45 PM	0	0	164	0	60	0	4	127	2	13	0	0	0	1	0	0	0	1	3	0	302

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Clovis Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6126952

LONGITUDE -119.7002795

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:00 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6127189

LONGITUDE -119.6913378

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:00 AM	to	1:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	3
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	3
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	to	6:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	6
7:30 AM	to	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	2
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
8:15 AM	to	8:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	3
8:30 AM	to	8:45 AM	0	0	0	0	0	0	2	0	1	0	0	1	0	1	0	0	1	0	1	0	7
8:45 AM	to	9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
9:00 AM	to	9:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	1	1	0	6
9:15 AM	to	9:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
10:00 AM	to	10:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	0	1	3
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	3	0	7
10:30 AM	to	10:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	5

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
11:15 AM	to	11:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	1	0	5
11:30 AM	to	11:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	0	3
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12:30 PM	to	12:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	to	1:00 PM	0	0	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	0	1	0	6
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	0	5
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	1	0	0	6
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	0	5
2:30 PM	to	2:45 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	1	0	2	1	6
2:45 PM	to	3:00 PM	0	0	0	0	0	0	1	0	2	1	0	1	0	1	1	0	0	0	0	0	5
3:00 PM	to	3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	4
3:30 PM	to	3:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3	1	5
3:45 PM	to	4:00 PM	0	0	0	0	0	0	3	0	1	0	0	1	0	0	0	0	0	1	1	1	7
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	2	0	4
4:15 PM	to	4:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
4:45 PM	to	5:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	3	0	0	0	0	0	4	0	9
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	to	5:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	5
5:45 PM	to	6:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
6:15 PM	to	6:30 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	8
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	1	0	0	2	2	0	0	0	0	0	2	0	7
6:45 PM	to	7:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
7:00 PM	to	7:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 PM	to	7:45 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	1	1	4
7:45 PM	to	8:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	3
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
8:30 PM	to	8:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2
9:45 PM	to	10:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	3
10:00 PM	to	10:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	3
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	3
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	54	0	22	5	0	18	20	12	5	0	5	20	57	7	208

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
8:15 AM	to	9:15 AM	0	0	0	0	0	0	6	0	2	0	0	1	2	2	0	0	1	2	2	0	18
1:45 PM	to	2:45 PM	0	0	0	0	0	0	2	0	6	0	0	2	1	0	0	0	1	2	8	1	22

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6127189

LONGITUDE -119.6913378

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
8:15 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

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(Vehicles)

Prepared For:

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LOCATION Fowler Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6127136

LONGITUDE -119.682372

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
12:00 AM	to	12:15 AM	0	0	3	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	6
12:15 AM	to	12:30 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	5
12:45 AM	to	1:00 AM	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	1	7
1:00 AM	to	1:15 AM	0	0	3	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	6
1:15 AM	to	1:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 AM	to	1:45 AM	0	0	1	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	4
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	to	2:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 AM	to	2:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:30 AM	to	2:45 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
2:45 AM	to	3:00 AM	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	to	3:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 AM	to	3:30 AM	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	6
3:30 AM	to	3:45 AM	0	0	1	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	5
3:45 AM	to	4:00 AM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	to	4:15 AM	0	0	1	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	5
4:15 AM	to	4:30 AM	0	0	3	0	0	0	1	8	0	1	0	0	0	1	0	0	0	0	1	1	14
4:30 AM	to	4:45 AM	0	0	9	0	1	0	0	3	0	1	0	0	0	0	0	0	0	0	1	0	13
4:45 AM	to	5:00 AM	0	0	3	1	1	0	0	7	0	1	0	0	0	2	0	0	0	0	0	0	13
5:00 AM	to	5:15 AM	0	1	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	1	11
5:15 AM	to	5:30 AM	0	1	11	0	1	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	21
5:30 AM	to	5:45 AM	0	0	15	0	0	0	0	15	0	0	0	0	0	1	0	0	0	0	0	0	31
5:45 AM	to	6:00 AM	0	0	19	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	40
6:00 AM	to	6:15 AM	0	0	17	0	1	0	1	24	0	0	0	0	0	0	0	0	0	0	0	0	42
6:15 AM	to	6:30 AM	0	1	17	0	0	0	0	41	0	2	0	0	0	1	0	0	0	0	0	0	60
6:30 AM	to	6:45 AM	0	0	32	1	0	0	0	31	0	0	0	1	0	0	0	0	0	0	0	0	65
6:45 AM	to	7:00 AM	0	0	26	0	0	0	0	33	0	3	0	0	0	0	0	0	0	0	0	0	59
7:00 AM	to	7:15 AM	0	0	28	0	1	0	0	36	0	3	0	0	0	0	0	0	1	0	1	1	66
7:15 AM	to	7:30 AM	0	1	25	0	3	0	0	37	0	0	0	0	0	2	0	0	0	0	0	0	65
7:30 AM	to	7:45 AM	0	0	35	0	3	0	1	43	0	2	0	1	0	0	1	0	0	0	0	0	80
7:45 AM	to	8:00 AM	0	0	42	2	0	0	0	27	1	2	0	0	0	0	0	0	0	0	0	0	72
8:00 AM	to	8:15 AM	0	1	44	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	70
8:15 AM	to	8:30 AM	0	0	35	2	2	0	1	46	0	4	0	0	0	2	0	0	0	0	1	0	87
8:30 AM	to	8:45 AM	0	1	35	0	2	0	2	29	1	2	0	0	0	2	0	0	0	0	1	0	71
8:45 AM	to	9:00 AM	0	1	29	0	1	0	1	23	0	3	0	0	0	1	0	0	2	0	0	1	57
9:00 AM	to	9:15 AM	0	2	22	1	0	0	0	19	0	0	0	0	0	3	0	0	0	0	0	0	47
9:15 AM	to	9:30 AM	0	1	14	0	1	0	2	25	0	3	0	0	0	1	0	0	0	0	1	0	44
9:30 AM	to	9:45 AM	0	0	26	0	1	0	2	24	0	0	0	0	0	0	0	0	1	0	1	1	54
9:45 AM	to	10:00 AM	0	0	22	0	1	0	1	24	0	0	0	1	0	0	0	0	1	0	1	0	50
10:00 AM	to	10:15 AM	0	0	24	1	1	0	0	23	2	3	0	0	0	1	0	0	1	0	2	0	54
10:15 AM	to	10:30 AM	0	2	26	0	2	0	0	21	0	0	0	1	0	1	0	0	1	0	0	0	52
10:30 AM	to	10:45 AM	0	0	25	1	4	0	1	21	0	0	0	0	0	1	0	0	0	0	0	0	49
10:45 AM	to	11:00 AM	0	0	38	0	1	0	0	29	0	1	0	0	0	1	0	0	0	0	0	0	68
11:00 AM	to	11:15 AM	0	2	30	0	1	0	1	26	0	1	0	1	0	0	0	0	0	0	1	0	61

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
11:15 AM	to	11:30 AM	0	1	28	0	1	0	0	22	1	0	0	1	0	0	0	0	0	0	1	0	54
11:30 AM	to	11:45 AM	0	0	24	0	1	0	1	23	2	1	0	0	0	1	1	0	0	0	1	1	52
11:45 AM	to	12:00 PM	0	0	17	0	2	0	0	17	2	0	0	0	0	0	0	0	0	0	1	0	37
12:00 PM	to	12:15 PM	0	0	27	0	1	0	0	20	0	0	0	0	0	1	0	0	0	0	1	0	49
12:15 PM	to	12:30 PM	0	1	34	0	1	0	1	23	0	3	0	1	0	0	0	0	0	0	0	0	60
12:30 PM	to	12:45 PM	0	0	27	0	1	0	0	25	0	1	0	1	0	1	0	0	0	0	0	0	54
12:45 PM	to	1:00 PM	0	1	35	0	1	0	0	21	1	0	0	0	1	4	1	0	0	0	0	0	63
1:00 PM	to	1:15 PM	0	0	29	0	4	0	0	32	0	1	0	0	0	0	0	0	0	0	3	1	64
1:15 PM	to	1:30 PM	0	0	37	0	2	0	1	29	1	1	0	0	0	0	0	0	0	0	1	0	69
1:30 PM	to	1:45 PM	0	4	27	0	0	0	2	38	0	0	0	1	0	1	0	0	1	0	1	0	75
1:45 PM	to	2:00 PM	0	2	47	1	1	0	0	24	0	0	0	0	0	1	0	0	1	0	0	0	76
2:00 PM	to	2:15 PM	0	3	26	0	1	0	1	33	0	2	0	0	0	0	0	0	0	0	0	0	63
2:15 PM	to	2:30 PM	0	1	26	0	1	0	0	36	2	4	0	1	0	0	0	0	0	0	0	0	66
2:30 PM	to	2:45 PM	0	3	38	0	3	0	1	38	1	3	0	0	0	3	0	0	0	0	0	0	84
2:45 PM	to	3:00 PM	0	0	37	0	1	0	0	38	0	0	0	3	0	0	0	0	0	0	0	0	78
3:00 PM	to	3:15 PM	0	0	41	0	1	0	1	36	0	4	0	0	0	0	0	0	1	0	2	0	81
3:15 PM	to	3:30 PM	0	1	49	1	2	0	0	40	1	3	0	1	0	0	0	0	0	0	0	0	93
3:30 PM	to	3:45 PM	0	0	41	0	2	0	0	42	1	1	0	0	0	0	0	0	0	0	0	0	84
3:45 PM	to	4:00 PM	0	0	83	1	2	0	0	46	2	4	0	0	0	4	0	0	1	0	0	0	137
4:00 PM	to	4:15 PM	0	2	45	0	0	0	2	48	0	2	0	0	0	1	0	0	1	1	1	1	101
4:15 PM	to	4:30 PM	0	1	49	0	0	0	1	50	0	3	0	0	0	3	0	0	1	0	0	1	105
4:30 PM	to	4:45 PM	0	4	57	0	3	0	1	51	1	1	0	0	0	0	0	0	2	1	0	0	117
4:45 PM	to	5:00 PM	0	4	58	0	0	0	1	36	0	0	0	1	0	4	0	0	1	0	0	0	105
5:00 PM	to	5:15 PM	0	1	60	0	0	0	0	44	1	2	0	0	0	1	0	0	1	0	0	0	108
5:15 PM	to	5:30 PM	0	2	45	1	0	1	0	38	0	1	0	0	0	0	0	0	0	1	0	0	88
5:30 PM	to	5:45 PM	0	1	48	0	2	0	0	36	0	0	0	0	0	3	0	0	1	0	0	0	89
5:45 PM	to	6:00 PM	0	0	40	0	0	0	0	43	0	4	0	1	1	1	0	0	1	0	0	0	87
6:00 PM	to	6:15 PM	0	0	26	1	1	0	0	36	1	0	0	0	0	1	0	0	0	1	0	0	66
6:15 PM	to	6:30 PM	0	1	34	1	0	0	0	22	0	0	0	0	0	2	0	0	0	0	0	0	60
6:30 PM	to	6:45 PM	0	3	36	0	0	0	0	36	0	0	0	1	0	1	0	0	0	0	0	0	77
6:45 PM	to	7:00 PM	0	0	23	0	0	0	0	26	0	1	0	0	0	1	0	0	1	0	0	0	51
7:00 PM	to	7:15 PM	0	0	21	0	0	0	0	29	1	0	0	1	0	1	0	0	0	0	0	0	53
7:15 PM	to	7:30 PM	0	1	20	1	0	0	0	15	0	0	0	0	0	0	0	0	1	0	0	0	38
7:30 PM	to	7:45 PM	0	1	18	0	1	0	0	21	0	0	0	0	0	2	0	0	0	1	0	0	43
7:45 PM	to	8:00 PM	0	3	19	0	0	0	0	16	1	0	0	0	0	0	0	0	0	0	0	0	39
8:00 PM	to	8:15 PM	0	0	25	0	0	0	0	19	1	1	0	0	0	0	0	0	0	0	0	0	45
8:15 PM	to	8:30 PM	0	1	22	0	0	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	43
8:30 PM	to	8:45 PM	0	1	17	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	47
8:45 PM	to	9:00 PM	0	0	21	0	0	0	0	14	0	0	0	0	0	1	0	0	0	0	0	0	36
9:00 PM	to	9:15 PM	0	1	5	0	0	0	1	17	0	2	0	0	0	0	0	0	0	0	0	0	24
9:15 PM	to	9:30 PM	0	0	20	0	0	0	0	11	0	0	0	0	0	0	0	0	1	0	0	0	32
9:30 PM	to	9:45 PM	0	0	19	0	0	0	1	15	0	1	0	0	0	1	0	0	0	0	0	0	36
9:45 PM	to	10:00 PM	0	2	17	0	1	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	36
10:00 PM	to	10:15 PM	0	1	15	0	0	0	0	18	0	1	0	0	0	1	0	0	1	0	0	0	36
10:15 PM	to	10:30 PM	0	1	14	0	0	0	0	13	0	1	0	1	0	0	0	0	0	0	0	0	29
10:30 PM	to	10:45 PM	0	1	9	0	0	0	0	12	1	0	0	0	0	0	0	0	0	0	0	0	23
10:45 PM	to	11:00 PM	0	0	4	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	14
11:00 PM	to	11:15 PM	0	1	7	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	19
11:15 PM	to	11:30 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
11:30 PM	to	11:45 PM	0	1	6	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	12
11:45 PM	to	12:00 AM	0	0	1	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	8
DAILY TOTALS			**1**	**65**	**2154**	**19**	**65**	**1**	**32**	**2056**	**25**	**88**	**0**	**19**	**2**	**62**	**3**	**0**	**26**	**5**	**25**	**10**	**4492**

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles
7:30 AM	to	8:30 AM	**0**	**1**	**156**	**4**	**5**	**0**	**2**	**141**	**1**	**8**	**0**	**1**	**0**	**2**	**1**	**0**	**0**	**0**	**1**	**0**	**309**
3:45 PM	to	4:45 PM	**0**	**7**	**234**	**1**	**5**	**0**	**4**	**195**	**3**	**10**	**0**	**0**	**0**	**8**	**0**	**0**	**5**	**2**	**1**	**2**	**460**

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ Parlier Ave

COUNTY Fresno

COLLECTION DATE Thursday, October 23, 2025

LATITUDE 36.6127136

LONGITUDE -119.682372

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	5

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ South Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6199822

LONGITUDE -119.6912522

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	1	2	0	0	0	1	0	0	6	0%
12:15 AM	to	12:30 AM	0	0	0	1	0	0	0	2	0	0	0	2	1	2	0	0	1	0	0	0	9	0%
12:30 AM	to	12:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0%
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5	0%
1:00 AM	to	1:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0	0	0	5	0%
1:15 AM	to	1:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	5	0%
1:30 AM	to	1:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0%
1:45 AM	to	2:00 AM	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0%
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3	0%
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0%
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
2:45 AM	to	3:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0%
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	2	50%
3:15 AM	to	3:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	4	0%
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0%
3:45 AM	to	4:00 AM	0	2	1	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	8	0%
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0%
4:15 AM	to	4:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	0%
4:30 AM	to	4:45 AM	0	3	0	1	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	7	0%
4:45 AM	to	5:00 AM	0	2	0	2	0	0	1	0	2	0	0	0	3	0	0	0	0	1	1	0	12	0%
5:00 AM	to	5:15 AM	0	5	1	5	0	0	1	0	4	0	0	1	3	0	0	0	0	3	0	0	23	0%
5:15 AM	to	5:30 AM	0	7	0	6	1	0	1	0	6	0	0	0	4	0	0	0	0	7	1	0	32	3%
5:30 AM	to	5:45 AM	0	8	1	2	0	0	0	1	5	0	0	0	9	2	0	0	0	3	0	0	31	0%
5:45 AM	to	6:00 AM	0	5	0	4	0	0	1	0	2	0	0	0	5	3	0	0	0	5	0	0	25	0%
6:00 AM	to	6:15 AM	0	2	0	1	0	0	0	1	2	0	0	0	3	3	0	0	0	4	1	0	17	0%
6:15 AM	to	6:30 AM	0	5	1	4	0	0	1	1	2	0	0	2	5	4	0	0	1	7	0	0	33	0%
6:30 AM	to	6:45 AM	0	9	3	4	0	0	3	2	7	0	0	2	5	4	0	0	3	10	3	0	55	0%
6:45 AM	to	7:00 AM	0	11	0	3	0	0	0	1	9	0	0	2	2	3	1	0	1	8	2	0	42	2%
7:00 AM	to	7:15 AM	0	13	1	3	0	0	3	1	9	0	0	4	6	2	1	0	4	8	0	0	54	2%
7:15 AM	to	7:30 AM	0	6	2	7	1	0	3	1	5	0	0	4	5	1	1	0	3	5	0	1	42	7%
7:30 AM	to	7:45 AM	0	14	3	12	3	0	2	1	11	0	0	3	9	3	0	0	3	17	2	1	80	5%
7:45 AM	to	8:00 AM	0	7	3	11	1	0	3	0	4	0	0	4	8	5	2	0	0	14	1	1	60	7%
8:00 AM	to	8:15 AM	0	10	10	8	0	0	3	3	3	1	0	3	5	3	2	0	5	13	2	1	68	6%
8:15 AM	to	8:30 AM	0	8	7	8	1	0	1	5	4	0	0	6	13	3	0	0	8	10	2	0	75	1%
8:30 AM	to	8:45 AM	0	7	0	5	2	0	0	5	9	0	0	3	3	0	0	0	5	4	1	0	42	5%
8:45 AM	to	9:00 AM	0	3	5	1	0	0	3	1	0	0	0	1	9	3	0	0	2	7	1	0	36	0%
9:00 AM	to	9:15 AM	0	5	0	2	0	0	2	3	4	0	0	2	10	4	0	0	3	1	0	0	36	0%
9:15 AM	to	9:30 AM	0	4	2	5	0	0	2	1	5	0	0	1	7	4	0	0	4	3	1	0	39	0%
9:30 AM	to	9:45 AM	0	2	1	6	0	0	1	0	6	0	0	1	11	2	0	0	3	6	0	0	39	0%
9:45 AM	to	10:00 AM	0	4	0	7	0	0	0	1	4	0	0	1	8	4	0	0	6	3	3	0	41	0%
10:00 AM	to	10:15 AM	0	3	2	3	0	0	0	3	2	0	0	2	7	2	0	0	2	5	0	0	31	0%
10:15 AM	to	10:30 AM	0	3	2	3	0	0	0	3	5	0	0	5	5	2	0	0	2	6	2	0	38	0%
10:30 AM	to	10:45 AM	0	4	1	3	0	0	1	3	3	0	0	1	4	1	1	0	3	5	0	0	29	3%
10:45 AM	to	11:00 AM	0	6	2	4	1	0	3	3	5	0	0	1	7	4	1	0	6	7	0	0	48	4%
11:00 AM	to	11:15 AM	0	3	2	2	0	0	2	0	7	0	0	3	7	3	2	0	2	2	1	0	34	6%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	2	0	5	0	0	1	2	4	1	0	2	14	4	2	0	1	10	1	0	46	7%
11:30 AM	to	11:45 AM	0	4	0	3	3	0	1	2	5	0	0	4	6	4	0	0	1	4	6	0	40	8%
11:45 AM	to	12:00 PM	0	4	0	3	0	1	2	2	9	0	0	5	12	2	1	0	4	6	1	0	51	2%
12:00 PM	to	12:15 PM	0	2	1	0	0	0	2	0	5	0	0	11	9	3	1	0	2	5	1	1	41	5%
12:15 PM	to	12:30 PM	0	3	3	3	0	0	1	4	3	0	0	4	8	8	0	0	5	8	2	2	52	4%
12:30 PM	to	12:45 PM	0	2	1	4	1	0	1	0	2	0	0	8	8	1	0	0	5	8	2	0	42	2%
12:45 PM	to	1:00 PM	0	0	2	3	0	0	2	2	3	0	0	3	10	5	0	0	1	6	2	0	39	0%
1:00 PM	to	1:15 PM	0	5	3	2	0	0	0	1	2	0	0	5	7	3	0	0	3	1	2	0	34	0%
1:15 PM	to	1:30 PM	0	6	1	3	0	0	0	3	1	0	0	6	6	1	0	0	3	6	1	0	37	0%
1:30 PM	to	1:45 PM	0	2	2	3	0	0	0	2	1	0	0	1	8	7	0	0	7	7	1	2	41	5%
1:45 PM	to	2:00 PM	0	5	5	8	1	0	2	0	1	0	0	1	8	6	1	0	2	5	1	0	44	5%
2:00 PM	to	2:15 PM	0	6	1	7	0	0	0	1	0	0	0	1	15	3	1	0	4	8	2	0	48	2%
2:15 PM	to	2:30 PM	0	5	3	3	1	0	1	5	1	1	0	2	9	9	0	0	6	6	2	0	52	4%
2:30 PM	to	2:45 PM	0	3	1	5	1	0	1	3	1	0	0	2	11	9	3	0	1	6	1	0	44	9%
2:45 PM	to	3:00 PM	0	3	2	8	1	0	2	4	2	1	0	0	13	4	0	0	4	7	2	0	51	4%
3:00 PM	to	3:15 PM	0	2	5	6	0	0	0	3	1	0	0	1	13	14	1	0	2	7	3	0	57	2%
3:15 PM	to	3:30 PM	0	3	6	6	2	0	2	3	2	1	0	4	9	5	2	0	11	3	2	1	56	11%
3:30 PM	to	3:45 PM	0	5	3	9	1	0	0	10	0	0	0	3	20	9	1	0	10	3	2	0	74	3%
3:45 PM	to	4:00 PM	0	2	5	5	1	0	5	7	0	1	0	2	15	7	2	0	14	1	2	0	65	6%
4:00 PM	to	4:15 PM	0	2	1	5	1	0	0	3	1	0	0	2	20	8	0	0	4	9	4	0	59	2%
4:15 PM	to	4:30 PM	0	7	2	5	0	0	1	3	1	0	0	3	9	2	0	0	5	5	2	0	45	0%
4:30 PM	to	4:45 PM	0	4	1	9	0	0	2	4	1	0	0	0	19	4	1	0	6	7	0	0	57	2%
4:45 PM	to	5:00 PM	0	1	0	6	0	0	3	3	0	0	0	3	15	9	1	0	6	6	1	1	53	4%
5:00 PM	to	5:15 PM	0	5	5	5	0	0	2	1	0	0	0	2	6	7	0	0	11	5	3	2	52	4%
5:15 PM	to	5:30 PM	0	3	5	4	0	0	4	5	0	0	0	1	23	10	1	0	8	3	2	0	68	1%
5:30 PM	to	5:45 PM	0	5	7	5	0	0	0	4	0	0	0	1	13	11	0	0	8	6	3	0	63	0%
5:45 PM	to	6:00 PM	0	3	5	4	0	0	0	4	0	0	0	3	9	3	0	0	8	12	0	0	51	0%
6:00 PM	to	6:15 PM	0	6	1	6	0	0	0	2	0	0	0	1	12	10	1	0	5	6	2	1	51	4%
6:15 PM	to	6:30 PM	0	2	4	2	0	0	4	5	0	0	0	1	10	9	1	0	10	2	1	0	50	2%
6:30 PM	to	6:45 PM	0	4	2	1	0	0	1	2	0	0	0	0	5	4	0	0	3	6	0	0	28	0%
6:45 PM	to	7:00 PM	0	7	1	7	0	0	1	0	0	0	0	1	9	2	0	0	1	3	3	0	35	0%
7:00 PM	to	7:15 PM	0	1	1	2	0	0	1	2	0	0	0	0	8	4	0	0	3	4	0	0	26	0%
7:15 PM	to	7:30 PM	0	2	4	8	0	0	0	2	1	0	0	0	8	5	0	0	3	5	2	0	40	0%
7:30 PM	to	7:45 PM	0	1	2	3	0	0	1	2	0	0	0	1	4	3	0	0	6	4	0	0	27	0%
7:45 PM	to	8:00 PM	0	2	1	2	0	0	0	3	1	0	0	1	4	8	0	0	2	4	2	0	30	0%
8:00 PM	to	8:15 PM	0	2	1	2	0	0	2	4	1	0	0	0	8	1	0	0	7	4	1	0	33	0%
8:15 PM	to	8:30 PM	0	5	1	7	0	0	2	3	0	0	0	1	1	2	0	0	4	2	0	0	28	0%
8:30 PM	to	8:45 PM	0	2	3	2	0	0	0	3	0	0	0	1	4	2	0	0	4	4	1	0	26	0%
8:45 PM	to	9:00 PM	0	2	1	3	0	0	0	4	0	0	0	0	5	3	0	0	2	3	2	0	25	0%
9:00 PM	to	9:15 PM	0	1	2	5	0	0	2	2	0	0	0	2	10	4	0	0	2	1	2	0	33	0%
9:15 PM	to	9:30 PM	0	0	3	2	0	0	0	1	0	0	0	0	3	3	0	0	2	1	1	0	16	0%
9:30 PM	to	9:45 PM	0	1	1	0	0	0	0	2	0	0	0	3	6	4	0	0	3	3	0	0	23	0%
9:45 PM	to	10:00 PM	0	1	0	1	0	0	0	3	0	0	0	0	2	4	0	0	2	0	0	0	13	0%
10:00 PM	to	10:15 PM	0	2	0	3	0	0	1	2	0	0	0	0	6	3	0	0	0	2	0	0	19	0%
10:15 PM	to	10:30 PM	0	0	1	1	0	0	0	0	0	0	0	1	3	7	0	0	3	1	1	0	18	0%
10:30 PM	to	10:45 PM	0	1	1	0	0	0	0	1	0	0	0	1	7	3	0	0	1	4	0	0	19	0%
10:45 PM	to	11:00 PM	0	0	2	6	0	0	1	3	0	0	0	0	3	4	1	0	2	0	0	0	21	5%
11:00 PM	to	11:15 PM	0	1	0	1	0	0	0	1	0	0	0	0	3	3	0	0	1	0	0	0	10	0%
11:15 PM	to	11:30 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3	0	0	0	8	0%
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	1	0	0	7	14%
11:45 PM	to	12:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	3	4	0	0	2	1	0	1	13	8%
DAILY TOTALS			0	309	156	320	23	1	91	173	175	6	0	152	618	330	34	0	284	391	94	15	3094	3%

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:30 AM	to	8:30 AM	0	39	23	39	5	0	9	9	22	1	0	16	35	14	4	0	16	54	7	3	283	5%	0.88
4:45 PM	to	5:45 PM	0	14	17	20	0	0	9	13	0	0	0	7	57	37	2	0	33	20	9	3	236	2%	0.87

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ South Ave

LATITUDE 36.6199822

COUNTY Fresno

LONGITUDE -119.6912522

COLLECTION DATE Tuesday, May 20, 2025

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4
8:15 PM	to	8:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	2	1	0	0	0	0	0	0	0	0	0	17	5	4	22	3	48

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	4
4:45 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ South Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6200056

LONGITUDE -119.6823159

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	4	0%
12:15 AM	to	12:30 AM	0	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	5	0%
12:30 AM	to	12:45 AM	0	1	1	0	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	0	7	0%
12:45 AM	to	1:00 AM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0%
1:00 AM	to	1:15 AM	0	1	2	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	8	0%
1:15 AM	to	1:30 AM	0	0	2	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	6	0%
1:30 AM	to	1:45 AM	0	0	1	0	0	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	8	0%
1:45 AM	to	2:00 AM	0	0	2	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	5	0%
2:00 AM	to	2:15 AM	0	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	3	33%
2:15 AM	to	2:30 AM	0	1	1	0	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	6	0%
2:30 AM	to	2:45 AM	0	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	33%
2:45 AM	to	3:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0%
3:00 AM	to	3:15 AM	0	0	1	0	0	0	0	2	1	0	0	1	0	0	1	0	0	0	0	0	5	20%
3:15 AM	to	3:30 AM	0	0	1	0	0	0	0	1	0	0	0	3	0	1	1	0	0	0	0	0	6	17%
3:30 AM	to	3:45 AM	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0%
3:45 AM	to	4:00 AM	0	1	1	0	1	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	10	10%
4:00 AM	to	4:15 AM	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0%
4:15 AM	to	4:30 AM	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0%
4:30 AM	to	4:45 AM	0	0	7	0	0	0	0	6	0	0	0	5	0	1	0	0	0	0	0	0	19	0%
4:45 AM	to	5:00 AM	0	1	6	0	0	0	0	11	0	0	0	7	0	1	0	0	0	0	0	0	26	0%
5:00 AM	to	5:15 AM	0	1	7	0	0	0	0	22	4	0	0	6	0	2	0	0	0	0	0	0	42	0%
5:15 AM	to	5:30 AM	0	1	12	0	0	0	0	46	4	1	0	11	0	2	0	0	0	0	0	0	76	1%
5:30 AM	to	5:45 AM	0	0	17	0	1	0	0	29	1	0	0	10	0	4	0	0	0	0	0	0	61	2%
5:45 AM	to	6:00 AM	0	2	20	0	0	0	0	22	3	2	0	7	0	3	0	0	0	0	0	0	57	4%
6:00 AM	to	6:15 AM	0	0	23	0	0	0	0	9	4	1	0	4	0	4	0	0	0	0	0	0	44	2%
6:15 AM	to	6:30 AM	0	1	29	0	1	0	0	26	2	1	0	10	0	3	0	0	0	0	0	0	71	3%
6:30 AM	to	6:45 AM	0	3	28	0	0	0	0	27	6	1	0	11	0	5	0	0	0	0	0	0	80	1%
6:45 AM	to	7:00 AM	0	2	30	0	2	0	0	29	5	2	0	7	0	6	0	0	0	0	0	0	79	5%
7:00 AM	to	7:15 AM	0	2	28	0	0	0	0	34	5	1	1	8	0	5	0	0	0	0	0	0	83	1%
7:15 AM	to	7:30 AM	0	2	55	0	4	0	1	41	5	3	0	12	0	9	0	0	0	0	0	0	125	6%
7:30 AM	to	7:45 AM	0	6	59	0	1	0	0	46	5	4	0	21	0	8	3	0	0	0	0	0	145	6%
7:45 AM	to	8:00 AM	0	5	34	0	5	0	0	46	11	4	0	28	0	7	2	0	0	0	1	0	132	8%
8:00 AM	to	8:15 AM	0	7	44	0	0	0	0	26	13	2	0	22	0	5	0	0	0	0	1	0	118	2%
8:15 AM	to	8:30 AM	0	4	38	0	2	0	0	31	17	4	0	27	0	3	1	0	0	0	0	0	120	6%
8:30 AM	to	8:45 AM	0	4	27	0	0	0	0	33	11	4	0	11	0	4	1	0	0	0	0	0	90	6%
8:45 AM	to	9:00 AM	0	0	22	0	0	0	0	19	11	3	0	11	0	5	0	0	0	0	0	0	68	4%
9:00 AM	to	9:15 AM	0	3	26	0	0	0	0	25	5	0	0	8	0	3	0	0	0	0	0	0	70	0%
9:15 AM	to	9:30 AM	0	5	27	0	1	0	0	21	5	2	0	7	0	6	0	0	0	0	0	0	71	4%
9:30 AM	to	9:45 AM	0	0	21	0	2	0	0	30	9	3	0	13	0	3	0	0	0	0	0	0	76	7%
9:45 AM	to	10:00 AM	0	2	25	0	1	0	0	18	3	3	0	13	0	2	0	0	0	0	0	0	63	6%
10:00 AM	to	10:15 AM	0	4	23	0	1	0	0	23	4	2	0	9	0	1	0	0	0	0	1	0	65	5%
10:15 AM	to	10:30 AM	0	6	23	0	0	0	0	14	10	0	0	9	0	4	0	0	0	0	0	0	66	0%
10:30 AM	to	10:45 AM	0	7	24	0	2	0	0	18	7	3	0	11	0	3	1	0	1	0	0	0	71	8%
10:45 AM	to	11:00 AM	0	5	28	0	0	0	0	23	7	0	0	13	0	4	0	0	0	0	0	0	80	0%
11:00 AM	to	11:15 AM	0	3	26	0	2	0	0	23	8	2	0	6	0	7	0	0	0	0	0	0	73	5%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	8	26	0	0	0	0	12	7	0	0	14	0	2	1	0	0	0	0	0	69	1%
11:30 AM	to	11:45 AM	0	4	36	0	0	0	0	28	7	0	0	11	0	2	1	0	0	0	0	0	88	1%
11:45 AM	to	12:00 PM	0	2	12	0	1	0	1	27	6	1	0	12	0	1	1	0	0	0	0	0	61	5%
12:00 PM	to	12:15 PM	0	4	17	0	1	0	0	32	6	1	0	3	0	5	1	0	0	0	0	0	67	4%
12:15 PM	to	12:30 PM	0	2	28	0	1	0	0	23	6	1	0	7	1	5	1	0	0	0	0	0	72	4%
12:30 PM	to	12:45 PM	0	5	28	0	1	0	0	31	8	2	0	13	0	4	0	0	0	0	0	0	89	3%
12:45 PM	to	1:00 PM	0	5	27	0	1	0	0	19	6	1	0	14	0	2	0	0	0	0	0	0	73	3%
1:00 PM	to	1:15 PM	0	3	30	0	0	0	0	32	2	1	0	7	0	3	0	0	0	0	0	0	77	1%
1:15 PM	to	1:30 PM	0	6	31	0	1	0	0	26	1	3	0	10	0	0	0	0	0	0	0	0	74	5%
1:30 PM	to	1:45 PM	0	3	35	0	1	0	1	22	8	1	0	5	0	2	0	0	0	0	0	0	76	3%
1:45 PM	to	2:00 PM	0	5	25	0	0	0	0	28	4	3	0	14	0	3	1	0	0	0	0	0	79	5%
2:00 PM	to	2:15 PM	0	7	30	0	0	0	0	21	8	1	0	16	0	4	1	0	0	0	1	0	87	2%
2:15 PM	to	2:30 PM	0	3	32	0	0	0	0	35	14	4	0	10	0	3	0	0	0	0	0	0	97	4%
2:30 PM	to	2:45 PM	0	5	46	0	0	0	2	31	4	0	0	11	0	8	3	0	0	0	0	0	107	3%
2:45 PM	to	3:00 PM	0	13	74	0	3	0	0	34	7	1	0	16	0	6	0	0	0	0	0	0	150	3%
3:00 PM	to	3:15 PM	0	6	54	0	3	0	0	31	9	2	0	11	0	7	1	0	0	0	0	0	118	5%
3:15 PM	to	3:30 PM	0	10	43	0	2	0	0	39	11	1	0	14	0	3	1	0	1	1	0	0	122	3%
3:30 PM	to	3:45 PM	0	13	32	0	0	0	1	40	20	1	0	23	0	8	1	0	0	0	0	0	137	1%
3:45 PM	to	4:00 PM	0	16	25	0	4	0	0	35	14	1	0	15	0	9	1	0	0	0	0	0	114	5%
4:00 PM	to	4:15 PM	0	7	32	0	1	0	0	32	9	3	0	13	0	10	0	0	0	0	0	0	103	4%
4:15 PM	to	4:30 PM	0	14	41	0	1	0	0	29	9	2	0	11	0	4	1	0	0	0	0	0	108	4%
4:30 PM	to	4:45 PM	0	9	37	0	1	0	0	33	7	0	0	18	0	5	1	0	0	0	0	0	109	2%
4:45 PM	to	5:00 PM	0	9	42	0	0	0	0	43	9	3	0	14	0	8	1	0	0	0	0	0	125	3%
5:00 PM	to	5:15 PM	0	18	41	0	2	0	1	44	20	2	0	7	0	4	1	0	0	0	0	0	135	4%
5:15 PM	to	5:30 PM	0	9	33	0	1	0	0	39	5	0	0	17	0	5	1	0	0	0	0	0	108	2%
5:30 PM	to	5:45 PM	0	11	32	0	2	0	0	35	15	1	0	11	0	12	0	0	0	0	0	0	116	3%
5:45 PM	to	6:00 PM	0	6	23	0	0	0	0	31	14	1	0	12	0	1	0	0	0	0	0	0	87	1%
6:00 PM	to	6:15 PM	0	10	24	0	0	0	0	32	6	1	0	9	0	8	1	0	0	0	0	0	89	2%
6:15 PM	to	6:30 PM	0	8	31	0	0	0	0	35	13	0	0	12	0	4	1	0	0	0	0	0	103	1%
6:30 PM	to	6:45 PM	0	3	21	0	2	0	0	27	6	0	0	7	0	8	0	0	0	0	0	0	72	3%
6:45 PM	to	7:00 PM	0	6	20	0	0	0	0	18	4	2	0	8	0	4	0	0	0	0	0	0	60	3%
7:00 PM	to	7:15 PM	0	5	25	0	0	0	0	18	9	0	0	10	0	4	0	0	0	0	0	0	71	0%
7:15 PM	to	7:30 PM	0	7	17	0	0	0	0	14	9	0	0	11	0	3	0	0	0	0	0	0	61	0%
7:30 PM	to	7:45 PM	0	6	19	0	0	0	0	13	10	0	0	6	0	4	0	0	0	0	0	0	58	0%
7:45 PM	to	8:00 PM	0	6	21	0	0	0	0	19	8	0	0	6	0	3	0	0	0	0	0	0	63	0%
8:00 PM	to	8:15 PM	0	7	16	0	0	0	0	12	8	0	0	3	0	2	0	0	0	0	0	0	48	0%
8:15 PM	to	8:30 PM	0	8	17	0	0	0	1	14	8	0	0	10	0	3	0	0	0	0	0	0	61	0%
8:30 PM	to	8:45 PM	0	7	14	0	0	0	0	16	3	0	0	7	0	0	0	0	0	0	0	0	47	0%
8:45 PM	to	9:00 PM	0	10	17	0	0	0	1	6	6	0	0	7	0	5	0	0	0	0	0	0	52	0%
9:00 PM	to	9:15 PM	0	2	8	0	0	0	0	4	5	0	0	6	0	4	0	0	0	0	0	0	29	0%
9:15 PM	to	9:30 PM	0	2	11	0	0	0	0	6	4	0	0	5	0	1	0	0	0	0	0	0	29	0%
9:30 PM	to	9:45 PM	0	2	10	0	0	0	0	10	3	0	0	1	0	1	0	0	0	0	0	0	27	0%
9:45 PM	to	10:00 PM	0	3	10	0	0	0	0	1	3	0	0	3	0	0	0	0	0	0	0	0	20	0%
10:00 PM	to	10:15 PM	0	2	2	0	0	0	0	4	3	0	0	2	0	4	0	0	0	0	0	0	17	0%
10:15 PM	to	10:30 PM	0	1	6	0	0	0	0	3	4	0	0	3	0	3	0	0	0	0	0	0	20	0%
10:30 PM	to	10:45 PM	0	2	5	0	0	0	0	4	5	0	0	2	0	1	0	0	0	0	0	0	19	0%
10:45 PM	to	11:00 PM	0	2	1	0	0	0	0	8	1	0	0	5	0	3	0	0	0	0	0	0	20	0%
11:00 PM	to	11:15 PM	0	1	1	0	0	0	0	5	2	0	0	4	0	0	0	0	0	0	0	0	13	0%
11:15 PM	to	11:30 PM	0	2	3	0	0	0	0	2	3	0	0	2	0	0	1	0	0	0	0	0	12	8%
11:30 PM	to	11:45 PM	0	0	5	0	0	0	0	2	2	0	0	2	0	0	1	0	0	0	0	0	11	9%
11:45 PM	to	12:00 AM	0	0	2	0	1	0	0	2	2	0	0	2	0	1	0	0	0	0	0	0	9	11%
DAILY TOTALS			0	387	1955	0	58	0	9	1834	538	88	1	783	1	307	33	0	2	1	4	0	5822	3%

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:15 AM	to	8:15 AM	0	20	192	0	10	0	1	159	34	13	0	83	0	29	5	0	0	0	2	0	520	5%	0.90
4:45 PM	to	5:45 PM	0	47	148	0	5	0	1	161	49	6	0	49	0	29	3	0	0	0	0	0	484	3%	0.90

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ South Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6200056

LONGITUDE -119.6823159

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	2
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	1	0	0	0	0	0	0	0	0	2	1	0	8	1	0	4	9

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:15 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ Sumner Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6271983

LONGITUDE -119.6911674

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	4	0	2	0	10	0%
12:15 AM	to	12:30 AM	0	1	1	0	1	0	0	0	0	0	0	1	0	1	0	0	4	0	1	1	9	22%
12:30 AM	to	12:45 AM	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	1	1	0	0	7	0%
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0%
1:00 AM	to	1:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0%
1:15 AM	to	1:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0%
1:30 AM	to	1:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	2	0	6	17%
1:45 AM	to	2:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0%
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0%
2:15 AM	to	2:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	1	1	4	50%
2:30 AM	to	2:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	3	0%
2:45 AM	to	3:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	4	0	0	0	0	0	0	0	5	20%
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0%
3:15 AM	to	3:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0%
3:30 AM	to	3:45 AM	0	0	0	1	0	0	2	0	1	0	0	0	0	0	0	0	2	0	0	0	6	0%
3:45 AM	to	4:00 AM	0	0	0	2	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0%
4:00 AM	to	4:15 AM	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0%
4:15 AM	to	4:30 AM	0	0	0	2	0	0	2	0	1	0	0	0	1	0	0	0	0	0	1	0	7	0%
4:30 AM	to	4:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	2	1	0	6	0%
4:45 AM	to	5:00 AM	0	0	1	4	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	11	0%
5:00 AM	to	5:15 AM	0	0	0	5	0	0	6	3	1	0	0	0	5	3	0	0	1	4	1	0	29	0%
5:15 AM	to	5:30 AM	0	0	1	2	0	0	6	0	0	0	0	0	3	1	0	0	3	3	0	0	19	0%
5:30 AM	to	5:45 AM	0	0	0	6	0	0	8	1	1	0	0	1	3	1	0	0	5	3	0	0	29	0%
5:45 AM	to	6:00 AM	0	0	0	4	0	0	4	1	3	0	0	0	3	2	0	0	2	1	0	1	20	5%
6:00 AM	to	6:15 AM	0	0	0	4	0	0	5	0	1	0	0	0	3	0	0	0	5	0	2	0	20	0%
6:15 AM	to	6:30 AM	0	1	0	6	0	0	4	1	1	0	0	0	4	0	0	0	2	2	0	0	21	0%
6:30 AM	to	6:45 AM	1	1	3	9	0	0	14	2	4	0	0	0	5	2	0	1	11	5	1	0	59	0%
6:45 AM	to	7:00 AM	0	0	1	7	0	0	8	3	6	0	0	0	8	3	0	0	5	3	5	0	49	0%
7:00 AM	to	7:15 AM	0	0	4	7	0	0	20	3	2	0	0	0	3	3	0	0	2	3	3	0	50	0%
7:15 AM	to	7:30 AM	0	0	3	22	0	0	22	3	4	0	0	0	4	0	0	0	9	6	3	1	76	1%
7:30 AM	to	7:45 AM	1	1	1	19	1	0	25	5	4	0	0	0	7	2	0	0	7	4	6	1	82	2%
7:45 AM	to	8:00 AM	1	1	3	23	1	0	32	2	5	0	0	0	7	1	0	0	7	4	6	1	92	2%
8:00 AM	to	8:15 AM	0	2	6	25	1	0	27	3	5	0	0	0	4	0	0	0	11	0	9	0	92	1%
8:15 AM	to	8:30 AM	0	2	7	26	0	0	20	1	1	0	0	0	4	0	0	0	17	2	12	1	92	1%
8:30 AM	to	8:45 AM	0	1	3	10	0	0	14	0	3	1	0	0	4	5	0	0	15	5	13	1	73	3%
8:45 AM	to	9:00 AM	0	2	0	15	0	0	8	0	1	0	0	0	3	0	0	1	6	3	9	1	48	2%
9:00 AM	to	9:15 AM	1	0	2	12	0	0	9	0	1	1	0	0	1	0	0	0	13	1	3	1	43	5%
9:15 AM	to	9:30 AM	0	0	1	11	0	0	13	2	1	0	0	0	1	1	0	0	4	2	9	0	45	0%
9:30 AM	to	9:45 AM	0	0	1	8	0	0	15	2	1	0	0	0	1	2	0	0	8	6	6	0	50	0%
9:45 AM	to	10:00 AM	0	0	0	8	0	0	5	0	2	0	0	0	2	0	0	1	7	1	3	1	29	3%
10:00 AM	to	10:15 AM	0	0	0	6	0	0	9	0	1	0	0	0	4	1	0	0	9	3	1	0	34	0%
10:15 AM	to	10:30 AM	0	1	2	11	0	0	7	1	0	0	0	0	0	1	0	1	9	1	7	0	41	0%
10:30 AM	to	10:45 AM	0	0	0	10	0	0	10	3	2	0	0	0	2	0	0	1	11	2	8	0	49	0%
10:45 AM	to	11:00 AM	0	0	2	2	0	0	10	4	2	1	0	0	2	0	0	0	10	1	10	2	43	7%
11:00 AM	to	11:15 AM	0	0	2	10	2	0	8	2	1	0	0	0	3	0	0	0	4	5	8	0	43	5%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	0	1	1	0	0	8	3	0	1	0	0	1	0	0	0	6	1	1	0	22	5%
11:30 AM	to	11:45 AM	0	0	3	7	1	0	7	2	0	1	0	0	1	0	0	0	8	1	9	0	38	5%
11:45 AM	to	12:00 PM	0	0	4	6	0	0	9	4	3	1	0	0	5	2	0	0	10	5	6	0	54	2%
12:00 PM	to	12:15 PM	0	3	1	9	0	0	7	2	1	0	0	0	1	1	0	2	6	4	7	0	44	0%
12:15 PM	to	12:30 PM	0	2	5	6	0	0	10	2	0	0	0	0	0	1	0	0	11	1	6	0	44	0%
12:30 PM	to	12:45 PM	0	0	6	9	1	1	11	0	0	1	0	0	2	0	0	0	10	2	5	1	46	7%
12:45 PM	to	1:00 PM	0	0	2	13	1	0	10	1	0	0	0	0	0	1	0	0	9	2	10	0	48	2%
1:00 PM	to	1:15 PM	0	0	3	9	0	0	12	0	0	1	0	0	1	0	0	0	6	1	3	0	35	3%
1:15 PM	to	1:30 PM	0	0	4	7	0	0	13	2	0	1	0	0	1	0	0	1	5	2	8	1	43	5%
1:30 PM	to	1:45 PM	0	1	1	9	0	0	6	2	3	0	0	4	7	2	2	0	6	5	9	1	55	5%
1:45 PM	to	2:00 PM	0	1	1	10	1	0	9	0	3	0	0	3	6	4	1	0	5	3	5	0	50	4%
2:00 PM	to	2:15 PM	0	2	0	6	0	0	4	1	1	0	0	4	4	1	0	0	5	12	9	1	49	2%
2:15 PM	to	2:30 PM	0	2	1	6	0	0	7	0	1	0	0	4	0	3	0	0	11	6	10	0	51	0%
2:30 PM	to	2:45 PM	0	1	1	6	1	0	7	1	1	1	0	3	11	0	1	0	9	13	2	3	55	11%
2:45 PM	to	3:00 PM	0	0	2	10	0	0	4	1	2	0	0	2	8	6	0	0	10	7	14	0	66	0%
3:00 PM	to	3:15 PM	0	0	1	14	0	0	7	1	2	0	0	5	10	3	0	0	5	11	9	0	68	0%
3:15 PM	to	3:30 PM	0	0	3	18	0	0	16	1	2	1	0	6	16	4	0	0	9	6	7	1	88	2%
3:30 PM	to	3:45 PM	0	1	3	10	1	0	11	3	1	1	0	5	13	2	1	0	27	17	24	2	117	4%
3:45 PM	to	4:00 PM	0	1	1	14	1	0	11	2	4	3	0	3	9	2	0	0	22	14	17	2	100	6%
4:00 PM	to	4:15 PM	0	2	3	5	0	0	7	1	4	0	0	3	11	4	2	0	17	10	14	0	81	2%
4:15 PM	to	4:30 PM	0	3	3	6	0	0	10	1	3	0	0	7	6	1	1	0	11	7	14	1	72	3%
4:30 PM	to	4:45 PM	0	1	1	7	0	0	12	2	5	0	0	7	8	2	0	0	18	8	15	1	86	1%
4:45 PM	to	5:00 PM	0	3	0	13	1	0	5	1	1	0	0	7	10	9	0	0	10	16	9	0	84	1%
5:00 PM	to	5:15 PM	0	2	2	9	0	0	15	1	1	0	0	8	10	9	2	0	12	7	15	0	91	2%
5:15 PM	to	5:30 PM	0	1	4	19	1	0	12	3	4	0	0	9	3	6	0	0	10	8	17	0	96	1%
5:30 PM	to	5:45 PM	0	2	1	12	0	0	8	2	3	0	0	7	8	3	0	0	10	7	16	4	79	5%
5:45 PM	to	6:00 PM	0	1	4	10	0	0	13	0	3	0	0	3	7	4	0	0	14	9	12	0	80	0%
6:00 PM	to	6:15 PM	0	1	1	11	1	0	9	0	2	0	0	8	4	1	0	0	6	8	9	0	60	2%
6:15 PM	to	6:30 PM	0	2	1	9	0	0	11	2	0	0	0	2	5	1	0	0	11	7	8	0	59	0%
6:30 PM	to	6:45 PM	0	3	2	8	0	0	10	2	2	0	0	3	7	3	0	0	14	12	5	0	71	0%
6:45 PM	to	7:00 PM	0	0	0	3	0	0	5	0	2	0	0	4	11	2	1	0	6	7	8	0	48	2%
7:00 PM	to	7:15 PM	0	0	1	2	0	0	5	2	2	0	0	2	5	4	0	0	3	10	11	2	47	4%
7:15 PM	to	7:30 PM	0	0	1	7	0	0	6	0	2	0	0	1	5	0	0	0	8	7	6	0	43	0%
7:30 PM	to	7:45 PM	0	2	1	6	0	0	2	2	0	0	0	3	1	3	0	0	11	3	10	0	44	0%
7:45 PM	to	8:00 PM	0	2	0	8	0	0	3	2	2	0	0	2	3	0	0	0	7	7	10	0	46	0%
8:00 PM	to	8:15 PM	0	1	0	6	0	0	9	2	3	0	0	7	4	4	0	0	13	5	12	0	66	0%
8:15 PM	to	8:30 PM	0	0	1	5	0	0	4	0	2	0	0	4	2	1	0	0	5	12	8	0	44	0%
8:30 PM	to	8:45 PM	0	0	2	6	0	0	9	0	0	0	0	1	3	2	0	0	9	5	5	0	42	0%
8:45 PM	to	9:00 PM	0	1	3	5	0	0	3	0	2	0	0	4	1	4	0	0	9	4	6	0	42	0%
9:00 PM	to	9:15 PM	0	0	1	4	0	0	4	3	1	0	0	3	4	1	0	0	11	3	13	0	48	0%
9:15 PM	to	9:30 PM	0	0	1	4	0	0	5	0	2	0	0	1	8	2	0	0	5	6	6	0	40	0%
9:30 PM	to	9:45 PM	0	0	1	2	0	0	6	0	0	0	0	2	7	0	0	0	4	5	7	0	34	0%
9:45 PM	to	10:00 PM	0	0	1	2	0	0	2	0	0	0	0	1	10	0	0	0	7	2	3	0	28	0%
10:00 PM	to	10:15 PM	0	2	0	1	0	0	2	0	2	0	0	1	13	0	0	0	3	2	5	0	31	0%
10:15 PM	to	10:30 PM	0	0	0	1	0	0	3	0	0	0	0	3	11	0	0	0	2	2	4	0	26	0%
10:30 PM	to	10:45 PM	0	1	0	3	0	0	3	0	0	0	0	2	13	2	0	0	5	1	4	0	34	0%
10:45 PM	to	11:00 PM	0	1	0	2	0	0	1	0	0	0	0	1	6	0	0	0	5	1	0	0	17	0%
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	1	0	0	0	2	2	0	0	0	4	2	2	0	13	0%
11:15 PM	to	11:30 PM	0	0	0	0	0	0	4	0	0	0	0	1	2	1	0	0	0	1	4	0	13	0%
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	0	2	1	3	0	11	9%
11:45 PM	to	12:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	3	2	0	0	0	1	1	0	9	0%
DAILY TOTALS			4	58	125	628	16	1	687	97	127	16	0	152	394	137	14	8	630	376	558	33	3982	2%

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:30 AM	to	8:30 AM	2	6	17	93	3	0	104	11	15	0	0	0	22	3	0	0	42	10	33	3	358	2%	0.97
4:30 PM	to	5:30 PM	0	7	7	48	2	0	44	7	11	0	0	31	31	26	2	0	50	39	56	1	357	1%	0.93

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sunnyside Ave @ Sumner Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6271983

LONGITUDE -119.6911674

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4
9:15 AM	to	9:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	2	2	3
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
1:45 PM	to	2:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4
7:30 PM	to	7:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4
8:15 PM	to	8:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	1	4	2	7
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	4	0	7
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	4	4	0	0	0	0	0	0	0	0	0	2	17	1	48	8	68

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
4:30 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sumner Ave / Merced St @ SR99 SB Offramp / Fowler Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6262966

LONGITUDE -119.684794

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	0	0	3	0	0	4	2	7	0	0	0	2	1	0	0	1	1	0	0	21	0%
12:15 AM	to	12:30 AM	0	0	0	2	0	0	0	1	5	1	0	0	2	1	0	0	7	3	0	0	21	5%
12:30 AM	to	12:45 AM	0	0	0	3	0	0	2	2	1	0	0	0	3	0	0	0	4	1	0	0	16	0%
12:45 AM	to	1:00 AM	0	0	0	2	0	0	6	1	0	0	0	0	0	2	0	0	1	0	0	0	12	0%
1:00 AM	to	1:15 AM	0	0	0	1	0	0	2	2	1	1	0	0	2	2	0	0	5	2	0	1	17	12%
1:15 AM	to	1:30 AM	0	0	0	2	0	0	3	1	0	2	0	0	4	0	0	0	5	1	0	0	16	13%
1:30 AM	to	1:45 AM	0	0	0	0	0	0	1	6	1	0	0	0	1	1	1	0	1	3	0	0	14	7%
1:45 AM	to	2:00 AM	0	0	0	2	0	0	2	2	1	0	0	0	2	2	0	0	1	0	0	0	12	0%
2:00 AM	to	2:15 AM	0	0	0	3	0	0	3	4	0	0	0	0	1	0	0	0	1	2	0	0	14	0%
2:15 AM	to	2:30 AM	0	0	0	3	1	0	2	2	0	0	0	0	1	1	1	0	2	3	0	1	14	21%
2:30 AM	to	2:45 AM	0	1	0	0	0	0	1	2	1	0	0	0	1	0	0	0	5	1	0	0	12	0%
2:45 AM	to	3:00 AM	0	0	0	4	1	0	3	0	0	1	0	0	4	1	0	0	5	0	0	2	17	24%
3:00 AM	to	3:15 AM	0	0	0	1	0	0	3	3	1	1	0	0	0	0	0	0	2	1	0	0	11	9%
3:15 AM	to	3:30 AM	0	0	0	5	0	0	2	1	1	0	0	0	2	0	0	0	2	0	0	1	13	8%
3:30 AM	to	3:45 AM	0	1	0	5	0	0	3	2	0	0	0	0	4	1	0	0	1	2	0	0	19	0%
3:45 AM	to	4:00 AM	0	0	0	5	1	0	3	3	0	0	0	0	3	1	0	0	6	1	0	0	22	5%
4:00 AM	to	4:15 AM	0	0	0	4	0	0	4	1	1	0	0	0	0	3	0	0	2	0	0	0	15	0%
4:15 AM	to	4:30 AM	0	0	0	3	0	0	11	1	1	1	0	0	6	1	0	0	3	2	0	1	28	7%
4:30 AM	to	4:45 AM	0	0	0	7	0	0	18	5	5	0	0	0	5	4	0	0	9	2	0	0	55	0%
4:45 AM	to	5:00 AM	0	0	0	12	0	0	31	6	2	1	0	0	7	6	0	0	14	1	0	0	79	1%
5:00 AM	to	5:15 AM	0	2	0	17	0	0	40	24	3	1	0	0	12	4	0	0	14	3	0	1	119	2%
5:15 AM	to	5:30 AM	0	2	0	21	0	0	57	38	5	2	0	0	12	9	0	0	28	6	0	0	178	1%
5:30 AM	to	5:45 AM	0	0	0	27	1	0	68	23	3	2	0	0	15	8	0	0	12	8	0	0	164	2%
5:45 AM	to	6:00 AM	0	0	0	27	0	0	59	19	4	4	0	0	13	7	0	0	13	7	0	0	149	3%
6:00 AM	to	6:15 AM	0	2	0	30	0	0	36	6	3	1	0	0	10	6	0	0	20	4	0	0	117	1%
6:15 AM	to	6:30 AM	0	1	0	32	1	0	38	27	5	3	0	0	17	3	0	0	19	5	0	2	147	4%
6:30 AM	to	6:45 AM	1	4	0	43	0	0	29	21	6	2	0	0	27	11	0	0	34	14	0	3	190	3%
6:45 AM	to	7:00 AM	0	0	0	38	2	0	49	21	3	3	0	0	25	4	0	0	31	11	0	3	182	4%
7:00 AM	to	7:15 AM	0	2	0	37	1	0	22	30	7	6	0	0	34	8	0	0	29	12	0	1	181	4%
7:15 AM	to	7:30 AM	0	3	0	66	4	0	38	32	7	0	0	0	42	11	0	0	37	17	0	4	253	3%
7:30 AM	to	7:45 AM	0	2	0	92	1	0	40	31	4	7	0	0	61	11	2	0	37	20	0	3	298	4%
7:45 AM	to	8:00 AM	0	0	0	90	3	0	64	34	4	3	0	0	65	11	2	0	52	17	0	3	337	3%
8:00 AM	to	8:15 AM	0	2	0	99	0	0	44	11	3	5	0	0	74	6	2	0	61	22	0	1	322	2%
8:15 AM	to	8:30 AM	0	0	0	83	1	0	41	19	4	4	0	0	55	7	0	0	63	33	0	2	305	2%
8:30 AM	to	8:45 AM	0	2	0	50	2	0	31	25	5	9	0	0	23	11	0	0	50	38	0	3	235	6%
8:45 AM	to	9:00 AM	0	1	0	49	2	0	34	14	6	7	0	0	31	1	3	0	33	13	0	3	182	8%
9:00 AM	to	9:15 AM	0	1	0	39	1	0	37	22	3	4	0	0	20	8	2	0	28	19	0	5	177	7%
9:15 AM	to	9:30 AM	0	0	0	44	1	0	36	16	4	7	0	0	25	5	0	0	32	11	0	2	173	6%
9:30 AM	to	9:45 AM	0	3	0	31	1	0	36	21	3	4	0	0	22	7	1	0	43	23	0	3	189	5%
9:45 AM	to	10:00 AM	0	0	0	49	0	0	23	16	6	3	0	0	24	8	1	0	25	17	0	2	168	4%
10:00 AM	to	10:15 AM	0	1	0	39	1	0	22	16	10	3	0	0	21	6	1	0	26	16	0	1	157	4%
10:15 AM	to	10:30 AM	0	1	0	35	0	0	34	10	4	2	0	0	27	1	1	0	31	24	0	2	167	3%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
10:30 AM	to	10:45 AM	0	1	0	29	2	0	33	19	8	5	0	0	30	9	0	0	36	20	0	2	185	5%
10:45 AM	to	11:00 AM	0	3	0	41	0	0	30	13	7	2	0	0	18	5	0	0	41	18	0	3	176	3%
11:00 AM	to	11:15 AM	0	1	0	41	1	0	30	11	4	2	0	0	19	10	0	0	36	16	0	1	168	2%
11:15 AM	to	11:30 AM	0	1	0	30	0	0	26	9	4	2	0	0	16	4	0	0	44	8	0	0	142	1%
11:30 AM	to	11:45 AM	0	1	0	51	1	0	27	16	6	3	0	0	15	3	0	0	38	18	0	0	175	2%
11:45 AM	to	12:00 PM	0	3	0	28	1	0	27	20	3	4	0	0	22	8	2	0	34	22	0	0	167	4%
12:00 PM	to	12:15 PM	0	1	0	30	0	0	28	24	8	3	0	0	25	5	0	0	40	22	0	2	183	3%
12:15 PM	to	12:30 PM	0	1	0	39	0	0	40	14	10	3	0	0	18	9	0	0	49	20	0	3	200	3%
12:30 PM	to	12:45 PM	0	2	0	44	2	0	37	17	7	2	0	0	21	5	2	0	40	17	0	1	190	4%
12:45 PM	to	1:00 PM	0	3	0	42	2	0	38	16	5	2	0	0	25	7	0	0	46	22	0	1	204	2%
1:00 PM	to	1:15 PM	0	0	0	45	0	0	33	19	10	1	0	0	23	6	0	0	37	19	0	4	192	3%
1:15 PM	to	1:30 PM	0	1	0	42	2	0	43	22	8	8	0	0	16	11	2	0	39	19	0	3	201	7%
1:30 PM	to	1:45 PM	0	5	0	38	0	0	35	11	4	3	0	0	24	14	1	0	30	17	0	0	178	2%
1:45 PM	to	2:00 PM	0	1	0	60	1	0	41	22	4	6	0	0	31	3	1	0	49	17	0	1	228	4%
2:00 PM	to	2:15 PM	0	4	0	54	0	0	34	19	3	5	0	0	21	1	0	0	43	22	0	3	201	4%
2:15 PM	to	2:30 PM	0	3	0	41	1	0	41	24	6	2	0	0	14	4	0	0	57	30	0	4	220	3%
2:30 PM	to	2:45 PM	0	0	0	51	2	0	32	20	4	3	0	0	27	6	2	0	42	24	0	4	206	5%
2:45 PM	to	3:00 PM	0	2	0	87	3	0	36	28	9	2	0	0	24	8	1	0	45	32	0	2	271	3%
3:00 PM	to	3:15 PM	0	3	0	81	4	0	38	31	15	4	0	0	30	18	0	0	50	28	0	0	294	3%
3:15 PM	to	3:30 PM	0	3	0	69	2	0	42	32	7	1	0	0	52	8	0	0	44	24	0	2	281	2%
3:30 PM	to	3:45 PM	0	3	0	52	1	0	32	26	7	4	0	0	37	13	3	0	82	77	0	4	329	4%
3:45 PM	to	4:00 PM	0	2	0	52	4	0	19	26	7	2	0	0	39	6	1	0	72	58	0	2	281	3%
4:00 PM	to	4:15 PM	0	4	0	47	2	0	37	20	9	2	0	0	19	8	2	0	70	42	0	1	256	3%
4:15 PM	to	4:30 PM	0	4	0	62	3	0	27	20	7	3	0	0	20	7	0	0	81	35	0	2	263	3%
4:30 PM	to	4:45 PM	0	4	0	47	1	0	33	23	7	3	0	0	25	10	1	0	53	39	0	1	241	2%
4:45 PM	to	5:00 PM	0	4	0	60	1	0	38	33	6	4	0	0	18	17	1	0	46	35	0	0	257	2%
5:00 PM	to	5:15 PM	0	0	0	51	1	0	34	36	11	3	0	0	28	11	1	0	71	35	0	0	277	2%
5:15 PM	to	5:30 PM	0	0	0	66	1	0	44	34	13	2	0	0	32	12	1	0	53	39	0	0	293	1%
5:30 PM	to	5:45 PM	0	0	0	54	2	0	28	25	5	3	0	0	27	8	0	0	45	35	0	5	227	4%
5:45 PM	to	6:00 PM	0	2	0	45	0	0	39	29	11	2	0	0	28	9	0	0	48	33	0	1	244	1%
6:00 PM	to	6:15 PM	0	5	0	26	1	0	38	28	7	3	0	0	21	10	0	0	49	21	0	2	205	3%
6:15 PM	to	6:30 PM	0	7	0	38	0	0	22	27	5	0	0	0	35	10	0	0	57	27	0	1	228	0%
6:30 PM	to	6:45 PM	0	3	0	29	1	0	33	19	3	2	0	0	27	9	0	0	43	35	0	1	201	2%
6:45 PM	to	7:00 PM	0	0	0	32	0	0	27	23	4	2	0	0	22	4	0	0	34	22	0	1	168	2%
7:00 PM	to	7:15 PM	0	3	0	41	0	0	21	17	6	0	0	0	15	2	1	0	44	23	0	2	172	2%
7:15 PM	to	7:30 PM	0	2	0	28	0	0	25	8	7	2	0	0	18	4	0	0	34	20	0	1	146	2%
7:30 PM	to	7:45 PM	0	4	0	28	0	0	20	11	8	0	0	0	13	5	0	0	41	24	0	0	154	0%
7:45 PM	to	8:00 PM	0	7	0	24	0	0	23	14	2	4	0	0	13	10	0	0	38	33	0	3	164	4%
8:00 PM	to	8:15 PM	0	2	0	27	0	0	17	10	1	0	0	0	14	4	0	0	38	22	0	0	135	0%
8:15 PM	to	8:30 PM	0	2	0	30	0	0	14	10	8	0	0	0	17	5	0	0	34	26	0	1	146	1%
8:30 PM	to	8:45 PM	0	4	0	23	0	0	15	10	2	1	0	0	17	6	1	0	21	20	0	0	118	2%
8:45 PM	to	9:00 PM	0	2	0	23	0	0	20	8	3	1	0	0	7	6	0	0	20	19	0	0	108	1%
9:00 PM	to	9:15 PM	0	2	0	11	0	0	5	10	5	0	0	0	14	4	0	0	20	21	0	0	92	0%
9:15 PM	to	9:30 PM	0	0	0	15	0	0	3	1	4	0	0	0	12	7	0	0	24	22	0	1	88	1%
9:30 PM	to	9:45 PM	0	0	0	19	0	0	4	6	0	0	0	0	14	5	0	0	21	14	0	0	83	0%
9:45 PM	to	10:00 PM	0	2	0	13	0	0	6	4	1	0	0	0	10	8	0	0	17	19	0	2	80	3%
10:00 PM	to	10:15 PM	0	3	0	5	0	0	2	4	0	2	0	0	10	5	0	0	39	12	0	4	80	8%
10:15 PM	to	10:30 PM	0	1	0	9	0	0	2	3	1	0	0	1	11	8	0	0	26	13	0	1	75	1%
10:30 PM	to	10:45 PM	0	0	0	7	0	0	5	1	1	1	0	0	14	7	0	0	18	7	0	1	60	3%
10:45 PM	to	11:00 PM	0	1	0	5	0	0	4	6	0	0	0	0	4	4	0	0	17	6	0	0	47	0%
11:00 PM	to	11:15 PM	0	1	0	3	0	0	6	1	1	1	0	0	5	0	0	0	15	9	0	2	41	7%
11:15 PM	to	11:30 PM	0	1	0	3	0	0	2	5	2	1	0	0	4	1	0	0	11	4	0	0	33	3%
11:30 PM	to	11:45 PM	0	0	0	10	0	0	0	3	0	0	0	0	4	2	1	0	22	5	0	1	46	4%
11:45 PM	to	12:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	2	3	0	0	56	3	0	1	66	2%
DAILY TOTALS			1	145	0	3035	67	0	2318	1411	416	201	0	1	1772	554	41	0	2995	1636	0	127	14284	3%

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:30 AM	to	8:30 AM	0	4	0	364	5	0	189	95	15	19	0	0	255	35	6	0	213	92	0	9	1262	3%	0.94
4:30 PM	to	5:30 PM	0	8	0	224	4	0	149	126	37	12	0	0	103	50	4	0	223	148	0	1	1068	2%	0.91

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Sumner Ave / Merced St @ SR99 SB Offramp / Fowler Ave

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6262966

LONGITUDE -119.684794

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	2	1
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	0	3	0	0	1	0	26	0	10	0	4	36

			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
PEAK HOUR			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
4:30 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2

Metro Traffic Data Inc.

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Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION SR 99 NB Ramps @ Merced St

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6268988

LONGITUDE -119.6839873

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	1	0	1	1	0	0	0	0	0	0	1	8	0	0	0	0	1	6	0	18	6%
12:15 AM	to	12:30 AM	0	1	0	3	0	0	0	0	0	0	0	1	3	0	0	0	0	9	3	0	20	0%
12:30 AM	to	12:45 AM	0	0	0	1	0	0	0	0	0	0	0	3	5	0	0	0	0	5	5	0	19	0%
12:45 AM	to	1:00 AM	0	1	0	1	0	0	0	0	0	0	0	1	7	0	0	0	0	0	6	1	16	6%
1:00 AM	to	1:15 AM	0	1	0	2	0	0	0	0	0	0	0	1	3	0	0	0	0	8	1	1	16	6%
1:15 AM	to	1:30 AM	0	0	1	0	1	0	0	0	0	0	0	3	7	0	5	0	0	4	2	2	17	47%
1:30 AM	to	1:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	0	7	0%
1:45 AM	to	2:00 AM	0	0	0	2	0	0	0	0	0	0	0	4	3	0	1	0	0	1	1	0	11	9%
2:00 AM	to	2:15 AM	0	0	0	2	0	0	0	0	0	0	0	2	5	0	0	0	0	3	3	0	15	0%
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	3	0	2	0	0	5	4	0	15	13%
2:30 AM	to	2:45 AM	0	2	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	4	6	1	15	7%
2:45 AM	to	3:00 AM	0	5	0	3	5	0	0	0	0	0	0	6	6	0	3	0	0	0	2	1	22	41%
3:00 AM	to	3:15 AM	0	2	1	2	0	0	0	0	0	0	0	1	3	0	1	0	0	1	4	0	14	7%
3:15 AM	to	3:30 AM	0	1	0	1	2	0	0	0	0	0	0	6	4	0	0	0	0	0	2	0	14	14%
3:30 AM	to	3:45 AM	0	1	0	1	0	0	0	0	0	0	0	7	5	0	0	0	0	2	5	0	21	0%
3:45 AM	to	4:00 AM	0	3	0	3	2	0	0	0	0	0	0	4	6	0	0	0	1	4	6	2	27	15%
4:00 AM	to	4:15 AM	0	0	0	1	0	0	0	0	0	0	0	2	6	0	0	0	0	2	3	0	14	0%
4:15 AM	to	4:30 AM	0	0	0	2	0	0	0	0	0	0	0	6	15	0	1	0	0	5	6	1	34	6%
4:30 AM	to	4:45 AM	0	2	0	4	1	0	0	0	0	0	0	10	19	0	0	0	0	10	9	0	54	2%
4:45 AM	to	5:00 AM	0	2	0	10	1	0	0	0	0	0	0	12	38	0	1	0	0	12	11	0	85	2%
5:00 AM	to	5:15 AM	0	4	0	14	1	0	0	0	0	0	0	19	49	0	2	0	0	13	24	4	123	6%
5:15 AM	to	5:30 AM	0	5	1	11	1	0	0	0	0	0	0	18	72	0	1	0	1	32	21	0	161	1%
5:30 AM	to	5:45 AM	0	1	0	16	1	0	0	0	0	0	0	28	76	0	3	0	0	18	17	3	156	4%
5:45 AM	to	6:00 AM	0	1	0	14	0	0	0	0	0	0	0	24	75	0	1	0	0	18	31	1	163	1%
6:00 AM	to	6:15 AM	0	4	0	17	0	0	0	0	0	0	0	24	52	0	0	0	0	21	22	0	140	0%
6:15 AM	to	6:30 AM	0	1	0	29	0	0	0	0	0	0	0	38	53	0	3	0	0	23	38	6	182	5%
6:30 AM	to	6:45 AM	0	8	1	23	1	0	0	0	0	0	0	54	45	0	1	0	0	39	31	3	201	2%
6:45 AM	to	7:00 AM	0	4	0	28	0	0	0	0	0	0	0	39	76	0	3	0	0	37	36	5	220	4%
7:00 AM	to	7:15 AM	0	7	0	23	1	0	0	0	0	0	0	40	53	0	6	0	0	36	39	5	198	6%
7:15 AM	to	7:30 AM	0	5	0	30	0	0	0	0	0	0	0	63	75	0	3	0	0	49	39	7	261	4%
7:30 AM	to	7:45 AM	0	7	0	34	3	0	0	0	0	0	0	90	109	0	6	0	0	46	59	4	345	4%
7:45 AM	to	8:00 AM	0	6	0	43	1	0	0	0	0	0	0	63	153	0	5	0	0	60	49	5	374	3%
8:00 AM	to	8:15 AM	0	5	0	38	0	0	0	0	0	0	0	54	160	0	4	0	0	82	58	1	397	1%
8:15 AM	to	8:30 AM	0	2	1	35	0	0	0	0	0	0	0	35	141	0	1	0	0	92	61	2	367	1%
8:30 AM	to	8:45 AM	0	4	0	33	2	0	0	0	0	0	0	34	66	0	5	0	0	83	34	3	254	4%
8:45 AM	to	9:00 AM	0	4	0	19	0	0	0	0	0	0	0	30	80	0	10	0	0	40	32	5	205	7%
9:00 AM	to	9:15 AM	0	4	0	24	1	0	0	0	0	0	0	26	70	0	6	0	0	43	41	7	208	7%
9:15 AM	to	9:30 AM	0	3	0	20	0	0	0	0	0	0	0	40	64	0	5	0	0	42	34	4	203	4%
9:30 AM	to	9:45 AM	0	7	0	23	5	0	0	0	0	0	0	24	64	0	5	0	0	56	34	7	208	8%
9:45 AM	to	10:00 AM	0	5	2	30	2	0	0	0	0	0	0	36	61	0	2	0	0	37	20	4	191	4%
10:00 AM	to	10:15 AM	0	3	1	22	3	0	0	0	0	0	0	23	58	0	1	0	0	39	43	6	189	5%
10:15 AM	to	10:30 AM	0	6	1	26	1	0	0	0	0	0	0	35	60	0	3	0	0	52	34	2	214	3%
10:30 AM	to	10:45 AM	0	5	0	12	1	0	0	0	0	0	0	26	69	0	5	0	0	50	32	5	194	6%
10:45 AM	to	11:00 AM	0	5	1	20	2	0	0	0	0	0	0	25	63	0	2	0	0	54	30	2	198	3%
11:00 AM	to	11:15 AM	0	3	0	20	0	0	0	0	0	0	0	26	63	0	3	0	0	48	37	1	197	2%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	4	0	19	1	0	0	0	0	0	0	21	52	0	1	0	0	49	26	0	171	1%
11:30 AM	to	11:45 AM	0	9	1	18	0	0	0	0	0	0	0	34	57	0	4	0	0	46	26	0	191	2%
11:45 AM	to	12:00 PM	0	2	0	22	2	0	0	0	0	0	0	23	54	0	6	0	0	56	28	0	185	4%
12:00 PM	to	12:15 PM	0	5	0	16	1	0	0	0	0	0	0	16	67	0	2	0	0	55	24	3	183	3%
12:15 PM	to	12:30 PM	0	9	1	26	2	0	0	0	0	0	0	28	69	0	2	0	0	58	40	4	231	3%
12:30 PM	to	12:45 PM	0	6	0	19	4	0	0	0	0	0	0	25	79	0	4	0	0	52	28	1	209	4%
12:45 PM	to	1:00 PM	0	4	0	19	0	0	0	0	0	0	0	30	76	0	3	0	0	64	34	3	227	3%
1:00 PM	to	1:15 PM	0	5	0	17	1	0	0	0	0	0	0	35	68	0	0	0	0	51	25	3	201	2%
1:15 PM	to	1:30 PM	0	4	0	37	5	0	0	0	0	0	0	27	74	0	9	0	0	51	32	5	225	8%
1:30 PM	to	1:45 PM	0	6	0	31	3	0	0	0	0	0	0	23	74	0	4	0	0	41	30	1	205	4%
1:45 PM	to	2:00 PM	0	7	1	34	0	0	0	0	0	0	0	29	102	0	6	0	0	58	34	1	265	3%
2:00 PM	to	2:15 PM	0	8	0	26	2	0	0	0	0	0	0	33	76	0	4	0	0	57	30	4	230	4%
2:15 PM	to	2:30 PM	0	14	0	33	3	0	0	0	0	0	0	26	70	0	2	0	0	73	26	5	242	4%
2:30 PM	to	2:45 PM	0	9	0	26	6	0	0	0	0	0	0	33	76	0	7	0	0	63	63	4	270	6%
2:45 PM	to	3:00 PM	0	7	1	22	1	0	0	0	0	0	0	65	83	0	5	0	0	66	31	2	275	3%
3:00 PM	to	3:15 PM	0	4	0	28	1	0	0	0	0	0	0	50	95	0	6	0	0	77	27	0	281	2%
3:15 PM	to	3:30 PM	0	8	0	22	1	0	0	0	0	0	0	42	120	0	3	0	0	64	51	3	307	2%
3:30 PM	to	3:45 PM	0	13	0	39	2	0	0	0	0	0	0	33	90	0	6	0	0	146	47	5	368	4%
3:45 PM	to	4:00 PM	0	14	1	39	0	0	0	0	0	0	0	33	75	0	5	0	0	111	44	4	317	3%
4:00 PM	to	4:15 PM	0	10	0	19	0	0	0	0	0	0	0	24	78	0	3	0	0	105	41	1	277	1%
4:15 PM	to	4:30 PM	0	8	1	24	2	0	0	0	0	0	0	36	74	0	4	0	0	106	39	1	288	2%
4:30 PM	to	4:45 PM	0	7	2	24	0	0	0	0	0	0	0	27	76	0	4	0	0	84	54	2	274	2%
4:45 PM	to	5:00 PM	0	9	0	25	0	0	0	0	0	0	0	36	82	0	3	0	0	75	27	0	254	1%
5:00 PM	to	5:15 PM	0	15	0	20	0	0	0	0	0	0	0	27	86	0	3	0	0	88	64	1	300	1%
5:15 PM	to	5:30 PM	0	8	1	17	0	0	0	0	0	0	0	34	105	0	4	0	0	89	41	0	295	1%
5:30 PM	to	5:45 PM	0	16	0	29	6	0	0	0	0	0	0	32	77	0	4	0	0	62	30	2	246	5%
5:45 PM	to	6:00 PM	0	6	1	28	0	0	0	0	0	0	0	31	85	0	2	0	0	73	29	3	253	2%
6:00 PM	to	6:15 PM	0	9	1	15	1	0	0	0	0	0	0	14	72	0	4	0	0	62	26	2	199	4%
6:15 PM	to	6:30 PM	0	13	0	17	1	0	0	0	0	0	0	29	60	0	0	0	0	79	27	1	225	1%
6:30 PM	to	6:45 PM	0	15	0	16	0	0	0	0	0	0	0	22	68	0	3	0	0	59	25	1	205	2%
6:45 PM	to	7:00 PM	0	11	0	16	3	0	0	0	0	0	0	9	72	0	0	0	0	45	29	3	182	3%
7:00 PM	to	7:15 PM	0	5	0	10	1	0	0	0	0	0	0	22	55	0	1	0	0	64	32	2	188	2%
7:15 PM	to	7:30 PM	0	7	0	10	1	0	0	0	0	0	0	18	54	0	2	0	0	43	23	0	155	2%
7:30 PM	to	7:45 PM	0	7	0	16	0	0	0	0	0	0	0	18	45	0	0	0	0	58	26	0	170	0%
7:45 PM	to	8:00 PM	0	5	1	12	2	0	0	0	0	0	0	8	52	0	3	0	0	64	15	2	157	4%
8:00 PM	to	8:15 PM	0	7	0	15	0	0	0	0	0	0	0	12	46	0	0	0	0	56	22	0	158	0%
8:15 PM	to	8:30 PM	0	5	0	6	0	0	0	0	0	0	0	19	42	0	0	0	0	50	18	2	140	1%
8:30 PM	to	8:45 PM	0	17	0	12	2	0	0	0	0	0	0	15	40	0	1	0	0	24	23	1	131	3%
8:45 PM	to	9:00 PM	0	9	0	13	0	0	0	0	0	0	0	10	41	0	1	0	0	31	15	1	119	2%
9:00 PM	to	9:15 PM	0	11	0	9	0	0	0	0	0	0	0	4	26	0	0	0	0	26	12	0	88	0%
9:15 PM	to	9:30 PM	0	5	0	12	0	0	0	0	0	0	0	9	21	0	0	0	0	39	6	1	92	1%
9:30 PM	to	9:45 PM	0	5	0	8	0	0	0	0	0	0	0	12	24	0	0	0	0	30	14	1	93	1%
9:45 PM	to	10:00 PM	0	6	0	4	0	0	0	0	0	0	0	8	22	0	0	0	0	27	14	2	81	2%
10:00 PM	to	10:15 PM	0	7	1	5	1	0	0	0	0	0	0	5	12	0	1	0	0	41	13	4	84	7%
10:15 PM	to	10:30 PM	0	6	0	8	2	0	0	0	0	0	0	7	14	0	0	0	0	33	11	1	79	4%
10:30 PM	to	10:45 PM	0	3	0	8	0	0	0	0	0	0	0	7	17	0	1	0	0	22	6	1	63	3%
10:45 PM	to	11:00 PM	0	2	0	4	0	0	0	0	0	0	0	2	10	0	0	0	0	20	4	0	42	0%
11:00 PM	to	11:15 PM	0	4	0	5	0	0	0	0	0	0	0	3	12	0	0	0	0	20	3	1	47	2%
11:15 PM	to	11:30 PM	0	5	1	5	1	0	0	0	0	0	0	1	8	0	0	0	0	11	5	1	36	6%
11:30 PM	to	11:45 PM	0	2	1	3	1	0	0	0	0	0	0	6	7	0	1	0	0	24	5	0	48	4%
11:45 PM	to	12:00 AM	0	2	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	59	7	13	73	18%
DAILY TOTALS			**0**	**516**	**25**	**1555**	**98**	**0**	**0**	**0**	**0**	**0**	**0**	**2103**	**4997**	**0**	**224**	**0**	**2**	**4097**	**2333**	**199**	**15628**	**3%**

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:30 AM	to	8:30 AM	**0**	**20**	**1**	**150**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**242**	**563**	**0**	**16**	**0**	**0**	**280**	**227**	**12**	**1483**	**2%**	**0.93**
4:30 PM	to	5:30 PM	**0**	**39**	**3**	**86**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**124**	**349**	**0**	**14**	**0**	**0**	**336**	**186**	**3**	**1123**	**2%**	**0.94**

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION SR 99 NB Ramps @ Merced St

LATITUDE 36.6268988

COUNTY Fresno

LONGITUDE -119.6839873

COLLECTION DATE Tuesday, May 20, 2025

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	1	2
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	0	3	0	0	5	0	33	9	0	0	8	42

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5
4:30 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ Fresno St

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6242791

LONGITUDE -119.6827588

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	0	1	0	0	0	0	3	1	1	0	1	0	0	0	0	0	0	0	0	6	17%
12:15 AM	to	12:30 AM	0	0	2	0	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0	0	11	0%
12:30 AM	to	12:45 AM	0	0	2	0	0	0	0	7	1	0	0	1	0	0	0	0	0	0	0	0	11	0%
12:45 AM	to	1:00 AM	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0%
1:00 AM	to	1:15 AM	0	0	1	0	0	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	9	11%
1:15 AM	to	1:30 AM	0	0	1	0	0	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	8	0%
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8	0%
1:45 AM	to	2:00 AM	0	0	1	0	0	0	0	4	1	0	0	1	0	0	0	0	0	0	0	0	7	0%
2:00 AM	to	2:15 AM	0	0	2	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	6	0%
2:15 AM	to	2:30 AM	0	0	3	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7	14%
2:30 AM	to	2:45 AM	0	0	1	0	1	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	8	25%
2:45 AM	to	3:00 AM	0	0	3	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	8	25%
3:00 AM	to	3:15 AM	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5	0%
3:15 AM	to	3:30 AM	0	0	3	0	0	0	0	4	0	1	0	2	0	1	0	0	0	0	0	0	10	10%
3:30 AM	to	3:45 AM	0	0	4	0	0	0	0	2	0	1	0	3	0	1	0	0	0	0	0	0	10	10%
3:45 AM	to	4:00 AM	0	0	3	0	1	0	0	11	1	1	0	1	0	0	0	0	0	0	0	0	16	13%
4:00 AM	to	4:15 AM	0	0	3	0	0	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	10	0%
4:15 AM	to	4:30 AM	0	0	2	0	0	0	0	5	0	1	0	1	0	2	0	0	0	0	0	0	10	10%
4:30 AM	to	4:45 AM	0	0	8	0	0	0	0	15	1	1	0	1	0	1	0	0	0	0	0	0	26	4%
4:45 AM	to	5:00 AM	0	0	8	0	0	0	0	24	2	0	0	2	0	1	0	0	0	0	0	0	37	0%
5:00 AM	to	5:15 AM	0	0	13	0	0	0	0	37	2	1	0	6	0	2	0	0	0	0	0	0	60	2%
5:15 AM	to	5:30 AM	0	0	16	0	0	0	0	74	3	1	0	8	0	3	0	0	0	0	0	0	104	1%
5:30 AM	to	5:45 AM	0	0	24	0	1	0	0	43	1	0	0	4	0	1	0	0	0	0	0	0	73	1%
5:45 AM	to	6:00 AM	0	0	24	0	0	0	0	40	3	2	0	4	0	0	0	0	0	0	0	0	71	3%
6:00 AM	to	6:15 AM	0	0	24	0	0	0	0	30	1	1	0	7	0	1	0	0	0	0	0	0	63	2%
6:15 AM	to	6:30 AM	0	0	35	0	1	0	0	44	0	2	0	6	0	0	0	0	0	0	0	0	85	4%
6:30 AM	to	6:45 AM	0	0	34	0	0	0	0	61	4	2	0	7	0	1	0	0	0	0	0	0	107	2%
6:45 AM	to	7:00 AM	0	0	35	0	2	0	0	51	4	3	0	9	0	4	0	0	0	0	0	0	103	5%
7:00 AM	to	7:15 AM	0	0	33	0	0	0	0	59	4	2	0	6	0	1	0	0	0	0	0	0	103	2%
7:15 AM	to	7:30 AM	0	0	56	0	2	0	0	79	3	4	0	18	0	4	1	0	0	0	0	0	160	4%
7:30 AM	to	7:45 AM	0	0	69	0	1	0	0	77	6	6	0	20	0	3	0	0	0	0	0	0	175	4%
7:45 AM	to	8:00 AM	0	0	58	0	1	0	0	84	9	5	0	37	0	2	0	0	0	0	0	0	190	3%
8:00 AM	to	8:15 AM	0	0	67	0	0	0	0	70	11	3	0	27	0	2	0	0	0	0	0	0	177	2%
8:15 AM	to	8:30 AM	0	0	62	0	2	0	0	73	17	5	0	14	0	5	0	0	0	0	0	0	171	4%
8:30 AM	to	8:45 AM	0	1	38	0	2	0	0	79	6	6	0	12	0	2	0	0	0	0	0	0	138	6%
8:45 AM	to	9:00 AM	0	0	30	0	1	0	0	42	7	2	0	14	0	2	0	0	0	0	0	0	95	3%
9:00 AM	to	9:15 AM	0	0	32	0	0	0	0	54	3	3	0	5	0	0	0	0	0	0	0	0	94	3%
9:15 AM	to	9:30 AM	0	0	33	0	0	0	0	51	3	4	0	10	0	5	0	0	0	0	0	0	102	4%
9:30 AM	to	9:45 AM	0	0	32	0	1	0	0	65	8	4	0	5	0	3	1	0	0	0	0	0	113	5%
9:45 AM	to	10:00 AM	0	0	36	0	0	0	0	52	4	5	0	7	0	0	0	0	0	0	0	0	99	5%
10:00 AM	to	10:15 AM	0	1	34	0	1	0	0	44	4	2	0	5	0	3	0	0	0	0	0	0	91	3%
10:15 AM	to	10:30 AM	0	0	29	0	0	0	0	42	3	2	0	8	0	4	0	0	0	0	0	0	86	2%
10:30 AM	to	10:45 AM	0	1	30	0	2	0	0	54	5	3	0	3	0	1	0	0	0	0	0	0	94	5%
10:45 AM	to	11:00 AM	0	1	38	0	0	0	0	51	5	1	0	6	0	0	0	0	0	0	0	0	101	1%
11:00 AM	to	11:15 AM	0	0	30	0	2	0	0	54	4	2	0	9	0	3	0	0	0	0	0	0	100	4%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	0	31	0	0	0	0	49	7	1	0	4	0	2	0	0	0	0	0	0	93	1%
11:30 AM	to	11:45 AM	0	0	47	0	1	0	0	49	13	0	0	3	0	4	0	0	0	0	0	0	116	1%
11:45 AM	to	12:00 PM	0	1	21	0	1	0	0	56	5	1	0	11	0	0	0	0	0	0	0	0	94	2%
12:00 PM	to	12:15 PM	0	1	17	0	0	0	0	54	12	2	0	11	0	0	0	0	0	0	0	0	95	2%
12:15 PM	to	12:30 PM	0	0	34	0	0	0	0	57	17	4	0	7	0	1	0	0	0	0	0	0	116	3%
12:30 PM	to	12:45 PM	1	0	35	0	2	0	0	58	6	2	0	11	0	1	0	0	0	0	0	0	112	4%
12:45 PM	to	1:00 PM	0	0	35	0	2	0	0	60	6	1	0	9	0	1	0	0	0	0	0	0	111	3%
1:00 PM	to	1:15 PM	0	0	36	0	0	0	0	56	5	2	0	7	0	2	0	0	0	0	0	0	106	2%
1:15 PM	to	1:30 PM	0	0	39	0	1	0	0	69	7	5	0	6	0	3	1	0	0	0	0	0	124	6%
1:30 PM	to	1:45 PM	0	1	39	0	1	0	0	53	4	2	0	7	0	4	0	0	0	0	0	0	108	3%
1:45 PM	to	2:00 PM	0	0	38	0	0	0	0	62	10	3	0	19	0	1	0	0	0	0	0	0	130	2%
2:00 PM	to	2:15 PM	0	1	43	0	0	0	0	50	13	4	0	13	0	2	0	0	0	0	0	0	122	3%
2:15 PM	to	2:30 PM	0	0	39	0	1	0	0	81	7	4	0	5	0	1	1	0	0	0	0	0	133	5%
2:30 PM	to	2:45 PM	0	2	48	0	2	0	0	61	10	1	0	7	0	2	0	0	0	0	0	0	130	2%
2:45 PM	to	3:00 PM	0	0	81	0	4	0	0	73	9	2	0	9	0	4	1	0	0	0	0	0	176	4%
3:00 PM	to	3:15 PM	0	0	69	0	4	0	0	82	13	2	0	11	0	3	0	0	0	0	0	0	178	3%
3:15 PM	to	3:30 PM	0	2	54	0	1	0	0	74	9	1	0	9	0	2	0	0	0	0	0	0	150	1%
3:30 PM	to	3:45 PM	0	0	43	0	0	0	0	96	27	3	0	14	0	2	0	0	0	0	0	0	182	2%
3:45 PM	to	4:00 PM	0	0	40	0	3	0	0	78	20	2	0	12	0	13	0	0	0	0	0	0	163	3%
4:00 PM	to	4:15 PM	0	3	41	0	1	0	0	85	19	4	0	8	0	2	1	0	0	0	0	0	158	4%
4:15 PM	to	4:30 PM	0	0	46	0	2	0	0	92	14	3	0	17	0	2	0	0	0	0	0	0	171	3%
4:30 PM	to	4:45 PM	0	2	43	0	1	0	0	77	12	1	0	11	0	3	0	0	0	0	0	0	148	1%
4:45 PM	to	5:00 PM	0	1	54	0	1	0	0	83	11	2	0	8	0	2	0	0	0	0	0	0	159	2%
5:00 PM	to	5:15 PM	0	3	41	0	2	0	0	102	18	2	0	13	0	2	1	0	0	0	0	0	179	3%
5:15 PM	to	5:30 PM	0	2	46	0	1	0	0	80	17	0	0	14	0	7	0	0	0	0	0	0	166	1%
5:30 PM	to	5:45 PM	0	0	38	0	1	0	0	67	11	1	0	16	0	4	0	0	0	0	0	0	136	1%
5:45 PM	to	6:00 PM	1	0	35	0	0	0	0	72	13	1	0	12	0	2	0	0	0	0	0	0	135	1%
6:00 PM	to	6:15 PM	0	1	31	0	1	0	0	72	16	2	0	3	0	3	0	0	0	0	0	0	126	2%
6:15 PM	to	6:30 PM	0	2	36	0	0	0	0	76	15	1	0	5	0	6	0	0	0	0	0	0	140	1%
6:30 PM	to	6:45 PM	0	1	24	0	1	0	0	56	16	1	0	6	0	3	0	0	0	0	0	0	106	2%
6:45 PM	to	7:00 PM	0	0	23	0	0	0	0	40	16	1	0	10	0	2	0	0	0	0	0	0	91	1%
7:00 PM	to	7:15 PM	0	1	32	0	0	0	0	43	18	0	0	10	0	1	0	0	0	0	0	0	105	0%
7:15 PM	to	7:30 PM	0	0	24	0	0	0	0	41	7	1	0	6	0	2	0	0	0	0	0	0	80	1%
7:30 PM	to	7:45 PM	0	0	26	0	0	0	0	38	17	0	1	4	0	2	0	0	0	0	0	0	88	0%
7:45 PM	to	8:00 PM	0	1	22	0	0	0	0	47	14	1	0	11	0	2	0	0	0	0	0	0	97	1%
8:00 PM	to	8:15 PM	0	0	20	0	0	0	0	36	16	1	0	9	0	2	0	0	0	0	0	0	83	1%
8:15 PM	to	8:30 PM	0	0	21	0	0	0	0	40	9	1	0	7	0	0	0	0	0	0	0	0	77	1%
8:30 PM	to	8:45 PM	0	1	21	0	0	1	0	27	12	0	0	5	0	3	0	0	0	0	0	0	70	0%
8:45 PM	to	9:00 PM	0	0	18	0	0	0	0	23	10	0	0	6	0	3	0	0	0	0	0	0	60	0%
9:00 PM	to	9:15 PM	0	2	10	0	0	0	0	23	10	0	0	3	0	1	0	0	0	0	0	0	49	0%
9:15 PM	to	9:30 PM	0	1	10	0	0	0	0	30	3	1	0	7	0	2	0	0	0	0	0	0	53	2%
9:30 PM	to	9:45 PM	0	1	12	0	0	0	0	25	5	0	0	4	0	1	0	0	0	0	0	0	48	0%
9:45 PM	to	10:00 PM	0	1	11	0	0	0	0	25	5	1	0	3	0	0	0	0	0	0	0	0	45	2%
10:00 PM	to	10:15 PM	0	0	2	0	0	0	0	45	6	5	0	5	0	0	0	0	0	0	0	0	58	9%
10:15 PM	to	10:30 PM	0	0	7	0	0	1	0	31	1	1	0	2	0	0	0	0	0	0	0	0	42	2%
10:30 PM	to	10:45 PM	0	0	5	0	0	0	0	24	3	1	0	1	0	1	0	0	0	0	0	0	34	3%
10:45 PM	to	11:00 PM	0	0	2	0	0	0	0	23	3	0	0	2	0	0	0	0	0	0	0	0	30	0%
11:00 PM	to	11:15 PM	0	1	2	0	0	0	0	15	2	2	0	2	0	1	0	0	0	0	0	0	23	9%
11:15 PM	to	11:30 PM	0	0	4	0	0	0	0	15	2	1	0	1	0	0	0	0	0	0	0	0	22	5%
11:30 PM	to	11:45 PM	0	0	8	0	0	0	0	25	3	1	0	2	0	0	0	0	0	0	0	0	38	3%
11:45 PM	to	12:00 AM	0	0	2	0	0	0	0	57	1	11	0	0	0	0	0	0	0	0	0	0	60	18%
DAILY TOTALS			2	36	2469	0	56	2	0	4298	654	170	1	661	0	165	7	0	0	0	0	0	8288	3%

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:30 AM	to	8:30 AM	0	0	256	0	4	0	0	304	43	19	0	98	0	12	0	0	0	0	0	0	713	3%	0.94
4:15 PM	to	5:15 PM	0	6	184	0	6	0	0	354	55	8	0	49	0	9	1	0	0	0	0	0	657	2%	0.92

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ Fresno St

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6242791

LONGITUDE -119.6827588

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
11:00 AM	to	11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	to	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	to	7:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:15 PM	to	7:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	1	0	0	4	3	2	0	0	0	0	0	0	0	9	0	10	9

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Turning Movement Report
(Vehicles)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ SR 99 SB On ramp

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6237646

LONGITUDE -119.6822572

WEATHER Clear

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
12:00 AM	to	12:15 AM	0	2	0	0	0						0		1	2	0	0	0	0	0	0	5	0%
12:15 AM	to	12:30 AM	0	2	0	0	0						0		6	2	0	0	0	0	0	0	10	0%
12:30 AM	to	12:45 AM	0	2	0	0	0						0		3	3	0	0	0	0	0	0	8	0%
12:45 AM	to	1:00 AM	0	2	0	0	0						0		1	1	0	0	0	0	0	0	4	0%
1:00 AM	to	1:15 AM	0	1	0	0	0						0		2	6	0	0	0	0	0	0	9	0%
1:15 AM	to	1:30 AM	0	1	0	2	0						0		3	3	0	0	0	0	0	0	9	0%
1:30 AM	to	1:45 AM	0	0	0	1	0						0		2	6	0	0	0	0	0	0	9	0%
1:45 AM	to	2:00 AM	0	1	0	0	0						0		2	2	0	0	0	0	0	0	5	0%
2:00 AM	to	2:15 AM	0	2	0	0	0						0		1	1	0	0	0	0	0	0	4	0%
2:15 AM	to	2:30 AM	0	3	0	0	1						0		1	3	0	0	0	0	0	0	7	14%
2:30 AM	to	2:45 AM	0	1	0	0	1						0		4	2	0	0	0	0	0	0	7	14%
2:45 AM	to	3:00 AM	0	3	0	0	0						0		5	0	0	0	0	0	0	0	8	0%
3:00 AM	to	3:15 AM	0	2	0	1	1						0		1	3	0	0	0	0	0	0	7	14%
3:15 AM	to	3:30 AM	0	4	0	1	0						0		2	1	0	0	0	0	0	0	8	0%
3:30 AM	to	3:45 AM	0	4	0	0	0						0		1	1	0	0	0	0	0	0	6	0%
3:45 AM	to	4:00 AM	0	3	0	1	1						0		8	5	0	0	0	0	0	0	17	6%
4:00 AM	to	4:15 AM	0	3	0	1	0						0		4	2	0	0	0	0	0	0	10	0%
4:15 AM	to	4:30 AM	0	2	0	0	0						0		6	1	0	0	0	0	0	0	9	0%
4:30 AM	to	4:45 AM	0	7	0	5	0						0		8	7	0	0	0	0	0	0	27	0%
4:45 AM	to	5:00 AM	0	8	0	4	0						0		10	12	0	0	0	0	0	0	34	0%
5:00 AM	to	5:15 AM	0	13	0	3	0						0		10	26	0	0	0	0	0	0	52	0%
5:15 AM	to	5:30 AM	0	16	0	4	0						0		24	51	2	0	0	0	0	0	95	2%
5:30 AM	to	5:45 AM	0	24	0	6	1						0		14	30	0	0	0	0	0	0	74	1%
5:45 AM	to	6:00 AM	0	24	0	4	0						0		14	26	3	0	0	0	0	0	68	4%
6:00 AM	to	6:15 AM	0	26	0	2	0						0		18	12	1	0	0	0	0	0	58	2%
6:15 AM	to	6:30 AM	0	33	0	5	1						0		14	29	3	0	0	0	0	0	81	5%
6:30 AM	to	6:45 AM	0	34	0	7	0						0		31	32	4	0	0	0	0	0	104	4%
6:45 AM	to	7:00 AM	0	35	0	4	2						0		20	33	2	0	0	0	0	0	92	4%
7:00 AM	to	7:15 AM	0	33	0	4	0						0		21	39	2	0	0	0	0	0	97	2%
7:15 AM	to	7:30 AM	0	57	0	9	3						0		34	47	4	0	0	0	0	0	147	5%
7:30 AM	to	7:45 AM	0	72	0	8	2						0		27	54	5	0	0	0	0	0	161	4%
7:45 AM	to	8:00 AM	0	55	0	11	3						0		35	51	5	0	0	0	0	0	152	5%
8:00 AM	to	8:15 AM	0	67	0	5	0						0		29	42	4	0	0	0	0	0	143	3%
8:15 AM	to	8:30 AM	0	63	0	3	3						0		27	51	5	0	0	0	0	0	144	6%
8:30 AM	to	8:45 AM	0	38	0	2	1						0		34	48	7	0	0	0	0	0	122	7%
8:45 AM	to	9:00 AM	0	29	0	3	1						0		17	27	3	0	0	0	0	0	76	5%
9:00 AM	to	9:15 AM	0	32	0	3	0						0		23	31	4	0	0	0	0	0	89	4%
9:15 AM	to	9:30 AM	0	33	0	1	1						0		29	26	4	0	0	0	0	0	89	6%
9:30 AM	to	9:45 AM	0	32	0	4	2						0		27	39	4	0	0	0	0	0	102	6%
9:45 AM	to	10:00 AM	0	37	0	4	1						0		28	24	5	0	0	0	0	0	93	6%
10:00 AM	to	10:15 AM	0	33	0	1	1						0		22	25	4	0	0	0	0	0	81	6%
10:15 AM	to	10:30 AM	0	29	0	4	0						0		23	23	2	0	0	0	0	0	79	3%
10:30 AM	to	10:45 AM	0	33	0	1	2						0		28	27	4	0	0	0	0	0	89	7%
10:45 AM	to	11:00 AM	0	38	0	6	0						0		22	29	1	0	0	0	0	0	95	1%
11:00 AM	to	11:15 AM	0	29	0	3	2						0		24	33	3	0	0	0	0	0	89	6%

Time			Northbound					Southbound					Eastbound					Westbound					TOTALS	Truck
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	%
11:15 AM	to	11:30 AM	0	31	0	3	0						0		29	20	1	0	0	0	0	0	83	1%
11:30 AM	to	11:45 AM	0	49	0	5	2						0		17	37	0	0	0	0	0	0	108	2%
11:45 AM	to	12:00 PM	0	20	0	4	2						0		20	35	1	0	0	0	0	0	79	4%
12:00 PM	to	12:15 PM	0	19	0	1	1						0		19	36	2	0	0	0	0	0	75	4%
12:15 PM	to	12:30 PM	0	33	0	3	0						0		27	29	4	0	0	0	0	0	92	4%
12:30 PM	to	12:45 PM	0	35	0	4	2						0		22	38	3	0	0	0	0	0	99	5%
12:45 PM	to	1:00 PM	0	35	0	6	2						0		36	25	2	0	0	0	0	0	102	4%
1:00 PM	to	1:15 PM	0	37	0	1	0						0		24	33	2	0	0	0	0	0	95	2%
1:15 PM	to	1:30 PM	0	39	0	4	1						0		30	42	5	0	0	0	0	0	115	5%
1:30 PM	to	1:45 PM	0	39	0	2	1						0		29	28	3	0	0	0	0	0	98	4%
1:45 PM	to	2:00 PM	0	38	0	3	1						0		30	32	3	0	0	0	0	0	103	4%
2:00 PM	to	2:15 PM	0	44	0	2	0						0		17	33	4	0	0	0	0	0	96	4%
2:15 PM	to	2:30 PM	0	39	0	6	1						0		32	51	4	0	0	0	0	0	128	4%
2:30 PM	to	2:45 PM	0	51	0	7	3						0		27	36	1	0	0	0	0	0	121	3%
2:45 PM	to	3:00 PM	0	85	0	6	4						0		36	40	2	0	0	0	0	0	167	4%
3:00 PM	to	3:15 PM	0	66	0	5	4						0		42	43	2	0	0	0	0	0	156	4%
3:15 PM	to	3:30 PM	0	54	0	2	2						1		21	54	1	0	0	0	0	0	132	2%
3:30 PM	to	3:45 PM	0	44	0	10	1						0		35	62	2	0	0	0	0	0	151	2%
3:45 PM	to	4:00 PM	0	39	0	4	5						0		41	50	2	0	0	0	0	0	134	5%
4:00 PM	to	4:15 PM	0	44	0	2	1						0		46	46	5	0	0	0	0	0	138	4%
4:15 PM	to	4:30 PM	0	48	0	7	3						0		53	41	3	0	0	0	0	0	149	4%
4:30 PM	to	4:45 PM	0	45	0	9	2						0		40	40	1	0	0	0	0	0	134	2%
4:45 PM	to	5:00 PM	0	53	0	4	1						0		35	51	3	0	0	0	0	0	143	3%
5:00 PM	to	5:15 PM	0	48	0	1	2						0		37	67	3	0	0	0	0	0	153	3%
5:15 PM	to	5:30 PM	0	45	0	6	2						0		38	48	0	0	0	0	0	0	137	1%
5:30 PM	to	5:45 PM	0	37	0	3	2						0		22	49	2	0	0	0	0	0	111	4%
5:45 PM	to	6:00 PM	0	37	0	4	0						0		29	46	1	0	0	0	0	0	116	1%
6:00 PM	to	6:15 PM	0	31	0	2	1						0		33	42	2	0	0	0	0	0	108	3%
6:15 PM	to	6:30 PM	0	38	0	5	1						0		31	51	1	0	0	0	0	0	125	2%
6:30 PM	to	6:45 PM	0	25	0	4	2						0		26	32	1	0	0	0	0	0	87	3%
6:45 PM	to	7:00 PM	0	23	0	6	0						0		18	24	3	0	0	0	0	0	71	4%
7:00 PM	to	7:15 PM	0	32	0	5	0						0		18	26	0	0	0	0	0	0	81	0%
7:15 PM	to	7:30 PM	0	24	0	2	0						0		17	24	1	0	0	0	0	0	67	1%
7:30 PM	to	7:45 PM	0	26	0	1	0						0		18	24	0	0	0	0	0	0	69	0%
7:45 PM	to	8:00 PM	0	23	0	2	0						0		23	26	2	0	0	0	0	0	74	3%
8:00 PM	to	8:15 PM	0	21	0	1	0						0		15	23	1	0	0	0	0	0	60	2%
8:15 PM	to	8:30 PM	0	21	0	3	0						0		17	23	1	0	0	0	0	0	64	2%
8:30 PM	to	8:45 PM	0	21	0	0	0						0		11	17	0	0	0	0	0	0	49	0%
8:45 PM	to	9:00 PM	0	18	0	5	0						0		13	13	0	0	0	0	0	0	49	0%
9:00 PM	to	9:15 PM	0	12	0	4	0						0		12	11	1	0	0	0	0	0	39	3%
9:15 PM	to	9:30 PM	0	13	0	2	0						0		19	9	1	0	0	0	0	0	43	2%
9:30 PM	to	9:45 PM	0	11	0	1	0						0		16	12	0	0	0	0	0	0	40	0%
9:45 PM	to	10:00 PM	0	12	0	0	0						0		19	5	1	0	0	0	0	0	36	3%
10:00 PM	to	10:15 PM	0	2	0	2	0						0		35	8	3	0	0	0	0	0	47	6%
10:15 PM	to	10:30 PM	0	7	0	3	0						0		23	7	1	0	0	0	0	0	40	3%
10:30 PM	to	10:45 PM	0	5	0	1	0						0		15	9	1	0	0	0	0	0	30	3%
10:45 PM	to	11:00 PM	0	3	0	3	1						0		12	10	0	0	0	0	0	0	28	4%
11:00 PM	to	11:15 PM	0	2	0	3	0						0		10	6	3	0	0	0	0	0	21	14%
11:15 PM	to	11:30 PM	0	5	0	1	0						0		3	12	1	0	0	0	0	0	21	5%
11:30 PM	to	11:45 PM	0	7	0	0	0						0		23	2	2	0	0	0	0	0	32	6%
11:45 PM	to	12:00 AM	0	2	0	2	0						0		53	4	11	0	0	0	0	0	61	18%
DAILY TOTALS			**0**	**2506**	**0**	**295**	**80**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1980**	**2450**	**180**	**0**	**0**	**0**	**0**	**0**	**7232**	**4%**

PEAK HOUR			Northbound					Southbound					Eastbound					Westbound					TOTALS		
			U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	Vehicles	Truck %	PHF
7:15 AM	to	8:15 AM	**0**	**251**	**0**	**33**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**125**	**194**	**18**	**0**	**0**	**0**	**0**	**0**	**603**	**4%**	**0.94**
4:00 PM	to	5:00 PM	**0**	**194**	**0**	**21**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**165**	**199**	**10**	**0**	**0**	**0**	**0**	**0**	**579**	**3%**	**0.95**

Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report
(Bicycles & Pedestrians)

Prepared For:

Yamabe and Horn Engineering, Inc.
2985 N. Burl, Suite 101
Fresno, CA 93727

LOCATION Fowler Ave @ SR 99 SB On ramp

COUNTY Fresno

COLLECTION DATE Tuesday, May 20, 2025

LATITUDE 36.6237646

LONGITUDE -119.6822572

WEATHER Clear

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	to	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	to	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	to	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	to	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	to	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	to	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	to	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	to	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	to	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	to	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	to	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	to	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	to	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	to	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	to	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	to	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	to	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	to	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	to	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	to	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	to	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	to	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Time			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
11:15 AM	to	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	to	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	to	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	to	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	to	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	to	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	to	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	to	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	to	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	to	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	to	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	to	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	to	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	to	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	to	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	to	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	to	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	to	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	to	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	to	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	to	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	to	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	to	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	to	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	to	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	to	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	to	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	to	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	to	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	to	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	to	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	to	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	to	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	to	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	to	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	to	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	to	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	to	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	to	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	to	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	to	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	to	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	to	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	to	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR			Northbound Bicycles			Southbound Bicycles			Eastbound Bicycles			Westbound Bicycles			Pedestrians in each Crosswalk				TOTALS	
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	S Leg	N Leg	W Leg	E Leg	Bicycles	Pedestrians
7:15 AM	to	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	to	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX D

Synchro Reports

2985 North Burl Ave., Suite 101 • Fresno, CA 93727 • P: 559.244.3123 • F: 559.244.3120 • yandhengr.com

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Existing Synchro Reports

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Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	0	1	163	2	1	86	0
Future Vol, veh/h	1	0	0	0	0	0	1	163	2	1	86	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	35	35	35	35	35	35	35	35	35	35	35	35
Mvmt Flow	1	0	0	0	0	0	1	183	2	1	97	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	284	287	97	285	285	184	97	0	0	185	0	0
Stage 1	99	99	-	187	187	-	-	-	-	-	-	-
Stage 2	185	188	-	99	99	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.45	6.85	6.55	4.45	-	-	4.45	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.815	4.315	3.615	2.515	-	-	2.515	-	-
Pot Cap-1 Maneuver	607	571	876	606	572	780	1314	-	-	1214	-	-
Stage 1	833	753	-	745	688	-	-	-	-	-	-	-
Stage 2	746	687	-	833	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	606	570	876	605	571	780	1314	-	-	1214	-	-
Mov Cap-2 Maneuver	606	570	-	605	571	-	-	-	-	-	-	-
Stage 1	832	753	-	744	687	-	-	-	-	-	-	-
Stage 2	745	686	-	832	753	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.95	0	0.05	0.09
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	606	-	21	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-	0.001	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	11	0	8	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	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	1	2	2	1	2	2	0	0	0	6	0	2
Future Vol, veh/h	1	2	2	1	2	2	0	0	0	6	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	2	3	3	0	0	0	9	0	3

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	6	0	0	6	0	0			14	17	5
Stage 1	-	-	-	-	-	-			8	8	-
Stage 2	-	-	-	-	-	-			6	9	-
Critical Hdwy	4.12	-	-	4.12	-	-			6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-			3.518	4.018	3.318
Pot Cap-1 Maneuver	1615	-	-	1615	-	-			1005	877	1079
Stage 1	-	-	-	-	-	-			1015	889	-
Stage 2	-	-	-	-	-	-			1017	888	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1615	-	-	1615	-	-			1003	0	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-			1003	0	-
Stage 1	-	-	-	-	-	-			1014	0	-
Stage 2	-	-	-	-	-	-			1016	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.45	1.45	8.57
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	327	-	-	327	-	-	1021
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.012
HCM Ctrl Dly (s/v)	7.2	0	-	7.2	0	-	8.6
HCM Lane LOS	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	2	0	0	1	1	156	4	2	141	1
Future Vol, veh/h	1	0	2	0	0	1	1	156	4	2	141	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	1	0	2	0	0	1	1	175	4	2	158	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	341	346	159	343	344	178	160	0	0	180	0	0
Stage 1	163	163	-	180	180	-	-	-	-	-	-	-
Stage 2	178	182	-	163	164	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	607	573	878	606	574	858	1402	-	-	1378	-	-
Stage 1	832	757	-	815	745	-	-	-	-	-	-	-
Stage 2	817	743	-	832	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	605	571	878	603	572	858	1402	-	-	1378	-	-
Mov Cap-2 Maneuver	605	571	-	603	572	-	-	-	-	-	-	-
Stage 1	830	756	-	814	744	-	-	-	-	-	-	-
Stage 2	816	743	-	829	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.74	9.2	0.05	0.11
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	763	858	25	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.001	0.002	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	9.7	9.2	7.6	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	35	14	16	54	7	39	23	39	9	9	22
Future Vol, veh/h	16	35	14	16	54	7	39	23	39	9	9	22
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	-	100	-	-	150	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	18	40	16	18	61	8	44	26	44	10	10	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	57	0	0	180	184	42	193	196	66
Stage 1	-	-	-	-	-	-	77	77	-	103	103	-
Stage 2	-	-	-	-	-	-	103	107	-	90	93	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1511	-	-	1529	-	-	775	705	1020	760	694	989
Stage 1	-	-	-	-	-	-	924	825	-	896	804	-
Stage 2	-	-	-	-	-	-	896	801	-	910	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1510	-	-	1527	-	-	725	686	1019	681	676	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	686	-	681	676	-
Stage 1	-	-	-	-	-	-	912	814	-	884	794	-
Stage 2	-	-	-	-	-	-	851	790	-	831	801	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.82	1.53	9.83	9.54
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	725	863	565	-	-	366	-	-	681	871
HCM Lane V/C Ratio	0.061	0.082	0.012	-	-	0.012	-	-	0.015	0.04
HCM Ctrl Dly (s/v)	10.3	9.5	7.4	0	-	7.4	0	-	10.4	9.3
HCM Lane LOS	B	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.2	0.3	0	-	-	0	-	-	0	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	83	0	29	0	0	2	20	192	0	1	159	34
Future Vol, veh/h	83	0	29	0	0	2	20	192	0	1	159	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	92	0	32	0	0	2	22	213	0	1	177	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	456	456	196	437	474	213	214	0	0	213	0	0
Stage 1	198	198	-	258	258	-	-	-	-	-	-	-
Stage 2	258	258	-	179	217	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	510	496	838	525	484	819	1338	-	-	1339	-	-
Stage 1	797	732	-	740	689	-	-	-	-	-	-	-
Stage 2	740	689	-	816	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	499	487	838	495	475	819	1338	-	-	1339	-	-
Mov Cap-2 Maneuver	499	487	-	495	475	-	-	-	-	-	-	-
Stage 1	796	731	-	726	676	-	-	-	-	-	-	-
Stage 2	724	676	-	784	717	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.31	9.41	0.73	0.04
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	170	-	-	557	819	9	-	-
HCM Lane V/C Ratio	0.017	-	-	0.223	0.003	0.001	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	13.3	9.4	7.7	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0	0	-	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	22	3	42	10	33	6	17	93	104	11	15
Future Vol, veh/h	0	22	3	42	10	33	6	17	93	104	11	15
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	3	43	10	34	6	18	96	107	11	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	27	0	0	126	156	25	130	125	11
Stage 1	-	-	-	-	-	-	24	24	-	98	98	-
Stage 2	-	-	-	-	-	-	103	132	-	32	27	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1563	-	-	1587	-	-	847	736	1052	842	766	1070
Stage 1	-	-	-	-	-	-	994	875	-	909	814	-
Stage 2	-	-	-	-	-	-	903	787	-	984	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1561	-	-	1586	-	-	799	714	1050	725	743	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	799	714	-	725	743	-
Stage 1	-	-	-	-	-	-	993	875	-	882	790	-
Stage 2	-	-	-	-	-	-	853	764	-	875	872	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	3.62	9.25	10.63
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	967	1561	-	-	1454	-	-	726	1069
HCM Lane V/C Ratio	0.124	-	-	-	0.027	-	-	0.163	0.014
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.3	0	-	10.9	8.4
HCM Lane LOS	A	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.6	0

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	189	95	15	4	0	364	0	255	35	213	92	0
Future Vol, veh/h	189	95	15	4	0	364	0	255	35	213	92	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	201	101	16	4	0	387	0	271	37	227	98	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	24.2	25.5	23.3	18.2
HCM LOS	C	D	C	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	1%	63%	100%	0%
Vol Thru, %	88%	0%	32%	0%	100%
Vol Right, %	12%	99%	5%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	368	299	213	92
LT Vol	0	4	189	213	0
Through Vol	255	0	95	0	92
RT Vol	35	364	15	0	0
Lane Flow Rate	309	391	318	227	98
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.644	0.725	0.662	0.532	0.216
Departure Headway (Hd)	7.513	6.67	7.488	8.448	7.932
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	478	540	480	426	451
Service Time	5.589	4.742	5.564	6.224	5.708
HCM Lane V/C Ratio	0.646	0.724	0.663	0.533	0.217
HCM Control Delay, s/veh	23.3	25.5	24.2	20.5	12.9
HCM Lane LOS	C	D	C	C	B
HCM 95th-tile Q	4.5	6	4.8	3	0.8

Intersection	
Int Delay, s/veh	4.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	1	150	242	563	0	0	280	227
Future Vol, veh/h	0	0	0	20	1	150	242	563	0	0	280	227
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	1	161	260	605	0	0	301	244

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1429	1671	607	545	0	-	-	-	0
Stage 1	1126	1126	-	-	-	-	-	-	-
Stage 2	303	545	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	149	96	496	1024	-	0	0	-	-
Stage 1	310	280	-	-	-	0	0	-	-
Stage 2	749	518	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	111	0	495	1024	-	-	-	-	-
Mov Cap-2 Maneuver	111	0	-	-	-	-	-	-	-
Stage 1	231	0	-	-	-	-	-	-	-
Stage 2	748	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	25.96	2.92	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	1024	-	351	-	-
HCM Lane V/C Ratio	0.254	-	0.523	-	-
HCM Ctrl Dly (s/v)	9.7	-	26	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	1	-	2.9	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	304	43	0	256	98	12
Future Vol, veh/h	304	43	0	256	98	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	323	46	0	272	104	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	369	0	619	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1184	-	451	694
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1184	-	451	694
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	771	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	15.22
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	469	1184	-	-	-
HCM Lane V/C Ratio	0.25	-	-	-	-
HCM Ctrl Dly (s/v)	15.2	0	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	1	0	-	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	251	33	125	194	0	0
Future Vol, veh/h	251	33	125	194	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	267	35	133	206	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	133	-	0	-
Stage 1	133	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.44	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.536	-	-	-
Pot Cap-1 Maneuver	856	0	-	0
Stage 1	888	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	856	-	-	-
Mov Cap-2 Maneuver	856	-	-	-
Stage 1	888	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.1	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	856	-
HCM Lane V/C Ratio	0.312	-
HCM Ctrl Dly (s/v)	11.1	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.3	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	0	1	3	0	164	0	2	127	4
Future Vol, veh/h	0	0	1	0	1	3	0	164	0	2	127	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	24	24	24	24	24	24	24	24	24	24	24	24
Mvmt Flow	0	0	1	0	1	3	0	176	0	2	137	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	320	319	139	317	322	176	141	0	0	176	0	0
Stage 1	143	143	-	176	176	-	-	-	-	-	-	-
Stage 2	177	176	-	141	145	-	-	-	-	-	-	-
Critical Hdwy	7.34	6.74	6.44	7.34	6.74	6.44	4.34	-	-	4.34	-	-
Critical Hdwy Stg 1	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.216	3.516	3.716	4.216	3.516	2.416	-	-	2.416	-	-
Pot Cap-1 Maneuver	593	563	854	595	561	813	1318	-	-	1277	-	-
Stage 1	810	738	-	777	713	-	-	-	-	-	-	-
Stage 2	776	713	-	812	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	588	562	854	593	560	813	1318	-	-	1277	-	-
Mov Cap-2 Maneuver	588	562	-	593	560	-	-	-	-	-	-	-
Stage 1	809	737	-	777	713	-	-	-	-	-	-	-
Stage 2	772	713	-	810	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.22	9.96	0	0.12
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	854	731	27	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.006	0.002	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.2	10	7.8	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	1	0	1	2	8	0	0	0	2	0	6
Future Vol, veh/h	2	1	0	1	2	8	0	0	0	2	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	1	0	1	2	9	0	0	0	2	0	7

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	11	0	0	1	0	0			14	14	7
Stage 1	-	-	-	-	-	-			9	9	-
Stage 2	-	-	-	-	-	-			5	5	-
Critical Hdwy	4.15	-	-	4.15	-	-			6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-			5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-			3.545	4.045	3.345
Pot Cap-1 Maneuver	1589	-	-	1602	-	-			997	874	1067
Stage 1	-	-	-	-	-	-			1007	882	-
Stage 2	-	-	-	-	-	-			1010	885	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1589	-	-	1602	-	-			995	0	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-			995	0	-
Stage 1	-	-	-	-	-	-			1005	0	-
Stage 2	-	-	-	-	-	-			1009	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.85	0.66	8.46
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1200	-	-	141	-	-	1048
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.008
HCM Ctrl Dly (s/v)	7.3	0	-	7.2	0	-	8.5
HCM Lane LOS	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	8	5	2	1	7	234	1	4	195	3
Future Vol, veh/h	0	0	8	5	2	1	7	234	1	4	195	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	10	6	2	1	8	279	1	5	232	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	540	540	234	538	541	279	236	0	0	280	0	0
Stage 1	243	243	-	296	296	-	-	-	-	-	-	-
Stage 2	296	296	-	242	245	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	450	446	800	451	445	755	1320	-	-	1271	-	-
Stage 1	756	701	-	708	665	-	-	-	-	-	-	-
Stage 2	708	664	-	757	699	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	441	441	800	441	440	755	1320	-	-	1271	-	-
Mov Cap-2 Maneuver	441	441	-	441	440	-	-	-	-	-	-	-
Stage 1	752	698	-	703	660	-	-	-	-	-	-	-
Stage 2	699	659	-	745	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.55	12.91	0.22	0.16
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	52	-	-	800	465	36	-	-
HCM Lane V/C Ratio	0.006	-	-	0.012	0.02	0.004	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	9.6	12.9	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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	7	57	37	33	20	9	14	17	20	9	13	0
Future Vol, veh/h	7	57	37	33	20	9	14	17	20	9	13	0
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	-	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	66	43	38	23	10	16	20	23	10	15	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	109	0	0	189	193	68	197	230	29
Stage 1	-	-	-	-	-	-	83	83	-	105	105	-
Stage 2	-	-	-	-	-	-	106	110	-	92	125	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1577	-	-	1481	-	-	771	702	996	761	670	1046
Stage 1	-	-	-	-	-	-	926	826	-	901	808	-
Stage 2	-	-	-	-	-	-	899	804	-	915	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1480	-	-	730	679	994	699	647	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	730	679	-	699	647	-
Stage 1	-	-	-	-	-	-	920	821	-	876	786	-
Stage 2	-	-	-	-	-	-	859	782	-	867	787	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.51	3.99	9.75	10.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	730	819	197	-	-	902	-	-	699	647
HCM Lane V/C Ratio	0.022	0.052	0.005	-	-	0.026	-	-	0.015	0.023
HCM Ctrl Dly (s/v)	10	9.6	7.3	0	-	7.5	0	-	10.2	10.7
HCM Lane LOS	B	A	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.1	-	-	0	0.1

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	49	0	29	0	0	0	47	148	0	1	161	49
Future Vol, veh/h	49	0	29	0	0	0	47	148	0	1	161	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	54	0	32	0	0	0	52	164	0	1	179	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	477	477	206	450	504	164	233	0	0	164	0	0
Stage 1	208	208	-	269	269	-	-	-	-	-	-	-
Stage 2	269	269	-	181	236	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	497	485	832	518	469	877	1328	-	-	1408	-	-
Stage 1	791	728	-	735	685	-	-	-	-	-	-	-
Stage 2	735	685	-	818	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	475	464	832	476	448	877	1328	-	-	1408	-	-
Mov Cap-2 Maneuver	475	464	-	476	448	-	-	-	-	-	-	-
Stage 1	791	727	-	703	655	-	-	-	-	-	-	-
Stage 2	703	655	-	786	708	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.53	0	1.89	0.04
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	434	-	-	565	-	8	-	-
HCM Lane V/C Ratio	0.039	-	-	0.153	-	0.001	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	12.5	0	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	31	26	50	39	56	7	7	48	44	7	11
Future Vol, veh/h	31	31	26	50	39	56	7	7	48	44	7	11
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	33	33	28	54	42	60	8	8	52	47	8	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	62	0	0	254	312	35	255	279	43
Stage 1	-	-	-	-	-	-	101	101	-	150	150	-
Stage 2	-	-	-	-	-	-	153	211	-	105	129	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1495	-	-	1547	-	-	701	605	1040	700	630	1030
Stage 1	-	-	-	-	-	-	908	813	-	854	775	-
Stage 2	-	-	-	-	-	-	852	730	-	903	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1546	-	-	643	568	1038	617	592	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	643	568	-	617	592	-
Stage 1	-	-	-	-	-	-	886	794	-	822	745	-
Stage 2	-	-	-	-	-	-	802	702	-	830	772	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.63	2.56	9.36	10.93
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	893	900	-	-	1011	-	-	613	1029
HCM Lane V/C Ratio	0.075	0.022	-	-	0.035	-	-	0.089	0.011
HCM Ctrl Dly (s/v)	9.4	7.5	0	-	7.4	0	-	11.4	8.5
HCM Lane LOS	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.3	0

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	149	126	37	8	0	224	0	103	50	223	148	0
Future Vol, veh/h	149	126	37	8	0	224	0	103	50	223	148	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	164	138	41	9	0	246	0	113	55	245	163	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	18.1	13.1	12.6	15
HCM LOS	C	B	B	B

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	3%	48%	100%	0%
Vol Thru, %	67%	0%	40%	0%	100%
Vol Right, %	33%	97%	12%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	232	312	223	148
LT Vol	0	8	149	223	0
Through Vol	103	0	126	0	148
RT Vol	50	224	37	0	0
Lane Flow Rate	168	255	343	245	163
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.308	0.417	0.595	0.492	0.304
Departure Headway (Hd)	6.585	5.887	6.245	7.23	6.72
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	545	609	579	497	535
Service Time	4.639	3.934	4.285	4.976	4.465
HCM Lane V/C Ratio	0.308	0.419	0.592	0.493	0.305
HCM Control Delay, s/veh	12.6	13.1	18.1	16.8	12.4
HCM Lane LOS	B	B	C	C	B
HCM 95th-tile Q	1.3	2.1	3.9	2.7	1.3

Intersection	
Int Delay, s/veh	3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	39	3	86	124	349	0	0	336	186
Future Vol, veh/h	0	0	0	39	3	86	124	349	0	0	336	186
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	41	3	91	132	371	0	0	357	198

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	995	1190	373	555	0	-	-	-	0
Stage 1	635	635	-	-	-	-	-	-	-
Stage 2	359	555	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	272	187	673	1015	-	0	0	-	-
Stage 1	528	472	-	-	-	0	0	-	-
Stage 2	706	513	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	236	0	672	1015	-	-	-	-	-
Mov Cap-2 Maneuver	236	0	-	-	-	-	-	-	-
Stage 1	459	0	-	-	-	-	-	-	-
Stage 2	705	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	17.37	2.38	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	1015	-	426	-	-
HCM Lane V/C Ratio	0.13	-	0.32	-	-
HCM Ctrl Dly (s/v)	9.1	-	17.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	354	55	6	184	49	9
Future Vol, veh/h	354	55	6	184	49	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	385	60	7	200	53	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	445	0	628	415
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1116	-	447	638
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1116	-	444	638
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	818	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.26	13.92
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	466	1116	-	-	-
HCM Lane V/C Ratio	0.135	0.006	-	-	-
HCM Ctrl Dly (s/v)	13.9	8.2	-	-	-
HCM Lane LOS	B	A	-	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	194	21	165	199	0	0
Future Vol, veh/h	194	21	165	199	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	204	22	174	209	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	174	-	0	-
Stage 1	174	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.43	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.527	-	-	-
Pot Cap-1 Maneuver	814	0	-	0
Stage 1	854	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	814	-	-	-
Mov Cap-2 Maneuver	814	-	-	-
Stage 1	854	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	10.9	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	814	-
HCM Lane V/C Ratio	0.251	-
HCM Ctrl Dly (s/v)	10.9	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1	-

Existing Plus Project Synchro Reports

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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	1	0	0	7	0	17	1	163	5	7	86	0
Future Vol, veh/h	1	0	0	7	0	17	1	163	5	7	86	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	35	35	35	35	35	35	35	35	35	35	35	35
Mvmt Flow	1	0	0	8	0	19	1	183	6	8	97	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	298	303	97	301	301	186	97	0	0	189	0	0
Stage 1	112	112	-	188	188	-	-	-	-	-	-	-
Stage 2	185	191	-	112	112	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.45	6.85	6.55	4.45	-	-	4.45	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.815	4.315	3.615	2.515	-	-	2.515	-	-
Pot Cap-1 Maneuver	594	559	876	592	561	778	1314	-	-	1210	-	-
Stage 1	818	743	-	743	686	-	-	-	-	-	-	-
Stage 2	746	684	-	818	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	575	554	876	587	556	778	1314	-	-	1210	-	-
Mov Cap-2 Maneuver	575	554	-	587	556	-	-	-	-	-	-	-
Stage 1	813	738	-	742	686	-	-	-	-	-	-	-
Stage 2	727	684	-	813	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.27	10.26	0.05	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	575	711	135	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.038	0.007	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	11.3	10.3	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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	1	7	2	1	3	7	0	0	0	21	0	3
Future Vol, veh/h	1	7	2	1	3	7	0	0	0	21	0	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	3	2	5	11	0	0	0	33	0	5

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	16	0	0	14	0	0				27	30	10
Stage 1	-	-	-	-	-	-				13	13	-
Stage 2	-	-	-	-	-	-				14	17	-
Critical Hdwy	4.12	-	-	4.12	-	-				6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-				3.518	4.018	3.318
Pot Cap-1 Maneuver	1602	-	-	1604	-	-				988	862	1071
Stage 1	-	-	-	-	-	-				1010	884	-
Stage 2	-	-	-	-	-	-				1009	881	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1602	-	-	1604	-	-				986	0	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-				986	0	-
Stage 1	-	-	-	-	-	-				1009	0	-
Stage 2	-	-	-	-	-	-				1008	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.72	0.66	8.73
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	172	-	-	144	-	-	986	1071
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.033	0.004
HCM Ctrl Dly (s/v)	7.2	0	-	7.2	0	-	8.8	8.4
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.1	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	22	0	0	1	1	156	4	2	141	1
Future Vol, veh/h	1	0	22	0	0	1	1	156	4	2	141	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	1	0	25	0	0	1	1	175	4	2	158	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	341	346	159	343	344	178	160	0	0	180	0	0
Stage 1	163	163	-	180	180	-	-	-	-	-	-	-
Stage 2	178	182	-	163	164	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	607	573	878	606	574	858	1402	-	-	1378	-	-
Stage 1	832	757	-	815	745	-	-	-	-	-	-	-
Stage 2	817	743	-	832	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	605	571	878	587	572	858	1402	-	-	1378	-	-
Mov Cap-2 Maneuver	605	571	-	587	572	-	-	-	-	-	-	-
Stage 1	830	756	-	814	744	-	-	-	-	-	-	-
Stage 2	816	743	-	807	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.31	9.2	0.05	0.11
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	862	858	25	-	-
HCM Lane V/C Ratio	0.001	-	-	0.03	0.001	0.002	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	9.3	9.2	7.6	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

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	16	35	22	21	54	7	63	37	53	9	14	22
Future Vol, veh/h	16	35	22	21	54	7	63	37	53	9	14	22
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	0	100	-	-	150	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	18	40	25	24	61	8	72	42	60	10	16	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	68	0	0	197	199	44	210	216	65
Stage 1	-	-	-	-	-	-	79	79	-	112	112	-
Stage 2	-	-	-	-	-	-	118	120	-	98	104	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1509	-	-	1515	-	-	755	691	1018	740	676	990
Stage 1	-	-	-	-	-	-	922	823	-	886	797	-
Stage 2	-	-	-	-	-	-	879	791	-	901	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1505	-	-	1510	-	-	695	668	1014	633	653	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	695	668	-	633	653	-
Stage 1	-	-	-	-	-	-	908	811	-	869	782	-
Stage 2	-	-	-	-	-	-	825	775	-	793	791	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.63	1.9	10.26	9.84
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	695	836	565	-	-	504	-	-	633	823
HCM Lane V/C Ratio	0.103	0.122	0.012	-	-	0.016	-	-	0.016	0.05
HCM Ctrl Dly (s/v)	10.8	9.9	7.4	0	-	7.4	0	-	10.8	9.6
HCM Lane LOS	B	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0.4	0	-	-	0	-	-	0	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	97	0	29	0	0	2	20	192	0	1	159	39
Future Vol, veh/h	97	0	29	0	0	2	20	192	0	1	159	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	108	0	32	0	0	2	22	213	0	1	177	43

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	459	460	199	438	482	214	221	0	0	214	0	0
Stage 1	202	202	-	259	259	-	-	-	-	-	-	-
Stage 2	258	259	-	179	223	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	507	493	834	524	480	818	1331	-	-	1338	-	-
Stage 1	793	729	-	739	688	-	-	-	-	-	-	-
Stage 2	740	688	-	816	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	495	483	833	493	469	817	1329	-	-	1337	-	-
Mov Cap-2 Maneuver	495	483	-	493	469	-	-	-	-	-	-	-
Stage 1	792	728	-	725	675	-	-	-	-	-	-	-
Stage 2	724	675	-	784	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.85	9.42	0.73	0.04
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	170	-	-	546	817	9	-	-
HCM Lane V/C Ratio	0.017	-	-	0.256	0.003	0.001	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	13.8	9.4	7.7	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0	0	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	22	3	47	10	33	6	17	107	104	11	15
Future Vol, veh/h	0	22	3	47	10	33	6	17	107	104	11	15
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	3	48	10	34	6	18	110	107	11	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	31	0	0	141	174	28	144	143	15
Stage 1	-	-	-	-	-	-	28	28	-	112	112	-
Stage 2	-	-	-	-	-	-	113	146	-	31	31	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1557	-	-	1582	-	-	829	719	1048	826	748	1064
Stage 1	-	-	-	-	-	-	990	872	-	893	803	-
Stage 2	-	-	-	-	-	-	892	776	-	985	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1550	-	-	1574	-	-	776	690	1043	694	718	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	776	690	-	694	718	-
Stage 1	-	-	-	-	-	-	985	868	-	860	773	-
Stage 2	-	-	-	-	-	-	839	748	-	863	865	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	3.84	9.34	10.91
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	963	1550	-	-	1484	-	-	696	1059
HCM Lane V/C Ratio	0.139	-	-	-	0.031	-	-	0.17	0.015
HCM Ctrl Dly (s/v)	9.3	0	-	-	7.4	0	-	11.2	8.4
HCM Lane LOS	A	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.6	0

Intersection	
Intersection Delay, s/veh	25.9
Intersection LOS	D

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	189	98	17	4	0	378	0	269	35	215	95	0
Future Vol, veh/h	189	98	17	4	0	378	0	269	35	215	95	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	201	104	18	4	0	402	0	286	37	229	101	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	26.7	30	26.7	19.2
HCM LOS	D	D	D	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	1%	62%	100%	0%
Vol Thru, %	88%	0%	32%	0%	100%
Vol Right, %	12%	99%	6%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	304	382	304	215	95
LT Vol	0	4	189	215	0
Through Vol	269	0	98	0	95
RT Vol	35	378	17	0	0
Lane Flow Rate	323	406	323	229	101
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.694	0.775	0.694	0.552	0.229
Departure Headway (Hd)	7.721	6.869	7.721	8.682	8.165
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	466	524	466	414	438
Service Time	5.816	4.959	5.815	6.477	5.96
HCM Lane V/C Ratio	0.693	0.775	0.693	0.553	0.231
HCM Control Delay, s/veh	26.7	30	26.7	21.8	13.4
HCM Lane LOS	D	D	D	C	B
HCM 95th-tile Q	5.2	7	5.2	3.2	0.9

Intersection	
Int Delay, s/veh	4.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	1	150	256	577	0	0	285	227
Future Vol, veh/h	0	0	0	20	1	150	256	577	0	0	285	227
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	1	161	275	620	0	0	306	244

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1479	1722	622	551	0	-	-	-	0
Stage 1	1171	1171	-	-	-	-	-	-	-
Stage 2	308	551	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	138	89	486	1019	-	0	0	-	-
Stage 1	295	267	-	-	-	0	0	-	-
Stage 2	745	516	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	101	0	485	1019	-	-	-	-	-
Mov Cap-2 Maneuver	101	0	-	-	-	-	-	-	-
Stage 1	215	0	-	-	-	-	-	-	-
Stage 2	744	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	28.07	3.02	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	1019	-	335	-	-
HCM Lane V/C Ratio	0.27	-	0.549	-	-
HCM Ctrl Dly (s/v)	9.8	-	28.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	1.1	-	3.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	309	43	0	270	98	12
Future Vol, veh/h	309	43	0	270	98	12
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	329	46	0	287	104	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	640	353
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1179	-	438	689
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1179	-	438	688
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	758	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	456	1179	-	-	-
HCM Lane V/C Ratio	0.257	-	-	-	-
HCM Ctrl Dly (s/v)	15.6	0	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	1	0	-	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	265	33	125	199	0	0
Future Vol, veh/h	265	33	125	199	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	282	35	133	212	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	133	-	0	-
Stage 1	133	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.44	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.536	-	-	-
Pot Cap-1 Maneuver	856	0	-	0
Stage 1	888	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	856	-	-	-
Mov Cap-2 Maneuver	856	-	-	-
Stage 1	888	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.26	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	856	-
HCM Lane V/C Ratio	0.329	-
HCM Ctrl Dly (s/v)	11.3	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.4	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	4	1	17	0	164	8	24	127	2
Future Vol, veh/h	0	0	1	4	1	17	0	164	8	24	127	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	24	24	24	24	24	24	24	24	24	24	24	24
Mvmt Flow	0	0	1	4	1	18	0	176	9	26	137	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	366	374	138	369	371	181	139	0	0	185	0	0
Stage 1	189	189	-	181	181	-	-	-	-	-	-	-
Stage 2	177	185	-	188	190	-	-	-	-	-	-	-
Critical Hdwy	7.34	6.74	6.44	7.34	6.74	6.44	4.34	-	-	4.34	-	-
Critical Hdwy Stg 1	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.216	3.516	3.716	4.216	3.516	2.416	-	-	2.416	-	-
Pot Cap-1 Maneuver	551	523	855	549	526	808	1320	-	-	1268	-	-
Stage 1	764	704	-	773	710	-	-	-	-	-	-	-
Stage 2	776	707	-	765	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	526	512	855	536	514	808	1320	-	-	1268	-	-
Mov Cap-2 Maneuver	526	512	-	536	514	-	-	-	-	-	-	-
Stage 1	747	689	-	773	710	-	-	-	-	-	-	-
Stage 2	758	707	-	747	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.21	10.15	0	1.24
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	855	723	281	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.033	0.02	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.2	10.1	7.9	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	4	0	1	7	25	0	0	0	12	0	6
Future Vol, veh/h	2	4	0	1	7	25	0	0	0	12	0	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	4	0	1	8	27	0	0	0	13	0	7

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	35	0	0	4	0	0			32	32	21
Stage 1	-	-	-	-	-	-			23	23	-
Stage 2	-	-	-	-	-	-			9	9	-
Critical Hdwy	4.15	-	-	4.15	-	-			6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-			5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-			3.545	4.045	3.345
Pot Cap-1 Maneuver	1557	-	-	1598	-	-			974	855	1048
Stage 1	-	-	-	-	-	-			992	870	-
Stage 2	-	-	-	-	-	-			1007	882	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1557	-	-	1598	-	-			972	0	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-			972	0	-
Stage 1	-	-	-	-	-	-			990	0	-
Stage 2	-	-	-	-	-	-			1006	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.44	0.22	8.66
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	600	-	-	47	-	-	972	1048
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.013	0.006
HCM Ctrl Dly (s/v)	7.3	0	-	7.3	0	-	8.8	8.5
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0	0

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	0	21	5	2	1	29	234	1	4	195	3
Future Vol, veh/h	0	0	21	5	2	1	29	234	1	4	195	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	25	6	2	1	35	279	1	5	232	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	592	592	234	590	593	279	236	0	0	280	0	0
Stage 1	243	243	-	348	348	-	-	-	-	-	-	-
Stage 2	349	349	-	242	245	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	415	416	800	416	416	755	1320	-	-	1271	-	-
Stage 1	756	701	-	664	630	-	-	-	-	-	-	-
Stage 2	663	630	-	757	699	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	397	402	800	389	401	755	1320	-	-	1271	-	-
Mov Cap-2 Maneuver	397	402	-	389	401	-	-	-	-	-	-	-
Stage 1	752	698	-	643	611	-	-	-	-	-	-	-
Stage 2	639	611	-	731	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.64	13.82	0.86	0.16
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	198	-	-	800	418	36	-	-
HCM Lane V/C Ratio	0.026	-	-	0.031	0.023	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.6	13.8	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	57	64	49	20	9	30	26	30	9	29	0
Future Vol, veh/h	7	57	64	49	20	9	30	26	30	9	29	0
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	0	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	66	74	56	23	10	34	30	34	10	33	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	140	0	0	235	230	68	234	293	24
Stage 1	-	-	-	-	-	-	83	83	-	137	137	-
Stage 2	-	-	-	-	-	-	152	147	-	98	156	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1577	-	-	1443	-	-	720	670	996	720	618	1052
Stage 1	-	-	-	-	-	-	926	826	-	867	783	-
Stage 2	-	-	-	-	-	-	850	775	-	909	768	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1442	-	-	649	639	994	633	589	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	649	639	-	633	589	-
Stage 1	-	-	-	-	-	-	920	821	-	831	751	-
Stage 2	-	-	-	-	-	-	780	744	-	840	763	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.4	4.77	10.27	11.31
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	649	790	197	-	-	1278	-	-	633	589
HCM Lane V/C Ratio	0.053	0.081	0.005	-	-	0.039	-	-	0.016	0.057
HCM Ctrl Dly (s/v)	10.9	10	7.3	0	-	7.6	0	-	10.8	11.5
HCM Lane LOS	B	A	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.2	0.3	0	-	-	0.1	-	-	0	0.2

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	59	0	29	0	0	0	47	148	0	1	161	65
Future Vol, veh/h	59	0	29	0	0	0	47	148	0	1	161	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	66	0	32	0	0	0	52	164	0	1	179	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	486	486	215	450	522	164	251	0	0	164	0	0
Stage 1	217	217	-	269	269	-	-	-	-	-	-	-
Stage 2	269	269	-	181	253	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	490	480	822	518	458	877	1308	-	-	1408	-	-
Stage 1	783	721	-	735	685	-	-	-	-	-	-	-
Stage 2	735	685	-	818	696	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	468	458	822	475	437	877	1308	-	-	1408	-	-
Mov Cap-2 Maneuver	468	458	-	475	437	-	-	-	-	-	-	-
Stage 1	782	721	-	702	655	-	-	-	-	-	-	-
Stage 2	702	655	-	786	695	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.04	0	1.9	0.03
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	434	-	-	545	-	7	-	-
HCM Lane V/C Ratio	0.04	-	-	0.179	-	0.001	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	13	0	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	-	0	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	31	26	66	39	56	7	7	57	44	7	11
Future Vol, veh/h	31	31	26	66	39	56	7	7	57	44	7	11
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	33	33	28	71	42	60	8	8	61	47	8	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	66	0	0	293	354	43	298	322	47
Stage 1	-	-	-	-	-	-	105	105	-	189	189	-
Stage 2	-	-	-	-	-	-	188	249	-	109	133	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1490	-	-	1542	-	-	662	573	1030	657	597	1025
Stage 1	-	-	-	-	-	-	903	810	-	815	746	-
Stage 2	-	-	-	-	-	-	816	702	-	899	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1483	-	-	1535	-	-	597	527	1020	560	549	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	597	527	-	560	549	-
Stage 1	-	-	-	-	-	-	878	788	-	771	706	-
Stage 2	-	-	-	-	-	-	759	664	-	813	766	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.64	3.06	9.49	11.51
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	878	900	-	-	1131	-	-	558	1020
HCM Lane V/C Ratio	0.087	0.022	-	-	0.046	-	-	0.098	0.012
HCM Ctrl Dly (s/v)	9.5	7.5	0	-	7.5	0	-	12.1	8.6
HCM Lane LOS	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.3	0

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	149	134	45	8	0	234	0	113	50	231	156	0
Future Vol, veh/h	149	134	45	8	0	234	0	113	50	231	156	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	164	147	49	9	0	257	0	124	55	254	171	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	20.2	14	13.4	16
HCM LOS	C	B	B	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	3%	45%	100%	0%
Vol Thru, %	69%	0%	41%	0%	100%
Vol Right, %	31%	97%	14%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	163	242	328	231	156
LT Vol	0	8	149	231	0
Through Vol	113	0	134	0	156
RT Vol	50	234	45	0	0
Lane Flow Rate	179	266	360	254	171
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.339	0.449	0.64	0.522	0.328
Departure Headway (Hd)	6.808	6.08	6.395	7.409	6.898
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	590	562	487	521
Service Time	4.873	4.137	4.444	5.163	4.652
HCM Lane V/C Ratio	0.34	0.451	0.641	0.522	0.328
HCM Control Delay, s/veh	13.4	14	20.2	18	13
HCM Lane LOS	B	B	C	C	B
HCM 95th-tile Q	1.5	2.3	4.5	3	1.4

Intersection	
Int Delay, s/veh	3.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	39	3	86	134	358	0	0	352	186
Future Vol, veh/h	0	0	0	39	3	86	134	358	0	0	352	186
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	41	3	91	143	381	0	0	374	198

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1042	1238	383	572	0	-	-	-	0
Stage 1	666	666	-	-	-	-	-	-	-
Stage 2	376	572	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	254	176	665	1000	-	0	0	-	-
Stage 1	511	457	-	-	-	0	0	-	-
Stage 2	694	504	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	218	0	663	1000	-	-	-	-	-
Mov Cap-2 Maneuver	218	0	-	-	-	-	-	-	-
Stage 1	438	0	-	-	-	-	-	-	-
Stage 2	693	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	18.34	2.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	1000	-	405	-	-
HCM Lane V/C Ratio	0.142	-	0.336	-	-
HCM Ctrl Dly (s/v)	9.2	-	18.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.5	-	1.5	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	370	55	6	194	49	9
Future Vol, veh/h	370	55	6	194	49	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	402	60	7	211	53	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	462	0	656	432
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	224	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1099	-	430	623
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1099	-	428	623
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	808	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.25	14.31
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	450	1099	-	-	-
HCM Lane V/C Ratio	0.14	0.006	-	-	-
HCM Ctrl Dly (s/v)	14.3	8.3	-	-	-
HCM Lane LOS	B	A	-	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	204	21	165	215	0	0
Future Vol, veh/h	204	21	165	215	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	215	22	174	226	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	174	-	0	-
Stage 1	174	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.43	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.527	-	-	-
Pot Cap-1 Maneuver	814	0	-	0
Stage 1	854	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	814	-	-	-
Mov Cap-2 Maneuver	814	-	-	-
Stage 1	854	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	814	-
HCM Lane V/C Ratio	0.264	-
HCM Ctrl Dly (s/v)	11	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.1	-

Near Term Synchro Reports

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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	1	0	0	7	0	17	1	163	5	7	86	0
Future Vol, veh/h	1	0	0	7	0	17	1	163	5	7	86	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	35	35	35	35	35	35	35	35	35	35	35	35
Mvmt Flow	1	0	0	8	0	19	1	183	6	8	97	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	298	303	97	301	301	186	97	0	0	189	0	0
Stage 1	112	112	-	188	188	-	-	-	-	-	-	-
Stage 2	185	191	-	112	112	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.45	6.85	6.55	4.45	-	-	4.45	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.815	4.315	3.615	2.515	-	-	2.515	-	-
Pot Cap-1 Maneuver	594	559	876	592	561	778	1314	-	-	1210	-	-
Stage 1	818	743	-	743	686	-	-	-	-	-	-	-
Stage 2	746	684	-	818	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	575	554	876	587	556	778	1314	-	-	1210	-	-
Mov Cap-2 Maneuver	575	554	-	587	556	-	-	-	-	-	-	-
Stage 1	813	738	-	742	686	-	-	-	-	-	-	-
Stage 2	727	684	-	813	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.27	10.26	0.05	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	575	711	135	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.038	0.007	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	11.3	10.3	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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	1	7	2	1	3	7	0	0	0	21	0	3
Future Vol, veh/h	1	7	2	1	3	7	0	0	0	21	0	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	3	2	5	11	0	0	0	33	0	5

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	16	0	0	14	0	0				27	30	10
Stage 1	-	-	-	-	-	-				13	13	-
Stage 2	-	-	-	-	-	-				14	17	-
Critical Hdwy	4.12	-	-	4.12	-	-				6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-				3.518	4.018	3.318
Pot Cap-1 Maneuver	1602	-	-	1604	-	-				988	862	1071
Stage 1	-	-	-	-	-	-				1010	884	-
Stage 2	-	-	-	-	-	-				1009	881	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1602	-	-	1604	-	-				986	0	1071
Mov Cap-2 Maneuver	-	-	-	-	-	-				986	0	-
Stage 1	-	-	-	-	-	-				1009	0	-
Stage 2	-	-	-	-	-	-				1008	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.72	0.66	8.73
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	172	-	-	144	-	-	986	1071
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.033	0.004
HCM Ctrl Dly (s/v)	7.2	0	-	7.2	0	-	8.8	8.4
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.1	0

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	22	0	0	1	7	156	4	2	141	1
Future Vol, veh/h	1	0	22	0	0	1	7	156	4	2	141	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	1	0	25	0	0	1	8	175	4	2	158	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	354	359	159	356	357	178	160	0	0	180	0	0
Stage 1	163	163	-	193	193	-	-	-	-	-	-	-
Stage 2	191	196	-	163	164	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	595	563	878	593	564	858	1402	-	-	1378	-	-
Stage 1	832	757	-	802	735	-	-	-	-	-	-	-
Stage 2	804	733	-	832	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	589	558	878	572	560	858	1402	-	-	1378	-	-
Mov Cap-2 Maneuver	589	558	-	572	560	-	-	-	-	-	-	-
Stage 1	830	756	-	797	730	-	-	-	-	-	-	-
Stage 2	798	729	-	807	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.32	9.2	0.32	0.11
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	75	-	-	860	858	25	-	-
HCM Lane V/C Ratio	0.006	-	-	0.03	0.001	0.002	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	9.3	9.2	7.6	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

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	17	55	22	22	60	8	63	37	54	12	14	26
Future Vol, veh/h	17	55	22	22	60	8	63	37	54	12	14	26
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	0	100	-	-	150	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	19	63	25	25	68	9	72	42	61	14	16	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	91	0	0	231	234	67	244	250	72
Stage 1	-	-	-	-	-	-	104	104	-	121	121	-
Stage 2	-	-	-	-	-	-	127	130	-	123	129	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1499	-	-	1486	-	-	717	661	989	703	647	982
Stage 1	-	-	-	-	-	-	894	803	-	876	790	-
Stage 2	-	-	-	-	-	-	869	783	-	874	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1482	-	-	655	637	985	596	624	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	637	-	596	624	-
Stage 1	-	-	-	-	-	-	880	790	-	858	774	-
Stage 2	-	-	-	-	-	-	811	767	-	764	771	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.35	1.83	10.55	10.02
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	655	806	425	-	-	483	-	-	596	816
HCM Lane V/C Ratio	0.109	0.128	0.013	-	-	0.017	-	-	0.023	0.056
HCM Ctrl Dly (s/v)	11.2	10.1	7.4	0	-	7.5	0	-	11.2	9.7
HCM Lane LOS	B	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.4	0	-	-	0.1	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	114	0	33	0	0	2	21	192	0	1	159	45
Future Vol, veh/h	114	0	33	0	0	2	21	192	0	1	159	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	127	0	37	0	0	2	23	213	0	1	177	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	465	466	203	440	491	214	228	0	0	214	0	0
Stage 1	205	205	-	261	261	-	-	-	-	-	-	-
Stage 2	260	261	-	179	230	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	503	490	831	522	474	818	1323	-	-	1338	-	-
Stage 1	790	726	-	737	687	-	-	-	-	-	-	-
Stage 2	738	687	-	816	709	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	490	479	830	488	463	817	1322	-	-	1337	-	-
Mov Cap-2 Maneuver	490	479	-	488	463	-	-	-	-	-	-	-
Stage 1	789	725	-	722	672	-	-	-	-	-	-	-
Stage 2	721	672	-	779	707	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.53	9.42	0.77	0.04
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	177	-	-	540	817	8	-	-
HCM Lane V/C Ratio	0.018	-	-	0.303	0.003	0.001	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	14.5	9.4	7.7	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.3	0	0	-	-

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	0	32	6	59	13	33	12	17	138	104	11	15
Future Vol, veh/h	0	32	6	59	13	33	12	17	138	104	11	15
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	6	61	13	34	12	18	142	107	11	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	44	0	0	179	212	38	182	184	18
Stage 1	-	-	-	-	-	-	38	38	-	140	140	-
Stage 2	-	-	-	-	-	-	141	174	-	42	44	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1553	-	-	1564	-	-	783	685	1034	780	710	1060
Stage 1	-	-	-	-	-	-	977	863	-	863	781	-
Stage 2	-	-	-	-	-	-	862	755	-	973	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1546	-	-	1557	-	-	725	651	1029	625	675	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	651	-	625	675	-
Stage 1	-	-	-	-	-	-	973	859	-	824	746	-
Stage 2	-	-	-	-	-	-	803	721	-	821	854	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	4.16	9.66	11.63
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	945	1546	-	-	1475	-	-	630	1055
HCM Lane V/C Ratio	0.182	-	-	-	0.039	-	-	0.188	0.015
HCM Ctrl Dly (s/v)	9.7	0	-	-	7.4	0	-	12	8.5
HCM Lane LOS	A	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.7	0

Intersection	
Intersection Delay, s/veh	37.3
Intersection LOS	E

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	192	102	24	4	0	391	0	305	39	219	103	0
Future Vol, veh/h	192	102	24	4	0	391	0	305	39	219	103	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	204	109	26	4	0	416	0	324	41	233	110	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	36.9	44.9	42.8	22.3
HCM LOS	E	E	E	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	1%	60%	100%	0%
Vol Thru, %	89%	0%	32%	0%	100%
Vol Right, %	11%	99%	8%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	344	395	318	219	103
LT Vol	0	4	192	219	0
Through Vol	305	0	102	0	103
RT Vol	39	391	24	0	0
Lane Flow Rate	366	420	338	233	110
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.844	0.88	0.791	0.607	0.27
Departure Headway (Hd)	8.304	7.541	8.417	9.377	8.857
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	435	479	430	384	404
Service Time	6.395	5.63	6.51	7.171	6.651
HCM Lane V/C Ratio	0.841	0.877	0.786	0.607	0.272
HCM Control Delay, s/veh	42.8	44.9	36.9	25.8	14.9
HCM Lane LOS	E	E	E	D	B
HCM 95th-tile Q	8.2	9.4	7	3.8	1.1

Intersection	
Int Delay, s/veh	6.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	1	151	290	595	0	0	293	237
Future Vol, veh/h	0	0	0	24	1	151	290	595	0	0	293	237
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	1	162	312	640	0	0	315	255

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1580	1833	642	570	0	-	-	-	0
Stage 1	1263	1263	-	-	-	-	-	-	-
Stage 2	317	570	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	120	76	474	1003	-	0	0	-	-
Stage 1	266	241	-	-	-	0	0	-	-
Stage 2	738	505	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	82	0	473	1003	-	-	-	-	-
Mov Cap-2 Maneuver	82	0	-	-	-	-	-	-	-
Stage 1	183	0	-	-	-	-	-	-	-
Stage 2	737	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	38.9	3.34	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	1003	-	287	-	-
HCM Lane V/C Ratio	0.311	-	0.66	-	-
HCM Ctrl Dly (s/v)	10.2	-	38.9	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	1.3	-	4.3	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	321	43	0	283	98	12
Future Vol, veh/h	321	43	0	283	98	12
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	341	46	0	301	104	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	387	0	666	365
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	302	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1166	-	423	678
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1166	-	422	677
Mov Cap-2 Maneuver	-	-	-	-	422	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	747	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	16.11
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	440	1166	-	-	-
HCM Lane V/C Ratio	0.266	-	-	-	-
HCM Ctrl Dly (s/v)	16.1	0	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	1.1	0	-	-	-

Intersection	
Int Delay, s/veh	7.8

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	278	37	131	205	0	0
Future Vol, veh/h	278	37	131	205	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	296	39	139	218	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	139	-	0	-
Stage 1	139	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.44	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.536	-	-	-
Pot Cap-1 Maneuver	849	0	-	0
Stage 1	883	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	849	-	-	-
Mov Cap-2 Maneuver	849	-	-	-
Stage 1	883	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.49	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	849	-
HCM Lane V/C Ratio	0.348	-
HCM Ctrl Dly (s/v)	11.5	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.6	-



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	192	102	24	4	0	391	0	305	39	219	103	0
Future Volume (vph)	192	102	24	4	0	391	0	305	39	219	103	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1786	1568	1746		1529		1845	1568	1752	1845	
Flt Permitted		0.97	1.00	0.43		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1786	1568	795		1529		1845	1568	1752	1845	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	204	109	26	4	0	416	0	324	41	233	110	0
RTOR Reduction (vph)	0	0	18	0	0	291	0	0	28	0	0	0
Lane Group Flow (vph)	0	313	8	4	0	125	0	324	13	233	110	0
Confl. Peds. (#/hr)				4		3	1		4			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Prot	Prot	NA	
Protected Phases		6						4	4	3	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)		18.0	18.0	18.0		18.0		18.3	18.3	10.2	33.0	
Effective Green, g (s)		18.0	18.0	18.0		18.0		18.3	18.3	10.2	33.0	
Actuated g/C Ratio		0.30	0.30	0.30		0.30		0.31	0.31	0.17	0.55	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		535	470	238		458		562	478	297	1014	
v/s Ratio Prot								c0.18	0.01	c0.13	0.06	
v/s Ratio Perm		0.18	0.00	0.01		0.08						
v/c Ratio		0.59	0.02	0.02		0.27		0.58	0.03	0.78	0.11	
Uniform Delay, d1		17.8	14.8	14.8		16.0		17.6	14.6	23.8	6.5	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		4.6	0.1	0.1		1.5		1.4	0.0	12.7	0.2	
Delay (s)		22.5	14.8	14.9		17.5		19.0	14.6	36.6	6.7	
Level of Service		C	B	B		B		B	B	D	A	
Approach Delay (s/veh)		21.9			17.4			18.5			27.0	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	339	420	365	343
Demand Flow Rate, veh/h	349	432	376	353
Vehicles Circulating, veh/h	357	544	562	4
Vehicles Exiting, veh/h	0	394	144	972
Ped Vol Crossing Leg, #/h	1	4	4	3
Ped Cap Adj	1.000	0.999	0.999	1.000
Approach Delay, s/veh	7.9	12.9	11.6	4.9
Approach LOS	A	B	B	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	349	432	376	353
Cap Entry Lane, veh/h	959	792	778	1374
Entry HV Adj Factor	0.971	0.972	0.971	0.971
Flow Entry, veh/h	339	420	365	343
Cap Entry, veh/h	930	770	755	1334
V/C Ratio	0.364	0.546	0.484	0.257
Control Delay, s/veh	7.9	12.9	11.6	4.9
LOS	A	B	B	A
95th %tile Queue, veh	2	3	3	1

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	189	952	570
Demand Flow Rate, veh/h	0	193	971	581
Vehicles Circulating, veh/h	348	971	0	346
Vehicles Exiting, veh/h	579	0	348	818
Ped Vol Crossing Leg, #/h	1	0	4	4
Ped Cap Adj	1.000	1.000	0.999	0.999
Approach Delay, s/veh	0.0	13.3	12.2	12.3
Approach LOS	-	B	B	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	193	971	581
Cap Entry Lane, veh/h	513	1380	970
Entry HV Adj Factor	0.979	0.981	0.981
Flow Entry, veh/h	189	952	570
Cap Entry, veh/h	502	1352	950
V/C Ratio	0.377	0.704	0.600
Control Delay, s/veh	13.3	12.2	12.3
LOS	B	B	B
95th %tile Queue, veh	2	6	4

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	4	1	17	0	164	8	24	127	2
Future Vol, veh/h	0	0	1	4	1	17	0	164	8	24	127	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	24	24	24	24	24	24	24	24	24	24	24	24
Mvmt Flow	0	0	1	4	1	18	0	176	9	26	137	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	366	374	138	369	371	181	139	0	0	185	0	0
Stage 1	189	189	-	181	181	-	-	-	-	-	-	-
Stage 2	177	185	-	188	190	-	-	-	-	-	-	-
Critical Hdwy	7.34	6.74	6.44	7.34	6.74	6.44	4.34	-	-	4.34	-	-
Critical Hdwy Stg 1	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.216	3.516	3.716	4.216	3.516	2.416	-	-	2.416	-	-
Pot Cap-1 Maneuver	551	523	855	549	526	808	1320	-	-	1268	-	-
Stage 1	764	704	-	773	710	-	-	-	-	-	-	-
Stage 2	776	707	-	765	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	526	512	855	536	514	808	1320	-	-	1268	-	-
Mov Cap-2 Maneuver	526	512	-	536	514	-	-	-	-	-	-	-
Stage 1	747	689	-	773	710	-	-	-	-	-	-	-
Stage 2	758	707	-	747	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.21	10.15	0	1.24
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	855	723	281	-	-
HCM Lane V/C Ratio	-	-	-	0.001	0.033	0.02	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.2	10.1	7.9	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	4	0	1	7	25	0	0	0	12	0	6
Future Vol, veh/h	2	4	0	1	7	25	0	0	0	12	0	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	4	0	1	8	27	0	0	0	13	0	7

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	35	0	0	4	0	0			32	32	21
Stage 1	-	-	-	-	-	-			23	23	-
Stage 2	-	-	-	-	-	-			9	9	-
Critical Hdwy	4.15	-	-	4.15	-	-			6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-			5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-			3.545	4.045	3.345
Pot Cap-1 Maneuver	1557	-	-	1598	-	-			974	855	1048
Stage 1	-	-	-	-	-	-			992	870	-
Stage 2	-	-	-	-	-	-			1007	882	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1557	-	-	1598	-	-			972	0	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-			972	0	-
Stage 1	-	-	-	-	-	-			990	0	-
Stage 2	-	-	-	-	-	-			1006	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.44	0.22	8.66
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	600	-	-	47	-	-	972	1048
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.013	0.006
HCM Ctrl Dly (s/v)	7.3	0	-	7.3	0	-	8.8	8.5
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0	0

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	0	21	5	2	1	29	234	1	4	195	3
Future Vol, veh/h	0	0	21	5	2	1	29	234	1	4	195	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	25	6	2	1	35	279	1	5	232	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	592	592	234	590	593	279	236	0	0	280	0	0
Stage 1	243	243	-	348	348	-	-	-	-	-	-	-
Stage 2	349	349	-	242	245	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	415	416	800	416	416	755	1320	-	-	1271	-	-
Stage 1	756	701	-	664	630	-	-	-	-	-	-	-
Stage 2	663	630	-	757	699	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	397	402	800	389	401	755	1320	-	-	1271	-	-
Mov Cap-2 Maneuver	397	402	-	389	401	-	-	-	-	-	-	-
Stage 1	752	698	-	643	611	-	-	-	-	-	-	-
Stage 2	639	611	-	731	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.64	13.82	0.86	0.16
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	198	-	-	800	418	36	-	-
HCM Lane V/C Ratio	0.026	-	-	0.031	0.023	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.6	13.8	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	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	11	70	64	50	42	10	30	26	31	9	29	3
Future Vol, veh/h	11	70	64	50	42	10	30	26	31	9	29	3
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	0	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	80	74	57	48	11	34	30	36	10	33	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	155	0	0	287	282	82	286	345	49
Stage 1	-	-	-	-	-	-	107	107	-	164	164	-
Stage 2	-	-	-	-	-	-	180	176	-	122	180	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1543	-	-	1425	-	-	666	626	977	666	578	1019
Stage 1	-	-	-	-	-	-	899	807	-	838	762	-
Stage 2	-	-	-	-	-	-	822	754	-	883	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1541	-	-	1424	-	-	593	594	975	579	548	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	593	594	-	579	548	-
Stage 1	-	-	-	-	-	-	890	799	-	802	730	-
Stage 2	-	-	-	-	-	-	749	721	-	810	743	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.56	3.74	10.65	11.63
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	593	754	244	-	-	978	-	-	579	573
HCM Lane V/C Ratio	0.058	0.087	0.008	-	-	0.04	-	-	0.018	0.064
HCM Ctrl Dly (s/v)	11.4	10.2	7.4	0	-	7.6	0	-	11.3	11.7
HCM Lane LOS	B	B	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.2	0.3	0	-	-	0.1	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	70	0	32	0	0	0	51	148	0	1	161	84
Future Vol, veh/h	70	0	32	0	0	0	51	148	0	1	161	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	78	0	36	0	0	0	57	164	0	1	179	93

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	506	506	226	459	552	164	272	0	0	164	0	0
Stage 1	228	228	-	278	278	-	-	-	-	-	-	-
Stage 2	278	278	-	181	274	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	476	468	811	511	440	877	1285	-	-	1408	-	-
Stage 1	773	714	-	726	679	-	-	-	-	-	-	-
Stage 2	726	679	-	818	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	452	445	811	464	418	877	1285	-	-	1408	-	-
Mov Cap-2 Maneuver	452	445	-	464	418	-	-	-	-	-	-	-
Stage 1	772	713	-	691	646	-	-	-	-	-	-	-
Stage 2	691	646	-	782	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.74	0	2.03	0.03
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	461	-	-	525	-	7	-	-
HCM Lane V/C Ratio	0.044	-	-	0.216	-	0.001	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	13.7	0	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	-	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	37	33	100	53	56	11	7	79	44	7	11
Future Vol, veh/h	31	37	33	100	53	56	11	7	79	44	7	11
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	33	40	35	108	57	60	12	8	85	47	8	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	80	0	0	387	449	50	392	424	62
Stage 1	-	-	-	-	-	-	111	111	-	277	277	-
Stage 2	-	-	-	-	-	-	276	337	-	115	147	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1471	-	-	1524	-	-	573	507	1021	569	523	1006
Stage 1	-	-	-	-	-	-	896	805	-	732	683	-
Stage 2	-	-	-	-	-	-	733	643	-	892	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1517	-	-	501	453	1012	458	467	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	453	-	458	467	-
Stage 1	-	-	-	-	-	-	871	782	-	672	628	-
Stage 2	-	-	-	-	-	-	661	591	-	786	755	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.31	3.61	9.89	12.96
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	840	821	-	-	1176	-	-	460	1001
HCM Lane V/C Ratio	0.124	0.023	-	-	0.071	-	-	0.119	0.012
HCM Ctrl Dly (s/v)	9.9	7.5	0	-	7.6	0	-	13.9	8.6
HCM Lane LOS	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.2	-	-	0.4	0

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	160	146	74	8	0	243	0	139	52	239	174	0
Future Vol, veh/h	160	146	74	8	0	243	0	139	52	239	174	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	176	160	81	9	0	267	0	153	57	263	191	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	29.9	16.6	16.1	18.6
HCM LOS	D	C	C	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	3%	42%	100%	0%
Vol Thru, %	73%	0%	38%	0%	100%
Vol Right, %	27%	97%	19%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	251	380	239	174
LT Vol	0	8	160	239	0
Through Vol	139	0	146	0	174
RT Vol	52	243	74	0	0
Lane Flow Rate	210	276	418	263	191
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.434	0.514	0.779	0.582	0.397
Departure Headway (Hd)	7.447	6.711	6.841	7.98	7.466
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	485	541	535	454	484
Service Time	5.478	4.727	4.841	5.695	5.181
HCM Lane V/C Ratio	0.433	0.51	0.781	0.579	0.395
HCM Control Delay, s/veh	16.1	16.6	29.9	21.2	15
HCM Lane LOS	C	C	D	C	B
HCM 95th-tile Q	2.2	2.9	7.1	3.6	1.9

Intersection	
Int Delay, s/veh	3.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	49	3	88	156	382	0	0	368	192
Future Vol, veh/h	0	0	0	49	3	88	156	382	0	0	368	192
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	52	3	94	166	406	0	0	391	204

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1132	1334	408	596	0	-	-	-	0
Stage 1	738	738	-	-	-	-	-	-	-
Stage 2	393	596	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	225	154	643	981	-	0	0	-	-
Stage 1	473	424	-	-	-	0	0	-	-
Stage 2	682	492	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	186	0	642	981	-	-	-	-	-
Mov Cap-2 Maneuver	186	0	-	-	-	-	-	-	-
Stage 1	393	0	-	-	-	-	-	-	-
Stage 2	680	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	23.36	2.73	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	981	-	342	-	-
HCM Lane V/C Ratio	0.169	-	0.435	-	-
HCM Ctrl Dly (s/v)	9.4	-	23.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	2.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	392	55	6	203	49	9
Future Vol, veh/h	392	55	6	203	49	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	426	60	7	221	53	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	486	0	690	456
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	234	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1077	-	411	604
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1077	-	409	604
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	800	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.24	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	430	1077	-	-	-
HCM Lane V/C Ratio	0.147	0.006	-	-	-
HCM Ctrl Dly (s/v)	14.8	8.4	-	-	-
HCM Lane LOS	B	A	-	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	213	23	168	234	0	0
Future Vol, veh/h	213	23	168	234	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	224	24	177	246	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	177	-	0	-
Stage 1	177	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.43	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.527	-	-	-
Pot Cap-1 Maneuver	811	0	-	0
Stage 1	851	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	811	-	-	-
Mov Cap-2 Maneuver	811	-	-	-
Stage 1	851	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.13	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	811	-
HCM Lane V/C Ratio	0.277	-
HCM Ctrl Dly (s/v)	11.1	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.1	-

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	160	146	74	8	0	243	0	139	52	239	174	0
Future Volume (vph)	160	146	74	8	0	243	0	139	52	239	174	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	0.98	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583	1766		1546		1863	1546	1770	1863	
Flt Permitted		0.97	1.00	0.50		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1815	1583	921		1546		1863	1546	1770	1863	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	176	160	81	9	0	267	0	153	57	263	191	0
RTOR Reduction (vph)	0	0	44	0	0	146	0	0	49	0	0	0
Lane Group Flow (vph)	0	336	37	9	0	121	0	153	8	263	191	0
Confl. Peds. (#/hr)				2		2			2			
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Perm	Prot	NA	
Protected Phases		6						4		3	8	
Permitted Phases	6		6	2		2			4			
Actuated Green, G (s)		27.1	27.1	27.1		27.1		8.9	8.9	10.5	23.9	
Effective Green, g (s)		27.1	27.1	27.1		27.1		8.9	8.9	10.5	23.9	
Actuated g/C Ratio		0.45	0.45	0.45		0.45		0.15	0.15	0.18	0.40	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		819	714	415		698		276	229	309	742	
v/s Ratio Prot								c0.08		c0.15	0.10	
v/s Ratio Perm		0.19	0.02	0.01		0.08			0.01			
v/c Ratio		0.41	0.05	0.02		0.17		0.55	0.04	0.85	0.26	
Uniform Delay, d1		11.1	9.2	9.1		9.8		23.7	21.9	24.0	12.1	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.5	0.1	0.1		0.5		2.4	0.1	19.6	0.2	
Delay (s)		12.6	9.4	9.2		10.3		26.1	21.9	43.6	12.3	
Level of Service		B	A	A		B		C	C	D	B	
Approach Delay (s/veh)		12.0			10.3			25.0			30.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	417	276	210	454
Demand Flow Rate, veh/h	426	281	214	463
Vehicles Circulating, veh/h	472	336	611	9
Vehicles Exiting, veh/h	0	489	287	608
Ped Vol Crossing Leg, #/h	0	2	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.0	6.7	8.4	5.7
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	426	281	214	463
Cap Entry Lane, veh/h	853	980	740	1367
Entry HV Adj Factor	0.978	0.982	0.981	0.981
Flow Entry, veh/h	417	276	210	454
Cap Entry, veh/h	834	962	726	1341
V/C Ratio	0.500	0.287	0.289	0.339
Control Delay, s/veh	11.0	6.7	8.4	5.7
LOS	B	A	A	A
95th %tile Queue, veh	3	1	1	2

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	149	572	595
Demand Flow Rate, veh/h	0	152	583	607
Vehicles Circulating, veh/h	452	583	0	225
Vehicles Exiting, veh/h	380	0	452	510
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.0	6.7	10.2
Approach LOS	-	A	A	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	152	583	607
Cap Entry Lane, veh/h	761	1380	1097
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	149	572	595
Cap Entry, veh/h	746	1353	1075
V/C Ratio	0.200	0.423	0.554
Control Delay, s/veh	7.0	6.7	10.2
LOS	A	A	B
95th %tile Queue, veh	1	2	4

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Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	0	0	0	0	2	192	3	2	102	0
Future Vol, veh/h	2	0	0	0	0	0	2	192	3	2	102	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	35	35	35	35	35	35	35	35	35	35	35	35
Mvmt Flow	2	0	0	0	0	0	2	209	3	2	111	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	328	332	111	330	330	210	111	0	0	212	0	0
Stage 1	115	115	-	215	215	-	-	-	-	-	-	-
Stage 2	213	216	-	115	115	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.45	6.85	6.55	4.45	-	-	4.45	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.815	4.315	3.615	2.515	-	-	2.515	-	-
Pot Cap-1 Maneuver	566	538	860	565	539	753	1297	-	-	1185	-	-
Stage 1	815	741	-	718	668	-	-	-	-	-	-	-
Stage 2	720	666	-	815	741	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	564	536	860	563	537	753	1297	-	-	1185	-	-
Mov Cap-2 Maneuver	564	536	-	563	537	-	-	-	-	-	-	-
Stage 1	814	739	-	717	666	-	-	-	-	-	-	-
Stage 2	718	665	-	814	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.41	0	0.08	0.15
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	564	-	35	-	-
HCM Lane V/C Ratio	0.002	-	-	0.004	-	0.002	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	11.4	0	8	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	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	2	3	3	2	3	3	0	0	0	8	0	3
Future Vol, veh/h	2	3	3	2	3	3	0	0	0	8	0	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	2	3	3	0	0	0	9	0	3

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	7	0	0	7	0	0	17	20	5
Stage 1	-	-	-	-	-	-	9	9	-
Stage 2	-	-	-	-	-	-	8	11	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1614	-	-	1614	-	-	1001	874	1078
Stage 1	-	-	-	-	-	-	1014	888	-
Stage 2	-	-	-	-	-	-	1015	887	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1614	-	-	1614	-	-	999	0	1078
Mov Cap-2 Maneuver	-	-	-	-	-	-	999	0	-
Stage 1	-	-	-	-	-	-	1012	0	-
Stage 2	-	-	-	-	-	-	1014	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.81	1.81	8.57
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	409	-	-	409	-	-	1019
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.012
HCM Ctrl Dly (s/v)	7.2	0	-	7.2	0	-	8.6
HCM Lane LOS	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	3	0	0	2	2	184	5	3	167	2
Future Vol, veh/h	2	0	3	0	0	2	2	184	5	3	167	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	0	3	0	0	2	2	200	5	3	182	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	393	399	183	395	397	203	184	0	0	205	0	0
Stage 1	189	189	-	207	207	-	-	-	-	-	-	-
Stage 2	204	210	-	188	190	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	561	534	852	559	536	830	1373	-	-	1348	-	-
Stage 1	806	738	-	788	725	-	-	-	-	-	-	-
Stage 2	791	723	-	807	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	557	532	852	555	533	830	1373	-	-	1348	-	-
Mov Cap-2 Maneuver	557	532	-	555	533	-	-	-	-	-	-	-
Stage 1	804	736	-	787	724	-	-	-	-	-	-	-
Stage 2	787	722	-	802	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.16	9.35	0.08	0.13
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	703	830	31	-	-
HCM Lane V/C Ratio	0.002	-	-	0.008	0.003	0.002	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	10.2	9.3	7.7	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	42	17	19	64	9	46	28	46	11	11	26
Future Vol, veh/h	19	42	17	19	64	9	46	28	46	11	11	26
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	0	100	-	-	150	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	21	46	18	21	70	10	50	30	50	12	12	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	67	0	0	208	214	50	217	222	74
Stage 1	-	-	-	-	-	-	90	90	-	114	114	-
Stage 2	-	-	-	-	-	-	118	124	-	103	108	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1496	-	-	1515	-	-	743	679	1010	733	671	980
Stage 1	-	-	-	-	-	-	910	815	-	884	795	-
Stage 2	-	-	-	-	-	-	879	788	-	895	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1492	-	-	1511	-	-	686	656	1006	644	648	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	686	656	-	644	648	-
Stage 1	-	-	-	-	-	-	894	801	-	869	782	-
Stage 2	-	-	-	-	-	-	828	774	-	806	786	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.81	1.53	10.1	9.74
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	686	837	561	-	-	412	-	-	644	849
HCM Lane V/C Ratio	0.073	0.096	0.014	-	-	0.014	-	-	0.019	0.047
HCM Ctrl Dly (s/v)	10.7	9.8	7.4	0	-	7.4	0	-	10.7	9.5
HCM Lane LOS	B	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.2	0.3	0	-	-	0	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	98	0	35	0	0	3	24	227	0	2	188	41
Future Vol, veh/h	98	0	35	0	0	3	24	227	0	2	188	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	107	0	38	0	0	3	26	247	0	2	204	45

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	531	532	228	509	554	248	250	0	0	248	0	0
Stage 1	232	232	-	300	300	-	-	-	-	-	-	-
Stage 2	299	300	-	209	254	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	454	449	804	470	436	784	1298	-	-	1301	-	-
Stage 1	764	707	-	703	660	-	-	-	-	-	-	-
Stage 2	704	660	-	787	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	441	437	803	436	424	783	1297	-	-	1299	-	-
Mov Cap-2 Maneuver	441	437	-	436	424	-	-	-	-	-	-	-
Stage 1	762	705	-	686	644	-	-	-	-	-	-	-
Stage 2	684	644	-	748	689	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.1	9.62	0.75	0.07
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	172	-	-	500	783	15	-	-
HCM Lane V/C Ratio	0.02	-	-	0.289	0.004	0.002	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	15.1	9.6	7.8	0	-
HCM Lane LOS	A	A	-	C	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	0	0	-	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	26	4	50	12	39	8	21	110	123	13	18
Future Vol, veh/h	0	26	4	50	12	39	8	21	110	123	13	18
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	4	54	13	42	9	23	120	134	14	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	38	0	0	162	202	33	166	164	18
Stage 1	-	-	-	-	-	-	33	33	-	127	127	-
Stage 2	-	-	-	-	-	-	129	169	-	40	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1543	-	-	1573	-	-	803	694	1040	798	728	1060
Stage 1	-	-	-	-	-	-	983	867	-	877	791	-
Stage 2	-	-	-	-	-	-	875	759	-	975	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1536	-	-	1565	-	-	741	662	1035	655	695	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	741	662	-	655	695	-
Stage 1	-	-	-	-	-	-	978	863	-	842	759	-
Stage 2	-	-	-	-	-	-	812	728	-	840	860	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	3.65	9.59	11.63
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	934	1536	-	-	1452	-	-	658	1055
HCM Lane V/C Ratio	0.162	-	-	-	0.035	-	-	0.225	0.019
HCM Ctrl Dly (s/v)	9.6	0	-	-	7.4	0	-	12	8.5
HCM Lane LOS	A	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.9	0.1

Intersection	
Intersection Delay, s/veh	72.6
Intersection LOS	F

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	223	112	18	5	0	429	0	301	42	251	109	0
Future Vol, veh/h	223	112	18	5	0	429	0	301	42	251	109	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	242	122	20	5	0	466	0	327	46	273	118	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	71.9	111.4	65.5	33.1
HCM LOS	F	F	F	D

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	1%	63%	100%	0%
Vol Thru, %	88%	0%	32%	0%	100%
Vol Right, %	12%	99%	5%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	343	434	353	251	109
LT Vol	0	5	223	251	0
Through Vol	301	0	112	0	109
RT Vol	42	429	18	0	0
Lane Flow Rate	373	472	384	273	118
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.944	1.125	0.973	0.759	0.313
Departure Headway (Hd)	9.705	8.585	9.665	10.584	10.06
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	377	425	380	344	360
Service Time	7.705	6.585	7.665	8.284	7.76
HCM Lane V/C Ratio	0.989	1.111	1.011	0.794	0.328
HCM Control Delay, s/veh	65.5	111.4	71.9	40	17.3
HCM Lane LOS	F	F	F	E	C
HCM 95th-tile Q	10.2	17	11	6	1.3

Intersection	
Int Delay, s/veh	9.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	2	177	286	664	0	0	330	268
Future Vol, veh/h	0	0	0	24	2	177	286	664	0	0	330	268
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	2	192	311	722	0	0	359	291

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1704	1993	724	650	0	-	-	-	0
Stage 1	1343	1343	-	-	-	-	-	-	-
Stage 2	361	650	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	101	60	426	936	-	0	0	-	-
Stage 1	243	220	-	-	-	0	0	-	-
Stage 2	705	465	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	67	0	425	936	-	-	-	-	-
Mov Cap-2 Maneuver	67	0	-	-	-	-	-	-	-
Stage 1	162	0	-	-	-	-	-	-	-
Stage 2	704	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	65.39	3.23	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	936	-	260	-	-
HCM Lane V/C Ratio	0.332	-	0.85	-	-
HCM Ctrl Dly (s/v)	10.7	-	65.4	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	1.5	-	7	-	-

Intersection	
Int Delay, s/veh	3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	359	51	0	302	116	15
Future Vol, veh/h	359	51	0	302	116	15
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	390	55	0	328	126	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	446	0	747	419
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1109	-	379	632
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	727	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1109	-	379	631
Mov Cap-2 Maneuver	-	-	-	-	379	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	726	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	19.06
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	397	1109	-	-	-
HCM Lane V/C Ratio	0.359	-	-	-	-
HCM Ctrl Dly (s/v)	19.1	0	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	1.6	0	-	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	296	39	148	229	0	0
Future Vol, veh/h	296	39	148	229	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	322	42	161	249	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	161	-	0	-
Stage 1	161	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.44	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.536	-	-	-
Pot Cap-1 Maneuver	825	0	-	0
Stage 1	863	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	825	-	-	-
Mov Cap-2 Maneuver	825	-	-	-
Stage 1	863	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	12.12	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	825	-
HCM Lane V/C Ratio	0.39	-
HCM Ctrl Dly (s/v)	12.1	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.9	-

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	223	112	18	5	0	429	0	301	42	251	109	0
Future Volume (vph)	223	112	18	5	0	429	0	301	42	251	109	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1785	1568	1748		1529		1845	1568	1752	1845	
Flt Permitted		0.97	1.00	0.40		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1785	1568	744		1529		1845	1568	1752	1845	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	122	20	5	0	466	0	327	46	273	118	0
RTOR Reduction (vph)	0	0	13	0	0	303	0	0	35	0	0	0
Lane Group Flow (vph)	0	364	7	5	0	163	0	327	12	273	118	0
Confl. Peds. (#/hr)				3		3	1		1			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Prot	Prot	NA	
Protected Phases		6						4	4	3	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)		21.0	21.0	21.0		21.0		15.0	15.0	10.5	30.0	
Effective Green, g (s)		21.0	21.0	21.0		21.0		15.0	15.0	10.5	30.0	
Actuated g/C Ratio		0.35	0.35	0.35		0.35		0.25	0.25	0.18	0.50	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		624	548	260		535		461	392	306	922	
v/s Ratio Prot								c0.18	0.01	c0.16	0.06	
v/s Ratio Perm		0.20	0.00	0.01		0.11						
v/c Ratio		0.58	0.01	0.02		0.30		0.71	0.03	0.89	0.13	
Uniform Delay, d1		15.9	12.7	12.8		14.2		20.5	17.0	24.2	8.0	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		4.0	0.0	0.1		1.5		5.0	0.0	26.1	0.1	
Delay (s)		19.9	12.8	12.9		15.7		25.5	17.0	50.3	8.1	
Level of Service		B	B	B		B		C	B	D	A	
Approach Delay (s/veh)		19.5			15.6			24.4			37.5	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	384	471	373	391
Demand Flow Rate, veh/h	396	485	384	403
Vehicles Circulating, veh/h	408	586	656	5
Vehicles Exiting, veh/h	0	454	148	1066
Ped Vol Crossing Leg, #/h	1	1	3	3
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.4	16.3	14.0	5.3
Approach LOS	A	C	B	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	396	485	384	403
Cap Entry Lane, veh/h	910	759	707	1373
Entry HV Adj Factor	0.971	0.971	0.972	0.971
Flow Entry, veh/h	384	471	373	391
Cap Entry, veh/h	883	737	687	1333
V/C Ratio	0.435	0.639	0.544	0.294
Control Delay, s/veh	9.4	16.3	14.0	5.3
LOS	A	C	B	A
95th %tile Queue, veh	2	5	3	1

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	220	1033	650
Demand Flow Rate, veh/h	0	225	1053	663
Vehicles Circulating, veh/h	393	1053	0	346
Vehicles Exiting, veh/h	616	0	393	932
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	17.1	14.5	15.0
Approach LOS	-	C	B	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	225	1053	663
Cap Entry Lane, veh/h	471	1380	970
Entry HV Adj Factor	0.978	0.981	0.980
Flow Entry, veh/h	220	1033	650
Cap Entry, veh/h	461	1353	950
V/C Ratio	0.477	0.763	0.684
Control Delay, s/veh	17.1	14.5	15.0
LOS	C	B	B
95th %tile Queue, veh	3	8	6

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	2	0	2	4	0	194	0	5	150	3
Future Vol, veh/h	0	0	2	0	2	4	0	194	0	5	150	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	24	24	24	24	24	24	24	24	24	24	24	24
Mvmt Flow	0	0	2	0	2	4	0	211	0	5	163	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	388	386	165	385	388	211	166	0	0	211	0	0
Stage 1	176	176	-	211	211	-	-	-	-	-	-	-
Stage 2	212	211	-	174	177	-	-	-	-	-	-	-
Critical Hdwy	7.34	6.74	6.44	7.34	6.74	6.44	4.34	-	-	4.34	-	-
Critical Hdwy Stg 1	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.216	3.516	3.716	4.216	3.516	2.416	-	-	2.416	-	-
Pot Cap-1 Maneuver	533	515	826	536	514	777	1289	-	-	1239	-	-
Stage 1	778	714	-	744	689	-	-	-	-	-	-	-
Stage 2	743	689	-	779	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	526	512	826	532	511	777	1289	-	-	1239	-	-
Mov Cap-2 Maneuver	526	512	-	532	511	-	-	-	-	-	-	-
Stage 1	774	711	-	744	689	-	-	-	-	-	-	-
Stage 2	736	689	-	773	709	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.37	10.49	0	0.25
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1289	-	-	826	662	57	-	-
HCM Lane V/C Ratio	-	-	-	0.003	0.01	0.004	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.4	10.5	7.9	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	3	2	0	2	3	10	0	0	0	3	0	8
Future Vol, veh/h	3	2	0	2	3	10	0	0	0	3	0	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	2	0	2	3	11	0	0	0	3	0	9

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	14	0	0	2	0	0	22	22	9
Stage 1	-	-	-	-	-	-	13	13	-
Stage 2	-	-	-	-	-	-	9	9	-
Critical Hdwy	4.15	-	-	4.15	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	1585	-	-	1601	-	-	987	866	1064
Stage 1	-	-	-	-	-	-	1002	879	-
Stage 2	-	-	-	-	-	-	1007	882	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1585	-	-	1601	-	-	984	0	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	984	0	-
Stage 1	-	-	-	-	-	-	1000	0	-
Stage 2	-	-	-	-	-	-	1005	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.37	0.97	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1080	-	-	208	-	-	1041
HCM Lane V/C Ratio	0.002	-	-	0.001	-	-	0.011
HCM Ctrl Dly (s/v)	7.3	0	-	7.3	0	-	8.5
HCM Lane LOS	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	10	6	3	2	9	276	2	5	230	4
Future Vol, veh/h	0	0	10	6	3	2	9	276	2	5	230	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	11	7	3	2	10	300	2	5	250	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	584	585	252	582	586	301	254	0	0	302	0	0
Stage 1	263	263	-	321	321	-	-	-	-	-	-	-
Stage 2	321	322	-	261	265	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	420	420	782	422	420	734	1299	-	-	1247	-	-
Stage 1	738	687	-	687	648	-	-	-	-	-	-	-
Stage 2	686	648	-	740	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	410	414	782	410	414	734	1299	-	-	1247	-	-
Mov Cap-2 Maneuver	410	414	-	410	414	-	-	-	-	-	-	-
Stage 1	734	684	-	681	642	-	-	-	-	-	-	-
Stage 2	675	642	-	726	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.67	13.27	0.24	0.17
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	56	-	-	782	447	38	-	-
HCM Lane V/C Ratio	0.008	-	-	0.014	0.027	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.7	13.3	7.9	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	68	44	39	24	11	17	21	24	11	16	0
Future Vol, veh/h	9	68	44	39	24	11	17	21	24	11	16	0
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	0	100	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	74	48	42	26	12	18	23	26	12	17	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	39	0	0	123	0	0	214	218	76	218	254	27
Stage 1	-	-	-	-	-	-	94	94	-	112	112	-
Stage 2	-	-	-	-	-	-	120	124	-	106	142	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1571	-	-	1464	-	-	743	680	985	739	649	1048
Stage 1	-	-	-	-	-	-	912	817	-	893	803	-
Stage 2	-	-	-	-	-	-	885	793	-	900	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1569	-	-	1463	-	-	696	654	983	668	625	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	654	-	668	625	-
Stage 1	-	-	-	-	-	-	905	810	-	866	778	-
Stage 2	-	-	-	-	-	-	839	769	-	845	773	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.54	3.97	9.95	10.75
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	696	796	210	-	-	1114	-	-	668	625
HCM Lane V/C Ratio	0.027	0.061	0.006	-	-	0.029	-	-	0.018	0.028
HCM Ctrl Dly (s/v)	10.3	9.8	7.3	0	-	7.5	0	-	10.5	10.9
HCM Lane LOS	B	A	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.1	0.2	0	-	-	0.1	-	-	0.1	0.1

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	58	0	35	0	0	0	56	175	0	2	190	58
Future Vol, veh/h	58	0	35	0	0	0	56	175	0	2	190	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	63	0	38	0	0	0	61	190	0	2	207	63

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	554	554	238	523	586	190	270	0	0	190	0	0
Stage 1	242	242	-	312	312	-	-	-	-	-	-	-
Stage 2	312	312	-	211	274	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	441	439	798	463	421	849	1288	-	-	1378	-	-
Stage 1	759	703	-	696	656	-	-	-	-	-	-	-
Stage 2	696	656	-	789	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	417	415	798	417	398	849	1288	-	-	1378	-	-
Mov Cap-2 Maneuver	417	415	-	417	398	-	-	-	-	-	-	-
Stage 1	757	702	-	660	621	-	-	-	-	-	-	-
Stage 2	660	621	-	750	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.83	0	1.92	0.06
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	436	-	-	509	-	14	-	-
HCM Lane V/C Ratio	0.047	-	-	0.199	-	0.002	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	13.8	0	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	-	0	-	-

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	37	37	31	59	46	66	9	9	57	52	9	13
Future Vol, veh/h	37	37	31	59	46	66	9	9	57	52	9	13
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	40	40	34	64	50	72	10	10	62	57	10	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	123	0	0	75	0	0	305	373	42	306	335	51
Stage 1	-	-	-	-	-	-	122	122	-	179	179	-
Stage 2	-	-	-	-	-	-	183	251	-	127	155	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1471	-	-	1531	-	-	650	559	1031	649	587	1020
Stage 1	-	-	-	-	-	-	885	797	-	825	753	-
Stage 2	-	-	-	-	-	-	821	701	-	880	771	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1469	-	-	1529	-	-	583	518	1029	554	544	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	518	-	554	544	-
Stage 1	-	-	-	-	-	-	859	773	-	787	718	-
Stage 2	-	-	-	-	-	-	762	669	-	792	748	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.65	2.57	9.68	11.73
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	850	900	-	-	1011	-	-	553	1019
HCM Lane V/C Ratio	0.096	0.027	-	-	0.042	-	-	0.12	0.014
HCM Ctrl Dly (s/v)	9.7	7.5	0	-	7.5	0	-	12.4	8.6
HCM Lane LOS	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.4	0

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	176	149	44	10	0	264	0	122	59	263	175	0
Future Vol, veh/h	176	149	44	10	0	264	0	122	59	263	175	0
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	191	162	48	11	0	287	0	133	64	286	190	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	29.1	17.8	15.7	20.2
HCM LOS	D	C	C	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	4%	48%	100%	0%
Vol Thru, %	67%	0%	40%	0%	100%
Vol Right, %	33%	96%	12%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	181	274	369	263	175
LT Vol	0	10	176	263	0
Through Vol	122	0	149	0	175
RT Vol	59	264	44	0	0
Lane Flow Rate	197	298	401	286	190
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.411	0.555	0.764	0.634	0.395
Departure Headway (Hd)	7.524	6.706	6.985	7.985	7.471
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	480	539	521	455	483
Service Time	5.561	4.723	4.985	5.703	5.189
HCM Lane V/C Ratio	0.41	0.553	0.77	0.629	0.393
HCM Control Delay, s/veh	15.7	17.8	29.1	23.6	15
HCM Lane LOS	C	C	D	C	B
HCM 95th-tile Q	2	3.4	6.7	4.3	1.9

Intersection	
Int Delay, s/veh	4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	46	4	102	147	412	0	0	396	220
Future Vol, veh/h	0	0	0	46	4	102	147	412	0	0	396	220
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	50	4	111	160	448	0	0	430	239

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1200	1437	450	670	0	-	-	-	0
Stage 1	767	767	-	-	-	-	-	-	-
Stage 2	432	670	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	205	133	609	921	-	0	0	-	-
Stage 1	458	411	-	-	-	0	0	-	-
Stage 2	654	456	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	169	0	608	921	-	-	-	-	-
Mov Cap-2 Maneuver	169	0	-	-	-	-	-	-	-
Stage 1	379	0	-	-	-	-	-	-	-
Stage 2	653	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	25.64	2.56	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	921	-	336	-	-
HCM Lane V/C Ratio	0.174	-	0.492	-	-
HCM Ctrl Dly (s/v)	9.7	-	25.6	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.6	-	2.6	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	417	65	8	217	58	11
Future Vol, veh/h	417	65	8	217	58	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	71	9	236	63	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	524	0	742	489
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1043	-	383	579
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	789	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1043	-	380	579
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	782	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.3	16
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	402	1043	-	-	-
HCM Lane V/C Ratio	0.187	0.008	-	-	-
HCM Ctrl Dly (s/v)	16	8.5	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	0.7	0	-	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	229	25	195	235	0	0
Future Vol, veh/h	229	25	195	235	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	249	27	212	255	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	212	-	0	-
Stage 1	212	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.43	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.527	-	-	-
Pot Cap-1 Maneuver	774	0	-	0
Stage 1	821	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	774	-	-	-
Mov Cap-2 Maneuver	774	-	-	-
Stage 1	821	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.84	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	774	-
HCM Lane V/C Ratio	0.322	-
HCM Ctrl Dly (s/v)	11.8	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.4	-

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	176	149	44	10	0	264	0	122	59	263	175	0
Future Volume (vph)	176	149	44	10	0	264	0	122	59	263	175	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1814	1583	1766		1546		1863	1583	1770	1863	
Flt Permitted		0.97	1.00	0.48		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1814	1583	896		1546		1863	1583	1770	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	162	48	11	0	287	0	133	64	286	190	0
RTOR Reduction (vph)	0	0	26	0	0	155	0	0	55	0	0	0
Lane Group Flow (vph)	0	353	22	11	0	132	0	133	9	286	190	0
Confl. Peds. (#/hr)				2		2			2			
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Prot	Prot	NA	
Protected Phases		6						4	4	3	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)		27.6	27.6	27.6		27.6		8.4	8.4	10.5	23.4	
Effective Green, g (s)		27.6	27.6	27.6		27.6		8.4	8.4	10.5	23.4	
Actuated g/C Ratio		0.46	0.46	0.46		0.46		0.14	0.14	0.18	0.39	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		834	728	412		711		260	221	309	726	
v/s Ratio Prot								c0.07	0.01	c0.16	0.10	
v/s Ratio Perm		0.19	0.01	0.01		0.09						
v/c Ratio		0.42	0.03	0.03		0.19		0.51	0.04	0.93	0.26	
Uniform Delay, d1		10.9	8.9	8.9		9.6		23.9	22.3	24.4	12.4	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.6	0.1	0.1		0.6		1.7	0.1	32.2	0.2	
Delay (s)		12.4	8.9	9.0		10.1		25.6	22.4	56.6	12.6	
Level of Service		B	A	A		B		C	C	E	B	
Approach Delay (s/veh)		12.0			10.1			24.6			39.0	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	401	298	197	476
Demand Flow Rate, veh/h	409	304	201	486
Vehicles Circulating, veh/h	497	331	652	11
Vehicles Exiting, veh/h	0	522	254	624
Ped Vol Crossing Leg, #/h	0	2	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.1	6.9	8.6	6.0
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	409	304	201	486
Cap Entry Lane, veh/h	831	985	710	1364
Entry HV Adj Factor	0.980	0.980	0.982	0.980
Flow Entry, veh/h	401	298	197	476
Cap Entry, veh/h	814	965	697	1337
V/C Ratio	0.492	0.309	0.283	0.356
Control Delay, s/veh	11.1	6.9	8.6	6.0
LOS	B	A	A	A
95th %tile Queue, veh	3	1	1	2

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	165	608	669
Demand Flow Rate, veh/h	0	168	620	683
Vehicles Circulating, veh/h	490	620	0	218
Vehicles Exiting, veh/h	411	0	490	570
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.6	7.1	11.6
Approach LOS	-	A	A	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	168	620	683
Cap Entry Lane, veh/h	733	1380	1105
Entry HV Adj Factor	0.982	0.981	0.980
Flow Entry, veh/h	165	608	669
Cap Entry, veh/h	720	1353	1082
V/C Ratio	0.229	0.449	0.618
Control Delay, s/veh	7.6	7.1	11.6
LOS	A	A	B
95th %tile Queue, veh	1	2	4

Cumulative Year 2046 Plus Project
Synchro Reports

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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	0	0	7	0	17	2	192	6	8	102	0
Future Vol, veh/h	2	0	0	7	0	17	2	192	6	8	102	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	35	35	35	35	35	35	35	35	35	35	35	35
Mvmt Flow	2	0	0	8	0	18	2	209	7	9	111	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	341	348	111	345	345	212	111	0	0	215	0	0
Stage 1	128	128	-	216	216	-	-	-	-	-	-	-
Stage 2	213	220	-	128	128	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.45	6.85	6.55	4.45	-	-	4.45	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.45	5.85	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.815	4.315	3.615	2.515	-	-	2.515	-	-
Pot Cap-1 Maneuver	555	526	860	552	529	752	1297	-	-	1182	-	-
Stage 1	802	731	-	717	666	-	-	-	-	-	-	-
Stage 2	720	664	-	802	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	536	521	860	547	524	752	1297	-	-	1182	-	-
Mov Cap-2 Maneuver	536	521	-	547	524	-	-	-	-	-	-	-
Stage 1	796	725	-	715	665	-	-	-	-	-	-	-
Stage 2	701	663	-	796	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.74	10.52	0.08	0.59
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	536	678	131	-	-
HCM Lane V/C Ratio	0.002	-	-	0.004	0.038	0.007	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	11.7	10.5	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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	2	8	3	2	4	8	0	0	0	23	0	4
Future Vol, veh/h	2	8	3	2	4	8	0	0	0	23	0	4
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	9	3	2	4	9	0	0	0	25	0	4

Major/Minor	Major1			Major2						Minor2		
Conflicting Flow All	13	0	0	12	0	0				26	29	9
Stage 1	-	-	-	-	-	-				13	13	-
Stage 2	-	-	-	-	-	-				13	16	-
Critical Hdwy	4.12	-	-	4.12	-	-				6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-				3.518	4.018	3.318
Pot Cap-1 Maneuver	1605	-	-	1607	-	-				989	864	1073
Stage 1	-	-	-	-	-	-				1010	885	-
Stage 2	-	-	-	-	-	-				1010	882	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1605	-	-	1607	-	-				987	0	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-				987	0	-
Stage 1	-	-	-	-	-	-				1008	0	-
Stage 2	-	-	-	-	-	-				1008	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.11	1.03	8.69
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	263	-	-	227	-	-	987	1073
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-	0.025	0.004
HCM Ctrl Dly (s/v)	7.2	0	-	7.2	0	-	8.7	8.4
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0.1	0

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	23	0	0	2	8	184	5	3	167	2
Future Vol, veh/h	2	0	23	0	0	2	8	184	5	3	167	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	0	25	0	0	2	9	200	5	3	182	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	407	412	183	408	410	203	184	0	0	205	0	0
Stage 1	189	189	-	220	220	-	-	-	-	-	-	-
Stage 2	217	223	-	188	190	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	550	525	852	548	527	830	1373	-	-	1348	-	-
Stage 1	806	738	-	776	716	-	-	-	-	-	-	-
Stage 2	778	714	-	807	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	543	520	852	527	521	830	1373	-	-	1348	-	-
Mov Cap-2 Maneuver	543	520	-	527	521	-	-	-	-	-	-	-
Stage 1	804	736	-	770	710	-	-	-	-	-	-	-
Stage 2	771	708	-	781	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.57	9.35	0.31	0.13
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	73	-	-	815	830	31	-	-
HCM Lane V/C Ratio	0.006	-	-	0.033	0.003	0.002	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	9.6	9.3	7.7	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

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	19	42	25	24	64	9	70	42	60	11	16	26
Future Vol, veh/h	19	42	25	24	64	9	70	42	60	11	16	26
Conflicting Peds, #/hr	0	0	0	3	0	3	0	0	0	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	0	100	-	-	150	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	21	46	27	26	70	10	76	46	65	12	17	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	76	0	0	221	224	50	236	242	74
Stage 1	-	-	-	-	-	-	90	90	-	125	125	-
Stage 2	-	-	-	-	-	-	131	135	-	111	117	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1496	-	-	1504	-	-	728	669	1010	713	655	980
Stage 1	-	-	-	-	-	-	910	815	-	872	787	-
Stage 2	-	-	-	-	-	-	865	779	-	887	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1492	-	-	1500	-	-	663	644	1006	598	630	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	644	-	598	630	-
Stage 1	-	-	-	-	-	-	894	800	-	854	770	-
Stage 2	-	-	-	-	-	-	805	763	-	770	779	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.65	1.84	10.52	10.02
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	663	817	561	-	-	491	-	-	598	807
HCM Lane V/C Ratio	0.115	0.136	0.014	-	-	0.017	-	-	0.02	0.057
HCM Ctrl Dly (s/v)	11.1	10.1	7.4	0	-	7.4	0	-	11.1	9.7
HCM Lane LOS	B	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.5	0	-	-	0.1	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	112	0	35	0	0	3	24	227	0	2	188	46
Future Vol, veh/h	112	0	35	0	0	3	24	227	0	2	188	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	122	0	38	0	0	3	26	247	0	2	204	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	534	535	230	509	560	248	255	0	0	248	0	0
Stage 1	235	235	-	300	300	-	-	-	-	-	-	-
Stage 2	299	300	-	209	260	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	452	448	801	470	433	784	1292	-	-	1301	-	-
Stage 1	762	705	-	703	660	-	-	-	-	-	-	-
Stage 2	704	660	-	787	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	439	435	801	436	421	783	1291	-	-	1299	-	-
Mov Cap-2 Maneuver	439	435	-	436	421	-	-	-	-	-	-	-
Stage 1	759	703	-	686	644	-	-	-	-	-	-	-
Stage 2	684	644	-	748	686	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.81	9.62	0.75	0.07
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	172	-	-	492	783	15	-	-
HCM Lane V/C Ratio	0.02	-	-	0.325	0.004	0.002	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	15.8	9.6	7.8	0	-
HCM Lane LOS	A	A	-	C	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	0	0	-	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	26	4	55	12	39	8	21	124	123	13	18
Future Vol, veh/h	0	26	4	55	12	39	8	21	124	123	13	18
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	4	60	13	42	9	23	135	134	14	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	38	0	0	173	213	33	177	175	18
Stage 1	-	-	-	-	-	-	33	33	-	138	138	-
Stage 2	-	-	-	-	-	-	140	180	-	40	38	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1543	-	-	1573	-	-	790	684	1040	785	718	1060
Stage 1	-	-	-	-	-	-	983	867	-	866	783	-
Stage 2	-	-	-	-	-	-	863	750	-	975	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1536	-	-	1565	-	-	726	651	1035	631	683	1055
Mov Cap-2 Maneuver	-	-	-	-	-	-	726	651	-	631	683	-
Stage 1	-	-	-	-	-	-	978	863	-	827	748	-
Stage 2	-	-	-	-	-	-	798	717	-	826	860	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	3.84	9.66	11.92
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	938	1536	-	-	1478	-	-	635	1055
HCM Lane V/C Ratio	0.177	-	-	-	0.038	-	-	0.233	0.019
HCM Ctrl Dly (s/v)	9.7	0	-	-	7.4	0	-	12.4	8.5
HCM Lane LOS	A	A	-	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.9	0.1

Intersection	
Intersection Delay, s/veh	85.1
Intersection LOS	F

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	223	115	20	5	0	443	0	315	42	253	112	0
Future Vol, veh/h	223	115	20	5	0	443	0	315	42	253	112	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	242	125	22	5	0	482	0	342	46	275	122	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	79.8	135.8	77.7	35.1
HCM LOS	F	F	F	E

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	1%	62%	100%	0%
Vol Thru, %	88%	0%	32%	0%	100%
Vol Right, %	12%	99%	6%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	357	448	358	253	112
LT Vol	0	5	223	253	0
Through Vol	315	0	115	0	112
RT Vol	42	443	20	0	0
Lane Flow Rate	388	487	389	275	122
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.991	1.191	0.999	0.775	0.326
Departure Headway (Hd)	9.975	8.807	9.993	10.888	10.363
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	369	414	366	336	349
Service Time	7.975	6.807	7.993	8.588	8.063
HCM Lane V/C Ratio	1.051	1.176	1.063	0.818	0.35
HCM Control Delay, s/veh	77.7	135.8	79.8	42.7	18
HCM Lane LOS	F	F	F	E	C
HCM 95th-tile Q	11.4	19.2	11.6	6.2	1.4

Intersection	
Int Delay, s/veh	10.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	2	177	300	678	0	0	335	268
Future Vol, veh/h	0	0	0	24	2	177	300	678	0	0	335	268
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	2	192	326	737	0	0	364	291

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1755	2045	739	655	0	-	-	-	0
Stage 1	1389	1389	-	-	-	-	-	-	-
Stage 2	366	655	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	94	56	417	932	-	0	0	-	-
Stage 1	231	210	-	-	-	0	0	-	-
Stage 2	701	462	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	61	0	417	932	-	-	-	-	-
Mov Cap-2 Maneuver	61	0	-	-	-	-	-	-	-
Stage 1	150	0	-	-	-	-	-	-	-
Stage 2	700	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	77.66	3.35	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	932	-	245	-	-
HCM Lane V/C Ratio	0.35	-	0.901	-	-
HCM Ctrl Dly (s/v)	10.9	-	77.7	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	1.6	-	7.7	-	-

Intersection	
Int Delay, s/veh	3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	364	51	0	316	116	15
Future Vol, veh/h	364	51	0	316	116	15
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	396	55	0	343	126	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	451	0	768	424
Stage 1	-	-	-	-	423	-
Stage 2	-	-	-	-	344	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1104	-	369	628
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1104	-	368	627
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	715	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	19.65
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	386	1104	-	-	-
HCM Lane V/C Ratio	0.368	-	-	-	-
HCM Ctrl Dly (s/v)	19.7	0	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	1.7	0	-	-	-

Intersection	
Int Delay, s/veh	8.4

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	310	39	148	234	0	0
Future Vol, veh/h	310	39	148	234	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	337	42	161	254	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	161	-	0	-
Stage 1	161	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.44	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.536	-	-	-
Pot Cap-1 Maneuver	825	0	-	0
Stage 1	863	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	825	-	-	-
Mov Cap-2 Maneuver	825	-	-	-
Stage 1	863	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	12.34	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	825	-
HCM Lane V/C Ratio	0.408	-
HCM Ctrl Dly (s/v)	12.3	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	2	-



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	223	115	20	5	0	443	0	315	42	253	112	0
Future Volume (vph)	223	115	20	5	0	443	0	315	42	253	112	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1786	1568	1748		1529		1845	1568	1752	1845	
Flt Permitted		0.97	1.00	0.40		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1786	1568	730		1529		1845	1568	1752	1845	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	242	125	22	5	0	482	0	342	46	275	122	0
RTOR Reduction (vph)	0	0	14	0	0	316	0	0	34	0	0	0
Lane Group Flow (vph)	0	367	8	5	0	166	0	342	12	275	122	0
Confl. Peds. (#/hr)				3		3	1		1			
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Prot	Prot	NA	
Protected Phases		6						4	4	3	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)		20.7	20.7	20.7		20.7		15.3	15.3	10.5	30.3	
Effective Green, g (s)		20.7	20.7	20.7		20.7		15.3	15.3	10.5	30.3	
Actuated g/C Ratio		0.35	0.35	0.35		0.35		0.26	0.26	0.18	0.51	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		616	540	251		527		470	399	306	931	
v/s Ratio Prot								c0.19	0.01	c0.16	0.07	
v/s Ratio Perm		0.21	0.00	0.01		0.11						
v/c Ratio		0.60	0.01	0.02		0.32		0.73	0.03	0.90	0.13	
Uniform Delay, d1		16.2	12.9	13.0		14.4		20.4	16.8	24.2	7.9	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		4.2	0.0	0.1		1.6		5.6	0.0	27.0	0.1	
Delay (s)		20.4	13.0	13.1		16.0		26.0	16.8	51.2	7.9	
Level of Service		C	B	B		B		C	B	D	A	
Approach Delay (s/veh)		20.0			16.0			24.9			37.9	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	389	487	388	397
Demand Flow Rate, veh/h	401	501	399	409
Vehicles Circulating, veh/h	414	601	661	5
Vehicles Exiting, veh/h	0	459	154	1097
Ped Vol Crossing Leg, #/h	1	1	3	3
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.5	17.8	14.8	5.3
Approach LOS	A	C	B	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	401	501	399	409
Cap Entry Lane, veh/h	905	748	703	1373
Entry HV Adj Factor	0.971	0.972	0.972	0.971
Flow Entry, veh/h	389	487	388	397
Cap Entry, veh/h	878	727	683	1333
V/C Ratio	0.443	0.670	0.568	0.298
Control Delay, s/veh	9.5	17.8	14.8	5.3
LOS	A	C	B	A
95th %tile Queue, veh	2	5	4	1

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	220	1063	655
Demand Flow Rate, veh/h	0	225	1085	668
Vehicles Circulating, veh/h	398	1085	0	362
Vehicles Exiting, veh/h	632	0	398	948
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	18.1	15.6	15.8
Approach LOS	-	C	C	C

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	225	1085	668
Cap Entry Lane, veh/h	456	1380	954
Entry HV Adj Factor	0.978	0.980	0.980
Flow Entry, veh/h	220	1063	655
Cap Entry, veh/h	446	1352	935
V/C Ratio	0.493	0.787	0.700
Control Delay, s/veh	18.1	15.6	15.8
LOS	C	C	C
95th %tile Queue, veh	3	9	6

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	0	2	4	2	18	0	194	8	25	150	3
Future Vol, veh/h	0	0	2	4	2	18	0	194	8	25	150	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	24	24	24	24	24	24	24	24	24	24	24	24
Mvmt Flow	0	0	2	4	2	20	0	211	9	27	163	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	431	439	165	433	436	215	166	0	0	220	0	0
Stage 1	219	219	-	215	215	-	-	-	-	-	-	-
Stage 2	212	220	-	217	221	-	-	-	-	-	-	-
Critical Hdwy	7.34	6.74	6.44	7.34	6.74	6.44	4.34	-	-	4.34	-	-
Critical Hdwy Stg 1	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.34	5.74	-	6.34	5.74	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.216	3.516	3.716	4.216	3.516	2.416	-	-	2.416	-	-
Pot Cap-1 Maneuver	498	480	826	497	482	772	1289	-	-	1230	-	-
Stage 1	736	683	-	740	685	-	-	-	-	-	-	-
Stage 2	743	682	-	738	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	472	469	826	484	470	772	1289	-	-	1230	-	-
Mov Cap-2 Maneuver	472	469	-	484	470	-	-	-	-	-	-	-
Stage 1	718	666	-	740	685	-	-	-	-	-	-	-
Stage 2	721	682	-	718	665	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.37	10.59	0	1.12
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1289	-	-	826	670	252	-	-
HCM Lane V/C Ratio	-	-	-	0.003	0.039	0.022	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.4	10.6	8	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↰	↱
Traffic Vol, veh/h	3	5	0	2	8	27	0	0	0	13	0	8
Future Vol, veh/h	3	5	0	2	8	27	0	0	0	13	0	8
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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	3	5	0	2	9	29	0	0	0	14	0	9

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	38	0	0	5	0	0			40	40	23
Stage 1	-	-	-	-	-	-			28	28	-
Stage 2	-	-	-	-	-	-			12	12	-
Critical Hdwy	4.15	-	-	4.15	-	-			6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-			5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-			3.545	4.045	3.345
Pot Cap-1 Maneuver	1553	-	-	1596	-	-			964	847	1045
Stage 1	-	-	-	-	-	-			987	866	-
Stage 2	-	-	-	-	-	-			1003	880	-
Platoon blocked, %		-	-		-	-					
Mov Cap-1 Maneuver	1553	-	-	1596	-	-			961	0	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-			961	0	-
Stage 1	-	-	-	-	-	-			985	0	-
Stage 2	-	-	-	-	-	-			1002	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.75	0.39	8.68
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	675	-	-	84	-	-	961	1045
HCM Lane V/C Ratio	0.002	-	-	0.001	-	-	0.015	0.008
HCM Ctrl Dly (s/v)	7.3	0	-	7.3	0	-	8.8	8.5
HCM Lane LOS	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0	0

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	0	0	23	6	3	2	31	276	2	5	230	4
Future Vol, veh/h	0	0	23	6	3	2	31	276	2	5	230	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	25	7	3	2	34	300	2	5	250	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	632	633	252	629	634	301	254	0	0	302	0	0
Stage 1	263	263	-	368	368	-	-	-	-	-	-	-
Stage 2	369	370	-	261	265	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	390	395	782	392	394	734	1299	-	-	1247	-	-
Stage 1	738	687	-	647	618	-	-	-	-	-	-	-
Stage 2	647	617	-	740	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	372	380	782	366	380	734	1299	-	-	1247	-	-
Mov Cap-2 Maneuver	372	380	-	366	380	-	-	-	-	-	-	-
Stage 1	734	684	-	627	598	-	-	-	-	-	-	-
Stage 2	621	598	-	712	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.76	14.12	0.79	0.17
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	180	-	-	782	407	38	-	-
HCM Lane V/C Ratio	0.026	-	-	0.032	0.029	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	9.8	14.1	7.9	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	68	71	55	24	11	33	30	34	11	32	0
Future Vol, veh/h	9	68	71	55	24	11	33	30	34	11	32	0
Conflicting Peds, #/hr	0	0	1	1	0	1	0	0	1	1	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	-	-	0	100	-	-	150	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	74	77	60	26	12	36	33	37	12	35	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	39	0	0	152	0	0	258	253	76	257	318	27
Stage 1	-	-	-	-	-	-	94	94	-	147	147	-
Stage 2	-	-	-	-	-	-	163	159	-	111	172	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1571	-	-	1429	-	-	696	650	985	696	598	1048
Stage 1	-	-	-	-	-	-	912	817	-	856	776	-
Stage 2	-	-	-	-	-	-	839	767	-	894	757	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1569	-	-	1427	-	-	622	617	983	603	567	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	622	617	-	603	567	-
Stage 1	-	-	-	-	-	-	905	810	-	819	742	-
Stage 2	-	-	-	-	-	-	765	733	-	820	751	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.44	4.66	10.48	11.59
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	622	769	210	-	-	1253	-	-	603	567
HCM Lane V/C Ratio	0.058	0.09	0.006	-	-	0.042	-	-	0.02	0.061
HCM Ctrl Dly (s/v)	11.1	10.1	7.3	0	-	7.6	0	-	11.1	11.8
HCM Lane LOS	B	B	A	A	-	A	A	-	B	B
HCM 95th %tile Q(veh)	0.2	0.3	0	-	-	0.1	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	0	35	0	0	0	56	175	0	2	190	74
Future Vol, veh/h	68	0	35	0	0	0	56	175	0	2	190	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	74	0	38	0	0	0	61	190	0	2	207	80

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	563	563	247	523	603	190	287	0	0	190	0	0
Stage 1	251	251	-	312	312	-	-	-	-	-	-	-
Stage 2	312	312	-	211	291	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	435	434	790	463	412	849	1269	-	-	1378	-	-
Stage 1	751	697	-	696	656	-	-	-	-	-	-	-
Stage 2	696	656	-	789	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	410	790	416	389	849	1269	-	-	1378	-	-
Mov Cap-2 Maneuver	411	410	-	416	389	-	-	-	-	-	-	-
Stage 1	749	696	-	659	621	-	-	-	-	-	-	-
Stage 2	659	621	-	750	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.48	0	1.93	0.06
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	436	-	-	491	-	13	-	-
HCM Lane V/C Ratio	0.048	-	-	0.228	-	0.002	-	-
HCM Ctrl Dly (s/v)	8	0	-	14.5	0	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	37	31	75	46	66	9	9	66	52	9	13
Future Vol, veh/h	37	37	31	75	46	66	9	9	66	52	9	13
Conflicting Peds, #/hr	0	0	0	5	0	5	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	105	-	-	-	-	-	105
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	40	40	34	82	50	72	10	10	72	57	10	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	79	0	0	344	415	50	349	377	55
Stage 1	-	-	-	-	-	-	126	126	-	218	218	-
Stage 2	-	-	-	-	-	-	218	290	-	131	159	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1466	-	-	1526	-	-	613	529	1021	608	556	1015
Stage 1	-	-	-	-	-	-	881	794	-	787	724	-
Stage 2	-	-	-	-	-	-	787	674	-	875	768	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1518	-	-	540	479	1011	502	504	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	479	-	502	504	-
Stage 1	-	-	-	-	-	-	851	767	-	737	679	-
Stage 2	-	-	-	-	-	-	720	632	-	776	742	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.66	3.01	9.85	12.44
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	834	900	-	-	1116	-	-	502	1010
HCM Lane V/C Ratio	0.109	0.028	-	-	0.054	-	-	0.132	0.014
HCM Ctrl Dly (s/v)	9.8	7.5	0	-	7.5	0	-	13.3	8.6
HCM Lane LOS	A	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.2	-	-	0.5	0

Intersection	
Intersection Delay, s/veh	25.1
Intersection LOS	D

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	176	157	52	10	0	274	0	132	59	271	183	0
Future Vol, veh/h	176	157	52	10	0	274	0	132	59	271	183	0
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	191	171	57	11	0	298	0	143	64	295	199	0
Number of Lanes	0	1	0	0	1	0	0	1	0	1	1	0

Approach	SE	NW	NE	SW
Opposing Approach	NW	SE	SW	NE
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SW	NE	SE	NW
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NE	SW	NW	SE
Conflicting Lanes Right	1	2	1	1
HCM Control Delay, s/veh	36.4	19.8	17.2	22.2
HCM LOS	E	C	C	C

Lane	NELn1	NWLn1	SELn1	SWLn1	SWLn2
Vol Left, %	0%	4%	46%	100%	0%
Vol Thru, %	69%	0%	41%	0%	100%
Vol Right, %	31%	96%	14%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	284	385	271	183
LT Vol	0	10	176	271	0
Through Vol	132	0	157	0	183
RT Vol	59	274	52	0	0
Lane Flow Rate	208	309	418	295	199
Geometry Grp	4a	2	2	5	5
Degree of Util (X)	0.451	0.595	0.83	0.672	0.425
Departure Headway (Hd)	7.817	6.944	7.142	8.212	7.697
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	459	519	506	439	467
Service Time	5.884	5.005	5.195	5.968	5.453
HCM Lane V/C Ratio	0.453	0.595	0.826	0.672	0.426
HCM Control Delay, s/veh	17.2	19.8	36.4	26.3	16.1
HCM Lane LOS	C	C	E	D	C
HCM 95th-tile Q	2.3	3.8	8.2	4.8	2.1

Intersection	
Int Delay, s/veh	4.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	46	4	102	157	421	0	0	412	220
Future Vol, veh/h	0	0	0	46	4	102	157	421	0	0	412	220
Conflicting Peds, #/hr	0	0	0	2	0	2	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	-	-	-	-	-	-	65	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	50	4	111	171	458	0	0	448	239

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1249	1486	460	687	0	-	-	-	0
Stage 1	799	799	-	-	-	-	-	-	-
Stage 2	450	687	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	191	124	602	907	-	0	0	-	-
Stage 1	443	398	-	-	-	0	0	-	-
Stage 2	642	447	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	155	0	600	907	-	-	-	-	-
Mov Cap-2 Maneuver	155	0	-	-	-	-	-	-	-
Stage 1	359	0	-	-	-	-	-	-	-
Stage 2	641	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Ctrl Dly, s/v	28.09	2.69	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWT	SWR
Capacity (veh/h)	907	-	317	-	-
HCM Lane V/C Ratio	0.188	-	0.521	-	-
HCM Ctrl Dly (s/v)	9.9	-	28.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.7	-	2.8	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	433	65	8	227	58	11
Future Vol, veh/h	433	65	8	227	58	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	471	71	9	247	63	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	541	0	770	506
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	264	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1027	-	369	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1027	-	366	566
Mov Cap-2 Maneuver	-	-	-	-	366	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	773	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.29	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	388	1027	-	-	-
HCM Lane V/C Ratio	0.194	0.008	-	-	-
HCM Ctrl Dly (s/v)	16.5	8.5	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	0.7	0	-	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Vol, veh/h	239	25	195	251	0	0
Future Vol, veh/h	239	25	195	251	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	260	27	212	273	0	0

Major/Minor	Minor1		Major1	
Conflicting Flow All	212	-	0	-
Stage 1	212	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	6.43	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.527	-	-	-
Pot Cap-1 Maneuver	774	0	-	0
Stage 1	821	0	-	0
Stage 2	-	0	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	774	-	-	-
Mov Cap-2 Maneuver	774	-	-	-
Stage 1	821	-	-	-
Stage 2	-	-	-	-

Approach	NB	SE
HCM Ctrl Dly, s/v	11.98	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBLn1	SET
Capacity (veh/h)	774	-
HCM Lane V/C Ratio	0.336	-
HCM Ctrl Dly (s/v)	12	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	1.5	-

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	176	157	52	10	0	274	0	132	59	271	183	0
Future Volume (vph)	176	157	52	10	0	274	0	132	59	271	183	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Lane Util. Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00	1.00		0.98		1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583	1766		1546		1863	1583	1770	1863	
Flt Permitted		0.97	1.00	0.47		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1815	1583	875		1546		1863	1583	1770	1863	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	171	57	11	0	298	0	143	64	295	199	0
RTOR Reduction (vph)	0	0	31	0	0	162	0	0	55	0	0	0
Lane Group Flow (vph)	0	362	26	11	0	136	0	143	9	295	199	0
Confl. Peds. (#/hr)				2		2			2			
Turn Type	Perm	NA	Perm	Perm		Perm		NA	Prot	Prot	NA	
Protected Phases		6						4	4	3	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)		27.3	27.3	27.3		27.3		8.7	8.7	10.5	23.7	
Effective Green, g (s)		27.3	27.3	27.3		27.3		8.7	8.7	10.5	23.7	
Actuated g/C Ratio		0.46	0.46	0.46		0.46		0.14	0.14	0.18	0.39	
Clearance Time (s)		4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		825	720	398		703		270	229	309	735	
v/s Ratio Prot								c0.08	0.01	c0.17	0.11	
v/s Ratio Perm		0.20	0.02	0.01		0.09						
v/c Ratio		0.44	0.04	0.03		0.19		0.53	0.04	0.95	0.27	
Uniform Delay, d1		11.1	9.1	9.0		9.8		23.8	22.1	24.5	12.3	
Progression Factor		1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.7	0.1	0.1		0.6		1.9	0.1	38.9	0.2	
Delay (s)		12.8	9.2	9.2		10.4		25.6	22.1	63.4	12.5	
Level of Service		B	A	A		B		C	C	E	B	
Approach Delay (s/veh)		12.3			10.3			24.5			42.9	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	419	309	207	494
Demand Flow Rate, veh/h	427	315	211	504
Vehicles Circulating, veh/h	515	341	670	11
Vehicles Exiting, veh/h	0	540	272	645
Ped Vol Crossing Leg, #/h	0	2	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.9	7.2	9.1	6.1
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LR	TR	LT
Assumed Moves	LTR	LR	TR	LT
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	427	315	211	504
Cap Entry Lane, veh/h	816	975	697	1364
Entry HV Adj Factor	0.980	0.981	0.982	0.980
Flow Entry, veh/h	419	309	207	494
Cap Entry, veh/h	800	956	684	1337
V/C Ratio	0.523	0.323	0.303	0.369
Control Delay, s/veh	11.9	7.2	9.1	6.1
LOS	B	A	A	A
95th %tile Queue, veh	3	1	1	2

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	0	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	165	629	687
Demand Flow Rate, veh/h	0	168	641	701
Vehicles Circulating, veh/h	508	641	0	229
Vehicles Exiting, veh/h	422	0	508	580
Ped Vol Crossing Leg, #/h	0	0	2	2
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.8	7.3	12.4
Approach LOS	-	A	A	B

Lane	Left	Left	Left
Designated Moves	LTR	LT	TR
Assumed Moves	LTR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	168	641	701
Cap Entry Lane, veh/h	718	1380	1092
Entry HV Adj Factor	0.982	0.981	0.980
Flow Entry, veh/h	165	629	687
Cap Entry, veh/h	705	1353	1070
V/C Ratio	0.234	0.465	0.642
Control Delay, s/veh	7.8	7.3	12.4
LOS	A	A	B
95th %tile Queue, veh	1	3	5

APPENDIX E

Fresno COG Models

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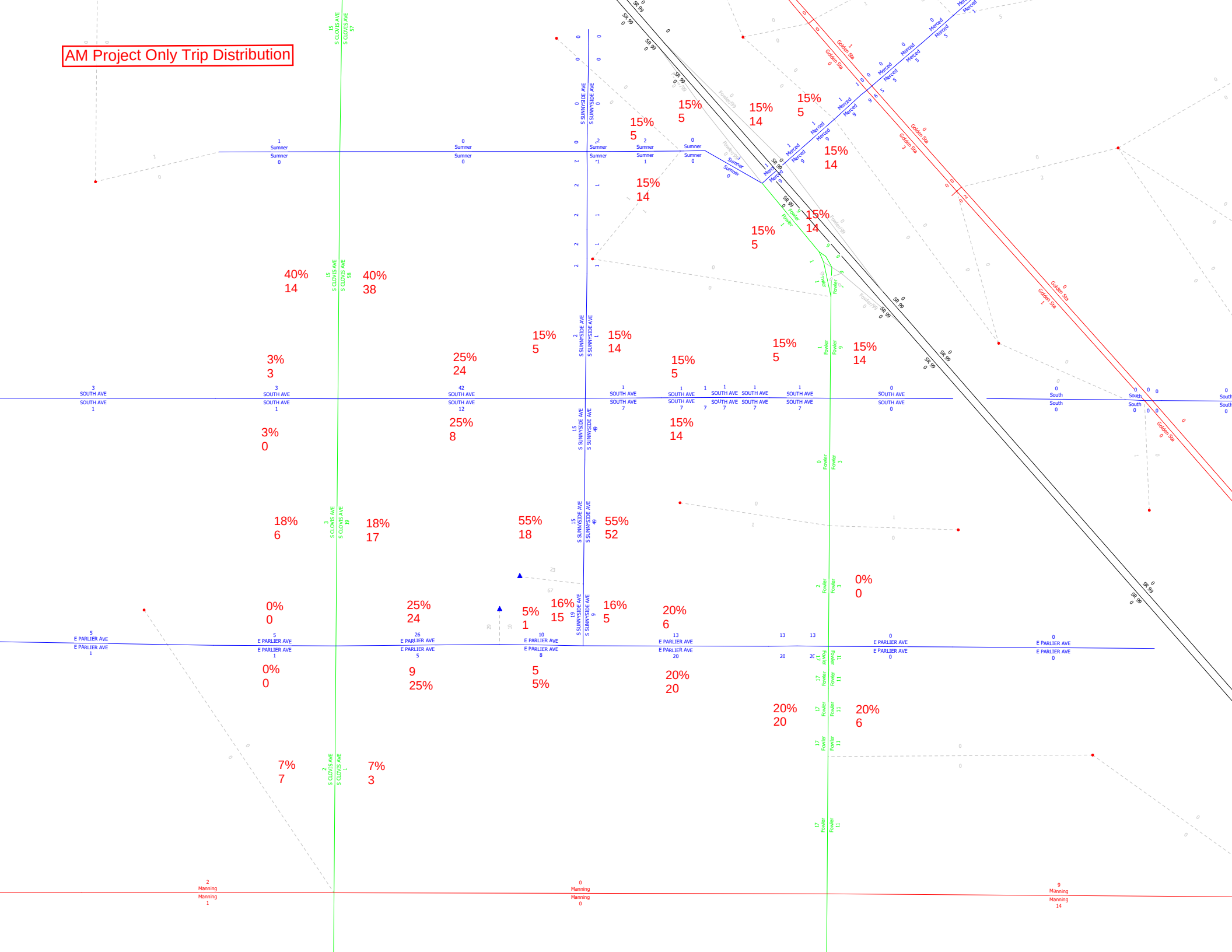
AM Project Only Trip Distribution
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14
40%
38
3%
3
3%
0
25%
24
25%
8
15%
5
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14
15%
5
15%
14
15%
5
15%
14
15%
5
15%
14
18%
6
18%
17
55%
18
55%
52
0%
0
25%
24
9
25%
5%
1
16%
15
16%
5
20%
6
20%
20
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5
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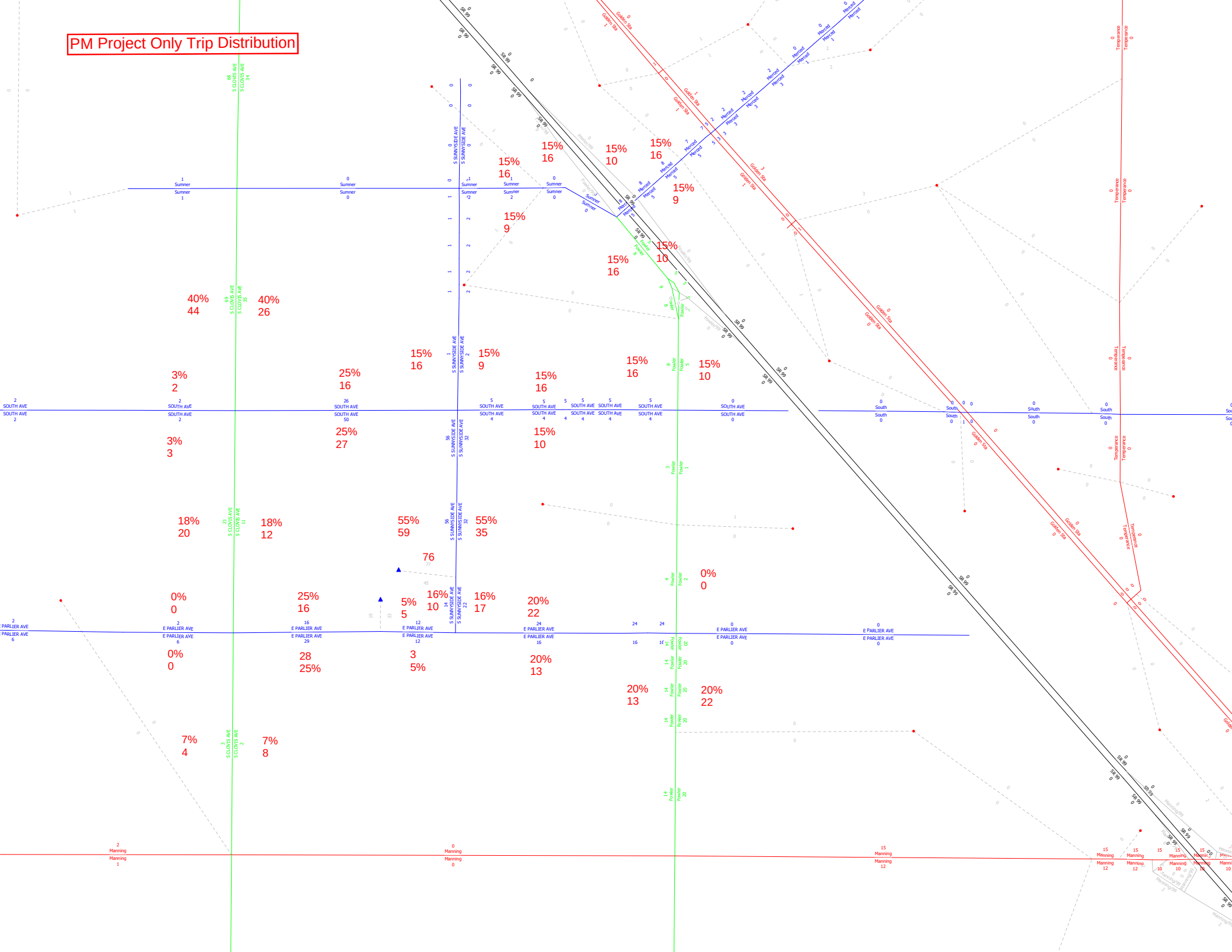
20%
20
20%
6
7%
7
7%
3


PM Project Only Trip Distribution
40%
44
40%
26
3%
2
25%
16
15%
16
15%
9
15%
16
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15%
16
15%
10
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16
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10
3%
3
25%
27
15%
10
18%
20
18%
12
55%
59
55%
35
76
0%
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25%
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16%
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16%
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20%
22
0%
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4
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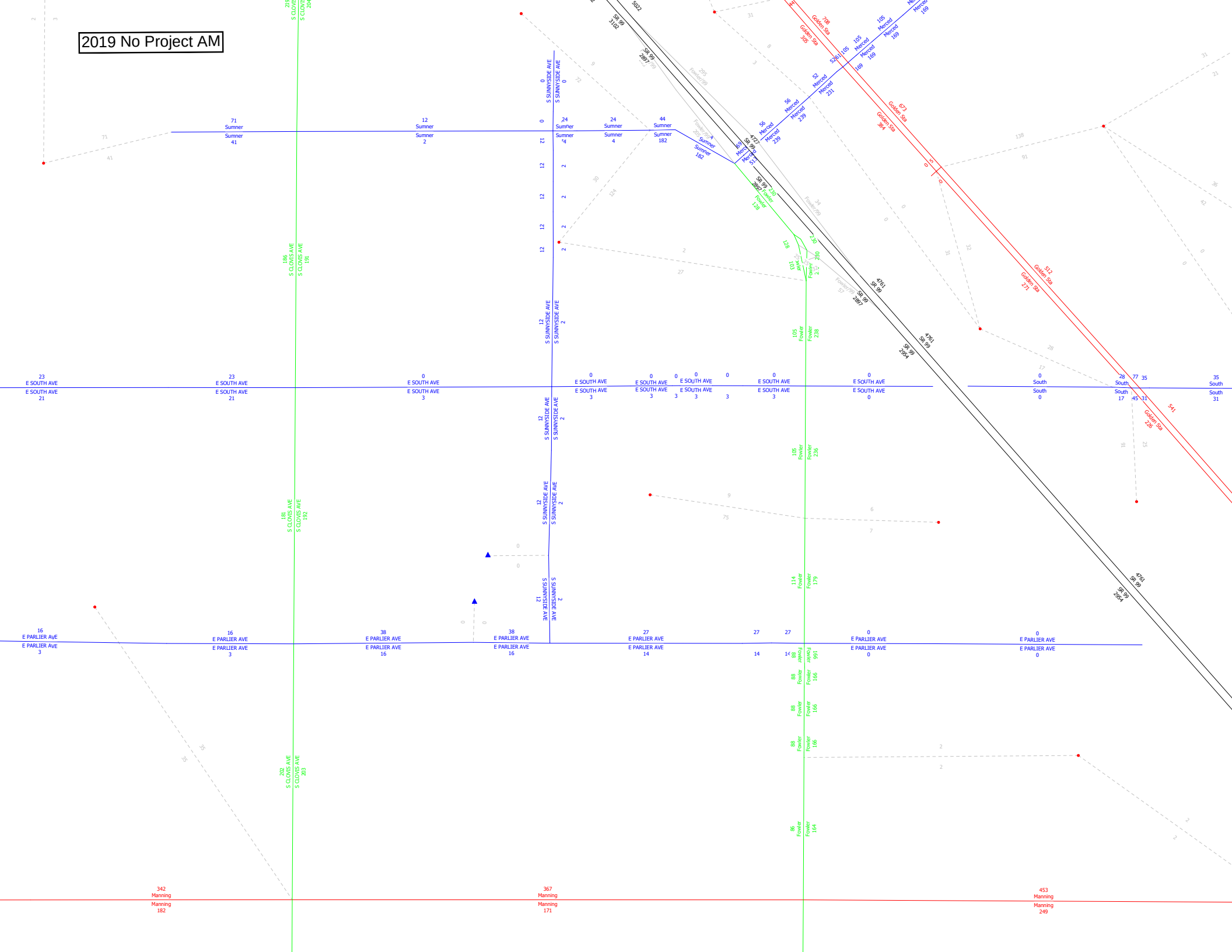
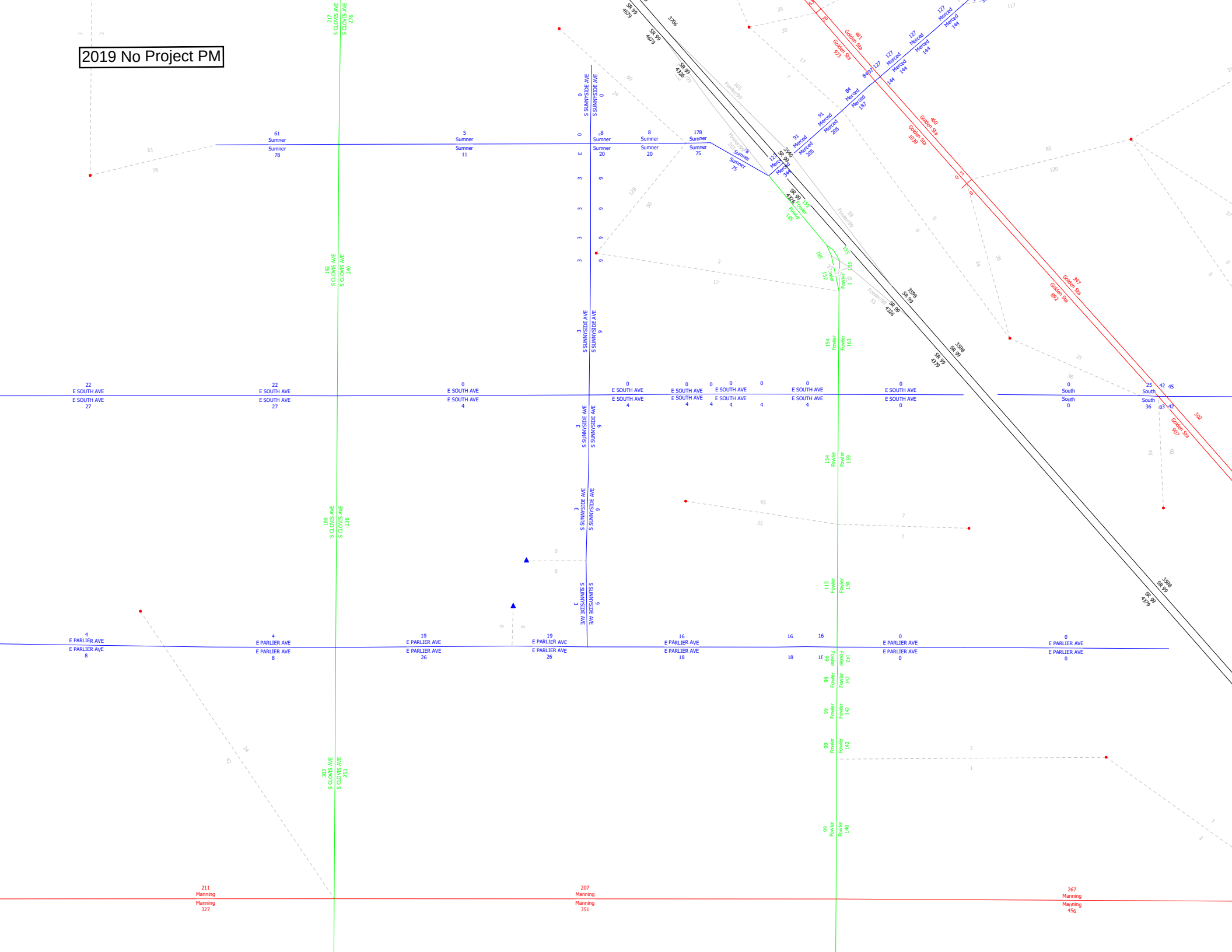
8


2019 No Project AM
E SOUTH AVE
E PARLIER AVE
S CLOVIS AVE
S SUNNYSIDE AVE
Sumner
Fowler
Merced
Golden Sta
SR 99
Manning
South


2019 No Project PM
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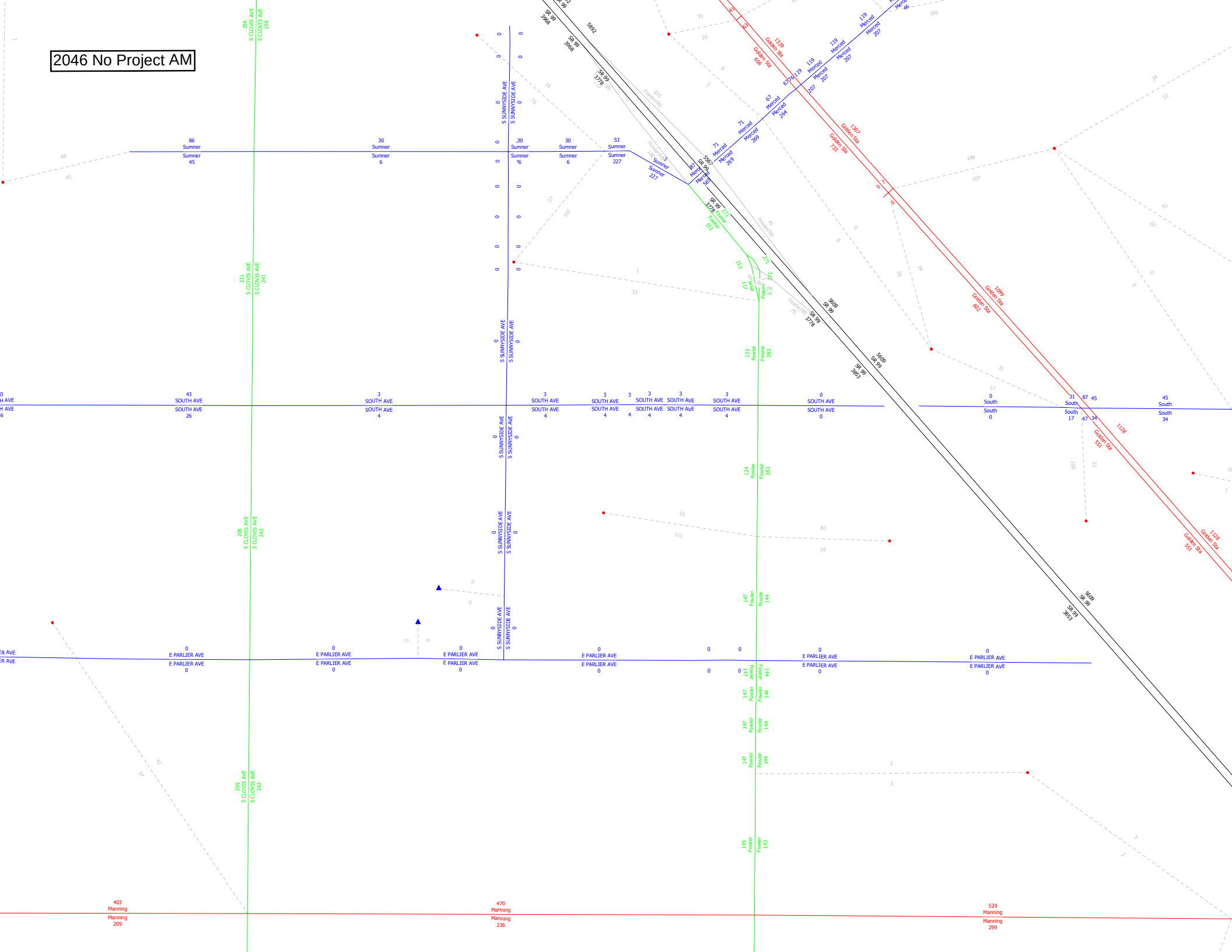
S SUNNYSIDE AVE
E SOUTH AVE
E PARLIER AVE
Manning
Sumner
Fowler
Merced
Golden Sta
SR 99


2046 No Project AM
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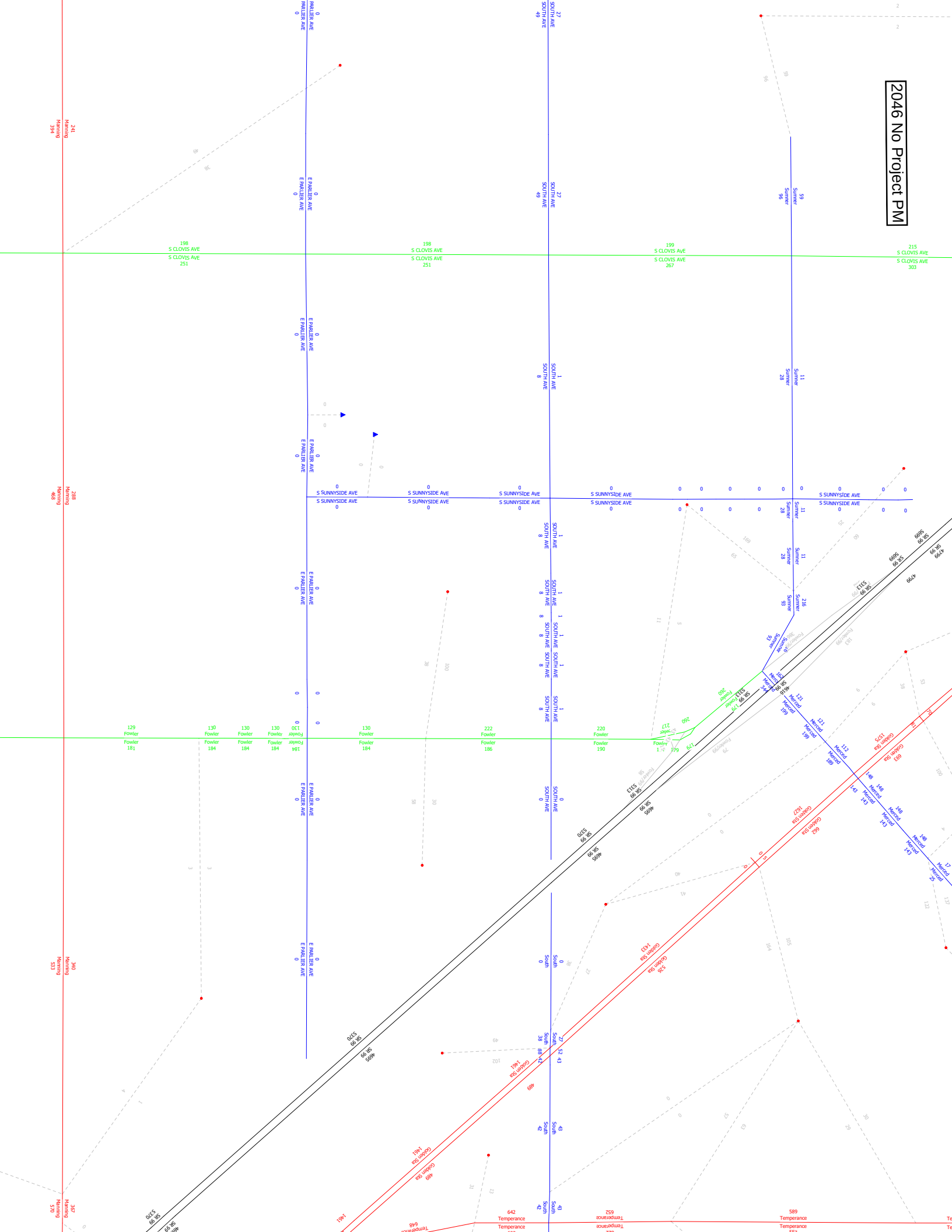
S SUNNYSIDE AVE
SOUTH AVE
E PARLIER AVE
Sumner
Merced
Golden Sta
Fowler
Manning
SR 99


2046 No Project PM

APPENDIX F

Signal Warrants

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YAMABE & HORN ENGINEERING, INC.
2985 N. Burl Avenue, Suite 101
Fresno, CA 93727

WARRANT 3 – PEAK HOUR **SATISFIED: YES ☑ NO ☐**
(Part A OR Part B must be satisfied)

Date: 02/06/26
Job Number: 24-325

Project: Sunnyside Avenue & Parlier Avenue T6519
Major Street: SB 99 Off Ramp/ Fowler Avenue
Minor Street: Sumner Avenue/ Merced Street
Description: Near Term Plus Pending/Approved Projects

Peak Hour: AM ☑ PM ☐

PART A SATISFIED: YES ☑ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

		Value		
1.	The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	4.9 veh-hrs	Yes ☑	No ☐
2.	The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	344 vph	Yes ☑	No ☐
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	1,379 vph	Yes ☑	No ☐

Minor street approach:

PART B SATISFIED: YES ☑ NO ☐

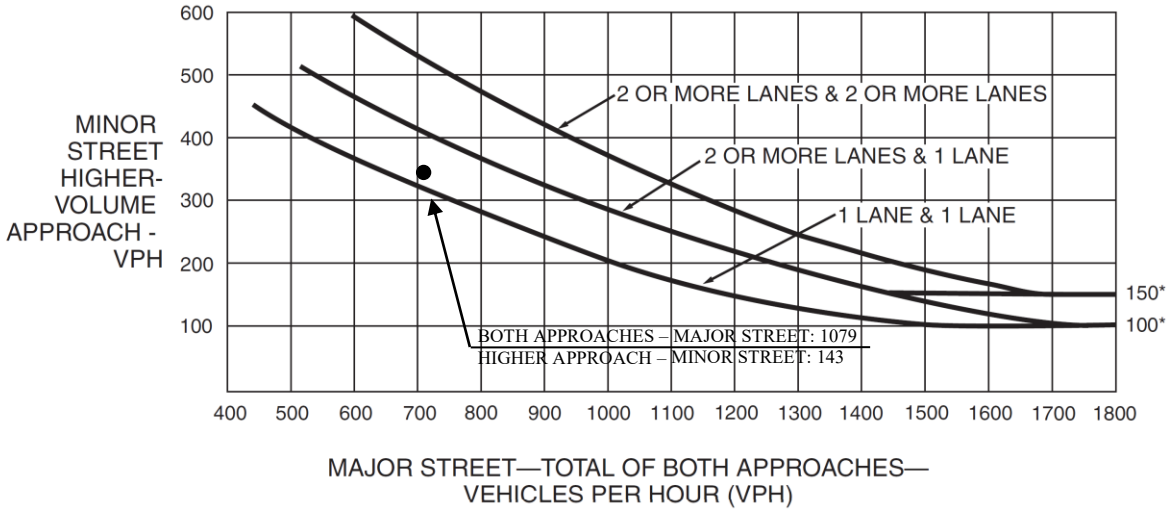
APPROACH LANES	One	2 or More		Hour
Both Approaches - Major Street	☑	☐	713	
Higher Approach - Minor Street	☑	☐	344	

The plotted point falls above the curve in Figure 4C-3.	☐	Yes ☑	No ☐
OR, The plotted point falls above the curve in Figure 4C-4. (70% Factor)	☐	Yes ☑	No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.
70% Factor is applicable for community less than 10,000 population or above 40 mph on major street.

Source: 2014 California Manual of Uniform Traffic Control Devices

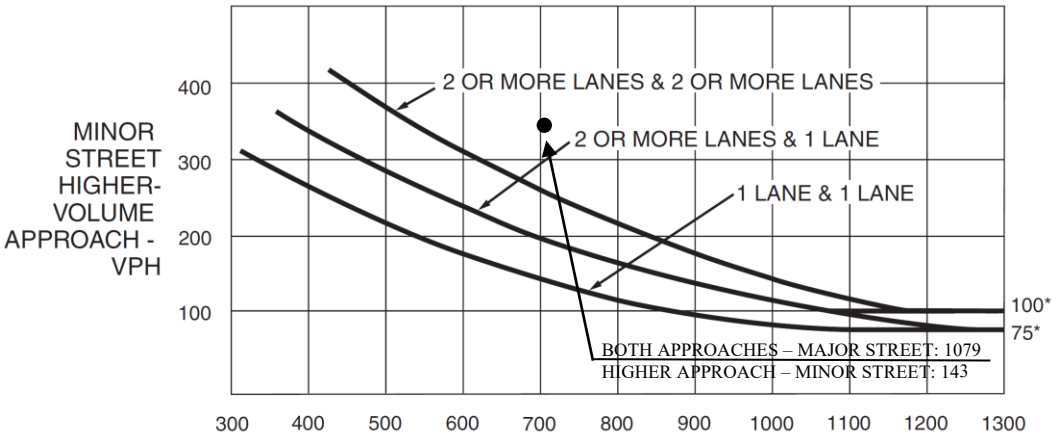
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

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2985 N. Burl Avenue, Suite 101
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WARRANT 3 – PEAK HOUR **SATISFIED: YES ☑ NO ☐**
(Part A OR Part B must be satisfied)

Date: 02/06/26
Job Number: 24-325

Project: Sunnyside Avenue & Parlier Avenue T6519
Major Street: SB 99 Off Ramp/ Fowler Avenue
Minor Street: Sumner Avenue/ Merced Street
Description: Near Term Plus Pending/Approved Projects

Peak Hour: AM ☐ PM ☑

PART A SATISFIED: YES ☐ NO ☑

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

		Value		
1.	The total delay experienced for traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	3.2 veh-hrs	Yes ☐	No ☑
2.	The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	239 vph	Yes ☑	No ☐
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	1,235 vph	Yes ☑	No ☐

Minor street approach:

PART B SATISFIED: YES ☑ NO ☐

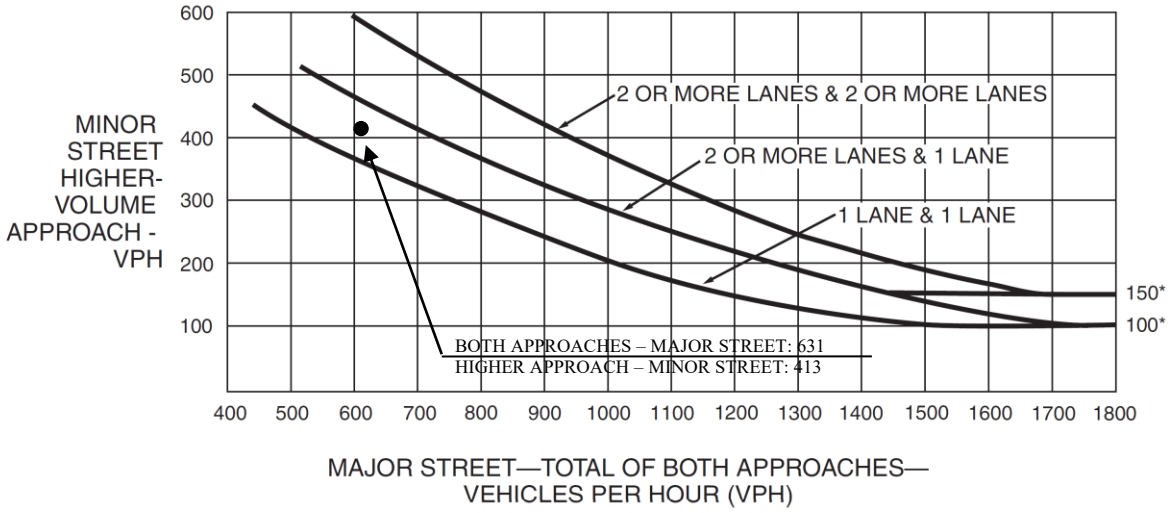
APPROACH LANES	One	2 or More		Hour
Both Approaches - Major Street	☑	☐	631	
Higher Approach - Minor Street	☑	☐	413	

The plotted point falls above the curve in Figure 4C-3.	☐	Yes ☑	No ☐
OR, The plotted point falls above the curve in Figure 4C-4. (70% Factor)	☐	Yes ☑	No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.
70% Factor is applicable for community less than 10,000 population or above 40 mph on major street.

Source: 2014 California Manual of Uniform Traffic Control Devices

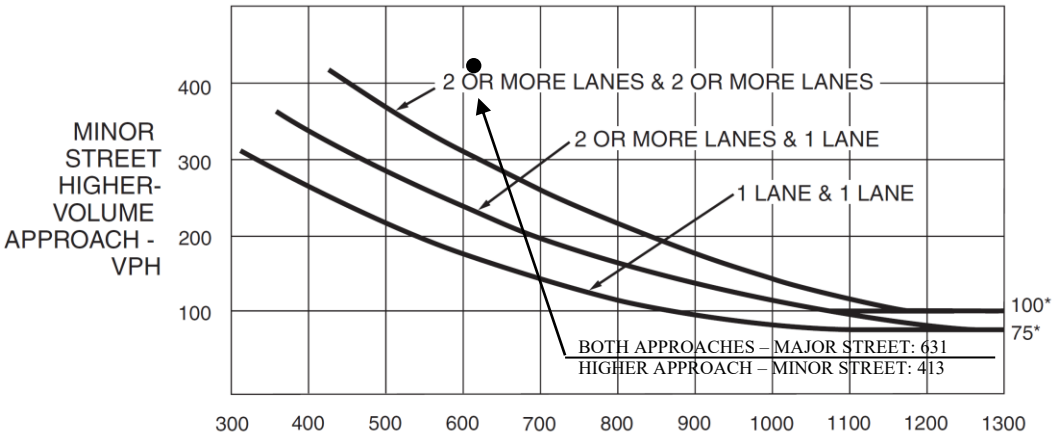
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

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