

3.12 - Transportation

3.12.1 - Introduction

This section describes the existing transportation setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on a Traffic Impact Study prepared by W-Trans. The study is provided in Appendix H.

3.12.2 - Environmental Setting

Study Area

The study area consists of the following intersections selected through consultation from City staff:

1. State Route (SR) 29/South Kelly Road
2. Devlin Road/South Kelly Road
3. Devlin Road/Green Island Road (Future Intersection)
4. Paoli Loop Road/Green Island Road

Operating conditions during the weekday AM and PM peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak-hour occurs between 7:00 a.m. and 9:00 a.m. and reflects conditions during the home to work or school commute, while the PM peak-hour occurs between 4:00 p.m. and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

SR-29/South Kelly Road is a signalized four-legged intersection with protected left turns on all approaches. There are crosswalks on the west, north, and east legs.

Devlin Road/South Kelly Road is an all-way stop-controlled intersection with crosswalks on the east and south legs.

Devlin Road/Green Island Road (Future) is a future tee intersection with stop control on the southbound Devlin Road approach. Crosswalks are planned at the north leg.

Paoli Loop Road/Green Island Road is a tee intersection with stop control on the northbound Paoli Loop Road approach. There are no crosswalks.

Exhibit 3.12-1 depicts the study facilities and land configurations.

Intersection Level of Service

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

As explained in detail later in subsection (3.12.3) below, transportation analyses under the California Environmental Quality Act (CEQA) formerly focused on reductions in LOS (dropping from one category [e.g., D] to another [e.g., E or F]), but no longer do. As of early 2019, CEQA expressly forbids lead agencies from measuring adverse transportation effects in terms of “automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion” (with an exception not relevant here) (Public Resources Code [PRC], § 21099(b)(2)). Even so, many public agencies still require analyses of proposed projects’ potential effects on LOS, but do so under their general police power or General Plan policies, wholly independent of, and separate from, CEQA.

This section addresses LOS issues independent of CEQA, for use by the City of American Canyon for assessing whether and how to impose conditions of approval needed to maintain the reasonable free flow of traffic. In particular, this section addresses LOS in order to ensure that the proposed project complies with Guiding Policy 1.6 of the Circulation Element of the City’s General Plan (quoted in full in section 3.12.3 below).

The study intersections were analyzed using methodologies published in the Highway Capacity Manual (HCM), 6th Edition, Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The LOS for the intersections with side street stop controls, or those that are unsignalized and have one or two stop-controlled approaches, were analyzed using the “Two-Way Stop-Controlled” intersection capacity method from the HCM. This methodology determines a LOS for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersections with stop signs on all approaches were analyzed using the “All-Way Stop-Controlled” Intersection methodology from the HCM. This methodology evaluates delay for each approach based on turning movements, opposing, and conflicting traffic volumes, and the number of lanes. Average vehicle delay is computed for the intersection as a whole and then related to an LOS.

The study intersections that are currently controlled by a traffic signal, or may be in the future, were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using signal timing obtained from the California Department of Transportation (Caltrans).

The ranges of delay associated with the various LOS are indicated in Table 3.12-1.

Table 3.12-1: Intersection Level of Service Criteria

LOS	Two-Way Stop-Controlled	All-Way Stop-Controlled	Signalized
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Upon stopping, drivers are immediately able to proceed.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queueing occurs on the minor street.	Delay of 10 to 15 seconds. Drivers may wait for one or two vehicles to clear the intersection before proceeding from a stop.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 15 to 25 seconds. Drivers will enter a queue of one or two vehicles on the same approach and wait for vehicle to clear from one or more approaches prior to entering the intersection.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 25 to 35 seconds. Queues of more than two vehicles are encountered on one or more approaches.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 35 to 50 seconds. Longer queues are encountered on more than one approach to the intersection.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop, and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 50 seconds. Drivers enter long queues on all approaches.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Source: Highway Capacity Manual (HCM). 2018.

Existing Traffic Operations

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the AM and PM peak-hours. This condition does not include project-generated traffic volumes. Volume data was collected on various dates in February, May, and November 2019 while local schools were in session and prior to the outbreak of COVID-19 and the resulting change in travel patterns. It is noted that travel patterns within American Canyon vary between the AM and PM peak-hours and individual drivers may use different routes for their morning and evening commutes.

As shown in Table 3.12-2, all study intersections are operating acceptably during both peak-hours evaluated under existing conditions. Exhibit 3.12-2 depicts the existing traffic volumes.

Table 3.12-2: Existing Peak-hour Intersection Levels of Service

Study Intersection	AM Peak-hour		PM Peak-hour	
	Delay	LOS	Delay	LOS
1. SR-29/South Kelly Road	34.6	C	15.9	B
2. Devlin Road/South Kelly Road	7.8	A	8.0	A
3. Devlin Road/Green Island Road	–	–	–	–
4. Paoli Loop Road/Green Island Road Northbound Approach	4.9	A	3.1	A
	13.3	B	13.5	B

Notes:
LOS = Level of Service
Study intersection No. 3 Devlin Road/Green Island Road did not exist in 2015-2020.
Source: W-Trans 2021.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current 5-year period available is October 1, 2015, through September 30, 2020.

As presented in Table 3.12-3, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities Statewide, as reported in the publication 2016 Collision Data on California State Highways, California Department of Transportation (Caltrans). These average rates Statewide are for intersections in the same environment (urban, suburban, or rural), with the same number of approaches (three or four), and the same controls (all-way stop, two-way stop, or traffic signal). A more detailed evaluation is provided for study intersections where the collision rates were higher than the Statewide average.

Table 3.12-3: Collision Rates for the Study Intersections

Study Intersection	Number of Collisions (2015-2020)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. SR-29/South Kelly Road	48	0.82	0.58
2. Devlin Road/South Kelly Road	2	0.32	0.55
3. Paoli Loop Road/Green Island Road	2	0.20	0.16

Notes:
c/mve = collisions per million vehicles entering
Study intersection No. 3 Devlin Road/Green Island Road did not exist in 2015-2020.
Source: W-Trans 2021.

Of the 48 reported collisions that occurred at the intersection of SR-29/South Kelly Road, 30 were rear-end collisions with the primary cause being unsafe speeds. This type of crash is common at signalized intersections where there is congestion, especially during peak periods. Because of the regional nature of the traffic that causes the congestion, and as this location is under the jurisdiction of Caltrans, there is little that the City can do to address this condition though increased enforcement and analysis of the potential to improve signal timing to reduce congestion could be requested of the Highway Patrol and Caltrans, respectively.

The collision rate at Paoli Loop Road/Green Island Road is higher than the Statewide average, with one of the two reported collisions being a head-on collision and the other being a broadside collision. The broadside collision resulted from “traffic signal and sign” violations, and the head-on collision was attributed to unsafe speed. With no clear pattern and given the very low number of crashes, no remedial actions are apparent.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, sidewalk coverage is limited in the area surrounding the project site. Existing gaps and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points. Within the study area, new sidewalks are planned along the future extension of Devlin Road.

Bicycle Facilities

The *Highway Design Manual* published by Caltrans classifies bikeways into four categories:

- Class I Multiuse Path—a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane—a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route—signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- Class IV Bikeway—also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on Devlin Road between Middleton Way and South Kelly Road. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 3.12-4 summarizes the existing and planned bicycle facilities in the project vicinity as contained in the Napa Countywide Bicycle Plan.

Table 3.12-4: Bicycle Facility Summary

Status	Facility	Class	Length (miles)	Beginning Point	Ending Point
Existing	Devlin Road	II	0.09	Middleton Way	South Kelly Road
Planned	South Kelly Road	I	0.20	SR-29	Devlin Road
	Vine Trail	I	1.62	Middleton Way	Watson Lane
	Green Island Road	I	0.33	Vine Trail	Commerce Boulevard
	Green Island Road	II	0.25	Mezzetta Court	Vine Trail

Source: W-Trans 2021.

Transit Facilities

Valley Intercity Neighborhood Express (VINE) Transit provides fixed route bus service throughout Napa County. American Canyon Transit (ACT) is an on-demand, door-to-door, transit service for persons with disabilities who cannot independently use regular fixed route transit services. Neither VINE nor ACT maintains stops near the project site.

On-demand private taxi services are available in the study area 24 hours a day. Taxis can be used for trips within the local Planning Area and farther destinations, including nearby airports. Other ride-hailing applications are also available in study area and provide transportation throughout the Bay Area.

3.12.3 - Regulatory Framework

State

California Environmental Quality Act

As mentioned in subsection 3.12.2 above, CEQA transportation analyses traditionally used LOS to rank traffic operations on various types of facilities based on traffic volumes and roadway capacity, using a series of letter designations ranging from A to F. In 2013, however, the Legislature passed legislation with the intention of ultimately doing away with LOS in most instances as a basis for environmental analysis under CEQA. Enacted as part of Senate Bill 743 (2013), Public Resources Code Section 21099, subdivision (b)(1), directed the Governor’s Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption, proposed CEQA Guidelines addressing “criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, [OPR] shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section.”

Subdivision (b)(2) of Section 21099 further provides that “[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any.”

Pursuant to Senate Bill 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that “[g]enerally, vehicle miles traveled [VMT] is the most appropriate measure of transportation impacts. For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project’s effect on automobile delay shall not constitute a significant environmental impact.”¹

California Department of Transportation

The study intersection of SR-29/South Kelly Road is located on the State Transportation Network (STN) and is therefore under jurisdiction of Caltrans. It is noted that Caltrans does not currently have a standard of significance relative to intersection operation as this is no longer a CEQA issue. The new Vehicle Miles Traveled-focused *Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, Caltrans is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT).

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is the State agency responsible for rail safety. The CPUC’s jurisdiction includes railroad interlocking plants and public highway grade crossings. CPUC approval is required to modify a railroad interlocking plant (including construction of a new spur track) or modification to an existing public railroad grade crossing. Completion and submittal of a General Order 33-B is required for any proposed work to a railroad interlocking plant (e.g., spur track), and a General Order 88-B is required for any proposed work to a public highway grade crossing.

Regional

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) serves as the transportation planning, coordinating, and financing agency for the nine county San Francisco Bay Area. The MTC created and maintains the Metropolitan Transportation System (MTS), a multimodal system of highways, major arterials, transit services, rail lines, seaports, airports, and transfer hubs that are critical to regional

¹ Subdivision (b)(2) of CEQA Guidelines Section 15064.3 (“transportation projects”) provides that “[t]ransportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in [CEQA Guidelines] Section 15152.”

transportation between the nine Bay Area counties. MTS facilities within the study area include SR-12, SR-29, and Airport Boulevard. The MTS is incorporated into MTC's 2001 Regional Transportation Plan (RTP) and is used as a guideline in prioritizing for planning and funding of facilities in the Bay Area. Facilities included in the MTS provide access to major Bay Area activity centers, supply convenient and efficient connections, and/or provide alternative routes or modes for congested areas or regions with limited facilities.

Local

City of American Canyon

General Plan

The City of American Canyon General Plan (General Plan) sets forth the following guiding and implementing policies relevant to transportation:

Guiding Policy 1.1 Community Priorities. Safe and convenient access to activities in the community is provided by a well-designed local roadway system. That system serves the community's primary need for mobility and includes a planned hierarchy of roadways to meet that need. The following Community Priorities relate most directly to this Element:

- Encourage and foster a strong sense of community and safety, as well as the "hometown" feeling by creation of a town center through land use and circulation planning.
- Improve a hierarchy of roadway networks to achieve and maintain acceptable traffic LOS and provide a citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- Improve SR-29 so that it serves as a visually attractive gateway into the City while providing access to commercial businesses and serving intra and inter-regional traffic and goods movement.

Guiding Policy 1.2 Implement planned roadway improvements. Use Figure 3: General Plan Circulation System, and Table 3: Major Circulation Improvements, to identify, schedule, and implement roadway and complimentary intersection improvements to support General Plan buildout conditions. Planned improvements may be phased as development occurs and need for increased capacity is identified.

Guiding Policy 1.3 Design circulation system to focus regional travel on SR-29. SR-29 is important for both Citywide and north-south regional travel. As both City and regional travel grow, design the City circulation system to discourage regional traffic from bypassing SR-29 and impacting City streets. Also, cooperatively work with regional partners, including Caltrans, NCTPA and others explore a complete streets approach that will expand the travel capacity of SR-29.

Guiding Policy 1.6 Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak-hours where possible and as long as possible.

However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond the control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or density planned for in the Land Use Element of the General Plan.

The following locations that may not achieve or maintain LOS D are as follows and therefore will be exempt from the LOS D policy:

- State Route 29 through the City
- American Canyon Road from SR-29 to Flosden Road–Newell Drive
- Flosden Road south of American Canyon Road

Guiding Policy 1.9 Use of existing facilities. Make efficient use of existing transportation facilities, and improve these facilities as necessary in accordance with the Circulation Map.

Guiding Policy 1.11 Reduce Vehicle Miles Traveled. Through layout of land uses, improved alternate modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by City residents.

Guiding Policy 1.12 Circulation System Enhancements. Achieve, maintain and/or improve mobility in the City by considering circulation system enhancements beyond improvements identified on the Circulation Map, where feasible and appropriate. Improve the circulation system, in accordance with the Circulation Map, at minimum, to support multimodal travel of all users and goods and where feasible, apply creative circulation system enhancements that increase system capacity and that are acceptable to the City and its residents and where applicable, Caltrans.

Implementing Policy 1.14

Work with Caltrans on highway improvements. Continue to work with the Caltrans to achieve timely context sensitive design solutions, funding, and construction of programmed highway improvements.

Implementing Policy 1.17

Regional fair-share fee program. Work with Caltrans, NCTPA, Napa County, and other jurisdictions to establish a fair-share fee program for improvements to routes of regional significance and State highways. This fee should reflect traffic generated by individual municipalities/unincorporated communities as well as pass-through traffic.

Implementing Policy 1.24

Impacts of new development. Based upon the findings of a transportation impact analysis, consistent with Guiding Policy 1.26, new development will be responsible for mitigation of transportation-related impacts.

Implementing Policy 1.35

General transit and pedestrian access. In reviewing designs of proposed developments, ensure that provision is made for access to current and future public transit services. In particular, pedestrian access to arterial and collector streets from subdivisions should not be impeded by continuous segments of sound walls.

Guiding Policy 2.1 Promote walking and bicycling. Promote walking and bike riding for transportation, recreation, and improvement of public and environmental health.

Guiding Policy 2.3 Develop a safe and efficient non-motorized circulation system. Provide safe and direct pedestrian routes and bikeways between places.

Implementing Policy 2.7

Universal design. Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by using universal design concepts.

Implementing Policy 2.18

Pedestrian connections to employment destinations. Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.

Guiding Policy 3.1 Promote safe, efficient, and convenient public transportation. Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

Guiding Policy 4.1 Promote safe and efficient goods movement. Promote the safe and efficient movement of goods via truck and rail with minimum disruptions to residential areas.

Guiding Policy 4.2 Promote railroad safety. Minimize the safety problems associated with the railroad, including the construction and maintenance of at-grade crossings and the physical barrier effect of the track alignment on the City.

Guiding Policy 4.4 New truck route designation. All highways, arterials, and industrial streets shall be designated truck routes.

Guiding Policy 4.6 Location of industrial development. Continue industrial expansion in the north industrial area to minimize the neighborhood impacts of truck movements.

Guiding Policy 4.7 Secure truck parking. Encourage high-security off-street parking for tractor-trailer rigs in industrial designated areas.

Performance Standards

The General Plan Circulation Element specifies minimum LOS standards for all streets and intersections in the City’s jurisdiction. In Section 4.1.6, the City establishes the following performance standards for acceptable LOS for purposes of compliance with its General Plan:

Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak-hours where possible for as long as possible. However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or VMT planned for in the Land Use Element of the General Plan.

The locations that may not achieve or maintain LOS D are as follows and will be exempt from the LOS D policy:

- SR-29 through the City
- American Canyon Road from SR-29 to Flosden Road–Newell Drive
- Flosden Road south of American Canyon Road

3.12.4 - Methodology

W-Trans prepared a Traffic Impact Study for the proposed project, which is provided in its entirety in Appendix H. The methodology is summarized as follows:

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual, 10th Edition, 2017 for a “High-Cube Transload and Short-Term Storage Warehouse” (Land Use No. 154). The project would be comprised of multiple warehouse buildings with a combined size of between 2.2 and 2.4 million square feet. To be conservative, the maximum size of 2.4 million square feet was used to estimate the trip generation. The project is not anticipated to generate any internal capture trips, pass-by trip credits or any other trip reductions. The number of truck trips associated with a high-cube warehouse was estimated using rates published in the Trip Generation Manual and validated using local vehicle classification counts conducted in June 2021.

As shown in Table 3.12-5, the proposed project is expected to generate an average of 3,888 net-new Passenger Car Equivalent (PCE) trips per day, including 240 trips during the AM peak-hour and 264 during the PM peak-hour. These new trips represent the increase in traffic associated with the

project compared to existing volumes. To account for the effect of heavy vehicles (such as tractor trucks), a heavy vehicle adjustment factor was applied to convert truck trips to an equivalent passenger car trip total. The (PCE) factor for heavy vehicles is assumed to be 2.0 (i.e., each tractor truck has the effect of two passenger cars due to longer start up times at intersections and when making turns). Thus, the number of truck trips per hour was multiplied by 2.0 to determine the equivalent passenger car trips per hour.

Table 3.12-5: Trip Generation Summary

Land Use	Category	Units	Daily		AM Peak-hour				PM Peak-hour			
			Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
High-cube Warehouse	Vehicles (Trucks + Passenger Cars)	2,400 ksf	1.40	3,360	0.08	192	148	44	0.10	240	67	173
	Trucks		0.22	528	0.02	48	37	11	0.01	24	7	17
	Passenger Cars		–	2,832	–	144	111	33	–	216	60	156
	Trucks (Passenger Car Equivalents)		–	1,056	–	96	74	22	–	48	14	34
	Total		–	3,888	–	240	185	55	–	264	74	190

Notes:
ksf = 1,000 square feet
Source: W-Trans 2021.

Trip Distribution

The pattern used to allocate new project trips to the street network was determined by reviewing likely routes for employees, visitors, and deliveries. The directionality experienced on SR-29 during the morning and evening commute periods was considered in developing the proposed assumptions. Based on the assumptions shown in Table 3.12-6, the following distribution was applied. Exhibit 3.12-3 depicts project traffic volumes.

Table 3.12-6: Trip Distribution Assumptions

Route	AM		PM	
	Percent	Trips	Percent	Trips
To/From North on SR-29	50%	120	55%	145
To/From South on SR-29	50%	120	45%	119
Total	100%	240	100%	264

Source: W-Trans 2021.

3.12.5 - Thresholds of Significance

Appendix G to the CEQA Guidelines is a sample Initial Study Checklist that includes questions for determining whether impacts related to transportation are significant. These questions reflect the input of planning and environmental professionals at the OPR and the California Natural Resources Agency, based on input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. As a result, many lead agencies derive their significance criteria from the questions posed in Appendix G. The City has chosen to do so for this project. Thus, the proposed project would have a significant effect related to transportation if the proposed project would:

- a) Conflict with a program plan, ordinance or policy of 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.

3.12.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Circulation System

Impact TRANS-1: The proposed project would not conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities.

As explained above, CEQA no longer permits lead agencies to assess the significance of transportation-related effects in terms of the potential worsening of LOS. Yet many agencies, including the City of American Canyon, continue to be concerned about LOS, and have General Plan policies, such as Guiding Policy 1.6. The analysis of LOS-related impacts set forth below has been prepared for purposes of addressing General Plan consistency. The analysis was not undertaken pursuant to CEQA and is not a CEQA analysis. In contrast, the analyses dealing with transit, bicycle, and pedestrian facilities and policies are CEQA analyses.

Impact Analysis

Phases 1 and 2

Existing Plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, all study intersections are expected to continue operating at LOS C or better. These results are summarized in Table 3.12-7. Exhibit 3.12-4 depicts Existing Plus Project traffic volumes

Table 3.12-7: Existing Plus Project Peak-hour Intersection Levels of Service

Study Intersection	AM Peak-hour		PM Peak-hour		AM Peak-hour		PM Peak-hour	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR-29/South Kelly Road	34.6	C	15.9	B	34.7	C	16.7	B
2. Devlin Road/South Kelly Road	7.8	A	8.0	A	8.4	A	7.9	A
3. Devlin Road/Green Island Road Southbound Approach	–	–	–	–	0.5 12.1	A B	1.4 12.7	A B
4. Paoli Loop Road/Green Island Road Northbound Approach	4.9 13.3	A B	3.1 13.5	A B	7.5 17.9	A C	4.0 18.1	A C

Notes:
LOS = Level of Service
Study intersection No. 3 Devlin Road/Green Island Road did not exist in 2015-2020.
Source: W-Trans 2021.

Future Conditions

Future (2040) AM and PM peak-hour volume projections for SR-29/South Kelly Road were derived from a buildout analysis which is contained in the Napa Junction III Transportation Impact Analysis Report, Omni-Means, LTD, 2011; this scenario represents cumulative traffic conditions that would be expected upon build out of the land uses identified in the General Plan. Although some of the anticipated development included in this previous effort may already be complete and occupied, to provide a conservative estimate of future operation the incremental increase in trips associated with build out of the City of American Canyon under its current General Plan was added to current volumes to determine Future (year 2040) operating conditions without the project. A growth rate was then created for the intersection of SR-29/South Kelly Road based on the volumes for this location in the Napa Junction III Transportation Impact Analysis Report.

Because the west side of SR-29 is already nearly built out other than the project site, and so would be expected to experience considerably less of an increase in traffic compared to SR-29, a growth rate of 1 percent per year was used to develop future AM and PM peak-hour volumes for the study intersections located west of SR-29.

Under the anticipated Future volumes, the study intersections are expected to operate acceptably during the AM and PM peak-hours except for SR-29/South Kelly Road, which is expected to operate at LOS F during both peak-hours. Future volumes are shown in Exhibit 3.12-5 and operating conditions are summarized in Table 3.12-8.

While the intersection of SR-29/South Kelly Road is projected to operate at LOS F during each peak-hour, this operation was considered acceptable since SR-29 is exempt from the City’s LOS standard and Caltrans no longer applies an LOS standard. The City of American Canyon—Broadway District Specific Plan Draft Environmental Impact Report (EIR), FirstCarbon Solutions, 2017, states that there are future plans for SR-29 to have three through lanes in each direction through American Canyon. Because funding has not been identified for this capacity enhancement, it was conservatively

assumed that the current configuration with only two through lanes in each direction would remain, and this configuration was used for the analysis.

Furthermore, the future year analysis results for facilities along SR-29 (specifically, the intersection of SR-29/South Kelly Road) is deemed to be more conservative than what was presented for this intersection in the Watson Ranch Specific Plan EIR (September 2018) which indicated LOS C and D operation for the AM and PM peak-hours, respectively.

Future Plus Project Conditions

Upon the addition of project-generated traffic to the anticipated Future volumes, all unsignalized study intersections are expected to operate acceptably. SR-29/South Kelly Road would continue to operate at LOS F during both peak-hours. Future Plus Project traffic volumes are shown in Exhibit 3.12-6 and operating conditions are summarized in Table 3.12-8.

Table 3.12-8: Future Plus Project Peak-hour Intersection Levels of Service

Study Intersection	AM Peak-hour		PM Peak-hour		AM Peak-hour		PM Peak-hour	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. SR-29/South Kelly Road	107.4	F	84.3	F	107.0	F	88.7	F
2. Devlin Road/South Kelly Road	8.0	A	8.0	A	8.5	A	7.6	A
3. Devlin Road/Green Island Road Southbound Approach	–	–	–	–	0.4 13.1	A B	1.4 13.9	A B
4. Paoli Loop Road/Green Island Road Northbound Approach	5.2 14.3	A B	3.1 13.4	A B	7.8 19.3	A C	3.7 16.7	A C
Notes: LOS = Level of Service Study intersection No. 3 Devlin Road/Green Island Road did not exist in 2015-2020. Source: W-Trans 2021.								

As mentioned previously, there are future plans for SR-29 to have three travel lanes in each direction through American Canyon. As required by the City in their Traffic Impact Fee Program, the proposed project would pay a proportional share fee toward the cost of this planned future infrastructure improvement. As specific building projects move forward, each would be required to contribute to the funds needed for the planned improvements to SR-29 based on the City’s fee schedule. Impacts would be less than significant.

Transit

Existing stops are not within an acceptable walking distance of the site, which is generally considered to be 0.5 mile. Should an employee need to use transit, they could ride a bicycle along Devlin Road to the nearest transit stop at the intersection of Airport Boulevard/Devlin Road. This is consistent with the various City of American Canyon General Plan policies that promote transit accessibility. Impacts would be less than significant.

Bicycles

Existing bicycle facilities, including Class II bike lanes on Devlin Road between Middleton Way and South Kelly Road together with shared use of minor streets provide adequate access for bicyclists. The proposed project would include bicycle lanes along the Devlin Road extension and a multimodal path along the north side of Green Island Road. The planned Class I and II bicycle facilities on South Kelly Road and Green Island Road, as well as the Napa Valley Vine Trail along Devlin Road, would improve bicycle connectivity near the project site. This is consistent with the various City of American Canyon General Plan policies that promote bicycle mobility. Impacts would be less than significant.

Pedestrian

Given the nature of the study area and the surrounding industrial land use, it is reasonable to assume that very few project patrons and employees will desire to walk to reach the project site. There may, however, be a desire by employees to walk in the area for recreational purposes during break times or to reach nearby buildings. Upon completion of the project, sidewalks will be provided along Devlin Road between Green Island Road to South Kelly Road. The proposed project also includes the construction of a multimodal path along Green Island Road, which would be available for use by pedestrians. This is consistent with the various City of American Canyon General Plan policies that promote pedestrian mobility. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

Vehicle Miles Traveled

Impact TRANS-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Impact Analysis

Phases 1 and 2

As discussed earlier, Senate Bill (SB) 743 (2013) directed OPR and the California Natural Resources Agency to establish a change in the metric to be applied for determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with an LOS analysis, the increase in VMT because of a project would be the basis for determining impacts. The City of American Canyon has not yet established thresholds of significance related to VMT. The Napa County travel demand model is not currently available for use as a source for VMT analysis. In lieu of an established local methodology, the project-related VMT impacts were quantitatively assessed based on guidance provided by the OPR in the publication Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, 2018.

Based on a review of established policies currently used by the OPR, Sacramento County, and the City of San José, a VMT impact would be identified at an industrial project if the project VMT per employee is higher than the regional average VMT per employee. This focus on employee trips, as opposed to truck traffic associated with the proposed land uses, reflects the focus in CEQA Guidelines Section 15064.3 on VMT associated with automobiles and light trucks. That section states that “[g]enerally, vehicle miles traveled [VMT] is the most appropriate measure of transportation impacts.” It further states that VMT “refers to the amount of *automobile travel* and distance of automobile travel attributable to a project.” (Italics added.) As of the effective date of section 15064.3, “*automobile delay*, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA],” with exceptions not relevant here (PRC § 21099(b)(2)).

At roughly the same time that section 15064.3 came into effect, OPR also published its “Technical Advisory on Evaluating Transportation Impacts in CEQA.” Going beyond the very limited guidance found in section 15064.3, this Technical Advisory provides specific recommendations on how to evaluate transportation impacts under CEQA. The OPR guidance provides detailed suggestions about how public agencies should meet their obligations to address VMT issues in transportation analyses for CEQA documents. The document is currently the best and most authoritative source of information about how to comply with section 15064.3. Notably, the Technical Advisory defines “automobile,” as the term is used in section 15064.3, as referring to “on-road passenger vehicles, specifically cars and light trucks.” (Technical Advisory, p. 4 [italics added].) Thus, OPR understands the requirement to address VMT as not reaching heavy-duty trucks. The focus on automobiles and not on heavy-duty trucks is consistent with the policy focus behind the elimination of automobile delay as a factor in assessing the significance of transportation-related impacts, as set forth in SB 743. Public Resources Code Section 21099(b)(1) directed the OPR and California Natural Resources Agency to develop alternative significance criteria that would “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” Accounting for heavy-duty trucks engaged in interstate commerce would not contribute to these policy goals, as local and state governments have little or no control over interstate trucking.

For this study, the regional average VMT is defined as the nine county Bay Area average. As reported by the City of Vallejo in their CEQA Transportation Impact Analysis Guidelines (dated October 2020), the Nine County Bay Area Average VMT per employee is 23.00 miles per employee. According to Statewide Travel Demand Model estimates, the proposed project is located within a Traffic Analysis Zone (TAZ) with a projected VMT per employee of 16.24 miles. Because this per capita VMT rate is lower than the significance threshold of 23.0 miles, the proposed project would be considered to have a less than significant VMT impact. It is noted that a more conservative methodology sometimes used by OPR for other employment-based land uses (such as office buildings) states that a project generating a VMT that is 15 percent or more below the regional average VMT, or 19.55 miles, is presumed to have a less than significant VMT impact. If this methodology were applied, the project would be considered to have a less than significant VMT impact since the VMT per employee of 16.24 miles is less than the threshold of 19.55 miles. A summary of the VMT findings is provided in Table 3.12-9.

Table 3.12-9: Vehicle Miles Traveled Summary

VTM Metric	Regional Average/Significance Threshold	Project VMT Rate	Significance
Employment VMT per Capita	23.00	16.24	Less than significant impact
Notes: VMT = Vehicle Miles Traveled Source: W-Trans 2021.			

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Roadway Safety

Impact TRANS-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis

Phase 1

W-Trans evaluated site access and sight distance for Phase 1 of the proposed project.

Site Access

Vehicular access to Phase 1 would be provided via four driveways on Green Island Road and four driveways on the future extension of Devlin Road. Access to Phase 2 is anticipated to be provided via numerous full access driveways with connections to the Devlin Road extension. All driveways and internal roadways would be designed to current City standards to accommodate heavy vehicles and so can be expected to accommodate the access requirements for both emergency and passenger vehicles. Impacts would be less than significant.

Sight Distance

A substantially clear line of sight should be maintained between the driver of a vehicle waiting at a driveway and the driver of an approaching vehicle. Sight distances along Green Island Road from the project driveways were evaluated based on sight distance criteria contained in the Highway Design Manual published by Caltrans. The recommended sight distance for driveway approaches is based on stopping sight distance using the approach travel speed as the basis for determining the recommended sight distance. Based on the posted speed limit of 40 miles per hour (mph), the

minimum stopping sight distance required is 300 feet; a review in the field shows that sight distances at the project driveway locations on Green Island Road would be adequate, provided any vegetation or buildings are sited to ensure maintenance of adequate sight lines. The sight lines for driveways on the Devlin Road connection are expected to be adequate based on a review of the site plans. Impacts would be less than significant.

Phase 2

Phase 2 would take access from both Green Island Road and Devlin Road. Standard design and engineering practices would dictate that driveways would be aligned with those on the opposite side of both Green Island Road Devlin Road and spaced sufficiently from other driveways and the western Green Island Road railroad grade crossing to avoid conflicting turning movements or the creation of safety hazards. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Access

Impact TRANS-4: The proposed project would not result in inadequate emergency access.

Impact Analysis

Phase 1

Vehicular access to Phase 1 would be provided via four driveways on Green Island Road and four driveways on the future extension of Devlin Road. Access to Phase 2 is anticipated to be provided via numerous full access driveways with connections to the Devlin Road extension. All driveways and internal roadways would be designed to current City standards to accommodate heavy vehicles and so can be expected to accommodate the access requirements for both emergency and passenger vehicles.

Furthermore, construction of the Devlin Road extension began in 2021 and, thus, it is expected to be completed by the time Phase 1 is completed. This would provide a parallel north–south route to SR-29, which would be beneficial from an emergency response perspective. Impacts would be less than significant.

Phase 2

Vehicular access to Phase 2 would be provided by driveways on Green Island Road and Devlin Road. Pursuant to the California Fire Code, a minimum of two points of access would need to be provided to each building. Compliance would ensure that adequate emergency response is provided. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

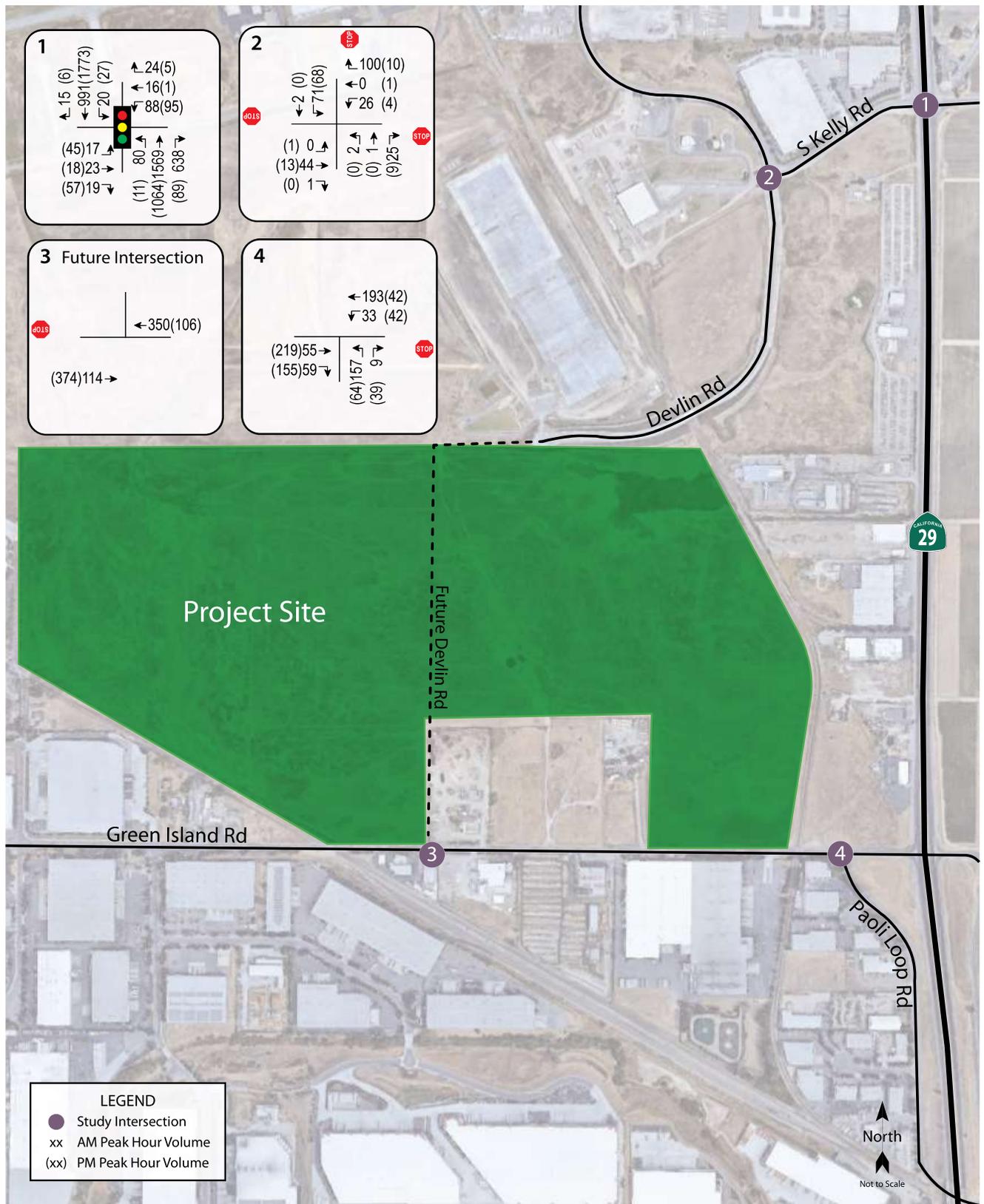
Level of Significance After Mitigation

Less than significant impact.



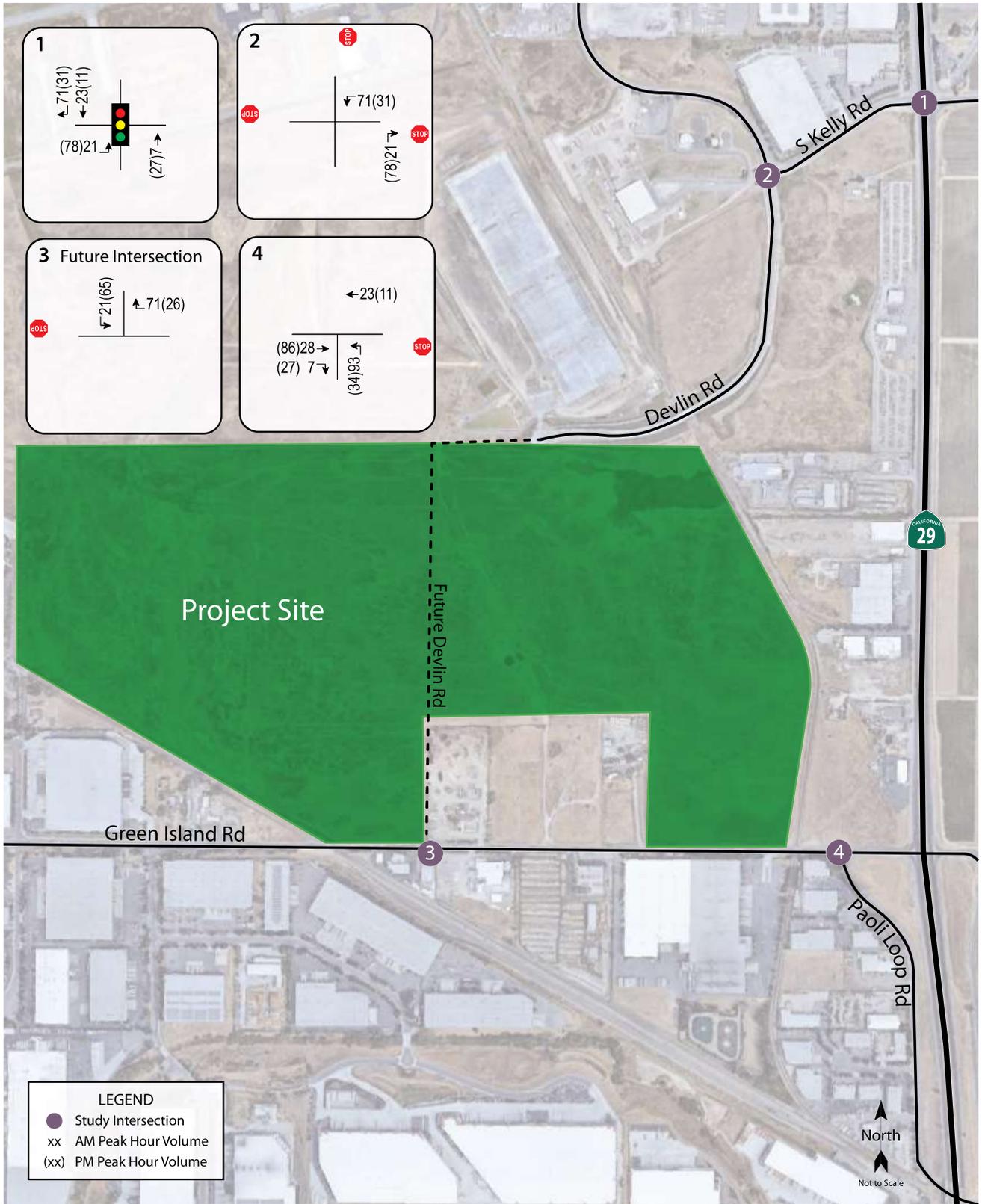
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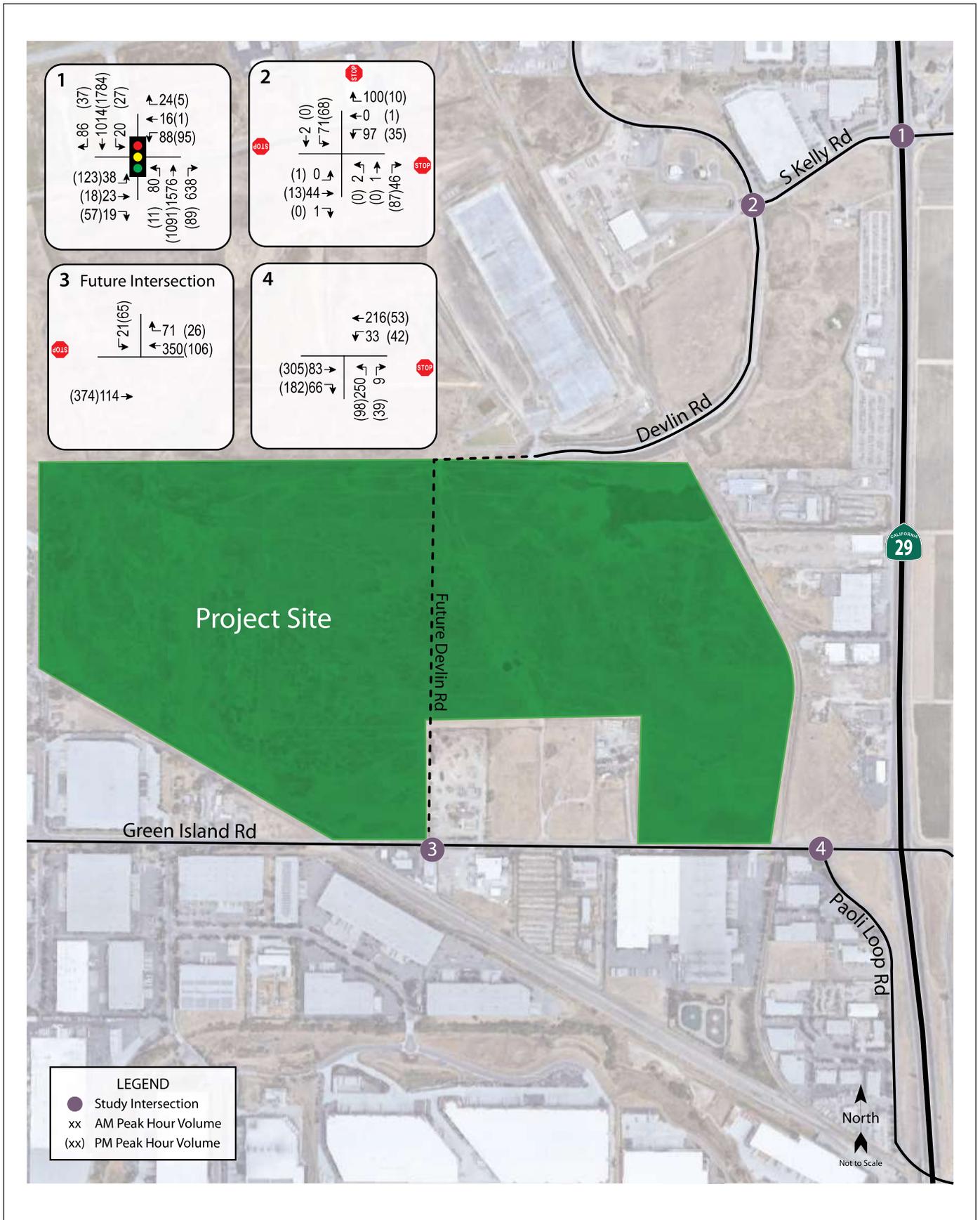
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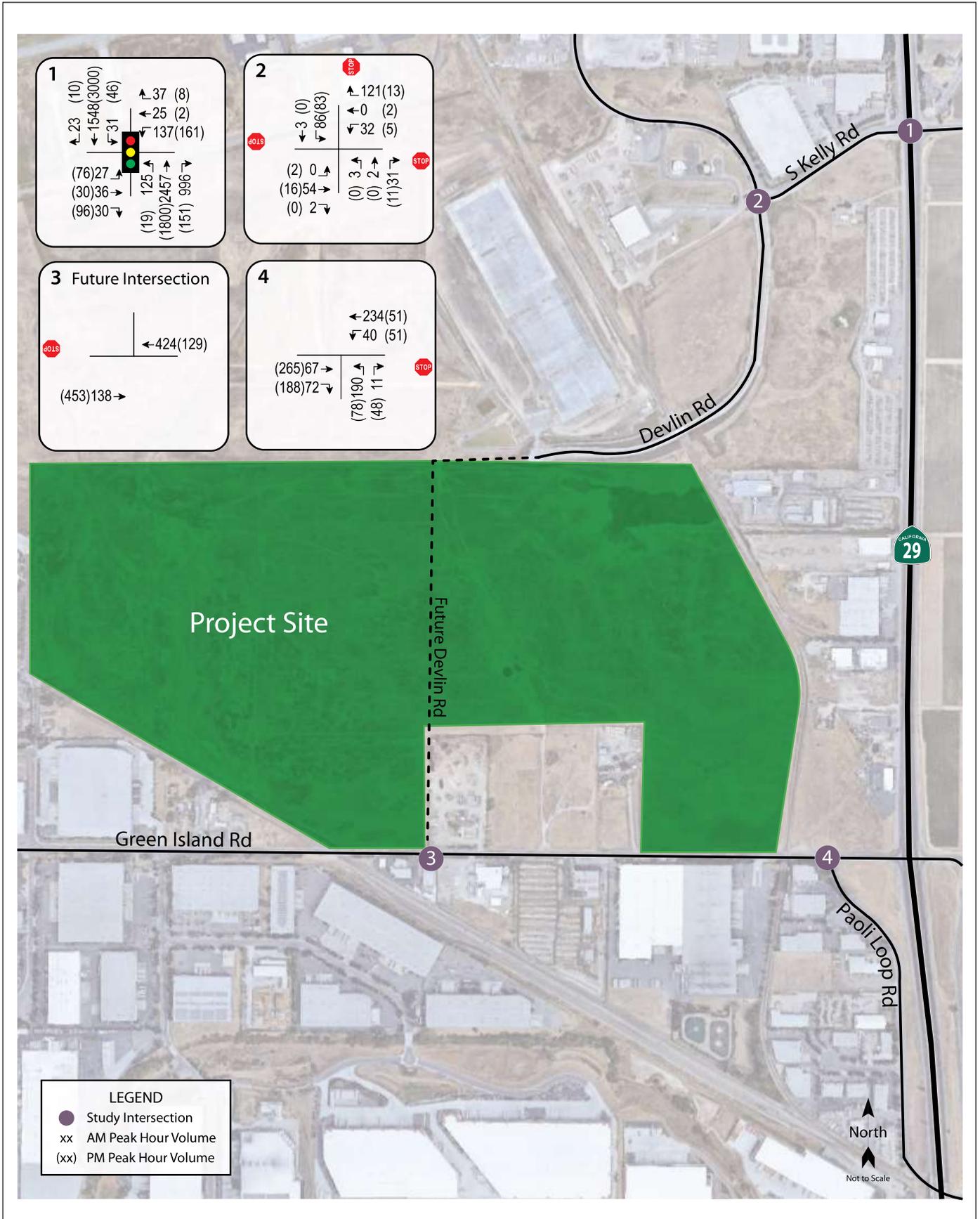
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