Transportation Impact Study for a Gas Station at 9621 North State Street

Prepared for the County of Mendocino

Submitted by
W-Trans

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Executive Summary

The proposed project is a gas station with 20 fueling positions that would be located on the east side of North State Street south of its intersection with US 101. The project would be expected to generate an average of 5,302 trips daily, including 321 during the morning peak hour, 368 during the evening peak hour, and 340 during the Saturday peak hour. Of these peak hour trips, 82 to 84 percent are expected to be diverted link trips made by drivers passing by the project site on US 101 on the way to another location. It is understood that Caltrans desires to close the median at the intersection of US 101/Uva Drive-North State Street coinciding with construction of the project, though there is currently no funding for such a project. Because of the uncertainty of the median closure, conditions both with and without this modification were evaluated.

The intersections of West Road with Uva Drive, US 101 South Ramps, US 101 North Ramps, and North State Street were evaluated, as well as the intersection of US 101/Uva Drive-North State Street under conditions without the median closure and the proposed intersections of US 101 South/Uva Drive and US 101 North/North State Street that would exist upon closure of the highway median. All intersections are currently stop-controlled only on the minor-street approaches.

Existing facilities for pedestrians, bicyclists, and transit riders are adequate given the project site's rural setting and the type of proposed land use. Additionally, the impact on vehicle miles traveled (VMT) by the proposed project would be less-than-significant, and the project's impact on emergency response would also be less-than-significant. Access to the project site by emergency vehicles would be adequate as the project would be designed to accommodate oversized vehicles such as fuel trucks.

The project would have a less-than-significant impact on safety as defined in terms of queueing, as none of the projected queues at the West Road freeway ramps or in the southbound left-turn lane at US 101/Uva Drive-North State Street were expected to extend past the available stacking space. Prohibiting westbound left turns and through movements at US 101/Uva Drive-North State Street and adding guidance signs on North State Street at the project site is recommended to address the potential for unsafe left-turning maneuvers from the North State Street approach to US 101.

The project would be accessed by two existing driveways and two new driveways, and sight distance would be adequate at all existing or proposed driveways provided that the project would not block sight lines with landscaping or signage. While left-turn lanes are not warranted on North State Street at the project driveways, acceleration and deceleration lanes to replace the existing tapers are warranted and recommended on US 101 North at North State Street. While the Peak Hour Volume warrant is met at West Road/US 101 North Ramps under existing volumes and would be met with project traffic added at West Road/US 101 South Ramps and the US 101 median closure, as the warrant is only marginally met it is anticipated that no other volume warrants would be met. Further, there have not been crashes indicating a safety concern, so signalization is not recommended. The warrants for all-way stop control are not met under existing volumes or with project traffic added.

Four out of five study intersections currently operate at Level of Service (LOS) B or better under existing conditions and five out of six study intersections would operate at LOS C or better with project traffic added and closure of the median on US 101; however, the intersection of West Road/US 101 South Ramps currently operates at LOS F during the morning peak hour and would continue to operate at LOS F under "plus Project" conditions with higher delays with the median closure. Installation of all-way stop controls at the intersection is recommended as it would improve operation at West Road/US 101 South Ramps during the morning peak hour to LOS C without the project and LOS D with the project and the median closure. An Intersection Control Evaluation may be required by Caltrans to support this change.

Under future volumes projected using a 20-year growth factor of 1.30 published by Caltrans, and with the addition of project traffic and closure of the highway median, operation would remain at LOS D or better at all study intersections except for West Road/US 101 South Ramps. With all-way stop control, West Road/US 101 South Ramps is expected to operate at LOS E with and without the project. Although the intersection would operate

unacceptably by the County's standards, additional improvements are not recommended at the freeway ramp intersection as LOS E is acceptable by Caltrans' standards and future volumes using a growth factor have the potential to overestimate future development.

In the alternative access scenarios without closure of the median on US 101, the intersection US 101/Uva Drive-North State Street would continue operating acceptably overall with project traffic added to existing and future volumes.

Introduction

This report presents an analysis of the potential traffic impacts and adverse operational effects that would be associated with development of a proposed gas station to be located at 9621 North State Street in the County of Mendocino. The traffic study was completed in accordance with the criteria established by the County and is consistent with standard traffic engineering techniques. Comments on the study were received from Caltrans and are addressed in a response to comments letter in Appendix A.

Prelude

The purpose of a traffic impact study is to provide County staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under CEQA, the County's General Plan, or other policies. This report provides an analysis of those items that are identified as areas of environmental concern under the California Environmental Quality Act (CEQA) and that, if significant, require an EIR. Impacts associated with access for pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the project; potential safety concerns such as increased queuing in dedicated turn lanes, adequacy of sight distance, need for turn lanes, and need for additional right-of-way controls; and emergency access are addressed in the context of the CEQA criteria. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the study intersections and need for improvements to maintain acceptable operation. The adequacy of parking is also addressed as a policy issue.

Applied Standards and Criteria

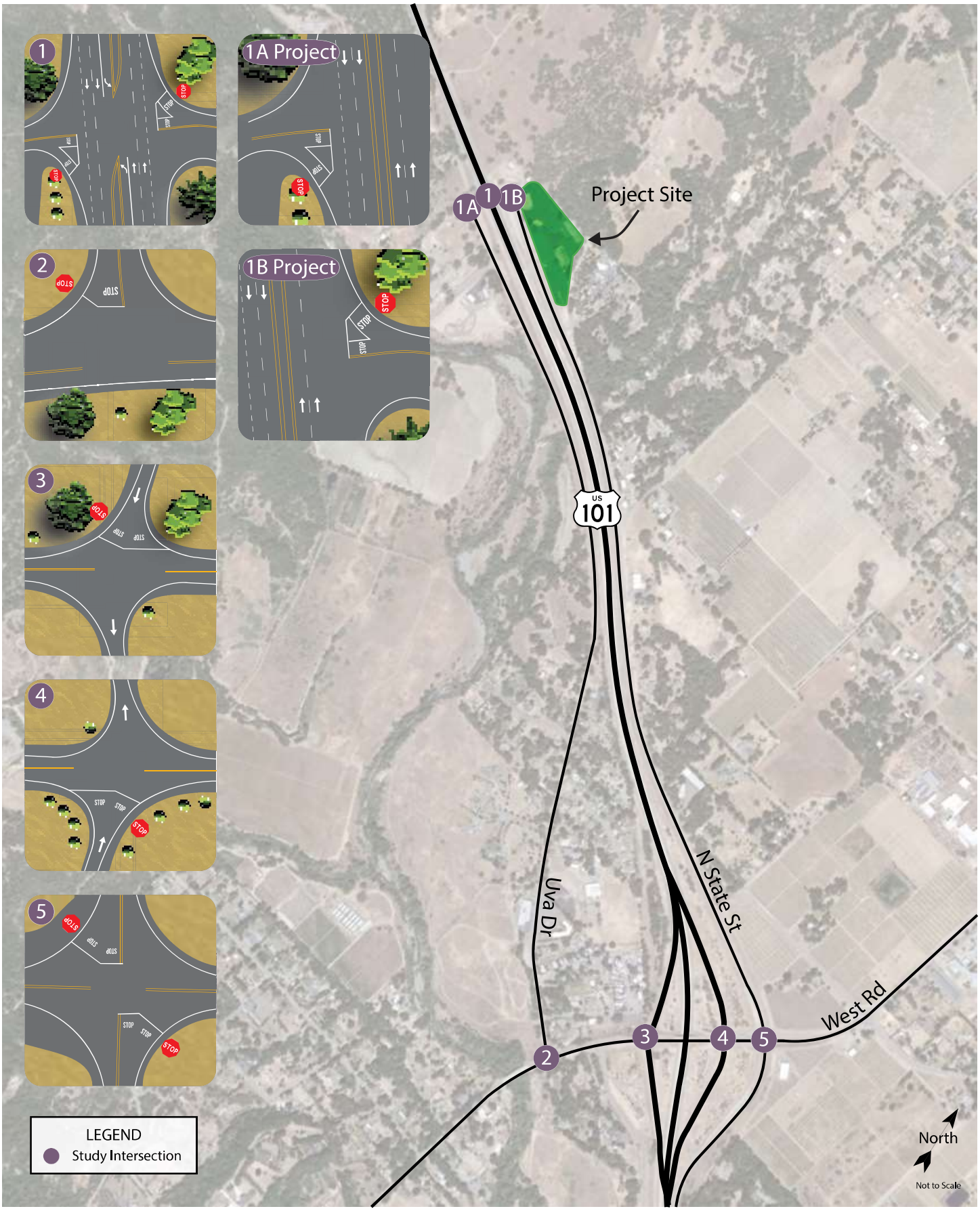
The report is organized to provide background data that supports the various aspects of the analysis, followed by the assessment of CEQA issues and then evaluation of policy-related issues. The CEQA criteria evaluated are as follows.

Would the project:

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 § 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?

Project Profile

The proposed project is a Chevron gas station with 20 vehicle fueling positions as well as a convenience market. It would be located at 9621 North State Street in the County of Mendocino. The location of the project site is shown in Figure 1.



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Transportation Impact Study for a Gas Station at 9621 North State Street

Figure 1 – Study Area and Existing Lane Configurations

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Transportation Setting

Study Area and Periods

The study area varies depending on the topic. For pedestrian trips it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel, or those leading to nearby generators or attractors. For bicycle trips it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and operational analyses, it consists of the project frontage and the following intersections:

1. US 101/Uva Drive-North State Street
2. West Road/Uva Drive
3. West Road/US 101 South Ramps
4. West Road/US 101 North Ramps
5. West Road/North State Street

Operating conditions during the weekday a.m. and p.m. peak periods as well as the Saturday peak period were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The weekday morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute. The Saturday peak period was also assumed to be from 4:00 to 6:00 p.m. to coincide with activity at the nearby Coyote Valley Casino. Counts were obtained for the study intersections on Saturday, October 8, 2022, and Thursday, October 13, 2022.

Study Intersections

US 101/Uva Drive-North State Street is a four-legged intersection with stop controls on the eastbound Uva Drive approach and westbound North State Street approach. There are dedicated left-turn lanes at the intersection on both the northbound and southbound US 101 approaches, as well as flared right-turn lanes on the Uva Drive and North State Street approaches; each right-turn lane has space to store approximately two to three right-turning vehicles while another vehicle waits to turn left or continue straight.

West Road/Uva Drive is an unsignalized tee intersection with a stop control on the southbound Uva Drive approach.

West Road/US 101 South Ramps is a four-legged intersection with a stop control on the southbound US 101 off-ramp approach. There are no turn lanes at the intersection; however, the southbound approach has a flared right-turn area with storage space to accommodate approximately two to three vehicles.

West Road/US 101 North Ramps is a four-legged intersection that is stop-controlled on the northbound US 101 off-ramp approach. The northbound approach has a flared right-turn area with space to store approximately two to three vehicles.

West Road/North State Street is a four-legged intersection with stop controls on the northbound and southbound North State Street approaches. While both stop-controlled approaches have a single lane, the lanes have flared right-turn areas that allow vehicles to stack up side-by-side and make right and left turns simultaneously.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 1.

Study Roadways

US 101 is a four-lane US highway that runs northwest-southeast in the vicinity of the project site. For the purposes of this study, US 101 is considered to run north-south. Each lane is 12 feet wide and there is a grassy or striped, paved median between the northbound and southbound lanes. US 101 is classified as an "Other Principal Arterial" according to the California Department of Transportation and the posted speed limit on US 101 is 65 miles per hour (mph) near the project site. There are no pedestrian or bicycle facilities along the roadway, rather there are rumble strips following the highway's edge lines and paved shoulders in each direction.

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 five-year period available is January 1, 2017, through December 31, 2021.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2019 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). Two of the five study intersections were determined to have above-average collision rates, as indicated with bold type. For those intersections, the records were further reviewed. The collision rate calculations are provided in Appendix B.

Table 1 – Collision Rates for the Study Intersections

Study Intersection	Number of Collisions (2017-2021)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. US 101/Uva Dr – N State St	6	0.22	0.25
2. West Rd/Uva Dr	1	**0.25**	0.17
3. West Rd/US 101 S Ramps	2	0.20	0.24
4. West Rd/US 101 N Ramps	2	0.12	0.24
5. West Rd/N State St	15	**0.81**	0.24

Note: c/mve = collisions per million vehicles entering; **Bold** text = rate is higher than statewide average

At the intersection of West Road/Uva Drive, there was one reported head-on collision involving a vehicle turning left from the stop-controlled approach. Given that only one collision occurred at the intersection over the five-year period, no clear pattern or trend was identified that would indicate a safety concern.

The 15 recorded collisions that occurred at West Road/North State Street included eight broadside, two sideswipe, two rear-end, two hit object, and one vehicle-pedestrian collisions. Of the eight broadside collisions, the most common primary collision factors were automobile right-of-way violations (four collisions) followed by driving under the influence (two collisions). Unsafe speed was reported as the primary collision factor for three of the 15 collisions at the study intersection. While there were five crashes of a type correctible through installation of all-way stop controls in 2017, there were no correctible crashes in 2020 or 2021 and only five crashes total occurred during this most recent two-year period compared to a total of nine during 2017 and 2018. Further, the rate of injuries for the study period was 20.0 percent, while the statewide average is 41.2 percent. As the trend of having a high number of crashes appears not to be continuing and the injury rate is less than half the statewide average, no remedial action is suggested.

Project Data

The proposed project is a Chevron gas station with 20 vehicle fueling positions as well as a convenience market. It is understood that Caltrans desires to extend the median on US 101 through the intersection with North State Street if this project is constructed, limiting access from North State Street to the northbound direction of travel only; access to Uva Drive would be limited to US 101 South. Site access to and from US 101 South would be available through the West Road interchange with the closure of the median. Because funding for the closure is not available at this time, the proposed project was also evaluated without the closure of the median as an alternative. The proposed project site plan is shown in Figure 2.

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*, 11th Edition, 2021, for Convenience Store/Gas Station (2-4 ksf) (LU #945) as this description most closely matches the proposed project.

Some portion of the traffic associated with the gas station use would be drawn from existing traffic on nearby streets; in the case of this project these trips would predominantly be diverted from US 101. These vehicle trips are not considered "new," but are instead comprised of drivers who are already driving on the adjacent street and choose to make an interim stop. These trips are referred to as "pass-by" if they simply turn off of the adjacent street into the project site or "diverted link" if pathing to and from the site requires additional turning movements.

For the project site, virtually all of the non-primary trips would likely be diverted link trips, as they would be captured from drivers passing by on US 101 who would need to turn onto North State Street or, if the median on US 101 were to be closed, West Road to access the project site. In practice, these diverted link trips would be captured as turning movements to and from US 101, with an associated reduction in northbound through trips at the same intersection. This aligns with the State's climate goals by more accurately representing the increase in traffic that would be associated with the project, as typically very few trips are made for the exclusive purpose of purchasing gas or visiting a convenience store – these trips are typically made while traveling for another purpose. The percentage of these diverted link trips was based on information provided in the *Trip Generation Manual*.

Based on application of these assumptions, the proposed project is expected to attract an average of 5,302 trips per day, including 321 a.m. peak hour trips and 368 trips during the p.m. peak hour. These volumes reflect the anticipated turning movements into and out of the project site. Most of these would be diverted link trips made by drivers already traveling on US 101. After deducting diverted link trips, the project would have an anticipated net new 954 trips per day, with 58 new trips during the morning peak hour and 59 during the evening peak hour. These volumes represent the overall net new trips that would be added to the roadway network as a result of the proposed project, though all diverted link trips were subtracted from through volumes on US 101 and added as turning movements for purposes of the operational analysis. During the Saturday peak hour, the anticipated trip generation would be 340 total trips including 61 primary trips. These results are summarized in Table 2.

Table 2 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out	Rate	Trips	In	Out
Gas Station*	20 vfp	265.12	5,302	16.06	321	161	160	18.42	368	184	184	17.01	340	170	170
Diverted Link		*-82%*	*-4,348*	*-82%*	*-263*	*-132*	*-131*	*-84%*	*-309*	*-155*	*-154*	*-82%*	*-279*	*-139*	*-140*
Primary Trips			**954**		**58**	**29**	**29**		**59**	**29**	**30**		**61**	**31**	**30**
Driveway Trips			**5,302**		**321**	**161**	**160**		**368**	**184**	**184**		**340**	**170**	**170**

Note: vfp = vehicle fueling position; * = Includes convenience store use

Source: Ruff and Associates 12/1

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Transportation Impact Study for a Gast Station at 9621 North State Street

Figure 2 – Site Plan

Trip Distribution

The pattern used to allocate new project trips to the street network was determined by reviewing existing volumes on US 101. Because, according to Caltrans, the median on US 101 may be closed in the future, drivers on US 101 South would have to detour more than two miles to reach the site with the closure (via the West Road interchange), so a nominal distribution in this direction was assumed. Without the median closure, drivers diverting from US 101 South would not have to detour to reach the project site but would have to turn left against high-speed traffic to both enter the project site and return to US 101 South. As a result, a slightly greater distribution from US 101 South was assumed without the median closure than with the median closure but the majority of trips to and from the site would still most reasonably be drawn from US 101 North at North State Street given the convenience of reaching the site by turning right from this highway connection. The applied assumptions are shown in Table 3.

Table 3 – Trip Distribution Assumptions

Route	Percent with Median Closure	Percent without Median Closure
US 101 N (Inbound from Ukiah and Outbound Towards Willits)	85	75
US 101 S (Inbound from Willits and Outbound Towards Ukiah)	10	20
West Rd East of N State St (Inbound and Outbound)	5	5
TOTAL	**100**	**100**

Circulation System

This section addresses the first transportation bullet point on the CEQA checklist, which relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. Given the rural nature of the project site, it is not served by pedestrian facilities. However, given the type of land use as well as the location, pedestrian activity is not anticipated so the lack of facilities is acceptable.

Pedestrian Safety

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians. Collision records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports were reviewed for the most current five-year period available, which was October 1, 2015, through September 30, 2020, at the time of the analysis. During the five-year study period there were no reported collisions involving pedestrians at the study intersections.

Finding – Pedestrian facilities serving the project site are adequate given the rural location and type of land use.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2020, classifies bikeways into four categories:

- **Class I Multi-Use 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.

There are no existing bicycle facilities within the vicinity of the proposed project. Given the rural location, land use type, and freeway proximity, these facilities are adequate.

Bicyclist Safety

Collision records for the study area were reviewed to determine if there had been any bicyclist-involved crashes. During the five-year study period between October 1, 2015, through September 30, 2020, there was no reported collision involving a bicyclist at any of the study intersections.

Bicycle Storage

The project site plan does not identify the provision of bicycle parking or storage facilities. However, as there is no requirement for bicycle parking or storage facilities at gas stations in the County code, this is sufficient.

Finding – There are adequate bicycle facilities serving the project site for the type of land use and rural location of the project site.

Transit Facilities

Existing Transit Facilities

There are no transit stops within a half-mile walking distance of the project site; however, 1.2 miles to the south of the project site there are bus stops for Mendocino Transit Authority Routes 20 and 65 at West Road/North State Street. Route 20 provides service between Ukiah and Willits with six buses in each direction on weekdays, and Route 65 connects Santa Rosa, Ukiah, Willits, and Fort Bragg with four buses in each direction on weekdays and Saturdays and one bus in each direction on Sundays. While there are not adequate transit facilities within a reasonable walking distance of the project site, no demand for transit to and from the project site is anticipated given the rural nature of the project area as well as the type of project proposed, so this condition is considered acceptable.

Finding – No transit facilities are within a walkable distance of the project site; this is adequate given the rural location and land use.

Significance Finding – While there are no facilities for alternatives modes in the vicinity of the project site, given the rural location as well as the type of land use, no demand for such modes would be anticipated. The project would not conflict with any policies relative to alternative modes, so would have a less-than-significant impact on these modes.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) was evaluated based the project's anticipated Vehicle Miles Traveled (VMT).

Senate Bill (SB) 743 established Vehicle Miles Traveled (VMT) as the metric to be applied in determining traffic impacts associated with development projects under the California Environmental Quality Act (CEQA). Since the County of Mendocino has not adopted a threshold of significance for VMT, this analysis used the guidelines developed in *Senate Bill 743 Vehicle Miles Traveled Baseline Study*, Mendocino Council of Governments, 2020 and *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, California Governor's Office of Planning and Research, 2018 (referred to herein as the Technical Advisory). The MCOG and OPR guidance for retail land uses, which is the classification under which the proposed project would fall, was applied.

The OPR Technical Advisory indicates that retail projects should generally be analyzed by examining total VMT, with an increase in total regional VMT being considered a significant impact. In the Technical Advisory, OPR indicates that *local-serving* retail may generally be presumed by lead agencies to have a less-than-significant VMT impact (see Technical Advisory pages 16-17). OPR based this presumption on substantial evidence and research demonstrating that adding local-serving retail uses typically improves destination accessibility to customers, often reducing trip distances, since customers need to travel shorter distances than they previously did. The total demand for retail in a region, or in this case fuel and convenience retail, also tends to hold steady; adding new local-serving retail typically shifts trips away from another provider rather than adding entirely new trips to the region. OPR cites a size of 50,000 square feet or greater as being a potential indicator of regional-serving retail (versus local-serving) that would typically require a quantitative VMT analysis, and the MCOG guidance recommends applying this threshold to screen out small retail projects in Mendocino County from VMT analysis. The size of the proposed project would be well below the 50,000 square foot threshold.

Further consideration was given to the project type and its potential to draw traffic that is regional, versus local, in nature. Gas stations and their associated retail stores are inherently convenience-based uses; customers of these uses typically choose to stop because they are located along their planned route of travel and are generally unwilling to travel substantially out of their way to visit such outlets, particularly when closer options are available. As a result, the proposed project would be expected to attract many of its customers from drivers already passing by on US 101; these customers would result in no new vehicle miles traveled as this would be an interim stop on a trip that was already being made. In addition to these trips, the project's customers would be drawn from the surrounding area. Currently the nearest gas stations to the site are Coyote Valley Casino Gas Station (which also includes a convenience market) across the street from the Coyote Valley Casino and the Redwood Valley Gas Station on East Road; otherwise, the nearest gas stations in the area are near the West Lake Mendocino Drive interchange six miles to the south or in Willits to the north. With the completion of the project, residents in the unincorporated areas near the project site would be required to travel shorter distances than they currently do to reach these types of uses, reducing total VMT in the region.

Based on this assessment, the proposed project's gas station and convenience market uses can all be classified as local-serving, and based on guidance provided by MCOG and OPR, may be presumed to result in a less-than-significant VMT impact. It is noted that many of the project's customers would not be "local" in the sense that they live close to the project site, rather these customers would be considered local under the OPR's definition as they would already be traveling on US 101 and the project would be their most convenient option for fuel and other items.

Significance Finding – The project is anticipated to be local-serving and would therefore result in a less-than-significant impact on vehicle miles traveled.

Safety Issues

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project access(es) as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips and need for additional right-of-way controls. This section addresses the third transportation bullet on the CEQA checklist which is whether or not the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Site Access

The project site would be accessed via two existing driveways and two proposed driveways on North State Street. The two existing driveways are connected by a paved drive aisle which would provide access to parking spaces for both the existing buildings and proposed convenience store.

According to the project site plan, the proposed northern driveway would be 90 feet wide, and the proposed southern driveway would be 45 feet wide. The proposed 90-foot driveway would most directly provide access to a canopy with 12 fueling positions, while the proposed 45-foot driveway would provide access to a canopy with eight fueling positions; however, all fuel dispensers and parking for the convenience store would be connected and accessible upon entering any driveway.

Sight Distance

Sight distances along North State Street at 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, which uses approach travel speed as the basis for determining the recommended sight distance. The minimum stopping sight distance needed for a design speed of 55 mph is 500 feet. As North State Street is flat, has minimal horizontal curves, and is lined by low-lying vegetation, sight distance would be adequate to and from all project driveways given that new landscaping and signage is designed to avoid blocking sight lines.

Access Analysis

Left-Turn Lane Warrants

The need for left-turn lanes on North State Street at the existing project driveways and proposed project driveways was evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method For Prioritizing Intersection Improvements*, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes to determine the need for a left-turn pocket based on safety issues.

Non-project-related volumes on North State Street were estimated based on turning movements at the intersection of US 101 North/North State Street for "plus Project" scenarios with the median closure, as the intersection would exist only if Caltrans closes the median US 101/Uva Drive-North State Street. For scenarios without the median closure, turning movements at US 101/Uva Drive-North State Street were used to estimate through volumes on North State Street. The peak hour volumes at each project driveway were also estimated by assigning a portion of the project-generated trips to each of the four proposed driveways. Trip generation rates from the ITE *Trip Generation Manual* for Convenience Store/Gas Station (2-4 ksf) (LU #945) and Gasoline/Service Station (LU #944) were compared to estimate the percentage of trips that would enter and exit the existing driveways to visit the convenience store, while the number of fueling positions associated with each of the proposed driveways was used to allocate the remaining trips. Under the Future plus Project p.m. peak hour

condition, which has the highest project volumes and through volumes on North State Street, a left-turn lane would not be warranted on North State Street at any of the project driveways with or without the median closure on US 101. Copies of the left-turn warrant spreadsheets are provided in Appendix C.

Left Turns from US 101

In its review of the proposed project, Caltrans has indicated a desire to have the median on US 101 at Uva Drive-North State Street closed in conjunction with construction of the project. As noted in the review of the crash history at this intersection, the collision rate for the five-year study period was below the statewide average for similar facilities. Based on the data reviewed, there is no evidence of an existing safety issue that requires the closure of the median at this location.

While construction of the project could increase the collision rate at US 101/Uva Drive-North State Street and closure of the median at the intersection would provide the greatest degree of safety, the intersection's collision history provides no evidence that adding volumes would result in more fatal collisions as the intersection does not have a collision rate higher than the statewide average nor an observed history of fatal crashes. Further, during the five-year study period there were no crashes involving drivers traveling southbound and turning left from US 101 to North State Street.

Upon the addition of project volumes to US 101/Uva Drive-North State Street, and even assuming that half the inbound trips would be drawn from US 101 South, delay for southbound left-turning vehicles with project traffic added would be less than 15 seconds for all scenarios evaluated. As southbound left-turning drivers would experience low delay, would have to cross only one direction of traffic on US 101, would have more than 1,000 feet of sight distance to oncoming traffic from the south, and there were no crashes involving this movement during the last five years, the existing southbound left-turn lane designed by Caltrans can reasonably be expected to function acceptably with the project.

In contrast to the southbound left-turning movement, with project traffic and assuming a 50 percent distribution inbound from US 101 South, westbound left-turning delays would be between 40 seconds and seven minutes for the various scenarios. The high westbound left-turning delay from North State Street in combination with the lack of an acceleration lane could lead to unsafe maneuvers from the westbound approach as westbound left-turning drivers would have to cross two traffic streams with pressure from waiting drivers behind them as well as frustration due to the high delay.

It is therefore recommended that left turns and through movements be prohibited from North State Street at US 101 using signing and striping on the westbound approach exclusively or in combination with a striped directional median on US 101. Guidance signs should also be added to North State Street at the project site directing traffic to US 101 South through the West Road interchange, a detour that is generally convenient as drivers would continue in the direction they are traveling anyway. Prohibiting left turns from the North State Street approach would be expected to reduce collisions by 64 percent according to Collision Modification Factors published by the Federal Highway Administration (FHWA). With these changes, there would not be a project impact on programs addressing the circulation system as US 101/Uva Drive-North State Street does not have a demonstrated safety issue based on collision rates and the potential for crashes from westbound left-turning maneuvers would be eliminated by prohibiting this movement.

Finding – Sight distances at the project driveways would be adequate. Left-turn lanes are not warranted at the project driveways based on Future plus Project volumes with or without the median closure on US 101. While the collision history at US 101/Uva Drive-North State Street does not indicate a need to close the median at the intersection, permitting left turns from the North State Street approach to US 101 with project traffic could represent a safety concern.

Recommendation – It is recommended that left turns and through movements from North State Street be prohibited at US 101 using signing and striping, potentially including a striped directional median on US 101. There should also be guidance signs on North State Street at the project site directing traffic to US 101 South through the West Road interchange.

Queuing

The County of Mendocino does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the back of the queue to extend out of the available stacking space in a dedicated turn lane or into a visually restricted area, such as too near the gore point of an off-ramp. This analysis addresses the two freeway ramp intersections on West Road and, for scenarios without the median closure, the intersection of US 101/Uva Drive-North State Street. The available queueing space on the off ramps is defined as the stopping sight distance for 55 miles per hour (500 feet) subtracted from the travel distance between the gore points of the off-ramps and stop bars at the intersections; this distance is 610 feet for the US 101 South off ramp and 685 feet for the US 101 North off ramp. Should the queue extend beyond the available space, there would be a safety concern wherein high-speed vehicles exiting US 101 may not have sufficient sight distance to stop and avoid a collision with vehicles queued on the off ramp.

At US 101/Uva Drive-North State Street, the available stacking space in the southbound left-turn lane is assumed to be 50 feet, which is the minimum allowed under Caltrans design standards.

Under each scenario, the projected 95th percentile queues at the study intersections were determined using Vistro. Summarized in Table 4 are the predicted queue lengths. Copies of the queuing projections are included in Appendix D.

Table 4 – 95th Percentile Queues

Location	Available Queueing Space	AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		E	E+P	F	F+P	E	E+P	F	F+P	E	E+P	F	F+P
US101/Uva Dr–N State St													
SB Left Turn*	50**	1	4	2	5	1	6	2	7	0	3	0	3
West Rd/US 101 S													
Off-Ramp	610	226	356	296	423	42	85	76	151	12	22	20	33
With AWSC		*17*	*26*	*20*	*29*	*15*	*23*	*19*	*28*	*7*	*11*	*9*	*13*
West Rd/US 101 N													
Off-Ramp	685	55	59	68	74	46	49	71	77	25	25	32	33

Notes: 95th percentile queue based on Vistro output; all distances are measured in feet; E = existing conditions; E+P = existing plus project conditions; F = future conditions; F+P = future plus project conditions; AWSC = all-way stop control; Shaded cells = conditions with improvements indicated

* = conditions without median closure on US 101; ** = minimum stacking space per Caltrans design standards

Finding – The project would have a less-than-significant impact on queueing as the projected 95th percentile queues could be contained within the available stacking space upon the addition of project traffic. It is noted that results for conditions with all-way stop controls are also provided for the intersection of West Road/US 101 South Off-ramp as the change in controls is recommended later in this study. To ensure that the change in controls would not result in a different conclusion should the County and Caltrans proceed with all-way stop controls, results with this potential control scheme are included.

Traffic Signal Warrants

As requested by Caltrans, a signal warrant analysis was performed to determine whether traffic signals should be installed at one or both of the freeway ramp intersections on West Road.

Chapter 4C of the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) provides guidance on when a traffic signal should be considered. There are nine different warrants, or criteria, presented, as follows:

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour Volume
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection Near a Grade Crossing

For the purposes of this analysis only Warrant 3, the Peak Hour Volume Warrant, which is often the first warrant to be met, was evaluated. Under the Peak Hour Volume Warrant the need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:

    1. The total stopped time delay experienced by the 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
    2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
    3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

The Peak Hour Volume Warrant would be met for West Road/US 101 South Ramps with project traffic added to existing a.m. peak hour volumes and with the closure of the median at US 101/Uva Drive-North State Street. For the intersection of West Road/US 101 North Ramps, the existing a.m. peak hour volumes (without the proposed project) are sufficient to meet this warrant. Note that the a.m. peak hour was evaluated as it is the highest-volume hour for the minor street approaches at the two freeway ramp intersections. Copies of the signal warrant worksheets are included in Appendix E.

Finding – The Peak Hour Volume Warrant for a traffic signal would be met at the intersection of West Road/ US 101 South Ramps with project traffic added to existing volumes and with the median closure on US 101, and the warrant would be met at the intersection of West Road/US 101 North Ramps under existing volumes, without the project. It is noted that while the Peak Hour Volume warrant is met, as this is only an initial indication that a signal may be needed, additional warrants should be evaluated to determine if there is a demonstrated need for additional right-of-way controls, though volume warrants would likely not be met. As noted in the analysis of the collision history for the study area, both ramp intersections had below-average crash rates, so are not experiencing a safety issue that would indicate need for a traffic signal. Signalization is therefore not recommended at this time.

All-Way Stop Control Warrants

All-way stop control (AWSC) warrants were also analyzed for the two freeway ramp intersections. The CA-MUTCD provides warrant criteria for converting a two-way stop-controlled intersection to AWSC. Under the AWSC warrant criteria, at least one of the following four conditions must be satisfied to warrant AWSC installation.

1. A traffic signal has been warranted at the intersection, and the AWSC is an interim measure;

2. Five or more crashes in a 12-month period have occurred that are susceptible to correction by installing AWSC, such as right-turn, left-turn, and right-angle collisions;
3. The major street vehicle volume averages at least 300 vehicles per hour for each of eight hours on a typical day, the combined vehicle, pedestrian, and bicycle volume on the minor street averages at least 200 units per hour during the same eight hours, the minor street vehicular traffic faces an average delay of 30 seconds per vehicle during the peak hour, or 70 percent of the above values if the 85th percentile approach speed on the major street exceeds 40 miles per hour; and/or
4. The above two conditions are both satisfied to 80 percent, meaning four crashes in 12 months, 240 vehicles per hour on the major street, 160 units per hour on the minor street, and 24 seconds of delay.

In addition to the above, the MUTCD also has four optional warrants. These alone are not enough to warrant installation of AWSC but may be used in conjunction with engineering judgment to alleviate minor shortfalls in fulfilling the above criteria, as well as addressing unusual cases. The four optional warrants are:

1. The need to control left-turn conflicts;
2. The need to control the interaction of pedestrians and vehicles near heavy pedestrian traffic generators;
3. Locations where a driver stopped at the minor street approach is unable to assess conflicting traffic due to poor sightlines; and/or
4. At the intersection of two neighborhood collectors where installing AWSC will improve operations.

At both West Road/US 101 South Ramps and West Road/US 101 North Ramps, traffic signals are or would be warranted based on the Peak Hour Volume warrant as is discussed in the "Traffic Signal Warrants" section above. However, given that there is not a safety issue at either location and the volumes during the peak hour would only be sufficient to marginally meet the warrant, it appears unlikely that any other warrants would be met, so traffic signals would not be recommended. Thus, all-way stop controls are not warranted at either intersection as a temporary measure until traffic signals can be installed. The collision-based and combined warrants for AWSC are not met at either intersection as a maximum of two crashes occurred at either intersection over the study period of five years.

To determine whether the volume-based warrant for AWSC would be met under Existing plus Project conditions with the median closure at US 101/Uva Drive-North State Street, peak hour "plus Project" volumes were added to the four hours of counts obtained during the a.m. and p.m. peak periods. Eight full hours of data were not available, but if the warrant is not met with peak period volumes, it would unlikely be met during off-peak volumes.

At the intersection of West Road/US 101 South Ramps, the minor street volume of 121 vehicles per hour would be less than the required 140 vehicles per hour assuming the 85th percentile speed on West Road is greater than 40 mph. At West Road/US 101 North Ramps, hourly volumes would be sufficient to meet the warrant, but the average peak-hour delay on the minor approach to the intersection would be 16 seconds per vehicle, less than the required 21 seconds per vehicle assuming 85th percentile speeds on West Road are over 40 mph. Therefore, the volume-based warrant would not be met at either intersection using Existing plus Project volumes with the median closure. Peak hour delay at the study intersections is discussed further in the "Capacity Analysis" section later in the study.

The optional warrants were also analyzed, and it was found that none were met. Copies of the CA-MUTCD worksheets are included in Appendix F.

Finding – At both freeway ramp intersections on West Road, all-way stop controls would not be warranted as an interim measure before a traffic signal could be installed as signalization would be needed only for peak hour volumes, and therefore are not recommended. All-way stop controls would also not be warranted to address a safety issue nor are volumes adequate to indicate their need.

Acceleration/Deceleration Lanes

The need for acceleration and deceleration lanes on US 101 North at the intersection with North State Street was evaluated based on criteria contained in the *Intersection Channelization Design Guide* from NCHRP Report No. 279. The warrant was evaluated using p.m. peak hour Existing plus Project volumes, and it was found that both

acceleration and deceleration lanes are warranted at the intersection, with and without the median closure at US 101/Uva Drive-North State Street. While there are existing acceleration and deceleration tapers on US 101 North at North State Street, it is recommended that the existing tapers be upgraded to acceleration and deceleration lanes. A copy of the turn-lane warrant spreadsheet is provided in Appendix C.

Finding – Acceleration and deceleration lanes are warranted on US 101 North at North State Street upon the addition of project traffic, with and without closure of the median on US 101.

Recommendation – Both acceleration and deceleration lanes should be installed on US 101 North at North State Street per Caltrans design standards. This could be done as part of the project to close the median or independently of the median closure.

Significance Finding – The project would be expected to have a less-than-significant impact on safety and would not introduce any safety hazards.

Emergency Access

The final transportation bullet on the CEQA checklist requires an evaluation as to whether the project would result in inadequate emergency access or not.

Adequacy of Site Access

As the project site would be designed to allow fuel delivery trucks to access the site, the proposed site circulation and access would reasonably be expected to provide adequate drive aisle widths and turning radii to accommodate emergency response vehicles. The site would be accessible through two existing driveways which would be expected to have been designed to meet applicable design criteria.

Off-Site Impacts

While the project would be expected to result in an increase in delay for traffic in the study area, emergency response vehicles have lights and sirens to bypass queued traffic and minimize the effects of intersection delay. Closure of the median at US 101/Uva Drive-North State Street would increase potential response times from US 101 north of the project site to the rural community neighboring the project; however, the nearest fire and police departments are south of the project site and would not be impacted by the closure of the median. Therefore, the project would be expected to have a negligible effect on emergency response times.

Significance Finding – The project would have a less-than-significant impact on emergency response times.

Capacity Analysis

Intersection Level of Service Methodologies

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, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections are all currently stop-controlled on the minor street approach or approaches, so were evaluated using the were analyzed using the "Two-Way Stop-Controlled" intersection capacity method published in the *Highway Capacity Manual 7th Edition* (HCM), Transportation Research Board, 2022. 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 applied methodology determines a level of service 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 proposed all-way stop controls 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 is then related to a Level of Service.

The ranges of delay associated with the various levels of service are indicated in Table 5.

Table 5 – Intersection Level of Service Criteria

LOS	Two-Way Stop-Controlled	All-Way Stop-Controlled
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.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing 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.
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.
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.
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.
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.

Reference: *Highway Capacity Manual 7th Edition,* Transportation Research Board, 2022

Traffic Operation Standards

The *2017 Mendocino County Regional Transportation Plan* states that their operation goal is LOS C (unless constrained by topographical and/or environmental factors) for roadway segments and LOS D for intersections as

minimum levels for PM peak hour performance will be maintained. For purposes of the analysis the LOS D operation was applied to the intersection's overall average delay and not that of the movement having the worst operation.

Three of the five study intersections are under the jurisdiction of Caltrans, but Caltrans does not have a standard of significance relative to 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, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT). Adequacy of operation was therefore evaluated using the County's standards.

Existing Conditions

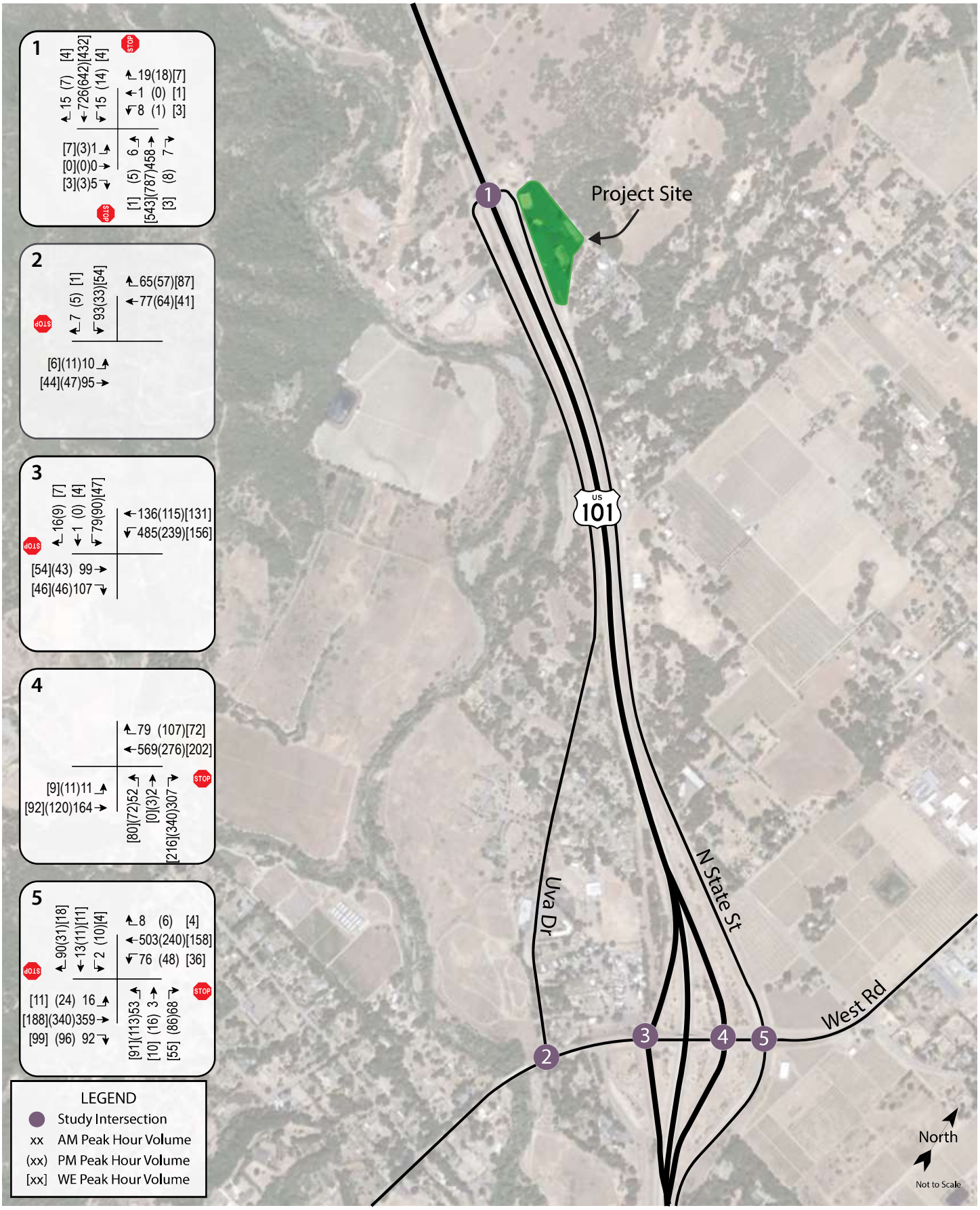
The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday a.m. and p.m. peak periods, as well as the Saturday peak period. This condition does not include project-generated traffic volumes. Additionally, heavy vehicle percentages were collected per movement and incorporated into the operational analysis.

Under Existing conditions, all of the study intersections operate acceptably except West Road/US 101 South Ramps, which operates at LOS F during the morning peak hour. A summary of the intersection Level of Service calculations is contained in Table 6. The existing traffic volumes are shown in Figure 3, and copies of the calculations are provided in Appendix D.

Table 6 – Existing Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	AM Peak		PM Peak		Saturday Peak	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. US 101/Uva Dr – N State St	0.5	A	0.4	A	0.3	A
Eastbound (Uva Dr) Approach	*13.5*	*B*	*20.2*	*C*	*15.6*	*C*
Westbound (N State St) Approach	*14.3*	*B*	*12.7*	*B*	*13.3*	*B*
2. West Rd/Uva Dr	3.4	A	2.1	A	2.5	A
Southbound (Uva Dr) Approach	*10.9*	*B*	*9.7*	*A*	*9.7*	*A*
3. West Rd/US 101 S Ramps	**51.8**	**F**	8.0	A	4.7	A
Southbound (US 101 S) Approach	***452***	***F***	*25.0*	*D*	*15.1*	*C*
With AWSC	24.4	C	10.0	A	8.9	A
4. West Rd/US 101 N Ramps	4.5	A	5.4	A	4.8	A
Northbound (US 101 N) Approach	*14.6*	*B*	*11.8*	*B*	*10.7*	*B*
5. West Rd/North State St	10.4	B	6.7	A	4.3	A
Northbound (State St) Approach	***86.3***	***F***	*25.7*	*D*	*14.0*	*B*
Southbound (State St) Approach	*17.8*	*C*	*14.5*	*B*	*11.4*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation; Shaded cells = conditions with improvements indicated



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Transportation Impact Study for a Gas Station at 9621 North State Street

Figure 3 – Existing Traffic Volumes

W-Trans

Conversion of the intersection of West Road/US 101 South Ramps to all-way stop control would improve operation to LOS C during the morning peak period.

Future Conditions

Future volumes were developed by applying the 20-year growth factor published by Caltrans District 1. The factor for the section of US 101 in the vicinity of the project site is 1.30, so this factor was applied to all existing volumes to project future volumes. It was also assumed that the median would remain open at US 101/Uva Drive-North State Street under Future conditions without the project.

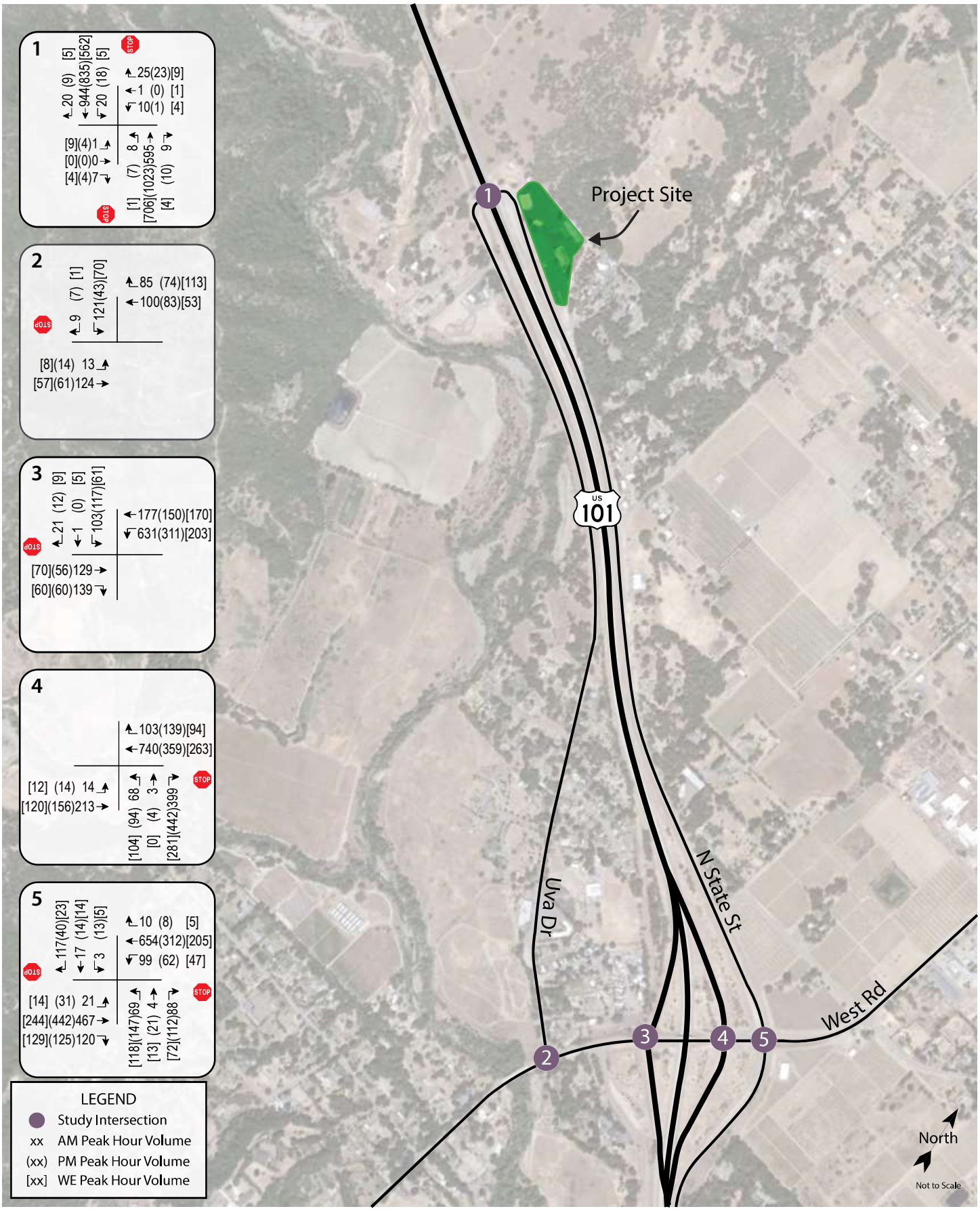
Under the anticipated future volumes and without the median closure, four of the five intersections would continue to operate acceptably at LOS D or better overall. The intersection of West Road/US 101 South Ramps would be expected to continue operating unacceptably even with all-way stop controls, as suggested for Existing Conditions, or even with a traffic signal. Future operating conditions are summarized in Table 7. Installation of a roundabout would be required to achieve acceptable operation under the projected future volumes, which are shown in Figure 4.

Table 7 – Future Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak		Saturday Peak	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. US 101/Uva Dr – N State St	0.6	A	0.4	A	0.4	A
Eastbound (Uva Dr) Approach	*15.1*	*C*	*28.2*	*D*	*18.4*	*C*
Westbound (N State St) Approach	*17.0*	*C*	*14.4*	*B*	*15.6*	*C*
2. West Rd/Uva Dr	3.5	A	2.1	A	2.5	A
Southbound (Uva Dr) Approach	*11.3*	*B*	*9.9*	*A*	*9.9*	*A*
3. West Rd/US 101 S Ramps	**101**	**F**	10.7	B	5.1	A
Southbound (US 101 S) Approach	***918***	***F***	***39.6***	***E***	*18.3*	*C*
With AWSC	**37.1**	**E**	10.9	B	9.5	A
4. West Rd/US 101 N Ramps	5.1	A	6.2	A	5.1	A
Northbound (US 101 N) Approach	*16.5*	*C*	*13.7*	*B*	*11.4*	*B*
5. West Rd/N State St	21.5	C	18.2	C	5.3	A
Northbound (State St) Approach	***198***	***F***	***78.9***	***F***	*18.0*	*C*
Southbound (State St) Approach	*21.6*	*C*	*19.3*	*C*	*12.7*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; **Bold** text = deficient operation; Shaded cells = conditions with improvements indicated

While unacceptable operation at West Road/US 101 South Ramps would be expected under the future volumes projected through use of a growth factor, this means of developing volume projections does not account for whether such growth is even feasible. Given the limited potential for development in the area surrounding the project site, it is unclear whether volumes could ever reach the levels indicated by the growth factor. Because these results reflect a planning-level analysis, further improvements to achieve acceptable operation are neither proposed nor recommended. It is instead suggested that Caltrans and the County monitor safety and operation at this location to determine what, if any, improvements are needed in the future.



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Transportation Impact Study for a Gas Station at 9621 North State Street

Figure 4 – Future Traffic Volumes

Project Conditions

Existing plus Project Conditions

Caltrans desires to close the median at the intersection of US 101 with Uva Drive and North State Street, creating two intersections out of the one that currently exists. It is understood that this modification could be made if the project goes forward, so this change was assumed for "plus Project" conditions. Non-project-related trips that would turn left at the intersection of US 101/Uva Drive-North State Street or continue straight from the minor approaches were modeled to be rerouted to the West Road interchange to the south.

Upon the addition of project-related traffic to Existing volumes, and with the indicated change to the intersection at US 101/Uva Drive-North State Street, five of the six intersections are expected to operate acceptably at LOS C or better, including the proposed intersections of US 101 South/Uva Drive and US 101 North/ North State Street. The intersection of West Road/US 101 South Ramps would continue operating unacceptably under the County's operational standard during the a.m. peak hour in its current configuration, though installing all-way stop controls as suggested for Existing Conditions would be expected to improve operation to an acceptable level. As Caltrans does not specify an operational standard, LOS F operation would be considered acceptable under their policies.

These results are summarized in Table 8. Project traffic volumes are shown in Figure 5 and Existing plus Project volumes are shown in Figure 6. Note that the project traffic volumes do not include non-project-related trips diverted to the West Road intersections because of the US 101 median closure, but these trips are accounted for in "plus Project" volumes.

Table 8 – Existing plus Project Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak		Saturday Peak	
	Delay	LOS	Delay	LOS	Delay	LOS
1a. US 101 South/Uva Dr	0.1	A	0	A	0.1	A
Eastbound (Uva Dr) Approach	*11.0*	*B*	*10.6*	*B*	*9.7*	*A*
1b. US 101 N / N State St	2.7	A	2.5	A	2.3	A
Westbound (N State St) Approach	*11.5*	*B*	*14.8*	*B*	*11.7*	*B*
2. West Rd/Uva Dr	3.3	A	2.2	A	2.7	A
Southbound (Uva Dr) Approach	*11.0*	*B*	*9.7*	*A*	*9.7*	*A*
3. West Rd/US 101 S Ramps	**127**	**F**	11.8	B	5.7	A
Southbound (US 101 S) Approach	***961***	***F***	***38.8***	***E***	*18.1*	*C*
With AWSC	30.2	D	10.6	B	9.3	A
4. West Rd/US 101 N Ramps	4.8	A	5.4	A	4.7	A
Northbound (US 101 N) Approach	*16.1*	*C*	*12.4*	*B*	*11.1*	*B*
5. West Rd/N State St	17.8	C	9.2	A	5.0	A
Northbound (State St) Approach	***158***	***F***	***36.2***	***E***	*15.6*	*C*
Southbound (State St) Approach	*24.0*	*C*	*16.0*	*C*	*11.5*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*; **Bold** text = deficient operation; Shaded cells = conditions with improvements indicated

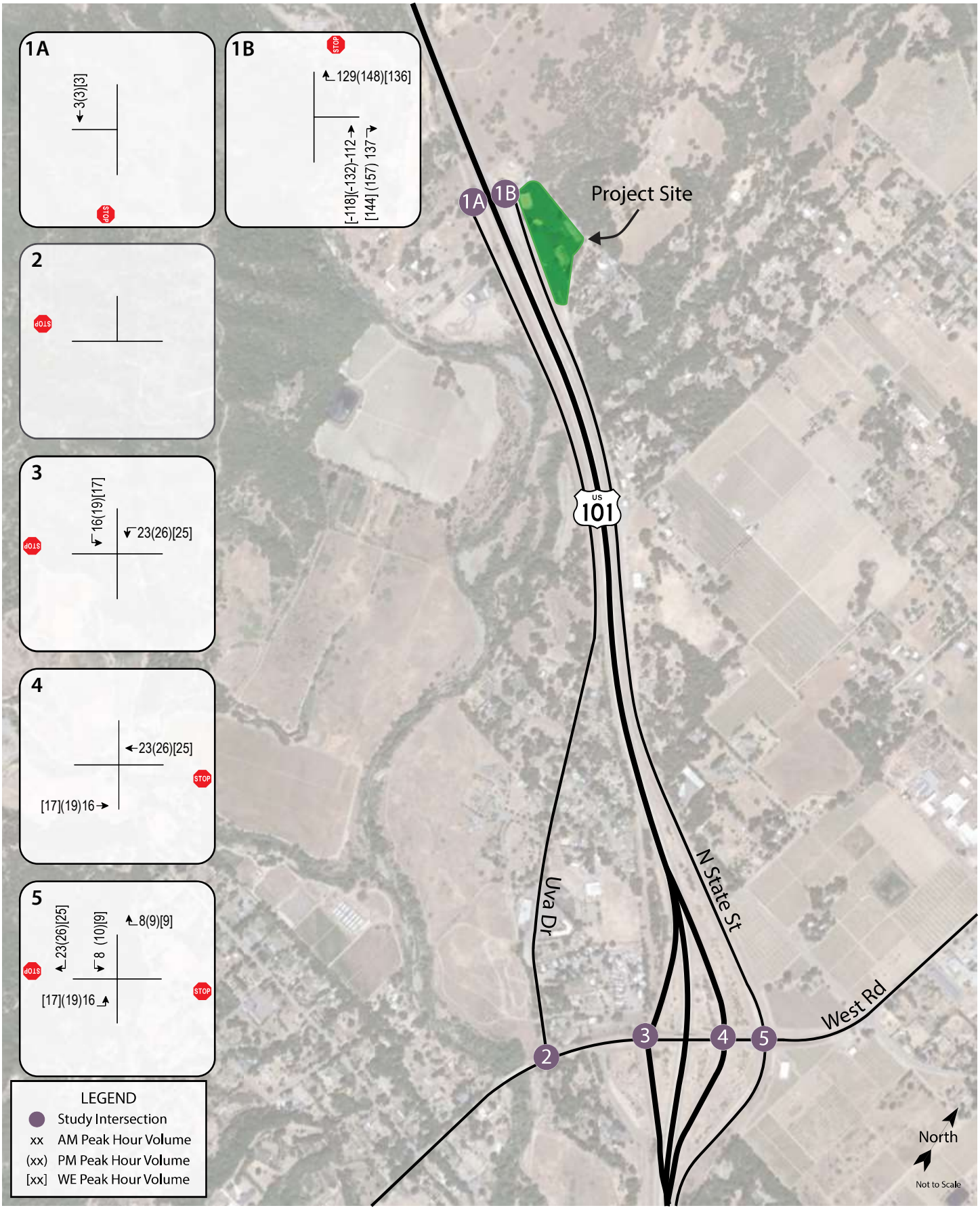

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Figure 5 – Project Traffic Volumes

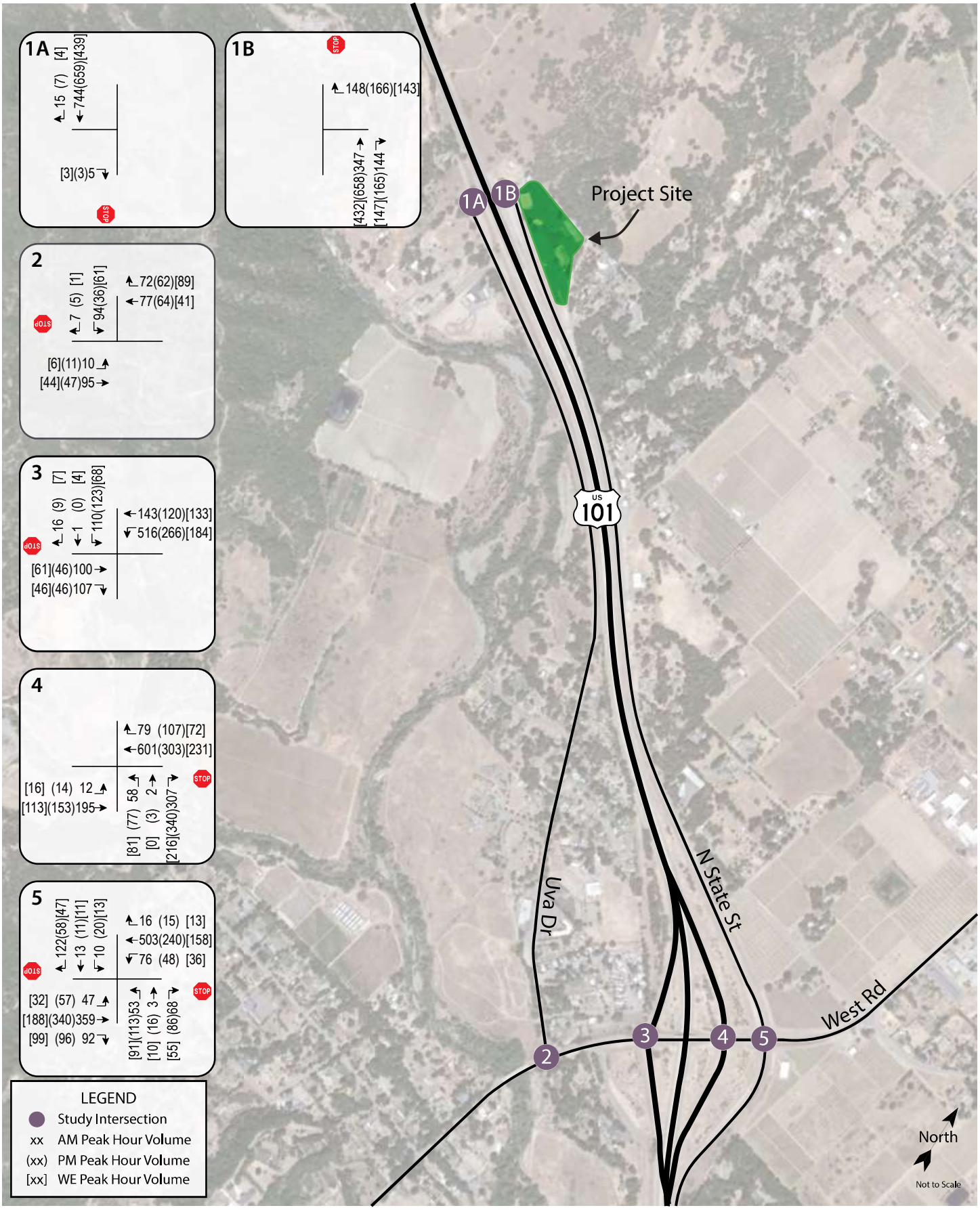

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Figure 6 – Existing plus Project Traffic Volumes

With the closure of the median and addition of project-related traffic volumes, average delay at the intersection of West Road/Uva Drive would be expected to decrease due to the reduced number of conflicting movements.

Finding – Five of the six study intersections would be expected to operate acceptably upon the addition of project traffic and closure of the median at US 101/Uva Drive-North State Street. The intersection of West Road/US 101 South Ramps would be expected to operate acceptably with project traffic and conversion to all-way stop controls, as recommended for conditions without the project. West Road/US 101 South Ramps is under Caltrans' jurisdiction and therefore does not have a standard for LOS so continued operation at LOS E or F would be considered acceptable to Caltrans.

Future plus Project Conditions

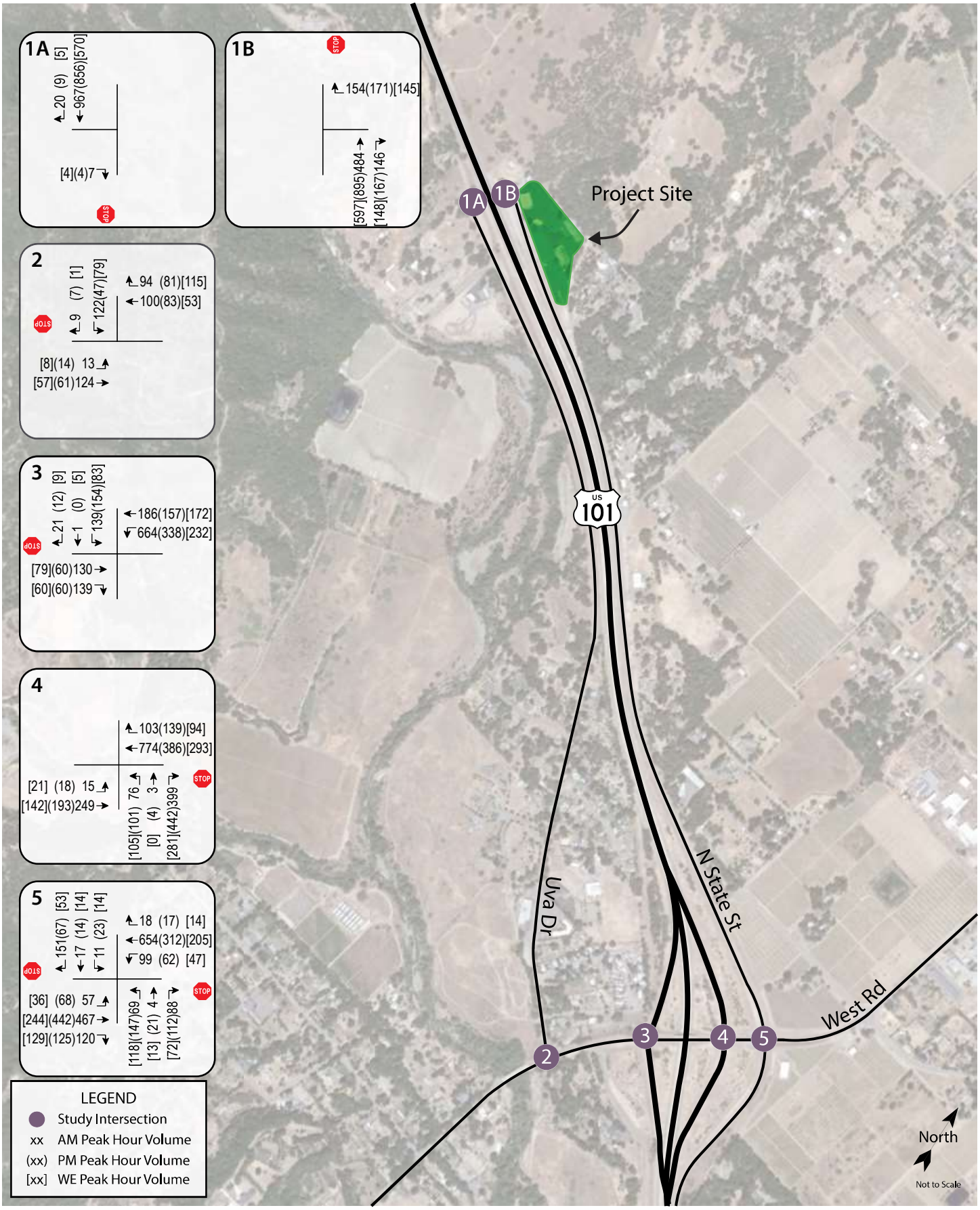
Upon the addition of project-generated traffic to the anticipated future volumes, and with the indicated closure of the median at the intersection of US 101/Uva Drive-North State Street, five of the six study intersections would be expected to operate acceptably at LOS D or better overall. The intersection of West Road/US 101 South Ramps would be expected to continue operating unacceptably at LOS E even with the all-way stop controls recommended for Existing Conditions. The Future plus Project operating conditions are summarized in Table 9. Future plus Project volumes are shown in Figure 7.

Table 9 – Future plus Project Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	AM Peak		PM Peak		Saturday Peak	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1a. US 101 South/Uva Dr	0.1	A	0.1	A	0.1	A
Eastbound (Uva Dr) Approach	*11.9*	*B*	*11.3*	*B*	*10.1*	*B*
1b. US 101 N/N State St	2.4	A	2.4	A	2.0	A
Westbound (N State St) Approach	*12.2*	*B*	*17.0*	*C*	*12.4*	*B*
2. West Rd/Uva Dr	3.4	A	2.2	A	2.7	A
Southbound (Uva Dr) Approach	*11.4*	*B*	*10.0*	*A*	*10.0*	*A*
3. West Rd/US 101 S Ramps	**221**	**F**	20.1	C	6.3	A
Southbound (US 101 S) Approach	***1716***	***F***	***78.4***	***F***	*22.9*	*C*
With AWSC	**46.1**	**E**	11.7	B	10.0	A
4. West Rd/US 101 N Ramps	5.7	A	6.5	A	5.1	A
Northbound (US 101 N) Approach	*18.8*	*C*	*14.9*	*B*	*12.0*	*B*
5. West Rd/N State St	34.9	D	30.6	D	6.3	A
Northbound (State St) Approach	***338***	***F***	***142***	***F***	*21.3*	*C*
Southbound (State St) Approach	*30.4*	*D*	*23.0*	*C*	*12.8*	*B*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation; Shaded cells = conditions with improvements indicated

Finding – Five of the six study intersections would operate acceptably at LOS D or better overall upon the addition of project traffic to the anticipated future volumes and closure of the median on US 101. Conversion of West Road/US 101 South Ramps to all-way stop controls would improve operation but it would remain at LOS E, which would be considered acceptable under Caltrans' policy. As noted for Future Conditions, because the volume projections may not be achieved by the 20-year horizon used, additional improvements to achieve LOS D operation are not recommended at this time.



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Transportation Impact Study for a Gas Station at 9621 North State Street

Figure 7 – Future plus Project Traffic Volumes

W-Trans

Project Conditions without Median Closure

Alternative Existing plus Project Conditions

Operating conditions of the intersection of US 101/Uva Drive-North State Street were analyzed without the indicated median closure on US 101. As any project traffic that would use the West Road interchange with drivers permitted to turn left from US 101 South onto North State Street would be accounted for within the analysis of conditions with the closure, operation of the four study intersections on West Road were not considered under the alternative conditions.

Upon the addition of project-related traffic to existing volumes and without the median closure, the intersection of US 101/Uva Drive-North State Street would be expected to operate acceptably at LOS A. The results are summarized in Table 10. Alternative project, existing plus project, and future plus project volumes are shown in Figure 8.

Table 10 – Alternative Existing plus Project Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	AM Peak		PM Peak		Saturday Peak	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. US 101/Uva Dr – N State St	2.5	A	3.4	A	2.6	A
Eastbound (Uva Dr) Approach	*14.2*	*B*	*24.7*	*C*	*17.8*	*C*
Westbound (N State St) Approach	*17.0*	*C*	*25.8*	*D*	*15.3*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The intersection of US 101/Uva Drive-North State Street would be expected to operate acceptably upon the addition of project traffic and without the median closure on US 101.

Alternative Future plus Project Conditions

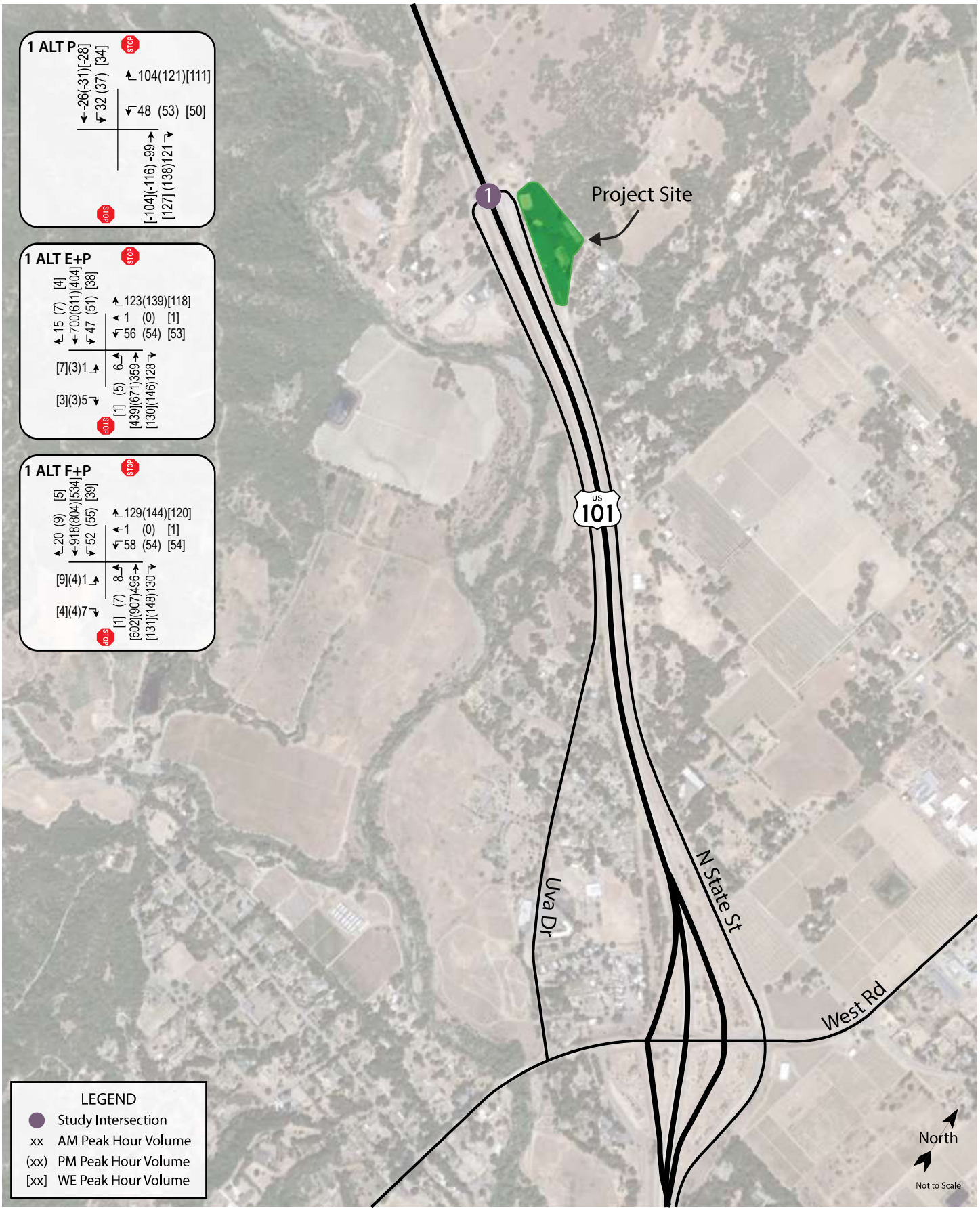
Upon the addition of project-generated traffic to the anticipated future volumes, and without the closure of the median on US 101, the intersection of US 101/Uva Drive-North State Street would be expected to operate acceptably at LOS A overall, though at LOS E on both side street approaches during the p.m. peak hour. The Future plus Project operating conditions are summarized in Table 11.

Table 11 – Alternative Future plus Project Peak Hour Intersection Levels of Service

Study Intersection ***Approach***	AM Peak		PM Peak		Saturday Peak	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. US 101/Uva Dr – N State St	2.7	A	4.7	A	2.6	A
Eastbound (Uva Dr) Approach	*15.9*	*C*	***37.0***	***E***	*21.4*	*C*
Westbound (N State St) Approach	*22.8*	*C*	***45.5***	***E***	*18.4*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

Finding – Without the median closure, the intersection of US 101/Uva Drive-North State Street would operate acceptably overall upon the addition of project traffic to the anticipated future volumes. It is noted that while LOS E operation is projected during the p.m. peak period for both the Uva Drive and North State Street approaches to US 101, as Caltrans does not have an operational standard and the overall operation is acceptable, this is considered acceptable.



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Transportation Impact Study for a Gas Station at 9621 North State Street

Figure 8 – Alternative Project, Existing plus Project, and Future plus Project Traffic Volumes

Conclusions and Recommendations

Conclusions

- The proposed project is expected to generate 5,302 new daily trips with 82 percent as diverted link trips, and 321 of these trips during the a.m. peak hour, 368 during the p.m. peak hour, and 340 during the Saturday peak hour.

- The lack of facilities for pedestrians, bicyclists, and transit riders is adequate given the project's rural setting and the type of land use. The project would have a less-than-significant impact in terms of plans and policies for these modes.

- The project is expected to be local-serving and would therefore result in a less-than-significant VMT impact.

- Sight lines at the project driveways are adequate and left-turn lanes are not warranted at the project driveways.

- The addition of project traffic to the westbound left-turning movement at US 101/Uva Drive-North State Streets could potentially lead to unsafe turning maneuvers at the intersection due to high delay on the approach and the lack of an acceleration lane on US 101 South.

- Projected queueing on the US 101 off ramps at West Road and at the southbound left-turn at US 101/Uva Drive-North State Street would not be expected to exceed the available stacking space and would therefore have a less-than-significant impact on safety.

- A traffic signal is warranted based on peak hour volumes (without project traffic) at the freeway ramp intersection of West Road/US 101 North and under "plus Project" volumes at West Road/US 101 South Ramps if the median at US 101/Uva Drive-North State Street is closed. However, as this warrant is only marginally met it is anticipated that no other volume warrants would be met, so a traffic signal is not recommended.

- All-way stop controls are not warranted at West Road/US 101 South Ramps or West Road/US 101 North Ramps based on any of the volume or safety warrants reviewed.

- Both acceleration and deceleration lanes are warranted on US 101 North at North State Street.

- The project's impact on emergency response times would be less than significant.

- Under Existing conditions, the study intersections operate acceptably by the County's standards at LOS B or better overall, except for West Road/US 101 South Ramps which currently operates unacceptably and would operate acceptably with the addition of all-way stop control.

- Upon the addition of project traffic to existing volumes and with the median closure on US 101 at Uva Drive-North State Street, all intersections would continue operating acceptably except West Road/US 101 South Ramps, which would operate acceptably with the all-way stop controls recommended to address existing operation.

- Under projected future volumes, and assuming no changes to their geometries or controls, four of the five study intersections are expected to operate acceptably by County standards. West Road/US 101 South Ramps is expected to operate unacceptably at LOS F during the a.m. peak hour.

- Under Future plus Project conditions and with the US 101 median closure, five of the six study intersections would be expected to operate acceptably, while West Road/US 101 South Ramps would operate unacceptably under the County's standard, though the ramp intersection operation would be acceptable to Caltrans.

- Without the median closure, the intersection of US 101/Uva Drive-North State Street would be expected to operate acceptably overall under Existing plus Project and Future plus Project conditions.

Recommendations

- Westbound left-turns and through movements at US 101/Uva Drive-North State Street should be prohibited using signing and striping on the westbound approach exclusively or in combination with a striped directional median on US 101. Guidance signs should be installed on North State Street at the project site to direct southbound traffic to the West Road interchange.

- It is recommended that consideration be given to installing all-way stop controls at the intersection of West Road/US 101 South Ramps to achieve acceptable operation per the County's policies under existing a.m. peak hour volumes. An Intersection Control Evaluation may be required by Caltrans.

- Acceleration and deceleration lanes should be installed on US 101 North at North State Street per Caltrans design standards.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Traffic Engineer	Kevin Carstens, PE
Associate Engineer	Cameron Nye, EIT
Assistant Engineer	Nathan Sharafian, EIT
Graphics	Cameron Wong
Editing/Formatting	Hannah Yung-Boxdell, Jessica Bender
Quality Control	Dalene J. Whitlock, PE, PTOE

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Appendix A

Response to Caltrans Comments Letter

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California Department of Transportation

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August 11, 2023

1-MEN-101-33.86
Faizan Gas Station
Revised Traffic Study

Mr. Liam Crowley
Planning & Building Services
County of Mendocino
860 North Bush Street
Ukiah, CA 95482

Dear Mr. Crowley:

Thank you for giving us an opportunity to comment on the revised Transportation Impact Study for a Gas Station at 9621 North State Street (Revised TIS), which is proposed to include twenty fueling positions and a convenience store in the unincorporated Redwood Valley area of Mendocino County.

The Revised TIS suggests alternatives to a median closure and constructs arguments that claim that the US 101/North State Street intersection is not currently experiencing collision rates above the Statewide average, therefore it is not expected to result in a safety risk with project trips added to the system identified in the analysis. The following reactions to the Revised TIS identify the flaws in the premise that keeping the US 101 median open will continue to operate safely:

Page 11, Trip Generation
For the purposes of evaluating transportation or traffic safety, we do not concur with the practice of deducting pass-by trips from the estimated trip generation rates. Left turn channelization warrants evaluate the ability of a given number of vehicles making a left turn in relation to the availability of acceptable gaps in approaching traffic through which to execute a left turn. To discount the number of pass-by trips from the actual number of turning vehicles based on trip purpose only invalidates the results. We do not accept the results of any safety analysis using pass-by reductions to evaluate left turn warrants.

Page 13, Table 3 - Trip Distribution Assumptions
The percent of trips assumed to enter the site from SB 101 without the median closure appears to be too low. There are no other gas stations adjacent to the highway for more than thirty-five miles in the SB direction. That is not the case for NB travelers. Without a median closure, we would expect to see a more even distribution, closer

to 50/50, with the median open. Using too low of a number for US 101 SB trip distribution would have the effect of under-reporting delays at the West Ave SB off ramp, particularly with a median closure. Similarly, the anticipated number of left turns from North State Street to SB US 101 could fail to identify warrants for a SB acceleration lane if the median was to remain open.

Page 15, Transit Facilities
We agree that the gas station has a less than significant impacts to transit, however it should be noted that there is a bus stop near the North State Street & West Road intersection, approximately 1.2 miles from the project site.

Page 16, Vehicle Miles Traveled
For the purposes of analyzing the change in Vehicle Miles Traveled as a result of new retail land uses, we would consider pass-by trips to be an acceptable deduction. The discussion in the TIS, indicating that the project is local-serving, is problematic for a large gas station or truck stop adjacent to a US Highway, as the majority of the trips are clearly not local. Gas stations primarily attract pass-by trips and the primary purpose for non-pass-by trips are generally limited to employee trips or to the convenience store. Trips made with the exclusive purpose of purchasing gasoline are negligible and can be assumed to be less-than-significant for CEQA purposes.

Page 18, Left Turns from US 101
The Revised TIS makes a finding in the traffic safety analysis that there are no demonstrated safety issues that would indicate a need to close the US 101 median at the intersection with North State Street. The Revised TIS states "Caltrans desires to close the median at the intersection of US 101 with Uva Drive and North State Street." This characterization, that increasing the number of turning movements at US 101 and North State Street will not change the collision rate, is inconsistent with the State and federal "Vision Zero" goal to eliminate roadway fatalities by 2050. The Vision Zero policies, adopted by Caltrans in 2020, takes a pro-active approach to eliminating deaths and serious accidents by reducing risk and recognizing that humans (drivers) make mistakes. Please review the Federal Highways Administration (FHWA) and Caltrans program links for Vision Zero and the Safe Systems program:
https://highways.dot.gov/safety/zero-deaths#:~:text=The%20zero%20deaths%20vision%20acknowledges,has%20spread%20around%20the%20world.
https://dot.ca.gov/news-releases/news-release-2022-009.

We offer a different finding from the data provided in the Revised TIS: the existing collision rate at US 101 and North State Street should be considered to be the benchmark for pre-project conditions. Failure to condition the project with the previously requested highway safety mitigation would increase the number of left turns

from southbound US 101 to North State Street. The increased volume of left-turn traffic at this location will have a higher probability of collisions when compared to existing conditions. Due to the prevailing freeway speeds on US 101 at this location, any collision runs the risk of being a high-severity or fatal collision.

CEQA recognizes a conflict with an existing program, plan, ordinance, or policy addressing the circulation system as an impact requiring mitigation. We find that the recommendation in the Revised TIS, of "playing the odds," is in conflict with the State's Safe System Approach and Vision Zero Goals, where even one fatality is unacceptable.

Page 29, Figure 5 – Project Traffic Volumes
The project traffic volumes have relied on pass-by trip reductions to look at "new trips" as opposed to trips "attracted" to the site from the vehicles already on the roadway, making a "diverted trip." In order for the "driveway trips" shown on the trip generation table (Table 2) to reach the projected 5,300 daily trips, 4,348 trips must already be traveling on North State Street to reach the driveway. This does not appear to be supported by the hourly turning movement counts in the capacity analysis. Daily traffic volumes do not appear to be provided in the Revised TIS for North State Street, only hourly volumes. Based on the peak hour volumes, it is unlikely that volumes exceed 2,000 vehicles per day under current conditions on this segment of North State Street. The information in the Capacity Analysis allows us to conclude that the project trips are underreported and/or that the claimed pass-by/diverted trip values are unreliable; and, that the project will attract the majority of the trips from US 101, which undermines the assertion of the Revised TIS that the project is local-serving.

Caltrans' Findings
The Revised TIS uses a reduction of 82% in the traffic volumes to show that the Level of Service for US 101 will not exceed a threshold of significance. This is not an appropriate analysis to use as CEQA no longer recognizes Level of Service as a binding transportation metric for State highways. The Revised TIS has failed to disclose the actual number of left turns that would increase the number of potential conflicts within a high-speed intersection. Without disclosing the potential impacts to traffic safety on a State facility, we cannot support the conclusions and recommendations of the Revised TIS. We request that the County condition the proposed project with a median closure in order to prevent significant impacts to traffic safety and to avoid conflict with a Caltrans policy and program.

Because the project is seeking approval as a Mitigated Negative Declaration, the County is required to mitigate for any potentially significant impacts. The project would need to be processed as an Environmental Impact Report in order to make a finding of potentially significant unmitigated impacts with a County finding of

overriding considerations in order for the project to be approved without the requested mitigation.

Please contact me with questions or for further assistance regarding the above comments at: (707) 684-6879 or by email at: <jesse.robertson@dot.ca.gov>.

Sincerely,

Jesse G. Robertson

JESSE ROBERTSON
Transportation Planning
District 1 Caltrans

c: Jason Wise, Mendocino County Department of Transportation

August 31, 2023

Mr. Haji Alam
Faizan Corporation
390 E. Gobbi Street
Ukiah, CA 95482

Response to Comments on the *Draft Transportation Impact Study for a Gas Station at 9621 North State Street*

Dear Mr. Alam;

We are in receipt of comments from staff at District 1 of the California Department of Transportation (Caltrans) as contained in the "Faizan Gas Station Revised Traffic Study" letter to Liam Crowley from Jesse Robertson dated August 11, 2023. The purpose of this letter is to respond to these comments relative to the *Draft Transportation Impact Study for a Gas Station at 9621 North State Street*, July 5, 2023, W-Trans (TIS). The comments are provided for ease of review.

Page 11, Trip Generation; For the purposes of evaluating transportation or traffic safety, we do not concur with the practice of deducting pass-by trips from the estimated trip generation rates. Left turn channelization warrants evaluate the ability of a given number of vehicles making a left turn in relation to the availability of acceptable gaps in approaching traffic through which to execute a left turn. To discount the number of pass-by trips from the actual number of turning vehicles based on trip purpose only invalidates the results. We do not accept the results of any safety analysis using pass-by reductions to evaluate left turn warrants.

Response: This comment refers to pass-by deductions applied to the total trips generated by the project. According to the comments, omitting pass-by trips from the TIS analysis invalidates the left-turn channelization warrant results and is inaccurate because 4,348 project trips cannot be drawn from vehicles already traveling on North State Street; currently, there are likely to be less than 2,000 vehicles per day on the segment of North State Street fronting the project site.

While a pass-by trip to the project site would require no additional turning movements at intersections, the analysis in the TIS refers to *diverted link* trips rather than pass-by trips. While both trip types involve drivers stopping at the project site on the way to another destination, diverted link trips involve additional intersection turning movements as the driver's destination would not be directly on their route. For example, 95 percent of the 4,348 diverted link trips would be made up of drivers already traveling on US 101 (rather than North State Street) that would need to turn onto either North State Street or use the West Road interchange to reach the project site. This is reflected in the TIS analysis as diverted link trips were subtracted from through volumes on US 101 and added as turning movements at the study intersections.

It is apparent in Figure 5 (which includes Project Traffic Volumes with the median closure) that project trips were analyzed as diverted link trips rather than pass-by trips. During the a.m. peak hour, 161 trips into the project site would occur including 132 diverted link trips, and 85 percent of trips would be made up of vehicles traveling on US 101 North (137 total trips and 112 diverted link trips). Figure 5 shows 137 right-turning vehicles entering the site from US 101 North and a deduction of 112 northbound through vehicles, corresponding with the 112 diverted link trips; this supports that diverted link trips were in fact included in the TIS analysis rather than being underreported.

Page 13, Table 3 - Trip Distribution Assumptions; The percent of trips assumed to enter the site from SB 101 without the median closure appears to be too low. There are no other gas stations adjacent to the highway for more than thirty-five miles in the SB direction. That is not the case for NB travelers. Without a median closure, we would expect to see a more even distribution, closer to 50/50, with the median open. Using too low of a number for US 101 SB trip distribution would have the effect of under-reporting delays at the West Ave SB off ramp,

particularly with a median closure. Similarly, the anticipated number of left turns from North State Street to SB US 101 could fail to identify warrants for a SB acceleration lane if the median was to remain open.

Response: Caltrans' comment suggests that, without the median closure, a trip distribution of 50 percent from US 101 North and 50 percent from US 101 South would be more accurate due to the limited number of gas stations along US 101 in the southbound direction and the ease of accessing the project site from US 101 South with the median open. As Caltrans does not have a standard of significance relative to Level of Service, the significance of the operations section of the TIS (without the median closure) would not change if the distribution were revised to include 50 percent of trips from US 101 South rather than 20 percent. Further, the left-turn lane warrant analysis for the project driveways on North State Street would not be changed by the updated distribution as project trips from both US 101 North and US 101 South would turn left into the project site without the median closure.

As projected queues at the intersection of US 101/Uva Drive-North State Street would change if the trip distribution were modified and queueing is a CEQA issue, the TIS queueing analysis was performed assuming an even distribution of project trips from the north and south on US 101 and no trips from West Road. Queueing was determined using Vistro and copies of the queuing projections are attached.

Compared to the 50 feet of available stacking space in the southbound left-turn lane, which is the minimum allowed under Caltrans design standards, the 95th percentile southbound left-turn queue would be between 8 feet and 15 feet for all "plus Project" scenarios. These queues are greater than the three- to seven-foot queue projected when 20 percent of trips were assigned to US 101 South but remain within the available stacking space. Therefore, it is concluded that the operations, left-turn lane warrant, and queuing findings would remain the same with an updated trip distribution of 50 percent of trips from US 101 North and 50 percent of trips from US 101 South for scenarios without the median closure.

Page 15, Transit Facilities; We agree that the gas station has a less than significant impacts to transit, however it should be noted that there is a bus stop near the North State Street & West Road intersection, approximately 1.2 miles from the project site.

Response: The final TIS references the bus stop as indicated.

Page 16, Vehicle Miles Traveled; For the purposes of analyzing the change in Vehicle Miles Traveled as a result of new retail land uses, we would consider pass-by trips to be an acceptable deduction. The discussion in the TIS, indicating that the project is local-serving, is problematic for a large gas station or truck stop adjacent to a US Highway, as the majority of the trips are clearly not local. Gas stations primarily attract pass-by trips and the primary purpose for non-pass-by trips are generally limited to employee trips or to the convenience store. Trips made with the exclusive purpose of purchasing gasoline are negligible and can be assumed to be less-than-significant for CEQA purposes.

Response: The application of the "local-serving" nomenclature in this case refers to the area from which the project draws its trips directly. Drivers do not travel long distances to make gasoline and convenience market purchases – as the name implies, they are purchases of convenience. The pass-by (or in this case diverted link) trips would be less than a mile and only this diversion would be considered in the context of VMT, so the length of that portion of the trip associated with the site would be that of a local shopping opportunity. Text clarifying this has been added to the report.

Page 18, Left Turns from US 101; The Revised TIS makes a finding in the traffic safety analysis that there are no demonstrated safety issues that would indicate a need to close the US 101 median at the intersection with North State Street. The Revised TIS states "Caltrans desires to close the median at the intersection of US 101 with Uva Drive and North State Street." This characterization, that increasing the number of turning movements at US 101 and North State Street will not change the collision rate, is inconsistent with the State and federal "Vision Zero" goal to eliminate roadway fatalities by 2050. The Vision Zero policies, adopted by Caltrans in 2020, takes a pro-

active approach to eliminating deaths and serious accidents by reducing risk and recognizing that humans (drivers) make mistakes. Please review the Federal Highways Administration (FHWA) and Caltrans program links for Vision Zero and the Safe Systems program:

https://highways.dot.gov/safety/zero-deaths#:~:text=The%20zero%20deaths%20vision%20acknowledges,has%20spread%20around%20the%20world.
https://dot.ca.gov/news-releases/news-release-2022-009.

We offer a different finding from the data provided in the Revised TIS: the existing collision rate at US 101 and North State Street should be considered to be the benchmark for pre-project conditions. Failure to condition the project with the previously requested highway safety mitigation would increase the number of left turns from southbound US 101 to North State Street. The increased volume of left-turn traffic at this location will have a higher probability of collisions when compared to existing conditions. Due to the prevailing freeway speeds on US 101 at this location, any collision runs the risk of being a high-severity or fatal collision.

CEQA recognizes a conflict with an existing program, plan, ordinance, or policy addressing the circulation system as an impact requiring mitigation. We find that the recommendation in the Revised TIS, of "playing the odds," is in conflict with the State's Safe System Approach and Vision Zero Goals, where even one fatality is unacceptable.

Response: This comment asserts that project causing an increase in the number of left-turning movements at US 101/Uva Drive-North State Street conflicts with the State and Federal Vision Zero policies as the added left-turning movements would have a higher probability of resulting in a fatal collision compared to the existing conditions. Caltrans also suggests that this is an impact requiring mitigation as adding project trips would conflict with an existing program, plan, ordinance, or policy addressing the circulation system.

While construction of the project could increase the collision rate at US 101/Uva Drive-North State Street and closure of the median at the intersection would be preferable, the intersection's collision history provides no evidence that adding volumes would result in more fatal collisions as the intersection does not have a collision rate higher than the statewide average nor an observed history of fatal crashes. Further, during the five-year study period there were no crashes involving drivers traveling southbound and turning left from US 101 to North State Street.

Upon the addition of project volumes to US 101/Uva Drive-North State Street with an even trip distribution between US 101 North and US 101 South, delay for southbound left-turning vehicles would be less than 15 seconds for all scenarios with project traffic. As southbound left-turning drivers would experience low delay, would have to cross only one direction of traffic on US 101, would have more than 1,000 feet of sight distance to oncoming traffic from the south, and there were no crashes involving this movement during the last five years, the existing southbound left-turn lane designed by Caltrans can reasonably be expected to function acceptably with the project.

In contrast to the southbound left-turning movement, with project traffic and a 50 percent distribution to US 101 South, westbound left-turning delays would be between 40 seconds and seven minutes for the various scenarios. The high westbound left-turning delay from North State Street in combination with the lack of an acceleration lane could potentially lead to unsafe maneuvers from the westbound approach, as westbound left-turning drivers would have to cross two traffic streams with pressure from waiting drivers behind them. As a result, it is recommended that left turns and through movements be prohibited from North State Street at US 101 using signing and striping on the westbound approach exclusively or in combination with a striped directional median on US 101. Guidance signs should also be added to North State Street at the project site directing traffic to US 101 South through the West Road interchange. Prohibiting left turns from the North State Street approach would be expected to reduce collisions by 64 percent according to Collision Modification Factors published by the Federal Highway Administration (FHWA). These recommendations have been added to the text of the TIS. With these

changes, there would not be a project impact on programs addressing the circulation system as US 101/Uva Drive-North State Street does not have a demonstrated safety issue based on collision rates and the potential for crashes from westbound left-turning maneuvers would be eliminated by turning restrictions.

Page 29, Figure 5 – Project Traffic Volumes; The project traffic volumes have relied on pass-by trip reductions to look at "new trips" as opposed to trips "attracted" to the site from the vehicles already on the roadway, making a "diverted trip." In order for the "driveway trips" shown on the trip generation table (Table 2) to reach the projected 5,300 daily trips, 4,348 trips must already be traveling on North State Street to reach the driveway. This does not appear to be supported by the hourly turning movement counts in the capacity analysis. Daily traffic volumes do not appear to be provided in the Revised TIS for North State Street, only hourly volumes. Based on the peak hour volumes, it is unlikely that volumes exceed 2,000 vehicles per day under current conditions on this segment of North State Street. The information in the Capacity Analysis allows us to conclude that the project trips are underreported and/or that the claimed pass-by/diverted trip values are unreliable; and, that the project will attract the majority of the trips from US 101, which undermines the assertion of the Revised TIS that the project is local-serving.

Response: As noted above, the analysis was predominantly based on diverted link trips and not pass-by and the diverted link trips were allocated as turning movements to and from US 101, which has sufficiently high volumes for the diverted link assumptions to be reasonable.

Thank you for giving us the opportunity to provide these services. Please contact us if you have any further questions.

Sincerely,

Nathan Sharafian, EIT
Assistant Engineer

Dalene J. Whitlock, PE, PTOE
Senior Principal

DJW/nms/MEX124.L1

Enclosure: Queueing Analysis Output

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	59.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-66	81	81	-66	0	0	0	0	79	0	81
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	392	88	96	660	15	1	0	5	87	1	100
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	104	23	26	176	4	0	0	1	23	0	27
Total Analysis Volume [veh/h]	6	417	94	102	702	16	1	0	5	93	1	106
Pedestrian Volume [ped/h]	0			0			0			0		

Generated with PTV VISTRO
Version 2022 (SP 0-11) AM Existing plus Project

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.11	0.01	0.00	0.01	0.00	0.01	0.56	0.01	0.15
d_M, Delay for Movement [s/veh]	9.06	0.00	0.00	9.54	0.00	0.00	35.54	35.66	10.64	52.02	59.13	10.89
Movement LOS	A	A	A	A	A	A	E	E	B	F	F	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.38	0.00	0.00	0.03	0.03	0.02	2.96	2.96	0.52
95th-Percentile Queue Length [ft/ln]	0.51	0.00	0.00	9.62	0.00	0.00	0.64	0.64	0.59	74.10	74.10	12.92
d_A, Approach Delay [s/veh]	0.11			1.19			14.79			30.26		
Approach LOS	A			A			B			D		
d_I, Intersection Delay [s/veh]	4.65											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	188.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.048

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-77	93	93	-77	0	0	0	0	92	0	92
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	710	101	107	565	7	3	0	3	93	0	110
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	189	27	28	150	2	1	0	1	25	0	29
Total Analysis Volume [veh/h]	5	755	107	114	601	7	3	0	3	99	0	117
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.14	0.01	0.00	0.03	0.00	0.00	1.05	0.00	0.21
d_M, Delay for Movement [s/veh]	8.69	0.00	0.00	10.33	0.00	0.00	45.18	52.06	10.18	188.31	192.84	13.34
Movement LOS	A	A	A	B	A	A	E	F	B	F	F	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.50	0.00	0.00	0.10	0.10	0.01	6.38	6.38	0.80
95th-Percentile Queue Length [ft/ln]	0.38	0.00	0.00	12.60	0.00	0.00	2.49	2.49	0.32	159.54	159.54	20.05
d_A, Approach Delay [s/veh]	0.05			1.63			27.68			93.53		
Approach LOS	A			A			D			F		
d_I, Intersection Delay [s/veh]	11.92											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-70	86	86	-70	0	0	0	0	85	0	85
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	473	89	90	362	4	7	0	3	88	1	92
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	127	24	24	97	1	2	0	1	24	0	25
Total Analysis Volume [veh/h]	1	509	96	97	389	4	8	0	3	95	1	99
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.10	0.00	0.00	0.04	0.00	0.00	0.48	0.01	0.14
d_M, Delay for Movement [s/veh]	8.06	0.00	0.00	9.06	0.00	0.00	23.70	26.93	9.42	39.80	41.34	10.99
Movement LOS	A	A	A	A	A	A	C	D	A	E	E	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.33	0.00	0.00	0.12	0.12	0.01	2.41	2.41	0.49
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	8.19	0.00	0.00	3.10	3.10	0.28	60.35	60.35	12.28
d_A, Approach Delay [s/veh]	0.01			1.79			19.80			25.18		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	4.62											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	115.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-66	81	81	-66	0	0	0	0	79	0	81
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	529	90	101	878	20	1	0	7	89	1	106
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	132	23	25	220	5	0	0	2	22	0	27
Total Analysis Volume [veh/h]	8	529	90	101	878	20	1	0	7	89	1	106
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.13	0.01	0.00	0.01	0.00	0.01	0.77	0.01	0.16
d_M, Delay for Movement [s/veh]	9.76	0.00	0.00	10.11	0.00	0.00	52.40	51.94	11.48	102.13	115.19	11.49
Movement LOS	A	A	A	B	A	A	F	F	B	F	F	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.43	0.00	0.00	0.04	0.04	0.04	4.43	4.43	0.57
95th-Percentile Queue Length [ft/ln]	0.79	0.00	0.00	10.70	0.00	0.00	0.98	0.98	0.94	110.78	110.78	14.22
d_A, Approach Delay [s/veh]	0.12			1.02			16.59			53.18		
Approach LOS	A			A			C			F		
d_I, Intersection Delay [s/veh]	6.37											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	451.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.597

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-77	93	93	-77	0	0	0	0	92	0	92
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	946	103	111	758	9	4	0	4	93	0	115
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	237	26	28	190	2	1	0	1	23	0	29
Total Analysis Volume [veh/h]	7	946	103	111	758	9	4	0	4	93	0	115
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.17	0.01	0.00	0.07	0.00	0.01	1.60	0.00	0.24
d_M, Delay for Movement [s/veh]	9.24	0.00	0.00	11.42	0.00	0.00	73.43	86.63	10.84	451.02	461.01	14.99
Movement LOS	A	A	A	B	A	A	F	F	B	F	F	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.59	0.00	0.00	0.22	0.22	0.02	8.47	8.47	0.94
95th-Percentile Queue Length [ft/ln]	0.62	0.00	0.00	14.74	0.00	0.00	5.52	5.52	0.49	211.63	211.63	23.48
d_A, Approach Delay [s/veh]	0.06			1.44			42.14			209.95		
Approach LOS	A			A			E			F		
d_I, Intersection Delay [s/veh]	21.09											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	63.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-70	86	86	-70	0	0	0	0	85	0	85
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	636	90	91	492	5	9	0	4	89	1	94
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	159	23	23	123	1	2	0	1	22	0	24
Total Analysis Volume [veh/h]	1	636	90	91	492	5	9	0	4	89	1	94
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.10	0.00	0.00	0.06	0.00	0.01	0.60	0.01	0.15
d_M, Delay for Movement [s/veh]	8.34	0.00	0.00	9.53	0.00	0.00	30.01	34.99	9.78	61.21	63.82	11.60
Movement LOS	A	A	A	A	A	A	D	D	A	F	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.34	0.00	0.00	0.19	0.19	0.02	3.22	3.22	0.51
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	8.55	0.00	0.00	4.64	4.64	0.40	80.53	80.53	12.83
d_A, Approach Delay [s/veh]	0.01			1.47			23.79			35.88		
Approach LOS	A			A			C			E		
d_I, Intersection Delay [s/veh]	5.15											
Intersection LOS	F											

Appendix B

Collision Rate Calculations

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Intersection Collision Rate Worksheet

Gas Station at 9621 North State Street TIS

Intersection # 1: US 101 & Uva Dr-N State St
Date of Count: Thursday, October 13, 2022

Number of Collisions: 6
Number of Injuries: 3
Number of Fatalities: 0
Average Daily Traffic (ADT): 14900
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Rural

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{6 \times 1{,}000{,}000}{14{,}900 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.22 c/mve**	**0.0%**	**50.0%**
Statewide Average*	**0.25 c/mve**	**2.5%**	**44.1%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection # 2: West Rd & Uva Rd
Date of Count: Thursday, October 13, 2022

Number of Collisions: 1
Number of Injuries: 1
Number of Fatalities: 0
Average Daily Traffic (ADT): 2200
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Tee
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{1 \times 1{,}000{,}000}{2{,}200 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.25 c/mve**	**0.0%**	**100.0%**
Statewide Average*	**0.17 c/mve**	**1.2%**	**39.9%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Gas Station at 9621 North State Street TIS

Intersection # 3: West Rd & US 101 South Ramps
Date of Count: Thursday, October 13, 2022

Number of Collisions: 2
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 5400
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{2 \times 1{,}000{,}000}{5{,}400 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.20 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.24 c/mve**	**1.7%**	**41.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection # 4: West Rd & US 101 North Ramps
Date of Count: Thursday, October 13, 2022

Number of Collisions: 2
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 9300
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{2 \times 1{,}000{,}000}{9{,}300 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.12 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.24 c/mve**	**1.7%**	**41.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Worksheet

Gas Station at 9621 North State Street TIS

Intersection # 5: West Rd & North State St
Date of Count: Thursday, October 13, 2022

Number of Collisions: 15
Number of Injuries: 3
Number of Fatalities: 0
Average Daily Traffic (ADT): 10200
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{15 \times 1{,}000{,}000}{10{,}200 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.81 c/mve**	**0.0%**	**20.0%**
Statewide Average*	**0.24 c/mve**	**1.7%**	**41.2%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2019 Collision Data on California State Highways, Caltrans

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Appendix C

Turn Lane Warrant Spreadsheets

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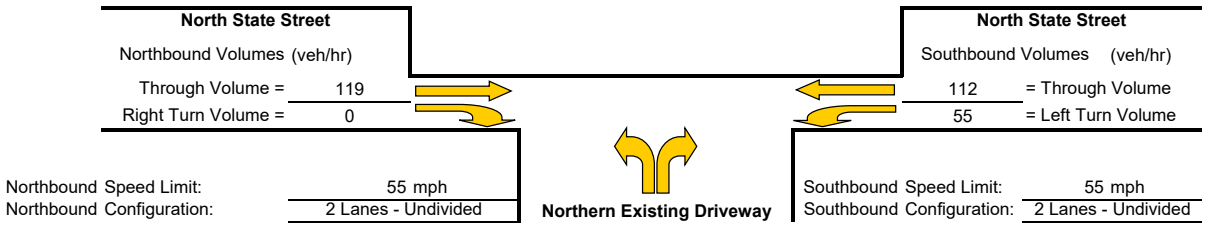
Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Northern Existing Driveway
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	119
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

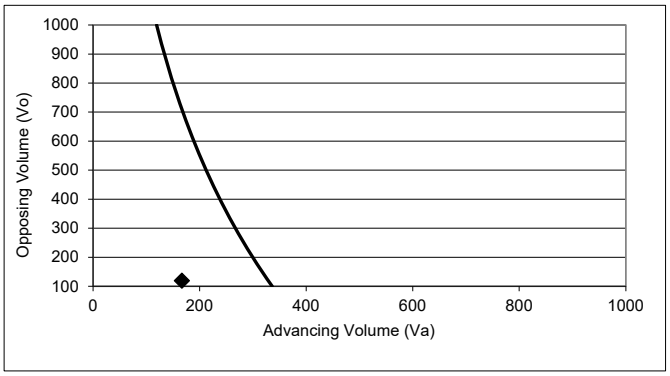
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	119
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns	%lt	32.9 %
Advancing Volume Threshold	AV	329 veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Northern Existing Driveway
Study Scenario: Future plus Project PM without Closure

Direction of Analysis Street: North/South
Cross Street Intersects: From the East

North State Street
Northbound Volumes (veh/hr)
Through Volume = 136
Right Turn Volume = 0

North State Street
Southbound Volumes (veh/hr)
124 = Through Volume
61 = Left Turn Volume

Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Northern Existing Driveway

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	136
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

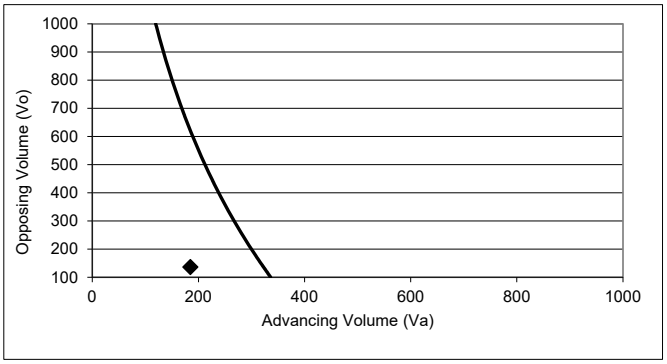
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	136
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 33.0 %
Advancing Volume Threshold AV 323 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

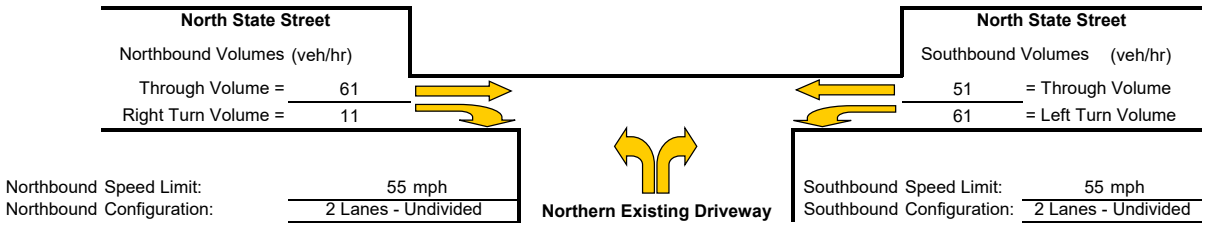
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Northern Proposed Driveway
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	72
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

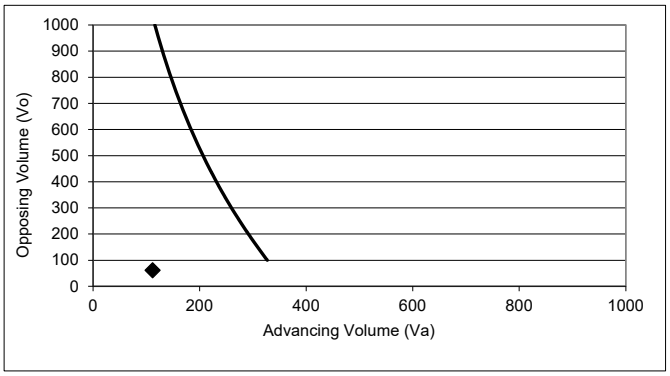
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	72
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns	%lt	54.5 %
Advancing Volume Threshold	AV	342 veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

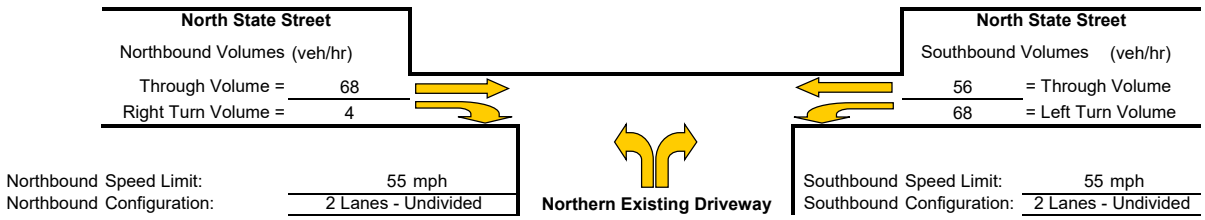
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Northern Proposed Driveway
Study Scenario: Future plus Project PM without Closure

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	72
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	72
If AV<Va then warrant is met		-

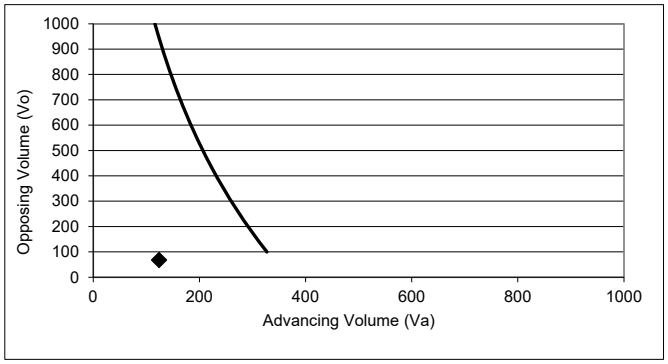
Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 54.8 %

Advancing Volume Threshold AV 339 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 55 mph

Turn lane warranted if point falls to right of warrant threshold line

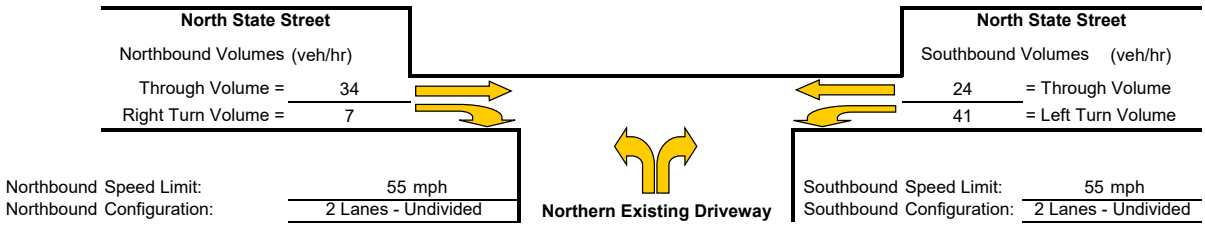
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Southern Proposed Driveway
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit:	55 mph	Southbound Speed Limit:	55 mph
Northbound Configuration:	2 Lanes - Undivided	Southbound Configuration:	2 Lanes - Undivided

---

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	41
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

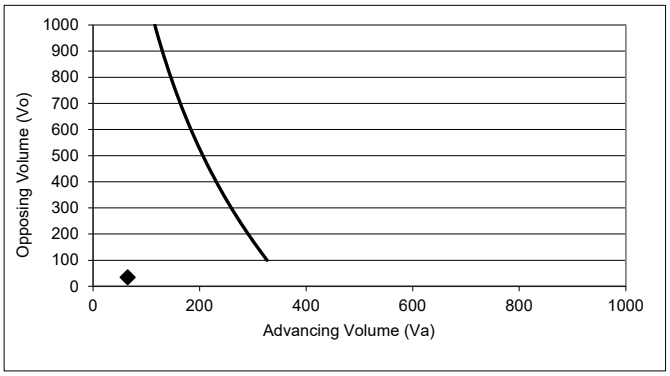
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	41
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns	%lt	63.1 %
Advancing Volume Threshold	AV	352 veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Southern Proposed Driveway
Study Scenario: Future plus Project PM without Closure

Direction of Analysis Street: North/South
Cross Street Intersects: From the East

North State Street
Northbound Volumes (veh/hr)
Through Volume = 27
Right Turn Volume = 2

North State Street
Southbound Volumes (veh/hr)
14 = Through Volume
46 = Left Turn Volume

Northern Existing Driveway

Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane
   Advancing Volume Threshold AV = -
   Advancing Volume Va = 29
   If AV<Va then warrant is met -

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

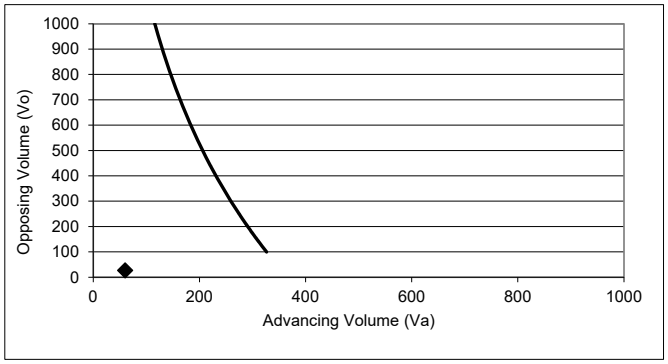
NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper
   Advancing Volume Threshold AV = -
   Advancing Volume Va = 29
   If AV<Va then warrant is met -

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 76.7 %
Advancing Volume Threshold AV 355 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

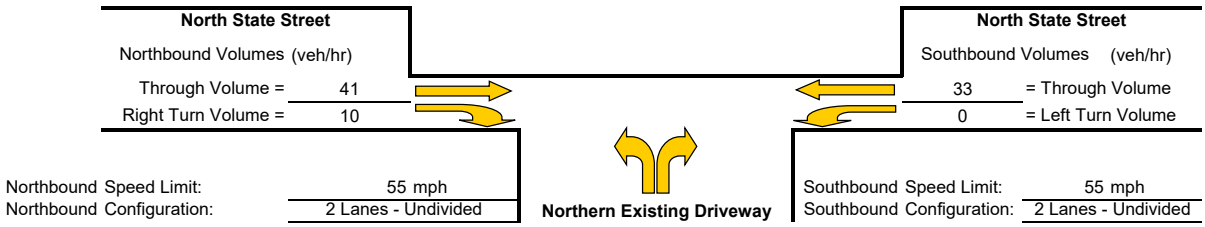
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Southern Existing Driveway
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	51
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

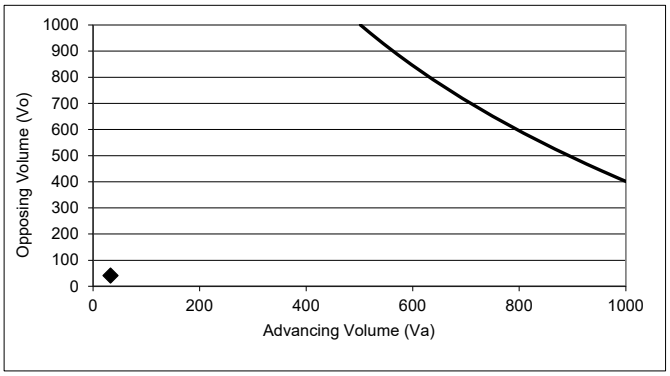
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	51
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns	%lt	0.0 %
Advancing Volume Threshold	AV	1514 veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 55 mph
Turn lane warranted if point falls to right of warrant threshold line

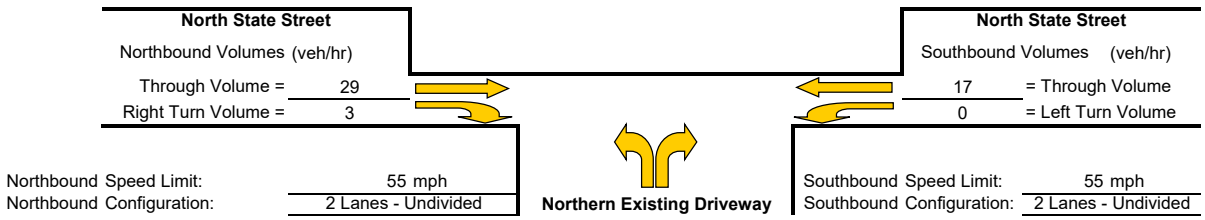
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: North State Street/Southern Existing Driveway
Study Scenario: Future plus Project PM without Closure

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 55 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 55 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	32
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	32
If AV<Va then warrant is met		-

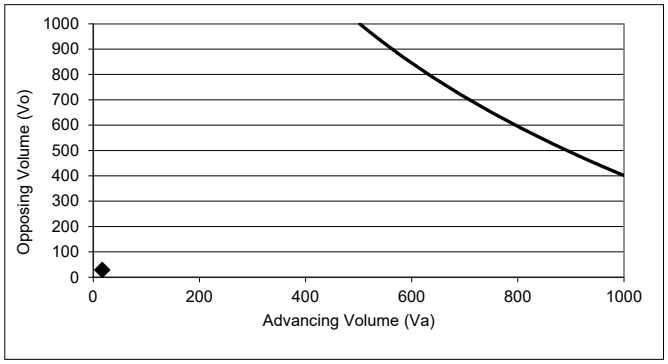
Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 0.0 %

Advancing Volume Threshold AV 1535 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 55 mph

Turn lane warranted if point falls to right of warrant threshold line

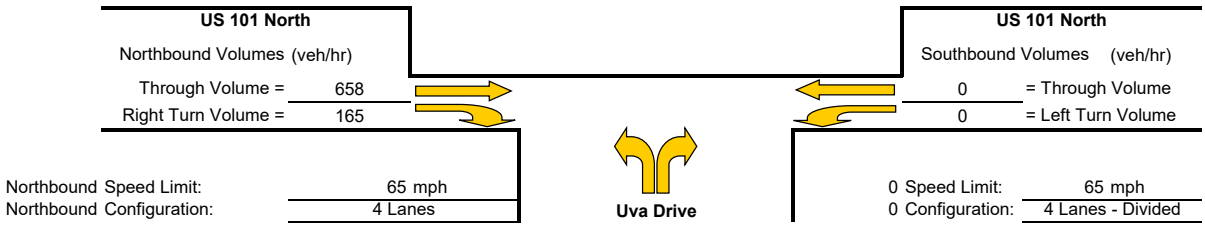
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: US 101 North/North State Street
Study Scenario: PM Existing plus Project

Direction of Analysis Street: North/South
Cross Street Intersects: From the East



Northbound Speed Limit: 65 mph
Northbound Configuration: 4 Lanes

0 Speed Limit: 65 mph
0 Configuration: 4 Lanes - Divided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	823
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **YES**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

N/A

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	-
If AV<Va then warrant is met		-

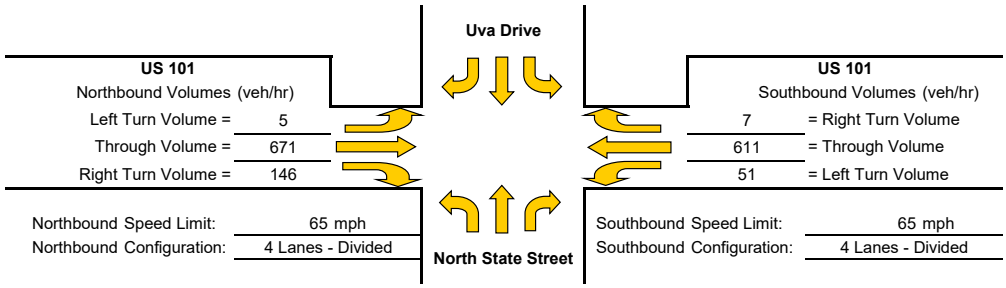
Right Turn Taper Warranted: -

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - 4 Legged Intersections

Study Intersection: US 101/Uva Drive-North State Street
Study Scenario: PM Existing plus Project without Closure

Direction of Analysis Street: North/South



Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

WARRANTED - Exceeds 90 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold:	AV =	-
Advancing Volume	Va =	822
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **YES**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

WARRANTED - Exceeds 90 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	-
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **-**

Southbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED - Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold:	AV =	-
Advancing Volume	Va =	669
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Southbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	1100
Advancing Volume	Va =	669
If AV<Va then warrant is met		No

Right Turn Taper Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, Jan. 1997. The right turn lane and taper analysis is based on work conducted by Cottrell in 1981. The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Appendix D

Intersection Level of Service and Queuing Calculations

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Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	29.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	122	2	4	193	4	0	0	1	2	0	5
Total Analysis Volume [veh/h]	6	487	7	16	772	16	1	0	5	9	1	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.04	0.01	0.03
d_M, Delay for Movement [s/veh]	9.31	0.00	0.00	9.03	0.00	0.00	26.50	28.38	10.94	22.11	29.24	10.10
Movement LOS	A	A	A	A	A	A	D	D	B	C	D	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.05	0.00	0.00	0.02	0.02	0.02	0.15	0.15	0.08
95th-Percentile Queue Length [ft/ln]	0.54	0.00	0.00	1.34	0.00	0.00	0.45	0.45	0.62	3.69	3.69	2.12
d_A, Approach Delay [s/veh]	0.11			0.18			13.54			14.34		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.53											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.152

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	93	7	10	95	77	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	29.00	0.00	5.00	9.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	93	7	10	95	77	65
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	2	3	28	23	19
Total Analysis Volume [veh/h]	109	8	12	112	91	76
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.99	10.18	7.54	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.57	0.57	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.36	14.36	0.50	0.50	0.00	0.00
d_A, Approach Delay [s/veh]	10.93		0.73		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	571.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	1.0000	0.8500	0.8500	0.8500	0.8500	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	0	5	0	29	31	143	40	0	0	0	0
Total Analysis Volume [veh/h]	93	1	19	0	116	126	571	160	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Free			Free			Stop		
Flared Lane												
Storage Area [veh]	2			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.75	0.03	0.02	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	541.07	571.26	9.30	0.00	0.00	0.00	9.16	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	9.05	9.05	0.07	0.00	0.00	0.00	1.77	1.77	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	226.20	226.20	1.70	0.00	0.00	0.00	44.25	44.25	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	451.92			0.00			7.16			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	51.84											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	32.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	52	2	307	11	164	0	0	569	79	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	100.00	6.00	0.00	5.00	2.00	2.00	5.00	8.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	2	307	11	164	0	0	569	79	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	1.0000	1.0000	0.8500	0.8500	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	1	90	3	48	0	0	167	23	0	0	0
Total Analysis Volume [veh/h]	61	2	361	13	193	0	0	669	93	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.26	0.01	0.43	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	26.14	31.98	12.50	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	1.07	1.07	2.19	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	26.76	26.76	54.71	0.55	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.55			0.58			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.52											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	177.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.871

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	53	3	68	2	13	90	16	359	92	76	503	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	33.00	6.00	50.00	8.00	2.00	0.00	5.00	9.00	1.00	4.00	13.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	3	68	2	13	90	16	359	92	76	503	8
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	1	20	1	4	26	5	106	27	22	148	2
Total Analysis Volume [veh/h]	62	4	80	2	15	106	19	422	108	89	592	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.87	0.03	0.14	0.03	0.12	0.21	0.02	0.00	0.00	0.09	0.01	0.00
d_M, Delay for Movement [s/veh]	177.38	156.84	12.19	58.82	39.02	14.05	8.67	0.00	0.00	8.56	0.00	0.00
Movement LOS	F	F	B	F	E	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.56	4.56	0.48	0.50	0.50	0.79	0.03	0.03	0.03	0.16	0.16	0.16
95th-Percentile Queue Length [ft/ln]	113.95	113.95	11.89	12.40	12.40	19.70	0.83	0.83	0.83	3.91	3.91	3.91
d_A, Approach Delay [s/veh]	86.30			17.83			0.30			1.10		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	10.42											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	24.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.892

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	1.0000	0.8500	0.8500	0.8500	0.8500	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	0	5	0	29	31	143	40	0	0	0	0
Total Analysis Volume [veh/h]	93	1	19	0	116	126	571	160	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	499	587	822	820	
Degree of Utilization, x	0.19	0.03	0.29	0.89	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.69	0.10	1.23	11.91	
95th-Percentile Queue Length [ft]	17.20	2.51	30.74	297.72	
Approach Delay [s/veh]	11.17		9.19	31.55	0.00
Approach LOS	B		A	D	A
Intersection Delay [s/veh]	24.44				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	32.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	209	2	4	171	2	1	0	1	0	0	5
Total Analysis Volume [veh/h]	5	837	9	15	683	7	3	0	3	1	0	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.02	0.00	0.00	0.01	0.00	0.03
d_M, Delay for Movement [s/veh]	8.96	0.00	0.00	9.59	0.00	0.00	29.84	38.63	10.51	32.14	38.29	11.72
Movement LOS	A	A	A	A	A	A	D	E	B	D	E	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.06	0.00	0.00	0.06	0.06	0.01	0.02	0.02	0.11
95th-Percentile Queue Length [ft/ln]	0.41	0.00	0.00	1.43	0.00	0.00	1.55	1.55	0.34	0.56	0.56	2.65
d_A, Approach Delay [s/veh]	0.05			0.20			20.17			12.74		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	0.36											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	33	5	11	47	64	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	40.00	9.00	4.00	2.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	5	11	47	64	57
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	1	3	13	18	16
Total Analysis Volume [veh/h]	37	6	12	52	71	63
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.74	9.44	7.57	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.20	4.20	0.50	0.50	0.00	0.00
d_A, Approach Delay [s/veh]	9.70		1.42		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.11					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	26.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.378

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	0	3	0	12	13	66	32	0	0	0	0
Total Analysis Volume [veh/h]	100	0	10	0	48	51	266	128	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Free			Free			Stop		
Flared Lane												
Storage Area [veh]	2			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.38	0.00	0.01	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	26.65	26.20	8.92	0.00	0.00	0.00	7.76	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	1.69	1.69	0.03	0.00	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	42.13	42.13	0.82	0.00	0.00	0.00	12.97	12.97	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	25.04			0.00			5.24			0.00		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	7.99											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	72	3	340	11	120	0	0	276	107	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	3.00	9.00	8.00	2.00	2.00	3.00	5.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	3	340	11	120	0	0	276	107	0	0	0
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	1.0000	1.0000	0.9600	0.9600	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	89	3	31	0	0	72	28	0	0	0
Total Analysis Volume [veh/h]	75	3	354	11	125	0	0	288	111	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.01	0.38	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.86	14.55	11.31	8.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.57	0.57	1.82	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.28	14.28	45.51	0.46	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.77			0.66			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.35											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	35.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.482

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	113	16	86	10	11	31	24	340	96	48	240	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	6.00	0.00	0.00	0.00	13.00	4.00	4.00	4.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	113	16	86	10	11	31	24	340	96	48	240	6
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	4	22	3	3	8	6	89	25	13	63	2
Total Analysis Volume [veh/h]	118	17	90	10	11	32	25	354	100	50	250	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.48	0.06	0.14	0.05	0.04	0.04	0.02	0.00	0.00	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	35.52	33.43	11.42	23.67	19.58	9.95	7.81	0.00	0.00	8.28	0.00	0.00
Movement LOS	E	D	B	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.94	2.94	0.48	0.29	0.29	0.13	0.04	0.04	0.04	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	73.43	73.43	11.95	7.16	7.16	3.29	1.10	1.10	1.10	2.15	2.15	2.15
d_A, Approach Delay [s/veh]	25.72			14.54			0.41			1.35		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	6.74											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	0	3	0	12	13	66	32	0	0	0	0
Total Analysis Volume [veh/h]	100	0	10	0	48	51	266	128	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	580	742	904	865	
Degree of Utilization, x	0.17	0.01	0.11	0.46	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.62	0.04	0.37	2.41	
95th-Percentile Queue Length [ft]	15.49	1.02	9.19	60.34	
Approach Delay [s/veh]	9.97		7.47	10.60	0.00
Approach LOS	A		A	B	A
Intersection Delay [s/veh]	9.97				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	21.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	146	1	1	116	1	2	0	1	1	0	2
Total Analysis Volume [veh/h]	1	584	3	4	465	4	8	0	3	3	1	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.01
d_M, Delay for Movement [s/veh]	8.27	0.00	0.00	8.62	0.00	0.00	17.86	21.46	9.67	18.84	21.34	10.14
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.00	0.00	0.09	0.09	0.01	0.05	0.05	0.03
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	0.30	0.00	0.00	2.14	2.14	0.29	1.20	1.20	0.86
d_A, Approach Delay [s/veh]	0.01			0.07			15.63			13.25		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	0.34											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.072

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	54	1	6	44	41	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	1	6	44	41	87
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	2	12	11	24
Total Analysis Volume [veh/h]	60	1	7	49	46	97
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.68	9.06	7.51	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.24	0.24	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.92	5.92	0.29	0.29	0.00	0.00
d_A, Approach Delay [s/veh]	9.67		0.94		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.47					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	16.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	1	2	0	15	13	42	36	0	0	0	0
Total Analysis Volume [veh/h]	51	4	8	0	59	50	170	142	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.01	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.96	16.31	8.99	0.00	0.00	0.00	7.64	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	0.50	0.50	0.03	0.00	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	12.45	12.45	0.66	0.00	0.00	0.00	7.81	7.81	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.10			0.00			4.16			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	4.65											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.153

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	80	0	216	9	92	0	0	202	72	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00	2.00	3.00	0.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	0	216	9	92	0	0	202	72	0	0	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	0	59	2	25	0	0	55	20	0	0	0
Total Analysis Volume [veh/h]	88	0	237	10	101	0	0	222	79	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Free	Free	Stop
Flared Lane				
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No			
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.00	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.40	13.03	10.01	7.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.54	0.54	0.98	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	13.45	13.45	24.51	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.66			0.71			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.81											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	16.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.225

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	91	10	55	4	11	18	11	188	99	36	158	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	0.00	0.00	6.00	0.00	2.00	2.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	10	55	4	11	18	11	188	99	36	158	4
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	3	14	1	3	5	3	49	26	9	41	1
Total Analysis Volume [veh/h]	95	10	57	4	11	19	11	196	103	38	165	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.22	0.02	0.07	0.01	0.03	0.02	0.01	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	16.27	15.81	9.87	14.49	13.92	9.25	7.55	0.00	0.00	7.87	0.00	0.00
Movement LOS	C	C	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.96	0.96	0.23	0.11	0.11	0.07	0.02	0.02	0.02	0.06	0.06	0.06
95th-Percentile Queue Length [ft/ln]	24.03	24.03	5.77	2.83	2.83	1.68	0.49	0.49	0.49	1.62	1.62	1.62
d_A, Approach Delay [s/veh]	13.99			11.37			0.27			1.44		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	4.26											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	1	2	0	15	13	42	36	0	0	0	0
Total Analysis Volume [veh/h]	51	4	8	0	59	50	170	142	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	615	768	914	871	
Degree of Utilization, x	0.09	0.01	0.12	0.36	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.29	0.03	0.40	1.64	
95th-Percentile Queue Length [ft]	7.34	0.79	10.11	40.91	
Approach Delay [s/veh]	8.92		7.47	9.42	0.00
Approach LOS	A		A	A	A
Intersection Delay [s/veh]	8.92				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	42.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	595	9	20	944	20	1	0	7	10	1	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	149	2	5	236	5	0	0	2	3	0	6
Total Analysis Volume [veh/h]	8	595	9	20	944	20	1	0	7	10	1	25
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.06	0.01	0.04
d_M, Delay for Movement [s/veh]	10.04	0.00	0.00	9.52	0.00	0.00	38.16	40.83	11.81	30.37	42.78	10.60
Movement LOS	B	A	A	A	A	A	E	E	B	D	E	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.08	0.00	0.00	0.03	0.03	0.04	0.24	0.24	0.12
95th-Percentile Queue Length [ft/ln]	0.84	0.00	0.00	1.88	0.00	0.00	0.69	0.69	0.99	5.99	5.99	2.91
d_A, Approach Delay [s/veh]	0.13			0.19			15.10			16.98		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.61											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.176

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	93	7	10	95	77	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	29.00	0.00	5.00	9.00	6.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	9	13	124	100	85
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	2	3	31	25	21
Total Analysis Volume [veh/h]	121	9	13	124	100	85
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.40	10.47	7.58	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.68	0.68	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.01	17.01	0.55	0.55	0.00	0.00
d_A, Approach Delay [s/veh]	11.34		0.72		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.48					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	1,147.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.041

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	1	21	0	129	139	631	177	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	0	5	0	32	35	158	44	0	0	0	0
Total Analysis Volume [veh/h]	103	1	21	0	129	139	631	177	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.88	0.04	0.03	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	1101.1	1147.9	9.40	0.00	0.00	0.00	9.62	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	11.84	11.84	0.08	0.00	0.00	0.00	2.19	2.19	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	295.94	295.94	1.93	0.00	0.00	0.00	54.86	54.86	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	918.13			0.00			7.52			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	100.62											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	40.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	52	2	307	11	164	0	0	569	79	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	100.00	6.00	0.00	5.00	2.00	2.00	5.00	8.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	3	399	14	213	0	0	740	103	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	1	100	4	53	0	0	185	26	0	0	0
Total Analysis Volume [veh/h]	68	3	399	14	213	0	0	740	103	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.34	0.02	0.49	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	33.05	40.03	13.54	9.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	E	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	1.55	1.55	2.72	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	38.64	38.64	68.03	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.53			0.59			0.00			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.13											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	422.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.415

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	53	3	68	2	13	90	16	359	92	76	503	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	33.00	6.00	50.00	8.00	2.00	0.00	5.00	9.00	1.00	4.00	13.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	4	88	3	17	117	21	467	120	99	654	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	1	22	1	4	29	5	117	30	25	164	3
Total Analysis Volume [veh/h]	69	4	88	3	17	117	21	467	120	99	654	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.42	0.04	0.16	0.06	0.17	0.25	0.02	0.00	0.00	0.10	0.01	0.00
d_M, Delay for Movement [s/veh]	422.19	386.61	12.90	83.43	53.46	15.37	8.88	0.00	0.00	8.74	0.00	0.00
Movement LOS	F	F	B	F	F	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	6.86	6.86	0.57	0.81	0.81	0.99	0.04	0.04	0.04	0.18	0.18	0.18
95th-Percentile Queue Length [ft/ln]	171.44	171.44	14.35	20.28	20.28	24.75	0.92	0.92	0.92	4.38	4.38	4.38
d_A, Approach Delay [s/veh]	197.59			21.58			0.31			1.13		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	21.46											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	37.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.992

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	1	21	0	129	139	631	177	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	0	5	0	32	35	158	44	0	0	0	0
Total Analysis Volume [veh/h]	103	1	21	0	129	139	631	177	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	483	566	807	814	
Degree of Utilization, x	0.22	0.04	0.33	0.99	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.81	0.12	1.46	17.03	
95th-Percentile Queue Length [ft]	20.22	2.88	36.49	425.69	
Approach Delay [s/veh]	11.70		9.66	50.20	0.00
Approach LOS	B		A	F	A
Intersection Delay [s/veh]	37.14				
Intersection LOS	E				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	48.9
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	1023	10	18	835	9	4	0	4	1	0	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	256	3	5	209	2	1	0	1	0	0	6
Total Analysis Volume [veh/h]	7	1023	10	18	835	9	4	0	4	1	0	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.03	0.01	0.00	0.04	0.00	0.01	0.01	0.00	0.05
d_M, Delay for Movement [s/veh]	9.53	0.00	0.00	10.43	0.00	0.00	45.24	61.77	11.19	48.93	60.55	12.87
Movement LOS	A	A	A	B	A	A	E	F	B	E	F	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.08	0.00	0.00	0.13	0.13	0.02	0.04	0.04	0.15
95th-Percentile Queue Length [ft/ln]	0.66	0.00	0.00	2.04	0.00	0.00	3.31	3.31	0.52	0.91	0.91	3.76
d_A, Approach Delay [s/veh]	0.06			0.22			28.21			14.37		
Approach LOS	A			A			D			B		
d_I, Intersection Delay [s/veh]	0.43											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	33	5	11	47	64	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	40.00	9.00	4.00	2.00	4.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	7	14	61	83	74
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	2	4	15	21	19
Total Analysis Volume [veh/h]	43	7	14	61	83	74
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.00	9.61	7.62	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.21	0.21	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.14	5.14	0.59	0.59	0.00	0.00
d_A, Approach Delay [s/veh]	9.94		1.42		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.14					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	42.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	117	0	12	0	56	60	311	150	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	0	3	0	14	15	78	38	0	0	0	0
Total Analysis Volume [veh/h]	117	0	12	0	56	60	311	150	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Free			Free			Stop		
Flared Lane												
Storage Area [veh]	2			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.56	0.00	0.01	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	42.75	41.80	9.05	0.00	0.00	0.00	7.86	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	E	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	3.06	3.06	0.04	0.00	0.00	0.00	0.62	0.62	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	76.46	76.46	1.01	0.00	0.00	0.00	15.61	15.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	39.61			0.00			5.30			0.00		
Approach LOS	E			A			A			A		
d_I, Intersection Delay [s/veh]	10.70											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	72	3	340	11	120	0	0	276	107	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	3.00	9.00	8.00	2.00	2.00	3.00	5.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	4	442	14	156	0	0	359	139	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	1	111	4	39	0	0	90	35	0	0	0
Total Analysis Volume [veh/h]	94	4	442	14	156	0	0	359	139	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.01	0.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.90	17.67	13.02	8.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.95	0.95	2.84	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	23.82	23.82	70.88	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.73			0.70			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	6.24											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	123.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.895

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	113	16	86	10	11	31	24	340	96	48	240	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	6.00	0.00	0.00	0.00	13.00	4.00	4.00	4.00	0.00	2.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	147	21	112	13	14	40	31	442	125	62	312	8
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	5	28	3	4	10	8	111	31	16	78	2
Total Analysis Volume [veh/h]	147	21	112	13	14	40	31	442	125	62	312	8
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.90	0.10	0.20	0.10	0.07	0.06	0.03	0.00	0.00	0.06	0.00	0.00
d_M, Delay for Movement [s/veh]	123.56	118.77	12.83	37.28	27.71	10.46	7.97	0.00	0.00	8.62	0.00	0.00
Movement LOS	F	F	B	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	7.89	7.89	0.72	0.59	0.59	0.18	0.05	0.05	0.05	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	197.16	197.16	18.05	14.86	14.86	4.54	1.37	1.37	1.37	2.69	2.69	2.69
d_A, Approach Delay [s/veh]	78.91			19.27			0.41			1.40		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	18.21											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	117	0	12	0	56	60	311	150	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	0	3	0	14	15	78	38	0	0	0	0
Total Analysis Volume [veh/h]	117	0	12	0	56	60	311	150	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	563	715	890	861	
Degree of Utilization, x	0.21	0.02	0.13	0.54	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.78	0.05	0.45	3.25	
95th-Percentile Queue Length [ft]	19.41	1.28	11.19	81.19	
Approach Delay [s/veh]	10.49		7.65	11.90	0.00
Approach LOS	B		A	B	A
Intersection Delay [s/veh]	10.94				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	27.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	706	4	5	562	5	9	0	4	4	1	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	177	1	1	141	1	2	0	1	1	0	2
Total Analysis Volume [veh/h]	1	706	4	5	562	5	9	0	4	4	1	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.01	0.01	0.00	0.04	0.00	0.01	0.02	0.01	0.01
d_M, Delay for Movement [s/veh]	8.55	0.00	0.00	9.03	0.00	0.00	22.12	27.56	10.03	23.74	27.39	10.64
Movement LOS	A	A	A	A	A	A	C	D	B	C	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.13	0.13	0.02	0.08	0.08	0.04
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	0.42	0.00	0.00	3.20	3.20	0.42	2.02	2.02	1.06
d_A, Approach Delay [s/veh]	0.01			0.08			18.40			15.58		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	0.39											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.087

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	54	1	6	44	41	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	1.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1	8	57	53	113
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	2	14	13	28
Total Analysis Volume [veh/h]	70	1	8	57	53	113
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.92	9.22	7.56	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.29	0.29	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.24	7.24	0.33	0.33	0.00	0.00
d_A, Approach Delay [s/veh]	9.91		0.93		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.53					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	5	9	0	70	60	203	170	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	1	2	0	18	15	51	43	0	0	0	0
Total Analysis Volume [veh/h]	61	5	9	0	70	60	203	170	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.02	0.01	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	19.56	19.78	9.14	0.00	0.00	0.00	7.73	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	0.78	0.78	0.03	0.00	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	19.58	19.58	0.78	0.00	0.00	0.00	9.52	9.52	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.32			0.00			4.21			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.09											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.202

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	80	0	216	9	92	0	0	202	72	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00	2.00	3.00	0.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	0	281	12	120	0	0	263	94	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.9100	0.9100	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	0	70	3	30	0	0	66	24	0	0	0
Total Analysis Volume [veh/h]	104	0	281	12	120	0	0	263	94	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Generated with PTV VISTRO
Version 2022 (SP 0-8) Saturday Future

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.00	0.30	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.77	14.43	10.53	7.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.75	0.75	1.28	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	18.74	18.74	31.90	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.40			0.73			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.13											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.352

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	91	10	55	4	11	18	11	188	99	36	158	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	0.00	0.00	6.00	0.00	2.00	2.00	0.00	1.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	118	13	72	5	14	23	14	244	129	47	205	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	3	18	1	4	6	4	61	32	12	51	1
Total Analysis Volume [veh/h]	118	13	72	5	14	23	14	244	129	47	205	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.35	0.03	0.10	0.02	0.04	0.03	0.01	0.00	0.00	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	22.33	21.22	10.42	17.57	16.13	9.50	7.64	0.00	0.00	8.06	0.00	0.00
Movement LOS	C	C	B	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.77	1.77	0.32	0.18	0.18	0.09	0.03	0.03	0.03	0.08	0.08	0.08
95th-Percentile Queue Length [ft/ln]	44.37	44.37	8.10	4.53	4.53	2.15	0.63	0.63	0.63	2.02	2.02	2.02
d_A, Approach Delay [s/veh]	18.03			12.67			0.28			1.47		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	5.26											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.430

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd					
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd					
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	5	9	0	70	60	203	170	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	1	2	0	18	15	51	43	0	0	0	0
Total Analysis Volume [veh/h]	61	5	9	0	70	60	203	170	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	596	741	901	866	
Degree of Utilization, x	0.11	0.01	0.14	0.43	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	0.04	0.50	2.19	
95th-Percentile Queue Length [ft]	9.28	0.92	12.58	54.73	
Approach Delay [s/veh]	9.26		7.67	10.26	0.00
Approach LOS	A		A	B	A
Intersection Delay [s/veh]	9.54				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	726	15	0	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	9.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	18	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	744	15	0	5
Peak Hour Factor	1.0000	1.0000	0.9400	0.9400	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	198	4	0	1
Total Analysis Volume [veh/h]	0	0	791	16	0	5
Pedestrian Volume [ped/h]	0		0		0	

Generated with PTV VISTRO
Version 2022 (SP 0-8) AM Existing plus Project

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.03
Movement LOS			A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.63
d_A, Approach Delay [s/veh]	0.00		0.00		11.03	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.156

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	93	7	10	95	77	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	29.00	0.00	5.00	9.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	7	10	95	77	72
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	2	3	28	23	21
Total Analysis Volume [veh/h]	111	8	12	112	91	85
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.16	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.05	10.23	7.56	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.59	0.59	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	14.76	14.76	0.50	0.50	0.00	0.00
d_A, Approach Delay [s/veh]	11.00		0.73		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.34					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	1,136.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	1	0	31	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	1	16	0	100	107	516	143	0	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	1.0000	0.8500	0.8500	0.8500	0.8500	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	0	5	0	29	31	152	42	0	0	0	0
Total Analysis Volume [veh/h]	129	1	19	0	118	126	607	168	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Free			Free			Stop		
Flared Lane												
Storage Area [veh]	2			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.97	0.03	0.02	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	1099.3	1136.3	9.34	0.00	0.00	0.00	9.35	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	14.26	14.26	0.07	0.00	0.00	0.00	1.98	1.98	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	356.38	356.38	1.72	0.00	0.00	0.00	49.52	49.52	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	960.62			0.00			7.32			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	127.40											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	37.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	52	2	307	11	164	0	0	569	79	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	100.00	6.00	0.00	5.00	2.00	2.00	5.00	8.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	1	31	0	0	32	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	2	307	12	195	0	0	601	79	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	1	90	4	57	0	0	177	23	0	0	0
Total Analysis Volume [veh/h]	68	2	361	14	229	0	0	707	93	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Free	Free	Stop
Flared Lane				
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No			
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.33	0.01	0.45	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	31.28	37.84	13.14	9.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	E	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	1.44	1.44	2.36	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	35.93	35.93	59.08	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.12			0.54			0.00			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	4.80											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	337.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.214

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	53	3	68	2	13	90	16	359	92	76	503	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	33.00	6.00	50.00	8.00	2.00	0.00	5.00	9.00	1.00	4.00	13.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	8	0	32	31	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	3	68	10	13	122	47	359	92	76	503	16
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	1	20	3	4	36	14	106	27	22	148	5
Total Analysis Volume [veh/h]	62	4	80	12	15	144	55	422	108	89	592	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.21	0.04	0.14	0.20	0.14	0.29	0.06	0.00	0.00	0.09	0.01	0.00
d_M, Delay for Movement [s/veh]	337.17	302.53	12.19	85.23	60.33	15.09	8.75	0.00	0.00	8.56	0.00	0.00
Movement LOS	F	F	B	F	F	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	5.88	5.88	0.48	1.28	1.28	1.18	0.10	0.10	0.10	0.16	0.16	0.16
95th-Percentile Queue Length [ft/ln]	146.99	146.99	11.89	32.02	32.02	29.56	2.46	2.46	2.46	3.92	3.92	3.92
d_A, Approach Delay [s/veh]	158.15			23.98			0.82			1.09		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	17.75											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.221

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	458	7	0	0	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	14.00	2.00	2.00	2.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-111	137	0	0	0	129
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	347	144	0	0	0	148
Peak Hour Factor	0.9400	0.9400	1.0000	1.0000	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	92	38	0	0	0	39
Total Analysis Volume [veh/h]	369	153	0	0	0	157
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.22
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.49
Movement LOS	A	A				B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.84
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	21.00
d_A, Approach Delay [s/veh]	0.00		0.00		11.49	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.66					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	30.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.946

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	0	1	0	31	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	1	16	0	100	107	516	143	0	0	0	0
Peak Hour Factor	0.8500	0.8500	0.8500	1.0000	0.8500	0.8500	0.8500	0.8500	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	0	5	0	29	31	152	42	0	0	0	0
Total Analysis Volume [veh/h]	129	1	19	0	118	126	607	168	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	492	577	814	819	
Degree of Utilization, x	0.26	0.03	0.30	0.95	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.05	0.10	1.26	14.52	
95th-Percentile Queue Length [ft]	26.35	2.55	31.56	363.01	
Approach Delay [s/veh]	12.19		9.31	40.24	0.00
Approach LOS	B		A	E	A
Intersection Delay [s/veh]	30.20				
Intersection LOS	D				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	642	7	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	8.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	17	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	659	7	0	3
Peak Hour Factor	1.0000	1.0000	0.9400	0.9400	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	175	2	0	1
Total Analysis Volume [veh/h]	0	0	701	7	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.58
Movement LOS			A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.35
d_A, Approach Delay [s/veh]	0.00		0.00		10.58	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	33	5	11	47	64	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	40.00	9.00	4.00	2.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	0	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	5	11	47	64	62
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	3	13	18	17
Total Analysis Volume [veh/h]	40	6	12	52	71	69
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.78	9.48	7.58	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.53	4.53	0.50	0.50	0.00	0.00
d_A, Approach Delay [s/veh]	9.74		1.42		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	41.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	33	0	0	0	3	0	27	5	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	0	9	0	46	46	266	120	0	0	0	0
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	0	3	0	13	13	74	33	0	0	0	0
Total Analysis Volume [veh/h]	137	0	10	0	51	51	296	133	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.59	0.00	0.01	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	40.96	40.22	8.95	0.00	0.00	0.00	7.81	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	E	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	3.39	3.39	0.03	0.00	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	84.72	84.72	0.82	0.00	0.00	0.00	14.71	14.71	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	38.78			0.00			5.39			0.00		
Approach LOS	E			A			A			A		
d_I, Intersection Delay [s/veh]	11.82											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	15.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	72	3	340	11	120	0	0	276	107	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	3.00	9.00	8.00	2.00	2.00	3.00	5.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	3	33	0	0	27	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	3	340	14	153	0	0	303	107	0	0	0
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.8500	0.8500	0.9600	0.9600	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	1	89	4	40	0	0	79	28	0	0	0
Total Analysis Volume [veh/h]	80	3	354	15	159	0	0	316	111	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Free	Free	Stop
Flared Lane				
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No			
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.01	0.40	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.27	15.91	11.77	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.70	0.70	1.95	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.54	17.54	48.70	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.44			0.72			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.36											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	53.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	113	16	86	10	11	31	24	340	96	48	240	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	6.00	0.00	0.00	0.00	13.00	4.00	4.00	4.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	27	33	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	113	16	86	20	11	58	57	340	96	48	240	15
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	4	22	5	3	15	15	89	25	13	63	4
Total Analysis Volume [veh/h]	118	17	90	21	11	60	59	354	100	50	250	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.60	0.07	0.14	0.12	0.05	0.08	0.05	0.00	0.00	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	53.12	49.39	11.42	28.75	23.62	10.18	7.87	0.00	0.00	8.28	0.00	0.00
Movement LOS	F	E	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.06	4.06	0.48	0.57	0.57	0.26	0.11	0.11	0.11	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	101.59	101.59	11.95	14.28	14.28	6.46	2.66	2.66	2.66	2.17	2.17	2.17
d_A, Approach Delay [s/veh]	36.16			16.03			0.91			1.31		
Approach LOS	E			C			A			A		
d_I, Intersection Delay [s/veh]	9.15											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.326

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	787	8	0	0	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	2.00	2.00	2.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-129	157	0	0	0	148
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	658	165	0	0	0	166
Peak Hour Factor	0.9400	0.9400	1.0000	1.0000	1.0000	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	175	44	0	0	0	44
Total Analysis Volume [veh/h]	700	176	0	0	0	177
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.33
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.82
Movement LOS	A	A				B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	1.41
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	35.24
d_A, Approach Delay [s/veh]	0.00		0.00		14.82	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.49					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.497

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	33	0	0	0	3	0	27	5	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	0	9	0	46	46	266	120	0	0	0	0
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	0	3	0	13	13	74	33	0	0	0	0
Total Analysis Volume [veh/h]	137	0	10	0	51	51	296	133	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	571	729	894	863	
Degree of Utilization, x	0.24	0.01	0.11	0.50	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.93	0.04	0.38	2.82	
95th-Percentile Queue Length [ft]	23.25	1.04	9.62	70.47	
Approach Delay [s/veh]	10.75		7.54	11.22	0.00
Approach LOS	B		A	B	A
Intersection Delay [s/veh]	10.57				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	432	4	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	439	4	0	3
Peak Hour Factor	1.0000	1.0000	0.9300	0.9300	1.0000	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	118	1	0	1
Total Analysis Volume [veh/h]	0	0	472	4	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.70
Movement LOS			A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.29
d_A, Approach Delay [s/veh]	0.00		0.00		9.70	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.06					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	54	1	6	44	41	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	0.00	2.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	1	6	44	41	89
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	0	2	12	11	25
Total Analysis Volume [veh/h]	68	1	7	49	46	99
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.74	9.12	7.49	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.78	6.78	0.29	0.29	0.00	0.00
d_A, Approach Delay [s/veh]	9.73		0.94		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.68					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	0	0	0	7	0	28	2	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	4	7	0	61	46	184	133	0	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	2	0	17	13	50	36	0	0	0	0
Total Analysis Volume [veh/h]	74	4	8	0	66	50	200	145	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.22	0.01	0.01	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.97	19.20	9.00	0.00	0.00	0.00	7.69	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	0.89	0.89	0.03	0.00	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	22.16	22.16	0.67	0.00	0.00	0.00	9.36	9.36	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.05			0.00			4.46			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.65											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.174

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	80	0	216	9	92	0	0	202	72	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00	2.00	3.00	0.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	7	21	0	0	29	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	0	216	16	113	0	0	231	72	0	0	0
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	0	59	4	31	0	0	63	20	0	0	0
Total Analysis Volume [veh/h]	89	0	237	18	124	0	0	254	79	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.00	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.51	14.09	10.21	7.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.62	0.62	1.02	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	15.60	15.60	25.47	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.11			1.01			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	4.70											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.263

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	91	10	55	4	11	18	11	188	99	36	158	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	0.00	0.00	6.00	0.00	2.00	2.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	0	29	21	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	10	55	13	11	47	32	188	99	36	158	13
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	3	14	3	3	12	8	49	26	9	41	3
Total Analysis Volume [veh/h]	95	10	57	14	11	49	33	196	103	38	165	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.26	0.02	0.07	0.04	0.03	0.06	0.02	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	18.86	17.73	9.87	15.79	15.05	9.43	7.60	0.00	0.00	7.87	0.00	0.00
Movement LOS	C	C	A	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.17	1.17	0.23	0.22	0.22	0.18	0.06	0.06	0.06	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	29.15	29.15	5.77	5.42	5.42	4.52	1.50	1.50	1.50	1.64	1.64	1.64
d_A, Approach Delay [s/veh]	15.63			11.47			0.76			1.38		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	5.01											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.223

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	543	3	0	0	0	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	2.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-111	144	0	0	0	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	432	147	0	0	0	143
Peak Hour Factor	0.9300	0.9300	1.0000	1.0000	1.0000	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	40	0	0	0	38
Total Analysis Volume [veh/h]	465	158	0	0	0	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.22
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.71
Movement LOS	A	A				B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.85
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	21.27
d_A, Approach Delay [s/veh]	0.00		0.00		11.71	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.32					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	0	0	0	7	0	28	2	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	4	7	0	61	46	184	133	0	0	0	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	2	0	17	13	50	36	0	0	0	0
Total Analysis Volume [veh/h]	74	4	8	0	66	50	200	145	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	604	754	903	868	
Degree of Utilization, x	0.13	0.01	0.13	0.40	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.44	0.03	0.44	1.92	
95th-Percentile Queue Length [ft]	11.04	0.80	11.01	48.08	
Approach Delay [s/veh]	9.35		7.57	9.86	0.00
Approach LOS	A		A	A	A
Intersection Delay [s/veh]	9.30				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	726	15	0	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	9.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.3000	1.3000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	967	20	0	7
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	242	5	0	2
Total Analysis Volume [veh/h]	0	0	967	20	0	7
Pedestrian Volume [ped/h]	0		0		0	

Generated with PTV VISTRO
Version 2022 (SP 0-8) AM Future plus Project

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.93
Movement LOS			A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	1.01
d_A, Approach Delay [s/veh]	0.00		0.00		11.93	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.08					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	93	7	10	95	77	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	29.00	0.00	5.00	9.00	6.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	9	13	124	100	94
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	2	3	31	25	24
Total Analysis Volume [veh/h]	122	9	13	124	100	94
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.46	10.52	7.60	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.69	0.69	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.29	17.29	0.55	0.55	0.00	0.00
d_A, Approach Delay [s/veh]	11.39		0.72		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.44					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	2,028.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	0	0	0	1	0	33	9	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	1	21	0	130	139	664	186	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	0	5	0	33	35	166	47	0	0	0	0
Total Analysis Volume [veh/h]	139	1	21	0	130	139	664	186	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop			Free			Free			Stop		
Flared Lane												
Storage Area [veh]	2			0			0			0		
Two-Stage Gap Acceptance	No											
Number of Storage Spaces in Median	0			0			0			0		

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	4.73	0.05	0.03	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	1971.0	2028.3	9.46	0.00	0.00	0.00	9.83	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	16.94	16.94	0.08	0.00	0.00	0.00	2.42	2.42	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	423.43	423.43	1.95	0.00	0.00	0.00	60.61	60.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	1715.54			0.00			7.68			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	220.88											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	49.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	52	2	307	11	164	0	0	569	79	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	100.00	6.00	0.00	5.00	2.00	2.00	5.00	8.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	1	36	0	0	34	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	3	399	15	249	0	0	774	103	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.8500	0.8500	1.0000	1.0000	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	100	4	62	0	0	194	26	0	0	0
Total Analysis Volume [veh/h]	76	3	399	15	249	0	0	774	103	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Free	Free	Stop
Flared Lane				
Storage Area [veh]	2	0	0	0
Two-Stage Gap Acceptance	No			
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.43	0.02	0.51	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	41.16	48.96	14.35	9.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	E	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	2.10	2.10	2.96	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	52.50	52.50	73.95	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.83			0.55			0.00			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.65											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	732.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.000

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	53	3	68	2	13	90	16	359	92	76	503	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	33.00	6.00	50.00	8.00	2.00	0.00	5.00	9.00	1.00	4.00	13.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	8	0	34	36	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	69	4	88	11	17	151	57	467	120	99	654	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	1	22	3	4	38	14	117	30	25	164	5
Total Analysis Volume [veh/h]	69	4	88	11	17	151	57	467	120	99	654	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	2.00	0.05	0.16	0.25	0.21	0.33	0.06	0.00	0.00	0.10	0.01	0.00
d_M, Delay for Movement [s/veh]	732.05	673.61	12.90	127.85	90.10	16.56	8.95	0.00	0.00	8.74	0.00	0.00
Movement LOS	F	F	B	F	F	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	8.07	8.07	0.57	1.76	1.76	1.41	0.10	0.10	0.10	0.18	0.18	0.18
95th-Percentile Queue Length [ft/ln]	201.71	201.71	14.35	43.99	43.99	35.23	2.56	2.56	2.56	4.39	4.39	4.39
d_A, Approach Delay [s/veh]	337.52			30.38			0.79			1.12		
Approach LOS	F			D			A			A		
d_I, Intersection Delay [s/veh]	34.85											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.235

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	458	7	0	0	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	17.00	14.00	2.00	2.00	2.00	11.00
Growth Factor	1.3000	1.3000	1.0000	1.0000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-111	137	0	0	0	129
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	484	146	0	0	0	154
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	121	37	0	0	0	39
Total Analysis Volume [veh/h]	484	146	0	0	0	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.24
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.18
Movement LOS	A	A				B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.91
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	22.73
d_A, Approach Delay [s/veh]	0.00		0.00		12.18	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.39					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	46.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.044

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	79	1	16	0	99	107	485	136	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	100.00	13.00	2.00	5.00	2.00	5.00	7.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	0	0	0	1	0	33	9	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	139	1	21	0	130	139	664	186	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	0	5	0	33	35	166	47	0	0	0	0
Total Analysis Volume [veh/h]	139	1	21	0	130	139	664	186	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	489	572	812	850	
Degree of Utilization, x	0.29	0.04	0.33	1.04	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.17	0.11	1.46	20.24	
95th-Percentile Queue Length [ft]	29.31	2.86	36.38	505.92	
Approach Delay [s/veh]	12.50		9.61	63.99	0.00
Approach LOS	B		A	F	A
Intersection Delay [s/veh]	46.09				
Intersection LOS	E				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	642	7	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	8.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.3000	1.3000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	21	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	856	9	0	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	214	2	0	1
Total Analysis Volume [veh/h]	0	0	856	9	0	4
Pedestrian Volume [ped/h]	0		0		0	

Generated with PTV VISTRO
Version 2022 (SP 0-8) PM Future plus Project

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.28
Movement LOS			A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.52
d_A, Approach Delay [s/veh]	0.00		0.00		11.28	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.05					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	33	5	11	47	64	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	40.00	9.00	4.00	2.00	4.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	7
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	7	14	61	83	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	4	15	21	20
Total Analysis Volume [veh/h]	47	7	14	61	83	81
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.05	9.66	7.64	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.61	5.61	0.59	0.59	0.00	0.00
d_A, Approach Delay [s/veh]	10.00		1.43		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.21					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	83.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.847

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	0	4	0	27	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	154	0	12	0	60	60	338	157	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	0	3	0	15	15	85	39	0	0	0	0
Total Analysis Volume [veh/h]	154	0	12	0	60	60	338	157	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.85	0.00	0.01	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	83.81	82.45	9.08	0.00	0.00	0.00	7.91	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	6.06	6.06	0.04	0.00	0.00	0.00	0.69	0.69	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	151.42	151.42	1.02	0.00	0.00	0.00	17.27	17.27	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	78.41			0.00			5.40			0.00		
Approach LOS	F			A			A			A		
d_I, Intersection Delay [s/veh]	20.09											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	20.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	72	3	340	11	120	0	0	276	107	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	3.00	9.00	8.00	2.00	2.00	3.00	5.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	0	4	37	0	0	27	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	4	442	18	193	0	0	386	139	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.8500	0.8500	1.0000	1.0000	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	1	111	5	48	0	0	97	35	0	0	0
Total Analysis Volume [veh/h]	101	4	442	18	193	0	0	386	139	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.28	0.01	0.52	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	19.28	19.97	13.81	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	1.21	1.21	3.09	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	30.26	30.26	77.33	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.87			0.73			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	6.46											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	228.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.143

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	113	16	86	10	11	31	24	340	96	48	240	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	6.00	0.00	0.00	0.00	13.00	4.00	4.00	4.00	0.00	2.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	27	37	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	147	21	112	23	14	67	68	442	125	62	312	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	37	5	28	6	4	17	17	111	31	16	78	4
Total Analysis Volume [veh/h]	147	21	112	23	14	67	68	442	125	62	312	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Stop		Free		Free	
Flared Lane								
Storage Area [veh]	2		2		0		0	
Two-Stage Gap Acceptance	No		No					
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.14	0.12	0.20	0.21	0.08	0.10	0.06	0.00	0.00	0.06	0.00	0.00
d_M, Delay for Movement [s/veh]	228.70	220.86	12.83	49.89	37.75	10.73	8.04	0.00	0.00	8.62	0.00	0.00
Movement LOS	F	F	B	E	E	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	10.40	10.40	0.72	1.14	1.14	0.32	0.12	0.12	0.12	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	260.03	260.03	18.05	28.46	28.46	7.96	3.08	3.08	3.08	2.70	2.70	2.70
d_A, Approach Delay [s/veh]	141.76			23.03			0.86			1.37		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	30.62											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	787	8	0	0	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	2.00	2.00	2.00	11.00
Growth Factor	1.3000	1.3000	1.0000	1.0000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-128	157	0	0	0	148
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	895	167	0	0	0	171
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	224	42	0	0	0	43
Total Analysis Volume [veh/h]	895	167	0	0	0	171
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.36
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	16.97
Movement LOS	A	A				C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	1.64
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	41.09
d_A, Approach Delay [s/veh]	0.00		0.00		16.97	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.35					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	11.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.576

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	90	0	9	0	43	46	239	115	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	9.00	0.00	0.00	2.00	2.00	0.00	2.00	3.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	0	4	0	27	7	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	154	0	12	0	60	60	338	157	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	0	3	0	15	15	85	39	0	0	0	0
Total Analysis Volume [veh/h]	154	0	12	0	60	60	338	157	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	555	704	880	860	
Degree of Utilization, x	0.28	0.02	0.14	0.58	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.13	0.05	0.47	3.76	
95th-Percentile Queue Length [ft]	28.14	1.30	11.78	94.07	
Approach Delay [s/veh]	11.38		7.73	12.72	0.00
Approach LOS	B		A	B	A
Intersection Delay [s/veh]	11.67				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 1: US 101 South/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name			US 101 South		Uva Dr	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		65.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name			US 101 South		Uva Dr	
Base Volume Input [veh/h]	0	0	432	4	0	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.3000	1.3000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	8	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	570	5	0	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	143	1	0	1
Total Analysis Volume [veh/h]	0	0	570	5	0	4
Pedestrian Volume [ped/h]	0		0		0	

Generated with PTV VISTRO
Version 2022 (SP 0-8) Saturday Future plus Project

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	10.06
Movement LOS			A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.42
d_A, Approach Delay [s/veh]	0.00		0.00		10.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.07					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: West Road/Uva Drive

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.099

Intersection Setup

Name	Uva Dr		Uva Dr		West Rd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Uva Dr		Uva Dr		West Rd	
Base Volume Input [veh/h]	54	1	6	44	41	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	0.00	2.00	0.00	1.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	1	8	57	53	115
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	0	2	14	13	29
Total Analysis Volume [veh/h]	79	1	8	57	53	115
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.99	9.29	7.54	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.33	0.33	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.27	8.27	0.33	0.33	0.00	0.00
d_A, Approach Delay [s/veh]	9.98		0.93		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.74					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	Two-way stop	Delay (sec / veh):	24.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	0	0	9	0	29	2	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	5	9	0	79	60	232	172	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	1	2	0	20	15	58	43	0	0	0	0
Total Analysis Volume [veh/h]	83	5	9	0	79	60	232	172	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.30	0.02	0.01	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	24.28	24.34	9.15	0.00	0.00	0.00	7.79	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	A		A	A	A	A				
95th-Percentile Queue Length [veh/ln]	1.35	1.35	0.03	0.00	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	33.63	33.63	0.78	0.00	0.00	0.00	11.07	11.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	22.88			0.00			4.47			0.00		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	6.29											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 4: West Road/US 101 North Ramps

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.229

Intersection Setup

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Approach	Northbound			Eastbound			Westbound			Southeastbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North Off-Ramp			West Rd			West Rd			US 101 South On-Ramp		
Base Volume Input [veh/h]	80	0	216	9	92	0	0	202	72	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	2.00	0.00	0.00	2.00	2.00	3.00	0.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.3000	1.3000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	9	22	0	0	30	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	0	281	21	142	0	0	293	94	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	0.9100	0.9100	1.0000	1.0000	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	0	70	5	36	0	0	73	24	0	0	0
Total Analysis Volume [veh/h]	105	0	281	21	142	0	0	293	94	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop		Free		Free		Stop	
Flared Lane								
Storage Area [veh]	2		0		0		0	
Two-Stage Gap Acceptance	No							
Number of Storage Spaces in Median	0		0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.00	0.31	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.18	15.79	10.75	8.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	C	B	A	A			A	A			
95th-Percentile Queue Length [veh/ln]	0.87	0.87	1.33	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	21.87	21.87	33.17	0.89	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.96			1.04			0.00			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	5.11											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 5: West Road/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	27.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.414

Intersection Setup

Name	North State St			North State St			West Rd			West Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	North State St			North State St			West Rd			West Rd		
Base Volume Input [veh/h]	91	10	55	4	11	18	11	188	99	36	158	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	0.00	0.00	6.00	0.00	2.00	2.00	0.00	1.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	0	30	22	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	118	13	72	14	14	53	36	244	129	47	205	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	3	18	4	4	13	9	61	32	12	51	4
Total Analysis Volume [veh/h]	118	13	72	14	14	53	36	244	129	47	205	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane				
Storage Area [veh]	2	2	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.41	0.04	0.10	0.05	0.04	0.06	0.03	0.00	0.00	0.04	0.00	0.00
d_M, Delay for Movement [s/veh]	27.49	25.43	10.42	19.44	17.70	9.70	7.69	0.00	0.00	8.06	0.00	0.00
Movement LOS	D	D	B	C	C	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.23	2.23	0.32	0.31	0.31	0.21	0.07	0.07	0.07	0.08	0.08	0.08
95th-Percentile Queue Length [ft/ln]	55.66	55.66	8.10	7.84	7.84	5.18	1.64	1.64	1.64	2.04	2.04	2.04
d_A, Approach Delay [s/veh]	21.31			12.77			0.68			1.42		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	6.27											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 6: US 101 North/North State Street

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.230

Intersection Setup

Name	US 101 North				N State St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	US 101 North				N State St	
Base Volume Input [veh/h]	543	3	0	0	0	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	2.00	2.00	0.00
Growth Factor	1.3000	1.3000	1.0000	1.0000	1.0000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-109	144	0	0	0	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	597	148	0	0	0	145
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	149	37	0	0	0	36
Total Analysis Volume [veh/h]	597	148	0	0	0	145
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.23
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	12.41
Movement LOS	A	A				B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.88
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	22.07
d_A, Approach Delay [s/veh]	0.00		0.00		12.41	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.02					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: West Road/US 101 South Ramps

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

Intersection Setup

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Approach	Southbound			Eastbound			Westbound			Northwestbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			55.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 S Off-Ramp			West Rd			West Rd			US 101 S On-Ramp		
Base Volume Input [veh/h]	47	4	7	0	54	46	156	131	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	0.00	2.00	1.00	2.00	2.00	2.00	2.00
Growth Factor	1.3000	1.3000	1.3000	1.0000	1.3000	1.3000	1.3000	1.3000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	0	0	9	0	29	2	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	5	9	0	79	60	232	172	0	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	1	2	0	20	15	58	43	0	0	0	0
Total Analysis Volume [veh/h]	83	5	9	0	79	60	232	172	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	587	727	890	864	
Degree of Utilization, x	0.15	0.01	0.16	0.47	

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.52	0.04	0.55	2.53	
95th-Percentile Queue Length [ft]	13.11	0.94	13.80	63.19	
Approach Delay [s/veh]	9.71		7.79	10.78	0.00
Approach LOS	A		A	B	A
Intersection Delay [s/veh]	9.97				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	36.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-99	121	32	-26	0	0	0	0	48	0	104
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	359	128	47	700	15	1	0	5	56	1	123
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	95	34	13	186	4	0	0	1	15	0	33
Total Analysis Volume [veh/h]	6	382	136	50	745	16	1	0	5	60	1	131
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.06	0.01	0.00	0.01	0.00	0.01	0.29	0.01	0.18
d_M, Delay for Movement [s/veh]	9.21	0.00	0.00	9.29	0.00	0.00	31.19	31.67	10.82	29.49	36.53	11.18
Movement LOS	A	A	A	A	A	A	D	D	B	D	E	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.18	0.00	0.00	0.02	0.02	0.02	1.18	1.18	0.67
95th-Percentile Queue Length [ft/ln]	0.53	0.00	0.00	4.47	0.00	0.00	0.54	0.54	0.61	29.55	29.55	16.72
d_A, Approach Delay [s/veh]	0.11			0.57			14.22			17.03		
Approach LOS	A			A			B			C		
d_I, Intersection Delay [s/veh]	2.53											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	56.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.458

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-116	138	37	-31	0	0	0	0	53	0	121
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	671	146	51	611	7	3	0	3	54	0	139
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	178	39	14	163	2	1	0	1	14	0	37
Total Analysis Volume [veh/h]	5	714	155	54	650	7	3	0	3	57	0	148
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.07	0.01	0.00	0.03	0.00	0.00	0.46	0.00	0.27
d_M, Delay for Movement [s/veh]	8.85	0.00	0.00	9.93	0.00	0.00	38.99	44.35	10.37	56.34	62.02	14.04
Movement LOS	A	A	A	A	A	A	E	E	B	F	F	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.22	0.00	0.00	0.08	0.08	0.01	2.04	2.04	1.09
95th-Percentile Queue Length [ft/ln]	0.40	0.00	0.00	5.53	0.00	0.00	2.11	2.11	0.34	51.04	51.04	27.34
d_A, Approach Delay [s/veh]	0.05			0.75			24.68			25.80		
Approach LOS	A			A			C			D		
d_I, Intersection Delay [s/veh]	3.35											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	26.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-104	127	34	-28	0	0	0	0	50	0	111
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	439	130	38	404	4	7	0	3	53	1	118
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	118	35	10	109	1	2	0	1	14	0	32
Total Analysis Volume [veh/h]	1	472	140	41	434	4	8	0	3	57	1	127
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.04	0.00	0.00	0.03	0.00	0.00	0.23	0.00	0.18
d_M, Delay for Movement [s/veh]	8.18	0.00	0.00	8.85	0.00	0.00	20.93	23.90	9.57	23.90	26.13	11.32
Movement LOS	A	A	A	A	A	A	C	C	A	C	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.13	0.00	0.00	0.11	0.11	0.01	0.89	0.89	0.66
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	3.28	0.00	0.00	2.64	2.64	0.29	22.13	22.13	16.59
d_A, Approach Delay [s/veh]	0.01			0.76			17.83			15.28		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	2.63											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	58.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	6	458	7	15	726	15	1	0	5	8	1	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	17.00	14.00	27.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-99	121	32	-26	0	0	0	0	48	0	104
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	496	130	52	918	20	1	0	7	58	1	129
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	124	33	13	230	5	0	0	2	15	0	32
Total Analysis Volume [veh/h]	8	496	130	52	918	20	1	0	7	58	1	129
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.06	0.01	0.00	0.01	0.00	0.01	0.40	0.01	0.20
d_M, Delay for Movement [s/veh]	9.93	0.00	0.00	9.81	0.00	0.00	45.71	45.78	11.68	46.45	58.86	11.81
Movement LOS	A	A	A	A	A	A	E	E	B	E	F	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.21	0.00	0.00	0.03	0.03	0.04	1.79	1.79	0.73
95th-Percentile Queue Length [ft/ln]	0.82	0.00	0.00	5.20	0.00	0.00	0.85	0.85	0.97	44.85	44.85	18.13
d_A, Approach Delay [s/veh]	0.13			0.52			15.93			22.75		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	2.74											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	124.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	5	787	8	14	642	7	3	0	3	1	0	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-116	138	37	-31	0	0	0	0	53	0	121
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	907	148	55	804	9	4	0	4	54	0	144
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	227	37	14	201	2	1	0	1	14	0	36
Total Analysis Volume [veh/h]	7	907	148	55	804	9	4	0	4	54	0	144
Pedestrian Volume [ped/h]	0			0			0			0		

Generated with PTV VISTRO
Version 2022 (SP 0-11) PM Future plus Project without Closure

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.08	0.01	0.00	0.06	0.00	0.01	0.70	0.00	0.30
d_M, Delay for Movement [s/veh]	9.41	0.00	0.00	10.88	0.00	0.00	63.03	72.61	11.04	124.31	135.39	15.92
Movement LOS	A	A	A	B	A	A	F	F	B	F	F	C
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.27	0.00	0.00	0.19	0.19	0.02	3.30	3.30	1.28
95th-Percentile Queue Length [ft/ln]	0.64	0.00	0.00	6.71	0.00	0.00	4.72	4.72	0.50	82.50	82.50	31.88
d_A, Approach Delay [s/veh]	0.06			0.69			37.04			45.48		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	4.67											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 1: US 101/Uva Drive-North State Street

Control Type:	Two-way stop	Delay (sec / veh):	35.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	US 101 North			US 101 South			Uva Dr			N State St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	320.00	100.00	100.00	350.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	50.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			65.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 North			US 101 South			Uva Dr			N State St		
Base Volume Input [veh/h]	1	543	3	4	432	4	7	0	3	3	1	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000	1.3000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	-104	127	34	-28	0	0	0	0	50	0	111
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	602	131	39	534	5	9	0	4	54	1	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	151	33	10	134	1	2	0	1	14	0	30
Total Analysis Volume [veh/h]	1	602	131	39	534	5	9	0	4	54	1	120
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.04	0.01	0.00	0.05	0.00	0.01	0.29	0.01	0.19
d_M, Delay for Movement [s/veh]	8.47	0.00	0.00	9.28	0.00	0.00	26.44	30.90	9.93	32.42	35.77	11.97
Movement LOS	A	A	A	A	A	A	D	D	A	D	E	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.14	0.00	0.00	0.16	0.16	0.02	1.18	1.18	0.69
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	3.47	0.00	0.00	3.99	3.99	0.41	29.57	29.57	17.25
d_A, Approach Delay [s/veh]	0.01			0.63			21.36			18.42		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	2.58											
Intersection LOS	E											

Appendix E

Traffic Signal Warrant Spreadsheets

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Warrant 3: Peak-Hour Volumes and Delay

West Road & US 101 South Ramps
Mendocino County

Project Name: MEX124

Intersection: 3

	Major Street	Minor Street
Street Name	West Road	US 101 South Ramps
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	55	65

Population less than 10,000? No
Date of Count: Thursday, October 13, 2022
Scenario: AM Existing

Warrant 3 Met?: Met when either Condition A or B is met — **No**

Condition A: Met when conditions A1, A2, and A3 are met — Not Met

Condition A1 — Met

The total delay experienced by 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

Minor Approach Delay: 12.05 vehicle-hours

Condition A2 — Not Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 96 vph

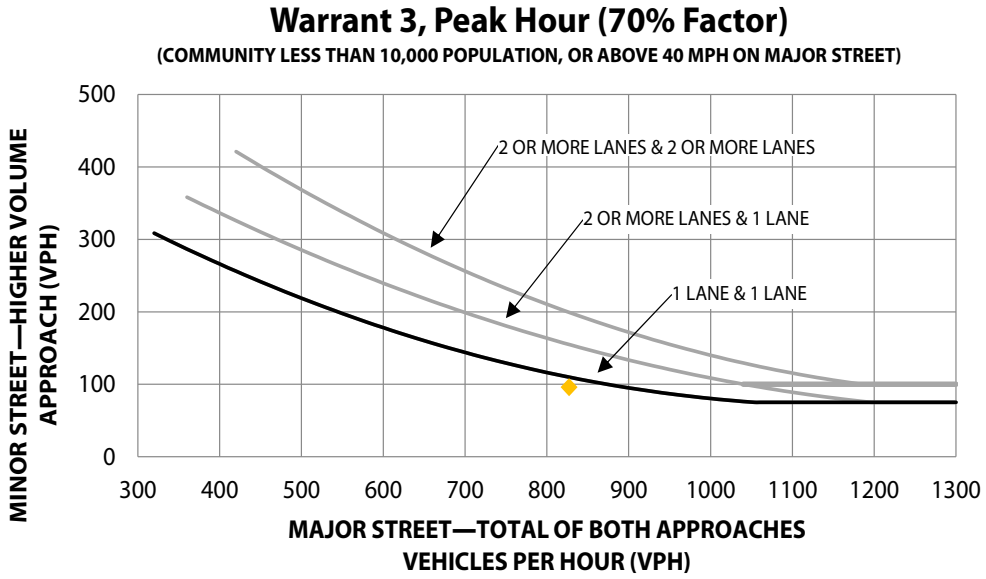
Condition A3 — Met

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more appraches or 650 vph for intersections with three approaches

Total Entering Volume: 923 vph

Condition B — Not Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

West Road & US 101 South Ramps
Mendocino County

Project Name: MEX124

Intersection: 3

	Major Street	Minor Street
Street Name	West Road	US 101 South Ramps
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	55	65

Population less than 10,000? No
Date of Count: Thursday, October 13, 2022
Scenario: AM Existing plus Project

Warrant 3 Met?: Met when either Condition A or B is met — **Yes**

Condition A: Met when conditions A1, A2, and A3 are met — Met

Condition A1 — Met

The total delay experienced by 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

Minor Approach Delay: 33.89 vehicle-hours

Condition A2 — Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 127 vph

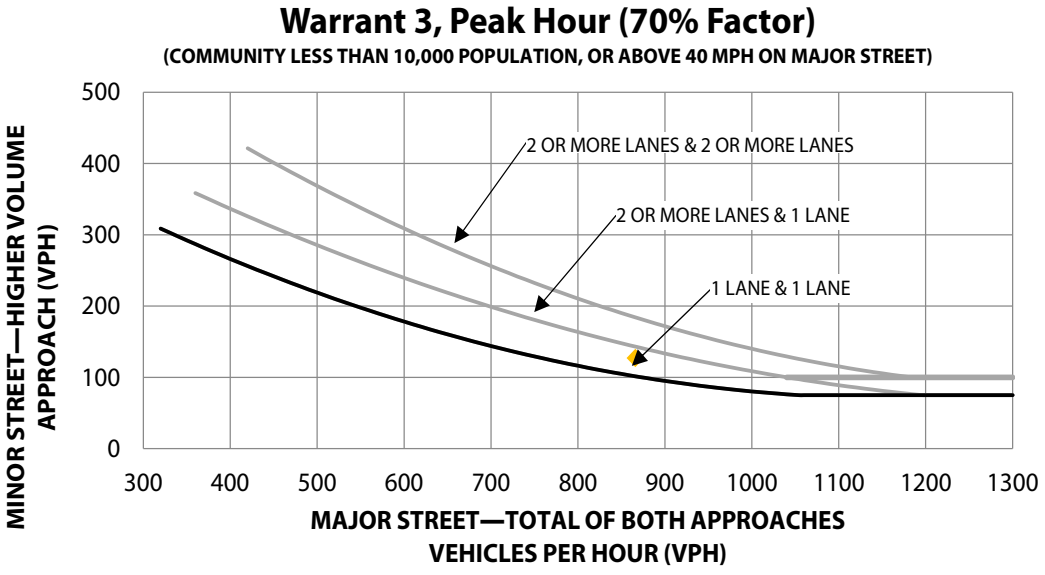
Condition A3 — Met

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more appraches or 650 vph for intersections with three approaches

Total Entering Volume: 993 vph

Condition B — Met

The plotted point falls above the curve



Warrant 3: Peak-Hour Volumes and Delay

West Road & US 101 North Ramps
Mendocino County

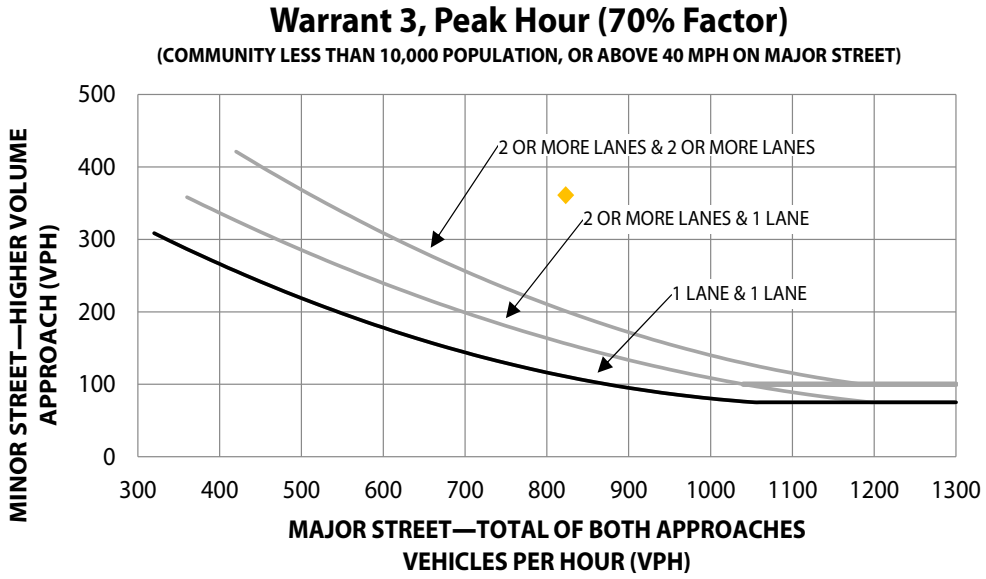
Project Name: MEX124

Intersection: 4

	Major Street	Minor Street
Street Name	West Road	US 101 North Ramps
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	55	65

Population less than 10,000? No
Date of Count: Thursday, October 13, 2022
Scenario: AM Existing

Warrant 3 Met?: Met when either Condition A or B is met	**Yes**
Condition A: Met when conditions A1, A2, and A3 are met	Not Met
Condition A1	Not Met
The total delay experienced by 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	
Minor Approach Delay: 1.46 vehicle-hours	
Condition A2	Met
The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes	
Minor Approach Volume: 361 vph	
Condition A3	Met
The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more appraches or 650 vph for intersections with three approaches	
Total Entering Volume: 1184 vph	
Condition B	Met
The plotted point falls above the curve	



Warrant 3: Peak-Hour Volumes and Delay

West Road & US 101 North Ramps
Mendocino County

Project Name: MEX124

Intersection: 4

	Major Street	Minor Street
Street Name	West Road	US 101 North Ramps
Direction	E-W	N-S
Number of Lanes	1	1
Approach Speed	55	65

Population less than 10,000? No
Date of Count: Thursday, October 13, 2022
Scenario: AM Existing plus Project

Warrant 3 Met?: Met when either Condition A or B is met — **Yes**

Condition A: Met when conditions A1, A2, and A3 are met — Not Met

Condition A1 — Not Met

The total delay experienced by 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

Minor Approach Delay: 1.64 vehicle-hours

Condition A2 — Met

The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic of 150 vph for two moving lanes

Minor Approach Volume: 367 vph

Condition A3 — Met

The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more appraches or 650 vph for intersections with three approaches

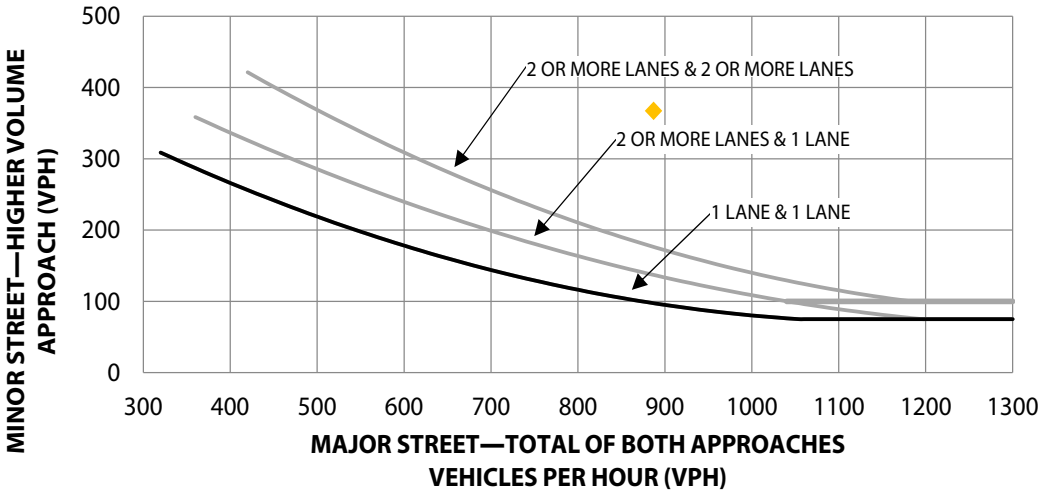
Total Entering Volume: 1254 vph

Condition B — Met

The plotted point falls above the curve

Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION, OR ABOVE 40 MPH ON MAJOR STREET)



Appendix F

All-Way Stop Control Warrant Spreadsheets

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California Manual on Uniform Traffic Control Devices (CaMUTCD)
All-Way Stop Control (AWSC) Warrant Worksheet

Intersection #:	3	Calc:	NMS
Major Street:	West Road	Date:	12/14/2022
Minor Street:	US 101 South Ramps	Check:	DJW
Existing Control:	Two-Way Stop	Date:	12/20/2022
Volume Count Date:	12/13/2022		
Speed Count Date:	N/A	At least one warrant satisfied?	**No**
Field Visit Date:	N/A	Optional Warrants Satisfied?	**0**

WARRANT A - Interim Measure

Satisfied? No

CaMUTCD Language

Condition A: Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

Are traffic control signals justified at this location? No

WARRANT B - Crash History

Satisfied? No

CaMUTCD Language

Condition B: Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

	Crashes	Minimum
Total in a 12-month period	1	-
Total in a 12-month period susceptible to correction by AWSC	1	5

WARRANT C - Eight Hour Volume

C.1+C.2 or C.3 Satisfied? No

CaMUTCD Language

Condition C.1: The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and

Condition C.2: The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour.

Hour	C.1 Volume	C.2 Volume
7:00 - 8:00	665	100
8:00 - 9:00	613	133
16:00 - 17:00	433	118
17:00 - 18:00	478	132
7:00 - 8:00	665	100
8:00 - 9:00	613	133
16:00 - 17:00	433	118
17:00 - 18:00	478	132

Peak Hour
7:30 - 8:30

	Average Volume	Minimum	Satisfied?
C.1	547	300	Yes
C.2	121	200	No

	Peak Hour Delay	Minimum	Satisfied?
C.2	961	30	Yes

Intersection #: 3
Major Street: West Road
Minor Street: US 101 South Ramps

CaMUTCD Language

Condition C.3: If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

	Value	Minimum	Satisfied?
C.1. Major Street Entering Vehicles (Both Approaches)	547	210	Yes
C.2. Minor Street Entering Vehicles, Pedestrians, and Bicycles (Both Approaches)	121	140	No
C.2. Minor Street Peak Hour Vehicle Delay (Seconds)	961	21	Yes
C.3. Major Street 85th-percentile Speed	N/A	41	No

WARRANT D - Combination of Above

Satisfied? No

CaMUTCD Language

Condition D: Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

	Value	Minimum	Satisfied?
B. Crashes in 12-month period susceptible to correction by AWSC	1	4	No
C.1. Major Street Entering Vehicles (Both Approaches)	547	240	Yes
C.2. Minor Street Entering Vehicles, Pedestrians, and Bicycles (Both Approaches)	121	160	No
C.2. Minor Street Peak Hour Vehicular Delay (Seconds)	961	24	Yes

OPTIONAL WARRANTS

0 Optional Warrants Satisfied

A The need to control left-turn conflicts — Satisfied? No

B The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes — Satisfied? No

C Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop — Satisfied? No

D An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection — Satisfied? No

California Manual on Uniform Traffic Control Devices (CaMUTCD)
All-Way Stop Control (AWSC) Warrant Worksheet

Intersection #:	4	Calc:	NMS
Major Street:	West Road	Date:	12/14/2022
Minor Street:	US 101 North Ramps	Check:	DJW
Existing Control:	Two-Way Stop	Date:	12/20/2022
Volume Count Date:	12/13/2022		
Speed Count Date:	N/A	At least one warrant satisfied?	**Yes**
Field Visit Date:	N/A	Optional Warrants Satisfied?	**0**

WARRANT A - Interim Measure

Satisfied? Yes

CaMUTCD Language

Condition A: Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

Are traffic control signals justified at this location? Yes

WARRANT B - Crash History

Satisfied? No

CaMUTCD Language

Condition B: Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

	Crashes	Minimum
Total in a 12-month period	2	-
Total in a 12-month period susceptible to correction by AWSC	1	5

WARRANT C - Eight Hour Volume

C.1+C.2 or C.3 Satisfied? No

CaMUTCD Language

Condition C.1: The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and

Condition C.2: The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour.

Hour	C.1 Volume	C.2 Volume
7:00 - 8:00	645	266
8:00 - 9:00	632	310
16:00 - 17:00	542	417
17:00 - 18:00	572	413
7:00 - 8:00	645	266
8:00 - 9:00	632	310
16:00 - 17:00	542	417
17:00 - 18:00	572	413

Peak Hour
7:30 - 8:30

	Average Volume	Minimum	Satisfied?
C.1	598	300	Yes
C.2	352	200	Yes

	Peak Hour Delay	Minimum	Satisfied?
C.2	16	30	No

Intersection #: 4
Major Street: West Road
Minor Street: US 101 North Ramps

CaMUTCD Language

Condition C.3: If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

	Value	Minimum	Satisfied?
C.1. Major Street Entering Vehicles (Both Approaches)	598	210	Yes
C.2. Minor Street Entering Vehicles, Pedestrians, and Bicycles (Both Approaches)	352	140	Yes
C.2. Minor Street Peak Hour Vehicle Delay (Seconds)	16	21	No
C.3. Major Street 85th-percentile Speed	N/A	41	No

WARRANT D - Combination of Above

Satisfied? No

CaMUTCD Language

Condition D: Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

	Value	Minimum	Satisfied?
B. Crashes in 12-month period susceptible to correction by AWSC	1	4	No
C.1. Major Street Entering Vehicles (Both Approaches)	598	240	Yes
C.2. Minor Street Entering Vehicles, Pedestrians, and Bicycles (Both Approaches)	352	160	Yes
C.2. Minor Street Peak Hour Vehicular Delay (Seconds)	16	24	No

OPTIONAL WARRANTS

0 Optional Warrants Satisfied

A The need to control left-turn conflicts — Satisfied? No

B The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes — Satisfied? No

C Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop — Satisfied? No

D An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection — Satisfied? No