EXHIBIT A.

TECHNICAL MEMORANDUM

DATE: July 23rd, 2026

TO: Kelly O'Neill Jr. | City of Sandy

FROM: Kevin Chewuk and Reah Flisakowski | DKS Associates

SUBJECT: City of Sandy – Highway 211 and Dubarko Road Intersection Improvement Evaluation 22071-000-020

This memorandum summarizes an intersection improvement evaluation at the Highway 211 and Dubarko Road intersection in Sandy, Oregon. This study identifies the most appropriate transportation improvements, with the following sections providing a summary of the expected intersection performance and recommendations.

EXISTING 2026 TRANSPORTATION CONDITIONS

This section provides documentation of existing transportation conditions at the Highway 211 and Dubarko Road intersection (see Figure 1), including an inventory of the existing transportation network and a safety evaluation and operational analysis. For the purposes of the transportation analysis, the year 2026 was used as the baseline for existing conditions. Supporting details are provided in the appendix.

TRANSPORTATION FACILITIES

Highway 211 provides a key north to south roadway connection between US 26 in downtown Sandy and Highway 224 in Eagle Creek, while Dubarko Road provides a key east to west roadway connection on the south side of Sandy, connecting 362nd Drive with Langensand Road. These segments are Minor Arterials under City of Sandy jurisdiction (see Table 1) and currently maintain a two to three-lane cross-section (i.e., one through lane in each direction, with right-turn lanes on southbound Highway 211 at the Dubarko Road intersection and on eastbound and westbound Dubarko Road at the Highway 211 intersection).

Highway 211 has a posted speed of 45 miles per hour at the Dubarko Road intersection, with an existing annual average daily traffic (AADT) volume of 8,000, of which four percent are trucks. Dubarko Road has an AADT volume of 2,150 at the Highway 211 intersection, of which four percent are trucks.

TABLE 1: EXISTING ROADWAY CHARACTERISTICS

ROADWAY (SEGMENT LOCATION)	CLASSIFICATION *	AADT/ TRUCK %	LANES	POSTED SPEED	PEDESTRIAN FACILITY	BIKE FACILITY
HIGHWAY 211 (AT DUBARKO ROAD INTERSECTION)	Minor Arterial	8,000 / 4%	2	45 mph	Sidewalk on west side / None **	None ****
DUBARKO ROAD (AT HIGHWAY 211 INTERSECTION)	Minor Arterial	2,150 / 4%	2	25 mph	Sidewalk on one side / both sides ***	Bike lanes

* Source: City of Sandy Transportation System Plan, May 2023.

** A sidewalk is available on the west side of Highway 211 north of Dubarko Road; no facilities are available south of Dubarko Road.

*** A sidewalk is available on both sides of Dubarko Road east of Highway 211, and on the north side only west of Highway 211.

**** A southbound bike lane is available on Highway 211 at the Dubarko Road intersection; no bike facilities are available elsewhere along Highway 211 at the Dubarko Road intersection.

FIGURE 1: STUDY INTERSECTION

SAFETY ANALYSIS

The most recent five years of available collision data at the Highway 211 and Dubarko Road intersection was obtained from ODOT and used to evaluate the collision history[1]. There were 26 crashes recorded at the intersection over the five-year period (see Table 2), with 18 of the crashes resulting in an injury, two of which were serious injuries. There were no crashes involving people walking or biking at the intersection.

The collision types that occurred were angle, turning, rear and fixed object, and commonly show "no yield", "disregarded traffic control" or "driver inattention" as the cited cause.

TABLE 2: SUMMARY OF COLLISIONS

INTERSECTION	TOTAL COLLISIONS	COLLISION TYPE				COLLISION SEVERITY		
		ANGLE	TURNING	REAR	OTHER	FATAL	INJURY	PDO*
HIGHWAY 211 / DUBARKO ROAD	**26**	18	4	3	1	0	18	8

Source: ODOT Crash Analysis and Reporting Unit. Reported collision data from 2019 to 2023.

* PDO = Property Damage Only

Crash rates provide an additional perspective on intersection safety and identify locations where people have a higher risk of being involved in a crash. Crash frequencies (the number of crashes in a period of time) tend to increase with higher vehicle traffic. With more exposure to vehicles, there are more opportunities for crashes to occur. Crash rates consider the number of crashes relative to the traffic volume at the intersection and are expressed in units of crashes per million entering vehicles.

The crash rate (crashes per million entering vehicles) for the Highway 211 and Dubarko Road intersection was calculated and evaluated using the critical crash rate method from the Highway Safety Manual. The critical crash rate method compares an intersection's crash history to that of other similar intersections, adjusting for volume at the intersection. Where an intersection's crash rate is greater than the critical crash rate, it is an indication that a problem might exist, and that further study is warranted.

As shown in Table 3, the crash rate calculated is above this threshold, indicating the frequency of collisions is higher than similar intersections with the volume of traffic served. A summary of alternatives considered to mitigate the impact at this intersection is provided later in this document.

[1] ODOT reported collisions for January 1, 2019, through December 31, 2023.

TABLE 3: HIGHWAY 211 AND DUBARKO ROAD COLLISION ANALYSIS

INTERSECTION	TOTAL COLLISIONS	OBSERVED CRASH RATE (PER MEV)	CRITICAL CRASH RATE (PER MEV)	OVER CRITICAL CRASH RATE
HIGHWAY 211 / DUBARKO ROAD	**26**	1.40	0.41	Yes

EXISTING YEAR CAPACITY ANALYSIS

This section will summarize the existing year intersection operations at the Highway 211 and Dubarko Road intersection using Highway Capacity Manual (HCM) 6th edition methodology.

EXISTING MOTOR VEHICLE VOLUMES

Traffic operations were analyzed using the estimated 30th highest annual hour traffic volume (30 HV) consistent with methodology outlined in the Oregon Department of Transportation *Analysis Procedure Manual (APM)*. Based on analysis of Automatic Traffic Recorder (ATR) data the seasonal peak occurs on a weekday afternoon in July[2]. A traffic count was collected in December during the weekday over a 16-hour period (6:00 a.m. to 10:00 p.m.) and the individual peak hours[3] were utilized and adjusted to reflect this seasonal peak[4]. The raw traffic counts are included in the Appendix.

INTERSECTION PERFORMANCE MEASURES

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. Agencies often incorporate these performance measures into their mobility standards. Descriptions are given below:

- **Level of service (LOS):** A "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hours travel demand. LOS D and E are progressively worse operation conditions. LOS F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity.
- **Volume-to-capacity (v/c) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00 (generally above 0.70), congestion noticeably increases, and

[2] Based on ATR data along US 26 in Gresham (26-003).

[3] The weekday a.m. peak hour started at 7:05 a.m. and p.m. peak hour started at 3:40 p.m. at the Highway 211 and Dubarko Road intersection.

[4] The most recent five years of July and December data from ATR 26-003 (2019, 2021-2024) was utilized to develop a calculated seasonal factor of 1.08 for the weekday period.

performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Jurisdictional Mobility Targets

The City of Sandy operating standards require that a level of service "D" or better be maintained for any signalized intersection and unsignalized intersections with stop control on the minor approach, and a volume-to-capacity ratio of less than or equal to 0.90 on each intersection approach at roundabouts.

Existing Intersection Operations

Motor vehicle conditions were evaluated during the weekday a.m. and p.m. peak hours using the *Highway Capacity Manual, 6th Edition* (HCM)[5] methodologies. Synchro reports can be found in the appendix.

As shown in Table 4, the Highway 211 and Dubarko Road intersection operates with a LOS "E" for the Dubarko Road approach in the p.m. peak hour, which does not meet the current mobility target. A summary of alternatives considered to mitigate the impact at this intersection is provided later in this document.

TABLE 4: 2026 INTERSECTION OPERATIONS AT HIGHWAY 211 AND DUBARKO ROAD

INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	WEEKDAY A.M. PEAK HOUR (30 HV)			WEEKDAY P.M. PEAK HOUR (30 HV)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
HIGHWAY 211/ DUBARKO ROAD	Two-Way Stop Control	LOS D	C	18	0.27	**E**	36	0.42

Note: Intersection operations are reported for the worst minor street movement.

FUTURE TRANSPORTATION CONDITIONS

This section summarizes future year conditions and identifies how the Highway 211 and Dubarko Road intersection will function in the future. Included is a summary of future travel estimates, intersection operational performance, and recommended intersection configurations.

[5] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

PLANNING HORIZON AND SCENARIOS

The planning horizon selected for analysis is the year 2040, which represents the horizon year for the Sandy Transportation System Plan (TSP). Additionally, the horizon year of 2030 was also analyzed, which represents the short-term horizon forecast.

Future 2030 and 2040 traffic forecasts were prepared for three alternatives, all of which include no changes to the existing intersection, but one that also includes the planned eastward extension of Dubarko Road from Meadow Avenue to US 26 (Sandy TSP Project D20). An evaluation of different lane configurations for the Highway 211 approaches to Dubarko Road and for the Dubarko Road approaches to Highway 211 is provided later in this document. The three scenarios shown below include the following assumptions:

- **2030 No-Build (without the Dubarko Road extension) –** Existing traffic volumes plus background traffic growth through 2030, with the existing lane configurations.
- **2040 No-Build (without the Dubarko Road extension) –** Existing traffic volumes plus background traffic growth through 2040, with the existing lane configurations.
- **2040 Build (with the Dubarko Road extension) –** Existing traffic volumes plus background traffic growth through 2040, with the rerouted traffic associated with the east extension of Dubarko Road to US 26 and the existing lane configurations.

FUTURE MOTOR VEHICLE VOLUMES

The motor vehicle volumes for 2030 and 2040 consist of the existing traffic volumes and background traffic growth. Background traffic volume growth for the a.m. and p.m. peak hours through 2040 was estimated by applying an average growth factor based on the 2020 and 2040 traffic volumes at the Highway 211 and Dubarko Road intersection from the Sandy TSP. The growth was incrementally applied to the 2026 count data collected at Highway 211 and Dubarko Road to the future forecast years of 2030 and 2040 both without and with the east extension of Dubarko Road to US 26.

FORECASTED 2030 AND 2040 INTERSECTION OPERATIONS

Table 5 shows the forecasted 2030 and 2040 intersection operations at the Highway 211 and Dubarko Road intersection, both without and with the east extension of Dubarko Road to US 26. As shown, the intersection is expected to continue to exceed the mobility target during the p.m. peak hour as it did under 2026 existing conditions. In fact, the average delay for the Dubarko Road approach is forecasted to increase by 22 seconds in the p.m. peak hour by 2030 and operate with a LOS "F". This substandard condition gets progressively worse through 2040 as the intersection is forecasted to see a significant increase in delay in both the a.m. and p.m. peak hours and operate with a LOS "F", both without and with the east extension of Dubarko Road to US 26.

A summary of alternatives considered to mitigate the impact at this intersection is provided later in this document. Detailed intersection operations calculation worksheets are included in the Appendix.

TABLE 5: 2030 AND 2040 INTERSECTION OPERATIONS AT HIGHWAY 211 AND DUBARKO ROAD

HIGHWAY 211 / DUBARKO ROAD	TRAFFIC CONTROL	MOBILITY TARGET	A.M. PEAK HOUR			P.M. PEAK HOUR		
			LOS	DELAY	V/C	LOS	DELAY	V/C
2030 NO-BUILD (WITHOUT THE DUBARKO ROAD EXTENSION)	Two-Way Stop Control	LOS D	C	22	0.36	**F**	58	0.60
2040 NO-BUILD (WITHOUT THE DUBARKO ROAD EXTENSION)	Two-Way Stop Control	LOS D	**F**	71	0.84	**F**	594	1.98
2040 BUILD (WITH THE DUBARKO ROAD EXTENSION)	Two-Way Stop Control	LOS D	**F**	119	1.07	**F**	311	1.46

Note: Intersection operations are reported for the worst minor street movement. The analysis assumes the existing lane configurations at the intersection, which includes a shared left turn/through lane and a right-turn lane on the southbound, eastbound and westbound approaches, and a shared left turn/through/right turn lane on the northbound approach.

ALTERNATIVE EVALUATION

Preliminary improvement options were evaluated at the Highway 211 and Dubarko Road intersection. The design alternatives were focused at the intersection as well as what would be required along the approaching segment, and were based in accordance with the Sandy TSP. The alternatives were evaluated based on the following screening measures, with a score of 2 given to an alternative that meets or fully addresses the criterion, 1 given to an alternative that somewhat addresses the criterion, and 0 given to an alternative that does not meet or negatively impacts the criterion:

- Operations – meet the mobility standard for the intersection.
- Pedestrian/Bicycle – enhance connectivity and access for pedestrians and bicyclists.
- Right-of-Way – limit right-of-way and other environmental, topographic and property impacts.
- Expected Cost – limit the overall project costs.
- Safety – improve safety for all users.

INTERSECTION CONFIGURATION AND CONTROL EVALUATION

The recommended configuration and control for the Highway 211 and Dubarko Road intersection was developed based on the identified needs at the intersection. Intersection geometries and control type supported by warrant analysis are covered in this section.

TURN LANE EVALUATION

A turn lane evaluation was assessed for the uncontrolled Highway 211 approaches at the Dubarko Road intersection using the existing 2026 traffic volumes.

The analysis found that a northbound and southbound left-turn lane on Highway 211 would be warranted during both the a.m. and p.m. peak hours, and a northbound right-turn lane on Highway 211 is warranted based on the p.m. peak hour volume only. The turn lane warrant calculations are in the Appendix.

SIGNAL WARRANT ANALYSIS

A signal warrant analysis for the Highway 211 and Dubarko Road intersection was analyzed following the Manual on Uniform Traffic Control Devices (MUTCD) Warrants[6]. The warrants were evaluated using the forecasted 2030 and 2040 traffic volumes. The number of lanes used in the warrant analysis for Dubarko Road was based on the existing geometry, which included separate left/through and right turn lanes on the approaches, and therefore right turn discounts were applied to warrant volumes[7]. The result was none of the forecasted right turn volume was included in the warrant analysis for the Dubarko Road approach.

The results of the warrant analysis are shown in Table 6, with the intersection projected to meet the eight-hour (Warrant #1) and the crash experience (Warrant #7) warrant by 2030, and the four-hour (Warrant #2) and the peak hour (Warrant #3) warrant by 2040. More details on warrant analysis can be found in the Appendix.

TABLE 6: HIGHWAY 211 AND DUBARKO ROAD INTERSECTION SIGNAL WARRANT ANALYSIS

WARRANT	WARRANT MET?	
	2030 P.M. PEAK HOUR	2040 P.M. PEAK HOUR
WARRANT 1: EIGHT-HOUR VEHICULAR VOLUME	**Yes**	**Yes**
WARRANT 2: FOUR-HOUR VEHICULAR VOLUME	No	**Yes**
WARRANT 3: PEAK HOUR	No	**Yes**
WARRANT 7: CRASH EXPERIENCE	**Yes**	**Yes**

ALL-WAY STOP CONTROL REVIEW

The installation of any stop sign must meet the Manual on Uniform Traffic Control Devices (MUTCD) standards[8]. Research has shown that the installation of stop signs, while reducing roadway speeds immediately adjacent to the stop sign, has no effect on overall neighborhood speed limit compliance, and unwarranted stop signs tend to have a lower driver compliance rate.

Based on the criteria from the MUTCD for installing stop signs and findings related to the Highway 211 and Dubarko Road intersection, the all-way stop criteria is not met because the minor street

[6] Manual on Uniform Traffic Control Devices, 2009 Edition, Chapter 4C. Based on Warrants #1, #2, #3 and #7.

[7] Right turn discount based on 85 percent of the unsignalized right lane capacity.

[8] Manual on Uniform Traffic Control Devices, 11th Edition, Federal Highway Administration, December 2025.

approaches do not meet the minimum volume thresholds, and therefore all-way stop control is not recommended.

INTERSECTION CONTROL EVALUATION

The Highway 211 and Dubarko Road intersection was identified as exceeding the mobility target in 2026 and this substandard condition is expected to become progressively worse through 2040. The following improvement options were analyzed at the Highway 211 and Dubarko Road intersection using the forecasted 2040 traffic volumes without the east extension of Dubarko Road to US 26. These volumes were selected for this evaluation since it represents the critical analysis period.

- **Two-way Stop** – the existing control at the intersection is maintained, with stop control on the Dubarko Road approaches.
  - A new northbound and southbound left-turn lane and northbound right-turn lane will be tested since the warrants are expected to be met.
  - A new eastbound and westbound left turn lane will be tested.
- **Roundabout** – the intersection will be controlled with a single-lane roundabout.
- **Traffic signal** - the intersection will be controlled with a traffic signal. The traffic signal warrant is expected to be met by 2030.

TRAFFIC OPERATIONS

As shown in Table 7, only the roundabout and traffic signal (with some turn lane improvements) would be expected to allow for the intersection to meet the mobility target through 2040 during the peak hours. Under the roundabout option the intersection is forecasted to operate with a LOS "B" and v/c of 0.66 or better through 2040.

The traffic signal option is not expected to meet the current mobility target with the current configuration at the intersection and was further evaluated with different configurations to see if they allow the current mobility target to be met through 2040. The analysis (shown in Table 7) initially assumed the current configuration with a shared northbound left/through/right turn lane and shared southbound left/through lane and right-turn lane on the Highway 211 approaches to Dubarko Road, and instead a configuration that includes a separate left turn lane was assumed, to include a left turn lane and shared through/right-turn lane for both approaches. The analysis shows that this configuration provides some benefit to these approaches at the intersection, but it will be expected to continue to operate with LOS "E" in 2040 during the a.m. peak hour and a v/c well above 1.0 during both peak hours. This is mainly caused by a high amount of delay that will continue to be experienced with the shared left/through lane configuration for the eastbound and westbound approaches at the intersection.

The traffic signal option was further evaluated with a separate left turn lane for the eastbound and westbound approaches, while maintaining the existing configuration for the northbound and southbound approaches. The existing shared left/through and right turn lane configuration on both approaches would be modified to include a left-turn lane and shared through/right-turn lane. The analysis shows that this configuration would be expected to mitigate the forecasted substandard

condition during the a.m. peak hour, but it is expected to continue to operate with LOS "E" in 2040 during the p.m. peak hour. This configuration requires the northbound and southbound approaches to operate with split phase signal timing, meaning these approaches receive green time at the signal during separate phases (i.e., the northbound approach is held while the southbound approach receives its green phase time, and the southbound approach is held while the northbound approach receives its green phase time). This type of phasing is less efficient when compared to standard phasing where they receive green time at the same time.

Another test was done for the traffic signal option that included both the modified configurations evaluated for the eastbound and westbound, and northbound and southbound approaches. For this test, a left turn lane and shared through/right-turn lane was assumed for each approach. The analysis shows that this configuration would be expected to mitigate the forecasted substandard condition, and the intersection would be expected to operate with a LOS "C" and a v/c of 0.64 or better during the peak hours of 2040. This configuration allows for the split phase signal timing to be replaced with standard phasing for the northbound and southbound approaches, which is expected to decrease the delay by up to 42 seconds during the peak hours in 2040 when compared to the option that only modified the eastbound and westbound approaches and therefore included it.

The two-way stop control option was also further evaluated with different configurations, but none allowed for the current mobility target to be met through 2040 without changes to the existing traffic control at the intersection (see Table 7). The analysis tested configurations that included separate left turn lanes on the northbound and southbound approaches, a separate right turn lane on the northbound approach, and separate left turn lanes on the eastbound and westbound approaches. The analysis shows that while these configurations provide some negligible benefit to these approaches at the intersection, it will be expected to continue to operate with LOS "E" or LOS "F" in 2040 during the peak hours.

TABLE 7: HIGHWAY 211 AND DUBARKO ROAD INTERSECTION CONTROL OPTIONS

INTERSECTION CONTROL	MOBILITY TARGET	2040 AM PEAK HOUR			2040 PM PEAK HOUR		
		LOS	DELAY	V/C	LOS	DELAY	V/C
TWO-WAY STOP CONTROL, EXISTING CONFIGURATION*	LOS D	A/**F**	9/71	0.09/ 0.84	A/**F**	9/594	0.37/ 1.98
TWO-WAY STOP CONTROL, EXISTING CONFIGURATION* WITH NEW NORTHBOUND AND SOUTHBOUND LEFT-TURN LANES		A/**F**	9/67	0.07/ 0.82	A/**F**	9/486	0.26/ 1.76
TWO-WAY STOP CONTROL, EXISTING CONFIGURATION* WITH NEW NORTHBOUND RIGHT-TURN LANE		A/**F**	9/64	0.09/ 0.81	A/**F**	9/486	0.30/ 1.76
TWO-WAY STOP CONTROL, EXISTING CONFIGURATION* WITH NEW EASTBOUND AND WESTBOUND LEFT-TURN LANE		A/**E**	9/42	0.09/ 0.53	A/**F**	9/445	0.37/ 1.44
ROUNDABOUT	0.90 V/C	A/B	8/13	0.52/ 0.46	B/B	13/10	0.66/ 0.33
TRAFFIC SIGNAL, EXISTING CONFIGURATION*	LOS D	**F**	82	2.29	**F**	96	1.61
TRAFFIC SIGNAL, EXISTING CONFIGURATION* WITH NEW NORTHBOUND AND SOUTHBOUND LEFT-TURN LANE, AND REMOVAL OF SOUTHBOUND RIGHT-TURN LANE		**E**	69	2.52	C	22	1.30
TRAFFIC SIGNAL, EXISTING CONFIGURATION* WITH NEW EASTBOUND AND WESTBOUND LEFT-TURN LANE, AND REMOVAL OF EASTBOUND AND WESTBOUND RIGHT-TURN LANES		C	21	0.64	**E**	56	0.90
TRAFFIC SIGNAL, EXISTING CONFIGURATION* WITH NEW NORTHBOUND, SOUTHBOUND, EASTBOUND AND WESTBOUND LEFT-TURN LANES, AND REMOVAL OF SOUTHBOUND, EASTBOUND AND WESTBOUND RIGHT-TURN LANES		C	21	0.61	B	14	0.64

Note: Intersection operations are reported for the entire intersection at traffic signals, and for the worst major/minor turn movement at roundabouts and two-way stop control intersections.
* Existing configuration includes a shared left turn/through lane and a right-turn lane on the southbound, eastbound and westbound approaches, and a shared left turn/through/right turn lane on the northbound approach.

PEDESTRIAN AND BICYCLE

The design for both the signal and roundabout alternatives can include pedestrian crossings on all approaches and accommodate cyclists through the intersection. The roundabout alternative will also include splitter islands and reverse curves approaching the roundabout to lower speeds through the intersection and enhance the safety of pedestrian crossings, while the traffic signal option will include controlled pedestrian crossings for each movement.

The two-way stop control alternative will result in uncontrolled traffic flow along Highway 211, which could lead to higher travel speeds through the Dubarko Road intersection and make the pedestrian crossings more challenging.

Outside of the immediate intersection, people walking and biking will be served by the existing sidewalks on Dubarko Road and on the west side of Highway 211 north of Dubarko Road, and the existing bike lanes on Dubarko Road.

PEDESTRIAN CROSSING EVALUATION

The need for new pedestrian crossings was evaluated with the uncontrolled traffic flow along Highway 211 to understand the recommended treatment at the potential pedestrian crossings. The crossing treatment evaluation was performed following guidance procedures in the National Cooperative Highway Research Program (NCHRP) Report 562 Pedestrian Crossing Analysis workbook. The analysis suggests that the Highway 211 crossing should include a pedestrian hybrid beacon given the posted speed and traffic volume at this location. The Sandy TSP includes a planned project that would provide crossing improvements to the Highway 211 and Dubarko Road intersection (Sandy TSP Project ID C2). This planned project would address the crossing deficiency, although it is currently not funded. However, the pedestrian hybrid beacon is not considered a feasible interim improvement at the intersection for the signal or roundabout alternatives since it does not resolve the substandard intersection operations that exist today and that are expected to get progressively worse by 2030. These alternatives are assumed to resolve the substandard intersection operations and address the pedestrian crossing need at the intersection. The pedestrian hybrid beacon is assumed to be required with the two-way stop alternative as part of the alternative evaluation process.

RIGHT OF WAY, ENVIRONMENTAL, TOPOGRAPHIC AND PROPERTY IMPACTS

The traffic signal alternative assumes that separate left-turn lanes are needed on each approach. All turn lanes will need to be designed to accommodate the 2040 p.m. peak hour 95th percentile queues to allow for adequate deceleration before vehicles reach the back of queue. The right-of-way needs associated with the traffic signal alternative are driven by the design guidance for Highway 211 and Dubarko Road, the curb returns, and the area required for the placement of signal equipment. A preliminary roadway design concept (shown in Figure 2) was prepared for the

intersection to show the recommended traffic signal and left-turn lane improvements[9]. The preliminary concept estimates that about 25,000 square feet of new pavement will be needed, with some widening required along Dubarko Road to provide the new left-turn lanes on the eastbound and westbound approaches and along the west side of Highway 211 to provide the new left-turn lanes on the northbound and southbound approaches. A retaining wall of approximately 6,500 square feet will also be required to accommodate the roadway widening along the west side of Highway 211, south of Dubarko Road. More details on the preliminary roadway concept can be found in the appendix.

The roundabout alternative assumes single-lane entries and exits on all approaches, with a WB-67 design vehicle. This requires the roundabout to have an inscribed circle diameter of approximately 115 feet. The posted speed along the segment of Highway 211 at Dubarko Road is 45 mph and is sloped downhill as it approaches from the north, which will also require special design considerations such as longer splitter islands or reversing curves approaching the roundabout to transition the roadside environment from higher to lower speeds approaching the roundabout intersection. There are significant topographic challenges surrounding the intersection, and any shift in the roadway alignment will likely result in significant costs associated with grading and potential retaining walls. This will also impact adjacent parcels and would require significant right-of-way acquisition to allow for the construction of the roundabout and associated approaches.

[9] Preliminary Roadway Concept for the Highway 211/Dubarko Road intersection. Prepared by HHPR.

FIGURE 2: PRELIMINARY CONCEPT FOR TRAFFIC SIGNAL AND LEFT-TURN LANE IMPROVEMENTS

CONCEPTUAL CONSTRUCTION COSTS

Conceptual cost estimates were prepared for the improvement alternatives using planning-level quantities and unit prices based on similar work for other projects. The estimates provided include the assumed traffic control and associated work to the approaches, and the assumed costs for project design and construction engineering. These estimates do not include the costs associated with acquisition of right-of-way, although the traffic signal option is not expected to require additional right-of-way. As shown in Table 8, the traffic signal alternative would have an estimated construction cost of $3.8 million which is $3.3 million below the estimated construction cost of the single-lane roundabout at $7.1 million. The project design estimate is $700,000 for the traffic signal and about $1.3 million for the roundabout.

The costs associated with the retaining wall, new signal equipment and the new pavement for the widened approaches will have the greatest impact on the signal costs. The roundabout costs are most influenced by the diameter of the intersection, splitter islands and new pavement and retaining walls on the realigned approaches.

OPERATING COSTS

Construction and right-of-way costs are one-time costs at the time of construction. Assumed costs for on-going operations and maintenance are summarized below. A traffic signal is estimated to have an expected total operating cost of about $100,000 through 2040, which is about $25,000 more than the roundabout at $75,000 (see Table 8).

- **Traffic Signal**
  - Signal retiming - $5,000 every 3 years
  - Lighting - $3,000 annually
  - Signal Maintenance – $4,000 annually
    - Expected total operating cost through 2040: $100,000.
- **Roundabout**
  - Lighting - $3,000 annually
  - Roundabout landscaping - $2,000 annually
    - Expected total operating cost through 2040: $75,000.

TABLE 8: PRELIMINARY COST ESTIMATES FOR IMPROVEMENT OPTIONS (2026 COSTS)

IMPROVEMENT OPTION	CONSTRUCTION COST *	PROJECT DESIGN COST ****	TOTAL OPERATING COSTS (THROUGH 2040)	TOTAL ESTIMATED COST (THROUGH 2040)
TRAFFIC SIGNAL	$3,800,000 **	$700,000	$100,000	$4,600,000
ROUNDABOUT	$7,100,000 ***	$1,325,000	$75,000	$8,500,000

Notes: * The construction estimates provided include the assumed traffic control and associated work to the approaches. These estimates do not include the costs associated with acquisition of right-of-way, although the traffic signal option is not expected to require additional right-of-way.

** Cost includes $2,830,000 for construction, $370,000 for administration/project overhead and $600,000 for contingencies.

*** Cost includes $5,325,000 for construction, $675,000 for administration/project overhead and $1,100,000 for contingencies.

**** The project design estimate provided includes the assumed costs for project design and construction engineering (assumed as 25% of construction cost).

SAFETY

One way to consider the safety enhancement of constructing a new traffic control pattern is by determining the Benefit Cost Ratio (B/C Ratio) of a solution by estimating the ratio of the total economic safety benefits compared to the cost of construction. As shown in Table 9, both the traffic signal and roundabout improvement options have a B/C ratio well above 1.0, suggesting they are cost-effective solutions. This analysis assumes the collision reduction benefit associated with 26 collisions that occurred over the 5-year period at the intersection. Below is a summary of the safety benefits that each alternative would be expected to provide at the intersection.

TABLE 9: BENEFIT COST RATIO OF IMPROVEMENT OPTIONS

IMPROVEMENT OPTION	CRASH TYPES REDUCED	CRASH TYPES INCREASED	ANNUAL ECONOMIC COLLISION REDUCTION SAVINGS	PLANNING LEVEL COST	B/C RATIO
TRAFFIC SIGNAL	Angle	Rear End	$622,000	$3,800,000	2.04
ROUNDABOUT	All Types	-	$881,000	$7,100,000	1.55

TRAFFIC SIGNAL

The conversion of a stop-controlled approach into a signalized intersection in an urban area can reduce angle crashes by up to 67 percent but will typically increase rear-end crashes by up to 143 percent[10]. This increase in rear-end collision potential is caused by the introduction of the red light to the approaches where there had previously been no traffic control. However, the signal provides vehicles on the minor streets dedicated green time to advance through the intersection without taking risky gaps in traffic, reducing the number of angle collisions. For pedestrians, bicyclists and other vulnerable roadway users, the crossings at the intersection are also safer with controlled pedestrian phases on all approaches where the traffic is stopped at the red light.

ROUNDABOUT

The conversion of a stop-controlled approach into a single-lane roundabout in an urban area can reduce all crashes at the intersection by as much as 72 percent[11]. Many of the crash types resulting in severe or fatal crashes, such as head-on and angle crashes, are significantly reduced by orienting traffic flows in one single direction and reducing the number of potential conflict points. Because of the geometry of the roundabout, vehicles speeds are reduced while circulating the intersection. The splitter islands provide pedestrian refuge which means that the largest crossing width for a pedestrian or bicyclists at the single-lane roundabout is one vehicle travel lane.

EVALUATION SUMMARY

A summary of the alternative evaluation is provided in Table 10. The traffic signal ranked the highest of the alternatives and followed by the roundabout alternative and were the only alternatives that did not result in a fatal flaw for any of the criterion. The traffic signal fully addressed the respective criterion in four of the measures (i.e., operations, pedestrian/bicycle, expected cost and safety), and partially addressed the criterion in the remaining measure (i.e., property impact). However, the traffic signal option requires a separate left turn lane for each approach to allow for the intersection to meet the current mobility target during the peak hours through 2040.

The roundabout would result in more significant property impacts and a higher expected construction cost compared to the traffic signal alternative. This is mainly caused by the high posted speed and slopes approaching the intersection requiring special design considerations such as longer splitter islands or reversing curves approaching the roundabout to transition the roadside environment from higher to lower speeds. This will also impact adjacent parcels and would require significant right-of-way acquisition to allow for the construction of the roundabout and associated

[10] CMF ID: 323 and CMF ID: 324, Federal Highway Administration, CMFClearinghouse.org.

[11] CMF ID: 206, Federal Highway Administration, CMFClearinghouse.org.

approaches. However, the roundabout fully addressed the respective criterion in three of the measures (i.e., operations, pedestrian/bicycle, and safety).

The two-way stop alternative results in a fatal flaw for the operations criterion, as shown in Table 10, and would be expected to result in significant delays for people at the intersection. This alternative will also require the provision of a pedestrian hybrid beacon on Highway 211 at the Dubarko Road crossing to address the pedestrian and bicycle crossing deficiency given the posted speed and traffic volume at this location.

TABLE 10: IMPROVEMENT OPTION EVALUATION SUMMARY

IMPROVEMENT OPTION	OPERATIONS	PEDESTRIAN /BICYCLE	PROPERTY IMPACT	EXPECTED COST	SAFETY	OVERALL RANK
TWO-WAY STOP CONTROL	FF	○	●	●	○	FF
TRAFFIC SIGNAL	●	●	◒	●	●	1
ROUNDABOUT	●	●	○	○	●	2

Notes: ● = Option meets or fully addresses the criterion; ◒ = Option somewhat addresses the criterion; ○ = Option does not meet or negatively impacts the criterion; FF= Option results in a fatal flaw for the criterion.

INTERSECTION RECOMMENDATIONS

Overall, the Highway 211 and Dubarko Road intersection was identified as exceeding the mobility target in 2026 and this substandard condition is expected to get progressively worse through 2040 both without and with planned eastward extension of Dubarko Road from Meadow Avenue to US 26 (Sandy TSP Project D20). The traffic signal was the highest-ranking improvement alternative and is recommended at the Highway 211 and Dubarko Road intersection. The intersection is forecasted to be substandard and meet warrants by 2030. It is recommended to include modified configurations for the eastbound and westbound, and northbound and southbound approaches, to include a left turn lane and shared through/right-turn lane on each.

Based on the criteria for left-turn phasing in the ODOT Traffic Signal Policy and Guidelines, the left-turn from Highway 211 to Dubarko Road at the proposed new traffic signal was assumed to operate with protected-permissive left-turn phasing. The left-turn movements from the Dubarko Road approaches to Highway 211 will also have an exclusive lane but will operate with a permissive left-turn that will operate together under a single phase with the through movement and right-turns.

Table 11 provides a summary of peak hour operations with the recommendations during the 2030 and 2040 scenarios. The results show that the traffic signal at the intersection is needed by 2030, and that improvement can initially occur without or with the left turn lanes to allow the intersection to meet the LOS mobility target during the 2030 peak hours. Although the intersection is expected to operate with a v/c at or above 1.0 during both peak hours, despite meeting the LOS mobility target. However, those turn lanes are needed at the intersection before 2040 for the intersection to meet the mobility target during the 2040 peak hours.

TURN POCKET LENGTHS

The 95th percentile (reasonable worst-case) queues for the 2040 peak hours were estimated using the above improvement recommendations for the Highway 211 and Dubarko Road intersection. Storage lengths are recommended as follows:

- Northbound left turn pocket from Highway 211 to Dubarko Road built to provide 100 feet of storage.
- Southbound left turn pocket from Highway 211 to Dubarko Road built to provide 100 feet of storage.
- Eastbound left turn pocket from Dubarko Road to Highway 211 built to provide 100 feet of storage.
- Westbound left turn pocket from Dubarko Road to Highway 211 built to provide 125 feet of storage.

TABLE 11: HIGHWAY 211 AND DUBARKO ROAD OPERATIONS WITH RECOMMENDED IMPROVEMENTS

INTERSECTION CONTROL	AM PEAK HOUR			PM PEAK HOUR		
	LOS	DELAY	V/C	LOS	DELAY	V/C
2030 PEAK HOURS (WITHOUT THE DUBARKO ROAD EXTENSION)						
TWO-WAY STOP CONTROL, WITH A LEFT TURN LANE AND SHARED THROUGH/RIGHT-TURN LANE ON EACH APPROACH	A/C	8/19	0.09/ 0.12	A/**E**	9/49	0.25/ 0.35
TRAFFIC SIGNAL, EXISTING CONFIGURATION*	C	29	1.23	D	47	0.97
TRAFFIC SIGNAL, WITH A LEFT TURN LANE AND SHARED THROUGH/RIGHT-TURN LANE ON EACH APPROACH	B	11	0.39	B	11	0.45
2040 PEAK HOURS (WITHOUT THE DUBARKO ROAD EXTENSION)						
TRAFFIC SIGNAL, EXISTING CONFIGURATION*	**F**	82	2.29	**F**	96	1.61
TRAFFIC SIGNAL, WITH A LEFT TURN LANE AND SHARED THROUGH/RIGHT-TURN LANE ON EACH APPROACH	C	21	0.61	B	14	0.64
2040 PEAK HOURS (WITH THE DUBARKO ROAD EXTENSION)						
TRAFFIC SIGNAL, EXISTING CONFIGURATION*	**F**	143	2.14	**F**	161	6.54
TRAFFIC SIGNAL, WITH A LEFT TURN LANE AND SHARED THROUGH/RIGHT-TURN LANE ON EACH APPROACH	B	15	0.60	B	16	0.61

Note: Mobility target is LOS D for traffic signals and two-way stop control intersections.
Intersection operations are reported for the entire intersection at traffic signals, and for the worst major/minor turn movement at two-way stop control intersections.
* Existing configuration includes a shared left turn/through lane and a right-turn lane on the southbound, eastbound and westbound approaches, and a shared left turn/through/right turn lane on the northbound approach.

The downhill slopes approaching the intersection could make it prone to slippery driving conditions during the winter season, especially as drivers attempt to stop. The potential challenging conditions for drivers would be expected to occur for any type of traffic control installed at the intersection, including a traffic signal or roundabout. Some options that have been implemented to help detect, warn drivers, or control snow and ice in other areas are summarized below. These could be implemented at the intersection to help alleviate some of the challenges for drivers during the winter season.

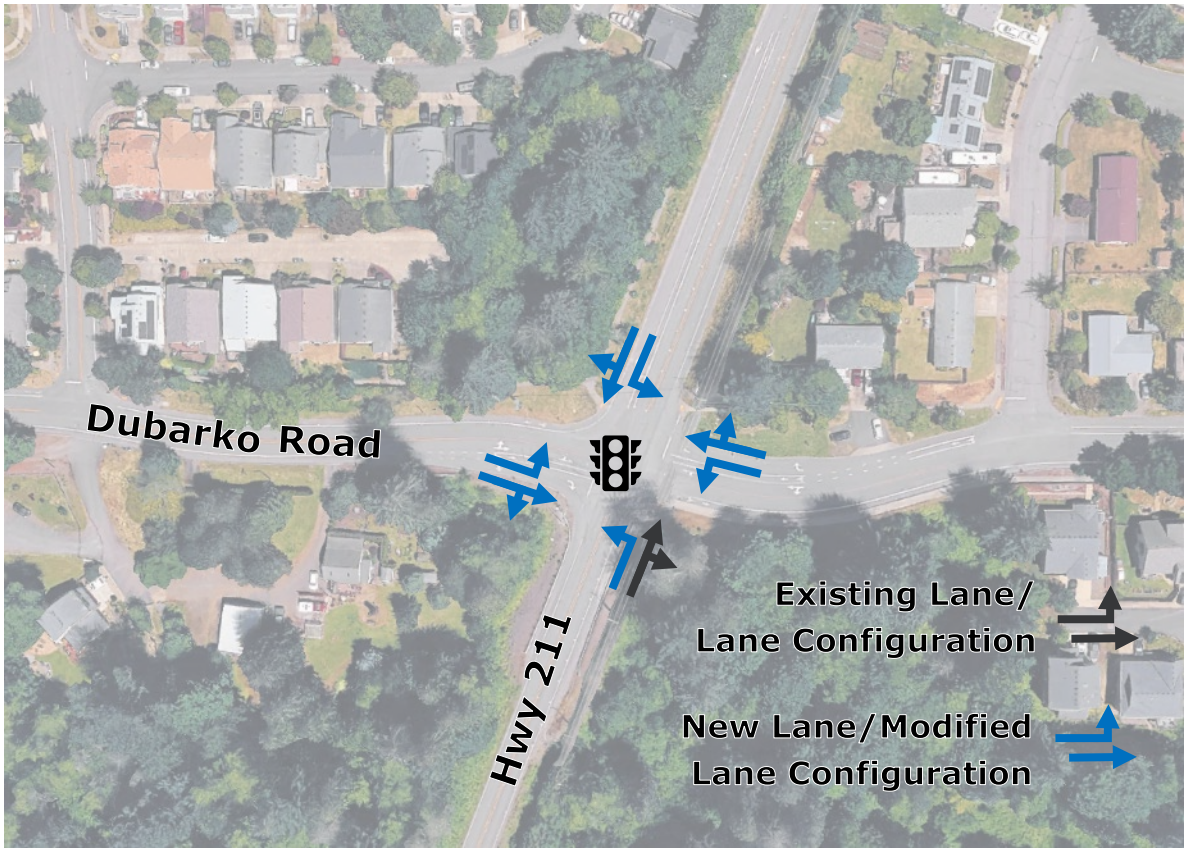
- **Icy road warning system:** Icy road warning systems detect when conditions are favorable for ice to form on approaching roadways and then activate LED-enhanced warning alerts that are programmed to flash during icy conditions, prompting drivers to slow down and take caution.
- **"Rest in Red" technology for traffic signals:** Traffic signals with "rest in red" technology can display red lights in all directions, turning green only when sensors detect an approaching vehicle. This system is designed to curb speeding by triggering a red light if a driver is speeding over a set limit, however, it could potentially be applied in a similar way by using the detected vehicle speeds on the downhill slopes approaching the intersection during icy conditions. If the speed is over a limit to stop safely given the conditions, it could trigger a red light on the conflicting approaches. This system requires installation of smart detection technology and upgraded signal controllers.
- **Heated pavement:** Heated pavement for roadways uses embedded electric cables, hydronic tubing, or conductive concrete to maintain surface temperatures above freezing, automatically melting snow and ice to enhance safety. These systems are primarily used for critical infrastructure but come with high installation and operational costs.

SUMMARY OF INTERSECTION RECOMMENDATIONS

A summary of the recommendations at the Highway 211 and Dubarko Road intersection are provided below and shown in Figure 3. The intersection operations are substandard today and they will get progressively worse by 2030, therefore no interim improvements are recommended. The results show that the traffic signal at the intersection is needed by 2030, and that improvement should occur with the left turn lanes to allow the intersection to meet the mobility target during the 2040 peak hours.

- **Provide a traffic signal.**
  - The intersection is expected to meet the traffic signal warrant installation requirements by 2030.
- **Provide an exclusive left turn lane for each approach to the intersection.**
  - Each approach is recommended to include separate left and through/right-turn lanes on each.

FIGURE 3: SUMMARY OF HIGHWAY 211 AND DUBARKO ROAD INTERSECTION RECOMMENDATIONS



APPENDIX

CONTENTS

SECTION 1: COLLISION ANALYSIS

General & Site Information	
Agency/Company:	DKS Associates
Date:	3/20/2026
Project Name:	Sandy Intersection Control Evaluation

Intersection Crash Data

Intersection	Intersection Type	Year					Total
		2019	2020	2021	2022	2023	
Highway 211--Dubarko Rd	Urban 4ST	6	5	3	8	4	26

Intersection Population Type Crash Rate

Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Urban 4ST	26	19	1.4036	1

Critical Rate Calculation

Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate	Over Critical
Highway 211--Dubarko Rd	10,150	18.5	26	Urban 4ST	1.40	APM Exhibit 4-1	0.41	Over

Study Intersection	Total Collisions	Observed Crash Rate (per MEV)	Critical Crash Rate (per MEV)	Over Critical Crash Rate
Highway 211--Dubarko Rd	**26**	1.40	0.41	No

SECTION 2: VOLUME DATA

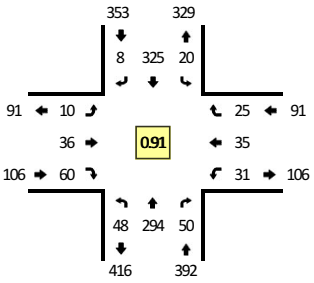
Type of peak hour being reported: Intersection Peak

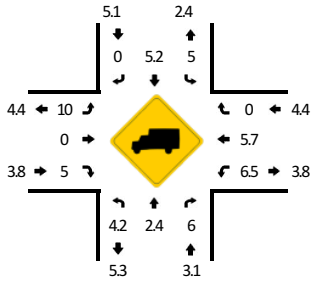
Method for determining peak hour: Total Entering Volume

LOCATION: Eagle Creek-Sandy Hwy No 172 -- Dubarko Rd
CITY/STATE: Sandy, OR

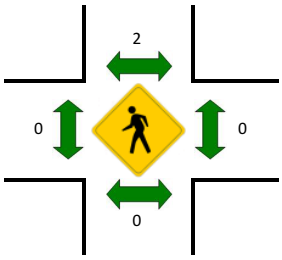
QC JOB #: 17379103
DATE: Tue, Dec 16 2025

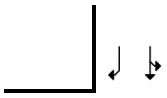
Peak-Hour: 3:40 PM -- 4:40 PM
Peak 15-Min: 3:40 PM -- 3:55 PM

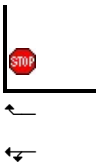


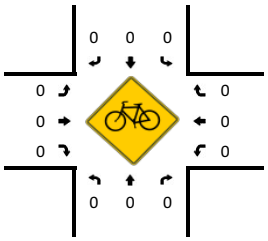


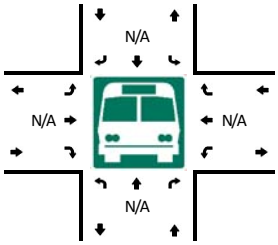
TRUE DATA TO IMPROVE MOBILITY

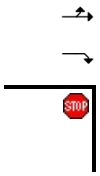


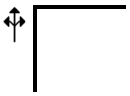


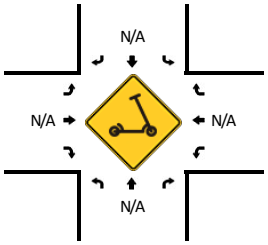












5-Min Count Period Beginning At	Eagle Creek-Sandy Hwy No 172 (Northbound)				Eagle Creek-Sandy Hwy No 172 (Southbound)				Dubarko Rd (Eastbound)				Dubarko Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	10	2	0	1	5	0	0	0	0	2	0	1	0	1	0	22	
6:05 AM	1	13	1	0	0	8	0	0	0	1	2	0	4	1	6	0	37	
6:10 AM	0	11	0	0	0	7	0	0	0	0	1	0	1	0	2	0	22	
6:15 AM	0	8	0	0	0	3	0	0	0	0	1	0	3	0	2	0	17	
6:20 AM	1	12	2	0	0	5	0	0	0	0	1	0	7	0	4	0	32	
6:25 AM	2	7	0	0	0	9	0	0	0	0	3	0	0	1	4	0	26	
6:30 AM	0	5	0	0	0	4	0	0	0	0	1	0	3	0	1	0	14	
6:35 AM	1	10	1	0	0	11	0	0	1	0	2	0	2	1	4	0	33	
6:40 AM	1	14	0	0	0	6	0	0	0	0	3	0	0	1	6	0	31	
6:45 AM	2	18	1	0	1	12	0	0	2	0	1	0	2	4	4	0	47	
6:50 AM	0	17	4	0	1	11	0	0	1	1	2	0	5	1	4	0	47	
6:55 AM	0	17	1	0	0	11	0	0	2	0	3	0	3	3	2	0	42	370
7:00 AM	2	13	2	0	0	8	0	0	0	1	3	0	3	2	0	0	34	382
7:05 AM	2	23	1	0	2	7	2	0	0	1	2	0	4	3	6	0	53	398
7:10 AM	2	19	1	0	1	6	0	0	1	1	2	0	4	0	4	0	41	417
7:15 AM	3	19	0	0	1	9	0	0	0	1	6	0	3	3	2	0	47	447
7:20 AM	1	23	2	0	1	11	0	0	0	1	5	0	2	1	4	0	51	466
7:25 AM	0	19	0	0	0	10	0	0	0	0	4	0	2	6	5	0	46	486
7:30 AM	3	20	1	0	0	10	1	0	0	0	2	0	2	5	9	0	53	525
7:35 AM	1	31	2	0	1	14	0	0	2	0	4	0	3	2	5	0	65	557
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7:45 AM	2	25	3	0	1	8	0	0	1	0	2	0	4	5	6	0	57	593
7:50 AM	6	23	2	0	0	12	0	0	0	4	3	0	8	8	4	0	70	616
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8:05 AM	2	16	1	0	1	14	0	0	0	3	2	0	3	0	5	0	47	634
8:10 AM	2	13	2	0	1	10	0	0	0	2	1	0	3	0	0	0	34	627
8:15 AM	0	11	2	0	0	19	0	0	0	1	2	0	3	3	2	0	43	623
8:20 AM	5	13	4	0	1	12	0	0	1	0	2	0	0	2	4	0	44	616
8:25 AM	4	22	1	0	0	10	0	0	1	2	0	0	6	1	1	0	48	618
8:30 AM	5	14	0	0	0	17	0	0	0	2	3	0	5	2	3	0	51	616
8:35 AM	1	29	1	0	0	18	0	0	1	2	3	0	4	6	1	0	66	617
8:40 AM	2	14	4	0	1	16	0	0	0	5	2	0	6	7	1	0	58	618
8:45 AM	3	20	1	0	0	10	0	0	3	1	2	0	3	1	1	0	45	606
8:50 AM	1	24	2	0	2	11	2	0	0	0	2	0	5	4	1	0	54	590
8:55 AM	2	24	1	0	2	14	0	0	0	1	1	0	2	1	2	0	50	582
9:00 AM	7	17	0	0	0	11	0	0	0	1	3	0	1	1	4	0	45	585
9:05 AM	2	16	0	0	3	12	0	0	0	2	1	0	1	3	1	0	41	579

5-Min Count Period Beginning At	Eagle Creek-Sandy Hwy No 172 (Northbound)				Eagle Creek-Sandy Hwy No 172 (Southbound)				Dubarko Rd (Eastbound)				Dubarko Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
9:10 AM	0	19	1	0	0	13	0	0	1	1	2	0	3	1	0	0	41	586
9:15 AM	0	25	3	0	0	10	0	0	0	2	0	0	0	0	1	0	41	584
9:20 AM	4	23	0	0	0	13	0	0	0	2	0	0	1	3	1	0	47	587
9:25 AM	1	19	3	0	0	7	2	0	0	0	2	0	2	2	2	0	40	579
9:30 AM	2	15	1	0	0	8	0	0	0	2	0	0	0	2	1	0	31	559
9:35 AM	2	14	2	0	1	7	0	0	1	1	3	0	3	3	4	0	41	534
9:40 AM	3	20	2	0	0	8	0	0	0	1	2	0	2	0	3	0	41	517
9:45 AM	1	16	1	0	0	14	0	0	1	3	3	0	1	1	3	0	44	516
9:50 AM	3	17	3	0	2	9	0	0	1	1	0	0	3	2	1	0	42	504
9:55 AM	3	23	1	0	0	11	0	0	1	0	2	0	0	0	3	0	44	498
10:00 AM	1	11	2	0	0	14	0	0	0	3	6	0	2	3	2	0	44	497
10:05 AM	1	20	2	0	0	13	1	0	3	0	0	0	1	4	2	0	47	503
10:10 AM	3	18	1	0	1	12	0	0	0	1	0	0	0	1	1	0	38	500
10:15 AM	1	21	2	0	1	3	0	0	0	3	4	0	1	1	6	0	43	502
10:20 AM	4	17	0	0	1	14	0	0	0	1	2	0	0	2	0	0	41	496
10:25 AM	1	13	2	0	0	9	0	0	1	2	2	0	2	2	1	0	35	491
10:30 AM	2	17	1	0	2	15	0	0	0	1	1	0	2	1	1	0	43	503
10:35 AM	3	23	0	0	0	13	0	0	0	0	2	0	1	2	2	0	46	508
10:40 AM	2	13	2	0	0	19	0	0	1	0	0	0	0	2	2	0	41	508
10:45 AM	1	15	4	0	0	13	0	0	0	1	2	0	0	3	3	0	42	506
10:50 AM	3	15	1	0	3	17	1	0	0	2	0	0	3	4	4	0	53	517
10:55 AM	1	20	1	0	2	14	1	0	1	1	1	0	1	0	1	0	44	517
11:00 AM	1	12	2	0	1	13	0	0	1	2	3	0	0	2	3	0	40	513
11:05 AM	1	19	2	0	0	13	0	0	0	0	1	0	1	2	1	0	40	506
11:10 AM	1	20	5	0	2	19	0	0	0	1	1	0	1	1	1	0	52	520
11:15 AM	1	18	0	0	0	14	0	0	0	0	0	0	3	4	1	0	41	518
11:20 AM	2	9	1	0	0	11	1	0	1	2	0	0	1	2	1	0	31	508
11:25 AM	2	13	0	0	0	13	1	0	0	2	5	0	3	2	0	0	41	514
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12:05 PM	3	22	4	0	1	16	0	0	0	3	0	0	2	4	3	0	58	565
12:10 PM	4	15	5	0	1	13	0	0	0	1	1	0	2	2	4	0	48	561
12:15 PM	1	24	1	0	0	16	0	0	1	1	2	0	1	2	3	0	52	572
12:20 PM	6	15	2	0	3	16	4	0	1	6	5	0	0	0	3	0	61	602
12:25 PM	0	18	1	0	2	17	0	0	1	6	2	0	0	1	2	0	50	611
12:30 PM	0	13	0	0	2	22	0	0	0	1	0	0	3	2	4	0	47	610
12:35 PM	2	12	2	0	1	18	1	0	1	1	1	0	2	5	4	0	50	611
12:40 PM	5	10	1	0	2	16	0	0	0	3	2	0	2	3	2	0	46	610
12:45 PM	3	17	0	0	1	13	1	0	0	1	2	0	2	1	1	0	42	605
12:50 PM	5	16	2	0	0	13	0	0	0	0	2	0	4	6	1	0	49	607
12:55 PM	3	14	1	0	0	19	0	0	1	0	3	0	2	2	3	0	48	606
1:00 PM	1	6	2	0	0	24	0	0	1	1	2	0	4	1	3	0	45	596
1:05 PM	4	13	1	0	1	14	0	0	1	0	7	0	1	3	3	0	48	586
1:10 PM	1	19	2	0	1	21	1	0	0	1	1	0	2	1	2	0	52	590
1:15 PM	2	11	0	0	0	12	1	0	0	2	4	0	2	1	0	0	35	573
1:20 PM	2	20	4	0	0	14	1	0	1	1	2	0	0	2	1	0	48	560
1:25 PM	1	16	1	0	1	13	1	0	2	2	6	0	2	4	1	0	50	560
1:30 PM	0	14	1	0	3	11	0	0	1	2	0	0	3	2	1	0	38	551
1:35 PM	0	20	3	0	0	10	0	0	0	3	4	0	2	2	2	0	46	547
1:40 PM	0	14	1	0	1	22	1	0	0	1	3	0	1	5	0	0	49	550
1:45 PM	2	18	2	0	0	17	3	0	1	2	3	0	2	4	0	0	54	562
1:50 PM	0	11	5	0	0	13	0	0	0	0	0	0	4	1	0	0	34	547
1:55 PM	0	14	1	0	0	16	1	0	0	1	5	0	1	3	1	0	43	542
2:00 PM	2	14	2	0	0	9	0	0	2	1	4	0	4	1	2	0	41	538
2:05 PM	2	13	0	0	2	14	0	0	0	3	2	0	2	0	3	0	41	531
2:10 PM	6	21	1	0	1	21	2	0	1	4	3	0	2	1	1	0	64	543
2:15 PM	2	19	2	0	0	14	1	0	1	5	3	0	0	1	3	0	51	559
2:20 PM	5	22	1	0	1	22	3	0	0	3	3	0	1	3	0	0	64	575
2:25 PM	2	22	3	0	2	14	0	0	0	1	1	0	1	2	2	0	50	575
2:30 PM	0	11	3	0	0	17	1	0	1	3	2	0	6	1	0	0	45	582
2:35 PM	2	16	3	0	2	17	1	0	0	1	2	0	1	5	3	0	53	589
2:40 PM	4	15	2	0	2	17	1	0	2	0	0	0	3	3	3	0	52	592
2:45 PM	3	19	1	0	1	22	0	0	1	2	2	0	2	1	1	0	55	593
2:50 PM	3	29	5	0	0	18	2	0	0	3	4	0	1	3	0	0	68	627
2:55 PM	4	22	2	0	3	18	2	0	2	5	4	0	0	4	1	0	67	651
3:00 PM	2	14	4	0	3	23	1	0	0	3	3	0	3	6	4	0	66	676
3:05 PM	7	16	6	0	2	33	3	0	0	6	6	0	2	2	3	0	86	721
3:10 PM	0	17	4	0	0	24	0	0	1	5	6	0	5	1	2	0	65	722
3:15 PM	5	21	5	0	2	19	0	0	1	2	3	0	1	2	3	0	64	735
3:20 PM	1	15	4	0	2	27	0	0	0	2	6	0	4	3	1	0	65	736
3:25 PM	1	16	3	0	2	25	2	0	1	3	7	0	1	4	2	0	67	753
3:30 PM	1	19	3	0	2	33	1	0	0	2	2	0	1	6	0	0	70	778
3:35 PM	4	17	3	0	1	30	1	0	0	4	7	0	2	1	2	0	72	797
3:40 PM	9	32	8	0	1	27	1	0	0	0	8	0	2	2	0	0	90	835
3:45 PM	4	29	5	0	2	25	0	0	0	5	5	0	4	2	2	0	83	863
3:50 PM	6	33	5	0	1	25	1	0	2	4	3	0	3	2	2	0	87	882
3:55 PM	1	22	1	0	3	30	1	0	1	3	6	0	1	3	0	0	72	887
4:00 PM	4	19	3	0	0	32	1	0	2	3	3	0	5	5	1	0	78	899
4:05 PM	5	21	0	0	3	35	1	0	1	3	7	0	1	3	2	0	82	895
4:10 PM	3	34	5	0	2	29	0	0	0	3	2	0	1	2	4	0	85	915
4:15 PM	1	19	5	0	2	18	0	0	0	4	5	0	5	1	2	0	62	913
4:20 PM	3	30	4	0	2	23	0	0	0	2	2	0	1	4	2	0	73	921
4:25 PM	4	19	6	0	2	29	1	0	0	3	4	0	1	4	4	0	77	931

5-Min Count Period Beginning At	Eagle Creek-Sandy Hwy No 172 (Northbound)				Eagle Creek-Sandy Hwy No 172 (Southbound)				Dubarko Rd (Eastbound)				Dubarko Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:30 PM	6	15	4	0	0	19	1	0	2	3	5	0	4	3	2	0	64	925
4:35 PM	2	21	4	0	2	33	1	0	2	3	10	0	3	4	4	0	89	942
4:40 PM	5	18	3	0	0	18	2	0	0	2	7	0	2	2	2	0	61	913
4:45 PM	3	26	3	0	0	28	1	0	0	4	8	0	3	0	3	0	79	909
4:50 PM	2	32	5	0	2	25	0	0	0	4	6	0	2	2	2	0	82	904
4:55 PM	3	17	5	0	4	24	0	0	0	4	2	0	0	3	2	0	64	896
5:00 PM	3	23	1	0	1	15	0	0	1	2	3	0	2	1	0	0	52	870
5:05 PM	3	15	4	0	1	35	3	0	0	3	6	0	3	2	0	0	75	863
5:10 PM	2	25	3	0	2	42	0	0	0	4	5	0	3	3	5	0	94	872
5:15 PM	3	28	9	0	2	30	0	0	1	2	5	0	4	1	5	0	90	900
5:20 PM	4	23	2	0	1	27	2	0	0	5	4	0	0	4	4	0	76	903
5:25 PM	4	21	0	0	1	27	0	0	0	4	2	0	1	1	1	0	62	888
5:30 PM	1	22	5	0	1	24	0	0	1	3	6	0	0	3	2	0	68	892
5:35 PM	5	13	4	0	2	21	0	0	0	3	5	0	2	2	5	0	62	865
5:40 PM	3	20	6	0	1	24	3	0	1	2	3	0	2	4	2	0	71	875
5:45 PM	2	9	5	0	0	16	1	0	0	6	7	0	2	3	2	0	53	849
5:50 PM	3	17	4	0	2	17	0	0	0	5	8	0	0	2	1	0	59	826
5:55 PM	4	14	2	0	1	18	0	0	0	3	3	0	2	3	1	0	51	813
6:00 PM	4	23	1	0	0	20	0	0	3	3	3	0	3	1	1	0	62	823
6:05 PM	6	10	3	0	1	25	1	0	0	2	3	0	5	2	1	0	59	807
6:10 PM	1	15	1	0	3	29	2	0	1	4	8	0	4	3	1	0	72	785
6:15 PM	2	14	3	0	2	25	0	0	0	3	1	0	1	1	1	0	53	748
6:20 PM	4	11	2	0	0	13	1	0	0	1	3	0	0	0	2	0	37	709
6:25 PM	1	12	0	0	3	17	1	0	0	5	5	0	3	0	0	0	47	694
6:30 PM	0	14	5	0	1	20	1	0	0	2	5	0	0	1	0	0	49	675
6:35 PM	1	10	1	0	1	20	1	0	2	3	2	0	0	4	1	0	46	659
6:40 PM	2	9	4	0	0	13	0	0	0	3	0	0	1	0	2	0	34	622
6:45 PM	2	9	2	0	1	17	0	0	1	3	2	0	1	2	3	0	43	612
6:50 PM	3	6	3	0	3	16	1	0	1	1	0	0	0	3	2	0	39	592
6:55 PM	1	7	2	0	3	12	1	0	1	0	2	0	1	1	2	0	33	574
7:00 PM	1	11	1	0	0	14	0	0	0	4	0	0	3	2	0	0	36	548
7:05 PM	0	10	0	0	1	18	0	0	0	1	1	0	1	1	0	0	33	522
7:10 PM	5	9	2	0	0	11	0	0	0	2	3	0	1	0	3	0	36	486
7:15 PM	2	18	2	0	0	14	2	0	1	4	4	0	1	2	3	0	53	486
7:20 PM	1	10	1	0	1	13	0	0	0	1	3	0	1	1	1	0	33	482
7:25 PM	0	5	2	0	2	11	0	0	0	2	2	0	1	0	0	0	25	460
7:30 PM	2	7	2	0	1	17	1	0	0	2	1	0	2	1	0	0	36	447
7:35 PM	0	6	1	0	2	8	0	0	0	3	3	0	3	2	1	0	29	430
7:40 PM	1	5	2	0	0	8	0	0	1	1	1	0	0	4	0	0	23	419
7:45 PM	1	2	1	0	0	8	0	0	0	1	2	0	0	1	0	0	16	392
7:50 PM	0	4	2	0	0	17	1	0	1	1	3	0	0	0	1	0	30	383
7:55 PM	1	12	0	0	2	6	0	0	0	2	1	0	0	1	1	0	26	376
8:00 PM	0	6	2	0	4	13	1	0	0	0	2	0	2	1	0	0	31	371
8:05 PM	1	8	2	0	1	14	0	0	0	3	1	0	1	2	1	0	34	372
8:10 PM	2	11	1	0	1	14	1	0	0	1	1	0	1	0	0	0	33	369
8:15 PM	0	2	0	0	1	11	1	0	1	1	1	0	0	0	1	0	19	335
8:20 PM	0	5	0	0	1	12	0	0	0	1	4	0	1	1	0	0	25	327
8:25 PM	2	9	0	0	1	4	0	0	0	1	0	0	0	4	0	0	21	323
8:30 PM	1	1	0	0	0	6	0	0	0	1	3	0	1	0	1	0	14	301
8:35 PM	1	5	0	0	1	12	1	0	0	3	1	0	1	0	0	0	25	297
8:40 PM	2	6	4	0	2	12	0	0	0	3	0	0	0	2	0	0	31	305
8:45 PM	0	6	1	0	0	9	0	0	0	0	0	0	1	1	0	0	18	307
8:50 PM	3	4	1	0	1	10	0	0	0	0	2	0	3	2	1	0	27	304
8:55 PM	1	4	1	0	1	12	0	0	0	3	2	0	2	1	0	0	27	305
9:00 PM	1	3	2	0	0	5	0	0	0	0	0	0	1	3	0	0	15	289
9:05 PM	3	7	1	0	3	4	0	0	0	1	2	0	0	0	0	0	21	276
9:10 PM	0	5	0	0	1	2	0	0	0	1	1	0	0	0	0	0	10	253
9:15 PM	0	3	0	0	1	9	0	0	0	0	0	0	0	1	0	0	14	248
9:20 PM	1	8	1	0	1	9	0	0	0	0	0	0	0	0	0	0	20	243
9:25 PM	0	2	1	0	2	8	0	0	0	1	2	0	0	1	0	0	17	239
9:30 PM	2	1	1	0	0	7	0	0	0	1	1	0	0	1	4	0	18	243
9:35 PM	0	3	1	0	0	5	0	0	0	1	0	0	0	1	1	0	12	230
9:40 PM	0	2	0	0	0	7	1	0	1	0	0	0	1	0	0	0	12	211
9:45 PM	0	4	0	0	1	3	0	0	0	0	1	0	0	2	0	0	11	204
9:50 PM	1	5	2	0	1	1	0	0	0	2	0	0	0	0	0	0	12	189
9:55 PM	0	1	0	0	0	5	0	0	0	1	1	0	0	0	0	0	8	170

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	376	72	0	16	308	8	0	8	36	64	0	36	24	16	0	1040
Heavy Trucks	8	12	4		4	20	0		0	0	4		4	4	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/22/2025 1:34 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4	41-50	4
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	41-50	1
12:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	31-40	1
01:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3	36-45	3
01:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	16-25	1
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
02:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	31-40	2
02:15 AM	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4	31-40	3
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
02:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4	26-35	2
03:00 AM	0	0	0	0	0	1	1	3	1	0	0	0	0	0	6	43-52	4
03:15 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	21-30	1
03:30 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3	41-50	3
03:45 AM	0	0	0	0	0	2	1	2	0	0	0	0	0	0	5	36-45	3
04:00 AM	0	0	0	0	1	1	1	1	2	0	0	0	0	0	6	46-55	3
04:15 AM	0	0	0	0	0	3	3	4	2	0	0	0	0	0	12	41-50	7
04:30 AM	0	0	0	1	0	5	1	6	0	0	0	0	0	0	13	41-50	7
04:45 AM	0	0	0	0	1	4	5	5	1	0	0	0	0	0	16	41-50	10
05:00 AM	0	0	0	0	1	3	15	4	1	0	0	0	0	0	24	41-50	19
05:15 AM	0	0	0	0	1	7	11	8	0	1	0	0	0	0	28	41-50	19
05:30 AM	0	0	0	1	2	6	11	12	3	1	0	0	0	0	36	41-50	23
05:45 AM	0	0	0	0	1	3	10	7	3	2	0	0	0	0	26	41-50	17
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 AM	0	0	0	0	3	4	13	17	3	1	0	0	0	0	41	41-50	30
06:15 AM	2	0	0	0	0	8	14	8	5	0	**1**	0	0	0	38	39-48	22
06:30 AM	0	0	0	1	4	7	17	11	1	1	0	0	0	0	42	41-50	28
06:45 AM	1	0	0	0	4	19	26	9	1	0	1	0	0	0	61	36-45	45
07:00 AM	0	0	0	1	**9**	17	20	12	2	0	0	0	0	0	61	36-45	37
07:15 AM	1	0	0	1	7	27	30	5	2	0	0	0	0	0	73	36-45	57
07:30 AM	0	0	0	2	4	**33**	41	16	1	0	0	0	0	0	**97**	36-45	74
07:45 AM	2	0	0	**3**	2	18	**44**	18	2	0	1	0	0	0	90	40-49	62
08:00 AM	0	0	0	0	1	7	28	19	2	0	0	0	0	0	57	41-50	47
08:15 AM	0	0	0	0	3	12	16	16	6	0	1	0	0	0	54	41-50	32
08:30 AM	1	0	0	1	4	9	25	14	6	0	0	0	0	0	60	41-50	39
08:45 AM	0	0	0	0	4	17	19	24	8	2	0	0	0	0	74	41-50	43
09:00 AM	**4**	0	0	0	2	3	20	21	**9**	1	0	0	0	0	60	41-50	41
09:15 AM	0	0	0	0	3	9	22	**25**	8	1	0	0	0	0	68	41-50	47
09:30 AM	0	0	0	1	1	11	21	15	6	0	0	**1**	0	0	56	41-50	36
09:45 AM	0	0	0	0	2	14	26	23	5	0	0	0	0	0	70	41-50	49
10:00 AM	2	0	0	1	3	9	19	19	5	0	0	0	0	0	58	41-50	38
10:15 AM	3	0	0	1	5	11	20	13	3	**3**	0	0	0	0	59	41-50	33
10:30 AM	3	0	1	1	1	10	18	14	4	1	0	0	0	0	53	41-50	32
10:45 AM	0	0	0	1	5	17	12	16	8	1	0	0	0	0	60	36-45	29
11:00 AM	2	0	0	0	0	5	21	20	8	2	0	0	0	0	58	41-50	41
11:15 AM	0	0	0	0	1	4	20	14	4	0	1	0	0	0	44	41-50	34
11:30 AM	0	0	0	0	1	10	19	18	0	0	0	0	0	0	48	41-50	37
11:45 AM	1	0	0	0	2	8	18	19	5	1	0	0	0	0	54	41-50	37
Day Total																	
Percent																	
AM Peak																	
15-min Vol																	
PM Peak																	
15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 PM	0	0	0	0	1	9	22	23	10	0	0	0	0	0	65	41-50	45
12:15 PM	1	0	0	**2**	4	13	21	15	5	1	0	0	0	0	62	41-50	36
12:30 PM	0	0	0	0	2	9	19	12	3	3	**1**	0	0	0	49	41-50	31
12:45 PM	1	0	0	0	2	5	14	16	**14**	0	0	0	0	0	52	46-55	30
01:00 PM	1	0	0	0	2	5	17	13	8	1	0	0	0	0	47	41-50	30
01:15 PM	0	0	0	0	1	7	15	19	9	2	0	0	0	0	53	41-50	34
01:30 PM	1	0	0	0	0	5	20	17	5	2	0	0	0	0	50	41-50	37
01:45 PM	1	0	0	0	0	5	15	13	4	3	1	0	0	0	42	41-50	28
02:00 PM	2	0	0	0	1	12	15	22	5	0	0	0	0	0	57	41-50	37
02:15 PM	2	0	0	0	1	8	19	**33**	6	1	0	0	0	0	70	41-50	52
02:30 PM	0	0	0	2	3	2	12	23	7	1	0	0	0	0	50	41-50	35
02:45 PM	2	0	0	0	2	8	23	32	6	1	1	0	0	0	75	41-50	55
03:00 PM	2	0	0	0	0	9	19	21	8	0	0	0	0	0	59	41-50	40
03:15 PM	0	0	0	0	4	7	20	18	8	0	0	0	0	0	57	41-50	38
03:30 PM	4	0	0	0	0	3	25	25	9	3	0	0	0	**1**	70	41-50	50
03:45 PM	1	0	0	0	2	9	37	29	14	0	0	0	0	0	**92**	41-50	66
04:00 PM	2	0	0	0	2	6	**40**	21	7	3	0	0	0	0	81	41-50	61
04:15 PM	2	0	0	0	0	13	30	20	10	3	0	0	0	0	78	41-50	50
04:30 PM	3	0	0	0	1	14	28	11	4	**4**	1	0	0	0	66	36-45	42
04:45 PM	3	0	0	0	2	16	39	16	3	0	0	0	0	0	79	41-50	55
05:00 PM	0	0	0	0	**6**	22	21	14	1	0	0	0	0	1	65	36-45	43
05:15 PM	5	0	0	0	4	**27**	30	15	2	0	0	0	0	0	83	36-45	57
05:30 PM	**6**	0	0	0	4	8	30	11	1	0	0	0	**1**	0	61	41-50	41
05:45 PM	0	0	0	1	1	11	16	14	3	1	0	0	0	0	47	41-50	30
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

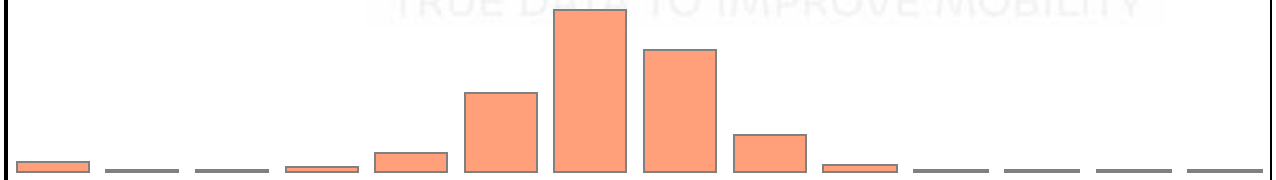
Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 PM	1	0	0	1	0	9	28	10	4	0	0	0	0	0	53	41-50	38
06:15 PM	0	0	0	0	1	5	20	13	0	0	0	0	0	0	39	41-50	33
06:30 PM	1	0	0	1	1	9	15	9	2	0	0	0	1	0	39	39-48	24
06:45 PM	1	0	0	0	2	6	11	9	2	0	0	0	0	0	31	41-50	20
07:00 PM	1	0	0	1	2	8	15	3	2	0	0	0	0	0	32	36-45	23
07:15 PM	0	0	0	0	1	6	17	7	5	1	0	0	0	0	37	41-50	24
07:30 PM	0	0	0	0	1	6	5	7	0	1	0	0	0	0	20	41-50	12
07:45 PM	1	0	0	0	1	4	8	5	1	0	0	0	0	0	20	41-50	13
08:00 PM	1	0	0	1	0	5	11	5	2	1	0	0	0	0	26	36-45	16
08:15 PM	0	0	0	0	0	8	5	3	3	0	0	0	0	0	19	36-45	13
08:30 PM	0	0	0	0	2	1	5	4	0	0	0	0	0	0	12	41-50	9
08:45 PM	0	0	0	0	1	1	9	4	2	0	0	0	0	0	17	41-50	13
09:00 PM	0	0	0	0	1	3	5	5	0	0	0	0	0	0	14	41-50	10
09:15 PM	1	0	0	1	2	2	4	4	0	0	0	0	0	0	14	41-50	8
09:30 PM	0	0	0	0	2	1	5	2	0	0	0	0	0	0	10	41-50	7
09:45 PM	0	0	0	0	0	3	3	2	1	0	0	0	0	0	9	36-45	6
10:00 PM	0	0	0	0	0	1	8	4	1	0	0	0	0	0	14	41-50	12
10:15 PM	0	0	0	0	1	2	3	6	2	0	0	0	0	0	14	41-50	9
10:30 PM	0	0	0	0	0	3	4	0	0	0	0	0	0	0	7	36-45	7
10:45 PM	0	0	0	0	0	4	2	2	0	0	0	0	0	0	8	36-45	6
11:00 PM	0	0	0	0	0	0	0	3	2	0	0	0	0	0	5	46-55	5
11:15 PM	0	0	0	0	0	2	1	1	1	0	0	0	0	0	5	36-45	3
11:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	41-50	2
11:45 PM	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3	41-50	2
Day Total	68	0	2	27	147	651	1330	1006	299	50	9	1	2	2	3594	41-50	2336
Percent	1.9%	0%	0.1%	0.8%	4.1%	18.1%	37%	28%	8.3%	1.4%	0.3%	0%	0.1%	0.1%			



AM Peak	9:00 AM	12:00 AM	1:15 AM	7:45 AM	7:00 AM	7:30 AM	7:45 AM	9:15 AM	9:00 AM	10:15 AM	6:15 AM	9:30 AM	12:00 AM	12:00 AM	7:30 AM		
15-min Vol	4	0	1	3	9	33	44	25	9	3	1	1	0	0	97		
PM Peak	5:30 PM	12:00 PM	12:00 PM	12:15 PM	5:00 PM	5:15 PM	4:00 PM	2:15 PM	12:45 PM	4:30 PM	12:30 PM	12:00 PM	5:30 PM	3:30 PM	3:45 PM		
15-min Vol	6	0	0	2	6	27	40	33	14	4	1	0	1	1	92		

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

SUMMARY - Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Speed Range	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	68	0	2	27	147	651	1330	1006	299	50	9	1	2	2	3594	41-50	2336
Percent	1.9%	0%	0.1%	0.8%	4.1%	18.1%	37%	28%	8.3%	1.4%	0.3%	0%	0.1%	0.1%			
Cumulative Percent	1.9%	1.9%	1.9%	2.7%	6.8%	24.9%	61.9%	89.9%	98.2%	99.6%	99.9%	99.9%	99.9%	100%			

ADT
3594

85th Percentile: 49 MPH
Mean Speed(Average): 43 MPH
Median: 43 MPH
Mode: 43 MPH

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
12:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
01:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:15 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
03:00 AM	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
03:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:45 AM	0	3	0	0	2	0	0	0	0	0	0	0	0	0	5
04:00 AM	0	3	1	0	2	0	0	0	0	0	0	0	0	0	6
04:15 AM	0	10	1	0	1	0	0	0	0	0	0	0	0	0	12
04:30 AM	0	9	3	0	1	0	0	0	0	0	0	0	0	0	13
04:45 AM	0	11	1	0	4	0	0	0	0	0	0	0	0	0	16
05:00 AM	0	16	4	0	3	0	0	0	0	1	0	0	0	0	24
05:15 AM	0	11	5	0	12	0	0	0	0	0	0	0	0	0	28
05:30 AM	0	17	7	0	10	0	0	0	1	1	0	0	0	0	36
05:45 AM	0	11	4	0	11	0	0	0	0	0	0	0	0	0	26
Day Total															
Percent															
ADT 3594															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 AM	0	26	8	0	7	0	0	0	0	0	0	0	0	0	41
06:15 AM	0	26	4	0	6	0	0	0	0	0	0	0	0	2	38
06:30 AM	0	26	9	0	7	0	0	0	0	0	0	0	0	0	42
06:45 AM	0	30	13	0	16	1	0	0	0	0	0	0	0	1	61
07:00 AM	0	43	10	0	5	0	0	1	**2**	0	0	0	0	0	61
07:15 AM	0	45	15	1	9	0	0	2	0	0	0	0	0	1	73
07:30 AM	0	55	**20**	2	**19**	0	**1**	0	0	0	0	0	0	0	**97**
07:45 AM	0	**59**	20	0	8	1	0	0	0	0	0	0	0	2	90
08:00 AM	0	33	10	0	13	0	0	0	0	0	0	0	**1**	0	57
08:15 AM	0	34	10	1	6	1	0	2	0	0	0	0	0	0	54
08:30 AM	0	34	12	1	7	0	0	**4**	1	0	0	0	0	1	60
08:45 AM	0	41	15	0	14	0	0	3	0	0	0	0	1	0	74
09:00 AM	0	34	11	0	9	0	0	2	0	0	0	0	0	**4**	60
09:15 AM	0	35	16	**3**	10	1	0	1	2	0	0	0	0	0	68
09:30 AM	0	31	11	0	10	**2**	0	1	0	0	0	0	1	0	56
09:45 AM	0	50	12	0	6	1	0	1	0	0	0	0	0	0	70
10:00 AM	0	29	11	2	13	0	0	1	0	0	0	0	0	2	58
10:15 AM	0	28	13	0	14	0	0	0	0	1	0	0	0	3	59
10:30 AM	0	35	9	0	3	0	0	0	2	1	0	0	0	3	53
10:45 AM	0	40	12	0	8	0	0	0	0	0	0	0	0	0	60
11:00 AM	0	33	15	0	8	0	0	0	0	0	0	0	0	2	58
11:15 AM	0	28	6	0	9	0	0	1	0	0	0	0	0	0	44
11:30 AM	0	19	14	1	13	0	0	1	0	0	0	0	0	0	48
11:45 AM	0	28	14	0	10	0	0	0	1	0	0	0	0	1	54
Day Total															
Percent															
ADT 3594															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 PM	0	34	23	0	7	0	0	0	0	0	0	0	1	0	65
12:15 PM	0	41	11	0	8	0	0	0	1	0	0	0	0	1	62
12:30 PM	0	29	8	1	10	0	0	1	0	0	0	0	0	0	49
12:45 PM	0	37	6	1	7	0	0	0	0	0	0	0	0	1	52
01:00 PM	1	25	9	0	8	0	0	1	2	0	0	0	0	1	47
01:15 PM	0	27	14	0	12	0	0	0	0	0	0	0	0	0	53
01:30 PM	0	24	11	0	11	0	0	3	0	0	0	0	0	1	50
01:45 PM	0	31	7	0	2	0	0	1	0	0	0	0	0	1	42
02:00 PM	0	33	11	0	8	3	0	0	0	0	0	0	0	2	57
02:15 PM	0	38	15	0	13	0	0	2	0	0	0	0	0	2	70
02:30 PM	0	29	7	0	13	1	0	0	0	0	0	0	0	0	50
02:45 PM	0	43	19	1	10	0	0	0	0	0	0	0	0	2	75
03:00 PM	0	36	11	0	10	0	0	0	0	0	0	0	0	2	59
03:15 PM	0	33	15	2	7	0	0	0	0	0	0	0	0	0	57
03:30 PM	0	34	11	2	19	0	0	0	0	0	0	0	0	4	70
03:45 PM	0	60	19	0	12	0	0	0	0	0	0	0	0	1	92
04:00 PM	1	47	13	1	17	0	0	0	0	0	0	0	0	2	81
04:15 PM	0	41	16	1	18	0	0	0	0	0	0	0	0	2	78
04:30 PM	0	39	18	0	6	0	0	0	0	0	0	0	0	3	66
04:45 PM	0	45	18	0	12	0	0	1	0	0	0	0	0	3	79
05:00 PM	0	39	11	0	15	0	0	0	0	0	0	0	0	0	65
05:15 PM	0	40	20	0	17	0	0	1	0	0	0	0	0	5	83
05:30 PM	0	34	9	0	12	0	0	0	0	0	0	0	0	6	61
05:45 PM	0	29	11	0	7	0	0	0	0	0	0	0	0	0	47
Day Total															
Percent															
ADT 3594															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104
SPECIFIC LOCATION: **DIRECTION:** NB
CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 PM	0	33	15	0	3	0	0	1	0	0	0	0	0	1	53
06:15 PM	0	27	7	0	5	0	0	0	0	0	0	0	0	0	39
06:30 PM	0	26	7	0	5	0	0	0	0	0	0	0	0	1	39
06:45 PM	0	20	7	0	3	0	0	0	0	0	0	0	0	1	31
07:00 PM	0	18	4	0	9	0	0	0	0	0	0	0	0	1	32
07:15 PM	0	20	10	0	7	0	0	0	0	0	0	0	0	0	37
07:30 PM	0	15	2	0	3	0	0	0	0	0	0	0	0	0	20
07:45 PM	0	15	3	0	1	0	0	0	0	0	0	0	0	1	20
08:00 PM	0	18	5	0	2	0	0	0	0	0	0	0	0	1	26
08:15 PM	0	13	5	0	1	0	0	0	0	0	0	0	0	0	19
08:30 PM	0	10	0	0	2	0	0	0	0	0	0	0	0	0	12
08:45 PM	0	11	3	0	3	0	0	0	0	0	0	0	0	0	17
09:00 PM	0	10	3	0	1	0	0	0	0	0	0	0	0	0	14
09:15 PM	0	7	3	0	2	0	0	1	0	0	0	0	0	1	14
09:30 PM	0	4	4	0	2	0	0	0	0	0	0	0	0	0	10
09:45 PM	0	5	3	0	1	0	0	0	0	0	0	0	0	0	9
10:00 PM	0	9	3	0	2	0	0	0	0	0	0	0	0	0	14
10:15 PM	0	9	2	0	3	0	0	0	0	0	0	0	0	0	14
10:30 PM	0	3	2	0	2	0	0	0	0	0	0	0	0	0	7
10:45 PM	0	5	1	0	2	0	0	0	0	0	0	0	0	0	8
11:00 PM	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
11:15 PM	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
11:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
Day Total	2	2103	734	20	603	11	1	32	12	4	0	0	4	68	3594
Percent	0.1%	58.5%	20.4%	0.6%	16.8%	0.3%	0%	0.9%	0.3%	0.1%	0%	0%	0.1%	1.9%	
ADT 3594															
AM Peak	12:00 AM	7:45 AM	7:30 AM	9:15 AM	7:30 AM	9:30 AM	7:30 AM	8:30 AM	7:00 AM	5:00 AM	12:00 AM	12:00 AM	8:00 AM	9:00 AM	7:30 AM
15-min Vol	0	59	20	3	19	2	1	4	2	1	0	0	1	4	97
PM Peak	1:00 PM	3:45 PM	12:00 PM	3:15 PM	3:30 PM	2:00 PM	12:00 PM	1:30 PM	1:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	5:30 PM	3:45 PM
15-min Vol	1	60	23	2	19	3	0	3	2	0	0	0	1	6	92

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

SUMMARY - Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
Grand Total	2	2103	734	20	603	11	1	32	12	4	0	0	4	68	3594
Percent	0.1%	58.5%	20.4%	0.6%	16.8%	0.3%	0%	0.9%	0.3%	0.1%	0%	0%	0.1%	1.9%	
ADT 3594															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		4				4			4	
12:15 AM		0				0			0	
12:30 AM		1				1			1	
12:45 AM		1				1			1	
01:00 AM		3				3			3	
01:15 AM		2				2			2	
01:30 AM		0				0			0	
01:45 AM		0				0			0	
02:00 AM		2				2			2	
02:15 AM		4				4			4	
02:30 AM		0				0			0	
02:45 AM		4				4			4	
03:00 AM		6				6			6	
03:15 AM		2				2			2	
03:30 AM		3				3			3	
03:45 AM		5				5			5	
04:00 AM		6				6			6	
04:15 AM		12				12			12	
04:30 AM		13				13			13	
04:45 AM		16				16			16	
05:00 AM		24				24			24	
05:15 AM		28				28			28	
05:30 AM		36				36			36	
05:45 AM		26				26			26	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		41				41			41	
06:15 AM		38				38			38	
06:30 AM		42				42			42	
06:45 AM		61				61			61	
07:00 AM		61				61			61	
07:15 AM		73				73			73	
07:30 AM		**97**				**97**			**97**	
07:45 AM		90				90			90	
08:00 AM		57				57			57	
08:15 AM		54				54			54	
08:30 AM		60				60			60	
08:45 AM		74				74			74	
09:00 AM		60				60			60	
09:15 AM		68				68			68	
09:30 AM		56				56			56	
09:45 AM		70				70			70	
10:00 AM		58				58			58	
10:15 AM		59				59			59	
10:30 AM		53				53			53	
10:45 AM		60				60			60	
11:00 AM		58				58			58	
11:15 AM		44				44			44	
11:30 AM		48				48			48	
11:45 AM		54				54			54	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		65				65			65	
12:15 PM		62				62			62	
12:30 PM		49				49			49	
12:45 PM		52				52			52	
01:00 PM		47				47			47	
01:15 PM		53				53			53	
01:30 PM		50				50			50	
01:45 PM		42				42			42	
02:00 PM		57				57			57	
02:15 PM		70				70			70	
02:30 PM		50				50			50	
02:45 PM		75				75			75	
03:00 PM		59				59			59	
03:15 PM		57				57			57	
03:30 PM		70				70			70	
03:45 PM		**92**				**92**			**92**	
04:00 PM		81				81			81	
04:15 PM		78				78			78	
04:30 PM		66				66			66	
04:45 PM		79				79			79	
05:00 PM		65				65			65	
05:15 PM		83				83			83	
05:30 PM		61				61			61	
05:45 PM		47				47			47	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		53				53			53	
06:15 PM		39				39			39	
06:30 PM		39				39			39	
06:45 PM		31				31			31	
07:00 PM		32				32			32	
07:15 PM		37				37			37	
07:30 PM		20				20			20	
07:45 PM		20				20			20	
08:00 PM		26				26			26	
08:15 PM		19				19			19	
08:30 PM		12				12			12	
08:45 PM		17				17			17	
09:00 PM		14				14			14	
09:15 PM		14				14			14	
09:30 PM		10				10			10	
09:45 PM		9				9			9	
10:00 PM		14				14			14	
10:15 PM		14				14			14	
10:30 PM		7				7			7	
10:45 PM		8				8			8	
11:00 PM		5				5			5	
11:15 PM		5				5			5	
11:30 PM		2				2			2	
11:45 PM		3				3			3	
Day Total		3594				3594			3594	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		7:30 AM 97				7:30 AM 97			7:30 AM 97	
PM Peak 15-min Vol		3:45 PM 92				3:45 PM 92			3:45 PM 92	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	41-50	1
12:15 AM	0	0	0	0	0	0	1	4	1	0	0	0	0	0	6	45-54	5
12:30 AM	0	0	0	0	0	1	1	3	2	0	0	0	0	0	7	46-55	5
12:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	41-50	1
01:00 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4	41-50	3
01:15 AM	0	0	0	0	1	1	1	1	0	0	0	0	0	0	4	31-40	2
01:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	36-45	2
01:45 AM	0	0	0	0	1	1	1	2	0	0	0	0	0	0	5	41-50	3
02:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	36-45	2
02:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	51-60	1
02:30 AM	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3	26-35	1
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-10	0
03:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	36-45	1
03:15 AM	0	0	1	0	0	0	0	2	2	0	0	0	0	0	5	46-55	4
03:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	41-50	2
03:45 AM	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3	46-55	3
04:00 AM	1	0	0	0	0	0	0	1	1	0	0	0	0	0	3	46-55	2
04:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	31-40	1
04:30 AM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	46-55	2
04:45 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3	41-50	3
05:00 AM	0	0	0	0	0	0	2	3	1	0	0	0	0	0	6	41-50	5
05:15 AM	0	0	0	0	0	1	1	6	2	0	0	0	0	0	10	46-55	8
05:30 AM	0	0	0	0	2	1	4	4	1	0	0	0	0	0	12	41-50	8
05:45 AM	0	0	0	0	0	0	2	7	5	0	0	0	0	0	14	46-55	12
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 AM	1	0	0	0	0	0	6	8	6	0	0	0	0	0	21	41-50	14
06:15 AM	0	0	0	0	0	2	6	3	4	0	0	0	0	0	15	41-50	9
06:30 AM	0	0	0	0	0	0	6	7	5	**2**	0	0	0	0	20	41-50	13
06:45 AM	2	0	0	0	0	3	3	17	**10**	1	0	0	0	0	36	46-55	27
07:00 AM	0	0	1	**1**	2	3	10	6	2	0	**1**	0	0	0	26	41-50	16
07:15 AM	0	0	0	0	**4**	4	9	11	3	0	0	0	0	0	31	41-50	20
07:30 AM	2	0	0	0	0	5	14	9	2	1	0	0	**1**	0	34	41-50	23
07:45 AM	**4**	0	0	0	0	4	12	15	2	0	0	0	0	0	37	41-50	27
08:00 AM	0	0	0	0	3	8	13	12	5	0	0	0	0	0	41	41-50	25
08:15 AM	1	0	0	0	4	7	15	15	0	0	0	0	0	0	42	41-50	30
08:30 AM	1	0	0	0	0	6	**26**	17	1	0	0	0	0	0	51	41-50	43
08:45 AM	0	0	0	0	3	10	10	10	5	1	1	0	0	0	40	36-45	20
09:00 AM	0	0	0	0	0	6	18	15	1	0	0	0	0	0	40	41-50	33
09:15 AM	2	0	0	0	1	4	5	13	8	0	0	0	0	0	33	46-55	21
09:30 AM	0	0	0	0	1	1	7	8	6	0	0	0	0	0	23	41-50	15
09:45 AM	0	0	0	0	0	2	13	15	7	0	0	0	0	0	37	41-50	28
10:00 AM	1	0	0	0	1	7	13	12	4	1	1	0	0	0	40	41-50	25
10:15 AM	1	0	0	0	1	5	9	12	0	0	0	0	0	0	28	41-50	21
10:30 AM	0	0	0	0	1	8	15	16	3	0	0	0	0	0	43	41-50	31
10:45 AM	0	0	0	0	2	13	17	17	2	1	0	0	0	0	52	41-50	34
11:00 AM	1	0	0	0	0	2	20	17	6	2	0	0	0	0	48	41-50	37
11:15 AM	0	0	0	0	1	8	17	9	3	0	1	0	0	0	39	41-50	26
11:30 AM	0	0	0	1	2	**14**	25	15	3	0	0	0	0	0	**60**	41-50	40
11:45 AM	1	0	0	0	0	7	23	**20**	4	0	0	0	0	0	55	41-50	43
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 PM	2	0	0	0	0	7	23	14	2	0	0	0	0	0	48	41-50	37
12:15 PM	1	0	0	0	1	8	19	21	7	0	**1**	0	0	0	58	41-50	40
12:30 PM	0	0	0	**1**	2	10	21	23	4	1	0	0	0	0	62	41-50	44
12:45 PM	2	0	0	0	2	2	15	18	5	2	0	0	0	0	46	41-50	33
01:00 PM	3	0	0	0	0	7	22	22	5	1	0	0	0	0	60	41-50	44
01:15 PM	1	0	0	0	0	3	14	11	10	3	1	0	0	0	43	41-50	25
01:30 PM	0	0	0	0	1	6	14	21	6	0	0	0	0	0	48	41-50	35
01:45 PM	2	0	0	0	0	2	17	17	6	**4**	0	0	0	0	48	41-50	34
02:00 PM	2	0	0	0	2	9	13	14	9	1	0	0	0	0	50	41-50	27
02:15 PM	1	0	0	0	0	3	25	23	5	1	0	0	0	0	58	41-50	48
02:30 PM	1	0	0	0	3	4	19	22	8	1	0	0	0	0	58	41-50	41
02:45 PM	0	0	0	0	0	8	21	27	7	1	0	0	0	0	64	41-50	48
03:00 PM	0	0	0	0	2	**28**	28	23	7	0	0	0	0	0	88	36-45	56
03:15 PM	1	0	0	0	1	3	34	25	10	2	0	0	0	0	76	41-50	59
03:30 PM	**5**	0	0	0	0	11	31	32	**15**	1	0	0	0	0	95	41-50	63
03:45 PM	1	0	0	0	5	17	36	22	9	1	0	0	0	0	91	41-50	58
04:00 PM	1	0	0	1	3	16	40	30	4	1	0	0	0	0	96	41-50	70
04:15 PM	3	0	0	0	0	7	34	26	2	2	0	0	0	0	74	41-50	60
04:30 PM	0	0	0	0	2	10	35	20	6	1	0	**1**	0	0	75	41-50	55
04:45 PM	5	0	0	1	3	7	28	**33**	5	2	0	0	0	0	84	41-50	61
05:00 PM	4	0	0	1	2	15	38	32	8	0	0	0	0	0	**100**	41-50	70
05:15 PM	2	0	0	0	0	8	**41**	26	10	2	0	0	0	0	89	41-50	67
05:30 PM	5	0	0	0	0	2	26	25	11	1	0	0	0	0	70	41-50	51
05:45 PM	0	0	0	0	0	2	20	20	13	2	0	1	0	0	58	41-50	40
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

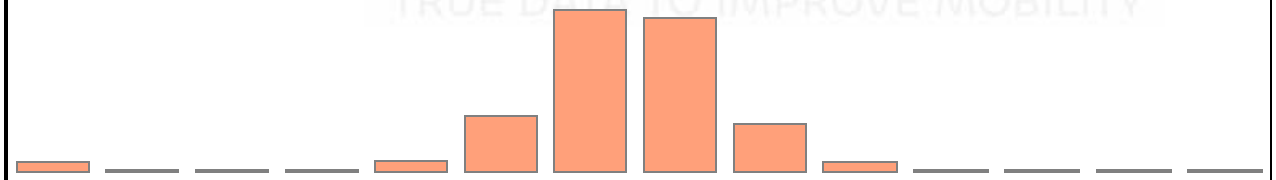
Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 PM	1	0	0	0	6	11	23	26	9	3	1	0	0	0	80	41-50	49
06:15 PM	2	0	0	0	0	4	22	27	4	2	1	0	0	0	62	41-50	49
06:30 PM	0	0	0	0	0	2	20	26	8	1	0	0	0	0	57	41-50	46
06:45 PM	1	0	0	0	0	11	13	21	8	1	0	0	0	0	55	41-50	34
07:00 PM	2	0	0	0	0	8	16	14	5	0	0	0	0	0	45	41-50	30
07:15 PM	1	0	0	0	3	3	22	8	5	1	0	0	0	0	43	41-50	30
07:30 PM	0	0	0	0	1	5	13	12	4	1	0	0	0	0	36	41-50	25
07:45 PM	1	0	0	0	1	3	12	15	2	1	0	0	0	0	35	41-50	27
08:00 PM	2	0	0	0	0	5	24	10	4	2	0	0	0	0	47	41-50	34
08:15 PM	0	0	0	0	0	4	12	9	3	4	0	0	0	0	32	41-50	21
08:30 PM	0	0	0	0	0	8	14	11	1	0	0	0	0	0	34	41-50	25
08:45 PM	0	0	0	0	0	3	14	13	3	0	0	0	0	0	33	41-50	27
09:00 PM	0	0	0	0	0	4	3	7	1	0	0	0	0	0	15	41-50	10
09:15 PM	0	0	0	0	1	4	10	10	3	0	1	1	0	0	30	41-50	20
09:30 PM	0	0	0	0	0	2	6	11	1	0	0	0	0	0	20	41-50	17
09:45 PM	0	0	0	0	1	2	4	4	0	0	0	0	0	0	11	41-50	8
10:00 PM	0	0	0	0	0	0	6	4	3	1	0	0	0	0	14	41-50	10
10:15 PM	0	0	0	0	0	0	6	4	3	0	0	0	0	0	13	41-50	10
10:30 PM	0	0	0	0	0	1	5	4	2	0	0	0	0	0	12	41-50	9
10:45 PM	0	0	0	0	0	1	3	3	0	1	0	0	0	0	8	41-50	6
11:00 PM	0	0	0	0	0	2	0	5	1	0	0	0	0	0	8	46-55	6
11:15 PM	0	0	0	0	0	1	1	2	1	1	0	0	0	0	6	46-55	3
11:30 PM	0	0	0	1	0	0	1	4	0	0	0	0	0	0	6	41-50	5
11:45 PM	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5	41-50	5
Day Total	70	0	2	7	73	416	1199	1141	356	60	9	4	1	0	3338	41-50	2340
Percent	2.1%	0%	0.1%	0.2%	2.2%	12.5%	35.9%	34.2%	10.7%	1.8%	0.3%	0.1%	0%	0%			



AM Peak	7:45 AM	12:00 AM	3:15 AM	7:00 AM	7:15 AM	11:30 AM	8:30 AM	11:45 AM	6:45 AM	6:30 AM	7:00 AM	2:15 AM	7:30 AM	12:00 AM	11:30 AM		
15-min Vol	4	0	1	1	4	14	26	20	10	2	1	1	1	0	60		
PM Peak	3:30 PM	12:00 PM	12:00 PM	12:30 PM	6:00 PM	3:00 PM	5:15 PM	4:45 PM	3:30 PM	1:45 PM	12:15 PM	4:30 PM	12:00 PM	12:00 PM	5:00 PM		
15-min Vol	5	0	0	1	6	28	41	33	15	4	1	1	0	0	100		

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

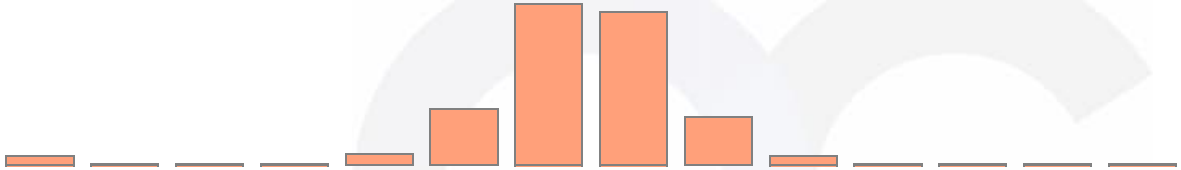
Type of report: Midblock Count - Speed Data

SUMMARY - Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Speed Range	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	70	0	2	7	73	416	1199	1141	356	60	9	4	1	0	3338	41-50	2340
Percent	2.1%	0%	0.1%	0.2%	2.2%	12.5%	35.9%	34.2%	10.7%	1.8%	0.3%	0.1%	0%	0%			
Cumulative Percent	2.1%	2.1%	2.2%	2.4%	4.6%	17%	52.9%	87.1%	97.8%	99.6%	99.9%	100%	100%	100%			

ADT
3338



85th Percentile: 49 MPH
Mean Speed(Average): 44 MPH
Median: 44 MPH
Mode: 43 MPH

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 AM	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6
12:30 AM	0	4	2	1	0	0	0	0	0	0	0	0	0	0	7
12:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
01:15 AM	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4
01:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:45 AM	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
02:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
02:30 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:15 AM	0	3	0	0	2	0	0	0	0	0	0	0	0	0	5
03:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
03:45 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
04:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	1	3
04:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
04:45 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
05:00 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	6
05:15 AM	0	5	1	0	4	0	0	0	0	0	0	0	0	0	10
05:30 AM	0	10	0	0	2	0	0	0	0	0	0	0	0	0	12
05:45 AM	0	11	1	0	2	0	0	0	0	0	0	0	0	0	14
Day Total															
Percent															
ADT 3338															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 AM	0	10	5	1	4	0	0	0	0	0	0	0	0	1	21
06:15 AM	0	9	0	1	5	0	0	0	0	0	0	0	0	0	15
06:30 AM	0	9	6	0	4	**1**	0	0	0	0	0	0	0	0	20
06:45 AM	0	21	7	0	5	0	0	1	0	0	0	0	0	2	36
07:00 AM	0	17	2	0	6	0	0	0	1	0	0	0	0	0	26
07:15 AM	0	18	4	1	7	1	0	0	0	0	0	0	0	0	31
07:30 AM	0	16	8	0	6	0	**1**	1	0	0	0	0	0	2	34
07:45 AM	0	18	5	0	8	1	0	1	0	0	0	0	0	**4**	37
08:00 AM	0	20	9	0	11	1	0	0	0	0	0	0	0	0	41
08:15 AM	0	18	11	**6**	5	0	0	1	0	0	0	0	0	1	42
08:30 AM	0	31	10	0	7	0	1	1	0	0	0	0	0	1	51
08:45 AM	0	15	14	2	8	0	0	1	0	0	0	0	0	0	40
09:00 AM	0	18	10	0	8	1	0	**3**	0	0	0	0	0	0	40
09:15 AM	0	18	7	0	6	0	0	0	0	0	0	0	0	2	33
09:30 AM	0	11	8	0	4	0	0	0	0	0	0	0	0	0	23
09:45 AM	0	25	3	0	7	0	0	1	0	**1**	0	0	0	0	37
10:00 AM	0	23	8	0	7	0	0	1	0	0	0	0	0	1	40
10:15 AM	**1**	10	8	0	8	0	0	0	0	0	0	0	0	1	28
10:30 AM	0	29	6	1	7	0	0	0	0	0	0	0	0	0	43
10:45 AM	0	30	11	0	10	0	0	1	0	0	0	0	0	0	52
11:00 AM	0	26	12	0	8	0	0	0	1	0	0	0	0	1	48
11:15 AM	0	26	5	0	8	0	0	0	0	0	0	0	0	0	39
11:30 AM	0	30	**16**	1	**13**	0	0	0	0	0	0	0	0	0	**60**
11:45 AM	0	**33**	11	0	8	0	0	0	**2**	0	0	0	0	1	55
Day Total															
Percent															
ADT 3338															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 PM	0	28	9	0	8	0	0	0	0	**1**	0	0	0	2	48
12:15 PM	0	36	12	1	7	0	0	1	0	0	0	0	0	1	58
12:30 PM	0	41	10	0	11	0	0	0	0	0	0	0	0	0	62
12:45 PM	0	26	8	1	8	0	0	1	0	0	0	0	0	2	46
01:00 PM	0	30	14	2	9	0	0	0	1	0	0	0	**1**	3	60
01:15 PM	0	21	12	0	8	0	0	0	0	1	0	0	0	1	43
01:30 PM	0	26	16	0	6	0	0	0	0	0	0	0	0	0	48
01:45 PM	0	26	15	0	4	0	0	1	0	0	0	0	0	2	48
02:00 PM	0	31	8	0	9	0	0	0	0	0	0	0	0	2	50
02:15 PM	0	30	12	0	14	0	0	0	1	0	0	0	0	1	58
02:30 PM	0	36	9	0	10	0	0	2	0	0	0	0	0	1	58
02:45 PM	0	37	15	2	7	**1**	0	2	0	0	0	0	0	0	64
03:00 PM	0	39	**26**	0	17	1	0	2	**2**	0	0	0	1	0	88
03:15 PM	0	43	18	1	12	0	0	1	0	0	0	0	0	1	76
03:30 PM	0	44	19	1	**23**	1	0	2	0	0	0	0	0	**5**	95
03:45 PM	0	55	19	**3**	12	0	0	1	0	0	0	0	0	1	91
04:00 PM	0	57	13	0	23	1	0	1	0	0	0	0	0	1	96
04:15 PM	0	36	19	1	15	0	0	0	0	0	0	0	0	3	74
04:30 PM	0	48	12	0	14	0	0	1	0	0	0	0	0	0	75
04:45 PM	0	44	19	1	12	0	0	**3**	0	0	0	0	0	5	84
05:00 PM	0	**59**	17	1	19	0	0	0	0	0	0	0	0	4	**100**
05:15 PM	0	58	14	0	14	0	0	1	0	0	0	0	0	2	89
05:30 PM	0	43	14	0	7	1	0	0	0	0	0	0	0	5	70
05:45 PM	0	35	12	0	11	0	0	0	0	0	0	0	0	0	58
Day Total															
Percent															
ADT 3338															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104
SPECIFIC LOCATION: **DIRECTION:** SB
CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 PM	0	43	23	0	12	0	0	1	0	0	0	0	0	1	80
06:15 PM	0	44	11	0	5	0	0	0	0	0	0	0	0	2	62
06:30 PM	0	27	14	0	16	0	0	0	0	0	0	0	0	0	57
06:45 PM	0	35	13	0	6	0	0	0	0	0	0	0	0	1	55
07:00 PM	0	30	8	0	5	0	0	0	0	0	0	0	0	2	45
07:15 PM	0	32	2	0	8	0	0	0	0	0	0	0	0	1	43
07:30 PM	0	22	11	0	3	0	0	0	0	0	0	0	0	0	36
07:45 PM	0	21	8	0	5	0	0	0	0	0	0	0	0	1	35
08:00 PM	0	33	8	0	4	0	0	0	0	0	0	0	0	2	47
08:15 PM	0	21	6	0	5	0	0	0	0	0	0	0	0	0	32
08:30 PM	0	19	10	0	5	0	0	0	0	0	0	0	0	0	34
08:45 PM	0	21	4	0	8	0	0	0	0	0	0	0	0	0	33
09:00 PM	0	11	3	0	1	0	0	0	0	0	0	0	0	0	15
09:15 PM	0	16	9	0	5	0	0	0	0	0	0	0	0	0	30
09:30 PM	0	14	6	0	0	0	0	0	0	0	0	0	0	0	20
09:45 PM	0	8	2	0	1	0	0	0	0	0	0	0	0	0	11
10:00 PM	0	10	3	0	1	0	0	0	0	0	0	0	0	0	14
10:15 PM	0	8	4	0	1	0	0	0	0	0	0	0	0	0	13
10:30 PM	0	8	2	0	2	0	0	0	0	0	0	0	0	0	12
10:45 PM	0	4	1	0	3	0	0	0	0	0	0	0	0	0	8
11:00 PM	0	5	2	0	1	0	0	0	0	0	0	0	0	0	8
11:15 PM	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
11:30 PM	0	3	3	0	0	0	0	0	0	0	0	0	0	0	6
11:45 PM	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
Day Total	1	1907	703	31	569	10	2	32	8	3	0	0	2	70	3338
Percent	0%	57.1%	21.1%	0.9%	17%	0.3%	0.1%	1%	0.2%	0.1%	0%	0%	0.1%	2.1%	
ADT 3338															
AM Peak	10:15 AM	11:45 AM	11:30 AM	8:15 AM	11:30 AM	6:30 AM	7:30 AM	9:00 AM	11:45 AM	9:45 AM	12:00 AM	12:00 AM	12:00 AM	7:45 AM	11:30 AM
15-min Vol	1	33	16	6	13	1	1	3	2	1	0	0	0	4	60
PM Peak	12:00 PM	5:00 PM	3:00 PM	3:45 PM	3:30 PM	2:45 PM	12:00 PM	4:45 PM	3:00 PM	12:00 PM	12:00 PM	12:00 PM	1:00 PM	3:30 PM	5:00 PM
15-min Vol	0	59	26	3	23	1	0	3	2	1	0	0	1	5	100

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

SUMMARY - Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
Grand Total	1	1907	703	31	569	10	2	32	8	3	0	0	2	70	3338
Percent	0%	57.1%	21.1%	0.9%	17%	0.3%	0.1%	1%	0.2%	0.1%	0%	0%	0.1%	2.1%	
ADT 3338															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		1				1			1	
12:15 AM		6				6			6	
12:30 AM		7				7			7	
12:45 AM		1				1			1	
01:00 AM		4				4			4	
01:15 AM		4				4			4	
01:30 AM		2				2			2	
01:45 AM		5				5			5	
02:00 AM		2				2			2	
02:15 AM		2				2			2	
02:30 AM		3				3			3	
02:45 AM		0				0			0	
03:00 AM		1				1			1	
03:15 AM		5				5			5	
03:30 AM		2				2			2	
03:45 AM		3				3			3	
04:00 AM		3				3			3	
04:15 AM		1				1			1	
04:30 AM		3				3			3	
04:45 AM		3				3			3	
05:00 AM		6				6			6	
05:15 AM		10				10			10	
05:30 AM		12				12			12	
05:45 AM		14				14			14	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		21				21			21	
06:15 AM		15				15			15	
06:30 AM		20				20			20	
06:45 AM		36				36			36	
07:00 AM		26				26			26	
07:15 AM		31				31			31	
07:30 AM		34				34			34	
07:45 AM		37				37			37	
08:00 AM		41				41			41	
08:15 AM		42				42			42	
08:30 AM		51				51			51	
08:45 AM		40				40			40	
09:00 AM		40				40			40	
09:15 AM		33				33			33	
09:30 AM		23				23			23	
09:45 AM		37				37			37	
10:00 AM		40				40			40	
10:15 AM		28				28			28	
10:30 AM		43				43			43	
10:45 AM		52				52			52	
11:00 AM		48				48			48	
11:15 AM		39				39			39	
11:30 AM		**60**				**60**			**60**	
11:45 AM		55				55			55	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		48				48			48	
12:15 PM		58				58			58	
12:30 PM		62				62			62	
12:45 PM		46				46			46	
01:00 PM		60				60			60	
01:15 PM		43				43			43	
01:30 PM		48				48			48	
01:45 PM		48				48			48	
02:00 PM		50				50			50	
02:15 PM		58				58			58	
02:30 PM		58				58			58	
02:45 PM		64				64			64	
03:00 PM		88				88			88	
03:15 PM		76				76			76	
03:30 PM		95				95			95	
03:45 PM		91				91			91	
04:00 PM		96				96			96	
04:15 PM		74				74			74	
04:30 PM		75				75			75	
04:45 PM		84				84			84	
05:00 PM		**100**				**100**			**100**	
05:15 PM		89				89			89	
05:30 PM		70				70			70	
05:45 PM		58				58			58	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		80				80			80	
06:15 PM		62				62			62	
06:30 PM		57				57			57	
06:45 PM		55				55			55	
07:00 PM		45				45			45	
07:15 PM		43				43			43	
07:30 PM		36				36			36	
07:45 PM		35				35			35	
08:00 PM		47				47			47	
08:15 PM		32				32			32	
08:30 PM		34				34			34	
08:45 PM		33				33			33	
09:00 PM		15				15			15	
09:15 PM		30				30			30	
09:30 PM		20				20			20	
09:45 PM		11				11			11	
10:00 PM		14				14			14	
10:15 PM		13				13			13	
10:30 PM		12				12			12	
10:45 PM		8				8			8	
11:00 PM		8				8			8	
11:15 PM		6				6			6	
11:30 PM		6				6			6	
11:45 PM		5				5			5	
Day Total		3338				3338			3338	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		11:30 AM 60				11:30 AM 60			11:30 AM 60	
PM Peak 15-min Vol		5:00 PM 100				5:00 PM 100			5:00 PM 100	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 AM	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5	41-50	5
12:15 AM	0	0	0	0	0	0	1	4	1	0	0	0	0	0	6	45-54	5
12:30 AM	0	0	0	0	0	1	1	4	2	0	0	0	0	0	8	46-55	6
12:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	31-40	1
01:00 AM	0	0	0	0	0	2	3	2	0	0	0	0	0	0	7	38-47	5
01:15 AM	0	0	1	0	1	2	1	1	0	0	0	0	0	0	6	36-45	3
01:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	36-45	2
01:45 AM	0	0	0	0	1	1	1	2	0	0	0	0	0	0	5	41-50	3
02:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4	36-45	3
02:15 AM	0	0	0	0	2	1	1	0	0	1	0	1	0	0	6	31-40	3
02:30 AM	0	0	0	0	1	0	1	0	1	0	0	0	0	0	3	26-35	1
02:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4	26-35	2
03:00 AM	0	0	0	0	0	1	2	3	1	0	0	0	0	0	7	41-50	5
03:15 AM	0	0	1	1	0	0	1	2	2	0	0	0	0	0	7	46-55	4
03:30 AM	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5	41-50	5
03:45 AM	0	0	0	0	0	2	1	3	2	0	0	0	0	0	8	46-55	5
04:00 AM	1	0	0	0	1	1	1	2	3	0	0	0	0	0	9	46-55	5
04:15 AM	0	0	0	0	0	4	3	4	2	0	0	0	0	0	13	40-49	7
04:30 AM	0	0	0	1	0	5	1	7	1	1	0	0	0	0	16	45-54	8
04:45 AM	0	0	0	0	1	4	6	7	1	0	0	0	0	0	19	41-50	13
05:00 AM	0	0	0	0	1	3	17	7	2	0	0	0	0	0	30	41-50	24
05:15 AM	0	0	0	0	1	8	12	14	2	1	0	0	0	0	38	41-50	26
05:30 AM	0	0	0	1	4	7	15	16	4	1	0	0	0	0	48	41-50	31
05:45 AM	0	0	0	0	1	3	12	14	8	2	0	0	0	0	40	41-50	26
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd | **QC JOB #:** 17379104

SPECIFIC LOCATION: | **DIRECTION:** NB, SB

CITY/STATE: Sandy, OR | **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 AM	1	0	0	0	3	4	19	25	9	1	0	0	0	0	62	41-50	44
06:15 AM	2	0	0	0	0	10	20	11	9	0	1	0	0	0	53	41-50	31
06:30 AM	0	0	0	1	4	7	23	18	6	3	0	0	0	0	62	41-50	41
06:45 AM	3	0	0	0	4	22	29	26	11	1	1	0	0	0	97	41-50	55
07:00 AM	0	0	1	2	**11**	20	30	18	4	0	1	0	0	0	87	36-45	50
07:15 AM	1	0	0	1	11	31	39	16	5	0	0	0	0	0	104	36-45	70
07:30 AM	2	0	0	2	4	**38**	55	25	3	1	0	0	**1**	0	**131**	36-45	93
07:45 AM	**6**	0	0	**3**	2	22	**56**	33	4	0	1	0	0	0	127	41-50	89
08:00 AM	0	0	0	0	4	15	41	31	7	0	0	0	0	0	98	41-50	72
08:15 AM	1	0	0	0	7	19	31	31	6	0	1	0	0	0	96	41-50	62
08:30 AM	2	0	0	1	4	15	51	31	7	0	0	0	0	0	111	41-50	82
08:45 AM	0	0	0	0	7	27	29	34	13	3	1	0	0	0	114	41-50	63
09:00 AM	4	0	0	0	2	9	38	36	10	1	0	0	0	0	100	41-50	74
09:15 AM	2	0	0	0	4	13	27	38	**16**	1	0	0	0	0	101	41-50	65
09:30 AM	0	0	0	1	2	12	28	23	12	0	0	1	0	0	79	41-50	51
09:45 AM	0	0	0	0	2	16	39	38	12	0	0	0	0	0	107	41-50	77
10:00 AM	3	0	0	1	4	16	32	31	9	1	1	0	0	0	98	41-50	63
10:15 AM	4	0	0	1	6	16	29	25	3	3	0	0	0	0	87	41-50	54
10:30 AM	3	0	1	1	2	18	33	30	7	1	0	0	0	0	96	41-50	63
10:45 AM	0	0	0	1	7	30	29	33	10	2	0	0	0	0	112	41-50	62
11:00 AM	3	0	0	0	0	7	41	37	14	**4**	0	0	0	0	106	41-50	78
11:15 AM	0	0	0	0	2	12	37	23	7	0	**2**	0	0	0	83	41-50	60
11:30 AM	0	0	0	1	3	24	44	33	3	0	0	0	0	0	108	41-50	77
11:45 AM	2	0	0	0	2	15	41	**39**	9	1	0	0	0	0	109	41-50	80
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
12:00 PM	2	0	0	0	1	16	45	37	12	0	0	0	0	0	113	41-50	82
12:15 PM	2	0	0	**2**	5	21	40	36	12	1	**1**	0	0	0	120	41-50	76
12:30 PM	0	0	0	1	4	19	40	35	7	4	1	0	0	0	111	41-50	75
12:45 PM	3	0	0	0	4	7	29	34	19	2	0	0	0	0	98	41-50	63
01:00 PM	4	0	0	0	2	12	39	35	13	2	0	0	0	0	107	41-50	74
01:15 PM	1	0	0	0	1	10	29	30	19	5	1	0	0	0	96	41-50	59
01:30 PM	1	0	0	0	1	11	34	38	11	2	0	0	0	0	98	41-50	72
01:45 PM	3	0	0	0	0	7	32	30	10	**7**	1	0	0	0	90	41-50	62
02:00 PM	4	0	0	0	3	21	28	36	14	1	0	0	0	0	107	41-50	64
02:15 PM	3	0	0	0	1	11	44	56	11	2	0	0	0	0	128	41-50	100
02:30 PM	1	0	0	2	6	6	31	45	15	2	0	0	0	0	108	41-50	76
02:45 PM	2	0	0	0	2	16	44	**59**	13	2	1	0	0	0	139	41-50	103
03:00 PM	2	0	0	0	2	**37**	47	44	15	0	0	0	0	0	147	41-50	91
03:15 PM	1	0	0	0	5	10	54	43	18	2	0	0	0	0	133	41-50	97
03:30 PM	9	0	0	0	0	14	56	57	**24**	4	0	0	0	**1**	165	41-50	113
03:45 PM	2	0	0	0	7	26	73	51	23	1	0	0	0	0	**183**	41-50	124
04:00 PM	3	0	0	1	5	22	**80**	51	11	4	0	0	0	0	177	41-50	131
04:15 PM	5	0	0	0	0	20	64	46	12	5	0	0	0	0	152	41-50	110
04:30 PM	3	0	0	0	3	24	63	31	10	5	1	**1**	0	0	141	41-50	94
04:45 PM	8	0	0	1	5	23	67	49	8	2	0	0	0	0	163	41-50	116
05:00 PM	4	0	0	1	**8**	37	59	46	9	0	0	0	0	1	165	41-50	105
05:15 PM	7	0	0	0	4	35	71	41	12	2	0	0	0	0	172	41-50	112
05:30 PM	**11**	0	0	0	4	10	56	36	12	1	0	0	**1**	0	131	41-50	92
05:45 PM	0	0	0	1	1	13	36	34	16	3	0	1	0	0	105	41-50	70
Day Total																	
Percent																	
AM Peak 15-min Vol																	
PM Peak 15-min Vol																	

Comments:

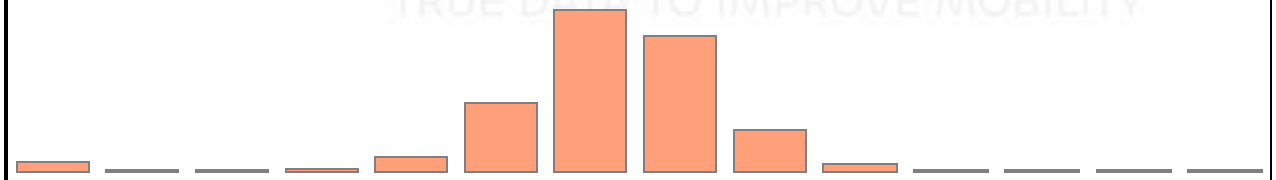
Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06:00 PM	2	0	0	1	6	20	51	36	13	3	1	0	0	0	133	41-50	87
06:15 PM	2	0	0	0	1	9	42	40	4	2	1	0	0	0	101	41-50	82
06:30 PM	1	0	0	1	1	11	35	35	10	1	0	0	1	0	96	41-50	70
06:45 PM	2	0	0	0	2	17	24	30	10	1	0	0	0	0	86	41-50	54
07:00 PM	3	0	0	1	2	16	31	17	7	0	0	0	0	0	77	41-50	48
07:15 PM	1	0	0	0	4	9	39	15	10	2	0	0	0	0	80	41-50	54
07:30 PM	0	0	0	0	2	11	18	19	4	2	0	0	0	0	56	41-50	37
07:45 PM	2	0	0	0	2	7	20	20	3	1	0	0	0	0	55	41-50	40
08:00 PM	3	0	0	1	0	10	35	15	6	3	0	0	0	0	73	41-50	50
08:15 PM	0	0	0	0	0	12	17	12	6	4	0	0	0	0	51	36-45	29
08:30 PM	0	0	0	0	2	9	19	15	1	0	0	0	0	0	46	41-50	34
08:45 PM	0	0	0	0	1	4	23	17	5	0	0	0	0	0	50	41-50	40
09:00 PM	0	0	0	0	1	7	8	12	1	0	0	0	0	0	29	41-50	20
09:15 PM	1	0	0	1	3	6	14	14	3	0	1	1	0	0	44	41-50	28
09:30 PM	0	0	0	0	2	3	11	13	1	0	0	0	0	0	30	41-50	24
09:45 PM	0	0	0	0	1	5	7	6	1	0	0	0	0	0	20	41-50	13
10:00 PM	0	0	0	0	0	1	14	8	4	1	0	0	0	0	28	41-50	22
10:15 PM	0	0	0	0	1	2	9	10	5	0	0	0	0	0	27	41-50	19
10:30 PM	0	0	0	0	0	4	9	4	2	0	0	0	0	0	19	39-48	13
10:45 PM	0	0	0	0	0	5	5	5	0	1	0	0	0	0	16	36-45	10
11:00 PM	0	0	0	0	0	2	0	8	3	0	0	0	0	0	13	46-55	11
11:15 PM	0	0	0	0	0	3	2	3	2	1	0	0	0	0	11	36-45	5
11:30 PM	0	0	0	1	0	0	2	5	0	0	0	0	0	0	8	41-50	7
11:45 PM	0	0	0	0	1	0	3	4	0	0	0	0	0	0	8	41-50	7
Day Total	138	0	4	34	220	1067	2529	2147	655	110	18	5	3	2	6932	41-50	4676
Percent	2%	0%	0.1%	0.5%	3.2%	15.4%	36.5%	31%	9.4%	1.6%	0.3%	0.1%	0%	0%			
AM Peak	7:45 AM	12:00 AM	1:15 AM	7:45 AM	7:00 AM	7:30 AM	7:45 AM	11:45 AM	9:15 AM	11:00 AM	11:15 AM	2:15 AM	7:30 AM	12:00 AM	7:30 AM		
15-min Vol	6	0	1	3	11	38	56	39	16	4	2	1	1	0	131		
PM Peak	5:30 PM	12:00 PM	12:00 PM	12:15 PM	5:00 PM	3:00 PM	4:00 PM	2:45 PM	3:30 PM	1:45 PM	12:15 PM	4:30 PM	5:30 PM	3:30 PM	3:45 PM		
15-min Vol	11	0	0	2	8	37	80	59	24	7	1	1	1	1	183		



Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Speed Data

SUMMARY - Midblock Count - Speed Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Speed Range	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
Grand Total	138	0	4	34	220	1067	2529	2147	655	110	18	5	3	2	6932	41-50	4676
Percent	2%	0%	0.1%	0.5%	3.2%	15.4%	36.5%	31%	9.4%	1.6%	0.3%	0.1%	0%	0%			
Cumulative Percent	2%	2%	2%	2.5%	5.7%	21.1%	57.6%	88.6%	98%	99.6%	99.9%	99.9%	100%	100%			

ADT
6932

85th Percentile: 49 MPH
Mean Speed(Average): 43 MPH
Median: 43 MPH
Mode: 43 MPH

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
12:15 AM	0	2	4	0	0	0	0	0	0	0	0	0	0	0	6
12:30 AM	0	4	2	1	1	0	0	0	0	0	0	0	0	0	8
12:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00 AM	0	4	1	0	2	0	0	0	0	0	0	0	0	0	7
01:15 AM	0	3	2	1	0	0	0	0	0	0	0	0	0	0	6
01:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:45 AM	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
02:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
02:15 AM	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6
02:30 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
02:45 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
03:00 AM	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
03:15 AM	0	3	2	0	2	0	0	0	0	0	0	0	0	0	7
03:30 AM	0	4	0	1	0	0	0	0	0	0	0	0	0	0	5
03:45 AM	0	5	1	0	2	0	0	0	0	0	0	0	0	0	8
04:00 AM	0	3	2	0	3	0	0	0	0	0	0	0	0	1	9
04:15 AM	0	11	1	0	1	0	0	0	0	0	0	0	0	0	13
04:30 AM	0	11	4	0	1	0	0	0	0	0	0	0	0	0	16
04:45 AM	0	12	2	0	5	0	0	0	0	0	0	0	0	0	19
05:00 AM	0	17	6	0	6	0	0	0	0	1	0	0	0	0	30
05:15 AM	0	16	6	0	16	0	0	0	0	0	0	0	0	0	38
05:30 AM	0	27	7	0	12	0	0	0	1	1	0	0	0	0	48
05:45 AM	0	22	5	0	13	0	0	0	0	0	0	0	0	0	40
Day Total															
Percent															
ADT 6932															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 AM	0	36	13	1	11	0	0	0	0	0	0	0	0	1	62
06:15 AM	0	35	4	1	11	0	0	0	0	0	0	0	0	2	53
06:30 AM	0	35	15	0	11	1	0	0	0	0	0	0	0	0	62
06:45 AM	0	51	20	0	21	1	0	1	0	0	0	0	0	3	97
07:00 AM	0	60	12	0	11	0	0	1	**3**	0	0	0	0	0	87
07:15 AM	0	63	19	2	16	1	0	2	0	0	0	0	0	1	104
07:30 AM	0	71	28	2	25	0	**2**	1	0	0	0	0	0	2	**131**
07:45 AM	0	**77**	25	0	16	**2**	0	1	0	0	0	0	0	**6**	127
08:00 AM	0	53	19	0	24	1	0	0	0	0	0	0	**1**	0	98
08:15 AM	0	52	21	**7**	11	1	0	3	0	0	0	0	0	1	96
08:30 AM	0	65	22	1	14	0	1	**5**	1	0	0	0	0	2	111
08:45 AM	0	56	29	2	22	0	0	4	0	0	0	0	1	0	114
09:00 AM	0	52	21	0	17	1	0	5	0	0	0	0	0	4	100
09:15 AM	0	53	23	3	16	1	0	1	2	0	0	0	0	2	101
09:30 AM	0	42	19	0	14	2	0	1	0	0	0	0	1	0	79
09:45 AM	0	75	15	0	13	1	0	2	0	1	0	0	0	0	107
10:00 AM	0	52	19	2	20	0	0	2	0	0	0	0	0	3	98
10:15 AM	**1**	38	21	0	22	0	0	0	0	1	0	0	0	4	87
10:30 AM	0	64	15	1	10	0	0	0	2	1	0	0	0	3	96
10:45 AM	0	70	23	0	18	0	0	1	0	0	0	0	0	0	112
11:00 AM	0	59	27	0	16	0	0	0	1	0	0	0	0	3	106
11:15 AM	0	54	11	0	17	0	0	1	0	0	0	0	0	0	83
11:30 AM	0	49	**30**	2	**26**	0	0	1	0	0	0	0	0	0	108
11:45 AM	0	61	25	0	18	0	0	0	3	0	0	0	0	2	109
Day Total															
Percent															
ADT 6932															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12:00 PM	0	62	32	0	15	0	0	0	0	**1**	0	0	**1**	2	113
12:15 PM	0	77	23	1	15	0	0	1	1	0	0	0	0	2	120
12:30 PM	0	70	18	1	21	0	0	1	0	0	0	0	0	0	111
12:45 PM	0	63	14	2	15	0	0	1	0	0	0	0	0	3	98
01:00 PM	**1**	55	23	2	17	0	0	1	**3**	0	0	0	1	4	107
01:15 PM	0	48	26	0	20	0	0	0	0	1	0	0	0	1	96
01:30 PM	0	50	27	0	17	0	0	3	0	0	0	0	0	1	98
01:45 PM	0	57	22	0	6	0	0	2	0	0	0	0	0	3	90
02:00 PM	0	64	19	0	17	**3**	0	0	0	0	0	0	0	4	107
02:15 PM	0	68	27	0	27	0	0	2	1	0	0	0	0	3	128
02:30 PM	0	65	16	0	23	1	0	2	0	0	0	0	0	1	108
02:45 PM	0	80	34	**3**	17	1	0	2	0	0	0	0	0	2	139
03:00 PM	0	75	37	0	27	1	0	2	2	0	0	0	1	2	147
03:15 PM	0	76	33	3	19	0	0	1	0	0	0	0	0	1	133
03:30 PM	0	78	30	3	**42**	1	0	2	0	0	0	0	0	9	165
03:45 PM	0	**115**	**38**	3	24	0	0	1	0	0	0	0	0	2	**183**
04:00 PM	1	104	26	1	40	1	0	1	0	0	0	0	0	3	177
04:15 PM	0	77	35	2	33	0	0	0	0	0	0	0	0	5	152
04:30 PM	0	87	30	0	20	0	0	1	0	0	0	0	0	3	141
04:45 PM	0	89	37	1	24	0	0	**4**	0	0	0	0	0	8	163
05:00 PM	0	98	28	1	34	0	0	0	0	0	0	0	0	4	165
05:15 PM	0	98	34	0	31	0	0	2	0	0	0	0	0	7	172
05:30 PM	0	77	23	0	19	1	0	0	0	0	0	0	0	**11**	131
05:45 PM	0	64	23	0	18	0	0	0	0	0	0	0	0	0	105
Day Total															
Percent															
ADT															
6932															
AM Peak 15-min Vol															
PM Peak 15-min Vol															

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
06:00 PM	0	76	38	0	15	0	0	2	0	0	0	0	0	2	133
06:15 PM	0	71	18	0	10	0	0	0	0	0	0	0	0	2	101
06:30 PM	0	53	21	0	21	0	0	0	0	0	0	0	0	1	96
06:45 PM	0	55	20	0	9	0	0	0	0	0	0	0	0	2	86
07:00 PM	0	48	12	0	14	0	0	0	0	0	0	0	0	3	77
07:15 PM	0	52	12	0	15	0	0	0	0	0	0	0	0	1	80
07:30 PM	0	37	13	0	6	0	0	0	0	0	0	0	0	0	56
07:45 PM	0	36	11	0	6	0	0	0	0	0	0	0	0	2	55
08:00 PM	0	51	13	0	6	0	0	0	0	0	0	0	0	3	73
08:15 PM	0	34	11	0	6	0	0	0	0	0	0	0	0	0	51
08:30 PM	0	29	10	0	7	0	0	0	0	0	0	0	0	0	46
08:45 PM	0	32	7	0	11	0	0	0	0	0	0	0	0	0	50
09:00 PM	0	21	6	0	2	0	0	0	0	0	0	0	0	0	29
09:15 PM	0	23	12	0	7	0	0	1	0	0	0	0	0	1	44
09:30 PM	0	18	10	0	2	0	0	0	0	0	0	0	0	0	30
09:45 PM	0	13	5	0	2	0	0	0	0	0	0	0	0	0	20
10:00 PM	0	19	6	0	3	0	0	0	0	0	0	0	0	0	28
10:15 PM	0	17	6	0	4	0	0	0	0	0	0	0	0	0	27
10:30 PM	0	11	4	0	4	0	0	0	0	0	0	0	0	0	19
10:45 PM	0	9	2	0	5	0	0	0	0	0	0	0	0	0	16
11:00 PM	0	7	4	0	2	0	0	0	0	0	0	0	0	0	13
11:15 PM	0	4	4	0	3	0	0	0	0	0	0	0	0	0	11
11:30 PM	0	5	3	0	0	0	0	0	0	0	0	0	0	0	8
11:45 PM	0	3	3	0	2	0	0	0	0	0	0	0	0	0	8
Day Total	3	4010	1437	51	1172	21	3	64	20	7	0	0	6	138	6932
Percent	0%	57.8%	20.7%	0.7%	16.9%	0.3%	0%	0.9%	0.3%	0.1%	0%	0%	0.1%	2%	
ADT 6932															
AM Peak	10:15 AM	7:45 AM	11:30 AM	8:15 AM	11:30 AM	7:45 AM	7:30 AM	8:30 AM	7:00 AM	5:00 AM	12:00 AM	12:00 AM	8:00 AM	7:45 AM	7:30 AM
15-min Vol	1	77	30	7	26	2	2	5	3	1	0	0	1	6	131
PM Peak	1:00 PM	3:45 PM	3:45 PM	2:45 PM	3:30 PM	2:00 PM	12:00 PM	4:45 PM	1:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	5:30 PM	3:45 PM
15-min Vol	1	115	38	3	42	3	0	4	3	1	0	0	1	11	183

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Vehicle Classification Data

SUMMARY - Midblock Count - Vehicle Classification Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025

Start Time	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
Grand Total	3	4010	1437	51	1172	21	3	64	20	7	0	0	6	138	6932
Percent	0%	57.8%	20.7%	0.7%	16.9%	0.3%	0%	0.9%	0.3%	0.1%	0%	0%	0.1%	2%	

ADT 6932

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 AM		5				5			5	
12:15 AM		6				6			6	
12:30 AM		8				8			8	
12:45 AM		2				2			2	
01:00 AM		7				7			7	
01:15 AM		6				6			6	
01:30 AM		2				2			2	
01:45 AM		5				5			5	
02:00 AM		4				4			4	
02:15 AM		6				6			6	
02:30 AM		3				3			3	
02:45 AM		4				4			4	
03:00 AM		7				7			7	
03:15 AM		7				7			7	
03:30 AM		5				5			5	
03:45 AM		8				8			8	
04:00 AM		9				9			9	
04:15 AM		13				13			13	
04:30 AM		16				16			16	
04:45 AM		19				19			19	
05:00 AM		30				30			30	
05:15 AM		38				38			38	
05:30 AM		48				48			48	
05:45 AM		40				40			40	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 AM		62				62			62	
06:15 AM		53				53			53	
06:30 AM		62				62			62	
06:45 AM		97				97			97	
07:00 AM		87				87			87	
07:15 AM		104				104			104	
07:30 AM		**131**				**131**			**131**	
07:45 AM		127				127			127	
08:00 AM		98				98			98	
08:15 AM		96				96			96	
08:30 AM		111				111			111	
08:45 AM		114				114			114	
09:00 AM		100				100			100	
09:15 AM		101				101			101	
09:30 AM		79				79			79	
09:45 AM		107				107			107	
10:00 AM		98				98			98	
10:15 AM		87				87			87	
10:30 AM		96				96			96	
10:45 AM		112				112			112	
11:00 AM		106				106			106	
11:15 AM		83				83			83	
11:30 AM		108				108			108	
11:45 AM		109				109			109	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd **QC JOB #:** 17379104

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Sandy, OR **DATE:** Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
12:00 PM		113				113			113	
12:15 PM		120				120			120	
12:30 PM		111				111			111	
12:45 PM		98				98			98	
01:00 PM		107				107			107	
01:15 PM		96				96			96	
01:30 PM		98				98			98	
01:45 PM		90				90			90	
02:00 PM		107				107			107	
02:15 PM		128				128			128	
02:30 PM		108				108			108	
02:45 PM		139				139			139	
03:00 PM		147				147			147	
03:15 PM		133				133			133	
03:30 PM		165				165			165	
03:45 PM		**183**				**183**			**183**	
04:00 PM		177				177			177	
04:15 PM		152				152			152	
04:30 PM		141				141			141	
04:45 PM		163				163			163	
05:00 PM		165				165			165	
05:15 PM		172				172			172	
05:30 PM		131				131			131	
05:45 PM		105				105			105	
Day Total										
% Weekday Average										
% Week Average										
AM Peak 15-min Vol										
PM Peak 15-min Vol										

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Midblock Count - Volume Data

LOCATION: Eagle Creek-Sandy Hwy No 172 north of Dubarko Rd
QC JOB #: 17379104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Sandy, OR
DATE: Dec 16 2025 - Dec 16 2025

Start Time	Mon	Tue 16 Dec 25	Wed	Thu	Fri	Average Weekday 15-min Traffic	Sat	Sun	Average Week 15-min Traffic	Average Week Profile
06:00 PM		133				133			133	
06:15 PM		101				101			101	
06:30 PM		96				96			96	
06:45 PM		86				86			86	
07:00 PM		77				77			77	
07:15 PM		80				80			80	
07:30 PM		56				56			56	
07:45 PM		55				55			55	
08:00 PM		73				73			73	
08:15 PM		51				51			51	
08:30 PM		46				46			46	
08:45 PM		50				50			50	
09:00 PM		29				29			29	
09:15 PM		44				44			44	
09:30 PM		30				30			30	
09:45 PM		20				20			20	
10:00 PM		28				28			28	
10:15 PM		27				27			27	
10:30 PM		19				19			19	
10:45 PM		16				16			16	
11:00 PM		13				13			13	
11:15 PM		11				11			11	
11:30 PM		8				8			8	
11:45 PM		8				8			8	
Day Total		6932				6932			6932	
% Weekday Average		100%								
% Week Average		100%				100%				
AM Peak 15-min Vol		7:30 AM 131				7:30 AM 131			7:30 AM 131	
PM Peak 15-min Vol		3:45 PM 183				3:45 PM 183			3:45 PM 183	

Comments:

Report generated on 12/22/2025 8:15 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

SECTION 3: SIGNAL WARRANT ANALYSIS

TRAFFIC SIGNAL WARRANT ANALYSIS

PROJECT LOCATION/CHARACTERISTICS

Major Street: Highway 211

Minor Street: Dubarko Rd

Number of lanes on each approach of Major Street: 1
Number of lanes on each approach of Minor Street: 1

85th percentile speed of major-street traffic ≥ 40 mph ☒

-or-

In built-up area of an isolated community of < 10,000 pop. ☐, then use Rural Requirements

Analysis Scenario (Year): Year 2030

Date of Analysis: 3/25/2026

SUMMARY OF RESULTS

WARRANT 1: Eight-Hour Vehicular Volume	☒ YES	☐ NO
WARRANT 2: Four-Hour Vehicular Volume	☐ YES	☒ NO
WARRANT 3: Peak Hour	☐ YES	☒ NO
WARRANT 7: Crash Experience	☒ YES	☐ NO

Other Outstanding Issues

Warrant 1: Eight-Hour Vehicular Volume

	100% SATISFIED	~~80% SATISFIED~~	70% SATISFIED	~~56% SATISFIED~~
Condition A:	☐ YES ☒ NO		☐ YES ☒ NO	~~Not Applicable~~
Condition B:	☐ YES ☒ NO		☒ YES ☐ NO	
Conditions A & B:		~~☐ YES ☐ NO~~	~~Not Applicable~~	~~☐ YES ☐ NO~~

Condition A – Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1…….	1…….	500	400	350	280	150	120	105	84
2 or more…	1…….	600	480	420	336	150	120	105	84
2 or more…	2 or more…	600	480	420	336	200	160	140	112
1…….	2 or more…	500	400	350	280	200	160	140	112

Condition B – Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1…….	1…….	750	600	525	420	75	60	53	42
2 or more…	1…….	900	720	630	504	75	60	53	42
2 or more…	2 or more…	900	720	630	504	100	80	70	56
1…….	2 or more…	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.
[c] May be used when the major street speed exceeds 40 mph (70 km/h) or in an isolated community with a population of less than 10,000.
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major street speed exceeds 40 mph (70 km/h) or in an isolated community with a population of less than 10,000.

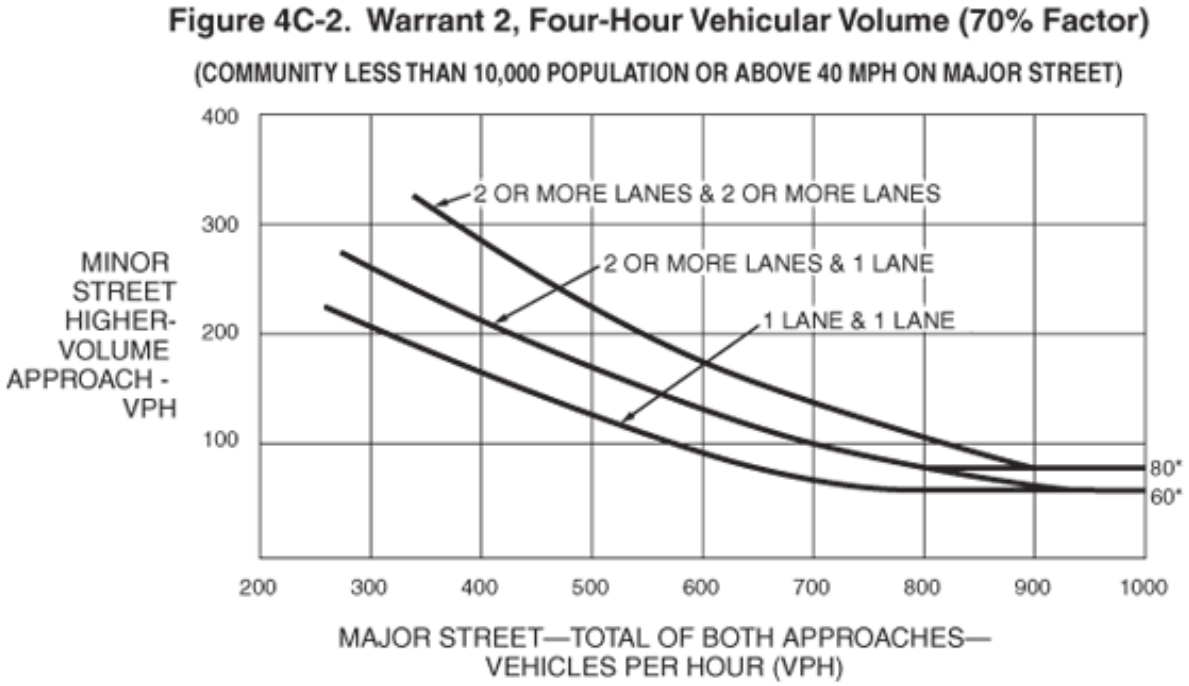
Warrant 1 Worksheet	Eight Highest Hours (1st – 8th)							
	1	2	3	4	5	6	7	8
Time Period (Hour)	4-5 PM	3-4 PM	5-6 PM	2-3 PM	7-8 AM	12-1 PM	8-9 AM	6-7 PM
Major Street (Both Approaches)	885	876	803	643	624	599	575	567
Minor Street (Highest Approach)	85	84	77	62	60	57	55	54

Warrant 2: Four-Hour Vehicular Volume

SATISFIED ☐ YES ☒ NO

Warrant 2 Worksheet	Approach Lanes		Four Highest Hours (1st – 4th)			
	1	2 or more	1	2	3	4
Time Period (Hour)			4-5 PM	3-4 PM	5-6 PM	2-3 PM
Major Street (Both Approaches)	X		885	876	803	643
Minor Street (Highest Approach)	X		85	84	77	62

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3: Peak Hour

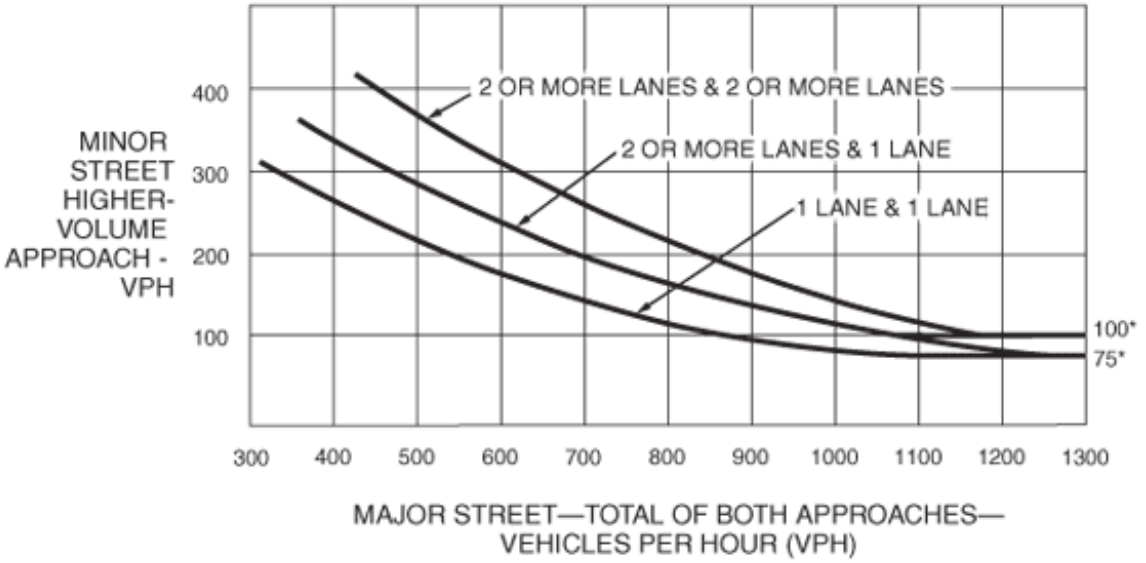
SATISFIED ☐ YES ☒ NO

Warrant 3 Worksheet	Approach Lanes		Peak Hour Volumes	
	1	2 or more	AM Peak	PM Peak
Time Period (Hour)			7am-8am	4pm-5pm
Major Street (Both Approaches)	X		624	885
Minor Street (Highest Approach)	X		60	85

REQUIREMENT	**FULFILLED**
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: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; AND	Yes ☒ No ☐
The volume on the same minor-street approach (one direction only) equals or exceeds 75 vehicles per hour for one moving lane of traffic or 100 vehicles per hour for two moving lanes; AND	Yes ☒ No ☐
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, OR	Yes ☒ No ☐
The plotted points 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 for 1 hour of an average day falls above the applicable curve.	Yes ☐ No ☒

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 7: Crash Experience

100% SATISFIED ☒ YES ☐ NO

REQUIREMENTS	WARRANT	FULFILLED
ONE WARRANT SATISFIED	Warrant 1: 56% Eight-Hour Vehicular Volume (Conditions A and B); OR Warrant 4: 80 % Pedestrian Volume	Yes ☒ No ☐
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; AND		Yes ☒ No ☐
5 or more accidents susceptible to correction by traffic signal control occurring within a 12-month period and involving injury or property damage exceeding the applicable requirements for a reportable accident.		Yes ☒ No ☐

TRAFFIC SIGNAL WARRANT ANALYSIS

PROJECT LOCATION/CHARACTERISTICS

Major Street: Highway 211

Minor Street: Dubarko Rd

Number of lanes on each approach of Major Street: 1
Number of lanes on each approach of Minor Street: 1

85th percentile speed of major-street traffic ≥ 40 mph ☒

-or-

In built-up area of an isolated community of < 10,000 pop. ☐, then use Rural Requirements

Analysis Scenario (Year): Year 2040

Date of Analysis: 3/25/2026

SUMMARY OF RESULTS

WARRANT 1: Eight-Hour Vehicular Volume	☒ YES	☐ NO
WARRANT 2: Four-Hour Vehicular Volume	☒ YES	☐ NO
WARRANT 3: Peak Hour	☒ YES	☐ NO
WARRANT 7: Crash Experience	☒ YES	☐ NO

Other Outstanding Issues

Warrant 1: Eight-Hour Vehicular Volume

	100% SATISFIED	~~80% SATISFIED~~	70% SATISFIED	~~56% SATISFIED~~
Condition A:	☐ YES ☒ NO		☐ YES ☒ NO	~~Not Applicable~~
Condition B:	☐ YES ☒ NO		☒ YES ☐ NO	
Conditions A & B:		~~☐ YES ☐ NO~~	~~Not Applicable~~	~~☐ YES ☐ NO~~

Condition A – Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1…….	1…….	500	400	350	280	150	120	105	84
2 or more…	1…….	600	480	420	336	150	120	105	84
2 or more…	2 or more…	600	480	420	336	200	160	140	112
1…….	2 or more…	500	400	350	280	200	160	140	112

Condition B – Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1…….	1…….	750	600	525	420	75	60	53	42
2 or more…	1…….	900	720	630	504	75	60	53	42
2 or more…	2 or more…	900	720	630	504	100	80	70	56
1…….	2 or more…	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.
[c] May be used when the major street speed exceeds 40 mph (70 km/h) or in an isolated community with a population of less than 10,000.
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major street speed exceeds 40 mph (70 km/h) or in an isolated community with a population of less than 10,000.

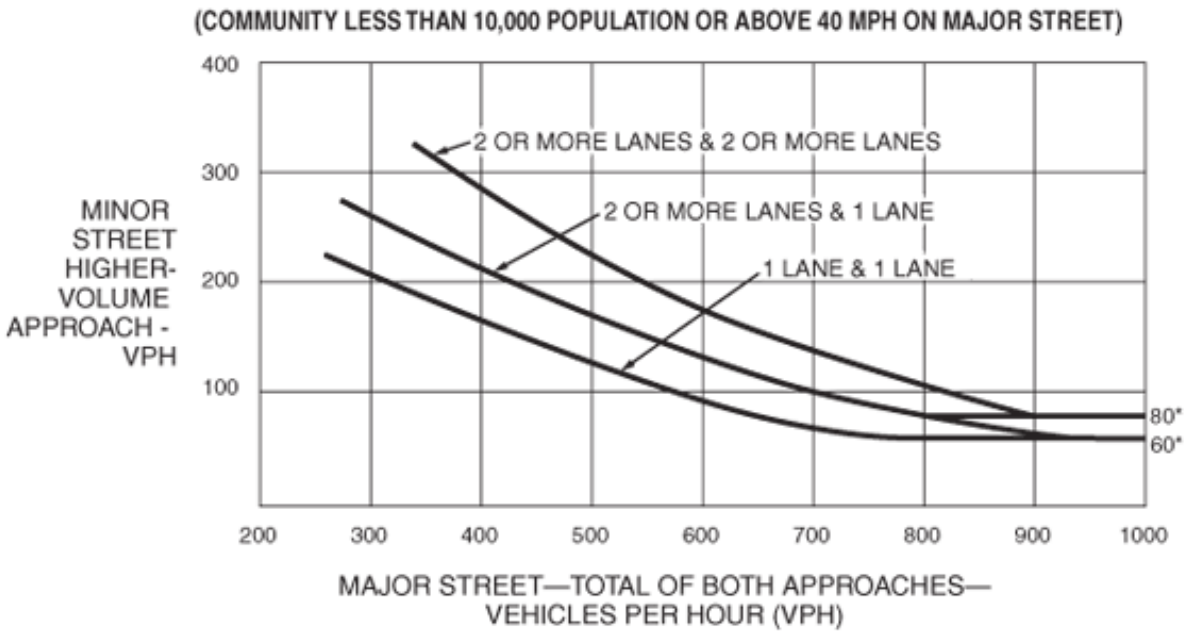
Warrant 1 Worksheet	Eight Highest Hours (1st – 8th)							
	1	2	3	4	5	6	7	8
Time Period (Hour)	4-5 PM	3-4 PM	5-6 PM	2-3 PM	7-8 AM	12-1 PM	8-9 AM	6-7 PM
Major Street (Both Approaches)	1110	1099	1007	806	783	751	721	711
Minor Street (Highest Approach)	115	114	104	84	81	78	75	74

Warrant 2: Four-Hour Vehicular Volume

SATISFIED ☒ YES ☐ NO

Warrant 2 Worksheet	Approach Lanes		Four Highest Hours (1st – 4th)			
	1	2 or more	1	2	3	4
Time Period (Hour)			4-5 PM	3-4 PM	5-6 PM	2-3 PM
Major Street (Both Approaches)	X		1110	1099	1007	806
Minor Street (Highest Approach)	X		115	114	104	84

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3: Peak Hour

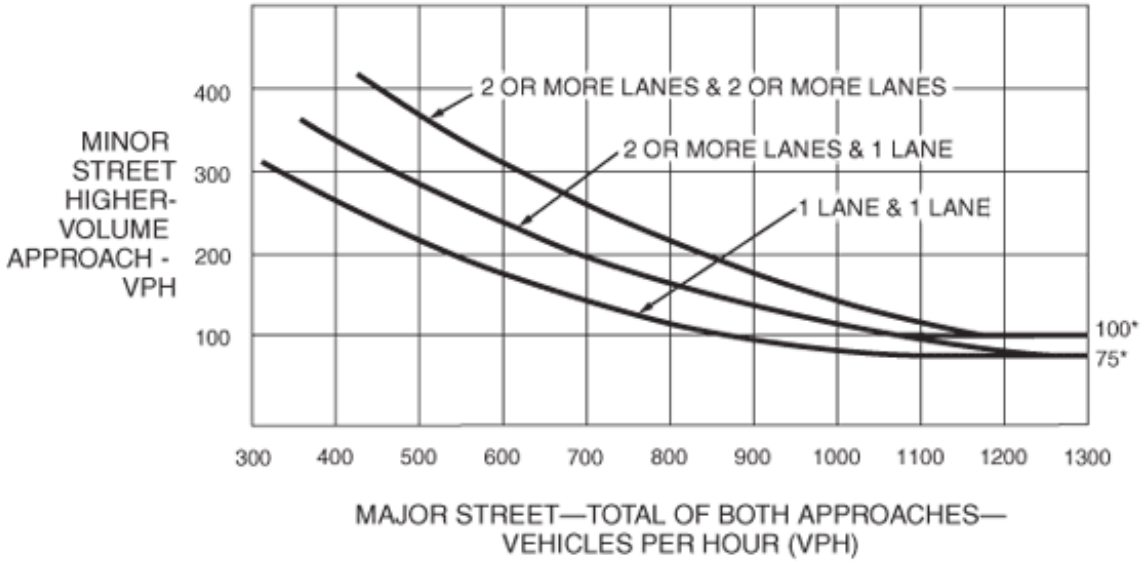
SATISFIED ☒ YES ☐ NO

Warrant 3 Worksheet	Approach Lanes		Peak Hour Volumes	
	1	2 or more	AM Peak	PM Peak
Time Period (Hour)			7am-8am	4pm-5pm
Major Street (Both Approaches)	X		783	1110
Minor Street (Highest Approach)	X		81	115

REQUIREMENT	**FULFILLED**
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: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; AND	Yes ☒ No ☐
The volume on the same minor-street approach (one direction only) equals or exceeds 75 vehicles per hour for one moving lane of traffic or 100 vehicles per hour for two moving lanes; AND	Yes ☒ No ☐
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, OR	Yes ☒ No ☐
The plotted points 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 for 1 hour of an average day falls above the applicable curve.	Yes ☐ No ☒

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



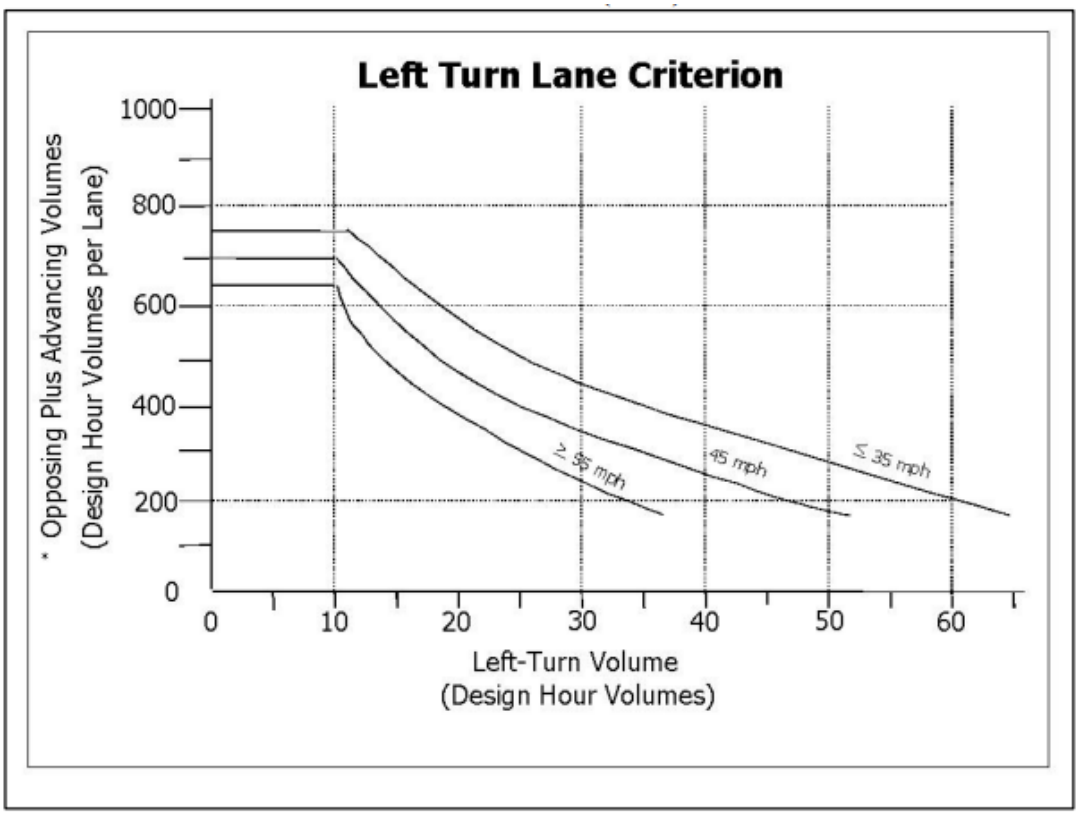
*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 7: Crash Experience

100% SATISFIED ☒ YES ☐ NO

REQUIREMENTS	WARRANT	FULFILLED
ONE WARRANT SATISFIED	Warrant 1: 56% Eight-Hour Vehicular Volume (Conditions A and B); OR Warrant 4: 80 % Pedestrian Volume	Yes ☒ No ☐
Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; AND		Yes ☒ No ☐
5 or more accidents susceptible to correction by traffic signal control occurring within a 12-month period and involving injury or property damage exceeding the applicable requirements for a reportable accident.		Yes ☒ No ☐

SECTION 4: TURN LANE EVALUATION

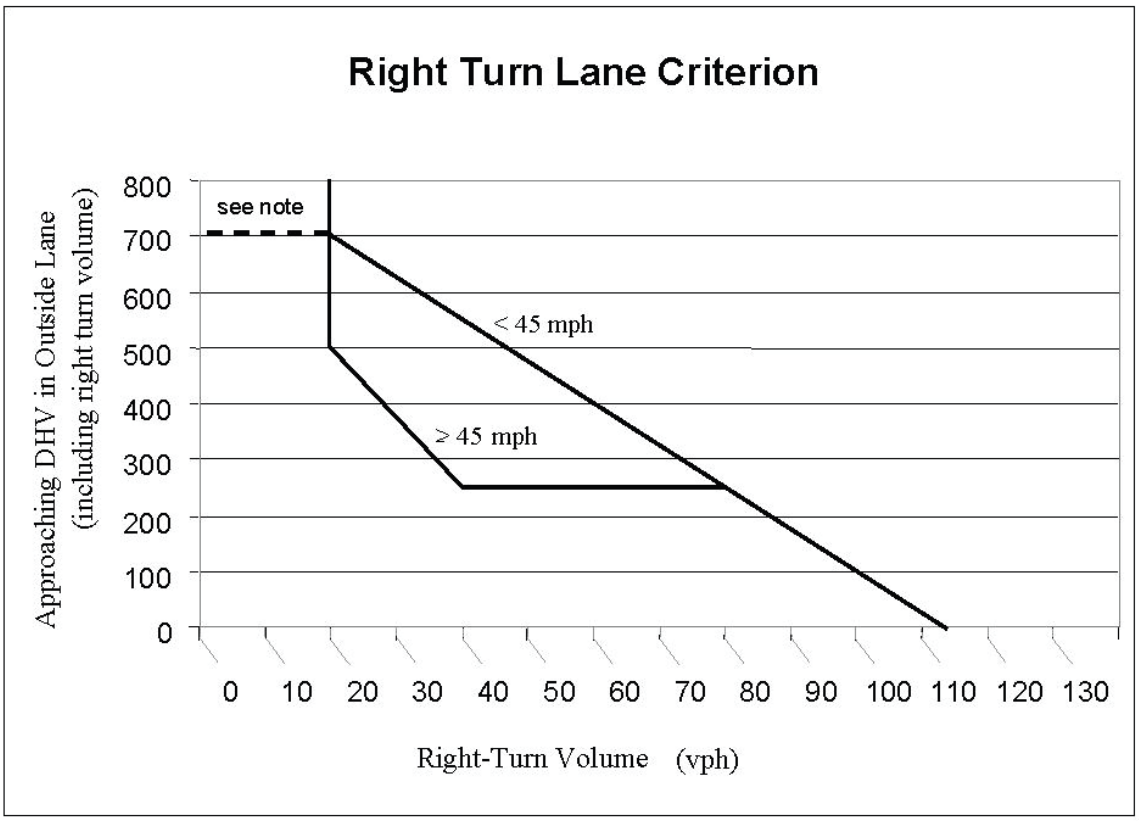


*(Advancing Volume/Number of Advancing Through Lanes) + (Opposing Volume/Number of Opposing Through Lanes)

Opposing left turns are not counted as opposing volumes

Left Turn Lane Criterion

Highway 211/ Dubarko Rd	Posted Speed	Advancing plus Opposing Volume	Left Turn Volume	Warrant Met
Northbound Left-Turn				
2026 AM Peak Hour	45 mph	475	25	Yes
2026 PM Peak Hour		780	50	Yes
Southbound Left-Turn				
2026 AM Peak Hour	45 mph	460	10	No
2026 PM Peak Hour		750	20	Yes



Right Turn Lane Criterion

Highway 211/ Dubarko Rd	Approaching Volume (outside lane)	Right Turn Volume	Major Street Speed	Warrant Met
Northbound Right-Turn				
AM Peak Hour	340	15	45 mph	No
PM Peak Hour	420	55		Yes

SECTION 5: PEDESTRIAN CROSSING EVALUATION

GUIDELINES FOR PEDESTRIAN CROSSING TREATMENTS

Version 1.2, revised 9/27/21

This spreadsheet reflects recommendations of TCRP Report 112/NCHRP Report 562 (Improving Pedestrian Safety at Unsignalized Intersections) and FHWA Report HRT-04-100 (Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations) along with Portland Bureau of Transportation practices. It is based on the TTI spreadsheet and adapted for PBOT use. Revisions are tracked in last tab.

Key

Green fields are required and must be completed.
Tan fields are adjustments that are filled out only under certain conditions (follow instructions to the left of the cell).

Analyst and Site Information			
Analyst	DKS	Major Street	Highway 211
Analysis Date	March 20, 2026	Minor Street or Location	Dubarko Road
Data Date	March 1, 2026	Analysis Hour/Scenario	2040 p.m. peak hour without east Dubarko Road ext.

Step 1: Select worksheet.			
Posted or statutory speed limit and 85% speed on the major street	Posted speed (mph)	*1a-1*	45
	85% speed if available (mph)	*1a-2*	
Is the population of the surrounding area <10,000? (enter *YES* or *NO*)		*1b*	NO
Primary lanes per direction:	○ One lane per direction ◉ Two or more lanes in one direction	*1c*	2
Median type:	◉ None ○ TWLTL or painted median ○ Raised median ○ One-way street	*1d*	1
Is crossing on a SRTS route or adjacent to a school, care facility, or other similar use?		*1e*	NO

Step 2: Does the crossing meet minimum pedestrian volumes to be considered for a traffic control device?		
If bicycle crossings are a goal of the crossing improvement, estimate peak-hour bicycles crossing as pedestrians:	*2a-1*	5
Peak-hour pedestrian volume (ped/h), V_p	*2a-2*	15
Effective Peak-hour pedestrian volume including bicycles operating as pedestrians (ped/h), $V_{p\text{-}eff}$	*2a*	20

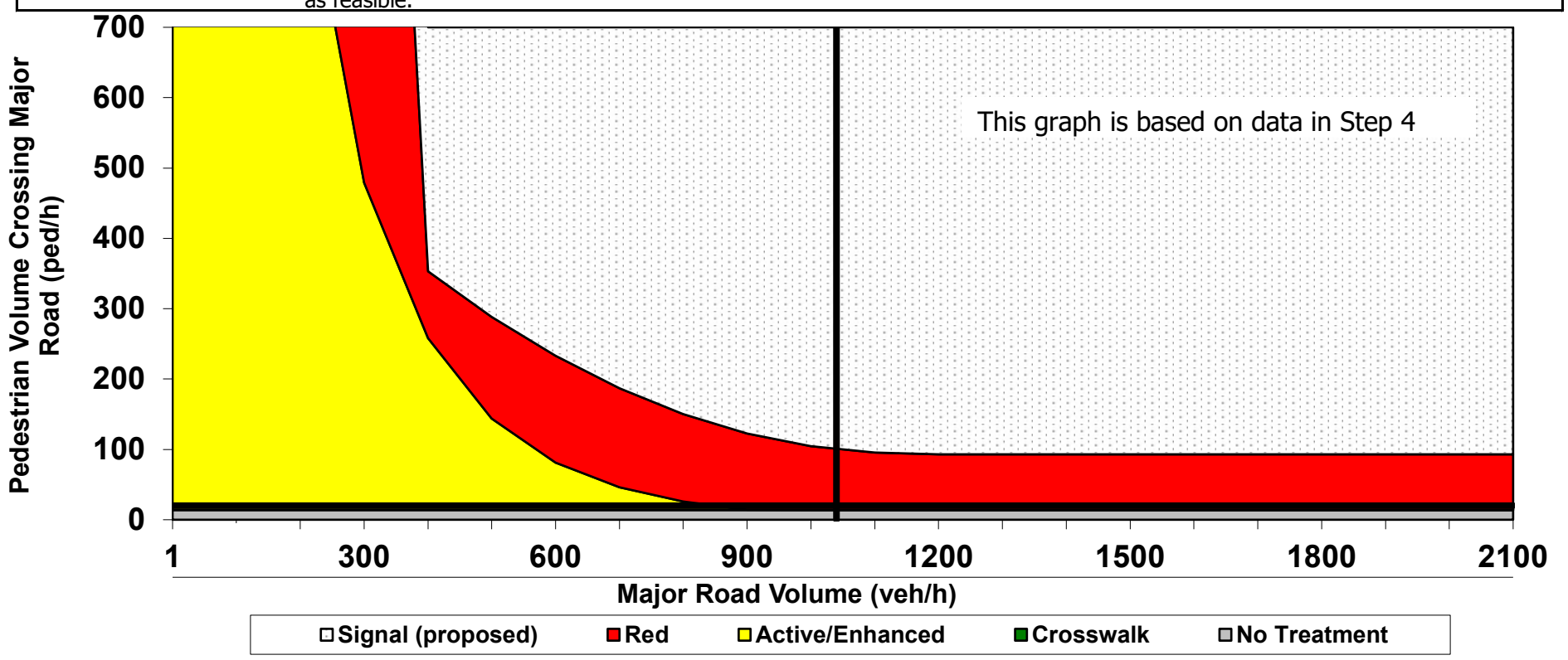
Step 3: Does the crossing meet the peak-hour pedestrian warrant for a traffic signal or PHB?					
Major road volume, by direction (if available) during peak hour (veh/h), $V_{maj\text{-}s}$	Dir1/Dir2	495	545	*3a*	1,040
Full pedestrian crossing distance, from curb to curb (ft)				*3a-2*	50
[Calculated automatically] Preliminary (before min. threshold) peak hour pedestrian volume to meet warrant				*3b*	93
[Calculated automatically] Minimum required peak hour pedestrian volume to meet traffic signal warrant, PHB warrant				*3c*	93 20
Is 15th percentile crossing speed of pedestrians less than 3.5 ft/s? (enter ***YES*** or ***NO***)				*3d*	NO
If 15th percentile crossing speed of pedestrians is less than 3.5 ft/s, then reduce *3c* by up to 50%.	% reduction for 3c (up to 50%)			*3e*	
	Reduced value for 3c signal warrant			*3f*	93

Step 4: Estimate pedestrian delay.		
Crossing distance from curb to median refuge, if present (ft)		
Effective Pedestrian crossing distance, curb to curb or refuge (ft), L	*4a*	50
Pedestrian walking speed (ft/s), S_p (suggested speed = 3.5 ft/s)	*4b*	3.5
Pedestrian start-up time and end clearance time (s), t_s (suggested start-up time = 3 sec)	*4c*	3
[Calculated automatically] Critical gap required for crossing pedestrian (s), t_c	*4d*	17
Major road peak-hr volume, total both directions OR portion being crossed if raised median island is present (vph), $V_{maj\text{-}d}$	*4e*	1,040
Major road flow rate (veh/s), v	*4f*	0.41
Average pedestrian delay (s/person), d_p	*4g*	2899
Total pedestrian delay (h), D_p The value in 4h is the calculated estimated delay for all pedestrians crossing the major roadway without a crossing treatment (assumes 0% compliance). If the actual total pedestrian delay has been measured at the site, that value can be entered in 4i to replace the calculated value in 4h.	*4h*	16.1
	4i	

Step 5: Select treatment based up on total pedestrian delay and expected motorist compliance.		
Expected motorist compliance at pedestrian crossings in region: enter HIGH or LOW for compliance	*5a*	low

NCHRP 562 Category:	2005 FHWA Report:	PBOT SOP:	Signal Warrant:
RED	**Enhancements Needed**	**RED**	**PHB warrant is met.**

Other considerations: Consider a lane reduction. Traffic slowing or calming should be included due to high posted speed. Consider access management as feasible.



This PBOT Ped crossing analysis tool is based on the original TTI spreadsheet and provides recommendations on crossing treatments to consider at unsignalized intersections; in all cases, engineering judgment should be used in selecting a specific treatment. This tool does not apply to school crossings. In addition to the results provided by this worksheet, users should consider whether a treatment could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex geometrics, or nearby traffic signals.

SECTION 6: EXISTING YEAR CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	15	40	40	45	60	25	300	15	10	130	5
Future Vol, veh/h	5	15	40	40	45	60	25	300	15	10	130	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	6	17	47	47	52	70	29	349	17	12	151	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	652	599	151	626	597	358	157	0	0	366	0	0
Stage 1	175	175	-	416	416	-	-	-	-	-	-	-
Stage 2	477	424	-	210	181	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	384	418	887	395	404	656	1423	-	-	1150	-	-
Stage 1	832	758	-	612	577	-	-	-	-	-	-	-
Stage 2	573	590	-	790	733	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	300	403	887	352	389	656	1423	-	-	1150	-	-
Mov Cap-2 Maneuver	300	403	-	352	389	-	-	-	-	-	-	-
Stage 1	810	750	-	596	562	-	-	-	-	-	-	-
Stage 2	452	575	-	723	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.3	15.3	0.6	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1423	-	-	371	887	371	656	1150	-	-
HCM Lane V/C Ratio	0.02	-	-	0.063	0.052	0.266	0.106	0.01	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	15.4	9.3	18.2	11.1	8.2	0	-
HCM Lane LOS	A	A	-	C	A	C	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.2	0.2	1.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	40	65	35	40	25	50	315	55	20	350	10
Future Vol, veh/h	10	40	65	35	40	25	50	315	55	20	350	10
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	11	44	71	38	44	27	55	346	60	22	385	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	953	945	385	978	926	378	396	0	0	406	0	0
Stage 1	429	429	-	486	486	-	-	-	-	-	-	-
Stage 2	524	516	-	492	440	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	231	264	656	226	265	673	1152	-	-	1137	-	-
Stage 1	589	587	-	555	544	-	-	-	-	-	-	-
Stage 2	522	538	-	551	571	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	178	242	656	162	242	672	1152	-	-	1137	-	-
Mov Cap-2 Maneuver	178	242	-	162	242	-	-	-	-	-	-	-
Stage 1	552	572	-	521	510	-	-	-	-	-	-	-
Stage 2	428	505	-	442	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.6	29.5	1	0.4
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1152	-	-	226	656	197	672	1137	-	-
HCM Lane V/C Ratio	0.048	-	-	0.243	0.109	0.418	0.041	0.019	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	26	11.2	35.8	10.6	8.2	0	-
HCM Lane LOS	A	A	-	D	B	E	B	A	A	-
HCM 95th %tile Q (veh)	0.2	-	-	0.9	0.4	1.9	0.1	0.1	-	-

SECTION 7: 2030 NO-BUILD (WITHOUT THE DUBARKO ROAD EXTENSION) CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	20	50	55	55	65	30	355	20	10	125	10
Future Vol, veh/h	10	20	50	55	55	65	30	355	20	10	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	11	22	56	61	61	72	33	394	22	11	139	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	699	643	139	677	643	405	150	0	0	416	0	0
Stage 1	161	161	-	471	471	-	-	-	-	-	-	-
Stage 2	538	482	-	206	172	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	357	394	901	365	380	616	1431	-	-	1101	-	-
Stage 1	846	769	-	571	545	-	-	-	-	-	-	-
Stage 2	531	557	-	794	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	378	901	317	364	616	1431	-	-	1101	-	-
Mov Cap-2 Maneuver	266	378	-	317	364	-	-	-	-	-	-	-
Stage 1	821	761	-	554	529	-	-	-	-	-	-	-
Stage 2	402	540	-	715	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.2	17.8	0.6	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1431	-	-	331	901	339	616	1101	-	-
HCM Lane V/C Ratio	0.023	-	-	0.101	0.062	0.361	0.117	0.01	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	17.1	9.3	21.5	11.6	8.3	0	-
HCM Lane LOS	A	A	-	C	A	C	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0.2	1.6	0.4	0	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↰	↱
Traffic Vol, veh/h	15	50	70	40	45	25	60	310	70	25	405	15
Future Vol, veh/h	15	50	70	40	45	25	60	310	70	25	405	15
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	16	55	77	44	49	27	66	341	77	27	445	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1051	1049	445	1085	1027	382	461	0	0	418	0	0
Stage 1	499	499	-	512	512	-	-	-	-	-	-	-
Stage 2	552	550	-	573	515	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	198	229	607	191	231	670	1090	-	-	1125	-	-
Stage 1	539	547	-	537	530	-	-	-	-	-	-	-
Stage 2	504	519	-	498	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	142	204	607	121	206	669	1090	-	-	1125	-	-
Mov Cap-2 Maneuver	142	204	-	121	206	-	-	-	-	-	-	-
Stage 1	496	529	-	494	488	-	-	-	-	-	-	-
Stage 2	399	477	-	377	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	23.5	47.5	1.2	0.5
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1090	-	-	185	607	155	669	1125	-	-
HCM Lane V/C Ratio	0.06	-	-	0.386	0.127	0.603	0.041	0.024	-	-
HCM Ctrl Dly (s/v)	8.5	0	-	36.2	11.8	58.4	10.6	8.3	0	-
HCM Lane LOS	A	A	-	E	B	F	B	A	A	-
HCM 95th %tile Q (veh)	0.2	-	-	1.7	0.4	3.2	0.1	0.1	-	-

SECTION 8: 2040 NO-BUILD (WITHOUT THE DUBARKO ROAD EXTENSION) CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	14.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Future Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	83	94	50	544	39	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	839	122	895	842	564	144	0	0	583	0	0
Stage 1	156	156	-	664	664	-	-	-	-	-	-	-
Stage 2	752	683	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	260	291	499	1438	-	-	953	-	-
Stage 1	851	772	-	448	445	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	151	283	921	199	271	499	1438	-	-	953	-	-
Mov Cap-2 Maneuver	151	283	-	199	271	-	-	-	-	-	-	-
Stage 1	807	757	-	425	422	-	-	-	-	-	-	-
Stage 2	250	428	-	647	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.3	51.7	0.6	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	207	921	225	499	953	-	-
HCM Lane V/C Ratio	0.035	-	-	0.322	0.097	0.84	0.189	0.017	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	30.4	9.3	70.6	13.9	8.8	0	-
HCM Lane LOS	A	A	-	D	A	F	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	1.3	0.3	6.5	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	62

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↰	↱
Traffic Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Future Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	77	93	60	66	33	99	324	121	49	593	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1334	593	1376	1307	387	626	0	0	445	0	0
Stage 1	691	691	-	583	583	-	-	-	-	-	-	-
Stage 2	634	643	-	793	724	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	128	155	500	120	157	665	946	-	-	1099	-	-
Stage 1	422	449	-	491	492	-	-	-	-	-	-	-
Stage 2	454	472	-	376	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	124	500	~ 42	125	664	946	-	-	1099	-	-
Mov Cap-2 Maneuver	61	124	-	~ 42	125	-	-	-	-	-	-	-
Stage 1	362	418	-	421	422	-	-	-	-	-	-	-
Stage 2	312	405	-	232	396	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	106.7	$ 473.1	1.7	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	98	500	64	664	1099	-	-
HCM Lane V/C Ratio	0.105	-	-	1.065	0.187	1.975	0.05	0.045	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	189.9	13.8	$ 593.7	10.7	8.4	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q (veh)	0.3	-	-	6.7	0.7	11.8	0.2	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SECTION 9: 2040 BUILD (WITH THE DUBARKO ROAD EXTENSION) CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	28.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	35	80	95	145	85	45	420	105	15	110	20
Future Vol, veh/h	25	35	80	95	145	85	45	420	105	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	161	94	50	467	117	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	909	840	122	857	804	526	144	0	0	584	0	0
Stage 1	156	156	-	626	626	-	-	-	-	-	-	-
Stage 2	753	684	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	276	306	525	1438	-	-	952	-	-
Stage 1	851	772	-	470	463	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	111	283	921	211	285	525	1438	-	-	952	-	-
Mov Cap-2 Maneuver	111	283	-	211	285	-	-	-	-	-	-	-
Stage 1	807	757	-	446	439	-	-	-	-	-	-	-
Stage 2	199	428	-	647	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.9	91.3	0.6	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	172	921	250	525	952	-	-
HCM Lane V/C Ratio	0.035	-	-	0.388	0.097	1.067	0.18	0.018	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	38.6	9.3	118.9	13.4	8.8	0	-
HCM Lane LOS	A	A	-	E	A	F	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	1.7	0.3	11.1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↰	↱
Traffic Vol, veh/h	25	140	85	125	60	30	90	295	110	45	470	30
Future Vol, veh/h	25	140	85	125	60	30	90	295	110	45	470	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	154	93	137	66	33	99	324	121	49	516	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1248	1257	516	1337	1230	387	549	0	0	445	0	0
Stage 1	614	614	-	583	583	-	-	-	-	-	-	-
Stage 2	634	643	-	754	647	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	144	173	553	~ 128	174	665	1011	-	-	1099	-	-
Stage 1	466	486	-	491	492	-	-	-	-	-	-	-
Stage 2	454	472	-	395	460	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	75	~ 140	553	-	141	664	1011	-	-	1099	-	-
Mov Cap-2 Maneuver	75	~ 140	-	-	141	-	-	-	-	-	-	-
Stage 1	404	454	-	426	427	-	-	-	-	-	-	-
Stage 2	316	410	-	203	430	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	209.6		1.6	0.7
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1011	-	-	124	553	-	-	1099	-	-
HCM Lane V/C Ratio	0.098	-	-	1.462	0.169	-	-	0.045	-	-
HCM Ctrl Dly (s/v)	8.9	0	-	$ 311	12.8	-	-	8.4	0	-
HCM Lane LOS	A	A	-	F	B	-	-	A	A	-
HCM 95th %tile Q (veh)	0.3	-	-	12.6	0.6	-	-	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SECTION 10: 2040 INTERSECTION CONTROL EVALUATION CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	14.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Future Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	83	94	50	544	39	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	839	122	895	842	564	144	0	0	583	0	0
Stage 1	156	156	-	664	664	-	-	-	-	-	-	-
Stage 2	752	683	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	260	291	499	1438	-	-	953	-	-
Stage 1	851	772	-	448	445	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	151	283	921	199	271	499	1438	-	-	953	-	-
Mov Cap-2 Maneuver	151	283	-	199	271	-	-	-	-	-	-	-
Stage 1	807	757	-	425	422	-	-	-	-	-	-	-
Stage 2	250	428	-	647	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.3	51.7	0.6	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	207	921	225	499	953	-	-
HCM Lane V/C Ratio	0.035	-	-	0.322	0.097	0.84	0.189	0.017	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	30.4	9.3	70.6	13.9	8.8	0	-
HCM Lane LOS	A	A	-	D	A	F	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	1.3	0.3	6.5	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	62

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↰	↱
Traffic Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Future Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	77	93	60	66	33	99	324	121	49	593	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1334	593	1376	1307	387	626	0	0	445	0	0
Stage 1	691	691	-	583	583	-	-	-	-	-	-	-
Stage 2	634	643	-	793	724	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	128	155	500	120	157	665	946	-	-	1099	-	-
Stage 1	422	449	-	491	492	-	-	-	-	-	-	-
Stage 2	454	472	-	376	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	124	500	~ 42	125	664	946	-	-	1099	-	-
Mov Cap-2 Maneuver	61	124	-	~ 42	125	-	-	-	-	-	-	-
Stage 1	362	418	-	421	422	-	-	-	-	-	-	-
Stage 2	312	405	-	232	396	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	106.7	$ 473.1	1.7	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	98	500	64	664	1099	-	-
HCM Lane V/C Ratio	0.105	-	-	1.065	0.187	1.975	0.05	0.045	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	189.9	13.8	$ 593.7	10.7	8.4	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q (veh)	0.3	-	-	6.7	0.7	11.8	0.2	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	14

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Future Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	150	-	-	150	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	83	94	50	544	39	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	839	122	895	842	564	144	0	0	583	0	0
Stage 1	156	156	-	664	664	-	-	-	-	-	-	-
Stage 2	752	683	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	260	291	499	1438	-	-	953	-	-
Stage 1	851	772	-	448	445	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	288	921	203	276	499	1438	-	-	953	-	-
Mov Cap-2 Maneuver	154	288	-	203	276	-	-	-	-	-	-	-
Stage 1	821	758	-	432	429	-	-	-	-	-	-	-
Stage 2	255	436	-	648	722	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.1	49	0.6	0.9
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	211	921	230	499	953	-	-
HCM Lane V/C Ratio	0.035	-	-	0.316	0.097	0.821	0.189	0.017	-	-
HCM Ctrl Dly (s/v)	7.6	-	-	29.8	9.3	66.5	13.9	8.8	-	-
HCM Lane LOS	A	-	-	D	A	F	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	1.3	0.3	6.2	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	51.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Future Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	150	-	-	150	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	77	93	60	66	33	99	324	121	49	593	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1334	593	1376	1307	387	626	0	0	445	0	0
Stage 1	691	691	-	583	583	-	-	-	-	-	-	-
Stage 2	634	643	-	793	724	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	128	155	500	120	157	665	946	-	-	1099	-	-
Stage 1	422	449	-	491	492	-	-	-	-	-	-	-
Stage 2	454	472	-	376	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	133	500	~ 48	134	664	946	-	-	1099	-	-
Mov Cap-2 Maneuver	67	133	-	~ 48	134	-	-	-	-	-	-	-
Stage 1	378	429	-	439	440	-	-	-	-	-	-	-
Stage 2	328	422	-	240	406	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	90.1	$ 388	1.7	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	106	500	72	664	1099	-	-
HCM Lane V/C Ratio	0.105	-	-	0.985	0.187	1.755	0.05	0.045	-	-
HCM Ctrl Dly (s/v)	9.2	-	-	158.3	13.8	$ 486.4	10.7	8.4	-	-
HCM Lane LOS	A	-	-	F	B	F	B	A	-	-
HCM 95th %tile Q (veh)	0.3	-	-	6.2	0.7	11.1	0.2	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	13.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Future Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	150	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	83	94	50	544	39	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	839	122	875	822	544	144	0	0	583	0	0
Stage 1	156	156	-	644	644	-	-	-	-	-	-	-
Stage 2	752	683	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	269	299	513	1438	-	-	953	-	-
Stage 1	851	772	-	460	454	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	283	921	206	278	513	1438	-	-	953	-	-
Mov Cap-2 Maneuver	154	283	-	206	278	-	-	-	-	-	-	-
Stage 1	807	757	-	436	430	-	-	-	-	-	-	-
Stage 2	253	428	-	647	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.1	47.3	0.6	0.9
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	210	921	233	513	953	-	-
HCM Lane V/C Ratio	0.035	-	-	0.317	0.097	0.811	0.184	0.017	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	29.9	9.3	64.2	13.6	8.8	0	-
HCM Lane LOS	A	A	-	D	A	F	B	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	1.3	0.3	6.1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	52.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Future Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	150	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	77	93	60	66	33	99	324	121	49	593	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1334	593	1315	1246	326	626	0	0	445	0	0
Stage 1	691	691	-	522	522	-	-	-	-	-	-	-
Stage 2	634	643	-	793	724	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	128	155	500	132	171	720	946	-	-	1099	-	-
Stage 1	422	449	-	531	524	-	-	-	-	-	-	-
Stage 2	454	472	-	376	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	65	124	500	~ 47	137	719	946	-	-	1099	-	-
Mov Cap-2 Maneuver	65	124	-	~ 47	137	-	-	-	-	-	-	-
Stage 1	362	418	-	456	450	-	-	-	-	-	-	-
Stage 2	317	405	-	232	396	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	102.2	$ 387.9	1.7	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	100	500	72	719	1099	-	-
HCM Lane V/C Ratio	0.105	-	-	1.044	0.187	1.755	0.046	0.045	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	181.3	13.8	$ 486.4	10.2	8.4	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q (veh)	0.3	-	-	6.5	0.7	11.1	0.1	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Future Vol, veh/h	25	35	80	95	75	85	45	490	35	15	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	28	39	89	106	83	94	50	544	39	17	122	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	839	122	895	842	564	144	0	0	583	0	0
Stage 1	156	156	-	664	664	-	-	-	-	-	-	-
Stage 2	752	683	-	231	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	258	304	921	260	291	499	1438	-	-	953	-	-
Stage 1	851	772	-	448	445	-	-	-	-	-	-	-
Stage 2	405	452	-	770	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	151	283	921	199	271	499	1438	-	-	953	-	-
Mov Cap-2 Maneuver	151	283	-	199	271	-	-	-	-	-	-	-
Stage 1	807	757	-	425	422	-	-	-	-	-	-	-
Stage 2	250	428	-	647	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.3	31	0.6	0.9
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	151	546	199	358	953	-	-
HCM Lane V/C Ratio	0.035	-	-	0.184	0.234	0.53	0.497	0.017	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	34.1	13.6	41.9	24.6	8.8	0	-
HCM Lane LOS	A	A	-	D	B	E	C	A	A	-
HCM 95th %tile Q (veh)	0.1	-	-	0.6	0.9	2.7	2.6	0.1	-	-

Intersection	
Int Delay, s/veh	30.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Future Vol, veh/h	25	70	85	55	60	30	90	295	110	45	540	30
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	-	-	-	-	-	325
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	27	77	93	60	66	33	99	324	121	49	593	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1334	593	1376	1307	387	626	0	0	445	0	0
Stage 1	691	691	-	583	583	-	-	-	-	-	-	-
Stage 2	634	643	-	793	724	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	128	155	500	120	157	665	946	-	-	1099	-	-
Stage 1	422	449	-	491	492	-	-	-	-	-	-	-
Stage 2	454	472	-	376	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	124	500	~ 42	125	664	946	-	-	1099	-	-
Mov Cap-2 Maneuver	61	124	-	~ 42	125	-	-	-	-	-	-	-
Stage 1	362	418	-	421	422	-	-	-	-	-	-	-
Stage 2	312	405	-	232	396	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	73.7	200.8	1.7	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	61	211	42	171	1099	-	-
HCM Lane V/C Ratio	0.105	-	-	0.45	0.807	1.439	0.578	0.045	-	-
HCM Ctrl Dly (s/v)	9.2	0	-	105.4	68.6	$ 445	51.5	8.4	0	-
HCM Lane LOS	A	A	-	F	F	F	F	A	A	-
HCM 95th %tile Q (veh)	0.3	-	-	1.7	5.8	6.1	3.1	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

MOVEMENT SUMMARY

Site: [2 (4)] Hwy 211--Dubarko Rd_2040AMpeak_w/o ext

(Folder1)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Highway 211															
3	L2	All MCs	50	2.0	50	2.0	0.520	8.2	LOS A	4.0	102.0	0.38	0.16	0.38	31.3
8	T1	All MCs	544	4.0	544	4.0	0.520	8.4	LOS A	4.0	102.0	0.38	0.16	0.38	31.9
18	R2	All MCs	39	2.0	39	2.0	0.520	8.2	LOS A	4.0	102.0	0.38	0.16	0.38	31.7
Approach			633	3.7	633	3.7	0.520	8.3	LOS A	4.0	102.0	0.38	0.16	0.38	31.8
East: Dubarko Rd															
1	L2	All MCs	106	3.0	106	3.0	0.460	11.7	LOS B	2.5	66.5	0.73	0.73	1.00	28.8
6	T1	All MCs	83	11.0	83	11.0	0.460	13.2	LOS B	2.5	66.5	0.73	0.73	1.00	29.2
16	R2	All MCs	94	16.0	94	16.0	0.460	14.3	LOS B	2.5	66.5	0.73	0.73	1.00	28.8
Approach			283	9.7	283	9.7	0.460	12.9	LOS B	2.5	66.5	0.73	0.73	1.00	28.9
North: Highway 211															
7	L2	All MCs	17	10.0	17	10.0	0.161	5.5	LOS A	0.7	18.2	0.41	0.26	0.41	32.5
4	T1	All MCs	122	4.0	122	4.0	0.161	4.9	LOS A	0.7	18.2	0.41	0.26	0.41	33.3
14	R2	All MCs	22	12.0	22	12.0	0.161	5.6	LOS A	0.7	18.2	0.41	0.26	0.41	32.9
Approach			161	5.7	161	5.7	0.161	5.1	LOS A	0.7	18.2	0.41	0.26	0.41	33.2
West: Dubarko Rd Ext															
5	L2	All MCs	28	0.0	28	0.0	0.151	4.6	LOS A	0.7	17.1	0.41	0.26	0.41	32.7
2	T1	All MCs	39	0.0	39	0.0	0.151	4.6	LOS A	0.7	17.1	0.41	0.26	0.41	33.3
12	R2	All MCs	89	5.0	89	5.0	0.151	5.0	LOS A	0.7	17.1	0.41	0.26	0.41	32.9
Approach			156	2.9	156	2.9	0.151	4.9	LOS A	0.7	17.1	0.41	0.26	0.41	33.0
All Vehicles			1233	5.2	1233	5.2	0.520	8.5	LOS A	4.0	102.0	0.47	0.32	0.53	31.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: [2 (3)] Hwy 211--Dubarko Rd_2040PMpeak_w/o ext

(Folder1)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed mph
South: Highway 211															
3	L2	All MCs	99	4.0	99	4.0	0.480	8.4	LOS A	3.2	82.4	0.48	0.25	0.48	31.0
8	T1	All MCs	324	2.0	324	2.0	0.480	8.2	LOS A	3.2	82.4	0.48	0.25	0.48	31.7
18	R2	All MCs	121	6.0	121	6.0	0.480	8.6	LOS A	3.2	82.4	0.48	0.25	0.48	31.3
Approach			544	3.3	544	3.3	0.480	8.3	LOS A	3.2	82.4	0.48	0.25	0.48	31.5
East: Dubarko Rd															
1	L2	All MCs	60	6.0	60	6.0	0.198	6.7	LOS A	0.8	21.4	0.55	0.43	0.55	31.3
6	T1	All MCs	66	6.0	66	6.0	0.198	6.7	LOS A	0.8	21.4	0.55	0.43	0.55	32.0
16	R2	All MCs	33	0.0	33	0.0	0.198	5.9	LOS A	0.8	21.4	0.55	0.43	0.55	31.8
Approach			159	4.8	159	4.8	0.198	6.5	LOS A	0.8	21.4	0.55	0.43	0.55	31.7
North: Highway 211															
7	L2	All MCs	49	5.0	49	5.0	0.658	13.0	LOS B	8.4	218.1	0.73	0.58	1.00	29.4
4	T1	All MCs	593	5.0	593	5.0	0.658	13.0	LOS B	8.4	218.1	0.73	0.58	1.00	29.9
14	R2	All MCs	33	0.0	33	0.0	0.658	12.4	LOS B	8.4	218.1	0.73	0.58	1.00	29.8
Approach			676	4.8	676	4.8	0.658	12.9	LOS B	8.4	218.1	0.73	0.58	1.00	29.9
West: Dubarko Rd Ext															
5	L2	All MCs	27	10.0	27	10.0	0.325	11.8	LOS B	1.4	36.2	0.69	0.64	0.75	30.1
2	T1	All MCs	77	0.0	77	0.0	0.325	9.5	LOS A	1.4	36.2	0.69	0.64	0.75	30.9
12	R2	All MCs	93	5.0	93	5.0	0.325	10.6	LOS B	1.4	36.2	0.69	0.64	0.75	30.6
Approach			198	3.8	198	3.8	0.325	10.3	LOS B	1.4	36.2	0.69	0.64	0.75	30.7
All Vehicles			1577	4.1	1577	4.1	0.658	10.4	LOS B	8.4	218.1	0.62	0.46	0.74	30.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	69	68	418	76	35	381	58	631	45	26	189	172
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.42	0.43	0.43	0.11	0.12	0.12
Sat Flow, veh/h	0	238	1466	0	123	1335	136	1476	106	212	1521	1383
Grp Volume(v), veh/h	67	0	89	189	0	94	633	0	0	139	0	22
Grp Sat Flow(s),veh/h/ln	238	0	1466	123	0	1335	1718	0	0	1733	0	1383
Q Serve(g_s), s	0.0	0.0	3.4	0.0	0.0	4.0	24.6	0.0	0.0	5.6	0.0	1.0
Cycle Q Clear(g_c), s	21.0	0.0	3.4	21.0	0.0	4.0	24.6	0.0	0.0	5.6	0.0	1.0
Prop In Lane	0.42		1.00	0.56		1.00	0.08		0.06	0.12		1.00
Lane Grp Cap(c), veh/h	137	0	418	111	0	381	735	0	0	216	0	172
V/C Ratio(X)	0.49	0.00	0.21	1.70	0.00	0.25	0.86	0.00	0.00	0.64	0.00	0.13
Avail Cap(c_a), veh/h	137	0	418	111	0	381	886	0	0	447	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	20.0	30.5	0.0	20.3	19.1	0.0	0.0	30.7	0.0	28.7
Incr Delay (d2), s/veh	2.0	0.0	0.2	349.9	0.0	0.2	9.2	0.0	0.0	6.7	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.1	12.8	0.0	1.2	10.3	0.0	0.0	2.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.8	0.0	20.2	380.4	0.0	20.5	28.4	0.0	0.0	37.5	0.0	29.4
LnGrp LOS	C		C	F		C	C			D		C
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		21.8			260.9			28.4			36.4	
Approach LOS		C			F			C			D	

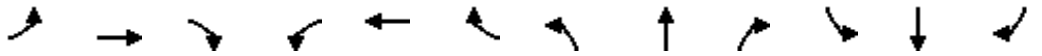
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.5		25.0		13.2		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		37.2		21.0		18.2		21.0				
Max Q Clear Time (g_c+I1), s		26.6		23.0		7.6		23.0				
Green Ext Time (p_c), s		4.1		0.0		0.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			81.9									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	50	109	341	59	42	354	92	302	113	44	531	508
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.29	0.30	0.30	0.32	0.33	0.33
Sat Flow, veh/h	0	468	1460	0	180	1519	307	1006	376	132	1592	1525
Grp Volume(v), veh/h	104	0	93	126	0	33	544	0	0	642	0	33
Grp Sat Flow(s),veh/h/ln	468	0	1460	180	0	1519	1689	0	0	1723	0	1525
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	1.5	27.0	0.0	0.0	30.0	0.0	1.3
Cycle Q Clear(g_c), s	21.0	0.0	4.7	21.0	0.0	1.5	27.0	0.0	0.0	30.0	0.0	1.3
Prop In Lane	0.26		1.00	0.48		1.00	0.18		0.22	0.08		1.00
Lane Grp Cap(c), veh/h	160	0	341	101	0	354	507	0	0	574	0	508
V/C Ratio(X)	0.65	0.00	0.27	1.25	0.00	0.09	1.07	0.00	0.00	1.12	0.00	0.06
Avail Cap(c_a), veh/h	160	0	341	101	0	354	507	0	0	574	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	28.2	36.7	0.0	27.0	31.6	0.0	0.0	30.0	0.0	20.4
Incr Delay (d2), s/veh	8.3	0.0	0.3	170.5	0.0	0.1	61.2	0.0	0.0	74.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.6	7.0	0.0	0.6	18.9	0.0	0.0	23.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.7	0.0	28.6	207.2	0.0	27.1	92.8	0.0	0.0	104.2	0.0	20.6
LnGrp LOS	D		C	F		C	F			F		C
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		33.4			169.8			92.8			100.1	
Approach LOS		C			F			F			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		25.0		34.0		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		26.2		21.0		29.2		21.0				
Max Q Clear Time (g_c+I1), s		29.0		23.0		32.0		23.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

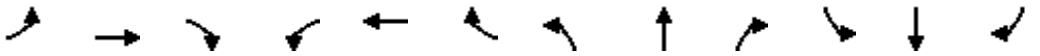
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			96.3									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	72	71	520	80	37	474	650	674	48	279	601	108
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.06	0.42	0.42	0.06	0.42	0.42
Sat Flow, veh/h	0	200	1466	0	103	1335	1688	1608	115	1581	1438	259
Grp Volume(v), veh/h	67	0	89	189	0	94	50	0	583	17	0	144
Grp Sat Flow(s),veh/h/ln	200	0	1466	103	0	1335	1688	0	1723	1581	0	1697
Q Serve(g_s), s	0.0	0.0	2.9	0.0	0.0	3.4	1.2	0.0	20.9	0.4	0.0	3.8
Cycle Q Clear(g_c), s	25.0	0.0	2.9	25.0	0.0	3.4	1.2	0.0	20.9	0.4	0.0	3.8
Prop In Lane	0.42		1.00	0.56		1.00	1.00		0.07	1.00		0.15
Lane Grp Cap(c), veh/h	144	0	520	116	0	474	650	0	722	279	0	710
V/C Ratio(X)	0.47	0.00	0.17	1.62	0.00	0.20	0.08	0.00	0.81	0.06	0.00	0.20
Avail Cap(c_a), veh/h	144	0	520	116	0	474	650	0	1198	281	0	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	15.6	27.6	0.0	15.8	10.6	0.0	18.0	13.4	0.0	13.0
Incr Delay (d2), s/veh	1.7	0.0	0.1	316.9	0.0	0.2	0.0	0.0	4.6	0.1	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.9	12.2	0.0	1.0	0.4	0.0	8.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.5	0.0	15.7	344.5	0.0	15.9	10.6	0.0	22.6	13.5	0.0	13.3
LnGrp LOS	C		B	F		B	B		C	B		B
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		17.8			235.4			21.6			13.4	
Approach LOS		B			F			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	33.5		29.0	8.0	33.5		29.0				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	48.2		25.0	4.0	48.2		25.0				
Max Q Clear Time (g_c+I1), s	2.4	22.9		27.0	3.2	5.8		27.0				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	1.2		0.0				

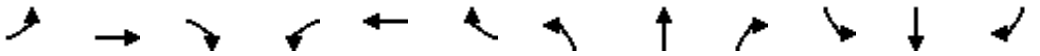
Intersection Summary			
HCM 6th Ctrl Delay, s/veh		69.1	
HCM 6th LOS		E	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	68	147	459	80	56	478	298	579	216	422	737	41
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.05	0.47	0.47	0.04	0.45	0.45
Sat Flow, veh/h	0	468	1461	0	180	1521	1661	1230	459	1647	1623	90
Grp Volume(v), veh/h	104	0	93	126	0	33	99	0	445	49	0	626
Grp Sat Flow(s),veh/h/ln	469	0	1461	180	0	1521	1661	0	1689	1647	0	1714
Q Serve(g_s), s	0.0	0.0	3.1	0.0	0.0	1.0	2.1	0.0	12.7	1.1	0.0	21.0
Cycle Q Clear(g_c), s	21.0	0.0	3.1	21.0	0.0	1.0	2.1	0.0	12.7	1.1	0.0	21.0
Prop In Lane	0.26		1.00	0.48		1.00	1.00		0.27	1.00		0.05
Lane Grp Cap(c), veh/h	215	0	459	136	0	478	298	0	795	422	0	778
V/C Ratio(X)	0.48	0.00	0.20	0.93	0.00	0.07	0.33	0.00	0.56	0.12	0.00	0.80
Avail Cap(c_a), veh/h	215	0	459	136	0	478	360	0	1339	461	0	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	16.8	24.5	0.0	16.1	12.9	0.0	12.7	10.5	0.0	15.7
Incr Delay (d2), s/veh	1.2	0.0	0.2	54.8	0.0	0.0	0.5	0.0	1.3	0.1	0.0	4.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.0	4.0	0.0	0.3	0.7	0.0	4.2	0.3	0.0	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.7	0.0	16.9	79.3	0.0	16.1	13.3	0.0	14.0	10.5	0.0	19.9
LnGrp LOS	B		B	E		B	B		B	B		B
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		18.4			66.2			13.9			19.2	
Approach LOS		B			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	35.5		25.0	7.5	34.3		25.0				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	52.2		21.0	6.0	50.2		21.0				
Max Q Clear Time (g_c+I1), s	3.1	14.7		23.0	4.1	23.0		23.0				
Green Ext Time (p_c), s	0.0	4.6		0.0	0.0	6.5		0.0				

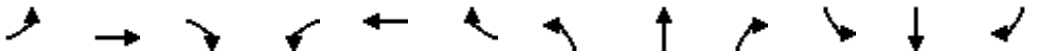
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			22.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	226	94	214	277	136	154	64	699	50	29	206	187
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.46	0.47	0.47	0.12	0.14	0.14
Sat Flow, veh/h	1262	487	1112	1288	704	798	136	1476	106	212	1521	1383
Grp Volume(v), veh/h	28	0	128	106	0	177	633	0	0	139	0	22
Grp Sat Flow(s),veh/h/ln	1262	0	1600	1288	0	1502	1718	0	0	1733	0	1383
Q Serve(g_s), s	1.3	0.0	4.2	4.7	0.0	6.5	18.6	0.0	0.0	4.6	0.0	0.8
Cycle Q Clear(g_c), s	7.8	0.0	4.2	9.0	0.0	6.5	18.6	0.0	0.0	4.6	0.0	0.8
Prop In Lane	1.00		0.70	1.00		0.53	0.08		0.06	0.12		1.00
Lane Grp Cap(c), veh/h	226	0	308	277	0	290	813	0	0	234	0	187
V/C Ratio(X)	0.12	0.00	0.42	0.38	0.00	0.61	0.78	0.00	0.00	0.59	0.00	0.12
Avail Cap(c_a), veh/h	422	0	557	477	0	522	1645	0	0	551	0	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	21.4	25.3	0.0	22.3	13.3	0.0	0.0	24.6	0.0	22.9
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.6	0.0	1.6	3.5	0.0	0.0	5.0	0.0	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.5	1.4	0.0	2.3	6.3	0.0	0.0	2.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.0	0.0	22.0	26.0	0.0	23.8	16.8	0.0	0.0	29.6	0.0	23.5
LnGrp LOS	C		C	C		C	B			C		C
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		22.8			24.6			16.8			28.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.6		15.6		12.2		15.6				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		57.0		21.0		18.4		21.0				
Max Q Clear Time (g_c+I1), s		20.6		9.8		6.6		11.0				
Green Ext Time (p_c), s		7.2		0.3		0.8		0.7				

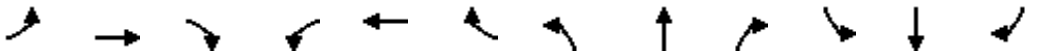
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			20.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	208	124	149	152	180	90	103	337	126	51	614	588
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.33	0.33	0.33	0.38	0.39	0.39
Sat Flow, veh/h	1243	740	893	1206	1077	538	307	1006	376	132	1592	1525
Grp Volume(v), veh/h	27	0	170	60	0	99	544	0	0	642	0	33
Grp Sat Flow(s),veh/h/ln	1243	0	1633	1206	0	1615	1689	0	0	1723	0	1525
Q Serve(g_s), s	2.1	0.0	10.3	5.2	0.0	5.8	33.8	0.0	0.0	39.0	0.0	1.5
Cycle Q Clear(g_c), s	7.9	0.0	10.3	15.5	0.0	5.8	33.8	0.0	0.0	39.0	0.0	1.5
Prop In Lane	1.00		0.55	1.00		0.33	0.18		0.22	0.08		1.00
Lane Grp Cap(c), veh/h	208	0	273	152	0	270	566	0	0	664	0	588
V/C Ratio(X)	0.13	0.00	0.62	0.39	0.00	0.37	0.96	0.00	0.00	0.97	0.00	0.06
Avail Cap(c_a), veh/h	244	0	321	188	0	317	566	0	0	664	0	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	41.4	48.6	0.0	39.5	34.9	0.0	0.0	32.2	0.0	20.6
Incr Delay (d2), s/veh	0.2	0.0	2.3	1.2	0.0	0.6	28.7	0.0	0.0	27.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	4.3	1.6	0.0	2.3	17.7	0.0	0.0	20.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.2	0.0	43.6	49.8	0.0	40.1	63.6	0.0	0.0	59.2	0.0	20.7
LnGrp LOS	D		D	D		D	E			E		C
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		43.6			43.8			63.6			57.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.8		21.9		45.2		21.9				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		35.0		21.0		40.4		21.0				
Max Q Clear Time (g_c+I1), s		35.8		12.3		41.0		17.5				
Green Ext Time (p_c), s		0.0		0.4		0.0		0.1				

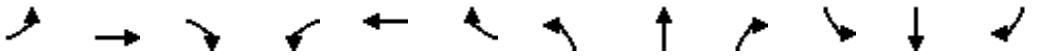
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			56.4									
HCM 6th LOS			E									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	283	100	229	333	145	164	786	724	52	408	639	115
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.09	0.45	0.45	0.08	0.44	0.44
Sat Flow, veh/h	1262	487	1112	1288	704	798	1688	1608	115	1581	1438	259
Grp Volume(v), veh/h	28	0	128	106	0	177	50	0	583	17	0	144
Grp Sat Flow(s),veh/h/ln	1262	0	1600	1288	0	1502	1688	0	1723	1581	0	1697
Q Serve(g_s), s	0.9	0.0	3.2	3.5	0.0	4.9	0.7	0.0	12.8	0.2	0.0	2.4
Cycle Q Clear(g_c), s	5.8	0.0	3.2	6.7	0.0	4.9	0.7	0.0	12.8	0.2	0.0	2.4
Prop In Lane	1.00		0.70	1.00		0.53	1.00		0.07	1.00		0.15
Lane Grp Cap(c), veh/h	283	0	329	333	0	309	786	0	776	408	0	754
V/C Ratio(X)	0.10	0.00	0.39	0.32	0.00	0.57	0.06	0.00	0.75	0.04	0.00	0.19
Avail Cap(c_a), veh/h	603	0	735	660	0	690	786	0	1244	418	0	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	15.7	18.6	0.0	16.4	5.6	0.0	10.4	7.3	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.4	0.0	1.2	0.0	0.0	3.1	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	1.0	0.0	1.6	0.1	0.0	3.9	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.1	0.0	16.2	19.0	0.0	17.6	5.6	0.0	13.6	7.4	0.0	8.0
LnGrp LOS	B		B	B		B	A		B	A		A
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		16.7			18.1			13.0			7.9	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	24.6		13.4	8.0	24.3		13.4				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.2	14.8		7.8	2.7	4.4		8.7				
Green Ext Time (p_c), s	0.0	4.9		0.4	0.0	1.1		0.7				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.0									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	328	144	174	273	210	105	410	579	216	539	764	42
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.47	0.47	0.08	0.47	0.47
Sat Flow, veh/h	1244	740	894	1207	1077	539	1661	1230	459	1647	1623	90
Grp Volume(v), veh/h	27	0	170	60	0	99	99	0	445	49	0	626
Grp Sat Flow(s),veh/h/ln	1244	0	1634	1207	0	1616	1661	0	1689	1647	0	1714
Q Serve(g_s), s	0.9	0.0	4.5	2.2	0.0	2.5	1.4	0.0	9.1	0.7	0.0	14.6
Cycle Q Clear(g_c), s	3.4	0.0	4.5	6.7	0.0	2.5	1.4	0.0	9.1	0.7	0.0	14.6
Prop In Lane	1.00		0.55	1.00		0.33	1.00		0.27	1.00		0.05
Lane Grp Cap(c), veh/h	328	0	318	273	0	315	410	0	795	539	0	806
V/C Ratio(X)	0.08	0.00	0.53	0.22	0.00	0.31	0.24	0.00	0.56	0.09	0.00	0.78
Avail Cap(c_a), veh/h	632	0	718	568	0	710	410	0	1166	539	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	17.3	20.3	0.0	16.5	8.0	0.0	9.1	6.2	0.0	10.6
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.3	0.0	0.4	0.2	0.0	1.3	0.1	0.0	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.6	0.6	0.0	0.9	0.3	0.0	2.5	0.1	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	0.0	18.3	20.6	0.0	16.9	8.2	0.0	10.4	6.2	0.0	14.3
LnGrp LOS	B		B	C		B	A		B	A		B
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		18.3			18.3			10.0			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	26.5		13.3	8.0	26.5		13.3				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.7	11.1		6.5	3.4	16.6		8.7				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	5.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.5									
HCM 6th LOS			B									

SECTION 11: RECOMMENDED IMPROVEMENTS CAPACITY ANALYSIS

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	20	50	55	55	65	30	355	20	10	125	10
Future Vol, veh/h	10	20	50	55	55	65	30	355	20	10	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	3	11	16	2	4	2	10	4	12
Mvmt Flow	11	22	56	61	61	72	33	394	22	11	139	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	705	649	145	677	643	405	150	0	0	416	0	0
Stage 1	167	167	-	471	471	-	-	-	-	-	-	-
Stage 2	538	482	-	206	172	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.25	7.13	6.61	6.36	4.12	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.345	3.527	4.099	3.444	2.218	-	-	2.29	-	-
Pot Cap-1 Maneuver	354	391	894	365	380	616	1431	-	-	1101	-	-
Stage 1	840	764	-	571	545	-	-	-	-	-	-	-
Stage 2	531	557	-	794	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	378	894	319	367	616	1431	-	-	1101	-	-
Mov Cap-2 Maneuver	266	378	-	319	367	-	-	-	-	-	-	-
Stage 1	821	756	-	558	532	-	-	-	-	-	-	-
Stage 2	405	544	-	716	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.4	16.7	0.6	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1431	-	-	266	643	319	470	1101	-	-
HCM Lane V/C Ratio	0.023	-	-	0.042	0.121	0.192	0.284	0.01	-	-
HCM Ctrl Dly (s/v)	7.6	-	-	19.1	11.4	18.9	15.7	8.3	-	-
HCM Lane LOS	A	-	-	C	B	C	C	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0.4	0.7	1.2	0	-	-

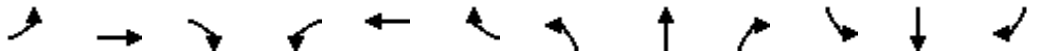
Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	50	70	40	45	25	60	310	70	25	405	15
Future Vol, veh/h	15	50	70	40	45	25	60	310	70	25	405	15
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	10	0	5	6	6	0	4	2	6	5	5	0
Mvmt Flow	16	55	77	44	49	27	66	341	77	27	445	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1059	1057	453	1085	1027	382	461	0	0	418	0	0
Stage 1	507	507	-	512	512	-	-	-	-	-	-	-
Stage 2	552	550	-	573	515	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.5	6.25	7.16	6.56	6.2	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.345	3.554	4.054	3.3	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	195	227	601	191	231	670	1090	-	-	1125	-	-
Stage 1	534	543	-	537	530	-	-	-	-	-	-	-
Stage 2	504	519	-	498	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	144	208	601	125	212	669	1090	-	-	1125	-	-
Mov Cap-2 Maneuver	144	208	-	125	212	-	-	-	-	-	-	-
Stage 1	501	530	-	504	498	-	-	-	-	-	-	-
Stage 2	408	487	-	380	515	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	23.7	32.2	1.2	0.5
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1090	-	-	144	336	125	280	1125	-	-
HCM Lane V/C Ratio	0.06	-	-	0.114	0.392	0.352	0.275	0.024	-	-
HCM Ctrl Dly (s/v)	8.5	-	-	33.2	22.5	48.7	22.7	8.3	-	-
HCM Lane LOS	A	-	-	D	C	E	C	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	0.4	1.8	1.4	1.1	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	50	55	55	65	30	355	20	10	125	10
Future Volume (veh/h)	10	20	50	55	55	65	30	355	20	10	125	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	11	22	56	61	61	72	33	394	22	11	139	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	77	114	489	87	53	445	43	511	29	18	222	191
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.13	0.14	0.14
Sat Flow, veh/h	1	340	1466	2	159	1335	127	1511	84	127	1610	1383
Grp Volume(v), veh/h	33	0	56	122	0	72	449	0	0	150	0	11
Grp Sat Flow(s),veh/h/ln	342	0	1466	162	0	1335	1722	0	0	1737	0	1383
Q Serve(g_s), s	0.0	0.0	1.7	0.1	0.0	2.4	14.7	0.0	0.0	5.1	0.0	0.4
Cycle Q Clear(g_c), s	21.0	0.0	1.7	21.0	0.0	2.4	14.7	0.0	0.0	5.1	0.0	0.4
Prop In Lane	0.33		1.00	0.50		1.00	0.07		0.05	0.07		1.00
Lane Grp Cap(c), veh/h	190	0	489	140	0	445	582	0	0	240	0	191
V/C Ratio(X)	0.17	0.00	0.11	0.87	0.00	0.16	0.77	0.00	0.00	0.63	0.00	0.06
Avail Cap(c_a), veh/h	190	0	489	140	0	445	1037	0	0	527	0	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	14.5	22.9	0.0	14.8	18.7	0.0	0.0	25.6	0.0	23.6
Incr Delay (d2), s/veh	0.3	0.0	0.1	40.8	0.0	0.1	4.6	0.0	0.0	5.6	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.5	3.4	0.0	0.7	5.7	0.0	0.0	2.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.9	0.0	14.6	63.7	0.0	14.9	23.3	0.0	0.0	31.3	0.0	23.9
LnGrp LOS	B		B	E		B	C			C		C
Approach Vol, veh/h		89			194			449			161	
Approach Delay, s/veh		15.5			45.6			23.3			30.8	
Approach LOS		B			D			C			C	

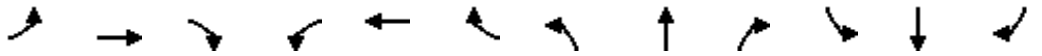
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		25.0		12.7		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		37.1		21.0		18.3		21.0				
Max Q Clear Time (g_c+I1), s		16.7		23.0		7.1		23.0				
Green Ext Time (p_c), s		3.8		0.0		0.8		0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			28.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	70	40	45	25	60	310	70	25	405	15
Future Volume (veh/h)	15	50	70	40	45	25	60	310	70	25	405	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	16	55	77	44	49	27	66	341	77	27	445	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	51	133	354	61	44	368	73	379	86	30	496	465
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.31	0.31	0.31	0.30	0.30	0.30
Sat Flow, veh/h	0	549	1460	0	182	1519	233	1206	272	99	1626	1525
Grp Volume(v), veh/h	71	0	77	93	0	27	484	0	0	472	0	16
Grp Sat Flow(s),veh/h/ln	550	0	1460	182	0	1519	1711	0	0	1725	0	1525
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	1.2	23.4	0.0	0.0	22.7	0.0	0.6
Cycle Q Clear(g_c), s	21.0	0.0	3.7	21.0	0.0	1.2	23.4	0.0	0.0	22.7	0.0	0.6
Prop In Lane	0.23		1.00	0.47		1.00	0.14		0.16	0.06		1.00
Lane Grp Cap(c), veh/h	184	0	354	105	0	368	538	0	0	526	0	465
V/C Ratio(X)	0.39	0.00	0.22	0.88	0.00	0.07	0.90	0.00	0.00	0.90	0.00	0.03
Avail Cap(c_a), veh/h	184	0	354	105	0	368	573	0	0	557	0	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	26.3	33.9	0.0	25.3	28.5	0.0	0.0	28.9	0.0	21.2
Incr Delay (d2), s/veh	1.0	0.0	0.2	52.0	0.0	0.1	17.9	0.0	0.0	18.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.3	3.5	0.0	0.4	11.6	0.0	0.0	11.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.1	0.0	26.5	85.9	0.0	25.4	46.3	0.0	0.0	46.9	0.0	21.2
LnGrp LOS	C		C	F		C	D			D		C
Approach Vol, veh/h		148			120			484			488	
Approach Delay, s/veh		27.3			72.3			46.3			46.0	
Approach LOS		C			E			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.3		25.0		30.4		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		28.2		21.0		27.2		21.0				
Max Q Clear Time (g_c+I1), s		25.4		23.0		24.7		23.0				
Green Ext Time (p_c), s		1.0		0.0		0.9		0.0				

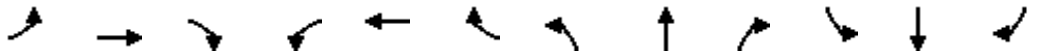
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			46.5									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	50	55	55	65	30	355	20	10	125	10
Future Volume (veh/h)	10	20	50	55	55	65	30	355	20	10	125	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	11	22	56	61	61	72	33	394	22	11	139	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	305	67	171	359	103	122	781	636	36	535	591	47
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.12	0.39	0.39	0.10	0.37	0.37
Sat Flow, veh/h	1313	450	1144	1348	688	812	1688	1636	91	1581	1595	126
Grp Volume(v), veh/h	11	0	78	61	0	133	33	0	416	11	0	150
Grp Sat Flow(s),veh/h/ln	1313	0	1594	1348	0	1499	1688	0	1727	1581	0	1721
Q Serve(g_s), s	0.3	0.0	1.5	1.4	0.0	2.8	0.4	0.0	6.4	0.1	0.0	2.0
Cycle Q Clear(g_c), s	3.0	0.0	1.5	2.9	0.0	2.8	0.4	0.0	6.4	0.1	0.0	2.0
Prop In Lane	1.00		0.72	1.00		0.54	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	305	0	239	359	0	224	781	0	672	535	0	638
V/C Ratio(X)	0.04	0.00	0.33	0.17	0.00	0.59	0.04	0.00	0.62	0.02	0.00	0.24
Avail Cap(c_a), veh/h	938	0	1007	1010	0	948	784	0	1715	567	0	1709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	0.0	12.6	13.9	0.0	13.2	4.9	0.0	8.2	5.6	0.0	7.2
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.2	0.0	1.9	0.0	0.0	2.0	0.0	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	0.4	0.0	0.8	0.1	0.0	1.6	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.6	0.0	13.2	14.1	0.0	15.0	4.9	0.0	10.2	5.7	0.0	7.6
LnGrp LOS	B		B	B		B	A		B	A		A
Approach Vol, veh/h		89			194			449			161	
Approach Delay, s/veh		13.4			14.7			9.8			7.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	16.9		9.0	7.9	16.3		9.0				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.1	8.4		5.0	2.4	4.0		4.9				
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	1.1		0.5				

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		10.8	
HCM 6th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	70	40	45	20	60	310	70	25	405	15
Future Volume (veh/h)	15	50	70	40	45	20	60	310	70	25	405	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	16	55	77	44	49	22	66	341	77	27	445	16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	356	112	156	308	185	83	527	565	128	556	670	24
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.11	0.40	0.40	0.11	0.40	0.40
Sat Flow, veh/h	1274	676	947	1248	1119	502	1661	1399	316	1647	1659	60
Grp Volume(v), veh/h	16	0	132	44	0	71	66	0	418	27	0	461
Grp Sat Flow(s),veh/h/ln	1274	0	1623	1248	0	1622	1661	0	1715	1647	0	1719
Q Serve(g_s), s	0.4	0.0	2.7	1.2	0.0	1.4	0.8	0.0	7.1	0.3	0.0	8.1
Cycle Q Clear(g_c), s	1.8	0.0	2.7	4.0	0.0	1.4	0.8	0.0	7.1	0.3	0.0	8.1
Prop In Lane	1.00		0.58	1.00		0.31	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	356	0	268	308	0	268	527	0	692	556	0	694
V/C Ratio(X)	0.04	0.00	0.49	0.14	0.00	0.27	0.13	0.00	0.60	0.05	0.00	0.66
Avail Cap(c_a), veh/h	867	0	919	809	0	918	528	0	1526	557	0	1530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	14.1	15.9	0.0	13.5	6.0	0.0	8.7	5.6	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.2	0.0	0.4	0.1	0.0	1.8	0.0	0.0	2.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.9	0.3	0.0	0.5	0.1	0.0	1.9	0.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.3	0.0	15.1	16.0	0.0	13.9	6.1	0.0	10.5	5.6	0.0	11.3
LnGrp LOS	B		B	B		B	A		B	A		B
Approach Vol, veh/h		148			115			484			488	
Approach Delay, s/veh		15.0			14.7			9.9			11.0	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	19.0		10.1	8.0	19.0		10.1				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.3	9.1		4.7	2.8	10.1		6.0				
Green Ext Time (p_c), s	0.0	3.7		0.4	0.0	4.1		0.3				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			11.4									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	69	68	418	76	35	381	58	631	45	26	189	172
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.42	0.43	0.43	0.11	0.12	0.12
Sat Flow, veh/h	0	238	1466	0	123	1335	136	1476	106	212	1521	1383
Grp Volume(v), veh/h	67	0	89	189	0	94	633	0	0	139	0	22
Grp Sat Flow(s),veh/h/ln	238	0	1466	123	0	1335	1718	0	0	1733	0	1383
Q Serve(g_s), s	0.0	0.0	3.4	0.0	0.0	4.0	24.6	0.0	0.0	5.6	0.0	1.0
Cycle Q Clear(g_c), s	21.0	0.0	3.4	21.0	0.0	4.0	24.6	0.0	0.0	5.6	0.0	1.0
Prop In Lane	0.42		1.00	0.56		1.00	0.08		0.06	0.12		1.00
Lane Grp Cap(c), veh/h	137	0	418	111	0	381	735	0	0	216	0	172
V/C Ratio(X)	0.49	0.00	0.21	1.70	0.00	0.25	0.86	0.00	0.00	0.64	0.00	0.13
Avail Cap(c_a), veh/h	137	0	418	111	0	381	886	0	0	447	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	20.0	30.5	0.0	20.3	19.1	0.0	0.0	30.7	0.0	28.7
Incr Delay (d2), s/veh	2.0	0.0	0.2	349.9	0.0	0.2	9.2	0.0	0.0	6.7	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.1	12.8	0.0	1.2	10.3	0.0	0.0	2.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.8	0.0	20.2	380.4	0.0	20.5	28.4	0.0	0.0	37.5	0.0	29.4
LnGrp LOS	C		C	F		C	C			D		C
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		21.8			260.9			28.4			36.4	
Approach LOS		C			F			C			D	

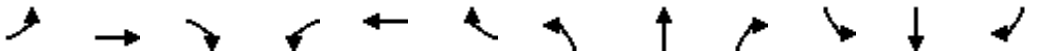
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.5		25.0		13.2		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		37.2		21.0		18.2		21.0				
Max Q Clear Time (g_c+I1), s		26.6		23.0		7.6		23.0				
Green Ext Time (p_c), s		4.1		0.0		0.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			81.9									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	50	109	341	59	42	354	92	302	113	44	531	508
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.29	0.30	0.30	0.32	0.33	0.33
Sat Flow, veh/h	0	468	1460	0	180	1519	307	1006	376	132	1592	1525
Grp Volume(v), veh/h	104	0	93	126	0	33	544	0	0	642	0	33
Grp Sat Flow(s),veh/h/ln	468	0	1460	180	0	1519	1689	0	0	1723	0	1525
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	1.5	27.0	0.0	0.0	30.0	0.0	1.3
Cycle Q Clear(g_c), s	21.0	0.0	4.7	21.0	0.0	1.5	27.0	0.0	0.0	30.0	0.0	1.3
Prop In Lane	0.26		1.00	0.48		1.00	0.18		0.22	0.08		1.00
Lane Grp Cap(c), veh/h	160	0	341	101	0	354	507	0	0	574	0	508
V/C Ratio(X)	0.65	0.00	0.27	1.25	0.00	0.09	1.07	0.00	0.00	1.12	0.00	0.06
Avail Cap(c_a), veh/h	160	0	341	101	0	354	507	0	0	574	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	28.2	36.7	0.0	27.0	31.6	0.0	0.0	30.0	0.0	20.4
Incr Delay (d2), s/veh	8.3	0.0	0.3	170.5	0.0	0.1	61.2	0.0	0.0	74.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.6	7.0	0.0	0.6	18.9	0.0	0.0	23.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.7	0.0	28.6	207.2	0.0	27.1	92.8	0.0	0.0	104.2	0.0	20.6
LnGrp LOS	D		C	F		C	F			F		C
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		33.4			169.8			92.8			100.1	
Approach LOS		C			F			F			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.0		25.0		34.0		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		26.2		21.0		29.2		21.0				
Max Q Clear Time (g_c+I1), s		29.0		23.0		32.0		23.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

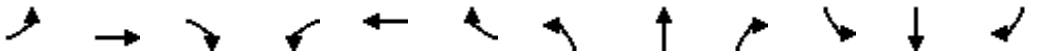
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			96.3									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Future Volume (veh/h)	25	35	80	95	75	85	45	490	35	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	83	94	50	544	39	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	283	100	229	333	145	164	786	724	52	408	639	115
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.09	0.45	0.45	0.08	0.44	0.44
Sat Flow, veh/h	1262	487	1112	1288	704	798	1688	1608	115	1581	1438	259
Grp Volume(v), veh/h	28	0	128	106	0	177	50	0	583	17	0	144
Grp Sat Flow(s),veh/h/ln	1262	0	1600	1288	0	1502	1688	0	1723	1581	0	1697
Q Serve(g_s), s	0.9	0.0	3.2	3.5	0.0	4.9	0.7	0.0	12.8	0.2	0.0	2.4
Cycle Q Clear(g_c), s	5.8	0.0	3.2	6.7	0.0	4.9	0.7	0.0	12.8	0.2	0.0	2.4
Prop In Lane	1.00		0.70	1.00		0.53	1.00		0.07	1.00		0.15
Lane Grp Cap(c), veh/h	283	0	329	333	0	309	786	0	776	408	0	754
V/C Ratio(X)	0.10	0.00	0.39	0.32	0.00	0.57	0.06	0.00	0.75	0.04	0.00	0.19
Avail Cap(c_a), veh/h	603	0	735	660	0	690	786	0	1244	418	0	1225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	15.7	18.6	0.0	16.4	5.6	0.0	10.4	7.3	0.0	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.4	0.0	1.2	0.0	0.0	3.1	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	1.0	0.0	1.6	0.1	0.0	3.9	0.1	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.1	0.0	16.2	19.0	0.0	17.6	5.6	0.0	13.6	7.4	0.0	8.0
LnGrp LOS	B		B	B		B	A		B	A		A
Approach Vol, veh/h		156			283			633			161	
Approach Delay, s/veh		16.7			18.1			13.0			7.9	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	24.6		13.4	8.0	24.3		13.4				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.2	14.8		7.8	2.7	4.4		8.7				
Green Ext Time (p_c), s	0.0	4.9		0.4	0.0	1.1		0.7				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			14.0									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Future Volume (veh/h)	25	70	85	55	60	30	90	295	110	45	540	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	77	93	60	66	33	99	324	121	49	593	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	328	144	174	273	210	105	410	579	216	539	764	42
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.47	0.47	0.08	0.47	0.47
Sat Flow, veh/h	1244	740	894	1207	1077	539	1661	1230	459	1647	1623	90
Grp Volume(v), veh/h	27	0	170	60	0	99	99	0	445	49	0	626
Grp Sat Flow(s),veh/h/ln	1244	0	1634	1207	0	1616	1661	0	1689	1647	0	1714
Q Serve(g_s), s	0.9	0.0	4.5	2.2	0.0	2.5	1.4	0.0	9.1	0.7	0.0	14.6
Cycle Q Clear(g_c), s	3.4	0.0	4.5	6.7	0.0	2.5	1.4	0.0	9.1	0.7	0.0	14.6
Prop In Lane	1.00		0.55	1.00		0.33	1.00		0.27	1.00		0.05
Lane Grp Cap(c), veh/h	328	0	318	273	0	315	410	0	795	539	0	806
V/C Ratio(X)	0.08	0.00	0.53	0.22	0.00	0.31	0.24	0.00	0.56	0.09	0.00	0.78
Avail Cap(c_a), veh/h	632	0	718	568	0	710	410	0	1166	539	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	17.3	20.3	0.0	16.5	8.0	0.0	9.1	6.2	0.0	10.6
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.3	0.0	0.4	0.2	0.0	1.3	0.1	0.0	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.6	0.6	0.0	0.9	0.3	0.0	2.5	0.1	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	0.0	18.3	20.6	0.0	16.9	8.2	0.0	10.4	6.2	0.0	14.3
LnGrp LOS	B		B	C		B	A		B	A		B
Approach Vol, veh/h		197			159			544			675	
Approach Delay, s/veh		18.3			18.3			10.0			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	26.5		13.3	8.0	26.5		13.3				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.7	11.1		6.5	3.4	16.6		8.7				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	5.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.5									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	145	85	45	420	105	15	110	20
Future Volume (veh/h)	25	35	80	95	145	85	45	420	105	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	161	94	50	467	117	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	69	67	413	68	54	376	57	536	134	26	189	171
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.42	0.43	0.43	0.11	0.12	0.12
Sat Flow, veh/h	0	238	1466	0	193	1335	133	1238	310	212	1521	1383
Grp Volume(v), veh/h	67	0	89	267	0	94	634	0	0	139	0	22
Grp Sat Flow(s),veh/h/ln	238	0	1466	193	0	1335	1681	0	0	1733	0	1383
Q Serve(g_s), s	0.0	0.0	3.5	0.0	0.0	4.1	25.6	0.0	0.0	5.7	0.0	1.1
Cycle Q Clear(g_c), s	21.0	0.0	3.5	21.0	0.0	4.1	25.6	0.0	0.0	5.7	0.0	1.1
Prop In Lane	0.42		1.00	0.40		1.00	0.08		0.18	0.12		1.00
Lane Grp Cap(c), veh/h	136	0	413	122	0	376	728	0	0	215	0	171
V/C Ratio(X)	0.49	0.00	0.22	2.19	0.00	0.25	0.87	0.00	0.00	0.65	0.00	0.13
Avail Cap(c_a), veh/h	136	0	413	122	0	376	858	0	0	442	0	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	20.4	28.4	0.0	20.7	19.3	0.0	0.0	31.1	0.0	29.0
Incr Delay (d2), s/veh	2.1	0.0	0.2	561.4	0.0	0.3	10.2	0.0	0.0	6.8	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.2	21.2	0.0	1.2	10.6	0.0	0.0	2.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.2	0.0	20.6	589.9	0.0	20.9	29.5	0.0	0.0	37.9	0.0	29.8
LnGrp LOS	C		C	F		C	C			D		C
Approach Vol, veh/h		156			361			634			161	
Approach Delay, s/veh		22.2			441.7			29.5			36.8	
Approach LOS		C			F			C			D	

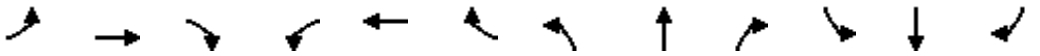
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.3		25.0		13.2		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		37.2		21.0		18.2		21.0				
Max Q Clear Time (g_c+I1), s		27.6		23.0		7.7		23.0				
Green Ext Time (p_c), s		3.9		0.0		0.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			142.9									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	140	85	125	60	30	90	295	110	45	470	30
Future Volume (veh/h)	25	140	85	125	60	30	90	295	110	45	470	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	154	93	137	66	33	99	324	121	49	516	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	46	176	341	67	9	354	96	313	117	48	507	492
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.30	0.31	0.31	0.31	0.32	0.32
Sat Flow, veh/h	0	754	1460	0	40	1519	307	1006	376	149	1573	1525
Grp Volume(v), veh/h	181	0	93	203	0	33	544	0	0	565	0	33
Grp Sat Flow(s),veh/h/ln	754	0	1460	40	0	1519	1689	0	0	1722	0	1525
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	1.5	28.0	0.0	0.0	29.0	0.0	1.3
Cycle Q Clear(g_c), s	21.0	0.0	4.7	21.0	0.0	1.5	28.0	0.0	0.0	29.0	0.0	1.3
Prop In Lane	0.15		1.00	0.67		1.00	0.18		0.22	0.09		1.00
Lane Grp Cap(c), veh/h	222	0	341	76	0	354	525	0	0	555	0	492
V/C Ratio(X)	0.82	0.00	0.27	2.66	0.00	0.09	1.04	0.00	0.00	1.02	0.00	0.07
Avail Cap(c_a), veh/h	222	0	341	76	0	354	525	0	0	555	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	28.2	42.5	0.0	27.0	31.1	0.0	0.0	30.5	0.0	21.1
Incr Delay (d2), s/veh	20.0	0.0	0.3	782.7	0.0	0.1	48.7	0.0	0.0	42.8	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	1.6	18.3	0.0	0.6	17.7	0.0	0.0	17.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.2	0.0	28.6	825.1	0.0	27.1	79.8	0.0	0.0	73.4	0.0	21.3
LnGrp LOS	D		C	F		C	F			F		C
Approach Vol, veh/h		274			236			544			598	
Approach Delay, s/veh		42.9			713.5			79.8			70.5	
Approach LOS		D			F			E			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.0		25.0		33.0		25.0				
Change Period (Y+Rc), s		4.8		4.0		4.8		4.0				
Max Green Setting (Gmax), s		27.2		21.0		28.2		21.0				
Max Q Clear Time (g_c+I1), s		30.0		23.0		31.0		23.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

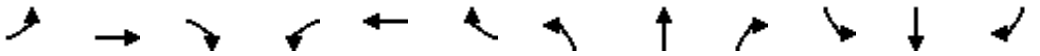
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			160.8									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	35	80	95	145	85	45	420	105	15	110	20
Future Volume (veh/h)	25	35	80	95	145	85	45	420	105	15	110	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1800	1730	1758	1646	1575	1772	1744	1772	1660	1744	1632
Adj Flow Rate, veh/h	28	39	89	106	161	94	50	467	117	17	122	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	5	3	11	16	2	4	2	10	4	12
Cap, veh/h	232	109	249	351	218	127	771	606	152	385	640	115
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1175	487	1112	1288	974	569	1688	1346	337	1581	1438	259
Grp Volume(v), veh/h	28	0	128	106	0	255	50	0	584	17	0	144
Grp Sat Flow(s),veh/h/ln	1175	0	1600	1288	0	1543	1688	0	1683	1581	0	1697
Q Serve(g_s), s	1.1	0.0	3.3	3.7	0.0	7.4	0.7	0.0	14.1	0.3	0.0	2.5
Cycle Q Clear(g_c), s	8.5	0.0	3.3	6.9	0.0	7.4	0.7	0.0	14.1	0.3	0.0	2.5
Prop In Lane	1.00		0.70	1.00		0.37	1.00		0.20	1.00		0.15
Lane Grp Cap(c), veh/h	232	0	358	351	0	346	771	0	757	385	0	755
V/C Ratio(X)	0.12	0.00	0.36	0.30	0.00	0.74	0.06	0.00	0.77	0.04	0.00	0.19
Avail Cap(c_a), veh/h	479	0	695	621	0	670	771	0	1149	393	0	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	15.8	18.7	0.0	17.4	6.0	0.0	11.2	8.0	0.0	8.1
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.4	0.0	2.3	0.0	0.0	3.6	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	1.0	0.0	2.5	0.2	0.0	4.4	0.1	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	0.0	16.3	19.1	0.0	19.7	6.0	0.0	14.8	8.0	0.0	8.4
LnGrp LOS	C		B	B		B	A		B	A		A
Approach Vol, veh/h		156			361			634			161	
Approach Delay, s/veh		17.2			19.6			14.2			8.4	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	25.8		14.8	8.0	25.5		14.8				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.3	16.1		10.5	2.7	4.5		9.4				
Green Ext Time (p_c), s	0.0	4.8		0.3	0.0	1.1		0.9				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.3									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	140	85	125	60	30	90	295	110	45	470	30
Future Volume (veh/h)	25	140	85	125	60	30	90	295	110	45	470	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1800	1730	1716	1716	1800	1744	1772	1716	1730	1730	1800
Adj Flow Rate, veh/h	27	154	93	137	66	33	99	324	121	49	516	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	0	5	6	6	0	4	2	6	5	5	0
Cap, veh/h	435	301	182	321	309	155	364	506	189	436	662	42
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.08	0.41	0.41	0.08	0.41	0.41
Sat Flow, veh/h	1245	1050	634	1126	1078	539	1661	1230	459	1647	1608	103
Grp Volume(v), veh/h	27	0	247	137	0	99	99	0	445	49	0	549
Grp Sat Flow(s),veh/h/ln	1245	0	1683	1126	0	1617	1661	0	1689	1647	0	1711
Q Serve(g_s), s	0.9	0.0	6.5	6.2	0.0	2.5	1.8	0.0	11.2	0.9	0.0	14.8
Cycle Q Clear(g_c), s	3.4	0.0	6.5	12.7	0.0	2.5	1.8	0.0	11.2	0.9	0.0	14.8
Prop In Lane	1.00		0.38	1.00		0.33	1.00		0.27	1.00		0.06
Lane Grp Cap(c), veh/h	435	0	483	321	0	464	364	0	696	436	0	705
V/C Ratio(X)	0.06	0.00	0.51	0.43	0.00	0.21	0.27	0.00	0.64	0.11	0.00	0.78
Avail Cap(c_a), veh/h	570	0	665	442	0	639	364	0	1049	436	0	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	15.8	21.1	0.0	14.4	10.2	0.0	12.5	8.9	0.0	13.5
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.7	0.0	0.2	0.3	0.0	2.1	0.1	0.0	4.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.3	1.5	0.0	0.8	0.5	0.0	3.6	0.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	16.4	21.8	0.0	14.6	10.5	0.0	14.6	9.0	0.0	17.7
LnGrp LOS	B		B	C		B	B		B	A		B
Approach Vol, veh/h		274			236			544			598	
Approach Delay, s/veh		16.4			18.8			13.8			17.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	25.9		19.3	8.0	25.9		19.3				
Change Period (Y+Rc), s	4.0	4.8		4.0	4.0	4.8		4.0				
Max Green Setting (Gmax), s	4.0	32.2		21.0	4.0	32.2		21.0				
Max Q Clear Time (g_c+I1), s	2.9	13.2		8.5	3.8	16.8		14.7				
Green Ext Time (p_c), s	0.0	3.8		0.7	0.0	4.3		0.4				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			16.1									
HCM 6th LOS			B									

SECTION 12: INTERSECTION QUEUING REPORT WITH RECOMMENDED IMPROVEMENTS

Intersection: 1: Hwy 211 & Dubarko Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	92	200	148	104	170	276	113	297
Average Queue (ft)	20	89	68	37	46	89	21	128
95th Queue (ft)	59	156	124	81	95	187	62	238
Link Distance (ft)		659		1344		1343		1247
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		250		250		250	
Storage Blk Time (%)						0		1
Queuing Penalty (veh)						0		0

SECTION 13: CAPACITY ANALYSIS (HCM) RESULTS

ID	Software/Method	Intersection	Control Type	Mobility Target	LOS	Delay	V/C Ratio	Over Target	Critical Movement	Scenario
1	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/C	8/18	0.10/0.27	FALSE	SB/WB	2026 AM Peak
3	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/E	8/36	0.29/0.42	TRUE	NB/WB	2026 PM Peak
11	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/C	8/22	0.09/0.36	FALSE	SB/WB	2030 AM Peak
13	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/58	0.31/0.60	TRUE	NB/WB	2030 PM Peak
21	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/71	0.09/0.84	TRUE	SB/WB	2040 AM Peak
23	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/594	0.37/1.98	TRUE	NB/WB	2040 PM Peak
31	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/119	0.09/1.07	TRUE	SB/WB	2040 AM Peak with planned extensions
33	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/311	0.36/1.46	TRUE	NB/EB	2040 PM Peak with planned extensions
41	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/67	0.07/0.82	TRUE	SB/WB	2040 AM Peak, NB/SB LT Lane
42	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/486	0.26/1.76	TRUE	NB/WB	2040 PM Peak, NB/SB LT Lane
43	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/64	0.09/0.81	TRUE	SB/WB	2040 AM Peak, NB RT Lane
44	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/486	0.30/1.76	TRUE	NB/WB	2040 PM Peak, NB RT Lane
45	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/E	9/42	0.09/0.53	TRUE	SB/WB	2040 AM Peak, EB/WB LT Lane
46	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/F	9/445	0.37/1.44	TRUE	NB/WB	2040 PM Peak, EB/WB LT Lane
47	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	F	82	2.29	TRUE	N/A	2040 AM Peak, Traffic Signal
48	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	F	96	1.61	TRUE	N/A	2040 PM Peak, Traffic Signal
49	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	E	69	2.52	TRUE	N/A	2040 AM Peak, Traffic Signal, NB/SB LT Lane
50	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	C	22	1.30	FALSE	N/A	2040 PM Peak, Traffic Signal, NB/SB LT Lane
51	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	C	21	0.64	FALSE	N/A	2040 AM Peak, Traffic Signal, EB/WB LT Lane
52	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	E	56	0.90	TRUE	N/A	2040 PM Peak, Traffic Signal, EB/WB LT Lane
53	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	C	21	0.61	FALSE	N/A	2040 AM Peak, Traffic Signal, All LT Lane
54	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	B	14	0.64	FALSE	N/A	2040 PM Peak, Traffic Signal, All LT Lane
55	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/C	8/19	0.09/0.12	FALSE	SB/EB	2030 AM Peak, All LT Lane
56	Synchro HCM 6th Stop Control	Hwy 211 & Dubarko Rd	TWSC	LOS D	A/E	9/49	0.25/0.35	TRUE	NB/WB	2030 PM Peak, All LT Lane
57	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	F	143	2.14	TRUE	N/A	2040 AM Peak with planned extensions, Traffic Signal
58	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	F	161	6.54	TRUE	N/A	2040 PM Peak with planned extensions, Traffic Signal
59	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	B	15	0.60	FALSE	N/A	2040 AM Peak with planned extensions, Traffic Signal, All LT Lane
60	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	B	16	0.61	FALSE	N/A	2040 PM Peak with planned extensions, Traffic Signal, All LT Lane
61	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	C	29	1.23	FALSE	N/A	2030 AM Peak, Traffic Signal
62	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	D	47	0.97	FALSE	N/A	2030 PM Peak, Traffic Signal
63	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	B	11	0.39	FALSE	N/A	2030 AM Peak, Traffic Signal, All LT Lane
64	Synchro HCM 6th Signal	Hwy 211 & Dubarko Rd	Signal	LOS D	B	11	0.45	FALSE	N/A	2030 PM Peak, Traffic Signal, All LT Lane

	use dropdown	1	3	4	5	6	7	8	9	10	11	12	13	14	Outputs				
Intersection ID and Name	**Control Type**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**			**NB**	**SB**	**EB**	**WB**
1: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	1: Hwy 211 & Dubarko Rd V/C		**0.24**	**0.10**	**0.06**	**0.27**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	1: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.20**	**15.40**	**18.20**
		Mvmt Flow		6	17	47	47	52	70	29	349	17	12	151	6	1: Hwy 211 & Dubarko Rd LOS		A	A	C	C
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**4.6**			
		Major V/C			0.01	0.03		0.03	0.04	0.24	0.22	0.22	0.10	0.09	0.00						
		Minor (or AWSC) V/C		0.06	0.05		0.27	0.11													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.02	-	-	0.06	0.05	0.27	0.11	0.01	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	15.4	9.3	18.2	11.1	8.2	0.0	-	0.0						
		HCM Lane LOS			A	A	-	C	A	C	B	A	A	-	D						
3: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		3: Hwy 211 & Dubarko Rd V/C		**0.29**	**0.25**	**0.24**	**0.42**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	3: Hwy 211 & Dubarko Rd Delay		**8.30**	**8.20**	**26.00**	**35.80**
		Mvmt Flow		11	44	71	38	44	27	55	346	60	22	385	11	3: Hwy 211 & Dubarko Rd LOS		A	A	D	E
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**5.5**			
		Major V/C			0.03	0.04		0.03	0.02	0.29	0.24	0.24	0.25	0.23	0.01						
		Minor (or AWSC) V/C		0.24	0.11		0.42	0.04													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.05	-	-	0.24	0.11	0.42	0.04	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			8.3	0.0	-	26.0	11.2	35.8	10.6	8.2	0.0	-	0.0						
		HCM Lane LOS			A	A	-	D	B	E	B	A	A	-	D						
11: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		11: Hwy 211 & Dubarko Rd V/C		**0.27**	**0.09**	**0.10**	**0.36**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	11: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.30**	**17.10**	**21.50**
		Mvmt Flow		11	22	56	61	61	72	33	394	22	11	139	11	11: Hwy 211 & Dubarko Rd LOS		A	A	C	C
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**5.5**			
		Major V/C			0.01	0.03		0.04	0.04	0.27	0.24	0.24	0.09	0.08	0.01						
		Minor (or AWSC) V/C		0.10	0.06		0.36	0.12													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.02	-	-	0.10	0.06	0.36	0.12	0.01	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	17.1	9.3	21.5	11.6	8.3	0.0	-	0.0						
		HCM Lane LOS			A	A	-	C	A	C	B	A	A	-	D						
13: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		13: Hwy 211 & Dubarko Rd V/C		**0.31**	**0.29**	**0.39**	**0.60**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	13: Hwy 211 & Dubarko Rd Delay		**8.50**	**8.30**	**36.20**	**58.40**
		Mvmt Flow		16	55	77	44	49	27	66	341	77	27	445	16	13: Hwy 211 & Dubarko Rd LOS		A	A	E	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**8.1**			
		Major V/C			0.03	0.05		0.03	0.02	0.31	0.25	0.25	0.29	0.26	0.01						
		Minor (or AWSC) V/C		0.39	0.13		0.60	0.04													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.06	-	-	0.39	0.13	0.60	0.04	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			8.5	0.0	-	36.2	11.8	58.4	10.6	8.3	0.0	-	0.0						
		HCM Lane LOS			A	A	-	E	B	F	B	A	A	-	D						
21: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		21: Hwy 211 & Dubarko Rd V/C		**0.38**	**0.09**	**0.32**	**0.84**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	21: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.80**	**30.40**	**70.60**
		Mvmt Flow		28	39	89	106	83	94	50	544	39	17	122	22	21: Hwy 211 & Dubarko Rd LOS		A	A	D	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**14.6**			
		Major V/C			0.02	0.05		0.05	0.06	0.38	0.34	0.34	0.09	0.07	0.01						
		Minor (or AWSC) V/C		0.32	0.10		0.84	0.19													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.04	-	-	0.32	0.10	0.84	0.19	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	30.4	9.3	70.6	13.9	8.8	0.0	-	0.0						
		HCM Lane LOS			A	A	-	D	A	F	B	A	A	-	D						
23: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		23: Hwy 211 & Dubarko Rd V/C		**0.37**	**0.39**	**1.07**	**1.98**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	23: Hwy 211 & Dubarko Rd Delay		**9.20**	**8.40**	**189.90**	**593.70**
		Mvmt Flow		27	77	93	60	66	33	99	324	121	49	593	33	23: Hwy 211 & Dubarko Rd LOS		A	A	F	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**62**			
		Major V/C			0.05	0.05		0.04	0.02	0.37	0.26	0.26	0.39	0.35	0.02						
		Minor (or AWSC) V/C		1.07	0.19		1.98	0.05													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.11	-	-	1.07	0.19	1.98	0.05	0.05	-	-	0.00						
		HCM Ctrl Dly (s/v)			9.2	0.0	-	189.9	13.8	593.7	10.7	8.4	0.0	-	0.0						
		HCM Lane LOS			A	A	-	F	B	F	B	A	A	-	D						
31: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		31: Hwy 211 & Dubarko Rd V/C		**0.38**	**0.09**	**0.39**	**1.07**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	31: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.80**	**38.60**	**118.90**
		Mvmt Flow		28	39	89	106	161	94	50	467	117	17	122	22	31: Hwy 211 & Dubarko Rd LOS		A	A	E	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**28.1**			
		Major V/C			0.02	0.05		0.09	0.06	0.38	0.34	0.34	0.09	0.07	0.01						
		Minor (or AWSC) V/C		0.39	0.10		1.07	0.18													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.04	-	-	0.39	0.10	1.07	0.18	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	38.6	9.3	118.9	13.4	8.8	0.0	-	0.0						
		HCM Lane LOS			A	A	-	E	A	F	B	A	A	-	D						
33: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		33: Hwy 211 & Dubarko Rd V/C		**0.36**	**0.35**	**1.46**	**0.00**
		Lane Configurations		0	1	1	0	1	1	0	1	0	0	1	1	33: Hwy 211 & Dubarko Rd Delay		**8.90**	**8.40**	**311.00**	**0.00**
		Mvmt Flow		27	154	93	137	66	33	99	324	121	49	516	33	33: Hwy 211 & Dubarko Rd LOS		A	A	F	A
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**35.6**			
		Major V/C			0.09	0.05		0.04	0.02	0.36	0.26	0.26	0.35	0.30	0.02						
		Minor (or AWSC) V/C		1.46	0.17																
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.10	-	-	1.46	0.17	-	-	0.05	-	-	0.00						
		HCM Ctrl Dly (s/v)			8.9	0.0	-	311.0	12.8	-	-	8.4	0.0	-	0.0						
		HCM Lane LOS			A	A	-	F	B	-	-	A	A	-	D						
41: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		41: Hwy 211 & Dubarko Rd V/C		**0.34**	**0.07**	**0.32**	**0.82**
		Lane Configurations		0	1	1	0	1	1	1	1	0	1	1	1	41: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.80**	**29.80**	**66.50**
		Mvmt Flow		28	39	89	106	83	94	50	544	39	17	122	22	41: Hwy 211 & Dubarko Rd LOS		A	A	D	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R		Int Delay, s/veh		**14**			
		Major V/C			0.02	0.05		0.05	0.06	0.04	0.34	0.34	0.02	0.07	0.01						
		Minor (or AWSC) V/C		0.32	0.10		0.82	0.19													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.04	-	-	0.32	0.10	0.82	0.19	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	-	-	29.8	9.3	66.5	13.9	8.8	-	-	0.0						
		HCM Lane LOS			A	-	-	D	A	F	B	A	-	-	D						
42: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		42: Hwy 211 & Dubarko Rd V/C		**0.26**	**0.35**	**0.99**	**1.76**
		Lane Configurations		0	1	1	0	1	1	1	1	0	1	1	1	42: Hwy 211 & Dubarko Rd Delay		**9.20**	**8.40**	**158.30**	**486.40**
		Mvmt Flow		27	77	93	60	66	33	99	324	121	49	593	33	42: Hwy 211 & Dubarko Rd LOS		A	A	F	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R		Int Delay, s/veh		**51.4**			
		Major V/C			0.05	0.05		0.04	0.02	0.11	0.26	0.26	0.05	0.35	0.02						
		Minor (or AWSC) V/C		0.99	0.19		1.76	0.05													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.11	-	-	0.99	0.19	1.76	0.05	0.05	-	-	0.00						
		HCM Ctrl Dly (s/v)			9.2	-	-	158.3	13.8	486.4	10.7	8.4	-	-	0.0						
		HCM Lane LOS			A	-	-	F	B	F	B	A	-	-	D						
43: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		43: Hwy 211 & Dubarko Rd V/C		**0.36**	**0.09**	**0.32**	**0.81**
		Lane Configurations		0	1	1	0	1	1	0	1	1	0	1	1	43: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.80**	**29.90**	**64.20**
		Mvmt Flow		28	39	89	106	83	94	50	544	39	17	122	22	43: Hwy 211 & Dubarko Rd LOS		A	A	D	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LT	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**13.6**			
		Major V/C			0.02	0.05		0.05	0.06	0.36	0.32	0.32	0.09	0.07	0.01						
		Minor (or AWSC) V/C		0.32	0.10		0.81	0.18													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.04	-	-	0.32	0.10	0.81	0.18	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	29.9	9.3	64.2	13.6	8.8	0.0	-	0.0						
		HCM Lane LOS			A	A	-	D	A	F	B	A	A	-	D						
44: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		44: Hwy 211 & Dubarko Rd V/C		**0.30**	**0.39**	**1.04**	**1.76**
		Lane Configurations		0	1	1	0	1	1	0	1	1	0	1	1	44: Hwy 211 & Dubarko Rd Delay		**9.20**	**8.40**	**181.30**	**486.40**
		Mvmt Flow		27	77	93	60	66	33	99	324	121	49	593	33	44: Hwy 211 & Dubarko Rd LOS		A	A	F	F
		Major V/C Lanes	LT	T or TR	TR or R	LT	T or TR	TR or R	LT	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**52.9**			
		Major V/C			0.05	0.05		0.04	0.02	0.30	0.19	0.19	0.39	0.35	0.02						
		Minor (or AWSC) V/C		1.04	0.19		1.76	0.05													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.11	-	-	1.04	0.19	1.76	0.05	0.05	-	-	0.00						
		HCM Ctrl Dly (s/v)			9.2	0.0	-	181.3	13.8	486.4	10.2	8.4	0.0	-	0.0						
		HCM Lane LOS			A	A	-	F	B	F	B	A	A	-	D						
45: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		45: Hwy 211 & Dubarko Rd V/C		**0.38**	**0.09**	**0.23**	**0.53**
		Lane Configurations		1	1	0	1	1	0	0	1	0	0	1	1	45: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.80**	**34.10**	**41.90**
		Mvmt Flow		28	39	89	106	83	94	50	544	39	17	122	22	45: Hwy 211 & Dubarko Rd LOS		A	A	D	E
		Major V/C Lanes	L	T or TR	TR or R	L	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**9.7**			
		Major V/C			0.08	0.08		0.10	0.10	0.38	0.34	0.34	0.09	0.07	0.01						
		Minor (or AWSC) V/C		0.18	0.23		0.53	0.50													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.04	-	-	0.18	0.23	0.53	0.50	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	0.0	-	34.1	13.6	41.9	24.6	8.8	0.0	-	0.0						
		HCM Lane LOS			A	E	-	D	B	E	C	A	A	-	D						
46: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		46: Hwy 211 & Dubarko Rd V/C		**0.37**	**0.39**	**0.81**	**1.44**
		Lane Configurations		1	1	0	1	1	0	0	1	0	0	1	1	46: Hwy 211 & Dubarko Rd Delay		**9.20**	**8.40**	**105.40**	**445.00**
		Mvmt Flow		27	77	93	60	66	33	99	324	121	49	593	33	46: Hwy 211 & Dubarko Rd LOS		A	A	F	F
		Major V/C Lanes	L	T or TR	TR or R	L	T or TR	TR or R	LTR	T or TR	TR or R	LT	T or TR	TR or R		Int Delay, s/veh		**30.4**			
		Major V/C			0.10	0.10		0.06	0.06	0.37	0.26	0.26	0.39	0.35	0.02						
		Minor (or AWSC) V/C		0.45	0.81		1.44	0.58													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.11	-	-	0.45	0.81	1.44	0.58	0.05	-	-	0.00						
		HCM Ctrl Dly (s/v)			9.2	0.0	-	105.4	68.6	445.0	51.5	8.4	0.0	-	0.0						
		HCM Lane LOS			A	A	-	F	F	F	F	A	A	-	D						
55: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		55: Hwy 211 & Dubarko Rd V/C		**0.24**	**0.09**	**0.12**	**0.28**
		Lane Configurations		1	1	0	1	1	0	0	1	1	0	1	1	55: Hwy 211 & Dubarko Rd Delay		**7.60**	**8.30**	**19.10**	**18.90**
		Mvmt Flow		11	22	56	61	61	72	33	394	22	11	139	11	55: Hwy 211 & Dubarko Rd LOS		A	A	C	C
		Major V/C Lanes	L	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R		Int Delay, s/veh		**5.3**			
		Major V/C			0.05	0.05		0.08	0.08	0.02	0.24	0.24	0.01	0.09	0.09						
		Minor (or AWSC) V/C		0.04	0.12		0.19	0.28													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.02	-	-	0.04	0.12	0.19	0.28	0.01	-	-	0.00						
		HCM Ctrl Dly (s/v)			7.6	-	-	19.1	11.4	18.9	15.7	8.3	-	-	0.0						
		HCM Lane LOS			A	-	-	C	B	C	C	A	-	-	D						
56: Hwy 211 & Dubarko Rd	TWSC	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		56: Hwy 211 & Dubarko Rd V/C		**0.25**	**0.27**	**0.39**	**0.35**
		Lane Configurations		1	1	0	1	1	0	1	1	0	1	1	0	56: Hwy 211 & Dubarko Rd Delay		**8.50**	**8.30**	**33.20**	**46.70**
		Mvmt Flow		16	55	77	44	49	27	66	341	77	27	445	16	56: Hwy 211 & Dubarko Rd LOS		A	A	D	E
		Major V/C Lanes	L	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R	L	T or TR	TR or R		Int Delay, s/veh		**6.6**			
		Major V/C			0.08	0.08		0.04	0.04	0.06	0.25	0.25	0.02	0.27	0.27						
		Minor (or AWSC) V/C		0.11	0.39		0.35	0.28													
		Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
		Minor Lane/Major Mvmt			NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR	0						
		HCM Lane V/C Ratio			0.06	-	-	0.11	0.39	0.35	0.28	0.02	-	-	0.00						
		HCM Ctrl Dly (s/v)			8.5	-	-	33.2	22.5	48.7	22.7	8.3	-	-	0.0						
		HCM Lane LOS			A	-	-	D	C	E	C	A	-	-	D						

Intersection ID and Name		1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14
47: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	67	0	89	189	0	94	633	0	0	139	0	22	Protected
	Grp Sat Flow(s),veh/h/	238	0	1466	123	0	1335	1718	0	0	1733	0	1383	Permitted or Split
	V/S	0.28	0.00	0.06	1.54	0.00	0.07	0.37	0.00	0.00	0.08	0.00	0.02	selected phasing
48: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	104	0	93	126	0	33	544	0	0	642	0	33	Protected
	Grp Sat Flow(s),veh/h/	468	0	1460	180	0	1519	1689	0	0	1723	0	1525	Permitted or Split
	V/S	0.22	0.00	0.06	0.70	0.00	0.02	0.32	0.00	0.00	0.37	0.00	0.02	selected phasing
49: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	67	0	89	189	0	94	50	0	583	17	0	144	Protected
	Grp Sat Flow(s),veh/h/	200	0	1466	103	0	1335	1688	0	1723	1581	0	1697	Permitted or Split
	V/S	0.34	0.00	0.06	1.83	0.00	0.07	0.03	0.00	0.34	0.01	0.00	0.08	selected phasing
50: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	104	0	93	126	0	33	99	0	445	49	0	626	Protected
	Grp Sat Flow(s),veh/h/	469	0	1461	180	0	1521	1661	0	1689	1647	0	1714	Permitted or Split
	V/S	0.22	0.00	0.06	0.70	0.00	0.02	0.06	0.00	0.26	0.03	0.00	0.37	selected phasing
51: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	28	0	128	106	0	177	633	0	0	139	0	22	Protected
	Grp Sat Flow(s),veh/h/	1262	0	1600	1288	0	1502	1718	0	0	1733	0	1383	Permitted or Split
	V/S	0.02	0.00	0.08	0.08	0.00	0.12	0.37	0.00	0.00	0.08	0.00	0.02	selected phasing
52: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	27	0	170	60	0	99	544	0	0	642	0	33	Protected
	Grp Sat Flow(s),veh/h/	1243	0	1633	1206	0	1615	1689	0	0	1723	0	1525	Permitted or Split
	V/S	0.02	0.00	0.10	0.05	0.00	0.06	0.32	0.00	0.00	0.37	0.00	0.02	selected phasing
53: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	28	0	128	106	0	177	633	0	0	139	0	22	Protected
	Grp Sat Flow(s),veh/h/	1262	0	1600	1288	0	1502	1718	0	0	1733	0	1383	Permitted or Split
	V/S	0.02	0.00	0.08	0.08	0.00	0.12	0.37	0.00	0.00	0.08	0.00	0.02	selected phasing
54: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	27	0	170	60	0	99	99	0	445	49	0	626	Protected
	Grp Sat Flow(s),veh/h/	1244	0	1634	1207	0	1616	1661	0	1689	1647	0	1714	Permitted or Split
	V/S	0.02	0.00	0.10	0.05	0.00	0.06	0.06	0.00	0.26	0.03	0.00	0.37	selected phasing
57: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	67	0	89	267	0	94	634	0	0	139	0	22	Protected
	Grp Sat Flow(s),veh/h/	238	0	1466	193	0	1335	1681	0	0	1733	0	1383	Permitted or Split
	V/S	0.28	0.00	0.06	1.38	0.00	0.07	0.38	0.00	0.00	0.08	0.00	0.02	selected phasing
58: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	181	0	93	203	0	33	544	0	0	565	0	33	Protected
	Grp Sat Flow(s),veh/h/	754	0	1460	40	0	1519	1689	0	0	1722	0	1525	Permitted or Split
	V/S	0.24	0.00	0.06	5.08	0.00	0.02	0.32	0.00	0.00	0.33	0.00	0.02	selected phasing
59: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	28	0	128	106	0	255	50	0	584	17	0	144	Protected
	Grp Sat Flow(s),veh/h/	1175	0	1600	1288	0	1543	1688	0	1683	1581	0	1697	Permitted or Split
	V/S	0.02	0.00	0.08	0.08	0.00	0.17	0.03	0.00	0.35	0.01	0.00	0.08	selected phasing
60: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	27	0	247	137	0	99	99	0	445	49	0	549	Protected
	Grp Sat Flow(s),veh/h/	1245	0	1683	1126	0	1617	1661	0	1689	1647	0	1711	Permitted or Split
	V/S	0.02	0.00	0.15	0.12	0.00	0.06	0.06	0.00	0.26	0.03	0.00	0.32	selected phasing
61: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	33	0	56	122	0	72	449	0	0	150	0	11	Protected
	Grp Sat Flow(s),veh/h/	342	0	1466	162	0	1335	1722	0	0	1737	0	1383	Permitted or Split
	V/S	0.10	0.00	0.04	0.75	0.00	0.05	0.26	0.00	0.00	0.09	0.00	0.01	selected phasing
62: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	71	0	77	93	0	27	484	0	0	472	0	16	Protected
	Grp Sat Flow(s),veh/h/	550	0	1460	182	0	1519	1711	0	0	1725	0	1525	Permitted or Split
	V/S	0.13	0.00	0.05	0.51	0.00	0.02	0.28	0.00	0.00	0.27	0.00	0.01	selected phasing
63: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	11	0	78	61	0	133	33	0	416	11	0	150	Protected
	Grp Sat Flow(s),veh/h/	1313	0	1594	1348	0	1499	1688	0	1727	1581	0	1721	Permitted or Split
	V/S	0.01	0.00	0.05	0.05	0.00	0.09	0.02	0.00	0.24	0.01	0.00	0.09	selected phasing
64: Hwy 211 & Dubarko Rd	Grp Volume(v), veh/h	16	0	132	44	0	71	66	0	418	27	0	461	Protected
	Grp Sat Flow(s),veh/h/	1274	0	1623	1248	0	1622	1661	0	1715	1647	0	1719	Permitted or Split
	V/S	0.01	0.00	0.08	0.04	0.00	0.04	0.04	0.00	0.24	0.02	0.00	0.27	selected phasing

Critical Flow Calculator

Intersection ID and Name	WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
47: Hwy 211 & Dubarko Rd	1.60	0.35	0.38	0.08		
	0.28	1.54	0.08	0.37		
	0.28	1.54	0.08	0.37	1.54	0.45
48: Hwy 211 & Dubarko Rd	0.76	0.24	0.34	0.37		
	0.22	0.70	0.37	0.32		
	0.22	0.70	0.37	0.32	0.70	0.69
49: Hwy 211 & Dubarko Rd	1.90	0.41	0.11	0.35		
	0.34	1.83	0.08	0.34		
	0.34	1.83	0.11	0.35	1.83	0.35
50: Hwy 211 & Dubarko Rd	0.76	0.24	0.42	0.29		
	0.22	0.70	0.37	0.26		
	0.22	0.70	0.42	0.29	0.70	0.42
51: Hwy 211 & Dubarko Rd	0.16	0.14	0.38	0.08		
	0.08	0.12	0.08	0.37		
	0.08	0.12	0.08	0.37	0.12	0.45
52: Hwy 211 & Dubarko Rd	0.15	0.08	0.34	0.37		
	0.10	0.06	0.37	0.32		
	0.10	0.06	0.37	0.32	0.10	0.69
53: Hwy 211 & Dubarko Rd	0.16	0.14	0.38	0.08		
	0.08	0.12	0.08	0.37		
	0.08	0.12	0.38	0.08	0.12	0.38
54: Hwy 211 & Dubarko Rd	0.15	0.08	0.42	0.29		
	0.10	0.06	0.37	0.26		
	0.10	0.06	0.42	0.29	0.10	0.42
57: Hwy 211 & Dubarko Rd	1.44	0.35	0.39	0.08		
	0.28	1.38	0.08	0.38		
	0.28	1.38	0.39	0.08	1.38	0.39
58: Hwy 211 & Dubarko Rd	5.14	0.26	0.34	0.33		
	0.24	5.08	0.33	0.32		
	0.24	5.08	0.34	0.33	5.08	0.34
59: Hwy 211 & Dubarko Rd	0.16	0.19	0.11	0.36		
	0.08	0.17	0.08	0.35		
	0.08	0.17	0.11	0.36	0.17	0.36
60: Hwy 211 & Dubarko Rd	0.27	0.08	0.38	0.29		
	0.15	0.12	0.32	0.26		
	0.15	0.12	0.38	0.29	0.15	0.38
61: Hwy 211 & Dubarko Rd	0.79	0.15	0.27	0.09		
	0.10	0.75	0.09	0.26		
	0.10	0.75	0.27	0.09	0.75	0.27
62: Hwy 211 & Dubarko Rd	0.56	0.15	0.29	0.27		
	0.13	0.51	0.27	0.28		
	0.13	0.51	0.29	0.27	0.51	0.29
63: Hwy 211 & Dubarko Rd	0.09	0.10	0.11	0.25		
	0.05	0.09	0.09	0.24		
	0.05	0.09	0.11	0.25	0.09	0.25
64: Hwy 211 & Dubarko Rd	0.12	0.06	0.31	0.26		
	0.08	0.04	0.27	0.24		
	0.08	0.04	0.31	0.26	0.08	0.31

Overlap Critical Flow Calculator

Intersection ID and Name		NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	
47: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Split	0.08	Split	0.37	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.07	Permitted	0.07	Split	0.08	Split	0.37	N/A	
48: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Split	0.37	Split	0.32	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.06	Permitted	0.06	Split	0.37	Split	0.32	N/A	
49: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.03	Protected	0.03	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.07	Permitted	0.07	Protected	0.34	Protected	0.34	N/A	
50: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.06	Protected	0.06	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.06	Permitted	0.06	Protected	0.37	Protected	0.37	N/A	
51: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Split	0.08	Split	0.37	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.12	Permitted	0.12	Split	0.08	Split	0.37	N/A	
52: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Split	0.37	Split	0.32	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.10	Permitted	0.10	Split	0.37	Split	0.32	N/A	
53: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.37	Protected	0.37	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.12	Permitted	0.12	Protected	0.02	Protected	0.02	N/A	
54: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.06	Protected	0.06	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.10	Permitted	0.10	Protected	0.37	Protected	0.37	N/A	
57: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.38	Protected	0.38	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.07	Permitted	0.07	Protected	0.02	Protected	0.02	N/A	
58: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.33	Protected	0.33	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.06	Permitted	0.06	Protected	0.02	Protected	0.02	N/A	
59: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.03	Protected	0.03	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.17	Permitted	0.17	Protected	0.35	Protected	0.35	N/A	
60: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.06	Protected	0.06	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.15	Permitted	0.15	Protected	0.32	Protected	0.32	N/A	
61: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.26	Protected	0.26	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.05	Permitted	0.05	Protected	0.01	Protected	0.01	N/A	
62: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.28	Protected	0.28	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.05	Permitted	0.05	Protected	0.01	Protected	0.01	N/A	
63: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.02	Protected	0.02	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.09	Permitted	0.09	Protected	0.24	Protected	0.24	N/A	
64: Hwy 211 & Dubarko Rd	Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
	Right Turn Approach Phasing	Protected	0.04	Protected	0.04	Permitted	0.00	Permitted	0.00	No OV	
	Overlap Approach Phasing	Permitted	0.08	Permitted	0.08	Protected	0.27	Protected	0.27	N/A	

Intersection ID and Name	Intersection V/C	HCM Control Delay, s/veh	HCM LOS
47: Hwy 211 & Dubarko Rd	**2.29**	**82**	**F**
48: Hwy 211 & Dubarko Rd	**1.61**	**96**	**F**
49: Hwy 211 & Dubarko Rd	**2.52**	**69**	**E**
50: Hwy 211 & Dubarko Rd	**1.30**	**22**	**C**
51: Hwy 211 & Dubarko Rd	**0.64**	**21**	**C**
52: Hwy 211 & Dubarko Rd	**0.90**	**56**	**E**
53: Hwy 211 & Dubarko Rd	**0.61**	**21**	**C**
54: Hwy 211 & Dubarko Rd	**0.64**	**14**	**B**
57: Hwy 211 & Dubarko Rd	**2.14**	**143**	**F**
58: Hwy 211 & Dubarko Rd	**6.54**	**161**	**F**
59: Hwy 211 & Dubarko Rd	**0.60**	**15**	**B**
60: Hwy 211 & Dubarko Rd	**0.61**	**16**	**B**
61: Hwy 211 & Dubarko Rd	**1.23**	**29**	**C**
62: Hwy 211 & Dubarko Rd	**0.97**	**47**	**D**
63: Hwy 211 & Dubarko Rd	**0.39**	**11**	**B**
64: Hwy 211 & Dubarko Rd	**0.45**	**11**	**B**

SECTION 14: PRELIMINARY CONCEPT FOR TRAFFIC SIGNAL AND LEFT-TURN LANE IMPROVEMENTS

ROADWAY CONCEPT

SCALE: 1" = 40'

0 20 40 80

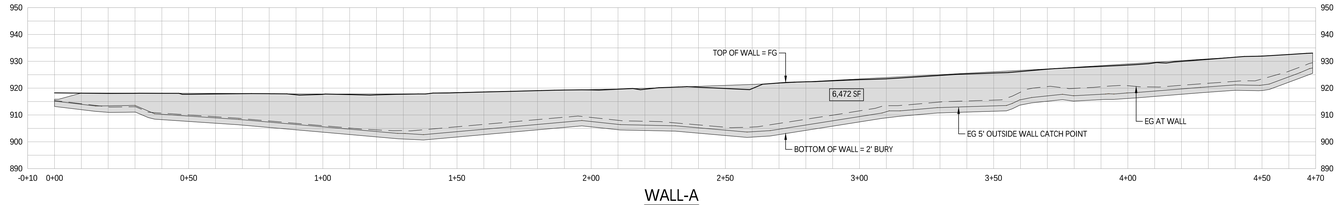
SCALE: 1" = 40'

ROADWAY CONCEPT GRADING

SCALE: 1" = 40'

0 20 40 80

SCALE: 1" = 40'



WALL-A

SCALE: 1" = 20' (HORIZ.)
1" = 20' (VERT.)