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TECHNICAL MEMORANDUM #5

December 9, 2025 Project# 27003.045

To: Thomas Guevara Jr, Oregon Department of Transportation (ODOT)
Anthony Pagano and Ryan Baxter, City of Gold Beach

From: Susan Wright, PE; Amy Griffiths, PE; Eza Gaigalas, PE; and Sam Godon; Kittelson
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RE: TM#5: Alternatives Development and Evaluation
Gold Beach U.S. 101 Community Connections Plan

Introduction

The purpose of this memorandum is to evaluate the design alternatives the vision for U.S. 101 in Gold Beach. The memorandum is organized into the following sections:

- **Summary of Community Transportation Framework:** This section outlines the corridor vision along with the goals and objectives that will guide the evaluation of project alternatives. It also documents the urban context along U.S. 101.
- **Summary of Existing Gaps and Deficiencies:** This section summarizes the current challenges and opportunities within the corridor that inform the development of project alternatives.
- **Alternatives Development and Screening:** This section describes the process for developing and screening alternatives. It focuses on the Central Segment of U.S. 101 through downtown (Moore Street to 11th Street) and screens these alternatives to identify the "most promising alternatives". It also documents design concepts that can be paired with these alternatives. This includes opportunities along the segments north and south of central segment, intersection improvements, opportunities to complete parallel routes, and opportunities to enhance transit access.
- **Alternatives Evaluation:** This section documents the criteria used to compare alternatives to the vision, goals, and objectives, and documents the results of the alternatives evaluation.
- **Conclusions and Next Steps:** This section summarizes the evaluation of the most promising alternatives and outlines the next steps for selecting a preferred alternative and refining it into a preferred concept design layout.

The study area encompasses U.S. 101 and adjacent city streets from Jerry's Flat Road to Hunter Creek Loop in Gold Beach, Oregon. The analysis includes operational analysis at key locations throughout the study area and a multimodal analysis along U.S. 101. The study area and study intersections are illustrated in Figure 1.

Figure 1

Study Area
Gold Beach, OR

Summary of Community Transportation Framework

This section outlines the corridor vision along with the goals and objectives that will guide the evaluation of project alternatives. It also documents the urban context along U.S. 101.

VISION, GOALS, AND OBJECTIVES

The corridor vision statement, as identified in TM#2: Community Transportation Framework, Corridor Vision is:

The U.S. 101 corridor through Gold Beach is a vibrant and accessible route that balances the needs of residents, visitors, emergency services, and businesses and supports the city's evolving economy. It promotes safe and comfortable walking, biking, rolling, and driving with features designed to calm traffic and reduce speeds. The corridor also serves essential motor vehicle and freight mobility. By providing convenient access to key destinations, the corridor fosters economic growth, reduces environmental impact, and meets recreational needs for all who live, work, and visit Gold Beach.

Figure 2 illustrates the goals and objectives identified to reflect the community's vision for the corridor.

Image of U.S. 101 in Gold Beach

Source: ODOT

Figure 2. Goals and Objectives

URBAN CONTEXT

The ODOT Highway Design Manual (HDM, Reference 1) defines six Urban Contexts to support a context-sensitive design approach for state roadways. Table 1 summarizes the Urban Contexts for U.S. 101 in Gold Beach, as established in in TM#2: Community Transportation Framework, Corridor Vision. These Urban Contexts provide design guidance for the roadway cross-sections, which informed the development of alternatives documented within this memorandum.

Table 1. Urban Context along U.S. 101 in Gold Beach

Segment	Extents	Defined Context	Notes
North Segment	Jerry's Flat Road to Moore Street	Suburban Fringe	-
Central Segment	Moore Street to 11th Street	Urban Mix	The Gold Beach U.S. 101 Community Connections Plan is intended to help improve the safety and comfort of the U.S. 101 corridor in Downtown Gold Beach. Therefore, the project will strive to achieve the design element recommendations—particularly for the pedestrian zone—of Traditional Downtown/CBD for this section.
South Segment	11th Street to Hunter Creek Road	Suburban Fringe	The segment south of Pacific Vista Drive to Hunter Creek Road is currently designated by ODOT as rural and does not have an existing Urban Context. In the future, this segment may align with the Suburban Fringe Context, therefore the long-term vision will consider the modal expectations consistent with Suburban Fringe.

Summary of Existing Gaps and Deficiencies

TM #4: Existing and Future No-Build Transportation Conditions provides an inventory of the existing transportation system, vehicular operations, safety, and multimodal connectivity. Key findings from this analysis identify current challenges and opportunities to develop project alternatives to support the corridor vision. Figure 3 presents a summary of existing gaps and deficiencies.

When considering the range of potential cross-section alternatives along the corridor, it is important to account for the corridor's varied existing conditions. While a detailed map of parking facilities is not available, parking generally does not exist along the five-lane sections of U.S. 101 but is present along portions of the four-lane segments. As illustrated in Figure 4, the number of travel lanes also varies by segment: the Central Segment is primarily four lanes, transitioning to five lanes near the signalized intersections. As alternatives are developed, it is expected that the preferred cross section may vary by segment to best respond to context and operational needs. For example, it may be feasible to convert four-lane segments to a three-lane cross section to introduce a two-way left-turn lane and improve multimodal facilities, while maintaining a five-lane configuration at signalized intersections to reduce queueing.

Figure 3. Summary of Existing Gaps and Deficiencies

**Note: The Level of Traffic Stress (LTS) spectrum ranges from 1 to 4 with LTS 1 designating low stress, and LTS 4 designating high stress.*

Figure 4

Number of Travel Lanes Along U.S. 101
Gold Beach, OR

Source: Oregon Department of Transportation

Alternatives Development and Evaluation

U.S. 101 through Gold Beach is a constrained corridor, with sidewalks built to the edge of the right-of-way and buildings located close to the highway in many areas. While there are limited opportunities to narrow travel lanes to accommodate enhanced multimodal facilities, the range of feasible design alternatives is largely determined by whether a reduction in travel lanes is viable through the Central Segment (Moore Street to 11th Street).

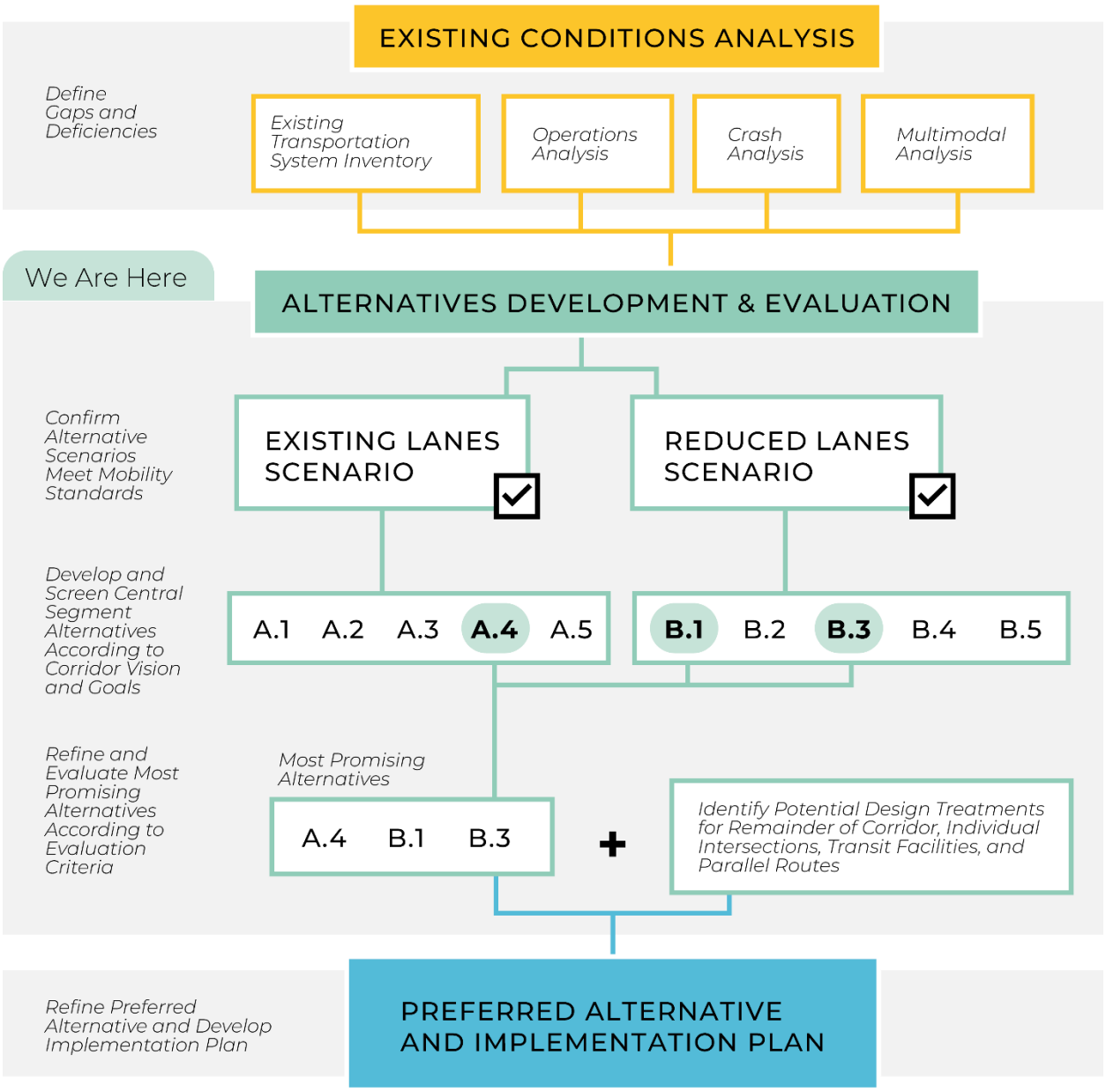
The alternatives development and evaluation process first assessed whether a three-lane cross section in the Central Segment could meet corridor mobility standards. Analysis indicates that mobility standards are achieved under both the Existing Lanes Scenario and Reduced Lanes Scenario. Based on these findings, ten cross-section alternatives were developed for the Central Segment and screened for alignment with the corridor vision and goals.

From this screening, three alternatives emerged as the most promising and were evaluated in greater detail. Additional design treatments were developed for the North and South Segments of the corridor, along with concepts for transit enhancements, parallel route facilities, and intersection improvements.

The Project Management Team will review the evaluation results, along with feedback from the Project Advisory Committee, the public, City Council, and Planning Commission, to identify a preferred alternative. Once selected, the preferred alternative will be refined, and a corresponding implementation plan will be developed.

This alternatives development and evaluation process is illustrated in Figure 5.

Figure 5. Alternatives Development and Evaluation Process



CONFIRM ALTERNATIVE SCENARIOS MEET MOBILITY STANDARDS

The first step in the alternatives development and evaluation process is to confirm the feasible range of alternatives. This step is informed by an assessment of whether a three-lane cross section in the Central Segment could meet corridor mobility standards. The Existing Lanes Scenario reflects the current cross sections along U.S. 101, while the Reduced Lanes Scenario converts the Central Segment between Moore Street and 11th Street to a three-lane configuration. North and south of these segments, the cross section is already three lanes, so there are no operational differences between the two scenarios in these areas. The results of this evaluation, along with the operational differences between the Existing Lanes Scenario and the Reduced Lanes Scenario, are summarized below.

Operations and Queuing

The intersection operations analysis was conducted using Synchro 12, a software tool designed to assist with operations analyses in accordance with the 7th Edition of the Highway Capacity Manual (HCM, Reference 2) methodology. The analysis results include level-of-service (LOS), delay, and volume-to-capacity (v/c) ratios at all intersections. The LOS, delay, and v/c ratios are reported for the overall intersection at signalized intersections and the critical movement at unsignalized intersections in accordance with the methodologies outlined in ODOT's Analysis Procedures Manual (APM, Reference 3). Queuing was analyzed at signalized study intersections along U.S. 101 (northbound and southbound) legs of the intersections; side-street queuing was not included in this analysis. Queuing analysis was performed using SimTraffic 12. Both operational and queueing analysis were be performed using 2045 summer PM peak hour traffic volumes to demonstrate the "worst case" scenario, which are provided in TM#4: Existing and Future No-Build Transportation Conditions.

Table 2 and Table 3 compare the operation and queuing under the Existing Lane Scenario and Reduced Lane Scenario. Note that there is an expectation that the Reduced Lane Scenario with a center left-turn lane may facilitate left turn movements from side streets onto U.S. 101, particularly where the current cross section is four lanes and does not allow two-stage left-turns (where left-turns from the side street pull into the center left-turn lane and wait for a gap in traffic before merging into the through lane). Synchro 12 does not have the capability to reflect this potential benefit.

As shown, all intersections operate within their respective mobility targets in both scenarios and queues from signalized intersections are within available storage. Therefore, both the Existing Lanes Scenario and Reduced Lanes Scenario are viable options to further evaluate according to the overall corridor vision, goals, and objectives. However, in the Reduced Lanes Scenario, the through movement queue lengths have approximately doubled as the through traffic is no longer split between two lanes. As a result, the 95th percentile queues at U.S. 101 / Moore Street are projected to extend through the intersection with Gauntlett Street and the queues at U.S. 101 / 6th Street are projected to extend through intersection with 7th Street.

Appendix A contains the Synchro reports, Appendix B contains the ODOT v/c spreadsheets, and Appendix C contains the SimTraffic Reports.

Table 2. Intersection Operations - Existing Lanes vs Reduced Lanes Scenarios (2045 Summer PM Peak Hour)

#	Intersection	Control Type	Operating Standard	Existing Lane Scenario				Reduced Lanes Scenario			
				CM/CA[1]	LOS[2]	Del[3]	v/c[4]	CM/CA[1]	LOS[2]	Del[3]	v/c[4]
1	U.S. 101 / Jerry's Flat Road	Stop	v/c ≤ 0.95	WBL	C	18.3	0.28	No change in configuration			
2	U.S. 101 / Harbor Way	Stop	v/c ≤ 0.95	EB	C	16.2	0.12	No change in configuration			
3	U.S. 101 / Moore Street	Signal	v/c ≤ 0.90	-	A	8.2	0.32	-	B	10.2	0.52
4	U.S. 101 / Caughell Street	Stop	v/c ≤ 0.95	WB	D	32.3	0.11	WB	E	40.4	0.14
5	U.S. 101 / 1st Street	Stop	v/c ≤ 0.95	WB	C	17.5	0.04	WB	C	16.0	0.03
6	U.S. 101 / 2nd Street	Stop	v/c ≤ 0.95	WB	C	24.2	0.15	WB	D	31.9	0.19
7	U.S. 101 / 3rd Street[5]	Stop	v/c ≤ 0.95	EB	D	27.9	0.26	EB	E	41.4	0.36
8	U.S. 101 / 4th Street	Stop	v/c ≤ 0.95	WB	C	22.3	0.29	WB	D	30.6	0.38
9	U.S. 101 / 6th Street[5]	Signal	v/c ≤ 0.90	-	A	7.4	0.26	-	A	9.0	0.45
10	U.S. 101 / 8th Street	Stop	v/c ≤ 0.95	EB	D	26.1	0.10	EB	D	31.7	0.13
11	U.S. 101 / 10th Street	Stop	v/c ≤ 0.95	EB	C	18.9	0.06	EB	C	21.8	0.07
12	U.S. 101 / 11th Street	Stop	v/c ≤ 0.95	WB	B	11.5	0.08	WB	B	13.3	0.10
13	U.S. 101 / Vizcaino Court / Pacific Vista Drive	Stop	v/c ≤ 0.90	EB	C	17.5	0.06	No change in configuration			
14	U.S. 101 / Hunter Creek Road	Stop/Free Right-Turn[3]	v/c ≤ 0.90	WB	C	18.1	0.02	No change in configuration			

Del = delay (sec/veh); LOS = level of service;; v/c = volume to capacity; EB = Eastbound; WB = Westbound; WBL = westbound left turn.
[1] CA/CM = Critical Approach when minor approach to the TWSC is single lane; Critical Movement when minor approach to the TWSC is multi lane
[2] Intersection LOS (signal), CM LOS (stop)
[3] Intersection average vehicle delay (signal), CM vehicle delay (stop)
[4] Intersection v/c (signal), CM v/c (stop)
[5] Intersection is assumed to align with driveway to evaluate the worst-case scenario.

Table 3. 95th Percentile Queue Lengths at Signalized Intersections – Existing Lane Scenario vs Reduced Lane Scenario

#	Intersection	Movement	Available Storage (ft)[1]	Existing Lane Scenario		Reduced Lane Scenario	
				2045 Summer Peak 95th Percentile Queue Length[2] (ft)	95th Percentile Queue Length > Available Storage?	2045 Summer Peak 95th Percentile Queue Length[2] (ft)	95th Percentile Queue Length > Available Storage?
3	U.S. 101 / Moore Street	SB	Continuous	150	No	250	No
		SBL	150	50	No	50	No
		NB	Continuous	125	No	275	No; but 95th percentile queue extends through intersection with Gauntlet Street.
		NBL	115	100	No	100	No
9	U.S. 101 / 6th Street	SB	Continuous	100	No	200	No
		SBL	120	75	No	75	No
		NB	Continuous	100	No	200	No; but 95th Percentile Queue extends through intersection with 7th Street
		NBL	120	50	No	75	No

[1]Available storage rounded down to the nearest 5 feet. Through movements have continuous storage; however, queues that extend through intersection are noted in the table.
[2]Reported queues rounded up to nearest vehicle length assuming 25 feet per vehicle.

DEVELOP AND SCREEN CENTRAL SEGMENT ALTERNATIVES ACCORDING TO CORRIDOR VISION AND GOALS

The Central Segment faces additional constraints compared to other portions of the corridor. Given its limited right-of-way width, higher traffic volumes, and greater concentration of commercial properties that attract multimodal trips, this segment was selected as the starting point for detailed analysis. Therefore, the next step in the alternatives development and evaluation process is to develop and screen Central Segment alternatives based on their alignment with the corridor vision and goals.

A total of ten cross-section alternatives were developed for the Central Segment and evaluated for consistency with the project's vision and goals. The primary two types of facilities considered for people biking include buffered bike lanes and a multi-use path shared with people walking. According to the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (Reference 4)," the minimum paved width for a two-directional shared use path is 10 ft… in very rare circumstances, a reduced width of 8 ft (2.4 m) may be used".

Figure 6 provides an overview of the key street components included in each alternative, including whether curb relocations or permanent right-of-way (ROW) acquisitions are anticipated.

Figure 6. Cross-Section Elements and Central Segment Alternatives Summary

Condition	Sidewalk	Parking	Bike	Vehicle Lane	Center Turn Lane	Vehicle Lane	Bike	Parking	Sidewalk	Move Curbs?	Permanent Additional ROW?
Existing Conditions	Varying sidewalk width	4-lane sections yes, 5-lane sections no	No	Two southbound lanes	5-lane sections yes, 4-lane sections no	Two northbound lanes	No	4-lane sections yes, 5-lane sections no	Varying sidewalk width	N/A	N/A
Alternative A.1 Widen Sidewalk by Moving Curb on One Side of the Street	One side some widening in 4-lane section									One curb	
Alternative A.2 Add Bike Lanes by Moving Curb on One Side and Removing On-Street Parking on Both Sides of the Street	One side minor widening	Both sides no parking	Bicycle lane				Bicycle lane	Both sides no parking		One curb	Minor
Alternative A.3 Add Bike Lanes without Moving Curb by Removing On-Street Parking on Both Sides of the Street (Only Applicable for 4-Lane Cross Section)		Both sides no parking	Bicycle lane in 4-lane section				Bicycle lane in 4-lane section	Both sides no parking			
Alternative A.4 Widen Sidewalk into a Multi-Use Path by Moving Curb, Provides Parking on One Side of the Street	Widening	No parking one side	Sidewalk expanded to multi-use path				Sidewalk expanded to multi-use path		Minor widening as feasible	One or both	Minor
Alternative A.5 Widen Sidewalk on Both Sides of the Street, Add Bike Lanes, Provides Additional Parking on Both Sides of the Street	Widening	Parking throughout	Bicycle lane				Bicycle lane	Parking throughout	Widening throughout	Both	Additional ROW and Building Impacts

Condition	Sidewalk	Parking	Bike	Vehicle Lane	Center Turn Lane	Vehicle Lane	Bike	Parking	Sidewalk	Move Curbs?	Permanent Additional ROW?
Existing Conditions	Varying sidewalk width	4-lane sections yes, 5-lane sections no	No	Two southbound lanes	5-lane sections yes, 4-lane sections no	Two northbound lanes	No	4-lane sections yes, 5-lane sections no	Varying sidewalk width	N/A	N/A
Alternative B.1 Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalks; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor	Widening	No parking one side	Bicycle lane	One southbound lane	Center Turn Lane throughout	One northbound lane	Bicycle lane	Parking throughout	Widening	One or both	
Alternative B.2 Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section to Widen Sidewalks; Maintains Curbs and Resdistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor		No parking one side	Bicycle lane	One southbound lane	Center Turn Lane throughout	One northbound lane	Bicycle lane	Parking throughout			
Alternative B.3 Widen Sidewalk into a Multi-Use Path on Both Sides of the Street by Moving Curbs on Both Sides and Reducing Travel Lanes to a 3-Lane Cross Section; Provides Additional Parking on Both Sides of the Street	Widening	Parking throughout	Sidewalk expanded to multi-use path	One southbound lane	Center Turn Lane throughout	One northbound lane	Sidewalk expanded to multi-use path	Parking throughout	Sidewalk expanded to multi-use path	Both	
Alternative B.4 Add Two-Way Cycle Track by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalk; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor	Widening	No parking one side	One side two-way cycle track	One southbound lane	Center Turn Lane throughout	One northbound lane		Parking throughout	Widening	One or both	
Alternative B.5 Add Two-Way Cycle Track by Reducing Travel Lanes to a 3-Lane Cross Section; Maintains Curbs and Provides Additional Parking on Both Sides of the Street		Parking throughout	One side two-way cycle track	One southbound lane	Center Turn Lane throughout	One northbound lane		Parking throughout			

Alternatives Screening

All the segment alternatives described in the section above were screened against the project's goals of safety, multimodal connectivity, and economic development to identify which alternatives are the most promising. The details of the screening are included in Table 4.

Table 4. Central Segment Alternatives Screening

Alternative	Description	Goals			Overall Goal Alignment
		Safety	Multimodal Connectivity	Economic Development	
A.1	Widen Sidewalk by Moving Curb on One Side of the Street	Low	Low	Medium	Low
A.2	Add Bike Lanes by Moving Curb on One Side and Removing On-Street Parking on Both Sides of the Street	Medium	Medium	Low	Medium
A.3	Add Bike Lanes without Moving Curb by Removing On-Street Parking on Both Sides of the Street (Only Applicable for 4-Lane Cross Section)	Low	Low	Low	Low
A.4	Widen Sidewalk into a Multi-Use Path by Moving Curb, Provides Parking on One Side of the Street	Medium	High	Medium	**High**
A.5	Widen Sidewalk on Both Sides of the Street, Add Bike Lanes, Provides Additional Parking on Both Sides of the Street	Medium	High	Low	Medium
B.1	Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalks; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor	High	Medium	Medium	**High**
B.2	Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section to Widen Sidewalks; Maintains Curbs and Redistributes Parking by Providing Parking on Ones Side of the Street Throughout the Corridor	Medium	Low	Medium	Medium
B.3	Widen Sidewalk into a Multi-Use Path on Both Sides of the Street by Moving Curbs on Both Sides and Reducing Travel Lanes to a 3-Lane Cross Section; Provides Additional Parking on Both Sides of the Street	High	High	High	**High**
B.4	Add Two-Way Cycle Track by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalk; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor	Medium	Medium	Medium	Medium
B.5	Add Two-Way Cycle Track by Reducing Travel Lanes to a 3-Lane Cross Section; Maintains Curbs and Provides Additional Parking on Both Sides of the Street	Medium	Low	High	Medium

High: The alternative provides significant improvements or benefits that support the goal.
Medium: The alternative provides moderate improvements or partial benefits that support the goal.
Low: The alternative provides minimal or limited improvements that support the goal.

Based on this screening the three most promising alternatives were determined to be:

- **A.4: Widen Sidewalk into a Multi-Use Path by Moving Curb, Provides Parking on One Side of the Street for 4-Lane Sections** (*rendering shown in Figure 7 and Figure 8*).
- **B.1: Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalks; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor** (*rendering shown in Figure 9*), and
- **B.3: Widen Sidewalk into a Multi-Use Path on Both Sides of the Street by Moving Curbs on Both Sides and Reducing Travel Lanes to a 3-Lane Cross Section; Provides Additional Parking on Both Sides of the Street** (*rendering shown in Figure 10*).

Note that the renderings are intended to illustrate the constraining points of the Central Segment right-of-way width, additional width may be added to sidewalks where right-of-way width is available.

Figure 7. Most Promising Alternative A.4 4-Lane Section Rendering (Facing South)

Figure 8. Most Promising Alternative A.4 5-Lane Section Rendering (Facing South)

Figure 9. Most Promising Alternative B.1 (Facing South)

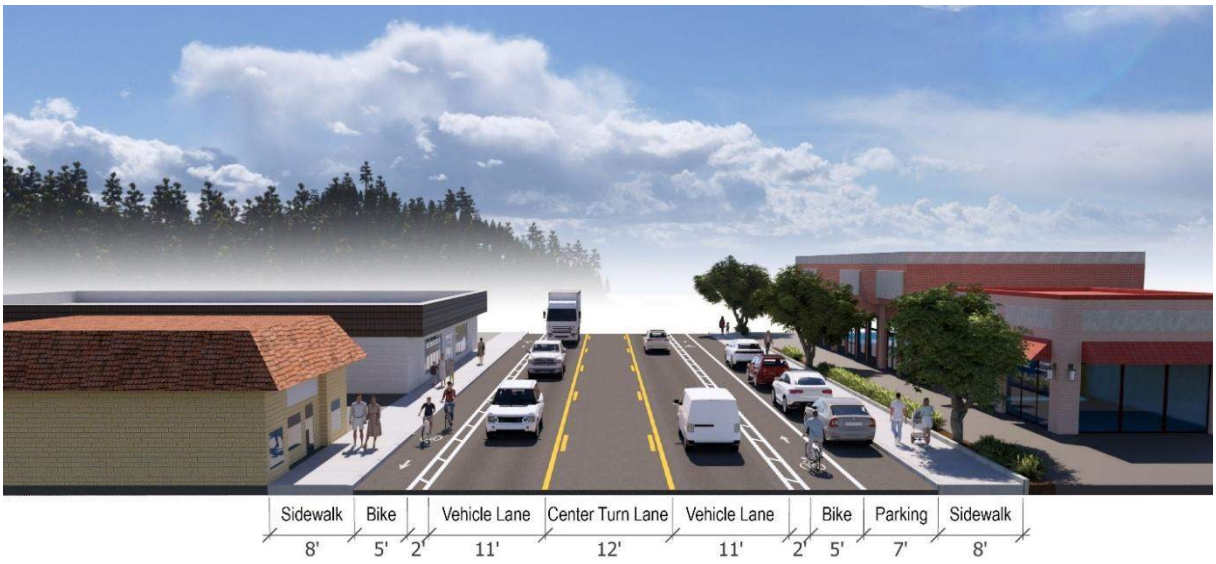


Figure 10. Most Promising Alternative B.3 Rendering (Facing South)

REFINE AND EVALUATE MOST PROMISING ALTERNATIVES ACCORDING TO EVALUATION CRITERIA

This section describes additional projects for the North and South Segments, including opportunities for parallel routes, intersection improvements, and transit enhancements, and then provides a detailed evaluation of the most promising Central Segment alternatives.

In addition to the most promising Central Segment alternatives, it is important to consider opportunities to enhance safety, multimodal access, and economic development throughout the remainder of the corridor. Additional treatments—such as targeted intersection improvements, transit facility upgrades, and enhancements to parallel routes—can complement and strengthen the effectiveness of the Central Segment alternatives. These opportunities are described below.

North Segment Opportunities

The North Segment from Jerry's Flat Road to Harbor Way features a three-lane cross section with two travel lanes, a two-way-left-turn lane, bike lanes on both sides, and sidewalk on the west side of the roadway. The existing cross section is shown in Figure 11. The configuration expands to a five-lane section at Harbor Way.

The recommended cross section for this segment includes widening the west side sidewalk to 10 feet to create a multi-use path. Additionally, the east-side bike lane may be widened depending on ROW availability. These enhancements are intended to improve safety for people walking and biking by physically separating them from vehicle traffic. They also strengthen connections to recreational sites and commercial areas. The specific transition point between the North Segment and the Central Segment cross sections (between Harbor Way and Moore Street) will be refined in TM#6: Refined Alternative,

Preferred Concept Design Layout as on-street parking may be desirable several hundred feet north of Moore Street. The proposed cross section north of the transition point is shown in Figure 12.

Figure 11. Existing Typical Cross Section from Jerry's Flat Road to south of Harbor Way (Facing South)

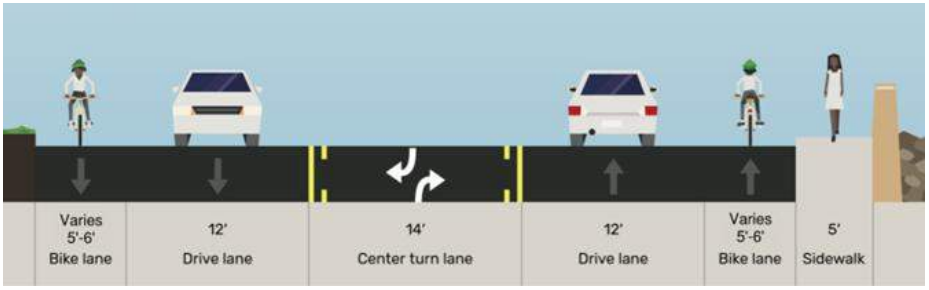
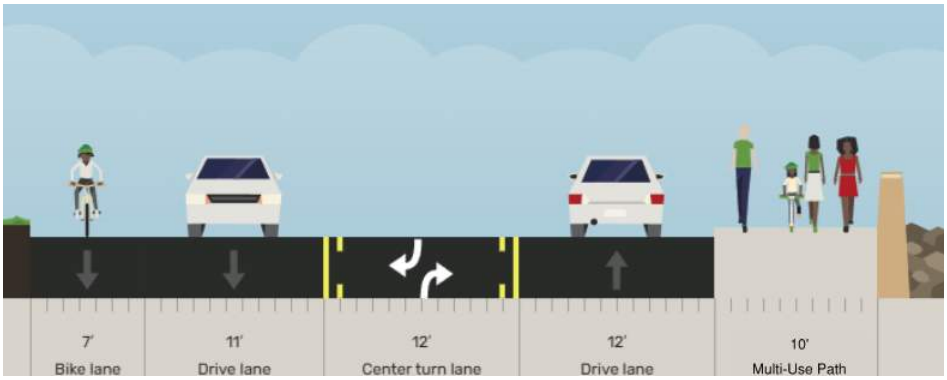


Figure 12. Recommended Typical Cross Section from Jerry's Flat Road to south of Harbor Way (Facing South)



South Segment Opportunities

The South Segment from 11th Street to Hunter Creek Road features a variable cross section, transitioning from four lanes north of the cross section to 2-3 lanes. The three-lane portion includes two travel lanes, a center two-way left-turn lane, and wide shoulders. The existing three-lane cross section is shown in Figure 13.

The recommended cross-section for this segment includes transitioning from the preferred cross-section for the Central Segment at some point between 11th Street and Kerber Drive and determining when to transition from an urban section with sidewalks or multi-use paths above the curb to at-grade multi-use paths, as illustrated in (Figure 14). Sufficient right-of-way is available to accommodate these improvements; however, challenging topography may limit implementation. These enhancements are intended to improve safety and access for people walking and biking and strengthen connections to destinations along the South Segment.

The final width of the path and buffering elements will be determined for the preferred alternative.

Figure 13. Existing Typical Cross Section from Kerber Drive to Hunter Creek Road (Facing South) – no center turn lane in some areas

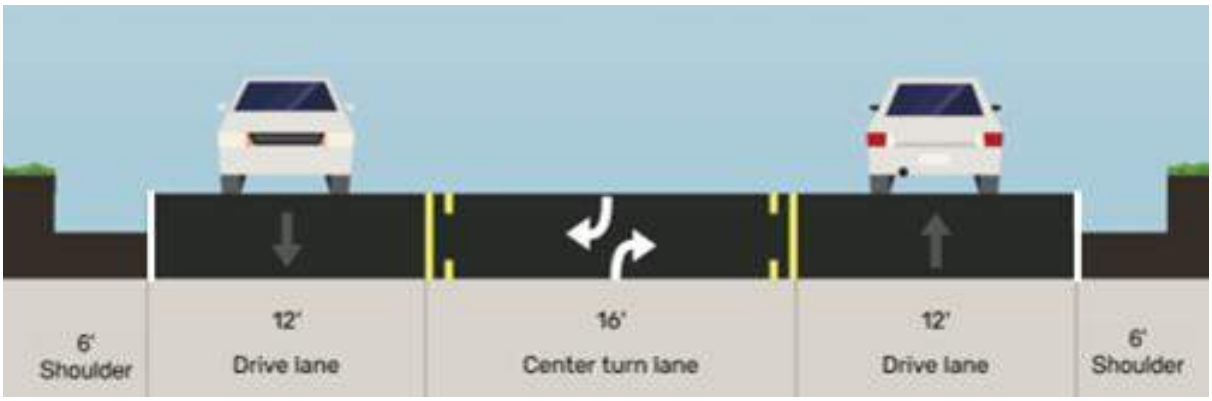
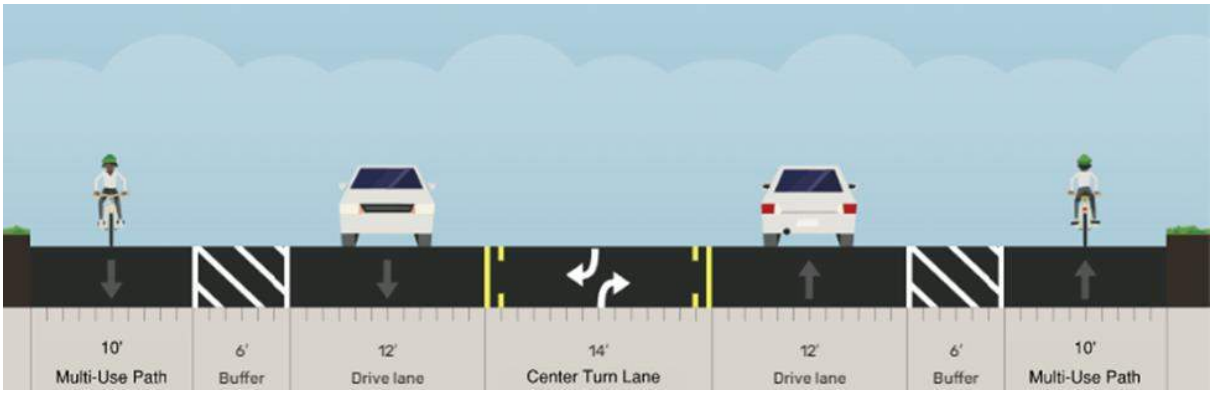


Figure 14. Recommended Typical Cross Section from rural transition to Hunter Creek Road with Multi-Use Path on Both Sides (Facing South)



Parallel Routes

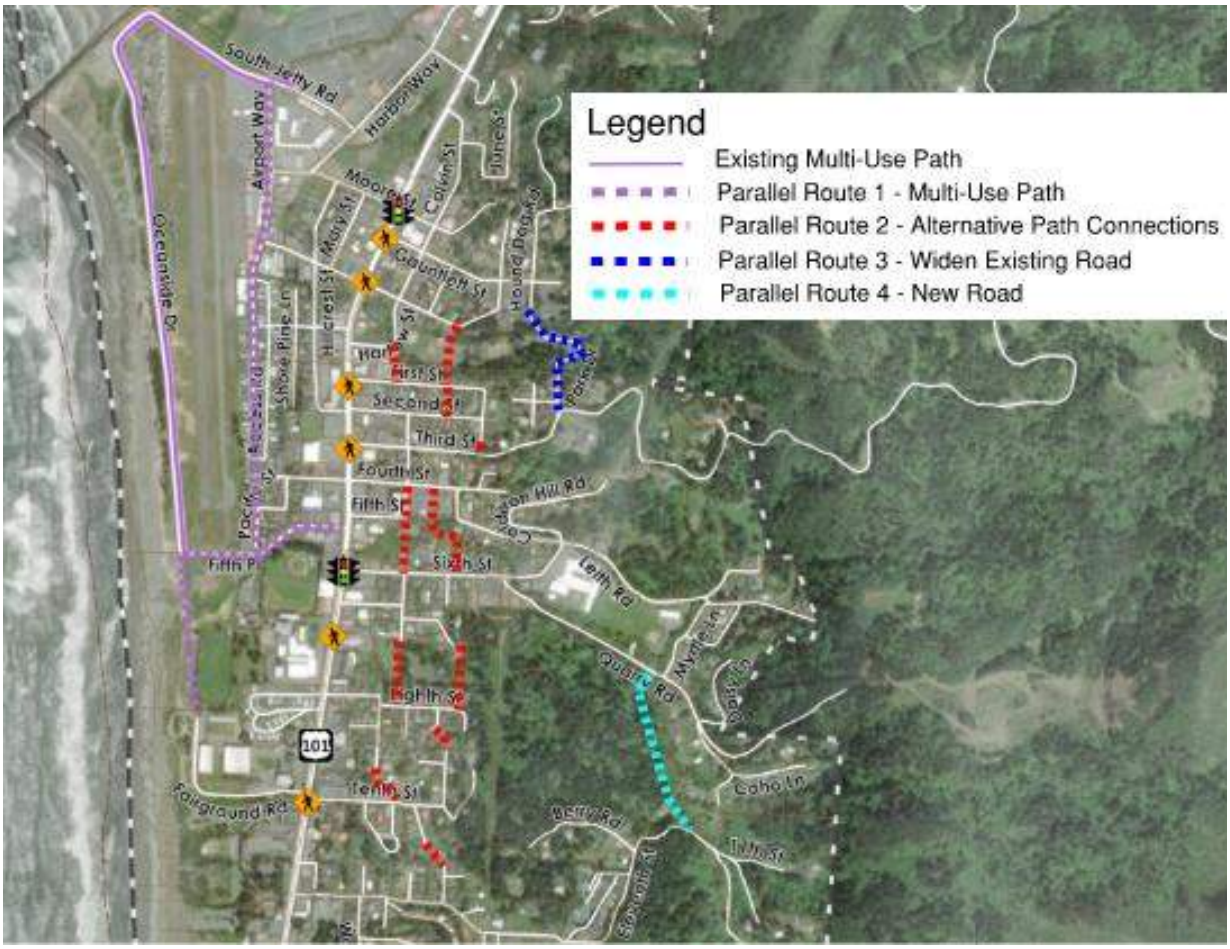
Three potential parallel routes were identified to complement one of the most promising alternatives under consideration. Two of the routes are designed to enhance pedestrian and bicycle connectivity, while the third supports vehicle circulation. The locations of these potential parallel routes are mapped in Figure 15.

- **Parallel Route 1: 10-Foot Multi-Use Path West of U.S. 101**
  This route would close existing gaps along the west side of U.S. 101, creating a continuous 10-foot multi-use path for pedestrians and bicyclists. It could enhance alternatives that do not provide as comfortable of facilities for people walking and biking by offering a safe and accessible non-motorized travel option on the west side of U.S. 101.
- **Parallel Route 2: Path Connectivity East of U.S. 101**
  This route would establish local street connectivity or pedestrian and bicycle path connections on the east side of U.S. 101, improving pedestrian and bicycle connectivity. It could enhance alternatives that do not provide as comfortable of facilities for people walking and biking by offering a safe and accessible non-motorized travel option on the west side of U.S. 101. The figure shows

multiple connectivity options between existing roads. This connection can help enhance alternative A.5 that only includes a multi-use path on the west side of U.S. 101.

- **Parallel Route 3: Roadway Connectivity East of U.S. 101 – Widen Existing Road**
  This route proposes upgrading an existing roadway connection east of U.S. 101 to provide an alternative vehicular connection to reduce reliance on U.S. 101 for some daily trips (to schools/library/parks) and during emergency events to access evacuation areas. This connection can help enhance alternative B.1 and B.3 that reduce existing vehicle lanes by providing a parallel vehicular route when travel demand would exceed typical peak conditions.
- **Parallel Route 4: Roadway Connectivity East of U.S. 101 - New Road**
  This route proposes a new roadway connection east of U.S. 101 to provide an alternative vehicular connection to reduce reliance on U.S. 101 for some daily trips (to schools/library/parks) and during emergency events to access evacuation areas. This connection can help enhance alternative B.1 and B.3 that reduce existing vehicle lanes by providing a parallel vehicular route when travel demand would exceed typical peak conditions.

Figure 15. Parallel Routes



Intersection Improvements

Intersection improvements are being considered alongside corridor alternatives as a means of improving safety, circulation, and access to key destinations in the City of Gold Beach. Options for improvements include removing the existing signal at 6th Street, adding a signal at 3rd Street, implementing a fire signal with emergency preemption at 5th Street, and implementing a roundabout as a gateway treatment.

ROUNDABOUT GATEWAY TREATMENT TO PROVIDE TRAFFIC CALMING

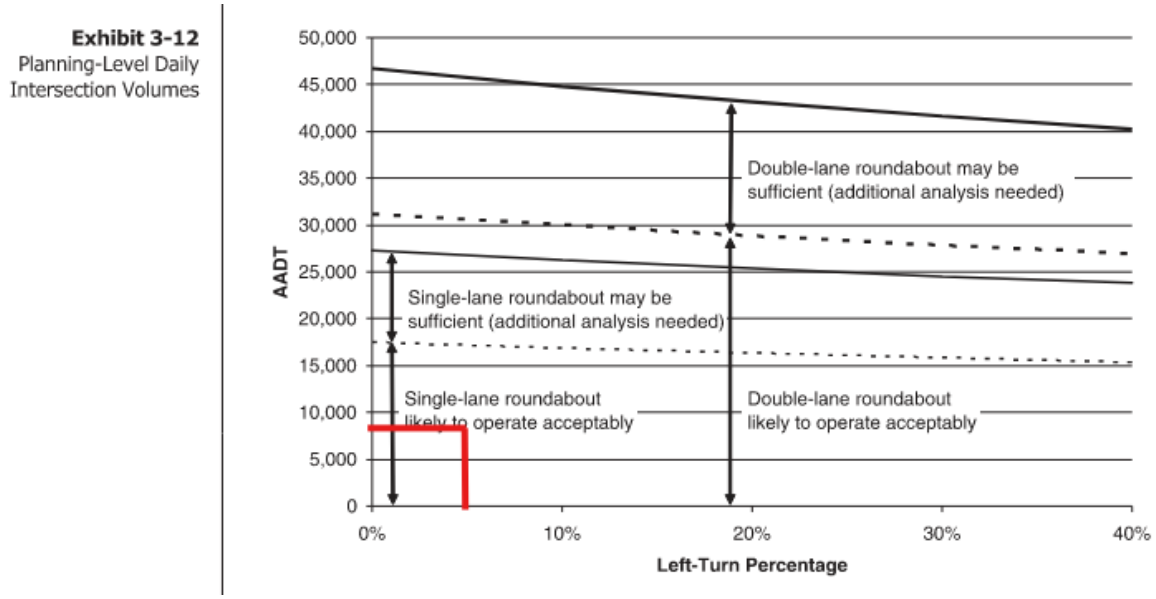
Roundabouts as gateway treatments are used to slow driver speeds and convey a change of roadway environment. Outside of Gold Beach, U.S. 101 functions as a rural highway with high speeds and limited urban design features. Through the City, U.S. 101 transitions to an Urban Mix roadway context where speeds are slower and sidewalks, bike lanes, and signalized intersections are present. Therefore, a roundabout could be installed at the U.S. 101 / Harbor Way intersection in Gold Beach to serve as a gateway treatment between the Suburban Fringe and Urban Mix environments.

Roundabout Analysis Methodology

Roundabouts are a type of intersection improvement that can serve to improve safety, operations, and traffic calming. Unlike signalized intersections, there are no warrants for roundabout installations, as the basis for installation varies based on the intersections existing safety performance, operations, and roadway context. The ODOT Traffic Manual (Reference 5), ODOT Highway Design Manual (Reference 1), and NCHRP Report 672 (Reference 6) provide guidance on the planning level considerations for roundabouts.

The U.S. 101 / Harbor Way intersection is currently a "T" intersection with one stop-controlled approach. Roundabout operations will be analyzed in detail during the conceptual design process, following the procedures outlined in ODOT's *Analysis Procedures Manual*, as part of the subsequent preferred alternative memorandum. To provide planning-level insight into the operational feasibility of a roundabout at this location, Figure 16 illustrates the relationship between average annual daily traffic (AADT), left-turn percentage, and roundabout operations. As shown in Figure 16, a single-lane roundabout is expected to operate acceptably given the existing AADT and left-turn percentages at U.S. 101 / Harbor Way. Further engineering is required to understand the feasibility of implementing a roundabout at this location giving right-of-way and topographical constraints.

Figure 16. NCHRP Report 672 Exhibit 3-12 Planning-Level Daily Intersection Volumes at Harbor Way & U.S. 101



SIGNAL TREATMENTS TO IMPROVE EMERGENCY VEHICLE ACCESS

City staff have indicated that emergency vehicles experience challenges exiting the Fire Department building at 5th Place. While 95th percentile queues do not block the driveway, staff have indicated that under certain conditions signal queues from 6th Street can extend back to block access at 5th Place, making it difficult for emergency vehicles to find a sufficient gap to turn right or left onto U.S. 101.

Based on early discussions with the Project Management Team and Project Advisory Committee, there is interest in exploring the following opportunities to address this challenge:

- **Treatment 1:** Remove the signal at U.S. 101 / 6th Street and install a new signal at U.S. 101 / 3rd Street to prevent queues from extending to the U.S. 101 / 5th Place intersection.
- **Treatment 2:** Add a fire signal at U.S. 101 / 5th Place with emergency vehicle preemption, coordinated with the existing signal at U.S. 101 / 6th Street.

Signal Warrant Analysis Methodology

To investigate the potential to relocate or install new signals in the City of Gold Beach, Signal Warrant Analyses were conducted at U.S. 101 / 3rd Street and U.S. 101 / 6th Street following methodology in ODOT's Analysis Procedures Manual (APM, Reference 3). ODOT's Traffic Planning and Analysis Unit uses Signal Warrant 1, Eight-Hour Vehicular Volume as a preliminary signal warrant. Meeting Signal Warrant 1 alone does not guarantee that a signal will be installed, a field warrant analysis must also be conducted by ODOT Region 3 staff, and if both warrants are met, the state traffic engineer will make the final determination. For informative purposes to understand what levels of traffic volume increases would warrant a signal, a signal warrant sensitivity analyses were conducted at both intersections by increasing the minor street traffic volumes in 10% increments until the warrant is met.

To assess the viability of these options, a signal warrant analysis was conducted at both the 3rd Street / U.S. 101 and the 6th Street / U.S. 101 intersections. Signal Warrant 1 (Eight-Hour Volume) is not met at

either location. A sensitivity analysis indicated that minor street traffic volumes would need to increase by at least 110%—more than double current volumes—to meet the volume-based signal warrant at these intersections.

Curry General Hospital has identified a potential opportunity to expand the hospital that would include a possible closure of access at the east leg of U.S. 101 / 4th Street. This change could increase turning volumes at 3rd Street, and combined with future development and growth, future changes to anticipated land uses could increase volumes to trigger a warrant in the future. While volume-based signal warrants are not met at U.S. 101 / 6th Street, this intersection provides important school access and supports pedestrian crossing activity generated by the school.

Therefore, while warrants are not met, it is recommended to consider installation of a fire signal with emergency preemption at U.S. 101 / 5th Place coordinated with the signal at U.S. 101 / 6th Street to facilitate emergency vehicle access. Future opportunities to implement a signal at U.S. 101 / 3rd Street could be considered as the need arises.

Appendix D includes the U.S. 101 / 3rd Street signal warrant analysis with 2045 summer peak volumes and the corresponding sensitivity analysis. Appendix E includes the same information for the U.S. 101 / 6th Street intersection.

Transit

Gold Beach has one transit stop located in front of the Ray's parking lot. Buses exit traffic and dwell in Ray's parking lot. To improve transit operations, enhancements such as in-lane bus stops or dedicated pull-out areas could be considered if Curry Public Transit does not use this stop for driver breaks or transferring buses.

When identifying potential locations for upgraded transit stops, it is important to prioritize areas with enhanced pedestrian and bicycle facilities, as well as those with higher residential density and convenient access to key destinations. Potential sites for future in-lane transit stops could include the vicinity of Dan's Ace Hardware and Gold Beach Coffee Books & Art.

Level of Traffic Stress for the Most Promising Alternatives

The Pedestrian Level of Traffic Stress (PLTS) scores and Bicycle Level of Traffic Street (BLTS) scores were updated from the Existing Conditions Analysis to reflect the recommended alternatives pedestrian and bicycle improvements. The updated scores are discussed for each alternative below and shown in Table 5 and Table 6. Table 7 details the number of travel lanes for the existing cross-section and alternatives. This information is used to determine BLTS. *Note: The alternatives featuring multi-use paths and sidewalks allow flexibility outside of pinch points to incorporate a vertical buffer. In addition, sidewalks at pinch points could be narrowed slightly to accommodate this buffer. Both adjustments would reduce user stress to PLTS 1 or 2. The specific details of the final cross section will be refined as part of the preferred alternative.*

- For Alternative A.4, the PLTS score generally remains unchanged due to total sidewalk buffering width corresponding to the posted speed and lacks a physical buffer. The PLTS score worsened in

the areas that parking was removed since it acts as a buffer. Although the sidewalk is widened, it remains curb tight, limiting improvements to pedestrian comfort. The BLTS score improves to BLTS 1 on the west side throughout the segment due to the presence of the multi-use path with sufficient parking lane width for the posted speed. However, the BLTS score on the east side worsens or remains due to the lack of bicycle facilities.

- For Alternative B.1, the PLTS score shows improvement compared to the existing 5-lane configuration due to the addition of a sidewalk buffer with adequate width. The BLTS score improves significantly due to the presence of buffered bicycle lanes with adequate width for the posted speed.
- For Alternative B.3, the PLTS score improves relative to the existing 5-lane configuration due to addition of a sidewalk buffer with adequate width. BLTS score improves to BLTS 1 throughout the segment due to the presence of the multi-use path with sufficient parking lane width for the posted speed.

Among the evaluated alternatives, B.3 performs best with the lowest PLTS and BLTS scores indicating strong pedestrian and bicycle comfort throughout the segment. B.1 ranks second, showing notable improvements in both scores but falling short of the lowest BLTS threshold. A.4 ranks third, generally maintaining its existing PLTS scores and achieving BLTS 1 due to the multi-use path, though pedestrian comfort remains limited.

Appendix F contains the PLTS and BLTS calculations.

Table 5. US 101 PLTS Scoring for Alternatives (Prior to Considering Additional Buffering Opportunities)

From	To	Side	Existing	A.4	B.1	B.3
Moore Street	5th Street	West	PLTS 3	PLTS 4	PLTS 3	PLTS 3
Moore Street	5th Street	East	PLTS 3	PLTS 3	PLTS 3	PLTS 3
5th Street	7th Street	West	PLTS 4	PLTS 4	PLTS 3	PLTS 3
5th Street	7th Street	East	PLTS 4	PLTS 4	PLTS 3	PLTS 3
7th Street	11th Street	West	PLTS 3	PLTS 4	PLTS 3	PLTS 3
7th Street	11th Street	East	PLTS 3	PLTS 3	PLTS 3	PLTS 3

Table 6. US 101 BLTS Scoring for Alternatives

From	To	Side	Existing	A.4	B.1	B.3
Moore Street	5th Street	West	BLTS 4	BLTS 1	BLTS 1	BLTS 1
Moore Street	5th Street	East	BLTS 4	BLTS 4	BLTS 1	BLTS 1
5th Street	7th Street	West	BLTS 4	BLTS 1	BLTS 1	BLTS 1
5th Street	7th Street	East	BLTS 4	BLTS 4	BLTS 1	BLTS 1
7th Street	11th Street	West	BLTS 3	BLTS 1	BLTS 1	BLTS 1
7th Street	11th Street	East	BLTS 3	BLTS 4	BLTS 1	BLTS 1

Table 7. US 101 Number of Travel Lanes for Alternatives

From	To	Existing	A.4	B.1	B.3
Moore Street	5th Street	4	4	2	2
5th Street	7th Street	5	5	2	2
7th Street	11th Street	4	4	2	2

Relative Cost of Most Promising Alternatives

Constructing a major roadway project along U.S. 101 in Gold Beach could involve a wide range of improvements with varying cost impacts, including full-depth pavement reconstruction, curb, gutter, drainage system improvements, sidewalk widening, curb ramps, right-of-way impacts (both permanent and temporary construction easements), traffic control, signal modifications, street lighting, and potential utility undergrounding. Several high fixed costs are anticipated regardless of the selected alternative—such as repaving and restriping the roadway—and, given the community's strong interest in undergrounding utilities, additional costs are expected where sidewalks or asphalt must be reconstructed to accommodate that work.

While moving curbs to widen sidewalks or provide a multi-use path is a key cost driver—since it typically requires replacing curb and gutter, drainage systems, and temporary easements—all of the most promising alternatives involve curb relocation. As a result, the overall magnitude of investment is expected to be similar among the most promising alternatives that best align with the project's goals, objectives, and evaluation criteria. Therefore, as costs are anticipated to be within a comparable range, the selection of a preferred alternative should be based on which option best meets the desired outcomes for safety, multimodal connectivity, economic development opportunity, and overall feasibility.

A detailed cost opinion will be developed for the preferred alternative in the next memorandum, once there is a refined understanding of the corridor elements and their variation throughout the project area.

Most Promising Alternatives Evaluation

Evaluation criteria were developed to assess how well each concept design alternative meets the project's intended goals and objectives. Appendix G describes the methodology used to score the most promising alternatives. The details of the evaluation are included in Table 8.

Table 8. Most Promising Alternatives Evaluation

Goal	Evaluation Criteria	Alternative A.4 *Widen Sidewalk into a Multi-Use Path by Moving Curb, Provides Parking on One Side of the Street for 4-Lane Sections*	Alternative B.1 *Add Bike Lanes by Reducing Travel Lanes to a 3-Lane Cross Section and Move Curbs on One or Both Sides of the Street to Widen Sidewalks; Redistributes Parking by Providing Parking on One Side of the Street Throughout the Corridor*	Alternative B.3 *Widen Sidewalk into a Multi-Use Path on Both Sides of the Street by Moving Curbs on Both Sides and Reducing Travel Lanes to a 3-Lane Cross Section; Provides Additional Parking on Both Sides of the Street*
Safety	Improve vehicular safety issues on the U.S. 101 corridor.	Minimal impacts on vehicular safety	Conversion of 4-lane to 3-lane cross sections has improved vehicular safety	Conversion of 4-lane to 3-lane cross sections has improved vehicular safety
	Improve non-motorized safety issues on the U.S. 101 corridor.	Providing dedicated pedestrian and bicycle facilities on at least one side of the roadway has some positive impacts on non-motorized safety	Providing dedicated pedestrian and bicycle facilities on both sides of the roadway has positive impacts on non-motorized safety	Providing dedicated pedestrian and bicycle facilities on both sides of the roadway has positive impacts on non-motorized safety
	Improve emergency vehicle access and evacuation efficiency.	Minimal impacts on emergency vehicle access and evacuation efficiency	Conversion of 4-lane to 3-lane cross section reduces number of travel lanes for emergency vehicles. However, this could be mitigated with parallel routes and emergency signal preemption.	Conversion of 4-lane to 3-lane cross section reduces number of travel lanes for emergency vehicles. However, this could be mitigated with parallel routes and emergency signal preemption.
Multimodal Connectivity	Address existing pedestrian or bicycle gaps in the multimodal network.	Having pedestrian and bicycle facilities on the west side but not fully on the east side partially fills pedestrian or bicycle gaps	Having pedestrian and bicycle facilities on the east and west side fully addresses the pedestrian and bicycle gaps in the multimodal network	Having pedestrian and bicycle facilities on the east and west side fully addresses the pedestrian and bicycle gaps in the multimodal network
	Improve transit access.	Improves transit access by providing improved pedestrian and bicycle access to transit stop	Improves transit access by providing improved pedestrian and bicycle access to transit stop	Improves transit access by providing improved pedestrian and bicycle access to transit stop
	Maintain vehicle and freight access according to defined state mobility targets.	Continues to meet the defined state mobility targets and does not constrain the curb-to-curb width beyond the existing constraints at the Isaac Lee Patterson and Hunter Creek Bridges	Continues to meet the defined state mobility targets and does not constrain the curb-to-curb width beyond the existing constraints at the Isaac Lee Patterson and Hunter Creek Bridges	Continues to meet the defined state mobility targets and does not constrain the curb-to-curb width beyond the existing constraints at the Isaac Lee Patterson and Hunter Creek Bridges
Economic Development	Increases the amount of on-street parking.	Decreases the amount of available on-street parking by removing parking on one side in the 4-lane section	Decreases the amount of available on-street parking by removing parking on one side in the 4-lane section; however, this alternative adds parking to the Central Segment where it does not exist today	Increases the amount of available on-street parking by providing it on both sides of the roadway throughout the entire Central Segment
	Enhance public spaces and streetscapes.	Improves public spaces by providing more inviting pedestrian environments by providing dedicated pedestrian and bicycle facilities on at least one side of the roadway; this opportunity may provide opportunity for streetscape/beautification where there is additional available right-of-way	Improves public spaces by providing more inviting pedestrian environments by providing dedicated pedestrian and bicycle facilities on both sides of the roadway; this alternative provides some opportunity for streetscape/beautification but would need to be maintained by the City or other entity besides ODOT.	Improves public spaces by providing more inviting pedestrian environments by providing dedicated pedestrian and bicycle facilities on both sides of the roadway; this alternative provides the highest opportunity for streetscape/beautification but would need to be maintained by the City or other entity besides ODOT.
	Promote traffic calming measures.	Projected to decrease vehicle speeds by narrowing lanes	Projected to decrease vehicle speeds by narrowing lanes, removing travel lanes, and providing visually improved streetscapes	Projected to decrease vehicle speeds by narrowing lanes, removing travel lanes, and providing visually improved streetscapes
	Increases the sense of place, allowing for vibrant mix of development, a reduction of travel speeds, and transportation facilities meeting the needs of the all users.	Positive impacts on the overall quality of life and attractiveness of the area for residents and visitors	Positive impacts on the overall quality of life and attractiveness of the area for residents and visitors from reduced speeds and pedestrian and bicycle facilities	Positive impacts on the overall quality of life and attractiveness of the area for residents and visitors from reduced speeds and pedestrian and bicycle facilities
Feasibility[1]	Cost	The order of magnitude costs associated with the three most promising alternatives are anticipated to be similar.	The order of magnitude costs associated with the three most promising alternatives are anticipated to be similar.	The order of magnitude costs associated with the three most promising alternatives are anticipated to be similar.
	Meets the design elements based on the defined Urban Context.	Not compliant with the design elements based on the defined Urban Context due to narrower sidewalk facilities	Compliant with the ideal design elements based on the defined Urban Context.	Compliant with the ideal design elements based on the defined Urban Context.
	Compliant with the Oregon Pedestrian and Bicycle Bill (ORS 366.514).	Compliant with the Oregon Pedestrian and Bicycle Bill	Compliant with the Oregon Pedestrian and Bicycle Bill	Compliant with the Oregon Pedestrian and Bicycle Bill
	Compliant with the ORS 366.215 which prevents prevents permanently reducing the "vehicle-carrying capacity" of designated state freight routes.	Compliant with ORS 366.215	Compliant with ORS 366.215	Compliant with ORS 366.215

Dark Red = Very Poor, Red = Poor, Yellow = Fair, Green = Good, Dark Green = Very Good

Conclusions and Next Steps

Table 9 summarizes the evaluation of most promising alternatives by creating a composite comparative evaluation based on the information in Table 5.

Table 9. Summary of Most Promising Alternatives Evaluation

Goal	Alternative A.4	Alternative B.1	Alternative B.3
Safety			
Multimodal Connectivity			
Economic Development			
Feasibility			

Yellow = Fair, Green = Good, Dark Green = Very Good

The findings presented in this document will be reviewed by the Project Management Team, Project Advisory Committee, the public, Planning Commission, City Council, and ODOT Staff to select a preferred alternative. Based on this input, the preferred alternative will be refined to address potential constraints, challenges, and considerations. At this stage, opportunities for beautification for wider sections of the corridor would be considered and additional specificity would be provided to understand how the cross section varies along the corridor. If parking is added along the corridor, then further evaluation of sight distance will be needed during the design phase of a project. An implementation plan will then be developed, identifying opportunities for phased improvements along with potential funding sources for each phase.

References

1. Oregon Department of Transportation. *Highway Design Manual*. 2023.
2. Transportation Research Board. *Highway Capacity Manual 7th Edition*. 2022
3. Oregon Department of Transportation. *Analysis Procedures Manual*. 2025.
4. American Association of State Highway and Transportation Officials. AASHTO Guide for the Development of Bicycle Facilities. 2012.
5. Oregon Department of Transportation. *Highway Design Manual*. 2025.
6. Transportation Research Board. *NCHRP Report 672: Roundabouts: An Informational Guide 2nd Edition*. 2010.

Appendices

- Appendix A: Existing and Reduced Lane Scenario Synchro Reports
- Appendix B: Existing and Reduced Lane Scenario ODOT V/C Spreadsheets
- Appendix C: Existing and Reduced Lane Scenario SimTraffic Reports
- Appendix D: U.S. 101 / 3rd Street Signal Warrant Analysis
- Appendix E: U.S. 101 / 6th Street Signal Warrant Analysis
- Appendix F: PLTS and BLTS Calculations
- Appendix G: Evaluation Criteria

Appendix A: Existing and Reduced Lane Scenario Synchro Reports

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	20	445	140	25	445
Future Vol, veh/h	95	20	445	140	25	445
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	Free
Storage Length	0	50	-	50	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	6	6	3	0	4
Mvmt Flow	107	22	500	157	28	500

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1056	500	0	0	657	0
Stage 1	500	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.41	6.26	-	-	4.1	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.354	-	-	2.2	-
Pot Cap-1 Maneuver	251	563	-	-	940	-
Stage 1	611	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	563	-	-	940	-
Mov Cap-2 Maneuver	377	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.12	0	0.48
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	377	563	940	-
HCM Lane V/C Ratio	-	-	0.283	0.04	0.03	-
HCM Ctrl Dly (s/v)	-	-	18.3	11.7	8.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	10	15	565	520	25
Future Vol, veh/h	30	10	15	565	520	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	5	3	0
Mvmt Flow	33	11	16	621	571	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1239	585	599	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	196	515	988	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	515	988	-	-	-
Mov Cap-2 Maneuver	332	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.23	0.23	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	988	-	365	-	-
HCM Lane V/C Ratio	0.017	-	0.121	-	-
HCM Ctrl Dly (s/v)	8.7	-	16.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Future Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.99		0.99	0.99		0.99	0.99		0.97	0.99		0.95
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1668	1750	1736	1750	1750	1750	1709	1682	1750	1750	1709	1668
Adj Flow Rate, veh/h	22	11	97	22	5	5	91	597	11	11	532	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	0	1	0	0	0	3	5	0	0	3	6
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	40	202	346	78	42	499	1260	23	463	1200	50
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
Prop Arrive On Green	0.17	0.18	0.17	0.17	0.18	0.17	0.05	0.39	0.38	0.04	0.38	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.1	0.0	0.0	10.8	0.0	0.0	9.1	7.6	7.6	8.6	7.7	7.7
Ln Grp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		130			32			699			565	
Approach Delay, s/veh		12.1			10.8			7.8			7.7	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	15.8	5.6		9.7	16.2	5.2		9.7
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	17.0		25.5	34.5	17.0		25.5
Max Allow Headway (MAH), s	5.3	3.8		5.6	5.3	3.8		5.7
Max Q Clear (g_c+I1), s	5.9	2.0		2.5	6.3	2.0		4.4
Green Ext Time (g_e), s	3.6	0.2		0.1	4.0	0.0		0.7
Prob of Phs Call (p_c)	1.00	0.54		0.77	1.00	0.09		0.77
Prob of Max Out (p_x)	0.00	0.00		0.00	0.01	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1628		822		1667		158

Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	3170			425	3208			217

Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	131			231	59			1102

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

Lane Assignment	L (Pr/Pm)			L+T+R	L (Pr/Pm)			L+T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	32	0	11	0	130
Grp Sat Flow (s), veh/h/ln	0	1628	0	1478	0	1667	0	1477
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	2.4
Perm LT Sat Flow (s_l), veh/h/ln	0	771	0	1294	0	752	0	1408
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1681	0	0	0	1731
Perm LT Eff Green (g_p), s	0.0	11.3	0.0	5.2	0.0	11.3	0.0	5.2
Perm LT Serve Time (g_u), s	0.0	7.4	0.0	2.8	0.0	7.0	0.0	4.7
Perm LT Q Serve Time (g_ps), s	0.0	3.0	0.0	0.0	0.0	0.3	0.0	0.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.9
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.69	0.00	1.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	499	0	443	0	463	0	383
V/C Ratio (X)	0.00	0.18	0.00	0.07	0.00	0.02	0.00	0.34
Avail Cap (c_a), veh/h	0	1303	0	1285	0	1309	0	1328
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.9	0.0	10.8	0.0	8.6	0.0	11.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.1	0.0	10.8	0.0	8.6	0.0	12.1
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.01	0.00	0.02	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment	T				T			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	272	0	0	0	297	0	0	0
Grp Sat Flow (s), veh/h/ln	1624	0	0	0	1598	0	0	0
Q Serve Time (g_s), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	615	0	0	0	628	0	0	0
V/C Ratio (X)	0.44	0.00	0.00	0.00	0.47	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1825	0	0	0	1796	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	0.0	0.0	0.0	7.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	0.0	7.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	282	0	0	0	311	0	0	0
Grp Sat Flow (s), veh/h/ln	1677	0	0	0	1669	0	0	0
Q Serve Time (g_s), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.08	0.00	0.00	0.16	0.04	0.00	0.00	0.75
Lane Grp Cap (c), veh/h	635	0	0	0	656	0	0	0
V/C Ratio (X)	0.44	0.00	0.00	0.00	0.47	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1885	0	0	0	1876	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	0.0	0.0	0.0	7.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	0.0	7.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	8.2
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	45	5	5	5	30	635	10	5	595	5
Future Vol, veh/h	5	5	45	5	5	5	30	635	10	5	595	5
Conflicting Peds, #/hr	6	0	0	0	0	6	7	0	22	22	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	17	0	0	4	5	0	0	4	0
Mvmt Flow	6	6	51	6	6	6	34	722	11	6	676	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1135	1520	348	1170	1518	394	689	0	0	755	0	0
Stage 1	697	697	-	817	817	-	-	-	-	-	-	-
Stage 2	438	823	-	352	700	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.84	6.5	6.9	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.84	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.84	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.67	4	3.3	2.24	-	-	2.2	-	-
Pot Cap-1 Maneuver	160	120	654	131	120	610	888	-	-	865	-	-
Stage 1	402	446	-	306	393	-	-	-	-	-	-	-
Stage 2	573	391	-	598	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	110	650	106	110	594	882	-	-	846	-	-
Mov Cap-2 Maneuver	140	110	-	106	110	-	-	-	-	-	-	-
Stage 1	396	439	-	285	366	-	-	-	-	-	-	-
Stage 2	528	364	-	539	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.87	32.27	0.8	0.15
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	157	-	-	366	149	29	-	-
HCM Lane V/C Ratio	0.039	-	-	0.171	0.114	0.007	-	-
HCM Ctrl Dly (s/v)	9.2	0.4	-	16.9	32.3	9.3	0.1	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.4	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	675	15	20	640
Future Vol, veh/h	5	5	675	15	20	640
Conflicting Peds, #/hr	5	0	0	11	11	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	9	6	3
Mvmt Flow	5	5	711	16	21	674

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1113	374	0	0	737	0
Stage 1	729	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.22	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.26	-
Pot Cap-1 Maneuver	206	629	-	-	838	-
Stage 1	443	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	196	622	-	-	830	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	640	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.51	0	0.56
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	298	109	-
HCM Lane V/C Ratio	-	-	0.035	0.025	-
HCM Ctrl Dly (s/v)	-	-	17.5	9.5	0.3
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	10	5	15	10	665	5	10	630	5
Future Vol, veh/h	5	5	10	10	5	15	10	665	5	10	630	5
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	12	12	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	11	0	7	0	6	17	22	5	0
Mvmt Flow	5	5	11	11	5	16	11	707	5	11	670	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1088	1456	354	1102	1456	368	692	0	0	725	0	0
Stage 1	710	710	-	743	743	-	-	-	-	-	-	-
Stage 2	378	746	-	359	713	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.72	6.5	7.04	4.1	-	-	4.54	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.72	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.72	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.61	4	3.37	2.2	-	-	2.42	-	-
Pot Cap-1 Maneuver	173	131	648	155	131	615	913	-	-	753	-	-
Stage 1	395	440	-	353	425	-	-	-	-	-	-	-
Stage 2	621	424	-	608	439	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	123	639	140	123	608	899	-	-	745	-	-
Mov Cap-2 Maneuver	154	123	-	140	123	-	-	-	-	-	-	-
Stage 1	382	425	-	344	414	-	-	-	-	-	-	-
Stage 2	589	413	-	580	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.62	24.19	0.26	0.32
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	52	-	-	226	219	55	-	-
HCM Lane V/C Ratio	0.012	-	-	0.094	0.145	0.014	-	-
HCM Ctrl Dly (s/v)	9.1	0.1	-	22.6	24.2	9.9	0.2	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	5	20	15	5	30	20	610	20	25	540	70
Future Vol, veh/h	25	5	20	15	5	30	20	610	20	25	540	70
Conflicting Peds, #/hr	0	0	0	0	0	0	7	0	12	12	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	0	6	0	0	0	11	7	6	4	5	2
Mvmt Flow	27	5	22	16	5	32	22	656	22	27	581	75

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1053	1411	335	1068	1438	351	663	0	0	689	0	0
Stage 1	679	679	-	722	722	-	-	-	-	-	-	-
Stage 2	374	732	-	347	717	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.5	7.02	7.5	6.5	6.9	4.32	-	-	4.18	-	-
Critical Hdwy Stg 1	6.6	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4	3.36	3.5	4	3.3	2.31	-	-	2.24	-	-
Pot Cap-1 Maneuver	177	139	649	179	134	651	864	-	-	888	-	-
Stage 1	401	454	-	389	434	-	-	-	-	-	-	-
Stage 2	611	430	-	648	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	128	645	153	123	644	858	-	-	877	-	-
Mov Cap-2 Maneuver	149	128	-	153	123	-	-	-	-	-	-	-
Stage 1	383	434	-	373	416	-	-	-	-	-	-	-
Stage 2	555	412	-	595	417	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	27.92	21.64	0.54	0.63
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	106	-	-	210	270	122	-	-
HCM Lane V/C Ratio	0.025	-	-	0.256	0.199	0.031	-	-
HCM Ctrl Dly (s/v)	9.3	0.3	-	27.9	21.6	9.2	0.3	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	10	35	5	40	10	505	15	30	495	10
Future Vol, veh/h	10	5	10	35	5	40	10	505	15	30	495	10
Conflicting Peds, #/hr	0	0	0	0	0	0	12	0	22	22	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	14	0	0	7	0	6	0	7	8	4	5	0
Mvmt Flow	11	5	11	38	5	43	11	543	16	32	532	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	910	1217	284	928	1214	302	555	0	0	581	0	0
Stage 1	614	614	-	595	595	-	-	-	-	-	-	-
Stage 2	296	603	-	333	620	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.9	7.64	6.5	7.02	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.64	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.64	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.3	3.57	4	3.36	2.2	-	-	2.24	-	-
Pot Cap-1 Maneuver	212	182	719	215	183	683	1025	-	-	975	-	-
Stage 1	418	486	-	446	496	-	-	-	-	-	-	-
Stage 2	656	492	-	640	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	180	167	711	191	168	668	1014	-	-	955	-	-
Mov Cap-2 Maneuver	180	167	-	191	168	-	-	-	-	-	-	-
Stage 1	396	461	-	431	479	-	-	-	-	-	-	-
Stage 2	599	475	-	599	459	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.03	22.31	0.26	0.79
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	65	-	-	251	293	196	-	-
HCM Lane V/C Ratio	0.011	-	-	0.107	0.294	0.034	-	-
HCM Ctrl Dly (s/v)	8.6	0.1	-	21	22.3	8.9	0.3	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	1.2	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Future Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.97
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1695	1750	1750	1682	1750	1600	1586	1695	1504	1709	1695	1750
Adj Flow Rate, veh/h	34	6	34	28	6	34	22	534	22	39	556	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	0	5	0	11	12	4	18	3	4	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	272	42	108	255	44	118	470	1210	50	486	1228	24
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
Prop Arrive On Green	0.14	0.16	0.14	0.14	0.16	0.14	0.03	0.38	0.37	0.03	0.38	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.8	0.0	0.0	10.7	0.0	0.0	7.9	6.9	6.9	8.1	7.0	7.0
Ln Grp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		74			68			578			606	
Approach Delay, s/veh		10.8			10.7			7.0			7.1	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	14.7	4.9		8.5	14.8	4.8		8.5
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	18.0		34.5	34.5	18.0		34.5
Max Allow Headway (MAH), s	5.3	3.8		5.6	5.3	3.8		5.6
Max Q Clear (g_c+I1), s	5.6	2.0		3.1	5.5	2.0		3.2
Green Ext Time (g_e), s	3.7	0.0		0.4	3.6	0.0		0.4
Prob of Phs Call (p_c)	1.00	0.16		0.68	1.00	0.26		0.68
Prob of Max Out (p_x)	0.00	0.00		0.00	0.00	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1511		457		1628		526

Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	3229			276	3152			260

Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	64			732	130			668

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

Lane Assignment	L (Pr/Pm)			L+T+R	L (Pr/Pm)			L+T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	22	0	68	0	39	0	74
Grp Sat Flow (s), veh/h/ln	0	1511	0	1465	0	1628	0	1454
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	714	0	1379	0	778	0	1379
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1710	0	0	0	1705
Perm LT Eff Green (g_p), s	0.0	10.2	0.0	4.0	0.0	10.2	0.0	4.0
Perm LT Serve Time (g_u), s	0.0	6.6	0.0	2.9	0.0	6.6	0.0	3.0
Perm LT Q Serve Time (g_ps), s	0.0	0.7	0.0	0.0	0.0	1.1	0.0	0.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.41	0.00	1.00	0.00	0.46
Lane Grp Cap (c), veh/h	0	470	0	391	0	486	0	395
V/C Ratio (X)	0.00	0.05	0.00	0.17	0.00	0.08	0.00	0.19
Avail Cap (c_a), veh/h	0	1391	0	1910	0	1483	0	1902
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	10.5	0.0	8.0	0.0	10.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	10.7	0.0	8.1	0.0	10.8
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment	T				T			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	277	0	0	0	273	0	0	0
Grp Sat Flow (s), veh/h/ln	1611	0	0	0	1611	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	613	0	0	0	618	0	0	0
V/C Ratio (X)	0.45	0.00	0.00	0.00	0.44	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2006	0	0	0	2006	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.0	0.6	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	290	0	0	0	283	0	0	0
Grp Sat Flow (s), veh/h/ln	1682	0	0	0	1671	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.04	0.00	0.00	0.50	0.08	0.00	0.00	0.46
Lane Grp Cap (c), veh/h	640	0	0	0	641	0	0	0
V/C Ratio (X)	0.45	0.00	0.00	0.00	0.44	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2095	0	0	0	2082	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.4
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	10	5	490	10	25	530	5
Future Vol, veh/h	5	5	5	5	5	10	5	490	10	25	530	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	5	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	7	14	0	5	0
Mvmt Flow	6	6	6	6	6	13	6	636	13	32	688	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1091	1424	347	1073	1421	330	695	0	0	654	0	0
Stage 1	756	756	-	661	661	-	-	-	-	-	-	-
Stage 2	334	667	-	412	760	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	172	137	655	177	138	672	910	-	-	942	-	-
Stage 1	371	419	-	423	463	-	-	-	-	-	-	-
Stage 2	659	460	-	593	417	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	152	129	655	158	130	669	910	-	-	938	-	-
Mov Cap-2 Maneuver	152	129	-	158	130	-	-	-	-	-	-	-
Stage 1	355	401	-	417	457	-	-	-	-	-	-	-
Stage 2	631	454	-	553	400	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	26.14	22.22	0.16	0.73
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	35	-	-	190	235	159	-	-
HCM Lane V/C Ratio	0.007	-	-	0.103	0.111	0.035	-	-
HCM Ctrl Dly (s/v)	9	0.1	-	26.1	22.2	9	0.4	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	20	5	475	5	10	525	5
Future Vol, veh/h	5	5	5	5	5	20	5	475	5	10	525	5
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	33	0	6	0	7	17	0	6	0
Mvmt Flow	5	5	5	5	5	22	5	522	5	11	577	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	877	1141	293	850	1141	264	583	0	0	527	0	0
Stage 1	603	603	-	536	536	-	-	-	-	-	-	-
Stage 2	275	538	-	314	605	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	8.16	6.5	7.02	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	7.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.83	4	3.36	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	246	202	709	208	202	723	1001	-	-	1050	-	-
Stage 1	458	492	-	425	527	-	-	-	-	-	-	-
Stage 2	714	525	-	592	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	198	708	197	198	723	1000	-	-	1050	-	-
Mov Cap-2 Maneuver	227	198	-	197	198	-	-	-	-	-	-	-
Stage 1	452	485	-	422	523	-	-	-	-	-	-	-
Stage 2	680	522	-	573	484	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.85	15.28	0.14	0.26
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	37	-	-	276	383	66	-	-
HCM Lane V/C Ratio	0.005	-	-	0.06	0.086	0.01	-	-
HCM Ctrl Dly (s/v)	8.6	0.1	-	18.9	15.3	8.5	0.1	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	410	10	25	455
Future Vol, veh/h	10	30	410	10	25	455
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	11	7	14	10	4
Mvmt Flow	12	37	500	12	30	555

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	846	257	0	0	513	0
Stage 1	507	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.8	7.12	-	-	4.3	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.41	-	-	2.3	-
Pot Cap-1 Maneuver	305	715	-	-	995	-
Stage 1	576	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	294	715	-	-	994	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	674	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.46	0	0.73
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	606	188	-
HCM Lane V/C Ratio	-	-	0.081	0.031	-
HCM Ctrl Dly (s/v)	-	-	11.5	8.7	0.3
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	5	5	385	5	5	405	5
Future Vol, veh/h	5	5	5	5	5	5	5	385	5	5	405	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	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	4	0
Mvmt Flow	6	6	6	6	6	6	6	448	6	6	471	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	948	951	474	948	951	451	477	0	0	453	0	0
Stage 1	485	485	-	462	462	-	-	-	-	-	-	-
Stage 2	462	465	-	485	488	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	243	262	595	243	262	613	1096	-	-	1118	-	-
Stage 1	567	555	-	583	568	-	-	-	-	-	-	-
Stage 2	583	566	-	567	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	259	595	233	259	613	1096	-	-	1118	-	-
Mov Cap-2 Maneuver	233	259	-	233	259	-	-	-	-	-	-	-
Stage 1	564	552	-	580	565	-	-	-	-	-	-	-
Stage 2	569	563	-	552	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.52	17.45	0.11	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1096	-	-	305	307	1118	-	-
HCM Lane V/C Ratio	0.005	-	-	0.057	0.057	0.005	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	17.5	17.5	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	70	325	5	55	360
Future Vol, veh/h	5	70	325	5	55	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	90	0	-	0	125	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	2	7	100	0	6
Mvmt Flow	6	82	382	6	65	424

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	935	-	0	-	382	0
Stage 1	382	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.4	-	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	-	-	-	2.2	-
Pot Cap-1 Maneuver	297	0	-	0	1187	-
Stage 1	694	0	-	0	-	-
Stage 2	580	0	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	281	-	-	-	1187	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	549	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	18.1	0	1.09
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	281	-	1187	-
HCM Lane V/C Ratio	-	0.021	-	0.055	-
HCM Ctrl Dly (s/v)	-	18.1	0	8.2	-
HCM Lane LOS	-	C	A	A	-
HCM 95th %tile Q(veh)	-	0.1	-	0.2	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	20	445	140	25	445
Future Vol, veh/h	95	20	445	140	25	445
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	Free
Storage Length	0	75	-	50	85	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	6	6	3	0	4
Mvmt Flow	107	22	500	157	28	500

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1056	500	0	0	657	0
Stage 1	500	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Critical Hdwy	6.41	6.26	-	-	4.1	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.354	-	-	2.2	-
Pot Cap-1 Maneuver	251	563	-	-	940	-
Stage 1	611	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	563	-	-	940	-
Mov Cap-2 Maneuver	377	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.12	0	0.48
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	377	563	940	-
HCM Lane V/C Ratio	-	-	0.283	0.04	0.03	-
HCM Ctrl Dly (s/v)	-	-	18.3	11.7	8.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	10	15	565	520	25
Future Vol, veh/h	30	10	15	565	520	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	5	3	0
Mvmt Flow	33	11	16	621	571	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1239	585	599	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	196	515	988	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	515	988	-	-	-
Mov Cap-2 Maneuver	332	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.23	0.23	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	988	-	365	-	-
HCM Lane V/C Ratio	0.017	-	0.121	-	-
HCM Ctrl Dly (s/v)	8.7	-	16.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Future Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.98		0.98	0.98		0.98	0.99		0.98	0.99		0.95
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1668	1750	1736	1750	1750	1750	1709	1682	1750	1750	1709	1668
Adj Flow Rate, veh/h	22	11	97	22	5	5	91	597	11	11	532	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	0	1	0	0	0	3	5	0	0	3	6
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	141	40	196	320	72	42	414	794	15	333	727	30
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
Prop Arrive On Green	0.16	0.18	0.16	0.16	0.18	0.16	0.05	0.48	0.47	0.01	0.45	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.5	0.0	0.0	13.0	0.0	0.0	13.0	0.0	9.2	13.4	0.0	9.8
Ln Grp LOS	B			B			B		A	B		A
Approach Vol, veh/h		130			32			699			565	
Approach Delay, s/veh		14.5			13.0			9.7			9.8	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	20.5	5.8		10.5	21.8	4.5		10.5
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	17.0		25.5	34.5	17.0		25.5
Max Allow Headway (MAH), s	5.3	3.8		5.6	5.3	3.8		5.7
Max Q Clear (g_c+I1), s	11.9	2.0		3.0	12.9	2.0		4.9
Green Ext Time (g_e), s	3.8	0.2		0.1	4.2	0.0		0.7
Prob of Phs Call (p_c)	1.00	0.61		0.82	1.00	0.11		0.82
Prob of Max Out (p_x)	0.02	0.00		0.00	0.04	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1628		873		1667		152

Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	1626			407	1645			223

Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	67			237	30			1104

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

Lane Assignment	L (Pr/Pm)			L+T+R	L (Pr/Pm)			L+T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	32	0	11	0	130
Grp Sat Flow (s), veh/h/ln	0	1628	0	1517	0	1667	0	1480
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.9
Perm LT Sat Flow (s_l), veh/h/ln	0	840	0	1285	0	819	0	1396
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1673	0	0	0	1728
Perm LT Eff Green (g_p), s	0.0	16.0	0.0	6.0	0.0	16.0	0.0	6.0
Perm LT Serve Time (g_u), s	0.0	6.1	0.0	3.1	0.0	5.1	0.0	5.0
Perm LT Q Serve Time (g_ps), s	0.0	3.5	0.0	0.0	0.0	0.4	0.0	0.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	2.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.3
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.69	0.00	1.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	414	0	414	0	333	0	357
V/C Ratio (X)	0.00	0.22	0.00	0.08	0.00	0.03	0.00	0.36
Avail Cap (c_a), veh/h	0	1086	0	1136	0	1079	0	1128
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.8	0.0	12.9	0.0	13.4	0.0	13.9
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.1	0.0	0.0	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
Control Delay (d), s/veh	0.0	13.0	0.0	13.0	0.0	13.4	0.0	14.5
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.2	0.0	0.1	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.2	0.0	0.1	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.02	0.00	0.03	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	554	0	0	0	608	0	0	0
Grp Sat Flow (s), veh/h/ln	1693	0	0	0	1675	0	0	0
Q Serve Time (g_s), s	9.9	0.0	0.0	0.0	10.9	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.9	0.0	0.0	0.0	10.9	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.04	0.00	0.00	0.16	0.02	0.00	0.00	0.75
Lane Grp Cap (c), veh/h	757	0	0	0	809	0	0	0
V/C Ratio (X)	0.73	0.00	0.00	0.00	0.75	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1609	0	0	0	1593	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.4	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.8	0.0	0.0	0.0	9.2	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.6	0.0	0.0	0.0	2.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.04	0.00	0.00	0.00	0.12	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	10.2
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	45	5	5	5	30	635	10	5	595	5
Future Vol, veh/h	5	5	45	5	5	5	30	635	10	5	595	5
Conflicting Peds, #/hr	6	0	0	0	0	6	7	0	22	22	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	17	0	0	4	5	0	0	4	0
Mvmt Flow	6	6	51	6	6	6	34	722	11	6	676	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1496	1520	686	1508	1518	755	689	0	0	755	0	0
Stage 1	697	697	-	817	817	-	-	-	-	-	-	-
Stage 2	799	823	-	690	700	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.27	6.5	6.2	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.27	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.27	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.653	4	3.3	2.236	-	-	2.2	-	-
Pot Cap-1 Maneuver	102	120	451	92	120	412	896	-	-	865	-	-
Stage 1	435	446	-	349	393	-	-	-	-	-	-	-
Stage 2	382	391	-	412	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	111	448	72	112	401	890	-	-	846	-	-
Mov Cap-2 Maneuver	90	111	-	72	112	-	-	-	-	-	-	-
Stage 1	429	440	-	329	370	-	-	-	-	-	-	-
Stage 2	355	368	-	358	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.98	40.39	0.41	0.08
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	890	-	-	274	119	846	-	-
HCM Lane V/C Ratio	0.038	-	-	0.228	0.144	0.007	-	-
HCM Ctrl Dly (s/v)	9.2	-	-	22	40.4	9.3	-	-
HCM Lane LOS	A	-	-	C	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.5	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	675	15	20	640
Future Vol, veh/h	5	5	675	15	20	640
Conflicting Peds, #/hr	5	0	0	11	11	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	4	9	6	3
Mvmt Flow	5	5	711	16	21	674

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1450	729	0	0	737	0
Stage 1	729	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.16	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.254	-
Pot Cap-1 Maneuver	146	426	-	-	851	-
Stage 1	481	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	421	-	-	842	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.05	0	0.28
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	336	842	-
HCM Lane V/C Ratio	-	-	0.031	0.025	-
HCM Ctrl Dly (s/v)	-	-	16	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	10	10	5	15	10	665	5	10	630	5
Future Vol, veh/h	5	5	10	10	5	15	10	665	5	10	630	5
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	12	12	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	11	0	7	0	6	17	22	5	0
Mvmt Flow	5	5	11	11	5	16	11	707	5	11	670	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1442	1456	689	1438	1456	722	692	0	0	725	0	0
Stage 1	710	710	-	743	743	-	-	-	-	-	-	-
Stage 2	731	746	-	694	713	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.21	6.5	6.27	4.1	-	-	4.32	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.21	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.599	4	3.363	2.2	-	-	2.398	-	-
Pot Cap-1 Maneuver	111	131	449	106	131	418	913	-	-	793	-	-
Stage 1	428	440	-	393	425	-	-	-	-	-	-	-
Stage 2	416	424	-	419	439	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	99	124	442	95	124	414	899	-	-	784	-	-
Mov Cap-2 Maneuver	99	124	-	95	124	-	-	-	-	-	-	-
Stage 1	415	427	-	384	415	-	-	-	-	-	-	-
Stage 2	390	414	-	398	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	28.23	31.87	0.13	0.15
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	899	-	-	176	166	784	-	-
HCM Lane V/C Ratio	0.012	-	-	0.121	0.193	0.014	-	-
HCM Ctrl Dly (s/v)	9.1	-	-	28.2	31.9	9.7	-	-
HCM Lane LOS	A	-	-	D	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.7	0	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	25	5	20	15	5	30	20	610	20	25	540	70
Future Vol, veh/h	25	5	20	15	5	30	20	610	20	25	540	70
Conflicting Peds, #/hr	0	0	0	0	0	0	7	0	12	12	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	0	6	0	0	0	11	7	6	4	5	2
Mvmt Flow	27	5	22	16	5	32	22	656	22	27	581	75

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1381	1411	625	1359	1438	679	663	0	0	689	0	0
Stage 1	679	679	-	722	722	-	-	-	-	-	-	-
Stage 2	702	732	-	637	717	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.5	6.26	7.1	6.5	6.2	4.21	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4	3.354	3.5	4	3.3	2.299	-	-	2.236	-	-
Pot Cap-1 Maneuver	120	139	477	127	134	455	885	-	-	896	-	-
Stage 1	437	454	-	421	434	-	-	-	-	-	-	-
Stage 2	424	430	-	469	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	130	474	109	125	450	879	-	-	885	-	-
Mov Cap-2 Maneuver	100	130	-	109	125	-	-	-	-	-	-	-
Stage 1	420	438	-	406	419	-	-	-	-	-	-	-
Stage 2	379	414	-	429	421	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	41.36	28.75	0.28	0.36
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	879	-	-	151	205	885	-	-
HCM Lane V/C Ratio	0.024	-	-	0.355	0.263	0.03	-	-
HCM Ctrl Dly (s/v)	9.2	-	-	41.4	28.7	9.2	-	-
HCM Lane LOS	A	-	-	E	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	1	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	10	35	5	40	10	505	15	30	495	10
Future Vol, veh/h	10	5	10	35	5	40	10	505	15	30	495	10
Conflicting Peds, #/hr	0	0	0	0	0	0	12	0	22	22	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	14	0	0	7	0	6	0	7	8	4	5	0
Mvmt Flow	11	5	11	38	5	43	11	543	16	32	532	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1181	1217	550	1194	1214	573	555	0	0	581	0	0
Stage 1	614	614	-	595	595	-	-	-	-	-	-	-
Stage 2	567	603	-	599	620	-	-	-	-	-	-	-
Critical Hdwy	7.24	6.5	6.2	7.17	6.5	6.26	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.24	5.5	-	6.17	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.24	5.5	-	6.17	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.626	4	3.3	3.563	4	3.354	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	158	182	539	160	183	511	1025	-	-	983	-	-
Stage 1	459	486	-	482	496	-	-	-	-	-	-	-
Stage 2	488	492	-	479	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	132	169	533	142	169	501	1014	-	-	963	-	-
Mov Cap-2 Maneuver	132	169	-	142	169	-	-	-	-	-	-	-
Stage 1	439	464	-	467	480	-	-	-	-	-	-	-
Stage 2	436	476	-	449	462	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	25.59	30.6	0.16	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	202	225	963	-	-
HCM Lane V/C Ratio	0.011	-	-	0.133	0.383	0.034	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	25.6	30.6	8.9	-	-
HCM Lane LOS	A	-	-	D	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	1.7	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Future Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.97
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1695	1750	1750	1682	1750	1600	1586	1695	1504	1709	1695	1750
Adj Flow Rate, veh/h	34	6	34	28	6	34	22	534	22	39	556	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	0	5	0	11	12	4	18	3	4	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	238	41	102	221	43	112	390	747	31	415	771	15
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
Prop Arrive On Green	0.13	0.15	0.13	0.13	0.15	0.13	0.02	0.46	0.45	0.03	0.47	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.1	0.0	0.0	13.0	0.0	0.0	11.0	0.0	8.4	11.0	0.0	8.4
Ln Grp LOS	B			B			B		A	B		A
Approach Vol, veh/h		74			68			578			606	
Approach Delay, s/veh		13.1			13.0			8.5			8.6	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	19.4	4.8		8.9	19.3	4.9		8.9
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	18.0		34.5	34.5	18.0		34.5
Max Allow Headway (MAH), s	5.3	3.9		5.6	5.3	3.8		5.6
Max Q Clear (g_c+I1), s	11.0	2.0		3.3	10.8	2.0		3.4
Green Ext Time (g_e), s	3.9	0.0		0.4	3.9	0.1		0.4
Prob of Phs Call (p_c)	1.00	0.18		0.74	1.00	0.30		0.74
Prob of Max Out (p_x)	0.02	0.00		0.00	0.02	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1511		458		1628		531

Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	1656			291	1616			276

Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	33			749	67			686

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

Lane Assignment	L (Pr/Pm)			L+T+R	L (Pr/Pm)			L+T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	22	0	68	0	39	0	74
Grp Sat Flow (s), veh/h/ln	0	1511	0	1499	0	1628	0	1493
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.4
Perm LT Sat Flow (s_l), veh/h/ln	0	776	0	1372	0	845	0	1372
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1706	0	0	0	1701
Perm LT Eff Green (g_p), s	0.0	14.8	0.0	4.4	0.0	14.8	0.0	4.4
Perm LT Serve Time (g_u), s	0.0	5.9	0.0	3.1	0.0	6.0	0.0	3.2
Perm LT Q Serve Time (g_ps), s	0.0	0.8	0.0	0.0	0.0	1.3	0.0	0.1
Time to First Blk (g_f), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.9
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.41	0.00	1.00	0.00	0.46
Lane Grp Cap (c), veh/h	0	390	0	354	0	415	0	358
V/C Ratio (X)	0.00	0.06	0.00	0.19	0.00	0.09	0.00	0.21
Avail Cap (c_a), veh/h	0	1174	0	1664	0	1254	0	1662
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	12.8	0.0	10.9	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	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
Control Delay (d), s/veh	0.0	11.0	0.0	13.0	0.0	11.0	0.0	13.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.4	0.0	0.2	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.4	0.0	0.2	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.05	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	567	0	0	0	556	0	0	0
Grp Sat Flow (s), veh/h/ln	1688	0	0	0	1683	0	0	0
Q Serve Time (g_s), s	9.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.02	0.00	0.00	0.50	0.04	0.00	0.00	0.46
Lane Grp Cap (c), veh/h	786	0	0	0	778	0	0	0
V/C Ratio (X)	0.72	0.00	0.00	0.00	0.72	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1782	0	0	0	1776	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.1	0.0	0.0	0.0	7.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	0.0	0.0	0.0	8.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	9.0
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	10	5	490	10	25	530	5
Future Vol, veh/h	5	5	5	5	5	10	5	490	10	25	530	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	5	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	7	14	0	5	0
Mvmt Flow	6	6	6	6	6	13	6	636	13	32	688	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1409	1424	692	1417	1421	648	695	0	0	654	0	0
Stage 1	756	756	-	661	661	-	-	-	-	-	-	-
Stage 2	653	667	-	756	760	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	117	137	448	116	138	474	910	-	-	942	-	-
Stage 1	403	419	-	455	463	-	-	-	-	-	-	-
Stage 2	460	460	-	403	417	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	131	448	104	131	472	910	-	-	938	-	-
Mov Cap-2 Maneuver	104	131	-	104	131	-	-	-	-	-	-	-
Stage 1	389	404	-	450	457	-	-	-	-	-	-	-
Stage 2	438	454	-	377	403	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	31.74	27.47	0.09	0.4
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	910	-	-	154	186	938	-	-
HCM Lane V/C Ratio	0.007	-	-	0.127	0.14	0.035	-	-
HCM Ctrl Dly (s/v)	9	-	-	31.7	27.5	9	-	-
HCM Lane LOS	A	-	-	D	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	20	5	475	5	10	525	5
Future Vol, veh/h	5	5	5	5	5	20	5	475	5	10	525	5
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
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, %	0	0	0	33	0	6	0	7	17	0	6	0
Mvmt Flow	5	5	5	5	5	22	5	522	5	11	577	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1138	1141	582	1138	1141	525	583	0	0	527	0	0
Stage 1	603	603	-	536	536	-	-	-	-	-	-	-
Stage 2	536	538	-	603	605	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.43	6.5	6.26	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.43	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.797	4	3.354	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	180	202	517	155	202	545	1001	-	-	1050	-	-
Stage 1	490	492	-	477	527	-	-	-	-	-	-	-
Stage 2	532	525	-	437	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	165	199	516	147	199	545	1000	-	-	1050	-	-
Mov Cap-2 Maneuver	165	199	-	147	199	-	-	-	-	-	-	-
Stage 1	484	486	-	474	524	-	-	-	-	-	-	-
Stage 2	503	522	-	422	485	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.82	17.85	0.09	0.16
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1000	-	-	231	313	1050	-	-
HCM Lane V/C Ratio	0.005	-	-	0.072	0.105	0.01	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	21.8	17.9	8.5	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	410	10	25	455
Future Vol, veh/h	10	30	410	10	25	455
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	11	7	14	10	4
Mvmt Flow	12	37	500	12	30	555

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1123	507	0	0	513	0
Stage 1	507	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Critical Hdwy	6.4	6.31	-	-	4.2	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	-	-	2.29	-
Pot Cap-1 Maneuver	230	548	-	-	1013	-
Stage 1	609	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	222	547	-	-	1012	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.28	0	0.45
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	484	1012	-
HCM Lane V/C Ratio	-	-	0.101	0.03	-
HCM Ctrl Dly (s/v)	-	-	13.3	8.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	5	5	5	5	5	385	5	5	405	5
Future Vol, veh/h	5	5	5	5	5	5	5	385	5	5	405	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	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	4	0
Mvmt Flow	6	6	6	6	6	6	6	448	6	6	471	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	948	951	474	948	951	451	477	0	0	453	0	0
Stage 1	485	485	-	462	462	-	-	-	-	-	-	-
Stage 2	462	465	-	485	488	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	243	262	595	243	262	613	1096	-	-	1118	-	-
Stage 1	567	555	-	583	568	-	-	-	-	-	-	-
Stage 2	583	566	-	567	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	259	595	233	259	613	1096	-	-	1118	-	-
Mov Cap-2 Maneuver	233	259	-	233	259	-	-	-	-	-	-	-
Stage 1	564	552	-	580	565	-	-	-	-	-	-	-
Stage 2	569	563	-	552	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.52	17.45	0.11	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1096	-	-	305	307	1118	-	-
HCM Lane V/C Ratio	0.005	-	-	0.057	0.057	0.005	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	17.5	17.5	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	70	325	5	55	360
Future Vol, veh/h	5	70	325	5	55	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	Free	-	None
Storage Length	90	0	-	0	125	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	2	7	100	0	6
Mvmt Flow	6	82	382	6	65	424

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	935	-	0	-	382	0
Stage 1	382	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.4	-	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	-	-	-	2.2	-
Pot Cap-1 Maneuver	297	0	-	0	1187	-
Stage 1	694	0	-	0	-	-
Stage 2	580	0	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	281	-	-	-	1187	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	549	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	18.1	0	1.09
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	281	-	1187	-
HCM Lane V/C Ratio	-	0.021	-	0.055	-
HCM Ctrl Dly (s/v)	-	18.1	0	8.2	-
HCM Lane LOS	-	C	A	A	-
HCM 95th %tile Q(veh)	-	0.1	-	0.2	-

KITTELSON & ASSOCIATES

Appendix B: Existing and Reduced Lane Scenario ODOT V/C Spreadsheets

Intersection US101 / Moore Street
Scenario 45 Sum PK

Analyst SJG
Date 8/25/2025

Intersection Type: 4-Leg

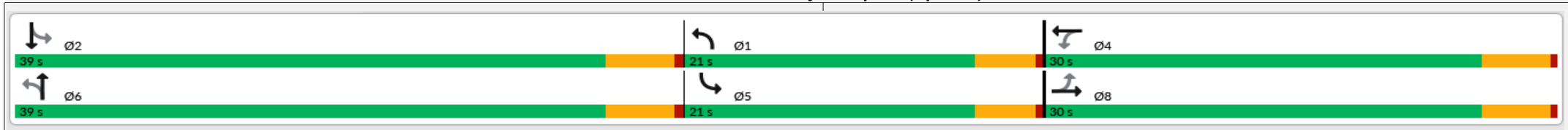
	Northbound							Southbound							Eastbound							Westbound						
	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right
	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot
Lane Groups	✓	✓	-	-	✓	✓	-	✓	✓	-	-	✓	✓	-	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-
Protected Left Turn Type	Lag							Lag							N/A							N/A						
Phase #	1	6			6	6		5	2			2	2					4							8			
Lane Group Volume (veh/h)	91				311	297		11				282	272					130							32			
Green Time	21	39			39	39		21	39			39	39					30							30			
Adj Lane Group Volume (veh/h)	**32**	**59**			**311**	**297**		**4**	**7**			**282**	**272**					**130**							**32**			
Sat. Flow Rate Source	*HCM 2000*		Standard Source					*HCM 2000*		Standard Source					-		Standard Source					-		Standard Source				
Saturation Flow Rate (veh/h/ln)	1628	771			1669	1598		1667	752			1677	1624					1465							1472			
Lane Group v/s Flow Ratio	0.020	0.077	0.000	0.000	0.186	0.186		0.002	0.009	0.000	0.000	0.168	0.167		0.000	0.000	0.000	0.089	0.000	0.000		0.000	0.000	0.000	0.022	0.000	0.000	
Critical Phases					✓			✓										✓										
Barrier Flow Ratios$_{Crit. Move.}$	0.189 v/s														0.089 v/s													
∑ Flow Ratios$_{Crit. Move}$	0.277 v/s																											
No. Lost Time Cycles	2														1													
Lost Time	12 sec																											
Cycle Time	90																											
Xc	**0.320**																											

Calculation Section *(Auto-Populated)*

	0.189	**6**		B16	C16	F16		I16	J16	M16	
Rule 1/2:	0.189	I16+F16	6	0.022	0.029	0.188		0.079	0.189		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0.096	✓	9								
	0.012	✓	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

	0.089	**6**				S16				Z16	
	0.089	+S16	6	0.000	0.000	0.022		0.000	0.089		0.000
	0	n/a	9								
	0	n/a	10								
	0.000	n/a	11								
	0	n/a	12								

Paste Area for Analysis Reports (Optional)



HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St

09/23/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Future Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.98		0.98	0.98		0.98	0.99		0.97	0.99		0.95
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1668	1750	1736	1750	1750	1750	1709	1682	1750	1750	1709	1668
Adj Flow Rate, veh/h	22	11	97	22	5	5	91	597	11	11	532	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	0	1	0	0	0	3	5	0	0	3	6
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	39	201	345	78	42	499	1260	23	463	1200	50
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
Prop Arrive On Green	0.17	0.18	0.17	0.17	0.18	0.17	0.05	0.39	0.38	0.04	0.38	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.1	0.0	0.0	10.8	0.0	0.0	9.1	7.6	7.6	8.6	7.7	7.7
Ln Grp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		130			32			699			565	
Approach Delay, s/veh		12.1			10.8			7.8			7.7	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	15.8	5.6		9.7	16.2	5.2		9.7
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	17.0		25.5	34.5	17.0		25.5
Max Allow Headway (MAH), s	5.3	3.8		5.6	5.3	3.8		5.7
Max Q Clear (g_c+I1), s	5.9	2.0		2.5	6.3	2.0		4.5
Green Ext Time (g_e), s	3.6	0.2		0.1	4.0	0.0		0.7
Prob of Phs Call (p_c)	1.00	0.54		0.77	1.00	0.09		0.77
Prob of Max Out (p_x)	0.00	0.00		0.00	0.01	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1628		819		1667		157

Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	3170			423	3208			215

Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	131			230	59			1093

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St

09/23/2025

Lane Assignment	L (Pr/Pm)			L+T+R		L (Pr/Pm)		L+T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	32	0	11	0	130
Grp Sat Flow (s), veh/h/ln	0	1628	0	1472	0	1667	0	1465
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	2.5
Perm LT Sat Flow (s_l), veh/h/ln	0	771	0	1285	0	752	0	1395
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1673	0	0	0	1728
Perm LT Eff Green (g_p), s	0.0	11.3	0.0	5.2	0.0	11.3	0.0	5.2
Perm LT Serve Time (g_u), s	0.0	7.4	0.0	2.7	0.0	7.0	0.0	4.7
Perm LT Q Serve Time (g_ps), s	0.0	3.0	0.0	0.0	0.0	0.3	0.0	0.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.9
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.69	0.00	1.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	499	0	442	0	463	0	381
V/C Ratio (X)	0.00	0.18	0.00	0.07	0.00	0.02	0.00	0.34
Avail Cap (c_a), veh/h	0	1303	0	1279	0	1309	0	1317
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.9	0.0	10.8	0.0	8.6	0.0	11.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.1	0.0	10.8	0.0	8.6	0.0	12.1
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.01	0.00	0.02	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment	T				T			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	272	0	0	0	297	0	0	0
Grp Sat Flow (s), veh/h/ln	1624	0	0	0	1598	0	0	0
Q Serve Time (g_s), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	615	0	0	0	628	0	0	0
V/C Ratio (X)	0.44	0.00	0.00	0.00	0.47	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1825	0	0	0	1796	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	0.0	0.0	0.0	7.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	0.0	7.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St

09/23/2025

2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	282	0	0	0	311	0	0	0
Grp Sat Flow (s), veh/h/ln	1677	0	0	0	1669	0	0	0
Q Serve Time (g_s), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.08	0.00	0.00	0.16	0.04	0.00	0.00	0.75
Lane Grp Cap (c), veh/h	635	0	0	0	656	0	0	0
V/C Ratio (X)	0.44	0.00	0.00	0.00	0.47	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1885	0	0	0	1876	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	0.0	0.0	0.0	7.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.7	0.0	0.0	0.0	7.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	8.2
HCM 7th LOS	A

Intersection US101 / Moore Street
Scenario 45 Sum PK 3 Lane Alt

Analyst SJG
Date 8/25/2025

Intersection Type: 4-Leg

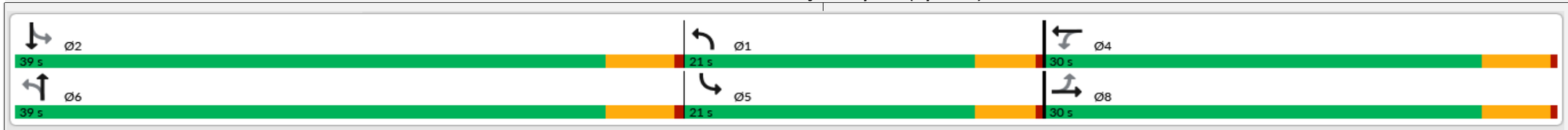
	Northbound							Southbound							Eastbound							Westbound						
	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right
	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot
Lane Groups	✓	✓	-	-	✓	-	-	✓	✓	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-
Protected Left Turn Type	Lag							Lag							N/A							N/A						
Phase #	1	6			6			5	2			2						4							8			
Lane Group Volume (veh/h)	91				608			11				554						130							32			
Green Time	21	39			39			21	39			39						30							30			
Adj Lane Group Volume (veh/h)	**32**	**59**			**608**			**4**	**7**			**554**						**130**							**32**			
Sat. Flow Rate Source	*HCM 2000*		Standard Source					*HCM 2000*		Standard Source					-		Standard Source					-		Standard Source				
Saturation Flow Rate (veh/h/ln)	1628	840			1675			1667	819			1693						1480							1517			
Lane Group v/s Flow Ratio	0.020	0.070	0.000	0.000	0.363	0.000		0.002	0.009	0.000	0.000	0.327	0.000		0.000	0.000	0.000	0.088	0.000	0.000		0.000	0.000	0.000	0.021	0.000	0.000	
Critical Phases					✓			✓										✓										
Barrier Flow Ratios$_{Crit. Move.}$	0.365 v/s														0.088 v/s													
∑ Flow Ratios$_{Crit. Move}$	0.453 v/s																											
No. Lost Time Cycles	2														1													
Lost Time	12 sec																											
Cycle Time	90																											
Xc	**0.523**																											

Calculation Section *(Auto-Populated)*

	0.365	**6**		B16	C16	F16		I16	J16	M16	
Rule 1/2:	0.365	I16+F16	6	0.022	0.028	0.347		0.073	0.365		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0.09	✓	9								
	0.011	✓	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

	0.088	**6**				S16				Z16	
Rule 1/2:	0.088	+S16	6	0.000	0.000	0.021		0.000	0.088		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0	n/a	9								
	0	n/a	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

Paste Area for Analysis Reports (Optional)



HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St 10/29/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Future Volume (veh/h)	20	10	90	20	5	5	85	555	10	10	495	20
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.98		0.98	0.98		0.98	0.99		0.98	0.99		0.95
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1668	1750	1736	1750	1750	1750	1709	1682	1750	1750	1709	1668
Adj Flow Rate, veh/h	22	11	97	22	5	5	91	597	11	11	532	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	0	1	0	0	0	3	5	0	0	3	6
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	141	40	198	320	72	42	414	794	15	333	727	30
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
Prop Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	0.48	0.47	0.01	0.45	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.5	0.0	0.0	13.0	0.0	0.0	13.0	0.0	9.2	13.4	0.0	9.8
Ln Grp LOS	B			B			B		A	B		A
Approach Vol, veh/h		130			32			699			565	
Approach Delay, s/veh		14.5			13.0			9.7			9.8	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	1		4	6	5		8
Case No		4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s		20.5	5.8		10.5	21.8	4.5		10.5
Change Period (Y+Rc), s		4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s		34.5	17.0		25.5	34.5	17.0		25.5
Max Allow Headway (MAH), s		5.3	3.8		5.6	5.3	3.8		5.7
Max Q Clear (g_c+I1), s		11.9	2.0		3.0	12.9	2.0		4.9
Green Ext Time (g_e), s		3.8	0.2		0.1	4.2	0.0		0.7
Prob of Phs Call (p_c)		1.00	0.61		0.82	1.00	0.11		0.82
Prob of Max Out (p_x)		0.02	0.00		0.00	0.04	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1			7		5	3
Mvmt Sat Flow, veh/h		1628			873		1667	152

Through Movement Data								
Assigned Mvmt	2				4	6		8
Mvmt Sat Flow, veh/h	1626				407	1645		223

Right-Turn Movement Data								
Assigned Mvmt	12				14	16		18
Mvmt Sat Flow, veh/h	67				237	30		1104

Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St 10/29/2025

Lane Assignment	L (Pr/Pm)		L+T+R		L (Pr/Pm)		L+T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	32	0	11	0	130
Grp Sat Flow (s), veh/h/ln	0	1628	0	1517	0	1667	0	1480
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.9
Perm LT Sat Flow (s_l), veh/h/ln	0	840	0	1285	0	819	0	1396
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1673	0	0	0	1728
Perm LT Eff Green (g_p), s	0.0	16.0	0.0	6.0	0.0	16.0	0.0	6.0
Perm LT Serve Time (g_u), s	0.0	6.1	0.0	3.1	0.0	5.1	0.0	5.0
Perm LT Q Serve Time (g_ps), s	0.0	3.5	0.0	0.0	0.0	0.4	0.0	0.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	2.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.3
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.69	0.00	1.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	414	0	414	0	333	0	357
V/C Ratio (X)	0.00	0.22	0.00	0.08	0.00	0.03	0.00	0.36
Avail Cap (c_a), veh/h	0	1086	0	1136	0	1079	0	1128
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.8	0.0	12.9	0.0	13.4	0.0	13.9
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.1	0.0	0.0	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
Control Delay (d), s/veh	0.0	13.0	0.0	13.0	0.0	13.4	0.0	14.5
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.2	0.0	0.1	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.2	0.0	0.1	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.02	0.00	0.03	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
3: US 101 & Moore St 10/29/2025

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R			T+R				
Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	554	0	0	0	608	0	0	0
Grp Sat Flow (s), veh/h/ln	1693	0	0	0	1675	0	0	0
Q Serve Time (g_s), s	9.9	0.0	0.0	0.0	10.9	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.9	0.0	0.0	0.0	10.9	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.04	0.00	0.00	0.16	0.02	0.00	0.00	0.75
Lane Grp Cap (c), veh/h	757	0	0	0	809	0	0	0
V/C Ratio (X)	0.73	0.00	0.00	0.00	0.75	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1609	0	0	0	1593	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.4	0.0	0.0	0.0	7.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.8	0.0	0.0	0.0	9.2	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.6	0.0	0.0	0.0	2.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.04	0.00	0.00	0.00	0.12	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	10.2
HCM 7th LOS	B

Intersection US101 / 6th Street
Scenario 45 Sum PK

Analyst SJG
Date 8/25/2025

Intersection Type: 4-Leg

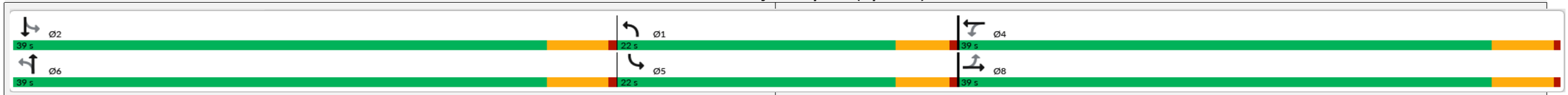
	Northbound							Southbound							Eastbound							Westbound						
	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right
	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot
Lane Groups	✓	✓	-	-	✓	✓	-	✓	✓	-	-	✓	✓	-	-	-	-	✓	-	-	-	-	-	-	-	✓	-	-	-
Protected Left Turn Type	Lag							Lag							N/A							N/A						
Phase #	1	6			6	6		5	2			2	2					4							8			
Lane Group Volume (veh/h)	22				283	273		39				290	277					74							68			
Green Time	22	39			39	39		22	39			39	39					39							39			
Adj Lane Group Volume (veh/h)	**8**	**14**			**283**	**273**		**14**	**25**			**290**	**277**					**74**							**68**			
Sat. Flow Rate Source	*HCM 2000*		Standard Source					*HCM 2000*		Standard Source					-		Standard Source					-		Standard Source				
Saturation Flow Rate (veh/h/ln)	1511	714			1671	1611		1628	778			1682	1611					1449							1460			
Lane Group v/s Flow Ratio	0.005	0.020	0.000	0.000	0.169	0.169		0.009	0.032	0.000	0.000	0.172	0.172		0.000	0.000	0.000	0.051	0.000	0.000		0.000	0.000	0.000	0.047	0.000	0.000	
Critical Phases						✓		✓										✓										
Barrier Flow Ratios$_{Crit. Move.}$	0.178 v/s														0.051 v/s													
∑ Flow Ratios$_{Crit. Move}$	0.229 v/s																											
No. Lost Time Cycles	2														1													
Lost Time	12 sec																											
Cycle Time	90																											
Xc	**0.264**																											

Calculation Section *(Auto-Populated)*

	0.178	**6**		B16	C16	G16		I16	J16	M16	
Rule 1/2:	0.178	I16+G16	6	0.014	0.037	0.178		0.028	0.178		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0.025	✓	9								
	0.041	✓	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

	0.051	**6**				S16				Z16	
Rule 1/2:	0.051	+S16	6	0.000	0.000	0.047		0.000	0.051		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0	n/a	9								
	0	n/a	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

Paste Area for Analysis Reports (Optional)



HCM 7th Signalized Intersection Capacity Analysis
9: US 101 & 6th St 09/25/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Future Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.97
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1695	1750	1750	1682	1750	1600	1586	1695	1504	1709	1695	1750
Adj Flow Rate, veh/h	34	6	34	28	6	34	22	534	22	39	556	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	0	5	0	11	12	4	18	3	4	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	272	42	108	255	44	118	470	1210	50	486	1228	24
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
Prop Arrive On Green	0.14	0.16	0.14	0.14	0.16	0.14	0.03	0.38	0.37	0.03	0.38	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.8	0.0	0.0	10.7	0.0	0.0	7.9	6.9	6.9	8.1	7.0	7.0
Ln Grp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		74			68			578			606	
Approach Delay, s/veh		10.8			10.7			7.0			7.1	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	14.7	4.9		8.5	14.8	4.8		8.5
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	18.0		34.5	34.5	18.0		34.5
Max Allow Headway (MAH), s	5.3	3.8		5.6	5.3	3.8		5.6
Max Q Clear (g_c+I1), s	5.6	2.0		3.1	5.5	2.0		3.2
Green Ext Time (g_e), s	3.7	0.0		0.4	3.6	0.0		0.4
Prob of Phs Call (p_c)	1.00	0.16		0.68	1.00	0.26		0.68
Prob of Max Out (p_x)	0.00	0.00		0.00	0.00	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1511		457		1628		526
Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	3229			276	3152			260
Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	64			732	130			668
Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

HCM 7th Signalized Intersection Capacity Analysis
9: US 101 & 6th St 09/25/2025

Lane Assignment	L (Pr/Pm)		L+T+R		L (Pr/Pm)		L+T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	22	0	68	0	39	0	74
Grp Sat Flow (s), veh/h/ln	0	1511	0	1465	0	1628	0	1454
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	714	0	1379	0	778	0	1379
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1710	0	0	0	1705
Perm LT Eff Green (g_p), s	0.0	10.2	0.0	4.0	0.0	10.2	0.0	4.0
Perm LT Serve Time (g_u), s	0.0	6.6	0.0	2.9	0.0	6.6	0.0	3.0
Perm LT Q Serve Time (g_ps), s	0.0	0.7	0.0	0.0	0.0	1.1	0.0	0.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.8
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.41	0.00	1.00	0.00	0.46
Lane Grp Cap (c), veh/h	0	470	0	391	0	486	0	395
V/C Ratio (X)	0.00	0.05	0.00	0.17	0.00	0.08	0.00	0.19
Avail Cap (c_a), veh/h	0	1391	0	1910	0	1483	0	1902
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	10.5	0.0	8.0	0.0	10.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	10.7	0.0	8.1	0.0	10.8
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment	T				T			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	277	0	0	0	273	0	0	0
Grp Sat Flow (s), veh/h/ln	1611	0	0	0	1611	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	613	0	0	0	618	0	0	0
V/C Ratio (X)	0.45	0.00	0.00	0.00	0.44	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2006	0	0	0	2006	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.0	0.6	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
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2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	290	0	0	0	283	0	0	0
Grp Sat Flow (s), veh/h/ln	1682	0	0	0	1671	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.04	0.00	0.00	0.50	0.08	0.00	0.00	0.46
Lane Grp Cap (c), veh/h	640	0	0	0	641	0	0	0
V/C Ratio (X)	0.45	0.00	0.00	0.00	0.44	0.00	0.00	0.00
Avail Cap (c_a), veh/h	2095	0	0	0	2082	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.5	0.0	0.0	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.4
HCM 7th LOS	A

Intersection US101 / 6th Street
Scenario 45 Sum PK 3 Lane Alt

Analyst SJG
Date 8/25/2025

Intersection Type: 4-Leg

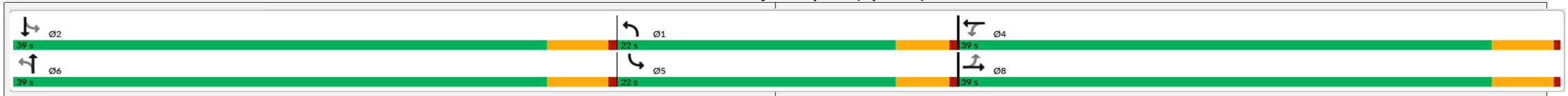
	Northbound							Southbound							Eastbound							Westbound						
	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right	Left Turn		Through				Right
	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot	Prot	+Perm	with Permitted or Protected Turns			Thru Only	Prot
Lane Groups	✓	✓	-	-	✓	-	-	✓	✓	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-
Protected Left Turn Type	Lag							Lag							N/A							N/A						
Phase #	1	6			6			5	2			2						4							8			
Lane Group Volume (veh/h)	22				556	0		39				567	0					74							68			
Green Time	22	39			39	39		22	39			39	39					39							39			
Adj Lane Group Volume (veh/h)	**8**	**14**			**556**			**14**	**25**			**567**						**74**							**68**			
Sat. Flow Rate Source	*HCM 2000*		Standard Source					*HCM 2000*		Standard Source					-		Standard Source					-		Standard Source				
Saturation Flow Rate (veh/h/ln)	1511	776			1683			1628	845			1688						1493							1499			
Lane Group v/s Flow Ratio	0.005	0.018	0.000	0.000	0.330	0.000		0.009	0.030	0.000	0.000	0.336	0.000		0.000	0.000	0.000	0.050	0.000	0.000		0.000	0.000	0.000	0.045	0.000	0.000	
Critical Phases	✓											✓						✓										
Barrier Flow Ratios$_{Crit. Move.}$	0.341 v/s														0.050 v/s													
∑ Flow Ratios$_{Crit. Move}$	0.391 v/s																											
No. Lost Time Cycles	2														1													
Lost Time	12 sec																											
Cycle Time	90																											
Xc	**0.451**																											

Calculation Section *(Auto-Populated)*

				B16	C16	F16		I16	J16	M16	
	0.341	**3**									
Rule 1/2:	0.341	B16+M16	3	0.014	0.035	0.341		0.027	0.339		0.000
Rule 3: Permitted-Protected Lefts, Lead-Lead or Lag-Lag	0.023	✓	9								
	0.038	✓	10								
Rule 4: Permitted-Protected Lefts, Lead-Lag	0.000	n/a	11								
	0	n/a	12								

						S16				Z16	
0.050	**6**										
0.050	+S16	6	0.000	0.000	0.045		0.000	0.050		0.000
0	n/a	9								
0	n/a	10								
0.000	n/a	11								
0	n/a	12								

Paste Area for Analysis Reports (Optional)



HCM 7th Signalized Intersection Capacity Analysis
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Future Volume (veh/h)	30	5	30	25	5	30	20	475	20	35	495	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj (A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.97
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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1695	1750	1750	1682	1750	1600	1586	1695	1504	1709	1695	1750
Adj Flow Rate, veh/h	34	6	34	28	6	34	22	534	22	39	556	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	0	5	0	11	12	4	18	3	4	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	238	41	102	221	43	112	390	747	31	415	771	15
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
Prop Arrive On Green	0.13	0.15	0.13	0.13	0.15	0.13	0.02	0.46	0.45	0.03	0.47	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.1	0.0	0.0	13.0	0.0	0.0	11.0	0.0	8.4	11.0	0.0	8.4
Ln Grp LOS	B			B			B		A	B		A
Approach Vol, veh/h		74			68			578			606	
Approach Delay, s/veh		13.1			13.0			8.5			8.6	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1		4	6	5		8
Case No	4.0	1.4		8.0	4.0	1.4		8.0
Phs Duration (G+Y+Rc), s	19.4	4.8		8.9	19.3	4.9		8.9
Change Period (Y+Rc), s	4.5	4.0		4.5	4.5	4.0		4.5
Max Green (Gmax), s	34.5	18.0		34.5	34.5	18.0		34.5
Max Allow Headway (MAH), s	5.3	3.9		5.6	5.3	3.8		5.6
Max Q Clear (g_c+I1), s	11.0	2.0		3.3	10.8	2.0		3.4
Green Ext Time (g_e), s	3.9	0.0		0.4	3.9	0.1		0.4
Prob of Phs Call (p_c)	1.00	0.18		0.74	1.00	0.30		0.74
Prob of Max Out (p_x)	0.02	0.00		0.00	0.02	0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		1		7		5		3
Mvmt Sat Flow, veh/h		1511		458		1628		531
Through Movement Data								
Assigned Mvmt	2			4	6			8
Mvmt Sat Flow, veh/h	1656			291	1616			276
Right-Turn Movement Data								
Assigned Mvmt	12			14	16			18
Mvmt Sat Flow, veh/h	33			749	67			686
Left Lane Group Data								
Assigned Mvmt	0	1	0	7	0	5	0	3

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Lane Assignment	L (Pr/Pm)		L+T+R		L (Pn/Pm)		L+T+R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	22	0	68	0	39	0	74
Grp Sat Flow (s), veh/h/ln	0	1511	0	1499	0	1628	0	1493
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.4
Perm LT Sat Flow (s_l), veh/h/ln	0	776	0	1372	0	845	0	1372
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1706	0	0	0	1701
Perm LT Eff Green (g_p), s	0.0	14.8	0.0	4.4	0.0	14.8	0.0	4.4
Perm LT Serve Time (g_u), s	0.0	5.9	0.0	3.1	0.0	6.0	0.0	3.2
Perm LT Q Serve Time (g_ps), s	0.0	0.8	0.0	0.0	0.0	1.3	0.0	0.1
Time to First Blk (g_f), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.9
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.41	0.00	1.00	0.00	0.46
Lane Grp Cap (c), veh/h	0	390	0	354	0	415	0	358
V/C Ratio (X)	0.00	0.06	0.00	0.19	0.00	0.09	0.00	0.21
Avail Cap (c_a), veh/h	0	1174	0	1664	0	1254	0	1662
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	12.8	0.0	10.9	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	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
Control Delay (d), s/veh	0.0	11.0	0.0	13.0	0.0	11.0	0.0	13.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.4	0.0	0.2	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.4	0.0	0.2	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.05	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	6	0	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	16	0	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	1	0	0	0	1	0	0	0
Grp Vol (v), veh/h	567	0	0	0	556	0	0	0
Grp Sat Flow (s), veh/h/ln	1688	0	0	0	1683	0	0	0
Q Serve Time (g_s), s	9.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	9.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.02	0.00	0.00	0.50	0.04	0.00	0.00	0.46
Lane Grp Cap (c), veh/h	786	0	0	0	778	0	0	0
V/C Ratio (X)	0.72	0.00	0.00	0.00	0.72	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1782	0	0	0	1776	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.1	0.0	0.0	0.0	7.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	1.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	0.0	0.0	0.0	8.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	9.0
HCM 7th LOS	A

Appendix C: Existing and Reduced Lane Scenario SimTraffic Reports

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2	2
Vehs Entered	4208	4140	4131	4248	4204	4126	4209
Vehs Exited	4216	4175	4144	4264	4192	4139	4218
Starting Vehs	107	129	84	112	91	106	94
Ending Vehs	99	94	71	96	103	93	85
Travel Distance (mi)	2467	2435	2465	2505	2475	2432	2457
Travel Time (hr)	92.7	90.9	92.0	93.0	92.6	90.9	91.9
Total Delay (hr)	10.9	10.5	10.5	10.2	10.8	10.5	10.9
Total Stops	1927	1860	1777	1719	1801	1818	1769
Fuel Used (gal)	75.0	74.5	74.6	75.6	75.2	74.4	74.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	3	3	3	3
# of Recorded Intervals	2	2	2	2
Vehs Entered	4193	4176	4064	4167
Vehs Exited	4213	4211	4099	4187
Starting Vehs	94	116	110	95
Ending Vehs	74	81	75	74
Travel Distance (mi)	2484	2477	2391	2459
Travel Time (hr)	92.7	92.3	89.5	91.8
Total Delay (hr)	10.6	10.4	10.2	10.5
Total Stops	1820	1796	1725	1797
Fuel Used (gal)	75.7	74.8	72.3	74.6

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1194	1190	1196	1249	1198	1150	1238
Vehs Exited	1196	1201	1183	1250	1163	1154	1213
Starting Vehs	107	129	84	112	91	106	94
Ending Vehs	105	118	97	111	126	102	119
Travel Distance (mi)	694	690	715	726	688	668	706
Travel Time (hr)	26.3	26.0	26.9	27.3	26.0	24.8	26.4
Total Delay (hr)	3.3	3.3	3.2	3.4	3.3	2.8	3.2
Total Stops	541	529	500	520	504	457	517
Fuel Used (gal)	21.3	21.4	21.8	22.1	20.8	20.3	21.5

Interval #1 Information Recording

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1186	1222	1145	1195
Vehs Exited	1170	1240	1152	1190
Starting Vehs	94	116	110	95
Ending Vehs	110	98	103	100
Travel Distance (mi)	698	721	679	698
Travel Time (hr)	26.3	27.4	25.8	26.3
Total Delay (hr)	3.2	3.6	3.3	3.3
Total Stops	492	545	485	504
Fuel Used (gal)	21.3	22.1	20.7	21.3

Interval #2 Information Recording

Start Time	3:30
End Time	4:15
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3014	2950	2935	2999	3006	2976	2971
Vehs Exited	3020	2974	2961	3014	3029	2985	3005
Starting Vehs	105	118	97	111	126	102	119
Ending Vehs	99	94	71	96	103	93	85
Travel Distance (mi)	1773	1745	1750	1780	1787	1764	1751
Travel Time (hr)	66.4	64.9	65.1	65.7	66.6	66.1	65.5
Total Delay (hr)	7.6	7.2	7.2	6.8	7.5	7.8	7.7
Total Stops	1386	1331	1277	1199	1297	1361	1252
Fuel Used (gal)	53.8	53.1	52.8	53.5	54.4	54.1	52.6

Interval #2 Information Recording

Start Time	3:30
End Time	4:15
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	3007	2954	2919	2968
Vehs Exited	3043	2971	2947	2995
Starting Vehs	110	98	103	100
Ending Vehs	74	81	75	74
Travel Distance (mi)	1786	1757	1712	1761
Travel Time (hr)	66.4	64.8	63.7	65.5
Total Delay (hr)	7.4	6.8	6.9	7.3
Total Stops	1328	1251	1240	1291
Fuel Used (gal)	54.4	52.8	51.6	53.3

Intersection: 1: US 101 & Jerry's Flat Rd

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	100	66	34	40
Average Queue (ft)	44	26	2	14
95th Queue (ft)	78	71	21	41
Link Distance (ft)	883			
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		50	50	85
Storage Blk Time (%)	8	0	0	
Queuing Penalty (veh)	2	0	0	

Intersection: 2: US 101 & Harbor Wy

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	84	35	5
Average Queue (ft)	28	8	0
95th Queue (ft)	63	32	4
Link Distance (ft)	217		1200
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: US 101 & Moore St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	110	62	79	141	148	58	178	135
Average Queue (ft)	45	21	41	55	66	10	75	43
95th Queue (ft)	82	53	76	119	124	40	140	98
Link Distance (ft)	402	291		552	552			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50			50		
Storage Blk Time (%)			4	5		0	11	
Queuing Penalty (veh)			12	5		0	1	

Intersection: 4: US 101 & Caughell St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	69	58	71	31	61	28
Average Queue (ft)	31	14	16	2	6	1
95th Queue (ft)	57	44	50	18	31	13
Link Distance (ft)	507	506	662	662	552	552
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: US 101 & 1st St

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	LT	T
Maximum Queue (ft)	38	33	31	92	52
Average Queue (ft)	10	2	2	17	2
95th Queue (ft)	35	15	15	57	21
Link Distance (ft)	540	172	172	662	662
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: US 101 & 2nd St

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	TR	LT
Maximum Queue (ft)	46	75	66	5	69
Average Queue (ft)	16	26	7	0	8
95th Queue (ft)	44	61	36	3	39
Link Distance (ft)	140	382	182	182	172
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: US 101 & 3rd St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	82	70	75	11	67	19
Average Queue (ft)	31	31	13	0	15	1
95th Queue (ft)	64	59	50	7	49	11
Link Distance (ft)	96	359	220	220	182	182
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: US 101 & 4th St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	69	92	52	17	68	4
Average Queue (ft)	21	43	5	1	13	0
95th Queue (ft)	54	77	29	10	46	3
Link Distance (ft)	368	349	611	611	220	220
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: US 101 & 6th St

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	81	86	72	107	118	58	102	121
Average Queue (ft)	34	34	13	43	43	20	39	51
95th Queue (ft)	66	69	47	87	92	51	80	97
Link Distance (ft)	70	377		876	876		611	611
Upstream Blk Time (%)	1							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			80			90		
Storage Blk Time (%)			0	1		0	0	
Queuing Penalty (veh)			0	0		0	0	

Intersection: 10: US 101 & 8th St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	54	40	42	61
Average Queue (ft)	14	17	3	11
95th Queue (ft)	42	44	20	41
Link Distance (ft)	264	245	706	876
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: US 101 & 10th St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	41	69	24	3	47	12
Average Queue (ft)	12	25	1	0	5	0
95th Queue (ft)	39	57	13	3	26	9
Link Distance (ft)	176	438	677	677	706	706
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 12: US 101 & 11th St

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	74	65
Average Queue (ft)	28	9
95th Queue (ft)	60	40
Link Distance (ft)	400	677
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: US 101 & Vizcaino Ct/Pacific Vista Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	39	47	32	16
Average Queue (ft)	13	15	2	1
95th Queue (ft)	40	42	16	8
Link Distance (ft)	165	146		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: US 101 & Hunter Creek Rd

Movement	WB	SB	SB
Directions Served	L	L	T
Maximum Queue (ft)	34	46	2
Average Queue (ft)	5	14	0
95th Queue (ft)	24	41	3
Link Distance (ft)			1672
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	90	125	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: US 101

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:05	3:05	3:05	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2	2
Vehs Entered	2241	2154	2321	2204	2350	2268	2341
Vehs Exited	2268	2166	2350	2246	2371	2301	2368
Starting Vehs	123	113	146	133	135	135	124
Ending Vehs	96	101	117	91	114	102	97
Travel Distance (mi)	2899	2722	2948	2854	2963	2878	3006
Travel Time (hr)	112.2	104.6	114.3	109.7	116.0	111.1	116.9
Total Delay (hr)	17.0	15.1	17.7	16.2	18.6	16.7	18.7
Total Stops	1945	1710	2032	1832	2041	1808	1999
Fuel Used (gal)	86.9	80.1	88.6	85.1	87.5	86.1	90.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:05	3:05	3:05	3:05
End Time	4:15	4:15	4:15	4:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	3	3	3	3
# of Recorded Intervals	2	2	2	2
Vehs Entered	2165	2271	2256	2247
Vehs Exited	2202	2286	2289	2285
Starting Vehs	123	120	138	118
Ending Vehs	86	105	105	93
Travel Distance (mi)	2765	2864	2876	2878
Travel Time (hr)	105.2	110.6	111.3	111.2
Total Delay (hr)	14.7	16.5	16.8	16.8
Total Stops	1771	1922	1912	1889
Fuel Used (gal)	81.5	85.9	85.2	85.7

Interval #0 Information Seeding

Start Time	3:05
End Time	3:15
Total Time (min)	10

Volumes adjusted by PHF, Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	665	599	645	646	644	645	674
Vehs Exited	663	601	663	653	643	648	669
Starting Vehs	123	113	146	133	135	135	124
Ending Vehs	125	111	128	126	136	132	129
Travel Distance (mi)	838	753	813	795	799	811	828
Travel Time (hr)	32.4	29.4	32.1	31.3	31.4	31.7	32.5
Total Delay (hr)	5.1	4.7	5.3	5.1	5.1	5.1	5.5
Total Stops	565	502	549	541	572	535	542
Fuel Used (gal)	25.1	22.2	24.7	24.0	23.2	24.8	25.0

Interval #1 Information Recording

Start Time	3:15
End Time	3:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	640	662	651	648
Vehs Exited	647	658	677	653
Starting Vehs	123	120	138	118
Ending Vehs	116	124	112	111
Travel Distance (mi)	804	824	836	810
Travel Time (hr)	30.9	32.0	33.1	31.7
Total Delay (hr)	4.8	5.1	5.7	5.1
Total Stops	538	524	585	543
Fuel Used (gal)	24.0	24.8	24.8	24.3

Interval #2 Information Recording

Start Time	3:30
End Time	4:15
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1576	1555	1676	1558	1706	1623	1667
Vehs Exited	1605	1565	1687	1593	1728	1653	1699
Starting Vehs	125	111	128	126	136	132	129
Ending Vehs	96	101	117	91	114	102	97
Travel Distance (mi)	2060	1969	2135	2059	2164	2067	2179
Travel Time (hr)	79.7	75.2	82.3	78.4	84.5	79.4	84.4
Total Delay (hr)	11.9	10.4	12.4	11.1	13.5	11.6	13.2
Total Stops	1380	1208	1483	1291	1469	1273	1457
Fuel Used (gal)	61.7	57.9	63.9	61.2	64.3	61.3	65.1

Interval #2 Information Recording

Start Time	3:30
End Time	4:15
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1525	1609	1605	1603
Vehs Exited	1555	1628	1612	1632
Starting Vehs	116	124	112	111
Ending Vehs	86	105	105	93
Travel Distance (mi)	1962	2040	2040	2068
Travel Time (hr)	74.3	78.6	78.2	79.5
Total Delay (hr)	9.9	11.4	11.1	11.7
Total Stops	1233	1398	1327	1349
Fuel Used (gal)	57.6	61.1	60.5	61.5

Intersection: 1: US 101 & Jerry's Flat Rd

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	102	47	70	49
Average Queue (ft)	46	3	4	13
95th Queue (ft)	86	28	31	41
Link Distance (ft)	883			
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		75	50	85
Storage Blk Time (%)	3	0	0	0
Queuing Penalty (veh)	1	0	0	0

Intersection: 2: US 101 & Harbor Wy

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	63	46	3
Average Queue (ft)	27	9	0
95th Queue (ft)	56	35	3
Link Distance (ft)	231		1200
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: US 101 & Moore St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	139	65	78	335	48	326
Average Queue (ft)	54	20	41	133	10	127
95th Queue (ft)	99	53	80	267	38	249
Link Distance (ft)	414	303		553		1715
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			5	15	0	17
Queuing Penalty (veh)			26	13	1	2

Intersection: 4: US 101 & Caughell St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	77	55	38	70	34	65
Average Queue (ft)	34	14	11	5	4	3
95th Queue (ft)	67	42	35	33	22	27
Link Distance (ft)	514	512		665		553
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			0	0	0	0

Intersection: 5: US 101 & 1st St

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	41	71	39	60
Average Queue (ft)	12	4	9	4
95th Queue (ft)	38	35	34	33
Link Distance (ft)	546	173		665
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			50	
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			1	0

Intersection: 6: US 101 & 2nd St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	53	80	34	13	47	36
Average Queue (ft)	18	26	7	0	8	2
95th Queue (ft)	47	63	28	9	35	27
Link Distance (ft)	146	388		182		173
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			0	0	3	0

Intersection: 7: US 101 & 3rd St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	95	76	51	16	47	34
Average Queue (ft)	34	33	10	1	13	1
95th Queue (ft)	75	63	38	11	41	18
Link Distance (ft)	102	365		220		182
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			1	0	1	0

Intersection: 8: US 101 & 4th St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	75	112	34	6	50	3
Average Queue (ft)	23	48	5	0	13	0
95th Queue (ft)	57	85	25	4	41	3
Link Distance (ft)	374	355		612		220
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			0	0	0	
Queuing Penalty (veh)			0	0	2	

Intersection: 9: US 101 & 6th St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	90	95	83	231	92	233
Average Queue (ft)	37	38	16	95	22	97
95th Queue (ft)	72	76	53	186	64	184
Link Distance (ft)	82	389		877		612
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			80		90	
Storage Blk Time (%)			0	7	0	5
Queuing Penalty (veh)			1	1	0	2

Intersection: 10: US 101 & 8th St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	48	50	34	37
Average Queue (ft)	14	16	2	9
95th Queue (ft)	42	44	16	31
Link Distance (ft)	270	252		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			50	50
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 11: US 101 & 10th St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	42	73	26	18	37	8
Average Queue (ft)	13	22	1	1	4	0
95th Queue (ft)	41	58	13	11	22	8
Link Distance (ft)	182	444		678		707
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			50		50	
Storage Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			0	0	0	0

Intersection: 12: US 101 & 11th St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	84	46
Average Queue (ft)	29	9
95th Queue (ft)	65	35
Link Distance (ft)	406	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)		0
Queuing Penalty (veh)		1

Intersection: 13: US 101 & Vizcaino Ct/Pacific Vista Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	44	42	22	24
Average Queue (ft)	12	14	1	2
95th Queue (ft)	39	42	11	12
Link Distance (ft)	165	160		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: US 101 & Hunter Creek Rd

Movement	WB	SB
Directions Served	L	L
Maximum Queue (ft)	37	44
Average Queue (ft)	5	13
95th Queue (ft)	24	39
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	90	125
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 59

Appendix D: U.S. 101 / 3rd Street Signal Warrant Analysis

KITTELSON & ASSOCIATES

Signal Warrant Assessment

Based on 2009 Edition of the MUTCD

Project #:	27003-045
Project Name:	Gold Beach US 101
Analyst:	SJG
Analysis Date:	10/28/2025
Intersection:	US 101 / 3rd Ave
Scenario:	**2045 Summer Peak**
Data Date:	8/7/2024

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Highest	Yes	No
#2	Four-Hour	Yes	No
#3	Peak Hour	Yes	No

Select Type Of Major Street Approach From Dropdown Menu	Urban Minor Arterial
Select Type Of Minor Street Approach From Dropdown Menu	Urban Minor Arterial

Note: traffic volume profile for weekday (if weekend is desired, tab "vol profile" needs to be adjusted)

Traffic Volumes

Hour		Major Street		Minor Street		Major St.	Minor St.
Begin	End	NB	SB	EB	WB	Adj. Factor	Adj. Factor
4:00 PM	5:00 PM	498	510	30	15	1.00	1.00
2nd Highest Hour		471	483	28	14	0.95	0.95
3rd Highest Hour		465	476	28	14	0.93	0.93
4th Highest Hour		445	456	27	13	0.89	0.89
5th Highest Hour		438	449	26	13	0.88	0.88
6th Highest Hour		438	449	26	13	0.88	0.88
7th Highest Hour		418	428	25	13	0.84	0.84
8th Highest Hour		412	422	25	12	0.83	0.83
9th Highest Hour		398	408	24	12	0.80	0.80
10th Highest Hour		372	381	22	11	0.75	0.75
11th Highest Hour		359	367	22	11	0.72	0.72
12th Highest Hour		352	360	21	11	0.71	0.71
13th Highest Hour		339	347	20	10	0.68	0.68
14th Highest Hour		292	299	18	9	0.59	0.59
15th Highest Hour		232	238	14	7	0.47	0.47
16th Highest Hour		219	224	13	7	0.44	0.44
17th Highest Hour		153	156	9	5	0.31	0.31
18th Highest Hour		126	129	8	4	0.25	0.25
19th Highest Hour		66	68	4	2	0.13	0.13
20th Highest Hour		46	48	3	1	0.09	0.09
21st Highest Hour		40	41	2	1	0.08	0.08
22nd Highest Hour		27	27	2	1	0.05	0.05
23rd Highest Hour		13	14	1	0	0.03	0.03
24th Highest Hour		13	14	1	0	0.03	0.03

calculated based on roadway type - can be overwritten if desired

Data Input

Signal Warrant Assessment

Based on 2009 Edition of the MUTCD

Project #:	27003-045
Project Name:	Gold Beach US 101
Analyst:	SJG
Analysis Date:	10/28/2025
Intersection:	US 101 / 3rd Ave
Scenario:	**2045 Summer Peak - Minor Street Grown**
Data Date:	8/7/2024

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Peak Hour

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Highest	Yes	Yes
#2	Four-Hour	Yes	No
#3	Peak Hour	Yes	No

Select Type Of Major Street Approach From Dropdown Menu	Urban Minor Arterial
Select Type Of Minor Street Approach From Dropdown Menu	Urban Minor Arterial

Note: traffic volume profile for weekday (if weekend is desired, tab "vol profile" needs to be adjusted)

Traffic Volumes

Hour		Major Street		Minor Street		Major St.	Minor St.
Begin	End	NB	SB	EB	WB	Adj. Factor	Adj. Factor
4:00 PM	5:00 PM	498	510	63	32	1.00	1.00
2nd Highest Hour		471	483	60	30	0.95	0.95
3rd Highest Hour		465	476	59	29	0.93	0.93
4th Highest Hour		445	456	56	28	0.89	0.89
5th Highest Hour		438	449	55	28	0.88	0.88
6th Highest Hour		438	449	55	28	0.88	0.88
7th Highest Hour		418	428	53	26	0.84	0.84
8th Highest Hour		412	422	52	26	0.83	0.83
9th Highest Hour		398	408	50	25	0.80	0.80
10th Highest Hour		372	381	47	24	0.75	0.75
11th Highest Hour		359	367	45	23	0.72	0.72
12th Highest Hour		352	360	45	22	0.71	0.71
13th Highest Hour		339	347	43	21	0.68	0.68
14th Highest Hour		292	299	37	18	0.59	0.59
15th Highest Hour		232	238	29	15	0.47	0.47
16th Highest Hour		219	224	28	14	0.44	0.44
17th Highest Hour		153	156	19	10	0.31	0.31
18th Highest Hour		126	129	16	8	0.25	0.25
19th Highest Hour		66	68	8	4	0.13	0.13
20th Highest Hour		46	48	6	3	0.09	0.09
21st Highest Hour		40	41	5	3	0.08	0.08
22nd Highest Hour		27	27	3	2	0.05	0.05
23rd Highest Hour		13	14	2	1	0.03	0.03
24th Highest Hour		13	14	2	1	0.03	0.03

calculated based on roadway type - can be overwritten if desired

Data Input

Appendix E: U.S. 101 / 6th Street Signal Warrant Analysis

KITTELSON & ASSOCIATES

Signal Warrant Assessment

Based on 2009 Edition of the MUTCD

Project #:	27003-045
Project Name:	Gold Beach US 101
Analyst:	SJG
Analysis Date:	10/28/2025
Intersection:	US 101 / 6th Ave
Scenario:	**2045 Summer Peak**
Data Date:	8/6/2024

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Highest	Yes	No
#2	Four-Hour	Yes	No
#3	Peak Hour	Yes	No

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Daily

Traffic Volumes

Hour		Major Street		Minor Street		
Begin	End	NB	SB	EB	WB	Hourly Rank
12:00 AM	1:00 AM	0	0	0	0	17
1:00 AM	2:00 AM	0	0	0	0	17
2:00 AM	3:00 AM	0	0	0	0	17
3:00 AM	4:00 AM	0	0	0	0	17
4:00 AM	5:00 AM	0	0	0	0	17
5:00 AM	6:00 AM	0	0	0	0	17
6:00 AM	7:00 AM	144	148	2	6	15
7:00 AM	8:00 AM	319	256	12	21	12
8:00 AM	9:00 AM	371	302	18	26	11
9:00 AM	10:00 AM	406	343	24	25	9
10:00 AM	11:00 AM	460	424	24	24	8
11:00 AM	12:00 PM	514	519	28	18	4
12:00 PM	1:00 PM	497	558	41	31	1
1:00 PM	2:00 PM	520	528	32	29	3
2:00 PM	3:00 PM	514	539	37	22	2
3:00 PM	4:00 PM	503	518	32	24	5
4:00 PM	5:00 PM	437	560	24	33	6
5:00 PM	6:00 PM	470	513	47	20	6
6:00 PM	7:00 PM	328	358	26	10	10
7:00 PM	8:00 PM	189	304	21	5	13
8:00 PM	9:00 PM	151	213	16	2	14
9:00 PM	10:00 PM	90	116	7	2	16
10:00 PM	11:00 PM	0	0	0	0	17
11:00 PM	12:00 AM	0	0	0	0	17

Data Input

KITTELSON & ASSOCIATES

Signal Warrant Assessment

Based on 2009 Edition of the MUTCD

Project #:	27003-045
Project Name:	Gold Beach US 101
Analyst:	SJG
Analysis Date:	10/28/2025
Intersection:	US 101 / 6th Ave
Scenario:	**2045 Summer Peak - Minor Street grown**
Data Date:	8/6/2024

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Highest	Yes	Yes
#2	Four-Hour	Yes	Yes
#3	Peak Hour	Yes	No

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	2
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	Yes
Warrant Factor	70%
Peak Hour or Daily Count?	Daily

Traffic Volumes

Hour		Major Street		Minor Street		
Begin	End	NB	SB	EB	WB	Hourly Rank
12:00 AM	1:00 AM	0	0	0	0	17
1:00 AM	2:00 AM	0	0	0	0	17
2:00 AM	3:00 AM	0	0	0	0	17
3:00 AM	4:00 AM	0	0	0	0	17
4:00 AM	5:00 AM	0	0	0	0	17
5:00 AM	6:00 AM	0	0	0	0	17
6:00 AM	7:00 AM	144	148	4	13	15
7:00 AM	8:00 AM	319	256	25	44	12
8:00 AM	9:00 AM	371	302	38	55	11
9:00 AM	10:00 AM	406	343	50	53	9
10:00 AM	11:00 AM	460	424	50	50	8
11:00 AM	12:00 PM	514	519	59	38	4
12:00 PM	1:00 PM	497	558	86	65	1
1:00 PM	2:00 PM	520	528	67	61	3
2:00 PM	3:00 PM	514	539	78	46	2
3:00 PM	4:00 PM	503	518	67	50	5
4:00 PM	5:00 PM	437	560	50	69	7
5:00 PM	6:00 PM	470	513	99	42	6
6:00 PM	7:00 PM	328	358	55	21	10
7:00 PM	8:00 PM	189	304	44	11	13
8:00 PM	9:00 PM	151	213	34	4	14
9:00 PM	10:00 PM	90	116	15	4	16
10:00 PM	11:00 PM	0	0	0	0	17
11:00 PM	12:00 AM	0	0	0	0	17

Data Input

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Appendix F: PLTS and BLTS Calculations

Alterntive A.4

Street	#	From	To	Side	Functional Classification	Posted Speed (mph)	Total Nuber of Vehicle Lanes	Illumination?	Sidewalk Width (feet)	Sidewalk Condition	Sidewalk Buffer Type	Total Buffer Width (feet)	Land Use	Bike Facility Width (feet)	Existing ADT	PLTS Criteria				PLTS	BLTS
																Sidewalk Condition	Physical Buffer Width	Total Buffer Width	General Land Use		
US 101	7	Moore Street	5th Street	West	Arterial	30	4	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	9000	1	3	3	1	3	1
	8	Moore Street	5th Street	East	Arterial	30	4	Yes	8	Good	No Buffer	1	Neighborhood Commercial	0	9000	1	3	4	1	4	4
	9	5th Street	7th Street	West	Arterial	30	5	Yes	10	Good	No Buffer	1	Neighborhood Commercial	10	9000	1	3	4	1	4	1
	10	5th Street	7th Street	East	Arterial	30	5	Yes	5	Good	No Buffer	1	Neighborhood Commercial	0	9000	2	3	4	1	4	4
	11	7th Street	11th Street	West	Arterial	30	4	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	8000	1	3	3	1	3	1
	12	7th Street	11th Street	East	Arterial	30	4	Yes	8	Good	No Buffer	1	Neighborhood Commercial	0	8000	1	3	4	1	4	4

Alterntive B.1

Street	#	From	To	Side	Functional Classification	Posted Speed (mph)	Total Nuber of Vehicle Lanes	Illumination?	Sidewalk Width (feet)	Sidewalk Condition	Sidewalk Buffer Type	Total Buffer Width (feet)	Land Use	Bike Facility Width (feet)	Existing ADT	PLTS Criteria				PLTS	BLTS
																Sidewalk Condition	Physical Buffer Width	Total Buffer Width	General Land Use		
US 101	7	Moore Street	5th Street	West	Arterial	30	2	Yes	8	Good	No Buffer	7	Neighborhood Commercial	7	9000	1	3	2	1	3	1
	8	Moore Street	5th Street	East	Arterial	30	2	Yes	8	Good	No Buffer	14	Neighborhood Commercial	7	9000	1	3	1	1	3	1
	9	5th Street	7th Street	West	Arterial	30	2	Yes	8	Good	No Buffer	7	Neighborhood Commercial	7	9000	1	3	2	1	3	1
	10	5th Street	7th Street	East	Arterial	30	2	Yes	8	Good	No Buffer	14	Neighborhood Commercial	7	9000	1	3	1	1	3	1
	11	7th Street	11th Street	West	Arterial	30	2	Yes	8	Good	No Buffer	7	Neighborhood Commercial	7	8000	1	3	2	1	3	1
	12	7th Street	11th Street	East	Arterial	30	2	Yes	8	Good	No Buffer	14	Neighborhood Commercial	7	8000	1	3	1	1	3	1

Alterntive B.3

Street	#	From	To	Side	Functional Classification	Posted Speed (mph)	Total Nuber of Vehicle Lanes	Illumination?	Sidewalk Width (feet)	Sidewalk Condition	Sidewalk Buffer Type	Total Buffer Width (feet)	Land Use	Bike Facility Width (feet)	Existing ADT	PLTS Criteria				PLTS	BLTS
																Sidewalk Condition	Physical Buffer Width	Total Buffer Width	General Land Use		
US 101	7	Moore Street	5th Street	West	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	9000	1	3	2	1	3	1
	8	Moore Street	5th Street	East	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	9000	1	3	2	1	3	1
	9	5th Street	7th Street	West	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	9000	1	3	2	1	3	1
	10	5th Street	7th Street	East	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	9000	1	3	2	1	3	1
	11	7th Street	11th Street	West	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	8000	1	3	2	1	3	1
	12	7th Street	11th Street	East	Arterial	30	2	Yes	10	Good	No Buffer	8	Neighborhood Commercial	10	8000	1	3	2	1	3	1

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Appendix G: Evaluation Criteria

EVALUATION CRITERIA

Evaluation criteria were developed to assess how well each concept design alternative meets the project's intended goals and objectives. The methodology provides for a qualitative scoring scale ranging from poor to good, as shown below.

Evaluation Matrix Legend

Poor	Fair	Good
Alternative has a negative impact on measure.	Alternative has a moderately positive or neutral impact on measure.	Alternative has substantially positive impact on measure.

The terms **'Very Poor'** and **'Very Good'** were used, when applicable, to further differentiate the performance of alternatives that received the same rating for a particular criterion, but one has a more significant impact.

The methodology for evaluating each performance measure is summarized in Table 9. Qualifying terms, such as "moderate", "substantial", and "some" will be defined with respect to the other alternatives during the alternative's evaluation.

Table 9. Evaluation Criteria

Goal	Evaluation Criteria	Scoring Scale		
		Poor	**Fair**	**Good**
Safety	Improve vehicular safety issues on the U.S. 101 corridor.	The project is expected to have a **negative** impact on safety for vehicles	The project is expected to have **minimal** impact on safety for vehicles.	The project is expected to have a **positive** impact on safety for vehicles.
	Improve non-motorized safety issues on the U.S. 101 corridor.	The project is expected to have a **negative** impact on safety for pedestrians and bicyclists.	The project is expected to have **minimal** impact on safety for pedestrians and bicyclists.	The project is expected to have a **positive** impact on safety for pedestrians and bicyclists.
	Improve emergency vehicle access and evacuation efficiency.	The project is expected to have a **negative** impact on emergency vehicle access and decrease evacuation efficiency.	The project is expected to have **minimal** impact on emergency vehicle access and evacuation efficiency.	The project is expected to **improve** emergency vehicle access and increase evacuation efficiency.
Multimodal Connectivity	Address existing pedestrian or bicycle gaps in the multimodal network.	The project **creates** a gap for pedestrians or bicyclists.	The project will **partially fill** pedestrian or bicycle gaps in the multimodal network.	The project will **fully address** the pedestrian and bicycle gaps in the multimodal network.
	Improve transit access.	The project is expected to have a **negative** impact on transit access.	The project is expected to have **minimal** impact on transit access.	The project is expected to **improve** transit access.
	Maintain vehicle and freight access according to defined state mobility targets.	The project **fails to meet** the defined state mobility targets and **further constrains** freight mobility.	The project **continues to meet** the defined state mobility targets and has **no impact** on freight mobility.	The project **improves** vehicle access beyond defined state mobility targets and **increases** freight mobility.
Economic Development	Increases the amount of on-street parking.	The project is expected to **decrease** the amount of available on-street parking.	The project is **not expected to change** the amount of on-street parking.	The project is expected to **increase** the amount of on-street parking.
	Enhance public spaces and streetscapes.	The project is expected to **degrade** public spaces and streetscapes.	The project is expected to have **minimal** impact on public spaces and streetscapes.	The project is expected to **improve** public spaces and streetscapes, by providing more inviting pedestrian environments, increased shade and vegetation, and/or more space for art.
	Promote traffic calming measures.	The project is expected to **increase** vehicle speeds.	The project is expected to have **no impact** on vehicle speeds	The project is expected to **decrease** vehicle speeds.
	Increases the sense of place, allowing for vibrant mix of development, a reduction of travel speeds, and transportation facilities meeting the needs of the all users.	The project will have a **negative** impact on the overall quality of life and attractiveness of the area for residents and visitors.	The project is expected to have a **minimal** impact on the overall quality of life and attractiveness of the area for residents and visitors.	The project will have a **positive** impact on the overall quality of life and attractiveness of the area for residents and visitors.
Feasibility[1]	Cost Effectiveness	The alternative has a relatively **high** planning level cost estimate (compared to other alternatives).	The alternative has a relatively **neutral** planning level cost estimate (compared to other alternatives).	The alternative has a relatively **low** planning level cost estimate (compared to other alternatives).
	Meets the design elements based on the defined Urban Context.	Not compliant with the design elements based on the defined Urban Context.	**Compliant** with the design element **ranges** based on the defined Urban Context.	**Compliant** with the **ideal** design elements based on the defined Urban Context.
	Compliant with the Oregon Pedestrian and Bicycle Bill (Oregon Revised Statue (ORS) 366.514).	**Not compliant** with the Oregon Pedestrian and Bicycle Bill.	Does **not trigger** the Oregon Pedestrian and Bicycle Bill.	**Compliant** with the Oregon Pedestrian and Bicycle Bill.
	Compliant with the ORS 366.215 which prevents prevents permanently reducing the "vehicle-carrying capacity" of designated state freight routes.	**Not compliant** with ORS 366.215. Reduces the curb-to-curb width narrower than the pinch points at the Isaac Lee Patterson Bridge and Hunter Creek Bridge.	No intermediate scoring identifed.	**Compliant** with ORS 366.215. Maintains a curb-to-curb width wider than the pinch points at the Isaac Lee Patterson Bridge and Hunter Creek Bridge.

[1] While feasibility is not a defined goal of the project, it is important to consider the feasibility of alternatives during the evaluation process.