



TRANSPORTATION IMPACT ANALYSIS

To
City of Stayton

For
Meyers Annexation,
Zone Change, and
Residential Development

Prepared
April 28, 2025

Revised
November 13, 2025

C&A Project Number
20250204.00

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I. INTRODUCTION

Property Description and Proposed Land Use Actions

The subject properties are located east of Golf Club Road SE in the northern part of Stayton, Oregon. The properties are identified as tax lots 200, 900, and 1000 on Marion County Assessor's map 091W048 and total approximately 55 acres. The project site and study area are illustrated in Figure 1 in Appendix A.

The subject properties are located within the Stayton Urban Growth Boundary (UGB) but outside the City limits. The properties have a Stayton Comprehensive Plan designation of *Residential* and are zoned Marion County *Urban Transition - 20 acres per Lot Minimum* (UT-20). Proposed land use actions include annexing the properties into the City with a concurrent zone change from Marion County UT-20 to Stayton *Medium-Density Residential* (MD), consistent with the Comprehensive Plan. Land use actions further propose a 126-lot preliminary subdivision plan. The proposed subdivision plan is attached in Appendix A.

Transportation Analysis Description

The proposed MD zoning is consistent with the existing Comprehensive Plan map designation, the amendment does not change the Comprehensive Plan, and the proposed zoning is consistent with the Stayton Transportation System Plan (TSP). As such, the proposed land use actions are consistent with the Stayton TSP assumptions and do not significantly affect an existing or planned transportation facility. As such, the Transportation Planning Rule (TPR) criteria outlined in Oregon Administrative Rule (OAR) 660-012-0060 are satisfied without additional analysis.

The proposed land use actions do include a specific development application. As such, a transportation impact analysis (TIA) is necessary to address the criteria identified in the following:

- Stayton Municipal Code requirements outlined in Chapter 17.26.050 – Transportation Impact Analysis Requirements, and
- Oregon Department of Transportation (ODOT) TIS requirements.

Study Area

Based on the development trip generation and distribution described later in this analysis, as well as comments from Stayton's transportation engineering consultant contained in the December 19, 2024 City of Stayton Preapplication Meeting notes, the following project area intersections and development access are evaluated and illustrated in Figure 2 in Appendix A.

- Golf Club Road SE/OR 22 WB Ramps/Sublimity Road SE
- Golf Club Road SE/OR 22 EB Ramps
- Golf Club Road SE/Site Access
- Golf Club Road SE/Wilco Road/Shaff Road SE
- Wilco Road/W Locust Street
- Wilco Road/W Washington Street
- Shaff Road SE/N Gardner Avenue

Analysis Scenarios

The proposed 126-lot subdivision development is anticipated to be constructed in multiple phases and fully occupied by 2030. As such, analysis scenarios include:

- 2025 Existing Conditions
- 2030 Pre-Development Conditions
- 2030 Post-Development Conditions

II. LONG-TERM PLANNING CONSIDERATIONS

The Stayton Transportation System Plan (TSP) includes many transportation infrastructure projects in the study area, which are presented in the following table. This list includes “High” Priority (also identified as “Tier I”) projects that are financially-constrained and are assumed to be constructed within the 2040 planning period.

Most City streets have sidewalks on both sides of the roadway and enhanced crossings at key intersections and mid-block locations; however, several streets, especially those in the study area, have gaps in the sidewalks and locations where crossings could be implemented or improved. Accordingly, the TSP pedestrian plan includes many projects to fill in the gaps in the sidewalks along the City’s arterial and collector streets and enhanced pedestrian crossings.

A few major roadways within the City have on-street bike lanes or other bicycle facilities, but many do not have dedicated bicycle infrastructure. Accordingly, the TSP bicycle plan includes many projects to fill in the gaps in the bicycle network along the City’s arterial and collector streets.

The TSP motor vehicle plan includes detailed descriptions for the two high-priority motor vehicle projects, which are also included in Appendix B.

TABLE 1 – STAYTON TSP PROJECT EXCERPTS

Project Number	Roadway	Segment/Cross-Street	Project	Priority	Cost Estimate
<i>Pedestrian Plan Improvement Projects</i>					
P3	Wilco Road	600 feet south of Shaff Road to Washington Street (NB)	Install a 6-foot sidewalk on the property line	Tier II	\$585K
P8	Washington Street	Wilco Road to Evergreen Avenue (EB)	Install a 6- to 8-foot sidewalk on the property line	Tier II	\$760K
P12	W Ida Street	Wilco Road to Holly Avenue (EB)	Install a 6-foot sidewalk on the property line	Tier II	\$375K
P15	Golf Club Road	Shaff Road to 400 feet north (SB)	Install a 6-foot sidewalk on the property line	Tier III	\$55K
P16	Wilco Road	Shaff Road to 600 feet south (NB)	Install a 6-foot sidewalk on the property line	Tier III	\$90K
P17	Wilco Road	Shaff Road to Washington Street (SB)	Install a 6-foot sidewalk on the property line	Tier III	\$675K
P18	Gardner Avenue	Shaff Road to Washington Street (both sides)	Install a 6-foot sidewalk on the property line	Tier III	\$920K
P25	Shaff Road	Wilco Road to Fern Avenue (WB)	Install an 8-foot sidewalk on the property line	Tier III	\$700K
P27	Shaff Road	Gardner Avenue to First Avenue (EB)	Install an 8-foot sidewalk on the property line	Tier III	\$515K
P33	Washington Street	Wilco Road to Myrtle Avenue (WB)	Install a 6- to 8-foot sidewalk on the property line	Tier III	\$210K
P43	Golf Club Road	Highway 22 to 400 feet north of Shaff Road (both sides)	Install a 6-foot sidewalk on the property line	Tier IV	\$2.2M
P46	Shaff Road	City Limit to Wilco Road (both sides)	Install a 6-foot sidewalk on the property line	Tier IV	\$520K
P51	Shaff Road	Stayton Middle School East Entrance	Study and implement crosswalk enhancements	Tier I	\$100K
<i>Bicycle Plan Improvement Projects</i>					
B9	Ida Street	Wilco Road to Third Avenue (both sides)	Add signing and striping to denote the bicycle route	Tier I	\$810k
B10	Wilco Road	Shaff Road to Washington Street (both sides)	Install 6-foot bike lanes	Tier II	\$2.9M
B14	Locust Street	Wilco Road to First Avenue (both sides)	Install 6-foot bike lanes	Tier II	\$3.6M
B15	Washington Street	Wilco Road to First Avenue (both sides)	Install 6-foot bike lanes	Tier II	\$870K
B16	Stayton Road	City Limit to Wilco Road (both sides)	Install 6-foot bike lanes	Tier III	\$1.2M
B17	Golf Club Road	Mill Creek Bridge to Shaff Road (both sides)	Install 6-foot bike lanes	Tier IV	\$3.9M
B20	Shaff Road	City Limit to Wilco Road (both sides)	Install 6-foot bike lanes	Tier IV	\$1.1M
<i>Motor Vehicle Plan Improvement Projects</i>					
M1	Golf Club Road/Shaff Road		Roundabout	High	\$2.6M
M2	Stayton Road/Wilco Road		Roundabout	High	\$1.6M
M7	Golf Lane Extension		Extend Golf Lane from the existing roadway to Golf Club Road	Low	\$8.2M
M8	Kindle Way Extension		Extend Kindle Way from the existing roadway to the Golf Lane Extension	Low	\$1.4M

III. EXISTING CONDITIONS

Existing Site Conditions

The subject properties are located east of Golf Club Road SE in the northern part of Stayton, Oregon. The properties are identified as tax lots 200, 900, and 1000 on Marion County Assessor's map 091W048 and total approximately 55 acres. The properties are currently undeveloped and are used for agricultural purposes.

The properties currently have frontage on and access to Golf Club Road SE to the west. It is further assumed that future property/development access will also be provided to Golf Club Road SE.

Roadway Facilities

The following table summarizes existing roadway classifications and characteristics in the study area.

TABLE 2 – EXISTING ROADWAY CHARACTERISTICS						
Roadway	Functional Classification	Lanes	Posted Speed (MPH)	Sidewalks	Bicycle Lanes	On-Street Parking
OR Highway 20	Principal Arterial OHP Statewide Highway NHS State Highway	4	55	No	No	No
Golf Club Road SE	Arterial	2	45	No	No	No
Sublimity Road SE	Arterial	2	50	No	No	No
Wilco Road	North of Deschutes Drive - Collector South of Deschutes Drive - Arterial	2	45	No	No	No
Shaff Road SE	West of Golf Club Road – Collector East of Golf Club Road - Arterial	2	35	No	No	No
W Locust Street	Collector	2	25	No	No	Yes
W Washington Street	Minor Arterial	2	25	No	No	No
N Gardner Avenue	Collector	2	25	No	No	Yes

Safety Analysis

When evaluating roadway and intersection safety, consideration is given to the number and types of crashes occurring and the number of vehicles traveling on a roadway segment or entering the intersection. This leads to the concept known as the “crash rate.” Specific to intersections, it is typically expressed in terms of the number of crashes occurring per one million vehicles entering the intersection (CMEV). A critical crash rate analysis is then performed by comparing the subject intersection to the published statewide 90th percentile intersection crash rates at comparable/reference intersections. Crash rates close to or exceeding 1.0 CMEV or the 90th percentile rates require further analysis.

Crash data for the study area intersections were obtained from the Oregon Department of Transportation (ODOT) for a five-year period, from January 1, 2019 through December 31, 2023. The following table presents the study intersection crash rates and critical crash analysis. All crash data and crash rate calculations are provided in Appendix C.

TABLE 3 – INTERSECTION CRASH RATES										
Intersection	2019	2020	2021	2022	2023	Total	Crash Rate (CMEV)	Reference Population		Over or Under Crash Rate?
								Description ¹	90 th %ile Crash Rate	
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road	1	2	3	6	3	15	1.042	Rural 4ST	1.080	Over
Golf Club Road SE / OR 22 EB Ramps	2	2	0	1	0	5	0.257	Rural 3ST	0.475	Under
Golf Club Road SE / Wilco Road / Shaff Road SE	1	1	0	1	1	4	0.171	Urban 4ST	0.408	Under
Wilco Road / W Locust Street	0	1	1	0	0	2	0.138	Urban 3ST	0.293	Under
Wilco Road / W Washington Street	2	1	1	1	1	6	0.445	Urban 4ST	0.408	Over
Shaff Road SE / N Gardner Avenue	1	1	1	0	0	3	0.199	Urban 4ST	0.408	Under

¹ 3ST is a three-leg minor stop-control intersection, and 4ST is a four-leg minor stop-control intersection.

Safety Analysis Discussion

The observed crash rates at four study intersections are less than the 1.0 CMEV threshold and the 90th percentile of the reference population. As such, these intersections are considered relatively safe, and no further evaluation of safety deficiencies is necessary.

The observed crash rates at two study intersections are higher than the 1.0 CMEV threshold or the 90th percentile crash rate of the reference population. Accordingly, a detailed crash analysis is performed for these two intersections. The following table presents a crash summary.

TABLE 4 – INTERSECTION CRASH TYPES AND SEVERITY							
Intersection	Crash Type						Total
	Rear End	Turn/ Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road	0	15	0	0	0	0	15
Wilco Road / W Washington Street	2	4	0	0	0	0	6
Intersection	Crash Severity ^{1,2}						Total
	PDO	C	B	A	Fatal	Unknown	
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road	7	2	4	1	1	0	15
Wilco Road / W Washington Street	0	3	3	0	0	0	6

¹ The most severe crash injury is listed. The crash may include multiple similar or lesser injuries.

² PDO – Property Damage Only; Injury C – Possible Injury/Complaint of Pain; Injury B – Non-Incapacitating Injury; Injury A – Incapacitating Injury/Bleeding, Broken Bones; Fatal Injury – Fatality

At the Golf Club Road SE/OR 22 WB Ramps/Sublimity Road intersection, all crashes are “turning” or “angle” and the majority of these resulted from motorists who were exiting OR 22 westbound (the minor roadway) not yielding the right-of-way to motorists on Golf Club Road (the major roadway). This trend is consistent with materials in the TSP stating, *“The crash data... shows a high proportion of angle and turning crashes at this intersection. The intersection is stop-controlled on the minor approaches, and eight of the ten crashes resulted from a failure to properly yield the right of way by vehicles at a stop sign.”*

Eight of the intersection crashes resulted in injuries, of which one resulted in a fatality. It is further noted that the fatality cause was consistent with the predominant cause – a motorist exiting OR 22 westbound not yielding the right-of-way to a motorist on Golf Club Road.

Overall, the proposed development is not anticipated to affect the intersection crash rate, and intersection crash-related mitigation is not necessary as part of these land use actions; however, mitigation should be considered by the appropriate agencies.

The Wilco Road/W Washington Street intersection is ‘non-standard’ in the sense that there are two intersections in close proximity: the subject all-way stop-controlled intersection and a second, smaller, minor-approach stop-controlled intersection 70 feet to the southeast of the first. Stayton TSP materials also note that the intersection is congested and needs a traffic control upgrade.

All crashes are either "rear-end" or "turning/angle" crashes, primarily caused by non-standard intersection configurations. The financially-constrained TSP Project M2 further contemplates the construction of a roundabout at this location, which is anticipated to be in place prior to the end of the planning period. It is anticipated that this improvement will improve intersection safety.

Overall, the proposed development is not anticipated to affect the intersection crash rate, and intersection crash-related mitigation is not necessary as part of these land use actions. However, the City should consider planning/programming the roundabout improvement.

Existing Traffic Counts

Existing traffic counts were obtained on March 18, 2025, during the AM and PM peak hours. Existing (base) traffic counts are included in Appendix D and are illustrated in Figure 2 in Appendix A.

Seasonal Adjustment and 30th Highest Hour Volumes

Seasonal adjustments account for the variation in traffic volumes during the year. As required for intersections under ODOT jurisdiction, the March 2025 traffic counts were adjusted to the 30th highest hour volume (30HV) consistent with procedures identified in the ODOT Analysis Procedures Manual (APM) Version 2, Chapter 5.5.1 – On-Site Automatic Traffic Recorder (ATR) Method. This method is used when an ATR is within or near the project area.

In the study area, ATR 24-005 – Aumsville is located on OR22; North Santiam Highway NO. 162; 1.08 miles east of the Shaw Highway Interchange. Using this ATR data, a seasonal adjustment of 1.15 was applied to the March 18, 2025 Base traffic counts to obtain 2025 30HV volumes. Seasonal adjustment assumptions are included in Appendix D, and 2025 30HV volumes are illustrated in Figure 2 in Appendix A.

IV. DEVELOPMENT TRIP GENERATION

The subject property is currently undeveloped. The proposed subdivision plan includes 126 residential lots.

In the Stayton MD zone, parcels may be developed with duplexes, and parcels larger than 10,500 square feet can be developed with triplexes. Accordingly, a reasonable worst-case development scenario for the proposed subdivision lots is assumed, which includes 121 lots with duplexes (242 dwelling units) and 5 lots with triplexes (15 dwelling units).

Trip generation for the proposed development is estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 12th Edition, and practices from the ITE *Trip Generation Handbook*, 3rd Edition, and is presented in the following table.

TABLE 5 – DEVELOPMENT TRIP GENERATION									
Land Use	ITE Code	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Single-Family Attached Housing	215	257 DU	1,681	34	102	136	79	60	139

¹ Trip generation is estimated using the *Fitted Curve* per recommended practice in the ITE *Trip Generation Handbook*, 3rd Edition.

As the table above identifies, the proposed 126-lot residential subdivision generates 1,681 daily, 136 AM peak hour, and 139 PM peak hour trips.

V. DEVELOPMENT YEAR CONDITIONS

Background Growth

OR 22 traffic volumes decreased slightly from 2019 to 2023 based on ATR 24-005 data. This is consistent with Stayton TSP assumptions, which contemplate little traffic growth over the 20-year planning period. More specifically, the TSP assumes traffic volume growth by specific intersection approach movement, versus an average annual background growth rate for all roadways/intersections, which is more typical.

For TIA analysis purposes, all assumed growth in the 2040 TSP plan year was conservatively assumed to occur by 2030, the anticipated development buildout year. Additionally, the TSP only contains traffic growth assumptions for the PM peak hour and not for the AM peak hour. Accordingly, no background growth is assumed for the AM peak hour.

Development Year Traffic Volumes

The proposed 139-unit residential development is anticipated to be constructed in multiple phases and fully built out by 2030. Accordingly, the 2025 30HV volumes were adjusted to the 2030 development year using the background growth assumptions described above, which are illustrated in Figure 3 in Appendix A.

Trip Distribution and Traffic Assignment

Development trip generation, as identified in the previous section of this TIA, was distributed onto the roadway system based on existing intersection volumes, surrounding land uses, and engineering judgment.

It is additionally noted that the proposed development has access to SE Golf Club Road at two locations. For analysis purposes, it was assumed that all development traffic accesses SE Golf Club Road in one location.

The resulting trip distribution and development traffic assignment for the AM and PM peak hours are illustrated in Figures 4 and 5 in Appendix A.

VI. INTERSECTION ANALYSIS

Analysis Scope

The following project area intersections and development accesses are evaluated:

- Golf Club Road SE/OR 22 WB Ramps/Sublimity Road SE
- Golf Club Road SE/OR 22 EB Ramps
- Golf Club Road SE/Site Access
- Golf Club Road SE/Wilco Road/Shaff Road SE
- Wilco Road/W Locust Street
- Wilco Road/W Washington Street
- Shaff Road SE/N Gardner Avenue

Analysis Description

Existing intersection AM and PM peak hour factors (PHFs) are used for all intersections in all analysis scenarios.

Intersection operation characteristics are generally defined by two key metrics: the volume-to-capacity (V/C) ratio and the level-of-service (LOS). At unsignalized intersections, the v/c ratio and LOS are calculated for intersection approach movements yielding right-of-way.

The City of Stayton's mobility standard for all-way stop-controlled intersections and roundabouts is LOS "D". The mobility standard for two-way stop-controlled intersections is LOS "E" or "F", with a v/c ratio of 0.95 or less for the critical movement.

As identified in the Stayton TSP, the ODOT mobility target at the Golf Club Road SE/OR 22 WB Ramps/Sublimity Road SE intersection is a v/c ratio of 0.70 or less. At the Golf Club Road SE/OR 22 EB Ramps intersection, the v/c ratio is 0.80 or less. TSP materials further state, *"Th[ese] v/c ratio[s] may be increased to 0.90 if it can be determined that vehicle queues will not extend onto the mainline or into the portion of the ramp needed to safely accommodate deceleration; and if an adopted Interchange Area Management Plan (IAMP) is present or can be developed."*

Intersection Operations Analysis

Unsignalized intersection operations analyses were performed using the Transportation Research Board's *Highway Capacity Manual* 6th Edition methodologies using Trafficware's *Synchro* software (Version 11).

The proposed 139-unit residential development is anticipated to be constructed in multiple phases and fully built out by 2030. As such, analysis scenarios include:

- 2025 Existing Conditions
- 2030 Pre-Development Conditions
- 2030 Post-Development Conditions

The following table summarizes the results of the weekday AM and PM peak hour operations analysis. Data output sheets from all operations calculations are attached in Appendix E.

TABLE 6 – INTERSECTION OPERATIONS ANALYSIS								
Intersection	Critical Movement Lane Group	Mobility Target	AM Peak Hour			PM Peak Hour		
			2025 Existing	2030 Pre-Development	2030 Post-Development	2025 Existing	2030 Pre-Development	2030 Post-Development
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road SE	NB L	$v/c \leq 0.80$	0.20	0.20	0.23	0.14	0.15	0.16
	SB L		0.01	0.01	0.01	0.01	0.01	0.01
	EB L		0.03	0.03	0.03	0.03	0.03	0.04
	EB T/R		0.13	0.13	0.14	0.05	0.05	0.05
	WB L		0.39	0.39	0.48	0.34	0.36	0.41
	WB T/R		0.77	0.77	0.88	0.30	0.31	0.33
Golf Club Road SE / OR 22 EB Ramps	SB L	$v/c \leq 0.70$	0.02	0.02	0.02	0.01	0.01	0.01
	EB L/T		0.21	0.21	0.23	0.31	0.32	0.33
	EB R		0.17	0.17	0.18	0.44	0.45	0.50
Golf Club Road SE / Site Access	SB L/T	LOS E	—	—	A / 0.02	—	—	C / 0.21
	WB L/R	$v/c \leq 0.95$	—	—	C / 0.27	—	—	A / 0.04
Golf Club Road SE / Wilco Road / Shaff Road SE	Intersection	LOS D	B	B	C	C	C	C
Wilco Road / W Locust Street	SB L/T	LOS E	A / 0.06	A / 0.06	A / 0.06	A / 0.07	A / 0.08	A / 0.09
	WB L/R	$v/c \leq 0.95$	B / 0.22	B / 0.22	B / 0.23	B / 0.14	B / 0.18	B / 0.19
Wilco Road / W Washington Street	Intersection	LOS D	A	A	A	B	B	B
Shaff Road SE / N Gardner Avenue	NB L/T/R	$LOS E$ $v/c \leq 0.95$	C / 0.18	C / 0.18	C / 0.19	C / 0.23	C / 0.28	C / 0.32
	SB L/T		C / 0.03	C / 0.03	C / 0.03	C / 0.48	D / 0.59	D / 0.62
	SB R		A / 0.01	A / 0.01	A / 0.01	A / 0.09	A / 0.09	A / 0.09
	EB L/T/R		A / 0.01	A / 0.01	A / 0.01	A / 0.05	A / 0.05	A / 0.06
	WB L/T/R		A / 0.02	A / 0.02	A / 0.02	A / 0.00	A / 0.00	A / 0.00

Operations Analysis Discussion

As the table above identifies, all study intersections are anticipated to operate within agency mobility targets in all analysis scenarios. Overall, no mitigation is necessary to provide adequate operations for the proposed development.

Materials in the Stayton TSP also find that operations at the Golf Club Road SE/Wilco Road/Shaff Road SE and Wilco Road/W Washington Street intersections are within agency mobility targets in their current configurations. Still, the construction of roundabouts at these locations is desired, and these are funded improvements anticipated to be constructed prior to the end of the planning period.

Intersection Queuing Analysis

Queuing analysis was performed to evaluate queue storage adequacy. 95th percentile queues were estimated using Trafficware's *SimTraffic* software (Version 11) and ODOT *Analysis Procedure Manual* methodologies. Available storage is rounded to the nearest five feet, and queue demand is rounded to the nearest 25 feet, corresponding to the average length of a queued vehicle.

The following table summarizes the results of the weekday AM and PM peak hour queuing analysis. Data output sheets from all queuing calculations are contained in Appendix E.

TABLE 7 – INTERSECTION QUEUING ANALYSIS								
Intersection	Critical Movement Lane Group	Queue Storage Available (Feet) ¹	AM Peak Hour			PM Peak Hour		
			2025 Existing	2030 Pre-Development	2030 Post-Development	2025 Existing	2030 Pre-Development	2030 Post-Development
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road SE	NB L	150	50	50	50	50	50	50
	SB L	190	25	25	25	25	25	25
	EB L	210	25	25	25	25	25	25
	EB T/R	210	50	50	50	50	50	50
	WB L	165	75	75	75	75	75	75
	WB T/R	500+	100	100	100	75	75	75
Golf Club Road SE / OR 22 EB Ramps	SB L	115	25	25	25	25	25	75
	EB L/T	240	50	50	75	75	100	100
	EB R	240	50	50	75	100	100	150
Golf Club Road SE / Site Access	SB L/T	500+	—	—	50	—	—	75
	WB L/R	100+	—	—	75	—	—	50
Golf Club Road SE / Wilco Road / Shaff Road SE	NB L	90	50	50	50	50	75	75
	NB T/R	500+	100	100	125	150	175	175
	SB L	170	50	50	75	75	100	100
	SB T/R	500+	100	100	125	100	100	125
	EB L/T/R	500+	50	50	50	50	50	50
	WB L	100	50	50	50	50	75	75
Wilco Road / W Locust Street	WB T/R	400	100	100	100	100	100	100
	SB L/T	500+	50	50	50	50	75	75
Wilco Road / W Washington Street	WB L/R	500+	100	100	100	75	75	75
	NB L/T	50	50	50	50	50	50	50
	NB R	25	—	—	—	—	25	25
	SB L/T	500+	50	50	50	75	75	75
	SB R	75	25	25	25	25	25	25
	EB L/T/R	500+	75	75	75	75	75	100
Shaff Road SE / N Gardner Avenue	WB L/T/R	400	50	50	75	75	75	75
	NB L/T/R	280	75	75	75	75	75	75
	SB L/T	150+	25	50	25	100	100	125
	SB R	100	25	50	50	50	50	50
	EB L	100+	25	25	25	50	25	50
	WB L	100+	25	50	50	—	25	25

¹ Available queue storage is measured to the nearest upstream intersection for continuous lanes between intersections and to the end of full-width storage for turn lanes.

Queuing Analysis Discussion

As the table above identifies, all study intersection approach movements are anticipated to have adequate queue storage in all analysis scenarios to accommodate the 95th percentile vehicle queues. Overall, no mitigation is necessary to provide adequate queue storage for the proposed development.

Materials in the Stayton TSP also find that queues at the Golf Club Road SE/Wilco Road/Shaff Road SE and Wilco Road/W Washington Street intersections can be accommodated in their current configurations. Still, the construction of roundabouts at these locations is desired, and these are funded improvements anticipated to be constructed prior to the end of the planning period.

VII. DEVELOPMENT ACCESS

As illustrated in the proposed subdivision plan, the development will have access to SE Golf Club Road at two locations. The northern access is located at the proposed extension of Golf Lane, which is functionally classified as a *Collector* roadway, and the southern access will be via a *Local* roadway near the southwest corner of the subdivision.

For TIA analysis purposes, it was assumed that all development traffic accesses Golf Club Road SE in one location, i.e., the future Golf Club Road SE/Golf Lane intersection. The operations and queuing analyses find that at this future intersection, all roadways function adequately with single approach lanes in all directions. However, because the future Golf Lane extension will be a *Collector* roadway and will ultimately carry more traffic than the subject development generates, future consideration should be given to constructing separate westbound left and right-turn approach lanes at the intersection.

VIII. CONCLUSION

The following summary and recommendations are based on materials contained in this analysis.

1. The subject properties are located east of Golf Club Road SE in the northern part of Stayton, Oregon. The properties are identified as tax lots 200, 900, and 1000 on Marion County Assessor's map 091W048 and total approximately 55 acres.
2. The subject properties are inside the Stayton Urban Growth Boundary (UGB) but are outside the City limits. The properties have a Stayton Comprehensive Plan designation of *Residential* and are zoned Marion County *Urban Transition - 20 acres per Lot Minimum* (UT-20). Proposed land use actions include annexing the properties into the City with a concurrent zone change from Marion County UT-20 to Stayton *Medium-Density Residential* (MD), consistent with the Comprehensive Plan. Land use actions further propose a 126-lot preliminary subdivision plan.
3. The proposed MD zoning is consistent with the existing Comprehensive Plan map designation, the amendment does not change the Comprehensive Plan, and the proposed zoning is consistent with the Stayton Transportation System Plan (TSP). As such, the proposed land use actions are consistent with the Stayton TSP assumptions and do not significantly affect an existing or planned transportation facility. As such, the Transportation Planning Rule (TPR) criteria outlined in Oregon Administrative Rule (OAR) 660-012-0060 are satisfied without additional analysis.
4. The Stayton TSP includes two "High" priority, financially-constrained motor vehicle projects assumed to be constructed within the 2040 planning period. These include the construction of roundabouts at the Golf Club Road SE/Wilco Road/Shaff Road SE and Wilco Road/W Washington Street intersections, and detailed analyses of both are contained in the TSP.
5. The observed crash rates at four study intersections are less than the 1.0 CMEV threshold and the 90th percentile of the reference population. As such, these intersections are considered relatively safe, and no further evaluation of safety deficiencies is necessary.
6. The observed crash rates at two study intersections, Golf Club Road SE/OR 22 WB Ramps/Sublimity Road and Wilco Road/W Washington Street, are higher than the 1.0 CMEV threshold or the 90th percentile crash rate of the reference population.
7. A detailed crash analysis of the Golf Club Road SE/OR 22 WB Ramps/Sublimity Road intersection finds that all crashes are "turning" or "angle" and the majority of these resulted from motorists who were exiting OR 22 westbound (the minor roadway) not yielding the right-of-way to motorists on Golf Club Road (the major roadway). This trend is consistent with TSP materials. Overall, the proposed development is not anticipated to affect the intersection crash rate, and intersection crash-related mitigation is not necessary as part of these land use actions; however, mitigation should be considered by the appropriate agencies.
8. A detailed crash analysis of the Wilco Road/W Washington Street intersection finds that all crashes are either "rear-end" or "turning/angle", primarily caused by the non-standard intersection configurations. This trend is consistent with TSP materials. Overall, the proposed development is not anticipated to affect the intersection crash rate, and intersection crash-related mitigation is not necessary as part of these land use actions. However, construction of a roundabout, identified as TSP Project M2, should be considered by the City, as it is anticipated to improve intersection safety.

9. In the Stayton MD zone, parcels may be developed with duplexes, and parcels larger than 10,500 square feet can be developed with triplexes. Accordingly, a reasonable worst-case development scenario for the proposed subdivision lots is assumed, which includes 121 lots with duplexes (242 dwelling units) and 5 lots with triplexes (15 dwelling units).
10. The proposed 126-lot residential subdivision generates 1,681 daily, 136 AM peak hour, and 139 PM peak hour trips.
11. All study intersections are anticipated to operate within agency mobility targets in all analysis scenarios. Overall, no mitigation is necessary to provide adequate operations for the proposed development.
12. All study intersection approach movements are anticipated to have adequate queue storage in all analysis scenarios to accommodate the 95th percentile vehicle queues. Overall, no mitigation is necessary to provide adequate queue storage for the proposed development.
13. Materials in the Stayton TSP also find that operations are acceptable, and queues can be accommodated at the Golf Club Road SE/Wilco Road/Shaff Road SE and Wilco Road/W Washington Street intersections in their current configurations in the 2040 plan year. Still, the construction of roundabouts at these locations is desired, and these are funded improvements anticipated to be constructed prior to the end of the planning period.
14. The proposed development will access SE Golf Club Road at two locations. The northern access is located at the proposed extension of Golf Lane, which is functionally classified as a *Collector* roadway, and the southern access will be via a *Local* roadway near the southwest corner of the subdivision.
15. The TIA operations and queuing analyses find that the future Golf Club Road SE/Golf Lane intersection functions adequately with single approach lanes in all directions. However, because the future Golf Lane extension will be a *Collector* roadway and will ultimately carry more traffic than the subject development generates, future consideration should be given to constructing separate westbound left and right-turn approach lanes at the intersection.

IX. APPENDICES

- A. Figures**
- B. TSP Financially-Constrained Motor Vehicle Plan Projects**
- C. Crash Data**
- D. Traffic Count Summaries**
- E. Operation and Queuing Analyses**

Appendix A



GOLF CLUB ROAD DEVELOPMENT

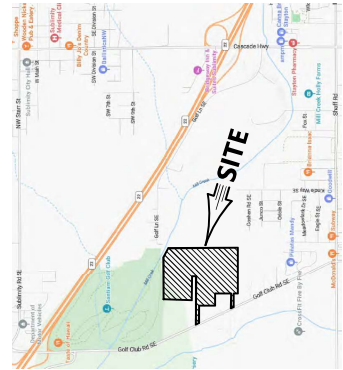
SEC. 4, T. 9 S., R. 1 W., W.M.
CITY OF STATON
MARION COUNTY, OREGON
128 LOTS - 54.53 ACRES

Owner/Developer:
**BROWNSTONE
DEVELOPMENT, INC.**
P.O. BOX 2201
LAKE OSWEGO, OREGON 97035

Engineer:
Mark Grenz, P.E.
1155 13TH ST. S.W.
SALEM, OR. 97302

Surveyor:
Robert Hamman, P.L.S.
1155 13TH ST. S.W.
SALEM, OR. 97302

T.B.M. 419.67
1/4 SECTION 4, T. 9 S., R. 1 W., W.M.
NORTH OF T.L. 901.
BASED ON GIS ORIS REPORT NGS CONTROL POINT NAMED
QEL803. SITE POINT #1 LOCATED AT N17155.220
E396388.137 ELEVATION: 418.156 (DATUM NGVD 1929)



LOCATION MAP

SHEET INDEX FOR PRELIMINARY PLANS	
SHEET P101 COVER SHEET	_____
SHEET P102 EXISTING CONDITIONS PLAN - VICINITY	_____
SHEET P103 EXISTING CONDITIONS PLAN - SITE	_____
SHEET P201 OVERALL UTILITY PLAN	_____
SHEET P301 SOUTHWEST QUADRANT	_____
SHEET P302 SOUTHWEST QUADRANT	_____
SHEET P303 SOUTHWEST QUADRANT	_____
SHEET P304 SOUTHWEST QUADRANT	_____
SHEET P305 WATER MAIN EXTENSION	_____
SHEET P401 STREET PLAN - C ST., 0+00 TO 9+50	_____
SHEET P402 STREET PLAN - C ST., 9+50 TO 20+00	_____
SHEET P403 STREET PLAN - C ST., 20+00 TO 25+00	_____
SHEET P404 STREET PLAN - 2ND AV., 0+00 TO 25+00	_____
SHEET P405 STREET PLAN - 3RD AV., 0+00 TO 25+00	_____
SHEET P406 STREET PLAN - 4TH AV., 0+00 TO 25+00	_____
SHEET P407 STREET PLAN - 5TH AV., 0+00 TO 25+00	_____
SHEET P408 STREET PLAN - 6TH AV., 0+00 TO 25+00	_____
SHEET P409 STREET PLAN - 7TH AV., 0+00 TO 25+00	_____
SHEET P410 STREET PLAN - 8TH AV., 0+00 TO 25+00	_____
SHEET P411 STREET PLAN - 9TH AV., 0+00 TO 25+00	_____
SHEET P412 STREET PLAN - 10TH AV., 0+00 TO 25+00	_____
SHEET P501 LOT GRADING PLAN - PHASES 1 & 2	_____
SHEET P502 LOT GRADING PLAN - PHASE 3 & C ST.	_____
SHEET P601 STRIPING, SIGNING & STREET LIGHTING PLAN	_____
SHEET P701 SITE PLAN - PHASES 1 & 2	_____
SHEET P702 SITE PLAN - PHASE 3	_____



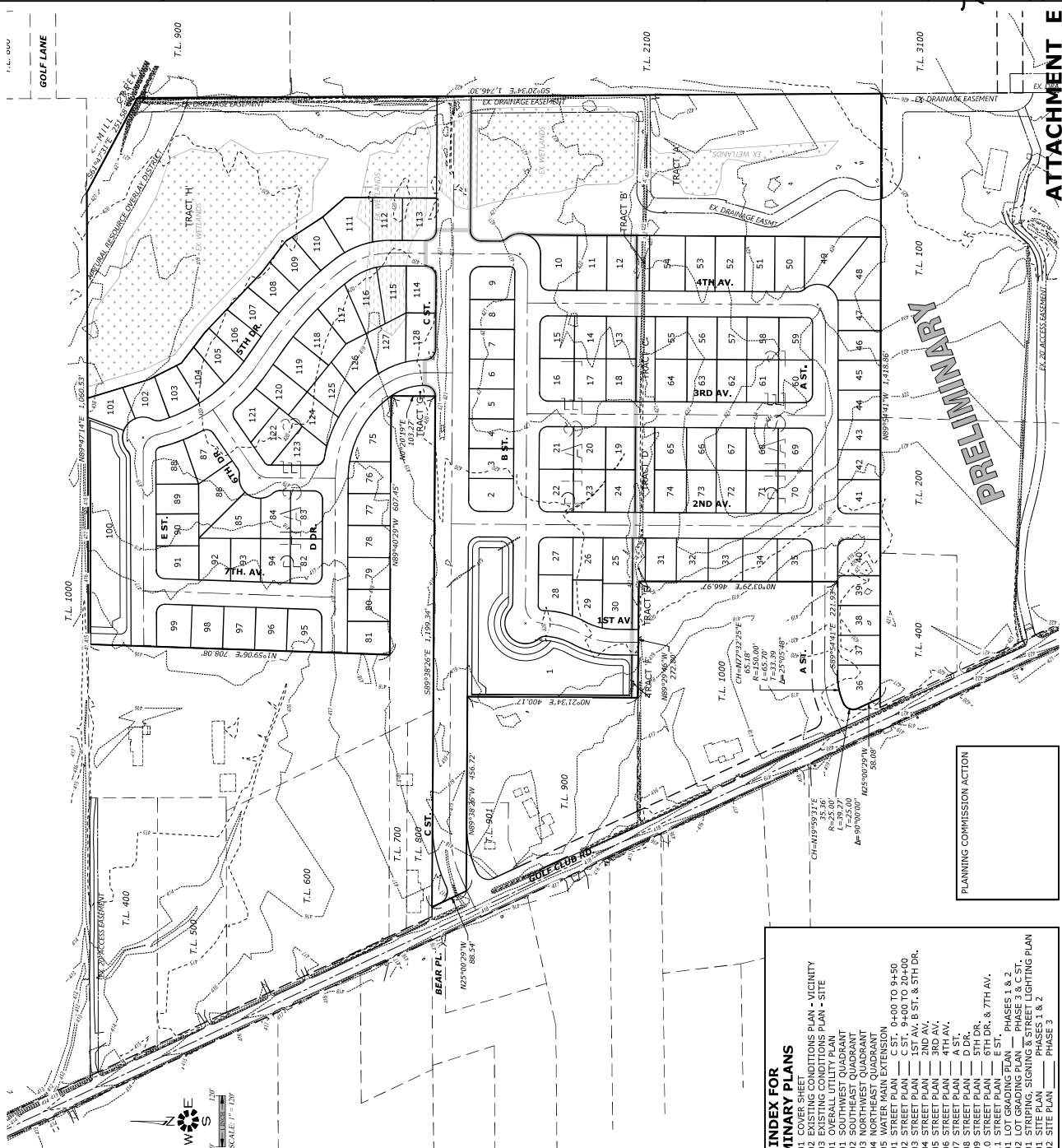
COVER SHEET

GOLF CLUB ROAD DEVELOPMENT

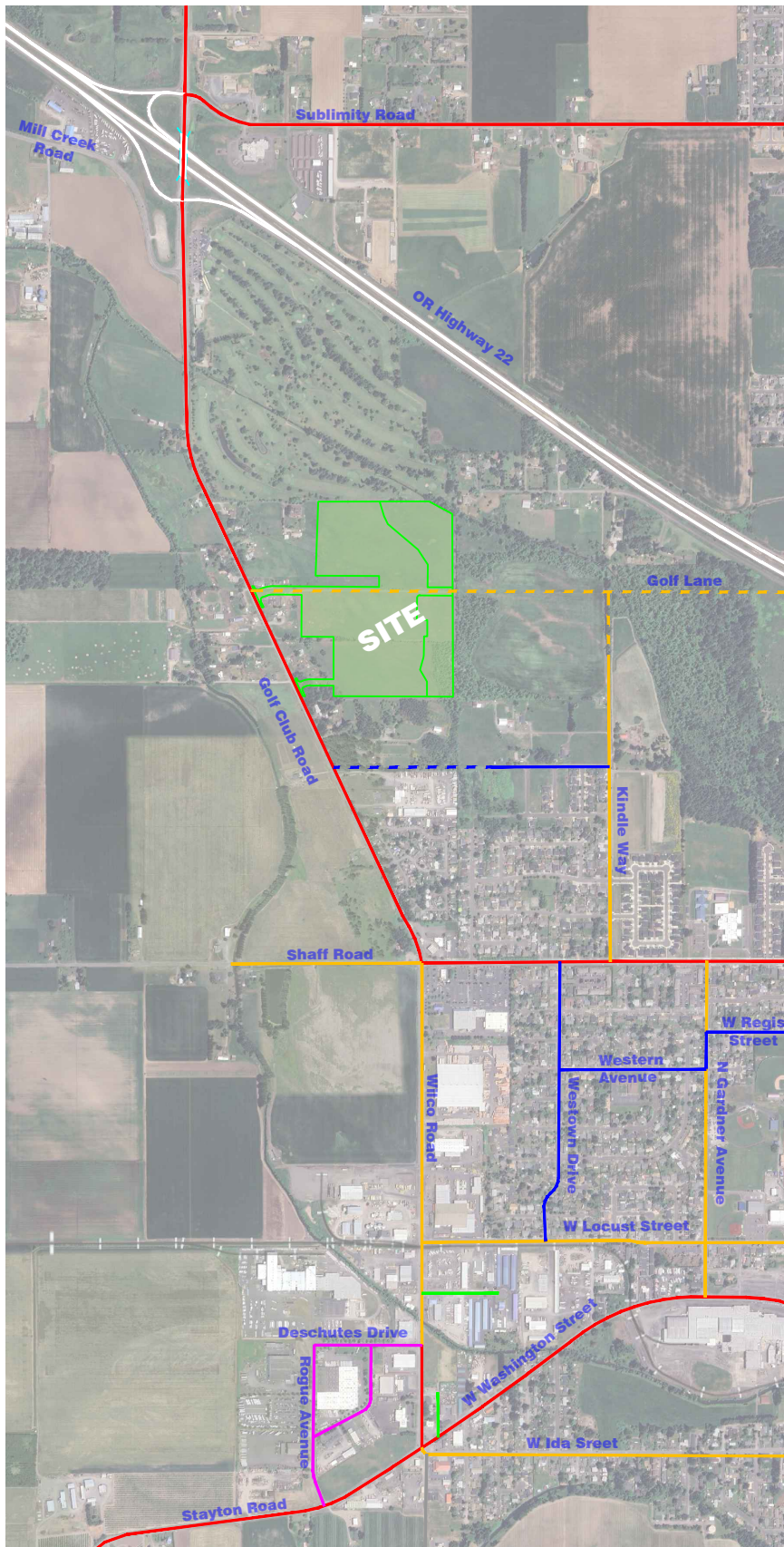
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OR REPRODUCTION TO BE
MADE TO THESE DRAWINGS
WITHOUT WRITTEN
AUTHORIZATION FROM THE
DESIGN ENGINEER.
PRECEDENCE OVER
DIMENSIONS & NOTES TAKE
GRAPHICAL REPRESENTATION.

As-Built: _____
Scale: AS SHOWN
Issue Date: 10/6/25
Checked: M.D.S.
Drawn: D.G.S.
Design: M.D.S.
DATE: 06-25-2021
JOB # 7764

P101



ATTACHMENT E



Functional Roadway Classifications

LEGEND

- State Highway
- Minor Arterial
- Collector
- Neighborhood Collector
- Commercial Local
- Industrial Local
- Residential Local
- Proposed Roadway

SITE AREA

Meyers Residential - Stayton, Oregon

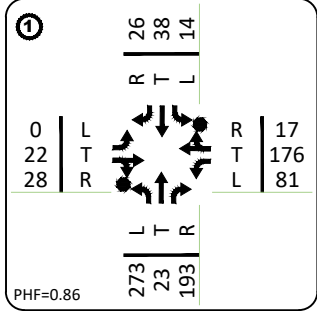
C&A Project No. 20250204.00

FIGURE

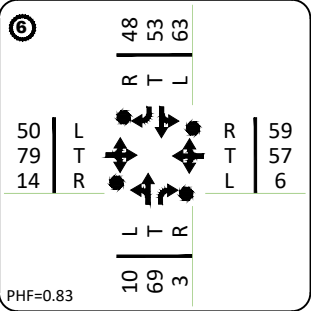
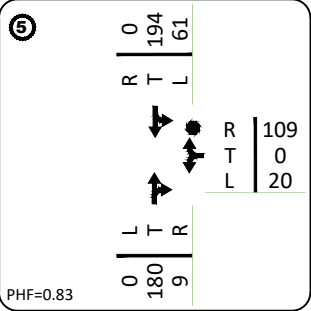
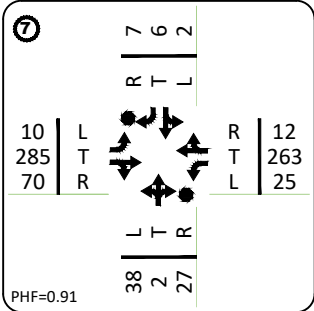
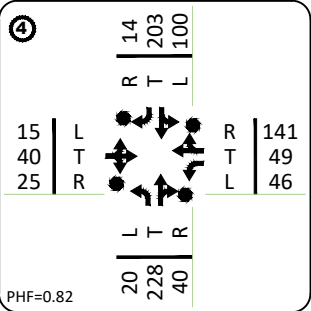
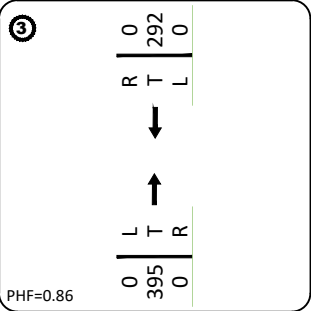
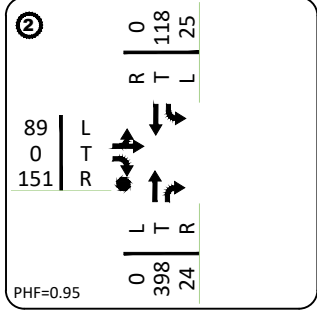
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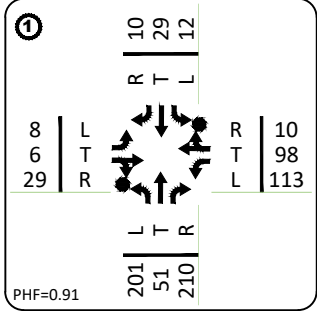
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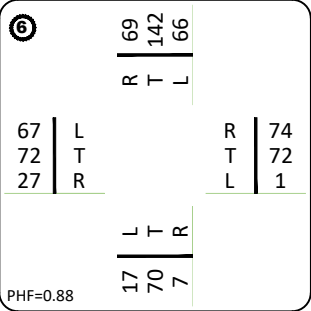
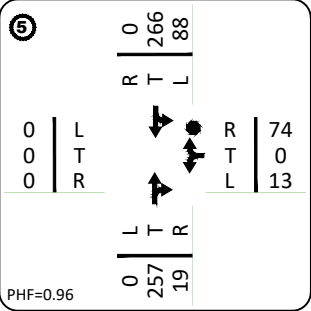
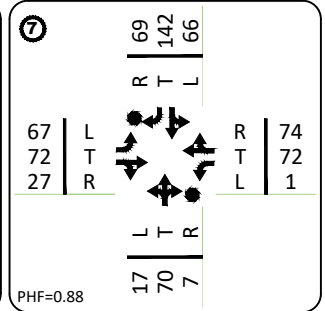
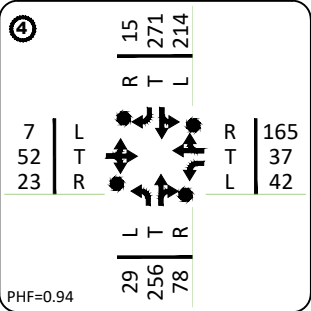
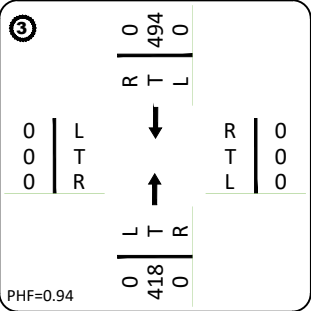
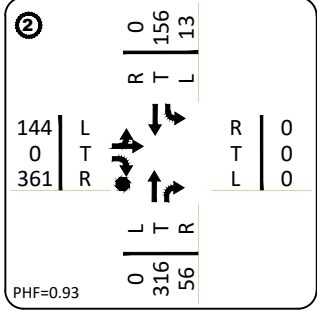
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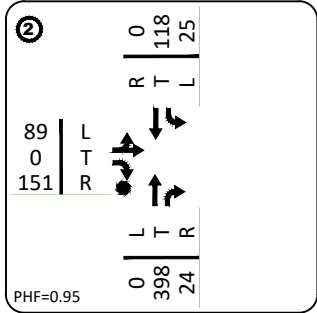
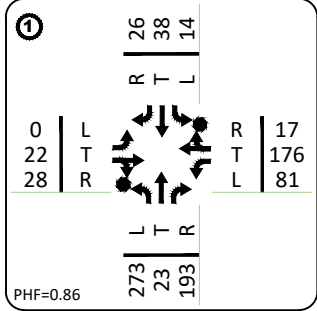


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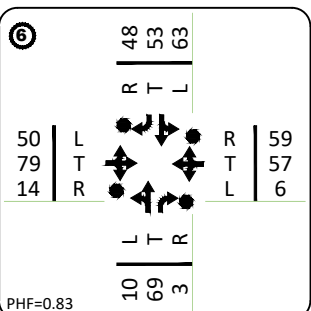
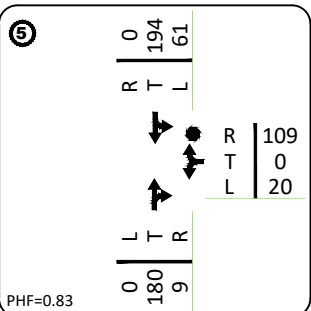
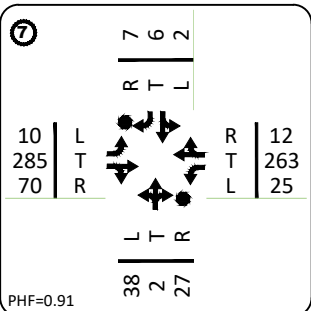
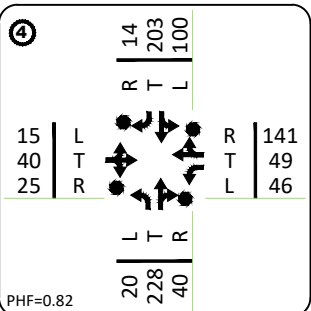
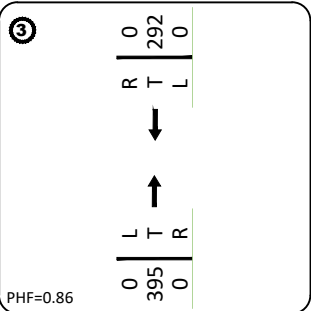




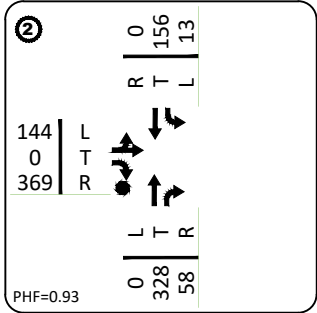
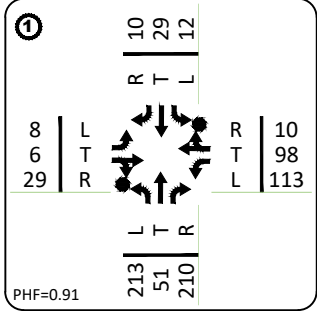
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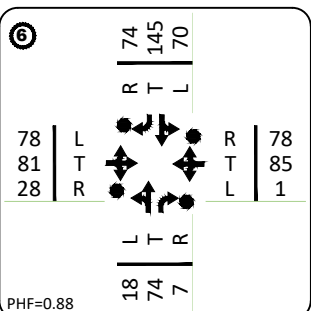
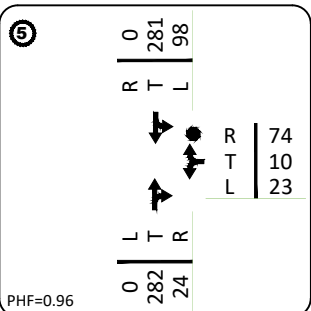
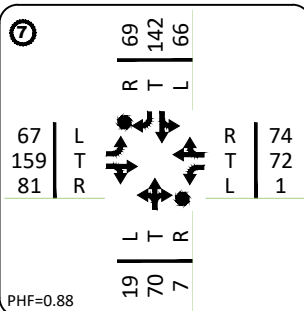
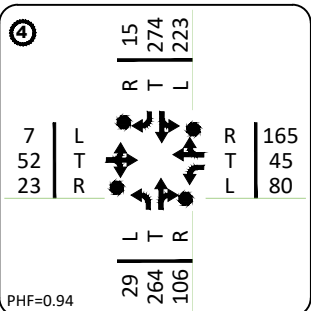
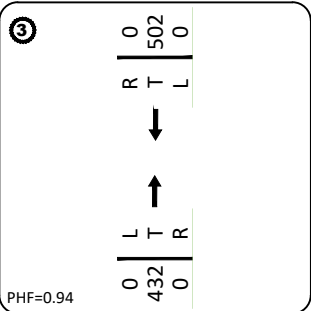
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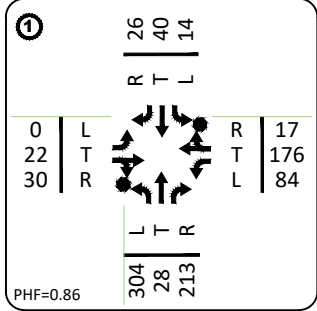


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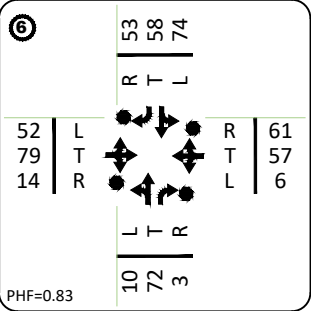
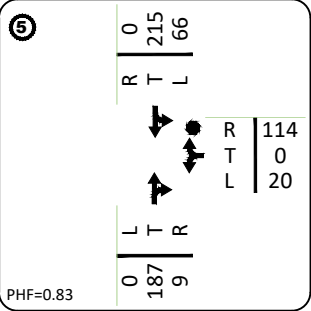
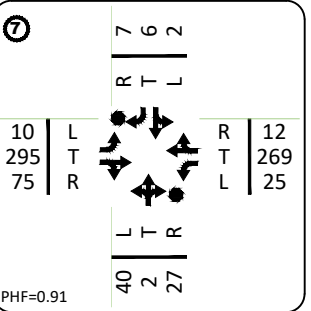
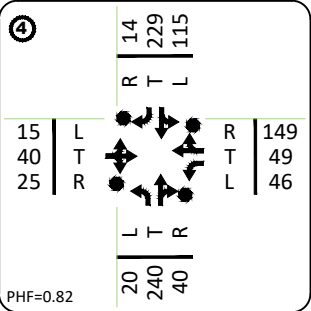
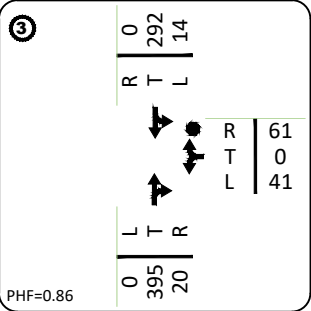
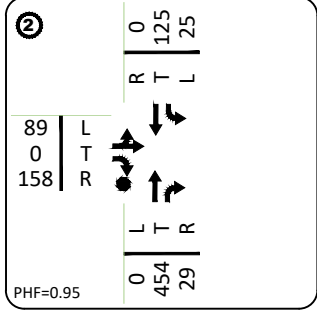




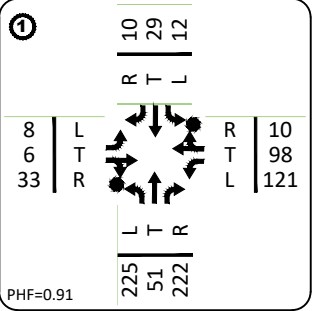
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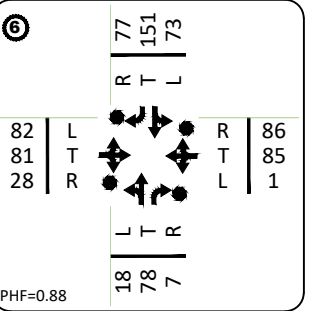
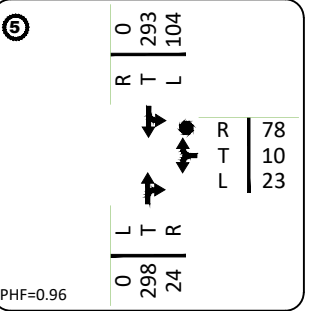
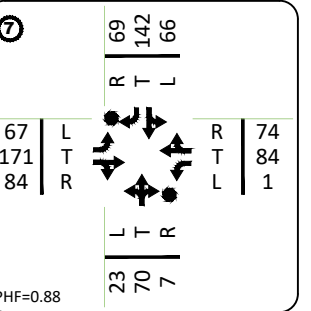
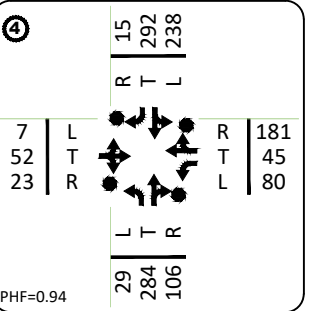
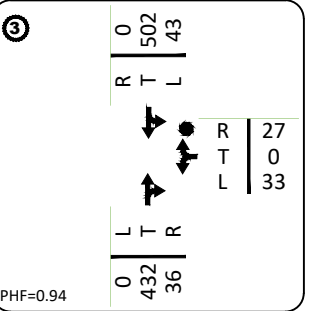
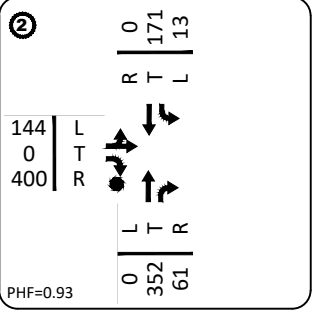
Volumes are adjusted to 30HV at the OR22 Ramp Terminal intersections.



PM Peak Hour



Volumes are adjusted to 30HV at the OR22 Ramp Terminal intersections.



Appendix B



PROJECT DESCRIPTIONS

The following section describes the intersection and safety projects listed in the motor vehicle plan in Table 8 and Table 9.

PROJECT M1: GOLF CLUB ROAD SE/SHAFF ROAD SE ROUNDABOUT

The intersection of Golf Club Road SE and Shaff Road is currently all-way stop controlled. As shown in Table 10, it currently operates at an acceptable level of service. However, based on existing vehicular volumes, this intersection meets signal warrants as prescribed in the Manual for Uniform Traffic Control Devices. Additionally, during the public engagement process, this intersection was noted to need intersection control upgrade to improve traffic flow.

Projected operations in the existing and future scenario for the no-build and roundabout alternative and cost estimates are shown in Table 10. A sketch of the roundabout alternative is shown in Figure 11.

Table 10. Weekday PM Peak Hour Operations and Evaluation (Golf Club Road/Shaff Road)

Alternative	Scenario	Delay	Level of Service	Cost Estimate
No-build	Existing	20.9	D	\$0
	2040	25.3	D	
Roundabout	Existing	8.9	A	\$2,590,000
	2040	9.9	A	

PROJECT M2: STAYTON ROAD SE / WILCO ROAD ROUNDABOUT

The Stayton Road SE/Wilco Road intersection is a five-leg intersection on the southwest edge of Stayton. It consists of two intersections in close proximity: an all-way stop- controlled intersection and a second, smaller, minor-approach stop control intersection 70 feet

southeast of the first. As shown in Table 11, it currently operates at an acceptable level of service. However, during the public engagement process, this intersection was noted as congested and in need of a traffic control upgrade. Additionally, because this intersection serves as an entrance to the city from the southwest, a more aesthetically-pleasing intersection could enhance perception of the city.

Projected operations in the existing and future scenario for the no-build and roundabout alternatives and cost estimates are shown in Table 11. A sketch of the roundabout alternative is shown in Figure 12.

Table 11. Weekday PM Peak Hour Operations and Evaluation (Stayton Road/Wilco Road)

Alternative	Scenario	Delay	Level of Service	Cost Estimate
No-build	Existing	12.0	B	\$0
	2040	13.6	B	
Roundabout	Existing	5.8	A	\$1,640,000
	2040	6.1	A	

PROJECT M3: GOLF LANE SE REALIGNMENT

Golf Lane SE should be realigned to intersect Cascade Highway directly opposite Whitney Street when traffic volumes on Golf Lane at Cascade Highway warrant a signal for safety or capacity. This is not anticipated based on the projected growth on Golf Lane which does not assume expansion of the city limits. Annexation and urban development along Golf Lane would add trips to the Cascade Highway SE/Golf Lane SE intersection and could trigger the need for the Golf Lane realignment.

The wetlands surrounding Mill Creek pose significant environmental constraints to the realignment of Golf Lane SE. Advanced engineering may be necessary to avoid or mitigate adverse wetland

Figure 11. Golf Club Road SE / Shaff Road SE Roundabout



Figure 12. Stayton Road SE / Wilco Road Roundabout



Appendix C



January 1, 2019 through December 31, 2023

INTERSECTION CRASH RATES														
Intersection	Crashes						PM Entering Volume	ADT (10xPM)	AADT (365xADT)	Annual Crashes	Crash Rate (crashes/MEV)	Reference Population	90th%ile Crash Rate	Over or Under Crash
	2019	2020	2021	2022	2023	Total								
Golf Club Road SE / OR 22 WB Ramps / Sublimity Road	1	2	3	6	3	15	789	7,890	2,879,850	3.00	1.042	Rural 4ST	1.080	Over
Golf Club Road SE / OR 22 EB Ramps	2	2	0	1	0	5	1,068	10,680	3,898,200	1.00	0.257	Rural 3ST	0.475	Under
Golf Club Road SE / Shaff Road SE / Wilco Road	1	1	0	1	1	4	1,283	12,830	4,682,950	0.80	0.171	Urban 4ST	0.408	Under
Wilco Road / W Locust Street	0	1	1	0	0	2	792	7,920	2,890,800	0.40	0.138	Urban 3ST	0.293	Under
Wilco Road / W Washington Street	2	1	1	1	1	6	739	7,390	2,697,350	1.20	0.445	Urban 4ST	0.408	Over
Shaff Road SE / N Gardner Avenue	1	1	1	0	0	3	827	8,270	3,018,550	0.60	0.199	Urban 4ST	0.408	Under



Intersection crash rates also need to be compared to the published statewide 90th percentile intersection crash rates in Exhibit 4-1. Any rates close to or over the 90th percentile rates need to be flagged for further analysis. The intersection crash rate is calculated by the following formula:

$$\text{Intersection Crash Rate per MEV} = \frac{\text{Annual Number of Crashes} \times 10^6}{(\text{AADT}) \times (365 \text{ days/year})}$$

The values shown in Exhibit 4-1 represent the 90th percentile crash rates from a study of 500 intersections in Oregon. The crash rates are grouped by rural/urban, signalized/unsignalized, and three-leg/four-leg intersections. Intersections with crash rates that exceed the 90th percentile values shown in this table should be flagged for further analysis. For more information on crash rates and using this table, see Section 4.3.4 Critical Crash Rate.

Exhibit 4-1: Intersection Crash Rates per MEV by Land Type and Traffic Control

	Rural				Urban			
	3SG	3ST	4SG	4ST	3SG	3ST	4SG	4ST
No. of Intersections	7	115	20	60	55	77	106	60
Mean Crash Rate	0.226	0.196	0.324	0.434	0.275	0.131	0.477	0.198
Median Crash Rate	0.163	0.092	0.320	0.267	0.252	0.105	0.420	0.145
Standard Deviation	0.185	0.314	0.223	0.534	0.155	0.121	0.273	0.176
Coefficient of Variation	0.819	1.602	0.688	1.230	0.564	0.924	0.572	0.889
90 th Percentile Rate	0.464	0.475	0.579	1.080	0.509	0.293	0.860	0.408

Source: *Assessment of Statewide Intersection Safety Performance, FHWA-OR-RD-18, Portland State University and Oregon State University, June 2011, Table 4.1, p. 47.*

Note: Traffic control types include

- 3SG (three-leg signalized),
- 3ST (three-leg minor stop-control),
- 4SG (four-leg signalized),
- 4ST (four-leg minor stop-control).

For intersections other than the configurations shown in Exhibit 4-1, there are usually too few locations with that intersection configuration to provide statewide statistics. There are some stop controlled intersection configurations that could be approximated as indicated in Exhibit 4-2 and Exhibit 4-3 below. Any other intersection configurations not in Exhibit 4-1, Exhibit 4-2, or Exhibit 4-3 should by default be flagged for further analysis, since the unusual configuration is likely to warrant a closer look at the crashes.

162: NORTH SANTIAM

Highway 162 ALL ROAD TYPES, MP 11.25 to 11.76 01/01/2019 to 12/31/2023, Both Add and Non-Add mileage, ALL Crashes Severity, ALL Crashes Circumstance

1 - 6

of

26 Crash records shown.

SER#	P	R	J	S	W	DATE	COUNTY	RD#	FC	CONN#	RD	CHAR	INT-TYPE	SPCL	USE																	
INVEST	E	A	U	I	C	O	CITY	COMPNT	FIRST	STREET	DIRECT	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE													
RD DPT	E	L	G	N	H	R	URBAN AREA	MLG	TYP	SECOND	STREET	LOCTN	LEGS	TRAF-			OWNER	FROM	PRTC	INJ	G	E	LICNS	PED								
UNLOC?	D	C	S	V	L	K	LONG	MILEPNT	LRS				(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE	
00902	N	N	N	N			03/14/2023		1	14		STRGHT	N		N	FOG	S-STRGHT	01	NONE	0	STRGHT									124	12	
NONE							TU	MN	0		UN	(DIVMD)	UNKNOWN		N	ICE	SS-0		PRVTE		W	-E						000	124	00		
Y							6A	11.35			03				N	DARK	INJ		PSNGR	CAR		01	DRVR	NONE	37	M	OR-Y		080	017	12	
N							44 49 54.26	-122 49 35.16		016200100S00		(04)													OR<25							
																		02	NONE	0	STRGHT								000		00	
																			PRVTE		W	-E	01	DRVR	INJC	60	F	OR-Y		000	000	00
																			PSNGR	CAR						OR<25					000	000
02601	N	N	N	N	N	N	08/28/2020		1	14		STRGHT	N		Y	CLR	FIX OBJ	01	NONE	9	STRGHT									120	16,27	
STATE							FR	MN	0		UN	(DIVMD)	UNKNOWN		N	DRY	FIX		N/A		W	-E							000	000	00	
Y							4P	11.46			01				N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 49 50.94	-122 49 28.62		016200100S00		(04)																				000
00276	N	Y	N	N	N	N	01/20/2020		1	14		STRGHT	N		Y	CLR	FIX OBJ	01	NONE	0	STRGHT									079,010	10	
COUNTY							MO	MN	0		UN	(DIVMD)	UNKNOWN		N	DRY	FIX		PRVTE		W	-E							000	079,010	00	
Y							4A	11.47			01				N	DLIT	INJ		PSNGR	CAR		01	DRVR	INJB	22	F	OR-Y		081	000		10
N							44 49 50.65	-122 49 28.01		016200100S00		(04)														OR<25						
02159	N	N	Y	N	N	N	07/24/2020		1	14		STRGHT	N		Y	CLR	FIX OBJ	01	NONE	9	STRGHT									120	10	
STATE							FR	MN	0		UN	(DIVMD)	UNKNOWN		N	DRY	FIX		N/A		W	-E								000	000	00
Y							11P	11.69			06				N	DARK	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 49 43.99	-122 49 14.9		016200100S00		(04)																				000
03754	N	N	N	N	N	N	12/12/2020		1	14	1	CURVE	N		N	CLR	0-STRGHT	01	NONE	0	STRGHT									15,27		
STATE							SA	CN	0		UN	(NONE)	ONE-WAY		N	DRY	HEAD		PRVTE		E	-W							000	000	00	
N							8P	11.53			03				N	DARK	INJ		PSNGR	CAR		01	DRVR	INJB	62	M	OR-Y		046	038		15,27
N							44 49 46.43	-122 49 27.47		0162BF100S00		(01)														OR>25						
																			01	NONE	0	STRGHT								000	000	00
																			PRVTE		E	-W	02	PSNG	INJB	83	M			000	000	00
																			PSNGR	CAR												
																			02	NONE	0	STRGHT								000	000	00
																			PRVTE		W	-E	01	DRVR	INJC	71	M	OR-Y		000	000	00
																			PSNGR	CAR						OR<25						
																			02	NONE	0	STRGHT								000	000	00
																			PRVTE		W	-E	02	PSNG	INJC	35	F			000	000	00
																			PSNGR	CAR												
																			02	NONE	0	STRGHT								000	000	00
																			PRVTE		W	-E	03	PSNG	INJC	57	M			000	000	00
																			PSNGR	CAR												
01081	N	N	N	N			04/09/2021		1	14	4	INTER	5-LEG	N		CLR	ANGL-OTH	01	NONE	9	STRGHT									32,02		
STATE							FR	CN	0		CN		STOP SIGN		N	DRY	ANGL		N/A		E	-W								000	000	00
N							1P	11.53			01	0			N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 49 55.62	-122 49 24.21		0162BI100S00																						000
																			02	NONE	9	STRGHT								000	000	00
																			N/A		N	-S	01	DRVR	NONE	00	Unk	UNK		000	000	00
																			PSNGR	CAR												000

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162: NORTH SANTIAM

Highway 162 ALL ROAD TYPES, MP 11.25 to 11.76 01/01/2019 to 12/31/2023, Both Add and Non-Add mileage, ALL Crashes Severity, ALL Crashes Circumstance

7 - 10 of 26 Crash records shown.

[illegible]

CITY OF STAYTON, MARION COUNTY																									
GOLF CLUB RD and Intersectional Crashes at GOLF CLUB RD, City of Stayton, Marion County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2019 to 12/31/2023																									
1 - 5 of 8 Crash records shown.																									
SER#	S	D	M	P	R	J	S	W	DATE	CLASS	CITY STREET	INT-TYPE	SPCL USE												
INVEST	E	A	U	I	C	O	DAY			DIST	FIRST STREET	RD CHAR	TRLR QTY	MOVE											
RD DPT	E	L	G	N	H	R	TIME			FROM	SECOND STREET	DIRECT	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED					
UNLOC?	D	C	S	V	L	K	LAT			LONG	LRS	LOCTN	V#	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE
00554	N	N	N	N			02/19/2022			16	GOLF CLUB RD	INTER	01 NONE 0	STRGHT											17
CITY							SA			0	SHAFF RD	N		N -S									000	00	
N							11A					06	0										028	17	
N							44 48 35.24			-122 48 53.31															
													02 NONE 0	STRGHT									006	00	
													PRVTE	N -S									000	00	
													PSNGR CAR		01	DRVR	INJC	39	F	OR-Y		000	000	00	
04593	N	N	N	N			11/25/2023			16	GOLF CLUB RD	INTER	01 NONE 9	TURN-L									079	10	
NONE							SA			0	SHAFF RD	W		S -W									000	00	
N							3A					05	0										000	00	
N							44 48 35.24			-122 48 53.3															
05232	N	N	N	N	N	N	12/26/2019			16	GOLF CLUB RD	INTER	01 NONE 0	STRGHT										03	
CITY							TH			0	SHAFF RD	CN		N -S									000	00	
N							5P					01	0										000	03	
N							44 48 35.25			-122 48 53.32															
													02 NONE 0	STRGHT									000	00	
													PRVTE	E -W									000	00	
													PSNGR CAR		01	DRVR	INJC	47	F	OR-Y		000	000	00	
													02 NONE 0	STRGHT									000	00	
													PRVTE	E -W									000	00	
													PSNGR CAR		02	PSNG	INJC	11	M			000	000	00	
01482	N	N	N	N			05/19/2020			16	GOLF CLUB RD	INTER	01 NONE 9	TURN-L										08	
NO RPT							TU			0	SHAFF RD	CN		S -W									000	00	
N							12P					01	0										000	00	
N							44 48 35.23			-122 48 53.3															
													02 NONE 9	TURN-L											
													N/A	S -W									000	00	
													PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00	
02123	N	N	N	N	N	N	06/05/2019			16	GOLF CLUB RD	STRGHT	01 NONE 0	STRGHT										07, 27	
CITY							WE			83	SHAFF RD	N		N -S									000	00	
N							5P					08											038	07, 27	
N							44 48 36.4			-122 48 53.54															
													02 NONE 0	STOP									011	00	
													PRVTE	N -S									000	00	
													PSNGR CAR		01	DRVR	INJC	31	F	OR-Y		000	000	00	

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CITY OF STAYTON, MARION COUNTY

GOLF CLUB RD and Intersectional Crashes at GOLF CLUB RD, City of Stayton, Marion County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2019 to 12/31/2023

6 - 8 of 8 Crash records shown.

SER#	P	R	J	S	W	DATE	CLASS	CITY STREET	RD CHAR	INT-TYPE	INT-REL	OFFRD	WTHR	CRASH	SPCL USE	MOVE	A	S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</
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CITY OF STAYTON, MARION COUNTY

SHAFF RD at WILCO RD, City of Stayton, Marion County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2019 to 12/31/2023

1 - 2 of 2 Crash records shown.

[illegible]

Appendix D



30 HV Using On-Site ATR Method (APM V2 5.5.1)

Aumsville

ATR 24-005

OR22; NORTH SANTIAM HIGHWAY NO. 162; 1.08 miles east of Shaw Highway Interchange

Year	August (Peak Month) AWT				March (Count Month) AWD				Notes:
	Average Weekday Traffic	% of AADT	Annual Change Previous Year	2019 to 2023	Average Weekday Traffic	% of AADT	Annual Change Previous Year	2019 to 2023	
2019	26,620	116.163	—		22,513	98.2414	—		
2020	26,364	128	-0.96%		19,757	96	-12.24%		
2021	25,109	112.44	-4.76%	-0.50%	23,548	105.45	19.19%	-0.07%	
2022	25,487	116.768	1.51%		22,849	104.682	-2.97%		
2023	26,089	116.354	2.36%		22,451	100.129	-1.74%		

Average % of AADT 116.429

Seasonal Adjustment = August / March

101.018 High and low %s eliminated. Average % is remaining 3 years.
1.15



When using the ATR Summaries from the TVT's, the analyst should note both the average weekday and average daily percentages. Average weekday traffic (AWD) percentages include values for Monday through Thursday while average daily traffic (ADT) includes all days of the week. When there is little variation between the AWD and ADT percentages, using AWD supports the notion that the peak is likely on an average weekday. If the ADT is much larger than the AWD, then the peak is likely on a weekend day, so use the ADT Percentage. Check the Weekly Traffic Trend column from the ATR Characteristic table to aid in this calculation.

Intersection 1	Golf Club Road SE	OR 22 WB Ramps / Sublimity Ro	Development Volumes
Intersection 2	Golf Club Road SE	OR 22 EB Ramps	
Intersection 3	Golf Club Road SE	Site Access	
Intersection 4	Golf Club Road SE	Shaff Road SE / Wilco Road	
Intersection 5	Wilco Road	W Locust Street	
Intersection 6	Wilco Road	W Washington Street	
Intersection 7	Shaff Road SE	N Gardner Avenue	
Intersection 8	Golf Club Road SE	OR 22 WB Ramps / Sublimity Ro	Base Volumes
Intersection 9	Golf Club Road SE	OR 22 EB Ramps	
Intersection 10	Golf Club Road SE	Site Access	
Intersection 11	Golf Club Road SE	Shaff Road SE / Wilco Road	
Intersection 12	Wilco Road	W Locust Street	
Intersection 13	Wilco Road	W Washington Street	
Intersection 14	Shaff Road SE	N Gardner Avenue	
Intersection 15			
Roadway 1		Roadway 2	

Master Intersection List

Intersection 1				Golf Club Road SE			OR 22 WB Ramps / Sublimity Road			System AM peak hour 7:30-8:30AM							
ALL-VEHICLE VOLUMES															Hourly Totals	All Ints	Cells shaded this color have manual inp
Time Period	NBL	NBT	NBR	PHF =	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
				0.86													
7:00 AM	54	2	21	0	5	12	0	1	5	7	36	0	143				
7:15 AM	65	6	23	1	3	5	1	0	6	8	40	1	159				
7:30 AM	78	6	29	3	14	8	0	2	8	8	43	3	202				
7:45 AM	51	6	43	4	10	5	0	2	7	17	39	5	189	693	3961		
8:00 AM	57	5	32	0	3	8	0	5	7	10	27	4	158	708	4129		
8:15 AM	51	3	64	5	6	2	0	10	2	35	44	3	225	774	4226		
8:30 AM	42	4	27	2	5	5	0	3	3	23	42	1	157	729	4000		
8:45 AM	35	4	28	1	5	3	0	5	6	9	20	1	117	657	3621		
2025 30HV AM	273	23	193	14	38	26	0	22	28	81	176	17			2025	Traffic Count Base Year	
Background Growth															1.15	30 HV Adjustment	
2030 Pre-Dev AM	273	23	193	14	38	26	0	22	28	81	176	17					
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2030	Pre-Development Year	
Dev Vs	31	5	20		2				2	3					891	Entering Intersection Volume	
% of Dev	30%	5%	20%		5%				5%	10%					63	Development Trips	
															7.07%	Trip Volume Increase	
2030 Post-Dev AM	304	28	213	14	40	26	0	22	30	84	176	17					
Intersection 2				Golf Club Road SE			OR 22 EB Ramps			System AM peak hour 7:30-8:30AM							
ALL-VEHICLE VOLUMES															Hourly Totals	Cells shaded this color have manual inp	
Time Period	NBL	NBT	NBR	PHF =	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
				0.95													
7:00 AM	0	74	0	3	14	0	10	0	16	0	0	0	117				
7:15 AM	0	74	2	1	17	0	17	0	37	0	0	0	148				
7:30 AM	0	98	3	7	24	0	14	0	30	0	0	0	176				
7:45 AM	0	81	7	4	28	0	19	0	46	0	0	0	185	626			
8:00 AM	0	83	8	1	20	0	14	0	28	0	0	0	154	663			
8:15 AM	0	84	3	10	31	0	30	0	27	0	0	0	185	700			
8:30 AM	0	63	9	5	27	0	13	0	28	0	0	0	145	669			
8:45 AM	0	47	7	2	18	0	17	1	20	0	0	0	112	596			
2025 30HV AM	0	398	24	25	118	0	89	0	151	0	0	0			2025	Traffic Count Base Year	
Background Growth															1.15	30 HV Adjustment	
2030 Pre-Dev AM	0	398	24	25	118	0	89	0	151	0	0	0					
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2030	Pre-Development Year	
Dev Vs		56	5		7				7						805	Entering Intersection Volume	
% of Dev		55%	5%		20%				20%						75	Development Trips	
															9.32%	Trip Volume Increase	
2030 Post-Dev AM	0	454	29	25	125	0	89	0	158	0	0	0					

Development Volumes

Development Volumes

Intersection 3			Golf Club Road SE			Site Access		System AM peak hour 7:30-8:30AM								
ALL-VEHICLE VOLUMES																
			PHF =			0.86										
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Hourly Totals	Cells shaded this color have manual input	
7:00 AM		72			46								118			
7:15 AM		85			71								156			
7:30 AM		103			96								199		Site Access	
7:45 AM		115			72								187	660		
8:00 AM		99			57								156	698		
8:15 AM		78			67								145	687		
8:30 AM		59			56								115	603		
8:45 AM		62			65								127	543		
2025 AM Vs	0	395	0	0	292	0	0	0	0	0	0	0		2025	Traffic Count Base Year	
Background Growth																
2030 Pre-Dev AM	0	395	0	0	292	0	0	0	0	0	0	0		2030	Pre-Development Year	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR				
Dev Vs			20		14					41		61			687 Entering Intersection Volume	
% of Dev			60%		40%					40%		60%			136 Development Trips	
2030 Post-Dev AM	0	395	20	14	292	0	0	0	0	41	0	61			19.80% Trip Volume Increase	
Intersection 4			Golf Club Road SE			Shaff Road SE / Wilco Road		System AM peak hour 7:30-8:30AM								
ALL-VEHICLE VOLUMES																
			PHF =			0.82										
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Hourly Totals	Cells shaded this color have manual input	
7:00 AM	5	35	3	14	25	1	0	4	0	11	9	27	134			
7:15 AM	5	48	5	25	39	1	0	5	2	7	14	33	184			
7:30 AM	5	56	14	38	67	9	3	10	3	8	26	33	272			
7:45 AM	10	72	11	25	55	4	5	14	11	19	13	41	280	870		
8:00 AM	0	52	6	14	38	1	4	12	10	14	6	42	199	935		
8:15 AM	5	48	9	23	43	0	3	4	1	5	4	25	170	921		
8:30 AM	3	40	13	15	46	3	1	5	3	11	2	25	167	816		
8:45 AM	2	34	10	19	43	2	0	7	2	9	4	17	149	685		
2025 AM Vs	20	228	40	100	203	14	15	40	25	46	49	141		2025	Traffic Count Base Year	
Background Growth																
2030 Pre-Dev AM	20	228	40	100	203	14	15	40	25	46	49	141		2030	Pre-Development Year	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR				
Dev Vs		12		15	26							8			921 Entering Intersection Volume	
% of Dev		35%		15%	25%							25%			61 Development Trips	
2030 Post-Dev AM	20	240	40	115	229	14	15	40	25	46	49	149			6.62% Trip Volume Increase	

Development Volumes

Development Volumes

Intersection 5			Wilco Road			W Locust Street			System AM peak hour 7:30-8:30AM							
ALL-VEHICLE VOLUMES			PHF =			0.83									Hourly	
Time Period			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals
7:00 AM			0	34	0	5	29	0	0	0	0	0	0	17	85	528 572 573 541 468
7:15 AM			0	46	0	12	37	0	0	0	0	4	0	18	117	
7:30 AM			0	52	2	24	47	0	0	0	0	4	0	25	154	
7:45 AM			0	40	3	18	57	0	0	0	0	6	0	48	172	
8:00 AM			0	37	2	10	52	0	0	0	0	6	0	22	129	
8:15 AM			0	51	2	9	38	0	0	0	0	4	0	14	118	
8:30 AM			0	45	3	15	44	0	0	0	0	2	0	13	122	
8:45 AM			0	33	2	10	42	0	0	0	0	1	0	11	99	
2025 AM Vs			0	180	9	61	194	0	0	0	0	20	0	109	2025 Traffic Count Base Year	
Background Growth																
2030 Pre-Dev AM			0	180	9	61	194	0	0	0	0	20	0	109	2030 Pre-Development Year	
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
Dev Vs			7			5			21			5			573 Entering Intersection Volume	
% of Dev			20%			5%			20%			15%			38 Development Trips	
2030 Post-Dev AM			0	187	9	66	215	0	0	0	0	20	0	114	6.63% Trip Volume Increase	
Intersection 6			Wilco Road			W Washington Street			System AM peak hour 7:30-8:30AM							
ALL-VEHICLE VOLUMES			PHF =			0.83									Hourly	
Time Period			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals
7:00 AM			1	17	2	3	7	13	6	15	1	1	10	11	87	497 521 511 475 419
7:15 AM			4	16	0	4	9	12	14	18	4	1	12	15	111	
7:30 AM			4	26	1	11	12	17	11	34	2	1	11	16	146	
7:45 AM			2	19	2	25	21	7	12	21	6	2	21	15	153	
8:00 AM			2	8	0	17	9	15	13	9	5	0	16	17	111	
8:15 AM			2	16	0	10	11	9	14	15	1	3	9	11	101	
8:30 AM			4	16	0	18	11	8	12	11	3	1	9	16	110	
8:45 AM			2	20	0	11	15	4	5	12	7	1	9	11	97	
2025 AM Vs			10	69	3	63	53	48	50	79	14	6	57	59	2025 Traffic Count Base Year	
Background Growth																
2030 Pre-Dev AM			10	69	3	63	53	48	50	79	14	6	57	59	2030 Pre-Development Year	
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
Dev Vs			3			11			5			2			511 Entering Intersection Volume	
% of Dev			10%			10%			5%			5%			28 Development Trips	
2030 Post-Dev AM			10	72	3	74	58	53	52	79	14	6	57	61	5.48% Trip Volume Increase	

Development Volumes

Development Volumes

Intersection 7			Shaff Road SE			N Gardner Avenue			System AM peak hour 7:30-8:30AM							
ALL-VEHICLE VOLUMES						PHF = 0.91									Hourly	
Time Period			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Hourly Totals
7:00 AM			12	5	9	4	5	5	1	89	13	7	62	0	212	
7:15 AM			8	0	10	0	0	3	0	81	7	6	73	0	188	
7:30 AM			8	0	9	1	2	0	1	68	17	4	70	1	181	
7:45 AM			11	0	10	0	3	4	1	61	14	5	56	1	166	747
8:00 AM			12	0	5	1	0	1	4	79	12	7	72	2	195	730
8:15 AM			7	2	3	0	1	2	4	77	27	9	65	8	205	747
8:30 AM			18	5	13	7	4	7	4	67	17	5	52	5	204	770
8:45 AM			15	2	11	1	0	0	0	69	19	10	64	1	192	796
2025 AM Vs			38	2	27	2	6	7	10	285	70	25	263	12		2025 Traffic Count Base Year
Background Growth																
2030 Pre-Dev AM			38	2	27	2	6	7	10	285	70	25	263	12		2030 Pre-Development Year
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
Dev Vs			2						10	5		6				747 Entering Intersection Volume
% of Dev			5%						10%	5%		20%				23 Development Trips
2030 Post-Dev AM			40	2	27	2	6	7	10	295	75	25	269	12		3.08% Trip Volume Increase

Development Volumes

Intersection 1 **Golf Club Road SE** **OR 22 WB Ramps / Sublimity Road** System PM peak hour 4:15-5:15

ALL-VEHICLE VOLUMES

Time Period	NBL	NBT	NBR	PHF =	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total
				0.91										
4:00 PM	39	12	51		3	4	5	1	1	9	23	27	1	176
4:15 PM	35	10	56		2	4	0	0	2	1	32	21	3	166
4:30 PM	51	11	44		3	5	2	1	3	10	21	32	3	186
4:45 PM	41	11	40		2	10	2	3	0	7	23	9	1	149
5:00 PM	48	12	43		3	6	5	3	0	7	22	23	2	174
5:15 PM	41	14	45		3	4	3	2	1	6	13	14	4	150
5:30 PM	45	16	39		0	6	4	2	0	4	20	22	1	159
5:45 PM	27	15	42		3	8	1	0	0	4	13	7	1	121
2025 30HV PM	201	51	210		12	29	10	8	6	29	113	98	10	
Background Growth	12													
2030 Pre-Dev PM	213	51	210		12	29	10	8	6	29	113	98	10	
	NBL	NBT	NBR		SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
Dev Vs	12		12							4	8			
% of Dev	20%		20%							5%	10%			
2030 Post-Dev PM	225	51	222		12	29	10	8	6	33	121	98	10	

Hourly
Totals

For Background Growth: Conservatively added all TSP plan year growth to the development build-out year traffic volumes at all intersections.

4859

4859

4779

4686

4450

2025 Traffic Count Base Year

1.15 30 HV Adjustment

2030 Pre-Development Year

789 Entering Intersection Volume

36 Development Trips

4.56% Trip Volume Increase

Development Volumes

Intersection 2 **Golf Club Road SE** **OR 22 EB Ramps** System PM peak hour 4:15-5:15

ALL-VEHICLE VOLUMES

Time Period	NBL	NBT	NBR	PHF =	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total
				0.93										
4:00 PM	0	69	4		6	30	0	35	1	64	0	0	0	209
4:15 PM	0	59	11		3	34	0	38	0	80	0	0	0	225
4:30 PM	0	75	13		5	31	0	31	0	69	0	0	0	224
4:45 PM	0	67	9		0	40	0	27	0	101	0	0	0	244
5:00 PM	0	74	16		3	31	0	29	0	64	0	0	0	217
5:15 PM	0	62	16		1	23	0	39	0	92	0	0	0	233
5:30 PM	0	63	7		1	19	0	45	0	82	0	0	0	217
5:45 PM	0	55	9		0	18	0	36	0	72	0	0	0	190
2025 30HV PM	0	316	56		13	156	0	144	0	361	0	0	0	
Background Growth	12	2						8						
2030 Pre-Dev PM	0	328	58		13	156	0	144	0	369	0	0	0	
	NBL	NBT	NBR		SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
Dev Vs	24	3			15			31						
% of Dev	40%	5%			15%			40%						
2030 Post-Dev PM	0	352	61		13	171	0	144	0	400	0	0	0	

Hourly
Totals

Cells shaded this color have manual input

2025 Traffic Count Base Year

1.15 30 HV Adjustment

2030 Pre-Development Year

1068 Entering Intersection Volume

73 Development Trips

6.84% Trip Volume Increase

Development Volumes

Intersection 3			Golf Club Road SE			Site Access			System PM peak hour 4:15-5:15						Hourly Totals	Cells shaded this color have manual input
ALL-VEHICLE VOLUMES			PHF = 0.94													
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
4:00 PM		102			96								198			
4:15 PM		99			121								220			
4:30 PM		108			113								221			
4:45 PM		96			132								228	867		
5:00 PM		115			128								243	912		
5:15 PM		92			133								225	917		
5:30 PM		85			119								204	900		
5:45 PM		78			101								179	851		
2025 PM Vs	0	418	0	0	494	0	0	0	0	0	0	0	2025 Traffic Count Base Year			
Background Growth		14			8											
2030 Pre-Dev PM	0	432	0	0	502	0	0	0	0	0	0	0	2030 Pre-Development Year			
Dev Vs			36		43							33		27	934 Entering Intersection Volume	
% of Dev			45%		55%							55%		45%	139 Development Trips	
0															14.88% Trip Volume Increase	
2030 Post-Dev PM	0	432	36	43	502	0	0	0	0	33	0	27				
Intersection 4			Golf Club Road SE			Shaff Road SE / Wilco Road			System PM peak hour 4:15-5:15						Hourly Totals	Cells shaded this color have manual input
ALL-VEHICLE VOLUMES			PHF = 0.94													
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
4:00 PM	9	63	14	44	63	1	2	11	10	17	7	41	282			
4:15 PM	3	63	24	43	73	6	0	12	5	11	8	36	284			
4:30 PM	3	67	20	65	58	2	4	8	8	13	16	51	315			
4:45 PM	10	54	16	62	77	4	1	17	5	8	7	40	301	1182		
5:00 PM	13	72	18	44	63	3	2	15	5	10	6	38	289	1189		
5:15 PM	13	47	18	62	70	3	1	19	8	12	16	44	313	1218		
5:30 PM	4	45	13	52	61	4	1	23	7	13	7	41	271	1174		
5:45 PM	6	43	13	62	52	1	3	16	5	8	8	31	248	1121		
2025 PM Vs	29	256	78	214	271	15	7	52	23	42	37	165	2025 Traffic Count Base Year			
Background Growth		8	28	9	3					38	8					
2030 Pre-Dev PM	29	264	106	223	274	15	7	52	23	80	45	165	2030 Pre-Development Year			
Dev Vs			20		15	18						16	1283 Entering Intersection Volume			
% of Dev			25%		25%	30%						20%	69 Development Trips			
0													5.38% Trip Volume Increase			
2030 Post-Dev PM	29	284	106	238	292	15	7	52	23	80	45	181				

Development Volumes

Development Volumes

Intersection 5			Wilco Road			W Locust Street			System PM peak hour 4:15-5:15								
ALL-VEHICLE VOLUMES															Hourly		
Time Period			NBL	NBT	NBR	PHF = 0.96			EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals	Cells shaded this color have manual input
4:00 PM			0	63	7	10	78	0	0	0	0	2	0	15	175		
4:15 PM			0	75	5	18	77	0	0	0	0	2	0	9	186		
4:30 PM			0	59	3	19	75	0	0	0	0	5	0	19	180		
4:45 PM			0	58	5	25	60	0	0	0	0	4	0	19	171	712	
5:00 PM			0	65	6	26	54	0	0	0	0	2	0	27	180	717	
5:15 PM			0	52	5	22	62	0	0	0	0	4	0	16	161	692	
5:30 PM			0	45	6	19	63	0	0	0	0	0	0	14	147	659	
5:45 PM			0	49	5	14	42	0	0	0	0	6	0	12	128	616	
2025 PM Vs			0	257	19	88	266	0	0	0	0	13	0	74			
Background Growth				25	5	10	15					10	10				
2030 Pre-Dev PM			0	282	24	98	281	0	0	0	0	23	10	74			2030 Pre-Development Year
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			
Dev Vs				16		6	12							4			792 Entering Intersection Volume
% of Dev				20%		10%	20%							5%			38 Development Trips
2030 Post-Dev PM			0	298	24	104	293	0	0	0	0	23	10	78			4.80% Trip Volume Increase
Intersection 6			Wilco Road			W Washington Street			System PM peak hour 4:15-5:15								
ALL-VEHICLE VOLUMES															Hourly		
Time Period			NBL	NBT	NBR	PHF = 0.88			EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals	Cells shaded this color have manual input
4:00 PM			2	21	0	25	32	19	8	21	11	1	21	22	183		
4:15 PM			5	18	0	17	41	19	18	23	12	0	18	23	194		
4:30 PM			3	14	1	17	36	20	13	19	4	1	16	17	161		
4:45 PM			4	15	1	16	34	13	13	15	7	0	20	17	155	693	
5:00 PM			5	23	5	16	31	17	23	15	4	0	18	17	174	684	
5:15 PM			3	17	2	13	32	19	12	15	3	1	20	19	156	646	
5:30 PM			4	9	1	11	42	21	14	19	10	1	17	21	170	655	
5:45 PM			6	15	2	6	29	7	15	16	6	0	13	11	126	626	
2025 PM Vs			17	70	7	66	142	69	67	72	27	1	72	74			
Background Growth			1	4		4	3	5	11	9	1		13	4			
2030 Pre-Dev PM			18	74	7	70	145	74	78	81	28	1	85	78			2030 Pre-Development Year
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			
Dev Vs				4		3	6	3	4					8			739 Entering Intersection Volume
% of Dev				5%		5%	10%	5%	5%					10%			28 Development Trips
2030 Post-Dev PM			0	18	78	7	73	151	77	82	81	28	1	85	86		3.79% Trip Volume Increase

Cells shaded this color have manual input

2025 Traffic Count Base Year

2030 Pre-Development Year

792 Entering Intersection Volume
 38 Development Trips
 4.80% Trip Volume Increase

Cells shaded this color have manual input

2025 Traffic Count Base Year

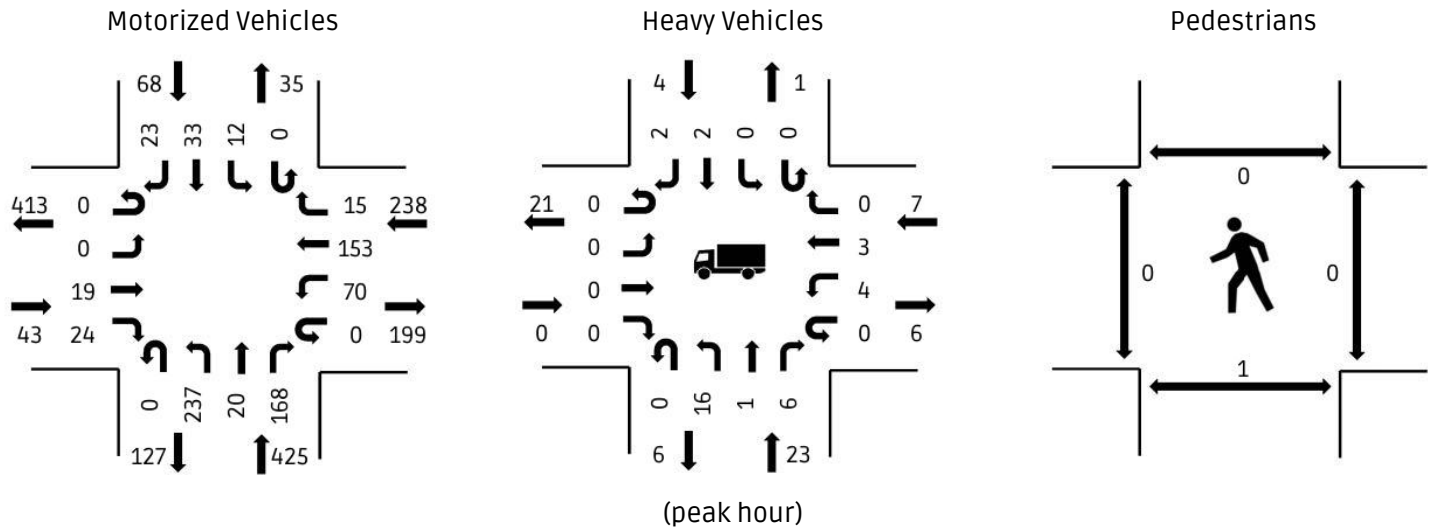
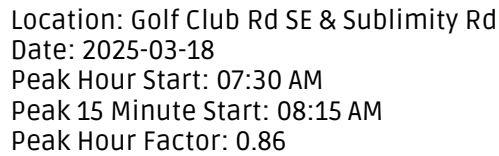
2030 Pre-Development Year

739 Entering Intersection Volume
 28 Development Trips
 3.79% Trip Volume Increase

Development Volumes

Development Volumes

Intersection 7			Shaff Road SE			N Gardner Avenue			System PM peak hour 4:15-5:15								Development Volumes	
ALL-VEHICLE VOLUMES			PHF = 0.88												Hourly			Cells shaded this color have manual inp
Time Period			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals		
4:00 PM			2	21	0	25	32	19	8	21	11	1	21	22	183			
4:15 PM			5	18	0	17	41	19	18	23	12	0	18	23	194			
4:30 PM			3	14	1	17	36	20	13	19	4	1	16	17	161			
4:45 PM			4	15	1	16	34	13	13	15	7	0	20	17	155	693		
5:00 PM			5	23	5	16	31	17	23	15	4	0	18	17	174	684		
5:15 PM			3	17	2	13	32	19	12	15	3	1	20	19	156	646		
5:30 PM			4	9	1	11	42	21	14	19	10	1	17	21	170	655		
5:45 PM			6	15	2	6	29	7	15	16	6	0	13	11	126	626		
2025 PM Vs			17	70	7	66	142	69	67	72	27	1	72	74		2025 Traffic Count Base Year		
Background Growth			2						87	2								
2030 Pre-Dev PM			19	70	7	66	142	69	67	159	81	1	72	74		2030 Pre-Development Year		
			NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR				
Dev Vs			4						12	3			12			827 Entering Intersection Volume		
% of Dev			5%						20%	5%			15%			31 Development Trips		
0																3.75% Trip Volume Increase		
2030 Post-Dev PM			23	70	7	66	142	69	67	171	84	1	84	74				



All Vehicle Volumes

Time	NB (Golf Club Rd SE)					SB (Golf Club Rd SE)					EB (Sublimity Rd)					WB (Sublimity Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	54	2	21	0	0	0	5	12	0	0	0	1	5	0	0	7	36	0	0	0	143	693
07:15:00 AM	65	6	23	0	0	1	3	5	0	0	1	0	6	0	0	8	40	1	0	0	159	
07:30:00 AM	78	6	29	0	0	3	14	8	0	0	0	2	8	0	0	8	43	3	0	0	202	
07:45:00 AM	51	6	43	0	0	4	10	5	0	0	0	2	7	0	0	17	39	5	0	0	189	
08:00:00 AM	57	5	32	0	0	0	3	8	0	0	0	5	7	0	0	10	27	4	0	0	158	
08:15:00 AM	51	3	64	0	0	5	6	2	0	0	0	10	2	0	0	35	44	3	0	0	225	
08:30:00 AM	42	4	27	0	0	2	5	5	0	0	0	3	3	0	0	23	42	1	0	0	157	
08:45:00 AM	35	4	28	0	0	1	5	3	0	0	0	5	6	0	0	9	20	1	0	0	117	

Car Volumes

Time	NB (Golf Club Rd SE)					SB (Golf Club Rd SE)					EB (Sublimity Rd)					WB (Sublimity Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	51	2	19	0	0	0	5	12	0	0	0	1	5	0	0	6	36	0	0	0	137	
07:15:00 AM	59	6	22	0	0	1	2	5	0	0	1	0	5	0	0	7	40	1	0	0	149	
07:30:00 AM	72	6	29	0	0	3	13	7	0	0	0	2	8	0	0	7	41	3	0	0	191	
07:45:00 AM	48	6	42	0	0	4	10	5	0	0	0	2	7	0	0	16	39	5	0	0	184	
08:00:00 AM	55	5	30	0	0	0	3	8	0	0	0	5	7	0	0	8	27	4	0	0	152	676
08:15:00 AM	46	2	61	0	0	5	5	1	0	0	0	10	2	0	0	35	43	3	0	0	213	740
08:30:00 AM	39	4	26	0	0	2	5	5	0	0	0	2	3	0	0	23	42	1	0	0	152	701
08:45:00 AM	33	4	26	0	0	1	5	3	0	0	0	5	6	0	0	9	20	1	0	0	113	630

Truck Volumes

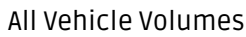
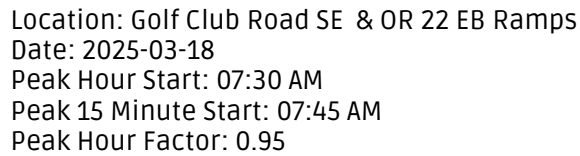
[illegible]

Bike Volumes

Time	NB (Golf Club Rd SE)					SB (Golf Club Rd SE)					EB (Sublimity Rd)					WB (Sublimity Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	1	0	0	1	
07:45:00 AM	0	0	0	0	0	1
08:00:00 AM	0	0	0	0	0	1
08:15:00 AM	0	0	0	0	0	1
08:30:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0



Car Volumes

Truck Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (OR 22 EB Ramps)					WB (OR 22 EB Ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	2	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	5	29
07:15:00 AM	0	5	1	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	0	11	
07:30:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	6	
07:45:00 AM	0	1	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	0	0	0	7	
08:00:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	7	
08:15:00 AM	0	3	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	0	0	0	9	
08:30:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
08:45:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	

Bike Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (OR 22 EB Ramps)					WB (OR 22 EB Ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

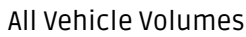
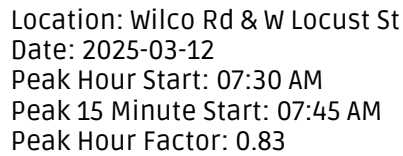
Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0

Bike Volumes

Time	NB (Golf Club Road SE or Wilco Road)					SB (Golf Club Road SE or Wilco Road)					EB (Shaff Rd)					WB (Shaff Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0



Car Volumes

Truck Volumes

[illegible]

Bike Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Locust St)					WB (W Locust St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

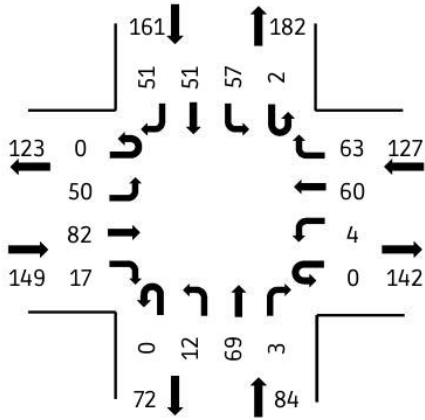
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0

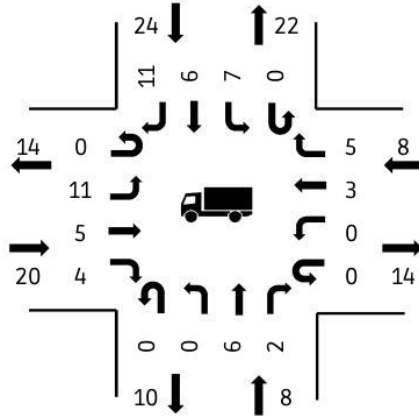


Location: Wilco Rd & W Washington St
Date: 2025-03-12
Peak Hour Start: 07:15 AM
Peak 15 Minute Start: 07:45 AM
Peak Hour Factor: 0.85

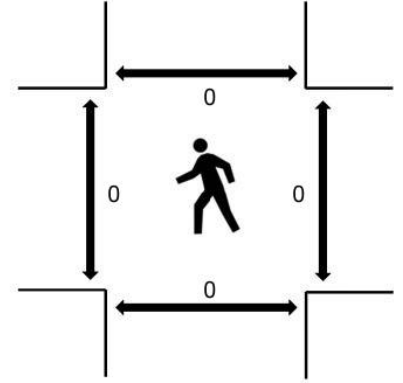
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Washington St)					WB (W Washington St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	1	17	2	0	0	3	7	13	0	0	6	15	1	0	0	1	10	11	0	0	87	
07:15:00 AM	4	16	0	0	0	4	9	12	2	0	14	18	4	0	0	1	12	15	0	0	111	
07:30:00 AM	4	26	1	0	0	11	12	17	0	0	11	34	2	0	0	1	11	16	0	0	146	
07:45:00 AM	2	19	2	0	0	25	21	7	0	0	12	21	6	0	0	2	21	15	0	0	153	497
08:00:00 AM	2	8	0	0	0	17	9	15	0	0	13	9	5	0	0	0	16	17	0	0	111	521
08:15:00 AM	2	16	0	0	0	10	11	9	0	0	14	15	1	0	0	3	9	11	0	0	101	511
08:30:00 AM	4	16	0	0	0	18	11	8	1	0	12	11	3	0	0	1	9	16	0	0	110	475
08:45:00 AM	2	20	0	0	0	11	15	4	0	0	5	12	7	0	0	1	9	11	0	0	97	419

Car Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Washington St)					WB (W Washington St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	1	16	2	0	0	3	7	10	0	0	6	15	1	0	0	1	9	11	0	0	82	
07:15:00 AM	4	16	0	0	0	3	8	12	2	0	13	17	2	0	0	1	12	14	0	0	104	
07:30:00 AM	4	24	1	0	0	9	11	11	0	0	8	34	1	0	0	1	11	16	0	0	131	
07:45:00 AM	2	16	0	0	0	25	17	4	0	0	10	17	5	0	0	2	20	12	0	0	130	447
08:00:00 AM	2	7	0	0	0	13	9	13	0	0	8	9	5	0	0	0	14	16	0	0	96	461
08:15:00 AM	2	13	0	0	0	9	10	6	0	0	13	13	1	0	0	1	6	10	0	0	84	441
08:30:00 AM	3	16	0	0	0	18	8	8	0	0	9	8	3	0	0	1	8	15	0	0	97	407
08:45:00 AM	1	19	0	0	0	11	14	1	0	0	5	11	6	0	0	1	7	11	0	0	87	364

Truck Volumes

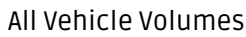
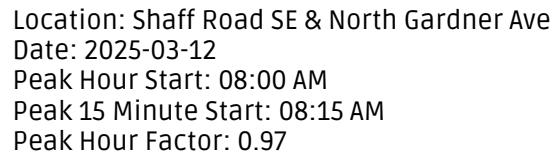
Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Washington St)					WB (W Washington St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	5	
07:15:00 AM	0	0	0	0	0	1	1	0	0	0	1	1	2	0	0	0	0	1	0	0	7	
07:30:00 AM	0	2	0	0	0	2	1	6	0	0	3	0	1	0	0	0	0	0	0	0	15	
07:45:00 AM	0	3	2	0	0	0	4	3	0	0	2	4	1	0	0	0	1	3	0	0	23	50
08:00:00 AM	0	1	0	0	0	4	0	2	0	0	5	0	0	0	0	0	2	1	0	0	15	60
08:15:00 AM	0	3	0	0	0	1	1	3	0	0	1	2	0	0	0	2	3	1	0	0	17	70
08:30:00 AM	1	0	0	0	0	0	3	0	1	0	3	3	0	0	0	0	1	1	0	0	13	68
08:45:00 AM	1	1	0	0	0	0	1	3	0	0	0	1	1	0	0	0	2	0	0	0	10	55

Bike Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Washington St)					WB (W Washington St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0
08:15:00 AM	2	0	0	2	4	4
08:30:00 AM	0	0	0	0	0	4
08:45:00 AM	0	0	0	0	0	4



Car Volumes

Truck Volumes

[illegible]

Bike Volumes

Time	NB (Shaff Road SE)					SB (Shaff Road SE)					EB (North Gardner Ave)					WB (North Gardner Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
07:00:00 AM	2	0	3	3	8	
07:15:00 AM	0	0	0	0	0	
07:30:00 AM	0	0	0	0	0	
07:45:00 AM	0	1	0	0	1	9
08:00:00 AM	1	0	3	1	5	6
08:15:00 AM	0	0	0	0	0	6
08:30:00 AM	2	0	7	0	9	15
08:45:00 AM	0	0	2	0	2	16



Location: Golf Club Road SE & Sublimity Road SE

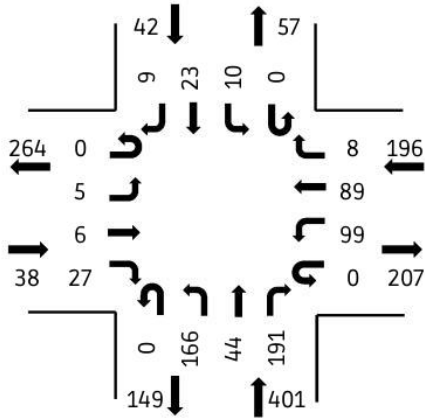
Date: 2025-03-18

Peak Hour Start: 04:00 PM

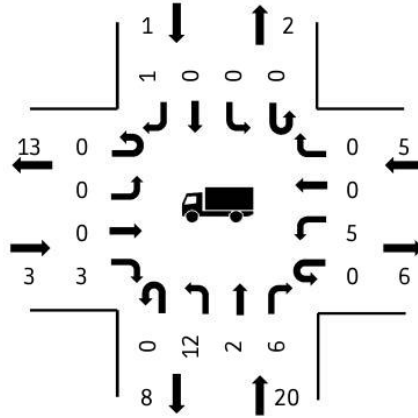
Peak 15 Minute Start: 04:30 PM

Peak Hour Factor: 0.91

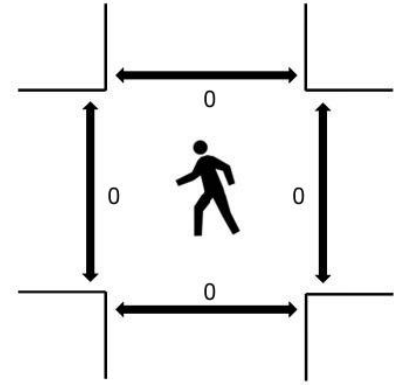
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (Sublimity Road SE)					WB (Sublimity Road SE)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	39	12	51	0	0	3	4	5	0	0	1	1	9	0	0	23	27	1	0	0	176	
04:15:00 PM	35	10	56	0	0	2	4	0	0	0	0	2	1	0	0	32	21	3	0	0	166	
04:30:00 PM	51	11	44	0	0	3	5	2	0	0	1	3	10	0	0	21	32	3	0	0	186	
04:45:00 PM	41	11	40	0	0	2	10	2	0	0	3	0	7	0	0	23	9	1	0	0	149	677
05:00:00 PM	48	12	43	0	0	3	6	5	0	0	3	0	7	0	0	22	23	2	0	0	174	675
05:15:00 PM	41	14	45	0	0	3	4	3	0	0	2	1	6	0	0	13	14	4	0	0	150	659
05:30:00 PM	45	16	39	0	0	0	6	4	0	0	2	0	4	0	0	20	22	1	0	0	159	632
05:45:00 PM	27	15	42	0	0	3	8	1	0	0	0	0	4	0	0	13	7	1	0	0	121	604

Car Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (Sublimity Road SE)					WB (Sublimity Road SE)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	35	12	47	0	0	3	4	5	0	0	1	1	9	0	0	23	27	1	0	0	168	
04:15:00 PM	31	8	55	0	0	2	4	0	0	0	0	2	1	0	0	31	21	3	0	0	158	
04:30:00 PM	51	11	43	0	0	3	5	2	0	0	1	3	8	0	0	17	32	3	0	0	179	
04:45:00 PM	37	11	40	0	0	2	10	1	0	0	3	0	6	0	0	23	9	1	0	0	143	648
05:00:00 PM	47	12	41	0	0	3	6	5	0	0	3	0	6	0	0	22	23	2	0	0	170	650
05:15:00 PM	40	13	45	0	0	3	4	3	0	0	2	1	4	0	0	13	14	4	0	0	146	638
05:30:00 PM	44	16	37	0	0	0	6	4	0	0	2	0	4	0	0	20	22	1	0	0	156	615
05:45:00 PM	27	15	42	0	0	3	8	1	0	0	0	0	4	0	0	12	7	1	0	0	120	592

Truck Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (Sublimity Road SE)					WB (Sublimity Road SE)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
04:15:00 PM	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	8	
04:30:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	4	0	0	0	0	7	
04:45:00 PM	4	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6	29
05:00:00 PM	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	25
05:15:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	21
05:30:00 PM	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	12

Bike Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (Sublimity Road SE)					WB (Sublimity Road SE)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Pedestrian Volumes

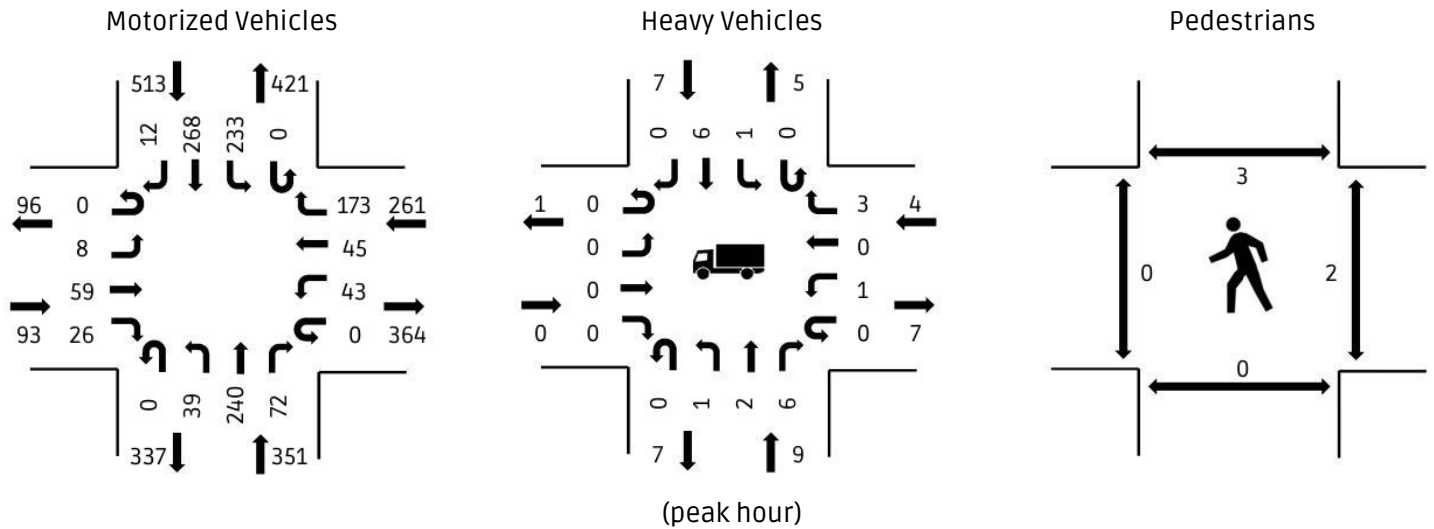
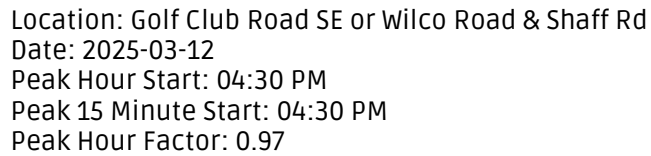
Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0

Bike Volumes

Time	NB (Golf Club Road SE)					SB (Golf Club Road SE)					EB (OR 22 EB Ramps)					WB (OR 22 EB Ramps)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0



All Vehicle Volumes

Time	NB (Golf Club Road SE or Wilco Road)					SB (Golf Club Road SE or Wilco Road)					EB (Shaff Rd)					WB (Shaff Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	9	63	14	0	0	44	63	1	0	0	2	11	10	0	0	17	7	41	0	0	282	1182
04:15:00 PM	3	63	24	0	0	43	73	6	0	0	0	12	5	0	0	11	8	36	0	0	284	
04:30:00 PM	3	67	20	0	0	65	58	2	0	0	4	8	8	0	0	13	16	51	0	0	315	
04:45:00 PM	10	54	16	0	0	62	77	4	0	0	1	17	5	0	0	8	7	40	0	0	301	
05:00:00 PM	13	72	18	0	0	44	63	3	0	0	2	15	5	0	0	10	6	38	0	0	289	
05:15:00 PM	13	47	18	0	0	62	70	3	0	0	1	19	8	0	0	12	16	44	0	0	313	
05:30:00 PM	4	45	13	0	0	52	61	4	0	0	1	23	7	0	0	13	7	41	0	0	271	
05:45:00 PM	6	43	13	0	0	62	52	1	0	0	3	16	5	0	0	8	8	31	0	0	248	

Car Volumes

Time	NB (Golf Club Road SE or Wilco Road)					SB (Golf Club Road SE or Wilco Road)					EB (Shaff Rd)					WB (Shaff Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	9	61	14	0	0	44	61	1	0	0	2	11	10	0	0	14	7	41	0	0	275	1154
04:15:00 PM	3	57	24	0	0	43	69	6	0	0	0	12	5	0	0	11	8	35	0	0	273	
04:30:00 PM	3	67	17	0	0	65	55	2	0	0	4	8	8	0	0	13	16	51	0	0	309	
04:45:00 PM	10	54	15	0	0	61	76	4	0	0	1	17	5	0	0	8	7	39	0	0	297	
05:00:00 PM	13	70	17	0	0	44	61	3	0	0	2	15	5	0	0	9	6	37	0	0	282	
05:15:00 PM	12	47	17	0	0	62	70	3	0	0	1	19	8	0	0	12	16	43	0	0	310	
05:30:00 PM	4	45	13	0	0	51	61	3	0	0	1	22	7	0	0	13	7	41	0	0	268	
05:45:00 PM	6	42	13	0	0	62	52	1	0	0	3	16	5	0	0	7	8	31	0	0	246	

Truck Volumes

Time	NB (Golf Club Road SE or Wilco Road)					SB (Golf Club Road SE or Wilco Road)					EB (Shaff Rd)					WB (Shaff Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	7	28
04:15:00 PM	0	6	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	11	
04:30:00 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:45:00 PM	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	4	
05:00:00 PM	0	2	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	1	0	0	7	
05:15:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
05:30:00 PM	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	
05:45:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	

Bike Volumes

Time	NB (Golf Club Road SE or Wilco Road)					SB (Golf Club Road SE or Wilco Road)					EB (Shaff Rd)					WB (Shaff Rd)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

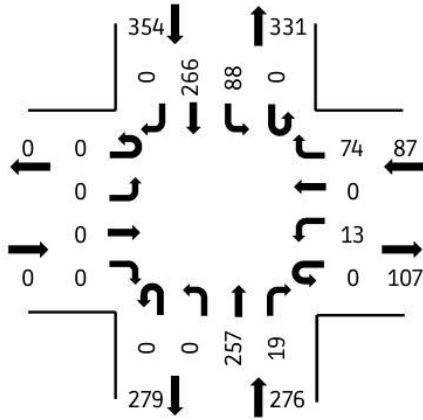
Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	1	0	1	0	2	2
05:00:00 PM	1	0	0	0	1	3
05:15:00 PM	1	0	1	0	2	5
05:30:00 PM	0	0	0	0	0	5
05:45:00 PM	0	0	0	0	0	3

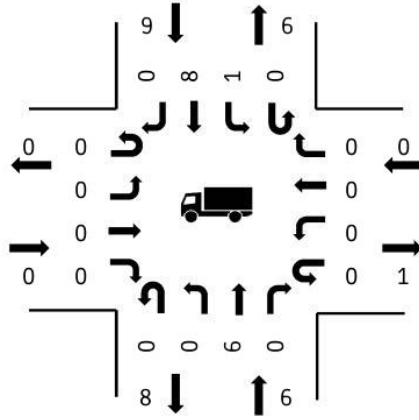


Location: Wilco Rd & W Locust St
 Date: 2025-03-12
 Peak Hour Start: 04:15 PM
 Peak 15 Minute Start: 04:15 PM
 Peak Hour Factor: 0.96

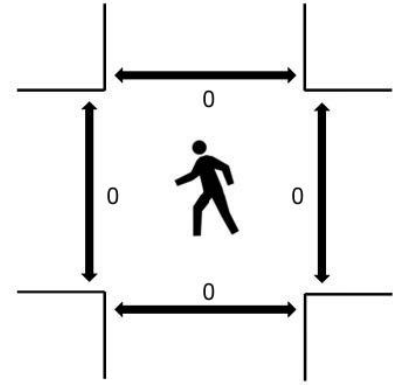
Motorized Vehicles



Heavy Vehicles



Pedestrians



(peak hour)

All Vehicle Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Locust St)					WB (W Locust St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	63	7	0	0	10	78	0	0	0	0	0	0	0	0	2	0	15	0	0	175	
04:15:00 PM	0	75	5	0	0	18	77	0	0	0	0	0	0	0	0	2	0	9	0	0	186	
04:30:00 PM	0	59	3	0	0	19	75	0	0	0	0	0	0	0	0	5	0	19	0	0	180	
04:45:00 PM	0	58	5	0	0	25	60	0	0	0	0	0	0	0	0	4	0	19	0	0	171	712
05:00:00 PM	0	65	6	0	0	26	54	0	0	0	0	0	0	0	0	2	0	27	0	0	180	717
05:15:00 PM	0	52	5	0	0	22	62	0	0	0	0	0	0	0	0	4	0	16	0	0	161	692
05:30:00 PM	0	45	6	0	0	19	63	0	0	0	0	0	0	0	0	0	0	14	0	0	147	659
05:45:00 PM	0	49	5	0	0	14	42	0	0	0	0	0	0	0	0	6	0	12	0	0	128	616

Car Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Locust St)					WB (W Locust St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	60	7	0	0	10	75	0	0	0	0	0	0	0	0	2	0	13	0	0	167	
04:15:00 PM	0	73	5	0	0	18	76	0	0	0	0	0	0	0	0	2	0	9	0	0	183	
04:30:00 PM	0	57	3	0	0	19	73	0	0	0	0	0	0	0	0	5	0	19	0	0	176	
04:45:00 PM	0	56	5	0	0	24	57	0	0	0	0	0	0	0	0	4	0	19	0	0	165	691
05:00:00 PM	0	65	6	0	0	26	52	0	0	0	0	0	0	0	0	2	0	27	0	0	178	702
05:15:00 PM	0	51	5	0	0	22	62	0	0	0	0	0	0	0	0	3	0	16	0	0	159	678
05:30:00 PM	0	44	5	0	0	19	63	0	0	0	0	0	0	0	0	0	0	14	0	0	145	647
05:45:00 PM	0	47	5	0	0	14	42	0	0	0	0	0	0	0	0	6	0	11	0	0	125	607

Truck Volumes

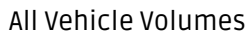
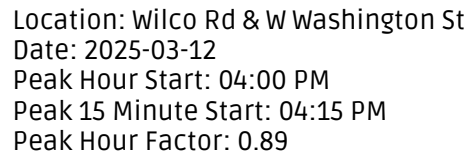
Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Locust St)					WB (W Locust St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	8	
04:15:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
04:30:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:45:00 PM	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	6	21
05:00:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	15
05:15:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	14
05:30:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12
05:45:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	9

Bike Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Locust St)					WB (W Locust St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	1	1	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	1
05:00:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0



Car Volumes

Truck Volumes

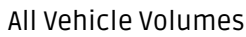
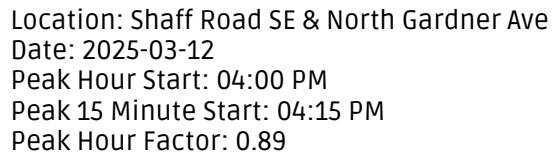
[illegible]

Bike Volumes

Time	NB (Wilco Rd)					SB (Wilco Rd)					EB (W Washington St)					WB (W Washington St)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0



Car Volumes

Truck Volumes

[illegible]

Bike Volumes

Time	NB (Shaff Road SE)					SB (Shaff Road SE)					EB (North Gardner Ave)					WB (North Gardner Ave)					Totals	
Time	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
04:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
Time	North	South	East	West	15min	1hr
04:00:00 PM	0	0	0	0	0	
04:15:00 PM	0	0	0	0	0	
04:30:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0
05:00:00 PM	0	0	0	0	0	0
05:15:00 PM	0	0	0	0	0	0
05:30:00 PM	0	0	0	0	0	0
05:45:00 PM	0	0	0	0	0	0

[illegible]

	Total	
Day	Total	
	Total	
	Pea	
	olume	
Pea	Factor	

Appendix E



Intersection												
Int Delay, s/veh	16.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	22	28	81	176	17	273	23	193	14	38	26
Future Vol, veh/h	2	22	28	81	176	17	273	23	193	14	38	26
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	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	26	33	94	205	20	317	27	224	16	44	30
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	850	737	44	767	737	27	44	0	0	27	0	0
Stage 1	76	76	-	661	661	-	-	-	-	-	-	-
Stage 2	774	661	-	106	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	346	1026	319	346	1048	1564	-	-	1587	-	-
Stage 1	933	832	-	452	460	-	-	-	-	-	-	-
Stage 2	391	460	-	900	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	273	1026	241	273	1048	1564	-	-	1587	-	-
Mov Cap-2 Maneuver	92	273	-	241	273	-	-	-	-	-	-	-
Stage 1	744	824	-	360	367	-	-	-	-	-	-	-
Stage 2	135	367	-	836	824	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	15.1		43		4.4		1.3					
HCM LOS	C		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1564	-	-	92	463	241	292	1587	-	-		
HCM Lane V/C Ratio	0.203	-	-	0.025	0.126	0.391	0.769	0.01	-	-		
HCM Control Delay (s)	7.9	-	-	45.1	13.9	29.2	48.8	7.3	-	-		
HCM Lane LOS	A	-	-	E	B	D	E	A	-	-		
HCM 95th %tile Q(veh)	0.8	-	-	0.1	0.4	1.8	5.9	0	-	-		

HCM 6th TWSC

2: Golf Club Road SE & OR 22 EB Ramps

04/14/2025

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↰	↱	↰	↰	
Traffic Vol, veh/h	89	0	151	0	0	0	0	398	24	25	118	0
Future Vol, veh/h	89	0	151	0	0	0	0	398	24	25	118	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	0	159	0	0	0	0	419	25	26	124	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	595	595	124				-	0	0	419	0	0
Stage 1	176	176	-				-	-	-	-	-	-
Stage 2	419	419	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	467	417	927				0	-	-	1140	-	0
Stage 1	855	753	-				0	-	-	-	-	0
Stage 2	664	590	-				0	-	-	-	-	0
Platoon blocked, %							-	-				
Mov Cap-1 Maneuver	456	0	927				-	-	-	1140	-	-
Mov Cap-2 Maneuver	456	0	-				-	-	-	-	-	-
Stage 1	855	0	-				-	-	-	-	-	-
Stage 2	649	0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	11.6						0			1.4		
HCM LOS	B											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	456	927	1140	-						
HCM Lane V/C Ratio	-	-	0.205	0.171	0.023	-						
HCM Control Delay (s)	-	-	14.9	9.7	8.2	-						
HCM Lane LOS	-	-	B	A	A	-						
HCM 95th %tile Q(veh)	-	-	0.8	0.6	0.1	-						

HCM 6th TWSC

3: Golf Club Road SE & Site Access

04/14/2025

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	395	0	0	292
Future Vol, veh/h	0	0	395	0	0	292
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	459	0	0	340
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	799	459	0	0	459	0
Stage 1	459	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	355	602	-	-	1102	-
Stage 1	636	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	355	602	-	-	1102	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1102	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection

Intersection Delay, s/veh 14.3

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	40	25	46	49	141	20	228	40	100	203	14
Future Vol, veh/h	15	40	25	46	49	141	20	228	40	100	203	14
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	49	30	56	60	172	24	278	49	122	248	17
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	12	13	16.8	13.6
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	19%	100%	0%	100%	0%
Vol Thru, %	0%	85%	50%	0%	26%	0%	94%
Vol Right, %	0%	15%	31%	0%	74%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	268	80	46	190	100	217
LT Vol	20	0	15	46	0	100	0
Through Vol	0	228	40	0	49	0	203
RT Vol	0	40	25	0	141	0	14
Lane Flow Rate	24	327	98	56	232	122	265
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.047	0.572	0.196	0.115	0.406	0.233	0.464
Departure Headway (Hd)	6.916	6.3	7.25	7.351	6.313	6.867	6.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	569	498	485	565	520	566
Service Time	4.702	4.086	5.25	5.142	4.103	4.653	4.098
HCM Lane V/C Ratio	0.047	0.575	0.197	0.115	0.411	0.235	0.468
HCM Control Delay	10	17.3	12	11.1	13.4	11.8	14.5
HCM Lane LOS	A	C	B	B	B	B	B
HCM 95th-tile Q	0.1	3.6	0.7	0.4	2	0.9	2.4

HCM 6th TWSC
5: Wilco Road & W Locust Street

04/14/2025

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	109	180	9	61	194
Future Vol, veh/h	20	109	180	9	61	194
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	131	217	11	73	234
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	603	223	0	0	228	0
Stage 1	223	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	462	817	-	-	1340	-
Stage 1	814	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	433	817	-	-	1340	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	647	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.4	0		1.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 718		1340	-	
HCM Lane V/C Ratio	-	- 0.216		0.055	-	
HCM Control Delay (s)	-	- 11.4		7.8	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0.8		0.2	-	

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	79	14	6	57	59	10	69	3	63	53	48
Future Vol, veh/h	50	79	14	6	57	59	10	69	3	63	53	48
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	95	17	7	69	71	12	83	4	76	64	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.5	8.8	9.2	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	35%	5%	54%	0%
Vol Thru, %	87%	0%	55%	47%	46%	0%
Vol Right, %	0%	100%	10%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	3	143	122	116	48
LT Vol	10	0	50	6	63	0
Through Vol	69	0	79	57	53	0
RT Vol	0	3	14	59	0	48
Lane Flow Rate	95	4	172	147	140	58
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.148	0.005	0.234	0.19	0.221	0.076
Departure Headway (Hd)	5.585	4.814	4.893	4.646	5.682	4.701
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	736	731	767	629	756
Service Time	3.361	2.589	2.95	2.703	3.449	2.468
HCM Lane V/C Ratio	0.149	0.005	0.235	0.192	0.223	0.077
HCM Control Delay	9.3	7.6	9.5	8.8	10.1	7.9
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.5	0	0.9	0.7	0.8	0.2

HCM 6th TWSC
7: N Gardner Avenue & Shaff Road SE

04/14/2025

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	285	70	25	263	12	38	2	27	2	6	7
Future Vol, veh/h	10	285	70	25	263	12	38	2	27	2	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	313	77	27	289	13	42	2	30	2	7	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	390	0	0	731	730	352	740	762	296
Stage 1	-	-	-	-	-	-	374	374	-	350	350	-
Stage 2	-	-	-	-	-	-	357	356	-	390	412	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1169	-	-	337	349	692	333	335	743
Stage 1	-	-	-	-	-	-	647	618	-	666	633	-
Stage 2	-	-	-	-	-	-	661	629	-	634	594	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1259	-	-	1169	-	-	320	338	692	309	324	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	320	338	-	309	324	-
Stage 1	-	-	-	-	-	-	641	612	-	660	618	-
Stage 2	-	-	-	-	-	-	632	615	-	599	589	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.7			15.7			13.5		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2			
Capacity (veh/h)	409	1259	-	-	1169	-	-	320	743			
HCM Lane V/C Ratio	0.18	0.009	-	-	0.024	-	-	0.027	0.01			
HCM Control Delay (s)	15.7	7.9	-	-	8.2	-	-	16.6	9.9			
HCM Lane LOS	C	A	-	-	A	-	-	C	A			
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.1	0			

Intersection												
Int Delay, s/veh	16.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	22	28	81	176	17	273	23	193	14	38	26
Future Vol, veh/h	2	22	28	81	176	17	273	23	193	14	38	26
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	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	26	33	94	205	20	317	27	224	16	44	30
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	850	737	44	767	737	27	44	0	0	27	0	0
Stage 1	76	76	-	661	661	-	-	-	-	-	-	-
Stage 2	774	661	-	106	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	346	1026	319	346	1048	1564	-	-	1587	-	-
Stage 1	933	832	-	452	460	-	-	-	-	-	-	-
Stage 2	391	460	-	900	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	273	1026	241	273	1048	1564	-	-	1587	-	-
Mov Cap-2 Maneuver	92	273	-	241	273	-	-	-	-	-	-	-
Stage 1	744	824	-	360	367	-	-	-	-	-	-	-
Stage 2	135	367	-	836	824	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	15.1		43		4.4		1.3					
HCM LOS	C		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1564	-	-	92	463	241	292	1587	-	-		
HCM Lane V/C Ratio	0.203	-	-	0.025	0.126	0.391	0.769	0.01	-	-		
HCM Control Delay (s)	7.9	-	-	45.1	13.9	29.2	48.8	7.3	-	-		
HCM Lane LOS	A	-	-	E	B	D	E	A	-	-		
HCM 95th %tile Q(veh)	0.8	-	-	0.1	0.4	1.8	5.9	0	-	-		

HCM 6th TWSC 2: Golf Club Road SE & OR 22 EB Ramps

04/14/2025

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↰	↱	↑	
Traffic Vol, veh/h	89	0	151	0	0	0	0	398	24	25	118	0
Future Vol, veh/h	89	0	151	0	0	0	0	398	24	25	118	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	0	159	0	0	0	0	419	25	26	124	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	595	595	124				-	0	0	419	0	0
Stage 1	176	176	-				-	-	-	-	-	-
Stage 2	419	419	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	467	417	927				0	-	-	1140	-	0
Stage 1	855	753	-				0	-	-	-	-	0
Stage 2	664	590	-				0	-	-	-	-	0
Platoon blocked, %								-	-	-		
Mov Cap-1 Maneuver	456	0	927				-	-	-	1140	-	-
Mov Cap-2 Maneuver	456	0	-				-	-	-	-	-	-
Stage 1	855	0	-				-	-	-	-	-	-
Stage 2	649	0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	11.6						0			1.4		
HCM LOS	B											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	456	927	1140	-						
HCM Lane V/C Ratio	-	-	0.205	0.171	0.023	-						
HCM Control Delay (s)	-	-	14.9	9.7	8.2	-						
HCM Lane LOS	-	-	B	A	A	-						
HCM 95th %tile Q(veh)	-	-	0.8	0.6	0.1	-						

HCM 6th TWSC

3: Golf Club Road SE & Site Access

04/14/2025

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	395	0	0	292
Future Vol, veh/h	0	0	395	0	0	292
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	459	0	0	340
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	799	459	0	0	459	0
Stage 1	459	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	355	602	-	-	1102	-
Stage 1	636	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	355	602	-	-	1102	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1102	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection

Intersection Delay, s/veh 14.3

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	40	25	46	49	141	20	228	40	100	203	14
Future Vol, veh/h	15	40	25	46	49	141	20	228	40	100	203	14
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	49	30	56	60	172	24	278	49	122	248	17
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	12	13	16.8	13.6
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	19%	100%	0%	100%	0%
Vol Thru, %	0%	85%	50%	0%	26%	0%	94%
Vol Right, %	0%	15%	31%	0%	74%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	268	80	46	190	100	217
LT Vol	20	0	15	46	0	100	0
Through Vol	0	228	40	0	49	0	203
RT Vol	0	40	25	0	141	0	14
Lane Flow Rate	24	327	98	56	232	122	265
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.047	0.572	0.196	0.115	0.406	0.233	0.464
Departure Headway (Hd)	6.916	6.3	7.25	7.351	6.313	6.867	6.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	569	498	485	565	520	566
Service Time	4.702	4.086	5.25	5.142	4.103	4.653	4.098
HCM Lane V/C Ratio	0.047	0.575	0.197	0.115	0.411	0.235	0.468
HCM Control Delay	10	17.3	12	11.1	13.4	11.8	14.5
HCM Lane LOS	A	C	B	B	B	B	B
HCM 95th-tile Q	0.1	3.6	0.7	0.4	2	0.9	2.4

HCM 6th TWSC
5: Wilco Road & W Locust Street

04/14/2025

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	109	180	9	61	194
Future Vol, veh/h	20	109	180	9	61	194
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	131	217	11	73	234
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	603	223	0	0	228	0
Stage 1	223	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	462	817	-	-	1340	-
Stage 1	814	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	433	817	-	-	1340	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	647	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.4	0		1.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 718		1340	-	
HCM Lane V/C Ratio	-	- 0.216		0.055	-	
HCM Control Delay (s)	-	- 11.4		7.8	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0.8		0.2	-	

Intersection

Intersection Delay, s/veh 9.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	79	14	6	57	59	10	69	3	63	53	48
Future Vol, veh/h	50	79	14	6	57	59	10	69	3	63	53	48
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	95	17	7	69	71	12	83	4	76	64	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.5	8.8	9.2	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	35%	5%	54%	0%
Vol Thru, %	87%	0%	55%	47%	46%	0%
Vol Right, %	0%	100%	10%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	3	143	122	116	48
LT Vol	10	0	50	6	63	0
Through Vol	69	0	79	57	53	0
RT Vol	0	3	14	59	0	48
Lane Flow Rate	95	4	172	147	140	58
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.148	0.005	0.234	0.19	0.221	0.076
Departure Headway (Hd)	5.585	4.814	4.893	4.646	5.682	4.701
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	736	731	767	629	756
Service Time	3.361	2.589	2.95	2.703	3.449	2.468
HCM Lane V/C Ratio	0.149	0.005	0.235	0.192	0.223	0.077
HCM Control Delay	9.3	7.6	9.5	8.8	10.1	7.9
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.5	0	0.9	0.7	0.8	0.2

HCM 6th TWSC
7: N Gardner Avenue & Shaff Road SE

04/14/2025

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	285	70	25	263	12	38	2	27	2	6	7
Future Vol, veh/h	10	285	70	25	263	12	38	2	27	2	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	313	77	27	289	13	42	2	30	2	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	390	0	0	731	730	352	740	762	296
Stage 1	-	-	-	-	-	-	374	374	-	350	350	-
Stage 2	-	-	-	-	-	-	357	356	-	390	412	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1169	-	-	337	349	692	333	335	743
Stage 1	-	-	-	-	-	-	647	618	-	666	633	-
Stage 2	-	-	-	-	-	-	661	629	-	634	594	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1259	-	-	1169	-	-	320	338	692	309	324	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	320	338	-	309	324	-
Stage 1	-	-	-	-	-	-	641	612	-	660	618	-
Stage 2	-	-	-	-	-	-	632	615	-	599	589	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.7			15.7			13.5		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	409	1259	-	-	1169	-	-	320	743
HCM Lane V/C Ratio	0.18	0.009	-	-	0.024	-	-	0.027	0.01
HCM Control Delay (s)	15.7	7.9	-	-	8.2	-	-	16.6	9.9
HCM Lane LOS	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.1	0

Intersection

Int Delay, s/veh 21.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	22	30	84	176	17	304	28	213	14	40	26
Future Vol, veh/h	0	22	30	84	176	17	304	28	213	14	40	26
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	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	35	98	205	20	353	33	248	16	47	30

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	931	818	47	849	818	33	47	0	0	33	0	0
Stage 1	79	79	-	739	739	-	-	-	-	-	-	-
Stage 2	852	739	-	110	79	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	247	311	1022	281	311	1041	1560	-	-	1579	-	-
Stage 1	930	829	-	409	424	-	-	-	-	-	-	-
Stage 2	354	424	-	895	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	56	238	1022	205	238	1041	1560	-	-	1579	-	-
Mov Cap-2 Maneuver	56	238	-	205	238	-	-	-	-	-	-	-
Stage 1	720	821	-	317	328	-	-	-	-	-	-	-
Stage 2	101	328	-	829	821	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.8	61.3	4.5	1.3
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	-	427	205	255	1579	-	-
HCM Lane V/C Ratio	0.227	-	-	-	0.142	0.476	0.88	0.01	-	-
HCM Ctrl Dly (s/v)	8	-	-	0	14.8	37.6	71.6	7.3	-	-
HCM Lane LOS	A	-	-	A	B	E	F	A	-	-
HCM 95th %tile Q (veh)	0.9	-	-	-	0.5	2.3	7.5	0	-	-

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↑	
Traffic Vol, veh/h	89	0	158	0	0	0	0	454	29	25	125	0
Future Vol, veh/h	89	0	158	0	0	0	0	454	29	25	125	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	94	0	166	0	0	0	0	478	31	26	132	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	662	662	132	-	0	0	478	0	0
Stage 1	184	184	-	-	-	-	-	-	-
Stage 2	478	478	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	427	382	917	0	-	-	1084	-	0
Stage 1	848	747	-	0	-	-	-	-	0
Stage 2	624	556	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	417	0	917	-	-	-	1084	-	-
Mov Cap-2 Maneuver	417	0	-	-	-	-	-	-	-
Stage 1	848	0	-	-	-	-	-	-	-
Stage 2	609	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.1	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	417	917	1084	-
HCM Lane V/C Ratio	-	-	0.225	0.181	0.024	-
HCM Ctrl Dly (s/v)	-	-	16.1	9.8	8.4	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q (veh)	-	-	0.9	0.7	0.1	-

Intersection

Int Delay, s/veh 2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	61	395	20	14	292
Future Vol, veh/h	41	61	395	20	14	292
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	71	459	23	16	340

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	843	471	0
Stage 1	471	-	-
Stage 2	372	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	334	593	-
Stage 1	628	-	-
Stage 2	697	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	328	593	-
Mov Cap-2 Maneuver	328	-	-
Stage 1	628	-	-
Stage 2	684	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.9	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	448	1081
HCM Lane V/C Ratio	-	-	0.265	0.015
HCM Ctrl Dly (s/v)	-	-	15.9	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q (veh)	-	-	1.1	0

Intersection

Intersection Delay, s/veh 15.9

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	40	25	46	49	149	20	240	40	115	229	14
Future Vol, veh/h	15	40	25	46	49	149	20	240	40	115	229	14
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	49	30	56	60	182	24	293	49	140	279	17
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay, s/veh	12.5	13.9	19	15.4
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	19%	100%	0%	100%	0%
Vol Thru, %	0%	86%	50%	0%	25%	0%	94%
Vol Right, %	0%	14%	31%	0%	75%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	280	80	46	198	115	243
LT Vol	20	0	15	46	0	115	0
Through Vol	0	240	40	0	49	0	229
RT Vol	0	40	25	0	149	0	14
Lane Flow Rate	24	341	98	56	241	140	296
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.049	0.624	0.204	0.119	0.442	0.276	0.539
Departure Headway (Hd)	7.192	6.58	7.52	7.645	6.597	7.094	6.543
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	500	550	477	469	546	509	554
Service Time	4.905	4.292	5.572	5.386	4.338	4.807	4.255
HCM Lane V/C Ratio	0.048	0.62	0.205	0.119	0.441	0.275	0.534
HCM Control Delay, s/veh	10.3	19.6	12.5	11.4	14.5	12.5	16.7
HCM Lane LOS	B	C	B	B	B	B	C
HCM 95th-tile Q	0.2	4.3	0.8	0.4	2.2	1.1	3.2

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	114	187	9	66	215
Future Vol, veh/h	20	114	187	9	66	215
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	137	225	11	80	259

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	650	231	0
Stage 1	231	-	-
Stage 2	419	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	434	808	-
Stage 1	807	-	-
Stage 2	664	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	404	808	-
Mov Cap-2 Maneuver	404	-	-
Stage 1	807	-	-
Stage 2	618	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.6	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	703	1331
HCM Lane V/C Ratio	-	-	0.23	0.06
HCM Ctrl Dly (s/v)	-	-	11.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q (veh)	-	-	0.9	0.2

Intersection

Intersection Delay, s/veh 9.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	52	79	14	6	57	61	10	72	3	74	58	53
Future Vol, veh/h	52	79	14	6	57	61	10	72	3	74	58	53
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	95	17	7	69	73	12	87	4	89	70	64
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	9.6	9	9.4	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	0%	36%	5%	56%	0%
Vol Thru, %	88%	0%	54%	46%	44%	0%
Vol Right, %	0%	100%	10%	49%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	3	145	124	132	53
LT Vol	10	0	52	6	74	0
Through Vol	72	0	79	57	58	0
RT Vol	0	3	14	61	0	53
Lane Flow Rate	99	4	175	149	159	64
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.155	0.005	0.241	0.196	0.252	0.084
Departure Headway (Hd)	5.632	4.863	4.975	4.721	5.713	4.724
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	631	727	716	754	623	751
Service Time	3.419	2.649	3.039	2.787	3.49	2.5
HCM Lane V/C Ratio	0.157	0.006	0.244	0.198	0.255	0.085
HCM Control Delay, s/veh	9.5	7.7	9.6	9	10.4	7.9
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.5	0	0.9	0.7	1	0.3

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	295	75	25	269	12	40	2	27	2	6	7
Future Vol, veh/h	10	295	75	25	269	12	40	2	27	2	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	324	82	27	296	13	44	2	30	2	7	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	406	0	0	751	750	365	760	785	303
Stage 1	-	-	-	-	-	-	387	387	-	357	357	-
Stage 2	-	-	-	-	-	-	364	363	-	403	428	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1252	-	-	1153	-	-	327	340	680	323	325	737
Stage 1	-	-	-	-	-	-	637	610	-	661	628	-
Stage 2	-	-	-	-	-	-	655	625	-	624	585	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1252	-	-	1153	-	-	311	329	680	300	315	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	329	-	300	315	-
Stage 1	-	-	-	-	-	-	631	605	-	655	614	-
Stage 2	-	-	-	-	-	-	626	611	-	589	580	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.2			0.7			16.2			13.6		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2			
Capacity (veh/h)	396	1252	-	-	1153	-	-	311	737			
HCM Lane V/C Ratio	0.191	0.009	-	-	0.024	-	-	0.028	0.01			
HCM Ctrl Dly (s/v)	16.2	7.9	-	-	8.2	-	-	16.9	9.9			
HCM Lane LOS	C	A	-	-	A	-	-	C	A			
HCM 95th %tile Q (veh)	0.7	0	-	-	0.1	-	-	0.1	0			

HCM 6th TWSC

1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

04/14/2025

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	6	29	113	98	10	201	51	210	12	29	10
Future Vol, veh/h	8	6	29	113	98	10	201	51	210	12	29	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	7	32	124	108	11	221	56	231	13	32	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	616	556	32	576	556	56	32	0	0	56	0	0
Stage 1	58	58	-	498	498	-	-	-	-	-	-	-
Stage 2	558	498	-	78	58	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	403	439	1042	428	439	1011	1580	-	-	1549	-	-
Stage 1	954	847	-	554	544	-	-	-	-	-	-	-
Stage 2	514	544	-	931	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	276	374	1042	363	374	1011	1580	-	-	1549	-	-
Mov Cap-2 Maneuver	276	374	-	363	374	-	-	-	-	-	-	-
Stage 1	820	840	-	476	468	-	-	-	-	-	-	-
Stage 2	337	468	-	888	840	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.3		19		3.3		1.7	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	276	798	363	397	1549	-	-
HCM Lane V/C Ratio	0.14	-	-	0.032	0.048	0.342	0.299	0.009	-	-
HCM Control Delay (s)	7.6	-	-	18.5	9.7	20	17.9	7.3	-	-
HCM Lane LOS	A	-	-	C	A	C	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.2	1.5	1.2	0	-	-

HCM 6th TWSC

2: Golf Club Road SE & OR 22 EB Ramps

04/14/2025

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↰	↱	↑	
Traffic Vol, veh/h	144	0	361	0	0	0	0	316	56	13	156	0
Future Vol, veh/h	144	0	361	0	0	0	0	316	56	13	156	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	0	388	0	0	0	0	340	60	14	168	0
Major/Minor	Minor2						Major1		Major2			
Conflicting Flow All	536	536	168				-	0	0	340	0	0
Stage 1	196	196	-				-	-	-	-	-	-
Stage 2	340	340	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	505	451	876				0	-	-	1219	-	0
Stage 1	837	739	-				0	-	-	-	-	0
Stage 2	721	639	-				0	-	-	-	-	0
Platoon blocked, %								-	-	-		
Mov Cap-1 Maneuver	499	0	876				-	-	-	1219	-	-
Mov Cap-2 Maneuver	499	0	-				-	-	-	-	-	-
Stage 1	837	0	-				-	-	-	-	-	-
Stage 2	713	0	-				-	-	-	-	-	-
Approach	EB						NB		SB			
HCM Control Delay, s	13.2						0		0.6			
HCM LOS	B											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	499	876	1219	-						
HCM Lane V/C Ratio	-	-	0.31	0.443	0.011	-						
HCM Control Delay (s)	-	-	15.4	12.3	8	-						
HCM Lane LOS	-	-	C	B	A	-						
HCM 95th %tile Q(veh)	-	-	1.3	2.3	0	-						

HCM 6th TWSC

3: Golf Club Road SE & Site Access

04/14/2025

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	418	0	0	494
Future Vol, veh/h	0	0	418	0	0	494
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	445	0	0	526
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	971	445	0	0	445	0
Stage 1	445	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	280	613	-	-	1115	-
Stage 1	646	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	280	613	-	-	1115	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1115	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection

Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	52	23	42	37	165	29	256	78	214	271	15
Future Vol, veh/h	7	52	23	42	37	165	29	256	78	214	271	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	55	24	45	39	176	31	272	83	228	288	16
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	12.4	13.5	18.9	15.6
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	9%	100%	0%	100%	0%
Vol Thru, %	0%	77%	63%	0%	18%	0%	95%
Vol Right, %	0%	23%	28%	0%	82%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	334	82	42	202	214	286
LT Vol	29	0	7	42	0	214	0
Through Vol	0	256	52	0	37	0	271
RT Vol	0	78	23	0	165	0	15
Lane Flow Rate	31	355	87	45	215	228	304
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.06	0.63	0.185	0.097	0.402	0.433	0.533
Departure Headway (Hd)	7.174	6.497	7.627	7.822	6.727	6.963	6.416
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	558	473	461	539	521	566
Service Time	4.874	4.197	5.64	5.522	4.427	4.663	4.116
HCM Lane V/C Ratio	0.062	0.636	0.184	0.098	0.399	0.438	0.537
HCM Control Delay	10.3	19.6	12.4	11.4	13.9	14.9	16.2
HCM Lane LOS	B	C	B	B	B	B	C
HCM 95th-tile Q	0.2	4.4	0.7	0.3	1.9	2.2	3.1

HCM 6th TWSC
5: Wilco Road & W Locust Street

04/14/2025

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	74	257	19	88	266
Future Vol, veh/h	13	74	257	19	88	266
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	77	268	20	92	277
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	739	278	0	0	288	0
Stage 1	278	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	385	761	-	-	1274	-
Stage 1	769	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	352	761	-	-	1274	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.5	0		2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	648	1274	-	
HCM Lane V/C Ratio	-	-	0.14	0.072	-	
HCM Control Delay (s)	-	-	11.5	8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-	

HCM 6th AWSC

6: W Ida Street/Wilco Road & Washington Street

04/14/2025

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	72	27	1	72	74	17	70	7	66	142	69
Future Vol, veh/h	67	72	27	1	72	74	17	70	7	66	142	69
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	82	31	1	82	84	19	80	8	75	161	78
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.4	9.7	9.8	11.2
HCM LOS	B	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	20%	0%	40%	1%	32%	0%
Vol Thru, %	80%	0%	43%	49%	68%	0%
Vol Right, %	0%	100%	16%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	7	166	147	208	69
LT Vol	17	0	67	1	66	0
Through Vol	70	0	72	72	142	0
RT Vol	0	7	27	74	0	69
Lane Flow Rate	99	8	189	167	236	78
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.165	0.012	0.28	0.236	0.381	0.108
Departure Headway (Hd)	6.023	5.213	5.342	5.078	5.809	4.941
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	596	686	677	707	619	726
Service Time	3.756	2.947	3.342	3.108	3.536	2.667
HCM Lane V/C Ratio	0.166	0.012	0.279	0.236	0.381	0.107
HCM Control Delay	9.9	8	10.4	9.7	12.1	8.3
HCM Lane LOS	A	A	B	A	B	A
HCM 95th-tile Q	0.6	0	1.1	0.9	1.8	0.4

HCM 6th TWSC
7: N Gardner Avenue & Shaff Road SE

04/14/2025

Intersection												
Int Delay, s/veh	9.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	72	27	1	72	74	17	70	7	66	142	69
Future Vol, veh/h	67	72	27	1	72	74	17	70	7	66	142	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	82	31	1	82	84	19	80	8	75	161	78
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	113	0	0	496	418	98	420	391	124
Stage 1	-	-	-	-	-	-	250	250	-	126	126	-
Stage 2	-	-	-	-	-	-	246	168	-	294	265	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1412	-	-	1476	-	-	484	526	958	544	545	927
Stage 1	-	-	-	-	-	-	754	700	-	878	792	-
Stage 2	-	-	-	-	-	-	758	759	-	714	689	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1412	-	-	1476	-	-	322	497	958	454	515	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	322	497	-	454	515	-
Stage 1	-	-	-	-	-	-	713	662	-	831	791	-
Stage 2	-	-	-	-	-	-	552	758	-	589	652	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.1			0.1			15			16.4		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2			
Capacity (veh/h)	468	1412	-	-	1476	-	-	494	927			
HCM Lane V/C Ratio	0.228	0.054	-	-	0.001	-	-	0.478	0.085			
HCM Control Delay (s)	15	7.7	-	-	7.4	-	-	18.8	9.2			
HCM Lane LOS	C	A	-	-	A	-	-	C	A			
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2.5	0.3			

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	6	29	113	98	10	213	51	210	12	29	10
Future Vol, veh/h	8	6	29	113	98	10	213	51	210	12	29	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	7	32	124	108	11	234	56	231	13	32	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	642	582	32	602	582	56	32	0	0	56	0	0
Stage 1	58	58	-	524	524	-	-	-	-	-	-	-
Stage 2	584	524	-	78	58	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	387	425	1042	412	425	1011	1580	-	-	1549	-	-
Stage 1	954	847	-	537	530	-	-	-	-	-	-	-
Stage 2	498	530	-	931	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	261	359	1042	347	359	1011	1580	-	-	1549	-	-
Mov Cap-2 Maneuver	261	359	-	347	359	-	-	-	-	-	-	-
Stage 1	813	840	-	458	452	-	-	-	-	-	-	-
Stage 2	320	452	-	888	840	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	11.6			19.8			3.4			1.7		
HCM LOS	B			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1580	-	-	261	786	347	382	1549	-	-		
HCM Lane V/C Ratio	0.148	-	-	0.034	0.049	0.358	0.311	0.009	-	-		
HCM Control Delay (s)	7.7	-	-	19.3	9.8	21	18.6	7.3	-	-		
HCM Lane LOS	A	-	-	C	A	C	C	A	-	-		
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.2	1.6	1.3	0	-	-		

HCM 6th TWSC

2: Golf Club Road SE & OR 22 EB Ramps

04/18/2025

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↰	↱	↑	
Traffic Vol, veh/h	144	0	369	0	0	0	0	328	58	13	156	0
Future Vol, veh/h	144	0	369	0	0	0	0	328	58	13	156	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	0	397	0	0	0	0	353	62	14	168	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	549	549	168				-	0	0	353	0	0
Stage 1	196	196	-				-	-	-	-	-	-
Stage 2	353	353	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	497	443	876				0	-	-	1206	-	0
Stage 1	837	739	-				0	-	-	-	-	0
Stage 2	711	631	-				0	-	-	-	-	0
Platoon blocked, %								-	-	-		
Mov Cap-1 Maneuver	491	0	876				-	-	-	1206	-	-
Mov Cap-2 Maneuver	491	0	-				-	-	-	-	-	-
Stage 1	837	0	-				-	-	-	-	-	-
Stage 2	702	0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	13.4						0			0.6		
HCM LOS	B											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	491	876	1206	-						
HCM Lane V/C Ratio	-	-	0.315	0.453	0.012	-						
HCM Control Delay (s)	-	-	15.7	12.5	8	-						
HCM Lane LOS	-	-	C	B	A	-						
HCM 95th %tile Q(veh)	-	-	1.3	2.4	0	-						

HCM 6th TWSC

3: Golf Club Road SE & Site Access

04/18/2025

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	432	0	0	502
Future Vol, veh/h	0	0	432	0	0	502
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	460	0	0	534
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	994	460	0	0	460	0
Stage 1	460	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	272	601	-	-	1101	-
Stage 1	636	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	272	601	-	-	1101	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	0	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1101	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	52	23	80	45	165	29	264	106	223	274	15
Future Vol, veh/h	7	52	23	80	45	165	29	264	106	223	274	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	55	24	85	48	176	31	281	113	237	291	16
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	13	14.3	24.7	17.4
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	9%	100%	0%	100%	0%
Vol Thru, %	0%	71%	63%	0%	21%	0%	95%
Vol Right, %	0%	29%	28%	0%	79%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	370	82	80	210	223	289
LT Vol	29	0	7	80	0	223	0
Through Vol	0	264	52	0	45	0	274
RT Vol	0	106	23	0	165	0	15
Lane Flow Rate	31	394	87	85	223	237	307
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.064	0.733	0.195	0.19	0.432	0.478	0.573
Departure Headway (Hd)	7.425	6.708	8.028	8.034	6.958	7.255	6.706
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	539	447	447	518	496	538
Service Time	5.167	4.45	6.087	5.775	4.699	4.997	4.449
HCM Lane V/C Ratio	0.064	0.731	0.195	0.19	0.431	0.478	0.571
HCM Control Delay	10.7	25.8	13	12.7	14.9	16.5	18.1
HCM Lane LOS	B	D	B	B	B	C	C
HCM 95th-tile Q	0.2	6.1	0.7	0.7	2.2	2.5	3.6

HCM 6th TWSC
5: Wilco Road & W Locust Street

04/18/2025

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	74	282	24	98	281
Future Vol, veh/h	23	74	282	24	98	281
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	77	294	25	102	293
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	804	307	0	0	319	0
Stage 1	307	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	352	733	-	-	1241	-
Stage 1	746	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	318	733	-	-	1241	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.8	0		2.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		560	1241	
HCM Lane V/C Ratio	-	-		0.18	0.082	
HCM Control Delay (s)	-	-		12.8	8.2	
HCM Lane LOS	-	-		B	A	
HCM 95th %tile Q(veh)	-	-		0.7	0.3	

HCM 6th AWSC
6: W Ida Street/Wilco Road & Washington Street

04/18/2025

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	81	28	1	85	78	18	74	7	70	145	74
Future Vol, veh/h	78	81	28	1	85	78	18	74	7	70	145	74
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	92	32	1	97	89	20	84	8	80	165	84
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	11	10.2	10.2	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	20%	0%	42%	1%	33%	0%
Vol Thru, %	80%	0%	43%	52%	67%	0%
Vol Right, %	0%	100%	15%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	92	7	187	164	215	74
LT Vol	18	0	78	1	70	0
Through Vol	74	0	81	85	145	0
RT Vol	0	7	28	78	0	74
Lane Flow Rate	105	8	212	186	244	84
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.18	0.012	0.321	0.27	0.405	0.119
Departure Headway (Hd)	6.209	5.398	5.442	5.222	5.971	5.097
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	578	662	661	688	603	704
Service Time	3.948	3.136	3.476	3.258	3.701	2.826
HCM Lane V/C Ratio	0.182	0.012	0.321	0.27	0.405	0.119
HCM Control Delay	10.3	8.2	11	10.2	12.7	8.5
HCM Lane LOS	B	A	B	B	B	A
HCM 95th-tile Q	0.7	0	1.4	1.1	2	0.4

HCM 6th TWSC
7: N Gardner Avenue & Shaff Road SE

04/18/2025

Intersection												
Int Delay, s/veh	10.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	159	81	1	72	74	19	70	7	66	142	69
Future Vol, veh/h	67	159	81	1	72	74	19	70	7	66	142	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	181	92	1	82	84	22	80	8	75	161	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	273	0	0	625	547	227	549	551	124
Stage 1	-	-	-	-	-	-	379	379	-	126	126	-
Stage 2	-	-	-	-	-	-	246	168	-	423	425	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1412	-	-	1290	-	-	397	445	812	446	442	927
Stage 1	-	-	-	-	-	-	643	615	-	878	792	-
Stage 2	-	-	-	-	-	-	758	759	-	609	586	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1412	-	-	1290	-	-	244	421	812	362	418	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	244	421	-	362	418	-
Stage 1	-	-	-	-	-	-	608	582	-	831	791	-
Stage 2	-	-	-	-	-	-	552	758	-	493	554	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.1			18.2			22.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	380	1412	-	-	1290	-	-	398	927
HCM Lane V/C Ratio	0.287	0.054	-	-	0.001	-	-	0.594	0.085
HCM Control Delay (s)	18.2	7.7	-	-	7.8	-	-	26.4	9.2
HCM Lane LOS	C	A	-	-	A	-	-	D	A
HCM 95th %tile Q(veh)	1.2	0.2	-	-	0	-	-	3.7	0.3

Intersection												
Int Delay, s/veh	8.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	6	33	121	98	10	225	51	222	12	29	10
Future Vol, veh/h	8	6	33	121	98	10	225	51	222	12	29	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	210	-	-	165	-	-	150	-	210	190	-	260
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	7	36	133	108	11	247	56	244	13	32	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	668	608	32	630	608	56	32	0	0	56	0	0
Stage 1	58	58	-	550	550	-	-	-	-	-	-	-
Stage 2	610	550	-	80	58	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	372	410	1042	394	410	1011	1580	-	-	1549	-	-
Stage 1	954	847	-	519	516	-	-	-	-	-	-	-
Stage 2	482	516	-	929	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	246	343	1042	328	343	1011	1580	-	-	1549	-	-
Mov Cap-2 Maneuver	246	343	-	328	343	-	-	-	-	-	-	-
Stage 1	805	840	-	438	436	-	-	-	-	-	-	-
Stage 2	303	436	-	882	840	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.6		21.5		3.5		1.7	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	246	793	328	365	1549	-	-
HCM Lane V/C Ratio	0.156	-	-	0.036	0.054	0.405	0.325	0.009	-	-
HCM Ctrl Dly (s/v)	7.7	-	-	20.2	9.8	23.3	19.5	7.3	-	-
HCM Lane LOS	A	-	-	C	A	C	C	A	-	-
HCM 95th %tile Q (veh)	0.6	-	-	0.1	0.2	1.9	1.4	0	-	-

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱					↑	↱	↰	↑	
Traffic Vol, veh/h	144	0	400	0	0	0	0	352	61	13	171	0
Future Vol, veh/h	144	0	400	0	0	0	0	352	61	13	171	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	240	-	-	-	-	-	250	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	0	430	0	0	0	0	378	66	14	184	0
Major/Minor	Minor2						Major1		Major2			
Conflicting Flow All	590	590	184				-	0	0	378	0	0
Stage 1	212	212	-				-	-	-	-	-	-
Stage 2	378	378	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	470	420	858				0	-	-	1180	-	0
Stage 1	823	727	-				0	-	-	-	-	0
Stage 2	693	615	-				0	-	-	-	-	0
Platoon blocked, %								-	-	-		
Mov Cap-1 Maneuver	464	0	858				-	-	-	1180	-	-
Mov Cap-2 Maneuver	464	0	-				-	-	-	-	-	-
Stage 1	823	0	-				-	-	-	-	-	-
Stage 2	685	0	-				-	-	-	-	-	-
Approach	EB						NB		SB			
HCM Ctrl Dly, s/v	14.2						0		0.6			
HCM LOS	B											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	464	858	1180	-						
HCM Lane V/C Ratio	-	-	0.334	0.501	0.012	-						
HCM Ctrl Dly (s/v)	-	-	16.6	13.3	8.1	-						
HCM Lane LOS	-	-	C	B	A	-						
HCM 95th %tile Q (veh)	-	-	1.4	2.9	0	-						

Intersection

Int Delay, s/veh 1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	27	432	36	43	502
Future Vol, veh/h	33	27	432	36	43	502
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	29	460	38	46	534

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1105	479	0
Stage 1	479	-	-
Stage 2	626	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	233	587	-
Stage 1	623	-	-
Stage 2	533	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	219	587	-
Mov Cap-2 Maneuver	219	-	-
Stage 1	623	-	-
Stage 2	500	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	19.9	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	305	1066
HCM Lane V/C Ratio	-	-	0.209	0.043
HCM Ctrl Dly (s/v)	-	-	19.9	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q (veh)	-	-	0.8	0.1

Intersection

Intersection Delay, s/veh 21.4

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	52	23	80	45	181	29	284	106	238	292	15
Future Vol, veh/h	7	52	23	80	45	181	29	284	106	238	292	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	55	24	85	48	193	31	302	113	253	311	16
Number of Lanes	0	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay, s/veh	13.5	15.3	29.9	19.4
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	9%	100%	0%	100%	0%
Vol Thru, %	0%	73%	63%	0%	20%	0%	95%
Vol Right, %	0%	27%	28%	0%	80%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	390	82	80	226	238	307
LT Vol	29	0	7	80	0	238	0
Through Vol	0	284	52	0	45	0	292
RT Vol	0	106	23	0	181	0	15
Lane Flow Rate	31	415	87	85	240	253	327
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.065	0.794	0.201	0.194	0.476	0.522	0.624
Departure Headway (Hd)	7.599	6.892	8.308	8.209	7.12	7.422	6.875
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	471	527	431	437	505	486	526
Service Time	5.347	4.64	6.379	5.958	4.868	5.171	4.623
HCM Lane V/C Ratio	0.066	0.787	0.202	0.195	0.475	0.521	0.622
HCM Control Delay, s/veh	10.9	31.3	13.5	12.9	16.2	18	20.4
HCM Lane LOS	B	D	B	B	C	C	C
HCM 95th-tile Q	0.2	7.4	0.7	0.7	2.5	3	4.2

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	78	298	24	104	293
Future Vol, veh/h	23	78	298	24	104	293
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	81	310	25	108	305
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	844	323	0	0	335	0
Stage 1	323	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	334	718	-	-	1224	-
Stage 1	734	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	299	718	-	-	1224	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	13.2	0		2.2		
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	544	1224	-
HCM Lane V/C Ratio		-	-	0.193	0.089	-
HCM Ctrl Dly (s/v)		-	-	13.2	8.2	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q (veh)		-	-	0.7	0.3	-

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	81	28	1	85	86	18	78	7	73	151	77
Future Vol, veh/h	82	81	28	1	85	86	18	78	7	73	151	77
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	93	92	32	1	97	98	20	89	8	83	172	88
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	11.3	10.4	10.4	12
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	19%	0%	43%	1%	33%	0%
Vol Thru, %	81%	0%	42%	49%	67%	0%
Vol Right, %	0%	100%	15%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	7	191	172	224	77
LT Vol	18	0	82	1	73	0
Through Vol	78	0	81	85	151	0
RT Vol	0	7	28	86	0	77
Lane Flow Rate	109	8	217	195	255	88
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.19	0.012	0.333	0.287	0.426	0.125
Departure Headway (Hd)	6.284	5.477	5.523	5.28	6.031	5.156
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	652	651	680	598	695
Service Time	4.031	3.223	3.563	3.32	3.767	2.891
HCM Lane V/C Ratio	0.191	0.012	0.333	0.287	0.426	0.127
HCM Control Delay, s/veh	10.5	8.3	11.3	10.4	13.2	8.6
HCM Lane LOS	B	A	B	B	B	A
HCM 95th-tile Q	0.7	0	1.5	1.2	2.1	0.4

Intersection												
Int Delay, s/veh	10.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	171	84	1	84	74	23	70	7	66	142	69
Future Vol, veh/h	67	171	84	1	84	74	23	70	7	66	142	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	100
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	194	95	1	95	84	26	80	8	75	161	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	289	0	0	653	575	242	577	580	137
Stage 1	-	-	-	-	-	-	394	394	-	139	139	-
Stage 2	-	-	-	-	-	-	259	181	-	438	441	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1397	-	-	1273	-	-	380	429	797	428	426	911
Stage 1	-	-	-	-	-	-	631	605	-	864	782	-
Stage 2	-	-	-	-	-	-	746	750	-	597	577	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1397	-	-	1273	-	-	230	405	797	345	403	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	230	405	-	345	403	-
Stage 1	-	-	-	-	-	-	597	572	-	817	781	-
Stage 2	-	-	-	-	-	-	541	749	-	481	546	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.6			0			19.8			23.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	355	1397	-	-	1273	-	-	383	911
HCM Lane V/C Ratio	0.32	0.054	-	-	0.001	-	-	0.617	0.086
HCM Ctrl Dly (s/v)	19.8	7.7	-	-	7.8	-	-	28.4	9.3
HCM Lane LOS	C	A	-	-	A	-	-	D	A
HCM 95th %tile Q (veh)	1.4	0.2	-	-	0	-	-	4	0.3

SimTraffic Simulation Summary

Baseline

04/14/2025

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1847	1891	1833	1873	1828	1855
Vehs Exited	1879	1929	1853	1884	1846	1878
Starting Vehs	102	97	111	84	82	93
Ending Vehs	70	59	91	73	64	62
Travel Distance (mi)	2629	2755	2647	2614	2554	2640
Travel Time (hr)	79.5	84.1	80.8	79.8	77.5	80.3
Total Delay (hr)	9.4	10.0	9.9	9.4	9.0	9.5
Total Stops	2263	2369	2324	2278	2217	2289
Fuel Used (gal)	80.9	83.7	80.0	79.4	78.1	80.4

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	530	531	538	537	506	535
Vehs Exited	542	546	543	525	493	529
Starting Vehs	102	97	111	84	82	93
Ending Vehs	90	82	106	96	95	90
Travel Distance (mi)	742	801	757	727	698	745
Travel Time (hr)	22.7	24.8	23.6	22.4	21.4	23.0
Total Delay (hr)	2.8	3.3	3.2	2.8	2.6	2.9
Total Stops	667	706	704	653	627	672
Fuel Used (gal)	23.2	24.4	22.9	22.1	21.3	22.8

SimTraffic Simulation Summary

Baseline

04/14/2025

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1317	1360	1295	1336	1322	1329
Vehs Exited	1337	1383	1310	1359	1353	1348
Starting Vehs	90	82	106	96	95	90
Ending Vehs	70	59	91	73	64	62
Travel Distance (mi)	1887	1954	1890	1887	1856	1895
Travel Time (hr)	56.8	59.3	57.2	57.4	56.1	57.4
Total Delay (hr)	6.6	6.7	6.7	6.6	6.4	6.6
Total Stops	1596	1663	1620	1625	1590	1615
Fuel Used (gal)	57.7	59.3	57.1	57.3	56.7	57.6

Queuing and Blocking Report

Baseline

04/14/2025

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	R	L	T
Maximum Queue (ft)	23	73	91	104	84	48	11	5
Average Queue (ft)	1	28	35	51	18	2	0	0
95th Queue (ft)	11	55	66	87	54	20	6	4
Link Distance (ft)		603		1304				1519
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	210		165		150	210	190	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	71	76	34
Average Queue (ft)	35	38	9
95th Queue (ft)	55	58	31
Link Distance (ft)	1465		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		240	115
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Golf Club Road SE & Site Access

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)

Queuing and Blocking Report

Baseline

04/14/2025

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	64	50	110	50	115	62	102
Average Queue (ft)	22	25	51	14	61	27	54
95th Queue (ft)	45	48	86	43	101	51	84
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)			0	0	1		
Queuing Penalty (veh)			0	0	0		

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	88	4	61
Average Queue (ft)	47	0	12
95th Queue (ft)	73	3	42
Link Distance (ft)	2480	1873	2580
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	78	67	60	56	26
Average Queue (ft)	40	33	27	21	3
95th Queue (ft)	64	53	47	43	14
Link Distance (ft)	869	1293	1063	1873	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					75
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Queuing and Blocking Report

Baseline

04/14/2025

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	WB	NB	SB	SB
Directions Served	L	L	LTR	LT	R
Maximum Queue (ft)	23	37	91	35	35
Average Queue (ft)	2	8	36	6	7
95th Queue (ft)	13	32	62	27	30
Link Distance (ft)			1206	288	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1833	1941	1887	1898	1943	1900
Vehs Exited	1863	1961	1914	1909	1963	1921
Starting Vehs	97	98	110	82	99	94
Ending Vehs	67	78	83	71	79	70
Travel Distance (mi)	2658	2769	2734	2674	2765	2720
Travel Time (hr)	81.0	84.3	83.2	81.7	84.3	82.9
Total Delay (hr)	9.7	10.3	9.9	9.9	10.1	10.0
Total Stops	2267	2383	2345	2304	2355	2332
Fuel Used (gal)	81.2	84.1	83.8	81.4	83.8	82.9

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	556	555	538	539	536	545
Vehs Exited	557	542	546	541	553	549
Starting Vehs	97	98	110	82	99	94
Ending Vehs	96	111	102	80	82	91
Travel Distance (mi)	843	828	825	743	763	800
Travel Time (hr)	26.3	25.4	25.4	23.1	23.6	24.8
Total Delay (hr)	3.7	3.2	3.4	3.0	3.1	3.3
Total Stops	750	711	729	682	666	704
Fuel Used (gal)	26.0	24.6	25.2	22.9	23.1	24.3

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1277	1386	1349	1359	1407	1354
Vehs Exited	1306	1419	1368	1368	1410	1373
Starting Vehs	96	111	102	80	82	91
Ending Vehs	67	78	83	71	79	70
Travel Distance (mi)	1815	1941	1909	1931	2002	1920
Travel Time (hr)	54.7	58.9	57.8	58.6	60.7	58.1
Total Delay (hr)	6.0	7.1	6.5	6.8	7.0	6.7
Total Stops	1517	1672	1616	1622	1689	1622
Fuel Used (gal)	55.3	59.5	58.6	58.6	60.6	58.5

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	R	L
Maximum Queue (ft)	30	64	77	116	53	60	15
Average Queue (ft)	2	26	36	57	16	2	1
95th Queue (ft)	13	51	62	95	47	25	7
Link Distance (ft)		603		1304			
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	210		165		150	210	190
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB	SB
Directions Served	LT	R	L	T
Maximum Queue (ft)	79	73	32	7
Average Queue (ft)	36	38	7	0
95th Queue (ft)	64	57	27	5
Link Distance (ft)	1465			969
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		240	115	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Golf Club Road SE & Site Access

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)

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	62	58	96	40	157	70	114
Average Queue (ft)	23	26	50	15	64	29	57
95th Queue (ft)	45	53	81	43	106	55	93
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)			0		2		
Queuing Penalty (veh)			0		0		

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	123	52
Average Queue (ft)	52	12
95th Queue (ft)	88	40
Link Distance (ft)	2480	2580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	70	77	59	57	27
Average Queue (ft)	40	34	28	21	2
95th Queue (ft)	63	57	47	41	14
Link Distance (ft)	869	1293	1063	1873	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					75
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	WB	NB	SB	SB
Directions Served	L	L	LTR	LT	R
Maximum Queue (ft)	23	40	66	35	35
Average Queue (ft)	3	8	37	9	9
95th Queue (ft)	16	32	61	33	33
Link Distance (ft)			1206	288	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2333	2254	2181	2310	2240	2264
Vehs Exited	2317	2280	2146	2281	2232	2252
Starting Vehs	91	116	82	91	85	90
Ending Vehs	107	90	117	120	93	104
Travel Distance (mi)	3391	3242	3081	3362	3183	3252
Travel Time (hr)	105.0	100.1	94.7	104.0	97.9	100.3
Total Delay (hr)	14.3	13.1	12.0	14.2	12.4	13.2
Total Stops	2986	2894	2734	3016	2839	2894
Fuel Used (gal)	104.3	100.1	95.3	103.3	97.9	100.2

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Run Number	1	2	3	4	5	Avg
Vehs Entered	521	490	464	491	508	494
Vehs Exited	523	529	463	496	504	502
Starting Vehs	91	116	82	91	85	90
Ending Vehs	89	77	83	86	89	84
Travel Distance (mi)	745	748	685	742	759	736
Travel Time (hr)	22.7	22.8	20.7	22.6	23.1	22.4
Total Delay (hr)	2.8	2.8	2.3	2.7	2.8	2.7
Total Stops	644	625	578	653	648	625
Fuel Used (gal)	22.8	23.2	20.9	22.8	23.1	22.5

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1812	1764	1717	1819	1732	1768
Vehs Exited	1794	1751	1683	1785	1728	1749
Starting Vehs	89	77	83	86	89	84
Ending Vehs	107	90	117	120	93	104
Travel Distance (mi)	2646	2495	2396	2620	2424	2516
Travel Time (hr)	82.3	77.2	74.0	81.4	74.8	78.0
Total Delay (hr)	11.4	10.3	9.8	11.5	9.6	10.5
Total Stops	2342	2269	2156	2363	2191	2267
Fuel Used (gal)	81.5	76.9	74.4	80.5	74.8	77.6

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	WB	WB	NB	NB	SB
Directions Served	TR	L	TR	L	R	L
Maximum Queue (ft)	51	100	130	64	75	17
Average Queue (ft)	26	40	62	21	5	1
95th Queue (ft)	50	70	104	52	34	8
Link Distance (ft)	603		1304			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		165		150	210	190
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	83	78	38
Average Queue (ft)	36	40	6
95th Queue (ft)	65	63	27
Link Distance (ft)	1465		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		240	115
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Golf Club Road SE & Site Access

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	83	58
Average Queue (ft)	33	7
95th Queue (ft)	65	34
Link Distance (ft)	1636	2825
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	68	54	118	45	152	113	172
Average Queue (ft)	26	28	60	21	71	38	68
95th Queue (ft)	50	50	98	48	122	81	129
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)			1		4		0
Queuing Penalty (veh)			0		1		1

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	106	65
Average Queue (ft)	53	14
95th Queue (ft)	85	46
Link Distance (ft)	2480	2580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	74	78	60	63	25
Average Queue (ft)	42	37	28	24	2
95th Queue (ft)	65	61	44	48	14
Link Distance (ft)	869	1293	1063	1873	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					75
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	WB	NB	SB	SB
Directions Served	L	L	LTR	LT	R
Maximum Queue (ft)	28	45	96	35	35
Average Queue (ft)	3	11	41	5	9
95th Queue (ft)	17	38	74	24	33
Link Distance (ft)			1206	288	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100		100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 2

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2124	2120	2084	2211	2162	2139
Vehs Exited	2144	2134	2114	2230	2181	2161
Starting Vehs	110	92	116	108	111	106
Ending Vehs	90	78	86	89	92	87
Travel Distance (mi)	3126	3045	3062	3157	3055	3089
Travel Time (hr)	96.2	94.5	95.2	98.1	94.7	95.7
Total Delay (hr)	13.6	13.4	13.5	13.8	13.5	13.5
Total Stops	3188	3122	3142	3304	3146	3178
Fuel Used (gal)	96.8	94.1	94.4	97.2	94.1	95.3

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	573	578	549	605	573	574
Vehs Exited	577	560	574	602	593	580
Starting Vehs	110	92	116	108	111	106
Ending Vehs	106	110	91	111	91	101
Travel Distance (mi)	827	785	801	896	812	824
Travel Time (hr)	25.5	24.6	25.4	28.1	25.4	25.8
Total Delay (hr)	3.7	3.6	3.9	4.2	3.6	3.8
Total Stops	864	857	821	941	839	863
Fuel Used (gal)	25.6	24.5	25.0	27.5	25.3	25.6

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1551	1542	1535	1606	1589	1564
Vehs Exited	1567	1574	1540	1628	1588	1578
Starting Vehs	106	110	91	111	91	101
Ending Vehs	90	78	86	89	92	87
Travel Distance (mi)	2300	2260	2261	2261	2242	2265
Travel Time (hr)	70.7	69.9	69.8	70.0	69.3	69.9
Total Delay (hr)	9.9	9.7	9.7	9.6	9.9	9.8
Total Stops	2324	2265	2321	2363	2307	2315
Fuel Used (gal)	71.2	69.6	69.4	69.6	68.8	69.7

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	R	L
Maximum Queue (ft)	24	48	79	83	48	57	12
Average Queue (ft)	5	21	37	42	10	2	0
95th Queue (ft)	23	45	62	69	36	20	6
Link Distance (ft)		603		1304			
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	210		165		150	210	190
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	107	162	30
Average Queue (ft)	48	61	2
95th Queue (ft)	81	109	15
Link Distance (ft)	1465		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		240	115
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Golf Club Road SE & Site Access

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)

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	70	70	114	58	173	104	127
Average Queue (ft)	25	27	54	20	82	47	62
95th Queue (ft)	49	54	93	50	143	83	95
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)		0	1	0	7		0
Queuing Penalty (veh)		0	0	0	2		0

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	77	68
Average Queue (ft)	41	19
95th Queue (ft)	68	55
Link Distance (ft)	2480	2580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	R
Maximum Queue (ft)	113	80	63	96	29
Average Queue (ft)	47	37	29	34	3
95th Queue (ft)	80	60	51	68	16
Link Distance (ft)	869	1293	1063	1873	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					75
Storage Blk Time (%)			1	0	
Queuing Penalty (veh)			0	0	

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	NB	SB	SB
Directions Served	L	LTR	LT	R
Maximum Queue (ft)	43	81	112	58
Average Queue (ft)	11	40	58	34
95th Queue (ft)	35	70	94	52
Link Distance (ft)		1206	288	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			100
Storage Blk Time (%)			1	
Queuing Penalty (veh)			0	

Network Summary

Network wide Queuing Penalty: 3

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2279	2228	2310	2229	2273	2266
Vehs Exited	2311	2241	2314	2249	2262	2274
Starting Vehs	115	113	113	96	112	111
Ending Vehs	83	100	109	76	123	100
Travel Distance (mi)	3381	3273	3373	3210	3274	3302
Travel Time (hr)	105.7	102.0	106.2	99.8	102.0	103.1
Total Delay (hr)	15.3	14.7	15.7	14.2	14.3	14.8
Total Stops	3457	3326	3468	3288	3358	3381
Fuel Used (gal)	104.8	102.2	104.7	99.0	100.8	102.3

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	636	656	623	599	578	619
Vehs Exited	646	646	612	565	584	611
Starting Vehs	115	113	113	96	112	111
Ending Vehs	105	123	124	130	106	117
Travel Distance (mi)	921	920	892	839	826	879
Travel Time (hr)	29.4	28.9	28.3	26.2	25.8	27.7
Total Delay (hr)	4.5	4.4	4.3	3.8	3.5	4.1
Total Stops	968	966	955	857	849	917
Fuel Used (gal)	29.0	28.5	27.8	25.7	25.3	27.3

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1643	1572	1687	1630	1695	1646
Vehs Exited	1665	1595	1702	1684	1678	1665
Starting Vehs	105	123	124	130	106	117
Ending Vehs	83	100	109	76	123	100
Travel Distance (mi)	2460	2354	2481	2371	2448	2423
Travel Time (hr)	76.4	73.0	77.9	73.6	76.2	75.4
Total Delay (hr)	10.8	10.3	11.4	10.4	10.8	10.7
Total Stops	2489	2360	2513	2431	2509	2461
Fuel Used (gal)	75.8	73.7	76.9	73.3	75.5	75.0

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	R	L
Maximum Queue (ft)	31	59	79	76	61	36	17
Average Queue (ft)	9	22	36	40	9	2	1
95th Queue (ft)	31	47	59	64	39	17	9
Link Distance (ft)		603		1304			
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	210		165		150	210	190
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	101	129	32
Average Queue (ft)	49	62	3
95th Queue (ft)	83	103	18
Link Distance (ft)	1465		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		240	115
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Golf Club Road SE & Site Access

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)

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	72	80	104	112	200	108	126
Average Queue (ft)	26	35	52	22	98	53	67
95th Queue (ft)	52	61	83	67	171	90	107
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)		0	0	0	12		0
Queuing Penalty (veh)		0	0	0	3		0

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	102	83
Average Queue (ft)	48	25
95th Queue (ft)	80	64
Link Distance (ft)	2480	2580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	R	LT	R
Maximum Queue (ft)	98	94	71	6	72	48
Average Queue (ft)	47	43	30	0	34	5
95th Queue (ft)	78	78	54	5	61	24
Link Distance (ft)	869	1293	1063		1873	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				50		75
Storage Blk Time (%)			1		0	0
Queuing Penalty (veh)			0		0	0

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	WB	WB	NB	SB	SB
Directions Served	L	L	TR	LTR	LT	R
Maximum Queue (ft)	39	6	11	96	125	67
Average Queue (ft)	8	0	0	43	62	35
95th Queue (ft)	29	4	6	71	98	56
Link Distance (ft)			2205	1206	288	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100	100				100
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					0	0

Network Summary

Network wide Queuing Penalty: 4

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:50	4:50	4:50	4:50	4:50	4:50
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	2597	2564	2552	2566	2529	2562
Vehs Exited	2586	2551	2511	2531	2535	2542
Starting Vehs	110	105	108	107	113	109
Ending Vehs	121	118	149	142	107	123
Travel Distance (mi)	3768	3758	3649	3681	3679	3707
Travel Time (hr)	120.0	119.1	116.1	116.8	117.2	117.8
Total Delay (hr)	19.0	18.6	17.8	17.8	18.1	18.3
Total Stops	3861	3887	3785	3815	3805	3830
Fuel Used (gal)	117.4	117.1	114.1	115.3	114.1	115.6

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Run Number	1	2	3	4	5	Avg
Vehs Entered	598	612	603	575	589	596
Vehs Exited	601	611	600	595	590	598
Starting Vehs	110	105	108	107	113	109
Ending Vehs	107	106	111	87	112	103
Travel Distance (mi)	922	912	838	852	885	882
Travel Time (hr)	29.0	29.0	26.6	26.5	28.0	27.8
Total Delay (hr)	4.4	4.5	3.9	3.8	4.3	4.2
Total Stops	927	944	871	864	902	900
Fuel Used (gal)	28.6	28.6	26.2	26.4	27.3	27.4

Interval #2 Information Recording2

Start Time 5:15

End Time 6:00

Total Time (min) 45

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1999	1952	1949	1991	1940	1969
Vehs Exited	1985	1940	1911	1936	1945	1945
Starting Vehs	107	106	111	87	112	103
Ending Vehs	121	118	149	142	107	123
Travel Distance (mi)	2846	2846	2811	2829	2794	2825
Travel Time (hr)	91.0	90.1	89.6	90.3	89.2	90.0
Total Delay (hr)	14.6	14.0	13.9	14.0	13.8	14.1
Total Stops	2934	2943	2914	2951	2903	2933
Fuel Used (gal)	88.8	88.5	87.9	88.9	86.7	88.2

Intersection: 1: Golf Club Road SE & OR 22 WB Ramps/Sublimity Road SE

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	R	L
Maximum Queue (ft)	38	63	114	75	52	28	12
Average Queue (ft)	6	25	46	39	11	1	0
95th Queue (ft)	26	52	83	62	39	17	6
Link Distance (ft)		603		1304			
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	210		165		150	210	190
Storage Blk Time (%)			0				
Queuing Penalty (veh)			0				

Intersection: 2: Golf Club Road SE & OR 22 EB Ramps

Movement	EB	EB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	97	166	34
Average Queue (ft)	49	80	5
95th Queue (ft)	82	137	23
Link Distance (ft)	1465		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		240	115
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 3: Golf Club Road SE & Site Access

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	81	5	96
Average Queue (ft)	25	0	24
95th Queue (ft)	56	4	71
Link Distance (ft)	1636	4621	2825
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Wilco Road/Golf Club Road SE & Shaff Road SE

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR	L	TR
Maximum Queue (ft)	62	68	123	100	224	119	141
Average Queue (ft)	26	35	59	25	109	60	76
95th Queue (ft)	49	61	99	68	180	100	120
Link Distance (ft)	934		2626		2580		4621
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		90		170	
Storage Blk Time (%)		0	1	0	17	0	0
Queuing Penalty (veh)		0	1	0	5	0	0

Intersection: 5: Wilco Road & W Locust Street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	99	74
Average Queue (ft)	47	25
95th Queue (ft)	80	64
Link Distance (ft)	2480	2580
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: W Ida Street/Wilco Road & Washington Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	R	LT	R
Maximum Queue (ft)	118	86	71	8	89	46
Average Queue (ft)	54	46	31	1	40	7
95th Queue (ft)	94	76	55	8	73	25
Link Distance (ft)	869	1293	1063		1873	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				50		75
Storage Blk Time (%)			1	0	1	0
Queuing Penalty (veh)			0	0	1	0

Intersection: 7: N Gardner Avenue & Shaff Road SE

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	TR	LTR	LT	R
Maximum Queue (ft)	56	9	20	84	138	70
Average Queue (ft)	12	0	1	45	68	35
95th Queue (ft)	38	4	13	75	109	56
Link Distance (ft)		2626	2205	1206	288	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					100
Storage Blk Time (%)			0		1	0
Queuing Penalty (veh)			0		1	0

Network Summary

Network wide Queuing Penalty: 8