JUNE 2020

River to Sea Transportation
Planning Organization (R2CTPO)
2570 W International Speedway Blvd.
Suite 100
Daytona Beach, FL 32114

FEASIBILITY STUDY

for Taylor Road/Dunlawton Avenue from Williamson Boulevard to Taylor Branch Road

VHB
250 E. Robinson St.
Orlando, FL 32803

June 2020

Final Report

Feasibility Study for

Taylor Road/Dunlawton Avenue from Williamson Boulevard from to Taylor Branch Road

Prepared for:

River to Sea Transportation Planning Organization (R2CTPO)
2570 W. International Speedway Blvd., Suite 100
Daytona Beach, FL 32114-8145

Prepared by:

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Feasibility Study for

Taylor Road/ Dunlawton Avenue
from Williamson Boulevard to Taylor Branch Road

Task Work Order TOF-VHB-02

Prepared for:

RIVER TO SEA TPO
Transportation Planning Organization
VISION - PLAN - IMPLEMENT

Prepared by:

Vanasse Hangen Brustlin, Inc.
Orlando, FL

June 2020

EXECUTIVE SUMMARY

Background

This report presents the results of a feasibility analysis completed for the Taylor Road/Dunlawton Avenue study corridor between Williamson Boulevard and Taylor Branch Road, located in the City of Port Orange, Volusia County, Florida. This study was initiated by a feasibility application by the City of Port Orange to address the existing traffic operational, and pedestrian/bicycle mobility and safety issues along the study corridor. In addition to the existing issues, there was also a concern about the near-term traffic volume growth because of the developments north and south of Taylor Road along Williamson Boulevard and the potential traffic issues that this traffic growth might bring to the study corridor. The closely spaced study intersections, heavy turning movements to/from Williamson Boulevard, I-95 Ramps and Taylor Branch Road, and existing lane imbalance issues all contribute to the existing traffic operational issues.

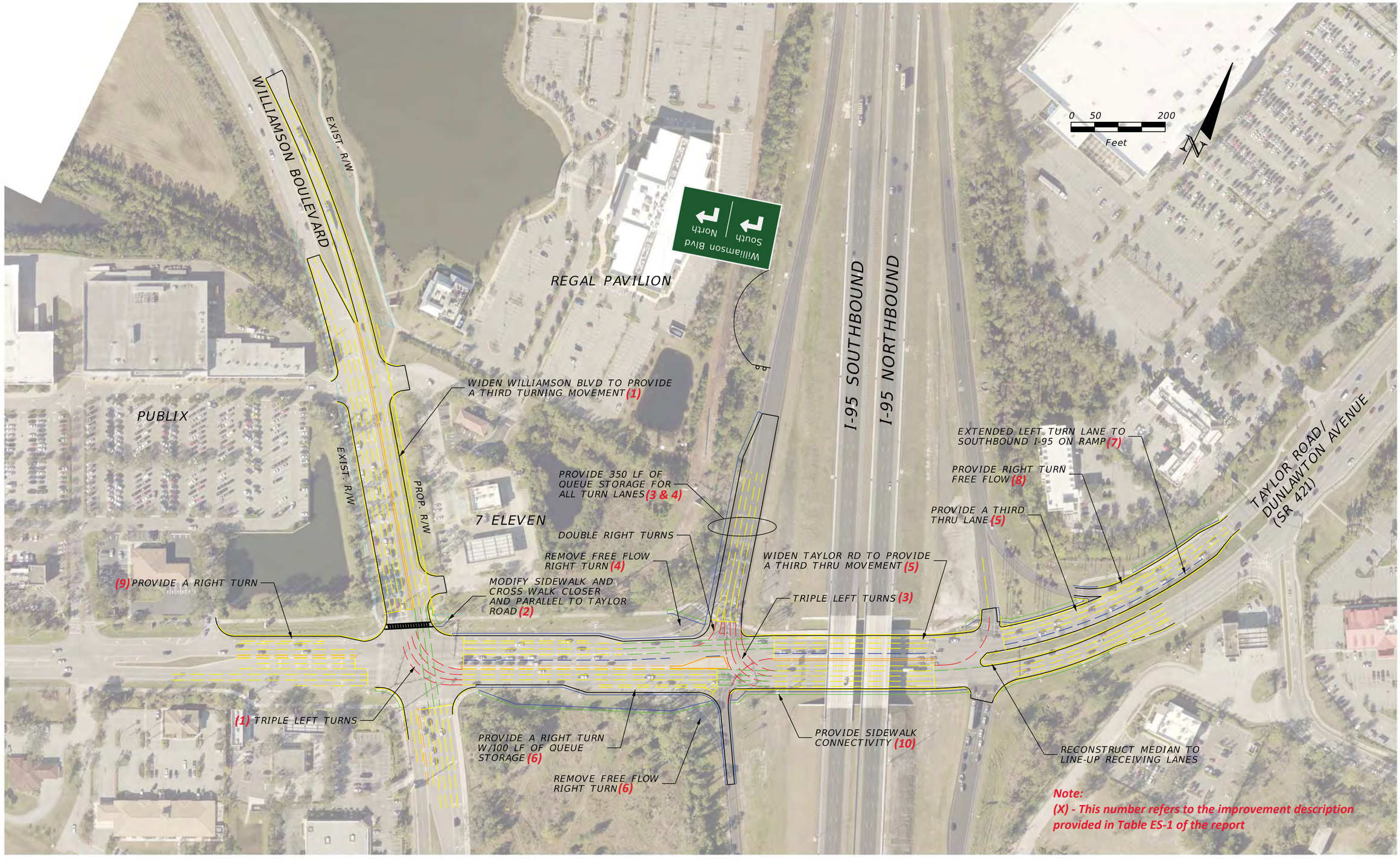
The main objective of this feasibility study is to provide a list of improvements for the study intersections that will improve the operations and safety of all road users in the near term (over the next 5 years). Please note that this study does not propose that any one recommendation must be implemented, but rather provides operational benefits and costs for each improvement so that any improvement can be implemented based on funding availability and other restrictions including Right-of-Way (ROW).

Proposed Improvements

Table ES-1 shows the list of improvements that can be considered to improve the safety and operations of the study intersections. The improvements are also illustrated in **Figure ES-1**.

Table ES-1: Summary of Proposed Improvements

Intersection	Improvement	(Figure ES-1 Reference #)
Taylor Road at Williamson Boulevard	▪ Provide an additional southbound left turn lane.	1
	▪ Modify the sidewalk and crosswalk on the north leg as shown in **Figure ES-1** to improve pedestrian visibility.	2
	▪ A leading pedestrian interval (LPI) for pedestrians crossing Williamson Boulevard can also be considered to improve pedestrian safety. A Flashing Yellow Arrow to hold right turning traffic during LPI can be used to reduce the delay for through traffic.	-
Taylor Road/Dunlawton Avenue at I-95 SB Ramps	▪ Provide an additional southbound left turn lane.	3
	▪ Remove the southbound channelized right turn lane and bring it under a signal which will improve pedestrian and bicycle safety at this intersection as well as eliminate the current weaving issues in the westbound right turn lane at the intersection of Taylor Road and Williamson Boulevard.	4
	▪ Add a lane under the bridge in the westbound direction that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard to mitigate the lane imbalance issue along westbound Taylor Road.	5
	▪ Provide an exclusive eastbound right turn lane and remove the channelized right turn lane to improve traffic operations as well as safety.	6
Dunlawton Avenue at I-95 NB Ramps	▪ Add a lane in the westbound direction as a continuation to the storage lane under the bridge that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard.	5
	▪ Extend the existing storage lane for the westbound left turn to I-95 SB on-ramp.	7
	▪ Add an exclusive westbound right turn for I-95 NB on-ramp to eliminate the lane imbalance issue with the current westbound outside lane being dropped as a right turn lane to I-95 NB on-ramp.	8
Other Improvements	▪ Provide a short westbound right turn lane for the 1st access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection.	9
	▪ Provide sidewalk continuity south of Taylor Road between east of Williamson Boulevard and east of I-95 NB Ramps.	10
Lighting Improvements	▪ Consider upgrading the lighting along Taylor Road/Dunlawton Avenue to LED lighting and add eight additional LED light poles at the intersection of Taylor Road and Williamson Road intersection to meet the intersection retrofit criteria. Add two additional LED light poles at the intersection of Dunlawton Avenue and Taylor Branch Road intersection.	-



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

VANASSE HANGEN BRUSTLIN, INC.
225. E. ROBINSON STREET
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION 3932

CITY OF PORT ORANGE

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 421	VOLUSIA	

STUDY CORRIDOR IMPROVEMENT DIAGRAM

FIGURE ES-1

SHEET NO. 1

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

Other Considerations for Proposed Improvements

- Based on the immediate operational and safety needs, proposed improvements along westbound Taylor Road/Dunlawton Avenue in conjunction with I-95 SB off-ramp improvements can be constructed together. However, the proposed elimination of the channelized right turn lane at I-95 SB Ramps will need an Interchange Operational Analysis Report (IOAR) approval from the Florida Department of Transportation (FDOT).
- The other improvements including the 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard and an exclusive eastbound right turn lane at the intersection of Taylor Road and I-95 SB Ramps can be completed separately based on the availability of funds and other restrictions.
- The 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard is not anticipated to provide significant operational improvement compared to the exclusive eastbound right turn lane at the intersection of Taylor Road and I-95 SB Ramps, at least for the near-term traffic conditions. Moreover, the 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard will need additional ROW for construction.
- The exclusive westbound right turn lane for the 1st access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection will provide safety benefits along westbound Taylor Road by reducing the potential for rear end crashes. However, this improvement may not qualify for federal funds if it is considered a private development.
- Providing sidewalk continuity south of Taylor Road between east of Williamson Boulevard and east of I-95 NB Ramps will improve pedestrian safety and mobility along the study corridor. As part of the proposed development (Advent Health Port Orange - an Emergency Department and Medical Office) that will be constructed in the southeast corner of Taylor Road and Williamson Boulevard intersection, a sidewalk segment is planned to be constructed on the southside of Taylor Road between Williamson Boulevard and I-95 SB Ramps. Therefore, this sidewalk continuity improvement must be completed in coordination with the developer (Memorial Health Systems, Inc.) for the Advent Health Port Orange development.

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INTRODUCTION

VHB was retained to perform a feasibility analysis study for Taylor Road/ Dunlawton Avenue from Williamson Boulevard to Taylor Branch Road, located in the City of Port Orange, Volusia County, Florida, as illustrated in **Figure 1**. As shown in **Figure 1**, the study intersections are:

- Taylor Road at Williamson Boulevard,
- Taylor Road/Dunlawton Avenue at I-95 SB Ramps,
- Dunlawton Avenue at I-95 NB Ramps, and
- Dunlawton Avenue at Taylor Branch Road.

This study was initiated by an application by the City of Port Orange to identify effective improvements to:

- Eliminate or reduce crashes,
- Improve sidewalks and crosswalks for pedestrians,
- Minimize delay to traffic at the study intersections, and
- Accommodate the anticipated traffic demand in the near-term over the next 5 years.

The analysis methods used in completing this study are consistent with the Manual on Uniform Traffic Control Devices (MUTCD), the Manual on Uniform Traffic Studies (MUTS), the Traffic Engineering Manual (TEM) and engineering judgment. The remainder of this report documents existing conditions (2020), vehicle and pedestrian counts, qualitative assessment, crash analysis, future conditions (2025), existing and future intersection analysis, and recommendations. The analysis will particularly consider the benefits and feasibility of proposed improvements at the study intersections along the Taylor Road/Dunlawton Avenue study corridor. This final report is revised based on the comments received from the City of Port Orange, Volusia County, and FDOT on the Draft Report submitted in April 2020. The responses to comments are provided in **Appendix A-1**.

Source: Google Maps

N

N.T.S.

Study Intersections

vhb

Figure 1

Project Location Map
Feasibility Study for
Taylor Road/Dunlawton Avenue
from Williamson Boulevard
to Taylor Branch Road

EXISTING CONDITIONS

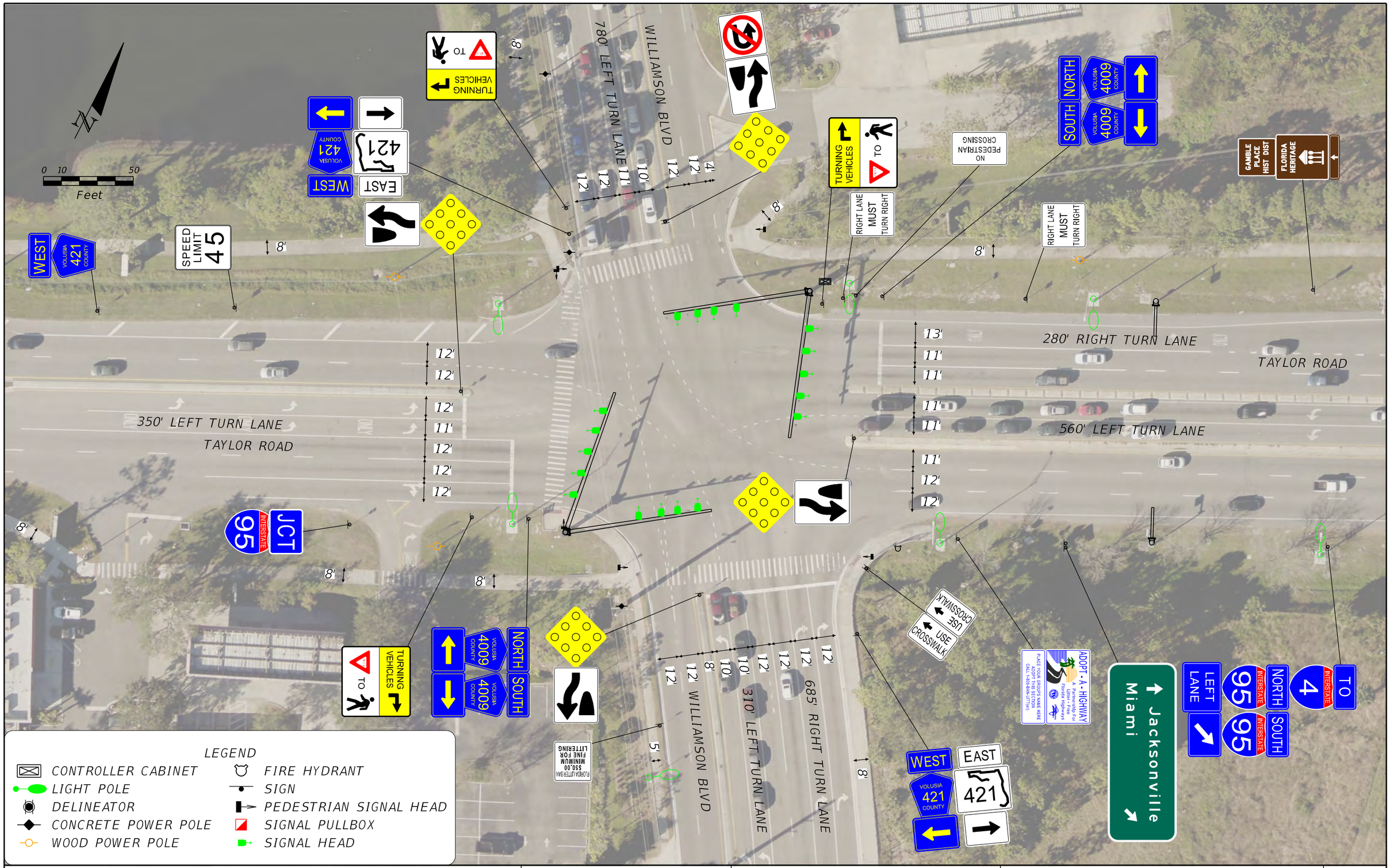
Field Inventory

The study intersections along Taylor Road/Dunlawton Avenue between Williamson Boulevard and Taylor Branch Road are located in the City of Port Orange, Volusia County, Florida. Taylor Road (SR 421) is State maintained, 5-lane divided urban principal arterial within the study limits. SR 421 east of Taylor Road becomes Dunlawton Avenue, which is a 6-lane divided roadway. West of Williamson Boulevard, Taylor Road becomes a County maintained roadway (CR 421). CR 421 is a 4-lane divided roadway between Summer Trees Road and Williamson Boulevard and becomes a 2-lane roadway west of Summer Trees Road. All the 4 study intersections are closely spaced, with approximately 650 feet distance between Williamson Boulevard and I-95 SB Ramps and between I-95 NB Ramps and Taylor Branch Road. The existing interchange of Taylor Road at I-95 is a diamond interchange.

The roadway characteristics of the study intersections are presented in **Table 1. Figures 2** through **5**, depict the existing conditions including the general roadway geometry, pavement markings, land use, and intersection traffic control of the study corridor for all the study intersections. The conditions stated in this report reflect conditions as observed on the date of the qualitative assessment.

Table 1: Field Inventory

Features	Taylor Road at Williamson Boulevard	Taylor Road/Dunlawton Avenue at I-95 - Interchange	Dunlawton Avenue at Taylor Branch Road
Study Roadway	Taylor Road (east-west); 5-lane divided urban principal arterial	Taylor Road/Dunlawton Avenue (east-west); 5-lane divided urban principal arterial. East of I-95 SB Ramps, SR 421 is called Dunlawton Avenue and west of I-95 SB Ramps, SR 421 is called Taylor Road.	Dunlawton Avenue (east-west); 5-lane divided urban principal arterial
Cross Street	Williamson Boulevard (north-south); 4-lane divided principal arterial	I-95 Ramps (north-south)	Taylor Branch Road (north-south): 2-lane arterial
Intersection Type	4-legged intersection	Diamond Interchange - All single lane ramps	3-legged intersection
Number of Intersection Approach Lanes	Northbound – 2 left turn lanes, 2 through lanes & 2 right turn lanes Southbound – 2 left turn lanes, 1 through lane & 1 shared through/right lane Eastbound – 2 left turn lanes, 2 through lanes & 1 shared through/right lane Westbound – 2 left turn lanes, 2 through lanes & 1 right turn lane	I-95 SB Ramps: • Southbound – 2 left turn lanes & 2 right turn lanes (1 channelized lane and 1 lane at signal) • Eastbound – 2 through lanes & 1 shared through/right lane • Westbound - 1 left turn lane & 2 through lanes I-95 NB Ramps: • Northbound – 1 left turn lane & 2 right turn lanes • Eastbound – 2 left turn lanes & 3 through lanes • Westbound – 3 through lanes (inside through lane is a storage lane for the westbound left to I-95 SB) & 1 right turn lane (channelized)	Northbound - 1 right turn lane Eastbound - 3 through lanes & 1 right turn lane Westbound - 1 left turn lane, 2 through lanes & 1 right turn lane
Traffic Control	Signal	Signalized ramp terminal	Signal
Speed Limit	Taylor Road - 45 mph Williamson Boulevard - 35/45 mph	Taylor Road/Dunlawton Avenue - 45 mph Exit Ramps - 35 mph	Dunlawton Avenue - 45 mph Taylor Branch Road - 30 mph
Sidewalks	Taylor Road (west leg) - on both sides of the roadway Taylor Road (east leg) - on the north side of the roadway Williamson Boulevard - on both sides of the roadway	Taylor Rd/Dunlawton Avenue - On north side only	Dunlawton Avenue - on both sides of the roadway Taylor Branch Road - east side of the roadway
Surrounding Development	Northwest: Publix and shopping center Northeast: 7-Eleven gas station Southwest: Walgreens Southeast: Vacant land	Northwest: Vacant land Northeast: La Quinta Inn & Suites & restaurants Southwest: Vacant land Southeast: Vacant land	North: La Quinta Inn & Suites & restaurants Southwest: Gas station Southeast: BJ's & restaurants
Nearest Signalized intersections	Williamson Boulevard & Summer Trees Road - 0.33 miles to the north Williamson Boulevard & Airport Road - 2.15 miles to the south Taylor Road & I-95 SB Ramps - 650 feet to the east Taylor Rd & Summer Trees Road - 0.25 miles to the west	I-4 & I-95 interchange - 4.0 miles to the north SR 44 & I-95 interchange - 6.5 miles to the south Dunlawton Avenue & Taylor Branch Road - 650 feet to the east Taylor Road & Williamson Boulevard - 650 feet to the west	Taylor Branch Road & Boggs Ford Road - 960 feet to the south Taylor Road/Dunlawton Avenue & I-95 NB Ramps - 650 feet to the west Dunlawton Avenue & Yorktowne Boulevard - 0.31 miles to the east
Roadway Lighting	Streetlighting is present in all quadrants of the intersection	Streetlighting is present in all quadrants of the intersection	Streetlighting is present in all quadrants of the intersection



LEGEND

- CONTROLLER CABINET
- LIGHT POLE
- DELINEATOR
- CONCRETE POWER POLE
- WOOD POWER POLE
- FIRE HYDRANT
- SIGN
- PEDESTRIAN SIGNAL HEAD
- SIGNAL PULLBOX
- SIGNAL HEAD

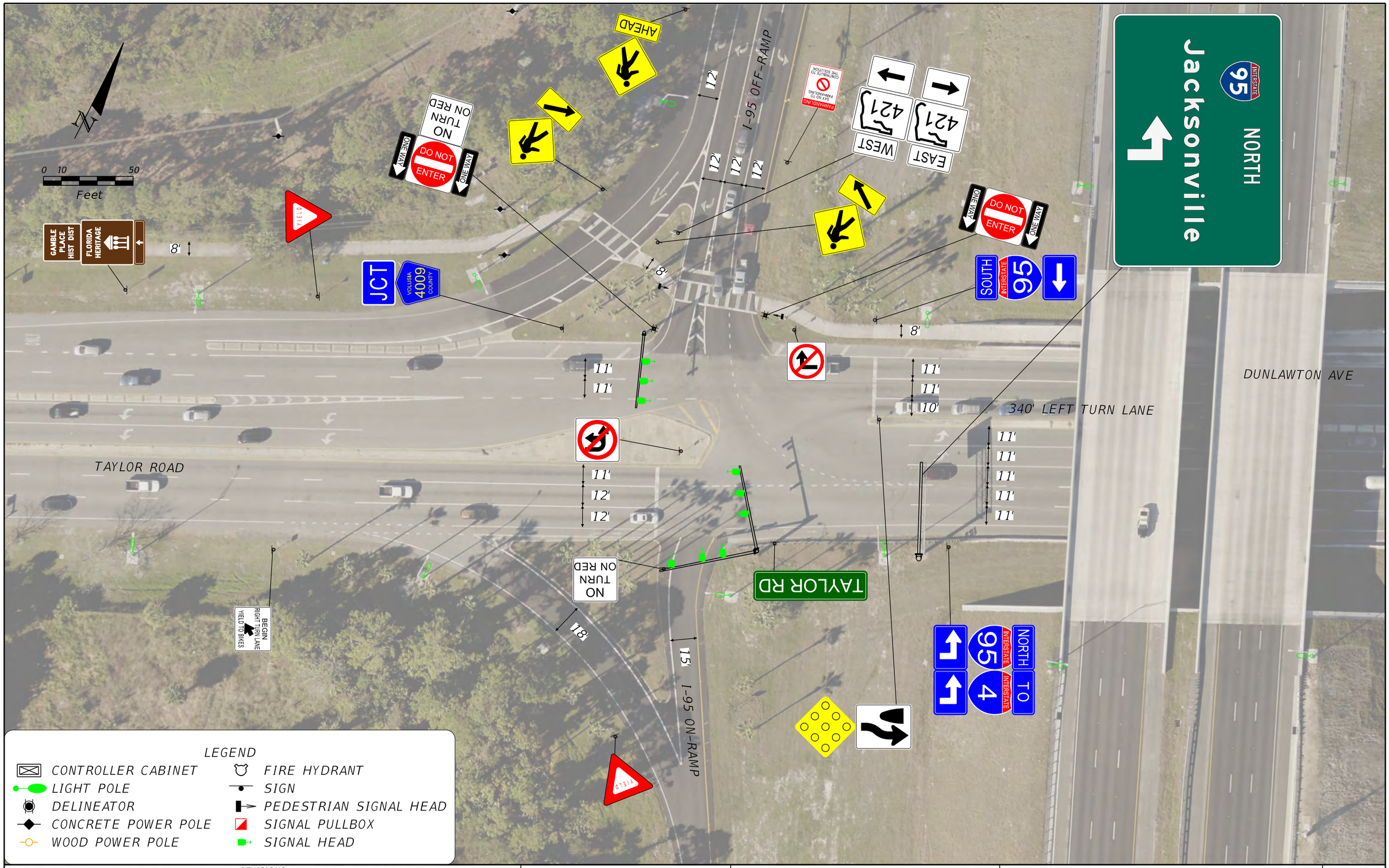
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
483	VOLUSIA	

CONDITION DIAGRAM TAYLOR ROAD AT WILLIAMSON BLVD

FIGURE NO. 2



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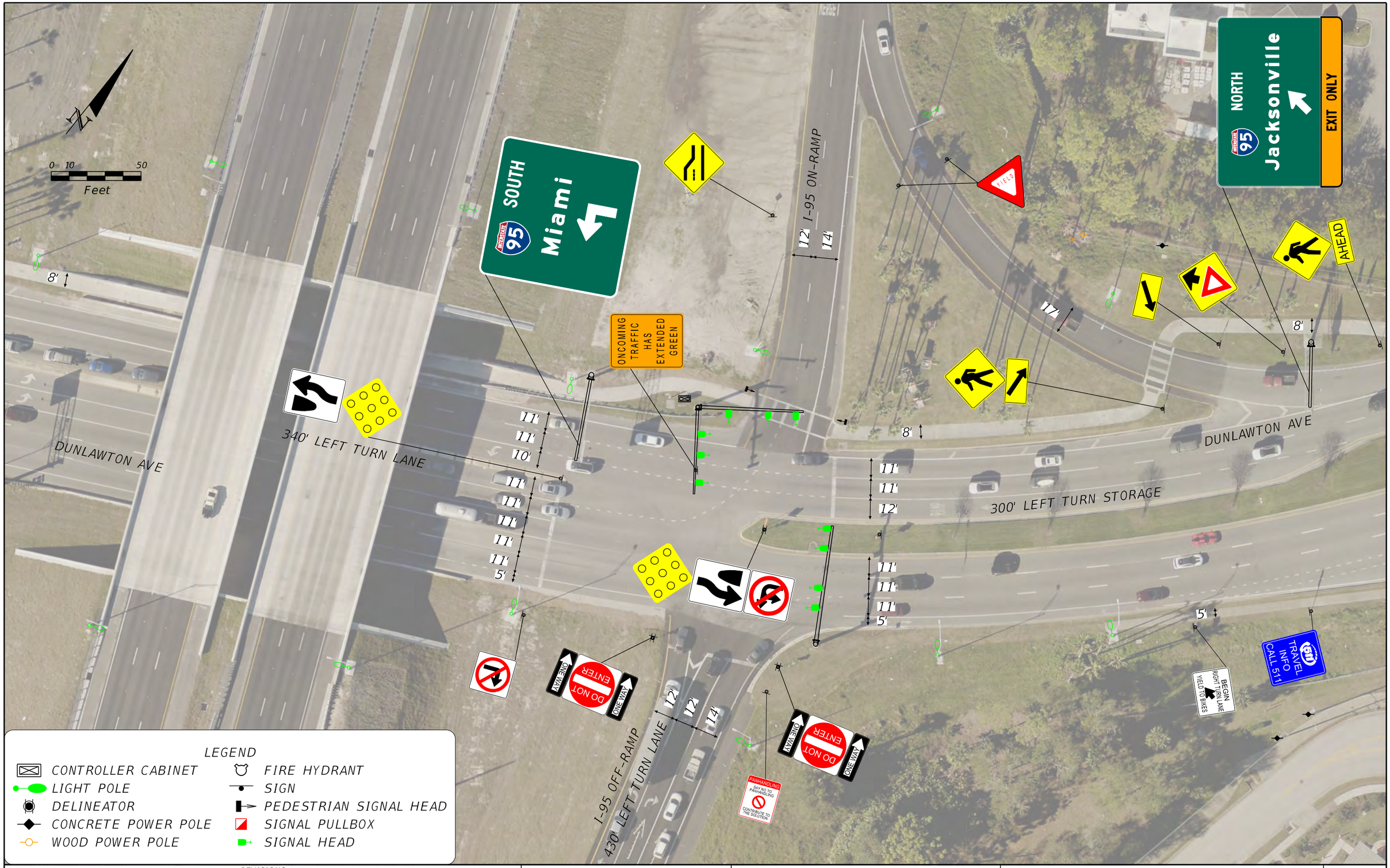
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
483	VOLUSIA	

CONDITION DIAGRAM
TAYLOR ROAD AT
I-95 SB ON / OFF-RAMPS

FIGURE NO. 3



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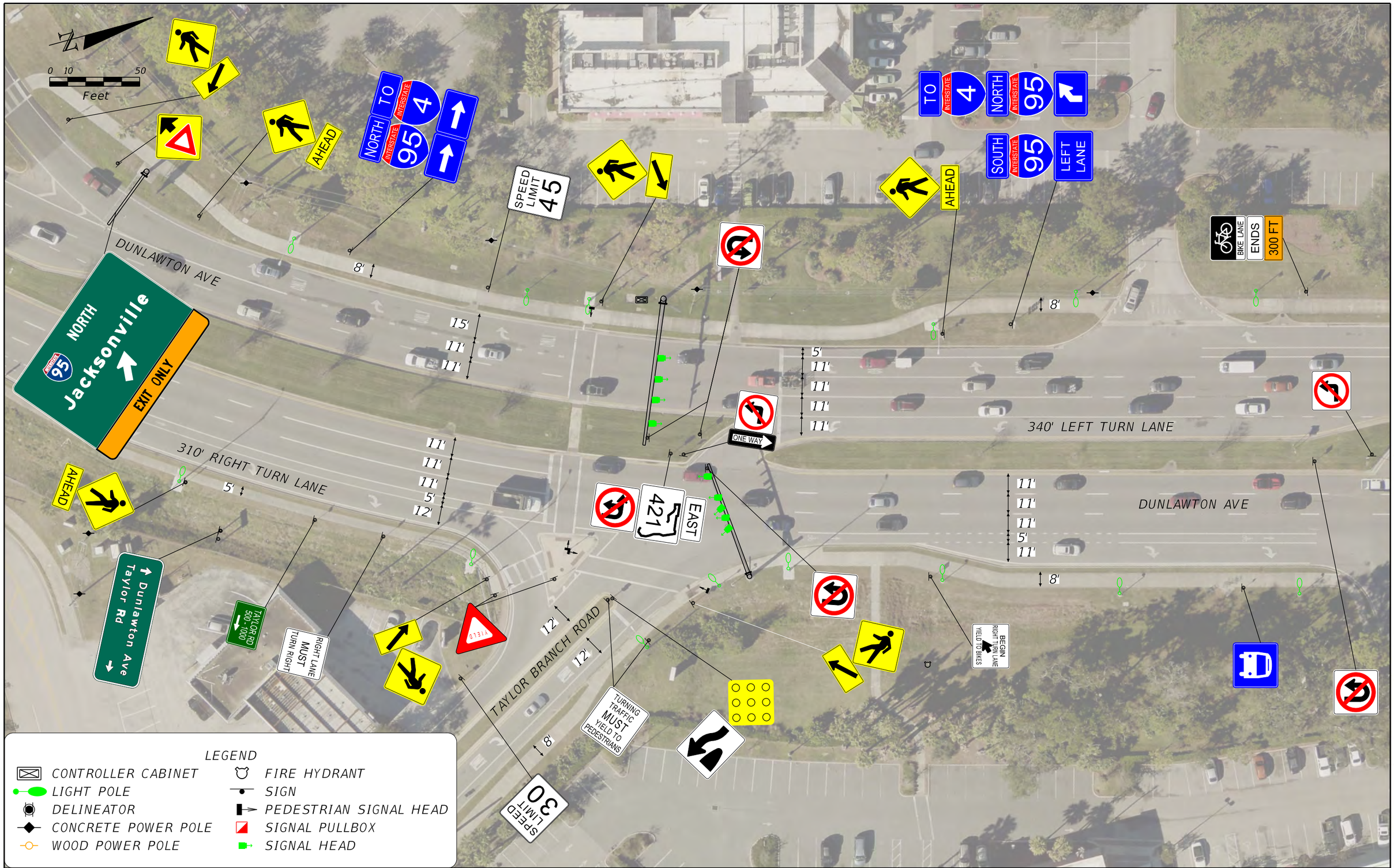
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
483	VOLUSIA	

CONDITION DIAGRAM
DUNLAWTON AVE AT
I-95 NB ON / OFF RAMPS

FIGURE NO. 4



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
483	VOLUSIA	

CONDITION DIAGRAM DUNLAWTON AVE AT TAYLOR BRANCH ROAD

FIGURE NO. 5

Traffic Volume Data

24-hour volume traffic count was collected on Taylor Toad, west of Williamson Boulevard on 01/14/2020, representing a typical commuter weekday. The 24-hour volume traffic count was supplemented with the 8-hour intersection turning movement counts. The turning movement counts were collected between 7:00 AM – 9:00 AM and 12:00 PM – 6:00 PM at the study intersections (Taylor Road at Williamson Boulevard, Taylor Road at I-95 SB Ramps, Taylor Road at I-95 NB Ramps and Dunlawton Avenue at Taylor Road). These hours represent the highest eight hours obtained from the volume counts. From this data, the AM, mid-day, and PM peak traffic hours were found to occur from 7:30 AM to 8:30 AM, 12:30 PM to 1:30 PM and 4:45 PM to 5:45 PM, respectively, for all study intersections. The overall peak hour for the intersections was found to occur during the PM peak hour. The turning movement counts revealed that the traffic in eastbound direction peaks during AM conditions and the traffic in westbound direction peaks during PM conditions. The 24-hour volume count, 8-hour turning movement counts, and pedestrian/bicycle counts are provided in greater detail in **Appendix A-2**. The following table summarizes the distribution of turning movements at the study intersections.

Table 2: 8 Hour Turning Movement Percentages (All Vehicles)

Study Intersection	Movement	Northbound	Southbound	Eastbound	Westbound
Taylor Road & Williamson Boulevard	Left turn/U-turn	9.56%	58.32%	6.21%	30.12%
	Through	23.71%	37.58%	79.44%	41.97%
	Right-turn	66.73%	4.10%	14.35%	27.92%
Taylor Road/Dunlawton Avenue & I-95 SB Ramps	Left turn/U-turn	0.00%	65.16%	0.00%	15.17%
	Through	0.00%	0.03%	92.24%	84.83%
	Right-turn	0.00%	34.81%	7.76%	0.00%
Dunlawton Avenue & I-95 NB Ramps	Left turn/U-turn	25.15%	0.00%	11.93%	0.02%
	Through	0.07%	0.00%	88.07%	73.08%
	Right-turn	74.78%	0.00%	0.00%	26.90%
Dunlawton Avenue & Taylor Branch Road	Left turn/U-turn	0.00%	0.00%	0.00%	1.51%
	Through	0.00%	0.00%	76.77%	98.49%
	Right-turn	100.00%	0.00%	23.23%	0.00%

Crash Data

The latest available three years of crash data (from January 1, 2017 to December 31, 2019) at Taylor Road at Williamson Boulevard, Taylor Road at I-95 Ramps and Dunlawton Avenue at Taylor Branch Road intersections were obtained from Signal Four Analytics. Raw crash data and crash diagrams based on Signal Four Analytics GIS data are included in **Appendix B**.

Taylor Road at Williamson Boulevard - Crash Summary

As shown in **Table 3,** there were 134 crashes reported within the influence area of this intersection. The crashes consisted of 67 rear end, 2 head on, 37 sideswipe, 9 angle, 10 left turn, 6 right turn, 2 off road, and 1 pedestrian/bicyclist crashes. The crashes caused 44 injuries (from 33 crashes), and total property damage amounted to approximately $566,411. There were no fatalities. 80 percent of the crashes occurred in daylight and the remaining 20 percent crashes occurred in dark or dusk conditions. Pavement condition was dry for 119 of the crashes and wet conditions for the remaining 15 crashes. The 1 pedestrian/bicyclist crash occurred on Taylor Road near Westport Plaza – west of Williamson Boulevard intersection. In addition to the significant number of rear end crashes (which are typical at a signalized intersection), a significant number of sideswipe crashes were also observed at the study intersection (most likely due to unlawful/aggressive lane changes).

Taylor Road/Dunlawton Avenue at I-95 Ramps - Crash Summary

As shown in **Table 4**, there were 48 crashes reported within the influence area of this intersection. The crashes consisted of 25 rear end, 7 sideswipe, 2 angle, 10 left turn, and 4 off road crashes. The crashes caused 16 injuries (from 12 crashes), and total property damage amounted to approximately $282,901. Out of the 48 crashes, 36 occurred in daylight and the remaining 12 occurred in dark or dusk conditions. Pavement condition was dry for 41 of the crashes and wet conditions for the remaining 7 crashes. One fatality (off-road crash) occurred early morning (2:58 AM) on October 26, 2019, when a vehicle lost control, rotated 120 degrees clockwise, and crashed into a palm tree.

Table 3: Taylor Road at Williamson Boulevard – Crash Summary

Crash Type	2017	2018	2019	Total	Proportion
Rear End	26	23	18	**67**	50%
Head On	1	1	0	**2**	1%
Sideswipe	10	3	24	**37**	28%
Roll Over	0	0	0	**0**	0%
Angle	3	1	5	**9**	7%
Left Turn	1	6	3	**10**	7%
Right Turn	1	3	2	**6**	4%
Off Road	1	1	0	**2**	1%
Pedestrian & Bicycle	0	1	0	**1**	1%
Animal	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Total	**26**	**23**	**18**	**134**	100%
Crash Severity	**2017**	**2018**	**2019**	**Total**	**Proportion**
Fatality	0	0	0	**0**	0%
Injury	11	11	11	**33**	25%
Property Damage Only	32	28	41	**101**	75%
Total	**43**	**39**	**52**	**134**	100%
Pavement Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Wet	3	4	8	**15**	11%
Dry	40	35	44	**119**	89%
Slippery	0	0	0	**0**	0%
Total	**43**	**39**	**52**	**134**	100%
Light Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Daylight	38	28	41	**107**	80%
Dusk	2	0	1	**3**	2%
Dawn	0	1	0	**1**	1%
Dark	3	10	10	**23**	17%
Total	**43**	**39**	**52**	**134**	100%

Table 4: Taylor Road/Dunlawton Avenue at I-95 Ramps – Crash Summary

Crash Type	2017	2018	2019	Total	Proportion
Rear End	6	12	7	**25**	52%
Head On	0	0	0	**0**	0%
Sideswipe	0	2	5	**7**	15%
Roll Over	0	0	0	**0**	0%
Angle	1	1	0	**2**	4%
Left Turn	4	4	2	**10**	21%
Right Turn	0	0	0	**0**	0%
Off Road	1	2	1	**4**	8%
Pedestrian & Bicycle	0	0	0	**0**	0%
Animal	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Total	**12**	**21**	**15**	**48**	100%
Crash Severity	**2017**	**2018**	**2019**	**Total**	**Proportion**
Fatality	0	0	1	**1**	2%
Injury	6	5	1	**12**	25%
Property Damage Only	6	16	13	**35**	73%
Total	**12**	**21**	**15**	**48**	100%
Pavement Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Wet	3	3	1	**7**	15%
Dry	9	18	14	**41**	85%
Slippery	0	0	0	**0**	0%
Total	**12**	**21**	**15**	**48**	100%
Light Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Daylight	9	17	10	**36**	75%
Dusk	0	0	0	**0**	0%
Dawn	1	0	0	**1**	2%
Dark	2	4	5	**11**	23%
Total	**12**	**21**	**15**	**48**	100%

Dunlawton Avenue at Taylor Branch Road - Crash Summary

As shown in **Table 5**, there were 86 crashes reported within the influence area of the intersection. The crashes consisted of 47 rear end, 13 sideswipes, 1 roll over, 7 angle, 6 left turn, 4 right turn, 7 off road, and 1 pedestrian/bicyclist crashes.

The crashes caused 39 injuries (from 29 crashes), and total property damage amounted to approximately $439,604. There were no fatalities. 69 of the total crashes occurred in daylight and 16 crashes occurred in dark or dusk conditions. Pavement condition was dry for 78 of the crashes and wet conditions for the remaining 8 crashes. The 1 pedestrian/bicyclist crash occurred on April 17, 2019, on Dunlawton Avenue west of the Taylor Branch Road. The bicyclist failed to obey the pedestrian/bicyclist traffic signal.

Table 5: Dunlawton Avenue at Taylor Branch Road – Crash Summary

Crash Type	**2017**	**2018**	**2019**	**Total**	**Proportion**
Rear End	13	13	21	47	55%
Head On	0	0	0	0	0%
Sideswipe	5	4	4	13	15%
Roll Over	1	0	0	1	1%
Angle	2	2	3	7	8%
Left Turn	2	2	2	6	7%
Right Turn	0	3	1	4	5%
Off Road	4	1	2	7	8%
Pedestrian & Bicycle	0	0	1	1	1%
Animal	0	0	0	0	0%
Other	0	0	0	0	0%
Total	**27**	**25**	**34**	**86**	100%
Crash Severity	**2017**	**2018**	**2019**	**Total**	**Proportion**
Fatality	0	0	0	**0**	0%
Injury	10	5	14	**29**	34%
Property Damage Only	17	20	20	**57**	66%
Total	**27**	**25**	**34**	**86**	100%
Pavement Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Wet	3	0	4	**7**	8%
Dry	24	25	29	**78**	91%
Slippery	0	0	1	**1**	1%
Total	**27**	**25**	**34**	**86**	100%
Light Condition	**2017**	**2018**	**2019**	**Total**	**Proportion**
Daylight	21	20	28	**69**	80%
Dusk	0	1	2	**3**	3%
Dawn	0	0	0	**0**	0%
Dark	6	4	3	**13**	15%
Total	**27**	**25**	**33**	**85***	99%

*Light condition for 1 crash was listed as unknown in the crash data

QUALITATIVE ASSESSMENT

A qualitative assessment (QA) was conducted at each study intersection in the field to evaluate the existing operating conditions occurring on a typical weekday and to identify areas where improvements would be potentially beneficial to the overall safety and efficiency of the location. A registered professional engineer performed the QA during the AM and PM peak hour periods. The field observations are summarized in **Tables 6 through 8** for the study intersections.

Table 6: Qualitative Assessment: Taylor Road at Williamson Boulevard

Feature	Observation
Observation Timings	7:30 to 8:30 AM & 4:30 to 5:45 PM
Traffic	1. The flow of traffic on Taylor Road was heavier in the eastbound direction during the AM peak hour and was heavier in the westbound direction during the PM peak hour. 2. The northbound right, westbound left, southbound left, and westbound right turning movements were observed to be significantly heavier compared to the other left or right turning movements. During the AM peak hour, the northbound right turning movement was substantially heavier compared to other movements. During the PM peak hour, the westbound left turning movement was observed to be heavier compared to the northbound right turning movement, and southbound left and westbound right turning movements have an approximately equal number of vehicles. The eastbound left turning movement was observed to significantly lower compared to the 2 lane capacity provided for this movement. 3. Because of the heavy southbound left and northbound right turning movements, residual queues were observed in the eastbound direction between Williamson Boulevard and I-95 SB Ramps and this impacted the EB through movement at Taylor Road and Williamson Boulevard, and significantly impacted the northbound right turning movement during the PM peak hour. The residual queues in combination with short lane changing distances/lane imbalances (which confined motorists to certain lanes) appeared to cause green time starvation to both northbound right and eastbound through movements. 5. Expect for the northbound right turning and eastbound through movements, all other movements were observed to generally clear up in one cycle. The storage length for the southbound left turning movement was observed to be adequate. The westbound left turn storage is generally always full and in very few instances spilled into the interchange. 5. Based on field observations, approximately 30% and 50% of the westbound right turning traffic originated from the channelized southbound right turning movement at the intersection of Taylor Road and I-95 SB Ramps during the AM and PM peak hours, respectively. The conflicts between westbound traffic along Taylor Road and southbound right turning traffic in the channelized lane at Taylor Road and I-95 SB Ramps, both wanting to turn westbound right at this intersection caused weaving issues. The channelized right turn lane at Taylor Road and I-95 SB Ramps must yield before merging onto Taylor Road, before turning westbound right or going through onto Williamson Boulevard. However, in some instances, the westbound through traffic wanting to turn right at this intersection had to stop for the turning traffic using the channelized lane at Taylor Road and I-95 SB Ramps. 7. Approximately 40% of the northbound right turning traffic eventually turned eastbound left at the intersection of Dunlawton Avenue and I-95 NB Ramps. 8. It is observed that vehicles in the northbound outside through lane (on the north leg) wanting to turn right into the 7-Eleven and westbound outside through lane (on the west leg) wanting to turn right into the Publix Complex caused vehicles to slow down and increased the potential for rear end crashes.
Pedestrian/Bicycle	1. Very less pedestrian activity was observed at the study intersection. 2. A sidewalk is not provided on the south side of Taylor Road east of Williamson Boulevard. 3. A crosswalk is not present on the east leg of the study intersection. The crosswalks are marked with special emphasis pavement markings, which are appropriate for a crossing at a signalized intersection. During the AM peak hour, one pedestrian was observed to cross Taylor Road on the east leg of the intersection. 4. The walk times provided appeared adequate for pedestrians to cross at a normal pace and within the allotted time. 5. Bike lanes are not present at the study intersection. A "Bikes – Share the Road" sign (W11-1 in conjunction with W16-2P plaque) is provided on Williamson Boulevard south of Taylor Road.
Pavement & Signage	1. Traffic signs and pavement markings are in good condition. 2. A No U-turn LED blankout sign and No U-turn sign (R3-4) are provided for the inside southbound left turn lane. A No U-turn sign (R3-4) is provided for the inside westbound left turn lane. 3. A No Right Turn LED blankout sign is provided for the north right turn lanes. 4. Turning Vehicles Yield to Pedestrians (R10-15) signs are placed for the westbound, eastbound and southbound right turns.
Roadway Lighting	1. There is existing lighting along Taylor Road from Williamson Boulevard to Dunlawton Avenue which includes the I-95 northbound and southbound ramps. The lighting consists of standalone aluminum light poles with 400W High Pressure Sodium (HPS) luminaires mounted at 45-feet. 2. There is no lighting along Williamson Road or Taylor Road (south of Dunlawton Avenue). 3. There is lighting on the I-95 ramps which are aluminum light poles with 250W HPS luminaires mounted at 35-feet. 4. Based on the existing location of the luminaires, Florida Design Manual (FDM) retrofit-lighting criteria is not being met with the existing lighting.
Americans with Disabilities Act (ADA) concerns	1. Truncated domes are provided at the study intersection. 2. All curb ramps must be reevaluated and realigned since some of the ramps (northwest and southeast quadrants) are not aligned with the crosswalks.

Table 7: Qualitative Assessment: Taylor Road/Dunlawton Avenue at I-95 Ramps

Feature	Observation
Observation Timings	7:30 to 8:30 AM & 4:30 to 5:45 PM
Traffic	**I-95 SB Ramps** 1. During the PM peak hour, the southbound off-ramp queue uses the available storage (left and right turn storage) with a queue of approximately 700 feet. Queues cleared up in one cycle during both AM and PM peak hours for the southbound off-ramp approach. 2. Westbound through and left turn queues were generally observed to use the available storage under the bridge but generally cleared up in one cycle. Westbound left turning vehicles generally used the extra ramp storage provided east of the I-95 interchange. 3. Eastbound through queues spilled back to the upstream intersection of Taylor Road at Williamson Boulevard, especially during the PM peak hour. Eastbound right turn to I-95 southbound movement sometimes was observed to bypass the eastbound through queue using the shoulder. **I-95 NB Ramps** 1. Eastbound through and left turn queues were generally observed to use the available storage under the bridge but generally cleared up in one cycle. 2. Few vehicles were observed to turn southbound left at the I-95 SB Ramps, then immediately turn eastbound left at the I-95 NB Ramps to take a U-turn. This is most likely because of the confusion created by the recent completion of I-95 at I-4 interchange. 3. The I-95 northbound off-ramp was generally observed to operate without residual queues or cycle failures. Queues cleared up within the allotted green phase of the signal operation. 4. Compared to the eastbound direction, significant lane imbalance issues were observed in the westbound direction. This issue worsened during the PM peak hour because of the heavy westbound peak directional volume. The lane imbalance was caused by a) outside westbound through lane drops as a right turn only lane to I-95 northbound and b) a very high percentage of westbound through traffic eventually turn westbound left at the intersection of Taylor Road and Williamson Boulevard. Because of the existing traffic patterns and roadway configuration, the majority of the westbound traffic utilizes the inside through lanes, and inside-most lane more than the middle lane along westbound Dunlawton Avenue east of I-95, and this caused westbound through queues to back up till Yorktowne Boulevard.
Pedestrian/Bicycle	1. Very less pedestrian traffic activity was observed at the ramp terminal intersections. 2. Sidewalks are present on the northside of the Taylor Road corridor. 3. Bike lanes are not present at the ramp terminal intersections. 4. Tree growth in the northwest corner of I-95 SB Ramps obstructed the view between pedestrians crossing the north leg and southbound right turning traffic using the channelized right turn lane.
Pavement & Signage	Traffic signs and pavement markings are in good condition.
Roadway Lighting	See Table 6.
Americans with Disabilities Act (ADA) concerns	1. Truncated domes are provided at all street-to-sidewalk transitions. 2. The installed truncated domes look very old and must be replaced; the pad at the I-95 NB on-ramp has been damaged almost entirely. 3. A pedestrian sign is damaged in the northeast corner of the I-95 Northbound Ramps and was missing a part of the sign.

Table 8: Qualitative Assessment: Dunlawton Avenue at Taylor Branch Road

Feature	Observation
Observation Timings	7:30 to 8:30 AM & 4:30 to 5:45 PM
Traffic	1. Eastbound right turn lane at this intersection is channelized and experienced constant traffic throughout the observation period. 2. Few school buses were observed to head southbound along Taylor Branch Road during the AM peak period. Spruce Creek High School is located at the northeast corner of Taylor Road and Clyde Morris Boulevard. 3. The westbound through traffic has a continuous green signal because of the absence of opposing movements and only stopped when there is pedestrian actuation (to cross Dunlawton Avenue). 4. As mentioned in Table 7, because of the existing traffic patterns and roadway configuration, majority of the westbound traffic utilizes the inside through lanes, and inside-most lane more than the middle lane along westbound Dunlawton Avenue east of I-95, and this caused westbound through queues to back up till Yorktowne Boulevard. 5. Traffic operational issues were not observed for the other movements.
Pedestrian/Bicycle	1. Very less pedestrian traffic activity was observed at the study intersection. 2. Sidewalks are present on both sides of Dunlawton Avenue and along the east side of Taylor Branch Road. 3. Crosswalk markings are present on the south and west legs of the study intersection. However, these crosswalks do not have special emphasis longitudinal lines, except for the crosswalk in the westbound channelized right turn lane. 4. The walk times provided appeared adequate for pedestrians to cross at a normal pace and within the allotted time. 5. Bike lanes are present on eastbound Dunlawton Avenue at the study intersection. 6. A 'pedestrian ahead' warning sign is behind a light pole going eastbound on Dunlawton Avenue near the intersection.
Pavement & Signage	Traffic signs and pavement markings are in good condition.
Roadway Lighting	See Table 6.
Americans with Disabilities Act (ADA) concerns	1. Truncated domes are provided at all street-to-sidewalk transitions. 2. The installed truncated domes look very old and some of them are damaged.

FEASIBILITY ANALYSIS

Background

This study was initiated by a feasibility application by the City of Port Orange to address the existing traffic operational, and pedestrian/bicycle mobility and safety issues along Taylor Road/Dunlawton Avenue between Williamson Boulevard and Taylor Branch Road. In addition to the existing issues, there was also a concern about the near-term traffic volume growth because of the developments north and south of Taylor Road along Williamson Boulevard and the potential traffic issues that this traffic growth might bring to the study corridor. The closely spaced study intersections, heavy turning movements from/to Williamson Boulevard, I-95 Ramps and Taylor Branch Road, and existing lane imbalance issues all contribute to the existing traffic operational issues.

The main objective of this feasibility study is to provide a list of improvements for the study intersections that will improve the operations and safety of all road users in the near term (over the next 5 years). Please note that this study does not propose that any one recommendation must be implemented, but rather provides operational benefits and costs for each improvement so that any improvement can be implemented based on funding availability and other restrictions including ROW.

Stakeholder Coordination

An extensive coordination effort was conducted as part of this study. The study team along with the stakeholders including the City of Port Orange, Volusia County, FDOT, and R2CTPO participated in 3 meetings to discuss the study. The first meeting was held on February 19, 2020, to discuss the preliminary findings and to gather stakeholder input. The second stakeholder meeting was held on March 30, 2020, to discuss the proposed improvements and analysis results. A separate meeting was held on March 17, 2020, between the Consultant and FDOT to gather the Department's project experience on the study corridor.

As part of the discussions during the initial stakeholder meeting, the below suggestions were discussed to accommodate long-term traffic demand at the intersections of Taylor Road at Williamson Boulevard and Taylor Road/Dunlawton Avenue at the I-95 ramp terminals.

- Consider using Summer Trees Road to divert some portion of the southbound left turning traffic.
- Consider eliminating eastbound left turn movement to provide more green time for westbound through traffic. Consider eliminating one northbound left turn lane to optimize lane utilization and to provide a full northbound right turn lane.
- Consider eliminating westbound left turn movement and divert this traffic via a quadrant intersection that will utilize one of the side streets in the southwest corner. It was also suggested that the option of a quadrant intersection must be evaluated in conjunction with an innovative concept at I-95 and Taylor Road/Dunlawton Avenue such as Diverging Diamond Interchange (DDI).
- Consider waiting till the new interchange at I-95 and Pioneer Trail is constructed before evaluating an ultimate interchange configuration and long-term intersection improvements can be considered. Please note that the latest FDOT five year work program does not show a Construction Phase for this interchange in the next 5 years (between 2020 and 2025).

However, the above suggestions were not considered in this study due to budgetary and scope constraints.

Previous Studies

FDOT, the City of Port Orange, and Volusia County have evaluated operating conditions and made improvements to the I-95/SR 421 interchange to address the increase in congestion that has occurred in this area over the years. The existing roadway and intersection configuration are part of the improvements that have been made in the interchange area from 2006 to 2016.

The SR 421 (Taylor Road)/I-95 Interchange Analysis, dated January 2009, completed by Kimley-Horn & Associates, Inc. for the City of Port Orange noted that while improvements could provide some- improvement out to 2025, "consideration should be given to providing alternative routes such that vehicles do not need to travel through the SR 421/I-95 interchange area."

This study also reviewed the Interchange Justification Report (IJR) for the proposed interchange of I-95 at Pioneer Trail that was approved in April 2017, to investigate the impact of the proposed interchange at Pioneer Trail on the study intersections along Taylor Road. The IJR reported projected traffic volumes (for 2022, 2032 and 2042) for the area near the interchange of I-95 at Taylor Road with and without the proposed I-95 at Pioneer Trail interchange. Based on the latest adopted R2CTPO 2040 Long Range Transportation Plan (LRTP), construction funds will be available for the new Pioneer Trail interchange between 2031 and 2040. This review noted that there was not a significant difference (reduction) in projected volumes at the study intersections from 2022 through 2042 because of a proposed new interchange at I-95 and Pioneer Trail. A preliminary analysis of several alternatives ranging from low-cost near-term alternatives to long-term alternatives including the current interchange reconfiguration (also evaluated as part of the above-mentioned 2009 study), a DDI, and a Single Point Urban Interchange (SPUI) was conducted as part of the 2017 IJR.

The I-95 Systems Operational Analysis Report (SOAR), completed in April 2018, noted that a detailed interchange access request (IAR) must be completed for the interchange of I-95 at Taylor Road to identify the ultimate interchange configuration needed to address the long-term traffic demand.

Analysis Years

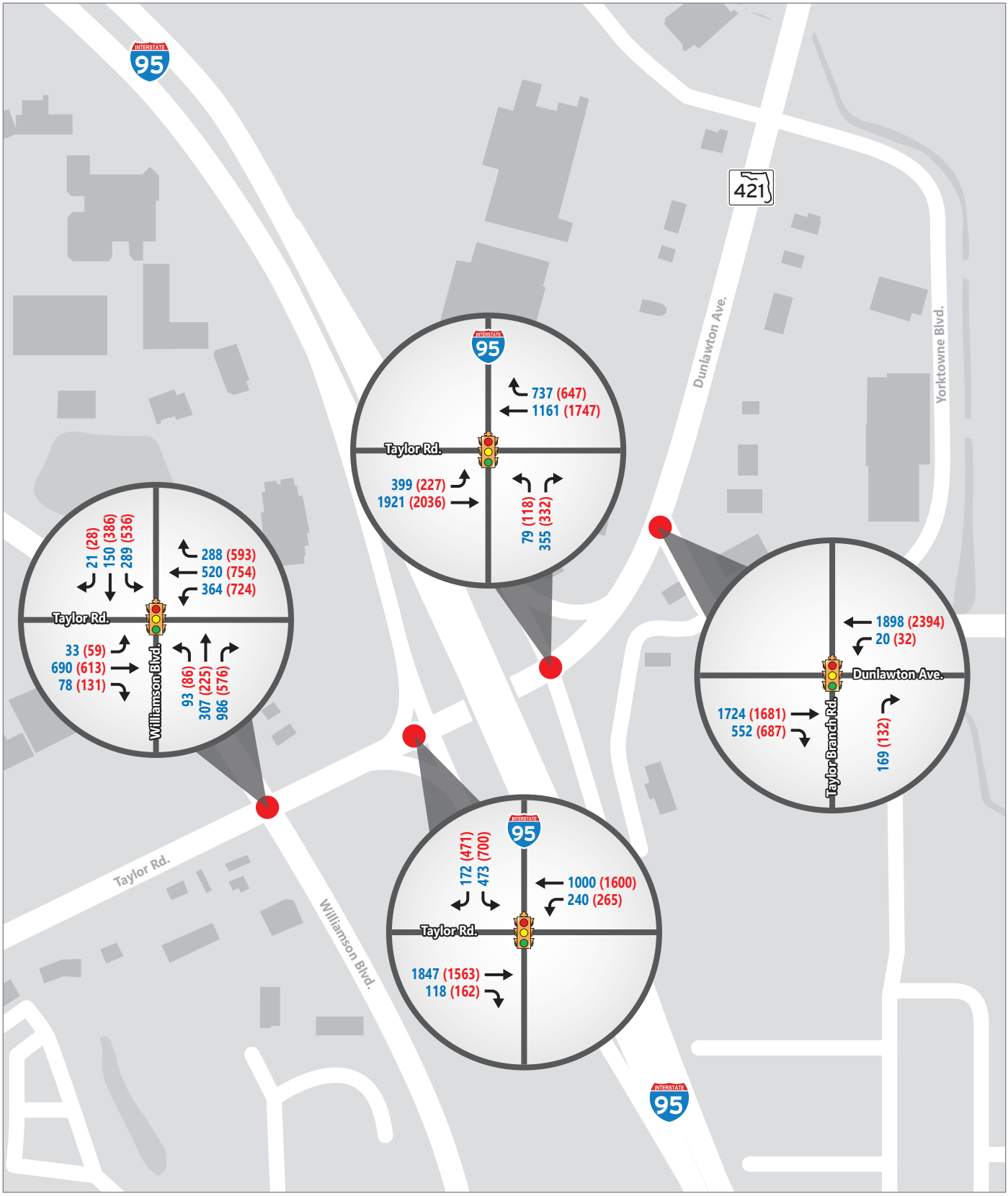
Based on input from the stakeholders, review of previous studies, and noting the study objective, existing year (2020) and near-term (2025) traffic conditions were evaluated at the study intersections.

Existing Year (2020) Analysis

Synchro 10 software was used to evaluate the study intersections. The signal timing information was obtained from Volusia county. The turning movement volumes shown in **Figure 6** were used for the operational Analysis.

Table 9 summarizes the operation conditions - intersection delay and levels of service (LOS) - for study intersections for AM, Mid, and PM peak hours. The synchro results are provided in **Appendix C**.

Source: Google Maps



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Study Intersections

Traffic Movement

AM (PM) Peak Hour Traffic Volumes

Figure 6

Existing Turning Movement Volumes
Feasibility Study for
Taylor Road/Dunlawton Avenue
from Williamson Boulevard
to Taylor Branch Road

As shown in **Table 9**, the study intersections operate at LOS D or better during the AM and Mid-day peak hour conditions. During the PM peak hour condition, both Taylor Road at Williamson Boulevard and Taylor Road at I-95 SB Ramps operate at LOS E.

Table 9: Existing Year (2020) Intersection Analysis Results

Study Intersection	AM Peak Hour		Mid-day		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Taylor Road & Williamson Boulevard	49.2	D	47.9	D	59.4	E
Taylor Road/Dunlawton Avenue & I-95 SB Ramps	35.5	D	28.2	C	44.5	D
Dunlawton Avenue & I-95 NB Ramps	20.6	C	16.2	B	21.1	C
Dunlawton Avenue & Taylor Branch Road	14.6	B	10.1	B	12.2	B

Near-term Year (2025) Conditions

Based on input from the stakeholders, this study also evaluated the near-term (2025) traffic conditions at the study intersections. As used in the existing year analysis, Synchro 10 software was used to evaluate the study intersections. Please note that the 2025 analysis was conducted for the critical AM and PM peak hours.

Year 2025 Volume Derivation

Based on a comparison of turning movement volumes collected as part of the previous studies and Traffic Impact Studies (completed for developments in the vicinity of the study area), and existing year (2020) volumes, the traffic growth within the study area was minimal.

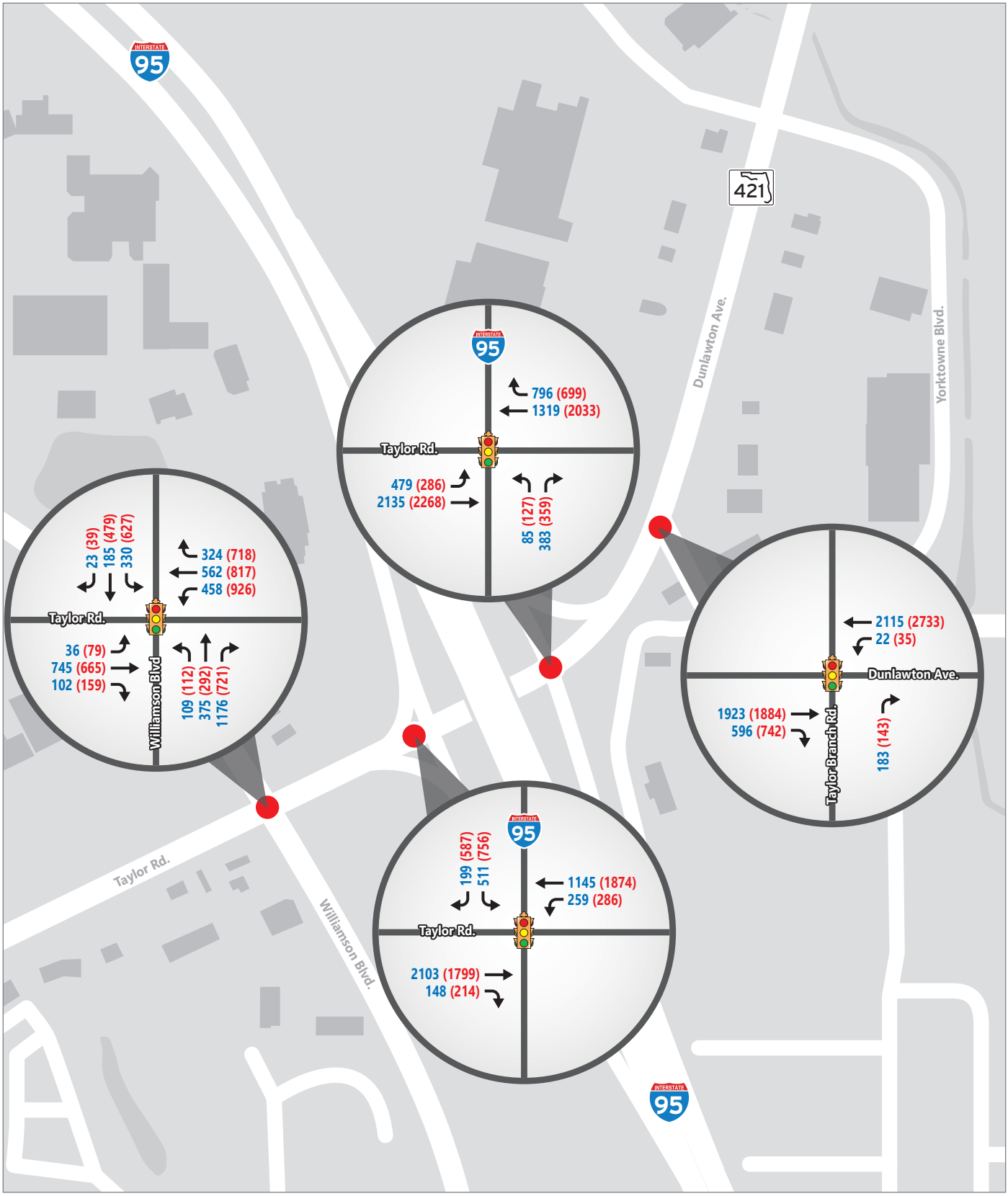
As the first step, the year 2025 background volumes (turning movement volumes) were derived by applying an annual growth rate of 1.6% (source: Bureau of Economic and Business Research [BEBR] high population estimate for Volusia County) to the existing 2020 volumes. Then, the project (vested) trips from approved developments with a build-out date before 2025 were added to Taylor Road and Williamson Boulevard intersection and balanced through the remaining study intersections.

The vested trips (refer to the Appendix) from the below-listed developments were considered in this study.

- Woodhaven ICI
- Preferred Storage
- Gateway Target Outparcels
- Westport Town
- Holiday Inn
- Central Parc at Oakwater

The estimated year 2025 turning movement volumes are shown in **Figure 7**.

Source: Google Maps



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Study Intersections

Traffic Movement

AM (PM) Peak Hour Traffic Volumes

vhb

Figure 7

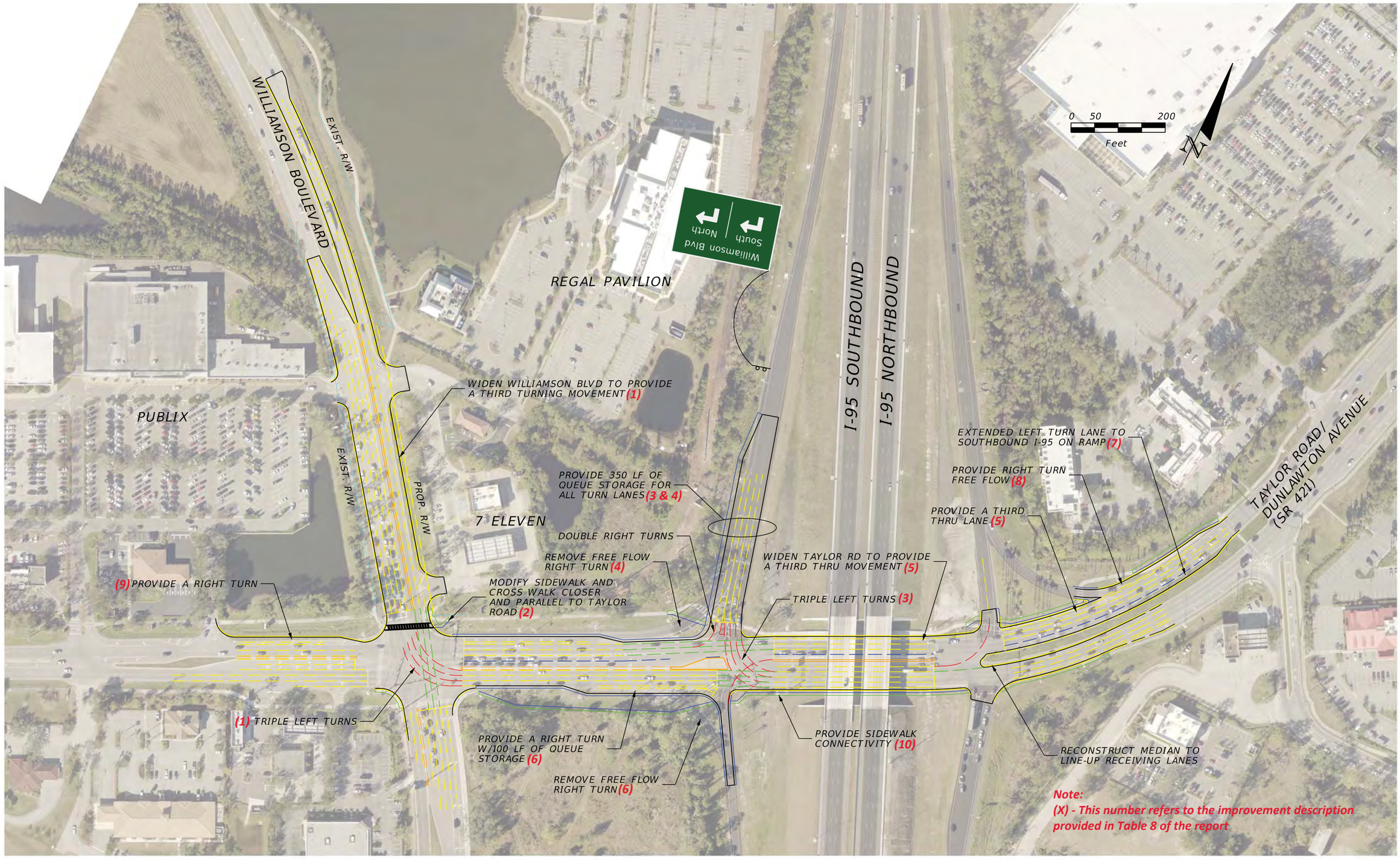
Future 2025 Turning Movement Volumes
Feasibility Study for
Taylor Road/Dunlawton Avenue
from Williamson Boulevard
to Taylor Branch Road

Proposed Improvements

Based on field observed operational and safety issues, stakeholder input, operational analysis, historical crash analysis, and engineering judgment, the following proposed improvements along with potential restrictions are identified for the study intersections as shown in **Table 10**. The proposed improvements are also illustrated in **Figure 8**.

Table 10: Summary of Proposed Improvements

Intersection	Improvement	Advantage	Restriction/Other Consideration	(Figure 8 Reference #)
Taylor Road at Williamson Boulevard	▪ Add a 3rd southbound left turn lane	▪ Will improve capacity and safety	▪ Additional Right-of-way (ROW) is needed east of Williamson Boulevard. ▪ Must use lead/lag phase for southbound and northbound left turn movements, since these movements cannot go concurrently.	1
	▪ Modify the sidewalk and crosswalk on the north leg as shown in **Figure 8**	▪ Will improve pedestrian/bicycle safety & visibility in the crosswalk	-	2
	▪ Consider an LPI for pedestrians crossing Williamson Boulevard	▪ Will improve pedestrian/bicycle safety & visibility in the crosswalk	▪ Can use a Flashing Yellow Arrow that can hold the right turning traffic to eliminate delay for the through traffic.	-
Taylor Road/Dunlawton Avenue at I-95 SB Ramps	▪ Add a 3rd southbound left turn lane with extended storage length	▪ Will improve capacity and safety	-	3
	▪ Remove the southbound channelized right turn lane and bring it under a signal and extend storage length	▪ Will improve pedestrian and bicycle safety at this intersection as well as eliminate the current weaving issues in the westbound right turn lane at the intersection of Taylor Road and Williamson Boulevard	▪ An IOAR must be completed to bring the southbound channelized right turn lane under a signal.	4
	▪ Add a lane under the bridge in the westbound direction that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard	▪ Will provide extra storage, improve traffic operations and safety, and mitigate the lane imbalance issue along westbound Taylor Road	-	5
	▪ Provide an exclusive eastbound right turn lane and remove the channelized right turn lane	▪ Will improve traffic operations and safety for all road users	-	6
Dunlawton Avenue at I-95 NB Ramps	▪ Add a lane in the westbound direction as a continuation to the storage lane under the bridge that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard.	▪ Will provide extra storage, improve traffic operations and safety, and mitigate the lane imbalance issue along westbound Taylor Road	-	5
	▪ Extend the existing storage length for the westbound left turn to I-95 SB on-ramp.	▪ Will improve traffic operations and safety	-	7
	▪ Provide an exclusive westbound right turn for I-95 NB on-ramp and eliminate the situation where westbound outside lane is dropped as a right turn lane to I-95 NB on-ramp	▪ Will improve safety and mitigate the lane imbalance issue along westbound Taylor Road	-	8
Other Improvements	▪ Provide a short westbound right turn lane for the 1st access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection.	▪ Will improve traffic operations and safety	▪ May not qualify for federal funds because this may be classified as private development.	9
	▪ Provide sidewalk continuity south of Taylor Road between east of Williamson Boulevard and east of I-95 NB Ramps.	▪ Will improve pedestrian and bicycle mobility and safety	▪ Coordinate with Memorial Health Systems, Inc. (developer) for the Advent Health Port Orange (development) in the southeast corner of Taylor Road/Williamson Boulevard intersection for the sidewalk construction. Please refer to **Appendix C** for the latest site plan for this development.	10
	▪ Consider upgrading the lighting along Taylor Road/Dunlawton Avenue to LED lighting and add eight additional LED light poles at the intersection of Taylor Road and Williamson Road intersection to meet intersection retrofit criteria. Add two additional LED light poles at the intersection of Dunlawton Avenue and Taylor Branch Road intersection. ▪ The cost of upgrading the lighting to LED and adding the 10 additional light poles at the intersections is approximately $107,000.	▪ Will improve safety for all road users.	-	-



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

VANASSE HANGEN BRUSTLIN, INC.
225. E. ROBINSON STREET
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION 3932

CITY OF PORT ORANGE

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 421	VOLUSIA	

STUDY CORRIDOR IMPROVEMENT DIAGRAM

FIGURE 8

SHEET NO. 1

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

Site Assessments for Proposed Improvements

This section provides a brief assessment of the sites that can be considered before constructing the proposed improvements.

Assessment of Proposed Site at North Leg of Taylor Road and Williamson Boulevard

Williamson Boulevard is a four-lane urban divided roadway. At its north leg intersection with Taylor Road, Williamson Boulevard widens to provide a double left turn onto eastbound Taylor Road. To construct a 3rd left turn lane, the following elements must be accounted for.

- Due to the nature of the above-ground utilities on the west side, Williamson Boulevard will need to be widened to the east. A 20-foot swath of private property will need to be acquired for ROW use. This agreement will need to include harmonizing treatments with the remaining parcel.
- To reduce drastic skews through the intersection, roadway geometry along Williamson Boulevard will need to be modified from approximately 100 Linear Feet (LF) south of Taylor Road to 120 LF north of Taylor Road.
- This modification will require reconstruction of the curb line with drainage modifications along the east side.
- This modification will require widening and reconstructing the curb line with drainage modifications along the west side.
- Two business signs must be relocated.
- Underground utilities are currently unknown, but above-ground evidence is as follows:
    - Telephone cable and risers
    - Telephone duct bank and vault
    - Minor power

Assessment of Taylor Road from Williamson Boulevard to East of I-95 NB On-ramps

Taylor Road is a five-lane urban divided roadway, with 2 westbound lanes and 3 eastbound lanes. To construct a third lane westbound, the following elements must be accounted for.

- Construct a separate right turn lane for the I-95 NB on-ramp.

- To minimize the skews at the intersections with I-95 ramps, Taylor Road/Dunlawton Avenue will need to be widened on both sides, approximately 9 feet to the north and 15 feet to the south. Extend the existing "right turn only" through the interchange.
- Eliminate the channelized southbound I-95 off-ramp to westbound Taylor Road and bring that movement to the existing signalized intersection.
- Shift westbound through lanes back to existing lane configuration and remove existing traffic separator between the through and left turning movements. The inside through lanes will terminate at the Taylor Road and Williamson Boulevard intersection as part of dual turning movements to southbound Williamson Boulevard.
- Modify raised median east of I-95 to accommodate the new lane configuration.
- Eliminate the channelized on-ramp to I-95 southbound and construct a separate eastbound right turn at the signal.
- Widen southbound off-ramp to provide dual rights and triple lefts.
- Shift the roadway back to original configuration along eastbound Dunlawton Avenue east of I-95 NB Ramps.
- The improvements will include, but not limited to, modifications of existing drainage, signalization, overhead signs, and lighting elements.

Year 2025 Intersection Analysis

The operational analysis was performed for a No Build and 4 Build alternatives for the study corridor for the year 2025 conditions. The before (No Build) conditions assume that there is no change in intersection geometry and signal timings, whereas, the after (Build) conditions assume improvements under the proposed alternative. The operating conditions were determined using Synchro 10 software.

The following Build alternatives were evaluated:

- Alternative 1: Taylor Road westbound improvements plus I-95 SB off-ramp improvements
- Alternative 2: Alternative 1 plus 3rd southbound left turn lane at Taylor Road/Williamson Boulevard intersection
- Alternative 3: Alternative 1 plus eastbound right turn lane at Taylor Road/I-95 SB Ramps
- Alternative 4: All Improvements

The Build alternatives were determined based on immediate operational and safety improvements and the need to provide costs for individual intersection improvements. Alternative 1 is the baseline alternative and includes westbound Taylor Road/Dunlawton Avenue improvements in conjunction with I-95 southbound off-ramp improvements. These two improvements are combined because of existing safety and operational issues. Alternatives 2 and 3 are designed to illustrate the improvement achieved because of individual turn lane improvements. Alternative 4 shows the benefits of the improvements combined. The required queue lengths for the eastbound right turn lane, and southbound left and right turn lanes at the intersection of Taylor Road/Dunlawton Avenue and I-95 SB Ramps are determined based on the 95th percentile queue lengths provided by Synchro analysis. The storage lengths for 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard, and the westbound right turn lane and westbound left turn to I-95 southbound ramp storage at the intersection of Dunlawton Avenue and I-95 NB Ramps are the maximum achievable lengths based on field conditions.

Table 11 summarizes the intersection delay and LOS at each study intersection for each of the near-term alternatives during the AM and PM peak hours. The Synchro results for 2025 are provided in **Appendix C**.

Based on the results shown in **Table 11**, the following conclusions are noted:

- There is not a significant difference between Alternative 1 and Alternative 2, which indicates that the 3rd southbound left turn lane at Taylor Road and Williamson Boulevard intersection does not reduce the cumulative delay considerably.
- Alternative 3 provides a considerable improvement compared to Alternative 1, which indicates that the exclusive eastbound right turn lane at Taylor Road and I-95 SB Ramps intersection provides considerable operational benefit.

Table 11: Year 2025 Intersection Analysis Results

Intersection	AM										PM									
	No Build		Alternative 1		Alternative 2		Alternative 3		Alternative 4		No Build		Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Taylor Road & Williamson Boulevard	64.6	E	54.1	D	49.6	D	54.1	D	49.7	D	75.3	E	55.0	D	51.0	D	55.0	D	50.4	D
Taylor Road/Dunlawton Avenue & I-95 SB Ramps	42.8	D	29.0	C	29.5	C	27.1	C	27.9	C	68.9	E	50.4	D	52.1	D	37.5	D	38.7	D
Dunlawton Avenue & I-95 NB Ramps	22.2	C	18.6	B	18.5	B	19.0	B	18.5	B	23.3	C	23.7	C	23.7	C	22.8	C	23.0	C
Dunlawton Avenue & Taylor Branch Road	15.9	B	12.2	B	12.7	B	12.6	B	12.9	B	13.3	B	9.3	B	9.3	B	9.2	B	9.1	B
Cumulative Delay[1] (sec/veh)	**145.5**	**-**	**113.9**	**-**	**110.3**	**-**	**112.8**	**-**	**109.0**	**-**	**180.8**	**-**	**138.4**	**-**	**136.1**	**-**	**124.5**	**-**	**121.2**	**-**
Cumulative Delay Reduction[2] (vehicle-hours) compared to No Build	**-**		**58**		**64**		**60**		**67**		**-**		**93**		**98**		**124**		**131**	

Notes:
Alternative 1: Taylor Road westbound improvements plus I-95 SB off-ramp improvements
Alternative 2: Alternative 1 plus 3rd southbound left turn lane at Taylor Road/Williamson Boulevard intersection
Alternative 3: Alternative 1 plus eastbound right turn lane at Taylor Road/I-95 SB Ramps
Alternative 4: All Improvements
1. Cumulative delay (sec/vehicle) is the sum of all study intersection delays
2. Cumulative delay (vehicle-hours) is cumulative delay (sec/vehicle) multiplied by total number of entering vehicles within the study corridor

B/C Analysis

A B/C analysis was performed for the study Build alternatives based on traffic operational benefits.

Traffic Operational Benefits

To estimate the operational benefits of the proposed intersection improvements, Synchro reported networkwide measures of effectiveness (MOEs) were used. The benefits are defined in terms of annualized cost savings associated with reductions in the following three MOEs:

- Total Delay (Vehicle-Hours)
- Stops
- Fuel Consumption (Gallons)

The benefits were calculated for 300 days in a year for six hours per day (3 hours each for AM and PM peak periods) accounting for reduced benefits anticipated due to lower traffic volumes during the weekend. This assumption was based on a review of both weekday and weekend traffic from the recently completed Signal Retiming Report for SR 421 from Summer Trees Road to Nova Road (dated December 2019). The value of delay time per hour ($18.12) and fuel cost ($2.28) were obtained from "The Mobility Data for Orlando" published by Texas A&M University. Stops were estimated to cost $0.014 each. **Table 12** summarizes the unit value of each MOE in a tabular format along with its source.

Table 12: Unit Value of MOEs

MOE Values	Unit Value	Source
Stops ($)	0.014	Transyt 7F
Delay ($)	18.12	2019 Urban Mobility Report published by Texas A&M Transportation Institute (TTI)
Fuel ($/gal.)	2.28	2019 Urban Mobility Report published by TTI
Days per Year	300	Average days with observable AM & PM peaking characteristics

Improvement Construction Costs

The estimated costs of the proposed improvements separated by each Build alternative were determined for this study. Lighting improvement costs for the entire study corridor was also determined, but not used in the B/C analysis. Also, sidewalk connectivity south of Taylor Road/Dunlawton Avenue estimated cost was also determined. Based on input received from the City of Port Orange, an estimated cost of $1.75 Million was added to each study alternative (in the B/C analysis calculations) to account for potential drainage infrastructure upgrades that may be needed to support the proposed improvements.

The estimated cost for the modifications under Alternative 1 is $2,826,671 (present day value) and it has a corresponding annualized cost amounting to $207,991. Additional ROW is not anticipated for Alternative 1. Please note that the estimated cost for the proposed exclusive westbound right turn lane at the first access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection is included as part of Alternative 1 cost.

The estimated cost for the modifications under Alternative 2 is $3,642,752 (present day value) and it has a corresponding annualized cost amounting to $268,040. Additional ROW is anticipated for the 3rd southbound left turn lane along Williamson Boulevard.

The estimated cost for the modifications under Alternative 3 is $3,321,053 (present day value) and it has a corresponding annualized cost amounting to $244,369. Additional ROW is not anticipated for Alternative 3.

The estimated cost for the modifications under Alternative 4 (which includes all proposed improvements) is $4,137,135 (present day value) and it has a corresponding annualized cost amounting to $304,418.

The cost estimates for the proposed improvements including lighting improvements can be found in **Appendix D**. Please note that the cost estimates provided in Appendix D do not include the drainage upgrade cost suggested by the City of Port Orange. The service life for the modification is assumed 20 years and the interest rate used in the calculation of annualized costs is assumed 4%, which is a value frequently used by the FDOT in their benefit cost computations.

Table 13 summarizes the B/C analysis for the study alternatives. The analysis yields B/C ratios of 8.4, 7.1, 8.9 and 7.7 for the study Build alternatives 1, 2, 3, and 4 respectively. The calculated B/C ratio for each Build alternative indicates that the anticipated benefits outweigh the estimated costs for the proposed modification, with benefits derived through reduced costs associated with lower delay, stops, fuel consumption, and crashes.

The operational annual user benefits calculations can be found in **Appendix D**. As illustrated in **Table 13**, Alternative 1 provides the best B/C ratio.

Table 13: B/C Analysis Summary

Study Alternative	Improvements	Worst Delay (sec /vehicle) /LOS	Delay Reduction VS No Build (AM/PM)	Annual User Benefit	Total Const. Cost	Annual Const. Cost	B/C Ratio
Alternative 1	▪ Add a through lane in the westbound direction along Taylor Road between Taylor Branch Road and I-95 SB Ramps that will drop as outside westbound left turn lane at Taylor Road ▪ Extend the existing storage length (west of I-95 NB Ramps) for the westbound left turn to I-95 SB on-ramp ▪ Provide an exclusive westbound right turn at Dunlawton Avenue/I-95 NB Ramps ▪ Add a 3rd southbound left turn lane at Taylor Road/I-95 SB Ramps and extend storage length ▪ Remove the southbound channelized right turn lane at Taylor Road/I-95 SB Ramps and bring it under a signal and extend storage length	55.0 /LOS D	58/93 vehicle-hours	$1,744,632	$2,826,671	$207,991	**8.4**
Alternative 2	▪ Alternative 1 plus add a 3rd southbound left turn lane at Taylor Road/Williamson Boulevard intersection	52.1 /LOS D	64/98 vehicle-hours	$1,912,846	$3,642,752	$268,040	**7.1**
Alternative 3	▪ Alternative 1 plus add an eastbound right turn lane at Taylor Road/I-95 SB Ramps ▪ Remove the existing channelization for the right turning traffic movement and bring it under a signal	55.0 /LOS D	60/124 vehicle-hours	$2,182,178	$3,321,053	$244,369	**8.9**
Alternative 4	▪ All Improvements	50.4 /LOS D	67/131 vehicle-ours	$2,350,240	$4,137,135	$304,418	**7.7**

Notes:

1) The service life of the improvements was kept at 20 years
2) An interest rate of 4% was used to determine the annual cost of improvements
3) Traffic operational annual user benefit was calculated for 300 days with 3 hours each of AM and PM peak periods
4) Construction cost does not include right-of-way cost
5) $1.75 M (cost suggested by the City of Port Orange for drainage improvements) is considered in the B/C analysis
6) Lighting improvement costs are not considered in the B/C analysis

RECOMMENDATIONS

Based upon the crash analysis, qualitative assessment, field observations, intersection analysis, B/C analysis, and engineering judgment, the following improvements (also shown in **Table 10** and **Figure 8** of the Report) can be considered to improve the safety and operation of the study intersections.

Taylor Road at Williamson Boulevard

- Provide an additional southbound left turn lane.
- Modify the sidewalk and crosswalk on the north leg as shown in **Figure 8** to improve pedestrian visibility. An LPI for pedestrians crossing Williamson Boulevard can also be considered to improve pedestrian safety. A Flashing Yellow Arrow to hold right turning traffic during LPI can be used to reduce the delay for through traffic.

Taylor Road/Dunlawton Avenue at I-95 SB Ramps

- Provide an additional southbound left turn lane.
- Remove the southbound channelized right turn lane and bring it under a signal which will improve pedestrian and bicycle safety at the intersection of Taylor Road and I-95 SB Ramps as well as eliminate the current weaving issues in the westbound right turn lane at the intersection of Taylor Road and Williamson Boulevard.
- Add a lane under the bridge in the westbound direction that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard to mitigate the lane imbalance issue along westbound Taylor Road.
- Provide an exclusive eastbound right turn lane and remove the channelized right turn lane to improve traffic operations as well as to reduce the potential for rear end crashes along eastbound Taylor Road.

Dunlawton Avenue at I-95 NB Ramps

- Add a lane in the westbound direction as a continuation to the storage lane under the bridge that will drop as outside westbound left turn lane at Taylor Road and Williamson Boulevard to improve the lane imbalance issue along westbound Taylor Road.

- Extend the existing storage lane for the westbound left turn to I-95 SB on-ramp to help mitigate the lane imbalance issue along westbound Taylor Road.
- Add an exclusive westbound right turn for I-95 NB on-ramp to eliminate the lane imbalance issue with the current westbound outside lane being dropped as a right turn lane to I-95 NB on-ramp.

Other Improvements

- Provide a short westbound right turn lane for the 1st access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection.
- Provide sidewalk continuity south of Taylor Road between east of Williamson Boulevard and east of I-95 NB Ramps.

Lighting Improvements

- Consider upgrading the lighting along Taylor Road/Dunlawton Avenue to LED lighting and add eight additional LED light poles at the intersection of Taylor Road and Williamson Road intersection to meet the intersection retrofit criteria. Add two additional LED light poles at the intersection of Dunlawton Avenue and Taylor Branch Road intersection.
- The cost of upgrading the lighting to LED and adding the 10 additional light poles at the intersections is approximately $107,000.

Other Considerations for Proposed Improvements

- Based on the immediate operational and safety needs, proposed improvements along westbound Taylor Road/Dunlawton Avenue in conjunction with I-95 SB off-ramp improvements can be constructed together. However, the proposed elimination of the channelized right turn lane at I-95 SB Ramps will need an Interchange Operational Analysis Report (IOAR) approval from the Florida Department of Transportation (FDOT).
- The other improvements including the 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard and an exclusive eastbound right turn lane at the intersection of Taylor Road and I-95 SB Ramps can be completed separately based on the availability of funds and other restrictions.

- The 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard is not anticipated to provide significant operational improvement compared to the exclusive eastbound right turn lane at the intersection of Taylor Road and I-95 SB Ramps, at least for the near-term traffic conditions. Moreover, the 3rd southbound left turn lane at the intersection of Taylor Road and Williamson Boulevard will need additional ROW for construction.
- The exclusive westbound right turn lane for the 1st access into the Publix/Kohl's Parking Lot just west of Taylor Road and Williamson Boulevard intersection will provide safety benefits along westbound Taylor Road by reducing the potential for rear end crashes. However, this improvement may not qualify for federal funds if it is considered a private development.
- Providing sidewalk continuity south of Taylor Road between east of Williamson Boulevard and east of I-95 NB Ramps will improve pedestrian safety and mobility along the study corridor. As part of the proposed development (Advent Health Port Orange - an Emergency Department and Medical Office) that will be constructed in the southeast corner of Taylor Road and Williamson Boulevard intersection, a sidewalk segment is planned to be constructed on the southside of Taylor Road between Williamson Boulevard and I-95 SB Ramps. Therefore, this sidewalk continuity improvement must be completed in coordination with the developer (Memorial Health Systems, Inc.) for the Advent Health Port Orange development.

APPENDICES

APPENDIX A-1:

Responses to Comments

To: Colleen Nicoulin, AICP, RSP
City of Port Orange
Volusia County
FDOT

Date: May 11, 2020

Project #: 63308.02

From: VHB

Re: Taylor Road Feasibility Study Responses to Comments

Please see below for VHB's responses to the comments provided on the Draft Feasibility Study for Taylor Road/Dunlawton Avenue from Williamson Boulevard to Taylor Branch Road.

City of Port Orange:

Larry A. Roberts, Engineer (386) 506-5665 Lroberts@port-orange.org
Valerie Duhl, Civil Engineer (386) 506-5664 vduhl@port-orange.org
Lisa Epstein, Project Manager (386) 506-5662 Lepstein@port-orange.org
Greg Holden, Engineering Specialist (386) 506-5662 gholden@port-orange.org:

1. Page 32/PDF 41: Please verify presumption that weekend traffic is reduced on weekends since the final determination affects the Benefits.

Response: The Comment is noted. The weekend traffic was reviewed (source: recently completed FDOT Signal Retiming Report for Taylor Road, dated December 2019) and found to be lower than weekday traffic. This text will be added to the revised report.

2. Existing FDOT drainage infrastructure is not likely to support the recommended traffic improvements.
    a. Site for stormwater pond may be Holiday Inn Express site if owner is motivated to sell in the COVID recovery economy.
    b. Site for stormwater pond may be sliver of Journey's End Vacant Commercial land between Journeys End Way and NB I-95 off ramp combined with adjacent I-95 remainder sliver.
    c. Least likely is Advent Health site in the COVID recovery economy.
    d. Estimate drainage ROW purchase costs and estimated drainage costs and adjust overall B/C ratios accordingly.
    e. Absent TPO authorization for additional FS of drainage issue, Local Agency recommends a budget of $1.75 M for land and construction.

Response: Comments 2a through 2e are noted. Please note that this is a planning level feasibility study and estimating drainage ROW purchase costs are out of scope for this study. Per the City's suggestion, a

note will be added to the report to mention that an additional $1.75 M may be needed to upgrade the existing drainage infrastructure for the proposed improvements. This additional cost will also be considered in the B/C analysis.

Public Works

(Alex Popovic, Engineering Intern (386) 506-5572/apopovic@port-orange.org; Kristine Martin, Engineering Inspector (386) 506-5597/kmartin@port-orange.org; Mick Neals, Solid Waste Manager (386) 506-5571/mneals@port-orange.org):

1. Keep existing sign at I95 SB exit ramp indicating far right lane to Taylor Road and right lane to S. Williamson Boulevard.

Response: The Comment is noted, and the improvement diagram will be updated accordingly.

2. Increase turning radius at westerly corner of I95 NB entrance ramp.

Response: The Comment is noted, and the improvement diagram will be updated accordingly.

Volusia County

Sean Castello scastello@volusia.org

- Page i: A Leading Pedestrian Interval at Taylor Rd and Williamson Blvd was already analyzed by FDOT. It was not justified based upon the lack of pedestrian crossings

Response: The Comment is noted. Based on input from FDOT and Volusia County, we will retain this improvement as part of this study.

- Page 10: A collision diagram would be beneficial to understand the directionality and location of all the crashes along the corridor and at the intersections.

Response: The Comment is noted. Please note a crash diagram was not part of the study scope. However, a crash diagram based on GIS and Signal Four Analytics crash data will be provided in the revised report.

- Crash Analysis: There were many crashes marked as "other". Did the consultant investigate further the type and/or location of the actual crash?

Response: The Comment is noted. The report will be revised to provide additional information on the "other type" crashes within the study corridor.

- Page 19: The fourth bullet needs to be modified to state that the I-95/Pioneer Trail is currently unfunded.

Response: The Comment is noted. The report will be revised to note that the latest FDOT 5 year work program does not show a **Construction Phase** for this interchange in the next 5 years (between 2020 and 2025).

Melissa Winsette (386-736-5968 x 12322) mwinsett@volusia.org

- Page iii: Lighting improvements: Was the current city lighting project along the Dunlawton Avenue Corridor taken into consideration? Please confirm that it doesn't already add lighting in the interchange area.

Response: The Comment is noted. Based on input from the County, the City Lighting Project is outside the current study limits and therefore does not impact the lighting improvements recommended as part of this study.

- The exclusive westbound right turn lane into the Publix/Kohl's parking lot is considered a private development cost. Federal dollars cannot be spent on projects that exclusively serve private development.

Response: The Comment is noted, and it will be noted in the revised report that this improvement will not qualify for federal funds.

- Some of the improvement concepts are difficult to interpret and would be better communicated with graphics. For example, Page ii, 4th bullet: "Add a lane under the bridge in the westbound direction that will drop as outside westbound left turn lane at Taylor Road and Williamson Blvd to improve the lane imbalance along westbound Taylor Road."

Response: The Comment is noted. Please note that the improvement diagram (Figure 8) lists each study recommendation. An improvements diagram (Figure ES-1) will be provided as Figure ES-1 in the Executive Summary as well. For clarification, each recommended improvement will be referenced via a number in Figure ES-1 and Figure 8.

- As a resident of Port Orange who lives on the east side of the interchange, the two most problematic traffic issues are 1) Southbound I-95 off ramp queues onto the right lane of interstate, and 2) the westbound right turn lane "drops" into the northbound on ramp with little warning. This catches many non-locals off guard, which sometimes results in motorists suddenly weaving into the westbound through lane to avoid having to travel onto the ramp. I witnessed these numerous times.

Response: We completely agree with these observations. As part of this Feasibility Study, the following improvements are recommended to specifically address these 2 issues:

  - Southbound I-95 off ramp queues onto the right lane of interstate:
    i. *A 3rd SB left turn lane with additional storage length (for both right and left turn lanes) are recommended to address this issue.*
  - The westbound right turn lane "drops" into the northbound on ramp with little warning. This catches many non-locals off guard, which sometimes results in motorists suddenly weaving into the westbound through lane to avoid having to travel onto the ramp.
    i. *An exclusive westbound right turn for I-95 NB on-ramp is recommended to eliminate the lane imbalance issue that currently exists because of the westbound outside lane on Dunlawton Ave being dropped as a right turn lane to I-95 NB on-ramp.*

- Why are the costs in Table 12 different from the narrative on page 33?

Response: This comment is noted. The costs on page 33 are correct. Table 12 will be updated accordingly.

- Although Table 12 is fine for the B/C Analysis results, an expanded Table 12 would be very useful to summarize the study alternatives and explain "the big picture." Please consider adding separate columns for Total Cost per Alternative, Summary of the Alternatives (i.e., what are the improvements?), and LOS benefit. As written, the reader has to flip back and forth between the pages to understand the results of the study.

Response: This comment is noted. Table 12 will be updated accordingly to provide the suggested information.

FDOT PLEMO Comments

Suraj Pamulapati (386-943-5378 (Office)) Suraj.Pamulapati@dot.state.fl.us

1. Please include the improvement diagram (Figure 8) in the Executive Summary section as well (Figure ES-1).

Response: This comment is noted. The improvement diagram will be provided as part of the Executive Summary as well.

From: Tomlinson, Margaret
To: Pemmanaboina, Rajashekar
Cc: Colleen Nicoulin; Ambikapathy, Babuji; Kandala, Srinivas; Stimpson, Keith; Burman, Tim; Epstein, Lisa; Duhl, Valerie
Subject: [External] FW: [EXT] RE: Taylor Road Feasibility Study _ Responses to Comments
Date: Tuesday, June 9, 2020 5:15:38 PM
Attachments: image005.png
image006.png

Raj,

I apologize for the delay in getting these responses to you. Please see the City's responses below in blue.

We would appreciate if the City provides a distribution of 1.75 M for each study improvement as listed in the Report. For instance, how much of 1.75 M must be used for the WB Taylor Road improvement?

Response: The same land(s) and conveyance system(s) will be required for each of the four alternatives developed in the Feasibility Study. Therefore, the Local Agency recommends that $1.75M be added to each alternative. Alternative 3 is expected to remain the alternative with the highest Benefit to Cost Ratio.

1. Increase turning radius at westerly corner of I95 NB entrance ramp.

Response: The Comment is noted. *However, we would appreciate if the reviewer could be more specific with this comment. If the reviewer meant to increase the turning radius for the eastbound left turn to the I-95 NB On-Ramp, please provide a reason for this change, given this is a left turn movement.*

Response: Several staff members make this turn so we understand the turn issue from personal experience, but we're not certain where the comment originated. Because there are 2 left turns and because the radius is tight, the car in the left lane has a harder time making the turn. See sketched radius in red, it is just conceptual and larger than required.

Also, there was a question from Volusia County regarding the City's Lighting Study for Dunlawton Ave. Could you please forward me that study when you get a chance.

> Response: The City's lighting project along Dunlawton Avenue does not add lighting in the interchange area. The lighting project is from US1 to Spruce Creek Road. If you still desire a copy of the construction plans let us know and we'll send you a link.

If you have any further questions please feel free to contact me.

Best regards,

Margaret Tomlinson, RLA, LEED AP
Construction & Engineering Manager
Community Development
City of Port Orange
1000 City Center Circle
Port Orange, FL 32129
Office: 386-506-5661
Fax: 386-506-5699
mtomlinson@port-orange.org

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From: Pemmanaboina, Rajashekar <RPemmanaboina@VHB.com>
Sent: Thursday, May 21, 2020 2:49 PM
To: Burman, Tim <tburman@port-orange.org>; Roberts, Larry <lroberts@port-orange.org>; Duhl, Valerie <vduhl@port-orange.org>; Epstein, Lisa <lepstein@port-orange.org>; Holden, Gerald <gholden@port-orange.org>
Cc: Colleen Nicoulin <CNicoulin@r2ctpo.org>; Ambikapathy, Babuji <BAmbikapathy@VHB.com>; Kandala, Srinivas <SKandala@VHB.com>; Stimpson, Keith <KEStimpson@VHB.com>
Subject: [EXT] RE: Taylor Road Feasibility Study _ Responses to Comments

Hi All,

I would appreciate if you can provide clarification (*please see red bold text at the end of the response*) for the following comment on the Draft Taylor Road Feasibility Study.

1. Existing FDOT drainage infrastructure is not likely to support the recommended traffic improvements.
    a. Site for stormwater pond may be Holiday Inn Express site if owner is motivated to sell in the COVID recovery economy.
    b. Site for stormwater pond may be sliver of Journey's End Vacant Commercial land between Journeys End Way and NB I-95 off ramp combined with adjacent I-95 remainder sliver.
    c. Least likely is Advent Health site in the COVID recovery economy.
    d. Estimate drainage ROW purchase costs and estimated drainage costs and adjust overall B/C ratios accordingly.
    e. Absent TPO authorization for additional FS of drainage issue, Local Agency recommends a budget of $1.75 M for land and construction.

Response: Comments 2a through 2e are noted. Please note that this is a planning level feasibility study and estimating drainage ROW purchase costs are out of scope for this study. However, per the City's suggestion, the cost estimate will be revised to add $.175 M and B/C analysis will be updated accordingly.

We would appreciate if the City provides a distribution of 1.75 M for each study improvement as listed in the Report. For instance, how much of 1.75 M must be used for the WB Taylor Road improvement?

Thanks,

Raj Pemmanaboina

P 407.965.0572
www.vhb.com

From: Pemmanaboina, Rajashekar
Sent: Tuesday, May 12, 2020 5:07 PM
To: Burman, Tim <tburman@port-orange.org>
Cc: Colleen Nicoulin <CNicoulin@r2ctpo.org>; Ambikapathy, Babuji <BAmbikapathy@VHB.com>; Kandala, Srinivas <SKandala@VHB.com>; Stimpson, Keith <KEStimpson@VHB.com>; Camacho, Juan <jcamacho@vhb.com>
Subject: RE: Taylor Road Feasibility Study _ Responses to Comments

Tim,

Please see attached VHB's responses to comments for the Draft Taylor Rd/Dunlawton Ave Feasibility Study. We need additional clarification on the below 2 comments, and I was wondering who we can contact (email or phone) for these comments. Please let me know and I will contact them.

Also, there was a question from Volusia County regarding the City's Lighting Study for Dunlawton Ave. Could you please forward me that study when you get a chance.

1. Existing FDOT drainage infrastructure is not likely to support the recommended traffic improvements.
    a. Site for stormwater pond may be Holiday Inn Express site if owner is motivated to sell in the COVID recovery economy.
    b. Site for stormwater pond may be sliver of Journey's End Vacant Commercial land between Journeys End Way and NB I-95 off ramp combined with adjacent I-95 remainder sliver.
    c. Least likely is Advent Health site in the COVID recovery economy.
    d. Estimate drainage ROW purchase costs and estimated drainage costs and adjust overall B/C ratios accordingly.
    e. Absent TPO authorization for additional FS of drainage issue, Local Agency recommends a budget of $1.75 M for land and construction.

Response: Comments 2a through 2e are noted. Please note that this is a planning level feasibility study and estimating drainage ROW purchase costs are out of scope for this study. However, per the City's suggestion, the cost estimate will be revised to add $.175 M and B/C analysis will be updated accordingly. *We would appreciate if the City provides a distribution of 1.75 M for each study improvement as listed in the Report. For instance, how much of 1.75 M must be used for the WB Taylor Road improvement?*

2. Increase turning radius at westerly corner of I95 NB entrance ramp.

Response: The Comment is noted. *However, we would appreciate if the reviewer could be more specific with this comment. If the reviewer meant to increase the turning radius for the eastbound left turn to the I-95 NB On-Ramp, please provide a reason for this change, given this is a left turn movement.*

Regards,

Raj Pemmanaboina, PE, PTOE

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Landmark Center Two
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APPENDIX A-2:

Traffic Data

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

Start Date : January 14, 2020
Stop Date : January 14, 2020
County : Volusia
Location : Taylor Rd, 550 feet West of Williamson Blvd

Start Time 00:00
Stop Time 24:00
Station Number 95
Equipment ID 71

14-Jan-20 **Eastbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	14	5	10	3	3	5	26	31	119	190	176	164
30	12	12	5	4	8	6	28	59	169	188	159	176
45	13	1	3	3	4	8	26	82	211	175	181	167
00	3	8	3	4	6	15	36	95	194	186	183	192
Hr Total	**42**	**26**	**21**	**14**	**21**	**34**	**116**	**267**	**693**	**739**	**699**	**699**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	194	205	212	183	172	199	177	179	113	77	65	38
30	184	190	195	180	173	197	219	133	104	80	43	20
45	213	190	208	178	207	196	211	119	97	76	51	30
00	190	208	187	183	184	185	165	121	88	67	29	15
Hr Total	**781**	**793**	**802**	**724**	**736**	**777**	**772**	**552**	**402**	**300**	**188**	**103**

24 Hour Total : 10,301
AM Peak Hour begins : 8:30 AM Peak Volume : 783 AM Peak Hour Factor : 0.93
PM Peak Hour begins : 13:45 PM Peak Volume : 823 PM PeaK Hour Factor : 0.97

14-Jan-20 **Westbound Volume**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	21	9	5	7	2	9	19	44	108	131	159	151
30	18	22	5	4	10	13	31	64	129	164	156	187
45	13	8	7	4	4	15	33	69	155	142	185	180
00	11	8	4	6	9	8	29	96	167	171	166	193
Hr Total	**63**	**47**	**21**	**21**	**25**	**45**	**112**	**273**	**559**	**608**	**666**	**711**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	172	202	228	195	233	204	247	207	119	99	82	33
30	197	231	207	200	236	229	263	203	128	99	49	29
45	220	186	263	200	254	226	207	189	114	94	55	27
00	248	223	223	224	253	235	199	157	103	61	43	21
Hr Total	**837**	**842**	**921**	**819**	**976**	**894**	**916**	**756**	**464**	**353**	**229**	**110**

24 Hour Total : 11,268
AM Peak Hour begins : 11:45 AM Peak Volume : 782 AM Peak Hour Factor : 0.89
PM Peak Hour begins : 16:00 PM Peak Volume : 976 PM PeaK Hour Factor : 0.96

14-Jan-20 **Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	35	14	15	10	5	14	45	75	227	321	335	315
30	30	34	10	8	18	19	59	123	298	352	315	363
45	26	9	10	7	8	23	59	151	366	317	366	347
00	14	16	7	10	15	23	65	191	361	357	349	385
Hr Total	**105**	**73**	**42**	**35**	**46**	**79**	**228**	**540**	**1,252**	**1,347**	**1,365**	**1,410**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	366	407	440	378	405	403	424	386	232	176	147	71
30	381	421	402	380	409	426	482	336	232	179	92	49
45	433	376	471	378	461	422	418	308	211	170	106	57
00	438	431	410	407	437	420	364	278	191	128	72	36
Hr Total	**1,618**	**1,635**	**1,723**	**1,543**	**1,712**	**1,671**	**1,688**	**1,308**	**866**	**653**	**417**	**213**

24 Hour Total : 21,569
AM Peak Hour begins : 11:45 AM Peak Volume : 1,565 AM Peak Hour Factor : 0.90
PM Peak Hour begins : 17:30 PM Peak Volume : 1,748 PM PeaK Hour Factor : 0.91

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection Williamson Blvd **&** Taylor Rd

Date January 14, 2020 **All Vehicles**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Williamson Blvd Northbound			Williamson Blvd Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	12	43	148	72	26	4	3	102	13	34	99	46
7:15 AM - 7:30 AM	17	43	231	83	25	3	6	162	21	71	98	51
7:30 AM - 7:45 AM	14	79	254	92	40	8	8	174	23	81	100	61
7:45 AM - 8:00 AM	30	72	258	69	27	3	9	174	22	91	166	106
8:00 AM - 8:15 AM	16	78	269	66	30	4	9	173	18	94	127	57
8:15 AM - 8:30 AM	33	78	205	62	53	6	7	151	15	98	127	64
8:30 AM - 8:45 AM	14	56	174	80	43	2	5	185	25	121	127	67
8:45 AM - 9:00 AM	17	69	208	58	67	6	12	144	24	134	140	84
TOTAL	153	518	1,747	582	311	36	59	1,265	161	724	984	536
Peak Hour												
7:30 AM - 8:30 AM	**93**	**307**	**986**	**289**	**150**	**21**	**33**	**672**	**78**	**364**	**520**	**288**

Mid-day Peak Hour

Time Period	Williamson Blvd Northbound			Williamson Blvd Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	20	58	109	107	62	11	16	150	26	125	187	143
12:15 PM - 12:30 PM	22	58	116	118	72	8	16	121	19	92	148	149
12:30 PM - 12:45 PM	19	47	123	132	60	11	3	170	35	107	185	144
12:45 PM - 1:00 PM	27	36	130	116	75	15	15	134	27	116	188	120
1:00 PM - 1:15 PM	24	62	106	128	69	11	16	113	25	99	158	126
1:15 PM - 1:30 PM	27	51	120	105	65	9	18	163	39	100	210	132
1:30 PM - 1:45 PM	23	53	121	142	83	14	12	154	14	113	160	103
1:45 PM - 2:00 PM	27	36	127	145	71	11	6	148	23	88	177	109
TOTAL	189	401	952	993	557	90	102	1,153	208	840	1,413	1,026
Peak Hour												
12:30 PM - 1:30 PM	**97**	**196**	**479**	**481**	**269**	**46**	**52**	**580**	**126**	**422**	**741**	**522**

PM Peak Hour

Time Period	Williamson Blvd Northbound			Williamson Blvd Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	23	44	111	126	86	12	12	165	27	127	161	111
2:15 PM - 2:30 PM	19	52	107	120	82	5	9	144	33	147	202	129
2:30 PM - 2:45 PM	31	46	134	138	102	7	14	125	25	114	185	116
2:45 PM - 3:00 PM	34	54	134	122	86	7	14	140	29	153	187	144
3:00 PM - 3:15 PM	20	52	128	127	74	6	11	171	27	114	213	130
3:15 PM - 3:30 PM	17	29	124	150	80	14	15	146	26	135	181	122
3:30 PM - 3:45 PM	22	74	172	136	89	11	21	133	28	135	199	100
3:45 PM - 4:00 PM	20	45	120	112	101	11	13	136	27	199	226	150
4:00 PM - 4:15 PM	17	29	105	130	115	6	14	157	34	152	208	138
4:15 PM - 4:30 PM	25	69	161	135	99	11	15	150	35	168	183	128
4:30 PM - 4:45 PM	31	73	217	94	91	6	8	150	33	164	213	130
4:45 PM - 5:00 PM	26	66	135	114	88	12	12	163	34	151	200	153
5:00 PM - 5:15 PM	24	60	127	168	86	7	8	144	27	159	192	121
5:15 PM - 5:30 PM	17	52	145	131	115	4	23	150	38	174	239	150
5:30 PM - 5:45 PM	19	47	169	123	97	5	16	157	32	200	204	169
5:45 PM - 6:00 PM	21	46	156	143	89	6	8	133	40	127	160	139
TOTAL	366	838	2,245	2,069	1,480	130	213	2,364	495	2,419	3,153	2,130
Peak Hour												
4:45 PM - 5:45 PM	**86**	**225**	**576**	**536**	**386**	**28**	**59**	**614**	**131**	**684**	**835**	**593**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County	Volusia	**City**	Port Orange
Intersection	Williamson Blvd	**&**	Taylor Rd
Date	January 14, 2020	**Trucks**	
		VHB Project #:	63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	0	6	3	0	0	4	0	1	2	6
7:15 AM - 7:30 AM	0	0	0	2	0	0	0	1	1	0	1	6
7:30 AM - 7:45 AM	0	2	1	8	1	0	0	7	1	6	2	4
7:45 AM - 8:00 AM	0	1	6	3	1	0	1	4	0	4	3	7
8:00 AM - 8:15 AM	0	3	3	5	1	0	1	11	1	5	3	3
8:15 AM - 8:30 AM	1	0	1	3	2	1	0	4	0	1	3	4
8:30 AM - 8:45 AM	2	1	3	6	1	0	0	2	0	3	5	7
8:45 AM - 9:00 AM	0	2	0	6	4	1	0	3	0	11	1	4
TOTAL	3	9	14	39	13	2	2	36	3	31	20	41
Peak Hour												
7:30 AM - 8:30 AM	**1**	**6**	**11**	**19**	**5**	**1**	**2**	**26**	**2**	**16**	**11**	**18**
	1%	2%	1%	7%	3%	5%	6%	4%	3%	4%	2%	6%

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	3	3	5	2	0	0	1	0	3	2	1
12:15 PM - 12:30 PM	0	0	2	6	0	0	1	2	0	4	4	2
12:30 PM - 12:45 PM	2	2	1	4	1	0	0	4	2	3	6	7
12:45 PM - 1:00 PM	0	1	1	7	3	1	1	1	1	1	6	9
1:00 PM - 1:15 PM	0	3	0	10	1	0	1	0	0	1	1	5
1:15 PM - 1:30 PM	0	1	3	5	2	0	1	3	2	3	7	8
1:30 PM - 1:45 PM	0	3	2	7	0	0	1	3	0	1	0	8
1:45 PM - 2:00 PM	2	0	3	5	2	0	0	0	2	1	0	4
TOTAL	4	13	15	49	11	1	5	14	7	17	26	44
Peak Hour												
12:30 PM - 1:30 PM	**2**	**7**	**5**	**26**	**7**	**1**	**3**	**8**	**5**	**8**	**20**	**29**
	2%	4%	1%	5%	3%	2%	6%	1%	4%	2%	3%	6%

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	1	2	0	2	0	0	0	0	1	2	13
2:15 PM - 2:30 PM	1	3	1	5	1	0	0	3	0	5	3	7
2:30 PM - 2:45 PM	0	1	0	10	1	0	0	2	1	0	4	8
2:45 PM - 3:00 PM	0	3	3	3	4	0	1	2	1	3	6	13
3:00 PM - 3:15 PM	0	1	3	2	3	0	0	4	1	4	1	2
3:15 PM - 3:30 PM	0	2	4	0	0	0	0	8	0	0	3	6
3:30 PM - 3:45 PM	1	1	1	2	0	0	0	3	0	0	2	3
3:45 PM - 4:00 PM	0	1	2	0	1	0	0	2	0	5	5	5
4:00 PM - 4:15 PM	0	1	1	2	4	0	0	4	1	1	4	4
4:15 PM - 4:30 PM	0	3	0	2	1	0	1	3	0	2	3	4
4:30 PM - 4:45 PM	0	1	8	2	0	0	0	2	0	0	5	4
4:45 PM - 5:00 PM	0	2	1	3	1	0	1	2	1	0	4	4
5:00 PM - 5:15 PM	1	2	1	0	0	0	0	3	0	0	2	1
5:15 PM - 5:30 PM	0	2	1	0	1	0	0	1	0	0	1	3
5:30 PM - 5:45 PM	0	1	0	2	0	0	0	2	0	0	1	3
5:45 PM - 6:00 PM	0	0	0	2	0	0	0	1	0	0	1	3
TOTAL	3	25	28	35	19	0	3	42	5	21	47	83
Peak Hour												
4:45 PM - 5:45 PM	**1**	**7**	**3**	**5**	**2**	**0**	**1**	**8**	**1**	**0**	**8**	**11**
	1%	3%	1%	1%	1%	0%	2%	1%	1%	0%	1%	2%

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection Williamson Blvd **&** Taylor Rd

Date January 14, 2020 **U-Turns & RTOR**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	74	0	0	0	0	0	2	0	0	9
7:15 AM - 7:30 AM	0	0	106	0	0	0	0	0	0	0	0	5
7:30 AM - 7:45 AM	0	0	38	0	0	3	0	0	5	1	0	3
7:45 AM - 8:00 AM	0	0	50	0	0	0	0	0	1	0	0	6
8:00 AM - 8:15 AM	0	0	70	0	0	1	1	0	2	0	0	3
8:15 AM - 8:30 AM	0	0	94	0	0	2	0	0	0	0	0	4
8:30 AM - 8:45 AM	0	0	93	0	0	2	0	0	4	0	0	8
8:45 AM - 9:00 AM	0	0	92	1	0	2	1	0	6	0	0	6
TOTAL	0	0	617	1	0	10	2	0	20	1	0	44
Peak Hour												
8:00 AM - 9:00 AM	**0**	**0**	**349**	**1**	**0**	**7**	**2**	**0**	**12**	**0**	**0**	**21**

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	57	0	0	1	0	0	7	0	0	34
12:15 PM - 12:30 PM	0	0	71	0	0	1	0	0	3	1	0	59
12:30 PM - 12:45 PM	0	0	69	0	0	1	1	0	0	2	0	37
12:45 PM - 1:00 PM	0	0	58	0	0	0	0	0	10	0	0	32
1:00 PM - 1:15 PM	0	0	63	0	0	3	0	0	8	0	0	28
1:15 PM - 1:30 PM	0	0	58	0	0	3	0	0	5	0	0	35
1:30 PM - 1:45 PM	0	0	53	0	0	2	0	0	6	0	0	25
1:45 PM - 2:00 PM	0	0	71	0	0	2	0	0	6	0	0	31
TOTAL	0	0	500	0	0	13	1	0	45	3	0	281
Peak Hour												
12:15 PM - 1:15 PM	**0**	**0**	**261**	**0**	**0**	**5**	**1**	**0**	**21**	**3**	**0**	**156**

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	62	0	0	0	1	0	2	1	0	20
2:15 PM - 2:30 PM	0	0	67	0	0	0	0	0	7	0	0	20
2:30 PM - 2:45 PM	0	0	51	0	0	0	1	0	1	0	0	19
2:45 PM - 3:00 PM	0	0	68	0	0	1	0	0	2	0	0	18
3:00 PM - 3:15 PM	1	0	66	0	0	1	0	0	9	0	0	16
3:15 PM - 3:30 PM	0	0	64	0	0	3	0	0	4	0	0	14
3:30 PM - 3:45 PM	0	0	83	0	0	2	0	0	8	0	0	17
3:45 PM - 4:00 PM	1	0	70	0	0	0	0	0	5	0	0	13
4:00 PM - 4:15 PM	0	0	60	0	0	1	0	0	5	0	0	29
4:15 PM - 4:30 PM	0	0	74	0	0	2	0	0	4	0	0	24
4:30 PM - 4:45 PM	0	0	76	0	0	1	0	0	4	0	0	16
4:45 PM - 5:00 PM	0	0	76	1	0	3	0	0	2	0	0	26
5:00 PM - 5:15 PM	0	0	68	0	0	1	0	0	0	0	0	20
5:15 PM - 5:30 PM	0	0	71	0	0	0	0	0	8	1	0	31
5:30 PM - 5:45 PM	0	0	94	0	0	1	0	0	8	0	0	29
5:45 PM - 6:00 PM	0	0	82	0	0	1	0	0	8	0	0	17
TOTAL	2	0	1,132	1	0	17	2	0	77	2	0	329
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**309**	**1**	**0**	**5**	**0**	**0**	**18**	**1**	**0**	**106**

Pedestrian & Bicycle Summary

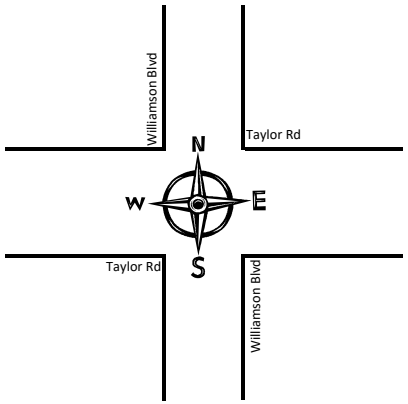
Project #: 63308.02 **NB/SB:** Williamson Blvd

Date: 1/14/2020 **EB/WB:** Taylor Rd

Hour

	7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
	1	2	3	4	5	6	7	8	
Eastbound ▶ Bike	0	0	0	0	0	0	0	0	**0**
Ped	0	0	0	0	0	0	0	0	**0**
Westbound ◀ Bike	0	0	0	1	1	0	0	0	**2**
Ped	0	0	0	0	0	0	0	1	**1**

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
1 7:00	0	0	0	0
2 8:00	0	0	0	0
3 12:00	1	0	1	0
4 13:00	1	0	0	1
5 14:00	1	0	0	0
6 15:00	0	0	0	0
7 16:00	1	0	1	0
8 17:00	0	0	0	0
	4	**0**	**2**	**1**



Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲	Hour
1 7:00	1	0	0	0	1 7:00
2 8:00	0	0	0	0	2 8:00
3 12:00	0	0	0	0	3 12:00
4 13:00	0	0	0	0	4 13:00
5 14:00	0	0	0	0	5 14:00
6 15:00	0	0	0	0	6 15:00
7 16:00	0	0	0	0	7 16:00
8 17:00	0	0	0	0	8 17:00
	1	**0**	**0**	**0**	

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound ▶	Bike	0	1	0	0	0	0	0	0	**1**
	Ped	0	0	0	0	0	0	0	0	**0**
Westbound ◀	Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	0	0	0	0	**0**

Hour

8 **4**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 SB Ramps **&** Taylor Rd

Date January 14, 2020 **All Vehicles**

VHB Project #: 63308.02

AM Peak Hour

Time Period	I-95 SB Ramps Northbound			I-95 SB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	0	97	0	46	0	306	27	33	151	0
7:15 AM - 7:30 AM	0	0	0	116	0	44	0	421	28	55	169	0
7:30 AM - 7:45 AM	0	0	0	84	0	32	0	502	36	64	237	0
7:45 AM - 8:00 AM	0	0	0	128	0	48	0	447	32	57	277	0
8:00 AM - 8:15 AM	0	0	0	123	0	52	0	468	26	54	229	0
8:15 AM - 8:30 AM	0	0	0	138	0	40	0	425	24	65	254	0
8:30 AM - 8:45 AM	0	0	0	121	0	42	0	369	28	64	230	0
8:45 AM - 9:00 AM	0	0	0	88	0	46	0	403	22	39	281	0
TOTAL	0	0	0	895	0	350	0	3,341	223	431	1,828	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**0**	**473**	**0**	**172**	**0**	**1,842**	**118**	**240**	**997**	**0**

Mid-day Peak Hour

Time Period	I-95 SB Ramps Northbound			I-95 SB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	0	83	0	53	0	369	24	51	352	0
12:15 PM - 12:30 PM	0	0	0	98	0	49	0	334	24	44	321	0
12:30 PM - 12:45 PM	0	0	0	103	0	52	0	369	35	58	329	0
12:45 PM - 1:00 PM	0	0	0	76	0	56	0	367	37	56	353	0
1:00 PM - 1:15 PM	0	0	0	95	0	40	0	327	30	68	366	0
1:15 PM - 1:30 PM	0	0	0	79	0	46	0	381	31	41	358	0
1:30 PM - 1:45 PM	0	0	0	90	0	48	0	360	33	55	339	0
1:45 PM - 2:00 PM	0	0	0	95	1	40	0	371	27	58	341	0
TOTAL	0	0	0	719	1	384	0	2,878	241	431	2,759	0
Peak Hour												
12:30 PM - 1:30 PM	**0**	**0**	**0**	**353**	**0**	**194**	**0**	**1,444**	**133**	**223**	**1,406**	**0**

PM Peak Hour

Time Period	I-95 SB Ramps Northbound			I-95 SB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	0	87	0	55	0	378	30	56	329	0
2:15 PM - 2:30 PM	0	0	0	145	0	63	0	320	27	65	351	0
2:30 PM - 2:45 PM	0	0	0	84	0	53	0	355	32	70	368	0
2:45 PM - 3:00 PM	0	0	0	99	0	58	0	370	32	64	398	0
3:00 PM - 3:15 PM	0	0	0	123	0	64	0	371	27	53	381	0
3:15 PM - 3:30 PM	0	0	0	127	0	70	0	354	43	73	340	0
3:30 PM - 3:45 PM	0	0	0	101	0	66	0	425	42	71	367	0
3:45 PM - 4:00 PM	0	0	0	105	0	68	0	315	33	63	426	0
4:00 PM - 4:15 PM	0	0	0	152	0	71	0	329	40	66	409	0
4:15 PM - 4:30 PM	0	0	0	109	0	86	0	436	28	67	442	0
4:30 PM - 4:45 PM	0	0	0	161	1	90	0	434	26	79	380	0
4:45 PM - 5:00 PM	0	0	0	182	0	118	0	327	41	58	358	0
5:00 PM - 5:15 PM	0	0	0	166	0	102	0	375	42	71	389	0
5:15 PM - 5:30 PM	0	0	0	149	0	121	0	465	41	61	449	0
5:30 PM - 5:45 PM	0	0	0	203	0	130	0	396	38	76	404	0
5:45 PM - 6:00 PM	0	0	0	193	0	81	0	366	44	61	334	0
TOTAL	0	0	0	2,186	1	1,296	0	6,016	566	1,054	6,125	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**0**	**700**	**0**	**471**	**0**	**1,563**	**162**	**266**	**1,600**	**0**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 SB Ramps **&** Taylor Rd

Date January 14, 2020 **Trucks**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	0	4	0	2	0	9	2	0	4	0
7:15 AM - 7:30 AM	0	0	0	5	0	1	0	2	1	1	6	0
7:30 AM - 7:45 AM	0	0	0	2	0	1	0	12	5	1	13	0
7:45 AM - 8:00 AM	0	0	0	9	0	1	0	13	1	0	9	0
8:00 AM - 8:15 AM	0	0	0	2	0	1	0	15	0	3	9	0
8:15 AM - 8:30 AM	0	0	0	9	0	5	0	7	1	3	6	0
8:30 AM - 8:45 AM	0	0	0	2	0	3	0	10	1	4	12	0
8:45 AM - 9:00 AM	0	0	0	3	0	0	0	10	2	1	8	0
TOTAL	0	0	0	36	0	14	0	78	13	13	67	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**0**	**22**	**0**	**8**	**0**	**47**	**7**	**7**	**37**	**0**
	0%	0%	0%	5%	0%	5%	0%	3%	6%	3%	4%	0%

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	0	6	0	3	0	11	2	4	3	0
12:15 PM - 12:30 PM	0	0	0	8	0	0	0	6	1	0	12	0
12:30 PM - 12:45 PM	0	0	0	9	0	2	0	9	2	1	6	0
12:45 PM - 1:00 PM	0	0	0	2	0	3	0	10	3	1	10	0
1:00 PM - 1:15 PM	0	0	0	5	0	4	0	11	1	3	8	0
1:15 PM - 1:30 PM	0	0	0	3	0	1	0	9	4	3	11	0
1:30 PM - 1:45 PM	0	0	0	7	0	1	0	10	1	1	3	0
1:45 PM - 2:00 PM	0	0	0	9	0	0	0	11	0	3	6	0
TOTAL	0	0	0	49	0	14	0	77	14	16	59	0
Peak Hour												
12:30 PM - 1:30 PM	**0**	**0**	**0**	**19**	**0**	**10**	**0**	**39**	**10**	**8**	**35**	**0**
	0%	0%	0%	5%	0%	5%	0%	3%	8%	4%	2%	0%

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	0	8	0	2	0	3	1	0	14	0
2:15 PM - 2:30 PM	0	0	0	8	0	2	0	8	0	1	9	0
2:30 PM - 2:45 PM	0	0	0	11	0	2	0	10	2	2	13	0
2:45 PM - 3:00 PM	0	0	0	3	0	1	0	9	1	1	16	0
3:00 PM - 3:15 PM	0	0	0	3	0	2	0	12	0	1	3	0
3:15 PM - 3:30 PM	0	0	0	1	0	4	0	10	3	1	6	0
3:30 PM - 3:45 PM	0	0	0	5	0	3	0	8	0	0	7	0
3:45 PM - 4:00 PM	0	0	0	3	0	4	0	6	0	1	10	0
4:00 PM - 4:15 PM	0	0	0	6	0	1	0	9	1	2	5	0
4:15 PM - 4:30 PM	0	0	0	1	0	0	0	3	2	3	6	0
4:30 PM - 4:45 PM	0	0	0	4	1	1	0	10	1	1	1	0
4:45 PM - 5:00 PM	0	0	0	6	0	1	0	5	2	0	5	0
5:00 PM - 5:15 PM	0	0	0	5	0	1	0	9	0	2	2	0
5:15 PM - 5:30 PM	0	0	0	2	0	1	0	5	1	3	2	0
5:30 PM - 5:45 PM	0	0	0	2	0	1	0	3	3	2	0	0
5:45 PM - 6:00 PM	0	0	0	4	0	0	0	5	0	1	3	0
TOTAL	0	0	0	72	1	26	0	115	17	21	102	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**0**	**15**	**0**	**4**	**0**	**22**	**6**	**7**	**9**	**0**
	0%	0%	0%	2%	0%	1%	0%	1%	4%	3%	1%	0%

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 SB Ramps **&** Taylor Rd

Date January 14, 2020 **U-Turns & RTOR**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	0	0	0	29	0	0	2	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	15	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	15	0	0	5	1	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	24	0	0	1	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	26	0	0	2	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	13	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	20	0	0	4	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	23	0	0	6	0	0	0
TOTAL	0	0	0	0	0	165	0	0	20	1	0	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**0**	**0**	**0**	**78**	**0**	**0**	**8**	**1**	**0**	**0**

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	0	0	0	17	0	0	7	0	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	33	0	0	3	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	22	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	26	0	0	10	0	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	14	0	0	8	3	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	21	0	0	5	1	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	28	0	0	6	0	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	20	0	0	6	0	0	0
TOTAL	0	0	0	0	0	181	0	0	45	4	0	0
Peak Hour												
12:30 PM - 1:30 PM	**0**	**0**	**0**	**0**	**0**	**83**	**0**	**0**	**23**	**4**	**0**	**0**

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	0	0	0	23	0	0	2	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	18	0	0	7	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	25	0	0	1	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	20	0	0	2	1	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	27	0	0	9	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	19	0	0	4	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	24	0	0	8	0	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	32	0	0	5	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	26	0	0	5	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	37	0	0	4	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	37	0	0	4	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	34	0	0	2	1	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	26	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	58	0	0	8	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	37	0	0	8	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	29	0	0	8	0	0	0
TOTAL	0	0	0	0	0	472	0	0	77	2	0	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**0**	**0**	**0**	**155**	**0**	**0**	**18**	**1**	**0**	**0**

Pedestrian & Bicycle Summary

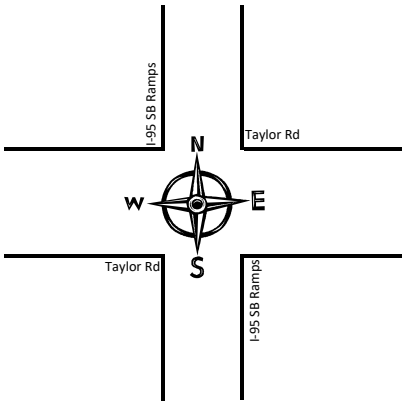
Project #: 63308.02 **NB/SB:** I-95 SB Ramps

Date: 1/14/2020 **EB/WB:** Taylor Rd

Hour

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	2	0	0	0	0	0	**2**
Westbound	◀ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	2	1	0	0	0	0	**3**

		Southbound		Northbound		
	Hour	Ped ▼	Bike	Ped ▲	Bike	
1	7:00	0	0	0	0	
2	8:00	0	0	0	0	
3	12:00	0	0	0	0	
4	13:00	0	0	0	0	
5	14:00	0	0	0	0	
6	15:00	0	0	0	0	
7	16:00	0	0	0	0	
8	17:00	0	0	0	0	
		0	**0**	**0**	**0**	



		Southbound		Northbound		
		Ped ▼	Bike	Ped ▲	Bike	Hour
1		0	0	0	0	7:00
2		0	0	0	0	8:00
3		0	0	0	0	12:00
4		0	0	0	0	13:00
5		0	0	0	0	14:00
6		0	0	0	0	15:00
7		0	0	0	0	16:00
8		0	0	0	0	17:00
		0	**0**	**0**	**0**	

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	1	0	0	0	**1**
Westbound	◀ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	0	0	0	0	**0**

Hour

6 **0**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 NB Ramps **&** Taylor Rd

Date January 14, 2020 **All Vehicles**

VHB Project #: 63308.02

AM Peak Hour

Time Period	I-95 NB Ramps Northbound			I-95 NB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	15	0	60	0	0	0	50	330	0	0	151	158
7:15 AM - 7:30 AM	15	0	78	0	0	0	102	463	0	0	207	193
7:30 AM - 7:45 AM	18	0	102	0	0	0	103	478	0	0	277	188
7:45 AM - 8:00 AM	27	0	97	0	0	0	127	481	0	0	293	192
8:00 AM - 8:15 AM	14	0	81	0	0	0	94	522	0	0	286	181
8:15 AM - 8:30 AM	20	0	75	0	0	0	75	448	0	0	303	176
8:30 AM - 8:45 AM	17	0	68	0	0	0	82	435	0	0	298	164
8:45 AM - 9:00 AM	18	0	61	0	0	0	51	444	0	0	345	123
TOTAL	144	0	622	0	0	0	684	3,601	0	0	2,160	1,375
Peak Hour												
7:30 AM - 8:30 AM	**79**	**0**	**355**	**0**	**0**	**0**	**399**	**1,929**	**0**	**0**	**1,159**	**737**

Mid-day Peak Hour

Time Period	I-95 NB Ramps Northbound			I-95 NB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	18	0	39	0	0	0	38	429	0	0	404	102
12:15 PM - 12:30 PM	28	0	79	0	0	0	58	390	0	0	358	108
12:30 PM - 12:45 PM	33	0	71	0	0	0	44	414	0	0	390	120
12:45 PM - 1:00 PM	20	0	48	0	0	0	64	406	0	0	401	115
1:00 PM - 1:15 PM	18	0	63	0	0	0	41	388	0	1	385	104
1:15 PM - 1:30 PM	26	1	55	0	0	0	60	418	0	0	395	108
1:30 PM - 1:45 PM	25	0	81	0	0	0	79	421	0	0	348	116
1:45 PM - 2:00 PM	14	0	59	0	0	0	43	423	0	0	359	103
TOTAL	182	1	495	0	0	0	427	3,289	0	1	3,040	876
Peak Hour												
12:30 PM - 1:30 PM	**97**	**1**	**237**	**0**	**0**	**0**	**209**	**1,626**	**0**	**1**	**1,571**	**447**

PM Peak Hour

Time Period	I-95 NB Ramps Northbound			I-95 NB Ramps Southbound			Taylor Rd Eastbound			Taylor Rd Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	13	0	55	0	0	0	38	389	0	0	373	110
2:15 PM - 2:30 PM	26	1	68	0	0	0	49	416	0	0	414	106
2:30 PM - 2:45 PM	32	0	56	0	0	0	54	413	0	0	373	113
2:45 PM - 3:00 PM	20	0	66	0	0	0	53	415	0	0	431	125
3:00 PM - 3:15 PM	19	0	50	0	0	0	56	506	0	0	432	107
3:15 PM - 3:30 PM	37	0	69	0	0	0	51	471	0	0	353	110
3:30 PM - 3:45 PM	21	0	68	0	0	0	69	481	0	0	418	122
3:45 PM - 4:00 PM	25	0	68	0	0	0	41	452	0	0	460	132
4:00 PM - 4:15 PM	24	0	80	0	0	0	57	443	0	0	441	142
4:15 PM - 4:30 PM	30	0	69	0	0	0	54	496	0	0	439	120
4:30 PM - 4:45 PM	26	0	52	0	0	0	61	576	0	0	431	123
4:45 PM - 5:00 PM	35	0	69	0	0	0	51	512	0	0	395	153
5:00 PM - 5:15 PM	25	0	89	0	0	0	61	505	0	0	405	156
5:15 PM - 5:30 PM	34	0	91	0	0	0	67	552	0	0	472	174
5:30 PM - 5:45 PM	24	0	83	0	0	0	48	486	0	0	465	164
5:45 PM - 6:00 PM	35	0	86	0	0	0	47	524	0	2	353	156
TOTAL	426	1	1,119	0	0	0	857	7,637	0	2	6,655	2,113
Peak Hour												
4:45 PM - 5:45 PM	**118**	**0**	**332**	**0**	**0**	**0**	**227**	**2,055**	**0**	**0**	**1,737**	**647**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 NB Ramps **&** Taylor Rd

Date January 14, 2020 **Trucks**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	1	0	0	0	0	0	4	12	0	0	2	1
7:15 AM - 7:30 AM	1	0	1	0	0	0	3	5	0	0	7	4
7:30 AM - 7:45 AM	0	0	1	0	0	0	3	12	0	0	10	5
7:45 AM - 8:00 AM	1	0	4	0	0	0	3	17	0	0	4	2
8:00 AM - 8:15 AM	1	0	0	0	0	0	6	21	0	0	12	6
8:15 AM - 8:30 AM	1	0	0	0	0	0	2	15	0	0	7	4
8:30 AM - 8:45 AM	3	0	1	0	0	0	6	7	0	0	9	5
8:45 AM - 9:00 AM	0	0	1	0	0	0	1	9	0	0	9	5
TOTAL	8	0	8	0	0	0	28	98	0	0	60	32
Peak Hour												
7:30 AM - 8:30 AM	**3**	**0**	**5**	**0**	**0**	**0**	**14**	**65**	**0**	**0**	**33**	**17**
	4%	0%	1%	0%	0%	0%	4%	3%	0%	0%	3%	2%

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	1	0	0	0	4	10	0	0	6	3
12:15 PM - 12:30 PM	2	0	1	0	0	0	5	12	0	0	10	5
12:30 PM - 12:45 PM	4	0	2	0	0	0	2	13	0	0	3	2
12:45 PM - 1:00 PM	5	0	1	0	0	0	4	6	0	0	8	4
1:00 PM - 1:15 PM	1	0	2	0	0	0	4	11	0	0	9	5
1:15 PM - 1:30 PM	3	1	0	0	0	0	5	6	0	0	13	7
1:30 PM - 1:45 PM	0	0	0	0	0	0	4	13	0	0	4	2
1:45 PM - 2:00 PM	4	0	2	0	0	0	5	15	0	0	6	3
TOTAL	19	1	9	0	0	0	33	86	0	0	59	31
Peak Hour												
12:30 PM - 1:30 PM	**13**	**1**	**5**	**0**	**0**	**0**	**15**	**36**	**0**	**0**	**33**	**18**
	13%	100%	2%	0%	0%	0%	7%	2%	0%	0%	2%	4%

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	1	0	2	0	0	0	3	9	0	0	11	6
2:15 PM - 2:30 PM	1	1	0	0	0	0	3	9	0	0	10	5
2:30 PM - 2:45 PM	3	0	3	0	0	0	7	16	0	0	7	4
2:45 PM - 3:00 PM	1	0	2	0	0	0	4	6	0	0	18	9
3:00 PM - 3:15 PM	0	0	1	0	0	0	1	13	0	0	6	3
3:15 PM - 3:30 PM	2	0	0	0	0	0	2	11	0	0	5	3
3:30 PM - 3:45 PM	0	0	1	0	0	0	4	8	0	0	7	4
3:45 PM - 4:00 PM	0	0	0	0	0	0	1	11	0	0	12	6
4:00 PM - 4:15 PM	1	0	0	0	0	0	1	10	0	0	6	3
4:15 PM - 4:30 PM	1	0	1	0	0	0	0	4	0	0	8	4
4:30 PM - 4:45 PM	0	0	0	0	0	0	3	11	0	0	2	1
4:45 PM - 5:00 PM	2	0	1	0	0	0	3	6	0	0	4	2
5:00 PM - 5:15 PM	0	0	3	0	0	0	4	4	0	0	3	2
5:15 PM - 5:30 PM	0	0	1	0	0	0	3	3	0	0	3	2
5:30 PM - 5:45 PM	0	0	2	0	0	0	0	1	0	0	5	3
5:45 PM - 6:00 PM	3	0	0	0	0	0	2	8	0	0	0	0
TOTAL	15	1	17	0	0	0	41	130	0	0	107	57
Peak Hour												
4:45 PM - 5:45 PM	**2**	**0**	**7**	**0**	**0**	**0**	**10**	**14**	**0**	**0**	**15**	**9**
	2%	0%	2%	0%	0%	0%	4%	1%	0%	0%	1%	1%

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection I-95 NB Ramps **&** Taylor Rd

Date January 14, 2020 **U-Turns & RTOR**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	52	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	54	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	73	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	49	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	39	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	42	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	47	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	32	0	0	0	0	0	0	0	0	0
TOTAL	0	0	388	0	0	0	0	0	0	0	0	0
Peak Hour												
7:00 AM - 8:00 AM	**0**	**0**	**228**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	30	0	0	0	0	0	0	0	0	0
12:15 PM - 12:30 PM	0	0	48	0	0	0	0	0	0	0	0	0
12:30 PM - 12:45 PM	0	0	39	0	0	0	0	0	0	0	0	0
12:45 PM - 1:00 PM	0	0	28	0	0	0	0	0	0	0	0	0
1:00 PM - 1:15 PM	0	0	38	0	0	0	0	0	0	1	0	0
1:15 PM - 1:30 PM	0	0	27	0	0	0	0	0	0	0	0	0
1:30 PM - 1:45 PM	0	0	49	0	0	0	0	0	0	0	0	0
1:45 PM - 2:00 PM	0	0	35	0	0	0	0	0	0	0	0	0
TOTAL	0	0	294	0	0	0	0	0	0	1	0	0
Peak Hour												
12:15 PM - 1:15 PM	**0**	**0**	**153**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	26	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	43	0	0	0	0	0	0	0	0	0
2:30 PM - 2:45 PM	0	0	34	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	38	0	0	0	0	0	0	0	0	0
3:00 PM - 3:15 PM	0	0	34	0	0	0	0	0	0	0	0	0
3:15 PM - 3:30 PM	0	0	31	0	0	0	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	44	0	0	0	0	0	0	0	0	0
3:45 PM - 4:00 PM	0	0	49	0	0	0	0	0	0	0	0	0
4:00 PM - 4:15 PM	0	0	53	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	44	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	34	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	42	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	32	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	46	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	41	0	0	0	1	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	40	0	0	0	0	0	0	2	0	0
TOTAL	0	0	631	0	0	0	1	0	0	2	0	0
Peak Hour												
3:30 PM - 4:30 PM	**0**	**0**	**190**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Pedestrian & Bicycle Summary

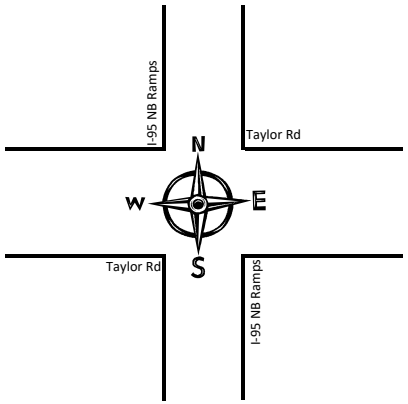
Project #: 63308.02 **NB/SB:** I-95 NB Ramps

Date: 1/14/2020 **EB/WB:** Taylor Rd

Hour

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	0	2	4	0	0	0	0	**6**
	Ped	2	2	1	0	0	1	1	0	**7**
Westbound	◀ Bike	0	0	0	2	0	0	0	0	**2**
	Ped	1	1	1	0	0	0	1	0	**4**

Hour	Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲
1 7:00	0	0	0	0
2 8:00	0	0	0	0
3 12:00	0	0	0	0
4 13:00	0	0	0	0
5 14:00	0	0	0	0
6 15:00	0	0	0	0
7 16:00	0	0	0	0
8 17:00	0	0	0	0
	0	**0**	**0**	**0**



Southbound Ped ▼	Southbound Bike ▼	Northbound Ped ▲	Northbound Bike ▲	Hour
0	0	0	0	1 7:00
0	0	0	0	2 8:00
0	0	0	0	3 12:00
0	0	0	0	4 13:00
0	0	0	0	5 14:00
0	0	0	0	6 15:00
0	0	0	0	7 16:00
0	0	0	0	8 17:00
0	**0**	**0**	**0**	

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	1	0	0	0	0	0	0	**1**
	Ped	0	0	0	0	0	0	0	0	**0**
Westbound	◀ Bike	0	0	0	0	1	1	0	0	**2**
	Ped	0	0	0	0	0	0	0	0	**0**

Hour

11 **11**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection Taylor Rd **&** Dunlawton Ave

Date January 14, 2020 **All Vehicles**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Taylor Rd Northbound			Taylor Rd Southbound			Dunlawton Ave Eastbound			Dunlawton Ave Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	37	0	0	0	0	327	74	3	317	0
7:15 AM - 7:30 AM	0	0	28	0	0	0	0	381	120	1	458	0
7:30 AM - 7:45 AM	0	0	30	0	0	0	0	407	177	3	497	0
7:45 AM - 8:00 AM	0	0	56	0	0	0	0	449	135	7	593	0
8:00 AM - 8:15 AM	0	0	28	0	0	0	0	451	121	5	382	0
8:15 AM - 8:30 AM	0	0	55	0	0	0	0	417	119	5	445	0
8:30 AM - 8:45 AM	0	0	46	0	0	0	0	409	77	7	511	0
8:45 AM - 9:00 AM	0	0	33	0	0	0	0	399	75	6	448	0
TOTAL	0	0	313	0	0	0	0	3,240	898	37	3,651	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**169**	**0**	**0**	**0**	**0**	**1,724**	**552**	**20**	**1,917**	**0**

Mid-day Peak Hour

Time Period	Taylor Rd Northbound			Taylor Rd Southbound			Dunlawton Ave Eastbound			Dunlawton Ave Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	32	0	0	0	0	372	77	10	515	0
12:15 PM - 12:30 PM	0	0	28	0	0	0	0	393	68	6	475	0
12:30 PM - 12:45 PM	0	0	31	0	0	0	0	378	105	4	512	0
12:45 PM - 1:00 PM	0	0	24	0	0	0	0	381	72	9	501	0
1:00 PM - 1:15 PM	0	0	26	0	0	0	0	369	81	10	517	0
1:15 PM - 1:30 PM	0	0	30	0	0	0	0	349	81	9	506	0
1:30 PM - 1:45 PM	0	0	29	0	0	0	0	315	104	17	505	0
1:45 PM - 2:00 PM	0	0	24	0	0	0	0	320	101	7	511	0
TOTAL	0	0	224	0	0	0	0	2,877	689	72	4,042	0
Peak Hour												
12:30 PM - 1:30 PM	**0**	**0**	**111**	**0**	**0**	**0**	**0**	**1,477**	**339**	**32**	**2,036**	**0**

PM Peak Hour

Time Period	Taylor Rd Northbound			Taylor Rd Southbound			Dunlawton Ave Eastbound			Dunlawton Ave Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	27	0	0	0	0	353	94	17	498	0
2:15 PM - 2:30 PM	0	0	36	0	0	0	0	370	118	10	574	0
2:30 PM - 2:45 PM	0	0	33	0	0	0	0	377	99	11	536	0
2:45 PM - 3:00 PM	0	0	42	0	0	0	0	354	113	5	566	0
3:00 PM - 3:15 PM	0	0	26	0	0	0	0	384	113	14	585	0
3:15 PM - 3:30 PM	0	0	32	0	0	0	0	444	119	9	504	0
3:30 PM - 3:45 PM	0	0	40	0	0	0	0	376	139	7	596	0
3:45 PM - 4:00 PM	0	0	56	0	0	0	0	340	112	11	634	0
4:00 PM - 4:15 PM	0	0	40	0	0	0	0	356	119	7	644	0
4:15 PM - 4:30 PM	0	0	31	0	0	0	0	419	145	10	591	0
4:30 PM - 4:45 PM	0	0	34	0	0	0	0	418	156	12	577	0
4:45 PM - 5:00 PM	0	0	30	0	0	0	0	390	162	5	571	0
5:00 PM - 5:15 PM	0	0	25	0	0	0	0	409	165	9	585	0
5:15 PM - 5:30 PM	0	0	30	0	0	0	0	419	179	7	623	0
5:30 PM - 5:45 PM	0	0	47	0	0	0	0	463	181	11	615	0
5:45 PM - 6:00 PM	0	0	32	0	0	0	0	439	159	5	516	0
TOTAL	0	0	561	0	0	0	0	6,311	2,173	150	9,215	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**132**	**0**	**0**	**0**	**0**	**1,681**	**687**	**32**	**2,394**	**0**

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection Taylor Rd **&** Dunlawton Ave

Date January 14, 2020 **Trucks**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	1	0	0	0	0	10	5	0	9	0
7:15 AM - 7:30 AM	0	0	1	0	0	0	0	7	1	0	10	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	12	0	0	19	0
7:45 AM - 8:00 AM	0	0	2	0	0	0	0	13	6	0	17	0
8:00 AM - 8:15 AM	0	0	1	0	0	0	0	7	7	0	17	0
8:15 AM - 8:30 AM	0	0	2	0	0	0	0	11	4	0	15	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	7	5	0	16	0
8:45 AM - 9:00 AM	0	0	2	0	0	0	0	5	5	0	15	0
TOTAL	0	0	9	0	0	0	0	72	33	0	118	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**43**	**17**	**0**	**68**	**0**
	0%	0%	3%	0%	0%	0%	0%	2%	3%	0%	4%	0%

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	10	1	0	12	0
12:15 PM - 12:30 PM	0	0	2	0	0	0	0	5	5	0	15	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	16	3	0	12	0
12:45 PM - 1:00 PM	0	0	1	0	0	0	0	5	5	0	12	0
1:00 PM - 1:15 PM	0	0	2	0	0	0	0	11	5	0	17	0
1:15 PM - 1:30 PM	0	0	2	0	0	0	0	5	1	1	13	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	8	3	0	7	0
1:45 PM - 2:00 PM	0	0	1	0	0	0	0	11	5	0	10	0
TOTAL	0	0	8	0	0	0	0	71	28	1	98	0
Peak Hour												
12:30 PM - 1:30 PM	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**37**	**14**	**1**	**54**	**0**
	0%	0%	5%	0%	0%	0%	0%	3%	4%	3%	3%	0%

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	1	0	0	0	0	10	2	0	14	0
2:15 PM - 2:30 PM	0	0	1	0	0	0	0	12	2	0	12	0
2:30 PM - 2:45 PM	0	0	1	0	0	0	0	12	0	0	14	0
2:45 PM - 3:00 PM	0	0	1	0	0	0	0	9	1	0	19	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	9	4	1	13	0
3:15 PM - 3:30 PM	0	0	3	0	0	0	0	9	6	0	13	0
3:30 PM - 3:45 PM	0	0	1	0	0	0	0	6	6	0	10	0
3:45 PM - 4:00 PM	0	0	1	0	0	0	0	9	0	0	13	0
4:00 PM - 4:15 PM	0	0	1	0	0	0	0	5	3	0	14	0
4:15 PM - 4:30 PM	0	0	1	0	0	0	0	4	2	0	12	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	8	8	0	3	0
4:45 PM - 5:00 PM	0	0	1	0	0	0	0	4	2	0	4	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	8	2	1	9	0
5:15 PM - 5:30 PM	0	0	1	0	0	0	0	3	0	0	6	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	4	0	0	6	0
5:45 PM - 6:00 PM	0	0	1	0	0	0	0	6	0	0	2	0
TOTAL	0	0	14	0	0	0	0	118	38	2	164	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**19**	**4**	**1**	**25**	**0**
	0%	0%	2%	0%	0%	0%	0%	1%	1%	3%	1%	0%

Roadway Count Summary

Vanasse Hangen Brustlin, Inc.

County Volusia **City** Port Orange

Intersection Taylor Rd **&** Dunlawton Ave

Date January 14, 2020 **U-Turns & RTOR**

VHB Project #: 63308.02

AM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	3	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	9	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	11	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	1	1	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
TOTAL	0	0	0	0	0	0	0	0	26	1	0	0
Peak Hour												
7:30 AM - 8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**1**	**0**	**0**

Mid-day

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0	1	3	0	0
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0	1	0	0	0
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0	2	1	0	0
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0	3	2	0	0
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0	4	0	0	0
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0	6	2	0	0
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0	9	2	0	0
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0	5	0	0	0
TOTAL	0	0	0	0	0	0	0	0	31	10	0	0
Peak Hour												
12:45 PM - 1:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**6**	**0**	**0**

PM Peak Hour

Time Period	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0	12	1	0	0
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0	5	0	0	0
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0	5	1	0	0
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0	4	0	0	0
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0	9	1	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0	10	1	0	0
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	4	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	13	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	8	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	5	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	19	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	5	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	18	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	3	0	0	0
TOTAL	0	0	0	0	0	0	0	0	121	4	0	0
Peak Hour												
4:45 PM - 5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**0**	**0**

Pedestrian & Bicycle Summary

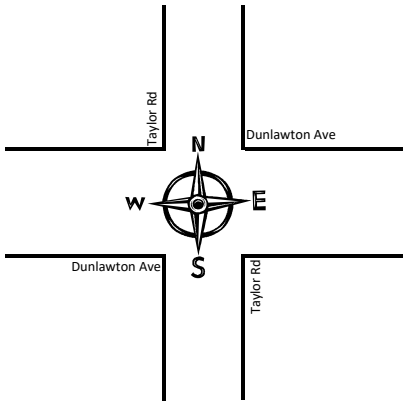
Project #: 63308.02 **NB/SB:** Taylor Rd

Date: 1/14/2020 **EB/WB:** Dunlawton Ave

Hour

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	0	0	0	0	**0**
Westbound	◀ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	0	0	0	0	**0**

		Southbound		Northbound	
	Hour	Ped ▼	Bike	Ped ▲	Bike
1	7:00	0	1	0	0
2	8:00	0	2	0	1
3	12:00	2	1	0	1
4	13:00	1	2	0	0
5	14:00	0	2	0	1
6	15:00	0	0	0	0
7	16:00	2	0	0	1
8	17:00	0	0	3	3
		5	**8**	**3**	**7**



		Southbound		Northbound		
		Ped ▼	Bike	Ped ▲	Bike	Hour
1	7:00	0	0	0	0	7:00
2	8:00	0	0	0	0	8:00
3	12:00	0	0	0	0	12:00
4	13:00	0	0	0	0	13:00
5	14:00	0	0	0	0	14:00
6	15:00	0	0	0	0	15:00
7	16:00	0	0	0	0	16:00
8	17:00	0	0	0	0	17:00
		0	**0**	**0**	**0**	

		7:00	8:00	12:00	13:00	14:00	15:00	16:00	17:00	
		1	2	3	4	5	6	7	8	
Eastbound	▶ Bike	0	1	0	0	1	0	0	1	**3**
	Ped	0	1	0	0	0	0	3	1	**5**
Westbound	◀ Bike	0	0	0	0	0	0	0	0	**0**
	Ped	0	0	0	0	0	0	0	3	**3**

Hour

16 **18**

APPENDIX B:

Crash Data

Williamson Boulevard at Taylor Road - Crash Data Summary (1/1/2017 - 12/31/2019)

No.	Crash ID	Date	Day	Time	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	87739036	5/23/2019	Thursday	12:00 PM	Sideswipe	Property Damage Only	0	0	$500	Daylight	Dry
2	86751659	8/5/2017	Saturday	10:36 AM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
3	87739828	8/28/2019	Wednesday	3:47 PM	Sideswipe	Property Damage Only	0	0	$251	Daylight	Dry
4	87510142	6/8/2018	Friday	11:44 AM	Off Road	Property Damage Only	0	0	$500	Daylight	Dry
5	87510161	6/19/2018	Tuesday	12:22 PM	Rear End	Property Damage Only	0	0	$1,050	Daylight	Dry
6	87740131	10/24/2019	Thursday	8:15 PM	Sideswipe	Property Damage Only	0	0	$2,000	Dark - Lighted	Dry
7	87740512	12/6/2019	Friday	7:51 AM	Rear End	Injury	0	1	$4,600	Daylight	Dry
8	87739525	4/10/2019	Wednesday	11:52 AM	Sideswipe	Property Damage Only	0	0	$10,000	Daylight	Dry
9	87510696	9/16/2018	Sunday	12:10 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
10	87509936	1/23/2018	Tuesday	7:13 AM	Rear End	Property Damage Only	0	0	$1,500	Daylight	Wet
11	86396195	1/12/2017	Thursday	10:20 AM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
12	86396533	2/23/2017	Thursday	11:38 AM	Sideswipe	Property Damage Only	0	0	$1,500	Daylight	Wet
13	86396622	8/11/2017	Friday	10:15 PM	Head On	Property Damage Only	0	0	$4,000	Dark - Lighted	Wet
14	86751585	10/20/2017	Friday	2:19 PM	Sideswipe	Property Damage Only	0	0	$500	Daylight	Dry
15	87738997	7/12/2019	Friday	1:04 PM	Rear End	Injury	0	2	$8,000	Daylight	Dry
16	87738531	9/13/2018	Thursday	4:41 PM	Rear End	Injury	0	3	$1,000	Daylight	Dry
17	86751658	7/4/2017	Tuesday	1:11 PM	Rear End	Property Damage Only	0	0	$20,000	Daylight	Dry
18	87510618	8/29/2018	Wednesday	7:32 AM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
19	87510467	6/22/2018	Friday	4:29 PM	Right Turn	Property Damage Only	0	0	$5,000	Daylight	Dry
20	87510660	4/1/2019	Monday	3:44 PM	Sideswipe	Property Damage Only	0	0	$3,500	Daylight	Wet
21	87739317	3/4/2019	Monday	2:52 PM	Sideswipe	Property Damage Only	0	0	$10,000	Daylight	Dry
22	87509955	4/6/2018	Friday	8:20 PM	Rear End	Property Damage Only	0	0	$2,800	Dark - Lighted	Dry
23	86752410	1/16/2018	Tuesday	7:28 PM	Head On	Property Damage Only	0	0	$5,200	Dark - Lighted	Dry
24	87738978	12/31/2018	Monday	6:38 AM	Rear End	Injury	0	1	$2,000	Dawn	Dry
25	86396617	5/7/2017	Sunday	3:53 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
26	86751876	9/6/2017	Wednesday	8:33 PM	Angle	Property Damage Only	0	0	$17,200	Dark - Lighted	Dry
27	86396369	9/18/2017	Monday	4:43 PM	Rear End	Property Damage Only	0	0	$350	Daylight	Dry
28	86751523	9/17/2017	Sunday	12:32 PM	Rear End	Injury	0	1	$7,000	Daylight	Dry
29	87740095	8/23/2019	Friday	6:41 PM	Sideswipe	Property Damage Only	0	0	$4,000	Daylight	Dry
30	87510227	3/21/2018	Wednesday	1:14 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
31	87510314	4/16/2018	Monday	3:33 PM	Rear End	Injury	0	0	$1,500	Daylight	Dry
32	87740241	11/26/2019	Tuesday	6:02 PM	Sideswipe	Property Damage Only	0	0	$2,750	Dusk	Dry
33	86751926	8/15/2017	Tuesday	7:27 AM	Sideswipe	Property Damage Only	0	0	$3,500	Daylight	Dry
34	87509725	10/14/2017	Saturday	10:49 AM	Rear End	Property Damage Only	0	0	$850	Daylight	Dry
35	86395859	3/21/2017	Tuesday	1:05 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
36	87738833	11/19/2018	Monday	3:51 PM	Sideswipe	Property Damage Only	0	0	$3,000	Daylight	Dry
37	86752075	8/7/2018	Tuesday	5:15 PM	Left Turn	Property Damage Only	0	0	$200	Daylight	Dry
38	87738426	9/6/2018	Thursday	1:15 PM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
39	87510300	11/24/2018	Saturday	11:27 AM	Left Turn	Property Damage Only	0	0	$1,000	Daylight	Dry
40	86752334	3/19/2018	Monday	9:38 PM	Left Turn	Property Damage Only	0	0	$2,000	Dark - Lighted	Wet
41	86752385	3/28/2018	Wednesday	5:25 PM	Right Turn	Injury	0	1	$4,500	Daylight	Dry
42	87738779	9/14/2019	Saturday	5:18 PM	Angle	Injury	0	1	$7,000	Daylight	Wet
43	86752135	9/1/2017	Friday	6:51 AM	Angle	Injury	0	1	$10,000	Daylight	Dry
44	86751580	12/20/2017	Wednesday	1:03 PM	Rear End	Property Damage Only	0	0	$8,000	Daylight	Dry
45	87509752	12/7/2017	Thursday	5:19 PM	Rear End	Injury	0	1	$5,200	Daylight	Dry
46	87510626	7/23/2018	Monday	3:17 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Wet
47	85375476	10/8/2019	Tuesday	12:40 PM	Rear End	Property Damage Only	0	0	$10	Daylight	Wet
48	86751476	6/2/2018	Saturday	11:30 PM	Rear End	Injury	0	1	$2,500	Daylight	Dry
49	87739458	3/5/2019	Tuesday	2:06 PM	Rear End	Property Damage Only	0	0	$1,100	Daylight	Dry
50	85512796	4/19/2017	Wednesday	11:34 PM	Off Road	Property Damage Only	0	0	$3,000	Dark - Lighted	Dry
51	86751775	2/21/2018	Wednesday	9:17 AM	Rear End	Property Damage Only	0	0	$1,500	Daylight	Dry
52	87509889	12/23/2017	Saturday	6:58 PM	Rear End	Property Damage Only	0	0	$3,500	Dusk	Dry
53	86751457	12/19/2017	Tuesday	1:06 PM	Rear End	Property Damage Only	0	0	$20,000	Daylight	Dry
54	86752077	9/15/2017	Friday	3:16 PM	Rear End	Injury	0	1	$5,000	Daylight	Dry
55	87739559	7/18/2019	Thursday	1:10 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
56	87740394	10/16/2019	Wednesday	9:49 AM	Sideswipe	Property Damage Only	0	0	$2,000	Daylight	Dry
57	86396593	6/4/2017	Sunday	9:17 AM	Rear End	Property Damage Only	0	0	$1,500	Daylight	Dry
58	87739731	4/26/2019	Friday	8:59 AM	Sideswipe	Property Damage Only	0	0	$4,500	Daylight	Dry
59	87738950	3/29/2019	Friday	3:29 PM	Rear End	Injury	0	2	$7,500	Daylight	Dry
60	84155893	8/3/2018	Friday	5:40 PM	Left Turn	Injury	0	1	$6,000	Daylight	Dry
61	86396404	1/5/2018	Friday	6:40 PM	Sideswipe	Property Damage Only	0	0	$1,000	Dark - Lighted	Dry
62	87510131	3/19/2018	Monday	3:19 PM	Rear End	Injury	0	2	$1,500	Daylight	Dry
63	87740147	10/14/2019	Monday	8:42 AM	Sideswipe	Property Damage Only	0	0	$250	Daylight	Dry
64	87740242	11/29/2019	Friday	5:42 PM	Sideswipe	Property Damage Only	0	0	$2,500	Daylight	Dry
65	87739314	2/20/2019	Wednesday	12:35 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
66	86396512	2/23/2017	Thursday	9:55 AM	Sideswipe	Property Damage Only	0	0	$3,000	Daylight	Wet
67	86396616	4/9/2017	Sunday	3:15 PM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
68	87739043	1/16/2019	Wednesday	8:31 AM	Sideswipe	Injury	0	1	$10,000	Daylight	Dry
69	87738564	11/2/2018	Friday	3:57 PM	Right Turn	Property Damage Only	0	0	$10,000	Daylight	Dry

Williamson Boulevard at Taylor Road - Crash Data Summary (1/1/2017 - 12/31/2019)

No.	Crash ID	Date	Day	Time	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
70	86752115	8/9/2017	Wednesday	7:34 AM	Rear End	Property Damage Only	0	0	$3,500	Daylight	Dry
71	87740195	9/10/2019	Tuesday	4:48 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
72	87740287	9/27/2019	Friday	3:46 PM	Sideswipe	Property Damage Only	0	0	$4,000	Daylight	Dry
73	87739933	7/4/2019	Thursday	12:45 PM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
74	87739437	6/14/2019	Friday	1:41 PM	Left Turn	Property Damage Only	0	0	$10,000	Daylight	Dry
75	87738583	3/3/2019	Sunday	11:39 AM	Rear End	Injury	0	1	$6,000	Daylight	Dry
76	87740516	12/17/2019	Tuesday	1:45 PM	Sideswipe	Property Damage Only	0	0	$1,000	Daylight	Dry
77	87739112	7/18/2019	Thursday	4:35 PM	Sideswipe	Property Damage Only	0	0	$3,000	Daylight	Dry
78	86751668	10/11/2017	Wednesday	4:00 PM	Rear End	Property Damage Only	0	0	$500	Daylight	Dry
79	87740251	12/28/2019	Saturday	5:50 PM	Left Turn	Injury	0	2	$20,000	Dark - Lighted	Dry
80	87739496	9/10/2019	Tuesday	6:00 AM	Angle	Injury	0	1	$4,000	Dark - Lighted	Dry
81	87510511	1/27/2019	Sunday	3:25 PM	Sideswipe	Property Damage Only	0	0	$4,200	Daylight	Wet
82	86396331	2/13/2017	Monday	5:41 PM	Left Turn	Property Damage Only	0	0	$7,000	Daylight	Dry
83	84155765	7/13/2017	Thursday	5:31 PM	Rear End	Injury	0	1	$2,000	Daylight	Dry
84	86751979	7/6/2017	Thursday	4:27 PM	Sideswipe	Property Damage Only	0	0	$1,500	Daylight	Dry
85	87739340	6/3/2019	Monday	11:10 AM	Right Turn	Property Damage Only	0	0	$5,000	Daylight	Dry
86	87509736	12/23/2017	Saturday	12:52 PM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
87	87739337	5/31/2019	Friday	11:32 AM	Sideswipe	Property Damage Only	0	0	$6,000	Daylight	Dry
88	86751697	12/31/2017	Sunday	5:23 PM	Rear End	Injury	0	1	$5,000	Dusk	Dry
89	87739833	9/3/2019	Tuesday	1:25 PM	Rear End	Injury	0	3	$0	Daylight	Wet
90	85812049	10/10/2018	Wednesday	7:59 PM	Pedestrian	Injury	0	0	$1,000	Dark - Not Lighted	Dry
91	87740278	9/27/2019	Friday	3:42 PM	Sideswipe	Property Damage Only	0	0	$10,000	Daylight	Dry
92	87739736	4/30/2019	Tuesday	7:18 AM	Rear End	Property Damage Only	0	0	$4,000	Daylight	Dry
93	86752420	11/8/2017	Wednesday	10:37 AM	Rear End	Property Damage Only	0	0	$4,000	Daylight	Dry
94	87510259	5/3/2018	Thursday	7:45 AM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
95	87738850	11/13/2018	Tuesday	10:58 AM	Rear End	Property Damage Only	0	0	$1,200	Daylight	Dry
96	86751684	9/30/2017	Saturday	5:27 PM	Rear End	Injury	0	2	$4,000	Daylight	Dry
97	87509820	6/5/2018	Tuesday	8:57 AM	Rear End	Property Damage Only	0	0	$1,100	Daylight	Dry
98	87739029	12/12/2018	Wednesday	7:09 PM	Left Turn	Injury	0	3	$13,000	Dark - Lighted	Dry
99	86752166	9/4/2017	Monday	9:45 AM	Rear End	Property Damage Only	0	0	$1,700	Daylight	Dry
100	86396407	4/11/2017	Tuesday	3:02 PM	Rear End	Property Damage Only	0	0	$10,000	Daylight	Dry
101	86751922	11/29/2017	Wednesday	7:31 AM	Sideswipe	Property Damage Only	0	0	$3,500	Daylight	Dry
102	86395768	4/1/2017	Saturday	12:05 PM	Rear End	Injury	0	1	$2,500	Daylight	Dry
103	87739363	3/19/2019	Tuesday	11:56 AM	Rear End	Property Damage Only	0	0	$6,500	Daylight	Wet
104	86396376	4/6/2017	Thursday	1:46 PM	Right Turn	Injury	0	2	$6,500	Daylight	Dry
105	87509903	2/28/2018	Wednesday	12:49 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
106	87740058	8/22/2019	Thursday	1:40 PM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
107	86751880	8/5/2018	Sunday	9:15 PM	Rear End	Property Damage Only	0	0	$8,000	Dark - Lighted	Dry
108	86396574	6/9/2018	Saturday	11:20 AM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
109	87738466	11/12/2018	Monday	6:04 PM	Left Turn	Property Damage Only	0	0	$4,000	Dark - Lighted	Dry
110	87739104	1/21/2019	Monday	11:16 AM	Left Turn	Property Damage Only	0	0	$4,000	Daylight	Dry
111	87739296	2/18/2019	Monday	2:26 PM	Right Turn	Property Damage Only	0	0	$5,000	Daylight	Dry
112	87739809	5/21/2019	Tuesday	7:24 PM	Angle	Property Damage Only	0	0	$17,000	Daylight	Dry
113	87740578	12/9/2019	Monday	3:30 PM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
114	87510315	7/6/2018	Friday	2:53 PM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Wet
115	86751804	10/25/2017	Wednesday	11:40 AM	Rear End	Property Damage Only	0	0	$2,150	Daylight	Dry
116	87739221	4/8/2019	Monday	8:35 AM	Sideswipe	Property Damage Only	0	0	$2,000	Daylight	Dry
117	87509822	12/5/2017	Tuesday	4:58 PM	Angle	Property Damage Only	0	0	$2,500	Daylight	Dry
118	87510648	4/26/2019	Friday	9:16 PM	Sideswipe	Property Damage Only	0	0	$800	Dark - Lighted	Dry
119	86752144	12/23/2017	Saturday	2:30 PM	Sideswipe	Property Damage Only	0	0	$9,000	Daylight	Dry
120	87739979	7/31/2019	Wednesday	2:48 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
121	87738579	11/16/2018	Friday	10:28 PM	Angle	Injury	0	2	$5,500	Dark - Lighted	Dry
122	87739842	12/11/2019	Wednesday	7:19 PM	Rear End	Property Damage Only	0	0	$1,800	Dark - Lighted	Dry
123	87740317	12/17/2019	Tuesday	7:41 PM	Angle	Property Damage Only	0	0	$5,000	Dark - Lighted	Wet
124	87509730	1/30/2018	Tuesday	7:24 PM	Sideswipe	Property Damage Only	0	0	$600	Dark - Lighted	Dry
125	87510399	7/6/2019	Saturday	10:50 PM	Angle	Injury	0	2	$9,500	Dark - Lighted	Wet
126	87510484	1/31/2019	Thursday	5:30 AM	Rear End	Injury	0	1	$750	Dark - Lighted	Dry
127	87738839	11/3/2018	Saturday	3:46 PM	Rear End	Property Damage Only	0	0	$6,500	Daylight	Dry
128	86752318	12/11/2017	Monday	5:31 PM	Sideswipe	Property Damage Only	0	0	$2,200	Daylight	Dry
129	87738619	2/13/2019	Wednesday	3:40 PM	Sideswipe	Property Damage Only	0	0	$7,000	Daylight	Dry
130	86396192	4/14/2017	Friday	6:05 PM	Sideswipe	Injury	0	1	$700	Daylight	Dry
131	86396610	4/28/2017	Friday	3:03 PM	Rear End	Injury	0	1	$1,050	Daylight	Dry
132	87510486	3/9/2019	Saturday	11:15 PM	Rear End	Property Damage Only	0	0	$1,500	Dark - Lighted	Dry
133	86752300	2/26/2018	Monday	8:34 AM	Rear End	Injury	0	0	$150	Daylight	Dry
134	87740012	10/12/2019	Saturday	9:52 PM	Sideswipe	Property Damage Only	0	0	$700	Dark - Lighted	Dry

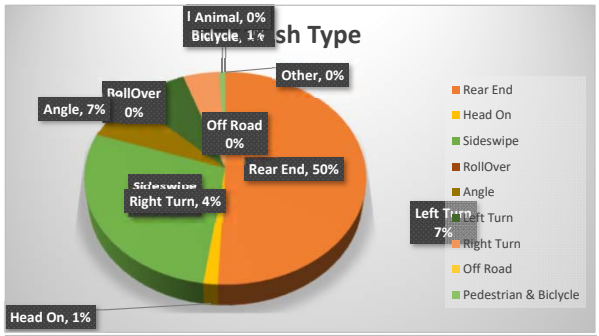
Williamson Boulevard at Taylor Road - Crash Data Summary (1/1/2017 - 12/31/2019)

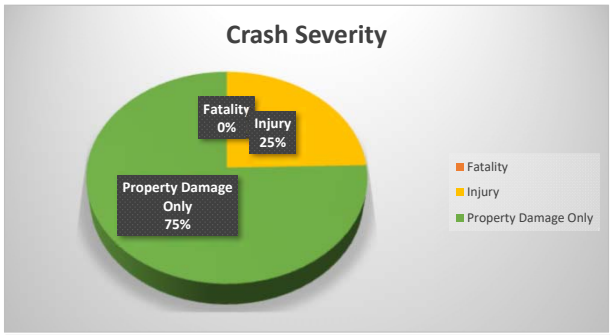
Crash Type	2017	2018	2019	Total	Proportion
Rear End	26	23	18	**67**	50%
Head On	1	1	0	**2**	1%
Sideswipe	10	3	24	**37**	28%
RollOver	0	0	0	**0**	0%
Angle	3	1	5	**9**	7%
Left Turn	1	6	3	**10**	7%
Right Turn	1	3	2	**6**	4%
Off Road	1	1	0	**2**	1%
Pedestrian & Biclycle	0	1	0	**1**	1%
Animal	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Total	**43**	**39**	**52**	**134**	100%

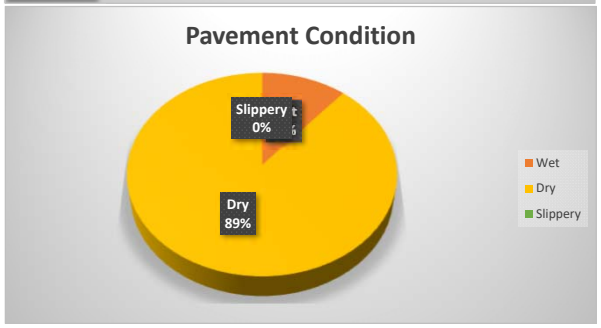
Crash Severity	2017	2018	2019	Total	Proportion
Fatality	0	0	0	**0**	0%
Injury	11	11	11	**33**	25%
Property Damage Only	32	28	41	**101**	75%
Total	**43**	**39**	**52**	**134**	100%

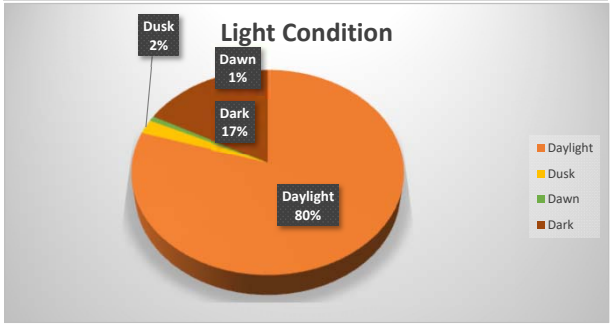
Pavement Condition	2017	2018	2019	Total	Proportion
Wet	3	4	8	**15**	11%
Dry	40	35	44	**119**	89%
Slippery	0	0	0	**0**	0%
Total	**43**	**39**	**52**	**134**	100%

Light Condition	2017	2018	2019	Total	Proportion
Daylight	38	28	41	**107**	80%
Dusk	2	0	1	**3**	2%
Dawn	0	1	0	**1**	1%
Dark	3	10	10	**23**	17%
Total	**43**	**39**	**52**	**134**	100%









Taylor Road at I-95 Ramps - Crash Data Summary (1/1/2017 - 12/31/2019)

No.	Crash ID	Date	Day	Time	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	87739320	3/11/2019	Monday	8:46 AM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
2	86751795	6/9/2018	Saturday	1:17 AM	Off Road	Property Damage Only	0	0	$2,000	Dark - Lighted	Dry
3	87739824	8/27/2019	Tuesday	3:06 PM	Sideswipe	Property Damage Only	0	0	$2,550	Daylight	Dry
4	87738611	11/9/2018	Friday	11:12 AM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
5	87738418	9/10/2018	Monday	9:43 AM	Rear End	Property Damage Only	0	0	$700	Daylight	Dry
6	87509718	10/19/2017	Thursday	2:59 PM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
7	87740166	12/25/2019	Wednesday	11:31 PM	Sideswipe	Property Damage Only	0	0	$9,000	Dark - Lighted	Wet
8	86752359	5/5/2018	Saturday	8:50 PM	Sideswipe	Property Damage Only	0	0	$2,500	Daylight	Dry
9	86752226	8/26/2017	Saturday	4:47 PM	Left Turn	Injury	0	2	$10,000	Daylight	Dry
10	87739196	4/18/2019	Thursday	5:25 PM	Left Turn	Property Damage Only	0	0	$1,000	Daylight	Dry
11	86752114	3/6/2018	Tuesday	9:15 AM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
12	87510138	9/2/2018	Sunday	4:56 PM	Left Turn	Property Damage Only	0	0	$3,000	Daylight	Dry
13	87739301	2/21/2019	Thursday	2:57 PM	Sideswipe	Property Damage Only	0	0	$3,000	Daylight	Dry
14	86752348	10/13/2017	Friday	11:31 AM	Left Turn	Injury	0	1	$15,000	Daylight	Dry
15	87510382	8/11/2019	Sunday	7:47 PM	Rear End	Property Damage Only	0	0	$2,000	Dark - Lighted	Dry
16	87510485	3/4/2019	Monday	7:35 PM	Sideswipe	Property Damage Only	0	0	$2,000	Dark - Lighted	Dry
17	87510431	10/31/2018	Wednesday	6:05 PM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
18	86395867	2/1/2017	Wednesday	4:53 PM	Rear End	Property Damage Only	0	0	$1,500	Daylight	Dry
19	87510356	5/19/2018	Saturday	3:19 PM	Rear End	Injury	0	1	$800	Daylight	Wet
20	87168438	4/24/2018	Tuesday	12:20 AM	Off Road	Injury	0	0	$1,000	Dark - Lighted	Dry
21	87739704	6/24/2019	Monday	4:41 PM	Rear End	Property Damage Only	0	0	$501	Daylight	Dry
22	87740561	10/30/2019	Wednesday	7:48 AM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
23	87147230	4/22/2018	Sunday	10:40 PM	Left Turn	Property Damage Only	0	0	$7,000	Dark - Lighted	Dry
24	87509735	12/9/2017	Saturday	6:41 AM	Angle	Injury	0	1	$20,000	Dawn	Wet
25	87740400	10/20/2019	Sunday	1:28 PM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
26	86396201	1/16/2017	Monday	1:51 PM	Rear End	Injury	0	1	$3,800	Daylight	Dry
27	86751637	6/29/2017	Thursday	4:45 AM	Off Road	Injury	0	1	$2,000	Dark - Lighted	Dry
28	87740064	10/23/2019	Wednesday	10:00 PM	Left Turn	Property Damage Only	0	0	$26,000	Dark - Lighted	Dry
29	87509872	7/10/2018	Tuesday	3:50 PM	Angle	Injury	0	1	$6,000	Daylight	Dry
30	86752015	11/6/2017	Monday	2:47 PM	Rear End	Property Damage Only	0	0	$6,500	Daylight	Dry
31	86395931	1/29/2017	Sunday	10:39 AM	Rear End	Injury	0	3	$10,300	Daylight	Wet
32	87509940	1/29/2018	Monday	2:30 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
33	87510542	7/29/2018	Sunday	6:14 PM	Rear End	Property Damage Only	0	0	$1,050	Daylight	Dry
34	87510558	8/8/2018	Wednesday	8:25 AM	Rear End	Property Damage Only	0	0	$17,000	Daylight	Dry
35	87739781	6/28/2019	Friday	10:21 AM	Rear End	Property Damage Only	0	0	$4,000	Daylight	Dry
36	87739795	5/9/2019	Thursday	3:33 AM	Sideswipe	Property Damage Only	0	0	$3,000	Daylight	Dry
37	87739797	9/26/2019	Thursday	5:00 PM	Rear End	Injury	0	1	$6,500	Daylight	Dry
38	86751475	9/27/2017	Wednesday	5:00 PM	Rear End	Property Damage Only	0	0	$600	Daylight	Dry
39	87740520	10/26/2019	Saturday	2:58 AM	Off Road	Fatality	1	0	$15,000	Dark - Not Lighted	Dry
40	87510357	5/20/2018	Sunday	7:59 AM	Left Turn	Injury	0	3	$18,000	Daylight	Wet
41	87509805	2/8/2018	Thursday	4:20 AM	Left Turn	Property Damage Only	0	0	$14,000	Dark - Lighted	Dry
42	87738827	11/16/2018	Friday	1:33 PM	Rear End	Property Damage Only	0	0	$3,000	Daylight	Dry
43	87510361	10/9/2018	Tuesday	7:07 AM	Rear End	Injury	0	1	$4,000	Daylight	Wet
44	86751696	12/21/2017	Thursday	2:37 PM	Left Turn	Property Damage Only	0	0	$11,000	Daylight	Dry
45	86396534	2/24/2017	Friday	6:12 AM	Left Turn	Property Damage Only	0	0	$8,000	Dark - Not Lighted	Wet
46	87509854	3/8/2018	Thursday	5:00 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
47	86751719	9/29/2018	Saturday	6:30 PM	Sideswipe	Property Damage Only	0	0	$1,100	Daylight	Dry
48	87738614	11/8/2018	Thursday	4:38 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry

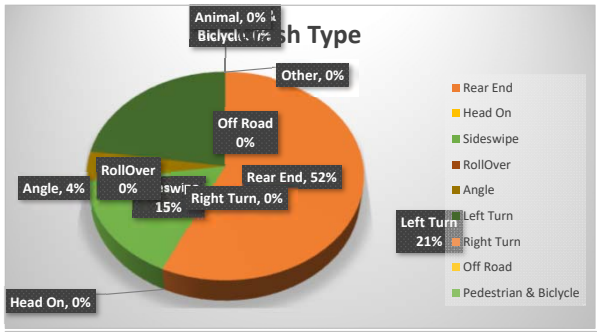
Taylor Road at I-95 Ramps - Crash Data Summary (1/1/2017 - 12/31/2019)

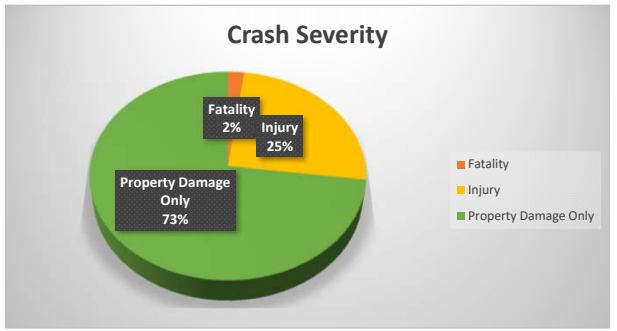
Crash Type	2017	2018	2019	Total	Proportion
Rear End	6	12	7	25	52%
Head On	0	0	0	0	0%
Sideswipe	0	2	5	7	15%
RollOver	0	0	0	0	0%
Angle	1	1	0	2	4%
Left Turn	4	4	2	10	21%
Right Turn	0	0	0	0	0%
Off Road	1	2	1	4	8%
Pedestrian & Biclycle	0	0	0	0	0%
Animal	0	0	0	0	0%
Other	0	0	0	0	0%
Total	**12**	**21**	**15**	**48**	100%

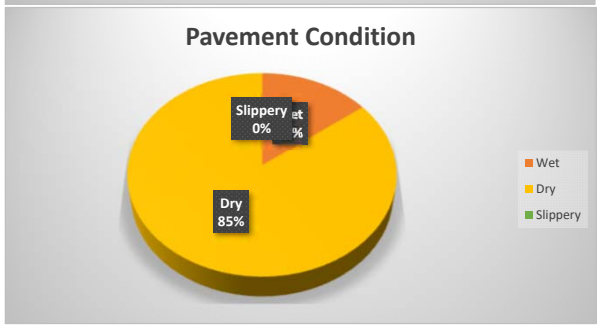
Crash Severity	2017	2018	2019	Total	Proportion
Fatality	0	0	1	1	2%
Injury	6	5	1	12	25%
Property Damage Only	6	16	13	35	73%
Total	**12**	**21**	**15**	**48**	100%

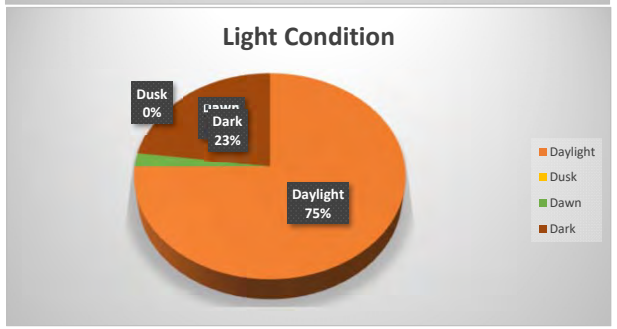
Pavement Condition	2017	2018	2019	Total	Proportion
Wet	3	3	1	7	15%
Dry	9	18	14	41	85%
Slippery	0	0	0	0	0%
Total	**12**	**21**	**15**	**48**	100%

Light Condition	2017	2018	2019	Total	Proportion
Daylight	9	17	10	36	75%
Dusk	0	0	0	0	0%
Dawn	1	0	0	1	2%
Dark	2	4	5	11	23%
Total	**12**	**21**	**15**	**48**	100%









Dunlwaton Avenue at Taylor Branch Road - Crash Data Summary (1/1/2017 - 12/31/2019)

No.	Crash ID	Date	Day	Time	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	87678417	6/16/2018	Saturday	3:07 PM	Off Road	Property Damage Only	0	0	$7,500	Daylight	Dry
2	87740086	12/15/2019	Sunday	9:41 AM	Angle	Property Damage Only	0	0	$3,500	Daylight	Dry
3	87739204	7/7/2019	Sunday	5:09 PM	Rear End	Injury	0	2	$2	Daylight	Wet
4	87739205	8/12/2019	Monday	8:26 PM	Left Turn	Injury	0	2	$7,000	Dark - Lighted	Dry
5	87739982	8/16/2019	Friday	8:30 AM	Left Turn	Injury	0	1	$30,000	Daylight	Dry
6	87510436	5/25/2018	Friday	9:38 AM	Right Turn	Property Damage Only	0	0	$5,000	Daylight	Dry
7	87509824	1/19/2018	Friday	5:56 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
8	86751669	4/5/2017	Wednesday	4:13 PM	Rear End	Property Damage Only	0	0	$500	Daylight	Wet
9	87739707	5/7/2019	Tuesday	7:34 AM	Rear End	Injury	0	1	$10,500	Daylight	Dry
10	87739039	6/30/2019	Sunday	12:52 PM	Off Road	Injury	0	1	$500	Unknown	Unknown
11	87739434	6/17/2019	Monday	8:00 AM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
12	87510305	4/3/2018	Tuesday	3:14 PM	Rear End	Injury	0	1	$5,000	Daylight	Dry
13	87739068	1/10/2019	Thursday	10:40 AM	Rear End	Property Damage Only	0	0	$7,000	Daylight	Dry
14	86752297	9/22/2017	Friday	2:43 PM	Left Turn	Property Damage Only	0	0	$7,000	Daylight	Dry
15	87738660	4/6/2019	Saturday	1:35 PM	Right Turn	Injury	0	3	$8,000	Daylight	Dry
16	87740221	9/9/2019	Monday	3:46 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
17	87510693	8/18/2018	Saturday	10:20 AM	Rear End	Property Damage Only	0	0	$2,600	Daylight	Dry
18	87738920	1/26/2019	Saturday	5:34 PM	Angle	Property Damage Only	0	0	$1,000	Daylight	Dry
19	87740526	10/28/2019	Monday	1:49 PM	Rear End	Property Damage Only	0	0	$4,000	Daylight	Dry
20	87510448	6/16/2018	Saturday	10:54 AM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
21	85813024	6/13/2018	Wednesday	10:37 AM	Right Turn	Property Damage Only	0	0	$4,000	Daylight	Dry
22	87738880	3/2/2019	Saturday	12:00 PM	Sideswipe	Property Damage Only	0	0	$2,000	Daylight	Dry
23	87509802	1/23/2018	Tuesday	3:59 PM	Sideswipe	Property Damage Only	0	0	$2,000	Daylight	Dry
24	86752241	9/12/2017	Tuesday	11:18 AM	Rear End	Injury	0	1	$7,500	Daylight	Dry
25	87738416	9/3/2018	Monday	1:10 PM	Rear End	Property Damage Only	0	0	$4,000	Daylight	Dry
26	86751740	4/21/2017	Friday	11:29 AM	Rear End	Injury	0	1	$5,000	Daylight	Dry
27	86396430	4/21/2017	Friday	5:32 PM	Sideswipe	Property Damage Only	0	0	$2,500	Daylight	Dry
28	86752054	7/13/2017	Thursday	8:33 AM	Off Road	Property Damage Only	0	0	$1,000	Daylight	Dry
29	86751791	6/29/2017	Thursday	6:45 AM	Rollover	Injury	0	1	$2,000	Daylight	Dry
30	87738683	10/24/2018	Wednesday	1:47 PM	Left Turn	Property Damage Only	0	0	$4,000	Daylight	Dry
31	87510240	12/29/2018	Saturday	7:55 PM	Sideswipe	Property Damage Only	0	0	$2,400	Dark - Not Lighted	Dry
32	86396304	1/31/2017	Tuesday	1:41 PM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
33	86396444	4/14/2017	Friday	3:51 PM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
34	85813475	3/3/2017	Friday	5:55 AM	Off Road	Injury	0	1	$10,500	Dark - Lighted	Dry
35	86396224	3/21/2017	Tuesday	10:19 PM	Left Turn	Injury	0	2	$10,000	Dark - Lighted	Dry
36	86752116	8/18/2017	Friday	10:36 AM	Rear End	Property Damage Only	0	0	$8,000	Daylight	Dry
37	87738876	8/12/2019	Monday	6:50 AM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
38	87738842	12/28/2018	Friday	3:59 PM	Angle	Property Damage Only	0	0	$15,500	Daylight	Dry
39	87738938	12/11/2018	Tuesday	6:30 PM	Left Turn	Property Damage Only	0	0	$14,000	Dark - Not Lighted	Dry
40	87510187	12/17/2018	Monday	6:06 PM	Rear End	Injury	0	2	$10,000	Dark - Lighted	Dry
41	86810032	2/22/2017	Wednesday	2:26 PM	Off Road	Property Damage Only	0	0	$3,000	Daylight	Wet
42	86752154	3/10/2018	Saturday	12:05 PM	Rear End	Property Damage Only	0	0	$600	Daylight	Dry
43	85443365	4/24/2017	Monday	1:50 AM	Off Road	Property Damage Only	0	0	$800	Dark - Not Lighted	Dry
44	87510520	11/13/2018	Tuesday	4:05 PM	Rear End	Property Damage Only	0	0	$1,500	Daylight	Dry
45	87510681	12/28/2018	Friday	7:50 PM	Rear End	Property Damage Only	0	0	$3,500	Dark - Lighted	Dry
46	87740540	11/12/2019	Tuesday	5:37 PM	Rear End	Property Damage Only	0	0	$10,000	Dusk	Dry
47	86396559	3/6/2017	Monday	1:59 PM	Rear End	Injury	0	1	$5,000	Daylight	Dry
48	86396258	2/22/2017	Wednesday	6:13 PM	Rear End	Injury	0	1	$2,000	Dark - Lighted	Wet
49	86752203	10/30/2017	Monday	8:44 AM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
50	87509713	11/14/2017	Tuesday	8:07 AM	Sideswipe	Property Damage Only	0	0	$2,500	Daylight	Dry
51	87510566	2/15/2019	Friday	4:55 PM	Rear End	Injury	0	1	$2	Daylight	Dry
52	87739501	4/10/2019	Wednesday	2:14 PM	Rear End	Injury	0	1	$13,000	Daylight	Dry
53	87740395	10/7/2019	Monday	10:27 AM	Off Road	Property Damage Only	0	0	$1,500	Daylight	Wet
54	87510034	10/4/2018	Thursday	5:06 PM	Rear End	Injury	0	1	$3,000	Daylight	Dry
55	87509864	5/18/2018	Friday	6:19 PM	Angle	Property Damage Only	0	0	$2,000	Daylight	Dry
56	86751847	2/13/2018	Tuesday	9:02 AM	Sideswipe	Property Damage Only	0	0	$2,000	Daylight	Dry
57	87509741	1/4/2018	Thursday	1:58 PM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
58	87739126	9/5/2019	Thursday	6:56 PM	Rear End	Injury	0	2	$500	Dusk	Dry
59	87739416	2/28/2019	Thursday	8:29 AM	Rear End	Property Damage Only	0	0	$1,100	Daylight	Dry
60	87738715	12/4/2018	Tuesday	3:26 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry
61	87739686	11/8/2019	Friday	5:57 PM	Rear End	Injury	0	1	$2,100	Dark - Lighted	Wet
62	87509739	1/16/2018	Tuesday	5:20 PM	Rear End	Injury	0	1	$4,000	Dusk	Dry
63	86751963	9/14/2017	Thursday	12:25 PM	Angle	Property Damage Only	0	0	$2,500	Daylight	Dry
64	86396490	11/25/2017	Saturday	6:17 PM	Rear End	Property Damage Only	0	0	$19,000	Dark - Lighted	Dry
65	87739160	3/26/2019	Tuesday	8:22 AM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
66	87739380	3/26/2019	Tuesday	7:30 AM	Rear End	Property Damage Only	0	0	$5,000	Daylight	Dry
67	87738881	3/15/2019	Friday	10:45 AM	Sideswipe	Property Damage Only	0	0	$500	Daylight	Dry
68	87739770	5/7/2019	Tuesday	11:56 AM	Rear End	Injury	0	1	$10,000	Daylight	Dry
69	86752096	12/27/2017	Wednesday	8:43 PM	Sideswipe	Injury	0	1	$2,500	Dark - Lighted	Dry

Dunlwaton Avenue at Taylor Branch Road - Crash Data Summary (1/1/2017 - 12/31/2019)

No.	Crash ID	Date	Day	Time	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
70	87510178	1/18/2019	Friday	6:07 PM	Rear End	Property Damage Only	0	0	$5,000	Dark - Lighted	Dry
71	87739287	2/19/2019	Tuesday	7:46 AM	Rear End	Injury	0	3	$21,000	Daylight	Dry
72	87740282	9/30/2019	Monday	1:15 PM	Sideswipe	Property Damage Only	0	0	$500	Daylight	Dry
73	87738454	9/7/2018	Friday	3:55 PM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
74	86751470	5/14/2017	Sunday	5:13 PM	Rear End	Property Damage Only	0	0	$2,500	Daylight	Dry
75	87509849	12/5/2017	Tuesday	7:46 AM	Rear End	Property Damage Only	0	0	$1,000	Daylight	Dry
76	87739311	3/5/2019	Tuesday	8:23 AM	Sideswipe	Property Damage Only	0	0	$5,000	Daylight	Dry
77	87509852	12/7/2017	Thursday	2:23 PM	Angle	Injury	0	1	$15,000	Daylight	Dry
78	87740421	10/8/2019	Tuesday	11:27 AM	Rear End	Injury	0	1	$2,500	Daylight	Wet
79	87739691	4/17/2019	Wednesday	3:58 PM	Bicycle	Injury	0	1	$2,000	Daylight	Dry
80	87739587	4/30/2019	Tuesday	11:04 AM	Rear End	Property Damage Only	0	0	$12,000	Daylight	Dry
81	87740745	12/26/2019	Thursday	2:54 PM	Angle	Property Damage Only	0	0	$7,000	Daylight	Dry
82	86751524	10/14/2017	Saturday	10:42 AM	Rear End	Property Damage Only	0	0	$2,000	Daylight	Dry
83	87739923	7/16/2019	Tuesday	12:15 PM	Rear End	Property Damage Only	0	0	$8,000	Daylight	Dry
84	86396251	1/19/2017	Thursday	3:53 PM	Rear End	Injury	0	1	$0	Daylight	Dry
85	87510476	5/23/2018	Wednesday	10:19 AM	Right Turn	Injury	0	2	$2,000	Daylight	Dry
86	86752153	9/12/2017	Tuesday	1:58 PM	Rear End	Property Damage Only	0	0	$6,000	Daylight	Dry

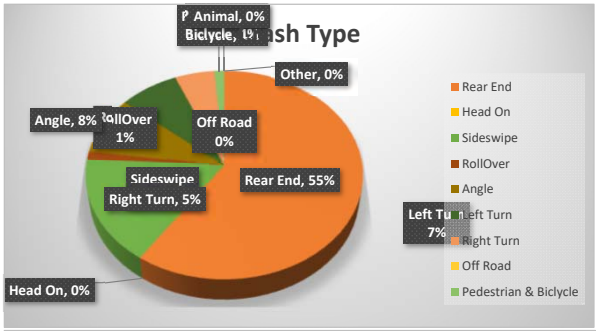
Dunlwaton Avenue at Taylor Branch Road - Crash Data Summary (1/1/2017 - 12/31/2019)

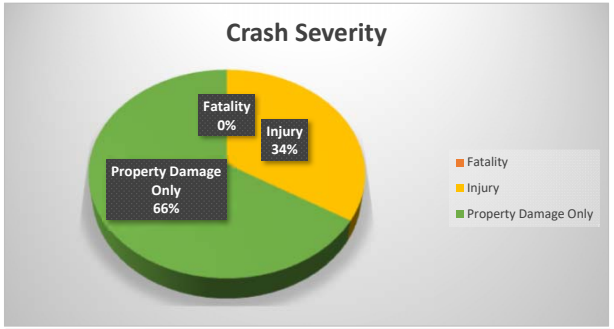
Crash Type	2017	2018	2019	Total	Proportion
Rear End	13	13	21	47	55%
Head On	0	0	0	0	0%
Sideswipe	5	4	4	13	15%
RollOver	1	0	0	1	1%
Angle	2	2	3	7	8%
Left Turn	2	2	2	6	7%
Right Turn	0	3	1	4	5%
Off Road	4	1	2	7	8%
Pedestrian & Biclycle	0	0	1	1	1%
Animal	0	0	0	0	0%
Other	0	0	0	0	0%
Total	**27**	**25**	**34**	**86**	100%

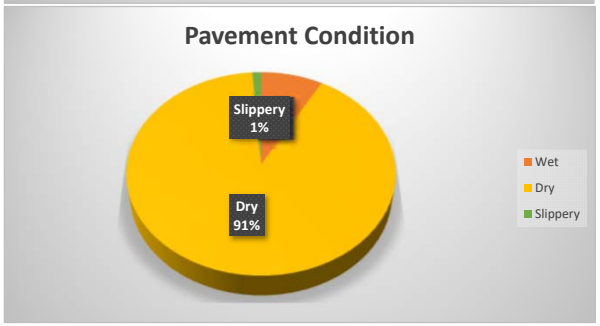
Crash Severity	2017	2018	2019	Total	Proportion
Fatality	0	0	0	0	0%
Injury	10	5	14	29	34%
Property Damage Only	17	20	20	57	66%
Total	**27**	**25**	**34**	**86**	100%

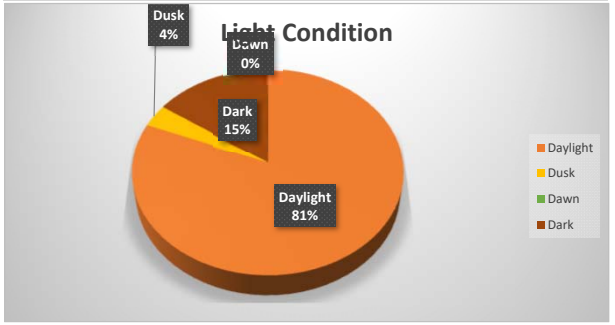
Pavement Condition	2017	2018	2019	Total	Proportion
Wet	3	0	4	7	8%
Dry	24	25	29	78	91%
Slippery	0	0	1	1	1%
Total	**27**	**25**	**34**	**86**	100%

Light Condition	2017	2018	2019	Total	Proportion
Daylight	21	20	28	69	80%
Dusk	0	1	2	3	3%
Dawn	0	0	0	0	0%
Dark	6	4	3	13	15%
Total	**27**	**25**	**33**	**85**	99%

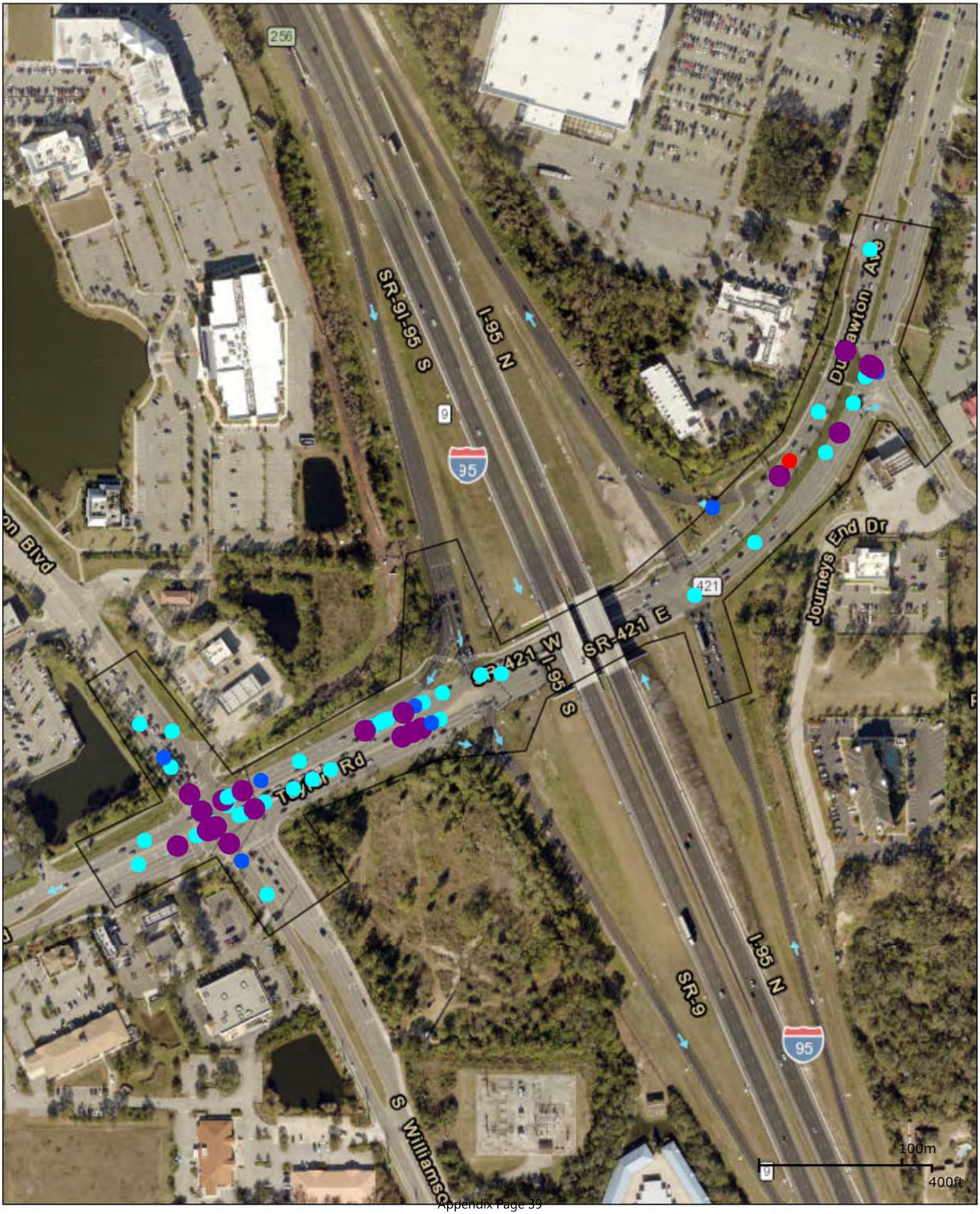








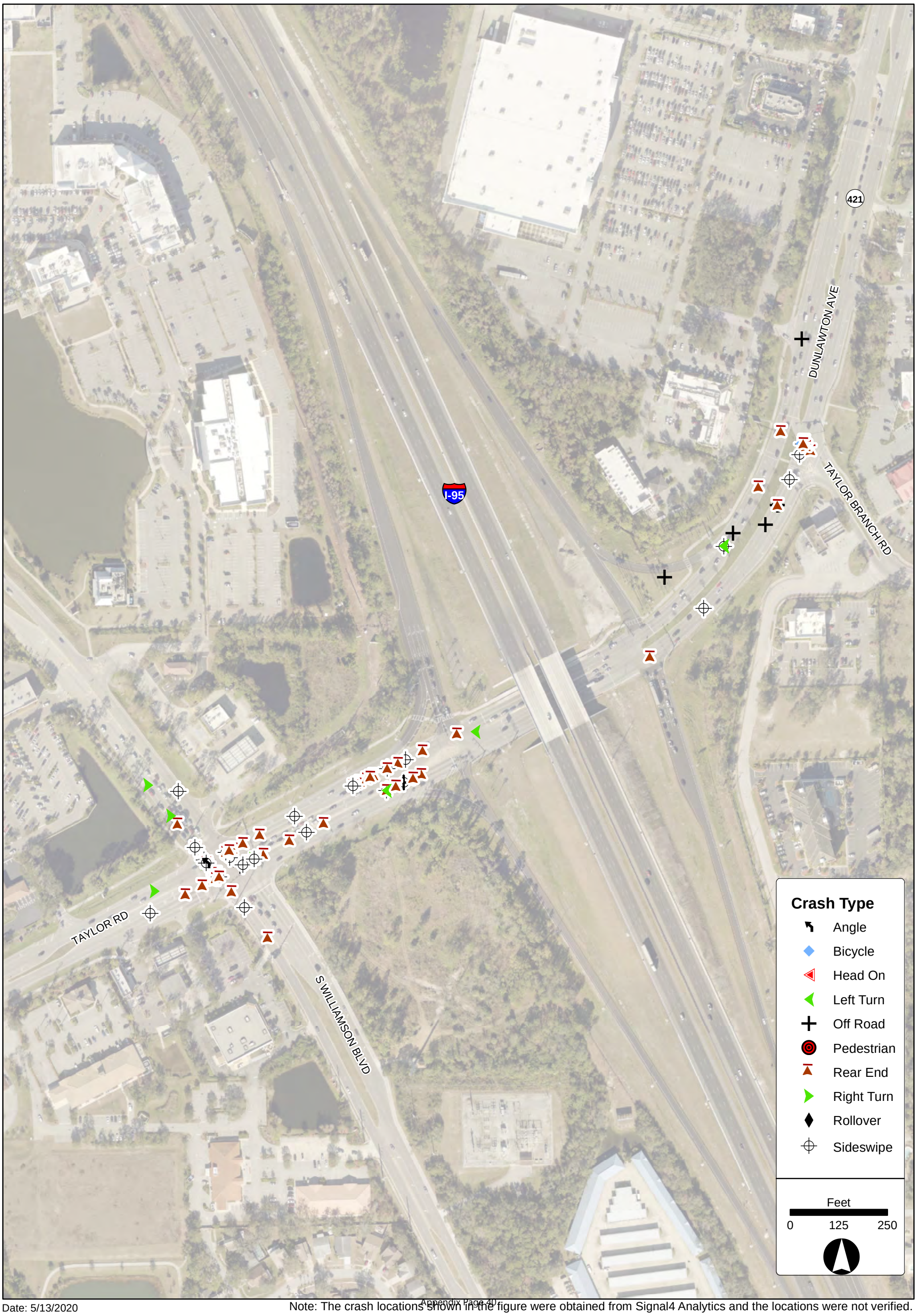
Taylor Rd at I-95 - 2017-2019



Source: Signal Four Analytics

Printed Monday, January 20, 2020

Feasibility Study for Taylor Road/Dunlawton Avenue from Williamson Boulevard to Taylor Branch Road
Crash Diagram - 1/1/2017 to 12/31/2019



Date: 5/13/2020

Note: The crash locations shown in the figure were obtained from Signal4 Analytics and the locations were not verified.

APPENDIX C:

Signal Timing Sheets
Traffic Operation Analysis
Project Trips
Advent Health Port Orange Site Plan

From: "Kandala, Srinivas" <SKandala@VHB.com>
To: "Bobby Maddox" <bmaddox@volusia.org>, "Sean Castello" <scastello@volusia...
CC: "Colleen Nicoulin" <CNicoulin@r2ctpo.org>, "Ambikapathy, Babuji" <BAmbik...
Date: 1/3/2020 10:05 AM
Subject: [EX] Signal Timings

CAUTION: This email originated from outside Volusia County's email system. DO NOT CLICK links or attachments unless you recognize the sender and/or know the content is safe.

Bob,
We (VHB) working with R2CTPO on Clyde Morris Blvd feasibility study and Taylor Rd feasibility study. We appreciate if you could send us the latest signal timings for the following intersections:

1. Clyde Morris Blvd and Reed Canal Rd
2. Clyde Morris Blvd and Madeline Ave
3. Clyde Morris Blvd and Willow Run Blvd
4. Taylor Rd at Williamson Blvd
5. Taylor Rd at I-95 SB Ramps
6. Taylor Rd at I-95 NB Ramps
7. Taylor Rd at Dunlawton Ave

Thanks,
Srinivas Kandala, PE
Transportation Engineer

[cid:image001.png@01D5C21D.47DD8E40]

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT FIVE
Signal Retiming - Volusia County

Volusia County
FLORIDA

Designed By:	AC
Date:	5/24/2017
Checked By:	AZ
Date:	5/24/2017

Section	79230000	Mile Post	0.053	Node	1
Sig ID	277	Controller	Econolite ASC/3	System ID	60
Maj. Street	SR 421 (Taylor Rd)	Orientation	E-W	SOP	10
Min. Street	Williamson Blvd	Orientation	N-S		

Pedestrians

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB	
Speed Limit (mph)	45	45	35	35	45	45	35	35	
Vehicle Traversed Width	150	175	180	165	155	180	160	155	
Approach Grades	-0.5%	-0.3%	-0.5%	-0.8%	-0.3%	-0.5%	-0.8%	-0.5%	
Ped-X (curb to curb)		89				117		123	
Crossing Time		26				34		36	
Ped-X (button to curb)		10				14		12	
Ped-X (button to far curb)		99				131		135	
Crossing Time (to far curb)		33				44		45	

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB	
Turn Type	Prot		Prot		Prot		Prot		
Min Green	5	15	5	10	5	15	5	10	
Ext	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	
Yellow	4.8	4.8	4.1	4.1	4.8	4.8	4.1	4.1	
All Red	3.7	2.1	4.5	2.6	3.8	2.1	3.9	2.6	
Max I	25	40	25	30	25	40	25	30	
Max II	25	85	30	41	51	92	26	37	
Walk		7				7		7	
Flashing Don't Walk		26				34		36	
Min Splits	14.0	40.0	14.0	17.0	14.0	48.0	13.0	50.0	
Detector Memory									
Det. Cross Switch.									
Recall		Min				Min			
CNA									
Coord Phase		Yes				Yes			

Coordination Timings (seconds)

Plan	Pattern	C-O-S	Splits								Cycle Length	Offset	Seq
AM	1		18	74	31	37	34	58	18	50	160	157	
MD	2		18	74	40	28	32	60	18	50	160	147	
PM	3		18	91	40	21	51	58	19	42	170	39	

Notes:

1) Offset referenced to end of main street green
2) Use Float force-offs
3) Use Inhibit Max termination during coordination
4) Ped recall on phases 2 & 6 for all patterns during coordination

All Patterns

Ring-1	1	2	3	4
Ring-2	5	6	7	8

Time of Day Plan

Designed By:	AC
Date:	5/24/2017
Checked By:	AZ
Date:	5/24/2017

Section:	79230000 & 79190000
Corridor:	SR 421
From:	Williamson Blvd
To:	Nova Rd (SR 5A)

ALL SEASON PLAN

Day	Plan	Time		Pattern (C/S/O)	Cycle Length
Monday Thru Friday	FREE	0:00	6:00	-	FREE
	AM	6:00	9:30	1	160
	MIDDAY	9:30	14:00	2	160
	PM	14:00	18:30	3	170
	MIDDAY	18:30	19:30	2	160
	FREE	19:30	0:00	-	FREE
Saturday	FREE	0:00	9:00	-	FREE
	MIDDAY	9:00	21:00	2	160
	FREE	21:00	0:00	-	FREE
Sunday	FREE	0:00	8:30	-	FREE
	MIDDAY	8:30	21:00	2	160
	FREE	21:00	0:00	-	FREE

Use this Time of Day for Nova Road and Village Trail

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT FIVE
Signal Retiming - Volusia County

Volusia County
FLORIDA

Designed By:	AC
Date:	5/24/2017
Checked By:	AZ
Date:	5/24/2017

Section	79230000	Mile Post	0.179	Node	2
Sig ID	211	Controller	Econolite ASC/3	System ID	60
Maj. Street	SR 421 (Dunlawton Ave)	Orientation	E-W	SOP	14
Min. Street	I-95 SB Ramp	Orientation	N-S		

Pedestrians

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB			WBL	EB		SB	
Speed Limit (mph)		45			45	45		30	
Vehicle Traversed Width		130			140	90		130	
Approach Grades		-0.2%			-0.2%	-1.2%		-0.8%	
Ped-X (curb to curb)		46							
Crossing Time		14							
Ped-X (button to curb)		20							
Ped-X (button to far curb)		66							
Crossing Time (to far curb)		22							

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB			WBL	EB		SB	
Turn Type					Prot				
Min Green		15			5	15		10	
Ext		4.0			3.0	4.0		4.0	
Yellow		4.9			4.8	4.9		3.7	
All Red		2.0			3.4	2.0		2.5	
Max I		60			20	60		40	
Max II									
Walk		7							
Flashing Don't Walk		14							
Min Splits		28.0			14.0	22.0		17.0	
Detector Memory									
Det. Cross Switch.									
Recall		Min				Min			
CNA									
Coord Phase		Yes				Yes			

Coordination Timings (seconds)

Plan	Pattern	C-O-S	Splits								Cycle Length	Offset	Seq
AM	1		-	123	-	-	41	82	-	37	160	17	
MD	2		-	123	-	-	41	82	-	37	160	16	
PM	3		-	120	-	-	40	80	-	50	170	52	

Notes:

1) Offset referenced to end of main street green
2) Use Float force-offs
3) Use Inhibit Max termination during coordination
4) Ped recall on phases 2 & 6 for all patterns during coordination

All Patterns

Ring-1	2		
Ring-2	5	6	8

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT FIVE
Signal Retiming - Volusia County

Volusia County
FLORIDA

Designed By:	AC
Date:	5/24/2017
Checked By:	AZ
Date:	5/24/2017

Section	79230000	Mile Post	0.262	Node	3
Sig ID	417	Controller	Econolite ASC/3	System ID	60
Maj. Street	SR 421 (Dunlawton Ave)	Orientation	E-W	SOP	15
Min. Street	I-95 NB Ramp	Orientation	N-S		

Pedestrians

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB		NB		EB			
Speed Limit (mph)	45	45		30		45			
Vehicle Traversed Width	140	150		145		145			
Approach Grades	0.8%	-0.8%		0.2%		0.8%			
Ped-X (curb to curb)		45							
Crossing Time		13							
Ped-X (button to curb)		15							
Ped-X (button to far curb)		60							
Crossing Time (to far curb)		20							

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB		NB		EB			
Turn Type	Prot								
Min Green	7	15		10		15			
Ext	3.0	4.0		3.0		4.0			
Yellow	4.8	4.8		3.7		4.8			
All Red	3.4	3.4		2.8		3.4			
Max I	20	60		20		60			
Max II									
Walk		7							
Flashing Don't Walk		13							
Min Splits	16.0	29.0		17.0		24.0			
Detector Memory									
Det. Cross Switch.									
Recall		Min				Min			
CNA									
Coord Phase		Yes				Yes			

Coordination Timings (seconds)

Plan	Pattern	C-O-S	Splits								Cycle Length	Offset	Seq
AM	1		55	73	-	32	-	128	-	-	160	22	
MD	2		33	95	-	32	-	128	-	-	160	6	
PM	3		37	99	-	34	-	136	-	-	170	55	

Notes:

1) Offset referenced to end of main street green
2) Use Float force-offs
3) Use Inhibit Max termination during coordination
4) Ped recall on phases 2 & 6 for all patterns during coordination

Pattern 1

Ring-1	2	1	4
Ring-2		6	

Pattern 2 & 3

Ring-1	1	2	4
Ring-2		6	

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT FIVE
Signal Retiming - Volusia County

Volusia County
FLORIDA

Designed By:	AC
Date:	6/5/2017
Checked By:	AZ
Date:	6/5/2017

Section	79230000	Mile Post	0.413	Node	4
Sig ID	192	Controller	Econolite ASC/3	System ID	60
Maj. Street	SR 421 (Dunlawton Ave)	Orientation	E-W	SOP	12 Special
Min. Street	Taylor Branch Rd	Orientation	N-S		

Pedestrians

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB		NB	WBL	EB			
Speed Limit (mph)		50		30	50	45			
Vehicle Traversed Width		110		115	105	135			
Approach Grades		-0.4%		0.7%	-0.4%	-0.9%			
Ped-X (curb to curb)				114		63			
Crossing Time				33		18			
Ped-X (button to curb)				9		15			
Ped-X (button to far curb)				123		78			
Crossing Time (to far curb)				41		26			

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		WB		NB	WBL	EB			
Turn Type					Prot				
Min Green		17		5	10	17			
Ext		4.0		3.0	3.0	4.0			
Yellow		5.2		3.7	5.2	5.2			
All Red		2.0		2.1	2.5	2.0			
Max I		50		35	25	50			
Max II		123		50	27	82			
Walk				7		7			
Flashing Don't Walk				33		18			
Min Splits		25.0		46.0	18.0	33.0			
Detector Memory									
Det. Cross Switch.									
Recall		Min				Min			
CNA									
Coord Phase		Yes				Yes			

Coordination Timings (seconds)

Plan	Pattern	C-O-S	Splits								Cycle Length	Offset	Seq
AM	1		-	130	-	30	22	108	-	-	160	29	
MD	2		-	130	-	30	25	105	-	-	160	19	
PM	3		-	145	-	25	30	115	-	-	170	82	

Notes:

1) Offset referenced to end of main street green
2) Use Float force-offs
3) Use Inhibit Max termination during coordination
4) Ped recall on phases 2 & 6 for all patterns during coordination

All Patterns

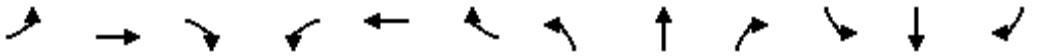
Ring-1		2		4
Ring-2	5	6		

Project Trips

Project/Vested Trips for Taylor Rd/Williamson Blvd Intersection from Developments along Williamson Blvd

		2022 Woodhaven		Preferred Storage		Gateway Target		Westport Town		holiday Inn		Central Parc		Total	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
EB	Left								15					0	15
	Thu						3							0	3
	Right	1	2	10	11								5	11	18
WB	Left	22	84	43	47		2						11	65	144
	Thu						3							0	3
	Right						2		62	13	14			13	78
NB	Left	2	4	7	9								6	9	19
	Thu	34	20	9	11				12				6	43	49
	Right	77	46	34	39		2						12	111	99
SB	Left						2		34	18	12			18	48
	Thu	10	37	13	13				7				5	23	62
	Right								9					0	9

Existing (2020) Synchro Reports

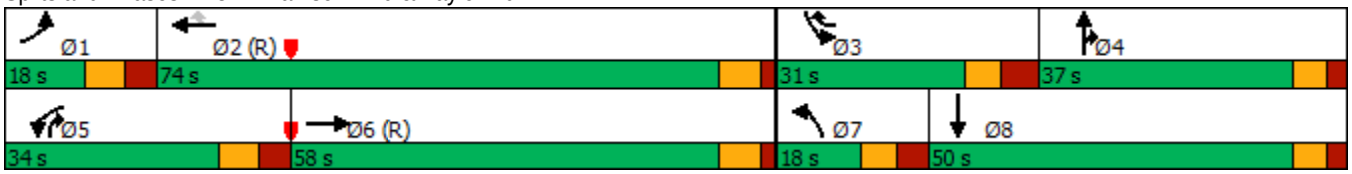


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	690	78	364	520	288	93	307	986	289	150	21
Future Volume (vph)	33	690	78	364	520	288	93	307	986	289	150	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	280		240	0		0	230		600	700		0
Storage Lanes	2		1	2		1	2		2	1		0
Taper Length (ft)	100			100			100			50		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Frt		0.985				0.850			0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4917	0	3367	3539	1524	3467	3539	2814	3273	3430	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4917	0	3367	3539	1524	3467	3539	2814	3273	3430	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				205			140		10	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		787			502			1257			985	
Travel Time (s)		11.9			7.6			24.5			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	4%	3%	4%	2%	6%	1%	2%	1%	7%	3%	5%
Adj. Flow (vph)	35	742	84	391	559	310	100	330	1060	311	161	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	826	0	391	559	310	100	330	1060	311	184	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2	3	7	4	4 5	3	8	
Permitted Phases						2						
Detector Phase	1	6		5	2	3	7	4	4 5	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	13.5	47.9		13.6	39.9	13.6	13.0	24.7		13.6	49.7	
Total Split (s)	18.0	58.0		34.0	74.0	31.0	18.0	37.0		31.0	50.0	
Total Split (%)	11.3%	36.3%		21.3%	46.3%	19.4%	11.3%	23.1%		19.4%	31.3%	
Maximum Green (s)	9.5	51.1		25.4	67.1	22.4	10.0	30.3		22.4	43.3	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.1	4.1	4.1		4.1	4.1	
All-Red Time (s)	3.7	2.1		3.8	2.1	4.5	3.9	2.6		4.5	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	8.6	8.0	6.7		8.6	6.7	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		3.0	4.0	3.0	3.0	4.0		3.0	4.0	
Recall Mode	None	C-Max		None	C-Max	None	None	Max		None	Max	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		34.0			26.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	7.1	52.2		24.3	72.3	98.9	9.2	32.9	62.8	19.8	44.1	
Actuated g/C Ratio	0.04	0.33		0.15	0.45	0.62	0.06	0.21	0.39	0.12	0.28	
v/c Ratio	0.24	0.51		0.77	0.35	0.30	0.50	0.45	0.89	0.77	0.19	
Control Delay	77.2	44.4		76.0	30.7	6.5	82.0	58.6	49.8	81.0	42.7	
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	77.2	44.7		76.0	30.7	6.5	82.0	58.6	49.9	81.0	42.7	
LOS	E	D		E	C	A	F	E	D	F	D	
Approach Delay		46.0			38.8			54.0			66.7	
Approach LOS		D			D			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 157 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 49.2		Intersection LOS: D	
Intersection Capacity Utilization 77.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Williamson Blvd & Taylor Rd

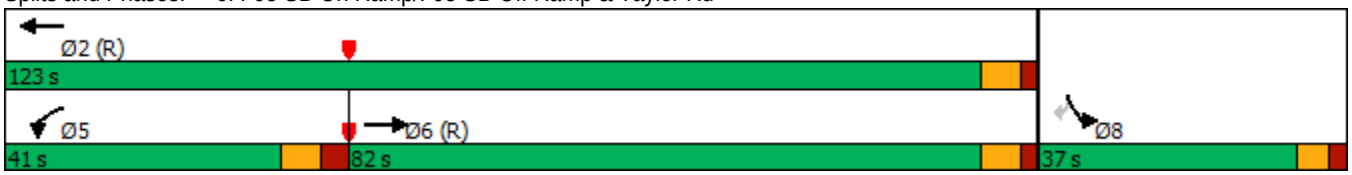


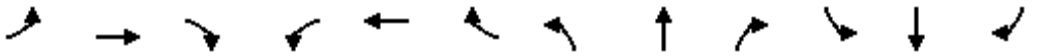
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1847	118	240	1000	0	0	0	0	473	0	78
Future Volume (vph)	0	1847	118	240	1000	0	0	0	0	473	0	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.991										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	4982	0	1752	3471	0	0	0	0	3335	0	1538
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	4982	0	1752	3471	0	0	0	0	3335	0	1538
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		8										
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		158			553			620			342	
Travel Time (s)		2.4			8.4			14.1			7.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	6%	3%	4%	0%	0%	0%	0%	5%	0%	5%
Adj. Flow (vph)	0	1904	122	247	1031	0	0	0	0	488	0	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2026	0	247	1031	0	0	0	0	488	0	80
Turn Type		NA		Prot	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases												8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		15.0		5.0	15.0					10.0		10.0
Minimum Split (s)		24.9		13.2	27.9					24.2		24.2
Total Split (s)		82.0		41.0	123.0					37.0		37.0
Total Split (%)		51.3%		25.6%	76.9%					23.1%		23.1%
Maximum Green (s)		75.1		32.8	116.1					30.8		30.8
Yellow Time (s)		4.9		4.8	4.9					3.7		3.7
All-Red Time (s)		2.0		3.4	2.0					2.5		2.5
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		4.0		3.0	4.0					4.0		4.0
Recall Mode		C-Max		None	C-Max					Max		Max
Walk Time (s)					7.0							
Flash Dont Walk (s)					14.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)		80.9		27.0	116.1					30.8		30.8
Actuated g/C Ratio		0.51		0.17	0.73					0.19		0.19
v/c Ratio		0.80		0.84	0.41					0.76		0.27
Control Delay		32.5		87.6	9.9					69.8		57.9
Queue Delay		0.4		0.0	0.4					0.0		0.0
Total Delay		32.9		87.6	10.3					69.8		57.9
LOS		C		F	B					E		E
Approach Delay		32.9			25.2						68.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C						E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 136 (85%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 35.5		Intersection LOS: D	
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd



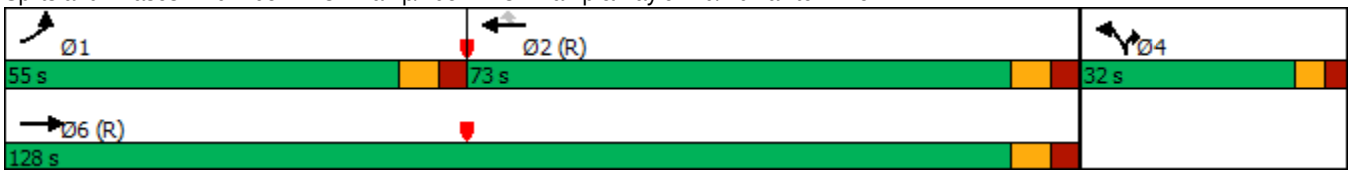


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	399	1921	0	0	1161	737	79	0	355	0	0	0
Future Volume (vph)	399	1921	0	0	1161	737	79	0	355	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	2		0	1		1	1		2	0		0
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	5036	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	5036	1583	1736	0	2814	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						494			91			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		553			713			891			654	
Travel Time (s)		8.4			10.8			20.3			14.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	3%	0%	0%	3%	2%	4%	0%	1%	0%	0%	0%
Adj. Flow (vph)	416	2001	0	0	1209	768	82	0	370	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	416	2001	0	0	1209	768	82	0	370	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Detector Phase	1	6			2	2	4		4			
Switch Phase												
Minimum Initial (s)	7.0	15.0			15.0	15.0	10.0		10.0			
Minimum Split (s)	15.2	26.2			28.2	28.2	24.5		24.5			
Total Split (s)	55.0	128.0			73.0	73.0	32.0		32.0			
Total Split (%)	34.4%	80.0%			45.6%	45.6%	20.0%		20.0%			
Maximum Green (s)	46.8	119.8			64.8	64.8	25.5		25.5			
Yellow Time (s)	4.8	4.8			4.8	4.8	3.7		3.7			
All-Red Time (s)	3.4	3.4			3.4	3.4	2.8		2.8			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	Max		Max			
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					13.0	13.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	25.3	119.8			86.3	86.3	25.5		25.5			
Actuated g/C Ratio	0.16	0.75			0.54	0.54	0.16		0.16			
v/c Ratio	0.78	0.53			0.44	0.71	0.30		0.71			
Control Delay	95.1	1.8			18.6	9.5	62.7		55.8			
Queue Delay	0.0	0.3			0.0	0.4	0.0		0.0			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	95.1	2.1			18.6	9.9	62.7		55.8			
LOS	F	A			B	A	E		E			
Approach Delay		18.1			15.2			57.0				
Approach LOS		B			B			E				

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 20.6		Intersection LOS: C	
Intersection Capacity Utilization 84.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1724	552	20	1898	0	169
Future Volume (vph)	1724	552	20	1898	0	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230	300		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			50		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		542				149
Link Speed (mph)	45			50	30	
Link Distance (ft)	713			557	670	
Travel Time (s)	10.8			7.6	15.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	3%	0%	4%	0%	3%
Adj. Flow (vph)	1959	627	23	2157	0	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1959	627	23	2157	0	192
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Detector Phase	6	6	5	2		4
Switch Phase						
Minimum Initial (s)	17.0	17.0	10.0	17.0		5.0
Minimum Split (s)	32.2	32.2	17.7	25.2		30.0
Total Split (s)	108.0	108.0	22.0	130.0		30.0
Total Split (%)	67.5%	67.5%	13.8%	81.3%		18.8%
Maximum Green (s)	100.8	100.8	14.3	122.8		24.2
Yellow Time (s)	5.2	5.2	5.2	5.2		3.7
All-Red Time (s)	2.0	2.0	2.5	2.0		2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	4.0	4.0	3.0	4.0		3.0
Recall Mode	C-Max	C-Max	Max	Max		Max
Walk Time (s)	7.0	7.0				7.0
Flash Dont Walk (s)	18.0	18.0				17.2
Pedestrian Calls (#/hr)	0	0				0
Act Effct Green (s)	100.8	100.8	14.3	122.8		24.2
Actuated g/C Ratio	0.63	0.63	0.09	0.77		0.15
v/c Ratio	0.61	0.53	0.14	0.56		0.52
Control Delay	21.8	7.2	69.6	8.3		21.7
Queue Delay	0.7	0.6	0.0	0.0		0.0

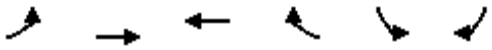
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	22.4	7.8	69.6	8.3		21.7
LOS	C	A	E	A		C
Approach Delay	18.9			8.9	21.7	
Approach LOS	B			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 29 (18%), Referenced to phase 6:EBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Taylor Rd & Dunlawton Ave

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	0	551	94	0	0
Future Volume (vph)	0	0	551	94	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.94	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	4990	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	4990	0	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	420			202	342	
Travel Time (s)	9.5			4.6	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	599	102	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	599	102	0	0
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization Err%		ICU Level of Service H	
Analysis Period (min) 15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↱
Traffic Volume (vph)	0	1965	1078	0	0	94
Future Volume (vph)	0	1965	1078	0	0	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	5085	3539	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	1611
Link Speed (mph)		45	45		30	
Link Distance (ft)		502	158		420	
Travel Time (s)		7.6	2.4		9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2136	1172	0	0	102
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2136	1172	0	0	102
Sign Control		Free	Free		Free	

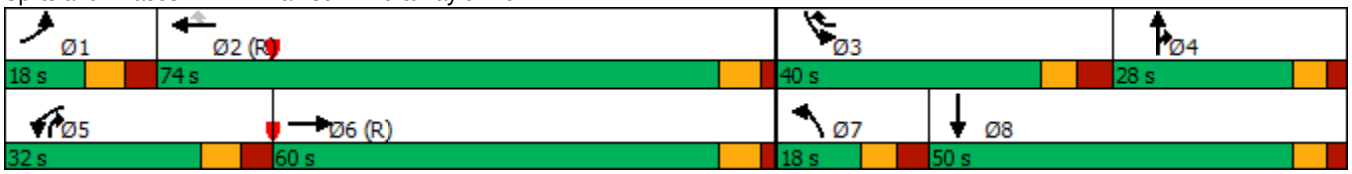
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.3%		ICU Level of Service A	
Analysis Period (min) 15			

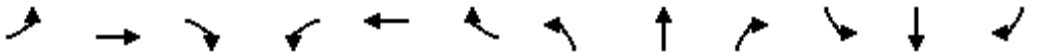
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	617	126	422	695	522	97	196	479	481	269	46
Future Volume (vph)	52	617	126	422	695	522	97	196	479	481	269	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	280		240	0		0	230		600	700		0
Storage Lanes	2		1	2		1	2		2	1		0
Taper Length (ft)	100			100			100			50		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Frt		0.975				0.850			0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4982	0	3433	3505	1524	3433	3471	2814	3335	3433	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4982	0	3433	3505	1524	3433	3471	2814	3335	3433	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				206			140		12	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		787			502			1257			985	
Travel Time (s)		11.9			7.6			24.5			19.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	6%	1%	4%	2%	3%	6%	2%	4%	1%	5%	3%	2%
Adj. Flow (vph)	54	636	130	435	716	538	100	202	494	496	277	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	766	0	435	716	538	100	202	494	496	324	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2	3	7	4	4 5	3	8	
Permitted Phases						2						
Detector Phase	1	6		5	2	3	7	4	4 5	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	13.5	47.9		13.6	39.9	13.6	13.0	24.7		13.6	49.7	
Total Split (s)	18.0	60.0		32.0	74.0	40.0	18.0	28.0		40.0	50.0	
Total Split (%)	11.3%	37.5%		20.0%	46.3%	25.0%	11.3%	17.5%		25.0%	31.3%	
Maximum Green (s)	9.5	53.1		23.4	67.1	31.4	10.0	21.3		31.4	43.3	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.1	4.1	4.1		4.1	4.1	
All-Red Time (s)	3.7	2.1		3.8	2.1	4.5	3.9	2.6		4.5	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	8.6	8.0	6.7		8.6	6.7	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		3.0	4.0	3.0	3.0	4.0		3.0	4.0	
Recall Mode	None	C-Max		None	C-Max	None	None	Max		None	Max	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		34.0			26.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	7.9	53.7		22.8	71.6	107.3	9.2	23.9	55.3	28.8	44.1	
Actuated g/C Ratio	0.05	0.34		0.14	0.45	0.67	0.06	0.15	0.35	0.18	0.28	
v/c Ratio	0.33	0.45		0.89	0.46	0.49	0.51	0.39	0.46	0.83	0.34	
Control Delay	78.6	41.1		96.0	40.0	5.0	82.2	64.8	30.4	75.5	45.9	
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	78.6	41.1		96.0	40.0	5.2	82.2	64.8	30.4	75.5	45.9	
LOS	E	D		F	D	A	F	E	C	E	D	
Approach Delay		43.5			43.4			45.6			63.8	
Approach LOS		D			D			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 147 (92%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 47.9		Intersection LOS: D	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Williamson Blvd & Taylor Rd



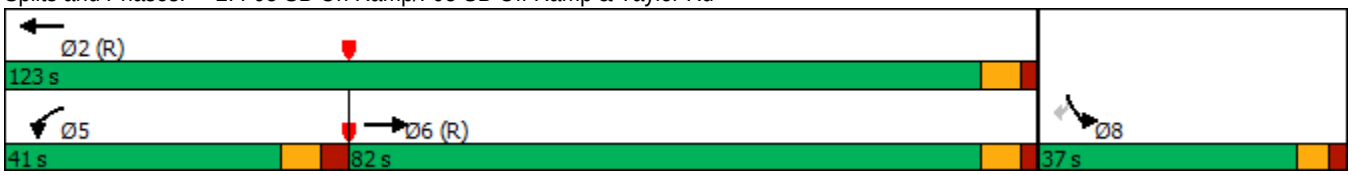


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1444	133	223	1445	0	0	0	0	353	0	83
Future Volume (vph)	0	1444	133	223	1445	0	0	0	0	353	0	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.987										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	4950	0	1736	3539	0	0	0	0	3335	0	1538
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	4950	0	1736	3539	0	0	0	0	3335	0	1538
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		13										
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		158			553			620			342	
Travel Time (s)		2.4			8.4			14.1			7.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	3%	8%	4%	2%	0%	0%	0%	0%	5%	0%	5%
Adj. Flow (vph)	0	1459	134	225	1460	0	0	0	0	357	0	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1593	0	225	1460	0	0	0	0	357	0	84
Turn Type		NA		Prot	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases												8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		15.0		5.0	15.0					10.0		10.0
Minimum Split (s)		24.9		13.2	27.9					24.2		24.2
Total Split (s)		82.0		41.0	123.0					37.0		37.0
Total Split (%)		51.3%		25.6%	76.9%					23.1%		23.1%
Maximum Green (s)		75.1		32.8	116.1					30.8		30.8
Yellow Time (s)		4.9		4.8	4.9					3.7		3.7
All-Red Time (s)		2.0		3.4	2.0					2.5		2.5
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		4.0		3.0	4.0					4.0		4.0
Recall Mode		C-Max		None	C-Max					Max		Max
Walk Time (s)					7.0							
Flash Dont Walk (s)					14.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)		82.2		25.7	116.1					30.8		30.8
Actuated g/C Ratio		0.51		0.16	0.73					0.19		0.19
v/c Ratio		0.62		0.81	0.57					0.56		0.28
Control Delay		25.7		122.9	6.0					62.3		58.3
Queue Delay		0.3		0.0	0.0					0.0		0.0
Total Delay		26.0		122.9	6.0					62.3		58.3
LOS		C		F	A					E		E
Approach Delay		26.0			21.6						61.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C						E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 16 (10%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 28.2		Intersection LOS: C	
Intersection Capacity Utilization 71.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

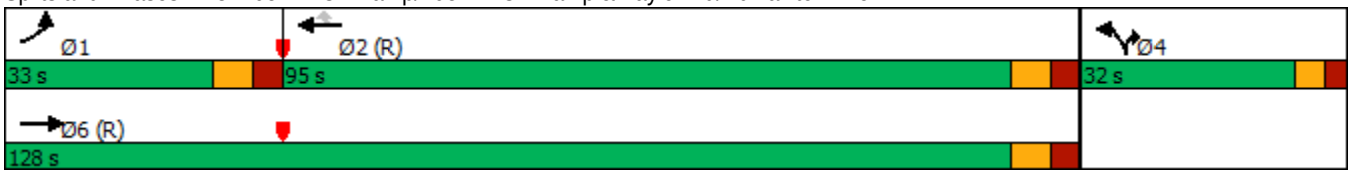


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	1588	0	0	1571	447	97	0	237	0	0	0
Future Volume (vph)	209	1588	0	0	1571	447	97	0	237	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	2		0	1		1	1		2	0		0
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3273	5085	0	0	5085	1553	1597	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3273	5085	0	0	5085	1553	1597	0	2787	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						420			106			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		553			712			891			654	
Travel Time (s)		8.4			10.8			20.3			14.9	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	7%	2%	0%	0%	2%	4%	13%	0%	2%	0%	0%	0%
Adj. Flow (vph)	213	1620	0	0	1603	456	99	0	242	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	1620	0	0	1603	456	99	0	242	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Detector Phase	1	6			2	2	4		4			
Switch Phase												
Minimum Initial (s)	7.0	15.0			15.0	15.0	10.0		10.0			
Minimum Split (s)	15.2	26.2			28.2	28.2	24.5		24.5			
Total Split (s)	33.0	128.0			95.0	95.0	32.0		32.0			
Total Split (%)	20.6%	80.0%			59.4%	59.4%	20.0%		20.0%			
Maximum Green (s)	24.8	119.8			86.8	86.8	25.5		25.5			
Yellow Time (s)	4.8	4.8			4.8	4.8	3.7		3.7			
All-Red Time (s)	3.4	3.4			3.4	3.4	2.8		2.8			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	Max		Max			
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					13.0	13.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	15.7	119.8			95.9	95.9	25.5		25.5			
Actuated g/C Ratio	0.10	0.75			0.60	0.60	0.16		0.16			
v/c Ratio	0.66	0.43			0.53	0.41	0.39		0.45			
Control Delay	91.6	5.9			14.4	2.0	65.5		36.7			
Queue Delay	0.0	0.1			0.1	0.2	0.0		0.0			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	91.6	6.0			14.5	2.2	65.5		36.7			
LOS	F	A			B	A	E		D			
Approach Delay		16.0			11.7			45.0				
Approach LOS		B			B			D				

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 6 (4%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 16.2		Intersection LOS: B	
Intersection Capacity Utilization 71.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1486	339	32	2018	0	111
Future Volume (vph)	1486	339	32	2018	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230	300		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			50		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5036	1553	1752	5036	0	1565
Flt Permitted			0.950			
Satd. Flow (perm)	5036	1553	1752	5036	0	1565
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		349				196
Link Speed (mph)	45			50	30	
Link Distance (ft)	712			557	670	
Travel Time (s)	10.8			7.6	15.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	4%	3%	3%	0%	5%
Adj. Flow (vph)	1532	349	33	2080	0	114
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1532	349	33	2080	0	114
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Detector Phase	6	6	5	2		4
Switch Phase						
Minimum Initial (s)	17.0	17.0	10.0	17.0		5.0
Minimum Split (s)	32.2	32.2	17.7	25.2		30.0
Total Split (s)	105.0	105.0	25.0	130.0		30.0
Total Split (%)	65.6%	65.6%	15.6%	81.3%		18.8%
Maximum Green (s)	97.8	97.8	17.3	122.8		24.2
Yellow Time (s)	5.2	5.2	5.2	5.2		3.7
All-Red Time (s)	2.0	2.0	2.5	2.0		2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	4.0	4.0	3.0	4.0		3.0
Recall Mode	C-Max	C-Max	Max	Max		Max
Walk Time (s)	7.0	7.0				7.0
Flash Dont Walk (s)	18.0	18.0				17.2
Pedestrian Calls (#/hr)	0	0				0
Act Effct Green (s)	97.8	97.8	17.3	122.8		24.2
Actuated g/C Ratio	0.61	0.61	0.11	0.77		0.15
v/c Ratio	0.50	0.32	0.17	0.54		0.28
Control Delay	13.6	3.2	67.5	8.0		1.8
Queue Delay	0.3	0.0	0.0	0.0		0.0

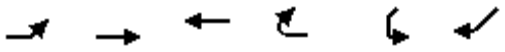
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	13.9	3.2	67.5	8.0		1.8
LOS	B	A	E	A		A
Approach Delay	11.9			8.9	1.8	
Approach LOS	B			A	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 160			
Offset: 29 (18%), Referenced to phase 6:EBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Taylor Rd & Dunlawton Ave

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	0	436	111	0	0
Future Volume (vph)	0	0	436	111	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.94	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	4990	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	4990	0	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	431			202	342	
Travel Time (s)	9.8			4.6	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	474	121	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	474	121	0	0
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↑↑↑	↑↑			↱
Traffic Volume (vph)	0	1577	1528	0	0	111
Future Volume (vph)	0	1577	1528	0	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	5085	3539	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	1611
Link Speed (mph)		45	45		30	
Link Distance (ft)		502	158		431	
Travel Time (s)		7.6	2.4		9.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1714	1661	0	0	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1714	1661	0	0	121
Sign Control		Free	Free		Free	

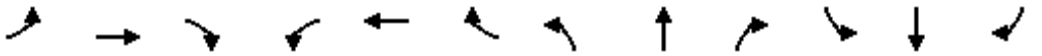
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	613	131	724	754	593	86	225	576	536	386	28
Future Volume (vph)	59	613	131	724	754	593	86	225	576	536	386	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	280		240	0		0	230		600	700		0
Storage Lanes	2		1	2		1	2		2	1		0
Taper Length (ft)	100			100			100			50		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Frt		0.974				0.850			0.850		0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5002	0	3502	3574	1583	3467	3505	2814	3467	3541	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5002	0	3502	3574	1583	3467	3505	2814	3467	3541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27				596			132		4	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		787			502			1238			985	
Travel Time (s)		11.9			7.6			24.1			19.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	1%	1%	0%	1%	2%	1%	3%	1%	1%	1%	0%
Adj. Flow (vph)	61	639	136	754	785	618	90	234	600	558	402	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	775	0	754	785	618	90	234	600	558	431	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Detector Phase	1	6		5	2	2	7	4	4 5	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	13.5	47.9		13.6	39.9	39.9	13.0	16.7		13.6	42.0	
Total Split (s)	18.0	58.0		51.0	91.0	91.0	19.0	21.0		40.0	42.0	
Total Split (%)	10.6%	34.1%		30.0%	53.5%	53.5%	11.2%	12.4%		23.5%	24.7%	
Maximum Green (s)	9.5	51.1		42.4	84.1	84.1	11.0	14.3		31.4	35.3	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	4.1	4.1		4.1	4.1	
All-Red Time (s)	3.7	2.1		3.8	2.1	2.1	3.9	2.6		4.5	2.6	
Lost Time Adjust (s)	0.0	3.0		3.0	0.0	0.0	0.0	3.0		3.0	0.0	
Total Lost Time (s)	8.5	9.9		11.6	6.9	6.9	8.0	9.7		11.6	6.7	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0		3.0	4.0	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Walk Time (s)		7.0			7.0	7.0					7.0	
Flash Dont Walk (s)		34.0			26.0	26.0					28.3	
Pedestrian Calls (#/hr)		0			0	0					0	
Act Effct Green (s)	8.2	49.2		38.3	88.4	88.4	9.5	11.8	61.7	27.9	36.8	
Actuated g/C Ratio	0.05	0.29		0.23	0.52	0.52	0.06	0.07	0.36	0.16	0.22	
v/c Ratio	0.37	0.53		0.96	0.42	0.56	0.47	0.97	0.54	0.98	0.56	
Control Delay	84.5	50.5		99.2	30.6	8.4	85.4	125.9	34.8	102.9	62.3	
Queue Delay	0.0	0.3		0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	84.5	50.9		99.2	30.9	8.7	85.4	125.9	34.8	102.9	62.3	
LOS	F	D		F	C	A	F	F	C	F	E	
Approach Delay		53.3			48.4			62.8			85.2	
Approach LOS		D			D			E			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 39 (23%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 59.4		Intersection LOS: E	
Intersection Capacity Utilization 86.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Williamson Blvd & Taylor Rd

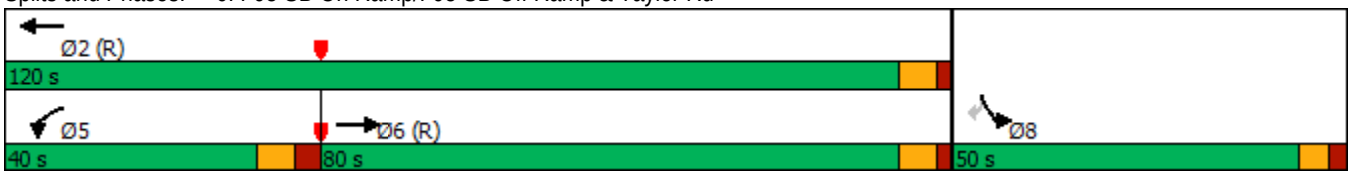


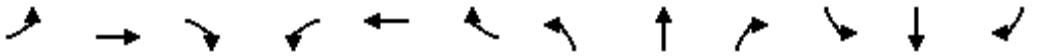
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1563	162	265	1600	0	0	0	0	700	0	155
Future Volume (vph)	0	1563	162	265	1600	0	0	0	0	700	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.986										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5059	0	1752	3574	0	0	0	0	3433	0	1599
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5059	0	1752	3574	0	0	0	0	3433	0	1599
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		13										
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		158			553			620			342	
Travel Time (s)		2.4			8.4			14.1			7.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	2%	3%	1%	0%	0%	0%	0%	2%	0%	1%
Adj. Flow (vph)	0	1681	174	285	1720	0	0	0	0	753	0	167
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1855	0	285	1720	0	0	0	0	753	0	167
Turn Type		NA		Prot	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases												8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		15.0		5.0	15.0					10.0		10.0
Minimum Split (s)		24.9		13.2	27.9					24.2		24.2
Total Split (s)		80.0		40.0	120.0					50.0		50.0
Total Split (%)		47.1%		23.5%	70.6%					29.4%		29.4%
Maximum Green (s)		73.1		31.8	113.1					43.8		43.8
Yellow Time (s)		4.9		4.8	4.9					3.7		3.7
All-Red Time (s)		2.0		3.4	2.0					2.5		2.5
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		4.0		3.0	4.0					4.0		4.0
Recall Mode		C-Max		None	C-Max					Max		Max
Walk Time (s)					7.0							
Flash Dont Walk (s)					14.0							
Pedestrian Calls (#/hr)					0							
Act Effct Green (s)		74.7		30.2	113.1					43.8		43.8
Actuated g/C Ratio		0.44		0.18	0.67					0.26		0.26
v/c Ratio		0.83		0.92	0.72					0.85		0.41
Control Delay		41.8		130.3	14.5					70.4		55.9
Queue Delay		5.7		0.0	0.2					0.0		0.0
Total Delay		47.4		130.3	14.7					70.4		55.9
LOS		D		F	B					E		E
Approach Delay		47.4			31.1						67.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C						E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 52 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 44.5		Intersection LOS: D	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd



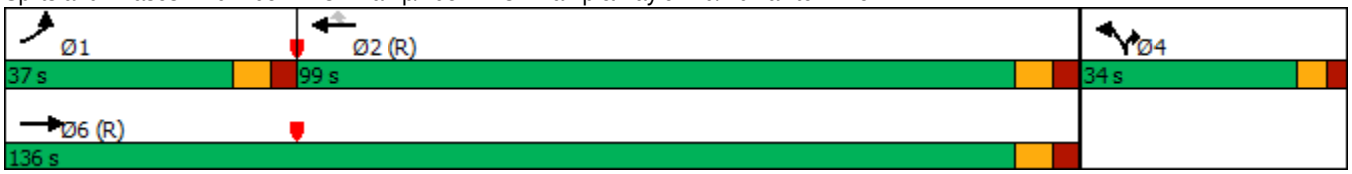


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	2036	0	0	1747	647	118	0	332	0	0	0
Future Volume (vph)	227	2036	0	0	1747	647	118	0	332	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	2		0	1		1	1		2	0		0
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	5136	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	5136	1599	1770	0	2787	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						505			86			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		553			713			891			645	
Travel Time (s)		8.4			10.8			20.3			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	1%	0%	0%	1%	1%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	247	2213	0	0	1899	703	128	0	361	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	2213	0	0	1899	703	128	0	361	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Detector Phase	1	6			2	2	4		4			
Switch Phase												
Minimum Initial (s)	7.0	15.0			15.0	15.0	10.0		10.0			
Minimum Split (s)	15.2	26.2			28.2	28.2	24.5		24.5			
Total Split (s)	37.0	136.0			99.0	99.0	34.0		34.0			
Total Split (%)	21.8%	80.0%			58.2%	58.2%	20.0%		20.0%			
Maximum Green (s)	28.8	127.8			90.8	90.8	27.5		27.5			
Yellow Time (s)	4.8	4.8			4.8	4.8	3.7		3.7			
All-Red Time (s)	3.4	3.4			3.4	3.4	2.8		2.8			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	4.0			4.0	4.0	3.0		3.0			
Recall Mode	None	C-Max			C-Max	C-Max	Max		Max			
Walk Time (s)					7.0	7.0						
Flash Dont Walk (s)					13.0	13.0						
Pedestrian Calls (#/hr)					0	0						
Act Effct Green (s)	17.8	127.8			101.8	101.8	27.5		27.5			
Actuated g/C Ratio	0.10	0.75			0.60	0.60	0.16		0.16			
v/c Ratio	0.70	0.57			0.62	0.61	0.45		0.69			
Control Delay	99.2	10.5			17.9	5.5	70.1		58.5			
Queue Delay	0.0	0.4			0.2	0.2	0.0		0.0			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	99.2	10.9			18.1	5.7	70.1		58.5			
LOS	F	B			B	A	E		E			
Approach Delay		19.7			14.7			61.5				
Approach LOS		B			B			E				

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 55 (32%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 86.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1681	687	32	2394	0	132
Future Volume (vph)	1681	687	32	2394	0	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230	300		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			50		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		659				207
Link Speed (mph)	45			50	30	
Link Distance (ft)	713			557	670	
Travel Time (s)	10.8			7.6	15.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	3%	1%	0%	2%
Adj. Flow (vph)	1788	731	34	2547	0	140
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1788	731	34	2547	0	140
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Detector Phase	6	6	5	2		4
Switch Phase						
Minimum Initial (s)	17.0	17.0	10.0	17.0		5.0
Minimum Split (s)	32.2	32.2	17.7	25.2		25.0
Total Split (s)	115.0	115.0	30.0	145.0		25.0
Total Split (%)	67.6%	67.6%	17.6%	85.3%		14.7%
Maximum Green (s)	107.8	107.8	22.3	137.8		19.2
Yellow Time (s)	5.2	5.2	5.2	5.2		3.7
All-Red Time (s)	2.0	2.0	2.5	2.0		2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	4.0	4.0	3.0	4.0		3.0
Recall Mode	C-Max	C-Max	Max	Max		Max
Walk Time (s)	7.0	7.0				7.0
Flash Dont Walk (s)	18.0	18.0				12.2
Pedestrian Calls (#/hr)	0	0				0
Act Effct Green (s)	107.8	107.8	22.3	137.8		19.2
Actuated g/C Ratio	0.63	0.63	0.13	0.81		0.11
v/c Ratio	0.55	0.58	0.15	0.61		0.38
Control Delay	21.0	6.9	67.4	6.8		3.3
Queue Delay	0.5	0.7	0.0	0.0		0.0

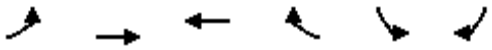
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Total Delay	21.5	7.6	67.4	6.8		3.3
LOS	C	A	E	A		A
Approach Delay	17.5			7.6	3.3	
Approach LOS	B			A	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 82 (48%), Referenced to phase 6:EBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: Taylor Rd & Dunlawton Ave

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	0	855	316	0	0
Future Volume (vph)	0	0	855	316	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.94	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	4990	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	4990	0	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	420			310	342	
Travel Time (s)	9.5			7.0	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	929	343	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	929	343	0	0
Sign Control	Free			Free	Free	

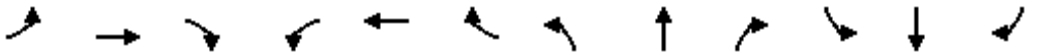
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↱
Traffic Volume (vph)	0	1725	1755	0	0	316
Future Volume (vph)	0	1725	1755	0	0	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	5085	3539	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	1611
Link Speed (mph)		45	45		30	
Link Distance (ft)		502	158		420	
Travel Time (s)		7.6	2.4		9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1875	1908	0	0	343
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1875	1908	0	0	343
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			

Year 2025 Synchro Reports



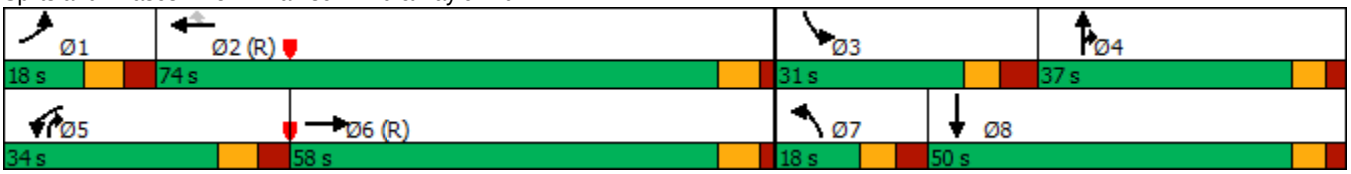
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Future Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Ped Bike Factor												
Frt		0.982				0.850			0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Satd. Flow (RTOR)		16				348			140		8	
Adj. Flow (vph)	39	801	110	492	604	348	117	403	1265	355	199	25
Lane Group Flow (vph)	39	911	0	492	604	348	117	403	1265	355	224	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	18.0	58.0		34.0	74.0	74.0	18.0	37.0		31.0	50.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	7.3	51.1		25.4	72.1	72.1	9.5	31.8	65.8	20.9	43.8	
Actuated g/C Ratio	0.05	0.32		0.16	0.45	0.45	0.06	0.20	0.41	0.13	0.27	
v/c Ratio	0.26	0.58		0.92	0.38	0.40	0.57	0.57	1.02	0.83	0.24	
Control Delay	77.5	46.3		84.6	32.5	7.9	84.5	62.1	71.8	84.4	44.4	
Queue Delay	0.0	2.5		0.0	0.0	0.0	0.0	0.0	23.8	0.0	0.0	
Total Delay	77.5	48.8		84.6	32.5	7.9	84.5	62.1	95.6	84.4	44.4	
LOS	E	D		F	C	A	F	E	F	F	D	
Approach Delay		50.0			44.3			87.3			68.9	
Approach LOS		D			D			F			E	
Queue Length 50th (ft)	20	287		280	207	73	62	205	~757	187	93	
Queue Length 95th (ft)	41	336		#377	301	134	98	265	#912	247	132	
Internal Link Dist (ft)		707			422			1176			905	
Turn Bay Length (ft)	280						230		600	700		
Base Capacity (vph)	196	1576		534	1594	878	216	702	1239	458	947	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	514		0	0	0	0	0	73	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.20	0.86		0.92	0.38	0.40	0.54	0.57	1.08	0.78	0.24	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 157 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 64.6	Intersection LOS: E
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

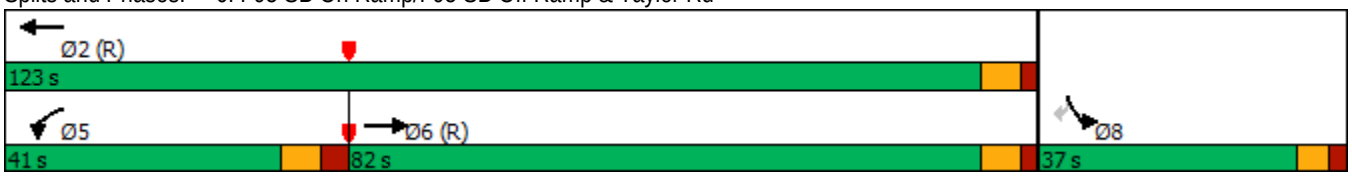


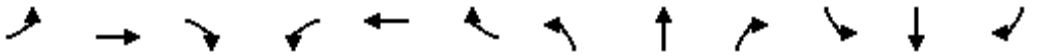
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	90
Future Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	90
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.990										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	4976	0	1752	3471	0	0	0	0	3335	0	1538
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	4976	0	1752	3471	0	0	0	0	3335	0	1538
Satd. Flow (RTOR)		9										
Adj. Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	93
Lane Group Flow (vph)	0	2321	0	267	1180	0	0	0	0	527	0	93
Turn Type		NA		Prot	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases												8
Total Split (s)		82.0		41.0	123.0					37.0		37.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Act Effct Green (s)		79.5		28.4	116.1					30.8		30.8
Actuated g/C Ratio		0.50		0.18	0.73					0.19		0.19
v/c Ratio		0.94		0.86	0.47					0.82		0.31
Control Delay		38.8		86.1	13.8					73.6		59.0
Queue Delay		5.7		0.0	0.8					0.0		0.0
Total Delay		44.5		86.1	14.6					73.6		59.0
LOS		D		F	B					E		E
Approach Delay		44.5			27.8						71.4	
Approach LOS		D			C						E	
Queue Length 50th (ft)		915		297	252					276		85
Queue Length 95th (ft)		m#941		396	354					345		143
Internal Link Dist (ft)		78			473			540			262	
Turn Bay Length (ft)												
Base Capacity (vph)		2476		359	2518					641		296
Starvation Cap Reductn		138		0	927					0		0
Spillback Cap Reductn		0		0	0					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		0.99		0.74	0.74					0.82		0.31

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 136 (85%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 42.8 Intersection LOS: D
Intersection Capacity Utilization 90.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

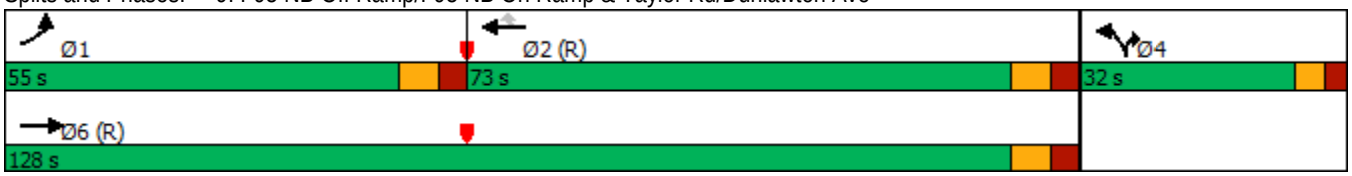




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Future Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	5036	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	5036	1583	1736	0	2814	0	0	0
Satd. Flow (RTOR)						459			91			
Adj. Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Lane Group Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	55.0	128.0			73.0	73.0	32.0		32.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	29.2	119.8			82.4	82.4	25.5		25.5			
Actuated g/C Ratio	0.18	0.75			0.52	0.52	0.16		0.16			
v/c Ratio	0.81	0.59			0.53	0.80	0.32		0.76			
Control Delay	88.8	2.0			20.8	13.6	63.3		59.7			
Queue Delay	0.0	0.5			0.0	1.3	0.0		0.1			
Total Delay	88.8	2.5			20.8	14.9	63.3		59.8			
LOS	F	A			C	B	E		E			
Approach Delay		18.3			18.6			60.5				
Approach LOS		B			B			E				
Queue Length 50th (ft)	229	40			188	139	84		179			
Queue Length 95th (ft)	m234	72			253	183	143		249			
Internal Link Dist (ft)		473			633			811			565	
Turn Bay Length (ft)												
Base Capacity (vph)	984	3770			2592	1037	276		524			
Starvation Cap Reductn	0	940			0	75	0		0			
Spillback Cap Reductn	0	186			0	0	0		3			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.51	0.79			0.53	0.86	0.32		0.77			

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 22 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

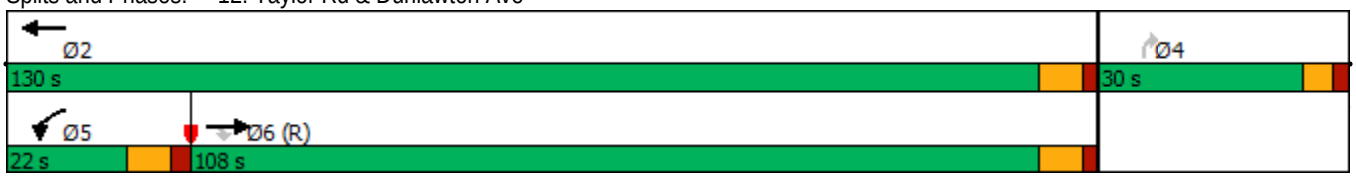
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1923	596	22	2115	0	183
Future Volume (vph)	1923	596	22	2115	0	183
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Satd. Flow (RTOR)		525				144
Adj. Flow (vph)	2185	677	25	2403	0	208
Lane Group Flow (vph)	2185	677	25	2403	0	208
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	108.0	108.0	22.0	130.0		30.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	100.8	100.8	14.3	122.8		24.2
Actuated g/C Ratio	0.63	0.63	0.09	0.77		0.15
v/c Ratio	0.68	0.57	0.16	0.63		0.57
Control Delay	22.3	7.3	69.9	9.2		27.1
Queue Delay	1.5	0.8	0.0	0.0		0.0
Total Delay	23.8	8.2	69.9	9.2		27.1
LOS	C	A	E	A		C
Approach Delay	20.1			9.9	27.1	
Approach LOS	C			A	C	
Queue Length 50th (ft)	633	180	25	368		60
Queue Length 95th (ft)	675	271	56	383		144
Internal Link Dist (ft)	633			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3203	1182	161	3828		363
Starvation Cap Reductn	768	240	0	0		0
Spillback Cap Reductn	0	0	0	0		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.90	0.72	0.16	0.63		0.57

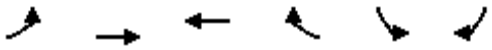
Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 29 (18%), Referenced to phase 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



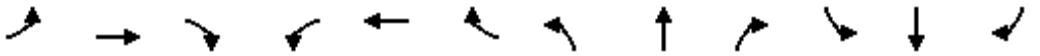
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	0	599	109	0	0
Future Volume (vph)	0	0	599	109	0	0
Lane Util. Factor	1.00	1.00	0.94	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	4990	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	4990	0	0	0
Adj. Flow (vph)	0	0	651	118	0	0
Lane Group Flow (vph)	0	0	651	118	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↱
Traffic Volume (vph)	0	2251	1235	0	0	109
Future Volume (vph)	0	2251	1235	0	0	109
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	5085	3539	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	1611
Adj. Flow (vph)	0	2447	1342	0	0	118
Lane Group Flow (vph)	0	2447	1342	0	0	118
Sign Control		Free	Free		Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 47.6%		ICU Level of Service A	
Analysis Period (min) 15			

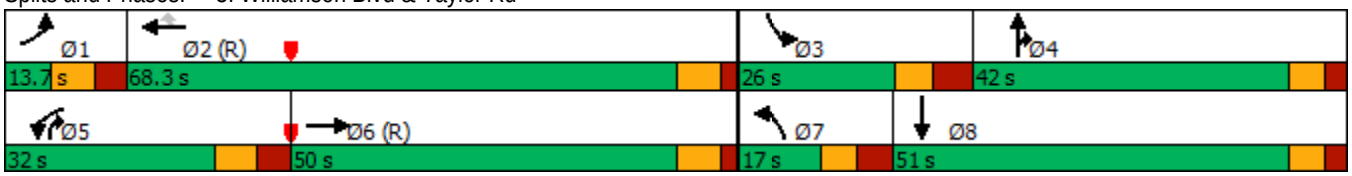


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Future Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Ped Bike Factor												
Frt		0.982				0.850			0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Satd. Flow (RTOR)		17				312			149		9	
Adj. Flow (vph)	39	801	110	492	604	348	117	403	1265	355	199	25
Lane Group Flow (vph)	39	911	0	492	604	348	117	403	1265	355	224	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	13.7	50.0		32.0	68.3	68.3	17.0	42.0		26.0	51.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	5.2	43.1		23.4	64.1	64.1	8.7	35.3	67.3	17.4	44.6	
Actuated g/C Ratio	0.03	0.29		0.16	0.43	0.43	0.06	0.24	0.45	0.12	0.30	
v/c Ratio	0.34	0.64		0.94	0.40	0.42	0.58	0.48	0.94	0.94	0.22	
Control Delay	79.1	48.2		95.2	29.0	15.5	80.8	51.8	48.9	97.8	38.7	
Queue Delay	0.0	0.1		0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	
Total Delay	79.1	48.4		95.2	29.0	15.5	80.8	51.8	52.7	97.8	38.7	
LOS	E	D		F	C	B	F	D	D	F	D	
Approach Delay		49.6			48.3			54.3			74.9	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	19	281		253	155	83	58	180	607	180	83	
Queue Length 95th (ft)	40	332		#317	218	148	93	236	#787	#278	121	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	114	1420		525	1513	830	208	832	1344	379	1028	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	64		0	0	0	0	0	48	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.67		0.94	0.40	0.42	0.56	0.48	0.98	0.94	0.22	

Intersection Summary		
Cycle Length: 150		
Actuated Cycle Length: 150		
Offset: 22 (15%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 54.1	Intersection LOS: D	
Intersection Capacity Utilization 84.1%	ICU Level of Service E	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

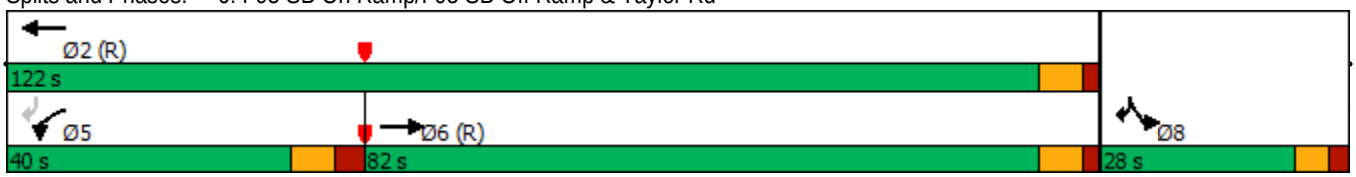
Splits and Phases: 3: Williamson Blvd & Taylor Rd

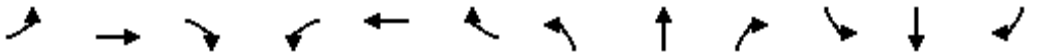


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Future Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt		0.990										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	4976	0	1752	4988	0	0	0	0	4848	0	2707
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	4976	0	1752	4988	0	0	0	0	4848	0	2707
Satd. Flow (RTOR)		11										
Adj. Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Lane Group Flow (vph)	0	2321	0	267	1180	0	0	0	0	527	0	205
Turn Type		NA		Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases												5
Total Split (s)		82.0		40.0	122.0					28.0		28.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Act Effct Green (s)		79.9		27.0	115.1					21.8		57.0
Actuated g/C Ratio		0.53		0.18	0.77					0.15		0.38
v/c Ratio		0.87		0.85	0.31					0.75		0.20
Control Delay		25.7		72.7	5.1					68.9		30.9
Queue Delay		1.1		0.0	0.3					0.0		0.0
Total Delay		26.8		72.7	5.4					68.9		30.9
LOS		C		E	A					E		C
Approach Delay		26.8			17.8						58.3	
Approach LOS		C			B						E	
Queue Length 50th (ft)		604		278	103					178		75
Queue Length 95th (ft)		654		374	118					222		104
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)										500		550
Base Capacity (vph)		2655		371	3827					704		1029
Starvation Cap Reductn		145		0	1698					0		0
Spillback Cap Reductn		0		0	0					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		0.92		0.72	0.55					0.75		0.20

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 138 (92%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

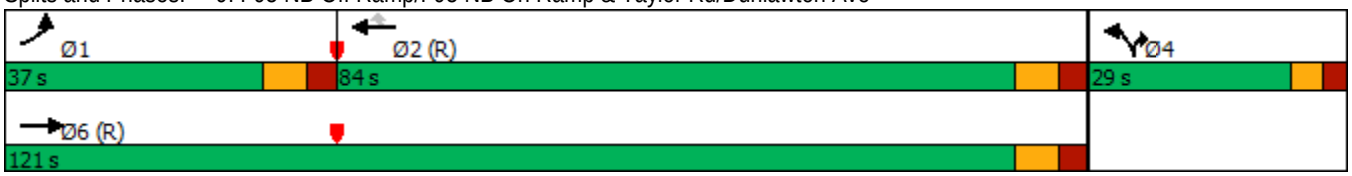




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Future Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Satd. Flow (RTOR)						497			97			
Adj. Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Lane Group Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	37.0	121.0			84.0	84.0	29.0		29.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	26.2	112.8			78.4	78.4	22.5		22.5			
Actuated g/C Ratio	0.17	0.75			0.52	0.52	0.15		0.15			
v/c Ratio	0.85	0.59			0.41	0.78	0.34		0.79			
Control Delay	76.6	0.7			11.9	15.5	61.3		58.5			
Queue Delay	0.0	0.4			0.0	2.6	0.0		0.0			
Total Delay	76.6	1.0			11.9	18.1	61.3		58.5			
LOS	E	A			B	B	E		E			
Approach Delay		14.9			14.2			59.0				
Approach LOS		B			B			E				
Queue Length 50th (ft)	209	2			213	514	79		165			
Queue Length 95th (ft)	m248	2			224	751	138		234			
Internal Link Dist (ft)		474			630			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	646	3787			3316	1064	260		504			
Starvation Cap Reductn	0	839			0	133	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.77	0.75			0.41	0.89	0.34		0.79			

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 28 (19%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

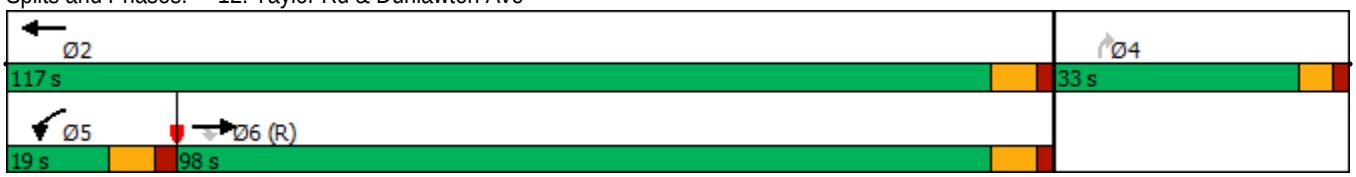
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

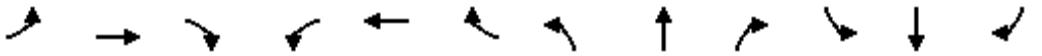


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1923	596	22	2115	0	183
Future Volume (vph)	1923	596	22	2115	0	183
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Satd. Flow (RTOR)		525				127
Adj. Flow (vph)	2185	677	25	2403	0	208
Lane Group Flow (vph)	2185	677	25	2403	0	208
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	98.0	98.0	19.0	117.0		33.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	90.8	90.8	11.3	109.8		27.2
Actuated g/C Ratio	0.61	0.61	0.08	0.73		0.18
v/c Ratio	0.71	0.59	0.19	0.66		0.53
Control Delay	13.5	2.8	68.6	11.5		27.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	13.7	3.0	68.6	11.5		27.0
LOS	B	A	E	B		C
Approach Delay	11.2			12.1	27.0	
Approach LOS	B			B	C	
Queue Length 50th (ft)	416	19	23	403		69
Queue Length 95th (ft)	418	19	54	423		150
Internal Link Dist (ft)	630			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3078	1156	135	3651		393
Starvation Cap Reductn	246	100	0	0		0
Spillback Cap Reductn	0	0	0	70		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.77	0.64	0.19	0.67		0.53

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 14 (9%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



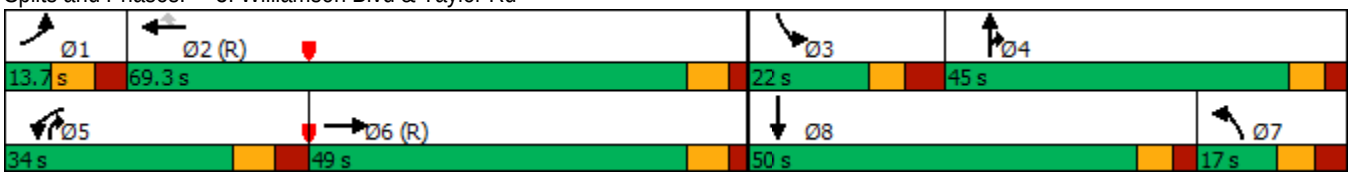


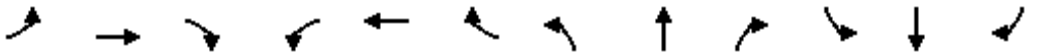
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Future Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.94	0.95	0.95
Ped Bike Factor												
Frt		0.982				0.850			0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4903	0	3367	3539	1524	3467	3539	2814	4757	3438	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4903	0	3367	3539	1524	3467	3539	2814	4757	3438	0
Satd. Flow (RTOR)		16				348			91		9	
Adj. Flow (vph)	39	801	110	492	604	348	117	403	1265	355	199	25
Lane Group Flow (vph)	39	911	0	492	604	348	117	403	1265	355	224	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	13.7	49.0		34.0	69.3	69.3	17.0	45.0		22.0	50.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	5.2	42.3		25.2	65.1	65.1	9.0	38.3	72.1	13.4	43.3	
Actuated g/C Ratio	0.03	0.28		0.17	0.43	0.43	0.06	0.26	0.48	0.09	0.29	
v/c Ratio	0.34	0.65		0.87	0.39	0.41	0.56	0.45	0.90	0.84	0.22	
Control Delay	79.1	49.2		89.6	24.7	11.7	79.5	48.8	43.3	85.0	39.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	
Total Delay	79.1	49.2		89.6	24.7	11.7	79.5	48.8	45.0	85.0	39.6	
LOS	E	D		F	C	B	E	D	D	F	D	
Approach Delay		50.4			43.7			48.1			67.4	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	19	284		253	146	75	58	175	600	123	84	
Queue Length 95th (ft)	40	336		298	181	115	93	229	730	#175	122	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	114	1395		570	1537	858	208	904	1404	424	998	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	21		0	0	0	0	0	52	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.66		0.86	0.39	0.41	0.56	0.45	0.94	0.84	0.22	

Intersection Summary		
Cycle Length: 150		
Actuated Cycle Length: 150		
Offset: 28 (19%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 49.6	Intersection LOS: D	
Intersection Capacity Utilization 82.6%	ICU Level of Service E	
Analysis Period (min) 15		

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd



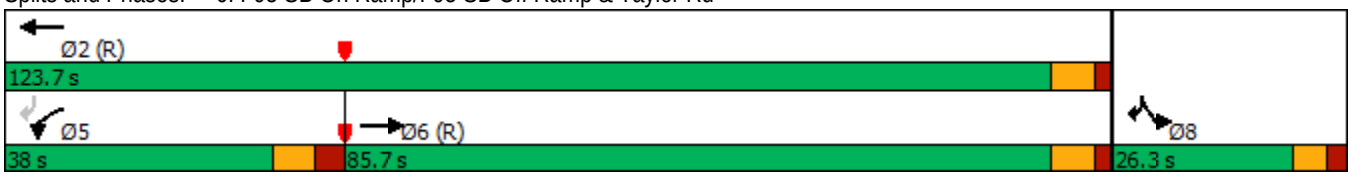


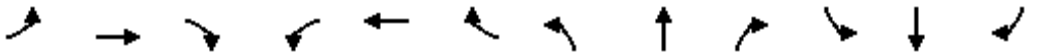
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Future Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt		0.990										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	4976	0	1752	4988	0	0	0	0	4848	0	2707
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	4976	0	1752	4988	0	0	0	0	4848	0	2707
Satd. Flow (RTOR)		11										
Adj. Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Lane Group Flow (vph)	0	2321	0	267	1180	0	0	0	0	527	0	205
Turn Type		NA		Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases												5
Total Split (s)		85.7		38.0	123.7					26.3		26.3
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Act Effct Green (s)		82.1		26.5	116.8					20.1		54.8
Actuated g/C Ratio		0.55		0.18	0.78					0.13		0.37
v/c Ratio		0.85		0.86	0.30					0.81		0.21
Control Delay		25.1		78.6	4.6					73.9		32.6
Queue Delay		0.8		0.0	0.2					0.0		0.0
Total Delay		26.0		78.6	4.8					73.9		32.6
LOS		C		E	A					E		C
Approach Delay		26.0			18.5						62.3	
Approach LOS		C			B						E	
Queue Length 50th (ft)		605		278	97					180		76
Queue Length 95th (ft)		640		#386	110					225		109
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)										500		550
Base Capacity (vph)		2727		348	3883					649		989
Starvation Cap Reductn		167		0	1621					0		0
Spillback Cap Reductn		0		0	0					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		0.91		0.77	0.52					0.81		0.21

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 140 (93%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

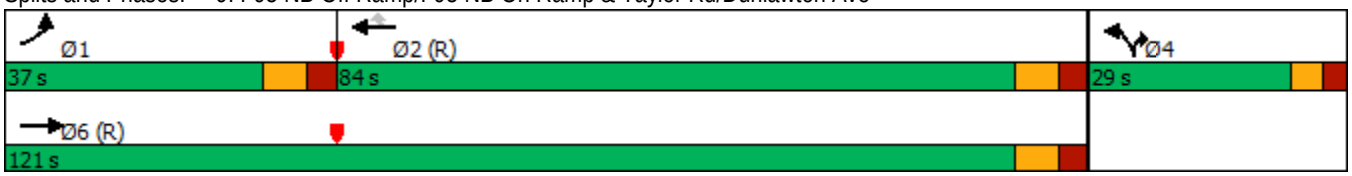




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Future Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Satd. Flow (RTOR)						497			97			
Adj. Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Lane Group Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	37.0	121.0			84.0	84.0	29.0		29.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	26.2	112.8			78.4	78.4	22.5		22.5			
Actuated g/C Ratio	0.17	0.75			0.52	0.52	0.15		0.15			
v/c Ratio	0.85	0.59			0.41	0.78	0.34		0.79			
Control Delay	80.1	0.5			12.0	13.0	61.3		58.5			
Queue Delay	0.0	0.3			0.0	2.6	0.0		0.0			
Total Delay	80.1	0.8			12.0	15.6	61.3		58.5			
LOS	F	A			B	B	E		E			
Approach Delay		15.3			13.4			59.0				
Approach LOS		B			B			E				
Queue Length 50th (ft)	209	2			181	484	79		165			
Queue Length 95th (ft)	m260	6			197	702	138		234			
Internal Link Dist (ft)		474			630			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	646	3787			3316	1064	260		504			
Starvation Cap Reductn	0	762			0	133	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.77	0.74			0.41	0.89	0.34		0.79			

Intersection Summary		
Cycle Length: 150		
Actuated Cycle Length: 150		
Offset: 28 (19%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.85		
Intersection Signal Delay: 18.5	Intersection LOS: B	
Intersection Capacity Utilization 90.4%	ICU Level of Service E	
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

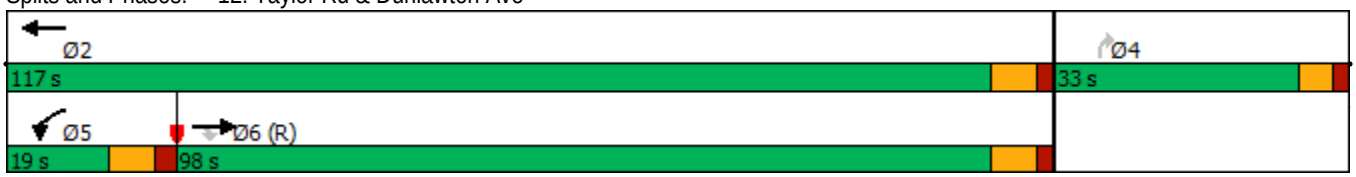
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

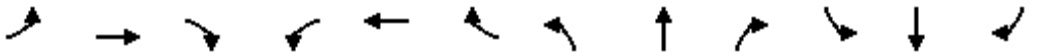


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1923	596	22	2115	0	183
Future Volume (vph)	1923	596	22	2115	0	183
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Satd. Flow (RTOR)		525				127
Adj. Flow (vph)	2185	677	25	2403	0	208
Lane Group Flow (vph)	2185	677	25	2403	0	208
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	98.0	98.0	19.0	117.0		33.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	90.8	90.8	11.3	109.8		27.2
Actuated g/C Ratio	0.61	0.61	0.08	0.73		0.18
v/c Ratio	0.71	0.59	0.19	0.66		0.53
Control Delay	14.8	3.0	68.6	11.5		27.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	15.0	3.2	68.6	11.5		27.0
LOS	B	A	E	B		C
Approach Delay	12.2			12.1	27.0	
Approach LOS	B			B	C	
Queue Length 50th (ft)	441	26	23	403		69
Queue Length 95th (ft)	440	22	54	423		150
Internal Link Dist (ft)	630			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3078	1156	135	3651		393
Starvation Cap Reductn	246	100	0	0		0
Spillback Cap Reductn	0	0	0	59		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.77	0.64	0.19	0.67		0.53

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 20 (13%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



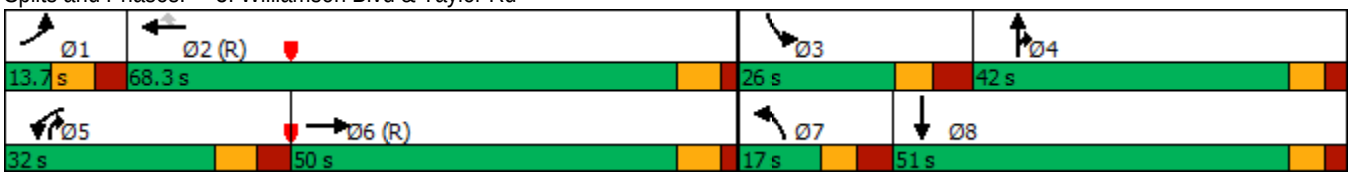


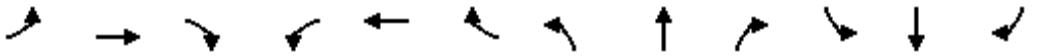
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Future Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Ped Bike Factor												
Frt		0.982				0.850			0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4903	0	3367	3539	1524	3467	3539	2814	3273	3438	0
Satd. Flow (RTOR)		17				312			149		9	
Adj. Flow (vph)	39	801	110	492	604	348	117	403	1265	355	199	25
Lane Group Flow (vph)	39	911	0	492	604	348	117	403	1265	355	224	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	13.7	50.0		32.0	68.3	68.3	17.0	42.0		26.0	51.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	5.2	43.1		23.4	64.1	64.1	8.7	35.3	67.3	17.4	44.6	
Actuated g/C Ratio	0.03	0.29		0.16	0.43	0.43	0.06	0.24	0.45	0.12	0.30	
v/c Ratio	0.34	0.64		0.94	0.40	0.42	0.58	0.48	0.94	0.94	0.22	
Control Delay	79.1	48.2		106.3	22.8	13.3	80.8	51.8	48.9	97.8	38.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	
Total Delay	79.1	48.3		106.3	22.8	13.3	80.8	51.8	52.1	97.8	38.7	
LOS	E	D		F	C	B	F	D	D	F	D	
Approach Delay		49.5			49.0			53.9			74.9	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	19	281		253	132	77	58	180	607	180	83	
Queue Length 95th (ft)	40	332		#317	157	118	93	236	#787	#278	121	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	114	1420		525	1513	830	208	832	1344	379	1028	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	14		0	0	0	0	0	43	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.65		0.94	0.40	0.42	0.56	0.48	0.97	0.94	0.22	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 28 (19%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 54.1	Intersection LOS: D
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

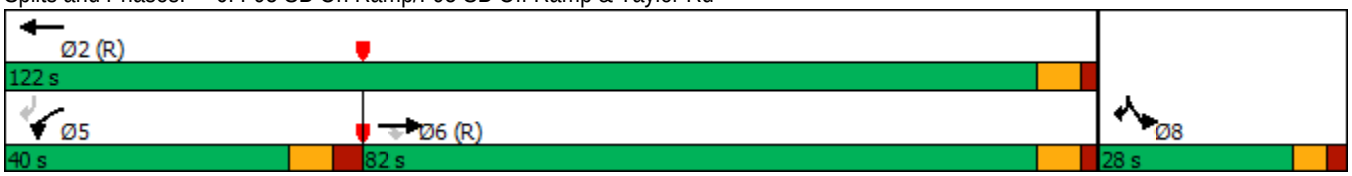




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Future Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5036	1524	1752	4988	0	0	0	0	4848	0	2707
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5036	1524	1752	4988	0	0	0	0	4848	0	2707
Satd. Flow (RTOR)			102									
Adj. Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Lane Group Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Turn Type		NA	Perm	Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases			6									5
Total Split (s)		82.0	82.0	40.0	122.0					28.0		28.0
Total Lost Time (s)		6.9	6.9	8.2	6.9					6.2		6.2
Act Effct Green (s)		79.9	79.9	27.0	115.1					21.8		57.0
Actuated g/C Ratio		0.53	0.53	0.18	0.77					0.15		0.38
v/c Ratio		0.81	0.18	0.85	0.31					0.75		0.20
Control Delay		22.4	4.2	81.5	5.0					68.9		30.9
Queue Delay		0.9	0.0	0.0	0.2					0.0		0.0
Total Delay		23.3	4.2	81.5	5.2					68.9		30.9
LOS		C	A	F	A					E		C
Approach Delay		22.1			19.3						58.3	
Approach LOS		C			B						E	
Queue Length 50th (ft)		549	15	278	102					178		75
Queue Length 95th (ft)		630	m26	374	118					222		104
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)			250							500		550
Base Capacity (vph)		2681	859	371	3827					704		1029
Starvation Cap Reductn		253	0	0	1482					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.89	0.18	0.72	0.50					0.75		0.20

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 140 (93%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

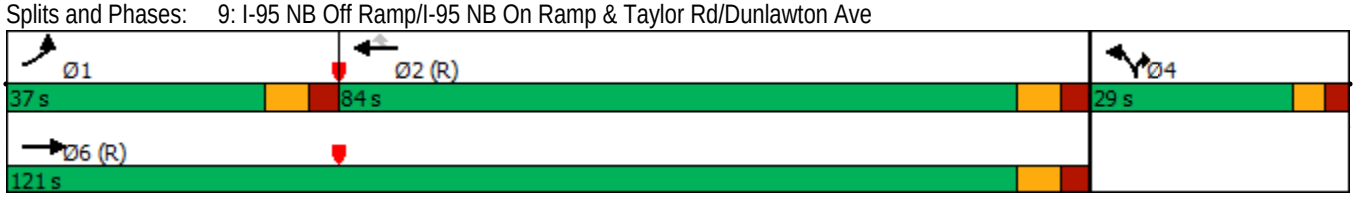
Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Future Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Satd. Flow (RTOR)						497			97			
Adj. Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Lane Group Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	37.0	121.0			84.0	84.0	29.0		29.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	26.2	112.8			78.4	78.4	22.5		22.5			
Actuated g/C Ratio	0.17	0.75			0.52	0.52	0.15		0.15			
v/c Ratio	0.85	0.59			0.41	0.78	0.34		0.79			
Control Delay	85.1	1.2			12.2	11.8	61.3		58.5			
Queue Delay	0.0	0.2			0.0	2.6	0.0		0.0			
Total Delay	85.1	1.4			12.2	14.4	61.3		58.5			
LOS	F	A			B	B	E		E			
Approach Delay		16.7			13.0			59.0				
Approach LOS		B			B			E				
Queue Length 50th (ft)	203	8			165	470	79		165			
Queue Length 95th (ft)	270	41			184	678	138		234			
Internal Link Dist (ft)		474			630			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	646	3787			3316	1064	260		504			
Starvation Cap Reductn	0	676			0	133	0		0			
Spillback Cap Reductn	0	7			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.77	0.71			0.41	0.89	0.34		0.79			

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 21 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

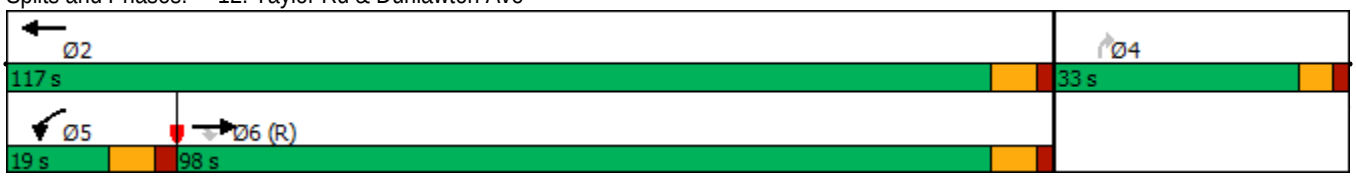
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

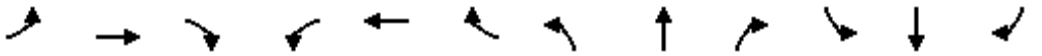


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1923	596	22	2115	0	183
Future Volume (vph)	1923	596	22	2115	0	183
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Satd. Flow (RTOR)		525				127
Adj. Flow (vph)	2185	677	25	2403	0	208
Lane Group Flow (vph)	2185	677	25	2403	0	208
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	98.0	98.0	19.0	117.0		33.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	90.8	90.8	11.3	109.8		27.2
Actuated g/C Ratio	0.61	0.61	0.08	0.73		0.18
v/c Ratio	0.71	0.59	0.19	0.66		0.53
Control Delay	14.6	2.9	68.6	11.5		27.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	14.8	3.2	68.6	11.5		27.0
LOS	B	A	E	B		C
Approach Delay	12.1			12.1	27.0	
Approach LOS	B			B	C	
Queue Length 50th (ft)	476	24	23	403		69
Queue Length 95th (ft)	431	19	54	423		150
Internal Link Dist (ft)	630			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3078	1156	135	3651		393
Starvation Cap Reductn	246	100	0	0		0
Spillback Cap Reductn	0	0	0	54		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.77	0.64	0.19	0.67		0.53

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 16 (11%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



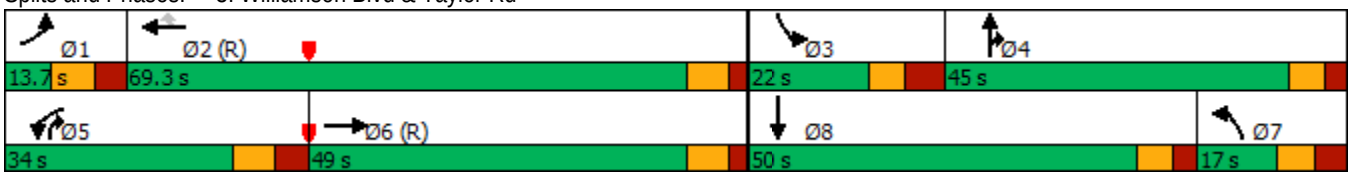


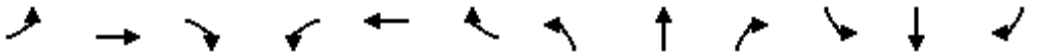
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Future Volume (vph)	36	745	102	458	562	324	109	375	1176	330	185	23
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.94	0.95	0.95
Ped Bike Factor												
Frt		0.982				0.850			0.850		0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	4903	0	3367	3539	1524	3467	3539	2814	4757	3438	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	4903	0	3367	3539	1524	3467	3539	2814	4757	3438	0
Satd. Flow (RTOR)		16				348			91		9	
Adj. Flow (vph)	39	801	110	492	604	348	117	403	1265	355	199	25
Lane Group Flow (vph)	39	911	0	492	604	348	117	403	1265	355	224	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	13.7	49.0		34.0	69.3	69.3	17.0	45.0		22.0	50.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	5.2	42.3		25.2	65.1	65.1	9.0	38.3	72.1	13.4	43.3	
Actuated g/C Ratio	0.03	0.28		0.17	0.43	0.43	0.06	0.26	0.48	0.09	0.29	
v/c Ratio	0.34	0.65		0.87	0.39	0.41	0.56	0.45	0.90	0.84	0.22	
Control Delay	79.1	49.2		92.7	23.5	11.5	79.5	48.8	43.3	85.0	39.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	
Total Delay	79.1	49.2		92.7	23.5	11.5	79.5	48.8	44.8	85.0	39.6	
LOS	E	D		F	C	B	E	D	D	F	D	
Approach Delay		50.4			44.2			48.0			67.4	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	19	284		253	139	70	58	175	600	123	84	
Queue Length 95th (ft)	40	336		298	171	110	93	229	730	#175	122	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	114	1395		570	1537	858	208	904	1404	424	998	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	14		0	0	0	0	0	49	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.34	0.66		0.86	0.39	0.41	0.56	0.45	0.93	0.84	0.22	

Intersection Summary		
Cycle Length: 150		
Actuated Cycle Length: 150		
Offset: 25 (17%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 49.7	Intersection LOS: D	
Intersection Capacity Utilization 82.6%	ICU Level of Service E	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

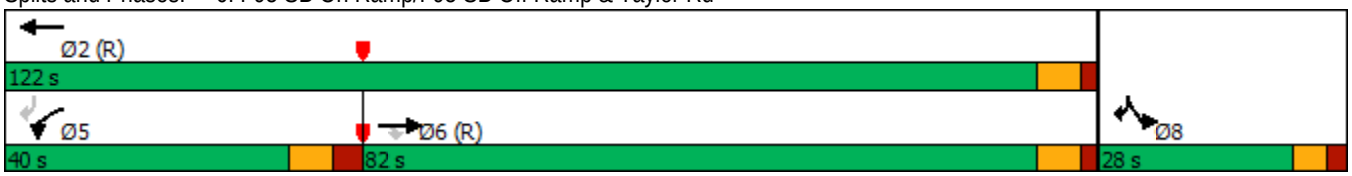




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Future Volume (vph)	0	2103	148	259	1145	0	0	0	0	511	0	199
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5036	1524	1752	4988	0	0	0	0	4848	0	2707
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5036	1524	1752	4988	0	0	0	0	4848	0	2707
Satd. Flow (RTOR)			102									
Adj. Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Lane Group Flow (vph)	0	2168	153	267	1180	0	0	0	0	527	0	205
Turn Type		NA	Perm	Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases			6									5
Total Split (s)		82.0	82.0	40.0	122.0					28.0		28.0
Total Lost Time (s)		6.9	6.9	8.2	6.9					6.2		6.2
Act Effct Green (s)		79.9	79.9	27.0	115.1					21.8		57.0
Actuated g/C Ratio		0.53	0.53	0.18	0.77					0.15		0.38
v/c Ratio		0.81	0.18	0.85	0.31					0.75		0.20
Control Delay		24.3	5.2	78.5	5.2					68.9		30.9
Queue Delay		1.0	0.0	0.0	0.2					0.0		0.0
Total Delay		25.3	5.2	78.5	5.4					68.9		30.9
LOS		C	A	E	A					E		C
Approach Delay		24.0			18.9						58.3	
Approach LOS		C			B						E	
Queue Length 50th (ft)		554	20	278	103					178		75
Queue Length 95th (ft)		634	m33	374	124					222		104
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)			250							500		550
Base Capacity (vph)		2681	859	371	3827					704		1029
Starvation Cap Reductn		263	0	0	1568					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.90	0.18	0.72	0.52					0.75		0.20

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 137 (91%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

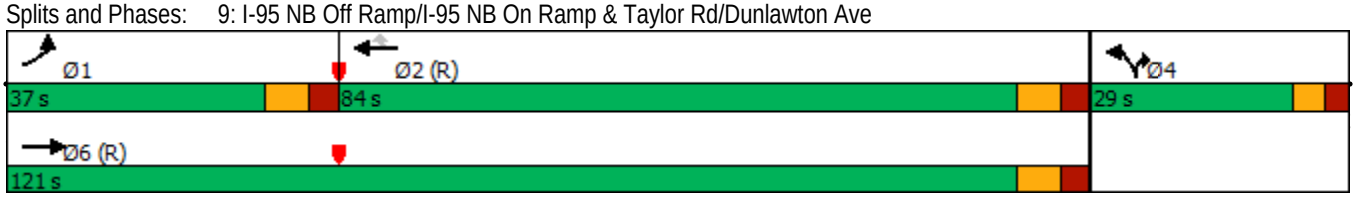
Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Future Volume (vph)	479	2135	0	0	1319	796	85	0	383	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5036	0	0	6346	1583	1736	0	2814	0	0	0
Satd. Flow (RTOR)						497			97			
Adj. Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Lane Group Flow (vph)	499	2224	0	0	1374	829	89	0	399	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	37.0	121.0			84.0	84.0	29.0		29.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	26.2	112.8			78.4	78.4	22.5		22.5			
Actuated g/C Ratio	0.17	0.75			0.52	0.52	0.15		0.15			
v/c Ratio	0.85	0.59			0.41	0.78	0.34		0.79			
Control Delay	81.9	0.7			12.2	11.8	61.3		58.5			
Queue Delay	0.0	0.2			0.0	2.6	0.0		0.0			
Total Delay	81.9	0.9			12.2	14.4	61.3		58.5			
LOS	F	A			B	B	E		E			
Approach Delay		15.7			13.0			59.0				
Approach LOS		B			B			E				
Queue Length 50th (ft)	203	4			165	470	79		165			
Queue Length 95th (ft)	270	13			184	678	138		234			
Internal Link Dist (ft)		474			630			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	646	3787			3316	1064	260		504			
Starvation Cap Reductn	0	669			0	133	0		0			
Spillback Cap Reductn	0	7			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.77	0.71			0.41	0.89	0.34		0.79			

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 21 (14%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

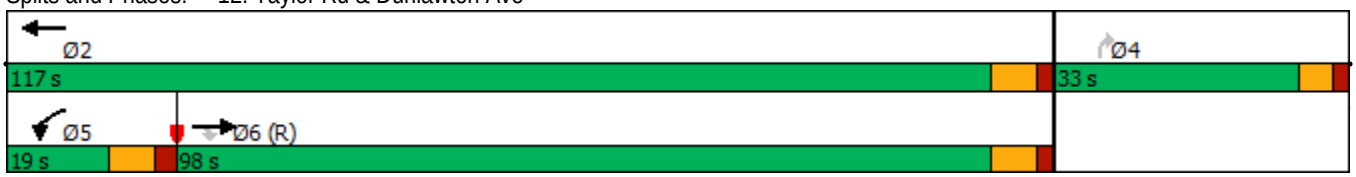
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1923	596	22	2115	0	183
Future Volume (vph)	1923	596	22	2115	0	183
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5085	1568	1805	4988	0	1596
Flt Permitted			0.950			
Satd. Flow (perm)	5085	1568	1805	4988	0	1596
Satd. Flow (RTOR)		525				127
Adj. Flow (vph)	2185	677	25	2403	0	208
Lane Group Flow (vph)	2185	677	25	2403	0	208
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	98.0	98.0	19.0	117.0		33.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	90.8	90.8	11.3	109.8		27.2
Actuated g/C Ratio	0.61	0.61	0.08	0.73		0.18
v/c Ratio	0.71	0.59	0.19	0.66		0.53
Control Delay	15.2	3.2	68.6	11.5		27.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	15.4	3.5	68.6	11.5		27.0
LOS	B	A	E	B		C
Approach Delay	12.6			12.1	27.0	
Approach LOS	B			B	C	
Queue Length 50th (ft)	503	39	23	403		69
Queue Length 95th (ft)	431	21	54	423		150
Internal Link Dist (ft)	630			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3078	1156	135	3651		393
Starvation Cap Reductn	246	100	0	0		0
Spillback Cap Reductn	0	0	0	54		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.77	0.64	0.19	0.67		0.53

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 16 (11%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Future Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	280		240	0		0	230		600	700		0
Storage Lanes	2		1	2		1	2		2	1		0
Taper Length (ft)	100			100			100			50		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Frt		0.971				0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34				575			132		5	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		787			502			1238			985	
Travel Time (s)		11.9			7.6			24.1			19.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	1%	1%	0%	1%	2%	1%	3%	1%	1%	1%	0%
Adj. Flow (vph)	82	693	166	965	851	748	117	304	751	653	499	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	859	0	965	851	748	117	304	751	653	540	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Detector Phase	1	6		5	2	2	7	4	4 5	3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	13.5	47.9		13.6	39.9	39.9	13.0	16.7		13.6	42.0	
Total Split (s)	18.0	58.0		51.0	91.0	91.0	19.0	21.0		40.0	42.0	
Total Split (%)	10.6%	34.1%		30.0%	53.5%	53.5%	11.2%	12.4%		23.5%	24.7%	
Yellow Time (s)	4.8	4.8		4.8	4.8	4.8	4.1	4.1		4.1	4.1	
All-Red Time (s)	3.7	2.1		3.8	2.1	2.1	3.9	2.6		4.5	2.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	8.7	51.1		42.4	84.9	84.9	10.2	14.3	65.3	31.4	36.1	
Actuated g/C Ratio	0.05	0.30		0.25	0.50	0.50	0.06	0.08	0.38	0.18	0.21	
v/c Ratio	0.47	0.56		1.11	0.48	0.69	0.57	1.03	0.65	1.02	0.72	
Control Delay	87.0	49.7		125.6	32.3	13.3	88.5	134.4	37.8	107.3	67.8	
Queue Delay	0.0	54.2		0.0	0.6	0.6	0.0	0.0	0.1	0.0	0.0	
Total Delay	87.0	103.8		125.6	32.9	14.0	88.5	134.4	37.8	107.3	67.8	
LOS	F	F		F	C	B	F	F	D	F	E	
Approach Delay		102.4			62.2			67.9			89.4	
Approach LOS		F			E			E			F	
Queue Length 50th (ft)	46	285		~621	285	185	66	~190	325	~395	296	

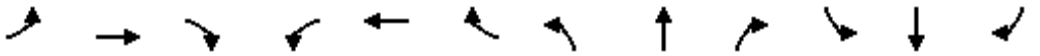
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	78	334		#762	310	206	103	#296	405	#524	367	
Internal Link Dist (ft)		707			422			1158			905	
Turn Bay Length (ft)	280						230		600	700		
Base Capacity (vph)	191	1522		873	1784	1078	224	294	1162	640	755	
Starvation Cap Reductn	0	0		0	512	101	0	0	0	0	0	
Spillback Cap Reductn	0	1015		0	0	0	0	0	27	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.43	1.69		1.11	0.67	0.77	0.52	1.03	0.66	1.02	0.72	

Intersection Summary	
Area Type:	Other
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 39 (23%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 75.3	Intersection LOS: E
Intersection Capacity Utilization 91.7%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

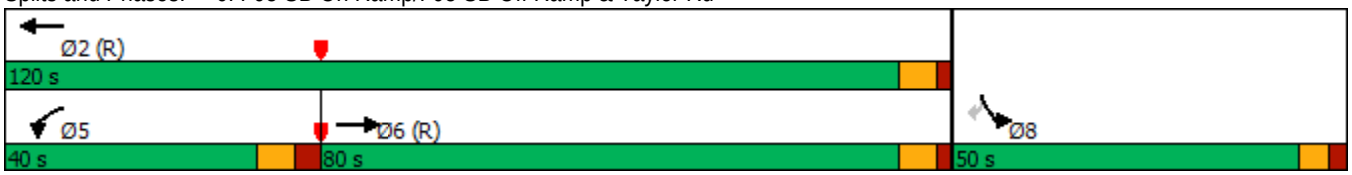


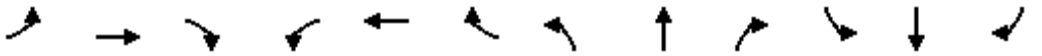
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	193
Future Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.984										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5048	0	1752	3574	0	0	0	0	3433	0	1599
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5048	0	1752	3574	0	0	0	0	3433	0	1599
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		15										
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		158			553			620			342	
Travel Time (s)		2.4			8.4			14.1			7.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	2%	3%	1%	0%	0%	0%	0%	2%	0%	1%
Adj. Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	208
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2164	0	308	2015	0	0	0	0	813	0	208
Turn Type		NA		Prot	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases												8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		15.0		5.0	15.0					10.0		10.0
Minimum Split (s)		24.9		13.2	27.9					24.2		24.2
Total Split (s)		80.0		40.0	120.0					50.0		50.0
Total Split (%)		47.1%		23.5%	70.6%					29.4%		29.4%
Yellow Time (s)		4.9		4.8	4.9					3.7		3.7
All-Red Time (s)		2.0		3.4	2.0					2.5		2.5
Lost Time Adjust (s)		0.0		0.0	0.0					0.0		0.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max		Max
Act Effct Green (s)		73.6		31.3	113.1					43.8		43.8
Actuated g/C Ratio		0.43		0.18	0.67					0.26		0.26
v/c Ratio		0.99		0.96	0.85					0.92		0.51
Control Delay		59.4		127.9	23.0					77.3		59.0
Queue Delay		40.2		0.0	1.4					0.0		0.0
Total Delay		99.6		127.9	24.5					77.3		59.0
LOS		F		F	C					E		E
Approach Delay		99.6			38.2						73.6	
Approach LOS		F			D						E	
Queue Length 50th (ft)		758		364	344					458		200
Queue Length 95th (ft)		m#852		#550	476					#575		289
Internal Link Dist (ft)		78			473			540			262	
Turn Bay Length (ft)												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		2194		327	2377					884		411
Starvation Cap Reductn		320		0	189					0		0
Spillback Cap Reductn		0		0	0					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		1.15		0.94	0.92					0.92		0.51

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 52 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 68.9		Intersection LOS: E	
Intersection Capacity Utilization 94.7%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd





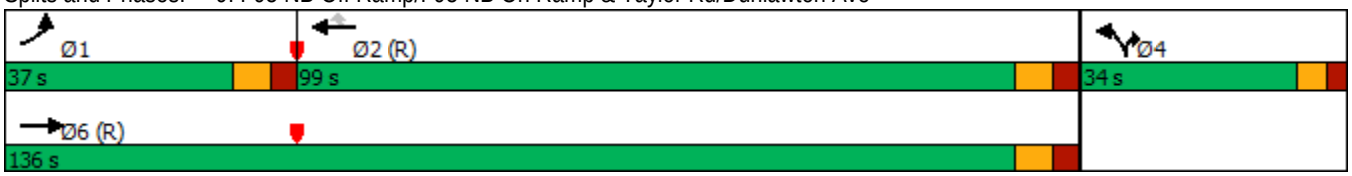
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Future Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	2		0	1		1	1		2	0		0
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	5136	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	5136	1599	1770	0	2787	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						469			86			
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		553			713			891			645	
Travel Time (s)		8.4			10.8			20.3			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	1%	0%	0%	1%	1%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Detector Phase	1	6			2	2	4		4			
Switch Phase												
Minimum Initial (s)	7.0	15.0			15.0	15.0	10.0		10.0			
Minimum Split (s)	15.2	26.2			28.2	28.2	24.5		24.5			
Total Split (s)	37.0	136.0			99.0	99.0	34.0		34.0			
Total Split (%)	21.8%	80.0%			58.2%	58.2%	20.0%		20.0%			
Yellow Time (s)	4.8	4.8			4.8	4.8	3.7		3.7			
All-Red Time (s)	3.4	3.4			3.4	3.4	2.8		2.8			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max		Max			
Act Effct Green (s)	21.0	127.8			98.6	98.6	27.5		27.5			
Actuated g/C Ratio	0.12	0.75			0.58	0.58	0.16		0.16			
v/c Ratio	0.75	0.64			0.74	0.68	0.48		0.75			
Control Delay	96.1	10.2			21.6	7.7	71.2		62.4			
Queue Delay	0.0	0.8			0.5	0.5	2.1		0.0			
Total Delay	96.1	11.0			22.0	8.2	73.3		62.4			
LOS	F	B			C	A	E		E			
Approach Delay		20.5			18.5			65.2				
Approach LOS		C			B			E				
Queue Length 50th (ft)	186	292			406	111	142		188			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	m189	m299			598	154	219		257			
Internal Link Dist (ft)		473			633			811			565	
Turn Bay Length (ft)												
Base Capacity (vph)	570	3861			2979	1124	286		522			
Starvation Cap Reductn	0	952			325	103	0		0			
Spillback Cap Reductn	0	89			4	0	63		1			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.55	0.85			0.83	0.74	0.62		0.75			

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 55 (32%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 94.7%		ICU Level of Service F	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1884	742	35	2733	0	143
Future Volume (vph)	1884	742	35	2733	0	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		230	300		0	0
Storage Lanes		1	1		0	1
Taper Length (ft)			50		25	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		635				199
Link Speed (mph)	45			50	30	
Link Distance (ft)	713			557	670	
Travel Time (s)	10.8			7.6	15.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	3%	1%	0%	2%
Adj. Flow (vph)	2004	789	37	2907	0	152
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2004	789	37	2907	0	152
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Detector Phase	6	6	5	2		4
Switch Phase						
Minimum Initial (s)	17.0	17.0	10.0	17.0		5.0
Minimum Split (s)	32.2	32.2	17.7	25.2		25.0
Total Split (s)	115.0	115.0	30.0	145.0		25.0
Total Split (%)	67.6%	67.6%	17.6%	85.3%		14.7%
Yellow Time (s)	5.2	5.2	5.2	5.2		3.7
All-Red Time (s)	2.0	2.0	2.5	2.0		2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	Max	Max		Max
Act Effct Green (s)	107.8	107.8	22.3	137.8		19.2
Actuated g/C Ratio	0.63	0.63	0.13	0.81		0.11
v/c Ratio	0.62	0.63	0.16	0.70		0.42
Control Delay	21.1	7.9	67.7	8.1		6.0
Queue Delay	1.1	1.1	0.0	0.0		0.0
Total Delay	22.1	9.0	67.7	8.2		6.0
LOS	C	A	E	A		A
Approach Delay	18.4			8.9	6.0	
Approach LOS	B			A	A	
Queue Length 50th (ft)	556	130	37	446		0

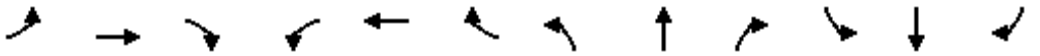
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	627	336	77	474		22
Internal Link Dist (ft)	633			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3256	1246	229	4163		358
Starvation Cap Reductn	914	236	0	0		0
Spillback Cap Reductn	0	0	0	84		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.86	0.78	0.16	0.71		0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 82 (48%), Referenced to phase 6:EBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 66.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 12: Taylor Rd & Dunlawton Ave

Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	0	949	394	0	0
Future Volume (vph)	0	0	949	394	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.94	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	4990	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	4990	0	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	420			310	342	
Travel Time (s)	9.5			7.0	7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1032	428	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1032	428	0	0
Sign Control	Free			Free	Free	

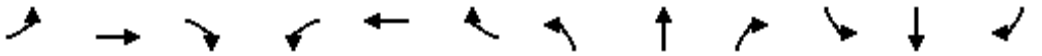
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization Err%		ICU Level of Service H	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Future Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Ped Bike Factor												
Frt		0.971				0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Satd. Flow (RTOR)		31				589			132		5	
Adj. Flow (vph)	82	693	166	965	851	748	117	304	751	653	499	41
Lane Group Flow (vph)	82	859	0	965	851	748	117	304	751	653	540	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	17.4	48.8		56.7	88.1	88.1	19.0	22.1		42.4	45.5	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	8.4	41.9		48.1	81.7	81.7	10.2	15.7	72.4	33.5	39.6	
Actuated g/C Ratio	0.05	0.25		0.28	0.48	0.48	0.06	0.09	0.43	0.20	0.23	
v/c Ratio	0.49	0.69		0.97	0.50	0.70	0.57	0.94	0.59	0.96	0.65	
Control Delay	88.4	59.2		74.7	15.0	17.4	88.5	112.1	32.5	91.9	62.9	
Queue Delay	0.0	0.8		1.0	0.3	0.9	0.0	0.0	1.8	0.0	0.0	
Total Delay	88.4	60.0		75.7	15.3	18.3	88.5	112.1	34.2	91.9	62.9	
LOS	F	E		E	B	B	F	F	C	F	E	
Approach Delay		62.5			38.9			59.8			78.8	
Approach LOS		E			D			E			E	
Queue Length 50th (ft)	46	310		452	191	189	66	180	302	375	288	
Queue Length 95th (ft)	78	363		#682	163	231	103	#283	377	#494	357	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	179	1252		990	1717	1066	224	323	1274	689	828	
Starvation Cap Reductn	0	0		6	347	115	0	0	0	0	0	
Spillback Cap Reductn	0	157		0	0	0	0	0	346	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.78		0.98	0.62	0.79	0.52	0.94	0.81	0.95	0.65	

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 140 (82%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 55.0	Intersection LOS: D	
Intersection Capacity Utilization 91.7%	ICU Level of Service F	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 3: Williamson Blvd & Taylor Rd



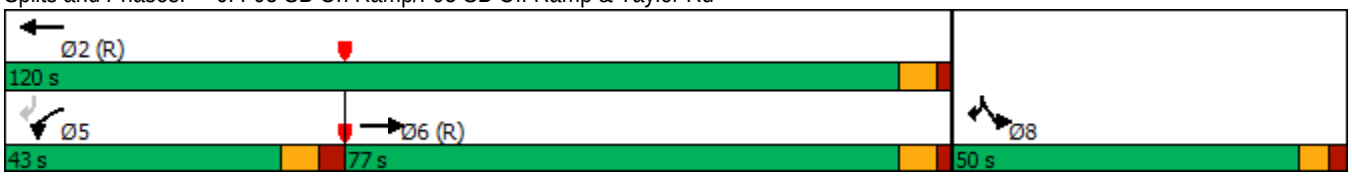
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Future Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt		0.984										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5048	0	1752	5136	0	0	0	0	4990	0	2814
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5048	0	1752	5136	0	0	0	0	4990	0	2814
Satd. Flow (RTOR)		15										
Adj. Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Lane Group Flow (vph)	0	2164	0	308	2015	0	0	0	0	813	0	631
Turn Type		NA		Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases												5
Total Split (s)		77.0		43.0	120.0					50.0		50.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Act Effct Green (s)		72.2		32.7	113.1					43.8		84.7
Actuated g/C Ratio		0.42		0.19	0.67					0.26		0.50
v/c Ratio		1.01		0.92	0.59					0.63		0.45
Control Delay		62.6		136.1	7.1					58.6		28.6
Queue Delay		19.3		0.0	0.0					0.0		0.0
Total Delay		81.9		136.1	7.1					58.6		28.6
LOS		F		F	A					E		C
Approach Delay		81.9			24.2						45.5	
Approach LOS		F			C						D	
Queue Length 50th (ft)		~926		330	108					287		247
Queue Length 95th (ft)		#1014		#511	113					336		305
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)										500		550
Base Capacity (vph)		2153		358	3416					1285		1401
Starvation Cap Reductn		112		0	0					0		0
Spillback Cap Reductn		0		0	63					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		1.06		0.86	0.60					0.63		0.45

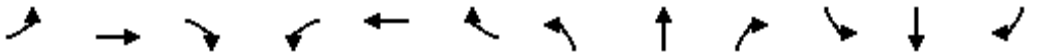
Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 106 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 50.4	Intersection LOS: D
Intersection Capacity Utilization 87.5%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

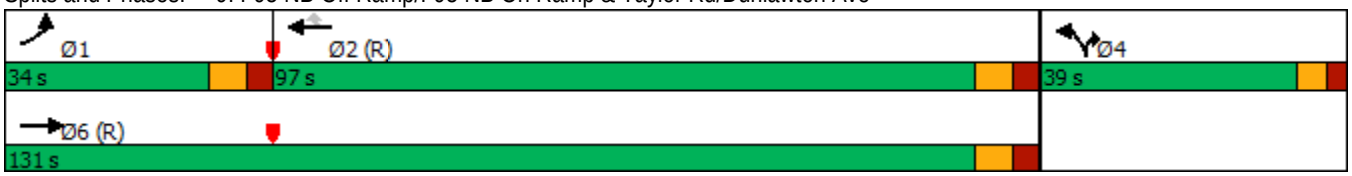




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Future Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Satd. Flow (RTOR)						639			86			
Adj. Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Lane Group Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	34.0	131.0			97.0	97.0	39.0		39.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	20.9	122.8			93.7	93.7	32.5		32.5			
Actuated g/C Ratio	0.12	0.72			0.55	0.55	0.19		0.19			
v/c Ratio	0.75	0.66			0.62	0.65	0.41		0.65			
Control Delay	82.7	14.2			19.2	8.3	64.6		54.6			
Queue Delay	0.0	3.2			0.2	0.9	0.0		0.0			
Total Delay	82.7	17.5			19.4	9.1	64.6		54.6			
LOS	F	B			B	A	E		D			
Approach Delay		24.8			16.8			57.2				
Approach LOS		C			B			E				
Queue Length 50th (ft)	186	406			476	322	137		181			
Queue Length 95th (ft)	m189	m405			545	485	211		248			
Internal Link Dist (ft)		474			629			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	510	3710			3567	1168	338		602			
Starvation Cap Reductn	0	1120			554	173	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.61	0.95			0.73	0.76	0.41		0.65			

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 89 (52%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.75		
Intersection Signal Delay: 23.7	Intersection LOS: C	
Intersection Capacity Utilization 87.5%	ICU Level of Service E	
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

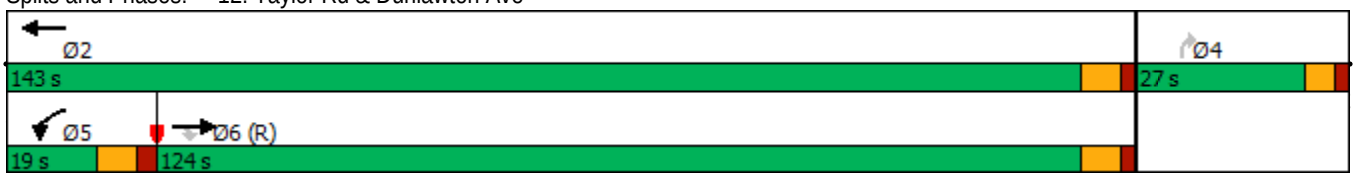
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

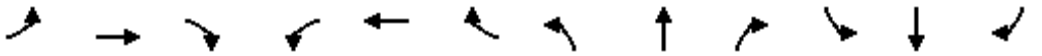


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1884	742	35	2733	0	143
Future Volume (vph)	1884	742	35	2733	0	143
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Satd. Flow (RTOR)		742				115
Adj. Flow (vph)	2004	789	37	2907	0	152
Lane Group Flow (vph)	2004	789	37	2907	0	152
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	124.0	124.0	19.0	143.0		27.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	116.8	116.8	11.3	135.8		21.2
Actuated g/C Ratio	0.69	0.69	0.07	0.80		0.12
v/c Ratio	0.57	0.59	0.32	0.71		0.50
Control Delay	9.8	1.6	83.5	9.1		26.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	10.0	1.8	83.5	9.1		26.0
LOS	A	A	F	A		C
Approach Delay	7.7			10.1	26.0	
Approach LOS	A			B	C	
Queue Length 50th (ft)	302	7	40	481		38
Queue Length 95th (ft)	312	10	83	511		116
Internal Link Dist (ft)	629			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3528	1330	116	4102		301
Starvation Cap Reductn	550	99	0	0		0
Spillback Cap Reductn	0	0	0	8		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.67	0.64	0.32	0.71		0.50

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 64 (38%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave

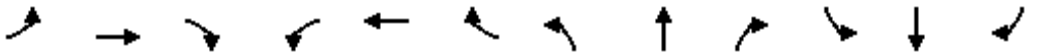




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Future Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.94	0.95	0.95
Ped Bike Factor												
Frt		0.971				0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4987	0	3502	3574	1583	3467	3505	2814	5040	3538	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4987	0	3502	3574	1583	3467	3505	2814	5040	3538	0
Satd. Flow (RTOR)		31				712			80		5	
Adj. Flow (vph)	82	693	166	965	851	748	117	304	751	653	499	41
Lane Group Flow (vph)	82	859	0	965	851	748	117	304	751	653	540	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	17.4	48.8		56.7	88.1	88.1	19.0	22.1		42.4	45.5	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	8.4	41.9		48.1	81.7	81.7	11.0	21.8	78.5	27.4	38.8	
Actuated g/C Ratio	0.05	0.25		0.28	0.48	0.48	0.06	0.13	0.46	0.16	0.23	
v/c Ratio	0.49	0.69		0.97	0.50	0.66	0.52	0.68	0.56	0.81	0.67	
Control Delay	88.4	59.2		76.8	15.1	11.5	85.8	78.7	31.7	76.8	63.8	
Queue Delay	0.0	1.5		1.0	0.3	0.6	0.0	0.0	1.0	0.0	0.0	
Total Delay	88.4	60.7		77.8	15.4	12.1	85.8	78.7	32.7	76.8	63.8	
LOS	F	E		E	B	B	F	E	C	E	E	
Approach Delay		63.1			37.9			49.9			70.9	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	46	310		452	170	161	66	172	305	252	288	
Queue Length 95th (ft)	78	363		#682	167	195	103	#273	402	289	357	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	179	1252		990	1717	1130	224	449	1342	1002	811	
Starvation Cap Reductn	0	0		6	347	120	0	0	0	0	0	
Spillback Cap Reductn	0	215		0	0	0	0	0	326	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.83		0.98	0.62	0.74	0.52	0.68	0.74	0.65	0.67	

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 138 (81%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 51.0	Intersection LOS: D	
Intersection Capacity Utilization 87.3%	ICU Level of Service E	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 3: Williamson Blvd & Taylor Rd



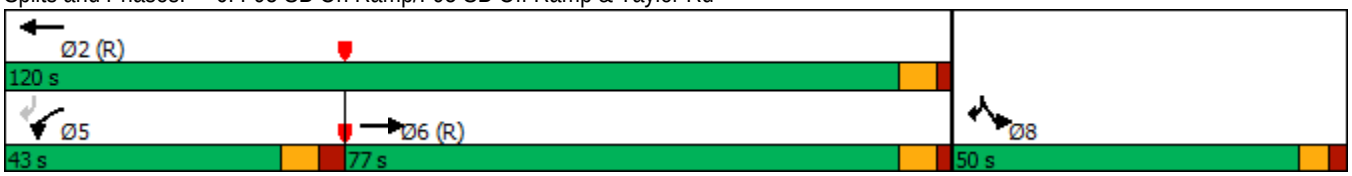
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Future Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt		0.984										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5048	0	1752	5136	0	0	0	0	4990	0	2814
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5048	0	1752	5136	0	0	0	0	4990	0	2814
Satd. Flow (RTOR)		15										
Adj. Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Lane Group Flow (vph)	0	2164	0	308	2015	0	0	0	0	813	0	631
Turn Type		NA		Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases												5
Total Split (s)		77.0		43.0	120.0					50.0		50.0
Total Lost Time (s)		6.9		8.2	6.9					6.2		6.2
Act Effct Green (s)		72.2		32.7	113.1					43.8		84.7
Actuated g/C Ratio		0.42		0.19	0.67					0.26		0.50
v/c Ratio		1.01		0.92	0.59					0.63		0.45
Control Delay		66.0		136.1	7.1					58.6		28.6
Queue Delay		20.6		0.0	0.0					0.0		0.0
Total Delay		86.6		136.1	7.1					58.6		28.6
LOS		F		F	A					E		C
Approach Delay		86.6			24.2						45.5	
Approach LOS		F			C						D	
Queue Length 50th (ft)		~944		330	108					287		247
Queue Length 95th (ft)		#1014		#511	113					336		305
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)										500		550
Base Capacity (vph)		2153		358	3416					1285		1401
Starvation Cap Reductn		118		0	0					0		0
Spillback Cap Reductn		0		0	63					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		1.06		0.86	0.60					0.63		0.45

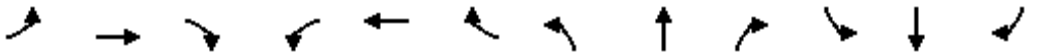
Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 106 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 52.1	Intersection LOS: D
Intersection Capacity Utilization 87.5%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

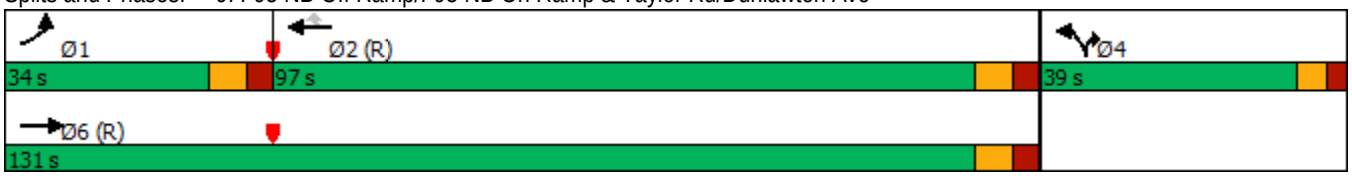




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Future Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Satd. Flow (RTOR)						639			86			
Adj. Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Lane Group Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	34.0	131.0			97.0	97.0	39.0		39.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	20.9	122.8			93.7	93.7	32.5		32.5			
Actuated g/C Ratio	0.12	0.72			0.55	0.55	0.19		0.19			
v/c Ratio	0.75	0.66			0.62	0.65	0.41		0.65			
Control Delay	82.8	14.1			19.2	8.3	64.6		54.6			
Queue Delay	0.0	3.2			0.2	0.9	0.0		0.0			
Total Delay	82.8	17.3			19.4	9.1	64.6		54.6			
LOS	F	B			B	A	E		D			
Approach Delay		24.7			16.8			57.2				
Approach LOS		C			B			E				
Queue Length 50th (ft)	186	406			476	322	137		181			
Queue Length 95th (ft)	m189	m405			545	485	211		248			
Internal Link Dist (ft)		474			629			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	510	3710			3567	1168	338		602			
Starvation Cap Reductn	0	1120			554	173	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.61	0.95			0.73	0.76	0.41		0.65			

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 89 (52%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.75		
Intersection Signal Delay: 23.7	Intersection LOS: C	
Intersection Capacity Utilization 87.5%	ICU Level of Service E	
Analysis Period (min) 15		
m Volume for 95th percentile queue is metered by upstream signal.		

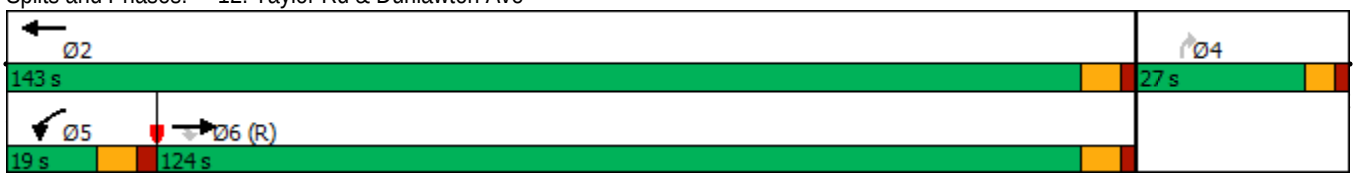
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

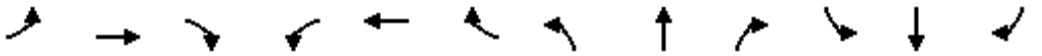


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1884	742	35	2733	0	143
Future Volume (vph)	1884	742	35	2733	0	143
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Satd. Flow (RTOR)		742				115
Adj. Flow (vph)	2004	789	37	2907	0	152
Lane Group Flow (vph)	2004	789	37	2907	0	152
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	124.0	124.0	19.0	143.0		27.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	116.8	116.8	11.3	135.8		21.2
Actuated g/C Ratio	0.69	0.69	0.07	0.80		0.12
v/c Ratio	0.57	0.59	0.32	0.71		0.50
Control Delay	9.7	1.6	83.5	9.1		26.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	9.9	1.8	83.5	9.1		26.0
LOS	A	A	F	A		C
Approach Delay	7.6			10.1	26.0	
Approach LOS	A			B	C	
Queue Length 50th (ft)	302	7	40	481		38
Queue Length 95th (ft)	312	10	83	511		116
Internal Link Dist (ft)	629			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3528	1330	116	4102		301
Starvation Cap Reductn	550	99	0	0		0
Spillback Cap Reductn	0	0	0	8		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.67	0.64	0.32	0.71		0.50

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 64 (38%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



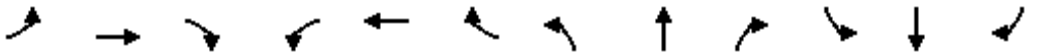


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Future Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.97	0.95	0.95
Ped Bike Factor												
Frt		0.971				0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4987	0	3502	3574	1583	3467	3505	2814	3467	3538	0
Satd. Flow (RTOR)		31				589			132		5	
Adj. Flow (vph)	82	693	166	965	851	748	117	304	751	653	499	41
Lane Group Flow (vph)	82	859	0	965	851	748	117	304	751	653	540	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	17.4	48.8		56.7	88.1	88.1	19.0	22.1		42.4	45.5	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	8.4	41.9		48.1	81.7	81.7	10.2	15.7	72.4	33.5	39.6	
Actuated g/C Ratio	0.05	0.25		0.28	0.48	0.48	0.06	0.09	0.43	0.20	0.23	
v/c Ratio	0.49	0.69		0.97	0.50	0.70	0.57	0.94	0.59	0.96	0.65	
Control Delay	88.4	59.2		76.8	15.1	16.9	88.5	112.1	32.5	91.9	62.9	
Queue Delay	0.0	0.4		1.0	0.3	0.9	0.0	0.0	0.4	0.0	0.0	
Total Delay	88.4	59.6		77.8	15.4	17.7	88.5	112.1	32.8	91.9	62.9	
LOS	F	E		E	B	B	F	F	C	F	E	
Approach Delay		62.1			39.6			58.9			78.8	
Approach LOS		E			D			E			E	
Queue Length 50th (ft)	46	310		452	170	189	66	180	302	375	288	
Queue Length 95th (ft)	78	363		#682	167	231	103	#283	377	#494	357	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	179	1252		990	1717	1066	224	323	1274	689	828	
Starvation Cap Reductn	0	0		6	347	115	0	0	0	0	0	
Spillback Cap Reductn	0	91		0	0	0	0	0	152	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.74		0.98	0.62	0.79	0.52	0.94	0.67	0.95	0.65	

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 138 (81%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 55.0	Intersection LOS: E	
Intersection Capacity Utilization 91.7%	ICU Level of Service F	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

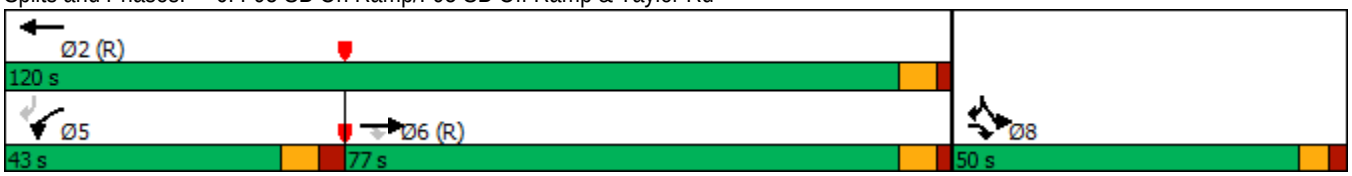


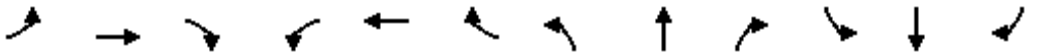
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Future Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5136	1583	1752	5136	0	0	0	0	4990	0	2814
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5136	1583	1752	5136	0	0	0	0	4990	0	2814
Satd. Flow (RTOR)			150									
Adj. Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Lane Group Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Turn Type		NA	custom	Prot	NA					Prot		custom
Protected Phases		6	8	5	2					8		8
Permitted Phases			6									5
Total Split (s)		77.0	50.0	43.0	120.0					50.0		50.0
Total Lost Time (s)		6.9	6.2	8.2	6.9					6.2		6.2
Act Effct Green (s)		72.2	122.9	32.7	113.1					43.8		84.7
Actuated g/C Ratio		0.42	0.72	0.19	0.67					0.26		0.50
v/c Ratio		0.89	0.19	0.92	0.59					0.63		0.45
Control Delay		47.8	3.0	136.1	7.1					58.6		28.6
Queue Delay		3.9	0.0	0.0	0.0					0.0		0.0
Total Delay		51.7	3.0	136.1	7.1					58.6		28.6
LOS		D	A	F	A					E		C
Approach Delay		46.5			24.2						45.5	
Approach LOS		D			C						D	
Queue Length 50th (ft)		583	29	330	108					287		247
Queue Length 95th (ft)		677	m43	#511	113					336		305
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)			250							500		550
Base Capacity (vph)		2182	1186	358	3416					1285		1401
Starvation Cap Reductn		182	0	0	0					0		0
Spillback Cap Reductn		0	0	0	63					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.97	0.19	0.86	0.60					0.63		0.45

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 106 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

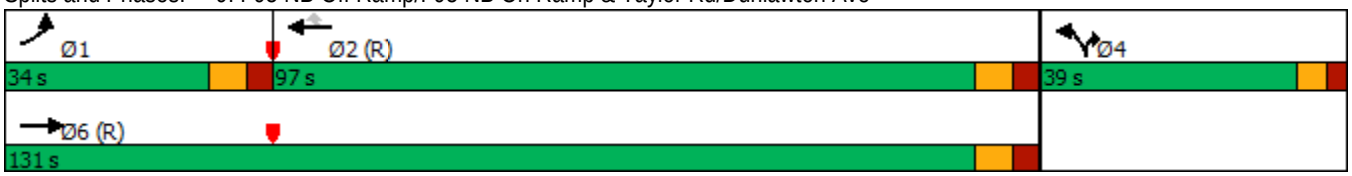




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Future Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Satd. Flow (RTOR)						639			86			
Adj. Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Lane Group Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	34.0	131.0			97.0	97.0	39.0		39.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	20.9	122.8			93.7	93.7	32.5		32.5			
Actuated g/C Ratio	0.12	0.72			0.55	0.55	0.19		0.19			
v/c Ratio	0.75	0.66			0.62	0.65	0.41		0.65			
Control Delay	86.3	13.4			19.2	8.3	64.6		54.6			
Queue Delay	0.0	1.2			0.2	0.9	0.0		0.0			
Total Delay	86.3	14.6			19.4	9.1	64.6		54.6			
LOS	F	B			B	A	E		D			
Approach Delay		22.6			16.8			57.2				
Approach LOS		C			B			E				
Queue Length 50th (ft)	186	375			476	322	137		181			
Queue Length 95th (ft)	m212	415			545	485	211		248			
Internal Link Dist (ft)		474			629			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	510	3710			3567	1168	338		602			
Starvation Cap Reductn	0	927			554	173	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.61	0.89			0.73	0.76	0.41		0.65			

Intersection Summary			
Cycle Length: 170			
Actuated Cycle Length: 170			
Offset: 89 (52%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

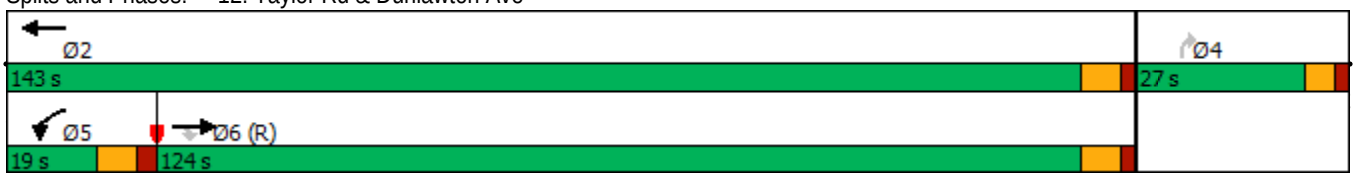
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

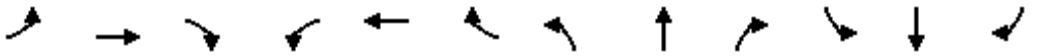


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1884	742	35	2733	0	143
Future Volume (vph)	1884	742	35	2733	0	143
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Satd. Flow (RTOR)		742				115
Adj. Flow (vph)	2004	789	37	2907	0	152
Lane Group Flow (vph)	2004	789	37	2907	0	152
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	124.0	124.0	19.0	143.0		27.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	116.8	116.8	11.3	135.8		21.2
Actuated g/C Ratio	0.69	0.69	0.07	0.80		0.12
v/c Ratio	0.57	0.59	0.32	0.71		0.50
Control Delay	9.3	1.6	83.5	9.1		26.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	9.5	1.8	83.5	9.1		26.0
LOS	A	A	F	A		C
Approach Delay	7.3			10.1	26.0	
Approach LOS	A			B	C	
Queue Length 50th (ft)	265	3	40	481		38
Queue Length 95th (ft)	312	11	83	511		116
Internal Link Dist (ft)	629			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3528	1330	116	4102		301
Starvation Cap Reductn	550	99	0	0		0
Spillback Cap Reductn	0	0	0	8		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.67	0.64	0.32	0.71		0.50

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 64 (38%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave



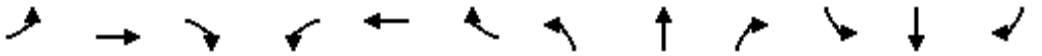


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Future Volume (vph)	79	665	159	926	817	718	112	292	721	627	479	39
Lane Util. Factor	0.97	0.91	0.91	0.97	0.95	1.00	0.97	0.95	0.88	0.94	0.95	0.95
Ped Bike Factor												
Frt		0.971				0.850			0.850		0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4987	0	3502	3574	1583	3467	3505	2814	5040	3538	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4987	0	3502	3574	1583	3467	3505	2814	5040	3538	0
Satd. Flow (RTOR)		31				712			80		5	
Adj. Flow (vph)	82	693	166	965	851	748	117	304	751	653	499	41
Lane Group Flow (vph)	82	859	0	965	851	748	117	304	751	653	540	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pt+ov	Prot	NA	
Protected Phases	1	6		5	2		7	4	4 5	3	8	
Permitted Phases						2						
Total Split (s)	17.4	48.8		56.7	88.1	88.1	19.0	22.1		42.4	45.5	
Total Lost Time (s)	8.5	6.9		8.6	6.9	6.9	8.0	6.7		8.6	6.7	
Act Effct Green (s)	8.4	41.9		48.1	81.7	81.7	11.0	21.8	78.5	27.4	38.8	
Actuated g/C Ratio	0.05	0.25		0.28	0.48	0.48	0.06	0.13	0.46	0.16	0.23	
v/c Ratio	0.49	0.69		0.97	0.50	0.66	0.52	0.68	0.56	0.81	0.67	
Control Delay	88.4	59.2		74.0	15.2	11.6	85.8	78.7	31.7	76.8	63.8	
Queue Delay	0.0	0.4		1.0	0.3	0.6	0.0	0.0	0.3	0.0	0.0	
Total Delay	88.4	59.6		75.0	15.5	12.2	85.8	78.7	32.0	76.8	63.8	
LOS	F	E		E	B	B	F	E	C	E	E	
Approach Delay		62.1			36.9			49.5			70.9	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	46	310		452	198	161	66	172	305	252	288	
Queue Length 95th (ft)	78	363		#682	166	195	103	#273	402	289	357	
Internal Link Dist (ft)		707			580			1177			905	
Turn Bay Length (ft)	280			400		400	230		600	700		
Base Capacity (vph)	179	1252		990	1717	1130	224	449	1342	1002	811	
Starvation Cap Reductn	0	0		6	347	120	0	0	0	0	0	
Spillback Cap Reductn	0	101		0	0	0	0	0	159	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.75		0.98	0.62	0.74	0.52	0.68	0.63	0.65	0.67	

Intersection Summary		
Cycle Length: 170		
Actuated Cycle Length: 170		
Offset: 138 (81%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 50.4	Intersection LOS: D	
Intersection Capacity Utilization 87.3%	ICU Level of Service E	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Williamson Blvd & Taylor Rd

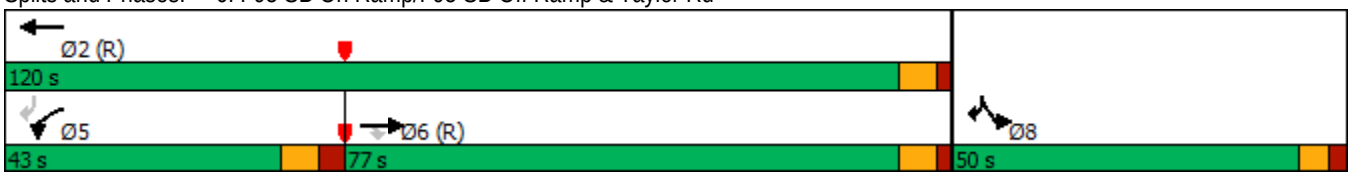


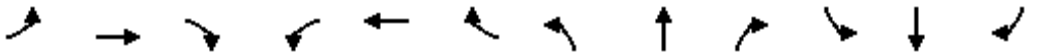
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Future Volume (vph)	0	1799	214	286	1874	0	0	0	0	756	0	587
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.94	1.00	0.88
Ped Bike Factor												
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	5136	1583	1752	5136	0	0	0	0	4990	0	2814
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	5136	1583	1752	5136	0	0	0	0	4990	0	2814
Satd. Flow (RTOR)			129									
Adj. Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Lane Group Flow (vph)	0	1934	230	308	2015	0	0	0	0	813	0	631
Turn Type		NA	Perm	Prot	NA					Prot		custom
Protected Phases		6		5	2					8		8
Permitted Phases			6									5
Total Split (s)		77.0	77.0	43.0	120.0					50.0		50.0
Total Lost Time (s)		6.9	6.9	8.2	6.9					6.2		6.2
Act Effct Green (s)		72.2	72.2	32.7	113.1					43.8		84.7
Actuated g/C Ratio		0.42	0.42	0.19	0.67					0.26		0.50
v/c Ratio		0.89	0.31	0.92	0.59					0.63		0.45
Control Delay		50.6	20.4	130.7	6.4					58.6		28.6
Queue Delay		4.2	0.0	0.0	0.0					0.0		0.0
Total Delay		54.8	20.4	130.7	6.4					58.6		28.6
LOS		D	C	F	A					E		C
Approach Delay		51.1			22.9						45.5	
Approach LOS		D			C						D	
Queue Length 50th (ft)		587	93	312	93					287		247
Queue Length 95th (ft)		684	157	#490	98					336		305
Internal Link Dist (ft)		580			474			540			786	
Turn Bay Length (ft)			250							500		550
Base Capacity (vph)		2182	746	358	3416					1285		1401
Starvation Cap Reductn		188	0	0	0					0		0
Spillback Cap Reductn		0	0	0	63					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.97	0.31	0.86	0.60					0.63		0.45

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 106 (62%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: I-95 SB On Ramp/I-95 SB Off Ramp & Taylor Rd

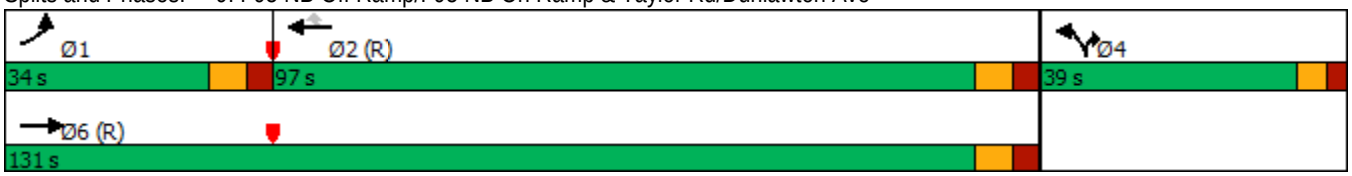




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Future Volume (vph)	286	2268	0	0	2033	699	127	0	359	0	0	0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	1.00	1.00	1.00	0.88	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3367	5136	0	0	6471	1599	1770	0	2787	0	0	0
Satd. Flow (RTOR)						639			86			
Adj. Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Lane Group Flow (vph)	311	2465	0	0	2210	760	138	0	390	0	0	0
Turn Type	Prot	NA			NA	Perm	Prot		Prot			
Protected Phases	1	6			2		4		4			
Permitted Phases						2						
Total Split (s)	34.0	131.0			97.0	97.0	39.0		39.0			
Total Lost Time (s)	8.2	8.2			8.2	8.2	6.5		6.5			
Act Effct Green (s)	20.9	122.8			93.7	93.7	32.5		32.5			
Actuated g/C Ratio	0.12	0.72			0.55	0.55	0.19		0.19			
v/c Ratio	0.75	0.66			0.62	0.65	0.41		0.65			
Control Delay	83.3	14.1			19.2	7.5	64.6		54.6			
Queue Delay	0.0	1.7			0.2	0.9	0.0		0.0			
Total Delay	83.3	15.8			19.4	8.4	64.6		54.6			
LOS	F	B			B	A	E		D			
Approach Delay		23.3			16.6			57.2				
Approach LOS		C			B			E				
Queue Length 50th (ft)	186	398			476	318	137		181			
Queue Length 95th (ft)	m211	446			545	474	211		248			
Internal Link Dist (ft)		474			629			811			574	
Turn Bay Length (ft)						500						
Base Capacity (vph)	510	3710			3567	1168	338		602			
Starvation Cap Reductn	0	1004			554	173	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.61	0.91			0.73	0.76	0.41		0.65			

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 86 (51%), Referenced to phase 2:WBT and 6:EBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

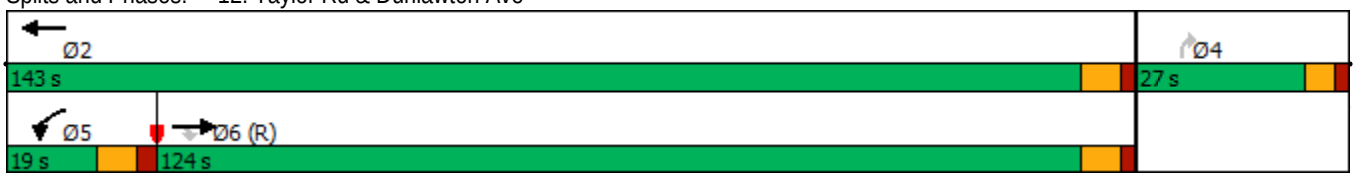
Splits and Phases: 9: I-95 NB Off Ramp/I-95 NB On Ramp & Taylor Rd/Dunlawton Ave

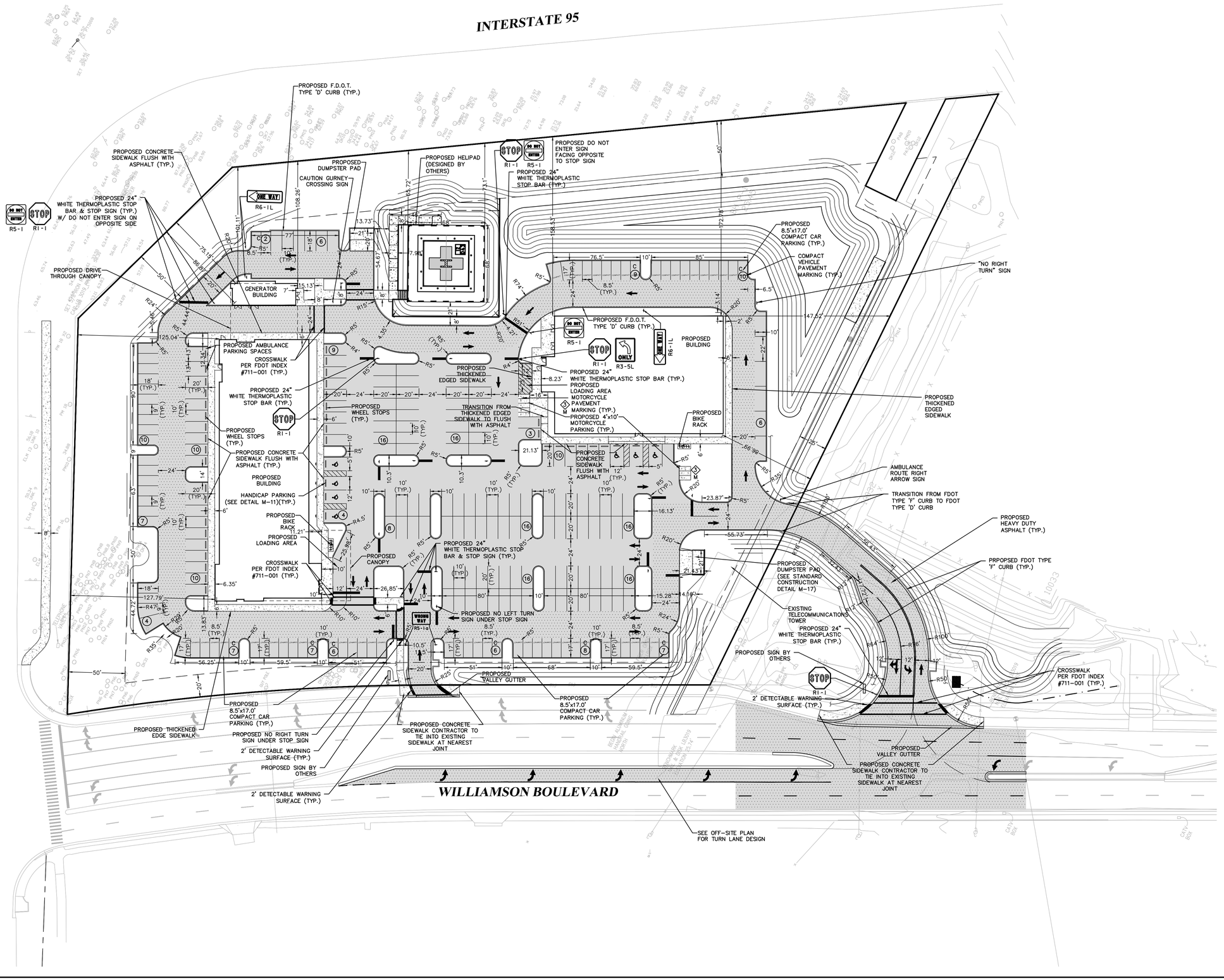


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1884	742	35	2733	0	143
Future Volume (vph)	1884	742	35	2733	0	143
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected			0.950			
Satd. Flow (prot)	5136	1599	1752	5136	0	1611
Flt Permitted			0.950			
Satd. Flow (perm)	5136	1599	1752	5136	0	1611
Satd. Flow (RTOR)		742				115
Adj. Flow (vph)	2004	789	37	2907	0	152
Lane Group Flow (vph)	2004	789	37	2907	0	152
Turn Type	NA	Perm	Prot	NA		Perm
Protected Phases	6		5	2		
Permitted Phases		6				4
Total Split (s)	124.0	124.0	19.0	143.0		27.0
Total Lost Time (s)	7.2	7.2	7.7	7.2		5.8
Act Effct Green (s)	116.8	116.8	11.3	135.8		21.2
Actuated g/C Ratio	0.69	0.69	0.07	0.80		0.12
v/c Ratio	0.57	0.59	0.32	0.71		0.50
Control Delay	9.0	1.6	83.5	9.1		26.0
Queue Delay	0.2	0.2	0.0	0.0		0.0
Total Delay	9.2	1.8	83.5	9.1		26.0
LOS	A	A	F	A		C
Approach Delay	7.1			10.1	26.0	
Approach LOS	A			B	C	
Queue Length 50th (ft)	300	2	40	481		38
Queue Length 95th (ft)	324	0	83	511		116
Internal Link Dist (ft)	629			477	590	
Turn Bay Length (ft)		230	300			
Base Capacity (vph)	3528	1330	116	4102		301
Starvation Cap Reductn	550	106	0	0		0
Spillback Cap Reductn	0	0	0	5		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.67	0.64	0.32	0.71		0.50

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 64 (38%), Referenced to phase 6:EBT, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Taylor Rd & Dunlawton Ave





0 20 40 60 80

SCALE : 1" = 40'

LEGEND:

- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- (3) PROPOSED PARKING COUNT
- PROPOSED HANDICAP PARKING SPACE
- PROPOSED STREET LIGHT
- C (3) SMC — PROPOSED COMPACT CAR PAVEMENT MARKING AND PARKING COUNT
- M (4) MC — PROPOSED MOTORCYCLE PAVEMENT MARKING AND PARKING COUNT

NOTES:
1. ALL HANDICAP RAMPS ARE TO BE CONSTRUCTED PER FDOT INDEX NO. 522-002, LATEST EDITION.
2. ALL SIGNAGE TO BE COORDINATED WITH PROJECT SIGNAGE PACKAGE FOR AESTHETIC PURPOSES.
3. LOADING AREAS SHALL HAVE A MINIMUM CLEARANCE OF 15.0'

ZEV COHEN & ASSOCIATES, INC.
300 INTERCHANGE BLVD., STE. C
OVIEDO, FLORIDA 32765
WWW.ZEVCOHEN.COM

CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL
PLANNING
TRANSPORTATION
(LC-EZ)
(EB-6516)

NO	DATE	BY	SUBMITTALS / REVISIONS
1	01-15-20	KRJTR	CITY OF PORT ORANGE SUBMITTAL

ADVENT HEALTH PORT ORANGE FINAL ENGINEERING PLANS GEOMETRY, SIGNAGE & STRIPING PLAN

CITY OF PORT ORANGE — VOLUSIA COUNTY, FLORIDA

PROJECT NO: ZC19105

DESIGNED BY: KTR

DRAFTED BY: TL/TR

CHECKED BY: BB

DRAWING FILE: 06-19105-GSS
XREFS: XXXXX.DWG
XREFS: XXXXX.DWG

KRISTOPHER ROWLEY LICENSE No 84263 STATE OF FLORIDA PROFESSIONAL ENGINEER
04/03/2020

KRISTOPHER T. ROWLEY, P.E., NO.84263
NOT VALID WITHOUT SEAL

SHEET: C6 OF 17

APPENDIX D:

Supporting Documents for B/C Analysis

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID # :	111111-1-11-11
PROJECT DESCRIPTION:	Williamson Blvd Triple Lefts Improvements
PAY ITEM SPEC YEAR:	January 2020
SUBMITTAL TYPE:	Engineers Estimate
COUNTY:	Volusia
DATE:	March 2, 2020
ENGINEERING CONSULTANT FIRM:	VHB
CONTACT NAME:	Keith Stimpson
PHONE NUMBER:	407-982-4482
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	1 of 1

COMPONENT GROUPS

100 - STRUCTURES	*NOT USED*		
200 - ROADWAY			$381,859.55
300 - SIGNING & PAVEMENT MARKINGS			$2,234.25
400 - LIGHTING	*NOT USED*		
500 - SIGNALIZATION			$115,513.00
550 - ITS	*NOT USED*		
600 - LANDSCAPE / PERIPHERALS	*NOT USED*		
700 - UTILITIES	*NOT USED*		
800 - ARCHITECTURAL	*NOT USED*		
900 - MASS TRANSIT	*NOT USED*		
1000 - INVALID & OTHER ITEMS	*NOT USED*		
	COMPONENT SUB-TOTAL		$499,606.80
(102-1) MOT (Maintenance of Traffic)		10%	$49,960.68
	SUB-TOTAL		$549,567.48
(101-1) MOB (Mobilization)		10%	$54,956.75
	SUB-TOTAL		$604,524.23
PU (Project Unknowns)		30%	$181,357.27
	SUB-TOTAL		$785,881.49
(999-25) Initial Contingency (Do Not Bid)			$30,200.00
	PROJECT GRAND TOTAL		**$816,081.49**

NOTES:

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION	LS	10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC	LS	10%	See Summary Sheet	
0999 25	INITIAL CONTINGENCY AMOUNT, DO NOT BID	LS		$30,200.00	
0110 1 1	CLEARING & GRUBBING	AC	1.273	$10,477.67	$13,342.26
0110 4 10	REMOVAL OF EXIST CONC	SY	1032	$18.56	$19,153.92
0160 4	TYPE B STABILIZATION	SY	1365	$5.00	$6,825.00
0285701	OPTIONAL BASE,BASE GROUP 01	SY		$13.67	
0285709	OPTIONAL BASE,BASE GROUP 09	SY	1044	$20.40	$21,297.60
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	9257	$2.04	$18,884.28
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	172	$93.86	$16,168.32
0337 7 82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	TN	567	$147.45	$83,538.53
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA	7	$5,333.02	$37,331.14
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA	2	$5,785.56	$11,571.12
0425 1451	INLETS, CURB, TYPE J-5, <10'	EA	3	$8,171.92	$24,515.76
0425 2 61	MANHOLES, P-8, <10'	EA	7	$4,519.87	$31,639.09
0430174124	PIPE CULV, OPT MATL, ROUND,24"SD	LF	167	$76.49	$12,773.83
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	1884	$24.43	$46,026.12
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	830	$18.24	$15,139.20
0520 5 11	TRAF SEP CONC-TYPE I, 4' WIDE	LF	437	$44.41	$19,407.17
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	SY	105	$40.44	$4,246.20
200-Roadway		**COMPONENT TOTAL**			**$381,859.55**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0710 11101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	GM	1.754	$1,010.31	$1,772.08
0710 11201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	GM	0.439	$1,052.76	$462.16
300-Signing & Pavement Markings			**COMPONENT TOTAL**		**$2,234.25**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

500-Signalization

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, F& I, OPEN TRENCH	LF	100	$7.73	$773.00
0630 2 12	CONDUIT, F& I, DIRECTIONAL BORE	LF	800	$18.00	$14,400.00
0632 7 1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	PI	1	$5,000.00	$5,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24"	EA	8	$800.00	$6,400.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	2	$1,600.00	$3,200.00
0649 21 26	STEEL MAST ARM ASSEMBLY, F&I, 78-70	EA	1	$71,000.00	$71,000.00
0649 26 5	STEEL MAST ARM ASSEMBLY, REMOVE	EA	1	$5,000.00	$5,000.00
0650 1 14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	AS	9	$880.00	$7,920.00
0653 1 11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	AS	2	$650.00	$1,300.00
0665 1 11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA	2	$260.00	$520.00
500-Signalization		**COMPONENT TOTAL**			**$115,513.00**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID # :	111111-1-11-11
PROJECT DESCRIPTION:	Left and Right Turn to Southbound I-95 Southbound On Ramp
PAY ITEM SPEC YEAR:	January 2020
SUBMITTAL TYPE:	Engineers Estimate
COUNTY:	Volusia
DATE:	March 2, 2020
ENGINEERING CONSULTANT FIRM:	VHB
CONTACT NAME:	Keith Stimpson
PHONE NUMBER:	407-982-4482
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	1 of 1

COMPONENT GROUPS

100 - STRUCTURES	*NOT USED*		
200 - ROADWAY			$101,709.03
300 - SIGNING & PAVEMENT MARKINGS			$439.56
400 - LIGHTING	*NOT USED*		
500 - SIGNALIZATION			$218,393.00
550 - ITS	*NOT USED*		
600 - LANDSCAPE / PERIPHERALS	*NOT USED*		
700 - UTILITIES	*NOT USED*		
800 - ARCHITECTURAL	*NOT USED*		
900 - MASS TRANSIT	*NOT USED*		
1000 - INVALID & OTHER ITEMS	*NOT USED*		
	COMPONENT SUB-TOTAL		$320,541.59
(102-1) MOT (Maintenance of Traffic)		20%	$64,108.32
	SUB-TOTAL		$384,649.91
(101-1) MOB (Mobilization)		10%	$38,464.99
	SUB-TOTAL		$423,114.91
PU (Project Unknowns)		15%	$63,467.24
	SUB-TOTAL		$486,582.14
(999-25) Initial Contingency (Do Not Bid)			$7,800.00
	PROJECT GRAND TOTAL		**$494,382.14**

NOTES:

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION	LS	10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC	LS	20%	See Summary Sheet	
0999 25	INITIAL CONTINGENCY AMOUNT, DO NOT BID	LS		$7,800.00	
0110 1 1	CLEARING & GRUBBING	AC	0.436	$10,477.67	$4,572.46
0110 4 10	REMOVAL OF EXIST CONC	SY	285	$18.56	$5,289.60
0160 4	TYPE B STABILIZATION	SY	1027	$5.00	$5,135.00
0285701	OPTIONAL BASE,BASE GROUP 01	SY	259	$13.67	$3,540.53
0285709	OPTIONAL BASE,BASE GROUP 09	SY	1062	$20.40	$21,664.80
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	1419	$2.04	$2,894.76
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	189	$93.86	$17,784.12
0337 7 82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	TN	151	$147.45	$22,220.72
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA		$5,333.02	
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA		$5,785.56	
0425 1451	INLETS, CURB, TYPE J-5, <10'	EA		$8,171.92	
0425 2 61	MANHOLES, P-8, <10'	EA		$4,519.87	
0430174124	PIPE CULV, OPT MATL, ROUND,24"SD	LF		$76.49	
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF		$24.43	
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	297	$18.24	$5,417.28
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	SY		$40.44	
0520 5 11	TRAF SEP CONC-TYPE I, 4' WIDE	LF	297	$44.41	$13,189.77
			COMPONENT TOTAL		**$101,709.03**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
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PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0710 11101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	GM	0.210	$1,010.31	$212.17
0710 11201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	GM	0.216	$1,052.76	$227.40
			COMPONENT TOTAL		**$439.56**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
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PAGE NUMBER:	

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, F& I, OPEN TRENCH	LF	100	$7.73	$773.00
0630 2 12	CONDUIT, F& I, DIRECTIONAL BORE	LF	600	$18.00	$10,800.00
0632 7 1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	PI	1	$5,000.00	$5,000.00
0633 1121	FIBER OPTIC CABLE, F&I, UG,2-12	LF	100	$2.00	$200.00
0633 3 15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	EA	1	$2,000.00	$2,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24"	EA	8	$800.00	$6,400.00
0639 1122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	AS	1	$2,300.00	$2,300.00
0639 2 1	ELECTRICAL SERVICE WIRE, F&I	LF	100	$7.00	$700.00
0641 2 12	PREST CNC POLE,F&I,TYP P-II SRV POLE	EA	1	$1,300.00	$1,300.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	4	$1,600.00	$6,400.00
0649 21 9	STEEL MAST ARM ASSEMBLY, F&I, 50'- 50'	EA	1	$66,000.00	$66,000.00
0649 21 15	STEEL MAST ARM ASSEMBLY, F&I, 70'	EA	1	$60,000.00	$60,000.00
0649 26 5	STEEL MAST ARM ASSEMBLY, REMOVE	EA	2	$5,000.00	$10,000.00
0650 1 14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	AS	11	$880.00	$9,680.00
0653 1 11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	AS	4	$650.00	$2,600.00
0665 1 11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA	4	$260.00	$1,040.00
0670 5111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	AS	1	$28,000.00	$28,000.00
0684 1 1	MANAGED FIELD ETHERNET SWITCH, F&I	EA	1	$5,200.00	$5,200.00
			COMPONENT TOTAL		**$218,393.00**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID # :	111111-1-11-11
PROJECT DESCRIPTION:	I-95 Southbound Off Ramp Improvements
PAY ITEM SPEC YEAR:	January 2020
SUBMITTAL TYPE:	Engineers Estimate
COUNTY:	Volusia
DATE:	March 2, 2020
ENGINEERING CONSULTANT FIRM:	VHB
CONTACT NAME:	Keith Stimpson
PHONE NUMBER:	407-982-4482
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	1 of 1

COMPONENT GROUPS

100 - STRUCTURES	*NOT USED*		
200 - ROADWAY			$87,238.51
300 - SIGNING & PAVEMENT MARKINGS			$646.60
400 - LIGHTING	*NOT USED*		
500 - SIGNALIZATION			$176,933.00
550 - ITS	*NOT USED*		
600 - LANDSCAPE / PERIPHERALS	*NOT USED*		
700 - UTILITIES	*NOT USED*		
800 - ARCHITECTURAL	*NOT USED*		
900 - MASS TRANSIT	*NOT USED*		
1000 - INVALID & OTHER ITEMS	*NOT USED*		
	COMPONENT SUB-TOTAL		$264,818.11
(102-1) MOT (Maintenance of Traffic)		10%	$26,481.81
	SUB-TOTAL		$291,299.92
(101-1) MOB (Mobilization)		10%	$29,129.99
	SUB-TOTAL		$320,429.92
PU (Project Unknowns)		15%	$48,064.49
	SUB-TOTAL		$368,494.40
(999-25) Initial Contingency (Do Not Bid)			$6,100.00
	PROJECT GRAND TOTAL		**$374,594.40**

NOTES:

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION	LS	10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC	LS	10%	See Summary Sheet	
0999 25	INITIAL CONTINGENCY AMOUNT, DO NOT BID	LS		$6,100.00	
0110 1 1	CLEARING & GRUBBING	AC	0.639	$10,477.67	$6,689.99
0110 4 10	REMOVAL OF EXIST CONC	SY	91	$18.56	$1,688.96
0160 4	TYPE B STABILIZATION	SY	811	$5.00	$4,055.00
0285701	OPTIONAL BASE,BASE GROUP 01	SY	559	$13.67	$7,641.53
0285709	OPTIONAL BASE,BASE GROUP 09	SY	750	$20.40	$15,300.00
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	2328	$2.04	$4,749.12
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	154	$93.86	$14,500.90
0337 7 82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	TN	200	$147.45	$29,495.16
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA		$5,333.02	
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA		$5,785.56	
0425 1451	INLETS, CURB, TYPE J-5, <10'	EA		$8,171.92	
0425 2 61	MANHOLES, P-8, <10'	EA		$4,519.87	
0430174124	PIPE CULV, OPT MATL, ROUND,24"SD	LF		$76.49	
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF		$24.43	
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF		$18.24	
0520 5 11	TRAF SEP CONC-TYPE I, 4' WIDE	LF		$44.41	$44.41
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	SY	76	$40.44	$3,073.44
200-Roadway		**COMPONENT TOTAL**			**$87,238.51**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
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300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0710 11101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	GM	0.640	$1,010.31	$646.60
0710 11201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	GM		$1,052.76	
300-Signing & Pavement Markings			**COMPONENT TOTAL**		**$646.60**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

500-Signalization

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, F& I, OPEN TRENCH	LF	100	$7.73	$773.00
0630 2 12	CONDUIT, F& I, DIRECTIONAL BORE	LF	600	$18.00	$10,800.00
0632 7 1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	PI	1	$5,000.00	$5,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24"	EA	8	$800.00	$6,400.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	4	$1,600.00	$6,400.00
0649 21 9	STEEL MAST ARM ASSEMBLY, F&I, 50'- 50'	EA	1	$66,000.00	$66,000.00
0649 21 15	STEEL MAST ARM ASSEMBLY, F&I, 70'	EA	1	$60,000.00	$60,000.00
0649 26 5	STEEL MAST ARM ASSEMBLY, REMOVE	EA	2	$5,000.00	$10,000.00
0650 1 14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	AS	9	$880.00	$7,920.00
0653 1 11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	AS	4	$650.00	$2,600.00
0665 1 11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA	4	$260.00	$1,040.00
500-Signalization		**COMPONENT TOTAL**			**$176,933.00**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID # :	111111-1-11-11
PROJECT DESCRIPTION:	Taylor Road Improvements
PAY ITEM SPEC YEAR:	January 2020
SUBMITTAL TYPE:	Engineers Estimate
COUNTY:	Volusia
DATE:	March 2, 2020
ENGINEERING CONSULTANT FIRM:	VHB
CONTACT NAME:	Keith Stimpson
PHONE NUMBER:	407-982-4482
FILE VERSION:	EE_07-22_Rev26
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COMPONENT GROUPS

100 - STRUCTURES	*NOT USED*		
200 - ROADWAY			$402,712.68
300 - SIGNING & PAVEMENT MARKINGS			$3,901.21
400 - LIGHTING	*NOT USED*		
500 - SIGNALIZATION	*NOT USED*		
550 - ITS	*NOT USED*		
600 - LANDSCAPE / PERIPHERALS	*NOT USED*		
700 - UTILITIES	*NOT USED*		
800 - ARCHITECTURAL	*NOT USED*		
900 - MASS TRANSIT	*NOT USED*		
1000 - INVALID & OTHER ITEMS	*NOT USED*		
	COMPONENT SUB-TOTAL		$406,613.89
(102-1) MOT (Maintenance of Traffic)		15%	$60,992.08
	SUB-TOTAL		$467,605.97
(101-1) MOB (Mobilization)		10%	$46,760.60
	SUB-TOTAL		$514,366.57
PU (Project Unknowns)		30%	$154,309.97
	SUB-TOTAL		$668,676.54
(999-25) Initial Contingency (Do Not Bid)			$33,400.00
	PROJECT GRAND TOTAL		**$702,076.54**

NOTES:

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION	LS	10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC	LS	15%	See Summary Sheet	
0999 25	INITIAL CONTINGENCY AMOUNT, DO NOT BID	LS		$33,400.00	
0110 1 1	CLEARING & GRUBBING	AC	0.610	$10,477.67	$6,391.38
0110 4 10	REMOVAL OF EXIST CONC	SY	88	$18.56	$1,633.28
0160 4	TYPE B STABILIZATION	SY	2297	$5.00	$11,485.00
0285701	OPTIONAL BASE,BASE GROUP 01	SY	140	$13.67	$1,913.80
0285709	OPTIONAL BASE,BASE GROUP 09	SY	2227	$20.40	$45,430.80
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	17955	$2.04	$36,627.42
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	375	$93.86	$35,212.05
0337 7 82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	TN	1118	$147.45	$164,803.25
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA	3	$5,333.02	$15,999.06
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA		$5,785.56	
0425 1451	INLETS, CURB, TYPE J-5, <10'	EA		$8,171.92	
0425 2 61	MANHOLES, P-8, <10'	EA	3	$4,519.87	$13,559.61
0430174124	PIPE CULV, OPT MATL, ROUND,24"SD	LF	38	$76.49	$2,906.62
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	2285	$24.43	$55,822.55
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	352	$18.24	$6,420.48
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	SY	52	$40.44	$2,102.88
0520 70	CONCRETE TRAFFIC SEPARATOR, SP- VAR WIDT	SY	30	$80.15	$2,404.50
0520 5 11	TRAF SEP CONC-TYPE I, 4' WIDE	LF			
200-Roadway			**COMPONENT TOTAL**		**$402,712.68**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
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300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0710 11101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	GM	3.058	$1,010.31	$3,089.53
0710 11201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	GM	0.771	$1,052.76	$811.68
300-Signing & Pavement Markings			**COMPONENT TOTAL**		**$3,901.21**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID # :	111111-1-11-11
PROJECT DESCRIPTION:	Sidwalk Connectivity along the South side of Taylor Road
PAY ITEM SPEC YEAR:	January 2020
SUBMITTAL TYPE:	Engineers Estimate
COUNTY:	Volusia
DATE:	March 2, 2020
ENGINEERING CONSULTANT FIRM:	VHB
CONTACT NAME:	Keith Stimpson
PHONE NUMBER:	407-982-4482
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	1 of 1

COMPONENT GROUPS

100 - STRUCTURES	*NOT USED*		
200 - ROADWAY			$37,017.11
300 - SIGNING & PAVEMENT MARKINGS			$2,063.07
400 - LIGHTING	*NOT USED*		
500 - SIGNALIZATION	*NOT USED*		
550 - ITS	*NOT USED*		
600 - LANDSCAPE / PERIPHERALS	*NOT USED*		
700 - UTILITIES	*NOT USED*		
800 - ARCHITECTURAL	*NOT USED*		
900 - MASS TRANSIT	*NOT USED*		
1000 - INVALID & OTHER ITEMS	*NOT USED*		
	COMPONENT SUB-TOTAL		$39,080.18
(102-1) MOT (Maintenance of Traffic)		10%	$3,908.02
	SUB-TOTAL		$42,988.20
(101-1) MOB (Mobilization)		10%	$4,298.82
	SUB-TOTAL		$47,287.02
PU (Project Unknowns)		10%	$4,728.70
	SUB-TOTAL		$52,015.72
(999-25) Initial Contingency (Do Not Bid)			$2,600.00
	PROJECT GRAND TOTAL		**$54,615.72**

NOTES:

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION

FINANCIAL PROJECT ID:	111111-1-11-11
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200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION	LS	10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC	LS	10%	See Summary Sheet	
0999 25	INITIAL CONTINGENCY AMOUNT, DO NOT BID	LS		$2,600.00	
0110 1 1	CLEARING & GRUBBING	AC	0.279	$10,477.67	$2,922.22
0110 4 10	REMOVAL OF EXIST CONC	SY		$18.56	
0160 4	TYPE B STABILIZATION	SY		$5.00	
0285701	OPTIONAL BASE,BASE GROUP 01	SY		$13.67	
0285709	OPTIONAL BASE,BASE GROUP 09	SY		$20.40	
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY		$2.04	
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN		$93.86	
0337 7 82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	TN		$147.45	
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA		$5,333.02	
0425 1361	INLETS, CURB, TYPE P-6, <10'	EA		$5,785.56	
0425 1451	INLETS, CURB, TYPE J-5, <10'	EA		$8,171.92	
0425 2 61	MANHOLES, P-8, <10'	EA		$4,519.87	
0430174124	PIPE CULV, OPT MATL, ROUND,24"SD	LF		$76.49	
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF		$24.43	
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF		$18.24	
0520 5 11	TRAF SEP CONC-TYPE I, 4' WIDE	LF		$44.41	$44.41
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	SY	842	$40.44	$34,050.48
200-Roadway		**COMPONENT TOTAL**			**$37,017.11**

ENGINEER'S ESTIMATE
FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
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300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0710 11101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	GM		$1,010.31	$1,010.31
0710 11201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	GM		$1,052.76	$1,052.76
300-Signing & Pavement Markings			**COMPONENT TOTAL**		**$2,063.07**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 5

FINANCIAL PROJECT ID:	111111-1-11-11
FILE VERSION:	EE_07-22_Rev26
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Lighting Cost - Taylor Road Feasibility Study

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 12	CONDUIT, F& I, DIRECTIONAL BORE	LF	1000	$20.31	$20,310.00
0715 1 12	LIGHTING CONDUCTORS, F&I, INSUL,NO.8-6	LF	3000	$1.50	$4,500.00
0715 4 14	LIGHT POLE COMPLETE, F&I- STD, 45'	EA	8	$6,040.00	$48,320.00
0715 5 31	LUMINAIRE & BRACKET ARM, F&I NEW	EA	21	$1,600.00	$33,600.00
				COMPONENT TOTAL	**$106,730.00**

Network Totals

Number of Intersections	6
Control Delay / Veh (s/v)	27
Queue Delay / Veh (s/v)	2
Total Delay / Veh (s/v)	29
Total Delay (hr)	183
Stops / Veh	0.48
Stops (#)	11090
Average Speed (mph)	10
Total Travel Time (hr)	245
Distance Traveled (mi)	2543
Fuel Consumed (gal)	349
Fuel Economy (mpg)	7.3
CO Emissions (kg)	24.42
NOx Emissions (kg)	4.75
VOC Emissions (kg)	5.66
Unserved Vehicles (#)	24
Vehicles in dilemma zone (#)	370
Performance Index	214.1

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	27
Queue Delay / Veh (s/v)	1
Total Delay / Veh (s/v)	28
Total Delay (hr)	145
Stops / Veh	0.58
Stops (#)	10890
Average Speed (mph)	12
Total Travel Time (hr)	207
Distance Traveled (mi)	2565
Fuel Consumed (gal)	320
Fuel Economy (mpg)	8.0
CO Emissions (kg)	22.35
NOx Emissions (kg)	4.35
VOC Emissions (kg)	5.18
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	330
Performance Index	175.1

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	26
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	27
Total Delay (hr)	140
Stops / Veh	0.57
Stops (#)	10682
Average Speed (mph)	13
Total Travel Time (hr)	203
Distance Traveled (mi)	2565
Fuel Consumed (gal)	314
Fuel Economy (mpg)	8.2
CO Emissions (kg)	21.93
NOx Emissions (kg)	4.27
VOC Emissions (kg)	5.08
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	332
Performance Index	170.1

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	27
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	27
Total Delay (hr)	144
Stops / Veh	0.55
Stops (#)	10428
Average Speed (mph)	12
Total Travel Time (hr)	206
Distance Traveled (mi)	2565
Fuel Consumed (gal)	313
Fuel Economy (mpg)	8.2
CO Emissions (kg)	21.89
NOx Emissions (kg)	4.26
VOC Emissions (kg)	5.07
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	367
Performance Index	172.8

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	26
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	27
Total Delay (hr)	139
Stops / Veh	0.56
Stops (#)	10519
Average Speed (mph)	13
Total Travel Time (hr)	201
Distance Traveled (mi)	2565
Fuel Consumed (gal)	311
Fuel Economy (mpg)	8.3
CO Emissions (kg)	21.72
NOx Emissions (kg)	4.23
VOC Emissions (kg)	5.03
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	329
Performance Index	168.2

Network Totals

Number of Intersections	6
Control Delay / Veh (s/v)	30
Queue Delay / Veh (s/v)	5
Total Delay / Veh (s/v)	35
Total Delay (hr)	274
Stops / Veh	0.48
Stops (#)	13290
Average Speed (mph)	9
Total Travel Time (hr)	345
Distance Traveled (mi)	2941
Fuel Consumed (gal)	456
Fuel Economy (mpg)	6.5
CO Emissions (kg)	31.85
NOx Emissions (kg)	6.20
VOC Emissions (kg)	7.38
Unserved Vehicles (#)	109
Vehicles in dilemma zone (#)	495
Performance Index	310.8

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	32
Queue Delay / Veh (s/v)	2
Total Delay / Veh (s/v)	35
Total Delay (hr)	216
Stops / Veh	0.56
Stops (#)	12470
Average Speed (mph)	10
Total Travel Time (hr)	288
Distance Traveled (mi)	3002
Fuel Consumed (gal)	404
Fuel Economy (mpg)	7.4
CO Emissions (kg)	28.27
NOx Emissions (kg)	5.50
VOC Emissions (kg)	6.55
Unserved Vehicles (#)	9
Vehicles in dilemma zone (#)	491
Performance Index	250.4

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	32
Queue Delay / Veh (s/v)	2
Total Delay / Veh (s/v)	34
Total Delay (hr)	212
Stops / Veh	0.55
Stops (#)	12442
Average Speed (mph)	11
Total Travel Time (hr)	285
Distance Traveled (mi)	3002
Fuel Consumed (gal)	401
Fuel Economy (mpg)	7.5
CO Emissions (kg)	28.05
NOx Emissions (kg)	5.46
VOC Emissions (kg)	6.50
Unserved Vehicles (#)	9
Vehicles in dilemma zone (#)	472
Performance Index	246.6

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	31
Queue Delay / Veh (s/v)	1
Total Delay / Veh (s/v)	31
Total Delay (hr)	194
Stops / Veh	0.54
Stops (#)	12209
Average Speed (mph)	11
Total Travel Time (hr)	267
Distance Traveled (mi)	3002
Fuel Consumed (gal)	385
Fuel Economy (mpg)	7.8
CO Emissions (kg)	26.93
NOx Emissions (kg)	5.24
VOC Emissions (kg)	6.24
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	455
Performance Index	228.1

Network Totals

Number of Intersections	4
Control Delay / Veh (s/v)	30
Queue Delay / Veh (s/v)	1
Total Delay / Veh (s/v)	30
Total Delay (hr)	189
Stops / Veh	0.55
Stops (#)	12374
Average Speed (mph)	11
Total Travel Time (hr)	262
Distance Traveled (mi)	3002
Fuel Consumed (gal)	383
Fuel Economy (mpg)	7.8
CO Emissions (kg)	26.80
NOx Emissions (kg)	5.21
VOC Emissions (kg)	6.21
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	468
Performance Index	223.3

Benefit - Cost Analysis Alternative 1

Benefit Period		Measures of Effectiveness		
		Total Stops	**Total Delay (veh-hrs)**	**Fuel Consumption (gal)**
AM Peak Hour	2025 No Build	11,090	183.0	349.0
	2025 Alt 1	10,890	145.0	320.0
PM Peak Hour	2025 No Build	13,290	274.0	456.0
	2025 Alt 1	12,470	216.0	404.0
Estimated Daily (3 hours each for AM & PM)	2025 No Build	73,140	1,371	2,415
	2025 Alt 1	70,080	1,083	2,172
Estimated Daily Savings		3,060	288.0	243.0
Estimated Unit Cost		$0.014	$18.120	$2.280
Daily User Benefit by MOE		$42.840	$5,218.560	$554.040
Daily User Benefit Total		5815.44		
Annual User Benefit		**$1,744,632**		
Total Annual Cost		**$207,991**		
Benefit Cost Ratio		**8.4**		

MOE Values	Unit Value	Source
Stops ($)	0.014	Transyt 7F
Delay ($)	18.12	2019 Urban Mobility Report published by TTI
Fuel ($/gal)	2.28	2019 Urban Mobility Report published by TTI
Days per Year	300	Average Days with Observable AM & PM Peaking Charac

Notes: 1)The service life of the improvement was kept as twenty (20) years. 2) Interest rate of 4% was used in arriving at the annual cost of improvements. 3) 1.75 M for drainage improvements is added to the cost estimate based on input received from City of Port Orange

Benefit - Cost Analysis Alternative 2

Benefit Period		Measures of Effectiveness		
		Total Stops	**Total Delay (veh-hrs)**	**Fuel Consumption (gal)**
AM Peak Hour	2025 No Build	11,090	183	349
	2025 Alt 2	10,682	140.0	314.0
PM Peak Hour	2025 No Build	13,290	274	456
	2025 Alt 2	12,442	212.0	401.0
Estimated Daily (3 hours each for AM & PM)	2025 No Build	73,140	1,371	2,415
	2025 Alt 2	69,372	1,056	2,145
Estimated Daily Savings		3,768	315.0	270.0
Estimated Unit Cost		$0.014	$18.120	$2.280
Daily User Benefit by MOE		$52.752	$5,707.800	$615.600
Daily User Benefit Total		6376.15		
Annual User Benefit		**$1,912,846**		
Total Annual Cost		**$268,040**		
Benefit Cost Ratio		**7.1**		

MOE Values	Unit Value	Source
Stops ($)	0.014	Transyt 7F
Delay ($)	18.12	2019 Urban Mobility Report published by TTI
Fuel ($/gal)	2.28	2019 Urban Mobility Report published by TTI
Days per Year	300	Average Days with Observable AM & PM Peaking Charac

Notes: 1)The service life of the improvement was kept as twenty (20) years. 2) Interest rate of 4% was used in arriving at the annual cost of improvements. 3) 1.75 M for drainage improvements is added to the cost estimate based on input received from City of Port Orange

Benefit - Cost Analysis Alternative 3

Benefit Period		Measures of Effectiveness		
		Total Stops	**Total Delay (veh-hrs)**	**Fuel Consumption (gal)**
AM Peak Hour	2025 No Build	11,090	183.0	349.0
	2025 Alt 3	10,428	144.0	313.0
PM Peak Hour	2025 No Build	13,290	274.0	456.0
	2025 Alt 3	12,209	194.0	385.0
Estimated Daily (3 hours each for AM & PM)	2025 No Build	73,140	1,371	2,415
	2025 Alt 3	67,911	1,014	2,094
Estimated Daily Savings		5,229	357.0	321.0
Estimated Unit Cost		$0.014	$18.120	$2.280
Daily User Benefit by MOE		$73.206	$6,468.840	$731.880
Daily User Benefit Total		7273.93		
Annual User Benefit		**$2,182,178**		
Total Annual Cost		**$244,369**		
Benefit Cost Ratio		**8.9**		

MOE Values	Unit Value	Source
Stops ($)	0.014	Transyt 7F
Delay ($)	18.12	2019 Urban Mobility Report published by TTI
Fuel ($/gal)	2.28	2019 Urban Mobility Report published by TTI
Days per Year	300	Average Days with Observable AM & PM Peaking Charac

Notes: 1)The service life of the improvement was kept as twenty (20) years. 2) Interest rate of 4% was used in arriving at the annual cost of improvements. 3) 1.75 M for drainage improvements is added to the cost estimate based on input received from City of Port Orange

Benefit - Cost Analysis Alternative 4

Benefit Period		Measures of Effectiveness		
		Total Stops	**Total Delay (veh-hrs)**	**Fuel Consumption (gal)**
AM Peak Hour	2025 No Build	11,090	183.0	349.0
	2025 Alt 4	10,519	139.0	311.0
PM Peak Hour	2025 No Build	13,290	274.0	456.0
	2025 Alt 4	12,374	189.0	383.0
Estimated Daily (3 hours each for AM & PM)	2025 No Build	73,140	1,371	2,415
	2025 Alt 4	68,679	984	2,082
Estimated Daily Savings		4,461	387.0	333.0
Estimated Unit Cost		$0.014	$18.120	$2.280
Daily User Benefit by MOE		$62.454	$7,012.440	$759.240
Daily User Benefit Total		7834.13		
Annual User Benefit		**$2,350,240**		
Total Annual Cost		**$304,418**		
Benefit Cost Ratio		**7.7**		

MOE Values	Unit Value	Source
Stops ($)	0.014	Transyt 7F
Delay ($)	18.12	2019 Urban Mobility Report published by TTI
Fuel ($/gal)	2.28	2019 Urban Mobility Report published by TTI
Days per Year	300	Average Days with Observable AM & PM Peaking Charac

Notes: 1)The service life of the improvement was kept as twenty (20) years. 2) Interest rate of 4% was used in arriving at the annual cost of improvements. 3) 1.75 M for drainage improvements is added to the cost estimate based on input received from City of Port Orange