Anderson Mill Road
Appendix E: Traffic Study Report

Anderson Mill Road Regional Mobility Project Traffic Analysis

Stantec

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1.0 INTRODUCTION

1.1 PROJECT PURPOSE AND GOAL

The purpose of the Anderson Mill Road Regional Mobility Project is to identify recommendations to enhance safety and mobility for all road users. The project area under study includes Anderson Mill Road from US Highway 183 (US-183) to Spicewood Parkway. This 1-mile stretch acts as an arterial roadway, connecting various residential developments to US-183, as well as the commercial centers in its vicinity. The Regional Mobility Project on Anderson Mill Road was funded by City of Austin's 2016 Mobility Bond. The study identifies existing conditions, roadway characteristics, crash analysis, Synchro micro-simulation modeling, travel time, and model calibration. Analysis will be performed on existing conditions, as well as future, in order to determine transportation needs along the corridor and provide appropriate solutions. Recommendations presented in this traffic analysis are preliminary and will be further refined by the City of Austin for the Anderson Mill Road Preliminary Engineering Report; they should not be considered as final.

1.2 PROJECT AREA

The project area under study includes Anderson Mill Road from US-183 to Spicewood Parkway. ***Exhibit 1*** available in the appendix of this report shows the limits of the project study area.

Distributed along Anderson Mill Road are multiple residential developments, commercial centers, churches, and civic developments. Although there is only one (1) school along Anderson Mill Road within the study area, Spicewood Elementary, there are multiple others within the vicinity that generate traffic on Anderson Mill Road. These include Grisham Middle School, Anderson Mill Elementary School, and Westwood High School. The entire study area lies within the Round Rock Independent School District.

The area surrounding Anderson Mill Road is zoned for a variety of land uses, including commercial, office, civic uses, as well as single and multifamily residences. The commercial areas are primarily clustered near US-183 Service Road, on the east end of the project limits; there are also attracters to the west near Ranch Road 620, beyond the project limits. The Capital Metro bus line services Anderson Mill Road in the study area as far west as Olson Drive.

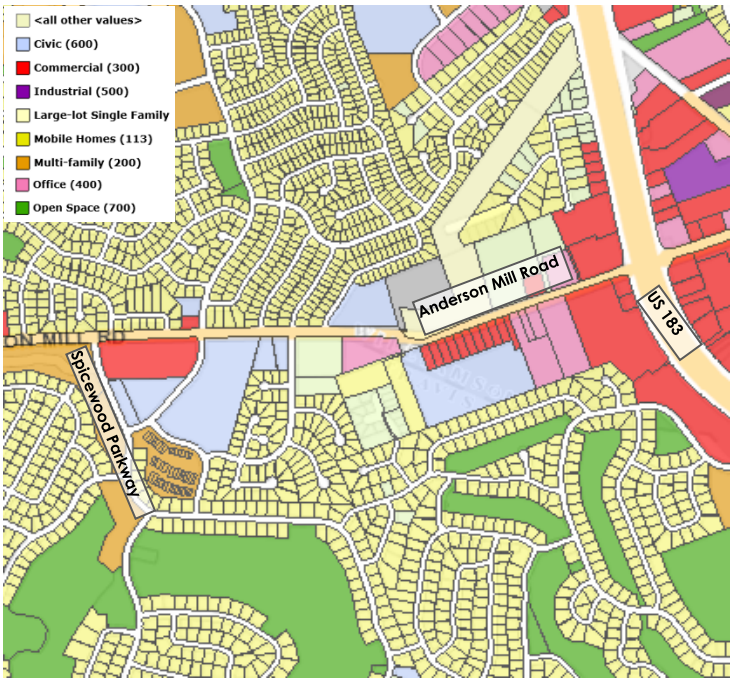
2.0 EXISTING CORRIDOR CONDITIONS

This section of the report describes the existing corridor conditions by examining land uses, roadway characteristics, and transportation conditions of the Anderson Mill Road study area. As a part of this analysis, the current roadway network, intersection conditions, transit routes, and bike and pedestrian facilities, have all been evaluated to identify opportunities for improvement.

2.1 LAND USE

Anderson Mill Road provides access to a variety of land uses. The majority of lots to the north and south of Anderson Mill Road are designated for single-family use. Fronting Anderson Mill Road are several civic uses, multifamily, and commercial developments. Most of the commercial developments are located at the extents of the study limits at Spicewood Parkway and US-183. The existing land use map can be seen in **Figure 1** below.

Figure 1 Existing Land Use Map



CHARACTER AREAS

Distributed along Anderson Mill Road are multiple residential developments, commercial centers, churches, schools, and civic developments. Below is a brief description of the land uses located along the Anderson Mill Road Corridor:

Spicewood Parkway - Anderson Mill Cutoff

The northern section along this segment includes mostly residential area and a small shopping center. The southern section along this section includes assisted living care, shopping center, commercial offices, Spicewood Elementary School and residential areas.

Anderson Mill Cutoff - US Highway 183

There are several shopping centers and mixed used commercial land uses along the northern and southern sections of this segment. The concentration of the bigger shopping centers and commercial land uses are located closer to the US-183 Southbound Frontage Road Area. Some of the land uses along the northern section include a gas station (Valero), a funeral home (Cook Walden-Chapel of the Hills), and a church (Bethany United Methodist Church). Some of the land uses along the southern section include home care assistance providers (Home Care Providers of Austin, Visiting Angels), a church (Unity Church) and smaller commercial uses (Insurance Providers).

2.2 ROADWAY CHARACTERISTICS

The roadway characteristics described below provide an overview about the existing conditions of the roadways within the project limits. Basic information of the existing lane configurations, pedestrian facilities and bike facilities is provided below. This study primarily focuses on providing improvements for vehicular mobility along the Anderson Mill Road. Bicycle and pedestrian facilities have been discussed in Section 5.2 of this report.

Anderson Mill Road

Within the study area boundaries; Anderson Mill Road has a four-lane cross-section. There are left-turn lanes throughout the study area: one (1) westbound left-turn lane onto Spicewood Parkway, one (1) westbound left-turn lane into the shopping center at 13450 Research Boulevard, an eastbound left-turn lane onto US-183 Northbound Frontage Road (NBFR) and a westbound left-turn lane onto US-183 Southbound Frontage Road (SBFR). Both east and westbound approaches at US-183 frontage roads have channelized right-turn lanes. There is also a dedicated westbound right-turn lane onto Millwright Parkway. The posted speed limit along Anderson Mill Road is 40 miles per hour (mph). According to 24-hour counts collected on Anderson Mill Road, east of Spicewood Parkway, the average daily traffic volume (ADT) was 28,171 vehicles per day. Just west of US-183, it was recorded at 33,854 vehicles per day. The pavement condition of

Anderson Mill Road between Spicewood Parkway and US-183 is in fair condition with longitudinal cracking and spot patching repairs.

Spicewood Parkway

Spicewood Parkway is a 2-lane, two-way undivided road that provides access to Hope Presbyterian Church and single-family residences to the south. The posted speed limit on Spicewood Parkway is 30 mph. The lane configuration along the northbound approach includes an exclusive left-turn lane and a shared left-right lane. Sidewalks exists on the both the northern and southern legs of the intersection. Marked pedestrian crosswalk is available on the eastern and southern legs of the intersection.

Wagon Gap Drive

Wagon Gap Drive is a 2-lane, two-way undivided road that provides access to single-family residences to the north. The posted speed limit on Wagon Gap Drive is 25 mph. The lane configuration along the southbound approach includes a shared left-right lane. Sidewalks exists on the northwest side of the intersection. There is no pedestrian cross walk available at this intersection.

Burmaster Lane

Burmaster Lane is a 2-lane, two-way undivided road that provides access to single-family residences to the north. The posted speed limit on Burmaster Lane is assumed to be 25 mph. The lane configuration along the southbound approach includes a shared left-right lane. There are no sidewalks or pedestrian cross walks at this intersection.

Millwright Parkway/Olson Drive

Millwright Parkway/Olson Drive is a 2-lane, two-way undivided road in both directions that provide access to Hope Presbyterian Church, Waldorf School, and Spicewood Elementary School to the south and single-family residences to the north. The posted speed limit north of Anderson Mill Road is 30 mph and 25 mph south of Anderson Mill Road. The lane configuration along the northbound approach includes a shared left-thru lane and a right-turn lane. The lane configuration along the southbound approach includes a shared thru-right lane and a left-turn lane. Existing sidewalk ends at the northern leg of the intersection. Marked pedestrian cross walks are available on the western and eastern legs of the intersection to cross Anderson Mill Road, and unmarked pedestrian crosswalks area available along the northern and southern legs of the intersection to cross Millwright Parkway/Olson Drive. The average daily traffic volume (ADT) on Olson Drive, south of Anderson Mill Road is 6,365 per the most recent traffic data available from the City of Austin (2005).

Nene Drive

Nene Drive is a 2-lane, two-way undivided road that provides access to single-family residences to the north. Nene Drive forms a T-intersection with Anderson Mill Road. The posted speed limit on Nene Drive is 25 mph. The lane configuration along the southbound approach includes a shared left-right lane. Sidewalks exists on the northern leg of the intersection. Unmarked pedestrian cross walk is available along the northern leg of the intersection.

Swan Drive

Swan Drive is a 2-lane, two-way undivided road, that provides access to mostly single-family residences to the north and south. The posted speed limit on Swan Drive is 25mph north of Anderson Mill Road is and 30 mph south of Anderson Mill Road. The lane configuration along the northbound approach includes a shared left-thru-right lane. The lane configuration along the southbound approach includes a shared left-thru-right lane. Sidewalks exists on the northern leg of the intersection. Unmarked pedestrian cross walks are available along the northern and southern leg of this intersection. The average daily traffic volume (ADT) along Swan Drive, south of Anderson Mill Road is 2,376 per the most recent traffic data available from the City of Austin (2005).

Swallow Drive

Swallow Drive is a 2-lane, two-way undivided road that provides access to single and multifamily residences to the north. The posted speed limit along Swallow Drive is 25 mph. The lane configuration along the southbound approach includes a shared left-thru-right lane. The southern leg of Swallow Drive provides driveway access to Autumn Leaves, a memory care residence. Sidewalks exists on the northern and southern legs of the intersection. There are unmarked pedestrian cross walks available at this intersection.

Bethany Church Drive and Unity Church Drive

Bethany Church Drive and Unity Church Drive are 2-lane private roadways that provide access to Bethany United Methodist Church to the north and Unity Church of the Hills to the south and is approximately halfway between the limits of the study area. The posted speed limit along two (2) church driveways is assumed to be 25 mph. The lane configuration along the northbound approach of Unity Church Drive includes a shared left-thru lane and right-turn lane. The lane configuration along southbound approach of Bethany Church Drive includes a shared left-thru lane and a shared right-thru lane. Sidewalks exists on the northern leg of the intersection that end in ADA ramps with an unmarked pedestrian crosswalk to cross Bethany Church Drive. Marked pedestrian crosswalk is available on the western leg of the intersection to cross Anderson Mill Road. Unmarked pedestrian crosswalk is available along the southern leg of the intersection to cross Unity Church Drive.

US Highway 183 Northbound Frontage Road (US-183 NBFR)

US-183 NBFR is a 3-lane one-way northbound frontage road at the eastern limit of the corridor study area. The lane configuration along the northbound approach of US-183 NBFR at Anderson Mill Road, includes a U-turn lane, two (2) dedicated left lanes, two (2) through lanes with a shared channelized right-turn lane. The posted speed limit along US-183 NBFR is 50 mph. Marked pedestrian crosswalks are available along the southern, eastern, and northern legs at the intersection of US-183 NBFR and Anderson Mill Road. This section is under the ownership and management of TXDOT.

US Highway 183 Southbound Frontage Road (US-183 SBFR)

US-183 SBFR is a 3-lane one-way southbound frontage road at the eastern limit of the corridor study area. The lane configuration along the southbound approach of US-183 NBFR at Anderson Mill Road includes two (2) dedicated left lanes with a shared channelized U-turn and two (2) through lanes with a shared channelized right-turn lane. The posted speed limit along US-183 SBFR is 50 mph. Marked pedestrian crosswalks are available along the southern, western, and northern legs at the intersection of US-183 NBFR and Anderson Mill Road. This section is under the ownership and management of TXDOT.

3.0 DATA COLLECTION

GRAM Traffic Counting, Inc. (GRAM) was contracted to collect traffic counts for the study intersections. Manual turning movement counts (TMC) were collected on May 17, 2017 and May 18, 2017 from 7:00-9:00 AM and from 4:00-6:00 PM during a typical school day. Additionally, Mid-Day (1:00-3:00 PM) manual turning movement counts were collected for two (2) of the study intersections: Anderson Mill Road and Spicewood Parkway, and Anderson Mill Road and Olson Drive. Peak Hour turning movement counts at the following intersections were collected:

7-9AM, 1-3PM, and 4-6PM Turning Movement Counts

- Anderson Mill Road and Spicewood Parkway [A]
- Anderson Mill Road and Wagon Gap Drive
- Anderson Mill Road and Burmaster Lane
- Anderson Mill Road and Millwright Parkway/Olson Drive [A]
- Anderson Mill Road and Nene Drive

- Anderson Mill Road and Swan Drive
- Anderson Mill Road and Swallow Drive
- Anderson Mill Road and Bethany Church/Unity Church Drive
- Anderson Mill Road and 9707 Anderson Mill Road
- Anderson Mill Road and Commercial Driveway
- Anderson Mill Road and US Highway 183 Southbound Frontage Road
- Anderson Mill Road and US Highway 183 Northbound Frontage Road

[A] Mid-day (1-3 PM) manual turning movement counts were also collected for two (2) of the study intersections. The peak hour at each intersection varies between 7:00-9:00 AM and 4:00-6:00 PM. A consistent peak of 8:00-9:00 AM and 4:30-5:30 PM was modeled across all the intersections was utilized for the purposes of this traffic analysis. ***Exhibit 12*** available in the Appendix of the report shows the reported AM & PM peak hour for each intersection within the project limits per count data captured.

Exhibit 2, available in the appendix of this report, provides the AM and PM peak hour turning movements and signal timing for the signalized intersections within the Anderson Mill Road between the limits of Spicewood Parkway and US-183 made available by City of Austin.

<u>24-Hour Average Daily Traffic Counts</u>

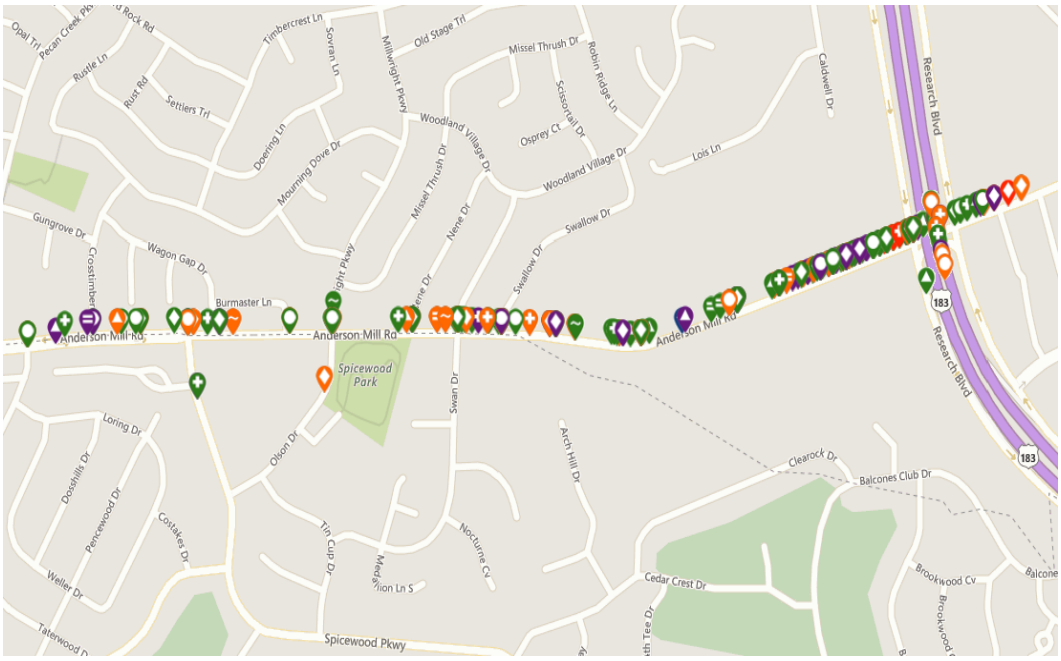
- Spicewood Parkway south of Anderson Mill
- Millwright Parkway south of Anderson Mill
- Wagon Gap Drive north of Anderson Mill
- Burmaster Lane north of Anderson Mill
- Anderson Mill west of Burmaster Lane
- Anderson Mill east of Bethany Church/Unity Church

In addition to the traffic counts, Stantec Consulting Services Inc. (Stantec) traffic engineers drove the corridor to obtain existing road travel times along the corridor for the purposes of properly calibrating the SimTraffic model. Corridor travel times runs were performed September 26, 2017 through September 28 between 7:15AM-8:45AM during the AM peak, 2:00PM-3:00 PM during the mid-day peak and 4:30PM-6:00PM during the PM peak while all schools are in session. Data was then evaluated and averaged to be utilized within the model. Detailed information of the data collected from the travel time run is available as ***Exhibit 9*** in the Appendix of this report.

4.0 CRASH ANALYSIS

The City of Austin and Texas Department of Transportation (TXDOT) provided crash analysis data for collisions occurring in the study area between June 13, 2012 and June 13, 2017. Complete Crash analysis data provided by the City of Austin is included in the Appendix of this report as ***Exhibit 3***. **Figure 2** below made available from TXDOT shows a graphical representation of the crash data locations along the corridor.

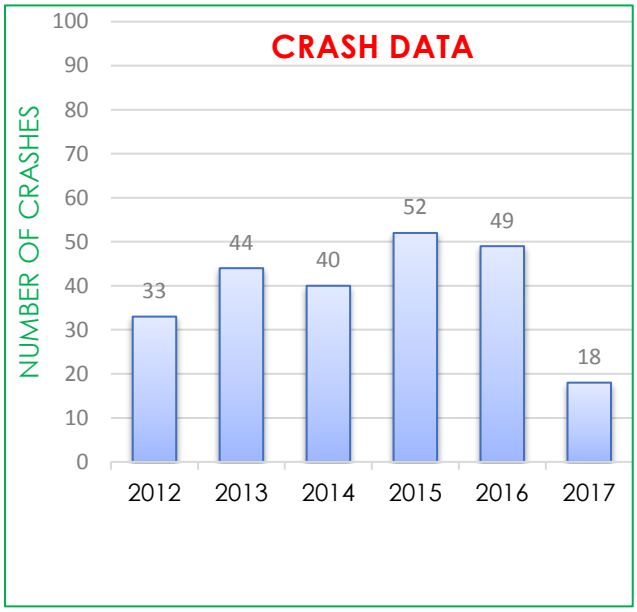
Figure 2 Map of Crash Locations



Source: TxDOT Crash Records Information System

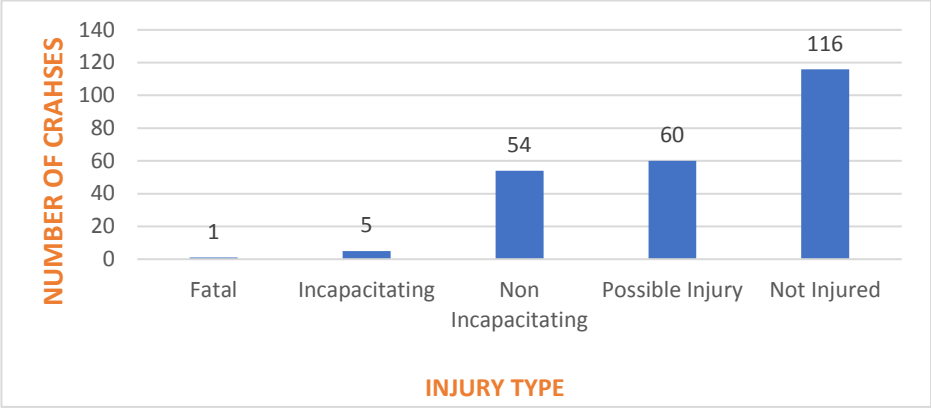
Stantec has evaluated the existing crash data to provide recommendations to improve safety throughout the corridor. There are total of 236 crashes (47 per year) between June 13, 2012 and June 13, 2017. The breakdown of total crashes per year are shown in **Figure 3** below:

Figure 3 Number of Crashes by Year



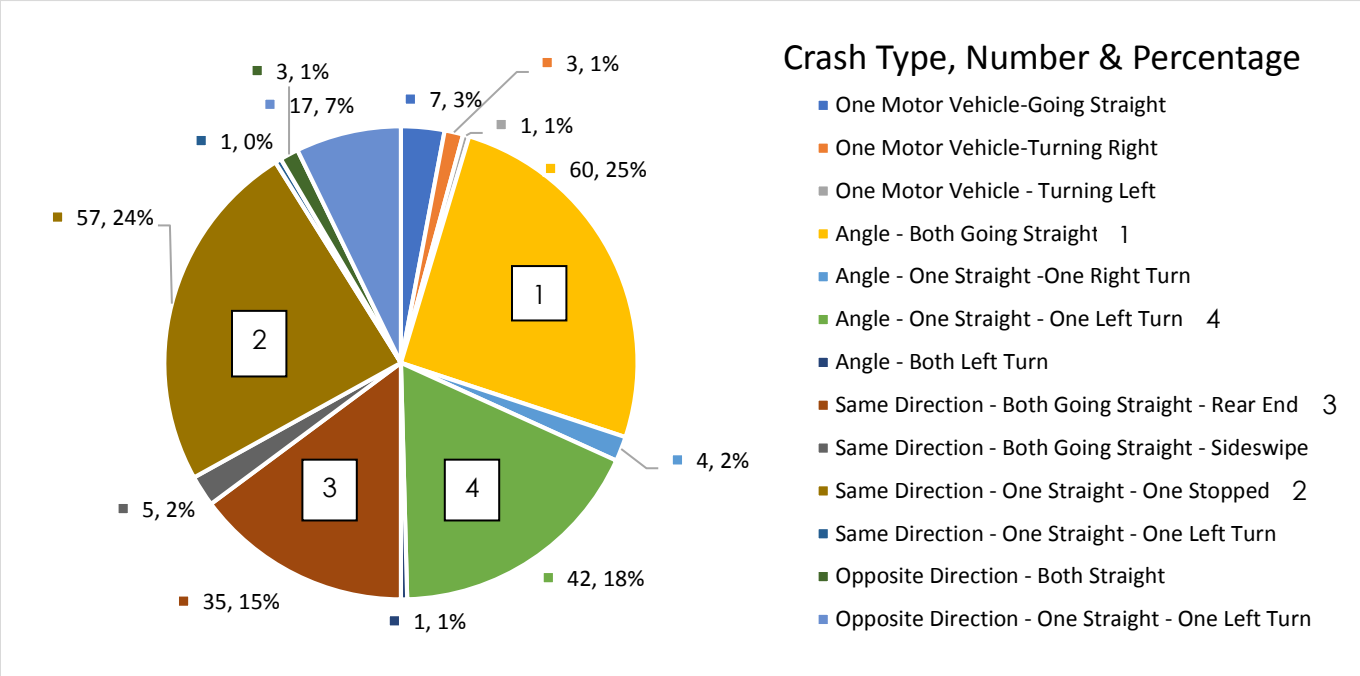
The breakdown of the injury type related to the crashes occurring over the crash data timeline is shown in **Figure 4** below. It can be seen from **Figure 4** that most of the crashes recorded between 2012-2017 did not result in any injury. It can also be seen that there has been only one (1) fatal crash recorded between 2012-2017.

Figure 4 Number of Crashes by Injury Type



The breakdown of the contributing factors for all is shown in **Figure 5** below.

Figure 5 Percent Crashes by Type



The top contributing factors for majority of the crashes along the study corridor are **(1)** angled crashes for vehicles travelling straight along the same direction, **(2)** stopped vehicle crashes, **(3)** rear end crashes, and **(4)** angled crashes between straight and left turning vehicles. Based on field observations during the travel time runs performed for the corridor study, it was noted that there is periodic stoppage of vehicles intending to turn left along the study corridor due to unavailability of left turn bays at some of the intersections as well as insufficient storage lengths where left turn lanes are available resulting in queue formation behind the left turning vehicles. Under the stoppage conditions of vehicles along the travel lanes, it was observed that the vehicles queuing behind the stopped vehicles attempt sudden maneuver to access the adjacent travel lane and misjudge the gap available to merge into adjacent lanes. Additionally, the vehicles waiting at signalized intersections to turn left under yield conditions experience pressure to complete a quick left-turn movement to avoid delaying the stopped traffic waiting behind them resulting in angled crashes. Angled crashes are also likely to occur between vehicles entering the thru lanes from the access driveways along the study corridor due to insufficient gaps and misjudgment of time needed to enter the thru-travel lanes. The rear end crashes typically occur due to lack of attention by the driver. No actual crashes were observed during the travel time runs conducted in the field.

One of the mitigation that can be applied along the corridor to minimize crashes is to provide a center Two-Way-Left-Turn-Lane (TWLTL) between US-183 and Spicewood Parkway along the

Anderson Mill Road Corridor. Provision of TWLTL would eliminate the stoppage of vehicles by allowing a safe pocket for left-turners. Another option that can be applied is to optimize signal timings along the Anderson Mill Corridor to allow lefts to clear the intersection and minimizing the delay of the thru-traffic. The rear end crashes are typically due to lack of driver attention due to external factors such as cell phone usage when driving and other factors that cannot be exactly determined. Signage along the corridor of "NO TEXTING WHEN DRIVING" or suitable warning signs indicating a possible financial penalty for cell phone usage may encourage drivers to pay attention when driving and reduce the rear end crashes. **Section 7** of this report provides detailed information related to the recommended improvements along the corridor. Implementing the recommended improvements is expected to reduce the crashes along the corridor by eliminating some of the vehicular behavior that are the contributing factor towards the crash data for the corridor.

5.0 FUTURE CHARACTERISTICS

5.1 FUTURE TRAVEL DEMAND

Methodology

Between 2017 and the horizon year of 2027, traffic within the study area is expected to grow along with the natural growth of the area. In order to develop traffic volumes for the horizon year 2027, existing data were evaluated against TxDOT historical average annual daily traffic counts. Based off this evaluation, a growth rate of **3%** was obtained. Growth rate calculations are provided in Appendix of this report as ***Exhibit 4.*** The 3% growth rate was applied to AM and PM peak hour turning movement volumes at each intersection to forecast traffic volumes for the projected year 2027.

2027 Forecasted Volumes

The forecasted growth rate was applied to all existing AM and PM peak hour turning movement counts at each study area intersection. ***Exhibit 5*** available in the appendix of this report shows the peak hour volumes for the 2017 Existing and 2027 Forecasted Conditions. **Table 1** below shows the 2017 Existing and 2017 Forecasted AM and PM peak hour volumes.

Table 1 2027 Forecasted Volumes

Direction	Location	2017 AM Peak 7-9am	2017 PM Peak 4-6pm	2027 AM Peak 7-9am	2027 PM Peak 4-6pm
		vph	vph	vph	vph
West	Spicewood Parkway	2,134	2,313	2,868	3,108
	Wagon Gap Drive	1,943	2,265	2,611	3,044
	Burnmaster Lane	1,936	2,219	2,602	2,982
	Millwright Parkway/Olsen Drive	1,922	2,230	2,583	2,997
	Nene Drive	2,215	2,558	2,977	3,438
	Swan Drive	2,133	2,501	2,867	3,361
	Swallow Drive	2,296	2,636	3,086	3,543
	Anderson Mill Cuttoff	2,158	2,722	2,900	3,658
	9707 Anderson Mill Road	2,240	2,850	3,010	3,830
	Commercial Driveway	2,233	2,774	3,001	3,728
	US 183 Southbound Frontage Road	2,403	3,234	3,229	4,346
East	US 183 Northbound Frontage Road	1,574	1,965	2,115	2,641

5.2 EXISTING AND PLANNED MULTIMODAL IMPROVEMENTS

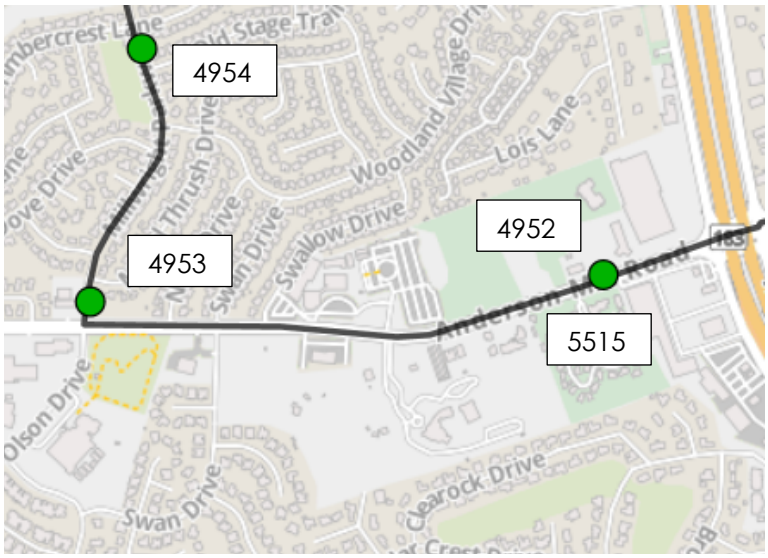
To better predict future conditions of the Anderson Mill Road study area, planned multimodal improvements were considered.

Transit

Capital Metro currently services Anderson Mill community with Route 383 that connects Lakeline Station to the north and North Lamar Transit Center to the south. The routes currently servicing Anderson Mill community can possibly change as Connections 2025 is implemented.

Route 383 services at 30 to 40 minute frequency during the morning, afternoon, and early evening, and 60 minute frequency during the evening off-peak. There are two (2) stops located along Anderson Mill located Road that fall within the limits of Spicewood Parkway and US-183 as seen in **Figure 6** below.

Figure 6 Capital Metro Route 383 Stop Locations



Source: Capital Metro

Stop ID 4952 near 9571 Anderson Mill Road for northbound direction provides an unsheltered bench with trash receptacle and concrete pad. Stop ID 5515 for southbound direction provides an unsheltered concrete pad for alighting and departures. **Figure 7** below shows the existing conditions for the Stop ID 4952 and Stop ID 5515. It should be noted that the Capital Metro bus stops 4952 and 5515 are contained in an area that does not have continuous sidewalk connectivity on either side of the street.

Figure 7 Capital Metro Route 383 Stop ID 4952 and 5515

Source: Capital Metro

A nearby stop located at 11803 Millwright Parkway north of Anderson Mill Road (Stop ID 4593) provides unsheltered pickup with trash receptacle and concrete pad for alighting and departures. **Figure 8** below shows the existing conditions at Stop ID 4953.

Figure 8 Capital Metro Route 383 Stop ID 4953

Source: Capital Metro

Detailed information on Capital Metro bus routes, schedules, and bus stops were collected from Capital Metro's website and provided in the Appendix of this report as ***Exhibit 7***.

<u>Pedestrian</u>

Multiple segments along Anderson Mill Boulevard between Spicewood Parkway and US-183 are lacking pedestrian paths. Connecting the gap between missing sidewalk segments would provide a safe and comfortable environment for pedestrians. Having an adequate sidewalk network for citizens is critical within the Anderson Mill Corridor to provide safe alternative transportation modes. Based on the City of Austin's Pedestrian Master Plan Sidewalk Scoring results, the sidewalks along Anderson Mill Road between Spicewood Parkway and US-183 are within various levels of deficiency with the Pedestrian Infrastructure Management System (PIMS) between very high to medium ranking, with the roadway segment between US-183 and Olson Drive with the most critical need. The goal of the Sidewalk Master Plan was to provide an unbiased system to help prioritize sidewalk construction projects to complete a City-wide ADA compliant network. It is recommended to complete the sidewalk network along Anderson Mill Road by filling in the missing gaps, improve the existing sidewalks with ADA compliant, continuous, and buffered sidewalks. Pedestrian amenities such as bollards, planters, decorative sidewalk paving, waste receptacles, and benches would encourage pedestrians and provide a more livable community atmosphere. In addition, well-marked crosswalks are

recommended to attract pedestrians to the most ideal and safest place to cross in the presence of vehicular traffic. Clearly marked pedestrian crosswalks with leading pedestrian intervals help to alert motorists to pedestrian presence in the roadway, increase yield rates, and reduce conflict.

Bicycle

Currently, Anderson Mill Road is classified as a medium-comfort road per the City of Austin 2017 Bike Map. There is existing bike lane available along Anderson Mill Road between US-183 and Spicewood Parkway along both the eastbound and westbound directions. As part of the 2014 City of Austin Bicycle Master Plan, Anderson Mill between Spicewood Parkway and US-183 has been designated to include a protected bicycle lane or bike lane with a protected barrier that would restrict the encroachment of motorized traffic. **Figure 9** below provides a contextual guide for selection of appropriate bicycle facilities developed by the City of Austin.

Figure 9 City of Austin Bicycle Facility Guidelines

		Average Annual Daily Traffic (vehicle per day)		
		Less than 3,000	3,000-9,999	10,000+
85th Percentile Speed (MPH) Meaured or Projected	< or =30	Shared*	Bike Lane	Buffered
	31-40	Bike Lane	Buffered	Protected
	41-50	Buffered	Protected	Protected
	> 50	Protected	Protected	Protected

*Local streets that are important for the all ages and abilities network with less than 3,000 vpd and 30 MPH should be treated as necessary to meet the performance guidelines for Quiet Streets.

Source: City of Austin

It is recommended to provide a physical barrier for bicyclists on Anderson Mill due to high speed (40 mph) and high-volume roadway (28,000 vpd). With the presence of vehicular traffic, the frequency of motor vehicle interactions increases risk for collision and decreases comfort of cyclists. The physical barrier would help maintain a safe and comfortable environment for cyclists. ***Exhibit 8*** available in the appendix of this report shows the City of Austin Bicycle Map for the Anderson Mill Road Corridor.

6.0 TRAFFIC OPERATIONS ANALYSIS

Analyses of existing and future traffic operations of Anderson Mill Road were performed to identify improvements that will accommodate future growth, as well as improve mobility for cyclists and pedestrians. This section describes the methodology used in the traffic analysis, as well as the results yielded for both the existing 2017, and horizon 2027 conditions.

6.1 METHODOLOGY

Synchro™ Version 9 was used to perform capacity analysis at each intersection. The capacity analysis functions are based on the Transportation Research Board's Highway Capacity Manual (HCM) 2010. The HCM is a nationally recognized standard for performing capacity analyses. The reports generated from each *Synchro* model are shown in ***Exhibit 6***.

Capacity analyses are evaluated based on a Level of Service (LOS) that ranges from A (excellent) to F (poor). Levels of Service A through D are generally considered acceptable and Levels of Service E and F are considered unacceptable. The Level of Service thresholds from the Highway Capacity Manual are shown in **Table 2**. In cases where intersections and/or approaches did not meet an acceptable Level of Service, recommendations were made for improving the intersection. For stop-controlled intersections, the LOS for the worse approach was reported.

Table 2 Intersection Level of Service Thresholds

LOS	Control Delay Per Vehicle (seconds)	
	Signalized Intersection	Stop-Controlled Intersection
A	≤ 10	≤ 10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	> 80	> 50

6.2 TRAFFIC ANALYSIS RESULTS

The 2017 existing traffic analysis includes only the traffic volumes obtained by counts and the current geometric conditions and signal programs. The 2027 horizon year traffic analysis includes the natural growth of the existing traffic volumes identified earlier within this report. **Table 3** below provides a summary of the overall intersection performance for each intersection for 2017 Existing Conditions and 2027 Horizon Year Conditions. Detailed tables providing the performance of the intersections by approach and by movement showing the LOS, delay, v/c, and queue have been provided in the Appendix of this report as ***Exhibit 10***.

Table 3 Intersection Level of Service & Delay (2017 Existing & 2027 No Build)

INTERSECTION	CONTROL TYPE	2017 Existing			2027 Horizon (No Build)		
		LOS Delay(s) AM	LOS Delay(s) PM	LOS Delay(s) Midday	LOS Delay(s) AM	LOS Delay(s) PM	LOS Delay(s) Midday
Anderson Mill Road & Spicewood Parkway	SIGNAL	A	B	B	C	C	B
		9.6	17.6	10.2	21.2	26.8	12.4
Anderson Mill & Wagon Gap Drive*	STOP	E	F	-	F	F	-
		45.1	81.4	-	>200.0	>200.0	-
Anderson Mill Road & Burmaster Lane*	STOP	C	C	-	F	C	-
		19.7	17.9	-	52.4	22.6	-
Anderson Mill Road & Olson Drive/Millwright Pkwy	SIGNAL	D	F	B	F	F	D
		51.9	>200	14.3	133.2	>200	35.5
Anderson Mill Road & Nene Drive*	STOP	E	F	-	F	F	-
		39.2	>200.0	-	90.0	>200.0	-
Anderson Mill Road & Swan Drive*	STOP	F	D	-	F	F	-
		76.3	30.5	-	>200	55.2	-
Anderson Mill Road & Swallow Drive*	STOP	F	C	-	F	E	-
		83.5	20.6	-	>200	35.6	-
Anderson Mill Road & Bethany United/Unity Church Drive	SIGNAL	A	A	-	A	B	-
		2.8	9.3	-	8.6	18.1	-
Anderson Mill Road & 9707 Anderson Mill Road*	STOP	F	F	-	F	F	-
		92.1	>200.0	-	>200.0	>200.0	-
Anderson Mill Road & Commercial Driveway*	STOP	E	F	-	F	F	-
		42.8	>200.0	-	>200.0	>200.0	-
Anderson Mill Road & US 183 FR SB	SIGNAL	F	E	-	F	F	-
		103.2	61.5	-	>200	157.4	-
Anderson Mill Road & US 183 FR NB	SIGNAL	C	D	-	D	F	-
		30.2	43.9	-	41.0	165.8	-

* Highest Delay recorded for stop approach shown

Summary of the capacity analysis results for the study area intersections within the corridor under the 2017 Existing Conditions and the 2027 Horizon Year Conditions is provided below.

Anderson Mill Road & Spicewood Parkway

This signalized intersection operates at an acceptable LOS C and better in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM, PM, and Midday peak hours. Although the overall intersection operates at acceptable LOS C or better, the northbound approach along Spicewood Parkway at this intersection falls below LOS D under the 2017 Midday and PM peak hour as well as under the 2027 Midday and PM peak hour. This is due to the high volumes of left turns at this intersection along the northbound approach of Spicewood Parkway.

Anderson Mill Road & Wagon Gap Drive

This intersection is stop controlled along the Wagon Gap Drive approach with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is due to the insufficient gap available for stopped vehicles along Wagon Gap Drive to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approach.

Anderson Mill Road & Burmaster Lane

This intersection is stop controlled along the Burmaster Lane approach with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions under the PM peak hour as well as the 2027 Horizon Year conditions under the AM peak hour. The contributing factor for this intersection to operate at LOS E or below is due to the insufficient gap available for stopped vehicles along Burmaster Lane to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approach.

Anderson Mill Road & Olson Drive/Millwright Parkway

This signalized intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions under the PM peak hour and operates at an unacceptable LOS E and below as well in 2027 Horizon Year conditions under the AM and PM peak hours. This intersection experiences high volumes during the peak hours. Additionally, the queues along the eastbound and westbound direction also exceed available capacity due to stoppage of thru-traffic behind left turning vehicles.

Anderson Mill Road & Nene Drive

This intersection is stop controlled along the Nene Drive approach with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is the insufficient gap available for stopped vehicles along Nene Drive to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approach.

Anderson Mill Road & Swan Drive

This intersection is stop controlled along the both approaches of Swan Drive with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM peak hour. The contributing factor for this intersection to operate at LOS E or below is the insufficient gap available for stopped vehicles along Swan Drive to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approaches.

Anderson Mill Road & Swallow Drive

This intersection is stop controlled along the both approaches of Swallow Drive with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is the insufficient gap available for stopped vehicles along Swallow Drive to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approaches.

Anderson Mill Road & Bethany United/Unity Church Drive

This signalized intersection operates at an acceptable LOS D and better in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. Although this intersection operates at LOS D or better, the queues along the eastbound and westbound direction also exceed capacity due to stoppage of thru-traffic behind left turning vehicles.

Anderson Mill Road & 9707 Anderson Mill Road

This intersection is stop controlled along both the approaches with free-flowing traffic along Anderson Mill Road. The northern leg of this intersection services an existing gas-station and the southern leg of this intersection services an existing commercial lot. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is due to the insufficient gap available for stopped vehicles along both the driveway approaches to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approaches.

Anderson Mill Road & Commercial Driveway

This intersection is stop controlled along both the driveway approaches with free-flowing traffic along Anderson Mill Road. The LOS at stop controlled intersection is calculated per the highest delay recorded for the stop approach. This intersection operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is due to the insufficient gap available for stopped vehicles along both the driveway approaches to enter Anderson Mill Road due to high traffic volumes resulting in longer waiting times for vehicles waiting at the stop approaches.

Anderson Mill Road & US-183 Southbound and Northbound Frontage Road

The signalized intersection of US-183 and SBFR operates at an unacceptable LOS E and below in the 2017 Existing Conditions as well as the 2027 Horizon Year conditions under the AM and PM peak hours. The contributing factor for this intersection to operate at LOS E or below is due to the very high volume of vehicles travelling through this intersection.

The signalized intersection of US-183 and NBFR operates at an acceptable LOS D and better in the 2017 Existing Conditions under the AM and PM peak hours as well as the 2027 Horizon Year conditions under the AM peak hour. This intersection operates at an unacceptable LOS E and below in the 2027 Horizon year conditions under the PM peak hour. The contributing factor for this intersection to operate at LOS E or below is due to the very high volume of vehicles travelling through this intersection.

Based on field observations during travel time runs and information available from the capacity analysis results from Synchro for the 2017 Existing Conditions and 2027 Horizon Year Conditions, appropriate improvements along the Anderson Mill Corridor are recommended to improve the operating conditions along the corridor. Detailed information of the recommended improvements for the Anderson Mill Corridor are available under **Section 8** of this report.

7.0 MODEL CALIBRATION

The existing corridor was modeled in Synchro software to determine the capacity analysis at each intersection. The measure of effectiveness parameters available from Sim Traffic Simulation were calculated to understand the operating characteristics along the corridor. The existing model created for the corridor was calibrated as follows:

1. The existing signal timing plans provided by the City of Austin and TXDOT were inputted into the Synchro model. The signal timing plans were field verified to ensure that they match the signal timing worksheets made available.

2. The correct lane widths and lane geometry were field verified and inputted into the Synchro model.

3. The posted speed limit along the corridor was checked with field verification.

4. The distance between the existing intersections and multiple driveway locations along the corridor was field verified and inputted into the Synchro model.

5. The offsets between the intersections were field verified.

Travel time runs were performed along the corridor during the 7:30-9:00 AM, 2:00-3:00 Mid-Day, and 4:30-6:00 PM peak period from Tuesday through Thursday. The details of the information available from travel time runs are available as ***Exhibit 9*** in the Appendix of this report.

Sim Traffic Simulation was performed for existing conditions for the calibrated Synchro model to record the Measure of Effectiveness (MOE) parameters such as travel time and travel speed available from the Sim Traffic Reports. The 2017 existing network was seeded for 10 minutes and a 15-minute interval was selected for a single run. A total of six (6) runs were performed for the AM and PM peak hour to match the travel time runs conducted in the field. The MOE recorded from the Sim Traffic Reports for corridor travel time were compared against the actual travel time run data to validate the Synchro model and check that there is no significant variation observed. The MOE reports available for the 2017 Existing Sim Traffic simulation are available as ***Exhibit 9*** in the Appendix of this report.

Based on the LOS and delay information available from the capacity results of the Synchro model and utilizing the field conditions observed related to delay and queuing along the corridor at existing signal locations; appropriate improvements will be recommended for the corridor to facilitate more efficient and effective traffic flow and improve the LOS and delay.

Due to inclusion of the recommended improvements that result in modification to the existing geometries at study area intersections, the signal phases and signal timings need to be updated. The optimization feature available in Synchro was utilized to update the signal phasing, signal timing and adjust intersection offsets to match the modified geometries at study area intersection locations. Verification was performed to ensure that appropriate signal phasing was utilized for the new left-turn bays at the study area intersections per recommendation described above. Optimization of the corridor was performed utilizing the auto-optimize feature available that optimizes the network cycle length and network offsets for the corridor model and verified at each intersection. A network cycle length of maximum 150 seconds was utilized for optimization.

Optimization of the overall corridor develops a suitable timing plan at each signalized intersection within the corridor. Appropriate splits, signal timing, and cycle length adjustments based on volumes and lane geometry were allocated at each signalized intersection location. Appropriate network offsets between the intersections were developed to allow vehicles to experience an optimal green time travelling along the corridor. Optimizing the network within the Synchro model

distributes and balances the cycle lengths, signal timings, and offsets utilizing the modified lane geometries and horizon year volumes along the corridor and develops a best-case level of service and delay across the entire corridor providing an effective flow for vehicles traveling through the corridor.

The recommended improvements along with Synchro Optimization were used to create a 2027 Horizon Year with Improvements and Optimization scenario. A comparison showing the variation in the LOS and Delay between the 2027 Horizon Year (No improvements) and 2027 Horizon year (Improvements + Optimization) is shown in the **Table 4** below. Detailed table showing additional information such as approach delays, v/c ratios and queue lengths are available as ***Exhibit 10*** in the Appendix of this report.

Table 4 Intersection Level of Service & Delay (2027 Conditions)

INTERSECTION	CONTROL TYPE	2027 Horizon (No Build)			2027 Horizon (Opt + Imp)		
		LOS Delay(s) AM	LOS Delay(s) PM	LOS Delay(s) Midday	LOS Delay(s) AM	LOS Delay(s) PM	LOS Delay(s) Midday
Anderson Mill Road & Spicewood Parkway	SIGNAL	C	C	B	B	B	B
		21.2	26.8	12.4	12.8	16.0	10.7
Anderson Mill & Wagon Gap Drive*	STOP	F	F	-	C	C	-
		>200.0	>200.0	-	25.4	53.4	-
Anderson Mill Road & Burmaster Lane*	STOP	F	C	-	F	C	-
		52.4	22.6	-	50.1	23.2	-
Anderson Mill Road & Olson Drive/Millwright Pkwy	SIGNAL	F	F	D	E	F	B
		133.2	>200.0	35.5	69.0	113.5	20.0
Anderson Mill Road & Nene Drive*	STOP	F	F	-	C	F	-
		90.0	>200.0	-	24.6	>200.0	-
Anderson Mill Road & Swan Drive*	STOP	F	F	-	D	C	-
		>200	55.2	-	32.4	20.8	-
Anderson Mill Road & Swallow Drive*	STOP	F	E	-	F	D	-
		>200	35.6	-	115.5	33.7	-
Anderson Mill Road & Bethany United/Unity Church Drive	SIGNAL	A	B	-	A	A	-
		8.6	18.1	-	2.6	6.6	-
Anderson Mill Road & 9707 Anderson Mill Road*	STOP/SIGNAL[A]	F	F	-	A	A	-
		>200.0	>200.0	-	3.0	3.0	-
Anderson Mill Road & Commercial Driveway*	STOP	F	F	-	E	E	-
		>200.0	>200.0	-	36.4	31.3	-
Anderson Mill Road & US 183 FR SB	SIGNAL	F	F	-	F	F	-
		>200	157.4	-	90.8	97.6	-
Anderson Mill Road & US 183 FR NB	SIGNAL	D	F	-	F	F	-
		41.0	165.8	-	105.1	103.2	-

* Highest Delay recorded for stop approach shown
[A] This intersection is recommended to be signalized.

The optimized signal timings available from Synchro are available as ***Exhibit 6*** in the Appendix of this report. The optimized signal timings available from Synchro can be considered as a starting point for initial signal timing plans. Signal timing plans shall be field verified once improvements are in place.

8.0 RECOMMENDATIONS FOR IMPROVEMENT

8.1 METHODOLOGY

An analysis of the existing conditions along Anderson Mill Road, vehicular capacity, as well as consideration of Bicycle and Pedestrian City Master Plans were utilized in determining the ultimate roadway cross section incorporated into the future 2027-year Synchro model to determine future year intersection Level of Service (LOS) based on the ultimate condition. The proposed improvements were then modeled in the 2017 existing condition to obtain a before and after comparison of today's facilities and roadway design impact.

8.2 ANDERSON MILL ROAD CORRIDOR PROPOSED IMPROVEMENTS

The ultimate cross section for Anderson Mill Road is wider than the existing facility, and would require additional right-of-way. It is recommended to widen Anderson Mill Road to accommodate left turn bays at signalized intersections and a two-way-left-turn lane between Spicewood Parkway and US-183. It is also recommended to provide a protected bicycle lane between the limits of Spicewood Parkway and US-183 on both sides of the roadway. The additional of left turn bays and two-way-left-turn lane will provide additional capacity and will reduce rear end collisions from the thru movement. Intersection specific improvements are as follows:

<u>Spicewood Parkway</u>

Spicewood Parkway currently operates at a 140-second cycle length during the AM Peak Hour and 150-second cycle length during the PM Peak Hour. It is recommended to provide an eastbound right-turn bay. It is recommended to maintain the westbound left turn bay and build a two-way left turn lane east of Spicewood Parkway terminating at Olson Drive/Millwright Parkway. The proposed cycle length at this intersection is 140 seconds during the AM and PM Peak Hour. The splits were adjusted to provide greater green time for the northbound approach during the AM Peak Hour. The optimal offsets are calculated to be 96 seconds during the AM Peak Hour and 34 seconds during the PM Peak Hour. With improvements, the delays were reduced by 40% during the AM Peak Hour and 40% during the PM Peak Hour.

Wagon Gap Drive

Wagon Gap Drive is currently an unsignalized T-stop controlled intersection on the southbound approach. It is recommended to build a center two-way-left-turn-lane between Spicewood Parkway and Burnmaster Lane. No additional recommendations are considered for this location.

Burmaster Lane

Burmaster Lane is currently an unsignalized 2-way stop controlled intersection on the northbound and southbound approach. It is recommended to build a center two-way-left-turn-lane between Wagon Gap Drive and Olson Drive/Millwright Parkway. No additional recommendations are considered for this location.

Olson Drive/Millwright Parkway

Olson Drive/Millwright Parkway currently operates at a 130-second cycle length during the AM Peak Hour and 150-second cycle length at the PM peak hour. It is recommended to provide left turn bays on the eastbound and westbound approach. The length of the left turn bays shall be at minimum 100 feet in storage length. It is recommended to modify the northbound approach to one (1) left, one (1) through, one (1) right. The proposed cycle length at this intersection is 140 seconds during the AM and PM Peak Hour. This intersection was modeled with protected permissive phasing with leading left turns on both major and minor approaches. The optimal offsets are calculated to be 139 seconds during the AM Peak Hour and 32 seconds during the PM Peak Hour. With improvements, the delays were reduced by 48% during the AM Peak Hour and 93% during the PM Peak Hour.

Nene Drive

Nene Drive is currently an unsignalized T-stop controlled intersection on the southbound approach. It is recommended to build a center two-way-left-turn-lanebetween Olson Drive/Millwright Parkway and Swan Drive. No additional recommendations are considered for this location.

Swan Drive

Swan Drive is currently an unsignalized 2-way stop controlled intersection on the northbound and southbound approach. It is recommended to build a center two-way-left-turn-lane between Nene Drive and Swallow Drive. No additional recommendations are considered for this location.

Swallow Drive

Swallow Drive is currently an unsignalized 2-way stop controlled intersection on the northbound and southbound approach. Swallow Drive provides access to assisted living community on the northbound approach and access to residential and church facility on the southbound approach. It is recommended to build a center two-way-left-turn-lane between Swan and Bethany United (private)/Unity Church Drive (private). No additional recommendations are considered for this location.

Bethany United/Unity Church Drive

Bethany United and Unity Church are private roadways that serve Bethany United Methodist Church to the north and Unity Church of the Hills to the south. This intersection currently operates at a 65-second cycle length during the AM Peak Hour and 150-second cycle length at the PM peak hour. It is recommended to provide left turn bays on the eastbound and westbound approaches. The length of the left turn bays shall be at minimum 100 feet in storage length. It is also recommended to provide right turn bays on the eastbound and westbound approach. It is recommended to obtain field observations during Sunday services and record the queue lengths at both approaches to determine optimal storage length for the left turn bays. The proposed cycle length at this intersection is 140 seconds during the AM and PM Peak Hour. The optimal offsets are calculated to be 28 seconds during the AM Peak Hour and 138 seconds during the PM Peak Hour. With improvements, the delays were reduced by 70% during the AM Peak Hour and 34% during the PM Peak Hour.

9707 Anderson Mill Road

9707 Anderson Mill Road is currently an unsignalized two-way stop controlled intersection on the northbound and southbound approach. The northbound approach provides access to shopping center and the southbound approach provides access to a gas station. It is recommended to signalize this intersection and provide left turn bays on the eastbound and west bound approaches. The length of the left turn bays shall be at minimum 100 feet in storage length. With improvements, the delays were reduced by 100% during the AM and PM Peak Hour.

Commercial Driveway

The commercial driveway currently serves the shopping center to the south and is slightly offset from the driveway to the north servicing the shopping center. It is recommended to restrict the northbound and southbound approach to a right-in/right-out by adding a raised median between 9707 Anderson Mill Road and US-183. With improvements, the delays were reduced by 100% during the AM and PM Peak Hour.

US-183 Southbound and Northbound Frontage Road

US-183 Southbound Frontage Road (SBFR) and Northbound Frontage Road (NBFR) currently operates at a 130-second cycle length during the AM Peak Hour and 150-second cycle length at the PM peak hour. The proposed cycle length at this intersection is 140 seconds during the AM

and PM Peak Hour. The optimal offsets are calculated to be 136 seconds during the AM Peak Hour and 122 seconds during the PM Peak Hour. It is recommended to extend the eastbound right turn bay to 780 feet of storage and 100 feet of taper which will extend to 9709 Anderson Mill Road. A 200-foot right turn bay with 50-foot taper is recommended for the US-183 southbound approach. An acceleration lane with 720 storage and 230 taper is recommended for the for the US-183 southbound approach. A 300-foot right turn bay with 50-foot taper is recommended for the US-183 northbound approach. It is recommended to remove the westbound approach median to provide transition into the left turn lane. With improvements, the delays on average were reduced by 27% during the AM Peak Hour and 38% during the PM Peak Hour.

APPENDIX

EXHIBIT 1 PROJECT LIMITS MAP

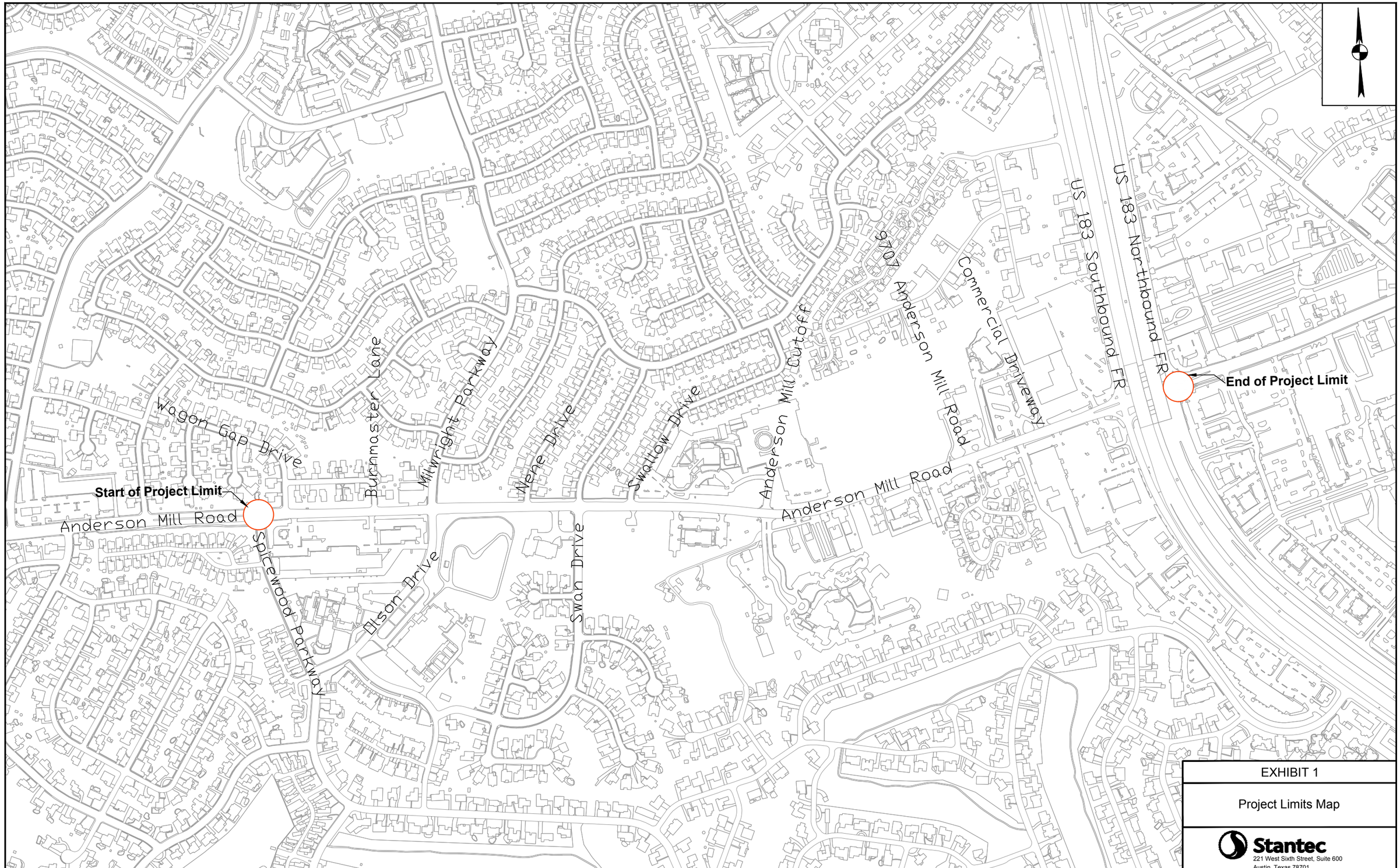


EXHIBIT 1

Project Limits Map

Stantec
221 West Sixth Street, Suite 600
Austin, Texas 78701
Tel. (512) 328-0011 Fax (512) 328-0325
TBPE Registration Number F-6324
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PROJECT No.:224720010

SCALE: N.T.S

V:\2247\active\224720010\traffic\7.00 CAD\CD Exhibits\224720010 EXH01.dwg modified by hdehghanniri on Oct 10, 17 3:59 PM

EXHIBIT 2 INTERSECTION COUNT DATA AND SIGNAL TIMING DATA

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-9707 AM
Site Code : 00000018
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	2	0	3	0	5	0	126	5	0	131	0	0	0	0	0	2	300	0	0	302	438
07:15	6	0	2	0	8	0	185	7	0	192	0	0	0	0	0	0	338	0	0	338	538
07:30	1	0	3	0	4	0	191	5	0	196	0	0	0	0	0	1	348	0	0	349	549
07:45	5	0	2	0	7	0	174	7	0	181	0	0	0	0	0	4	351	0	0	355	543
Total	14	0	10	0	24	0	676	24	0	700	0	0	0	0	0	7	1337	0	0	1344	2068
08:00	5	0	3	0	8	0	165	3	0	168	0	0	0	0	0	1	317	0	0	318	494
08:15	2	0	2	0	4	0	241	4	0	245	0	0	0	0	0	1	317	0	0	318	567
08:30	3	0	2	0	5	0	225	5	0	230	0	0	0	0	0	1	331	0	0	332	567
08:45	4	0	0	0	4	0	284	3	0	287	0	0	1	0	1	0	342	0	0	342	634
Total	14	0	7	0	21	0	915	15	0	930	0	0	1	0	1	3	1307	0	0	1310	2262
Grand Total	28	0	17	0	45	0	1591	39	0	1630	0	0	1	0	1	10	2644	0	0	2654	4330
Apprch %	62.2	0	37.8	0		0	97.6	2.4	0		0	0	100	0		0.4	99.6	0	0		
Total %	0.6	0	0.4	0	1	0	36.7	0.9	0	37.6	0	0	0	0	0	0.2	61.1	0	0	61.3	

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	5	0	3	0	8	0	165	3	0	168	0	0	0	0	0	1	317	0	0	318	494
08:15	2	0	2	0	4	0	241	4	0	245	0	0	0	0	0	1	317	0	0	318	567
08:30	3	0	2	0	5	0	225	**5**	0	230	0	0	0	0	0	1	331	0	0	332	567
08:45	4	0	0	0	4	0	**284**	3	0	**287**	0	0	**1**	0	**1**	0	**342**	0	0	**342**	**634**
Total Volume	14	0	7	0	21	0	915	15	0	930	0	0	1	0	1	3	1307	0	0	1310	2262
% App. Total	66.7	0	33.3	0		0	98.4	1.6	0		0	0	100	0		0.2	99.8	0	0		
PHF	.700	.000	.583	.000	.656	.000	.805	.750	.000	.810	.000	.000	.250	.000	.250	.750	.955	.000	.000	.958	.892

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-9707 AM
Site Code : 00000018
Start Date : 5/17/2017
Page No : 2

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15					**08:00**					**08:00**					**07:15**					
+0 mins.	6	0	2	0	8	0	165	3	0	168	0	0	0	0	0	0	338	0	0	338	
+15 mins.	1	0	3	0	4	0	241	4	0	245	0	0	0	0	0	1	348	0	0	349	
+30 mins.	5	0	2	0	7	0	225	5	0	230	0	0	0	0	0	**4**	**351**	0	0	**355**	
+45 mins.	5	0	3	0	8	0	**284**	3	0	**287**	0	0	**1**	0	**1**	1	317	0	0	318	
Total Volume	17	0	10	0	27	0	915	15	0	930	0	0	1	0	1	6	1354	0	0	1360	
% App. Total	63	0	37	0		0	98.4	1.6	0		0	0	100	0		0.4	99.6	0	0		
PHF	.708	.000	.833	.000	.844	.000	.805	.750	.000	.810	.000	.000	.250	.000	.250	.375	.964	.000	.000	.958	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-9707 PM
Site Code : 00000018
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	2	0	2	0	4	0	328	2	0	330	0	0	0	0	0	1	286	0	0	287	621
16:15	1	0	2	0	3	0	368	2	0	370	0	0	0	0	0	2	282	0	0	284	657
16:30	5	0	3	0	8	0	402	5	0	407	0	0	0	0	0	0	285	0	0	285	700
16:45	2	0	3	0	5	0	366	8	0	374	0	0	0	0	0	1	278	0	0	279	658
Total	10	0	10	0	20	0	1464	17	0	1481	0	0	0	0	0	4	1131	0	0	1135	2636
17:00	3	0	6	0	9	0	410	4	0	414	0	0	0	0	0	2	364	0	0	366	789
17:15	5	0	5	0	10	0	413	14	0	427	0	0	0	0	0	0	294	0	0	294	731
17:30	8	0	3	0	11	0	395	11	0	406	0	0	0	0	0	3	271	0	0	274	691
17:45	11	0	5	0	16	0	375	9	0	384	0	0	0	0	0	3	282	0	0	285	685
Total	27	0	19	0	46	0	1593	38	0	1631	0	0	0	0	0	8	1211	0	0	1219	2896
Grand Total	37	0	29	0	66	0	3057	55	0	3112	0	0	0	0	0	12	2342	0	0	2354	5532
Apprch %	56.1	0	43.9	0		0	98.2	1.8	0		0	0	0	0		0.5	99.5	0	0		
Total %	0.7	0	0.5	0	1.2	0	55.3	1	0	56.3	0	0	0	0	0	0.2	42.3	0	0	42.6	

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	**3**	**0**	6	0	9	0	410	4	0	414	0	0	0	0	0	2	364	0	0	366	789
17:15	5	0	5	0	10	0	**413**	**14**	0	**427**	0	0	0	0	0	0	294	0	0	294	731
17:30	8	0	3	0	11	0	395	11	0	406	0	0	0	0	0	**3**	271	0	0	274	691
17:45	**11**	0	5	0	**16**	0	375	9	0	384	0	0	0	0	0	3	282	0	0	285	685
Total Volume	27	0	19	0	46	0	1593	38	0	1631	0	0	0	0	0	8	1211	0	0	1219	2896
% App. Total	58.7	0	41.3	0		0	97.7	2.3	0		0	0	0	0		0.7	99.3	0	0		
PHF	.614	.000	.792	.000	.719	.000	.964	.679	.000	.955	.000	.000	.000	.000	.000	.667	.832	.000	.000	.833	.918

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-9707 PM
Site Code : 00000018
Start Date : 5/17/2017
Page No : 2

	Driveway Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:00					**17:00**					**16:00**					**16:30**					
+0 mins.	**3**	**0**	6	0	9	0	410	4	0	414	0	0	0	0	0	0	285	0	0	285	
+15 mins.	5	0	5	0	10	0	413	14	0	427	0	0	0	0	0	1	278	0	0	279	
+30 mins.	8	0	3	0	11	0	395	11	0	406	0	0	0	0	0	**2**	**364**	0	0	**366**	
+45 mins.	**11**	0	5	0	**16**	0	375	9	0	384	0	0	0	0	0	0	294	0	0	294	
Total Volume	27	0	19	0	46	0	1593	38	0	1631	0	0	0	0	0	3	1221	0	0	1224	
% App. Total	58.7	0	41.3	0		0	97.7	2.3	0		0	0	0	0		0.2	99.8	0	0		
PHF	.614	.000	.792	.000	.719	.000	.964	.679	.000	.955	.000	.000	.000	.000	.000	.375	.839	.000	.000	.836	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Burmaster AM
Site Code : 00000022
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	1	0	0	0	1	0	106	0	0	106	3	0	2	0	5	0	255	3	0	258	370
07:15	0	0	1	0	1	2	157	1	0	160	0	0	2	0	2	0	266	9	0	275	438
07:30	2	0	0	0	2	0	190	3	0	193	0	0	1	0	1	0	295	4	0	299	495
07:45	1	0	0	0	1	1	194	0	0	195	1	0	3	0	4	0	297	6	0	303	503
Total	4	0	1	0	5	3	647	4	0	654	4	0	8	0	12	0	1113	22	0	1135	1806
08:00	0	0	0	0	0	2	161	0	0	163	1	0	4	0	5	0	306	5	0	311	479
08:15	0	0	0	0	0	2	174	2	0	178	0	0	3	0	3	0	281	4	0	285	466
08:30	0	0	0	0	0	1	208	0	0	209	1	0	6	0	7	0	279	2	0	281	497
08:45	0	0	1	0	1	1	200	1	0	202	0	0	12	0	12	0	305	2	0	307	522
Total	0	0	1	0	1	6	743	3	0	752	2	0	25	0	27	0	1171	13	0	1184	1964
Grand Total	4	0	2	0	6	9	1390	7	0	1406	6	0	33	0	39	0	2284	35	0	2319	3770
Apprch %	66.7	0	33.3	0		0.6	98.9	0.5	0		15.4	0	84.6	0		0	98.5	1.5	0		
Total %	0.1	0	0.1	0	0.2	0.2	36.9	0.2	0	37.3	0.2	0	0.9	0	1	0	60.6	0.9	0	61.5	

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	**0**	**0**	**0**	**0**	**0**	2	161	0	0	163	1	0	4	0	5	0	306	5	0	**311**	479
08:15	0	0	0	0	0	2	174	**2**	0	178	0	0	3	0	3	0	281	4	0	285	466
08:30	0	0	0	0	0	1	**208**	0	0	**209**	1	0	6	0	7	0	279	2	0	281	497
08:45	0	0	**1**	0	**1**	1	200	1	0	202	0	0	**12**	0	**12**	0	305	2	0	307	**522**
Total Volume	0	0	1	0	1	6	743	3	0	752	2	0	25	0	27	0	1171	13	0	1184	1964
% App. Total	0	0	100	0		0.8	98.8	0.4	0		7.4	0	92.6	0		0	98.9	1.1	0		
PHF	.000	.000	.250	.000	.250	.750	.893	.375	.000	.900	.500	.000	.521	.000	.563	.000	.957	.650	.000	.952	.941

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Burmaster AM
Site Code : 00000022
Start Date : 5/18/2017
Page No : 2

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:00					**08:00**					**08:00**					**07:30**					
+0 mins.	**1**	**0**	**0**	**0**	**1**	2	161	0	0	163	1	0	4	0	5	0	295	4	0	299	
+15 mins.	0	0	1	0	1	2	174	2	0	178	0	0	3	0	3	0	297	**6**	0	303	
+30 mins.	**2**	0	0	0	**2**	1	**208**	0	0	**209**	1	0	6	0	7	0	**306**	5	0	**311**	
+45 mins.	1	0	0	0	1	1	200	1	0	202	0	0	**12**	0	**12**	0	281	4	0	285	
Total Volume	4	0	1	0	5	6	743	3	0	752	2	0	25	0	27	0	1179	19	0	1198	
% App. Total	80	0	20	0		0.8	98.8	0.4	0		7.4	0	92.6	0		0	98.4	1.6	0		
PHF	.500	.000	.250	.000	.625	.750	.893	.375	.000	.900	.500	.000	.521	.000	.563	.000	.963	.792	.000	.963	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Burmaster PM
Site Code : 00000022
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	0	0	0	0	2	295	1	0	298	2	0	4	0	6	1	208	2	0	211	515
16:15	2	0	0	0	2	0	317	2	0	319	0	0	5	0	5	0	209	3	0	212	538
16:30	2	0	1	0	3	1	323	4	0	328	0	0	5	0	5	0	245	2	0	247	583
16:45	0	0	1	0	1	2	316	1	0	319	0	0	8	0	8	0	237	5	0	242	570
Total	4	0	2	0	6	5	1251	8	0	1264	2	0	22	0	24	1	899	12	0	912	2206
17:00	0	0	0	0	0	0	325	1	0	326	1	0	5	0	6	1	206	2	0	209	541
17:15	0	0	0	0	0	2	330	1	0	333	0	0	3	0	3	0	215	0	0	215	551
17:30	1	0	0	0	1	1	312	0	0	313	0	0	4	0	4	1	223	4	0	228	546
17:45	0	0	2	0	2	1	291	1	0	293	0	0	2	0	2	0	219	2	0	221	518
Total	1	0	2	0	3	4	1258	3	0	1265	1	0	14	0	15	2	863	8	0	873	2156
Grand Total	5	0	4	0	9	9	2509	11	0	2529	3	0	36	0	39	3	1762	20	0	1785	4362
Apprch %	55.6	0	44.4	0		0.4	99.2	0.4	0		7.7	0	92.3	0		0.2	98.7	1.1	0		
Total %	0.1	0	0.1	0	0.2	0.2	57.5	0.3	0	58	0.1	0	0.8	0	0.9	0.1	40.4	0.5	0	40.9	

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	2	0	1	0	3	1	323	4	0	328	0	0	5	0	5	0	**245**	2	0	**247**	**583**
16:45	0	0	1	0	1	**2**	316	1	0	319	0	0	**8**	0	**8**	0	237	**5**	0	242	570
17:00	0	0	0	0	0	0	325	1	0	326	**1**	0	5	0	6	**1**	206	2	0	209	541
17:15	0	0	0	0	0	2	**330**	1	0	**333**	0	0	3	0	3	0	215	0	0	215	551
Total Volume	2	0	2	0	4	5	1294	7	0	1306	1	0	21	0	22	1	903	9	0	913	2245
% App. Total	50	0	50	0		0.4	99.1	0.5	0		4.5	0	95.5	0		0.1	98.9	1	0		
PHF	.250	.000	.500	.000	.333	.625	.980	.438	.000	.980	.250	.000	.656	.000	.688	.250	.921	.450	.000	.924	.963

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Burmaster PM
Site Code : 00000022
Start Date : 5/18/2017
Page No : 2

	Burmaster Southbound					Anderson Mill Westbound					Burmaster Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:00					**16:30**					**16:00**					**16:30**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**1**	**323**	4	0	328	2	0	4	0	6	0	245	2	0	247	
+15 mins.	**2**	0	0	0	2	**2**	316	1	0	319	0	0	5	0	5	0	237	**5**	0	242	
+30 mins.	2	0	**1**	0	**3**	0	325	1	0	326	0	0	5	0	5	**1**	206	2	0	209	
+45 mins.	0	0	1	0	1	2	**330**	1	0	**333**	0	0	**8**	0	**8**	0	215	0	0	215	
Total Volume	4	0	2	0	6	5	1294	7	0	1306	2	0	22	0	24	1	903	9	0	913	
% App. Total	66.7	0	33.3	0		0.4	99.1	0.5	0		8.3	0	91.7	0		0.1	98.9	1	0		
PHF	.500	.000	.500	.000	.500	.625	.980	.438	.000	.980	.250	.000	.688	.000	.750	.250	.921	.450	.000	.924	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Commercial AM
Site Code : 00000022
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	0	0	2	0	2	3	122	0	0	125	0	0	10	0	10	0	265	9	0	274	411
07:15	1	0	6	0	7	5	175	1	0	181	0	0	14	0	14	2	319	4	0	325	527
07:30	0	0	7	0	7	5	195	1	0	201	0	0	8	0	8	1	324	11	0	336	552
07:45	0	0	2	0	2	9	174	1	0	184	0	0	19	0	19	2	345	8	0	355	560
Total	1	0	17	0	18	22	666	3	0	691	0	0	51	0	51	5	1253	32	0	1290	2050
08:00	0	0	1	0	1	8	167	0	0	175	2	0	15	0	17	0	317	4	0	321	514
08:15	1	0	6	0	7	5	235	2	0	242	0	0	22	0	22	0	311	6	0	317	588
08:30	0	0	4	0	4	8	222	2	0	232	0	0	15	0	15	4	304	12	0	320	571
08:45	1	0	3	0	4	15	269	2	0	286	0	0	16	0	16	2	333	5	0	340	646
Total	2	0	14	0	16	36	893	6	0	935	2	0	68	0	70	6	1265	27	0	1298	2319
Grand Total	3	0	31	0	34	58	1559	9	0	1626	2	0	119	0	121	11	2518	59	0	2588	4369
Apprch %	8.8	0	91.2	0		3.6	95.9	0.6	0		1.7	0	98.3	0		0.4	97.3	2.3	0		
Total %	0.1	0	0.7	0	0.8	1.3	35.7	0.2	0	37.2	0	0	2.7	0	2.8	0.3	57.6	1.4	0	59.2	

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	**0**	**0**	**1**	**0**	**1**	**8**	**167**	**0**	**0**	**175**	2	0	15	0	17	0	317	4	0	321	514
08:15	1	0	6	0	7	5	235	**2**	0	242	0	0	**22**	0	**22**	0	311	6	0	317	588
08:30	0	0	4	0	4	8	222	2	0	232	0	0	15	0	15	**4**	304	**12**	0	320	571
08:45	1	0	3	0	4	**15**	**269**	2	0	**286**	0	0	16	0	16	2	**333**	5	0	**340**	**646**
Total Volume	2	0	14	0	16	36	893	6	0	935	2	0	68	0	70	6	1265	27	0	1298	2319
% App. Total	12.5	0	87.5	0		3.9	95.5	0.6	0		2.9	0	97.1	0		0.5	97.5	2.1	0		
PHF	.500	.000	.583	.000	.571	.600	.830	.750	.000	.817	.250	.000	.773	.000	.795	.375	.950	.563	.000	.954	.897

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Commercial AM
Site Code : 00000022
Start Date : 5/17/2017
Page No : 2

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:00					**08:00**					**07:45**					**07:15**					
+0 mins.	**0**	**0**	**2**	**0**	**2**	**8**	**167**	**0**	**0**	**175**	**0**	**0**	**19**	**0**	**19**	2	319	4	0	325	
+15 mins.	1	0	6	0	7	5	235	2	0	242	**2**	0	15	0	17	1	324	**11**	0	336	
+30 mins.	0	0	**7**	0	7	8	222	2	0	232	0	0	**22**	0	**22**	2	**345**	8	0	**355**	
+45 mins.	0	0	2	0	2	**15**	**269**	2	0	**286**	0	0	15	0	15	0	317	4	0	321	
Total Volume	1	0	17	0	18	36	893	6	0	935	2	0	71	0	73	5	1305	27	0	1337	
% App. Total	5.6	0	94.4	0		3.9	95.5	0.6	0		2.7	0	97.3	0		0.4	97.6	2	0		
PHF	.250	.000	.607	.000	.643	.600	.830	.750	.000	.817	.250	.000	.807	.000	.830	.625	.946	.614	.000	.942	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Commercial PM
Site Code : 00000022
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	1	0	10	0	11	4	290	6	0	300	1	0	20	0	21	8	249	10	0	267	599
16:15	1	0	4	0	5	9	340	5	0	354	2	0	18	0	20	12	263	8	0	283	662
16:30	1	0	8	0	9	10	380	2	0	392	0	0	26	0	26	6	254	12	0	272	699
16:45	4	0	5	0	9	13	358	2	0	373	1	0	21	0	22	13	237	13	0	263	667
Total	7	0	27	0	34	36	1368	15	0	1419	4	0	85	0	89	39	1003	43	0	1085	2627
17:00	3	0	9	0	12	8	370	8	0	386	1	0	17	0	18	7	305	7	0	319	735
17:15	2	0	7	0	9	6	395	2	0	403	2	0	13	0	15	12	306	8	0	326	753
17:30	4	0	11	0	15	5	387	3	0	395	2	0	20	0	22	11	242	13	0	266	698
17:45	4	0	11	0	15	12	374	6	0	392	1	0	23	0	24	16	259	12	0	287	718
Total	13	0	38	0	51	31	1526	19	0	1576	6	0	73	0	79	46	1112	40	0	1198	2904
Grand Total	20	0	65	0	85	67	2894	34	0	2995	10	0	158	0	168	85	2115	83	0	2283	5531
Apprch %	23.5	0	76.5	0		2.2	96.6	1.1	0		6	0	94	0		3.7	92.6	3.6	0		
Total %	0.4	0	1.2	0	1.5	1.2	52.3	0.6	0	54.1	0.2	0	2.9	0	3	1.5	38.2	1.5	0	41.3	

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	**3**	**0**	**9**	**0**	**12**	**8**	**370**	8	0	386	1	0	17	0	18	7	305	7	0	319	735
17:15	2	0	7	0	9	6	395	2	0	403	2	0	13	0	15	12	**306**	8	0	**326**	**753**
17:30	**4**	0	**11**	0	**15**	5	387	3	0	395	2	0	20	0	22	11	242	**13**	0	266	698
17:45	4	0	11	0	15	**12**	374	6	0	392	1	0	**23**	0	**24**	**16**	259	12	0	287	718
Total Volume	13	0	38	0	51	31	1526	19	0	1576	6	0	73	0	79	46	1112	40	0	1198	2904
% App. Total	25.5	0	74.5	0		2	96.8	1.2	0		7.6	0	92.4	0		3.8	92.8	3.3	0		
PHF	.813	.000	.864	.000	.850	.646	.966	.594	.000	.978	.750	.000	.793	.000	.823	.719	.908	.769	.000	.919	.964

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Commercial PM
Site Code : 00000022
Start Date : 5/17/2017
Page No : 2

	Commercial Driveway Southbound					Anderson Mill Westbound					Commercial Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:00					**17:00**					**16:00**					**17:00**					
+0 mins.	**3**	**0**	**9**	**0**	**12**	**8**	**370**	8	0	386	1	0	20	0	21	7	305	7	0	319	
+15 mins.	2	0	7	0	9	6	395	2	0	403	2	0	18	0	20	12	**306**	8	0	**326**	
+30 mins.	**4**	0	**11**	0	**15**	5	387	3	0	395	0	0	**26**	0	**26**	11	242	**13**	0	266	
+45 mins.	4	0	11	0	15	**12**	374	6	0	392	1	0	21	0	22	**16**	259	12	0	287	
Total Volume	13	0	38	0	51	31	1526	19	0	1576	4	0	85	0	89	46	1112	40	0	1198	
% App. Total	25.5	0	74.5	0		2	96.8	1.2	0		4.5	0	95.5	0		3.8	92.8	3.3	0		
PHF	.813	.000	.864	.000	.850	.646	.966	.594	.000	.978	.500	.000	.817	.000	.856	.719	.908	.769	.000	.919	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Cutoff AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	0	0	0	0	0	0	134	0	0	134	0	0	0	0	0	0	337	0	0	337	471
07:15	0	0	0	0	0	1	187	0	0	188	0	0	1	0	1	0	355	1	0	356	545
07:30	0	0	0	0	0	2	217	0	0	219	0	0	0	0	0	1	365	1	0	367	586
07:45	1	1	0	0	2	0	173	1	0	174	0	0	0	0	0	0	378	0	0	378	554
Total	1	1	0	0	2	3	711	1	0	715	0	0	1	0	1	1	1435	2	0	1438	2156
08:00	1	1	0	0	2	0	144	2	0	146	1	0	2	0	3	2	320	8	0	330	481
08:15	0	1	0	0	1	3	178	1	0	182	1	0	0	0	1	3	296	1	0	300	484
08:30	0	0	0	0	0	5	201	5	0	211	0	0	2	0	2	1	330	2	0	333	546
08:45	5	3	3	0	11	4	232	5	0	241	0	0	3	0	3	7	365	2	0	374	629
Total	6	5	3	0	14	12	755	13	0	780	2	0	7	0	9	13	1311	13	0	1337	2140
Grand Total	7	6	3	0	16	15	1466	14	0	1495	2	0	8	0	10	14	2746	15	0	2775	4296
Apprch %	43.8	37.5	18.8	0		1	98.1	0.9	0		20	0	80	0		0.5	99	0.5	0		
Total %	0.2	0.1	0.1	0	0.4	0.3	34.1	0.3	0	34.8	0	0	0.2	0	0.2	0.3	63.9	0.3	0	64.6	

	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	**0**	**0**	**0**	**0**	**0**	**1**	**187**	**0**	**0**	**188**	**0**	**0**	**1**	**0**	**1**	**0**	**355**	**1**	**0**	**356**	**545**
07:30	**0**	**0**	**0**	**0**	**0**	2	217	0	0	219	0	0	0	0	0	1	365	1	0	367	586
07:45	**1**	**1**	0	0	**2**	0	173	1	0	174	0	0	0	0	0	0	**378**	0	0	**378**	554
08:00	1	1	0	0	2	0	144	**2**	0	146	**1**	0	**2**	0	**3**	**2**	320	**8**	0	330	481
Total Volume	2	2	0	0	4	3	721	3	0	727	1	0	3	0	4	3	1418	10	0	1431	2166
% App. Total	50	50	0	0		0.4	99.2	0.4	0		25	0	75	0		0.2	99.1	0.7	0		
PHF	.500	.500	.000	.000	.500	.375	.831	.375	.000	.830	.250	.000	.375	.000	.333	.375	.938	.313	.000	.946	.924

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Cutoff AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00					**08:00**					**08:00**					**07:00**					
+0 mins.	**1**	**1**	**0**	**0**	**2**	**0**	**144**	**2**	**0**	**146**	1	0	2	0	3	0	337	0	0	337	
+15 mins.	0	1	0	0	1	3	178	1	0	182	1	0	0	0	1	0	355	1	0	356	
+30 mins.	0	0	0	0	0	5	201	**5**	0	211	0	0	2	0	2	**1**	365	1	0	367	
+45 mins.	**5**	**3**	**3**	0	**11**	4	**232**	5	0	**241**	0	0	**3**	0	3	0	**378**	0	0	**378**	
Total Volume	6	5	3	0	14	12	755	13	0	780	2	0	7	0	9	1	1435	2	0	1438	
% App. Total	42.9	35.7	21.4	0		1.5	96.8	1.7	0		22.2	0	77.8	0		0.1	99.8	0.1	0		
PHF	.300	.417	.250	.000	.318	.600	.814	.650	.000	.809	.500	.000	.583	.000	.750	.250	.949	.500	.000	.951	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Cutoff PM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	1	0	1	0	2	0	315	1	0	316	0	0	1	1	2	1	261	0	0	262	582
16:15	4	0	4	0	8	1	369	1	0	371	0	0	0	0	0	0	274	0	0	274	653
16:30	1	1	1	0	3	0	411	1	0	412	0	0	3	0	3	1	265	0	0	266	684
16:45	1	0	1	1	3	3	373	1	0	377	0	0	3	0	3	2	266	1	0	269	652
Total	7	1	7	1	16	4	1468	4	0	1476	0	0	7	1	8	4	1066	1	0	1071	2571
17:00	5	0	0	0	5	4	411	4	0	419	3	0	20	1	24	4	305	2	0	311	759
17:15	7	0	5	0	12	0	399	1	0	400	1	0	4	0	5	1	267	0	0	268	685
17:30	2	0	3	0	5	2	401	1	0	404	0	0	2	0	2	6	239	1	0	246	657
17:45	3	0	2	0	5	3	387	0	0	390	0	0	2	0	2	2	263	0	0	265	662
Total	17	0	10	0	27	9	1598	6	0	1613	4	0	28	1	33	13	1074	3	0	1090	2763
Grand Total	24	1	17	1	43	13	3066	10	0	3089	4	0	35	2	41	17	2140	4	0	2161	5334
Apprch %	55.8	2.3	39.5	2.3		0.4	99.3	0.3	0		9.8	0	85.4	4.9		0.8	99	0.2	0		
Total %	0.4	0	0.3	0	0.8	0.2	57.5	0.2	0	57.9	0.1	0	0.7	0	0.8	0.3	40.1	0.1	0	40.5	

	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	**1**	1	1	0	3	0	411	1	0	412	0	0	3	0	3	1	265	0	0	266	684
16:45	1	0	1	1	3	3	373	1	0	377	0	0	3	0	3	2	266	1	0	269	652
17:00	5	0	0	0	5	4	411	**4**	0	**419**	**3**	0	**20**	**1**	**24**	**4**	**305**	**2**	0	**311**	**759**
17:15	**7**	0	**5**	0	**12**	0	399	1	0	400	1	0	4	0	5	1	267	0	0	268	685
Total Volume	14	1	7	1	23	7	1594	7	0	1608	4	0	30	1	35	8	1103	3	0	1114	2780
% App. Total	60.9	4.3	30.4	4.3		0.4	99.1	0.4	0		11.4	0	85.7	2.9		0.7	99	0.3	0		
PHF	.500	.250	.350	.250	.479	.438	.970	.438	.000	.959	.333	.000	.375	.250	.365	.500	.904	.375	.000	.895	.916

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Cutoff PM
Site Code : 00000021
Start Date : 5/17/2017
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	Anderson Mill Cutoff Southbound					Anderson Mill Westbound					Anderson Mill Cutoff Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:00					**17:00**					**16:30**					**16:15**					
+0 mins.	**5**	**0**	**0**	**0**	**5**	4	411	4	0	419	0	0	3	0	3	0	274	0	0	274	
+15 mins.	**7**	0	**5**	0	**12**	0	399	1	0	400	0	0	3	0	3	1	265	0	0	266	
+30 mins.	2	0	3	0	5	2	401	1	0	404	**3**	0	**20**	**1**	**24**	2	266	1	0	269	
+45 mins.	3	0	2	0	5	3	387	0	0	390	1	0	4	0	5	**4**	**305**	**2**	0	**311**	
Total Volume	17	0	10	0	27	9	1598	6	0	1613	4	0	30	1	35	7	1110	3	0	1120	
% App. Total	63	0	37	0		0.6	99.1	0.4	0		11.4	0	85.7	2.9		0.6	99.1	0.3	0		
PHF	.607	.000	.500	.000	.563	.563	.972	.375	.000	.962	.333	.000	.375	.250	.365	.438	.910	.375	.000	.900	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Nene AM
Site Code : 00000021
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	2	0	1	0	3	0	122	0	0	122	0	0	0	0	0	0	308	0	0	308	433
07:15	0	0	0	0	0	0	174	0	0	174	0	0	0	0	0	0	344	0	0	344	518
07:30	0	0	2	0	2	0	213	2	0	215	0	0	0	0	0	0	407	0	0	407	624
07:45	0	0	1	0	1	0	196	0	0	196	0	0	0	0	0	0	349	0	0	349	546
Total	2	0	4	0	6	0	705	2	0	707	0	0	0	0	0	0	1408	0	0	1408	2121
08:00	0	0	2	0	2	0	162	2	0	164	0	0	0	0	0	4	344	0	0	348	514
08:15	2	0	0	0	2	0	214	0	0	214	0	0	0	0	0	1	321	0	0	322	538
08:30	0	0	0	0	0	0	218	0	0	218	0	0	0	0	0	1	342	0	0	343	561
08:45	0	0	0	0	0	0	220	1	0	221	0	0	0	0	0	7	369	0	0	376	597
Total	2	0	2	0	4	0	814	3	0	817	0	0	0	0	0	13	1376	0	0	1389	2210
Grand Total	4	0	6	0	10	0	1519	5	0	1524	0	0	0	0	0	13	2784	0	0	2797	4331
Apprch %	40	0	60	0		0	99.7	0.3	0		0	0	0	0		0.5	99.5	0	0		
Total %	0.1	0	0.1	0	0.2	0	35.1	0.1	0	35.2	0	0	0	0	0	0.3	64.3	0	0	64.6	

	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**0**	**0**	2	0	2	0	213	2	0	215	0	0	0	0	0	0	**407**	0	0	**407**	**624**
07:45	0	0	1	0	1	0	196	0	0	196	0	0	0	0	0	0	349	0	0	349	546
08:00	0	0	2	0	2	0	162	2	0	164	0	0	0	0	0	**4**	344	0	0	348	514
08:15	**2**	0	0	0	2	0	**214**	0	0	214	0	0	0	0	0	1	321	0	0	322	538
Total Volume	2	0	5	0	7	0	785	4	0	789	0	0	0	0	0	5	1421	0	0	1426	2222
% App. Total	28.6	0	71.4	0		0	99.5	0.5	0		0	0	0	0		0.4	99.6	0	0		
PHF	.250	.000	.625	.000	.875	.000	.917	.500	.000	.917	.000	.000	.000	.000	.000	.313	.873	.000	.000	.876	.890

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Nene AM
Site Code : 00000021
Start Date : 5/18/2017
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	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30					**08:00**					**07:00**					**07:15**					
+0 mins.	**0**	**0**	2	0	2	0	162	2	0	164	0	0	0	0	0	0	344	0	0	344	
+15 mins.	0	0	1	0	1	0	214	0	0	214	0	0	0	0	0	0	407	0	0	**407**	
+30 mins.	0	0	2	0	2	0	218	0	0	218	0	0	0	0	0	0	349	0	0	349	
+45 mins.	**2**	0	0	0	2	0	**220**	1	0	**221**	0	0	0	0	0	**4**	344	0	0	348	
Total Volume	2	0	5	0	7	0	814	3	0	817	0	0	0	0	0	4	1444	0	0	1448	
% App. Total	28.6	0	71.4	0		0	99.6	0.4	0		0	0	0	0		0.3	99.7	0	0		
PHF	.250	.000	.625	.000	.875	.000	.925	.375	.000	.924	.000	.000	.000	.000	.000	.250	.887	.000	.000	.889	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Nene PM
Site Code : 00000021
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	0	2	0	2	0	308	1	0	309	0	0	0	0	0	0	244	0	0	244	555
16:15	0	0	2	0	2	0	331	1	0	332	0	0	0	0	0	1	247	0	0	248	582
16:30	0	0	0	0	0	0	346	1	0	347	0	0	0	0	0	0	316	0	0	316	663
16:45	0	0	2	0	2	0	355	2	0	357	0	0	0	0	0	0	298	0	0	298	657
Total	0	0	6	0	6	0	1340	5	0	1345	0	0	0	0	0	1	1105	0	0	1106	2457
17:00	0	0	1	0	1	0	366	2	0	368	0	0	0	0	0	0	272	0	0	272	641
17:15	0	0	1	0	1	0	383	0	0	383	0	0	0	0	0	0	217	0	0	217	601
17:30	0	0	0	0	0	0	356	1	0	357	0	0	0	0	0	0	257	0	0	257	614
17:45	0	0	1	0	1	0	360	0	0	360	0	0	0	0	0	1	265	0	0	266	627
Total	0	0	3	0	3	0	1465	3	0	1468	0	0	0	0	0	1	1011	0	0	1012	2483
Grand Total	0	0	9	0	9	0	2805	8	0	2813	0	0	0	0	0	2	2116	0	0	2118	4940
Apprch %	0	0	100	0		0	99.7	0.3	0		0	0	0	0		0.1	99.9	0	0		
Total %	0	0	0.2	0	0.2	0	56.8	0.2	0	56.9	0	0	0	0	0	0	42.8	0	0	42.9	

	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	**0**	**0**	**0**	**0**	**0**	**0**	**346**	**1**	**0**	**347**	**0**	**0**	**0**	**0**	**0**	**0**	316	0	0	316	663
16:45	0	0	2	0	**2**	0	355	**2**	0	357	0	0	0	0	0	0	298	0	0	298	657
17:00	0	0	1	0	1	0	366	2	0	368	0	0	0	0	0	0	272	0	0	272	641
17:15	0	0	1	0	1	0	**383**	0	0	**383**	0	0	0	0	0	0	217	0	0	217	601
Total Volume	0	0	4	0	4	0	1450	5	0	1455	0	0	0	0	0	0	1103	0	0	1103	2562
% App. Total	0	0	100	0		0	99.7	0.3	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.500	.000	.500	.000	.946	.625	.000	.950	.000	.000	.000	.000	.000	.000	.873	.000	.000	.873	.966

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Nene PM
Site Code : 00000021
Start Date : 5/18/2017
Page No : 2

	Nene Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:00					**17:00**					**16:00**					**16:15**					
+0 mins.	**0**	**0**	2	0	2	0	366	2	0	368	0	0	0	0	0	1	247	0	0	248	
+15 mins.	0	0	2	0	2	0	**383**	0	0	**383**	0	0	0	0	0	0	**316**	0	0	**316**	
+30 mins.	0	0	0	0	0	0	356	1	0	357	0	0	0	0	0	0	298	0	0	298	
+45 mins.	0	0	2	0	2	0	360	0	0	360	0	0	0	0	0	0	272	0	0	272	
Total Volume	0	0	6	0	6	0	1465	3	0	1468	0	0	0	0	0	1	1133	0	0	1134	
% App. Total	0	0	100	0		0	99.8	0.2	0		0	0	0	0		0.1	99.9	0	0		
PHF	.000	.000	.750	.000	.750	.000	.956	.375	.000	.958	.000	.000	.000	.000	.000	.250	.896	.000	.000	.897	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	21	7	7	0	35	9	100	4	0	113	0	7	13	0	20	8	219	2	0	229	397
07:15	30	5	16	0	51	25	125	16	0	166	13	14	37	0	64	5	247	2	0	254	535
07:30	23	20	13	0	56	21	144	10	0	175	27	15	62	0	104	9	264	4	0	277	612
07:45	36	19	12	0	67	19	169	5	0	193	1	20	22	0	43	16	292	3	0	311	614
Total	110	51	48	0	209	74	538	35	0	647	41	56	134	0	231	38	1022	11	0	1071	2158
08:00	15	21	6	0	42	12	150	3	0	165	3	36	28	0	67	14	287	6	0	307	581
08:15	25	26	15	0	66	15	151	4	0	170	2	29	21	0	52	17	258	1	0	276	564
08:30	13	25	16	0	54	20	175	4	0	199	3	36	38	0	77	13	284	3	0	300	630
08:45	22	21	17	0	60	23	171	9	0	203	2	39	37	0	78	28	274	0	0	302	643
Total	75	93	54	0	222	70	647	20	0	737	10	140	124	0	274	72	1103	10	0	1185	2418
Grand Total	185	144	102	0	431	144	1185	55	0	1384	51	196	258	0	505	110	2125	21	0	2256	4576
Apprch %	42.9	33.4	23.7	0		10.4	85.6	4	0		10.1	38.8	51.1	0		4.9	94.2	0.9	0		
Total %	4	3.1	2.2	0	9.4	3.1	25.9	1.2	0	30.2	1.1	4.3	5.6	0	11	2.4	46.4	0.5	0	49.3	

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	**15**	**21**	**6**	**0**	**42**	**12**	**150**	**3**	**0**	**165**	3	36	28	0	67	14	287	6	0	307	581
08:15	**25**	**26**	15	0	**66**	15	151	4	0	170	2	29	21	0	52	17	258	1	0	276	564
08:30	13	25	16	0	54	20	**175**	4	0	199	3	36	**38**	0	77	13	284	3	0	300	630
08:45	22	21	**17**	0	60	**23**	171	**9**	0	**203**	2	**39**	37	0	**78**	**28**	274	0	0	302	**643**
Total Volume	75	93	54	0	222	70	647	20	0	737	10	140	124	0	274	72	1103	10	0	1185	2418
% App. Total	33.8	41.9	24.3	0		9.5	87.8	2.7	0		3.6	51.1	45.3	0		6.1	93.1	0.8	0		
PHF	.750	.894	.794	.000	.841	.761	.924	.556	.000	.908	.833	.897	.816	.000	.878	.643	.961	.417	.000	.965	.940

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30					**08:00**					**07:15**					**07:45**					
+0 mins.	**23**	**20**	**13**	**0**	**56**	**12**	**150**	**3**	**0**	**165**	**13**	**14**	**37**	**0**	**64**	**16**	292	3	0	311	
+15 mins.	36	19	12	0	67	15	151	4	0	170	**27**	15	**62**	0	**104**	14	287	**6**	0	307	
+30 mins.	15	21	6	0	42	20	**175**	4	0	199	1	20	22	0	43	**17**	258	1	0	276	
+45 mins.	25	**26**	**15**	0	66	**23**	171	**9**	0	**203**	3	**36**	28	0	67	13	284	3	0	300	
Total Volume	99	86	46	0	231	70	647	20	0	737	44	85	149	0	278	60	1121	13	0	1194	
% App. Total	42.9	37.2	19.9	0		9.5	87.8	2.7	0		15.8	30.6	53.6	0		5	93.9	1.1	0		
PHF	.688	.827	.767	.000	.862	.761	.924	.556	.000	.908	.407	.590	.601	.000	.668	.882	.960	.542	.000	.960	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson Mid
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
13:00	13	11	8	0	32	17	211	9	0	237	0	5	13	0	18	7	163	1	0	171	458
13:15	13	10	6	0	29	16	212	6	0	234	1	5	24	0	30	3	190	1	0	194	487
13:30	14	6	8	0	28	25	197	3	0	225	1	11	22	0	34	9	188	1	0	198	485
13:45	9	9	5	0	23	32	215	8	0	255	1	15	18	0	34	5	203	6	0	214	526
Total	49	36	27	0	112	90	835	26	0	951	3	36	77	0	116	24	744	9	0	777	1956
14:00	15	14	24	0	53	31	217	14	0	262	6	6	29	0	41	7	170	2	0	179	535
14:15	17	16	6	0	39	16	205	13	0	234	5	6	20	0	31	3	210	3	0	216	520
14:30	15	13	10	0	38	17	179	17	0	213	3	13	23	0	39	9	188	4	0	201	491
14:45	14	14	20	0	48	35	239	12	0	286	8	4	24	0	36	13	162	2	0	177	547
Total	61	57	60	0	178	99	840	56	0	995	22	29	96	0	147	32	730	11	0	773	2093
Grand Total	110	93	87	0	290	189	1675	82	0	1946	25	65	173	0	263	56	1474	20	0	1550	4049
Apprch %	37.9	32.1	30	0		9.7	86.1	4.2	0		9.5	24.7	65.8	0		3.6	95.1	1.3	0		
Total %	2.7	2.3	2.1	0	7.2	4.7	41.4	2	0	48.1	0.6	1.6	4.3	0	6.5	1.4	36.4	0.5	0	38.3	

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 13:00 to 14:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:00																					
14:00	**15**	**14**	24	0	53	31	217	14	0	262	6	6	29	0	41	7	170	2	0	179	535
14:15	**17**	**16**	6	0	39	16	205	13	0	234	5	6	20	0	31	3	**210**	3	0	**216**	520
14:30	15	13	10	0	38	17	179	**17**	0	213	3	**13**	23	0	39	9	188	**4**	0	201	491
14:45	14	14	20	0	48	**35**	**239**	12	0	**286**	**8**	4	24	0	36	**13**	162	2	0	177	**547**
Total Volume	61	57	60	0	178	99	840	56	0	995	22	29	96	0	147	32	730	11	0	773	2093
% App. Total	34.3	32	33.7	0		9.9	84.4	5.6	0		15	19.7	65.3	0		4.1	94.4	1.4	0		
PHF	.897	.891	.625	.000	.840	.707	.879	.824	.000	.870	.688	.558	.828	.000	.896	.615	.869	.688	.000	.895	.957

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson Mid
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 13:00 to 14:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	14:00					**14:00**					**14:00**					**13:45**					
+0 mins.	**15**	**14**	24	0	53	31	217	14	0	262	6	6	29	0	41	5	203	**6**	0	214	
+15 mins.	**17**	**16**	6	0	39	16	205	13	0	234	5	6	20	0	31	7	170	2	0	179	
+30 mins.	15	13	10	0	38	17	179	**17**	0	213	3	**13**	23	0	39	3	**210**	3	0	**216**	
+45 mins.	14	14	20	0	48	**35**	**239**	12	0	**286**	**8**	4	24	0	36	**9**	188	4	0	201	
Total Volume	61	57	60	0	178	99	840	56	0	995	22	29	96	0	147	24	771	15	0	810	
% App. Total	34.3	32	33.7	0		9.9	84.4	5.6	0		15	19.7	65.3	0		3	95.2	1.9	0		
PHF	.897	.891	.625	.000	.840	.707	.879	.824	.000	.870	.688	.558	.828	.000	.896	.667	.918	.625	.000	.938	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson PM
Site Code : 00000021
Start Date : 5/17/2017
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Groups Printed- Autos

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	16	16	10	0	42	23	245	15	0	283	4	19	22	0	45	15	202	0	0	217	587
16:15	14	23	17	0	54	20	259	15	0	294	1	17	22	0	40	11	205	2	0	218	606
16:30	27	35	28	0	90	16	295	13	0	324	3	20	20	0	43	10	209	0	0	219	676
16:45	19	26	14	0	59	14	281	23	0	318	3	23	25	0	51	14	200	1	0	215	643
Total	76	100	69	0	245	73	1080	66	0	1219	11	79	89	0	179	50	816	3	0	869	2512
17:00	21	18	12	0	51	18	306	17	0	341	3	23	20	0	46	11	223	0	0	234	672
17:15	13	24	13	0	50	16	320	20	0	356	1	28	22	0	51	10	213	0	0	223	680
17:30	20	15	15	0	50	22	302	21	0	345	3	24	21	0	48	12	192	1	0	205	648
17:45	10	20	10	0	40	35	292	18	0	345	2	31	30	0	63	15	193	3	0	211	659
Total	64	77	50	0	191	91	1220	76	0	1387	9	106	93	0	208	48	821	4	0	873	2659
Grand Total	140	177	119	0	436	164	2300	142	0	2606	20	185	182	0	387	98	1637	7	0	1742	5171
Apprch %	32.1	40.6	27.3	0		6.3	88.3	5.4	0		5.2	47.8	47	0		5.6	94	0.4	0		
Total %	2.7	3.4	2.3	0	8.4	3.2	44.5	2.7	0	50.4	0.4	3.6	3.5	0	7.5	1.9	31.7	0.1	0	33.7	

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	27	35	28	0	90	16	295	13	0	324	**3**	20	20	0	43	10	209	0	0	219	676
16:45	19	26	14	0	59	14	281	**23**	0	318	3	23	**25**	0	**51**	**14**	200	**1**	0	215	643
17:00	21	18	12	0	51	**18**	306	17	0	341	3	23	20	0	46	11	**223**	0	0	**234**	672
17:15	13	24	13	0	50	16	**320**	20	0	**356**	1	**28**	22	0	51	10	213	0	0	223	**680**
Total Volume	80	103	67	0	250	64	1202	73	0	1339	10	94	87	0	191	45	845	1	0	891	2671
% App. Total	32	41.2	26.8	0		4.8	89.8	5.5	0		5.2	49.2	45.5	0		5.1	94.8	0.1	0		
PHF	.741	.736	.598	.000	.694	.889	.939	.793	.000	.940	.833	.839	.870	.000	.936	.804	.947	.250	.000	.952	.982

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Olson PM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Millwright Southbound					Anderson Mill Westbound					Olson Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	16:15					**17:00**					**17:00**					**16:30**					
+0 mins.	**14**	**23**	**17**	**0**	**54**	**18**	**306**	**17**	**0**	**341**	3	23	20	0	46	10	209	0	0	219	
+15 mins.	27	35	28	0	**90**	16	**320**	20	0	**356**	1	28	22	0	51	**14**	200	**1**	0	215	
+30 mins.	19	26	14	0	59	22	302	**21**	0	345	3	24	21	0	48	11	**223**	0	0	**234**	
+45 mins.	21	18	12	0	51	**35**	292	18	0	345	2	**31**	**30**	0	**63**	10	213	0	0	223	
Total Volume	81	102	71	0	254	91	1220	76	0	1387	9	106	93	0	208	45	845	1	0	891	
% App. Total	31.9	40.2	28	0		6.6	88	5.5	0		4.3	51	44.7	0		5.1	94.8	0.1	0		
PHF	.750	.729	.634	.000	.706	.650	.953	.905	.000	.974	.750	.855	.775	.000	.825	.804	.947	.250	.000	.952	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	0	0	0	0	0	2	100	0	0	102	12	0	2	0	14	0	245	35	0	280	396
07:15	0	0	0	0	0	9	139	0	0	148	21	0	8	0	29	0	261	76	0	337	514
07:30	0	0	0	0	0	4	172	0	0	176	37	0	13	0	50	0	310	83	0	393	619
07:45	0	0	0	0	0	6	179	0	0	185	24	0	6	0	30	0	291	74	0	365	580
Total	0	0	0	0	0	21	590	0	0	611	94	0	29	0	123	0	1107	268	0	1375	2109
08:00	0	0	0	0	0	5	161	0	0	166	22	0	10	0	32	0	313	56	0	369	567
08:15	0	0	0	0	0	5	151	0	0	156	45	0	3	0	48	0	278	46	0	324	528
08:30	0	0	0	0	0	8	184	0	0	192	26	0	4	0	30	0	278	44	0	322	544
08:45	0	0	0	0	0	8	180	0	0	188	40	0	14	0	54	0	290	38	0	328	570
Total	0	0	0	0	0	26	676	0	0	702	133	0	31	0	164	0	1159	184	0	1343	2209
Grand Total	0	0	0	0	0	47	1266	0	0	1313	227	0	60	0	287	0	2266	452	0	2718	4318
Apprch %	0	0	0	0		3.6	96.4	0	0		79.1	0	20.9	0		0	83.4	16.6	0		
Total %	0	0	0	0	0	1.1	29.3	0	0	30.4	5.3	0	1.4	0	6.6	0	52.5	10.5	0	62.9	

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**0**	**0**	**0**	**0**	**0**	**4**	**172**	**0**	**0**	**176**	**37**	**0**	13	0	50	0	310	83	0	393	**619**
07:45	0	0	0	0	0	**6**	**179**	0	0	**185**	24	0	6	0	30	0	291	74	0	365	580
08:00	0	0	0	0	0	5	161	0	0	166	22	0	10	0	32	0	**313**	56	0	369	567
08:15	0	0	0	0	0	5	151	0	0	156	**45**	0	3	0	48	0	278	46	0	324	528
Total Volume	0	0	0	0	0	20	663	0	0	683	128	0	32	0	160	0	1192	259	0	1451	2294
% App. Total	0	0	0	0		2.9	97.1	0	0		80	0	20	0		0	82.2	17.8	0		
PHF	.000	.000	.000	.000	.000	.833	.926	.000	.000	.923	.711	.000	.615	.000	.800	.000	.952	.780	.000	.923	.926

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy AM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00					**08:00**					**08:00**					**07:15**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**5**	**161**	**0**	**0**	**166**	**22**	**0**	**10**	**0**	**32**	**0**	**261**	**76**	**0**	**337**	
+15 mins.	**0**	**0**	**0**	**0**	**0**	**5**	**151**	**0**	**0**	**156**	45	0	3	0	48	0	310	83	0	393	
+30 mins.	0	0	0	0	0	8	**184**	0	0	**192**	26	0	4	0	30	0	291	74	0	365	
+45 mins.	0	0	0	0	0	8	180	0	0	188	40	0	**14**	0	**54**	0	**313**	56	0	369	
Total Volume	0	0	0	0	0	26	676	0	0	702	133	0	31	0	164	0	1175	289	0	1464	
% App. Total	0	0	0	0		3.7	96.3	0	0		81.1	0	18.9	0		0	80.3	19.7	0		
PHF	.000	.000	.000	.000	.000	.813	.918	.000	.000	.914	.739	.000	.554	.000	.759	.000	.938	.870	.000	.931	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy Mid
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
13:00	0	0	0	0	0	3	209	0	0	212	29	0	7	0	36	0	183	17	0	200	448
13:15	0	0	0	0	0	3	205	0	0	208	24	0	3	0	27	0	180	16	0	196	431
13:30	0	0	0	0	0	5	190	0	0	195	29	0	6	0	35	0	206	22	0	228	458
13:45	0	0	0	0	0	6	205	0	0	211	39	0	3	0	42	0	201	32	0	233	486
Total	0	0	0	0	0	17	809	0	0	826	121	0	19	0	140	0	770	87	0	857	1823
14:00	0	0	0	0	0	5	238	0	0	243	33	0	4	0	37	0	185	22	0	207	487
14:15	0	0	0	0	0	4	203	0	0	207	41	0	9	0	50	0	208	27	0	235	492
14:30	0	0	0	0	0	6	177	0	0	183	34	0	7	0	41	0	199	31	0	230	454
14:45	0	0	0	0	0	11	232	0	0	243	46	0	11	0	57	0	173	38	0	211	511
Total	0	0	0	0	0	26	850	0	0	876	154	0	31	0	185	0	765	118	0	883	1944
Grand Total	0	0	0	0	0	43	1659	0	0	1702	275	0	50	0	325	0	1535	205	0	1740	3767
Apprch %	0	0	0	0		2.5	97.5	0	0		84.6	0	15.4	0		0	88.2	11.8	0		
Total %	0	0	0	0	0	1.1	44	0	0	45.2	7.3	0	1.3	0	8.6	0	40.7	5.4	0	46.2	

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 13:00 to 14:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:00																					
14:00	**0**	**0**	**0**	**0**	**0**	**5**	238	0	0	243	33	0	4	0	37	0	185	22	0	207	487
14:15	0	0	0	0	0	4	203	0	0	207	41	0	9	0	50	0	208	27	0	235	492
14:30	0	0	0	0	0	6	177	0	0	183	34	0	7	0	41	0	199	31	0	230	454
14:45	0	0	0	0	0	**11**	232	0	0	243	**46**	0	**11**	0	**57**	0	173	**38**	0	211	**511**
Total Volume	0	0	0	0	0	26	850	0	0	876	154	0	31	0	185	0	765	118	0	883	1944
% App. Total	0	0	0	0		3	97	0	0		83.2	0	16.8	0		0	86.6	13.4	0		
PHF	.000	.000	.000	.000	.000	.591	.893	.000	.000	.901	.837	.000	.705	.000	.811	.000	.919	.776	.000	.939	.951

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy Mid
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 13:00 to 14:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	13:00					**14:00**					**14:00**					**13:45**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**5**	238	0	0	243	33	0	4	0	37	0	201	32	0	233	
+15 mins.	0	0	0	0	0	4	203	0	0	207	41	0	9	0	50	0	185	22	0	207	
+30 mins.	0	0	0	0	0	6	177	0	0	183	34	0	7	0	41	0	208	27	0	**235**	
+45 mins.	0	0	0	0	0	**11**	232	0	0	243	**46**	0	**11**	0	**57**	0	199	31	0	230	
Total Volume	0	0	0	0	0	26	850	0	0	876	154	0	31	0	185	0	793	112	0	905	
% App. Total	0	0	0	0		3	97	0	0		83.2	0	16.8	0		0	87.6	12.4	0		
PHF	.000	.000	.000	.000	.000	.591	.893	.000	.000	.901	.837	.000	.705	.000	.811	.000	.953	.875	.000	.963	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy PM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	0	0	0	0	6	268	0	0	274	45	0	5	0	50	0	208	26	0	234	558
16:15	0	0	0	0	0	0	265	0	0	265	57	0	1	0	58	0	212	23	0	235	558
16:30	0	0	0	0	0	4	330	0	0	334	58	0	6	0	64	0	215	20	0	235	633
16:45	0	0	0	0	0	7	303	0	0	310	68	0	3	0	71	0	208	33	0	241	622
Total	0	0	0	0	0	17	1166	0	0	1183	228	0	15	0	243	0	843	102	0	945	2371
17:00	0	0	0	0	0	4	316	0	0	320	91	0	8	0	99	0	247	38	0	285	704
17:15	0	0	0	0	0	6	337	0	0	343	96	0	5	0	101	0	221	34	0	255	699
17:30	0	0	0	0	0	7	309	0	0	316	112	0	3	0	115	0	190	29	0	219	650
17:45	0	0	0	0	0	2	317	0	0	319	100	0	9	0	109	0	217	39	0	256	684
Total	0	0	0	0	0	19	1279	0	0	1298	399	0	25	0	424	0	875	140	0	1015	2737
Grand Total	0	0	0	0	0	36	2445	0	0	2481	627	0	40	0	667	0	1718	242	0	1960	5108
Apprch %	0	0	0	0		1.5	98.5	0	0		94	0	6	0		0	87.7	12.3	0		
Total %	0	0	0	0	0	0.7	47.9	0	0	48.6	12.3	0	0.8	0	13.1	0	33.6	4.7	0	38.4	

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	**0**	**0**	**0**	**0**	**0**	**4**	**316**	**0**	**0**	**320**	**91**	**0**	**8**	**0**	**99**	**0**	247	38	0	285	704
17:15	0	0	0	0	0	6	337	0	0	**343**	96	0	5	0	101	0	221	34	0	255	699
17:30	0	0	0	0	0	**7**	309	0	0	316	**112**	0	3	0	**115**	0	190	29	0	219	650
17:45	0	0	0	0	0	2	317	0	0	319	100	0	**9**	0	109	0	217	**39**	0	256	684
Total Volume	0	0	0	0	0	19	1279	0	0	1298	399	0	25	0	424	0	875	140	0	1015	2737
% App. Total	0	0	0	0		1.5	98.5	0	0		94.1	0	5.9	0		0	86.2	13.8	0		
PHF	.000	.000	.000	.000	.000	.679	.949	.000	.000	.946	.891	.000	.694	.000	.922	.000	.886	.897	.000	.890	.972

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-SpicewoodPkwy PM
Site Code : 00000021
Start Date : 5/17/2017
Page No : 2

	Southbound					Anderson Mill Westbound					Spicewood Pkwy Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:00					**16:30**					**17:00**					**16:30**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**4**	**330**	**0**	**0**	**334**	**91**	**0**	**8**	**0**	**99**	**0**	**215**	**20**	**0**	**235**	
+15 mins.	**0**	**0**	**0**	**0**	**0**	7	303	0	0	310	96	0	5	0	101	0	208	33	0	241	
+30 mins.	0	0	0	0	0	4	316	0	0	320	112	0	3	0	115	0	247	**38**	0	**285**	
+45 mins.	0	0	0	0	0	6	**337**	0	0	**343**	100	0	**9**	0	109	0	221	34	0	255	
Total Volume	0	0	0	0	0	21	1286	0	0	1307	399	0	25	0	424	0	891	125	0	1016	
% App. Total	0	0	0	0		1.6	98.4	0	0		94.1	0	5.9	0		0	87.7	12.3	0		
PHF	.000	.000	.000	.000	.000	.750	.954	.000	.000	.953	.891	.000	.694	.000	.922	.000	.902	.822	.000	.891	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swallow AM
Site Code : 00000025
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	1	0	1	0	2	2	142	1	0	145	0	0	1	0	1	2	311	0	0	313	461
07:15	1	0	3	0	4	0	186	5	0	191	0	0	0	0	0	6	367	0	0	373	568
07:30	0	0	3	0	3	0	205	0	0	205	0	0	0	0	0	7	381	0	0	388	596
07:45	1	0	3	0	4	0	197	4	0	201	0	0	0	0	0	6	345	2	0	353	558
Total	3	0	10	0	13	2	730	10	0	742	0	0	1	0	1	21	1404	2	0	1427	2183
08:00	4	0	4	0	8	2	173	5	0	180	0	0	2	0	2	18	350	0	0	368	558
08:15	1	0	6	0	7	1	205	2	0	208	0	0	0	0	0	20	323	0	0	343	558
08:30	0	0	4	0	4	2	211	4	0	217	0	0	0	0	0	24	328	0	0	352	573
08:45	0	0	9	0	9	3	227	8	0	238	0	1	2	0	3	41	349	0	0	390	640
Total	5	0	23	0	28	8	816	19	0	843	0	1	4	0	5	103	1350	0	0	1453	2329
Grand Total	8	0	33	0	41	10	1546	29	0	1585	0	1	5	0	6	124	2754	2	0	2880	4512
Apprch %	19.5	0	80.5	0		0.6	97.5	1.8	0		0	16.7	83.3	0		4.3	95.6	0.1	0		
Total %	0.2	0	0.7	0	0.9	0.2	34.3	0.6	0	35.1	0	0	0.1	0	0.1	2.7	61	0	0	63.8	

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	4	0	4	0	8	2	173	5	0	180	0	0	2	0	2	18	350	0	0	368	558
08:15	1	0	6	0	7	1	205	2	0	208	0	0	0	0	0	20	323	0	0	343	558
08:30	0	0	4	0	4	2	211	4	0	217	0	0	0	0	0	24	328	0	0	352	573
08:45	0	0	9	0	**9**	**3**	**227**	**8**	0	**238**	0	**1**	2	0	**3**	**41**	349	0	0	**390**	**640**
Total Volume	5	0	23	0	28	8	816	19	0	843	0	1	4	0	5	103	1350	0	0	1453	2329
% App. Total	17.9	0	82.1	0		0.9	96.8	2.3	0		0	20	80	0		7.1	92.9	0	0		
PHF	.313	.000	.639	.000	.778	.667	.899	.594	.000	.886	.000	.250	.500	.000	.417	.628	.964	.000	.000	.931	.910

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swallow AM
Site Code : 00000025
Start Date : 5/18/2017
Page No : 2

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00					**08:00**					**08:00**					**07:15**					
+0 mins.	4	0	4	0	8	2	173	5	0	180	0	0	2	0	2	6	367	0	0	373	
+15 mins.	1	0	6	0	7	1	205	2	0	208	0	0	0	0	0	7	381	0	0	388	
+30 mins.	0	0	4	0	4	2	211	4	0	217	0	0	0	0	0	6	345	**2**	0	353	
+45 mins.	0	0	**9**	0	**9**	**3**	**227**	**8**	0	**238**	0	**1**	2	0	**3**	**18**	350	0	0	368	
Total Volume	5	0	23	0	28	8	816	19	0	843	0	1	4	0	5	37	1443	2	0	1482	
% App. Total	17.9	0	82.1	0		0.9	96.8	2.3	0		0	20	80	0		2.5	97.4	0.1	0		
PHF	.313	.000	.639	.000	.778	.667	.899	.594	.000	.886	.000	.250	.500	.000	.417	.514	.947	.250	.000	.955	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swallow PM
Site Code : 00000025
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	1	0	1	0	2	2	339	9	0	350	0	0	2	0	2	9	251	0	1	261	615
16:15	1	0	17	0	18	1	335	11	0	347	0	0	0	0	0	9	258	0	0	267	632
16:30	0	0	8	0	8	0	363	8	0	371	0	0	2	0	2	5	293	1	0	299	680
16:45	0	0	5	0	5	0	355	6	0	361	0	0	0	0	0	4	292	0	0	296	662
Total	2	0	31	0	33	3	1392	34	0	1429	0	0	4	0	4	27	1094	1	1	1123	2589
17:00	1	0	5	0	6	1	389	10	0	400	0	0	3	0	3	1	250	0	0	251	660
17:15	1	0	1	0	2	0	388	15	0	403	0	0	0	0	0	7	248	0	0	255	660
17:30	0	0	3	0	3	1	346	14	0	361	0	0	1	0	1	2	297	0	0	299	664
17:45	0	0	3	0	3	3	348	16	0	367	0	0	3	0	3	5	271	1	0	277	650
Total	2	0	12	0	14	5	1471	55	0	1531	0	0	7	0	7	15	1066	1	0	1082	2634
Grand Total	4	0	43	0	47	8	2863	89	0	2960	0	0	11	0	11	42	2160	2	1	2205	5223
Apprch %	8.5	0	91.5	0		0.3	96.7	3	0		0	0	100	0		1.9	98	0.1	0		
Total %	0.1	0	0.8	0	0.9	0.2	54.8	1.7	0	56.7	0	0	0.2	0	0.2	0.8	41.4	0	0	42.2	

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	**0**	**0**	8	0	8	0	363	8	0	371	0	0	2	0	2	5	293	1	0	**299**	**680**
16:45	0	0	5	0	5	0	355	6	0	361	0	0	0	0	0	4	292	0	0	296	662
17:00	**1**	0	5	0	6	**1**	**389**	10	0	400	0	0	**3**	0	**3**	1	250	0	0	251	660
17:15	1	0	1	0	2	0	388	**15**	0	**403**	0	0	0	0	0	**7**	248	0	0	255	660
Total Volume	2	0	19	0	21	1	1495	39	0	1535	0	0	5	0	5	17	1083	1	0	1101	2662
% App. Total	9.5	0	90.5	0		0.1	97.4	2.5	0		0	0	100	0		1.5	98.4	0.1	0		
PHF	.500	.000	.594	.000	.656	.250	.961	.650	.000	.952	.000	.000	.417	.000	.417	.607	.924	.250	.000	.921	.979

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swallow PM
Site Code : 00000025
Start Date : 5/18/2017
Page No : 2

	Swallow Southbound					Anderson Mill Westbound					Driveway Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:15					**16:30**					**17:00**					**16:00**					
+0 mins.	1	0	17	0	18	0	363	8	0	371	0	0	3	0	**3**	**9**	251	0	**1**	261	
+15 mins.	0	0	8	0	8	0	355	6	0	361	0	0	0	0	0	9	258	0	0	267	
+30 mins.	0	0	5	0	5	**1**	**389**	10	0	400	0	0	1	0	1	5	**293**	**1**	0	**299**	
+45 mins.	1	0	5	0	6	0	388	**15**	0	**403**	0	0	3	0	3	4	292	0	0	296	
Total Volume	2	0	35	0	37	1	1495	39	0	1535	0	0	7	0	7	27	1094	1	1	1123	
% App. Total	5.4	0	94.6	0		0.1	97.4	2.5	0		0	0	100	0		2.4	97.4	0.1	0.1		
PHF	.500	.000	.515	.000	.514	.250	.961	.650	.000	.952	.000	.000	.583	.000	.583	.750	.933	.250	.250	.939	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swan AM
Site Code : 00000030
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Swam Southbound					Anderson Mill Westbound					Swam Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	0	0	0	0	0	20	119	0	0	139	0	0	19	0	19	1	293	1	0	295	453
07:15	0	0	0	0	0	19	175	1	0	195	1	0	39	0	40	0	331	4	0	335	570
07:30	0	0	0	0	0	7	201	0	0	208	0	0	26	0	26	0	362	11	0	373	607
07:45	1	0	0	0	1	8	189	1	0	198	0	1	22	0	23	1	330	0	0	331	553
Total	1	0	0	0	1	54	684	2	0	740	1	1	106	0	108	2	1316	16	0	1334	2183
08:00	0	1	1	0	2	11	166	1	0	178	1	2	38	0	41	2	329	1	0	332	553
08:15	1	0	0	0	1	9	202	1	0	212	0	1	39	0	40	2	301	3	0	306	559
08:30	1	0	3	0	4	7	205	1	0	213	0	0	39	0	39	8	315	3	0	326	582
08:45	1	0	4	0	5	15	214	1	0	230	0	0	64	0	64	12	323	1	0	336	635
Total	3	1	8	0	12	42	787	4	0	833	1	3	180	0	184	24	1268	8	0	1300	2329
Grand Total	4	1	8	0	13	96	1471	6	0	1573	2	4	286	0	292	26	2584	24	0	2634	4512
Apprch %	30.8	7.7	61.5	0		6.1	93.5	0.4	0		0.7	1.4	97.9	0		1	98.1	0.9	0		
Total %	0.1	0	0.2	0	0.3	2.1	32.6	0.1	0	34.9	0	0.1	6.3	0	6.5	0.6	57.3	0.5	0	58.4	

	Swam Southbound					Anderson Mill Westbound					Swam Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	**0**	1	1	0	2	11	166	1	0	178	1	2	38	0	41	2	**329**	1	0	332	553
08:15	**1**	0	0	0	1	9	202	1	0	212	0	1	39	0	40	2	301	**3**	0	306	559
08:30	1	0	3	0	4	7	205	1	0	213	0	0	39	0	39	8	315	3	0	326	582
08:45	1	0	**4**	0	**5**	**15**	**214**	1	0	**230**	0	0	**64**	0	**64**	**12**	323	1	0	**336**	**635**
Total Volume	3	1	8	0	12	42	787	4	0	833	1	3	180	0	184	24	1268	8	0	1300	2329
% App. Total	25	8.3	66.7	0		5	94.5	0.5	0		0.5	1.6	97.8	0		1.8	97.5	0.6	0		
PHF	.750	.250	.500	.000	.600	.700	.919	1.00	.000	.905	.250	.375	.703	.000	.719	.500	.964	.667	.000	.967	.917

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swan AM
Site Code : 00000030
Start Date : 5/18/2017
Page No : 2

	Swam Southbound					Anderson Mill Westbound					Swam Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00					**08:00**					**08:00**					**07:15**					
+0 mins.	**0**	1	1	0	2	11	166	1	0	178	1	2	38	0	41	0	331	4	0	335	
+15 mins.	**1**	0	0	0	1	9	202	1	0	212	0	1	39	0	40	0	**362**	**11**	0	**373**	
+30 mins.	1	0	3	0	4	7	205	1	0	213	0	0	39	0	39	1	330	0	0	331	
+45 mins.	1	0	**4**	0	**5**	**15**	**214**	1	0	**230**	0	0	**64**	0	**64**	**2**	329	1	0	332	
Total Volume	3	1	8	0	12	42	787	4	0	833	1	3	180	0	184	3	1352	16	0	1371	
% App. Total	25	8.3	66.7	0		5	94.5	0.5	0		0.5	1.6	97.8	0		0.2	98.6	1.2	0		
PHF	.750	.250	.500	.000	.600	.700	.919	1.000	.000	.905	.250	.375	.703	.000	.719	.375	.934	.364	.000	.919	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swan PM
Site Code : 00000030
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Swan Southbound					Anderson Mill Westbound					Swan Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	2	1	1	0	4	18	320	2	0	340	0	2	26	0	28	5	231	0	0	236	608
16:15	2	0	11	0	13	31	319	3	0	353	0	0	22	0	22	0	243	5	0	248	636
16:30	0	1	9	0	10	26	341	2	0	369	0	1	20	0	21	2	278	8	0	288	688
16:45	0	0	2	0	2	17	341	3	0	361	0	0	26	0	26	0	268	1	0	269	658
Total	4	2	23	0	29	92	1321	10	0	1423	0	3	94	0	97	7	1020	14	0	1041	2590
17:00	0	0	3	0	3	20	359	6	0	385	0	1	17	0	18	1	227	0	0	228	634
17:15	0	0	0	0	0	30	341	2	0	373	0	0	29	0	29	2	209	2	0	213	615
17:30	0	0	2	0	2	33	305	3	0	341	0	0	28	0	28	1	255	0	0	256	627
17:45	0	0	2	0	2	25	312	6	0	343	1	1	30	0	32	0	253	0	0	253	630
Total	0	0	7	0	7	108	1317	17	0	1442	1	2	104	0	107	4	944	2	0	950	2506
Grand Total	4	2	30	0	36	200	2638	27	0	2865	1	5	198	0	204	11	1964	16	0	1991	5096
Apprch %	11.1	5.6	83.3	0		7	92.1	0.9	0		0.5	2.5	97.1	0		0.6	98.6	0.8	0		
Total %	0.1	0	0.6	0	0.7	3.9	51.8	0.5	0	56.2	0	0.1	3.9	0	4	0.2	38.5	0.3	0	39.1	

	Swan Southbound					Anderson Mill Westbound					Swan Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	**2**	0	**11**	0	**13**	**31**	319	3	0	353	0	0	22	0	22	0	243	5	0	248	636
16:30	0	**1**	9	0	10	26	341	2	0	369	0	**1**	20	0	21	**2**	**278**	**8**	0	**288**	**688**
16:45	0	0	2	0	2	17	341	3	0	361	0	0	**26**	0	**26**	0	268	1	0	269	658
17:00	0	0	3	0	3	20	**359**	**6**	0	**385**	0	1	17	0	18	1	227	0	0	228	634
Total Volume	2	1	25	0	28	94	1360	14	0	1468	0	2	85	0	87	3	1016	14	0	1033	2616
% App. Total	7.1	3.6	89.3	0		6.4	92.6	1	0		0	2.3	97.7	0		0.3	98.4	1.4	0		
PHF	.250	.250	.568	.000	.538	.758	.947	.583	.000	.953	.000	.500	.817	.000	.837	.375	.914	.438	.000	.897	.951

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-Swan PM
Site Code : 00000030
Start Date : 5/18/2017
Page No : 2

	Swan Southbound					Anderson Mill Westbound					Swan Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:00					16:30					17:00					16:00					
+0 mins.	**2**	**1**	1	0	4	26	341	2	0	369	0	**1**	17	0	18	**5**	231	0	0	236	
+15 mins.	2	0	**11**	0	**13**	17	341	3	0	361	0	0	29	0	29	0	243	5	0	248	
+30 mins.	0	1	9	0	10	20	**359**	**6**	0	**385**	0	0	28	0	28	2	**278**	**8**	0	**288**	
+45 mins.	0	0	2	0	2	**30**	341	2	0	373	**1**	1	**30**	0	**32**	0	268	1	0	269	
Total Volume	4	2	23	0	29	93	1382	13	0	1488	1	2	104	0	107	7	1020	14	0	1041	
% App. Total	13.8	6.9	79.3	0		6.2	92.9	0.9	0		0.9	1.9	97.2	0		0.7	98	1.3	0		
PHF	.500	.500	.523	.000	.558	.775	.962	.542	.000	.966	.250	.500	.867	.000	.836	.350	.917	.438	.000	.904	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183NBFR AM
Site Code : 00000030
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	0	0	0	0	0	0	134	10	0	144	76	25	21	46	168	28	116	0	0	144	456
07:15	0	0	0	0	0	0	160	12	0	172	99	32	33	50	214	47	173	0	0	220	606
07:30	0	0	0	0	0	0	171	8	0	179	107	33	35	51	226	42	180	0	0	222	627
07:45	0	0	0	0	0	0	146	11	0	157	107	25	35	57	224	44	215	0	0	259	640
Total	0	0	0	0	0	0	611	41	0	652	389	115	124	204	832	161	684	0	0	845	2329
08:00	0	0	0	0	0	0	143	18	0	161	89	23	28	63	203	38	204	0	0	242	606
08:15	0	0	0	0	0	0	136	12	0	148	140	35	27	55	257	46	191	0	0	237	642
08:30	0	0	0	0	0	0	135	14	0	149	138	41	29	57	265	37	180	0	0	217	631
08:45	0	0	0	0	0	0	168	12	0	180	141	64	45	82	332	44	196	0	0	240	752
Total	0	0	0	0	0	0	582	56	0	638	508	163	129	257	1057	165	771	0	0	936	2631
Grand Total	0	0	0	0	0	0	1193	97	0	1290	897	278	253	461	1889	326	1455	0	0	1781	4960
Apprch %	0	0	0	0		0	92.5	7.5	0		47.5	14.7	13.4	24.4		18.3	81.7	0	0		
Total %	0	0	0	0	0	0	24.1	2	0	26	18.1	5.6	5.1	9.3	38.1	6.6	29.3	0	0	35.9	

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	**0**	**0**	**0**	**0**	**0**	**0**	**143**	18	0	161	89	23	28	63	203	38	204	0	0	242	606
08:15	0	0	0	0	0	0	136	12	0	148	140	35	27	55	257	46	191	0	0	237	642
08:30	0	0	0	0	0	0	135	14	0	149	138	41	29	57	265	37	180	0	0	217	631
08:45	0	0	0	0	0	0	**168**	12	0	**180**	**141**	**64**	**45**	**82**	**332**	44	196	0	0	240	**752**
Total Volume	0	0	0	0	0	0	582	56	0	638	508	163	129	257	1057	165	771	0	0	936	2631
% App. Total	0	0	0	0		0	91.2	8.8	0		48.1	15.4	12.2	24.3		17.6	82.4	0	0		
PHF	.000	.000	.000	.000	.000	.000	.866	.778	.000	.886	.901	.637	.717	.784	.796	.897	.945	.000	.000	.967	.875

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183NBFR AM
Site Code : 00000030
Start Date : 5/17/2017
Page No : 2

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:00					**07:15**					**08:00**					**07:30**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**0**	**160**	**12**	**0**	**172**	**89**	**23**	**28**	**63**	**203**	**42**	**180**	**0**	**0**	**222**	
+15 mins.	**0**	**0**	**0**	**0**	**0**	**0**	171	8	0	179	140	35	27	55	257	44	215	0	0	259	
+30 mins.	0	0	0	0	0	0	146	11	0	157	138	41	29	57	265	38	204	0	0	242	
+45 mins.	0	0	0	0	0	0	143	**18**	0	161	**141**	**64**	**45**	**82**	**332**	**46**	191	0	0	237	
Total Volume	0	0	0	0	0	0	620	49	0	669	508	163	129	257	1057	170	790	0	0	960	
% App. Total	0	0	0	0		0	92.7	7.3	0		48.1	15.4	12.2	24.3		17.7	82.3	0	0		
PHF	.000	.000	.000	.000	.000	.000	.906	.681	.000	.934	.901	.637	.717	.784	.796	.924	.919	.000	.000	.927	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183NBFR PM
Site Code : 00000030
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	0	0	0	0	0	150	36	0	186	221	97	65	85	468	60	146	0	0	206	860
16:15	0	0	0	0	0	0	162	31	0	193	247	94	70	74	485	51	182	0	0	233	911
16:30	0	0	0	0	0	0	163	28	0	191	294	103	56	73	526	60	190	0	0	250	967
16:45	0	0	0	0	0	0	166	22	0	188	261	99	66	81	507	70	194	0	0	264	959
Total	0	0	0	0	0	0	641	117	0	758	1023	393	257	313	1986	241	712	0	0	953	3697
17:00	0	0	0	0	0	0	201	25	0	226	274	121	86	62	543	69	208	0	0	277	1046
17:15	0	0	0	0	0	0	222	21	0	243	277	120	75	76	548	64	222	0	0	286	1077
17:30	0	0	0	0	0	0	194	14	0	208	258	131	65	108	562	67	185	0	0	252	1022
17:45	0	0	0	0	0	0	192	18	0	210	265	103	87	82	537	71	192	0	0	263	1010
Total	0	0	0	0	0	0	809	78	0	887	1074	475	313	328	2190	271	807	0	0	1078	4155
Grand Total	0	0	0	0	0	0	1450	195	0	1645	2097	868	570	641	4176	512	1519	0	0	2031	7852
Apprch %	0	0	0	0		0	88.1	11.9	0		50.2	20.8	13.6	15.3		25.2	74.8	0	0		
Total %	0	0	0	0	0	0	18.5	2.5	0	21	26.7	11.1	7.3	8.2	53.2	6.5	19.3	0	0	25.9	

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	**0**	**0**	**0**	**0**	**0**	**0**	**201**	25	0	226	274	121	86	62	543	69	208	0	0	277	1046
17:15	0	0	0	0	0	0	222	21	0	243	277	120	75	76	548	64	**222**	0	0	**286**	**1077**
17:30	0	0	0	0	0	0	194	14	0	208	258	**131**	65	**108**	**562**	67	185	0	0	252	1022
17:45	0	0	0	0	0	0	192	18	0	210	265	103	**87**	82	537	**71**	192	0	0	263	1010
Total Volume	0	0	0	0	0	0	809	78	0	887	1074	475	313	328	2190	271	807	0	0	1078	4155
% App. Total	0	0	0	0		0	91.2	8.8	0		49	21.7	14.3	15		25.1	74.9	0	0		
PHF	.000	.000	.000	.000	.000	.000	.911	.780	.000	.913	.969	.906	.899	.759	.974	.954	.909	.000	.000	.942	.964

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183NBFR PM
Site Code : 00000030
Start Date : 5/17/2017
Page No : 2

	Southbound					Anderson Mill Westbound					US 183 NBFR Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:00					**17:00**					**17:00**					**16:45**					
+0 mins.	**0**	**0**	**0**	**0**	**0**	**0**	**201**	25	0	226	274	121	86	62	543	70	194	0	0	264	
+15 mins.	0	0	0	0	0	0	222	21	0	243	**277**	120	75	76	548	69	208	0	0	277	
+30 mins.	0	0	0	0	0	0	194	14	0	208	258	**131**	65	**108**	**562**	64	**222**	0	0	**286**	
+45 mins.	0	0	0	0	0	0	192	18	0	210	265	103	**87**	82	537	67	185	0	0	252	
Total Volume	0	0	0	0	0	0	809	78	0	887	1074	475	313	328	2190	270	809	0	0	1079	
% App. Total	0	0	0	0		0	91.2	8.8	0		49	21.7	14.3	15		25	75	0	0		
PHF	.000	.000	.000	.000	.000	.000	.911	.780	.000	.913	.969	.906	.899	.759	.974	.964	.911	.000	.000	.943	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183SBFR AM
Site Code : 00000027
Start Date : 5/17/2017
Page No : 1

Groups Printed- Autos

	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	64	200	18	7	289	98	111	0	0	209	0	0	0	0	0	0	89	190	0	279	777
07:15	89	230	26	9	354	89	154	9	0	252	0	0	0	0	0	6	149	166	0	321	927
07:30	100	239	20	23	382	103	170	0	0	273	0	0	0	0	0	0	143	175	0	318	973
07:45	114	241	23	11	389	83	166	0	0	249	0	0	0	0	0	0	154	214	0	368	1006
Total	367	910	87	50	1414	373	601	9	0	983	0	0	0	0	0	6	535	745	0	1286	3683
08:00	128	241	23	25	417	83	146	0	0	229	0	0	0	0	0	0	121	208	0	329	975
08:15	97	214	33	33	377	79	205	0	0	284	0	0	0	0	0	0	146	204	0	350	1011
08:30	96	220	31	35	382	76	194	0	0	270	0	0	0	0	0	0	128	196	0	324	976
08:45	97	161	51	45	354	75	249	0	0	324	0	0	0	0	0	0	140	185	0	325	1003
Total	418	836	138	138	1530	313	794	0	0	1107	0	0	0	0	0	0	535	793	0	1328	3965
Grand Total	785	1746	225	188	2944	686	1395	9	0	2090	0	0	0	0	0	6	1070	1538	0	2614	7648
Apprch %	26.7	59.3	7.6	6.4		32.8	66.7	0.4	0		0	0	0	0		0.2	40.9	58.8	0		
Total %	10.3	22.8	2.9	2.5	38.5	9	18.2	0.1	0	27.3	0	0	0	0	0	0.1	14	20.1	0	34.2	

	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	**114**	241	23	11	389	83	166	0	0	249	0	0	0	0	0	0	154	214	0	**368**	1006
08:00	**128**	241	23	25	**417**	83	146	0	0	229	0	0	0	0	0	0	121	208	0	329	975
08:15	97	214	**33**	33	377	79	**205**	0	0	**284**	0	0	0	0	0	0	146	204	0	350	**1011**
08:30	96	220	31	**35**	382	76	194	0	0	270	0	0	0	0	0	0	128	196	0	324	976
Total Volume	435	916	110	104	1565	321	711	0	0	1032	0	0	0	0	0	0	549	822	0	1371	3968
% App. Total	27.8	58.5	7	6.6		31.1	68.9	0	0		0	0	0	0		0	40	60	0		
PHF	.850	.950	.833	.743	.938	.967	.867	.000	.000	.908	.000	.000	.000	.000	.000	.000	.891	.960	.000	.931	.981

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183SBFR AM
Site Code : 00000027
Start Date : 5/17/2017
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	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30					**08:00**					**07:00**					**07:45**					
+0 mins.	**100**	**239**	**20**	**23**	**382**	83	146	0	0	229	0	0	0	0	0	0	154	214	0	368	
+15 mins.	114	**241**	23	11	389	79	205	0	0	284	0	0	0	0	0	0	121	208	0	329	
+30 mins.	**128**	241	23	25	**417**	76	194	0	0	270	0	0	0	0	0	0	146	204	0	350	
+45 mins.	97	214	**33**	**33**	377	75	**249**	0	0	**324**	0	0	0	0	0	0	128	196	0	324	
Total Volume	439	935	99	92	1565	313	794	0	0	1107	0	0	0	0	0	0	549	822	0	1371	
% App. Total	28.1	59.7	6.3	5.9		28.3	71.7	0	0		0	0	0	0		0	40	60	0		
PHF	.857	.970	.750	.697	.938	.943	.797	.000	.000	.854	.000	.000	.000	.000	.000	.000	.891	.960	.000	.931	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183SBFR PM
Site Code : 00000027
Start Date : 5/17/2017
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Groups Printed- Autos

	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	80	87	30	54	251	74	306	0	0	380	0	0	0	0	0	0	135	153	0	288	919
16:15	90	88	35	51	264	68	340	0	0	408	0	0	0	0	0	0	148	135	0	283	955
16:30	106	109	34	37	286	74	371	0	0	445	0	0	0	0	0	0	161	146	0	307	1038
16:45	119	99	43	53	314	83	344	0	0	427	0	0	0	0	0	0	161	148	0	309	1050
Total	395	383	142	195	1115	299	1361	0	0	1660	0	0	0	0	0	0	605	582	0	1187	3962
17:00	128	83	39	68	318	113	367	0	0	480	0	0	0	0	0	0	177	156	0	333	1131
17:15	128	86	32	52	298	105	402	0	0	507	0	0	0	0	0	0	185	155	0	340	1145
17:30	113	98	44	50	305	104	380	0	0	484	0	0	0	0	0	0	168	123	0	291	1080
17:45	105	109	44	52	310	107	378	0	0	485	0	0	0	0	0	0	179	135	0	314	1109
Total	474	376	159	222	1231	429	1527	0	0	1956	0	0	0	0	0	0	709	569	0	1278	4465
Grand Total	869	759	301	417	2346	728	2888	0	0	3616	0	0	0	0	0	0	1314	1151	0	2465	8427
Apprch %	37	32.4	12.8	17.8		20.1	79.9	0	0		0	0	0	0		0	53.3	46.7	0		
Total %	10.3	9	3.6	4.9	27.8	8.6	34.3	0	0	42.9	0	0	0	0	0	0	15.6	13.7	0	29.3	

	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	128	83	39	68	318	113	367	0	0	480	0	0	0	0	0	0	177	**156**	0	333	1131
17:15	128	86	32	52	298	105	**402**	0	0	**507**	0	0	0	0	0	0	**185**	155	0	**340**	**1145**
17:30	113	98	**44**	50	305	104	380	0	0	484	0	0	0	0	0	0	168	123	0	291	1080
17:45	105	**109**	44	52	310	107	378	0	0	485	0	0	0	0	0	0	179	135	0	314	1109
Total Volume	474	376	159	222	1231	429	1527	0	0	1956	0	0	0	0	0	0	709	569	0	1278	4465
% App. Total	38.5	30.5	12.9	18		21.9	78.1	0	0		0	0	0	0		0	55.5	44.5	0		
PHF	.926	.862	.903	.816	.968	.949	.950	.000	.000	.964	.000	.000	.000	.000	.000	.000	.958	.912	.000	.940	.975

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-US183SBFR PM
Site Code : 00000027
Start Date : 5/17/2017
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	US 183 SBFR Southbound					Anderson Mill Westbound					Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Uturn	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:45					**17:00**					**16:00**					**16:30**					
+0 mins.	**119**	99	43	53	314	113	367	0	0	480	0	0	0	0	0	0	161	146	0	307	
+15 mins.	128	83	39	68	**318**	105	**402**	0	0	**507**	0	0	0	0	0	0	161	148	0	309	
+30 mins.	128	86	32	52	298	104	380	0	0	484	0	0	0	0	0	0	177	**156**	0	333	
+45 mins.	113	98	**44**	50	305	107	378	0	0	485	0	0	0	0	0	0	**185**	155	0	**340**	
Total Volume	488	366	158	223	1235	429	1527	0	0	1956	0	0	0	0	0	0	684	605	0	1289	
% App. Total	39.5	29.6	12.8	18.1		21.9	78.1	0	0		0	0	0	0		0	53.1	46.9	0		
PHF	.953	.924	.898	.820	.971	.949	.950	.000	.000	.964	.000	.000	.000	.000	.000	.000	.924	.970	.000	.948	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-WagonGap AM
Site Code : 00000018
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00	3	0	4	0	7	0	113	2	0	115	0	0	1	0	1	0	262	2	0	264	387
07:15	1	0	2	0	3	0	150	5	0	155	1	0	1	0	2	1	262	8	0	271	431
07:30	3	0	3	0	6	2	177	2	0	181	0	0	2	0	2	0	311	12	0	323	512
07:45	4	0	3	0	7	2	191	3	0	196	0	0	1	0	1	2	292	7	0	301	505
Total	11	0	12	0	23	4	631	12	0	647	1	0	5	0	6	3	1127	29	0	1159	1835
08:00	1	0	1	0	2	2	163	0	0	165	0	0	0	0	0	0	315	4	0	319	486
08:15	1	0	2	0	3	1	171	0	0	172	1	0	4	0	5	0	281	5	0	286	466
08:30	4	0	1	0	5	3	201	2	0	206	1	0	3	0	4	1	281	4	0	286	501
08:45	0	0	1	0	1	4	198	0	0	202	1	0	3	0	4	1	291	5	0	297	504
Total	6	0	5	0	11	10	733	2	0	745	3	0	10	0	13	2	1168	18	0	1188	1957
Grand Total	17	0	17	0	34	14	1364	14	0	1392	4	0	15	0	19	5	2295	47	0	2347	3792
Apprch %	50	0	50	0		1	98	1	0		21.1	0	78.9	0		0.2	97.8	2	0		
Total %	0.4	0	0.4	0	0.9	0.4	36	0.4	0	36.7	0.1	0	0.4	0	0.5	0.1	60.5	1.2	0	61.9	

	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**3**	**0**	3	0	6	2	177	2	0	181	0	0	2	0	2	0	311	12	0	323	**512**
07:45	**4**	0	3	0	**7**	2	**191**	**3**	0	**196**	0	0	1	0	1	**2**	292	7	0	301	505
08:00	1	0	1	0	2	2	163	0	0	165	0	0	0	0	0	0	**315**	4	0	319	486
08:15	1	0	2	0	3	1	171	0	0	172	**1**	0	**4**	0	**5**	0	281	5	0	286	466
Total Volume	9	0	9	0	18	7	702	5	0	714	1	0	7	0	8	2	1199	28	0	1229	1969
% App. Total	50	0	50	0		1	98.3	0.7	0		12.5	0	87.5	0		0.2	97.6	2.3	0		
PHF	.563	.000	.750	.000	.643	.875	.919	.417	.000	.911	.250	.000	.438	.000	.400	.250	.952	.583	.000	.951	.961

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-WagonGap AM
Site Code : 00000018
Start Date : 5/18/2017
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	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00					**08:00**					**08:00**					**07:30**					
+0 mins.	**3**	**0**	4	0	7	2	163	0	0	165	0	0	0	0	0	0	311	12	0	323	
+15 mins.	1	0	2	0	3	1	171	0	0	172	**1**	0	**4**	0	**5**	**2**	292	7	0	301	
+30 mins.	3	0	3	0	6	3	**201**	**2**	0	**206**	1	0	3	0	4	0	**315**	4	0	319	
+45 mins.	**4**	0	3	0	7	**4**	198	0	0	202	1	0	3	0	4	0	281	5	0	286	
Total Volume	11	0	12	0	23	10	733	2	0	745	3	0	10	0	13	2	1199	28	0	1229	
% App. Total	47.8	0	52.2	0		1.3	98.4	0.3	0		23.1	0	76.9	0		0.2	97.6	2.3	0		
PHF	.688	.000	.750	.000	.821	.625	.912	.250	.000	.904	.750	.000	.625	.000	.650	.250	.952	.583	.000	.951	

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-WagonGap PM
Site Code : 00000018
Start Date : 5/18/2017
Page No : 1

Groups Printed- Autos

	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	1	2	0	3	1	301	4	0	306	0	0	3	0	3	1	214	5	0	220	532
16:15	2	0	0	0	2	4	312	2	0	318	1	0	7	0	8	0	204	3	0	207	535
16:30	0	0	3	0	3	1	329	3	0	333	2	0	4	0	6	0	261	3	0	264	606
16:45	0	0	0	0	0	1	327	3	0	331	0	0	7	0	7	1	228	6	0	235	573
Total	2	1	5	0	8	7	1269	12	0	1288	3	0	21	0	24	2	907	17	0	926	2246
17:00	0	0	1	0	1	1	328	2	0	331	2	0	3	0	5	2	204	2	0	208	545
17:15	3	0	0	0	3	2	334	3	0	339	2	0	7	0	9	2	217	5	0	224	575
17:30	1	0	1	0	2	2	309	1	0	312	1	0	3	0	4	0	212	3	0	215	533
17:45	1	0	2	0	3	1	292	2	0	295	0	0	3	0	3	2	215	2	0	219	520
Total	5	0	4	0	9	6	1263	8	0	1277	5	0	16	0	21	6	848	12	0	866	2173
Grand Total	7	1	9	0	17	13	2532	20	0	2565	8	0	37	0	45	8	1755	29	0	1792	4419
Apprch %	41.2	5.9	52.9	0		0.5	98.7	0.8	0		17.8	0	82.2	0		0.4	97.9	1.6	0		
Total %	0.2	0	0.2	0	0.4	0.3	57.3	0.5	0	58	0.2	0	0.8	0	1	0.2	39.7	0.7	0	40.6	

	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	**0**	**0**	3	0	3	1	329	3	0	333	2	0	4	0	6	0	**261**	3	0	**264**	**606**
16:45	0	0	0	0	0	1	327	3	0	331	0	0	**7**	0	7	1	228	**6**	0	235	573
17:00	0	0	1	0	1	1	328	2	0	331	2	0	3	0	5	**2**	204	2	0	208	545
17:15	**3**	0	0	0	3	**2**	**334**	3	0	**339**	2	0	7	0	**9**	2	217	5	0	224	575
Total Volume	3	0	4	0	7	5	1318	11	0	1334	6	0	21	0	27	5	910	16	0	931	2299
% App. Total	42.9	0	57.1	0		0.4	98.8	0.8	0		22.2	0	77.8	0		0.5	97.7	1.7	0		
PHF	.250	.000	.333	.000	.583	.625	.987	.917	.000	.984	.750	.000	.750	.000	.750	.625	.872	.667	.000	.882	.948

GRAM Traffic

3751 FM 1105, Bldg A
Georgetown, TX 78626

File Name : AndersonMill-WagonGap PM
Site Code : 00000018
Start Date : 5/18/2017
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	Wagon Gap Southbound					Anderson Mill Westbound					Wagon Gap Northbound					Anderson Mill Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:00					**16:30**					**16:30**					**16:30**					
+0 mins.	**0**	**0**	**1**	**0**	**1**	**1**	**329**	3	0	333	2	0	4	0	6	0	261	3	0	264	
+15 mins.	**3**	0	0	0	**3**	1	327	3	0	331	0	0	**7**	0	7	1	228	**6**	0	235	
+30 mins.	1	0	1	0	2	1	328	2	0	331	2	0	3	0	5	**2**	204	2	0	208	
+45 mins.	1	0	**2**	0	3	**2**	**334**	3	0	**339**	2	0	7	0	**9**	2	217	5	0	224	
Total Volume	5	0	4	0	9	5	1318	11	0	1334	6	0	21	0	27	5	910	16	0	931	
% App. Total	55.6	0	44.4	0		0.4	98.8	0.8	0		22.2	0	77.8	0		0.5	97.7	1.7	0		
PHF	.417	.000	.500	.000	.750	.625	.987	.917	.000	.984	.750	.000	.750	.000	.750	.625	.872	.667	.000	.882	

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Anderson Mill @ Spicewood Pkwy	3/4/2017		869B					BRIAN	TRAFFIC SIGNAL TIMING & PHASING SHEETS

N

4 + 2 + **RINGS**		
PHASE 1	RING 1:	1, 2, a, 3, 4, b
	RING 2:	5, 6, a, 7, 8, b
PHASE 2	RING 1:	
	RING 2:	

4 + 2 + **PHASEMODE**	
STARTUP	2, 6
REDSTRT	1, 3 - 5, 7 - 40
PED	2, 4, 6, 8
YELFLASH	2, 6
FLASH/ENT	
FLASH/EXIT	

4 + 1 + **ACT CONFIG**	#1	#2	#3	#4	#5
PHASE	1				
OVERLAP	1				
PREEMPT	1				
CABINET	2				
DETECTOR	2				
COORD	1				

1 + **ACTIVE CONTROL PARAMETERS**			
CONTROL MODE:	SCHEDULE		
MAN PLN:	1	FREE PLN: 1	DFSCHED: 1
4 + 7 + **MISC**		4 + 2 + **COORD CONFIG**	
TRANSITION MODE:	3:30	START UP FLASH:	1
SYNCHRO MODE:	BEST	RED REVERT:	2
MAX DWELL TIME:	0	FLASH CLR:	6

2 + 3 + PL # + **PLAN MODE**

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX 1	1	1	1	1	A	28	5	130	2, 6
2	COORD	MAX 1	2	1	1	1	A	39	5	65	2, 6
3	COORD	MAX 1	1	1	1	1	A	25	5	150	2, 6
4											
5											
6											
7											
8											
9											
10											
20	FREE	MAX 2	20	1	1	1					
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	20												
2	ENA	6	30		X	X	X	X	X		2												
3	ENA	9	30	X	X	X	X	X	X	X	1												
4	ENA	15	30		X	X	X	X	X		3												
5	ENA	19	0		X	X	X	X	X		1												
6	ENA	21	0	X	X	X	X	X	X	X	20												
7																							
8																							
9																							
10																							
11																							
12																							

PRIORITY SEQUENCE

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 3																				
TABLE 4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP																				

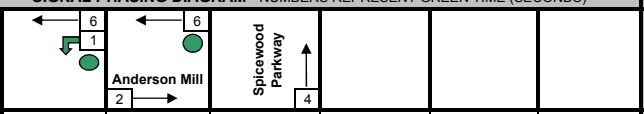
VEH PARAMETERS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X								
CALL	X	X	X	X	X	X	X	X	X	X	X	X								
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X								
ADD INIT																				
RED LOCK																				
YEL LOCK																				

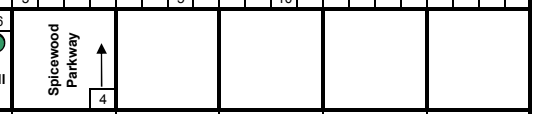
VEH FLAG

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CALL PHASE	1	5	2	6	3	7	4	8	2	6	4	8								
SWTCH PHAS	6																			
OVERLAP																				
DELAY	3					5					10									

SIGNAL PHASING DIAGRAM - NUMBERS REPRESENT GREEN TIME (SECONDS)



PLAN						
1	20 + 4 + 1	70 + 4 + 1	25 + 3 + 2			
2	7 + 4 + 1	32 + 4 + 1	11 + 3 + 2			
3	10 + 4 + 1	95 + 4 + 1	30 + 3 + 2			
PLAN						
3						
4						



PLAN						
20	+ 4 + 1	+ 3 + 2				
PLAN						

FLAGS	PHASES
OMITPHAS	3, 5, 7 - 40
OMIT PED	1, 3, 5 - 40
MIN RECAL	2, 6
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	2
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NOMAX LOK	1, 3 - 5, 7, 8

PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB L/T	EB Anderson Mill		NB Spicewood Pkv		WB Anderson Mill												
MIN GREEN	5.0	30.0		10.0		30.0												
PASSAGE	2.0	3.0		2.0		3.0												
MAXGRN 1	10.0	70.0		25.0		70.0												
MAXGRN 2	10.0	40.0		25.0		40.0												
CONDSERV	0.0	0.0		0.0		0.0												
YEL CHG	4.0	4.0		3.0		4.0												
RED CLR	1.0	1.0		2.0		1.0												
WALK		7.0		9.0														
PED CLR		16.0		19.0														
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1	14	32		15		32		15											MIN	PLAN																		
NOM SPLIT	CYCLE	130	25	75		30		100		30											NOM	CYCLE																		
MAX SPLIT			25	100		35		120		30											MAX																			
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	2	14	32		15		32		15											MIN	PLAN																		
	CYCLE	65	12	37		16		49		16											NOM	CYCLE																		
			35	45		35		65		35											MAX																			
	PLAN	3	14	32		15		32		15											MIN	PLAN																		
	CYCLE	150	15	100		35		115		35											NOM	CYCLE																		
			30	150		35		140		35											MAX																			
	PLAN																				MIN	PLAN																		
	CYCLE																				NOM	CYCLE																		
																					MAX																			

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
INPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	UNIT																					
	CONNECTOR / BUI																					
	PIN																					
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
OUTPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P = PRIMARY S = SECONDARY M = MODIFIED	OVERLAP CONFIGURATION																				
	OVL A	2	P																		
		141	P																		
			S																		
			M																		
	OVL B	2	P																		
		141	P																		
			S																		
			M																		
	OVL C	2	P																		
		141	P																		
			S																		
			M																		
	OVL D	2	P																		
		141	P																		
			S																		
			M																		
	OVL E	2	P																		
	OVL F	2	P																		
	OVL G	2	P																		
	OVL H	2	P																		
	OVL I	2	P																		
	OVL J	2	P																		
	OVL K	2	P																		
	OVL L	2	P																		
	OVL M	2	P																		
	OVL N	2	P																		
	OVL O	2	P																		
	OVL P	2	P																		

OVERLAPS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM																
	ENABLE																
	PED OVERLAP																
	FLASH YELLOW																
	ALT FLASH HZ																
	FLAGS																
	RECALL PRIMARY																
	RECALL SEC																
	PED RECALL																
	PED RECYCLE																
	AUTO EXTEND																
	PARAMETERS																
	MIN GREEN																
	MAX GREEN																
	GREEN CLEAR																
	YEL CLEAR																
	RED CLEAR																
	WALK																
	PED CLEAR																
	RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES
OMITPHAS	3, 5, 7 - 40
OMIT PED	1, 3, 5 - 40
MIN RECAL	2, 6
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	2
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	1
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	1, 3 - 5, 7, 8

PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB L/T	EB Anderson Mill		NB Spicewood Pk		WB Anderson Mill												
MIN GREEN	7.0	25.0		5.0		25.0												
PASSAGE	2.0	3.0		2.0		3.0												
MAXGRN 1	20.0	70.0		25.0		70.0												
MAXGRN 2	20.0	40.0		25.0		40.0												
CONDSERV	0.0	0.0		0.0		0.0												
YEL CHG	4.0	4.0		3.0		4.0												
RED CLR	1.0	1.0		2.0		1.0												
WALK		7.0		9.0														
PED CLR		16.0		19.0														
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 20	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	1, 3, 5, 7 - 40																			
OMIT PED	1, 3, 5 - 40																			
MIN RECAL	2, 6	PHASE TIMING		EB Anderson Mill		NB Spicewood Pkv		WB Anderson Mill												
MAXRECAL																				
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN		15.0		10.0		15.0												
DUAL ETRY		PASSAGE		3.0		1.0		3.0												
SIMGAP		MAXGRN 1		40.0		20.0		40.0												
REDREST		MAXGRN 2		40.0		20.0		40.0												
AUTO PED	2, 4, 6, 8	CONDSERV		0.0		0.0		0.0												
REST WALK	2	YEL CHG		4.0		3.0		4.0												
PED RECY		RED CLR		1.0		2.0		1.0												
RED LOCK		WALK		7.0		9.0														
YEL LOCK		PED CLR		16.0		19.0														
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK	1, 3 - 5, 7, 8	MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 4	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL		PHASE TIMING																		
MAXRECAL																				
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Anderson Mill @ Millwright / Olson	1/4/2017		999D						TRAFFIC SIGNAL TIMING & PHASING SHEETS

N

4 + 2 + RINGS

PHASE 1	RING 1:	1, a, 2, b, 3, 14, 4, c
	RING 2:	6, a, 5, b, 8, 7, c
PHASE 2	RING 1:	1, 2, a, 3, 4, b, 9, c
	RING 2:	5, 6, a, 8, 7, b, 10, c

4 + 2 + PHASEMODE

STARTUP	
REDSTRT	1 - 40
PED	2, 4, 6, 8
YELFLASH	
FLASH/ENT	
FLASH/EXIT	

4 + 1 + ACT CONFIG

	#1	#2	#3	#4	#5
PHASE	1	2			
OVERLAP	1	2			
PREEMPT	1	1			
CABINET	2	2			
DETECTOR	1	1			
COORD	1	1			

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE		
MAN PLN:	20	FREE PLN:	1
DFSCHED:	1		

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	8

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX 1	1	1	1	2	A	11	7	130	2, 6
2	COORD	MAX 1	2	1	1	1	B	67	7	130	2, 5
3	COORD	MAX 2	2	1	1	1	A	136	5	150	1, 6
4											
5											
6											
7											
8											
11	COORD	MAX 1	3	1	1	1	A	116	7	150	1, 6
12	COORD	MAX 1	3	1	1	1	B	67	7	130	2, 5
20	FREE	MAX 1	20	1	1	2					
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	20												
2	ENA	6	30		X	X	X	X	X		2												
3	ENA	7	0		X	X	X	X	X		12												
4	ENA	8	0		X	X	X	X	X		2												
5	ENA	9	30	X	X	X	X	X	X	X	1												
6	ENA	14	40		X	X	X	X	X		11												
7	ENA	15	30		X	X	X	X	X		3												
8	ENA	19	0		X	X	X	X	X		1												
9	ENA	21	0	X	X	X	X	X	X	X	20												
10																							
11																							
12																							

PRIORITY SEQUENCE

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE 1	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 2																				
TABLE 3																				
TABLE 4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP		14																		

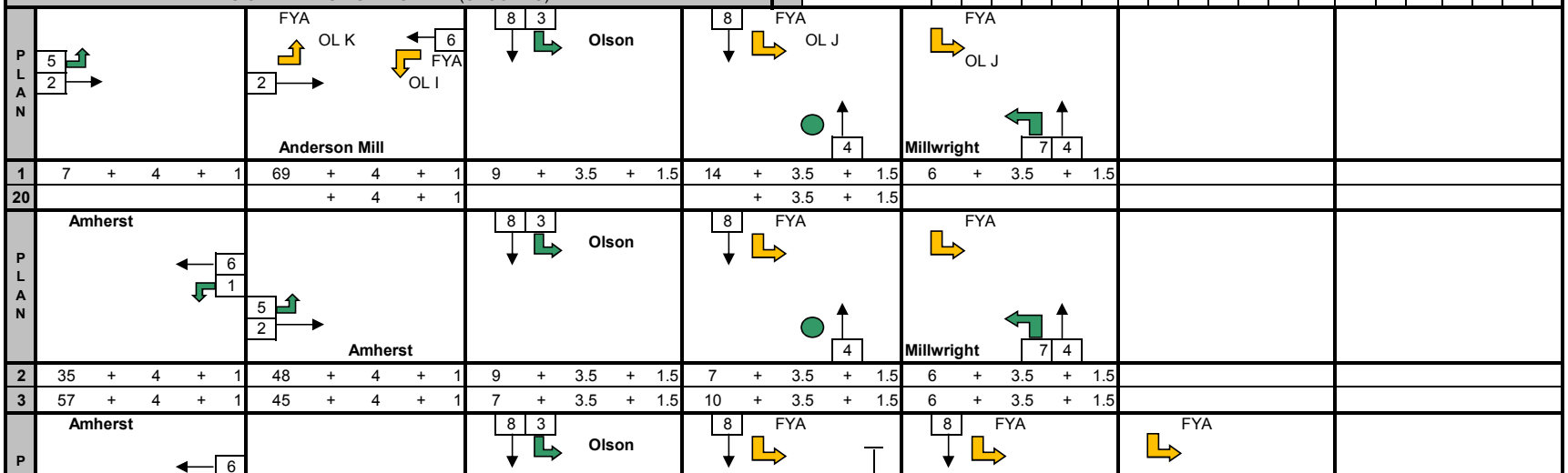
VEH PARAMETERS

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CALL PHASE	1	5	2	6	3	7	4	8	2	6	4	8	8	4	4					
SWTCH PHAS																				
OVERLAP																				
DELAY																				

SIGNAL PHASING DIAGRAM - (SECONDS)



FLAGS	PHASES
OMITPHAS	1, 11 - 20
OMIT PED	1, 3 - 5, 7, 9 - 40
MIN RECAL	2, 5, 6, 9, 10
MAXRECAL	2, 4, 6, 7
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	4, 8, 9, 10
SIMGAP	4, 8
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	2, 6
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NO RANGE	9, 10
NOMAX LOK	1, 3, 4, 5, 7, 8

PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING		EB Anderson Mill	SB LT	NB MILLWRIGHT	EB LT	WB Anderson Mill	NB LT	SB OLSON										
MIN GREEN		10.0	5.0	6.0	7.0	10.0	6.0	6.0										
PASSAGE		2.5	0.0	1.5	1.0	2.5	1.0	1.5										
MAXGRN 1		35.0	15.0	20.0	7.0	45.0	6.0	30.0										
MAXGRN 2		60.0	15.0	20.0	7.0	60.0	6.0	30.0										
CONDSERV		0.0	0.0	0.0	0.0	0.0	0.0	0.0										
YEL CHG		4.0	3.5	3.5	4.0	4.0	3.5	3.5										
RED CLR		1.0	1.5	1.5	1.0	1.0	1.5	1.5										
WALK		7.0				10.0		12.0										
PED CLR		14.0				11.0		17.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1		25	10	15	12	25	11	15											MIN	PLAN	12	15	15	10	10	15	15	11	10						7				
NOM SPLIT	CYCLE	130		86	14	30	12	74	11	33											NOM	CYCLE	130	35	53	12	25	53	35	11	33						7				
MAX SPLIT				100	25	45	12	85	11	45											MAX			55	55	20	45	55	55	11	50						7				
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	2	15	15	10	10	15	15	11	10											MIN	PLAN																				
	CYCLE	130	40	53	14	23	53	40	11	26											NOM	CYCLE																				
			60	70	25	55	70	60	11	55											MAX																					
	PLAN	3	20	15	10	10	15	20	11	15											MIN	PLAN																				
	CYCLE	150	62	50	12	26	50	62	11	27											NOM	CYCLE																				
			75	60	25	55	60	75	11	55											MAX																					
	PLAN	11	15	15	10	10	15	15	11	10						7					MIN	PLAN																				
	CYCLE	130	40	45	12	26	45	40	11	34						7					NOM	CYCLE																				
			55	50	20	45	50	55	11	45						7					MAX																					

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11	12	27	28	29	30	31	18	19	20	21
INPUT CHANNELS	FUNCTION TYPE													VEH	VEH	Omit	Omit	Veh				
	FUNCTION INDEX													13	14	9	10	15				
	UNIT																					
	CONNECTOR / BUI													C1S	C1S	Virt	Virt	C1S				
	PIN													58	57	1	2	58				
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					
OUTPUT CHANNELS		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
	FUNCTION TYPE						Ovlped							Ovl	Ovl	Ovl	Ovl					
	FUNCTION INDEX						14							9	10	11	12					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OVERLAP CONFIGURATION Table 1 (M = MODIFIED)	OVL I	1/2	P																		
			S																		
			M	X																	
	OVL J	1/2	P				X														
			S																		
			M			X															
	OVL K	1/2	P																		
			S																		
			M					X													
	OVL L	2	P	X																	
			S																		
			M																		
	OVL O	2	P																		
	OVL P	2	P				X										X				
OVERLAP CONFIGURATION Table 2 (S = SECONDARY, P = PRIMARY)	OVL I	1/2	P						X												
			S																		
			M	X																	
	OVL J	1/2	P				X														
			S																		
			M			X															
	OVL K	1/2	P		X																
			S																		
			M					X													
	OVL L	2	P	X																	
			S																		
			M																		
	OVL O	2	P																		
	OVL P	2	P				X										X				

OVERLAPS			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM	ENABLE									X	X	X	X		X		
		PED OVERLAP														X		
		FLASH YELLOW																
		ALT FLASH HZ																
	FLAGS	RECALL PRIMARY																
		RECALL SEC																
		PED RECALL																
		PED RECYCLE																
		AUTO EXTEND																
	PARAMETERS	MIN GREEN																
		MAX GREEN																
		GREEN CLEAR																
		YEL CLEAR									4	3.5	4	3.5				
		RED CLEAR									1	1.5	1	1.5				
		WALK														9		
		PED CLEAR														17		
		RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES
OMITPHAS	9 - 40
OMIT PED	1, 3 - 5, 7, 9 - 40
MIN RECAL	1, 2, 5, 6
MAXRECAL	2, 4, 5, 7
SOFT RCL	
CDT'L SRVC	
PED RECAL	2, 6
DUAL ETRY	1, 2, 5, 6
SIMGAP	1, 2, 5, 6
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	1, 3, 4, 5, 7, 8

PHASE DATA TABLE # 2	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB LT	EB Anderson Mill	SB LT	NB MILLWRIGHT	EB LT	WB Anderson Mill	NB LT	SB OLSON										
MIN GREEN	15.0	15.0	4.0	8.0	15.0	15.0	6.0	8.0										
PASSAGE	2.0	2.0	1.0	1.5	2.0	2.0	1.0	1.5										
MAXGRN 1	35.0	65.0	12.0	40.0	65.0	35.0	6.0	40.0										
MAXGRN 2	50.0	45.0	12.0	25.0	45.0	50.0	6.0	25.0										
CONDSERV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0										
YEL CHG	4.0	4.0	3.5	3.5	4.0	4.0	3.5	3.5										
RED CLR	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5										
WALK		7.0				10.0		12.0										
PED CLR		14.0				11.0		17.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 3	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	9 - 13, 15 - 40																			
OMIT PED	1, 3 - 5, 7, 9 - 40																			
MIN RECAL	1, 2, 5, 6	PHASE TIMING	WB LT	EB Anderson Mill	SB LT	NB MILLWRIGHT	EB LT	WB Anderson Mill	NB LT	SB OLSON										
MAXRECAL	2, 4, 5, 7																			
SOFT RCL																				
CDT'L SRVC																				
PED RECAL	2, 6	MIN GREEN	15.0	15.0	5.0	8.0	15.0	15.0	6.0	8.0										
DUAL ETRY	1, 2, 5, 6	PASSAGE	2.0	2.5	1.0	1.5	2.0	2.5	1.0	1.5										
SIMGAP	1, 2, 5, 6	MAXGRN 1	35.0	50.0	12.0	22.0	50.0	35.0	6.0	30.0										
REDREST		MAXGRN 2	50.0	45.0	12.0	25.0	45.0	50.0	6.0	25.0										
AUTO PED	2, 4, 6, 8	CONDSERV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0										
REST WALK		YEL CHG	4.0	4.0	3.5	3.5	4.0	4.0	3.5	3.5										
PED RECY		RED CLR	1.0	1.0	1.5	1.5	1.0	1.0	1.5	1.5										
RED LOCK		WALK		7.0				10.0		12.0										
YEL LOCK		PED CLR		14.0				11.0		17.0										
NO EXT	14	ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE	14	MIN GAP																		
NOMAX LOK	1, 3, 4, 5, 7, 8	MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 20	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	1, 3, 5, 7, 9 - 40																			
OMIT PED	1, 3 - 5, 7, 9 - 40																			
MIN RECAL	2, 4, 6	PHASE TIMING		EB Anderson Mill		NB MILLWRIGHT		WB Anderson Mill		SB OLSON										
MAXRECAL																				
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN		25.0		8.0		25.0		8.0										
DUAL ETRY	2, 4, 6, 8	PASSAGE		2.5		1.5		2.5		1.5										
SIMGAP	2, 4, 6, 8	MAXGRN 1		50.0		25.0		50.0		25.0										
REDREST		MAXGRN 2		60.0		20.0		60.0		20.0										
AUTO PED	2, 4, 6, 8	CONDSERV		0.0		0.0		0.0		0.0										
REST WALK		YEL CHG		4.0		3.5		4.0		3.5										
PED RECY		RED CLR		1.0		1.5		1.0		1.5										
RED LOCK		WALK		7.0				10.0		12.0										
YEL LOCK	2, 6	PED CLR		14.0				11.0		17.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK	1, 3 - 5, 7, 8	MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN TRAFFIC SIGNAL TIMING & PHASING SHEETS
Anderson Mill @ Bethany Church	3/1/2017		997C						N

4 + 2 + RINGS		
PHASE 1	RING 1:	1, 2, a, 3 , 4, b
	RING 2:	5, 6, a, 7, 8, b
PHASE 2	RING 1:	2, a, 1, b, 3, 4, c
	RING 2:	5, a, 6, b, 7, 8, c

4 + 2 + PHASEMODE	
STARTUP	2, 6
REDSTRT	1, 3 - 5, 7 - 20
PED	2, 4, 6, 8
YELFLASH	2, 6
FLASH/ENT	4, 8
FLASH/EXIT	2, 6

4 + 1 + ACT CONFIG	#1	#2	#3	#4	#5
PHASE	1	2			
OVERLAP	1	1			
PREEMPT	1	1			
CABINET	2	2			
DETECTOR	1	1			
COORD	1	1			

1 + ACTIVE CONTROL PARAMETERS					
CONTROL MODE:	SCHEDULE				
MAN PLN:	1	FREE PLN:	1	DFSCHED:	1

4 + 7 + MISC		4 + 2 + COORD CONFIG	
TRANSITION MODE:	3:30	START UP FLASH:	1
SYNCHRO MODE:	BEST	RED REVERT:	2
MAX DWELL TIME:	0	FLASH CLR:	6

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX 1	1	1	1	1	A	9	5	65	2, 6
2	COORD	MAX 1	1	1	1	1	A	38	5	65	2, 6
3	COORD	MAX 1	1	1	1	1	A	118	5	150	2, 6
4											
5											
6											
7											
8											
9											
10	FREE	MAX 1	10	1	1	2					
20	FREE	MAX 2	20	1	1	1					
32											
33											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	20												
2	ENA	6	30		X	X	X	X	X		1												
3	ENA	7	0		X	X	X	X	X		2												
4	ENA	9	30		X	X	X	X	X		1												
5	ENA	9	0	X							10												
6	ENA	12	0	X							20												
7	ENA	15	30		X	X	X	X	X		3												
8	ENA	19	0	X	X	X	X	X	X	X	20												
9																							
10																							
11																							
12																							
13																							

PRIORITY SEQUENCE

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 2																				
TABLE 3																				
TABLE 4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

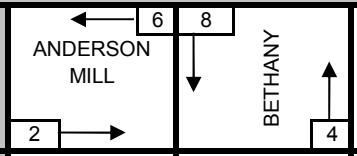
PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP																				

VEH PARAMETERS / VEH FLAG

DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	23	27
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X
ADD INIT																				
RED LOCK																				
YEL LOCK																				
CALL PHASE	1	5	2	6	3	7	4	8	2	6	4	8	7	3					8	4
SWTCH PHAS																				
OVERLAP																				
DELAY					5	5	10	5			5	5	5	5						

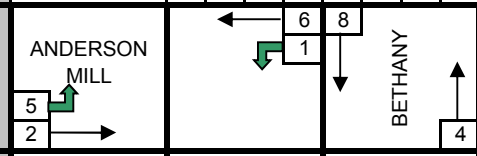
SIGNAL PHASING DIAGRAM - (SECONDS)

PLAN



1	45 + 4 + 1	10.5 + 3 + 1.5
2	46 + 4 + 1	9.5 + 3 + 1.5
3	115 + 4 + 1	25.5 + 3 + 1.5
20	+ 4 + 1	+ 3 + 1.5

PLAN



10	+ 4 + 1	+ 4 + 1	+ 3 + 1.5

PLAN

PLAN

FLAGS	PHASES
OMITPHAS	1, 3, 5, 7, 9 - 20
OMIT PED	1 - 7, 9 - 20
MIN RECAL	2, 6
MAXRECAL	2, 6
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	4, 8
SIMGAP	
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	2, 6
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NO RANGE	
NOMAX LOK	

PHASE DATA TABLE # 1	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING		EB Anderson Mill		NB BETHANY		WB Anderson Mill		SB BETHANY										
MIN GREEN		50.0		5.0		50.0		5.0										
PASSAGE		3.0		2.0		3.0		2.0										
MAXGRN 1		100.0		30.0		100.0		30.0										
MAXGRN 2		60.0		40.0		60.0		40.0										
CONDSERV		0.0		0.0		0.0		0.0										
YEL CHG		4.0		3.0		4.0		3.0										
RED CLR		1.0		1.5		1.0		1.5										
WALK								12.0										
PED CLR								17.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MAX INIT GRN																		

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1		20		10		20		10											MIN	PLAN																				
NOM SPLIT	CYCLE	65		50		15		50		15											NOM	CYCLE																				
MAX SPLIT				70		20		70		20											MAX																					
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	2		35		12		35		12											MIN	PLAN																				
	CYCLE	65		51		14		51		14											NOM	CYCLE																				
				70		15		70		15											MAX																					
	PLAN	3		50		10		50		10											MIN	PLAN																				
	CYCLE	150		120		30		120		30											NOM	CYCLE																				
				150		30		150		30											MAX																					
	PLAN																				MIN	PLAN																				
	CYCLE																				NOM	CYCLE																				
																					MAX																					

Change ONLY the following:		1	2	3	4	5	6	7	8	9	10	11	12	13	14		27	28	18	19	20	21
INPUT CHANNELS	FUNCTION TYPE													VEH	VEH		VEH	VEH				
	FUNCTION INDEX													13	14		23	27				
	UNIT																					
	CONNECTOR / BUI																					
	PIN													41	42		58	57				
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
OUTPUT CHANNELS	FUNCTION TYPE																					
	FUNCTION INDEX																					
	CONNECTOR / BUI 1																					
	PIN 1																					
	CONNECTOR / BUI 2																					
	PIN 2																					
	CONNECTOR / BUI 3																					
	PIN 3																					

PHASES		TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P = PRIMARY S = SECONDARY M = MODIFIED	OVLAP CONFIGURATION																				
	OVL A	2	P																		
		141	P																		
			S																		
			M																		
	OVL B	2	P																		
		141	P																		
			S																		
			M																		
	OVL C	2	P																		
		141	P																		
			S																		
			M																		
	OVL D	2	P																		
		141	P																		
			S																		
			M																		
	OVL E	2	P																		
	OVL F	2	P																		
	OVL G	2	P																		
	OVL H	2	P																		
	OVL I	2	P																		
	OVL J	2	P																		
	OVL K	2	P																		
	OVL L	2	P																		
	OVL M	2	P																		
	OVL N	2	P																		
	OVL O	2	P																		
	OVL P	2	P																		

OVERLAPS			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS	FLAGS / PARAM	ENABLE																
		PED OVERLAP																
		FLASH YELLOW																
		ALT FLASH HZ																
	FLAGS	RECALL PRIMARY																
		RECALL SEC																
		PED RECALL																
		PED RECYCLE																
		AUTO EXTEND																
	PARAMETERS	MIN GREEN																
		MAX GREEN																
		GREEN CLEAR																
		YEL CLEAR																
		RED CLEAR																
		WALK																
		PED CLEAR																
		RESERVICE																

PRE - EMPT		1	3	4	5	6
PRE EMPT FLAGS	ENABLE					
	NO MEM LOK					
	MAN ENABLE					
	NO OVER FLSH					
	NO OVER NEXT					
	OMIT IN DELAY					
	RE MAX PRES					
	PED NOT DARK					
TIME	MIN PRESENCE					
	DELAY					

SETTINGS		1	3	4	5	6
TIMING	STRT MIN GRN					
	STRT WALK					
	STRT PED CLR					
PHASE FLAGS	ENT 1 PHASE					
	ENT 2 PHASE					
	DWELL PHASE					
	INITIAL DWELL					
	DWELL PED					
	RECAL PHASE					
	EXIT PHASE					

FLAGS	PHASES
OMITPHAS	3, 7, 9 - 20
OMIT PED	1 - 7, 9 - 20
MIN RECAL	1, 2, 5, 6
MAXRECAL	
SOFT RCL	
CDT'L SRVC	
PED RECAL	
DUAL ETRY	1, 4, 5, 8
SIMGAP	
REDREST	
AUTO PED	2, 4, 6, 8
REST WALK	2, 6
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	
NO ADD INI	
NOGAPRED	
NO RANGE	
NOMAX LOK	

PHASE DATA TABLE # 10	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	WB L/T	EB Anderson Mill		NB BETHANY	EB L/T	WB Anderson Mill		SB BETHANY										
MIN GREEN	35.0	35.0		10.0	35.0	35.0		10.0										
PASSAGE	3.0	3.0		2.0	3.0	3.0		2.0										
MAXGRN 1	50.0	50.0		30.0	50.0	50.0		30.0										
MAXGRN 2	50.0	50.0		30.0	50.0	50.0		30.0										
CONDSERV	0.0	0.0		0.0	0.0	0.0		0.0										
YEL CHG	4.0	4.0		3.0	4.0	4.0		3.0										
RED CLR	1.0	1.0		1.5	1.0	1.0		1.5										
WALK								12.0										
PED CLR								17.0										
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

FLAGS	PHASES	PHASE DATA TABLE # 20	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS	1, 3, 5, 7, 9 - 20																			
OMIT PED	1 - 7, 9 - 20																			
MIN RECAL	2, 6	PHASE TIMING																		
MAXRECAL	2, 6																			
SOFT RCL																				
CDT'L SRVC																				
PED RECAL	2, 6	MIN GREEN		15.0		5.0		15.0		5.0										
DUAL ETRY	4, 8	PASSAGE		3.0		2.0		3.0		2.0										
SIMGAP		MAXGRN 1		30.0		15.0		30.0		15.0										
REDREST		MAXGRN 2		60.0		40.0		60.0		40.0										
AUTO PED	2, 4, 6, 8	CONDSERV		0.0		0.0		0.0		0.0										
REST WALK		YEL CHG		4.0		3.0		4.0		3.0										
PED RECY		RED CLR		1.0		1.5		1.0		1.5										
RED LOCK		WALK								12.0										
YEL LOCK		PED CLR								17.0										
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		
			EB Anderson Mill			NB BETHANY		WB Anderson Mill		SB BETHANY										

FLAGS	PHASES	PHASE DATA TABLE # 4	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
OMITPHAS																				
OMIT PED																				
MIN RECAL		PHASE TIMING																		
MAXRECAL																				
SOFT RCL																				
CDT'L SRVC																				
PED RECAL		MIN GREEN																		
DUAL ETRY		PASSAGE																		
SIMGAP		MAXGRN 1																		
REDREST		MAXGRN 2																		
AUTO PED		CONDSERV																		
REST WALK		YEL CHG																		
PED RECY		RED CLR																		
RED LOCK		WALK																		
YEL LOCK		PED CLR																		
NO EXT		ADDED INI																		
NO ADD INI		TIME TO RED																		
NOGAPRED		TIME BEFOR																		
NO RANGE		MIN GAP																		
NOMAX LOK		MAX INIT GRN																		

NOTES:

TRAFFIC SIGNAL INTERSECTION:	DATE:	GRP:	LOC:	VRS:	HUB:	ZONE:	SEC:	ENGINEER:	CITY OF AUSTIN
Anderson Mill @ U.S. 183	3/1/2017		602E						TRAFFIC SIGNAL TIMING & PHASING SHEETS

N

4 + 2 + RINGS

PHS 4	RING 1:	1, a, 2, b, 4, c, 5, d, 6, e, 7, f, 17
	RING 2:	
PHS 5	RING 1:	2, a, 12, b, 6, c, 7, d, 17, e, 18, f, 10, g
	RING 1:	

4 + 2 + PHASEMODE

STARTUP	
REDSTRT	ALL PHASES
PED	ALL PHASES
YELFLASH	
FLASH/ENT	
FLASH/EXIT	

4 + 1 + ACT CONFIG

	#1	#2	#4	#5	#8
PHASE			4		
OVERLAP			1		
PREEMPT			1		
CABINET			2		
DETECTOR			2		
COORD			1		

1 + ACTIVE CONTROL PARAMETERS

CONTROL MODE:	SCHEDULE			
MAN PLN:	3	FREE PLN:	1	DFSCHED: 1

4 + 7 + MISC

TRANSITION MODE:	3:30
SYNCHRO MODE:	BEST
MAX DWELL TIME:	0

4 + 2 + COORD CONFIG

START UP FLASH:	1
RED REVERT:	2
FLASH CLR:	6

2 + 3 + PL # + PLAN MODE

PL	PLAN MODE	MAX GRN	PH DATA	PH SEQ	OL DATA	ACT CONF	ENA	OFF	VAR	CYCLE	HOLD / YLD
1	COORD	MAX 1	4	1	1	4	F	56	5	130	7
2	COORD	MAX 1	4	1	1	4	C	24	5	130	4
3	COORD	MAX 1	4	1	1	4	F	56	5	150	7
4											
5	COORD	NONE	4	1	1	4	F	96	5	130	7
6											
7	COORD	NONE	4	1	1	4	F	63	5	100	7
8	COORD	MAX 1	4	1	1	4	F	56	5	130	7
9											
10											
20											
21											

SCHEDULE

EV	ENA	HR	M	S	M	T	W	T	F	S	PL	SPECIAL FUNCTIONS 1	2	3	4	5	6	7	8	AUXILIARY 1	2	3	4
1	ENA	0	0	X	X	X	X	X	X	X	7												
2	ENA	6	0		X	X	X	X	X		5												
3	ENA	6	30		X	X	X	X	X		2												
4	ENA	8	0	X						X	8												
5	ENA	9	30		X	X	X	X	X		1												
6	ENA	15	30		X	X	X	X	X		3												
7	ENA	19	0		X	X	X	X	X		5												
8	ENA	21	0	X	X	X	X	X	X	X	7												
9																							
10																							
11																							
12																							

PRIORITY SEQUENCE

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TABLE 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE 2																				
TABLE 3																				
TABLE 4																				

NOTE: ZERO DENOTES THE HIGHEST PRIORITY

PED PRAMS & FLAGS

PHASES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X																
CALLPHAS	2	4	6	8																
OVERLAP	13	14	15	16																

VEH PARAMETERS

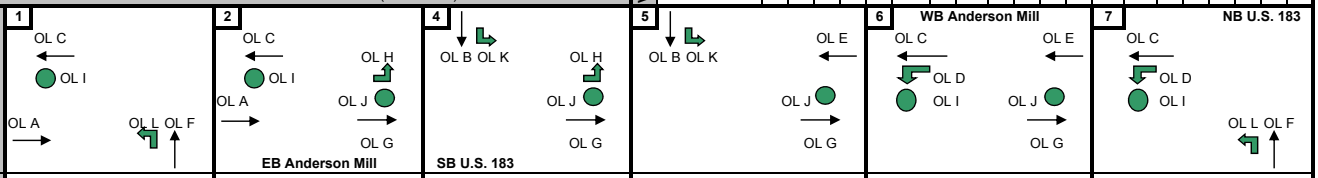
DETECTORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EXTEND	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ADD INIT																				
RED LOCK																				
YEL LOCK																				

VEH FLAG

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CALL PHASE	1	5	2	6	3	7	4	8	4	10	7	9	8	10	12	13	11	12	7	9
SWTCH PHAS																				
OVERLAP																				
DELAY																				

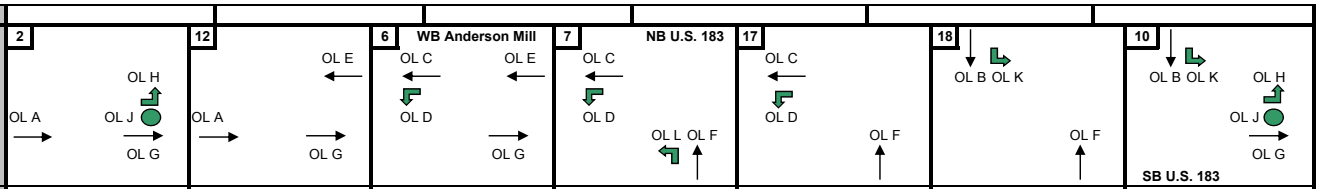
SIGNAL PHASING DIAGRAM - (SECONDS)

PLAN



	1	2	4	5	6	7
1	2 + 4.5 + 1.5	19 + 4 + 2	21 + 4 + 2	2 + 4.5 + 1.5	19 + 4 + 2	31 + 4 + 2
2	2 + 4.5 + 1.5	18 + 4 + 2	28 + 4 + 2	2 + 4.5 + 1.5	24 + 4 + 2	20 + 4 + 2
3	2 + 4.5 + 1.5	18 + 4 + 2	15 + 4 + 2	2 + 4.5 + 1.5	24 + 4 + 2	53 + 4 + 2
5	2 + 4.5 + 1.5	14 + 4 + 2	24 + 4 + 2	2 + 4.5 + 1.5	16 + 4 + 2	36 + 4 + 2
7	2 + 4.5 + 1.5	12 + 4 + 2	13 + 4 + 2	2 + 4.5 + 1.5	12 + 4 + 2	23 + 4 + 2
8	2 + 4.5 + 1.5	17 + 4 + 2	16 + 4 + 2	2 + 4.5 + 1.5	21 + 4 + 2	34 + 4 + 2

PLAN



	+	4	+	2	0 + 4 + 2	+	4	+	2	+	4	+	2	4 + 4 + 2	1 + 4 + 2	+	4	+	2

FLAGS	PHASES
OMITPHAS	3, 8 - 20
OMIT PED	
MIN RECAL	1, 2, 4, 5, 6, 7
MAXRECAL	2, 4, 6, 7
SOFT RCL	
CDT'L SRVC	

PHASE DATA TABLE # 4	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING	EB ADV CLEAR	EB Anderson Mill		SB U.S. 183	WB ADV CLEAR	WB Anderson Mill	NB U.S. 183											
MIN GREEN	2.0	8.0		6.0	2.0	8.0	6.0											
PASSAGE	0.0	2.0		2.0	0.0	2.0	2.0											
MAXGRN 1	2.0	35.0		35.0	2.0	35.0	35.0											
MAXGRN 2	2.0	40.0		40.0	2.0	40.0	40.0											
CONDSERV	0.0	0.0		0.0	0.0	0.0	0.0											
YEL CHG	4.5	4.0		4.0	4.5	4.0	4.0											
RED CLR	1.5	2.0		2.0	1.5	2.0	2.0											
WALK																		
PED CLR																		
ADDED INI																		
TIME TO RED																		
TIME BEFOR																		
MAX INIT GRN																		

PED RECAL	
DUAL ETRY	
SIMGAP	
REDREST	
AUTO PED	
REST WALK	
PED RECY	
RED LOCK	
YEL LOCK	
NO EXT	1, 5
NO ADD INI	1, 5
NOGAPRED	
NOMAX LOK	

2+ 3 + PL # +	PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		PHASE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MIN SPLIT	PLAN	1	8	13		12	8	13	12												MIN	PLAN	8	8	13		12	8	13	12											
NOM SPLIT	CYCLE	130	8	25		27	8	25	37												NOM	CYCLE	130	8	23		22	8	27	40											
MAX SPLIT			8	35		35	8	40	70												MAX			8	35		35	8	40	70											
NOTE: PLAN 20 = FREE MODE PLAN 33 = FLASH MODE	PLAN	2	8	13		12	8	13	12												MIN	PLAN																			
	CYCLE	130	8	24		34	8	30	26												NOM	CYCLE																			
			8	35		35	8	40	80												MAX																				
	PLAN	3	8	13		12	8	13	12												MIN	PLAN																			
	CYCLE	150	8	24		21	8	30	59												NOM	CYCLE																			
			8	35		35	8	40	80												MAX																				
	PLAN	5	8	13		12	8	13	12												MIN	PLAN																			
	CYCLE	130	8	20		30	8	22	42												NOM	CYCLE																			
			8	35		35	8	40	80												MAX																				
	PLAN	7	8	13		12	8	13	12												MIN	PLAN																			
	CYCLE	100	8	18		19	8	18	29												NOM	CYCLE																			
			8	35		35	8	40	70												MAX																				

Change ONLY the following:		1	2	3	4		9	10	11	12		29	30	31	32	33	34	35	36	37	38	39
INPUT CHANNELS	FUNCTION TYPE						VEH	VEH	VEH	VEH		VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
	FUNCTION INDEX						9	10	11	12		13	14	15	16	17	18	19	20	21	22	23
	UNIT																					
	CONNECTOR / BUI																					
	PIN						43	43	44	44		41	41	39	39	40	40	42	42	40	39	41
	CHANNEL IN 1																					
	CHANNEL IN 2																					
	LOGIC																					
OUTPUT CHANNELS		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
	FUNCTION TYPE	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	ovlped	OVL	OVL	OVL	OVL					
	FUNCTION INDEX	1	2	13	3	4	14	5	6	15	7	8	16	9	10	11	12					
	CONNECTOR / BUI 1	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 1	16	12	10	7	4	2	32	29	27	24	21	19	97	94	88	85					
	CONNECTOR / BUI 2	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 2	17	13	none	8	5	none	33	30	none	25	22	none	98	95	89	86					
	CONNECTOR / BUI 3	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S	C1S					
	PIN 3	18	15	11	9	6	3	34	31	28	26	23	20	99	96	90	87					

FLAGS	PHASES
OMITPHAS	1, 3 - 5, 8, 9, 11, 13 - 16, 19 - 20
OMIT PED	
MIN RECAL	2, 6, 7, 10, 12, 17, 18
MAXRECAL	2, 6, 7, 10, 12, 17, 18
SOFT RCL	
CDT'L SRVC	

PHASE DATA TABLE # 5	PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8	PH 9	PH 10	PH 11	PH 12	PH 13	PH 14	PH 15	PH 16	PH 17	PH 18
PHASE TIMING		EB Anderson Mill				WB Anderson Mill	NB U.S. 183			SB U.S. 183		WB ADV CLEAR					NB ADV CLEAR	SB ADV CLEAR
PED RECAL		8.0				8.0	8.0			8.0		0.0					4.0	1.0
DUAL ETRY		1.5				1.5	2.0			2.0		1.0					1.0	1.0
SIMGAP		50.0				45.0	60.0			40.0		0.0					4.0	1.0
REDREST		50.0				45.0	40.0			40.0		0.0					4.0	1.0
AUTO PED																		
REST WALK		4.0				4.0	4.5			4.5		4.0					4.0	4.5
PED RECY		2.0				2.0	1.5			1.5		2.0					2.0	1.5
RED LOCK																		
YEL LOCK																		
NO EXT	12, 17, 18																	
NO ADD INI																		
NOGAPRED																		
NO RANGE																		
NOMAX LOK																		
MAX INIT GRN																		

P = PRIMARY S = SECONDARY M = MODIFIED

OVERLAP CONFIGURATION TABLE # 1 - EB LT PERMISSIVE

PHASES	TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OVL A	141	P	X	X										X	X					
		P																		
		M																		
		S																		
OVL B	141	P				X	X			X		X				X				X
		P																		
		M																		
		S																		
OVL C	141	P					X	X					X	X						
		P																		
		M																		
		S																		
OVL D	141	P	X						X	X	X								X	X
		P																		
		M																		
		S																		
OVL E		P			X			X	X		X		X						X	
OVL F		P	X	X	X			X	X		X		X	X	X				X	
OVL G		P		X	X	X						X			X	X				
OVL H		P		X	X	X	X	X				X	X	X	X	X				
OVL I		P				X	X					X	X							
OVL J		P	X						X		X									
OVL K		P																		
OVL L		P		X	X	X	X	X				X	X	X	X	X				
OVL M		P	X	X										X	X					
OVL N		P					X	X					X	X						
OVL O		P				X				X		X				X				X
OVL P		P							X	X	X								X	X

OVERLAPS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
OVERLAP SETTINGS – FLAGS / PARAM	ENABLE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PED OVERLAP													X	X	X	X
	FLASH YELLOW																
	ALT FLASH HZ																
FLAGS	RECALL PRIMARY																
	RECALL SEC																
	PED RECALL																
	PED RECYCLE																
	AUTO EXTEND																
PARAMETERS	MIN GREEN																
	MAX GREEN																
	GREEN CLEAR																
	YEL CLEAR	4	4.5	4	4.5	4	4	4	4	4.5	4.5	4	4				
	RED CLEAR	2	1.5	2	1.5	2	2	2	2	1.5	1.5	2	2				
	WALK													7	8	8	9
	PED CLEAR													13	16	20	20
	RESERVICE																

PRE - EMPT	1	3	4	5	6
Pre EMPT FLAGS Table – ENABLE		X			
NO MEM LOK		X			
MAN ENABLE					
NO OVER FLSH					
NO OVER NEXT					
OMIT IN DELAY					
RE MAX PRES					
PED NOT DARK					
TIME – MIN PRESENCE					
DELAY					

SETTINGS	1	3	4	5	6
TIMING – STRT MIN GRN					
STRT WALK					
STRT PED CLR					
PHASE FLAGS – ENT 1 PHASE		2			
ENT 2 PHASE					
DWELL PHASE		2			
INITIAL DWELL					
DWELL PED					
RECAL PHASE					
EXIT PHASE		4, 6			

FLAGS	PHASES
OMITPHAS	1, 2, 5 - 7, 10, 12, 14 - 18
OMIT PED	
MIN RECAL	3, 4, 8, 9, 11, 13
MAXRECAL	3, 4, 8, 9, 11, 13
SOFT RCL	
CDT'L SRVC	

PHASE DATA TABLE # 7 – PHASE TIMING	PH 1	PH 2	PH 3 WB ADV CLEAR	PH 4 SB U.S. 183	PH 5	PH 6	PH 7	PH 8 N - S U.S. 183	PH 9 NB U.S. 183	PH 10	PH 11 WB Anderson Mill	PH 12	PH 13 EB Anderson Mill	PH 14	PH 15	PH 16	PH 17	PH 18
MIN GREEN			2.0	8.0				4.0	8.0		8.0		8.0					
PASSAGE			1.0	2.0				2.0	2.0		2.0		2.0					
MAXGRN 1			2.0	40.0				25.0	40.0		40.0		40.0					
MAXGRN 2			2.0	40.0				25.0	40.0		40.0		40.0					
CONDSERV																		
YEL CHG			4.0	4.0				4.0	4.0		4.0		4.0					
RED CLR			2.0	2.0				2.0	2.0		2.0		2.0					
WALK																		
PED CLR																		
TIME TO RED																		
TIME BEFOR																		
MIN GAP																		
MAX INIT GRN																		

EXHIBIT 3 CRASH DATA

Texas Department of Transportation

Reportable Motor Vehicle Traffic Crashes on Anderson Mill Rd.
Between US 183 and Spicewood Pkwy. In Travis and Williamson Counties
06/13/2012 Thru 06/13/2017

Crash Year	Manner of Collision	Fatal Crashes	Incapacitating Injury Crashes	Non-Incapacitating Injury Crashes	Possible Injury Crashes	Non-Injury Crashes	Unknown Injury Crashes	Total Crashes
06/13/2012 - 12/31/2012	ANGLE - BOTH GOING STRAIGHT	0	1	1	4	3	0	9
	ANGLE - ONE STRAIGHT-ONE RIGHT TURN	0	0	1	0	0	0	1
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	0	2	0	0	0	2
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	1	5	0	0	6
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	0	0	3	8	0	11
	OPPOSITE DIRECTION - BOTH GOING STRAIGHT	0	0	0	1	0	0	1
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	0	1	2	0	3
2013	ONE MOTOR VEHICLE - GOING STRAIGHT	1	0	0	1	0	0	2
	ONE MOTOR VEHICLE - TURNING LEFT	0	0	0	0	1	0	1
	ANGLE - BOTH GOING STRAIGHT	0	0	4	2	3	0	9
	ANGLE - ONE STRAIGHT-ONE RIGHT TURN	0	0	0	1	0	0	1
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	1	2	0	8	0	11
	ANGLE - BOTH LEFT TURN	0	0	1	0	0	0	1
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	0	2	3	0	5
	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE	0	0	0	0	1	0	1
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	0	2	4	3	0	9
	SAME DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	0	0	1	0	1
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	1	1	1	0	3
2014	ONE MOTOR VEHICLE - TURNING LEFT	0	0	1	0	0	0	1
	ANGLE - BOTH GOING STRAIGHT	0	0	4	1	8	0	13
	ANGLE - ONE STRAIGHT-ONE RIGHT TURN	0	0	0	0	1	0	1
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	0	4	1	3	0	8
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	3	1	2	0	6
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	1	2	3	3	0	9
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	1	1	0	0	2
2015	ONE MOTOR VEHICLE - GOING STRAIGHT	0	0	2	1	0	0	3
	ANGLE - BOTH GOING STRAIGHT	0	0	3	3	4	0	10
	ANGLE - ONE STRAIGHT-ONE RIGHT TURN	0	0	0	1	0	0	1
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	0	2	1	6	0	9
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	1	2	6	0	9
	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE	0	0	0	1	1	0	2
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	0	1	4	9	0	14
	OPPOSITE DIRECTION - BOTH GOING STRAIGHT	0	1	0	0	0	0	1
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	1	0	2	0	3
2016	ONE MOTOR VEHICLE - GOING STRAIGHT	0	0	0	1	1	0	2
	ONE MOTOR VEHICLE - TURNING RIGHT	0	0	1	0	0	0	1
	ONE MOTOR VEHICLE - TURNING LEFT	0	0	0	0	1	0	1
	ANGLE - BOTH GOING STRAIGHT	0	0	2	4	9	0	15
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	1	4	1	5	0	11
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	0	2	5	0	7
	SAME DIRECTION - BOTH GOING STRAIGHT-SIDESWIPE	0	0	0	0	2	0	2
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	0	3	2	4	0	9
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	0	1	0	0	1
01/01/2017 - 6/13/2017	ANGLE - BOTH GOING STRAIGHT	0	0	2	1	1	0	4
	ANGLE - ONE STRAIGHT-ONE LEFT TURN	0	0	0	0	1	0	1
	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	0	0	0	1	1	0	2
	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	0	0	1	0	4	0	5
	OPPOSITE DIRECTION - BOTH GOING STRAIGHT	0	0	0	1	0	0	1
	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	0	0	1	1	3	0	5
		1	**5**	**54**	**60**	**116**	**0**	**236**

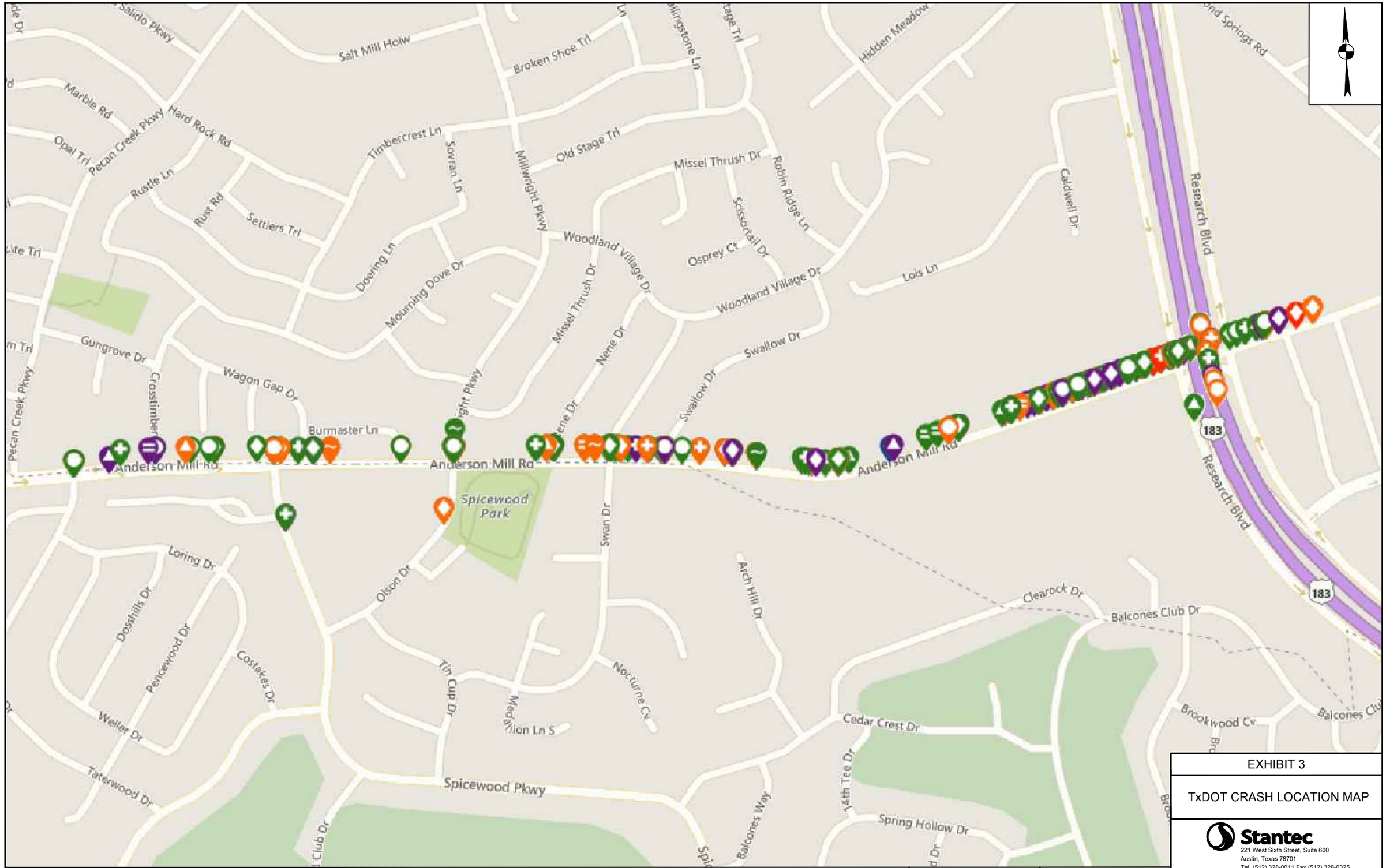


EXHIBIT 3

TxDOT CRASH LOCATION MAP

Stantec
221 West Sixth Street, Suite 600
Austin, Texas 78701
Tel. (512) 328-0011 Fax (512) 328-0325
TBPE Registration Number F-6324
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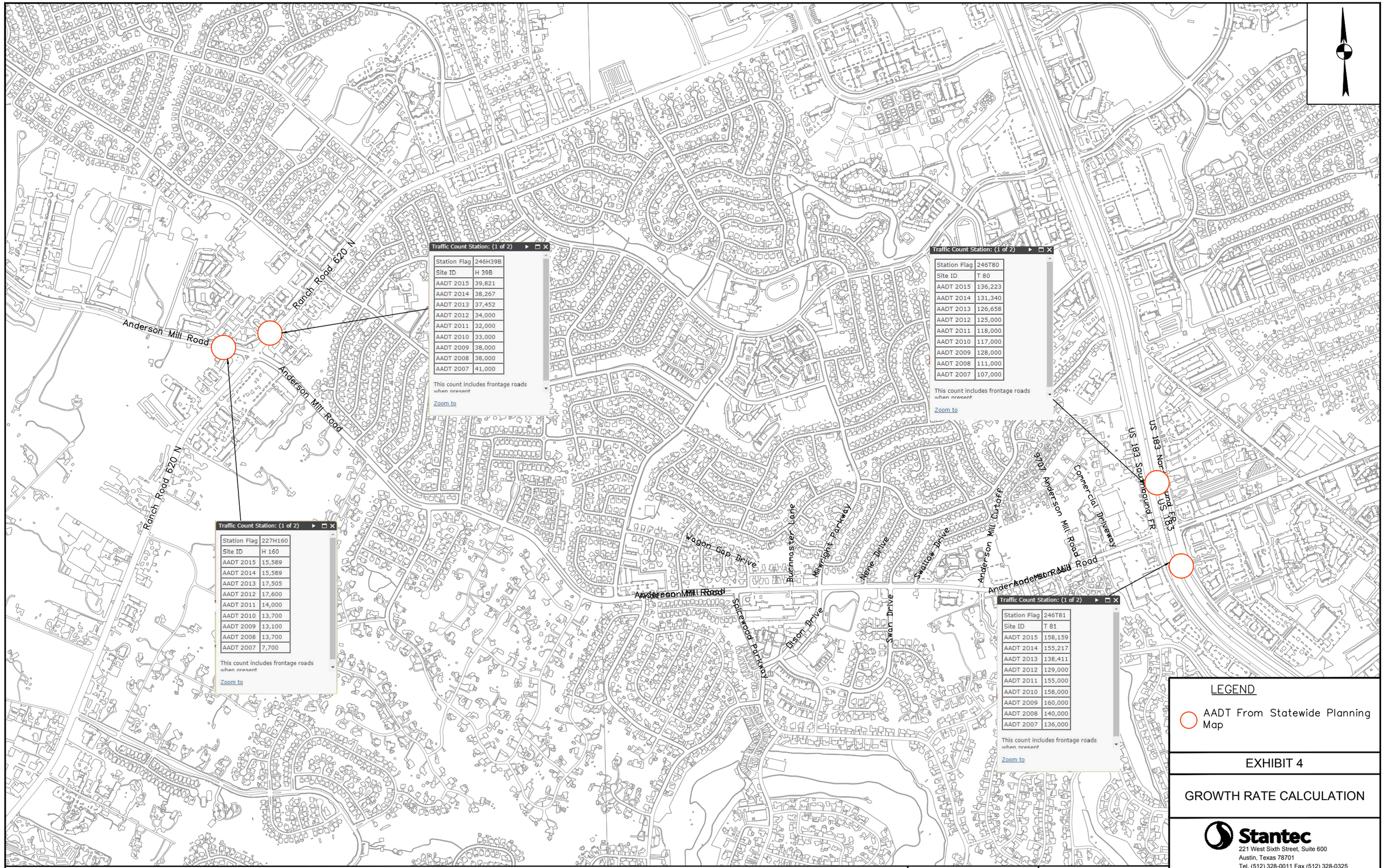
PROJECT No.:224720010

SCALE: N.T.S

V:\2247\active\224720010\traffic\7.00 CAD\CD Exhibits\224720010 EXH03.dwg modified by hdehghanniri on Oct 11, 17 12:46 PM

EXHIBIT 4 GROWTH RATE CALCULATION



Station Flag	246H39B
Site ID	H 39B
AADT 2015	39,821
AADT 2014	38,267
AADT 2013	37,452
AADT 2012	34,000
AADT 2011	32,000
AADT 2010	33,000
AADT 2009	38,000
AADT 2008	38,000
AADT 2007	41,000

This count includes frontage roads when present

Station Flag	246T80
Site ID	T 80
AADT 2015	136,223
AADT 2014	131,340
AADT 2013	126,658
AADT 2012	125,000
AADT 2011	118,000
AADT 2010	117,000
AADT 2009	128,000
AADT 2008	111,000
AADT 2007	107,000

This count includes frontage roads when present

Station Flag	227H160
Site ID	H 160
AADT 2015	15,589
AADT 2014	15,589
AADT 2013	17,505
AADT 2012	17,600
AADT 2011	14,000
AADT 2010	13,700
AADT 2009	13,100
AADT 2008	13,700
AADT 2007	7,700

This count includes frontage roads when present

Station Flag	246T81
Site ID	T 81
AADT 2015	158,159
AADT 2014	155,217
AADT 2013	138,411
AADT 2012	129,000
AADT 2011	155,000
AADT 2010	158,000
AADT 2009	160,000
AADT 2008	140,000
AADT 2007	136,000

This count includes frontage roads when present

LEGEND

AADT From Statewide Planning Map

EXHIBIT 4

GROWTH RATE CALCULATION

Stantec
221 West Sixth Street, Suite 600
Austin, Texas 78701
Tel. (512) 328-0011 Fax (512) 328-0325
TBPE Registration Number F-6324
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Reference : http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html

PROJECT No.:

SCALE: N.T.S

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Anderson Mill Road Corridor Study
Growth Rate Calculation

	US-281 AADT	Growth Rate
2010	158,000	
2011	155,000	-0.02
2012	129,000	-0.17
2013	138,411	0.07
2014	155,217	0.12
2015	158,159	0.02
	average:	0.01

	US-281 AADT	Growth Rate
2010	117,000	
2011	118,000	0.01
2012	125,000	0.06
2013	126,658	0.01
2014	131,340	0.04
2015	136,223	0.04
	average:	0.03

	Ranch Rd 620 N	Growth Rate
2010	33,000	
2011	32,000	-0.03
2012	34,000	0.06
2013	37,452	0.10
2014	38,267	0.02
2015	39,821	0.04
	average:	0.04

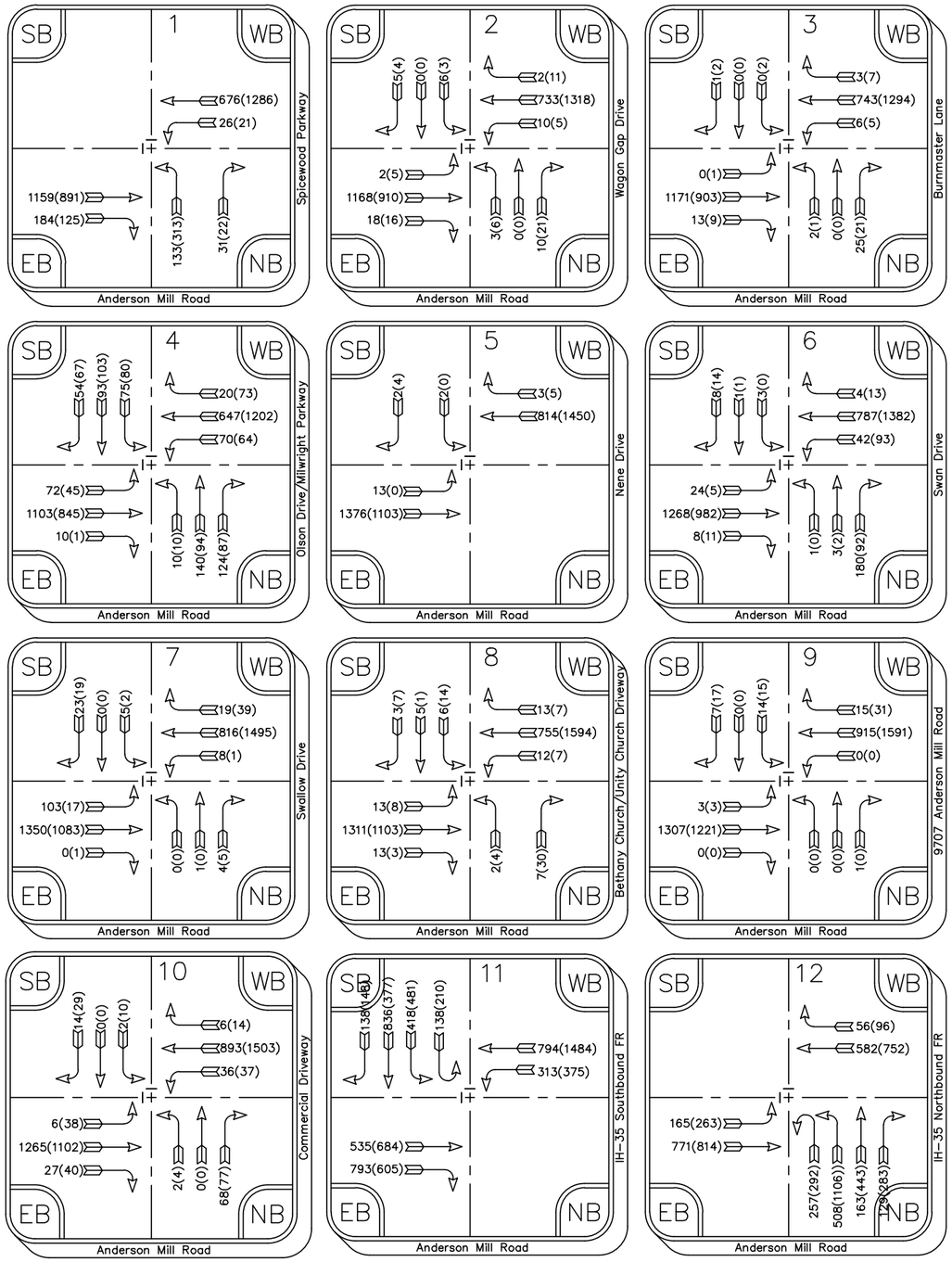
	Anderson Mill Road	Growth Rate
2010	13,700	
2011	14,000	0.02
2012	17,600	0.26
2013	17,505	-0.01
2014	15,589	-0.11
2015	15,589	0.00
	average:	0.03

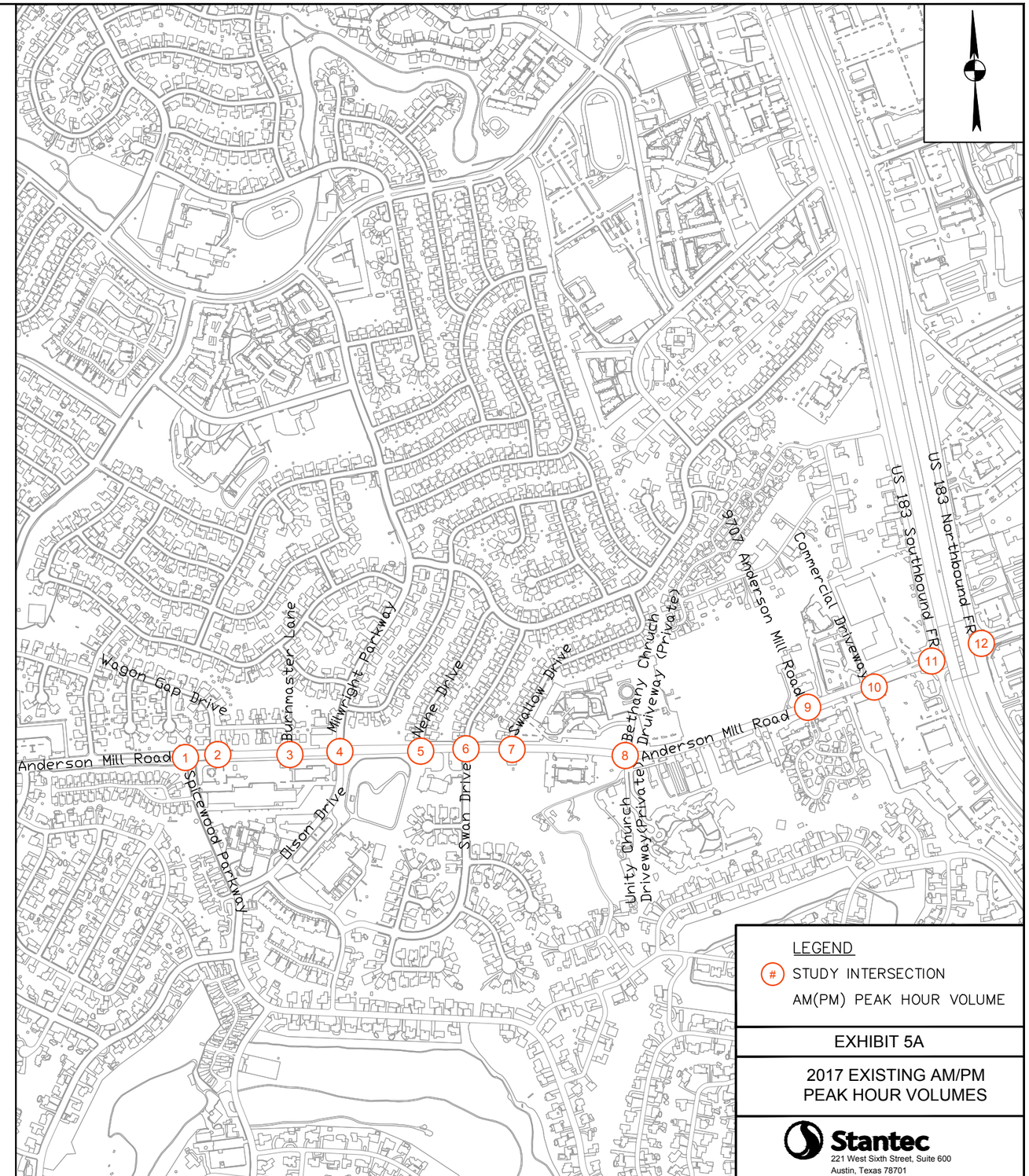
Average:	0.03

Stantec

8/25/2017

EXHIBIT 5 PEAK HOUR VOLUME FIGURES





LEGEND

(#) STUDY INTERSECTION

AM(PM) PEAK HOUR VOLUME

EXHIBIT 5A

2017 EXISTING AM/PM PEAK HOUR VOLUMES

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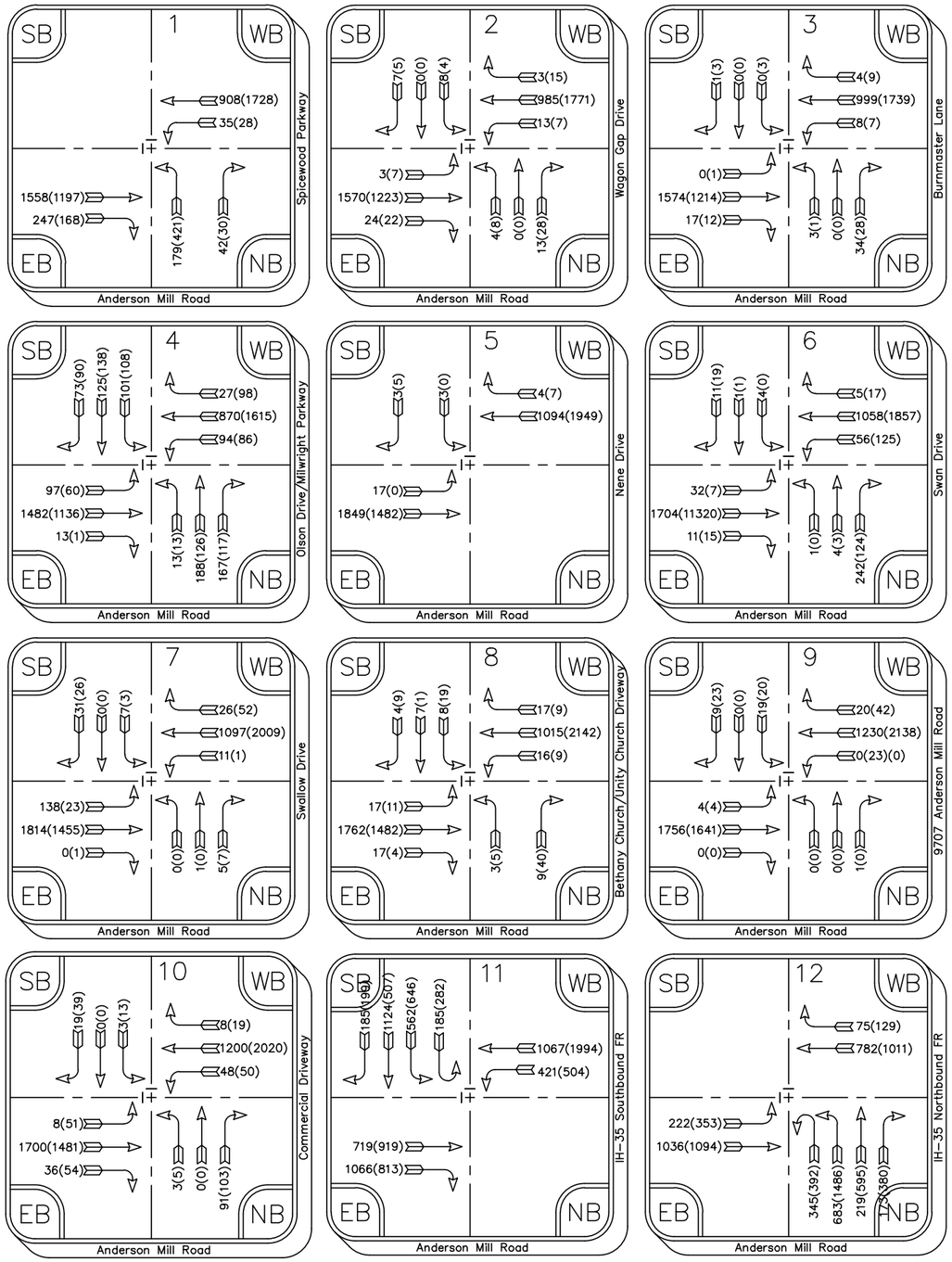

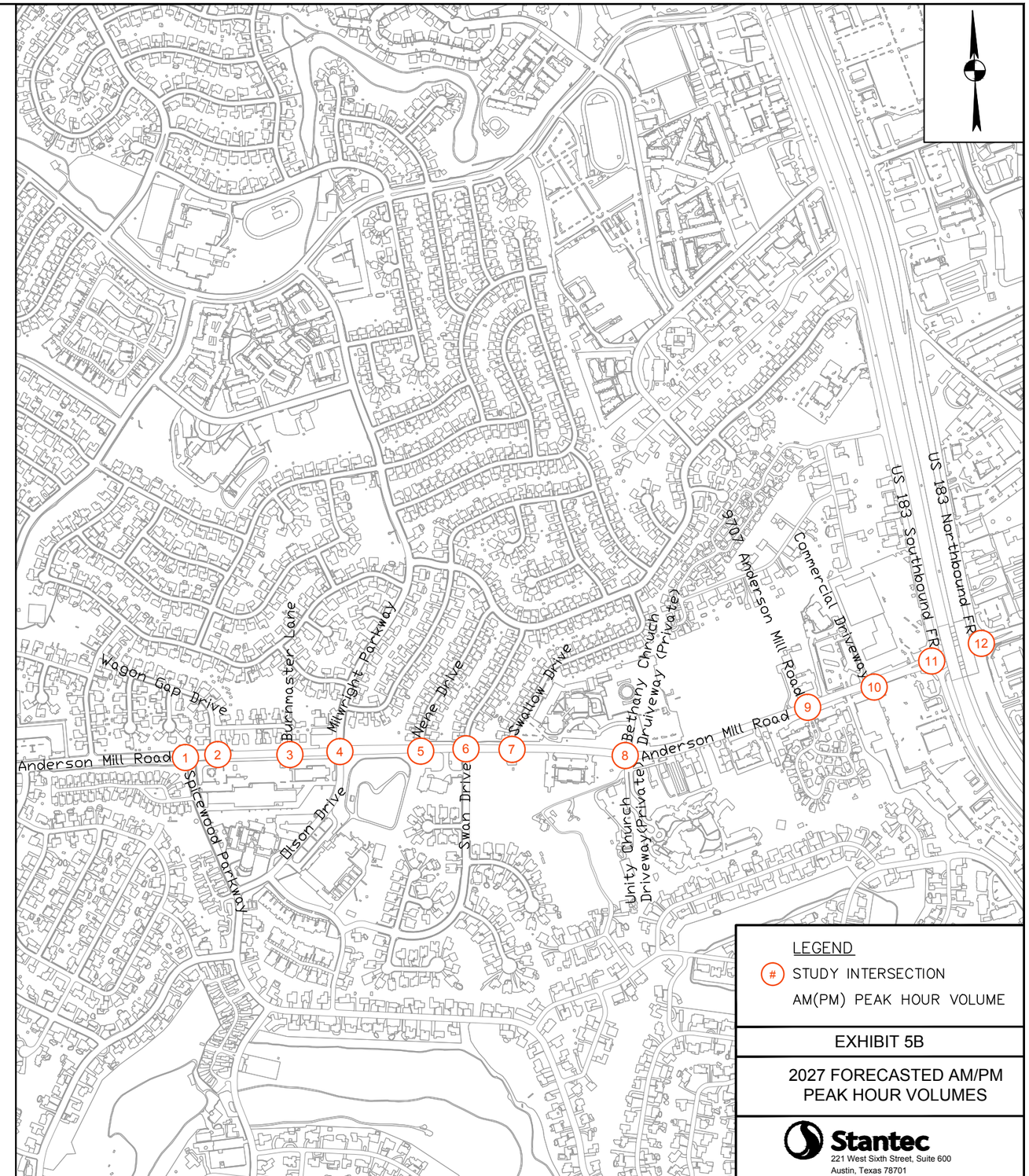

LEGEND

(#) STUDY INTERSECTION

AM(PM) PEAK HOUR VOLUME

EXHIBIT 5B

2027 FORECASTED AM/PM PEAK HOUR VOLUMES

PROJECT No.:224720010

SCALE: N.T.S

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EXHIBIT 6 SYNCHRO OUTPUTS

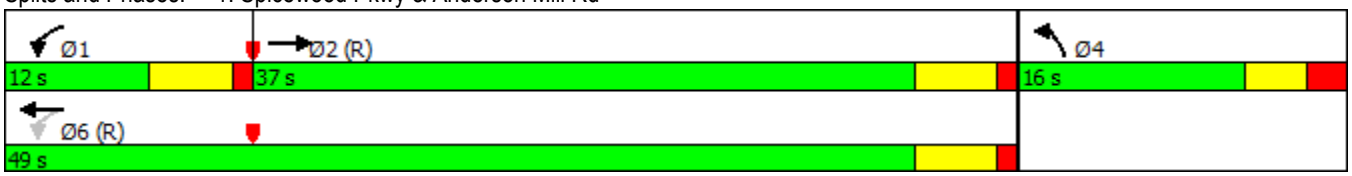
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1159	184	26	676	133	31
Future Volume (vph)	1159	184	26	676	133	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.977				0.964	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	3458	0	1770	3539	3355	0
Flt Permitted			0.101		0.963	
Satd. Flow (perm)	3458	0	188	3539	3355	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	44				56	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.93	0.82	0.81	0.92	0.74	0.55
Adj. Flow (vph)	1246	224	32	735	180	56
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1470	0	32	735	236	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	25.0		7.0	25.0	5.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	30.0		12.0	39.0	10.0	
Total Split (s)	37.0		12.0	49.0	16.0	
Total Split (%)	56.9%		18.5%	75.4%	24.6%	
Maximum Green (s)	32.0		7.0	44.0	11.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Walk Time (s)	7.0			9.0		
Flash Dont Walk (s)	16.0			19.0		
Pedestrian Calls (#/hr)	0			0		
Act Effct Green (s)	42.3		47.1	47.1	7.9	
Actuated g/C Ratio	0.65		0.72	0.72	0.12	
v/c Ratio	0.65		0.10	0.29	0.52	
Control Delay	10.7		5.0	3.1	24.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.7		5.0	3.1	24.0	
LOS	B		A	A	C	
Approach Delay	10.7			3.1	24.0	
Approach LOS	B			A	C	
Queue Length 50th (ft)	106		2	24	34	
Queue Length 95th (ft)	#336		m8	86	48	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2266		306	2565	614	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.65		0.10	0.29	0.38	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 39 (60%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.6 Intersection LOS: A
Intersection Capacity Utilization 51.0% ICU Level of Service A
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: 1: Spicewood Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1168	18	10	733	2	3	0	10	6	0	5
Future Vol, veh/h	2	1168	18	10	733	2	3	0	10	6	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	93	90	63	91	25	75	25	63	38	25	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1256	20	16	805	8	4	0	16	16	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	813	0	0	1276	0	0	1708	2119	638	1477	2125	407
Stage 1	-	-	-	-	-	-	1274	1274	-	841	841	-
Stage 2	-	-	-	-	-	-	434	845	-	636	1284	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	810	-	-	540	-	-	59	50	419	88	49	593
Stage 1	-	-	-	-	-	-	177	236	-	326	379	-
Stage 2	-	-	-	-	-	-	570	377	-	433	234	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	810	-	-	540	-	-	55	46	419	80	46	593
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	46	-	80	46	-
Stage 1	-	-	-	-	-	-	174	232	-	320	359	-
Stage 2	-	-	-	-	-	-	532	357	-	410	230	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	27.5	45.1
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	180	810	-	-	540	-	-	113
HCM Lane V/C Ratio	0.11	0.005	-	-	0.029	-	-	0.21
HCM Control Delay (s)	27.5	9.5	0.1	-	11.9	0.3	-	45.1
HCM Lane LOS	D	A	A	-	B	A	-	E
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.7

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1171	13	6	743	3	2	0	25	0	0	1
Future Vol, veh/h	0	1171	13	6	743	3	2	0	25	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	96	65	75	89	38	50	25	52	25	25	25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1220	20	8	835	8	4	0	48	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	843	0	0	1240	0	0	1663	2089	620	1465	2095	421
Stage 1	-	-	-	-	-	-	1230	1230	-	855	855	-
Stage 2	-	-	-	-	-	-	433	859	-	610	1240	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	789	-	-	557	-	-	64	52	431	89	52	581
Stage 1	-	-	-	-	-	-	188	248	-	319	373	-
Stage 2	-	-	-	-	-	-	571	371	-	448	245	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	789	-	-	557	-	-	62	51	431	77	51	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	51	-	77	51	-
Stage 1	-	-	-	-	-	-	188	248	-	319	363	-
Stage 2	-	-	-	-	-	-	552	361	-	398	245	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	19.7	11.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	296	789	-	-	557	-	-	581
HCM Lane V/C Ratio	0.176	-	-	-	0.014	-	-	0.007
HCM Control Delay (s)	19.7	0	-	-	11.6	0.2	-	11.2
HCM Lane LOS	C	A	-	-	B	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	1103	10	70	647	20	10	140	124	75	93	54
Future Volume (vph)	72	1103	10	70	647	20	10	140	124	75	93	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	0		130	200		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.941	
Flt Protected		0.996			0.994			0.996		0.950		
Satd. Flow (prot)	0	3514	0	0	3518	1583	0	1855	1583	1770	1753	0
Flt Permitted		0.455			0.455			0.968		0.266		
Satd. Flow (perm)	0	1606	0	0	1610	1583	0	1803	1583	495	1753	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				143			151		22	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		327			586			407			353	
Travel Time (s)		5.6			10.0			11.1			8.0	
Peak Hour Factor	0.64	0.96	0.42	0.76	0.92	0.56	0.83	0.90	0.82	0.75	0.89	0.79
Adj. Flow (vph)	113	1149	24	92	703	36	12	156	151	100	104	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1286	0	0	795	36	0	168	151	100	172	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	8.0	
Minimum Split (s)	22.5	22.5		20.0	23.0	23.0	11.0	22.5	22.5	9.5	22.5	
Total Split (s)	53.0	53.0		40.0	40.0	40.0	11.0	23.0	23.0	14.0	26.0	
Total Split (%)	40.8%	40.8%		30.8%	30.8%	30.8%	8.5%	17.7%	17.7%	10.8%	20.0%	
Maximum Green (s)	48.0	48.0		35.0	35.0	35.0	6.0	18.0	18.0	9.0	21.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	3.0	1.5	
Recall Mode	C-Max	C-Max		Min	None	None	None	None	None	None	None	
Act Effct Green (s)		51.3			35.0	35.0		15.0	15.0	28.7	28.7	
Actuated g/C Ratio		0.39			0.27	0.27		0.12	0.12	0.22	0.22	
v/c Ratio		0.93			0.84	0.07		0.81	0.48	0.52	0.43	
Control Delay		51.9			57.6	0.8		83.6	13.0	50.5	40.5	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		51.9			57.6	0.8		83.6	13.0	50.5	40.5	
LOS		D			E	A		F	B	D	D	
Approach Delay		51.9			55.1			50.2			44.2	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)		516			294	0		139	0	69	108	
Queue Length 95th (ft)		#745			440	0		#218	46	97	173	
Internal Link Dist (ft)		247			506			327			273	
Turn Bay Length (ft)						110			130	200		
Base Capacity (vph)		1387			947	530		249	349	197	404	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.93			0.84	0.07		0.67	0.43	0.51	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 67 (52%), Referenced to phase 2:EBT and 5:EBL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 51.9 Intersection LOS: D
Intersection Capacity Utilization 85.6% 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: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	1376	814	3	2	2
Future Vol, veh/h	13	1376	814	3	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	93	93	38	25	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	1480	875	8	8	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	883	0	-	0	1675	442
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	796	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	762	-	-	-	86	563
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	405	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	762	-	-	-	68	563
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	322	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	39.2
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	762	-	-	-	121
HCM Lane V/C Ratio	0.037	-	-	-	0.132
HCM Control Delay (s)	9.9	1	-	-	39.2
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	23

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	1268	8	42	787	4	1	3	180	3	1	8
Future Vol, veh/h	24	1268	8	42	787	4	1	3	180	3	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	96	67	70	92	25	25	38	70	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	1321	12	60	855	16	4	8	257	4	4	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	871	0	0	1333	0	0	1973	2414	666	1743	2412	436
Stage 1	-	-	-	-	-	-	1423	1423	-	983	983	-
Stage 2	-	-	-	-	-	-	550	991	-	760	1429	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	770	-	-	513	-	-	37	32	402	55	32	568
Stage 1	-	-	-	-	-	-	143	200	-	267	325	-
Stage 2	-	-	-	-	-	-	487	322	-	364	199	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	770	-	-	513	-	-	21	19	402	9	19	568
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	19	-	9	19	-
Stage 1	-	-	-	-	-	-	109	152	-	203	251	-
Stage 2	-	-	-	-	-	-	360	249	-	94	151	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	2	188.2	228.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	770	-	-	513	-	-	35
HCM Lane V/C Ratio	1.246	0.062	-	-	0.117	-	-	0.686
HCM Control Delay (s)	188.2	10	1.1	-	12.9	1.3	-	228.8
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q(veh)	13.9	0.2	-	-	0.4	-	-	2.4

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	103	1350	0	8	816	19	0	1	4	5	0	23
Future Vol, veh/h	103	1350	0	8	816	19	0	1	4	5	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	96	25	67	90	59	25	25	50	31	25	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	1406	0	12	907	32	0	4	8	16	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	939	0	0	1406	0	0	2210	2696	703	1979	2680	469
Stage 1	-	-	-	-	-	-	1733	1733	-	947	947	-
Stage 2	-	-	-	-	-	-	477	963	-	1032	1733	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	726	-	-	481	-	-	24	21	380	37	22	541
Stage 1	-	-	-	-	-	-	91	141	-	281	338	-
Stage 2	-	-	-	-	-	-	538	332	-	249	141	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	726	-	-	481	-	-	-	0	380	-	0	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	91	0	-	281	320	-
Stage 2	-	-	-	-	-	-	476	314	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.3	0.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	726	-	-	481	-	-	-
HCM Lane V/C Ratio	-	0.225	-	-	0.025	-	-	-
HCM Control Delay (s)	-	11.4	4.6	-	12.7	0.3	-	-
HCM Lane LOS	-	B	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.9	-	-	0.1	-	-	-

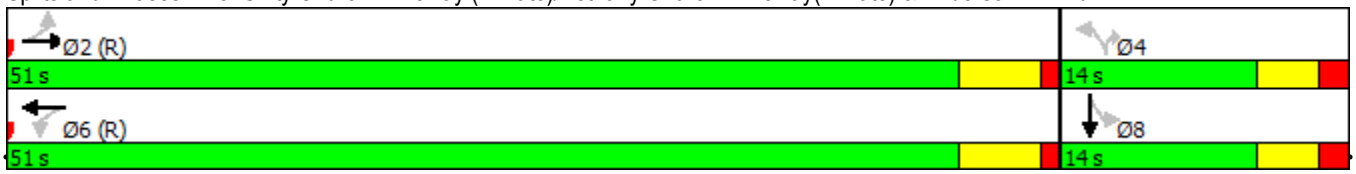
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1311	13	12	755	13	2	0	7	6	5	3
Future Volume (vph)	13	1311	13	12	755	13	2	0	7	6	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.997			0.997				0.850		0.959	
Flt Protected		0.999			0.999		0.950				0.978	
Satd. Flow (prot)	0	3525	0	0	3525	0	1770	0	1583	0	3319	0
Flt Permitted		0.926			0.907						0.978	
Satd. Flow (perm)	0	3267	0	0	3200	0	1863	0	1583	0	3319	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			8				34		12	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.46	0.90	0.41	0.60	0.81	0.65	0.50	0.25	0.58	0.30	0.42	0.25
Adj. Flow (vph)	28	1457	32	20	932	20	4	0	12	20	12	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1517	0	0	972	0	4	0	12	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1		1	1	2	
Detector Template	Left	Thru		Left	Thru		Left		Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20		20	20	100	
Trailing Detector (ft)	0	0		0	0		0		0	0	0	
Detector 1 Position(ft)	0	0		0	0		0		0	0	0	
Detector 1 Size(ft)	20	6		20	6		20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA		Perm	NA		Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2			6			4		4	8		
Detector Phase	2	2		6	6		4		4	8	8	
Switch Phase												
Minimum Initial (s)	46.0	46.0		46.0	46.0		5.0		5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	51.0	51.0		51.0	51.0		9.5		9.5	9.5	9.5	
Total Split (s)	51.0	51.0		51.0	51.0		14.0		14.0	14.0	14.0	
Total Split (%)	78.5%	78.5%		78.5%	78.5%		21.5%		21.5%	21.5%	21.5%	
Maximum Green (s)	46.0	46.0		46.0	46.0		9.5		9.5	9.5	9.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5		1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0			5.0		4.5		4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None		None	None	None	
Act Effct Green (s)		55.9			55.9		5.4		5.4		5.4	
Actuated g/C Ratio		0.86			0.86		0.08		0.08		0.08	
v/c Ratio		0.54			0.35		0.03		0.07		0.15	
Control Delay		2.4			2.3		27.5		4.4		23.1	
Queue Delay		0.0			0.0		0.0		0.0		0.0	
Total Delay		2.4			2.3		27.5		4.4		23.1	
LOS		A			A		C		A		C	
Approach Delay		2.4			2.3			10.2			23.1	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)		57			80		2		0		6	
Queue Length 95th (ft)		m64			m104		5		0		7	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)												
Base Capacity (vph)		2810			2753		272		260		495	
Starvation Cap Reductn		0			0		0		0		0	
Spillback Cap Reductn		0			0		0		0		0	
Storage Cap Reductn		0			0		0		0		0	
Reduced v/c Ratio		0.54			0.35		0.01		0.05		0.09	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 38 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 2.8 Intersection LOS: A
Intersection Capacity Utilization 59.0% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Church Driveway(Private) & Anderson Mill Rd



Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1307	0	0	915	15	0	0	1	14	0	7
Future Vol, veh/h	3	1307	0	0	915	15	0	0	1	14	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	96	25	81	81	75	25	25	25	70	25	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1361	0	0	1130	20	0	0	4	20	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1150	0	0	1361	0	0	1934	2519	681	1829	2509	575
Stage 1	-	-	-	-	-	-	1369	1369	-	1140	1140	-
Stage 2	-	-	-	-	-	-	565	1150	-	689	1369	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	603	-	-	501	-	-	40	28	393	48	28	461
Stage 1	-	-	-	-	-	-	154	213	-	214	274	-
Stage 2	-	-	-	-	-	-	477	271	-	402	213	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	603	-	-	501	-	-	38	27	393	47	27	461
Mov Cap-2 Maneuver	-	-	-	-	-	-	38	27	-	47	27	-
Stage 1	-	-	-	-	-	-	150	207	-	208	274	-
Stage 2	-	-	-	-	-	-	465	271	-	387	207	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	14.3	92.1
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	393	603	-	-	501	-	-	71
HCM Lane V/C Ratio	0.01	0.007	-	-	-	-	-	0.452
HCM Control Delay (s)	14.3	11	0.1	-	0	-	-	92.1
HCM Lane LOS	B	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	1.8

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1265	27	36	893	6	2	0	68	2	0	14
Future Vol, veh/h	6	1265	27	36	893	6	2	0	68	2	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	95	56	60	83	75	25	25	75	50	25	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	1332	48	60	1076	8	8	0	91	4	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1084	0	0	1380	0	0	2045	2591	690	1897	2611	542
Stage 1	-	-	-	-	-	-	1387	1387	-	1200	1200	-
Stage 2	-	-	-	-	-	-	658	1204	-	697	1411	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	639	-	-	493	-	-	33	25	388	42	24	485
Stage 1	-	-	-	-	-	-	150	208	-	196	256	-
Stage 2	-	-	-	-	-	-	420	255	-	398	203	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	639	-	-	493	-	-	28	21	388	29	21	485
Mov Cap-2 Maneuver	-	-	-	-	-	-	28	21	-	29	21	-
Stage 1	-	-	-	-	-	-	146	203	-	191	225	-
Stage 2	-	-	-	-	-	-	351	224	-	297	198	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	42.8	34.5
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	190	639	-	-	493	-	-	150
HCM Lane V/C Ratio	0.519	0.025	-	-	0.122	-	-	0.188
HCM Control Delay (s)	42.8	10.8	-	-	13.3	-	-	34.5
HCM Lane LOS	E	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	2.6	0.1	-	-	0.4	-	-	0.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	535	793	313	794	0	0	0	0	418	836	138
Future Volume (vph)	0	535	793	313	794	0	0	0	0	418	836	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	2		1	1		0	0		0	2		0
Taper Length (ft)	170			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	0.95
Frt			0.850								0.974	
Flt Protected				0.950	0.998					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3383	0	0	0	0	3433	3447	0
Flt Permitted				0.293	0.947					0.950		
Satd. Flow (perm)	0	5085	1583	497	3211	0	0	0	0	3433	3447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			257								19	
Link Speed (mph)		40			40			50			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			1.9			1.8	
Peak Hour Factor	0.25	0.92	0.95	0.94	0.80	0.25	0.25	0.25	0.25	0.82	0.87	0.68
Adj. Flow (vph)	0	582	835	333	993	0	0	0	0	510	961	203
Shared Lane Traffic (%)				10%								
Lane Group Flow (vph)	0	582	835	300	1026	0	0	0	0	510	1164	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	
Detector Template		Thru	Right	Left	Thru					Left	Thru	
Leading Detector (ft)		100	20	20	100					20	100	
Trailing Detector (ft)		0	0	0	0					0	0	
Detector 1 Position(ft)		0	0	0	0					0	0	
Detector 1 Size(ft)		6	20	20	6					20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	
Protected Phases		1 2		6 7	1 2 6 7					4 5	4 5	
Permitted Phases			1 2	1 2								

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	1 2 6 7					4 5	4 5	
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		26.0	26.0	75.5	75.5					36.5	36.5	
Actuated g/C Ratio		0.20	0.20	0.58	0.58					0.28	0.28	
v/c Ratio		0.57	1.60	0.42	0.53					0.53	1.19	
Control Delay		38.4	297.8	3.9	4.3					42.1	135.0	
Queue Delay		0.1	0.0	1.0	0.4					0.0	0.0	
Total Delay		38.5	297.8	4.9	4.7					42.1	135.0	
LOS		D	F	A	A					D	F	
Approach Delay		191.3			4.8						106.7	
Approach LOS		F			A						F	
Queue Length 50th (ft)		134	~874	7	13					188	~622	
Queue Length 95th (ft)		182	#1063	m48	13					219	#721	
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		1017	522	718	1943					963	981	
Starvation Cap Reductn		0	0	208	426					0	0	
Spillback Cap Reductn		31	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.59	1.60	0.59	0.68					0.53	1.19	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 56 (43%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.60
Intersection Signal Delay: 103.2 Intersection LOS: F
Intersection Capacity Utilization 115.3% ICU Level of Service H
Analysis Period (min) 15

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

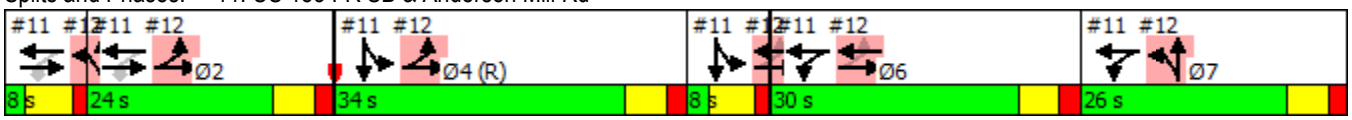
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	34.0	8.0	30.0	26.0
Total Split (%)	6%	18%	26%	6%	23%	20%
Maximum Green (s)	2.0	18.0	28.0	2.0	24.0	20.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	771	0	0	582	56	508	163	129	0	0	0
Future Volume (vph)	165	771	0	0	582	56	508	163	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	0.95	1.00	1.00	1.00
Frt					0.985			0.938				
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	5009	0	3433	3320	0	0	0	0
Flt Permitted	0.231						0.950					
Satd. Flow (perm)	430	3539	0	0	5009	0	3433	3320	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			124				
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			264			137			124	
Travel Time (s)		5.0			4.5			2.1			1.7	
Peak Hour Factor	0.90	0.94	0.25	0.25	0.87	0.78	0.90	0.64	0.72	0.92	0.92	0.92
Adj. Flow (vph)	183	820	0	0	669	72	564	255	179	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	820	0	0	741	0	564	434	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA				
Protected Phases	2 4	2 4 5 6			5 6		1 7	1 7				
Permitted Phases	5 6											

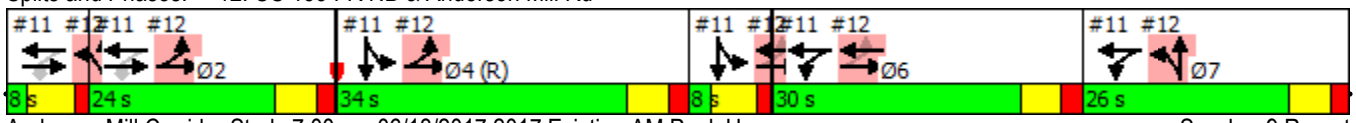
Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		1 7	1 7				
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	84.5	90.5			32.0		27.5	27.5				
Actuated g/C Ratio	0.65	0.70			0.25		0.21	0.21				
v/c Ratio	0.22	0.33			0.60		0.78	0.54				
Control Delay	0.9	2.0			44.8		56.6	34.8				
Queue Delay	0.5	0.5			0.3		0.0	0.0				
Total Delay	1.4	2.5			45.1		56.6	34.8				
LOS	A	A			D		E	C				
Approach Delay		2.3			45.1			47.1				
Approach LOS		A			D			D				
Queue Length 50th (ft)	0	0			200		231	122				
Queue Length 95th (ft)	0	0			235		298	104				
Internal Link Dist (ft)		214			184			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	820	2463			1242		707	782				
Starvation Cap Reductn	333	1121			0		0	0				
Spillback Cap Reductn	0	0			123		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.38	0.61			0.66		0.80	0.55				

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 56 (43%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.60
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 115.3% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 12: US 183 FR NB & Anderson Mill Rd



Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	34.0	8.0	30.0	26.0
Total Split (%)	6%	18%	26%	6%	23%	20%
Maximum Green (s)	2.0	18.0	28.0	2.0	24.0	20.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	891	125	21	1286	313	22
Future Volume (vph)	891	125	21	1286	313	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.980				0.988	
Flt Protected			0.950		0.956	
Satd. Flow (prot)	3468	0	1770	3539	3413	0
Flt Permitted			0.205		0.956	
Satd. Flow (perm)	3468	0	382	3539	3413	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	22				5	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.90	0.82	0.75	0.95	0.82	0.69
Adj. Flow (vph)	990	152	28	1354	382	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1142	0	28	1354	414	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	30.0		5.0	30.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	35.0		10.0	35.0	15.0	
Total Split (s)	100.0		15.0	115.0	35.0	
Total Split (%)	66.7%		10.0%	76.7%	23.3%	
Maximum Green (s)	95.0		10.0	110.0	30.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	111.4		117.7	117.7	22.3	
Actuated g/C Ratio	0.74		0.78	0.78	0.15	
v/c Ratio	0.44		0.08	0.49	0.81	
Control Delay	8.8		2.2	8.3	73.5	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	8.8		2.2	8.3	73.5	
LOS	A		A	A	E	
Approach Delay	8.8			8.2	73.5	
Approach LOS	A			A	E	
Queue Length 50th (ft)	221		2	411	202	
Queue Length 95th (ft)	306		m3	783	226	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2582		392	2775	686	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.44		0.07	0.49	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 17.6 — Intersection LOS: B
Intersection Capacity Utilization 53.5% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	910	16	5	1318	11	6	0	21	3	0	4
Future Vol, veh/h	5	910	16	5	1318	11	6	0	21	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	87	67	63	99	92	75	25	75	25	25	33
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1046	24	8	1331	12	8	0	28	12	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1343	0	0	1070	0	0	1756	2433	535	1892	2439	672
Stage 1	-	-	-	-	-	-	1074	1074	-	1353	1353	-
Stage 2	-	-	-	-	-	-	682	1359	-	539	1086	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	509	-	-	647	-	-	54	31	490	43	31	398
Stage 1	-	-	-	-	-	-	235	294	-	158	216	-
Stage 2	-	-	-	-	-	-	406	215	-	494	291	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	509	-	-	647	-	-	49	28	490	38	28	398
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	28	-	38	28	-
Stage 1	-	-	-	-	-	-	226	283	-	152	205	-
Stage 2	-	-	-	-	-	-	374	204	-	448	280	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	33.2	81.4
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	163	509	-	-	647	-	-	70
HCM Lane V/C Ratio	0.221	0.016	-	-	0.012	-	-	0.345
HCM Control Delay (s)	33.2	12.2	0.2	-	10.6	0.3	-	81.4
HCM Lane LOS	D	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	903	9	5	1294	7	1	0	21	2	0	2
Future Vol, veh/h	1	903	9	5	1294	7	1	0	21	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	92	45	63	98	44	25	25	66	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	982	20	8	1320	16	4	0	32	8	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1336	0	0	1002	0	0	1676	2352	501	1843	2354	668
Stage 1	-	-	-	-	-	-	1000	1000	-	1344	1344	-
Stage 2	-	-	-	-	-	-	676	1352	-	499	1010	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	512	-	-	687	-	-	62	35	515	46	35	401
Stage 1	-	-	-	-	-	-	261	319	-	160	219	-
Stage 2	-	-	-	-	-	-	409	217	-	522	316	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	512	-	-	687	-	-	58	33	515	41	33	401
Mov Cap-2 Maneuver	-	-	-	-	-	-	58	33	-	41	33	-
Stage 1	-	-	-	-	-	-	256	313	-	157	209	-
Stage 2	-	-	-	-	-	-	386	207	-	481	310	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	20.1	81
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	274	512	-	-	687	-	-	59
HCM Lane V/C Ratio	0.131	0.008	-	-	0.012	-	-	0.203
HCM Control Delay (s)	20.1	12.1	0.1	-	10.3	0.2	-	81
HCM Lane LOS	C	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.7

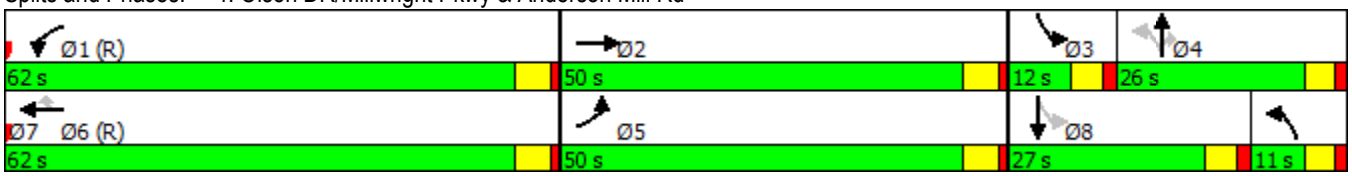
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	845	1	64	1202	73	10	94	87	80	103	67
Future Volume (vph)	45	845	1	64	1202	73	10	94	87	80	103	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	0		112	117		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			89		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850			0.850		0.933	
Flt Protected		0.997			0.997			0.995		0.950		
Satd. Flow (prot)	0	3525	0	0	3529	1583	0	1853	1583	1770	1738	0
Flt Permitted		0.721			0.455			0.945		0.325		
Satd. Flow (perm)	0	2549	0	0	1610	1583	0	1760	1583	605	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						124			100		23	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			586			407			352	
Travel Time (s)		5.5			10.0			11.1			8.0	
Peak Hour Factor	0.80	0.95	0.25	0.89	0.94	0.79	0.83	0.84	0.87	0.74	0.74	0.60
Adj. Flow (vph)	56	889	4	72	1279	92	12	112	100	108	139	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	949	0	0	1351	92	0	124	100	108	251	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	1.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	11.0	13.0	13.0	9.0	6.0	
Total Split (s)	50.0	50.0		62.0	62.0	62.0	11.0	26.0	26.0	12.0	27.0	
Total Split (%)	33.3%	33.3%		41.3%	41.3%	41.3%	7.3%	17.3%	17.3%	8.0%	18.0%	
Maximum Green (s)	45.0	45.0		57.0	57.0	57.0	6.0	21.0	21.0	7.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	1.0	1.5	
Recall Mode	None	Max		C-Max	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)		45.0			63.7	63.7		14.3	14.3	26.3	26.3	
Actuated g/C Ratio		0.30			0.42	0.42		0.10	0.10	0.18	0.18	
v/c Ratio		4.24			0.90	0.12		0.74	0.41	0.68	0.78	
Control Delay		1479.7			45.6	1.2		90.8	15.7	75.2	69.8	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		1479.7			45.6	1.2		90.8	15.7	75.2	69.8	
LOS		F			D	A		F	B	E	E	
Approach Delay		1479.7			42.7			57.3			71.4	
Approach LOS		F			D			E			E	
Queue Length 50th (ft)		~791			644	0		120	0	94	217	
Queue Length 95th (ft)		#930			#853	3		172	51	120	237	
Internal Link Dist (ft)		241			506			327			272	
Turn Bay Length (ft)						110			112	117		
Base Capacity (vph)		224			1499	743		246	307	160	327	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		4.24			0.90	0.12		0.50	0.33	0.68	0.77	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 136 (91%), Referenced to phase 1:WBL and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.24
Intersection Signal Delay: 505.7 Intersection LOS: F
Intersection Capacity Utilization 85.6% 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: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1103	1450	5	0	4
Future Vol, veh/h	0	1103	1450	5	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	87	25	95	25	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1268	5800	5	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	5805	0	-	0	6437	2903
Stage 1	-	-	-	-	5803	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	8	-	-	-	0	12
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	8	-	-	-	0	12
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	491	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 539.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	8	-	-	-	12
HCM Lane V/C Ratio	-	-	-	-	0.667
HCM Control Delay (s)	0	-	-	-	$ 539.2
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	1.5

Notes

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

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	982	11	93	1382	13	0	2	92	0	1	14
Future Vol, veh/h	5	982	11	93	1382	13	0	2	92	0	1	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	88	34	78	96	54	25	50	79	25	25	39
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1116	32	119	1440	24	0	4	116	0	4	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1464	0	0	1148	0	0	2108	2850	574	2266	2854	732
Stage 1	-	-	-	-	-	-	1148	1148	-	1690	1690	-
Stage 2	-	-	-	-	-	-	960	1702	-	576	1164	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	457	-	-	604	-	-	29	17	462	22	17	364
Stage 1	-	-	-	-	-	-	211	272	-	97	148	-
Stage 2	-	-	-	-	-	-	276	146	-	470	267	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	457	-	-	604	-	-	-	0	462	-	0	364
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	201	259	-	92	0	-
Stage 2	-	-	-	-	-	-	-	0	-	329	254	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	5.8		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	457	-	-	604	-	-	-
HCM Lane V/C Ratio	-	0.017	-	-	0.197	-	-	-
HCM Control Delay (s)	-	13	0.3	-	12.4	5.3	-	-
HCM Lane LOS	-	B	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.7	-	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	1083	1	1	1495	39	0	0	5	2	0	19
Future Vol, veh/h	17	1083	1	1	1495	39	0	0	5	2	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	92	25	25	96	65	25	25	42	50	25	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	1177	4	4	1557	60	0	0	12	4	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1617	0	0	1181	0	0	2022	2860	591	2239	2832	809
Stage 1	-	-	-	-	-	-	1235	1235	-	1595	1595	-
Stage 2	-	-	-	-	-	-	787	1625	-	644	1237	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	399	-	-	587	-	-	34	17	450	23	17	323
Stage 1	-	-	-	-	-	-	187	247	-	111	165	-
Stage 2	-	-	-	-	-	-	351	159	-	428	246	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	399	-	-	587	-	-	24	13	450	18	13	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	24	13	-	18	13	-
Stage 1	-	-	-	-	-	-	149	197	-	88	153	-
Stage 2	-	-	-	-	-	-	293	148	-	332	196	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.4	13.2	51.8
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	450	399	-	-	587	-	-	112
HCM Lane V/C Ratio	0.026	0.07	-	-	0.007	-	-	0.323
HCM Control Delay (s)	13.2	14.7	1.4	-	11.2	0.4	-	51.8
HCM Lane LOS	B	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	1.3

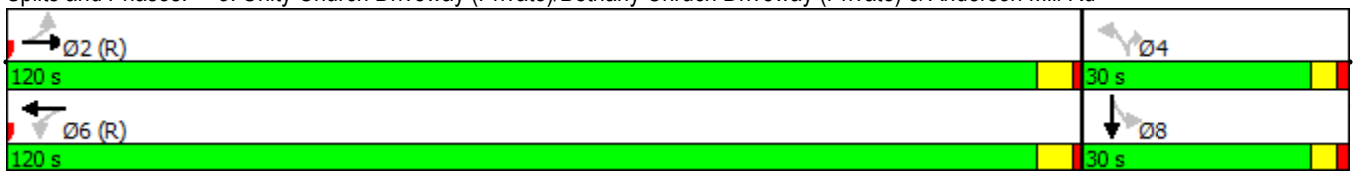
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	1103	3	7	1594	7	4	0	30	14	1	7
Future Volume (vph)	8	1103	3	7	1594	7	4	0	30	14	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.999			0.999				0.850		0.942	
Flt Protected		0.999					0.950				0.974	
Satd. Flow (prot)	0	3532	0	0	3536	0	1770	0	1583	0	3247	0
Flt Permitted		0.906			0.931		0.721				0.974	
Satd. Flow (perm)	0	3203	0	0	3292	0	1343	0	1583	0	3247	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			2				79		20	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.50	0.90	0.38	0.44	0.97	0.44	0.33	0.25	0.38	0.50	0.25	0.35
Adj. Flow (vph)	16	1226	8	16	1643	16	12	0	79	28	4	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1250	0	0	1675	0	12	0	79	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1		1	1	2	
Detector Template	Left	Thru		Left	Thru		Left		Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20		20	20	100	
Trailing Detector (ft)	0	0		0	0		0		0	0	0	
Detector 1 Position(ft)	0	0		0	0		0		0	0	0	
Detector 1 Size(ft)	20	6		20	6		20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA		Perm	NA		Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2			6			4		4	8		
Detector Phase	2	2		6	6		4		4	8	8	
Switch Phase												
Minimum Initial (s)	50.0	50.0		50.0	50.0		5.0		5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	55.0	55.0		55.0	55.0		15.0		15.0	30.0	30.0	
Total Split (s)	120.0	120.0		120.0	120.0		30.0		30.0	30.0	30.0	
Total Split (%)	80.0%	80.0%		80.0%	80.0%		20.0%		20.0%	20.0%	20.0%	
Maximum Green (s)	115.0	115.0		115.0	115.0		25.5		25.5	25.5	25.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5		1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0			5.0		4.5		4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None		None	None	None	
Walk Time (s)										12.0	12.0	
Flash Dont Walk (s)										17.0	17.0	
Pedestrian Calls (#/hr)										0	0	
Act Effct Green (s)		134.0			134.0		6.5		6.5		6.5	
Actuated g/C Ratio		0.89			0.89		0.04		0.04		0.04	
v/c Ratio		0.44			0.57		0.21		0.55		0.33	
Control Delay		10.6			5.7		76.2		27.7		50.9	
Queue Delay		0.0			0.0		0.0		0.0		0.0	
Total Delay		10.6			5.7		76.2		27.7		50.9	
LOS		B			A		E		C		D	
Approach Delay		10.6			5.7			34.1			50.9	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)		494			305		12		0		16	
Queue Length 95th (ft)		m176			m477		12		0		3	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)												
Base Capacity (vph)		2860			2940		228		334		568	
Starvation Cap Reductn		0			0		0		0		0	
Spillback Cap Reductn		0			0		0		0		0	
Storage Cap Reductn		0			0		0		0		0	
Reduced v/c Ratio		0.44			0.57		0.05		0.24		0.09	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 118 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Chruch Driveway (Private) & Anderson Mill Rd



Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1221	0	0	1591	31	0	0	0	15	0	17
Future Vol, veh/h	3	1221	0	0	1591	31	0	0	0	15	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	84	25	25	96	56	25	25	25	75	25	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1454	0	0	1657	55	0	0	0	20	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1713	0	0	1454	0	0	2298	3182	727	2428	3154	856
Stage 1	-	-	-	-	-	-	1469	1469	-	1685	1685	-
Stage 2	-	-	-	-	-	-	829	1713	-	743	1469	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	366	-	-	461	-	-	21	10	366	~ 17	11	301
Stage 1	-	-	-	-	-	-	134	190	-	98	149	-
Stage 2	-	-	-	-	-	-	331	144	-	373	190	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	366	-	-	461	-	-	18	9	366	~ 16	10	301
Mov Cap-2 Maneuver	-	-	-	-	-	-	18	9	-	~ 16	10	-
Stage 1	-	-	-	-	-	-	119	168	-	87	149	-
Stage 2	-	-	-	-	-	-	305	144	-	330	168	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	0	$ 455
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	366	-	-	461	-	-	33
HCM Lane V/C Ratio	-	0.022	-	-	-	-	-	1.332
HCM Control Delay (s)	0	15.1	0.8	-	0	-	-	$ 455
HCM Lane LOS	A	C	A	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	4.8

Notes

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

Intersection	
Int Delay, s/veh	12

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	1102	40	37	1503	14	4	0	77	10	0	29
Future Vol, veh/h	38	1102	40	37	1503	14	4	0	77	10	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	90	77	71	95	44	50	25	74	63	25	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	1224	52	52	1582	32	8	0	104	16	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1614	0	0	1276	0	0	2250	3073	638	2418	3083	807
Stage 1	-	-	-	-	-	-	1355	1355	-	1702	1702	-
Stage 2	-	-	-	-	-	-	895	1718	-	716	1381	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	400	-	-	540	-	-	23	12	419	17	12	324
Stage 1	-	-	-	-	-	-	157	216	-	95	146	-
Stage 2	-	-	-	-	-	-	302	143	-	387	210	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	400	-	-	540	-	-	17	9	419	~ 11	9	324
Mov Cap-2 Maneuver	-	-	-	-	-	-	17	9	-	~ 11	9	-
Stage 1	-	-	-	-	-	-	137	188	-	83	132	-
Stage 2	-	-	-	-	-	-	243	129	-	253	183	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.4	71.8	$ 546.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	156	400	-	-	540	-	-	33
HCM Lane V/C Ratio	0.718	0.13	-	-	0.097	-	-	1.566
HCM Control Delay (s)	71.8	15.3	-	-	12.4	-	-	$ 546.5
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.3	0.4	-	-	0.3	-	-	5.7

Notes

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	684	605	375	1484	0	0	0	0	481	377	148
Future Volume (vph)	0	684	605	375	1484	0	0	0	0	481	377	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	2		1	1		0	0		0	2		0
Taper Length (ft)	170			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	0.95
Frt			0.850								0.958	
Flt Protected				0.950	0.999					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3387	0	0	0	0	3433	3391	0
Flt Permitted				0.154	0.946					0.950		
Satd. Flow (perm)	0	5085	1583	261	3207	0	0	0	0	3433	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			338								33	
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			2.1			1.8	
Peak Hour Factor	0.25	0.92	0.97	0.83	0.92	0.25	0.25	0.25	0.25	0.94	0.86	0.86
Adj. Flow (vph)	0	743	624	452	1613	0	0	0	0	512	438	172
Shared Lane Traffic (%)				10%								
Lane Group Flow (vph)	0	743	624	407	1658	0	0	0	0	512	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	
Detector Template		Thru	Right	Left	Thru					Left	Thru	
Leading Detector (ft)		100	20	20	100					20	100	
Trailing Detector (ft)		0	0	0	0					0	0	
Detector 1 Position(ft)		0	0	0	0					0	0	
Detector 1 Size(ft)		6	20	20	6					20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	
Protected Phases		1 2		6 7	6 7 1 2					4 5	4 5	
Permitted Phases			1 2	2 1								

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	6 7 1 2					4 5	4 5	
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		26.0	26.0	109.0	109.0					23.0	23.0	
Actuated g/C Ratio		0.17	0.17	0.73	0.73					0.15	0.15	
v/c Ratio		0.84	1.13	0.43	0.68					0.97	1.12	
Control Delay		91.7	119.8	2.1	2.8					95.6	127.3	
Queue Delay		3.5	0.0	0.5	1.3					0.0	0.0	
Total Delay		95.2	119.8	2.6	4.1					95.6	127.3	
LOS		F	F	A	A					F	F	
Approach Delay		106.4			3.8						112.8	
Approach LOS		F			A						F	
Queue Length 50th (ft)		262	~435	1	1					260	~344	
Queue Length 95th (ft)		327	#759	m42	1					#378	#437	
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		881	553	936	2430					526	547	
Starvation Cap Reductn		0	0	203	510					0	0	
Spillback Cap Reductn		75	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.92	1.13	0.56	0.86					0.97	1.12	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 56 (37%), Referenced to phase 7:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 61.5 Intersection LOS: E
Intersection Capacity Utilization 112.5% ICU Level of Service H
Analysis Period (min) 15

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

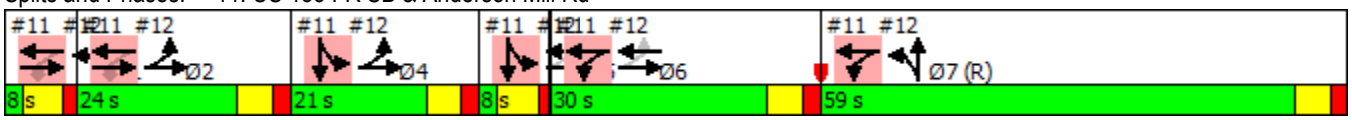
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	21.0	8.0	30.0	59.0
Total Split (%)	5%	16%	14%	5%	20%	39%
Maximum Green (s)	2.0	18.0	15.0	2.0	24.0	53.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	814	0	0	752	96	1106	443	283	0	0	0
Future Volume (vph)	263	814	0	0	752	96	1106	443	283	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	0.95	1.00	1.00	1.00
Frt					0.983			0.937				
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	4999	0	3433	3316	0	0	0	0
Flt Permitted	0.125						0.950					
Satd. Flow (perm)	233	3539	0	0	4999	0	3433	3316	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			111				
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			264			137			124	
Travel Time (s)		5.0			4.5			2.1			1.7	
Peak Hour Factor	0.94	0.92	0.25	0.25	0.85	0.86	0.94	0.92	0.82	0.25	0.25	0.25
Adj. Flow (vph)	280	885	0	0	885	112	1177	482	345	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	280	885	0	0	997	0	1177	827	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA				
Protected Phases	2 4	2 4 5 6			5 6		7 1	7 1				
Permitted Phases	5 6											

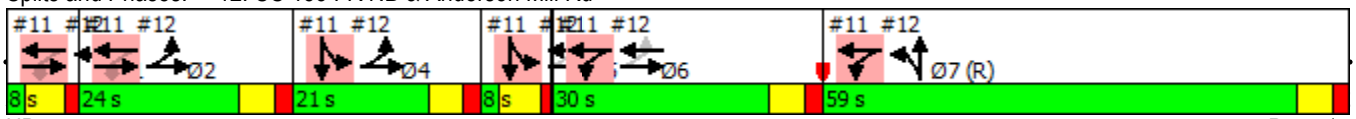
Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		7 1	7 1				
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	71.0	77.0			32.0		61.0	61.0				
Actuated g/C Ratio	0.47	0.51			0.21		0.41	0.41				
v/c Ratio	0.55	0.49			0.93		0.84	0.58				
Control Delay	11.0	2.2			71.4		47.0	31.5				
Queue Delay	4.0	11.3			14.3		0.0	0.0				
Total Delay	15.0	13.6			85.7		47.0	31.5				
LOS	B	B			F		D	C				
Approach Delay		13.9			85.7			40.6				
Approach LOS		B			F			D				
Queue Length 50th (ft)	47	0			349		532	286				
Queue Length 95th (ft)	m59	m0			379		627	355				
Internal Link Dist (ft)		214			184			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	509	1816			1077		1396	1414				
Starvation Cap Reductn	153	909			0		0	0				
Spillback Cap Reductn	0	0			95		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.79	0.98			1.02		0.84	0.58				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 56 (37%), Referenced to phase 7:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 43.9 Intersection LOS: D
Intersection Capacity Utilization 112.5% ICU Level of Service H
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: US 183 FR NB & Anderson Mill Rd



Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	21.0	8.0	30.0	59.0
Total Split (%)	5%	16%	14%	5%	20%	39%
Maximum Green (s)	2.0	18.0	15.0	2.0	24.0	53.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

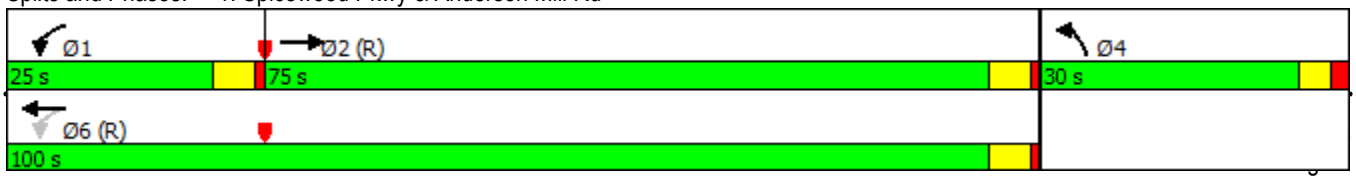
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	765	118	26	850	154	31
Future Volume (vph)	765	118	26	850	154	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.976				0.971	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3454	0	1770	3539	3372	0
Flt Permitted			0.254		0.961	
Satd. Flow (perm)	3454	0	473	3539	3372	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	26				21	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.92	0.76	0.59	0.89	0.84	0.70
Adj. Flow (vph)	832	155	44	955	183	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	987	0	44	955	227	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	30.0		5.0	30.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	35.0		23.0	35.0	30.0	
Total Split (s)	75.0		25.0	100.0	30.0	
Total Split (%)	57.7%		19.2%	76.9%	23.1%	
Maximum Green (s)	70.0		20.0	95.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Walk Time (s)	7.0				9.0	
Flash Dont Walk (s)	16.0				19.0	
Pedestrian Calls (#/hr)	0				0	
Act Effct Green (s)	99.1		107.3	107.3	12.7	
Actuated g/C Ratio	0.76		0.83	0.83	0.10	
v/c Ratio	0.37		0.10	0.33	0.65	
Control Delay	6.0		2.8	3.2	60.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	6.0		2.8	3.2	60.1	
LOS	A		A	A	E	
Approach Delay	6.0			3.2	60.1	
Approach LOS	A			A	E	
Queue Length 50th (ft)	128		5	78	87	
Queue Length 95th (ft)	186		9	116	117	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2638		589	2921	665	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.37		0.07	0.33	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 28 (22%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 10.2 — Intersection LOS: B
Intersection Capacity Utilization 41.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	730	11	99	840	56	22	29	96	61	57	60
Future Volume (vph)	32	730	11	99	840	56	22	29	96	61	57	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	176		130	200		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.910	
Flt Protected		0.997			0.994			0.981		0.950		
Satd. Flow (prot)	0	3518	0	0	3518	1583	0	1827	1583	1770	1695	0
Flt Permitted		0.800			0.657			0.806		0.443		
Satd. Flow (perm)	0	2823	0	0	2325	1583	0	1501	1583	825	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				143			116		53	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			597			407			263	
Travel Time (s)		5.5			10.2			11.1			6.0	
Peak Hour Factor	0.61	0.87	0.69	0.71	0.88	0.82	0.69	0.56	0.83	0.90	0.89	0.62
Adj. Flow (vph)	52	839	16	139	955	68	32	52	116	68	64	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	907	0	0	1094	68	0	84	116	68	161	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2			6		7	4		3	8	
Permitted Phases	2			6		6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		6	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0	10.0	6.0	6.0	6.0	5.0	6.0	
Minimum Split (s)	12.0	26.0		26.0	26.0	26.0	11.0	11.0	11.0	10.0	29.0	
Total Split (s)	12.0	86.0		74.0	74.0	74.0	11.0	30.0	30.0	14.0	33.0	
Total Split (%)	9.2%	66.2%		56.9%	56.9%	56.9%	8.5%	23.1%	23.1%	10.8%	25.4%	
Maximum Green (s)	7.0	81.0		69.0	69.0	69.0	6.0	25.0	25.0	9.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5		2.5	2.5	2.5	1.0	1.5	1.5	0.2	1.5	
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0		10.0	10.0	10.0					12.0	
Flash Dont Walk (s)		14.0		11.0	11.0	11.0					12.0	
Pedestrian Calls (#/hr)		0		0	0	0					0	
Act Effct Green (s)		99.2			99.2	99.2		10.8	10.8	20.8	20.8	
Actuated g/C Ratio		0.76			0.76	0.76		0.08	0.08	0.16	0.16	
v/c Ratio		0.42			0.62	0.05		0.67	0.49	0.37	0.51	
Control Delay		7.0			10.1	0.1		82.5	16.4	50.2	36.8	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		7.0			10.1	0.1		82.5	16.4	50.2	36.8	
LOS		A			B	A		F	B	D	D	
Approach Delay		7.0			9.5			44.2			40.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		130			203	0		70	0	50	81	
Queue Length 95th (ft)		196			315	0		73	44	88	141	
Internal Link Dist (ft)		241			517			327			183	
Turn Bay Length (ft)						110			130	200		
Base Capacity (vph)		2153			1773	1241		288	398	201	411	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.42			0.62	0.05		0.29	0.29	0.34	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 11 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 14.3 Intersection LOS: B
Intersection Capacity Utilization 70.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1558	247	35	908	179	42
Future Volume (vph)	1558	247	35	908	179	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.977				0.964	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	3458	0	1770	3539	3355	0
Flt Permitted			0.096		0.963	
Satd. Flow (perm)	3458	0	179	3539	3355	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	44				58	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.93	0.82	0.81	0.92	0.74	0.55
Adj. Flow (vph)	1675	301	43	987	242	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1976	0	43	987	318	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	25.0		7.0	25.0	5.0	

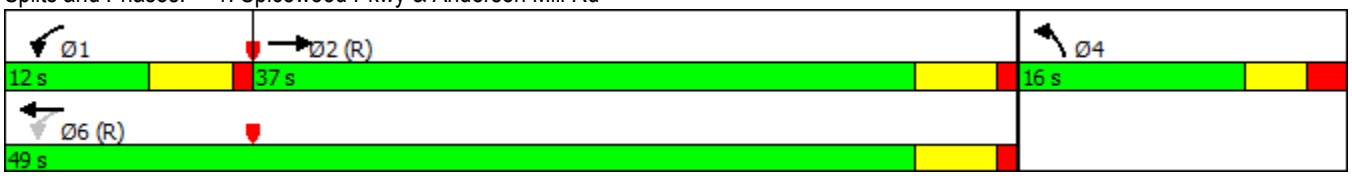
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	30.0		12.0	39.0	10.0	
Total Split (s)	37.0		12.0	49.0	16.0	
Total Split (%)	56.9%		18.5%	75.4%	24.6%	
Maximum Green (s)	32.0		7.0	44.0	11.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Walk Time (s)	7.0			9.0		
Flash Dont Walk (s)	16.0			19.0		
Pedestrian Calls (#/hr)	0			0		
Act Effct Green (s)	38.7		45.9	45.9	9.1	
Actuated g/C Ratio	0.60		0.71	0.71	0.14	
v/c Ratio	0.95		0.14	0.40	0.61	
Control Delay	28.8		8.1	5.0	26.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	28.8		8.1	5.0	26.4	
LOS	C		A	A	C	
Approach Delay	28.8			5.2	26.4	
Approach LOS	C			A	C	
Queue Length 50th (ft)	~475		8	97	50	
Queue Length 95th (ft)	#630		m9	m91	64	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2076		297	2498	615	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.95		0.14	0.40	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 39 (60%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 21.2 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
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.

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

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1570	24	13	985	3	4	0	13	8	0	7
Future Vol, veh/h	3	1570	24	13	985	3	4	0	13	8	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	93	90	63	91	25	75	25	63	38	25	63
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	1688	27	21	1082	12	5	0	21	21	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1094	0	0	1715	0	0	2296	2850	857	1986	2857	547
Stage 1	-	-	-	-	-	-	1714	1714	-	1130	1130	-
Stage 2	-	-	-	-	-	-	582	1136	-	856	1727	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	634	-	-	366	-	-	21	17	301	36	17	481
Stage 1	-	-	-	-	-	-	94	144	-	217	277	-
Stage 2	-	-	-	-	-	-	466	275	-	319	142	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	634	-	-	366	-	-	15	11	301	25	11	481
Mov Cap-2 Maneuver	-	-	-	-	-	-	15	11	-	25	11	-
Stage 1	-	-	-	-	-	-	74	113	-	171	236	-
Stage 2	-	-	-	-	-	-	388	235	-	234	112	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	1.4	102.1	270.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	634	-	-	366	-	-	37
HCM Lane V/C Ratio	0.426	0.009	-	-	0.056	-	-	0.869
HCM Control Delay (s)	102.1	10.7	1.1	-	15.4	1.1	-	270.2
HCM Lane LOS	F	B	A	-	C	A	-	F
HCM 95th %tile Q(veh)	1.6	0	-	-	0.2	-	-	3.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1574	17	8	999	4	3	0	34	0	0	1
Future Vol, veh/h	0	1574	17	8	999	4	3	0	34	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	96	65	75	89	38	50	25	52	25	25	25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1640	26	11	1122	11	6	0	65	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1133	0	0	1666	0	0	2236	2807	833	1969	2815	566
Stage 1	-	-	-	-	-	-	1653	1653	-	1149	1149	-
Stage 2	-	-	-	-	-	-	583	1154	-	820	1666	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	612	-	-	382	-	-	23	18	312	37	18	467
Stage 1	-	-	-	-	-	-	102	154	-	211	271	-
Stage 2	-	-	-	-	-	-	465	270	-	335	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	612	-	-	382	-	-	21	17	312	28	17	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	17	-	28	17	-
Stage 1	-	-	-	-	-	-	102	154	-	211	250	-
Stage 2	-	-	-	-	-	-	425	249	-	265	152	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.7	52.4	12.8
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	612	-	-	382	-	-	467
HCM Lane V/C Ratio	0.496	-	-	-	0.028	-	-	0.009
HCM Control Delay (s)	52.4	0	-	-	14.7	0.6	-	12.8
HCM Lane LOS	F	A	-	-	B	A	-	B
HCM 95th %tile Q(veh)	2.3	0	-	-	0.1	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1482	13	94	870	27	13	188	167	101	125	73
Future Volume (vph)	97	1482	13	94	870	27	13	188	167	101	125	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	0		130	200		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.941	
Flt Protected		0.996			0.994			0.996		0.950		
Satd. Flow (prot)	0	3514	0	0	3518	1583	0	1855	1583	1770	1753	0
Flt Permitted		0.455			0.455			0.962		0.179		
Satd. Flow (perm)	0	1606	0	0	1610	1583	0	1792	1583	333	1753	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				143			181		22	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		327			586			407			305	
Travel Time (s)		5.6			10.0			11.1			6.9	
Peak Hour Factor	0.64	0.96	0.42	0.76	0.92	0.56	0.83	0.90	0.82	0.75	0.89	0.79
Adj. Flow (vph)	152	1544	31	124	946	48	16	209	204	135	140	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1727	0	0	1070	48	0	225	204	135	232	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	8.0	
Minimum Split (s)	22.5	22.5		20.0	23.0	23.0	11.0	22.5	22.5	9.5	22.5	
Total Split (s)	53.0	53.0		40.0	40.0	40.0	11.0	23.0	23.0	14.0	26.0	
Total Split (%)	40.8%	40.8%		30.8%	30.8%	30.8%	8.5%	17.7%	17.7%	10.8%	20.0%	
Maximum Green (s)	48.0	48.0		35.0	35.0	35.0	6.0	18.0	18.0	9.0	21.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	3.0	1.5	
Recall Mode	C-Max	C-Max		Min	None	None	None	None	None	None	None	
Act Effct Green (s)		48.6			35.0	35.0		17.4	17.4	31.4	31.4	
Actuated g/C Ratio		0.37			0.27	0.27		0.13	0.13	0.24	0.24	
v/c Ratio		1.31			1.13	0.09		0.94	0.55	0.75	0.53	
Control Delay		181.7			117.8	1.2		99.9	16.2	66.8	43.4	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		181.7			117.8	1.2		99.9	16.2	66.8	43.4	
LOS		F			F	A		F	B	E	D	
Approach Delay		181.7			112.8			60.1			52.0	
Approach LOS		F			F			E			D	
Queue Length 50th (ft)		~1022			~563	0		190	17	93	154	
Queue Length 95th (ft)		m#1112			#703	0		#343	69	126	236	
Internal Link Dist (ft)		247			506			327			225	
Turn Bay Length (ft)						110			130	200		
Base Capacity (vph)		1314			947	530		248	375	179	440	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		1.31			1.13	0.09		0.91	0.54	0.75	0.53	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 67 (52%), Referenced to phase 2:EBT and 5:EBL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 133.2 Intersection LOS: F
Intersection Capacity Utilization 109.3% ICU Level of Service H
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.

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

Splits and Phases: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	1849	1094	4	3	3
Future Vol, veh/h	17	1849	1094	4	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	93	93	38	25	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1988	1176	11	12	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1187	0	-	0	2250	593
Stage 1	-	-	-	-	1182	-
Stage 2	-	-	-	-	1068	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	584	-	-	-	35	449
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	291	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	584	-	-	-	35	449
Mov Cap-2 Maneuver	-	-	-	-	35	-
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	291	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	89.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	584	-	-	-	65
HCM Lane V/C Ratio	0.063	-	-	-	0.369
HCM Control Delay (s)	11.6	0	-	-	89.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	1.4

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	1704	11	56	1058	5	1	4	242	4	1	11
Future Vol, veh/h	32	1704	11	56	1058	5	1	4	242	4	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	96	67	70	92	100	25	38	70	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	1775	16	80	1150	5	4	11	346	5	4	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1155	0	0	1791	0	0	2648	3226	896	2334	3232	578
Stage 1	-	-	-	-	-	-	1911	1911	-	1313	1313	-
Stage 2	-	-	-	-	-	-	737	1315	-	1021	1919	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	601	-	-	342	-	-	11	~ 9	~ 283	20	9	459
Stage 1	-	-	-	-	-	-	70	114	-	167	226	-
Stage 2	-	-	-	-	-	-	376	226	-	253	113	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	601	-	-	342	-	-	-	0	~ 283	-	0	459
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	70	0	-	167	78	-
Stage 2	-	-	-	-	-	-	118	78	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.7	6.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	601	-	-	342	-	-	-
HCM Lane V/C Ratio	-	0.106	-	-	0.234	-	-	-
HCM Control Delay (s)	-	11.7	5.5	-	18.7	5.4	-	-
HCM Lane LOS	-	B	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	0.9	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	1814	0	11	1097	26	0	1	5	7	0	31
Future Vol, veh/h	138	1814	0	11	1097	26	0	1	5	7	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	96	25	67	90	59	25	25	50	31	25	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	219	1890	0	16	1219	44	0	4	10	23	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1263	0	0	1890	0	0	2970	3624	945	2659	3602	631
Stage 1	-	-	-	-	-	-	2328	2328	-	1274	1274	-
Stage 2	-	-	-	-	-	-	642	1296	-	1385	2328	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	546	-	-	312	-	-	6	5	263	~ 11	5	424
Stage 1	-	-	-	-	-	-	38	70	-	177	236	-
Stage 2	-	-	-	-	-	-	429	231	-	151	70	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	546	-	-	312	-	-	5	4	263	-	4	424
Mov Cap-2 Maneuver	-	-	-	-	-	-	5	4	-	-	4	-
Stage 1	-	-	-	-	-	-	38	70	-	177	195	-
Stage 2	-	-	-	-	-	-	313	191	-	137	70	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	1.6	$ 666	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	13	546	-	-	312	-	-	-
HCM Lane V/C Ratio	1.077	0.401	-	-	0.053	-	-	-
HCM Control Delay (s)	$ 666	15.9	0	-	17.2	1.5	-	-
HCM Lane LOS	F	C	A	-	C	A	-	-
HCM 95th %tile Q(veh)	2.4	1.9	-	-	0.2	-	-	-

Notes

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

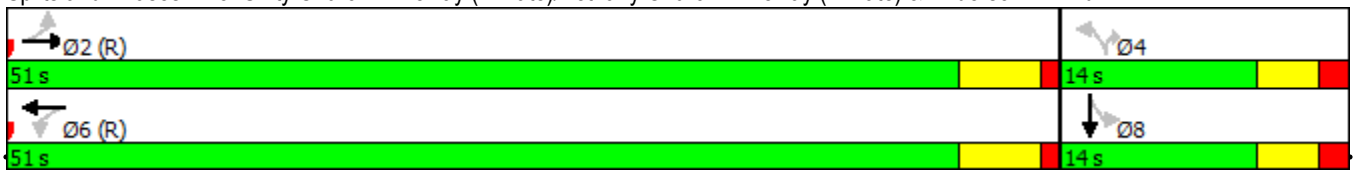
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1762	17	16	1015	17	3	0	9	8	7	4
Future Volume (vph)	17	1762	17	16	1015	17	3	0	9	8	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.997			0.997				0.850		0.960	
Flt Protected		0.999			0.999		0.950				0.978	
Satd. Flow (prot)	0	3525	0	0	3525	0	1770	0	1583	0	3323	0
Flt Permitted		0.905			0.866						0.978	
Satd. Flow (perm)	0	3193	0	0	3056	0	1863	0	1583	0	3323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			7				34		16	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.46	0.90	0.41	0.60	0.81	0.65	0.50	0.25	0.58	0.30	0.42	0.25
Adj. Flow (vph)	37	1958	41	27	1253	26	6	0	16	27	17	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2036	0	0	1306	0	6	0	16	0	60	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1		1	1	2	
Detector Template	Left	Thru		Left	Thru		Left		Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20		20	20	100	
Trailing Detector (ft)	0	0		0	0		0		0	0	0	
Detector 1 Position(ft)	0	0		0	0		0		0	0	0	
Detector 1 Size(ft)	20	6		20	6		20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA		Perm	NA		Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2			6			4		4	8		
Detector Phase	2	2		6	6		4		4	8	8	
Switch Phase												
Minimum Initial (s)	46.0	46.0		46.0	46.0		5.0		5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	51.0	51.0		51.0	51.0		9.5		9.5	9.5	9.5	
Total Split (s)	51.0	51.0		51.0	51.0		14.0		14.0	14.0	14.0	
Total Split (%)	78.5%	78.5%		78.5%	78.5%		21.5%		21.5%	21.5%	21.5%	
Maximum Green (s)	46.0	46.0		46.0	46.0		9.5		9.5	9.5	9.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5		1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0			5.0		4.5		4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None		None	None	None	
Act Effct Green (s)		55.7			55.7		5.6		5.6		5.6	
Actuated g/C Ratio		0.86			0.86		0.09		0.09		0.09	
v/c Ratio		0.74			0.50		0.04		0.10		0.20	
Control Delay		11.2			3.8		27.3		6.3		23.3	
Queue Delay		0.0			0.0		0.0		0.0		0.0	
Total Delay		11.2			3.8		27.3		6.3		23.3	
LOS		B			A		C		A		C	
Approach Delay		11.2			3.8			12.1			23.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)		815			150		2		0		8	
Queue Length 95th (ft)		m648			m200		7		2		9	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)												
Base Capacity (vph)		2738			2620		272		260		499	
Starvation Cap Reductn		0			0		0		0		0	
Spillback Cap Reductn		0			0		0		0		0	
Storage Cap Reductn		0			0		0		0		0	
Reduced v/c Ratio		0.74			0.50		0.02		0.06		0.12	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 38 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 8.6 Intersection LOS: A
Intersection Capacity Utilization 76.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Church Driveway (Private) & Anderson Mill Rd



Intersection	
Int Delay, s/veh	12.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1756	0	0	1230	20	0	0	1	19	0	9
Future Vol, veh/h	4	1756	0	0	1230	20	0	0	1	19	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	96	25	81	75	25	25	25	25	70	25	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1829	0	0	1640	80	0	0	4	27	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1720	0	0	1829	0	0	2660	3560	915	2605	3520	860
Stage 1	-	-	-	-	-	-	1840	1840	-	1680	1680	-
Stage 2	-	-	-	-	-	-	820	1720	-	925	1840	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	364	-	-	330	-	-	11	6	275	~ 12	6	299
Stage 1	-	-	-	-	-	-	78	124	-	98	150	-
Stage 2	-	-	-	-	-	-	335	143	-	290	124	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	364	-	-	330	-	-	10	6	275	~ 12	6	299
Mov Cap-2 Maneuver	-	-	-	-	-	-	10	6	-	~ 12	6	-
Stage 1	-	-	-	-	-	-	78	124	-	98	150	-
Stage 2	-	-	-	-	-	-	318	143	-	286	124	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	18.3	$ 1068.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	275	364	-	-	330	-	-	18
HCM Lane V/C Ratio	0.015	0.015	-	-	-	-	-	2.37
HCM Control Delay (s)	18.3	15	0	-	0	-		$ 1068.5
HCM Lane LOS	C	C	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	5.8

Notes

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

Intersection	
Int Delay, s/veh	35.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1700	36	48	1200	8	3	0	91	3	0	19
Future Vol, veh/h	8	1700	36	48	1200	8	3	0	91	3	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	95	56	60	83	75	25	25	75	50	25	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	1789	64	80	1446	11	12	0	121	6	0	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1456	0	0	1854	0	0	2747	3480	927	2548	3507	728
Stage 1	-	-	-	-	-	-	1864	1864	-	1611	1611	-
Stage 2	-	-	-	-	-	-	883	1616	-	937	1896	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	461	-	-	323	-	-	~ 9	6	270	13	6	366
Stage 1	-	-	-	-	-	-	75	121	-	109	162	-
Stage 2	-	-	-	-	-	-	307	161	-	285	117	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	461	-	-	323	-	-	~ 6	4	270	6	4	366
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 6	4	-	6	4	-
Stage 1	-	-	-	-	-	-	72	115	-	104	122	-
Stage 2	-	-	-	-	-	-	210	121	-	150	112	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1	$ 830.4	$ 343
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	54	461	-	-	323	-	-	36
HCM Lane V/C Ratio	2.469	0.046	-	-	0.248	-	-	1.077
HCM Control Delay (s)	$ 830.4	13.2	-	-	19.8	-	-	$ 343
HCM Lane LOS	F	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	13.6	0.1	-	-	1	-	-	4

Notes

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	719	1066	421	1067	0	0	0	0	562	1124	185
Future Volume (vph)	0	719	1066	421	1067	0	0	0	0	562	1124	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	2		1	1		0	0		0	2		0
Taper Length (ft)	170			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	0.95
Frt			0.850								0.974	
Flt Protected				0.950	0.998					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3383	0	0	0	0	3433	3447	0
Flt Permitted				0.163	0.889					0.950		
Satd. Flow (perm)	0	5085	1583	276	3014	0	0	0	0	3433	3447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176								19	
Link Speed (mph)		40			40			50			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			1.9			1.8	
Peak Hour Factor	0.25	0.92	0.95	0.94	0.80	0.25	0.25	0.25	0.25	0.82	0.87	0.68
Adj. Flow (vph)	0	782	1122	448	1334	0	0	0	0	685	1292	272
Shared Lane Traffic (%)				12%								
Lane Group Flow (vph)	0	782	1122	394	1388	0	0	0	0	685	1564	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	
Detector Template		Thru	Right	Left	Thru					Left	Thru	
Leading Detector (ft)		100	20	20	100					20	100	
Trailing Detector (ft)		0	0	0	0					0	0	
Detector 1 Position(ft)		0	0	0	0					0	0	
Detector 1 Size(ft)		6	20	20	6					20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	
Protected Phases		1 2		6 7	1 2 6 7					4 5	4 5	
Permitted Phases			1 2	1 2								

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	1 2 6 7					4 5	4 5	
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		26.0	26.0	76.0	76.0					36.0	36.0	
Actuated g/C Ratio		0.20	0.20	0.58	0.58					0.28	0.28	
v/c Ratio		0.77	2.46	0.58	0.73					0.72	1.62	
Control Delay		47.2	678.3	10.9	5.8					47.6	313.7	
Queue Delay		1.6	0.0	1.9	2.6					0.0	0.0	
Total Delay		48.8	678.3	12.8	8.4					47.6	313.7	
LOS		D	F	B	A					D	F	
Approach Delay		419.8			9.3						232.6	
Approach LOS		F			A						F	
Queue Length 50th (ft)		212	~1559	61	350					269	~996	
Queue Length 95th (ft)		271	#1829	m75	m17					301	#1085	
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		1017	457	674	1903					950	968	
Starvation Cap Reductn		0	0	148	379					0	0	
Spillback Cap Reductn		104	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.86	2.46	0.75	0.91					0.72	1.62	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 56 (43%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.46
Intersection Signal Delay: 225.6 Intersection LOS: F
Intersection Capacity Utilization 150.9% ICU Level of Service H
Analysis Period (min) 15

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

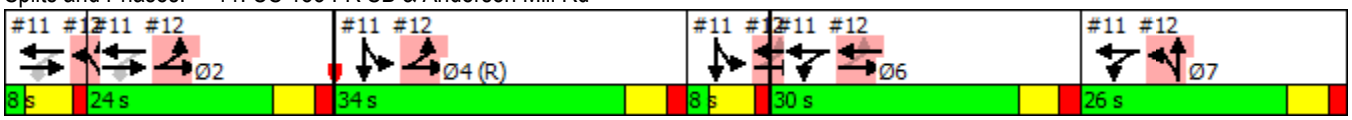
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	34.0	8.0	30.0	26.0
Total Split (%)	6%	18%	26%	6%	23%	20%
Maximum Green (s)	2.0	18.0	28.0	2.0	24.0	20.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	1036	0	0	782	75	683	219	173	0	0	0
Future Volume (vph)	222	1036	0	0	782	75	683	219	173	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	0.95	1.00	1.00	1.00
Frt					0.986			0.938				
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	5014	0	3433	3320	0	0	0	0
Flt Permitted	0.125						0.950					
Satd. Flow (perm)	233	3539	0	0	5014	0	3433	3320	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			125				
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			264			137			124	
Travel Time (s)		5.0			4.5			2.1			1.7	
Peak Hour Factor	0.90	0.94	0.25	0.25	0.87	0.78	0.90	0.64	0.72	0.92	0.92	0.92
Adj. Flow (vph)	247	1102	0	0	899	96	759	342	240	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	1102	0	0	995	0	759	582	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA				
Protected Phases	2 4	2 4 5 6			5 6		1 7	1 7				
Permitted Phases	5 6											

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		1 7	1 7				
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	84.0	90.0			32.0		28.0	28.0				
Actuated g/C Ratio	0.65	0.69			0.25		0.22	0.22				
v/c Ratio	0.32	0.45			0.80		1.03	0.72				
Control Delay	1.8	2.3			51.1		89.9	42.4				
Queue Delay	0.0	1.7			2.4		0.0	0.0				
Total Delay	1.8	4.0			53.5		89.9	42.4				
LOS	A	A			D		F	D				
Approach Delay		3.6			53.5			69.3				
Approach LOS		A			D			E				
Queue Length 50th (ft)	0	0			286		~351	191				
Queue Length 95th (ft)	m17	0			326		#475	154				
Internal Link Dist (ft)		214			184			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	765	2450			1244		739	813				
Starvation Cap Reductn	3	1120			0		0	0				
Spillback Cap Reductn	0	0			140		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.32	0.83			0.90		1.03	0.72				

Intersection Summary

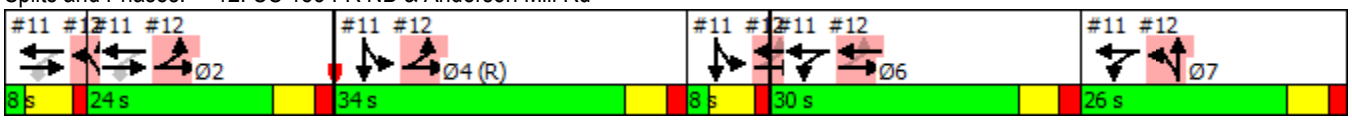
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 56 (43%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.46
Intersection Signal Delay: 41.0 Intersection LOS: D
Intersection Capacity Utilization 150.9% ICU Level of Service H
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.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	34.0	8.0	30.0	26.0
Total Split (%)	6%	18%	26%	6%	23%	20%
Maximum Green (s)	2.0	18.0	28.0	2.0	24.0	20.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 12: US 183 FR NB & Anderson Mill Rd



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1197	168	28	1728	421	30
Future Volume (vph)	1197	168	28	1728	421	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.980				0.988	
Flt Protected			0.950		0.956	
Satd. Flow (prot)	3468	0	1770	3539	3413	0
Flt Permitted			0.108		0.956	
Satd. Flow (perm)	3468	0	201	3539	3413	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	22				5	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.90	0.82	0.75	0.95	0.82	0.69
Adj. Flow (vph)	1330	205	37	1819	513	43
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1535	0	37	1819	556	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	30.0		5.0	30.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	35.0		10.0	35.0	15.0	
Total Split (s)	100.0		15.0	115.0	35.0	
Total Split (%)	66.7%		10.0%	76.7%	23.3%	
Maximum Green (s)	95.0		10.0	110.0	30.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	104.2		112.6	112.6	27.4	
Actuated g/C Ratio	0.69		0.75	0.75	0.18	
v/c Ratio	0.64		0.18	0.68	0.89	
Control Delay	14.7		2.5	16.8	76.0	
Queue Delay	0.0		0.0	5.7	0.0	
Total Delay	14.7		2.5	22.5	76.0	
LOS	B		A	C	E	
Approach Delay	14.7			22.1	76.0	
Approach LOS	B			C	E	
Queue Length 50th (ft)	425		3	960	271	
Queue Length 95th (ft)	522		m3	m766	302	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2415		255	2657	686	
Starvation Cap Reductn	0		0	779	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.64		0.15	0.97	0.81	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 25 (17%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 26.8 — Intersection LOS: C
Intersection Capacity Utilization 69.1% — ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1223	22	7	1771	15	8	0	28	4	0	5
Future Vol, veh/h	7	1223	22	7	1771	15	8	0	28	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	87	67	62	99	92	75	25	75	25	25	33
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1406	33	11	1789	16	11	0	37	16	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1805	0	0	1439	0	0	2362	3273	719	2545	3281	903
Stage 1	-	-	-	-	-	-	1445	1445	-	1820	1820	-
Stage 2	-	-	-	-	-	-	917	1828	-	725	1461	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	337	-	-	468	-	-	19	9	371	~ 13	9	280
Stage 1	-	-	-	-	-	-	138	195	-	80	127	-
Stage 2	-	-	-	-	-	-	293	126	-	383	192	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	337	-	-	468	-	-	16	8	371	~ 10	8	280
Mov Cap-2 Maneuver	-	-	-	-	-	-	16	8	-	~ 10	8	-
Stage 1	-	-	-	-	-	-	115	163	-	67	127	-
Stage 2	-	-	-	-	-	-	277	126	-	287	160	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1	158.4	$ 739
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	63	337	-	-	468	-	-	19
HCM Lane V/C Ratio	0.762	0.034	-	-	0.024	-	-	1.64
HCM Control Delay (s)	158.4	16.1	1.3	-	12.9	0	-	$ 739
HCM Lane LOS	F	C	A	-	B	A	-	F
HCM 95th %tile Q(veh)	3.4	0.1	-	-	0.1	-	-	4.3

Notes

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

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1214	12	7	1739	9	1	0	28	3	0	3
Future Vol, veh/h	1	1214	12	7	1739	9	1	0	28	3	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	92	45	63	100	44	25	25	66	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1320	27	11	1739	20	4	0	42	12	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1759	0	0	1346	0	0	2233	3123	673	2439	3125	880
Stage 1	-	-	-	-	-	-	1341	1341	-	1771	1771	-
Stage 2	-	-	-	-	-	-	892	1782	-	668	1354	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	351	-	-	508	-	-	23	11	398	16	11	290
Stage 1	-	-	-	-	-	-	161	219	-	86	135	-
Stage 2	-	-	-	-	-	-	303	133	-	414	216	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	351	-	-	508	-	-	-	0	398	-	0	290
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	154	209	-	82	0	-
Stage 2	-	-	-	-	-	-	-	0	-	353	206	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	351	-	-	508	-	-	-
HCM Lane V/C Ratio	-	0.011	-	-	0.022	-	-	-
HCM Control Delay (s)	-	15.4	0.4	-	12.2	6	-	-
HCM Lane LOS	-	C	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0	-	-	0.1	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1136	1	86	1615	98	13	126	117	108	138	90
Future Volume (vph)	60	1136	1	86	1615	98	13	126	117	108	138	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	0		112	117		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			89		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850		0.933	
Flt Protected		0.997			0.997			0.995		0.950		
Satd. Flow (prot)	0	3529	0	0	3529	1583	0	1853	1583	1770	1738	0
Flt Permitted		0.608			0.455			0.713		0.306		
Satd. Flow (perm)	0	2152	0	0	1610	1583	0	1328	1583	570	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						124			123		23	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			586			407			352	
Travel Time (s)		5.5			10.0			11.1			8.0	
Peak Hour Factor	0.80	0.95	0.25	0.89	0.94	0.79	0.83	0.84	0.87	0.74	0.74	0.60
Adj. Flow (vph)	75	1196	4	97	1718	124	16	150	134	146	186	150
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1275	0	0	1815	124	0	166	134	146	336	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	1.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	11.0	13.0	13.0	9.0	6.0	
Total Split (s)	50.0	50.0		62.0	62.0	62.0	11.0	26.0	26.0	12.0	27.0	
Total Split (%)	33.3%	33.3%		41.3%	41.3%	41.3%	7.3%	17.3%	17.3%	8.0%	18.0%	
Maximum Green (s)	45.0	45.0		57.0	57.0	57.0	6.0	21.0	21.0	7.0	22.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	1.0	1.5	
Recall Mode	None	Max		C-Max	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)		45.0			58.1	58.1		19.9	19.9	31.9	31.9	
Actuated g/C Ratio		0.30			0.39	0.39		0.13	0.13	0.21	0.21	
v/c Ratio		12.14			1.33	0.18		0.95	0.42	0.82	0.87	
Control Delay		5034.6			188.5	5.7		118.8	15.9	86.6	75.1	
Queue Delay		0.0			0.1	0.0		0.0	0.0	0.0	0.1	
Total Delay		5034.6			188.6	5.7		118.8	15.9	86.6	75.3	
LOS		F			F	A		F	B	F	E	
Approach Delay		5034.6			176.9			72.8			78.7	
Approach LOS		F			F			E			E	
Queue Length 50th (ft)		~1268			~1226	1		162	10	123	298	
Queue Length 95th (ft)		#1402			#1364	m24		#272	66	154	324	
Internal Link Dist (ft)		241			506			327			272	
Turn Bay Length (ft)						110			112	117		
Base Capacity (vph)		105			1367	689		185	327	177	387	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			35	0		0	0	0	1	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		12.14			1.36	0.18		0.90	0.41	0.82	0.87	

Intersection Summary

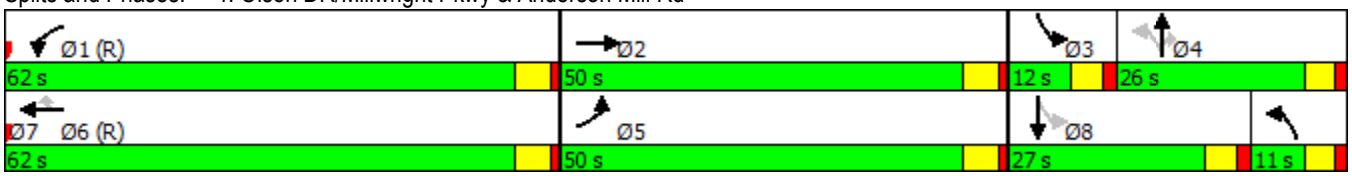
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 136 (91%), Referenced to phase 1:WBL and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 12.14
Intersection Signal Delay: 1707.2 Intersection LOS: F
Intersection Capacity Utilization 117.1% ICU Level of Service H
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.

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

Splits and Phases: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1482	1949	7	0	5
Future Vol, veh/h	0	1482	1949	7	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	87	25	95	25	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1703	7796	7	0	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	7803	0	-	0	8652	3902
Stage 1	-	-	-	-	7800	-
Stage 2	-	-	-	-	852	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1	-	-	-	0	~ 2
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	378	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1	-	-	-	0	~ 2
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	378	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 4909.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1	-	-	-	2
HCM Lane V/C Ratio	-	-	-	-	5
HCM Control Delay (s)	0	-	-	$ 4909.5	
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	2.5

Notes

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

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1320	15	125	1857	17	0	3	124	0	1	19
Future Vol, veh/h	7	1320	15	125	1857	17	0	3	124	0	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	88	34	78	96	54	25	50	79	25	25	39
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1500	44	160	1934	31	0	6	157	0	4	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1966	0	0	1544	0	0	2834	3830	772	3046	3837	983
Stage 1	-	-	-	-	-	-	1544	1544	-	2271	2271	-
Stage 2	-	-	-	-	-	-	1290	2286	-	775	1566	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	292	-	-	426	-	-	8	~ 4	342	5	4	248
Stage 1	-	-	-	-	-	-	120	175	-	41	75	-
Stage 2	-	-	-	-	-	-	173	74	-	357	170	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	292	-	-	426	-	-	-	~ 3	342	-	~ 3	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 3	-	-	~ 3	-
Stage 1	-	-	-	-	-	-	87	127	-	30	75	-
Stage 2	-	-	-	-	-	-	132	74	-	134	123	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	1.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	292	-	-	426	-	-	-
HCM Lane V/C Ratio	-	0.038	-	-	0.376	-	-	-
HCM Control Delay (s)	-	17.8	2.4	-	18.5	0	-	-
HCM Lane LOS	-	C	A	-	C	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	1.7	-	-	-

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

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	1455	1	1	2009	52	0	0	7	3	0	26
Future Vol, veh/h	23	1455	1	1	2009	52	0	0	7	3	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	92	25	25	96	65	25	25	42	50	25	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	1582	4	4	2093	80	0	0	17	6	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2173	0	0	1586	0	0	2713	3840	793	3007	3802	1086
Stage 1	-	-	-	-	-	-	1659	1659	-	2141	2141	-
Stage 2	-	-	-	-	-	-	1054	2181	-	866	1661	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	242	-	-	410	-	-	10	4	331	6	4	212
Stage 1	-	-	-	-	-	-	102	153	-	50	87	-
Stage 2	-	-	-	-	-	-	242	83	-	314	153	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	242	-	-	410	-	-	-	0	331	-	0	212
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	102	0	-	50	87	-
Stage 2	-	-	-	-	-	-	192	83	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	242	-	-	410	-	-	-
HCM Lane V/C Ratio	-	0.156	-	-	0.01	-	-	-
HCM Control Delay (s)	-	22.6	10.8	-	13.9	0	-	-
HCM Lane LOS	-	C	B	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	-

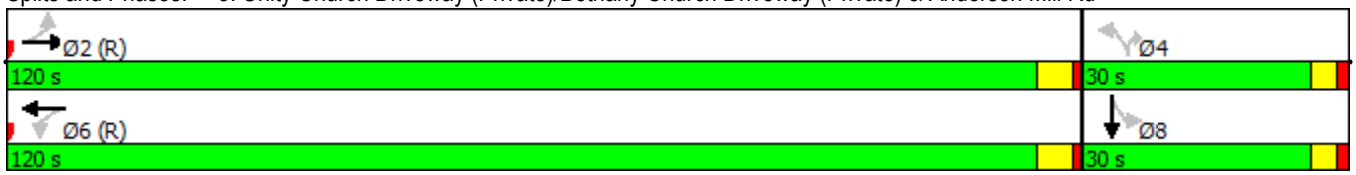
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1482	4	9	2142	9	5	0	40	19	1	9
Future Volume (vph)	11	1482	4	9	2142	9	5	0	40	19	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.999			0.999				0.850		0.943	
Flt Protected		0.999					0.950				0.973	
Satd. Flow (prot)	0	3532	0	0	3536	0	1770	0	1583	0	3247	0
Flt Permitted		0.853			0.913		0.710				0.973	
Satd. Flow (perm)	0	3016	0	0	3228	0	1323	0	1583	0	3247	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			2				62		22	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.50	0.90	0.38	0.44	0.97	0.44	0.33	0.25	0.38	0.50	0.25	0.35
Adj. Flow (vph)	22	1647	11	20	2208	20	15	0	105	38	4	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1680	0	0	2248	0	15	0	105	0	68	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1		1	1	2	
Detector Template	Left	Thru		Left	Thru		Left		Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20		20	20	100	
Trailing Detector (ft)	0	0		0	0		0		0	0	0	
Detector 1 Position(ft)	0	0		0	0		0		0	0	0	
Detector 1 Size(ft)	20	6		20	6		20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA		Perm	NA		Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2			6			4		4	8		
Detector Phase	2	2		6	6		4		4	8	8	
Switch Phase												
Minimum Initial (s)	50.0	50.0		50.0	50.0		5.0		5.0	5.0	5.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	55.0	55.0		55.0	55.0		15.0		15.0	30.0	30.0	
Total Split (s)	120.0	120.0		120.0	120.0		30.0		30.0	30.0	30.0	
Total Split (%)	80.0%	80.0%		80.0%	80.0%		20.0%		20.0%	20.0%	20.0%	
Maximum Green (s)	115.0	115.0		115.0	115.0		25.5		25.5	25.5	25.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.5		1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0		0.0		0.0	
Total Lost Time (s)		5.0			5.0		4.5		4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None		None	None	None	
Walk Time (s)										12.0	12.0	
Flash Dont Walk (s)										17.0	17.0	
Pedestrian Calls (#/hr)										0	0	
Act Effct Green (s)		131.3			131.3		9.2		9.2		9.2	
Actuated g/C Ratio		0.88			0.88		0.06		0.06		0.06	
v/c Ratio		0.64			0.80		0.19		0.68		0.31	
Control Delay		22.0			12.3		69.8		51.5		48.9	
Queue Delay		0.0			0.0		0.0		0.0		0.0	
Total Delay		22.0			12.3		69.8		51.5		48.9	
LOS		C			B		E		D		D	
Approach Delay		22.0			12.3			53.8			48.9	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)		783			778		14		42		23	
Queue Length 95th (ft)		m301			m865		14		8		5	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)												
Base Capacity (vph)		2640			2826		224		320		570	
Starvation Cap Reductn		0			0		0		0		0	
Spillback Cap Reductn		0			0		0		0		0	
Storage Cap Reductn		0			0		0		0		0	
Reduced v/c Ratio		0.64			0.80		0.07		0.33		0.12	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 118 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Church Driveway (Private) & Anderson Mill Rd



Intersection	
Int Delay, s/veh	45.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1641	0	0	2138	42	0	0	0	20	0	23
Future Vol, veh/h	4	1641	0	0	2138	42	0	0	0	20	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	84	25	25	96	56	25	25	25	75	25	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1954	0	0	2227	75	0	0	0	27	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2302	0	0	1954	0	0	3089	4277	977	3263	4240	1151
Stage 1	-	-	-	-	-	-	1975	1975	-	2265	2265	-
Stage 2	-	-	-	-	-	-	1114	2302	-	998	1975	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	215	-	-	295	-	-	5	2	250	~ 4	2	191
Stage 1	-	-	-	-	-	-	64	106	-	42	75	-
Stage 2	-	-	-	-	-	-	222	72	-	261	106	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	215	-	-	295	-	-	4	2	250	~ 4	2	191
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	2	-	~ 4	2	-
Stage 1	-	-	-	-	-	-	64	106	-	42	75	-
Stage 2	-	-	-	-	-	-	184	72	-	261	106	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	$ 3314.1
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	215	-	-	295	-	-	9
HCM Lane V/C Ratio	-	0.049	-	-	-	-	-	6.562
HCM Control Delay (s)	0	22.6	0	-	0	-		$ 3314.1
HCM Lane LOS	A	C	A	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	8.8

Notes

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

Intersection	
Int Delay, s/veh	250.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	1481	54	50	2020	19	5	0	103	13	0	39
Future Vol, veh/h	51	1481	54	50	2020	19	5	0	103	13	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	60	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	90	77	71	95	44	50	25	74	63	25	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	1646	70	70	2126	43	10	0	139	21	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2169	0	0	1716	0	0	3024	4130	858	3252	4144	1085
Stage 1	-	-	-	-	-	-	1820	1820	-	2289	2289	-
Stage 2	-	-	-	-	-	-	1204	2310	-	963	1855	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	243	-	-	365	-	-	~ 6	2	300	~ 4	2	212
Stage 1	-	-	-	-	-	-	80	127	-	40	73	-
Stage 2	-	-	-	-	-	-	195	71	-	274	122	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	243	-	-	365	-	-	~ 3	1	300	~ 1	1	212
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 3	1	-	~ 1	1	-
Stage 1	-	-	-	-	-	-	57	90	-	28	59	-
Stage 2	-	-	-	-	-	-	122	57	-	105	87	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.5	$ 1483.4	$ 12198.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	39	243	-	-	365	-	-	3
HCM Lane V/C Ratio	3.825	0.288	-	-	0.193	-	-	22.928
HCM Control Delay (s)	$ 1483.4	25.7	-	-	17.2	-	-	$ 12198.7
HCM Lane LOS	F	D	-	-	C	-	-	F
HCM 95th %tile Q(veh)	17.1	1.1	-	-	0.7	-	-	10.6

Notes

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	919	813	504	1994	0	0	0	0	646	507	199
Future Volume (vph)	0	919	813	504	1994	0	0	0	0	646	507	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	2		1	1		0	0		0	2		0
Taper Length (ft)	170			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	0.95
Frt			0.850								0.958	
Flt Protected				0.950	0.999					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3387	0	0	0	0	3433	3391	0
Flt Permitted				0.154	0.720					0.950		
Satd. Flow (perm)	0	5085	1583	261	2441	0	0	0	0	3433	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			236								21	
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			2.1			1.8	
Peak Hour Factor	0.25	0.92	0.97	0.83	0.92	0.25	0.25	0.25	0.25	0.94	0.86	0.86
Adj. Flow (vph)	0	999	838	607	2167	0	0	0	0	687	590	231
Shared Lane Traffic (%)				10%								
Lane Group Flow (vph)	0	999	838	546	2228	0	0	0	0	687	821	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	
Detector Template		Thru	Right	Left	Thru					Left	Thru	
Leading Detector (ft)		100	20	20	100					20	100	
Trailing Detector (ft)		0	0	0	0					0	0	
Detector 1 Position(ft)		0	0	0	0					0	0	
Detector 1 Size(ft)		6	20	20	6					20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	
Protected Phases		1 2		6 7	6 7 1 2					4 5	4 5	
Permitted Phases			1 2	2 1								

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	6 7 1 2					4 5	4 5	
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		26.0	26.0	109.0	109.0					23.0	23.0	
Actuated g/C Ratio		0.17	0.17	0.73	0.73					0.15	0.15	
v/c Ratio		1.13	1.79	0.58	0.97					1.31	1.53	
Control Delay		140.7	391.7	4.5	10.4					199.0	287.0	
Queue Delay		0.9	0.0	1.3	42.5					0.0	0.0	
Total Delay		141.6	391.7	5.8	52.9					199.0	287.0	
LOS		F	F	A	D					F	F	
Approach Delay		255.7			43.6						246.9	
Approach LOS		F			D						F	
Queue Length 50th (ft)		~419	~1038	57	742					~443	~583	
Queue Length 95th (ft)		#522	#1421	m43	m462					#569	#674	
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		881	469	936	2297					526	537	
Starvation Cap Reductn		0	0	204	377					0	0	
Spillback Cap Reductn		132	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		1.33	1.79	0.75	1.16					1.31	1.53	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 56 (37%), Referenced to phase 7:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.79
Intersection Signal Delay: 157.4 Intersection LOS: F
Intersection Capacity Utilization 147.2% ICU Level of Service H
Analysis Period (min) 15

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

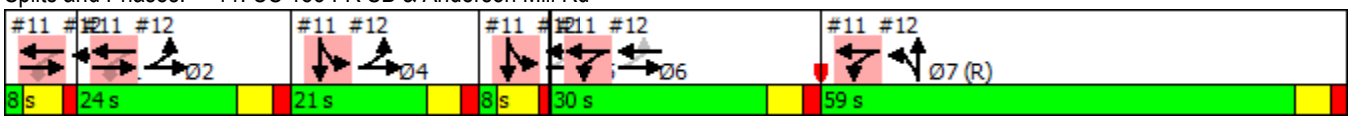
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	21.0	8.0	30.0	59.0
Total Split (%)	5%	16%	14%	5%	20%	39%
Maximum Green (s)	2.0	18.0	15.0	2.0	24.0	53.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	353	1094	0	0	1011	129	1486	595	380	0	0	0
Future Volume (vph)	353	1094	0	0	1011	129	1486	595	380	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	0.95	1.00	1.00	1.00
Frt					0.983			0.937				
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	4999	0	3433	3316	0	0	0	0
Flt Permitted	0.125						0.950					
Satd. Flow (perm)	233	3539	0	0	4999	0	3433	3316	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			49				
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			264			137			124	
Travel Time (s)		5.0			4.5			2.1			1.7	
Peak Hour Factor	0.94	0.92	0.25	0.25	0.85	0.86	0.94	0.92	0.82	0.25	0.25	0.25
Adj. Flow (vph)	376	1189	0	0	1189	150	1581	647	463	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	376	1189	0	0	1339	0	1581	1110	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA				
Protected Phases	2 4	2 4 5 6			5 6		7 1	7 1				
Permitted Phases	5 6											

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		7 1	7 1				
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	71.0	77.0			32.0		61.0	61.0				
Actuated g/C Ratio	0.47	0.51			0.21		0.41	0.41				
v/c Ratio	0.74	0.65			1.24		1.13	0.81				
Control Delay	15.8	4.3			165.0		109.9	43.0				
Queue Delay	39.4	50.2			0.8		0.1	0.0				
Total Delay	55.2	54.5			165.8		110.0	43.0				
LOS	E	D			F		F	D				
Approach Delay		54.7			165.8			82.3				
Approach LOS		D			F			F				
Queue Length 50th (ft)	79	386			~593		~923	482				
Queue Length 95th (ft)	m59	m0			#631		#1059	575				
Internal Link Dist (ft)		214			184			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	509	1816			1076		1396	1377				
Starvation Cap Reductn	153	909			0		0	0				
Spillback Cap Reductn	0	0			169		27	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	1.06	1.31			1.48		1.15	0.81				

Intersection Summary

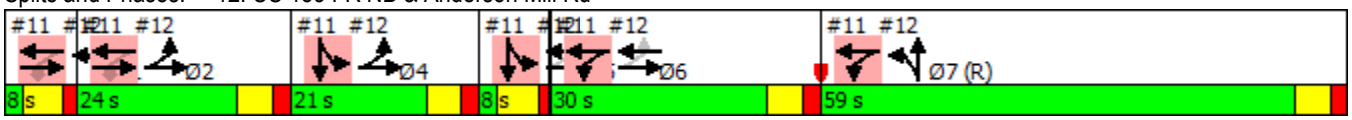
Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 56 (37%), Referenced to phase 7:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.79
Intersection Signal Delay: 94.6 Intersection LOS: F
Intersection Capacity Utilization 147.2% ICU Level of Service H
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.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	8.0	24.0	21.0	8.0	30.0	59.0
Total Split (%)	5%	16%	14%	5%	20%	39%
Maximum Green (s)	2.0	18.0	15.0	2.0	24.0	53.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 12: US 183 FR NB & Anderson Mill Rd



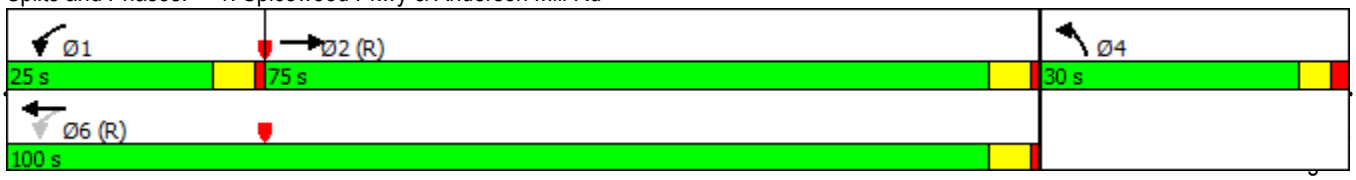
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1028	159	35	1142	207	42
Future Volume (vph)	1028	159	35	1142	207	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.976				0.971	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3454	0	1770	3539	3372	0
Flt Permitted			0.161		0.961	
Satd. Flow (perm)	3454	0	300	3539	3372	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	26				21	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.92	0.76	0.59	0.89	0.84	0.70
Adj. Flow (vph)	1117	209	59	1283	246	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1326	0	59	1283	306	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		1	2	1	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	100		20	100	20	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	6		20	6	20	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases			6			
Detector Phase	2		1	6	4	
Switch Phase						
Minimum Initial (s)	30.0		5.0	30.0	10.0	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Split (s)	35.0		23.0	35.0	30.0	
Total Split (s)	75.0		25.0	100.0	30.0	
Total Split (%)	57.7%		19.2%	76.9%	23.1%	
Maximum Green (s)	70.0		20.0	95.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0		5.0	5.0	5.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		2.0	3.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Walk Time (s)	7.0				9.0	
Flash Dont Walk (s)	16.0				19.0	
Pedestrian Calls (#/hr)	0				0	
Act Effct Green (s)	96.1		104.6	104.6	15.4	
Actuated g/C Ratio	0.74		0.80	0.80	0.12	
v/c Ratio	0.52		0.19	0.45	0.73	
Control Delay	8.7		4.5	4.7	61.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	8.7		4.5	4.7	61.7	
LOS	A		A	A	E	
Approach Delay	8.7			4.7	61.7	
Approach LOS	A			A	E	
Queue Length 50th (ft)	228		8	142	121	
Queue Length 95th (ft)	327		13	207	152	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)						
Base Capacity (vph)	2558		467	2846	665	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.52		0.13	0.45	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 28 (22%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 12.4 — Intersection LOS: B
Intersection Capacity Utilization 50.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	981	15	133	1129	75	30	39	129	82	77	81
Future Volume (vph)	43	981	15	133	1129	75	30	39	129	82	77	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		110	176		130	200		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.910	
Flt Protected		0.997			0.994			0.981		0.950		
Satd. Flow (prot)	0	3518	0	0	3518	1583	0	1827	1583	1770	1695	0
Flt Permitted		0.679			0.565			0.783		0.413		
Satd. Flow (perm)	0	2396	0	0	2000	1583	0	1459	1583	769	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				101			134		53	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			597			407			263	
Travel Time (s)		5.5			10.2			11.1			6.0	
Peak Hour Factor	0.61	0.87	0.69	0.71	0.88	0.82	0.69	0.56	0.83	0.90	0.89	0.62
Adj. Flow (vph)	70	1128	22	187	1283	91	43	70	155	91	87	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1220	0	0	1470	91	0	113	155	91	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA	Prot	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2			6	6	7	4		3	8	
Permitted Phases	2			6			4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		6	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0	10.0	6.0	6.0	6.0	5.0	6.0	
Minimum Split (s)	12.0	26.0		26.0	26.0	26.0	11.0	11.0	11.0	10.0	29.0	
Total Split (s)	12.0	86.0		74.0	74.0	74.0	11.0	30.0	30.0	14.0	33.0	
Total Split (%)	9.2%	66.2%		56.9%	56.9%	56.9%	8.5%	23.1%	23.1%	10.8%	25.4%	
Maximum Green (s)	7.0	81.0		69.0	69.0	69.0	6.0	25.0	25.0	9.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5		2.5	2.5	2.5	1.0	1.5	1.5	0.2	1.5	
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0		10.0	10.0	10.0					12.0	
Flash Dont Walk (s)		14.0		11.0	11.0	11.0					12.0	
Pedestrian Calls (#/hr)		0		0	0	0					0	
Act Effct Green (s)		92.8			92.8	92.8		14.4	14.4	27.2	27.2	
Actuated g/C Ratio		0.71			0.71	0.71		0.11	0.11	0.21	0.21	
v/c Ratio		0.71			1.03	0.08		0.70	0.53	0.41	0.55	
Control Delay		15.0			52.1	1.3		76.7	18.2	46.6	38.6	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		15.0			52.1	1.3		76.7	18.2	46.6	38.6	
LOS		B			D	A		E	B	D	D	
Approach Delay		15.0			49.1			42.9			41.0	
Approach LOS		B			D			D			D	
Queue Length 50th (ft)		291			~703	0		93	16	64	124	
Queue Length 95th (ft)		424			#861	12		89	63	106	189	
Internal Link Dist (ft)		241			517			327			183	
Turn Bay Length (ft)						110			130	200		
Base Capacity (vph)		1711			1428	1159		280	412	230	433	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.71			1.03	0.08		0.40	0.38	0.40	0.50	

Intersection Summary

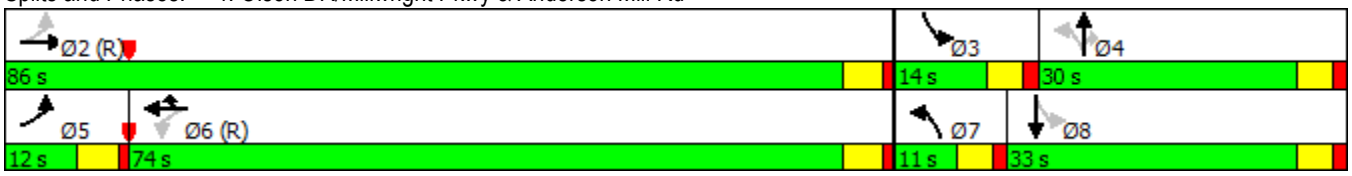
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 11 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 35.5 Intersection LOS: D
Intersection Capacity Utilization 94.6% 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: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd



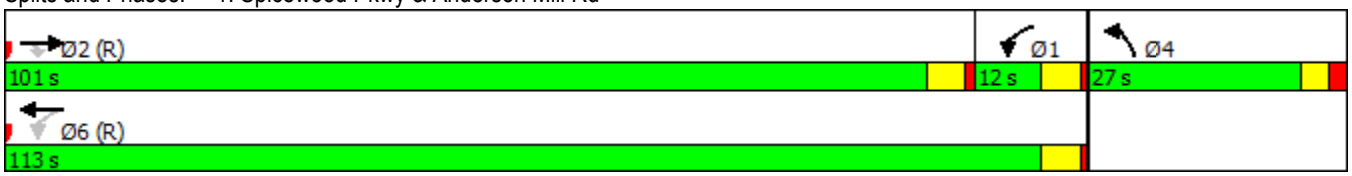
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1558	247	35	908	179	42
Future Volume (vph)	1558	247	35	908	179	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100		0	0
Storage Lanes		1	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.95
Frt		0.850			0.964	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	3539	1583	1770	3539	3355	0
Flt Permitted			0.104		0.963	
Satd. Flow (perm)	3539	1583	194	3539	3355	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		140			26	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.93	0.82	0.81	0.92	0.74	0.55
Adj. Flow (vph)	1675	301	43	987	242	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1675	301	43	987	318	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	4	
Switch Phase						
Minimum Initial (s)	25.0	25.0	7.0	25.0	5.0	
Minimum Split (s)	30.0	30.0	12.0	39.0	10.0	
Total Split (s)	101.0	101.0	12.0	113.0	27.0	
Total Split (%)	72.1%	72.1%	8.6%	80.7%	19.3%	
Maximum Green (s)	96.0	96.0	7.0	108.0	22.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	2.0	3.0	2.0	
Recall Mode	C-Max	C-Max	None	C-Max	None	
Walk Time (s)	7.0	7.0		9.0		
Flash Dont Walk (s)	16.0	16.0		19.0		
Pedestrian Calls (#/hr)	0	0		0		
Act Effct Green (s)	103.8	103.8	113.4	113.4	16.6	
Actuated g/C Ratio	0.74	0.74	0.81	0.81	0.12	
v/c Ratio	0.64	0.25	0.18	0.34	0.76	
Control Delay	11.3	4.0	4.2	1.1	66.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	11.3	4.0	4.2	1.1	66.3	
LOS	B	A	A	A	E	
Approach Delay	10.2			1.2	66.3	
Approach LOS	B			A	E	
Queue Length 50th (ft)	378	41	2	25	135	
Queue Length 95th (ft)	508	69	m1	m16	143	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)		100	100			
Base Capacity (vph)	2623	1209	235	2866	549	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.64	0.25	0.18	0.34	0.58	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 96 (69%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 12.8 Intersection LOS: B
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1594	985	3	7	7
Future Vol, veh/h	3	1594	985	3	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	93	91	25	38	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	1714	1082	12	18	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1094	0	-	0	1957	547
Stage 1	-	-	-	-	1088	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	634	-	-	-	56	481
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	371	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	634	-	-	-	45	481
Mov Cap-2 Maneuver	-	-	-	-	153	-
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	298	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	25.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	634	-	-	-	206
HCM Lane V/C Ratio	0.009	-	-	-	0.143
HCM Control Delay (s)	10.7	1.1	-	-	25.4
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1574	17	8	999	4	3	0	34	0	0	1
Future Vol, veh/h	0	1574	17	8	999	4	3	0	34	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	96	65	75	89	38	50	25	52	25	25	25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1640	26	11	1122	11	6	0	65	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1133	0	0	1666	0	0	2236	2807	833	1969	2815	566
Stage 1	-	-	-	-	-	-	1653	1653	-	1149	1149	-
Stage 2	-	-	-	-	-	-	583	1154	-	820	1666	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	612	-	-	382	-	-	23	18	312	37	18	467
Stage 1	-	-	-	-	-	-	102	154	-	211	271	-
Stage 2	-	-	-	-	-	-	465	270	-	335	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	612	-	-	382	-	-	22	17	312	29	17	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	22	17	-	29	17	-
Stage 1	-	-	-	-	-	-	102	154	-	211	263	-
Stage 2	-	-	-	-	-	-	448	262	-	265	152	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	50.1	12.8
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	612	-	-	382	-	-	467
HCM Lane V/C Ratio	0.482	-	-	-	0.028	-	-	0.009
HCM Control Delay (s)	50.1	0	-	-	14.7	-	-	12.8
HCM Lane LOS	F	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	2.3	0	-	-	0.1	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	1482	13	94	870	27	13	188	167	101	125	73
Future Volume (vph)	97	1482	13	94	870	27	13	188	167	101	125	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		110	0		120	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.941	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1863	1583	1770	1753	0
Flt Permitted	0.950			0.950			0.379			0.239		
Satd. Flow (perm)	1770	3529	0	1770	3539	1583	706	1863	1583	445	1753	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			167		19	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		327			586			407			374	
Travel Time (s)		5.6			10.0			11.1			8.5	
Peak Hour Factor	0.64	0.96	0.42	0.76	0.92	0.56	0.83	0.90	0.82	0.75	0.89	0.79
Adj. Flow (vph)	152	1544	31	124	946	48	16	209	204	135	140	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	1575	0	124	946	48	16	209	204	135	232	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	8.0	
Minimum Split (s)	22.5	22.5		20.0	23.0	23.0	11.0	22.5	22.5	9.5	22.5	
Total Split (s)	65.4	65.4		40.0	40.0	40.0	11.0	22.8	22.8	11.8	23.6	
Total Split (%)	46.7%	46.7%		28.6%	28.6%	28.6%	7.9%	16.3%	16.3%	8.4%	16.9%	
Maximum Green (s)	60.4	60.4		35.0	35.0	35.0	6.0	17.8	17.8	6.8	18.6	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	3.0	1.5	
Recall Mode	C-Max	C-Max		Min	None	None	None	None	None	None	None	
Act Effct Green (s)	61.1	61.1		35.0	35.0	35.0	23.1	17.1	17.1	27.3	24.5	
Actuated g/C Ratio	0.44	0.44		0.25	0.25	0.25	0.16	0.12	0.12	0.20	0.18	
v/c Ratio	0.20	1.02		0.28	1.07	0.10	0.10	0.92	0.60	0.89	0.72	
Control Delay	16.7	58.8		47.5	100.7	2.7	45.6	102.3	21.2	100.4	63.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	16.7	58.8		47.5	100.7	2.7	45.6	102.3	21.2	100.4	63.7	
LOS	B	E		D	F	A	D	F	C	F	E	
Approach Delay		55.1			90.6			61.6			77.2	
Approach LOS		E			F			E			E	
Queue Length 50th (ft)	85	~810		79	~490	1	12	190	31	106	177	
Queue Length 95th (ft)	70	#951		107	#630	1	30	#337	87	#169	#355	
Internal Link Dist (ft)		247			506			327			294	
Turn Bay Length (ft)	100			100		110			120	200		
Base Capacity (vph)	771	1540		442	884	466	162	236	347	151	322	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.20	1.02		0.28	1.07	0.10	0.10	0.89	0.59	0.89	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 139 (99%), Referenced to phase 2:EBT and 5:EBL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 69.0 Intersection LOS: E
Intersection Capacity Utilization 86.6% 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: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	1849	1094	4	3	3
Future Vol, veh/h	17	1849	1094	4	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	46	93	93	38	25	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	1988	1176	11	12	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1187	0	-	0	2250	593
Stage 1	-	-	-	-	1182	-
Stage 2	-	-	-	-	1068	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	584	-	-	-	35	449
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	291	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	584	-	-	-	33	449
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	273	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	584	-	-	-	208
HCM Lane V/C Ratio	0.063	-	-	-	0.115
HCM Control Delay (s)	11.6	-	-	-	24.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	148.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	1704	11	56	1058	5	1	4	242	4	1	11
Future Vol, veh/h	32	1704	11	56	1058	5	1	4	242	4	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	96	67	70	92	100	25	38	70	75	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	1775	16	80	1150	5	4	11	346	5	4	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1155	0	0	1791	0	0	2648	3226	896	2334	3232	578
Stage 1	-	-	-	-	-	-	1911	1911	-	1313	1313	-
Stage 2	-	-	-	-	-	-	737	1315	-	1021	1919	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	601	-	-	342	-	-	11	~ 9	~ 283	20	9	459
Stage 1	-	-	-	-	-	-	70	114	-	167	226	-
Stage 2	-	-	-	-	-	-	376	226	-	253	113	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	601	-	-	342	-	-	4	~ 6	~ 283	-	6	459
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	~ 6	-	-	6	-
Stage 1	-	-	-	-	-	-	63	102	-	149	173	-
Stage 2	-	-	-	-	-	-	268	173	-	-	101	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.2	$ 1426.9	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	91	601	-	-	342	-	-	-
HCM Lane V/C Ratio	3.959	0.106	-	-	0.234	-	-	-
HCM Control Delay (s)	$ 1426.9	11.7	-	-	18.7	-	-	-
HCM Lane LOS	F	B	-	-	C	-	-	-
HCM 95th %tile Q(veh)	37.3	0.4	-	-	0.9	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	1814	0	11	1097	26	0	1	5	7	0	31
Future Vol, veh/h	138	1814	0	11	1097	26	0	1	5	7	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	96	25	67	90	59	25	25	50	31	25	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	219	1890	0	16	1219	44	0	4	10	23	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1263	0	0	1890	0	0	2970	3624	945	2659	3602	631
Stage 1	-	-	-	-	-	-	2328	2328	-	1274	1274	-
Stage 2	-	-	-	-	-	-	642	1296	-	1385	2328	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	546	-	-	312	-	-	6	5	263	~ 11	5	424
Stage 1	-	-	-	-	-	-	38	70	-	177	236	-
Stage 2	-	-	-	-	-	-	429	231	-	151	70	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	546	-	-	312	-	-	4	~ 3	263	-	3	424
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	~ 3	-	-	3	-
Stage 1	-	-	-	-	-	-	23	42	-	106	224	-
Stage 2	-	-	-	-	-	-	361	219	-	79	42	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.2	$ 939.7	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	10	546	-	-	312	-	-	-
HCM Lane V/C Ratio	1.4	0.401	-	-	0.053	-	-	-
HCM Control Delay (s)	$ 939.7	15.9	-	-	17.2	-	-	-
HCM Lane LOS	F	C	-	-	C	-	-	-
HCM 95th %tile Q(veh)	2.6	1.9	-	-	0.2	-	-	-

Notes

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

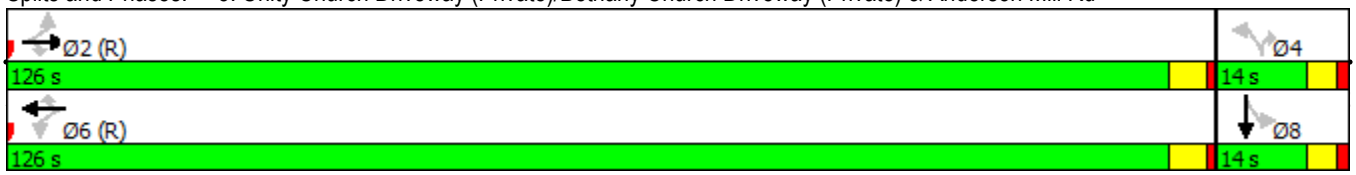
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1762	17	16	1015	17	3	0	9	8	7	4
Future Volume (vph)	17	1762	17	16	1015	17	3	0	9	8	7	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	0		0	0		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	0	1583	1770	1727	0
Flt Permitted	0.216			0.095			0.736			0.950		
Satd. Flow (perm)	402	3539	1583	177	3539	1583	1371	0	1583	1770	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			38			26			16		16	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.46	0.90	0.41	0.60	0.81	0.65	0.50	0.25	0.58	0.30	0.42	0.25
Adj. Flow (vph)	37	1958	41	27	1253	26	6	0	16	27	17	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	1958	41	27	1253	26	6	0	16	27	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1		1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left		Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20		20	20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2		2	6		6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	4		4	8	8	
Switch Phase												
Minimum Initial (s)	46.0	46.0	46.0	46.0	46.0	46.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	9.5		9.5	9.5	9.5	
Total Split (s)	126.0	126.0	126.0	126.0	126.0	126.0	14.0		14.0	14.0	14.0	
Total Split (%)	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	10.0%		10.0%	10.0%	10.0%	
Maximum Green (s)	121.0	121.0	121.0	121.0	121.0	121.0	9.5		9.5	9.5	9.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.5		1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5		4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None		None	None	None	
Act Effct Green (s)	126.6	126.6	126.6	126.6	126.6	126.6	6.8		6.8	6.8	6.8	
Actuated g/C Ratio	0.90	0.90	0.90	0.90	0.90	0.90	0.05		0.05	0.05	0.05	
v/c Ratio	0.10	0.61	0.03	0.17	0.39	0.02	0.09		0.18	0.32	0.34	
Control Delay	0.8	1.4	0.0	3.1	1.2	0.5	65.3		29.8	73.4	48.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	0.8	1.4	0.0	3.1	1.2	0.5	65.3		29.8	73.4	48.4	
LOS	A	A	A	A	A	A	E		C	E	D	
Approach Delay		1.3			1.3			39.5			59.6	
Approach LOS		A			A			D			E	
Queue Length 50th (ft)	1	31	0	1	36	0	5		0	24	15	
Queue Length 95th (ft)	m1	m37	0	5	87	m2	11		11	18	16	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)	100		100	100		100						
Base Capacity (vph)	363	3200	1435	160	3200	1434	93		122	120	132	
Starvation Cap Reductn	0	0	0	0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0		0	0	0	
Reduced v/c Ratio	0.10	0.61	0.03	0.17	0.39	0.02	0.06		0.13	0.23	0.25	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 28 (20%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 2.6 Intersection LOS: A
Intersection Capacity Utilization 92.9% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Church Driveway (Private) & Anderson Mill Rd

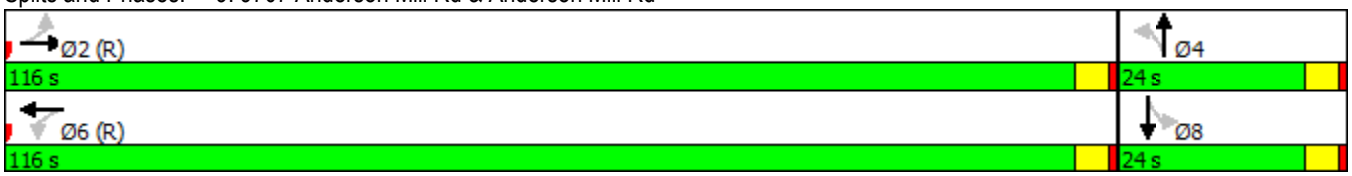


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1756	0	48	1230	20	3	0	1	19	0	9
Future Volume (vph)	4	1756	0	48	1230	20	3	0	1	19	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993			0.966			0.950	
Flt Protected	0.950			0.950				0.964			0.970	
Satd. Flow (prot)	1770	3539	0	1770	3514	0	0	1735	0	0	1717	0
Flt Permitted	0.108			0.092				0.840			0.836	
Satd. Flow (perm)	201	3539	0	171	3514	0	0	1512	0	0	1479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12			12			16	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1284			489			134			100	
Travel Time (s)		21.9			8.3			3.7			2.7	
Peak Hour Factor	0.75	0.96	0.25	0.81	0.75	0.25	0.25	0.25	0.25	0.70	0.25	0.58
Adj. Flow (vph)	5	1829	0	59	1640	80	12	0	4	27	0	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	1829	0	59	1720	0	0	16	0	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	116.0	116.0		116.0	116.0		24.0	24.0		24.0	24.0	
Total Split (%)	82.9%	82.9%		82.9%	82.9%		17.1%	17.1%		17.1%	17.1%	
Maximum Green (s)	111.5	111.5		111.5	111.5		19.5	19.5		19.5	19.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	111.5	111.5		111.5	111.5			19.5			19.5	
Actuated g/C Ratio	0.80	0.80		0.80	0.80			0.14			0.14	
v/c Ratio	0.03	0.65		0.43	0.61			0.07			0.20	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	1.0	2.2		9.7	2.3			29.2			39.7	
Queue Delay	0.0	0.0		0.0	0.2			0.0			0.0	
Total Delay	1.0	2.2		9.7	2.5			29.2			39.7	
LOS	A	A		A	A			C			D	
Approach Delay		2.2			2.7			29.3			39.7	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	0	37		3	54			3			22	
Queue Length 95th (ft)	m0	38		m8	75			0			7	
Internal Link Dist (ft)		1204			409			54			20	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	160	2818		136	2801			220			219	
Starvation Cap Reductn	0	0		0	349			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.03	0.65		0.43	0.70			0.07			0.20	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 49 (35%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 3.0	Intersection LOS: A
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 9: 9707 Anderson Mill Rd & Anderson Mill Rd



Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1700	36	0	1200	8	0	0	91	0	0	19
Future Vol, veh/h	0	1700	36	0	1200	8	0	0	91	0	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	300	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	95	56	60	83	75	25	25	75	50	25	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1789	64	0	1446	11	0	0	121	0	0	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	927	-	-	728
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	232	0	0	366
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	232	-	-	366
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	36.4	15.8
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	232	-	-	-	-	366
HCM Lane V/C Ratio	0.523	-	-	-	-	0.09
HCM Control Delay (s)	36.4	-	-	-	-	15.8
HCM Lane LOS	E	-	-	-	-	C
HCM 95th %tile Q(veh)	2.7	-	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	719	1066	421	1067	0	0	0	0	562	1124	185
Future Volume (vph)	0	719	1066	421	1067	0	0	0	0	562	1124	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950	0.998					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3383	0	0	0	0	3433	3539	1583
Flt Permitted				0.295	0.872					0.950		
Satd. Flow (perm)	0	5085	1583	500	2956	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164									164
Link Speed (mph)		40			40			50			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			1.9			1.8	
Peak Hour Factor	0.25	0.92	0.95	0.94	0.80	0.25	0.25	0.25	0.25	0.82	0.87	0.68
Adj. Flow (vph)	0	782	1122	448	1334	0	0	0	0	685	1292	272
Shared Lane Traffic (%)				12%								
Lane Group Flow (vph)	0	782	1122	394	1388	0	0	0	0	685	1292	272
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	Perm
Protected Phases		1 2		6 7	1 2 6 7					4 5	4 5	
Permitted Phases			1 2	1 2								4 5

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	1 2 6 7					4 5	4 5	4 5
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		62.0	62.0	82.0	82.0					40.0	40.0	40.0
Actuated g/C Ratio		0.44	0.44	0.59	0.59					0.29	0.29	0.29
v/c Ratio		0.35	1.42	0.87	0.77					0.70	1.28	0.48
Control Delay		14.5	213.0	14.7	12.1					49.1	173.6	18.8
Queue Delay		0.2	0.0	0.9	0.2					2.6	0.0	0.0
Total Delay		14.8	213.0	15.6	12.4					51.8	173.6	18.8
LOS		B	F	B	B					D	F	B
Approach Delay		131.6			13.1						117.8	
Approach LOS		F			B						F	
Queue Length 50th (ft)		71	~1309	129	475					288	~782	77
Queue Length 95th (ft)		112	#1574	m123	m225					317	#874	83
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		2251	792	451	1792					980	1011	569
Starvation Cap Reductn		0	0	7	65					0	0	0
Spillback Cap Reductn		677	0	0	0					183	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.50	1.42	0.89	0.80					0.86	1.28	0.48

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 136 (97%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 90.8 Intersection LOS: F
Intersection Capacity Utilization 145.0% ICU Level of Service H
Analysis Period (min) 15

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

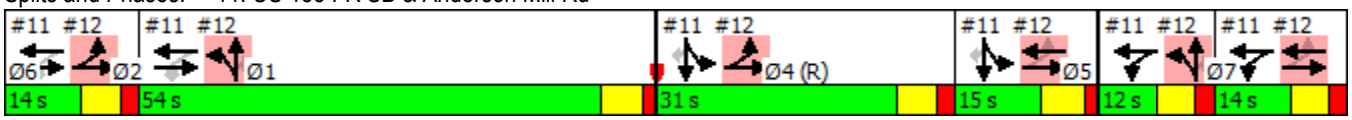
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	54.0	14.0	31.0	15.0	14.0	12.0
Total Split (%)	39%	10%	22%	11%	10%	9%
Maximum Green (s)	48.0	8.0	25.0	9.0	8.0	6.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	1036	0	0	782	75	683	219	173	0	0	0
Future Volume (vph)	222	1036	0	0	782	75	683	219	173	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	1.00	1.00
Frt					0.986				0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	5014	0	3433	3539	1583	0	0	0
Flt Permitted	0.235						0.950					
Satd. Flow (perm)	438	3539	0	0	5014	0	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10				164			
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			540			137			124	
Travel Time (s)		5.0			9.2			2.1			1.7	
Peak Hour Factor	0.90	0.94	0.25	0.25	0.87	0.78	0.90	0.64	0.72	0.92	0.92	0.92
Adj. Flow (vph)	247	1102	0	0	899	96	759	342	240	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	1102	0	0	995	0	759	342	240	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA	Perm			
Protected Phases	2 4	2 4 5 6			5 6		1 7	1 7				
Permitted Phases	5 6								1 7			

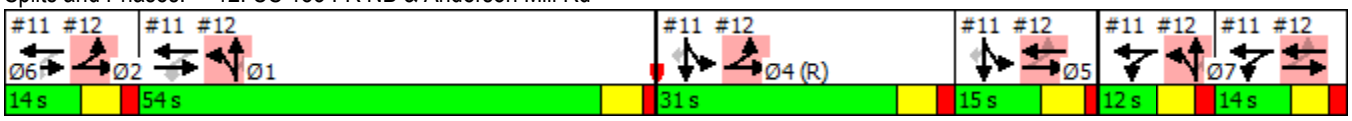
Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		1 7	1 7	1 7			
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	50.0	62.0			17.0		54.0	54.0	54.0			
Actuated g/C Ratio	0.36	0.44			0.12		0.39	0.39	0.39			
v/c Ratio	0.53	0.70			1.61		0.57	0.25	0.34			
Control Delay	25.2	30.8			316.9		29.4	16.9	6.8			
Queue Delay	0.9	1.3			0.3		0.2	0.0	0.0			
Total Delay	26.1	32.1			317.3		29.6	16.9	6.8			
LOS	C	C			F		C	B	A			
Approach Delay		31.0			317.3			22.3				
Approach LOS		C			F			C				
Queue Length 50th (ft)	110	502			~373		186	63	26			
Queue Length 95th (ft)	168	584			#443		243	58	35			
Internal Link Dist (ft)		214			460			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	470	1567			617		1324	1365	711			
Starvation Cap Reductn	72	256			0		0	0	0			
Spillback Cap Reductn	0	0			29		98	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.62	0.84			1.69		0.62	0.25	0.34			

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 136 (97%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 105.1 Intersection LOS: F
Intersection Capacity Utilization 145.0% ICU Level of Service H
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: 12: US 183 FR NB & Anderson Mill Rd



Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	54.0	14.0	31.0	15.0	14.0	12.0
Total Split (%)	39%	10%	22%	11%	10%	9%
Maximum Green (s)	48.0	8.0	25.0	9.0	8.0	6.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	0.2
Recall Mode	Min	Min	C-Max	Min	Min	Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

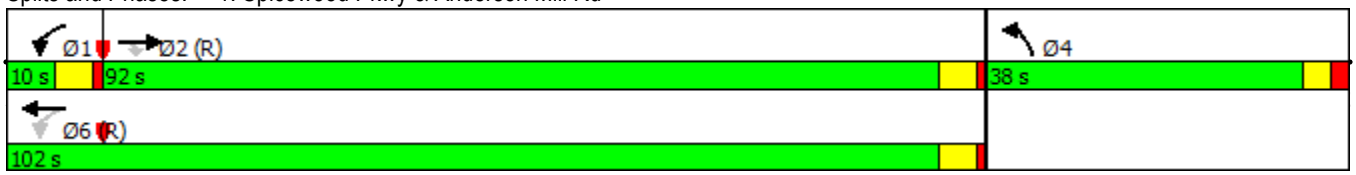
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1197	168	28	1728	421	30
Future Volume (vph)	1197	168	28	1728	421	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100		0	0
Storage Lanes		1	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.95
Frt		0.850			0.988	
Flt Protected			0.950		0.956	
Satd. Flow (prot)	3539	1583	1770	3539	3413	0
Flt Permitted			0.145		0.956	
Satd. Flow (perm)	3539	1583	270	3539	3413	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		99			6	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.90	0.82	0.75	0.95	0.82	0.69
Adj. Flow (vph)	1330	205	37	1819	513	43
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1330	205	37	1819	556	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	4	
Switch Phase						
Minimum Initial (s)	30.0	30.0	5.0	30.0	10.0	
Minimum Split (s)	35.0	35.0	10.0	35.0	15.0	
Total Split (s)	92.0	92.0	10.0	102.0	38.0	
Total Split (%)	65.7%	65.7%	7.1%	72.9%	27.1%	
Maximum Green (s)	87.0	87.0	5.0	97.0	33.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	2.0	3.0	2.0	
Recall Mode	C-Max	C-Max	None	C-Max	None	
Act Effct Green (s)	95.1	95.1	103.1	103.1	26.9	
Actuated g/C Ratio	0.68	0.68	0.74	0.74	0.19	
v/c Ratio	0.55	0.19	0.15	0.70	0.84	
Control Delay	13.6	5.4	1.4	3.5	65.8	
Queue Delay	0.0	0.0	0.0	0.5	0.0	
Total Delay	13.6	5.4	1.4	4.0	65.8	
LOS	B	A	A	A	E	
Approach Delay	12.5			4.0	65.8	
Approach LOS	B			A	E	
Queue Length 50th (ft)	318	32	1	35	251	
Queue Length 95th (ft)	432	61	m2	m61	270	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)		100	100			
Base Capacity (vph)	2403	1106	252	2605	809	
Starvation Cap Reductn	0	0	0	345	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.55	0.19	0.15	0.80	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 34 (24%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1245	1771	15	7	5
Future Vol, veh/h	7	1245	1771	15	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	62	87	99	92	25	33
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1431	1789	16	28	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1805	0	-	0	2535	903
Stage 1	-	-	-	-	1797	-
Stage 2	-	-	-	-	738	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	337	-	-	-	~ 22	280
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	434	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	337	-	-	-	~ 19	280
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	365	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	53.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	337	-	-	-	116
HCM Lane V/C Ratio	0.034	-	-	-	0.372
HCM Control Delay (s)	16.1	-	-	-	53.4
HCM Lane LOS	C	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	1.5

Notes

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

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1214	12	7	1739	9	1	0	28	3	0	3
Future Vol, veh/h	1	1214	12	7	1739	9	1	0	28	3	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	92	45	63	100	44	25	25	66	25	25	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1320	27	11	1739	20	4	0	42	12	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1759	0	0	1346	0	0	2233	3123	673	2439	3125	880
Stage 1	-	-	-	-	-	-	1341	1341	-	1771	1771	-
Stage 2	-	-	-	-	-	-	892	1782	-	668	1354	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	351	-	-	508	-	-	23	11	398	16	11	290
Stage 1	-	-	-	-	-	-	161	219	-	86	135	-
Stage 2	-	-	-	-	-	-	303	133	-	414	216	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	351	-	-	508	-	-	22	11	398	14	11	290
Mov Cap-2 Maneuver	-	-	-	-	-	-	22	11	-	14	11	-
Stage 1	-	-	-	-	-	-	159	217	-	85	132	-
Stage 2	-	-	-	-	-	-	290	130	-	366	214	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	36.2	$ 403.4
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	161	351	-	-	508	-	-	21
HCM Lane V/C Ratio	0.288	0.011	-	-	0.022	-	-	0.857
HCM Control Delay (s)	36.2	15.4	-	-	12.2	-	-	$ 403.4
HCM Lane LOS	E	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	2.4

Notes

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1136	1	86	1615	98	13	126	117	108	138	90
Future Volume (vph)	60	1136	1	86	1615	98	13	126	117	108	138	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		110	0		120	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			89		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850			0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	1770	1863	1583	1770	1738	0
Flt Permitted	0.950			0.950			0.274			0.274		
Satd. Flow (perm)	1770	3536	0	1770	3539	1583	510	1863	1583	510	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						132			134		24	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			586			407			352	
Travel Time (s)		5.5			10.0			11.1			8.0	
Peak Hour Factor	0.80	0.95	0.25	0.89	0.94	0.79	0.83	0.84	0.87	0.74	0.74	0.60
Adj. Flow (vph)	75	1196	4	97	1718	124	16	150	134	146	186	150
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	1200	0	97	1718	124	16	150	134	146	336	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases						6	4		4	8		

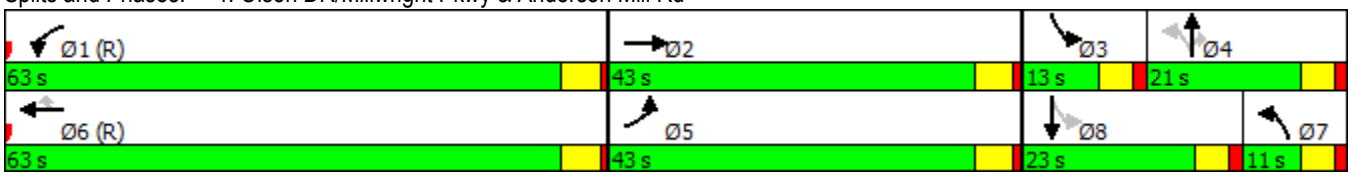
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	6.0	8.0	8.0	4.0	1.0	
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	11.0	13.0	13.0	9.0	6.0	
Total Split (s)	43.0	43.0		63.0	63.0	63.0	11.0	21.0	21.0	13.0	23.0	
Total Split (%)	30.7%	30.7%		45.0%	45.0%	45.0%	7.9%	15.0%	15.0%	9.3%	16.4%	
Maximum Green (s)	38.0	38.0		58.0	58.0	58.0	6.0	16.0	16.0	8.0	18.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.5	1.5	1.0	1.5	
Recall Mode	None	Max		C-Max	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	33.4	38.0		60.0	60.0	60.0	15.9	14.0	14.0	22.6	22.6	
Actuated g/C Ratio	0.24	0.27		0.43	0.43	0.43	0.11	0.10	0.10	0.16	0.16	
v/c Ratio	0.18	1.25		0.13	1.13	0.16	0.14	0.81	0.48	0.95	1.12	
Control Delay	30.2	157.2		25.2	104.9	3.7	61.2	91.9	14.9	115.3	136.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	30.2	157.2		25.2	104.9	3.7	61.2	91.9	14.9	115.3	136.1	
LOS	C	F		C	F	A	E	F	B	F	F	
Approach Delay		149.8			94.5			55.9			129.8	
Approach LOS		F			F			E			F	
Queue Length 50th (ft)	53	~720		53	~973	1	13	134	0	117	283	
Queue Length 95th (ft)	m84	#861		m85	#1122	12	34	196	57	#181	#436	
Internal Link Dist (ft)		241			506			327			272	
Turn Bay Length (ft)	100			100		110			120	200		
Base Capacity (vph)	480	959		758	1517	754	112	212	299	154	300	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.16	1.25		0.13	1.13	0.16	0.14	0.71	0.45	0.95	1.12	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 32 (23%), Referenced to phase 1:WBL and 6:WBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 113.5 Intersection LOS: F
Intersection Capacity Utilization 91.6% 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.

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

Splits and Phases: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd



Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1482	1949	7	0	5
Future Vol, veh/h	0	1482	1949	7	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	87	25	95	25	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1703	7796	7	0	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	7803	0	-	0	8652	3902
Stage 1	-	-	-	-	7800	-
Stage 2	-	-	-	-	852	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1	-	-	-	0	~ 2
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	378	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1	-	-	-	0	~ 2
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	378	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 4909.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1	-	-	-	2
HCM Lane V/C Ratio	-	-	-	-	5
HCM Control Delay (s)	0	-	-	$ 4909.5	
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	2.5

Notes

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

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1320	15	125	1857	17	0	3	124	0	1	19
Future Vol, veh/h	7	1320	15	125	1857	17	0	3	124	0	1	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	88	34	78	96	54	25	50	79	25	25	39
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1500	44	160	1934	31	0	6	157	0	4	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1966	0	0	1544	0	0	2834	3830	772	3046	3837	983
Stage 1	-	-	-	-	-	-	1544	1544	-	2271	2271	-
Stage 2	-	-	-	-	-	-	1290	2286	-	775	1566	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	292	-	-	426	-	-	8	~ 4	342	5	4	248
Stage 1	-	-	-	-	-	-	120	175	-	41	75	-
Stage 2	-	-	-	-	-	-	173	74	-	357	170	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	292	-	-	426	-	-	-	~ 2	342	-	~ 2	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 2	-	-	~ 2	-
Stage 1	-	-	-	-	-	-	115	168	-	39	47	-
Stage 2	-	-	-	-	-	-	79	46	-	179	164	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	292	-	-	426	-	-	-
HCM Lane V/C Ratio	-	0.038	-	-	0.376	-	-	-
HCM Control Delay (s)	-	17.8	-	-	18.5	-	-	-
HCM Lane LOS	-	C	-	-	C	-	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	1.7	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	1455	1	1	2009	52	0	0	7	3	0	26
Future Vol, veh/h	23	1455	1	1	2009	52	0	0	7	3	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	92	25	25	96	65	25	25	42	50	25	59
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	1582	4	4	2093	80	0	0	17	6	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2173	0	0	1586	0	0	2713	3840	793	3007	3802	1086
Stage 1	-	-	-	-	-	-	1659	1659	-	2141	2141	-
Stage 2	-	-	-	-	-	-	1054	2181	-	866	1661	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	242	-	-	410	-	-	10	4	331	6	4	212
Stage 1	-	-	-	-	-	-	102	153	-	50	87	-
Stage 2	-	-	-	-	-	-	242	83	-	314	153	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	242	-	-	410	-	-	7	3	331	~ 5	3	212
Mov Cap-2 Maneuver	-	-	-	-	-	-	7	3	-	~ 5	3	-
Stage 1	-	-	-	-	-	-	86	129	-	42	86	-
Stage 2	-	-	-	-	-	-	190	82	-	251	129	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	16.5	$ 458.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	331	242	-	-	410	-	-	36
HCM Lane V/C Ratio	0.05	0.156	-	-	0.01	-	-	1.391
HCM Control Delay (s)	16.5	22.6	-	-	13.9	-	-	$ 458.1
HCM Lane LOS	C	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.2	0.5	-	-	0	-	-	5.3

Notes

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

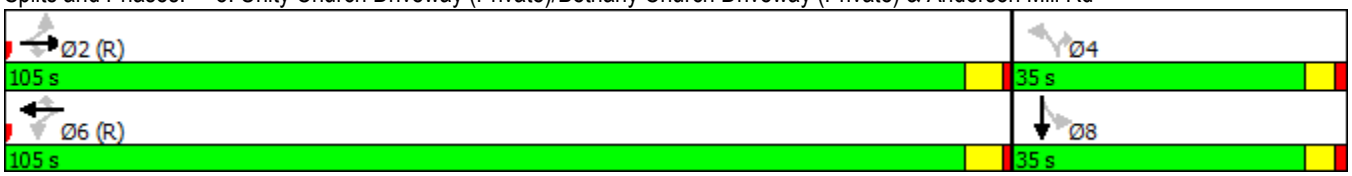
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1482	4	9	2142	9	5	0	40	19	1	9
Future Volume (vph)	11	1482	4	9	2142	9	5	0	40	19	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	0		0	0		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.870	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	0	1583	1770	1621	0
Flt Permitted	0.063			0.133			0.738			0.950		
Satd. Flow (perm)	117	3539	1583	248	3539	1583	1375	0	1583	1770	1621	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			12			12			49		16	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		800			1284			255			225	
Travel Time (s)		13.6			21.9			7.0			6.1	
Peak Hour Factor	0.50	0.90	0.38	0.44	0.97	0.44	0.33	0.25	0.38	0.50	0.25	0.35
Adj. Flow (vph)	22	1647	11	20	2208	20	15	0	105	38	4	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	1647	11	20	2208	20	15	0	105	38	30	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1		1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left		Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20		20	20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm		Perm	Perm	NA	
Protected Phases		2			6						8	
Permitted Phases	2		2	6		6	4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2	2	6	6	6	4		4	8	8	
Switch Phase												
Minimum Initial (s)	50.0	50.0	50.0	50.0	50.0	50.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	55.0	55.0	55.0	55.0	55.0	55.0	15.0		15.0	30.0	30.0	
Total Split (s)	105.0	105.0	105.0	105.0	105.0	105.0	35.0		35.0	35.0	35.0	
Total Split (%)	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	25.0%		25.0%	25.0%	25.0%	
Maximum Green (s)	100.0	100.0	100.0	100.0	100.0	100.0	30.5		30.5	30.5	30.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.5		1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.5		4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.0		2.0	2.0	2.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None		None	None	None	
Walk Time (s)										12.0	12.0	
Flash Dont Walk (s)										17.0	17.0	
Pedestrian Calls (#/hr)										0	0	
Act Effct Green (s)	120.7	120.7	120.7	120.7	120.7	120.7	9.8		9.8	9.8	9.8	
Actuated g/C Ratio	0.86	0.86	0.86	0.86	0.86	0.86	0.07		0.07	0.07	0.07	
v/c Ratio	0.22	0.54	0.01	0.09	0.72	0.01	0.16		0.67	0.31	0.23	
Control Delay	3.8	3.7	0.0	3.1	4.7	1.4	62.2		54.9	66.4	39.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay	3.8	3.7	0.0	3.1	4.7	1.4	62.2		54.9	66.4	39.1	
LOS	A	A	A	A	A	A	E		D	E	D	
Approach Delay		3.7			4.6			55.8			54.3	
Approach LOS		A			A			E			D	
Queue Length 50th (ft)	1	92	0	2	252	1	13		50	34	12	
Queue Length 95th (ft)	m1	m36	m0	4	267	2	13		19	38	2	
Internal Link Dist (ft)		720			1204			175			145	
Turn Bay Length (ft)	100		100	100		100						
Base Capacity (vph)	101	3050	1365	213	3050	1365	299		383	385	365	
Starvation Cap Reductn	0	0	0	0	31	0	0		0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0		0	0	0	
Reduced v/c Ratio	0.22	0.54	0.01	0.09	0.73	0.01	0.05		0.27	0.10	0.08	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 138 (99%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 6.6 Intersection LOS: A
Intersection Capacity Utilization 99.6% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Unity Church Driveway (Private)/Bethany Church Driveway (Private) & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1641	54	50	2138	42	5	0	0	20	0	23
Future Volume (vph)	4	1641	54	50	2138	42	5	0	0	20	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.995						0.927	
Flt Protected	0.950			0.950				0.950			0.978	
Satd. Flow (prot)	1770	3486	0	1770	3522	0	0	1770	0	0	1689	0
Flt Permitted	0.056			0.068				0.679			0.844	
Satd. Flow (perm)	104	3486	0	127	3522	0	0	1265	0	0	1457	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			9						26	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1284			489			134			100	
Travel Time (s)		21.9			8.3			3.7			2.7	
Peak Hour Factor	0.38	0.84	0.25	0.25	0.96	0.56	0.25	0.25	0.25	0.75	0.25	0.71
Adj. Flow (vph)	11	1954	216	200	2227	75	20	0	0	27	0	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2170	0	200	2302	0	0	20	0	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	117.5	117.5		117.5	117.5		22.5	22.5		22.5	22.5	
Total Split (%)	83.9%	83.9%		83.9%	83.9%		16.1%	16.1%		16.1%	16.1%	
Maximum Green (s)	113.0	113.0		113.0	113.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Min	C-Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	122.1	122.1		122.1	122.1			8.9			8.9	
Actuated g/C Ratio	0.87	0.87		0.87	0.87			0.06			0.06	
v/c Ratio	0.12	0.71		1.82	0.75			0.25			0.51	
Control Delay	3.2	4.6		403.4	1.8			68.6			53.3	
Queue Delay	0.0	0.0		0.0	0.6			0.0			0.0	
Total Delay	3.2	4.6		403.4	2.3			68.6			53.3	
LOS	A	A		F	A			E			D	
Approach Delay		4.6			34.4			68.6			53.3	
Approach LOS		A			C			E			D	
Queue Length 50th (ft)	0	103		~275	74			18			29	
Queue Length 95th (ft)	1	62		7	m107			12			4	
Internal Link Dist (ft)		1204			409			54			20	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	90	3045		110	3073			162			209	
Starvation Cap Reductn	0	0		0	362			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.12	0.71		1.82	0.85			0.12			0.28	

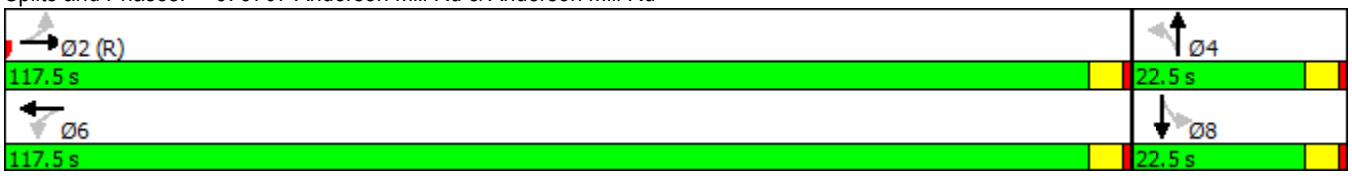
Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 129 (92%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.82
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 72.1% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Splits and Phases: 9: 9707 Anderson Mill Rd & Anderson Mill Rd



Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1481	0	0	2020	19	5	0	103	13	0	39
Future Vol, veh/h	0	1481	0	0	2020	19	5	0	103	13	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	300	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	90	77	71	95	44	50	25	74	63	25	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1646	0	0	2126	43	10	0	139	21	0	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2709	-	823	2806	-	1085
Stage 1	-	-	-	-	-	-	1646	-	-	2148	-	-
Stage 2	-	-	-	-	-	-	1063	-	-	658	-	-
Critical Hdwy	-	-	-	-	-	-	6.99	-	7.14	6.99	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	-	-	6.54	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	-	-	6.74	-	-
Follow-up Hdwy	-	-	-	-	-	-	3.67	-	3.92	3.67	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	15	0	272	~ 13	0	212
Stage 1	0	-	-	0	-	-	71	0	-	49	0	-
Stage 2	0	-	-	0	-	-	233	0	-	393	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	12	-	272	~ 6	-	212
Mov Cap-2 Maneuver	-	-	-	-	-	-	12	-	-	~ 6	-	-
Stage 1	-	-	-	-	-	-	71	-	-	49	-	-
Stage 2	-	-	-	-	-	-	180	-	-	192	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	31.3	26.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	272	-	-	-	-	212
HCM Lane V/C Ratio	0.512	-	-	-	-	0.227
HCM Control Delay (s)	31.3	-	-	-	-	26.9
HCM Lane LOS	D	-	-	-	-	D
HCM 95th %tile Q(veh)	2.7	-	-	-	-	0.8

Notes

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	919	813	504	1994	0	0	0	0	646	507	199
Future Volume (vph)	0	919	813	504	1994	0	0	0	0	646	507	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	2		1
Taper Length (ft)	170			25			25			25		
Lane Util. Factor	1.00	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	0.97	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950	0.999					0.950		
Satd. Flow (prot)	0	5085	1583	1610	3387	0	0	0	0	3433	3539	1583
Flt Permitted				0.150	0.836					0.950		
Satd. Flow (perm)	0	5085	1583	254	2834	0	0	0	0	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164									164
Link Speed (mph)		40			40			50			50	
Link Distance (ft)		475			294			137			131	
Travel Time (s)		8.1			5.0			1.9			1.8	
Peak Hour Factor	0.25	0.92	0.97	0.83	0.92	0.25	0.25	0.25	0.25	0.94	0.86	0.86
Adj. Flow (vph)	0	999	838	607	2167	0	0	0	0	687	590	231
Shared Lane Traffic (%)				10%								
Lane Group Flow (vph)	0	999	838	546	2228	0	0	0	0	687	590	231
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	D.P+P	NA					Split	NA	Perm
Protected Phases		1 2		6 7	6 7 1 2					4 5	4 5	
Permitted Phases			1 2	2 1								4 5

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		1 2	1 2	6 7	6 7 1 2					4 5	4 5	4 5
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)		42.0	42.0	100.0	100.0					22.0	22.0	22.0
Actuated g/C Ratio		0.30	0.30	0.71	0.71					0.16	0.16	0.16
v/c Ratio		0.66	1.42	0.73	0.99					1.27	1.06	0.60
Control Delay		30.4	220.5	19.7	16.0					183.9	110.7	24.0
Queue Delay		46.3	0.0	5.8	40.1					0.1	0.0	0.0
Total Delay		76.7	220.5	25.5	56.0					184.0	110.7	24.0
LOS		E	F	C	E					F	F	C
Approach Delay		142.3			50.0						130.8	
Approach LOS		F			D						F	
Queue Length 50th (ft)		242	~911	224	463					~406	~310	54
Queue Length 95th (ft)		310	#1244	m134	m128					#530	#401	131
Internal Link Dist (ft)		395			214			57			51	
Turn Bay Length (ft)												
Base Capacity (vph)		1525	589	743	2253					539	556	386
Starvation Cap Reductn		0	0	144	512					0	0	0
Spillback Cap Reductn		609	0	0	0					5	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		1.09	1.42	0.91	1.28					1.29	1.06	0.60

Intersection Summary

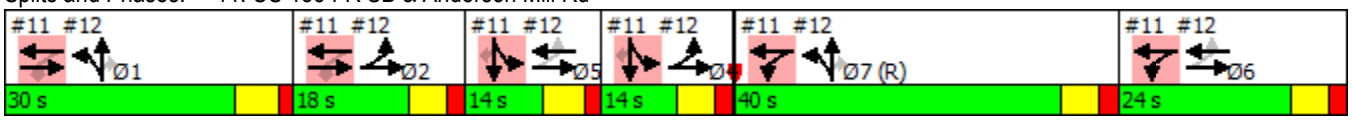
Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 122 (87%), Referenced to phase 7:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.43
Intersection Signal Delay: 97.6 Intersection LOS: F
Intersection Capacity Utilization 145.2% ICU Level of Service H
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.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	30.0	18.0	14.0	14.0	24.0	40.0
Total Split (%)	21%	13%	10%	10%	17%	29%
Maximum Green (s)	24.0	12.0	8.0	8.0	18.0	34.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 11: US 183 FR SB & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	353	1094	0	0	1011	129	1486	595	380	0	0	0
Future Volume (vph)	353	1094	0	0	1011	129	1486	595	380	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	128		0	0		0	0		0
Storage Lanes	1		0	1		0	2		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	1.00	1.00
Frt					0.983				0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	4999	0	3433	3539	1583	0	0	0
Flt Permitted	0.154						0.950					
Satd. Flow (perm)	287	3539	0	0	4999	0	3433	3539	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14				164			
Link Speed (mph)		40			40			45			50	
Link Distance (ft)		294			476			137			124	
Travel Time (s)		5.0			8.1			2.1			1.7	
Peak Hour Factor	0.94	0.92	0.25	0.25	0.85	0.86	0.94	0.92	0.82	0.25	0.25	0.25
Adj. Flow (vph)	376	1189	0	0	1189	150	1581	647	463	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	376	1189	0	0	1339	0	1581	647	463	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	D.P+P	NA			NA		Split	NA	Perm			
Protected Phases	2 4	2 4 5 6			5 6		7 1	7 1				
Permitted Phases	5 6								7 1			

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Ideal Flow (vphpl)						
Storage Length (ft)						
Storage Lanes						
Taper Length (ft)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)						
Link Distance (ft)						
Travel Time (s)						
Peak Hour Factor						
Adj. Flow (vph)						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Enter Blocked Intersection						
Lane Alignment						
Median Width(ft)						
Link Offset(ft)						
Crosswalk Width(ft)						
Two way Left Turn Lane						
Headway Factor						
Turning Speed (mph)						
Number of Detectors						
Detector Template						
Leading Detector (ft)						
Trailing Detector (ft)						
Detector 1 Position(ft)						
Detector 1 Size(ft)						
Detector 1 Type						
Detector 1 Channel						
Detector 1 Extend (s)						
Detector 1 Queue (s)						
Detector 1 Delay (s)						
Detector 2 Position(ft)						
Detector 2 Size(ft)						
Detector 2 Type						
Detector 2 Channel						
Detector 2 Extend (s)						
Turn Type						
Protected Phases	1	2	4	5	6	7
Permitted Phases						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 4	2 4 5 6			5 6		7 1	7 1	7 1			
Switch Phase												
Minimum Initial (s)												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)												
Recall Mode												
Act Effct Green (s)	46.0	58.0			26.0		58.0	58.0	58.0			
Actuated g/C Ratio	0.33	0.41			0.19		0.41	0.41	0.41			
v/c Ratio	1.23	0.81			1.43		1.11	0.44	0.62			
Control Delay	136.8	26.1			229.1		85.1	16.8	14.7			
Queue Delay	0.0	28.9			0.1		0.9	0.0	0.0			
Total Delay	136.8	55.0			229.2		86.0	16.8	14.7			
LOS	F	E			F		F	B	B			
Approach Delay		74.7			229.2			57.1				
Approach LOS		E			F			E				
Queue Length 50th (ft)	~274	360			~499		~550	133	125			
Queue Length 95th (ft)	m#335	m353			#540		#685	166	163			
Internal Link Dist (ft)		214			396			57			44	
Turn Bay Length (ft)												
Base Capacity (vph)	306	1466			939		1422	1466	751			
Starvation Cap Reductn	0	335			0		0	0	0			
Spillback Cap Reductn	0	0			11		293	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	1.23	1.05			1.44		1.40	0.44	0.62			

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 122 (87%), Referenced to phase 7:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.43	
Intersection Signal Delay: 103.2	Intersection LOS: F
Intersection Capacity Utilization 145.2%	ICU Level of Service H
Analysis Period (min) 15	

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

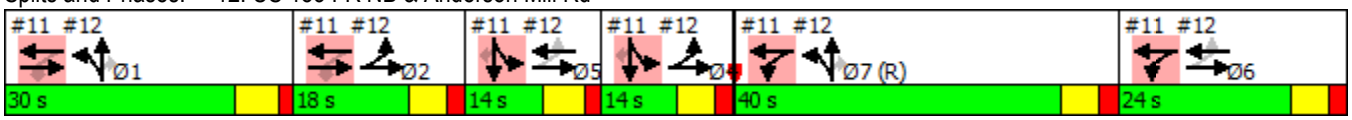
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	Ø1	Ø2	Ø4	Ø5	Ø6	Ø7
Detector Phase						
Switch Phase						
Minimum Initial (s)	2.0	8.0	6.0	2.0	8.0	6.0
Minimum Split (s)	8.0	14.0	12.0	8.0	14.0	12.0
Total Split (s)	30.0	18.0	14.0	14.0	24.0	40.0
Total Split (%)	21%	13%	10%	10%	17%	29%
Maximum Green (s)	24.0	12.0	8.0	8.0	18.0	34.0
Yellow Time (s)	4.5	4.0	4.0	4.5	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	0.2	2.0	2.0	0.2	2.0	2.0
Recall Mode	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

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

Splits and Phases: 12: US 183 FR NB & Anderson Mill Rd



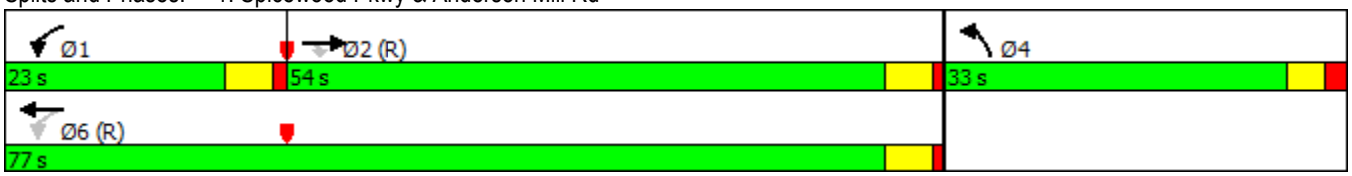
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1028	159	35	1142	207	42
Future Volume (vph)	1028	159	35	1142	207	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100		0	0
Storage Lanes		1	1		2	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	0.95
Frt		0.850			0.971	
Flt Protected			0.950		0.961	
Satd. Flow (prot)	3539	1583	1770	3539	3372	0
Flt Permitted			0.205		0.961	
Satd. Flow (perm)	3539	1583	382	3539	3372	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		105			27	
Link Speed (mph)	40			40	30	
Link Distance (ft)	363			158	213	
Travel Time (s)	6.2			2.7	4.8	
Peak Hour Factor	0.92	0.76	0.59	0.89	0.84	0.70
Adj. Flow (vph)	1117	209	59	1283	246	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1117	209	59	1283	306	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	1	1	2	1	
Detector Template	Thru	Right	Left	Thru	Left	
Leading Detector (ft)	100	20	20	100	20	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	6	20	20	6	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	94			94		
Detector 2 Size(ft)	6			6		
Detector 2 Type	Cl+Ex			Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0			0.0		
Turn Type	NA	Perm	pm+pt	NA	Prot	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Detector Phase	2	2	1	6	4	
Switch Phase						
Minimum Initial (s)	30.0	30.0	5.0	30.0	10.0	
Minimum Split (s)	35.0	35.0	23.0	35.0	33.0	
Total Split (s)	54.0	54.0	23.0	77.0	33.0	
Total Split (%)	49.1%	49.1%	20.9%	70.0%	30.0%	
Maximum Green (s)	49.0	49.0	18.0	72.0	28.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	2.0	3.0	2.0	
Recall Mode	C-Max	C-Max	None	C-Max	None	
Walk Time (s)	7.0	7.0			9.0	
Flash Dont Walk (s)	16.0	16.0			19.0	
Pedestrian Calls (#/hr)	0	0			0	
Act Effct Green (s)	77.8	77.8	86.3	86.3	13.7	
Actuated g/C Ratio	0.71	0.71	0.78	0.78	0.12	
v/c Ratio	0.45	0.18	0.16	0.46	0.69	
Control Delay	8.4	3.7	4.1	4.9	50.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	8.4	3.7	4.1	4.9	50.1	
LOS	A	A	A	A	D	
Approach Delay	7.6			4.8	50.1	
Approach LOS	A			A	D	
Queue Length 50th (ft)	166	22	7	129	98	
Queue Length 95th (ft)	246	40	12	194	128	
Internal Link Dist (ft)	283			78	133	
Turn Bay Length (ft)		100	100			
Base Capacity (vph)	2503	1150	526	2776	878	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.45	0.18	0.11	0.46	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 10.7 Intersection LOS: B
Intersection Capacity Utilization 48.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Spicewood Pkwy & Anderson Mill Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	981	15	133	1129	75	30	39	129	82	77	81
Future Volume (vph)	43	981	15	133	1129	75	30	39	129	82	77	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		110	0		120	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850		0.910	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	1770	1863	1583	1770	1695	0
Flt Permitted	0.158			0.151			0.305			0.693		
Satd. Flow (perm)	294	3529	0	281	3539	1583	568	1863	1583	1291	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				119			164		63	
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		321			597			407			311	
Travel Time (s)		5.5			10.2			11.1			7.1	
Peak Hour Factor	0.61	0.87	0.69	0.71	0.88	0.82	0.69	0.56	0.83	0.90	0.89	0.62
Adj. Flow (vph)	70	1128	22	187	1283	91	43	70	155	91	87	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	1150	0	187	1283	91	43	70	155	91	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Prot	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6	6	7	4		3	8	
Permitted Phases	2			6			4		4	8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	7	4	4	3	8	
Switch Phase												
Minimum Initial (s)	7.0	10.0		5.0	10.0	10.0	6.0	6.0	6.0	5.0	6.0	
Minimum Split (s)	12.0	26.0		9.5	26.0	26.0	11.0	11.0	11.0	10.0	29.0	
Total Split (s)	12.0	51.0		19.0	58.0	58.0	11.0	30.0	30.0	10.0	29.0	
Total Split (%)	10.9%	46.4%		17.3%	52.7%	52.7%	10.0%	27.3%	27.3%	9.1%	26.4%	
Maximum Green (s)	7.0	46.0		14.5	53.0	53.0	6.0	25.0	25.0	5.0	24.0	
Yellow Time (s)	4.0	4.0		3.5	4.0	4.0	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	1.0	2.5		3.0	2.5	2.5	1.0	1.5	1.5	0.2	1.5	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	
Walk Time (s)		7.0			10.0	10.0					12.0	
Flash Dont Walk (s)		14.0			11.0	11.0					12.0	
Pedestrian Calls (#/hr)		0			0	0					0	
Act Effct Green (s)	68.9	61.9		77.9	68.4	68.4	18.8	14.0	14.0	18.4	15.4	
Actuated g/C Ratio	0.63	0.56		0.71	0.62	0.62	0.17	0.13	0.13	0.17	0.14	
v/c Ratio	0.25	0.58		0.53	0.58	0.09	0.27	0.30	0.45	0.38	0.75	
Control Delay	10.1	19.9		12.3	16.4	1.5	35.7	44.2	9.5	39.6	47.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.1	19.9		12.3	16.4	1.5	35.7	44.2	9.5	39.6	47.6	
LOS	B	B		B	B	A	D	D	A	D	D	
Approach Delay		19.3			15.0			22.8			45.2	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	15	283		42	304	0	24	45	0	52	108	
Queue Length 95th (ft)	24	423		64	423	10	37	49	37	89	177	
Internal Link Dist (ft)		241			517			327			231	
Turn Bay Length (ft)	100			100		110			120	200		
Base Capacity (vph)	277	1985		403	2201	1029	162	423	486	237	419	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.25	0.58		0.46	0.58	0.09	0.27	0.17	0.32	0.38	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 67.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Olson DR/Millwright Pkwy & Anderson Mill Rd

EXHIBIT 7 CAP METRO BUS ROUTE AND SCHEDULE

383 Research

LOCAL

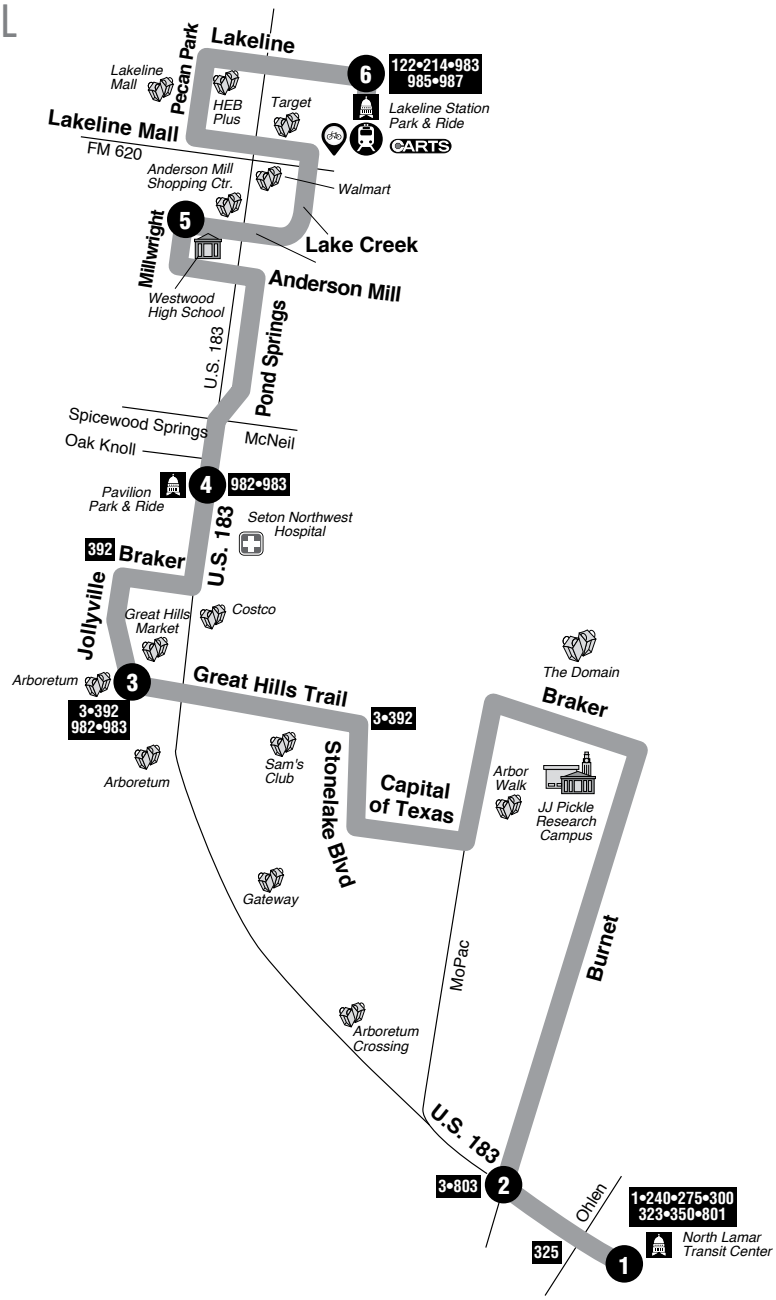
LEGEND/NOTES:

- 1 Scheduled Timepoints
- 7•300 Connecting Routes
- MetroBike Shelter

For more information on CARTS service, please visit **ridecarts.com**.

DESTINATIONS

- Lakeline Station Park & Ride
- Lakeline Mall
- Anderson Mill Shopping Center
- Westwood High School
- Pavilion Park & Ride
- Seton Northwest Hospital
- Arboretum Market
- Gateway Shopping Center
- Arbor Walk
- The Domain
- JJ Pickle Research Campus
- North Lamar Transit Center



383 WEEKDAYS/SOUTHBOUND

6 Lakeline Station	5 Millwright at Lake Creek	4 Pavilion Park & Ride	3 Arboretum	2 Burnet at U.S. 183	1 North Lamar Transit Center	To Route/Garage
5:00	5:18	5:32	5:42	5:54	6:02	
5:35	5:53	6:07	6:17	6:29	6:37	
6:05	6:23	6:37	6:47	6:59	7:07	
6:35	6:55	7:14	7:25	7:39	7:47	
7:10	7:30	7:49	8:00	8:14	8:22	
7:45	8:05	8:24	8:35	8:49	8:57	
8:25	8:45	9:04	9:15	9:29	9:37	
9:00	9:20	9:38	9:50	10:04	10:12	

383 WEEKDAYS/NORTHBOUND

1 North Lamar Transit Center	2 Burnet at U.S. 183	3 Arboretum	4 Pavilion Park & Ride	5 Millwright at Lake Creek	6 Lakeline Station	To Route/Garage
4:50	5:00	5:11	5:20	5:38	5:58	
5:20	5:30	5:41	5:50	6:08	6:28	
5:50	6:00	6:11	6:20	6:38	6:58	
6:20	6:30	6:41	6:50	7:08	7:28	
6:55	7:07	7:21	7:35	7:55	8:15	
7:30	7:42	7:56	8:10	8:30	8:50	
8:05	8:17	8:31	8:45	9:05	9:25	
8:40	8:52	9:06	9:20	9:40	10:00	

Continued on next page

383 WEEKDAYS/SOUTHBOUND

6 Lakeline Station	5 Millwright at Lake Creek	4 Pavilion Park & Ride	3 Arboretum	2 Burnet at U.S. 183	1 North Lamar Transit Center	To Route/Garage
9:35	9:55	10:13	10:25	10:39	10:47	
10:10	10:30	10:48	11:00	11:14	11:22	
10:40	11:00	11:18	11:30	11:44	11:52	
11:10	11:30	11:48	12:00	12:14	12:22	
11:45	12:05	12:23	12:35	12:49	12:57	
12:20	12:40	12:58	1:10	1:24	1:32	
12:55	1:15	1:33	1:45	1:59	2:07	
1:30	1:50	2:08	2:20	2:34	2:42	
2:07	2:27	2:46	2:59	3:13	3:22	
2:44	3:04	3:23	3:36	3:50	3:59	
3:21	3:41	4:00	4:13	4:27	4:36	
3:58	4:23	4:43	4:57	5:11	5:20	
4:35	5:00	5:20	5:34	5:48	5:57	
5:12	5:37	5:57	6:11	6:25	6:34	
5:49	6:14	6:34	6:48	7:02	7:11	
6:26	6:46	7:05	7:18	7:32	7:41	
7:03	7:23	7:42	7:55	8:09	8:18	G
7:45	8:02	8:18	8:27	8:38	8:46	
8:35	8:52	9:08	9:17	9:28	9:36	
9:25	9:42	9:58	10:07	10:18	10:26	
10:15	10:32	10:48	10:57	11:08	11:16	G
11:10	11:27	11:43	11:52	12:03	12:11	G

383 WEEKDAYS/NORTHBOUND

1 North Lamar Transit Center	2 Burnet at U.S. 183	3 Arboretum	4 Pavilion Park & Ride	5 Millwright at Lake Creek	6 Lakeline Station	To Route/Garage
9:15	9:25	9:39	9:51	10:09	10:26	
9:50	10:00	10:14	10:26	10:44	11:01	
10:25	10:35	10:49	11:01	11:19	11:36	
11:00	11:10	11:24	11:36	11:54	12:11	
11:35	11:45	11:59	12:11	12:29	12:46	
12:10	12:20	12:34	12:46	1:04	1:21	
12:40	12:50	1:04	1:16	1:34	1:51	
1:10	1:20	1:34	1:46	2:04	2:21	
1:45	1:55	2:09	2:21	2:39	2:56	
2:20	2:33	2:47	3:00	3:20	3:41	
2:57	3:10	3:24	3:37	3:57	4:18	
3:34	3:47	4:01	4:14	4:34	4:55	
4:11	4:24	4:41	4:54	5:15	5:36	
4:48	5:01	5:18	5:31	5:52	6:13	
5:30	5:43	6:00	6:13	6:34	6:55	
6:07	6:20	6:37	6:50	7:11	7:32	
6:44	6:57	7:11	7:24	7:44	8:05	G
7:21	7:30	7:42	7:53	8:10	8:26	
8:00	8:09	8:21	8:32	8:49	9:05	
9:00	9:09	9:21	9:32	9:49	10:05	
10:00	10:09	10:21	10:32	10:49	11:05	
11:00	11:09	11:21	11:32	11:49	12:05	G

383 SATURDAYS/SOUTHBOUND

6:05	6:25	6:41	6:50	7:02	7:09	
6:55	7:15	7:31	7:40	7:52	7:59	
7:45	8:05	8:21	8:30	8:42	8:49	
8:35	8:55	9:11	9:20	9:32	9:39	
9:30	9:51	10:08	10:20	10:33	10:41	
10:25	10:46	11:03	11:15	11:28	11:36	
11:20	11:41	11:58	12:10	12:23	12:31	
12:15	12:36	12:53	1:05	1:18	1:26	
1:10	1:31	1:48	2:00	2:13	2:21	
2:05	2:26	2:43	2:55	3:08	3:16	
3:00	3:21	3:38	3:50	4:03	4:11	
3:55	4:16	4:33	4:45	4:58	5:06	
4:50	5:11	5:28	5:40	5:53	6:01	
5:45	6:06	6:23	6:35	6:48	6:56	
6:40	7:01	7:18	7:30	7:43	7:51	
7:35	7:56	8:11	8:20	8:32	8:40	
8:25	8:46	9:01	9:10	9:22	9:30	
9:15	9:36	9:51	10:00	10:12	10:20	
10:05	10:26	10:41	10:50	11:02	11:10	G

383 SATURDAYS/NORTHBOUND

6:30	6:40	6:51	7:02	7:19	7:36	
7:20	7:30	7:41	7:52	8:09	8:26	
8:10	8:20	8:31	8:42	8:59	9:16	
9:00	9:11	9:27	9:40	9:58	10:17	
9:55	10:06	10:22	10:35	10:53	11:12	
10:50	11:01	11:17	11:30	11:48	12:07	
11:45	11:56	12:12	12:25	12:43	1:02	
12:40	12:51	1:07	1:20	1:38	1:57	
1:35	1:46	2:02	2:15	2:33	2:52	
2:30	2:41	2:57	3:10	3:28	3:47	
3:25	3:36	3:52	4:05	4:23	4:42	
4:20	4:31	4:47	5:00	5:18	5:37	
5:15	5:26	5:42	5:55	6:13	6:32	
6:10	6:21	6:37	6:50	7:08	7:27	
7:05	7:14	7:26	7:37	7:53	8:09	
8:00	8:09	8:21	8:32	8:48	9:04	
8:50	8:59	9:11	9:22	9:38	9:54	
9:40	9:49	10:01	10:12	10:28	10:44	G
10:30	10:39	10:51	11:02	11:18	11:34	G

383 SUNDAYS/SOUTHBOUND

6:57	7:14	7:29	7:38	7:49	7:56	
7:47	8:04	8:19	8:28	8:39	8:46	
8:37	8:54	9:09	9:18	9:29	9:36	
9:27	9:46	10:03	10:14	10:25	10:33	
10:17	10:36	10:53	11:04	11:15	11:23	
11:07	11:26	11:43	11:54	12:05	12:13	
11:57	12:16	12:33	12:44	12:55	1:03	
12:47	1:06	1:23	1:34	1:45	1:53	
1:37	1:56	2:13	2:24	2:35	2:43	
2:27	2:46	3:03	3:14	3:25	3:33	
3:17	3:36	3:53	4:04	4:15	4:23	
4:07	4:26	4:43	4:54	5:05	5:13	
4:57	5:16	5:33	5:44	5:55	6:03	
5:47	6:06	6:23	6:34	6:45	6:53	
6:37	6:56	7:13	7:24	7:35	7:43	
7:27	7:45	8:00	8:09	8:19	8:26	
8:17	8:35	8:50	8:59	9:09	9:16	G
9:07	9:25	9:40	9:49	9:59	10:06	G

383 SUNDAYS/NORTHBOUND

7:20	7:29	7:40	7:51	8:08	8:24	
8:10	8:19	8:30	8:41	8:58	9:14	
9:00	9:10	9:24	9:35	9:52	10:10	
9:50	10:00	10:14	10:25	10:42	11:00	
10:40	10:50	11:04	11:15	11:32	11:50	
11:30	11:40	11:54	12:05	12:22	12:40	
12:20	12:30	12:44	12:55	1:12	1:30	
1:10	1:20	1:34	1:45	2:02	2:20	
2:00	2:10	2:24	2:35	2:52	3:10	
2:50	3:00	3:14	3:25	3:42	4:00	
3:40	3:50	4:04	4:15	4:32	4:50	
4:30	4:40	4:54	5:05	5:22	5:40	
5:20	5:30	5:44	5:55	6:12	6:30	
6:10	6:20	6:34	6:45	7:02	7:20	
7:00	7:09	7:20	7:30	7:47	8:03	
7:50	7:59	8:10	8:20	8:37	8:53	
8:40	8:49	9:00	9:10	9:27	9:43	G

EXHIBIT 8 CITY OF AUSTIN BICYCLE MAP

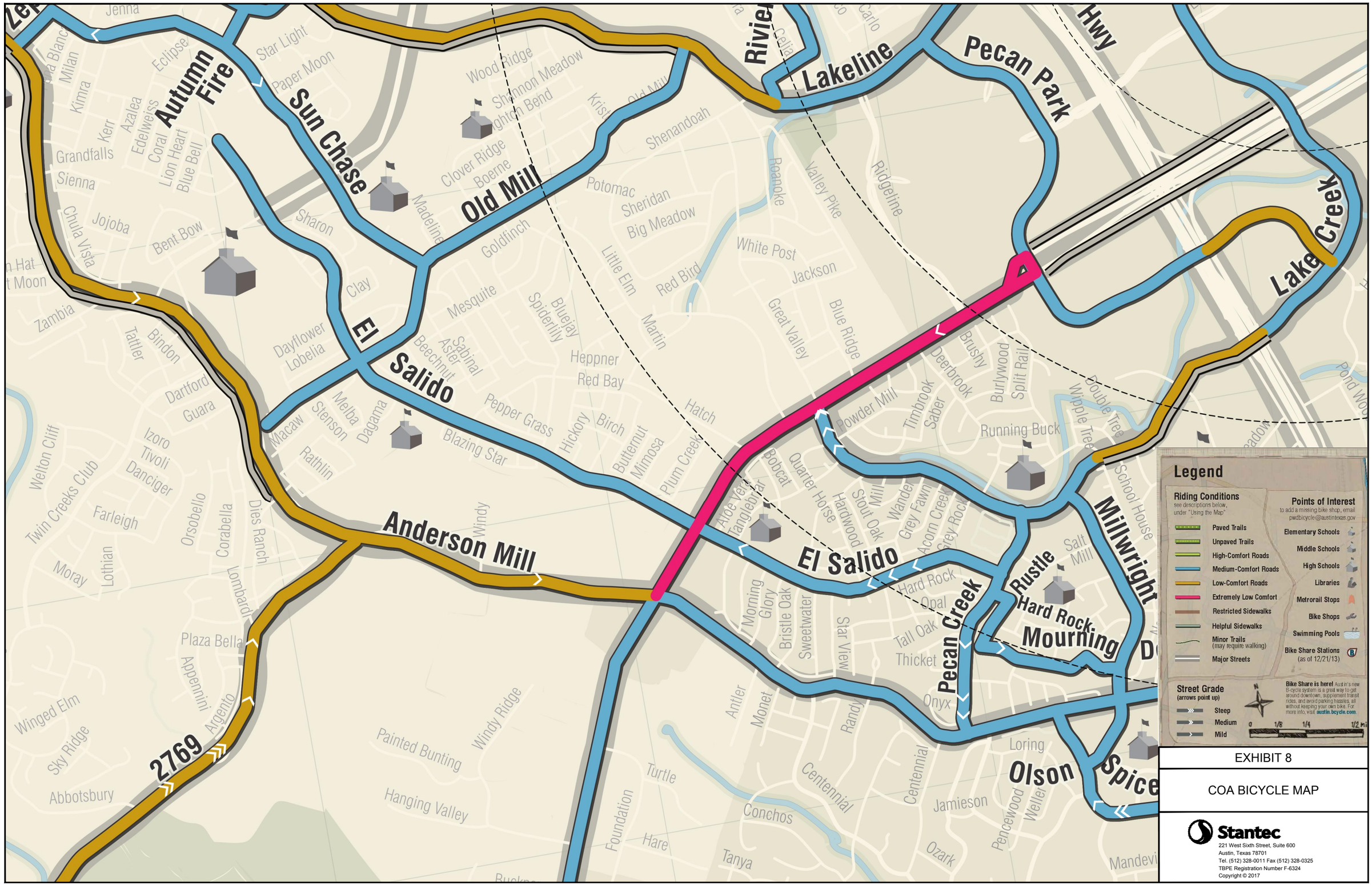


EXHIBIT 8

COA BICYCLE MAP

Stantec
221 West Sixth Street, Suite 600
Austin, Texas 78701
Tel. (512) 328-0011 Fax (512) 328-0325
TBPE Registration Number F-6324
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active\224720010\traffic\7.00 CAD\CD Exhibits\224720010EXH06(Bike Map).dwg modified by hdengnanmin on Oct 10, 17 11:57 AM

EXHIBIT 9 TRAVEL TIME RUNS AND SIM TRAFFIC MOE REPORTS

Travel Time Run

DATE	RUN	TIME	AM (7:15-8:45)				Midday (14:00-15:00)				PM (16:30-18:00)				Segment Analysis	
		EB / WB	EB		WB		EB		WB		EB		WB			
		Roadway Segment	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Average (Sec)	Average (Min)
9/26/2017 (Tuesday)	RUN 1	Spicewood Pkwy - Milwright/Olson Dr	46	209	26	186	18	207	18	114	21	310	22	178	**25**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	40		46		40		33		47		33		**40**	**0.7**
		Anderson Mill Cutoff - US 281 SB	50		37		35		48		49		41		**43**	**0.7**
		US 281 SB - US 281 NB	13		6		12		13		12		11		**11**	**0.2**
	RUN 2	Spicewood Pkwy - Milwright/Olson Dr	45	302	40	149	19	136	43	146	20	278	17	170	**31**	**0.5**
		Milwright/Olson Dr - Anderson Mill Cutoff	40		30		37		48		39		23		**36**	**0.6**
		Anderson Mill Cutoff - US 281 SB	53		40		44		43		40		40		**43**	**0.7**
		US 281 SB - US 281 NB	11		13		10		11		12		12		**12**	**0.2**
	RUN 3	Spicewood Pkwy - Milwright/Olson Dr	19	**404	37	133	18	191	17	134	84	**285	22	288	**33**	**0.5**
		Milwright/Olson Dr - Anderson Mill Cutoff	57		28		37		43		56		48		**45**	**0.7**
		Anderson Mill Cutoff - US 281 SB	177		38		40		38		46		42		**64**	**1.1**
		US 281 SB - US 281 NB	14		12		11		10		11		10		**11**	**0.2**
	RUN 4	Spicewood Pkwy - Milwright/Olson Dr	20	295	22	129	19	127	24	121	40	**293	21	191	**24**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	41		27		32		43		38		107		**48**	**0.8**
		Anderson Mill Cutoff - US 281 SB	47		37		41		52		41		44		**44**	**0.7**
		US 281 SB - US 281 NB	12		12		12		14		11		12		**12**	**0.2**
	RUN 5	Spicewood Pkwy - Milwright/Olson Dr	23	181	22	127	28	132	29	151	18	281	22	300	**24**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	38		30		38		45		36		125		**52**	**0.9**
		Anderson Mill Cutoff - US 281 SB	32		38		40		48		100		53		**52**	**0.9**
		US 281 SB - US 281 NB	13		12		11		12		14		12		**12**	**0.2**
	RUN 6	Spicewood Pkwy - Milwright/Olson Dr	26	289	23	129	20	196	22	130	27	165	21	276	**23**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	38		48		37		46		39		110		**53**	**0.9**
		Anderson Mill Cutoff - US 281 SB	70		42		38		35		40		49		**46**	**0.8**
		US 281 SB - US 281 NB	13		16		12		11		7		6		**11**	**0.2**
	RUN 7	Spicewood Pkwy - Milwright/Olson Dr	31	209	31	234					25	154	19	165	**27**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	47		58						37		96		**60**	**1.0**
		Anderson Mill Cutoff - US 281 SB	74		41						38		39		**48**	**0.8**
		US 281 SB - US 281 NB	12		11						6		9		**10**	**0.2**
	Total Way Analysis (Includes stops delay)	**Average (Sec)**		**248**		**155**		**165**		**133**		**238**		**224**		
		Average (Min)		**4.1**		**2.6**		**2.7**		**2.2**		**4.0**		**3.7**		
		Summation of (EB & WB)	**6.7**				**5.0**				**7.7**					

** Indicates traveling on the right lane.Long queues seen in right lane in advance of US183.

Travel Time Run

DATE	RUN	TIME	AM (7:15-8:45)				Midday (14:00-15:00)				PM (16:30-18:00)				Segment Analysis	
		EB / WB	EB		WB		EB		WB		EB		WB			
		Roadway Segment	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Average (Sec)	Average (Min)
9/27/2017 (Wednesday)	RUN 1	Spicewood Pkwy - Milwright/Olson Dr	18	69	30	250	18	122	18	125	21	176	20	149	**21**	**0.3**
		Milwright/Olson Dr - Anderson Mill Cutoff	35		33		32		31		35		40		**34**	**0.6**
		Anderson Mill Cutoff - US 281 SB	38		40		59		37		45		38		**43**	**0.7**
		US 281 SB - US 281 NB	6		12		7		15		9		8		**10**	**0.2**
	RUN 2	Spicewood Pkwy - Milwright/Olson Dr	24	282	23	164	25	149	21	105	20	150	21	142	**22**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	40		58		35		37		39		50		**43**	**0.7**
		Anderson Mill Cutoff - US 281 SB	42		41		40		36		74		38		**45**	**0.8**
		US 281 SB - US 281 NB	10		8		10		9		8		8		**9**	**0.1**
	RUN 3	Spicewood Pkwy - Milwright/Olson Dr	23	**355	21	132	28	158	19	105	22	158	20	140	**22**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	50		57		34		39		33		74		**48**	**0.8**
		Anderson Mill Cutoff - US 281 SB	172		53		36		36		41		38		**63**	**1.0**
		US 281 SB - US 281 NB	12		12		10		10		8		8		**10**	**0.2**
	RUN 4	Spicewood Pkwy - Milwright/Olson Dr	24	**304	35	110	21	138	20	105	22	273	21	173	**24**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	37		34		37		38		38		35		**37**	**0.6**
		Anderson Mill Cutoff - US 281 SB	177		36		39		38		50		38		**63**	**1.1**
		US 281 SB - US 281 NB	6		12		9		8		11		10		**9**	**0.2**
	RUN 5	Spicewood Pkwy - Milwright/Olson Dr	26	234	21	121	25	133	22	141	33	282	20	170	**25**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	39		47		43		59		48		70		**51**	**0.9**
		Anderson Mill Cutoff - US 281 SB	42		42		48		41		45		40		**43**	**0.7**
		US 281 SB - US 281 NB	12		9		10		8		9		9		**10**	**0.2**
	RUN 6	Spicewood Pkwy - Milwright/Olson Dr	51	237	20	118	19	190	22	129	39	165	37	277	**26**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff	37		50		38		33		37		104		**52**	**0.9**
		Anderson Mill Cutoff - US 281 SB	46		38		39		37		36		38		**38**	**0.6**
		US 281 SB - US 281 NB	11		10		10		8		6		8		**9**	**0.1**
	RUN 7	Spicewood Pkwy - Milwright/Olson Dr									27	158	22	290	**25**	**0.4**
		Milwright/Olson Dr - Anderson Mill Cutoff									36		162		**99**	**1.7**
		Anderson Mill Cutoff - US 281 SB									41		40		**41**	**0.7**
		US 281 SB - US 281 NB									7		8		**8**	**0.1**
	Total Way Analysis (Includes stops delay)	**Average (Sec)**		**206**		**149**		**148**		**118**		**195**		**192**		
		Average (Min)		**3.4**		**2.5**		**2.5**		**2.0**		**3.2**		**3.2**		
		Summation of (EB & WB)	**5.9**				**4.4**				**6.4**					

** Indicates traveling on the right lane.Long queues seen in right lane in advance of US183.

Travel Time Run

DATE	RUN	TIME	AM (7:15-8:45)				Midday (14:00-15:00)				PM (16:30-18:00)				Segment Analysis	
		EB / WB	EB		WB		EB		WB		EB		WB			
		Roadway Segment	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Segment(Sec)	Total(Sec)	Average (Sec)	Average (Min)
9/28/2017 (Thursday)	RUN 1	Spicewood Pkwy - Milwright/Olson Dr	21	201	23	127	18	120	14	94	17	146	21	134	19	0.3
		Milwright/Olson Dr - Anderson Mill Cutoff	40		50		38		29		36		35		38	0.6
		Anderson Mill Cutoff - US 281 SB	48		38		57		40		41		39		44	0.7
		US 281 SB - US 281 NB	9		13		6		9		7		10		9	0.2
	RUN 2	Spicewood Pkwy - Milwright/Olson Dr	26	**310	23	131	19	150	20	140	18	159	22	163	21	0.4
		Milwright/Olson Dr - Anderson Mill Cutoff	47		33		35		33		34		91		46	0.8
		Anderson Mill Cutoff - US 281 SB	138		40		35		34		42		38		55	0.9
		US 281 SB - US 281 NB	6		12		8		10		6		9		9	0.1
	RUN 3	Spicewood Pkwy - Milwright/Olson Dr	26	201	22	131	14	92	15	105	17	164	19	127	19	0.3
		Milwright/Olson Dr - Anderson Mill Cutoff	41		55		31		39		35		58		43	0.7
		Anderson Mill Cutoff - US 281 SB	81		43		40		38		45		37		47	0.8
		US 281 SB - US 281 NB	9		9		6		12		6		6		8	0.1
	RUN 4	Spicewood Pkwy - Milwright/Olson Dr	40	221	29	128	15	108	18	112	32	302	24	148	26	0.4
		Milwright/Olson Dr - Anderson Mill Cutoff	41		49		31		40		35		48		41	0.7
		Anderson Mill Cutoff - US 281 SB	56		39		36		40		80		39		48	0.8
		US 281 SB - US 281 NB	10		9		6		13		8		10		9	0.2
	RUN 5	Spicewood Pkwy - Milwright/Olson Dr	22	218	20	122	18	117	18	110	18	306	20	143	19	0.3
		Milwright/Olson Dr - Anderson Mill Cutoff	38		51		29		45		35		83		47	0.8
		Anderson Mill Cutoff - US 281 SB	46		43		38		36		83		42		48	0.8
		US 281 SB - US 281 NB	11		9		7		10		8		7		9	0.1
	RUN 6	Spicewood Pkwy - Milwright/Olson Dr	50	**244	34	254	22	157	20	128	18	260	21	180	23	0.4
		Milwright/Olson Dr - Anderson Mill Cutoff	40		39		34		34		35		112		51	0.8
		Anderson Mill Cutoff - US 281 SB	59		59		32		39		58		37		45	0.7
		US 281 SB - US 281 NB	8		10		5		11		8		7		8	0.1
	RUN 7	Spicewood Pkwy - Milwright/Olson Dr	30	206	18	136					12	266	21	301	20	0.3
		Milwright/Olson Dr - Anderson Mill Cutoff	31		45						33		124		58	1.0
		Anderson Mill Cutoff - US 281 SB	44		31						51		39		41	0.7
		US 281 SB - US 281 NB	13		9						8		14		11	0.2
	Total Way Analysis (Includes stops delay)	Average (Sec)		209		147		124		115		229		171		
		Average (Min)		3.5		2.5		2.1		1.9		3.8		2.8		
		Summation of (EB & WB)	5.9				4.0				6.7					

** Indicates traveling on the right lane.Long queues seen in right lane in advance of US183.

Summary of All Intervals

Start Time	7:00
End Time	7:30
Total Time (min)	30
Time Recorded (min)	30
# of Intervals	2
# of Recorded Intervals	2
Vehs Entered	3017
Vehs Exited	2680
Starting Vehs	0
Ending Vehs	337
Travel Distance (mi)	1307
Travel Time (hr)	160.1
Total Delay (hr)	122.8
Total Stops	4999
Fuel Used (gal)	76.8

Interval #0 Information Seeding

Start Time	7:00
End Time	7:15
Total Time (min)	15
Vehs Entered	1596
Vehs Exited	1285
Starting Vehs	0
Ending Vehs	311
Travel Distance (mi)	645
Travel Time (hr)	59.2
Total Delay (hr)	40.8
Total Stops	2290
Fuel Used (gal)	33.3

Interval #1 Information Recording

Start Time	7:15
End Time	7:30
Total Time (min)	15
Vehs Entered	1421
Vehs Exited	1395
Starting Vehs	311
Ending Vehs	337
Travel Distance (mi)	662
Travel Time (hr)	100.9
Total Delay (hr)	82.0
Total Stops	2709
Fuel Used (gal)	43.6

Arterial Level of Service: EB Anderson Mill Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Spicewood Pkwy	1	43.8	96.0	0.1	5
	2	17.4	20.4	0.0	5
Burnmaster Lane	3	109.1	117.7	0.1	3
Olson DR	4	57.2	62.6	0.1	4
Nene Dr	5	3.3	12.6	0.1	32
Swan Dr	6	1.2	5.9	0.1	34
Swallow Dr	7	1.4	6.7	0.1	32
Anderson Mill Cutoff	8	1.4	14.3	0.2	38
9707 Anderson Mill R	9	37.8	58.9	0.2	15
Commercial Driveway	10	46.2	54.3	0.1	6
US 183 FR SB	11	39.6	69.0	0.1	7
US 183 FR NB	12	9.5	14.9	0.1	13
	39	1.0	6.8	0.1	26
Total		368.8	540.2	1.2	9

Arterial Level of Service: WB Anderson Mill Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	39	2.9	5.2	0.0	20
US 183 FR NB	12	41.3	45.3	0.1	4
US 183 FR SB	11	4.5	9.7	0.1	21
Commercial Driveway	10	1.1	8.6	0.1	38
9707 Anderson Mill R	9	0.5	8.8	0.1	38
Anderson Mill Cutoff	8	0.9	20.6	0.2	43
Swallow Dr	7	1.1	14.0	0.2	39
Swan Dr	6	0.8	6.3	0.1	34
Nene Dr	5	0.5	5.4	0.1	37
Millwright Pkwy	4	14.8	24.5	0.1	16
Burnmaster Lane	3	2.9	8.7	0.1	26
Wagon Gap Dr	2	2.8	11.7	0.1	31
Spicewood Pkwy	1	2.4	5.1	0.0	21
Total		76.5	174.0	1.1	23

Summary of All Intervals

Start Time	6:45
End Time	7:15
Total Time (min)	30
Time Recorded (min)	15
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	1669
Vehs Exited	1667
Starting Vehs	293
Ending Vehs	295
Travel Distance (mi)	881
Travel Time (hr)	166.3
Total Delay (hr)	141.1
Total Stops	2558
Fuel Used (gal)	65.2

Interval #0 Information Seeding

Start Time	6:45
End Time	7:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Vehs Entered	1669
Vehs Exited	1667
Starting Vehs	293
Ending Vehs	295
Travel Distance (mi)	881
Travel Time (hr)	166.3
Total Delay (hr)	141.1
Total Stops	2558
Fuel Used (gal)	65.2

Arterial Level of Service: EB Anderson Mill Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Spicewood Pkwy	1	6.6	12.3	0.1	21
	2	2.2	5.0	0.0	21
	3	16.8	25.3	0.1	14
Olson DR	4	31.5	36.4	0.1	6
Nene Dr	5	3.7	13.0	0.1	31
Swan Dr	6	0.6	5.3	0.1	37
Swallow Dr	7	1.9	7.2	0.1	30
Anderson Mill Cutoff	8	11.6	24.5	0.2	22
9707 Anderson Mill R	9	4.0	25.1	0.2	35
Commercial Driveway	10	6.6	14.8	0.1	22
US 183 FR SB	11	77.1	85.5	0.1	4
US 183 FR NB	12	5.1	10.4	0.1	19
	39	0.4	6.2	0.1	29
Total		168.1	270.9	1.2	16

Arterial Level of Service: WB Anderson Mill Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	39	34.3	134.6	0.0	3
US 183 FR NB	12	79.0	82.7	0.1	2
US 183 FR SB	11	7.2	12.3	0.1	16
Commercial Driveway	10	2.4	10.3	0.1	32
9707 Anderson Mill R	9	1.1	9.1	0.1	37
Anderson Mill Cutoff	8	2.7	23.8	0.2	37
Swallow Dr	7	3.3	16.7	0.2	33
Swan Dr	6	6.1	11.5	0.1	19
Nene Dr	5	12.0	16.9	0.1	12
Millwright Pkwy	4	61.1	69.9	0.1	6
Burnmaster Dr	3	4.9	10.5	0.1	21
Wagon Gap Dr	2	2.9	11.7	0.1	31
Spicewood Pkwy	1	1.7	4.4	0.0	24
Total		218.7	414.5	1.1	13

EXHIBIT 10 DETAILED LOS TABLES

Exhibit 10 - Detailed LOS Tables
2017 Existing Condition

Intersection	Movement	Existing Storage Length	2017 Existing											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)
Anderson Mill Road & Spicewood Parkway	Overall		A	9.6	0.65	-	B	17.6	0.81	-	B	10.2	0.65	-
	EB		B	10.7	0.65	-	A	8.8	0.44	-	A	6	0.37	-
	EBT		-	-	-	#336	-	-	-	306	-	-	-	186
	WB		A	3.1	0.29	-	A	8.2	0.49	-	A	3.2	0.33	-
	WBL	80	-	-	-	M8	-	-	-	M3	-	-	-	9
	WBT		-	-	-	86	-	-	-	783	-	-	-	116
	NB		C	24	0.52	-	E	73.5	0.81	-	E	60.1	0.65	-
	NBL	125	-	-	-	48	-	-	-	226	-	-	-	117
Anderson Mill Road & Wagon Gap Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		D	27.5	0.11	-	D	33.2	0.22	-	-	-	-	-
	NB L/T/R		-	-	-	8	-	-	-	16	-	-	-	-
	SB		E	45.1	0.21	-	F	81.4	0.35	-	-	-	-	-
	SB L/T/R		-	-	-	14	-	-	-	26	-	-	-	-
Anderson Mill Road & Burmaster Lane	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		C	19.7	0.18	-	B	10.8	0.05	-	-	-	-	-
	NB L/T/R		-	-	-	12	-	-	-	4	-	-	-	-
	SB		B	11.2	0.01	-	C	17.9	0.04	-	-	-	-	-
	SB L/T/R		-	-	-	0	-	-	-	3	-	-	-	-
Anderson Mill Road & Olson Dr/Millwright Pkwy	Overall		D	51.9	0.93	-	F	505.7	4.24	-	B	14.3	0.67	-
	EB		D	51.9	0.93	-	F	1497.7	.4.24	-	A	7	0.42	-
	EB L/T		-	-	-	#745	-	-	-	#930	-	-	-	196
	WB		E	55.1	0.84	-	D	42.7	0.9	-	A	9.5	0.62	-
	WB L/T		-	-	-	440	-	-	-	#853	-	-	-	315
	WBR	230	-	-	-	0	-	-	-	3	-	-	-	0
	NB		D	50.2	0.81	-	E	57.3	0.74	-	D	44.2	0.67	-
	NB L/T		-	-	-	#218	-	-	-	172	-	-	-	73
	NBR	115	-	-	-	46	-	-	-	51	-	-	-	44
	SB		D	44.2	0.52	-	E	71.4	0.78	-	D	40.8	0.51	-
	SBL	120	-	-	-	97	-	-	-	120	-	-	-	88
	SBT		-	-	-	173	-	-	-	237	-	-	-	141
Anderson Mill Road & Nene Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	SB		E	39.2	0.13	-	F	>200	0.67	-	-	-	-	-
	SB L/R		-	-	-	8	-	-	-	30	-	-	-	-
Anderson Mill Road & Swan Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		E	36.6	0.73	-	C	17	0.29	-	-	-	-	-
	NB L/T/R		-	-	-	138	-	-	-	29	-	-	-	-
	SB		F	76.3	0.33	-	D	30.5	0.22	-	-	-	-	-
	SB L/T/R		-	-	-	30	-	-	-	20	-	-	-	-
Anderson Mill Road & Swallow Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	83.5	0.21	-	A	9.4	0.01	-	-	-	-	-
	NB L/T/R		-	-	-	18	-	-	-	1	-	-	-	-
	SB		E	40.3	0.34	-	C	20.6	0.14	-	-	-	-	-
	SB L/T/R		-	-	-	35	-	-	-	12	-	-	-	-

Exhibit 10 - Detailed LOS Tables
2017 Existing Condition

Intersection	Movement	Existing Storage Length	2017 Existing											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)
Anderson Mill Road & Bethany Church/Unity Church	Overall		A	2.8	0.54	-	A	9.3	0.57	-	-	-	-	-
	EB		A	2.4	0.54	-	B	10.6	0.44	-	-	-	-	-
	EB L/T		-	-	-	M64	-	-	-	M176	-	-	-	-
	WB		A	2.3	0.35	-	A	5.7	0.57	-	-	-	-	-
	WB L/T		-	-	-	M104	-	-	-	M477	-	-	-	-
	NB		B	10.2	0.07	-	C	34.1	0.55	-	-	-	-	-
	NBL		-	-	-	5	-	-	-	12	-	-	-	-
	NBR		-	-	-	0	-	-	-	0	-	-	-	-
	SB		C	23.1	0.15	-	D	50.9	0.33	-	-	-	-	-
	SB L/T		-	-	-	7	-	-	-	3	-	-	-	-
Anderson Mill Road & 9707 Anderson Mill Road	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		B	14.3	0.01	-	A	0	0	-	-	-	-	-
	NB L/T/R		-	-	-	0	-	-	-	0	-	-	-	-
	SB		F	92.1	0.452	-	F	>200	1.33	-	-	-	-	-
	SB L/T/R		-	-	-	36	-	-	-	96	-	-	-	-
Anderson Mill Road & Commercial Driveway	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		E	42.8	0.52	-	F	71.8	0.72	-	-	-	-	-
	NB L/T/R		-	-	-	52	-	-	-	86	-	-	-	-
	SB		D	34.5	0.19	-	F	>200	1.57	-	-	-	-	-
	SB L/T/R		-	-	-	14	-	-	-	114	-	-	-	-
Anderson Mill Road & US 183 FR SB	Overall		F	103.2	1.6	-	E	61.5	1.13	-	-	-	-	-
	EB		F	191.3	1.6	-	F	106.4	1.13	-	-	-	-	-
	EBT		-	-	-	182	-	-	-	327	-	-	-	-
	EBR		-	-	-	#1063	-	-	-	#759	-	-	-	-
	WB		A	4.8	0.53	-	A	3.8	0.68	-	-	-	-	-
	WBL	205	-	-	-	M48	-	-	-	M42	-	-	-	-
	WBT		-	-	-	13	-	-	-	1	-	-	-	-
	SB		F	106.7	1.19	-	F	112.8	1.12	-	-	-	-	-
	SBL	320	-	-	-	219	-	-	-	#378	-	-	-	-
	SBT		-	-	-	#721	-	-	-	#437	-	-	-	-
Anderson Mill Road & US 183 FR NB	Overall		C	30.2	1.6	-	D	43.9	1.13	-	-	-	-	-
	EB		A	2.3	0.33	-	B	13.9	0.55	-	-	-	-	-
	EBL	205	-	-	-	0	-	-	-	M59	-	-	-	-
	EBT		-	-	-	0	-	-	-	M0	-	-	-	-
	WB		D	45.1	0.6	-	F	85.7	0.93	-	-	-	-	-
	WBT		-	-	-	235	-	-	-	379	-	-	-	-
	NB		D	47.1	0.78	-	D	40.6	0.84	-	-	-	-	-
	NBL	374	-	-	-	298	-	-	-	627	-	-	-	-
	NBT		-	-	-	104	-	-	-	355	-	-	-	-

Exhibit 10 - Detailed LOS Tables
2027 Horizon (No Build) Condition

Intersection	Movement	Existing Storage Length	2017 Horizon (No Build)											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)
Anderson Mill Road & Spicewood Parkway	Overall		C	21.2	0.95	-	C	26.8	0.89	-	B	12.4	0.73	-
	EB		C	28.8	0.95	-	B	14.7	0.64	-	A	8.7	0.52	-
	EBT		-	-	-	#630	-	-	-	522	-	-	-	327
	WB		A	5.2	0.4	-	C	22.1	0.75	-	A	4.7	0.45	-
	WBL	80	-	-	-	M9	-	-	-	M3	-	-	-	13
	WBT		-	-	-	M91	-	-	-	M766	-	-	-	207
	NB		C	26.4	0.61	-	E	76	0.89	-	E	61.7	0.73	-
	NBL	125	-	-	-	64	-	-	-	302	-	-	-	152
Anderson Mill Road & Wagon Gap Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	102.1	0.43	-	F	158.4	0.76	-	-	-	-	-
	NB L/T/R		-	-	-	32	-	-	-	68	-	-	-	-
	SB		F	>200	0.87	-	F	>200	1.64	-	-	-	-	-
	SB L/T/R		-	-	-	64	-	-	-	86	-	-	-	-
Anderson Mill Road & Burmaster Lane	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	52.4	0.5	-	B	10.3	0.06	-	-	-	-	-
	NB L/T/R		-	-	-	46	-	-	-	5	-	-	-	-
	SB		B	12.8	0.01	-	C	22.6	0.08	-	-	-	-	-
	SB L/T/R		-	-	-	0	-	-	-	7	-	-	-	-
Anderson Mill Road & Olson Dr/Millwright Pkwy	Overall		F	133.2	1.31	-	F	>200	12.14	-	D	35.5	1.03	-
	EB		F	181.7	0.131	-	F	>200	12.14	-	B	15	0.71	-
	EB L/T		-	-	-	M#112	-	-	-	#1402	-	-	-	424
	WB		F	112.8	1.13	-	F	176.9	1.33	-	D	49.1	1.03	-
	WB L/T		-	-	-	#703	-	-	-	#1364	-	-	-	#861
	WBR	230	-	-	-	0	-	-	-	M24	-	-	-	12
	NB		E	60.1	0.94	-	E	72.8	0.95	-	D	42.9	0.7	-
	NB L/T		-	-	-	#343	-	-	-	#272	-	-	-	93
	NBR	115	-	-	-	69	-	-	-	66	-	-	-	16
	SB		D	52	0.75	-	E	78.7	0.87	-	D	41	0.55	-
	SBL	120	-	-	-	126	-	-	-	154	-	-	-	106
	SBT		-	-	-	236	-	-	-	324	-	-	-	189
Anderson Mill Road & Nene Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	SB		F	90	0.37	-	F	>200	5	-	-	-	-	-
	SB L/R		-	-	-	28	-	-	-	50	-	-	-	-
Anderson Mill Road & Swan Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	>200	2.38	-	C	20.9	0.42	-	-	-	-	-
	NB L/T/R		-	-	-	766	-	-	-	51	-	-	-	-
	SB		F	>200	>2	-	F	55.2	0.43	-	-	-	-	-
	SB L/T/R		-	-	-	>500	-	-	-	47	-	-	-	-
Anderson Mill Road & Swallow Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	>200	0.95	-	A	9.8	0.02	-	-	-	-	-
	NB L/T/R		-	-	-	56	-	-	-	2	-	-	-	-
	SB		F	>200	>2	-	E	35.6	0.3	-	-	-	-	-
	SB L/T/R		-	-	-	>500	-	-	-	30	-	-	-	-

Exhibit 10 - Detailed LOS Tables
2027 Horizon (No Build) Condition

Intersection	Movement	Existing Storage Length	2017 Horizon (No Build)											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)	LOS	Delay	Maximum (v/c)	95th Queue (ft)
Anderson Mill Road & Bethany Church/Unity Church	Overall		A	8.6	0.74	-	B	18.1	0.8	-	-	-	-	-
	EB		B	11.2	0.74	-	C	22	0.64	-	-	-	-	-
	EB L/T		-	-	-	M648	-	-	-	M301	-	-	-	-
	WB		A	3.8	0.5	-	B	12.3	0.8	-	-	-	-	-
	WB L/T		-	-	-	M200	-	-	-	M865	-	-	-	-
	NB		B	12.1	0.1	-	D	53.8	0.68	-	-	-	-	-
	NBL		-	-	-	7	-	-	-	14	-	-	-	-
	NBR		-	-	-	2	-	-	-	42	-	-	-	-
	SB		C	23.3	0.2	-	D	48.9	0.31	-	-	-	-	-
	SB L/T		-	-	-	9	-	-	-	5	-	-	-	-
Anderson Mill Road & 9707 Anderson Mill Road	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		C	18.3	0.015	-	A	0	0	-	-	-	-	-
	NB L/T/R		-	-	-	0	-	-	-	0	-	-	-	-
	SB		F	>200	2.37	-	F	>200	6.52	-	-	-	-	-
	SB L/T/R		-	-	-	116	-	-	-	176	-	-	-	-
Anderson Mill Road & Commercial Driveway	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	>200	2.47	-	F	>200	3.8	-	-	-	-	-
	NB L/T/R		-	-	-	272	-	-	-	342	-	-	-	-
	SB		F	>200	1.08	-	F	>200	23	-	-	-	-	-
	SB L/T/R		-	-	-	80	-	-	-	212	-	-	-	-
Anderson Mill Road & US 183 FR SB	Overall		F	>200	2.46	-	F	157.4	1.79	-	-	-	-	-
	EB		F	>200	2.46	-	F	>200	1.79	-	-	-	-	-
	EBT			-	-	271	-	-	-	#522	-	-	-	-
	EBR		-	-	-	#1829	-	-	-	#1421	-	-	-	-
	WB		A	9.3	0.73	-	D	43.6	0.97	-	-	-	-	-
	WBL	205	-	-	-	M75	-	-	-	#M43	-	-	-	-
	WBT		-	-	-	M17	-	-	-	M462	-	-	-	-
	SB		F	>200	1.62	-	F	247	1.53	-	-	-	-	-
	SBL	320	-	-	-	301	-	-	-	#569	-	-	-	-
	SBT		-	-	-	#1085	-	-	-	#674	-	-	-	-
Anderson Mill Road & US 183 FR NB	Overall		D	41	2.46	-	F	94.6	1.79	-	-	-	-	-
	EB		A	3.6	0.45	-	D	54.7	0.74	-	-	-	-	-
	EBL	205	-	-	-	M17	-	-	-	M59	-	-	-	-
	EBT		-	-	-	0	-	-	-	M0	-	-	-	-
	WB		D	53.5	0.8	-	F	165.8	1.24	-	-	-	-	-
	WBT		-	-	-	326	-	-	-	#631	-	-	-	-
	NB		E	69.3	1.03	-	F	82.3	1.13	-	-	-	-	-
	NBL	374	-	-	-	#475	-	-	-	#1059	-	-	-	-
	NBT		-	-	-	154	-	-	-	575	-	-	-	-

Exhibit 10 - Detailed LOS Tables
2027 Horizon (Optimized+Improvments) Condition

Intersection	Movement	Existing Storage Length	2027 Horizon Year (Optimized+IMP)											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue	LOS	Delay	Maximum (v/c)	95th Queue	LOS	Delay	Maximum (v/c)	95th Queue
Anderson Mill Road & Spicewood Parkway	Overall		B	12.8	0.76	-	B	16	0.84	-	B	10.70	0.69	-
	EB		A	10.2	0.64	-	B	12.5	0.55	-	A	7.60	0.45	-
	EBT		-	-	-	508	-	-	-	432	-	-	-	12
	EBR		-	-	-	94	-	-	-	61	-	-	-	194
	WB		A	1.2	0.34	-	A	4	0.7	-	A	4.80	0.46	-
	WBL	80	-	-	-	m1	-	-	-	m2	-	-	-	13
	WBT		-	-	-	m16	-	-	-	m61	-	-	-	201
	NB		E	66.3	0.76	-	E	65.8	0.84	-	D	50.10	0.69	-
	NBL	125	-	-	-	143	-	-	-	270	-	-	-	128
Anderson Mill Road & Wagon Gap Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		-	-	-	-	-	-	-	-	-	-	-	-
	NB L/T/R		-	-	-	-	-	-	-	-	-	-	-	-
	SB		C	25.4	0.143	-	F	53.4	0.372	-	-	-	-	-
	SB L/T/R		-	-	-	2	-	-	-	30	-	-	-	-
Anderson Mill Road & Burmaster Lane	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	50.1	0.482	-	B	11.3	0.07	-	-	-	-	-
	NB L/T/R		-	-	-	46	-	-	-	6	-	-	-	-
	SB		B	12.8	0.009	-	C	$23.20	0.08	-	-	-	-	-
	SB L/T/R		-	-	-	0	-	-	-	7	-	-	-	-
Anderson Mill Road & Olson Dr/Millwright Pkwy	Overall		E	69	1.07	-	F	113.5	1.25	-	B	20.00	0.75	-
	EB		E	55.1	1.02	-	F	149.8	1.25	-	B	19.30	0.58	-
	EBL		-	-	-	70	-	-	-	m84	-	-	-	24
	EBT		-	-	-	#951	-	-	-	#861	-	-	-	423
	WB		F	90.6	1.07	-	F	94.5	1.13	-	B	15	0.58	-
	WBL		-	-	-	107	-	-	-	m85	-	-	-	64
	WBT		-	-	-	#630	-	-	-	#1122	-	-	-	423
	WBR	230	-	-	-	1	-	-	-	12	-	-	-	10
	NB		E	61.6	0.92	-	E	55.9	0.81	-	C	22.80	0.45	-
	NBL		-	-	-	30				34				37
	NBT		-	-	-	#337	-	-	-	196	-	-	-	47
	NBR	115	-	-	-	87	-	-	-	57	-	-	-	37
	SB		E	77.2	0.89	-	F	129.8	1.12	-	D	45.20	0.75	-
	SBL	120	-	-	-	#169	-	-	-	#181	-	-	-	89
	SBT		-	-	-	#355	-	-	-	#436	-	-	-	177
Anderson Mill Road & Nene Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	SB		C	24.6	0.115	-	F	>200	5	-	-	-	-	-
	SB L/R		-	-	-	8	-	-	-	50	-	-	-	-
Anderson Mill Road & Swan Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		D	26.7	0.7	-	C	17.1	0.36	-	-	-	-	-
	NB L/T/R		-	-	-	137	-	-	-	40	-	-	-	-
	SB		D	32.4	0.19	-	C	20.8	0.19	-	-	-	-	-
	SB L/T/R		-	-	-	17	-	-	-	17	-	-	-	-
Anderson Mill Road & Swallow Drive	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		F	115.5	0.31	-	A	9.7	0.02	-	-	-	-	-
	NB L/T/R		-	-	-	26	-	-	-	2	-	-	-	-
	SB		C	24.7	0.28	-	D	33.7	0.29	-	-	-	-	-
	SB L/T/R		-	-	-	28	-	-	-	28	-	-	-	-

Exhibit 10 - Detailed LOS Tables
2027 Horizon (Optimized+Improvments) Condition

Intersection	Movement	Existing Storage Length	2027 Horizon Year (Optimized+IMP)											
			AM Peak Hour				PM Peak Hour				Midday			
			LOS	Delay	Maximum (v/c)	95th Queue	LOS	Delay	Maximum (v/c)	95th Queue	LOS	Delay	Maximum (v/c)	95th Queue
Anderson Mill Road & Bethany Church/Unity Church	Overall		A	2.6	0.61	-	A	6.6	0.72	-	-	-	-	-
	EB		A	1.3	0.61	-	A	3.7	0.54	-	-	-	-	-
	EBL		-	-	-	m1	-	-	-	m1	-	-	-	-
	EBT		-	-	-	m37	-	-	-	m36	-	-	-	-
	EBR		-	-	-	0	-	-	-	m0	-	-	-	-
	WB		A	1.3	0.39	-	A	4.6	0.72	-	-	-	-	-
	WBL		-	-	-	5	-	-	-	4	-	-	-	-
	WBT		-	-	-	87	-	-	-	267	-	-	-	-
	WBR		-	-	-	m2	-	-	-	2	-	-	-	-
	NB		D	39.5	0.18	-	D	55.8	0.67	-	-	-	-	-
	NBL		-	-	-	11	-	-	-	13	-	-	-	-
	NBR		-	-	-	11	-	-	-	19	-	-	-	-
	SB		E	59.6	0.34	-	D	54.3	0.67	-	-	-	-	-
	SB L/T		-	-	-	18	-	-	-	38	-	-	-	-
Anderson Mill Road & 9707 Anderson Mill Road	Overall		A	3.0	0.65	-	A	3.0	0.65	-	-	-	-	-
	EB		A	2.2	0.65	-	A	4.6	0.71	-	-	-	-	-
	EBL		-	-	-	m0	-	-	-	1	-	-	-	-
	EBT		-	-	-	38	-	-	-	62	-	-	-	-
	WB		A	2.7	0.61	-	C	34.4	1.82	-	-	-	-	-
	WBL		-	-	-	m8	-	-	-	7	-	-	-	-
	WBT			-	-	75	-	-	-	m107	-	-	-	-
	NB		C	29.3	0.07	-	E	68.6	0.25	-	-	-	-	-
	NB L/T/R		-	-	-	0	-	-	-	12	-	-	-	-
	SB		D	39.7	0.2	-	D	53.3	0.51	-	-	-	-	-
	SB L/T/R		-	-	-	7	-	-	-	4	-	-	-	-
Anderson Mill Road & Commercial Driveway	Overall		-	-	-	-	-	-	-	-	-	-	-	-
	NB		E	36.4	0.523	-	D	31.3	0.512	-	-	-	-	-
	NB L/T/R		-	-	-	54	-	-	-	54	-	-	-	-
	SB		C	15.8	0.09	-	D	26.9	0.227	-	-	-	-	-
	SB L/T/R		-	-	-	6	-	-	-	16	-	-	-	-
Anderson Mill Road & US 183 FR SB	Overall		F	90.8	1.61	-	F	97.6	1.43	-	-	-	-	-
	EB		F	131.6	1.42	-	F	142.3	1.42	-	-	-	-	-
	EBT		-	-	-	112	-	-	-	310	-	-	-	-
	EBR		-	-	-	#1574	-	-	-	#1244	-	-	-	-
	WB		B	13.1	0.87	-	D	50	0.99	-	-	-	-	-
	WBL	205	-	-	-	m123	-	-	-	m134	-	-	-	-
	WBT		-	-	-	m225	-	-	-	m128	-	-	-	-
	SB		F	117.8	1.28	-	F	130.8	1.27	-	-	-	-	-
	SBL	320	-	-	-	317	-	-	-	#530	-	-	-	-
	SBT					#874	-	-	-	#401	-	-	-	-
	SBR		-	-	-	83	-	-	-	131	-	-	-	-
Anderson Mill Road & US 183 FR NB	Overall		F	105.1	1.61	-	F	103.2	1.43	-	-	-	-	-
	EB		C	31.0	0.7	-	E	74.4	1.23	-	-	-	-	-
	EBL	205	-	-	-	168	-	-	-	m#335	-	-	-	-
	EBT		-	-	-	584	-	-	-	m353	-	-	-	-
	WB		F	>200	1.61	-	F	229.2	1.43	-	-	-	-	-
	WBT		-	-	-	#443	-	-	-	#685	-	-	-	-
	NB		C	22.3	0.57	-	E	57.1	1.11	-	-	-	-	-
	NBL	374	-	-	-	243	-	-	-	#685	-	-	-	-
	NBT		-	-	-	58	-	-	-	166	-	-	-	-
	NBR		-	-	-	35	-	-	-	163	-	-	-	-

EXHIBIT 11 PROPOSED IMPROVEMENT SCHEMATIC

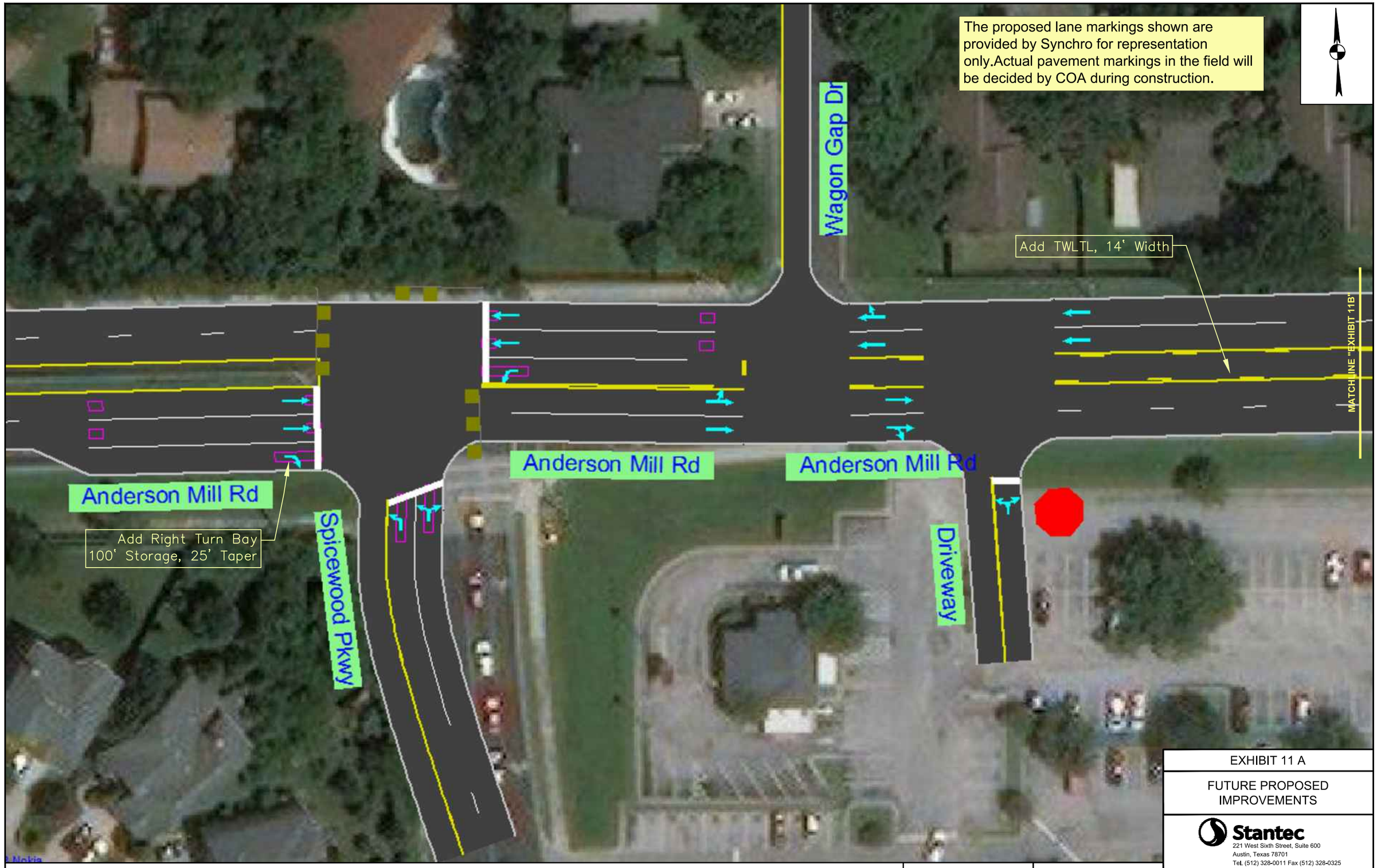

EXHIBIT 11 A

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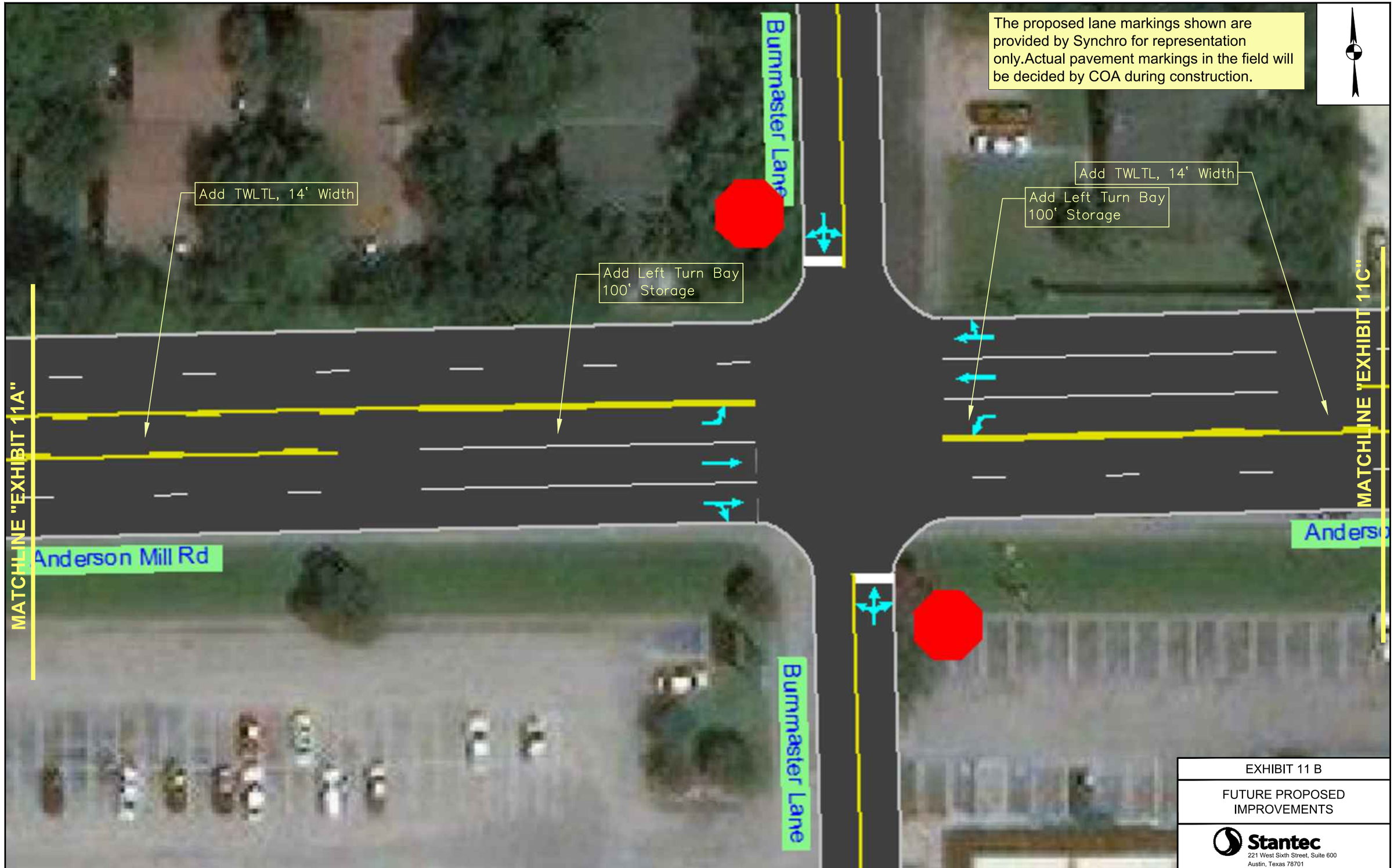

EXHIBIT 11 B

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The proposed lane markings shown are provided by Synchro for representation only.Actual pavement markings in the field will be decided by COA during construction.

Millwright Pkwy

Add TWLTL, 14' Width

Add Left Turn Bay
100' Storage

Add Left Turn Bay
100' Storage

Add TWLTL, 14' Width

MATCHLINE "EXHIBIT 11B"

MATCHLINE "EXHIBIT 11D"

son Mill Rd

Anderson Mill Rd

Olson DR

Modify to 1Left-1Thru-1Right Lane

EXHIBIT 11 C

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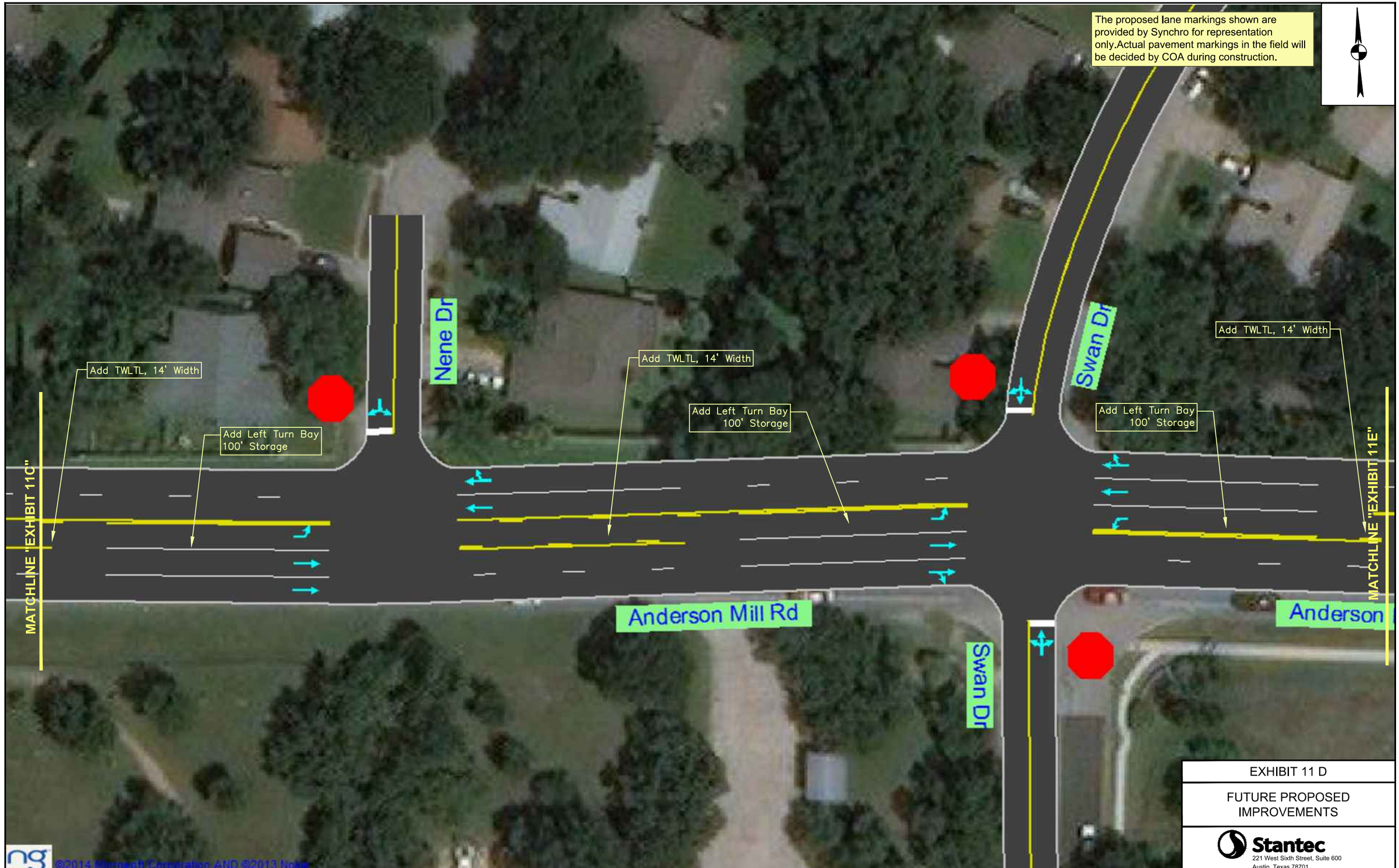

EXHIBIT 11 D

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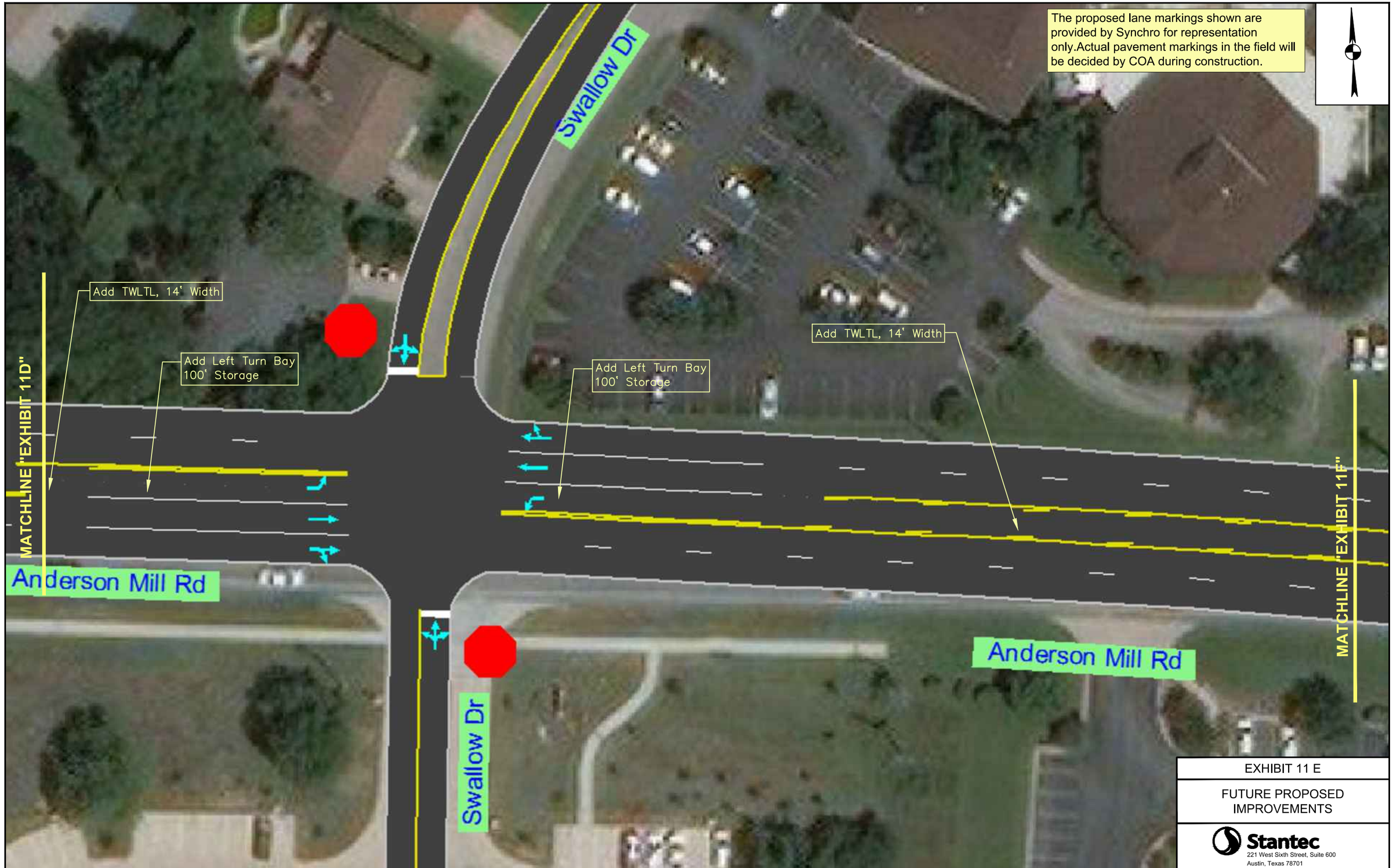

EXHIBIT 11 E

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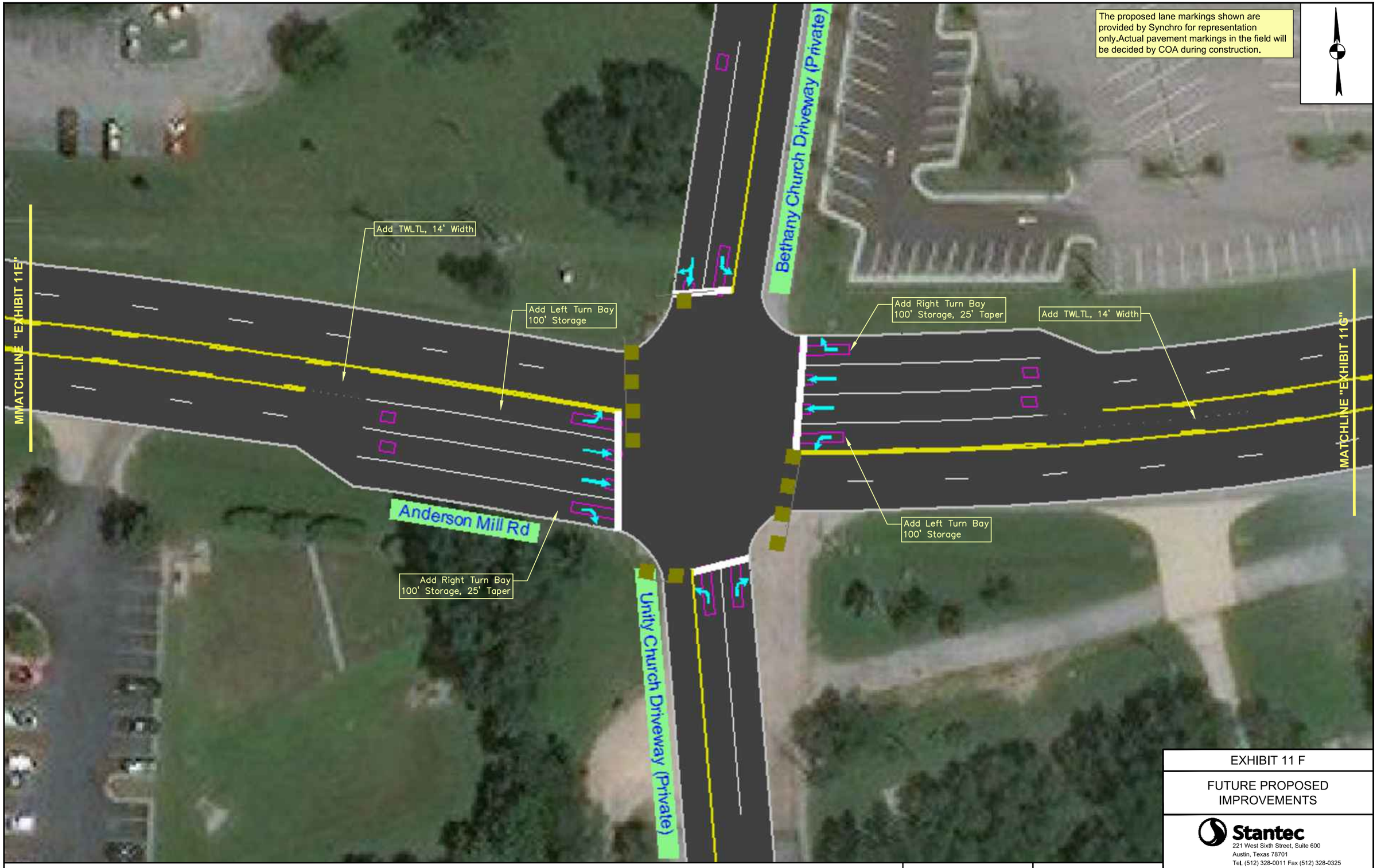

EXHIBIT 11 F

FUTURE PROPOSED IMPROVEMENTS

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The proposed lane markings shown are provided by Synchro for representation only.Actual pavement markings in the field will be decided by COA during construction.

Add Raised Median, 14' Width

Add Left Turn Bay
100' Storag, 25' Taper

"Signaliezd Intersection"

9707 Anderson Mill Rd

Add Left Turn Bay
100' Storage

Add TWLTL, 14' Width

Anderson Mill Rd

MATCHLINE "EXHIBIT 11H"

Add Right Turn Bay for
Anderson Mill Road @ US 183
SBFR intersection,
780' Storage, 100' Taper

9707 Anderson Mill Rd

MATCHLINE "EXHIBIT 11F"

EXHIBIT 11 G

FUTURE PROPOSED IMPROVEMENTS

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EXHIBIT 11 H

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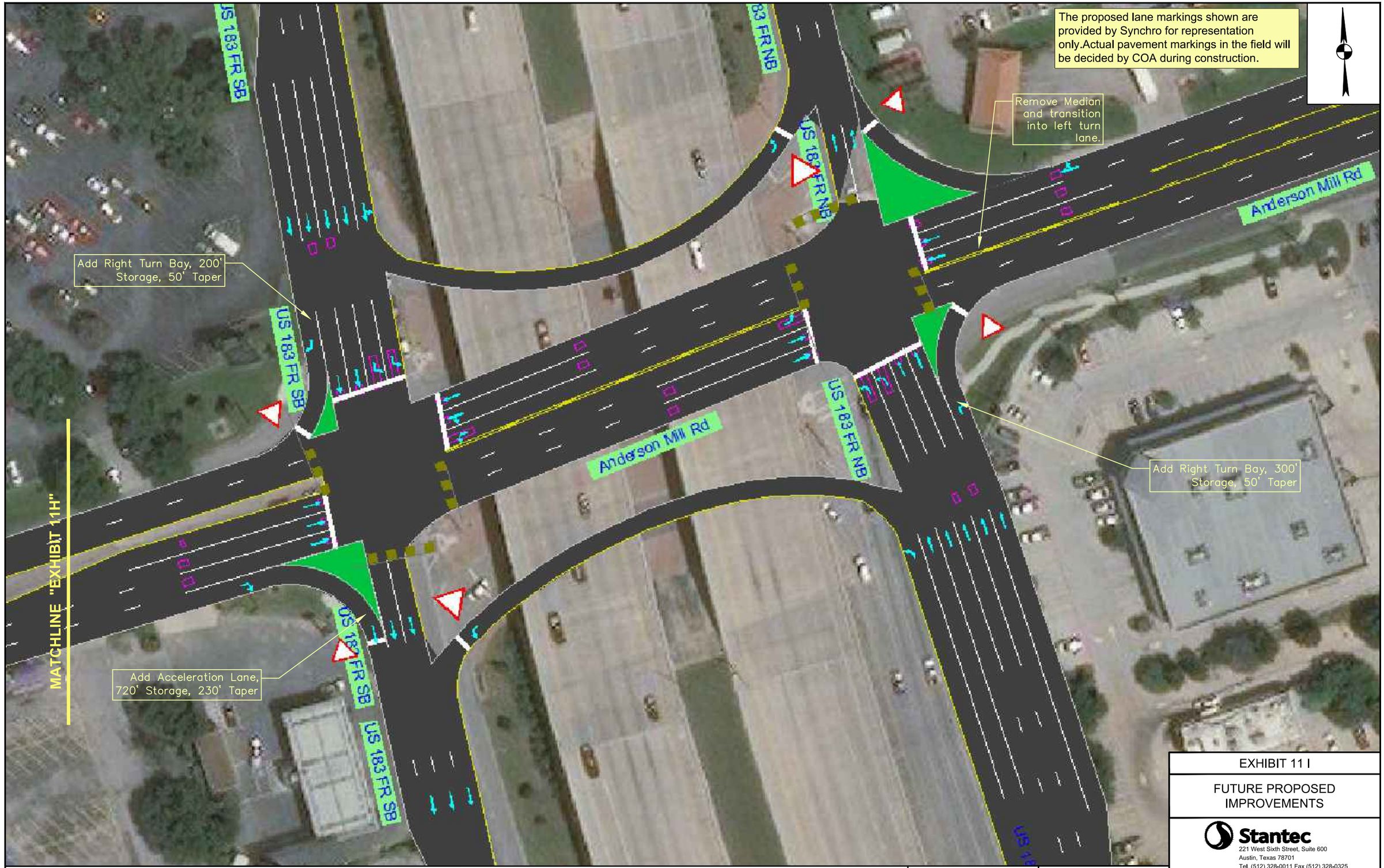

EXHIBIT 11 I

FUTURE PROPOSED IMPROVEMENTS

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EXHIBIT 12 INTERSECTION PEAK HOUR

Consistent Peak Hour of 8:00 AM and 4:30 PM was modeled in Synchro across all intersections.

Anderson Mill Road

Wagon Gap Drive

Burnmaster Lane

Milwright Parkway

Wene Drive

Swallow Drive

Bethany Church Driveway (Private)

9707 Anderson Mill Road

Commercial Driveway

US 183 Southbound FR

US 183 Northbound FR

Spicewood Parkway

Olson Drive

Swan Drive

Unity Church Driveway (Private)

1. AM Peak: 7:30–8:30
PM Peak: 5:00–6:00

2. AM Peak: 7:30–8:30
PM Peak: 4:30–5:30

3. AM Peak: 8:00–9:00
PM Peak: 4:30–5:30

4. AM Peak: 8:00–9:00
PM Peak: 4:30–5:30

5. AM Peak: 7:30–8:30
PM Peak: 4:30–5:30

6. AM Peak: 8:00–9:00
PM Peak: 4:15–5:15

7. AM Peak: 8:00–9:00
PM Peak: 4:30–5:30

8. AM Peak: 7:15–8:15
PM Peak: 4:30–5:30

9. AM Peak: 8:00–9:00
PM Peak: 5:00–6:00

10. AM Peak: 8:00–9:00
PM Peak: 5:00–6:00

11. AM Peak: 7:45–8:45
PM Peak: 5:00–6:00

12. AM Peak: 8:00–9:00
PM Peak: 5:00–6:00

EXHIBIT 12

Intersection Peak Hour

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