

# LAKESIDE PARK ACCESS STUDY

## PELL CITY, ALABAMA



JANUARY 2016

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**Section 1 – Introduction**

Lakeside Park is located on Cropwell Drive (SR-34) in the southern portion of Pell City, Alabama. The 65 acre park is adjacent to the Pell City Civic Center and offers picnic areas, pavilions, walking trails, a boat launch, a swimming area, a fishing pier, and a playground. The park also contains a Sports Complex with numerous baseball and soccer fields. A splash pad is currently under construction and is scheduled to open within a few months. Activities at the Sports Complex, fishing tournaments, and the children’s area draw numerous visitors to the park each year.

This report summarizes the findings of an access study performed by Neel-Schaffer, Inc. as requested by Pell City. The purpose of this study was to review and analyze the traffic movements and intersection geometry and then provide recommendations for access improvements to alleviate the congestion and safety issues related to the existing park access as well as to improve the efficiency of vehicles entering and exiting the park before and after special events. The study area included all entrances to Lakeside Park, the Civic Center, and Sports Complex as well as SR-34 to the north and east of the park. A new access point off of SR-34 was also evaluated as a part of this study. Figure 1.1 shows a vicinity map of the project site.

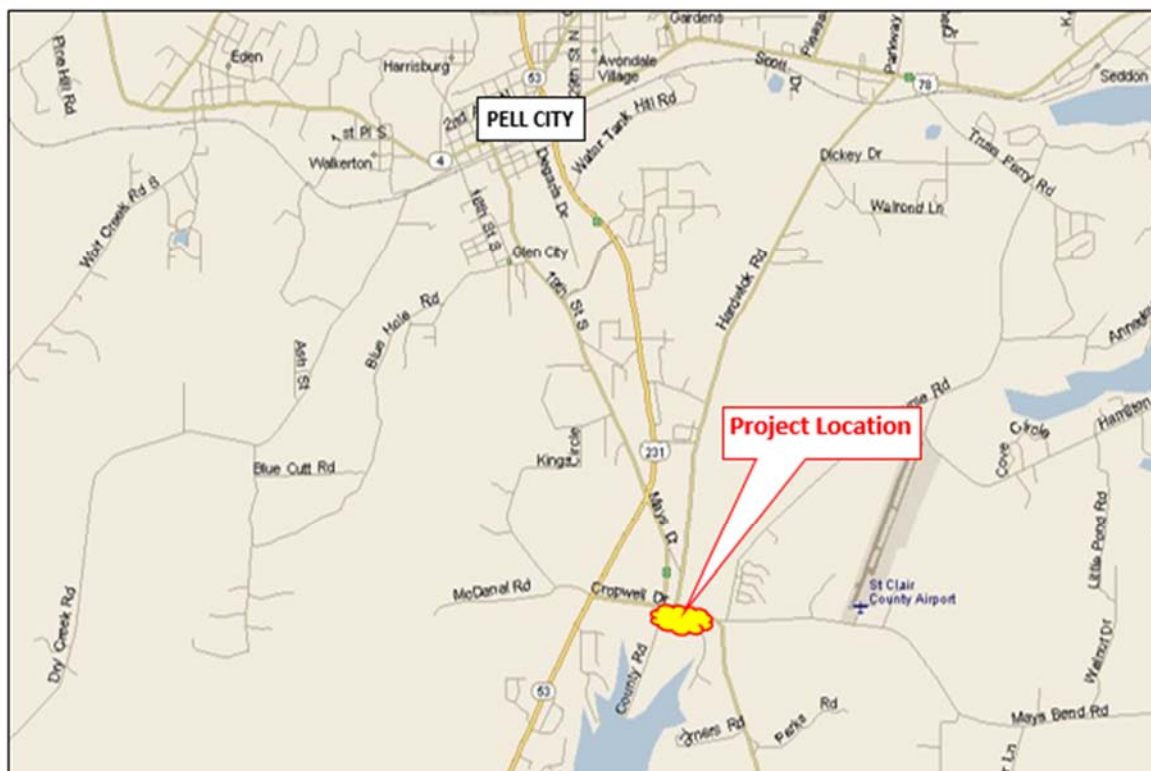


Figure 1.1 - Project Vicinity Map

**Section 2 – Existing Conditions**

Lakeside Park is approximately half a mile east of US-231 on Cropwell Road (SR-34). It sits on the north side of Avondale Lake which feeds into the Coosa River. SR-34 borders the park to the north and east. An aerial image of Lakeside Park and the surrounding area is shown in Figure 2.1.

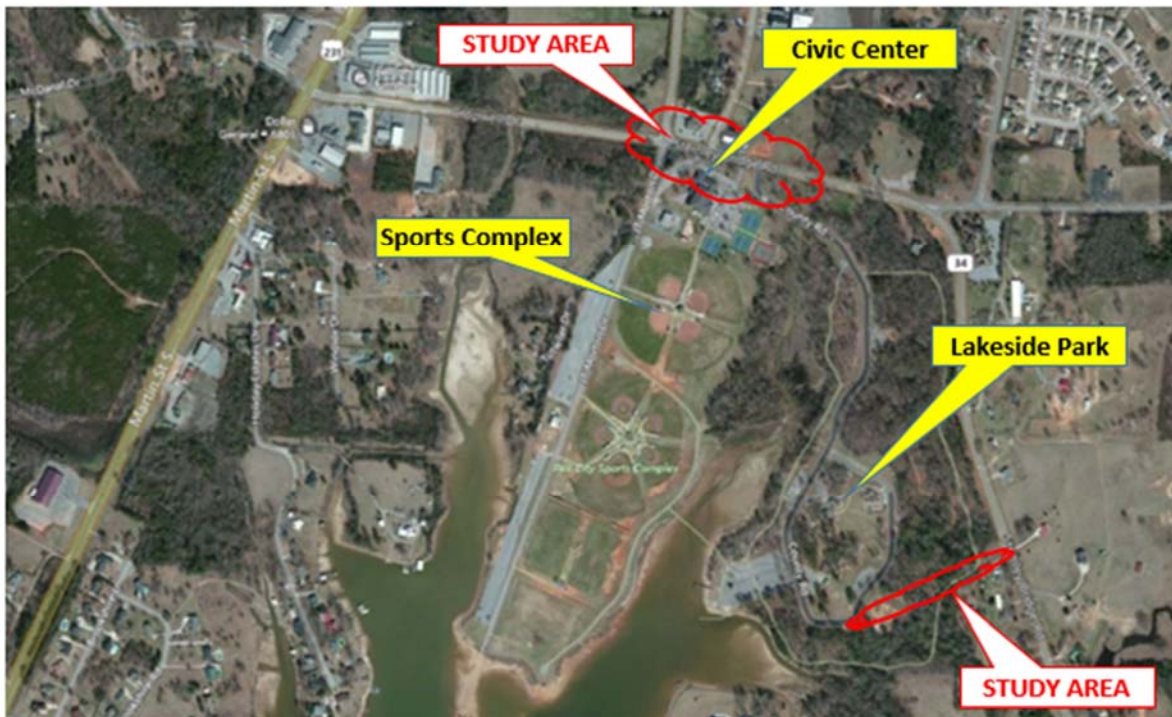


Figure 2.1 - Project Aerial Map

There are currently four access points in close proximity to each other that provide access to the Sports Complex, Civic Center, and Lakeside Park (see Figure 2.2). The westernmost access point (Access Point A) services the Sports Complex. It is a three-way stop with stop signs on the western leg (Cropwell Road), southern leg (entrance to Sports Complex), and eastern leg (Cropwell Road/SR-34). The northern leg (SR-34) does not stop. All legs are undivided two lane roadways. A channelized right turn lane with a yield sign moves traffic from westbound to northbound. There is also a channelized right turn lane from eastbound to southbound, but no yield sign is present.

The next access point (Access Point B) is a forked driveway that accesses the Civic Center off of Cropwell Road (SR-34). It is approximately 220 feet from the Sports Complex entrance (measured centerline to centerline). The east side of the fork leads to parking in front of the Civic Center, while the west side of the fork serves as a cut-through connection to the Sports Complex. There are currently no turn lanes for this access point. Hardwick Road is slightly offset from this driveway on the north side of Cropwell Road (SR-34).

The third access point (Access Point C) is a driveway that serves as the primary entrance to the Civic Center parking lot. It is a two lane drive with no stop sign. There are no turn lanes for this access point.

The easternmost access point (Access Point D) is the main entrance to Lakeside Park. It is located approximately 80 feet east of the Civic Center driveway (measured centerline to centerline) and has no turn lanes off of SR-34. There is a stop sign for traffic leaving the park.

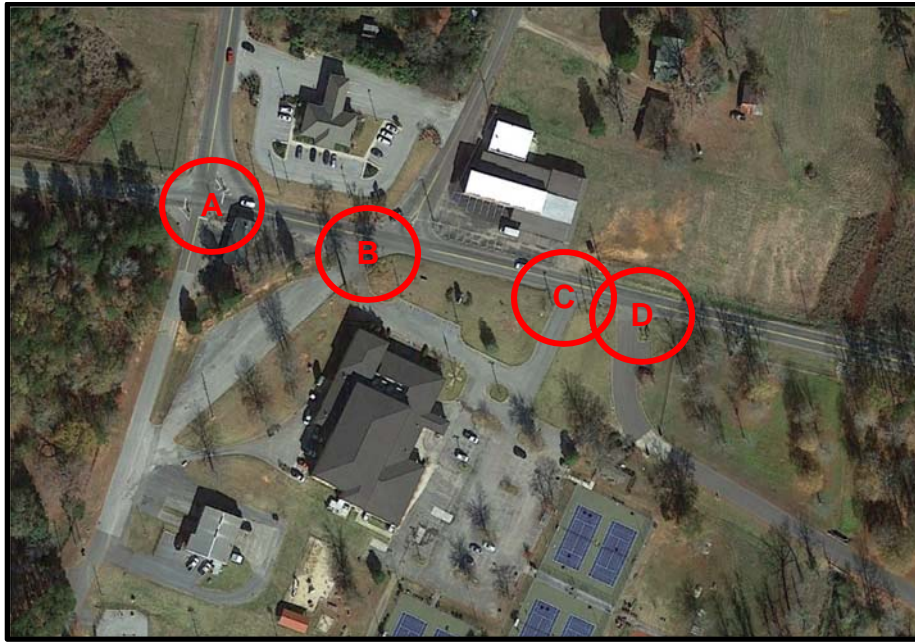


Figure 2.2 - Existing Access Points

The City is in the process of adding a splash pad in the southeast section of the park (see Figure 2.3). This new amenity is across from Kids Kastle, a community built playground. As a part of this study, Neel-Schaffer identified a new access point to provide access to these facilities as well as closer access to the boat launch. A new access point also allows for quicker park exits after special events and provides a secondary way in and out of the park in case the primary entrance must be closed due to an emergency, construction, etc.

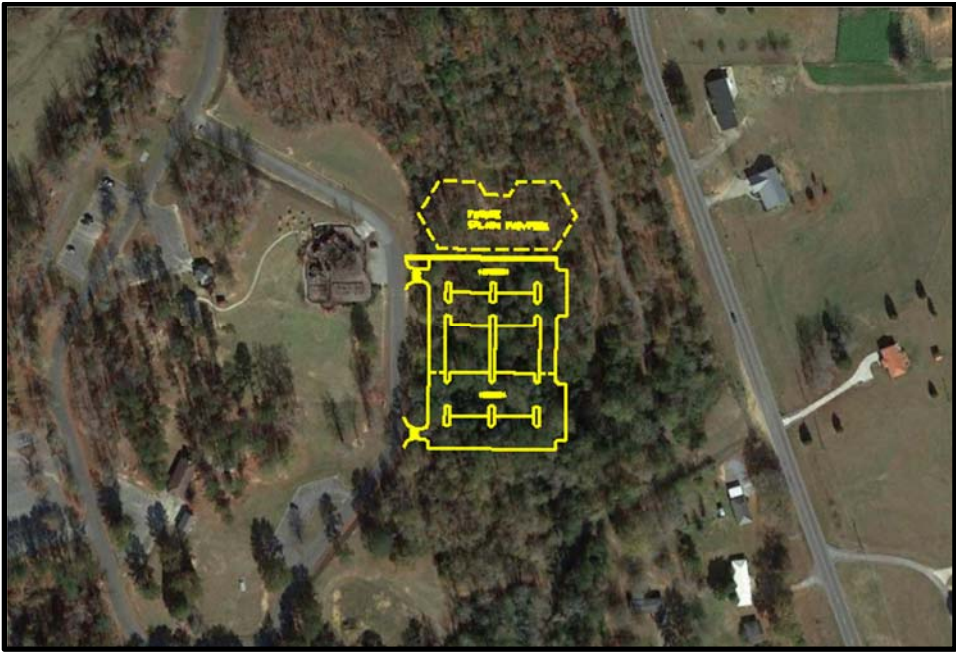


Figure 2.3 - Future Splash Pad

**Section 3 – Data Collection**

Neel-Schaffer made a site visit to Lakeside Park on August 11, 2015. It was an active day for the Civic Center with a special election, a health fair, and a Rotary Club meeting, so traffic was heavy and the access issues were evident. During the site visit, existing lane configurations were noted as well as current traffic patterns and traffic generators within the park. Photos were also taken to document existing conditions.

Traffic counts were collected by Southern Traffic Counts, Inc. on Thursday, October 8, 2015 and again on Saturday, October 10, 2015. Events on Thursday included a fishing tournament and a charity event. On Saturday, activities included a Fall Frenzy, a beauty pageant, and youth football games. These video traffic counts were collected at Cropwell Drive at SR-34, Cropwell Drive at Hardwick Road, and at the Civic Center entrance on Cropwell Drive. The Civic Center video also included the Lakeside Park entrance. All access points were evaluated for vehicles entering and exiting. Turning movements were counted as well. Twenty-four hour bi-directional volume counts were also taken at Stemley Bridge Road (SR-34) south of Mays Bend Road and at the main entrance to Lakeside Park on the south side of Cropwell Drive. Details of these counts are included in Appendix A, and traffic count summary sheets are shown in Appendix B.

In addition, the City provided traffic counts collected on the following dates and locations to show attendance records at recent park events:

- July 2-6, 2015 (Lakeside Park Entrance)
- July 24-27, 2015 (Sports Complex)
- July 31 - August 6, 2015 (Lakeside Park Entrance)
- August 26 - September 8, 2015 (Lakeside Park Entrance)
- October 9-14, 2015 (Lakeside Park Entrance)
- October 15-19, 2015 (Sports Complex)
- October 19-23, 2015 (Sports Complex)

These counts are shown in detail in Appendix C.

Historic ALDOT traffic counts were also reviewed for the ten year period spanning 2005-2014. Data collected at four stations nearest the project site were reviewed: Station 811 (AL-53 North of 18<sup>th</sup> Ave. S), Station 812 (AL-53 North of Brookshire Rd.), Station 813 (AL-34 Southeast of AL-53), and Station 528 (AL-34 between White's Dr. & Green St.). The station locations are shown in Figure 3.1, and the AADT data is summarized below in Table 3.1. Additional information can be found in Appendix D.

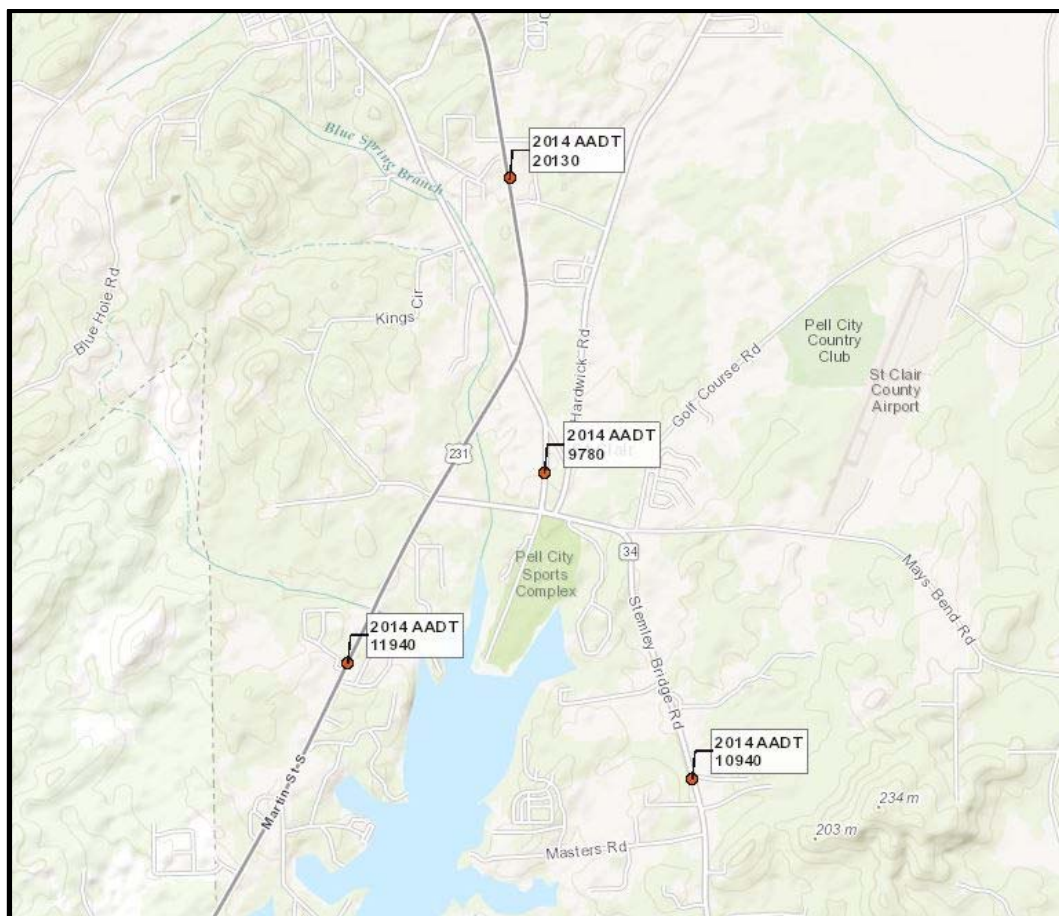


Figure 3.1 - ALDOT Traffic Counter Locations



<b>ALDOT TRAFFIC DATA</b>			
<b>Station 811 AL-53 North of 18th Ave S Milepoint 217.61</b>		<b>Station 812 AL-53 North of Brookshire Rd Milepoint 215.71</b>	
<b>Year</b>	<b>AADT</b>	<b>Year</b>	<b>AADT</b>
2005	17,450	2005	11,660
2006	17,700	2006	11,820
2007	17,750	2007	11,870
2008	17,040	2008	11,400
2009	17,590	2009	11,760
2010	17,700	2010	11,600
2011	17,434	2011	11,426
2012	17,260	2012	11,310
2013	19,800	2013	11,430
2014	20,130	2014	11,940
<b>Station 813 AL-34 Southeast of AL-53 Milepoint 0.43</b>		<b>Station 528 AL-34 Between White's Dr &amp; Green St Milepoint 1.80</b>	
<b>Year</b>	<b>AADT</b>	<b>Year</b>	<b>AADT</b>
2005	11,170	2005	12,570
2006	11,330	2006	12,750
2007	11,550	2007	12,500
2008	11,040	2008	11,900
2009	10,360	2009	12,280
2010	10,370	2010	12,290
2011	10,710	2011	12,130
2012	10,600	2012	12,010
2013	9,700	2013	10,850
2014	9,780	2014	10,940

Table 3.1 - ALDOT Traffic Data

The ALDOT data in the project area shows that traffic volumes have not experienced much growth in recent years. Traffic has increased on AL-53 (US-231) since 2012, but it has decreased on AL-34 during that same time period.

Section 4 – Evaluation of Existing Conditions

A review of the existing access points and traffic counts determined that the current access points are not functioning to meet the needs of Lakeside Park, the Sports Complex, and the Civic Center. The four access points are too close together and sight distance is poor, especially at the main Lakeside Park entrance. Each intersection was evaluated separately to determine how it currently functions.

Basis of Analysis

From a performance perspective, the effective operation of an intersection is evaluated based on the delay, turning movement volumes, traffic composition, and roadway geometry. The methodology utilized in this analysis is based on the Highway Capacity Manual, 2010 (HCM). Intersection level-of-service (LOS) is based on the delay per vehicle (in seconds). The level-of-service, as outlined in the HCM, is reported as a letter designation of LOS A through F where A is the least delay and F is the most delay. The delay range for signalized intersections and unsignalized intersections (both four-way and two-way) is shown in Table 4.1.

Signalized Intersections		Unsignalized Intersections	
LOS	Delay (s/veh)	LOS	Delay (s/veh)
A	≤ 10	A	≤ 10
B	> 10 - 20	B	> 10 - 15
C	> 20 - 35	C	> 15 - 25
D	> 35 - 55	D	> 25 - 35
E	> 55 - 80	E	> 35 - 50
F	> 80	F	> 50

Table 4.1 - LOS Delay Range

A SYNCHRO computer model was used to evaluate the existing peak hour traffic volumes at each intersection along Cropwell Road (SR-34) that provides access to the Sports Complex, Civic Center, and Lakeside Park.

Cropwell Drive at SR-34

The traffic counts collected on Thursday, October 8, 2015, at the intersection of Cropwell Drive and SR-34 show 1,062 vehicles in the AM Peak Hour. The highest movement is westbound right turns (580 vehicles). Southbound left turns (198 vehicles) are also significant. In addition, eastbound thru movements (110 vehicles) and westbound thru movements (144 vehicles) have high volumes during the peak hour. The traffic counts show 1,292 vehicles in the PM Peak Hour. The highest movements are the southbound left turns (564 vehicles). Other high counts include westbound right turns (278 vehicles),

southbound thru movements (156 vehicles), and eastbound thru movements (103 vehicles).

The traffic counts collected on Saturday, October 10, 2015, show 1,362 vehicles in the AM Peak Hour. The highest movements are southbound left turns (508 vehicles) and westbound right turns (397 vehicles). Eastbound thru movements (124 vehicles) are also high during the peak hour. The traffic counts show 1,348 vehicles in the PM Peak Hour. The highest movements are southbound left turns (489 vehicles) and westbound right turns (461 vehicles). Eastbound thru movements (102 vehicles) are also high during the peak hour.

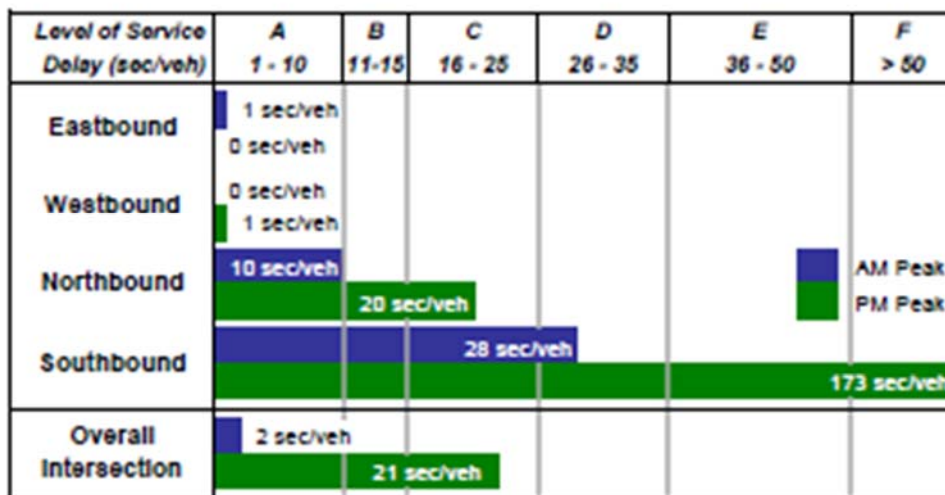
The existing level-of-service could not be determined at this location because HCM research does not support more than two stop controlled approaches at an intersection.

#### Cropwell Drive at Hardwick Road

The traffic counts collected on Thursday, October 8, 2015, at the intersection of Cropwell Drive and Hardwick Road show 1,152 vehicles in the AM Peak Hour. The highest movement is the westbound thru movement (690 vehicles). Eastbound thru movements (271 vehicles) are also high during the peak hour. Turning movements are relatively low. The level-of-service is A for the northbound approach and D for the southbound approach. The traffic counts show 1,323 vehicles in the PM Peak Hour. The highest movement is the eastbound thru movement (623 vehicles). The westbound thru movement (349 vehicles) is also high. Turning movements remain low. The level-of-service is C for the northbound approach and F for the southbound approach.

The traffic counts collected on Saturday, October 10, 2015, show 1,417 vehicles in the AM Peak Hour. The highest movements are eastbound thru movements (593 vehicles) and westbound thru movements (470 vehicles). Westbound right turns (122 vehicles) are also high. The level-of-service is C for the northbound approach and F for the southbound approach. The traffic counts show 1,411 vehicles in the PM Peak Hour. The highest movements are eastbound thru movements (598 vehicles) and westbound thru movements (485 vehicles). Westbound right turns (131 vehicles) are also high during the peak hour. The level-of-service is C for the northbound approach and F for the southbound approach (see Figure 4.1).

Cropwell Drive at Hardwick Road (Thursday, October 8, 2015)



Cropwell Drive at Hardwick Road (Saturday, October 10, 2015)

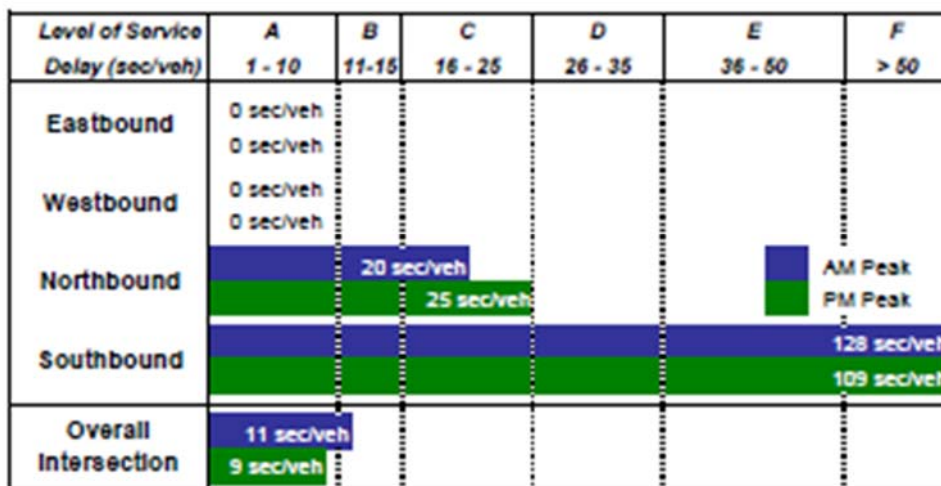


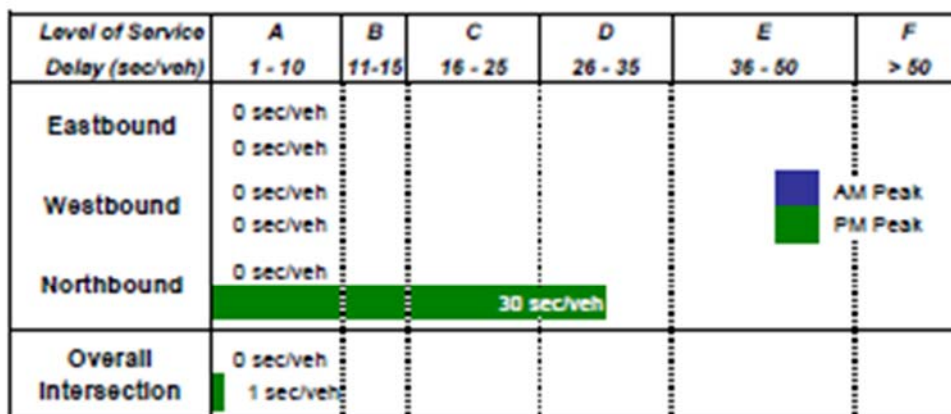
Figure 4.1 - Existing LOS Cropwell Drive at Hardwick Road

Cropwell Drive at the Civic Center

The traffic counts collected on Thursday, October 8, 2015, at the intersection of Cropwell Drive and the Civic Center show 1,009 vehicles in the AM Peak Hour. The highest movement is the westbound thru movement (720 vehicles). The eastbound thru movement (289 vehicles) is also high during the peak hour. Turning movements are low. The level-of-service is A for the northbound approach. The traffic counts show 1,278 vehicles in the PM Peak Hour. The highest movement is the eastbound thru movement (746 vehicles). The westbound thru movement (465 vehicles) is also high. Turning movements remain low. The level-of-service is D for the northbound approach.

The traffic counts collected on Saturday, October 10, 2015, show 1,370 vehicles in the AM Peak Hour. The highest movements are the eastbound thru movement (534 vehicles) and westbound thru movement (504 vehicles). Turning movements are low. The level-of-service is F for the northbound approach. The traffic counts show 1,418 vehicles in the PM Peak Hour traffic. The highest movements are the eastbound thru movement (514 vehicles) and westbound thru movement (452 vehicles). Northbound left turns (218 vehicles) are also high during the peak hour. The level-of-service is F for the northbound approach (see Figure 4.2).

Cropwell Drive at Civic Center (Thursday, October 8, 2015)



Cropwell Drive at Civic Center (Saturday, October 10, 2015)

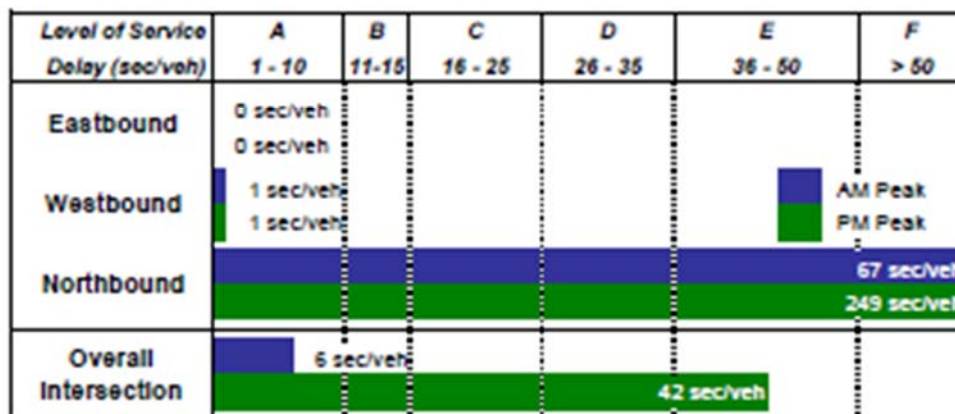


Figure 4.2 - Existing LOS Cropwell Drive at Civic Center

Cropwell Drive at the Lakeside Park Entrance

Traffic counts were collected on Thursday, October 8, 2015, at the intersection of Cropwell Drive and the entrance to Lakeside Park. The AM Peak Hour level-of-service is A for the northbound approach. At the PM Peak Hour, the level-of-service for the northbound approach is also A.

Additional traffic counts were collected on Saturday, October 10, 2015. The AM Peak Hour level-of-service is D for the northbound approach. At the PM Peak Hour, the level-of-service for the northbound approach is A (see Figure 4.3).

Cropwell Drive at Lakeside Park Entrance (Thursday, October 8, 2015)

Level of Service Delay (sec/veh)	A 1 - 10	B 11-15	C 16 - 25	D 26 - 35	E 36 - 50	F > 50
Eastbound	0 sec/veh 0 sec/veh					
Westbound	0 sec/veh 0 sec/veh					
Northbound	0 sec/veh 0 sec/veh				AM Peak PM Peak	
Overall Intersection	0 sec/veh 0 sec/veh					

Cropwell Drive at Lakeside Park Entrance (Saturday, October 10, 2015)

Level of Service Delay (sec/veh)	A 1 - 10	B 11-15	C 16 - 25	D 26 - 35	E 36 - 50	F > 50
Eastbound	0 sec/veh 0 sec/veh					
Westbound	0 sec/veh 0 sec/veh					
Northbound	AM Peak PM Peak		25 sec/veh			
Overall Intersection	1 sec/veh 0 sec/veh					

Figure 4.3 - Existing LOS Cropwell Drive at Lakeside Park Entrance

The existing traffic analysis showing level-of-service is included in Appendix E.

**Section 5 – Evaluation of Access Point Options**

After an analysis of the existing traffic volumes and movements, multiple conceptual layout options were prepared. Each layout includes the capacity for future traffic volumes and proposed traffic assignments. Preliminary cost estimates were also prepared for the layouts. A discussion of each layout is included below.

Option 1

Option 1 consists of a signalized intersection at SR-34, Cropwell Drive, and the Sports Complex entrance road. The north leg is a three lane section with a thru lane headed northbound and both a thru lane and dedicated left turn lane headed southbound and eastbound, respectively. The west leg is also a three lane section with a thru lane for westbound traffic, a dedicated left turn lane for northbound traffic, and a shared thru / right turn lane for eastbound and southbound traffic. The eastbound leg has four lanes at the intersection: thru lanes for eastbound and westbound traffic, a dedicated left turn lane for southbound traffic, and a channelized right turn lane for northbound traffic. The southbound leg leads to the Sports Complex. It is proposed as a four lane section at the intersection with thru lanes for southbound and northbound traffic, a dedicated left turn lane for westbound traffic, and a channelized right turn lane for eastbound traffic. The right turn lane will also be used by emergency vehicles leaving the fire station inside the Sports Complex. A Traffic Signal Warrant Analysis was performed for this intersection, and Warrant #2 (Four-Hour Vehicular Volume) is satisfied. The detailed Traffic Signal Warrant Analysis is included in Appendix F.

This option also realigns the westernmost Civic Center entrance to align with Hardwick Road and converts this entrance to be right-in/right-out. Eliminating the left turn movement out of the Civic Center at this location helps alleviate traffic backup both on SR-34 and on Hardwick Road. Right and left turn lanes are added for eastbound traffic turning south into the Civic Center and north onto Hardwick Road, respectively. Realigning this entrance also allows for an improved parking area on the west side of the Civic Center and eliminates the cut-through to the Sports Complex.

The easternmost entrance to the Civic Center and the entrance to Lakeside Park have been combined into a larger grander entrance to improve sight distance. It is shown as a three lane section with one lane entering and two lanes exiting. The exit lanes are shown as a dedicated left turn and a dedicated right turn. Dedicated right and left turn lanes are also shown on SR-34 at this new entrance. The current Lakeside Park entrance will no longer connect to SR-34 but will be used as a small parking lot for walkers and joggers who utilize the walking path. Combining the entrances also allows easy access between Lakeside Park and the Civic Center without re-entering SR-34. Intersection level-of-service for this option is summarized in Table 5.1, and a layout of this option is shown in Figure 5.1.

<b>Option 1 - Thursday, October 8, 2015</b>						
<b>Signalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	B - 11	A - 8	B - 11	B - 12	A - 10
	PM	C - 23	B - 11	B - 18	B - 17	B - 13
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Hardwick Rd	AM	A - 10	D - 28	*	*	*
	PM	C - 19	F - 158	*	*	*
Cropwell Dr at Civic Center / Park Entrance	AM	A - 0	*	*	*	*
	PM	D - 28	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

<b>Option 1 - Saturday, October 10, 2015</b>						
<b>Signalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	C - 23	B - 13	B - 18	B - 17	B - 15
	PM	C - 23	B - 12	B - 17	B - 17	B - 15
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Hardwick Rd	AM	C - 19	F - 121	*	*	*
	PM	C - 24	F - 101	*	*	*
Cropwell Dr at Civic Center / Park Entrance	AM	F - 68	*	*	*	*
	PM	F - 141	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

Table 5.1 - Option 1 Level-of-Service



The preliminary cost estimate for improvements on the state right-of-way for Option 1 is \$1,386,852 (80% federal funding and 20% match). Associated site improvements on City property are estimated to cost an additional \$454,502 (100% city funds).

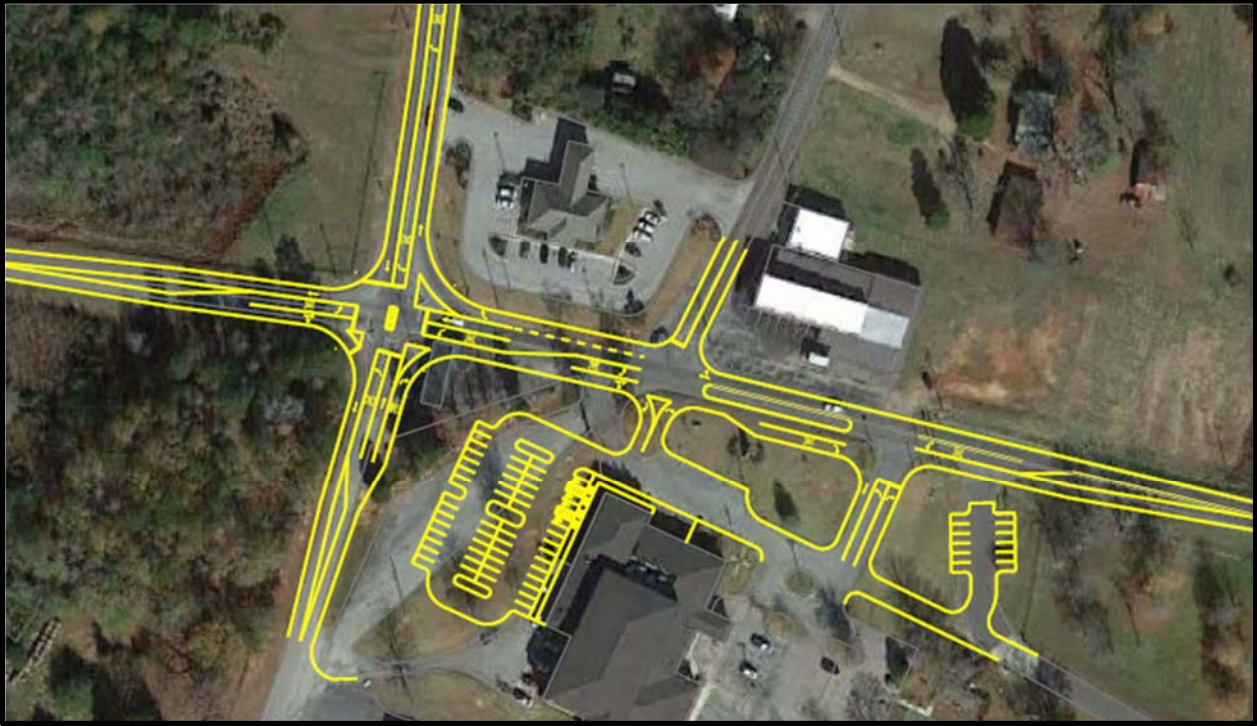


Figure 5.1 - Option 1 Conceptual Layout

Option 2

Option 2 is identical to Option 1 at the intersection of SR-34, Cropwell Drive, and the Sports Complex. In addition to this traffic signal, another signal is shown at the intersection of Hardwick Road and the Civic Center. On both the eastbound and westbound legs of the intersection, this option shows a dedicated left turn lane and a shared thru/right turn lane. This signal helps traffic to flow at this intersection and assists with left turns out of the Civic Center. The combined entrance to the Civic Center and Lakeside Park is the same as Option 1. A Traffic Signal Warrant Analysis was performed for both intersections. The intersection of Cropwell Drive at SR-34 satisfies Warrant #2 (Four-Hour Vehicular Volume). Currently, the intersection of Cropwell Drive at Hardwick Road does not satisfy any warrants, but as traffic volumes continue to increase, it could satisfy a warrant in the future. Intersection level-of-service for this option is summarized in Table 5.2, and a layout of this option is shown in Figure 5.2. The detailed Traffic Signal Warrant Analysis is included in Appendix F.

<b>Option 2 - Thursday, October 8, 2015</b>						
<b>Signalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	E - 65	A - 5	D - 38	D - 43	C - 26
	PM	D - 50	A - 7	D - 44	D - 42	B - 16
Cropwell Dr at Hardwick Rd	AM	F - 147	D - 53	A - 5	F - 83	E - 61
	PM	E - 78	D - 48	A - 2	D - 37	C - 21
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Civic Center / Park Entrance	AM	A - 0	*	*	*	*
	PM	D - 28	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

<b>Option 2 - Saturday, October 10, 2015</b>						
<b>Signalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	D - 47	A - 10	D - 44	D - 40	C - 22
	PM	D - 48	A - 9	D - 44	D - 42	C - 22
Cropwell Dr at Hardwick Rd	AM	E - 62	D - 49	A - 2	D - 43	C - 25
	PM	E - 72	D - 49	A - 2	D - 44	C - 26
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Civic Center / Park Entrance	AM	F - 68	*	*	*	*
	PM	F - 141	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

Table 5.2 - Option 2 Level-of-Service

The preliminary cost estimate for improvements on the state right-of-way for Option 2 is \$1,609,703 (80% federal funding and 20% match). Associated site improvements on City property are estimated to cost an additional \$454,502 (100% city funds).

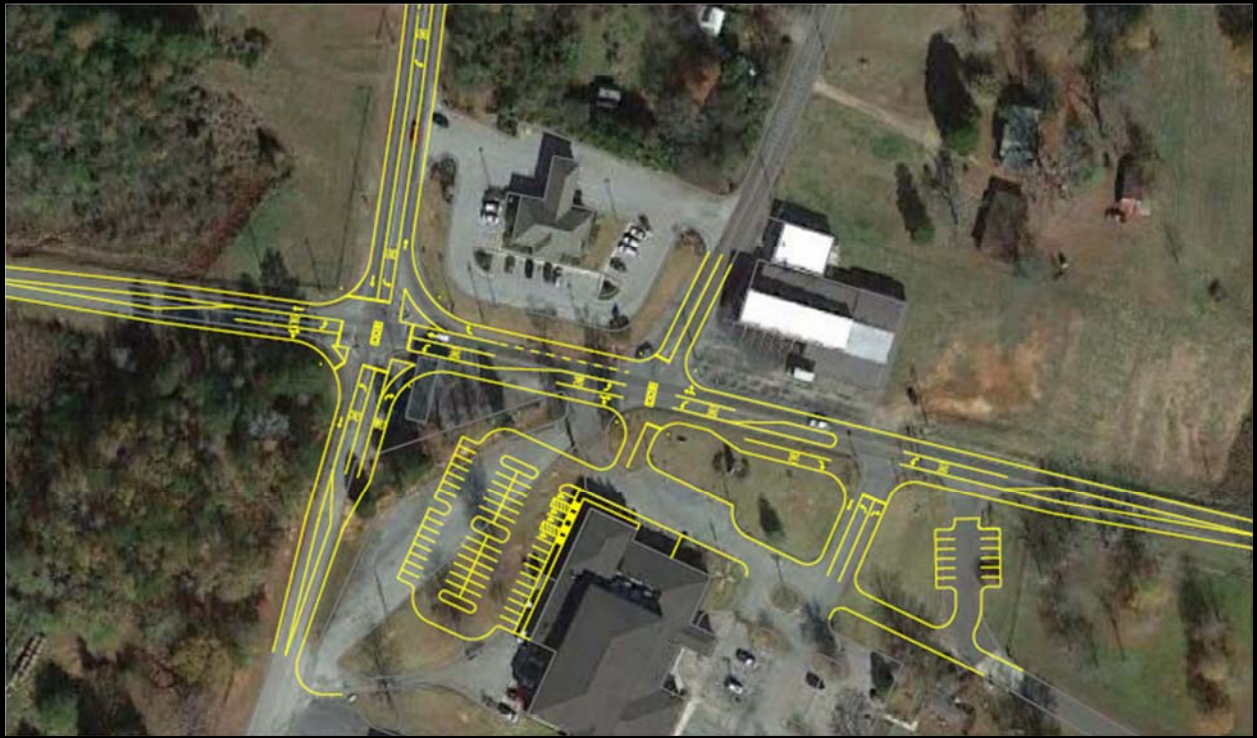


Figure 5.2 - Option 2 Conceptual Layout

Option 3

Option 3 is identical to Option 1 except for the intersection of SR-34, Cropwell Drive, and the Sports Complex. Instead of a traffic signal, a roundabout is shown. One benefit of a roundabout is less conflict points, thereby improving safety by reducing the potential for crashes. Another benefit is that all directions have continuous flow without delay. Also, the cost of long term maintenance is significantly less than with a traffic signal. An additional dedicated right turn lane is shown for traffic heading eastbound onto Cropwell Drive (SR-34) from the Sports Complex. This lane can also be utilized by emergency vehicles exiting the fire station located on the Sports Complex entrance road. Intersection level-of-service for this option is summarized in Table 5.3, and a layout of this option is shown in Figure 5.3.

<b>Option 3 - Thursday, October 8, 2015</b>						
<b>Roundabout Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	A - 5	A - 6	A - 6	C - 15	B - 12
	PM	A - 8	C - 21	B - 13	A - 7	C - 16
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Hardwick Rd	AM	A - 10	D - 28	*	*	*
	PM	C - 19	F - 158	*	*	*
Cropwell Dr at Civic Center / Park Entrance	AM	A - 0	*	*	*	*
	PM	D - 28	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

<b>Option 3 - Saturday, October 10, 2015</b>						
<b>Roundabout Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	A - 10	B - 14	B - 11	B - 11	B - 12
	PM	A - 9	B - 12	A - 9	B - 12	B - 12
<b>Unsignalized Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at Hardwick Rd	AM	C - 19	F - 121	*	*	*
	PM	C - 24	F - 101	*	*	*
Cropwell Dr at Civic Center / Park Entrance	AM	F - 68	*	*	*	*
	PM	F - 141	*	*	*	*

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

Table 5.3 - Option 3 Level-of-Service

The preliminary cost estimate for improvements on the state right-of-way for Option 3 is \$956,682 (80% federal funding and 20% match). Associated site improvements on City property are estimated to cost an additional \$454,502 (100% city funds).

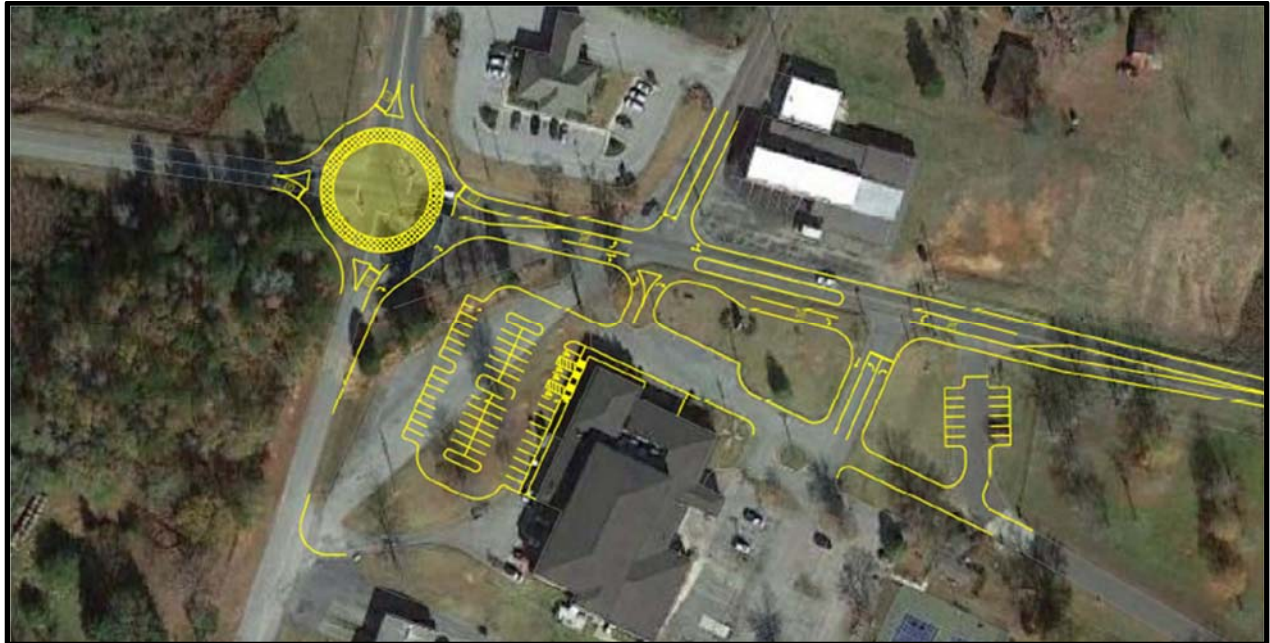


Figure 5.3 - Option 3 Conceptual Layout

Option 4

Option 4 incorporates three back-to-back roundabouts along SR-34. The first roundabout is at the intersection of SR-34, Cropwell Drive, and the Sports Complex. The second roundabout is at Hardwick Road, and the third roundabout is at the combined Civic Center/Lakeside Park main entrance. This option allows traffic to flow continuously at all intersections and increases safety by eliminating left turns. Intersection level-of-service for this option is summarized in Table 5.4, and a layout of this option is shown in Figure 5.4.

<b>Option 4 - Thursday, October 8, 2015</b>						
<b>Roundabout Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	A - 5	A - 6	A - 6	C - 15	B - 12
	PM	A - 8	C - 21	B - 13	A - 7	C - 16
Cropwell Dr at Hardwick Rd	AM	A - 5	A - 9	A - 7	C - 18	B - 15
	PM	A - 7	A - 8	C - 22	A - 9	C - 16
Cropwell Dr at Civic Center / Park Entrance	AM	A - 0	*	A - 6	B - 14	B - 12
	PM	A - 8	*	C - 17	A - 9	B - 14

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

<b>Option 4 - Saturday, October 10, 2015</b>						
<b>Roundabout Intersection</b>	<b>Peak Hour</b>	<b>Level-of-Service - Delay (sec/veh)</b>				
		<b>Northbound</b>	<b>Southbound</b>	<b>Eastbound</b>	<b>Westbound</b>	<b>Total</b>
Cropwell Dr at SR-34	AM	A - 10	B - 14	B - 11	B - 11	B - 12
	PM	A - 9	B - 12	A - 9	B - 12	B - 12
Cropwell Dr at Hardwick Rd	AM	A - 8	A - 8	C - 16	B - 12	B - 13
	PM	A - 8	A - 8	C - 15	B - 13	B - 13
Cropwell Dr at Civic Center / Park Entrance	AM	A - 9	*	B - 14	B - 14	B - 14
	PM	B - 12	*	B - 14	B - 14	B - 14

\* The Highway Capacity Manual does not assign an intersection level-of-service for two-way stop conditions.

**Table 5.4 - Option 4 Level-of-Service**

Since this option is non-traditional and would require ROW acquisition to construct, a cost estimate was not developed for this option.

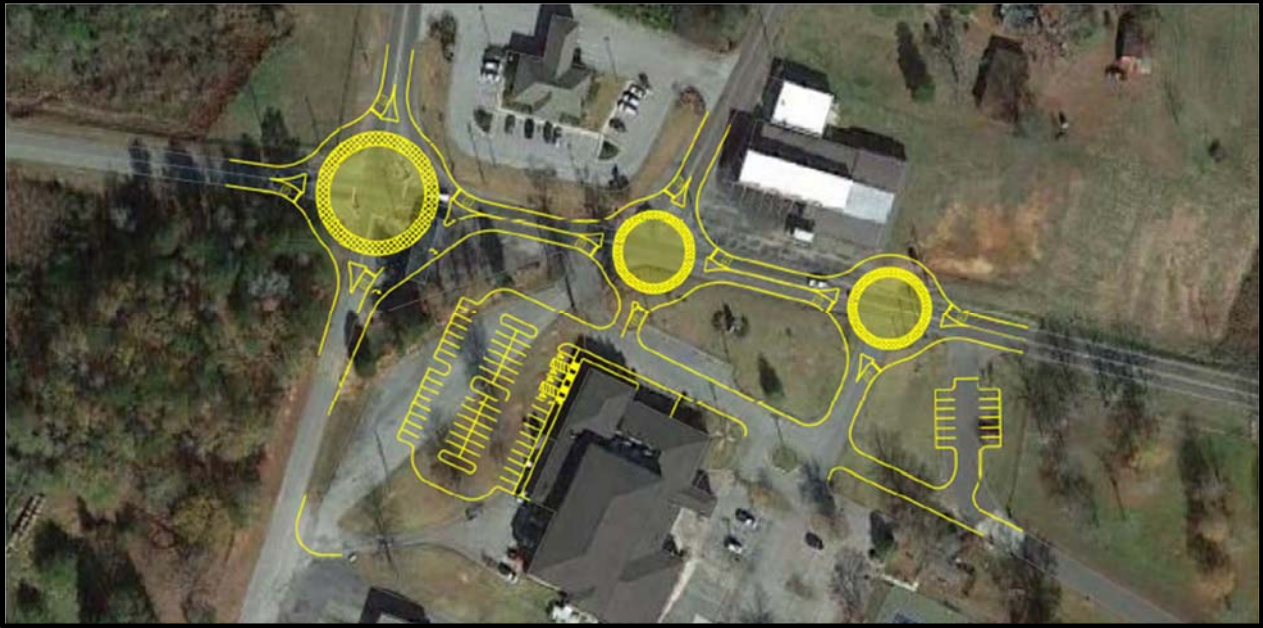


Figure 5.4 - Option 4 Conceptual Layout

All four options will require the City to purchase Parcel Number 29-04-18-3-000-017.000 in the southeast quadrant of the intersection of Cropwell Drive, SR-34, and the Sports Complex entrance road. The dimensions of this triangular parcel are 67.2' (adjacent to the Sports Complex entrance road), 90.2' (adjacent to Cropwell Drive), and 108.2' (hypotenuse).

All proposed traffic analysis showing level-of-service is included in Appendix E.

Splash Pad Road – Option 1

Option 1 shows a new park entrance connecting SR-34 to the new splash pad parking lot that is currently under construction (see Figure 5.5). This new road is three lanes wide at SR-34 with both dedicated right and left turn lanes. The remainder of the road is two lanes wide. Since it crosses a walking path, a crosswalk is shown as well. While this option provides direct access to the splash pad, it could cause recreational vehicle and boat launch traffic to intermingle with pedestrians and parking lot traffic as they pass through the splash pad parking lot to access other areas of the park.

This option is estimated to cost \$188,208 (100% city funds).

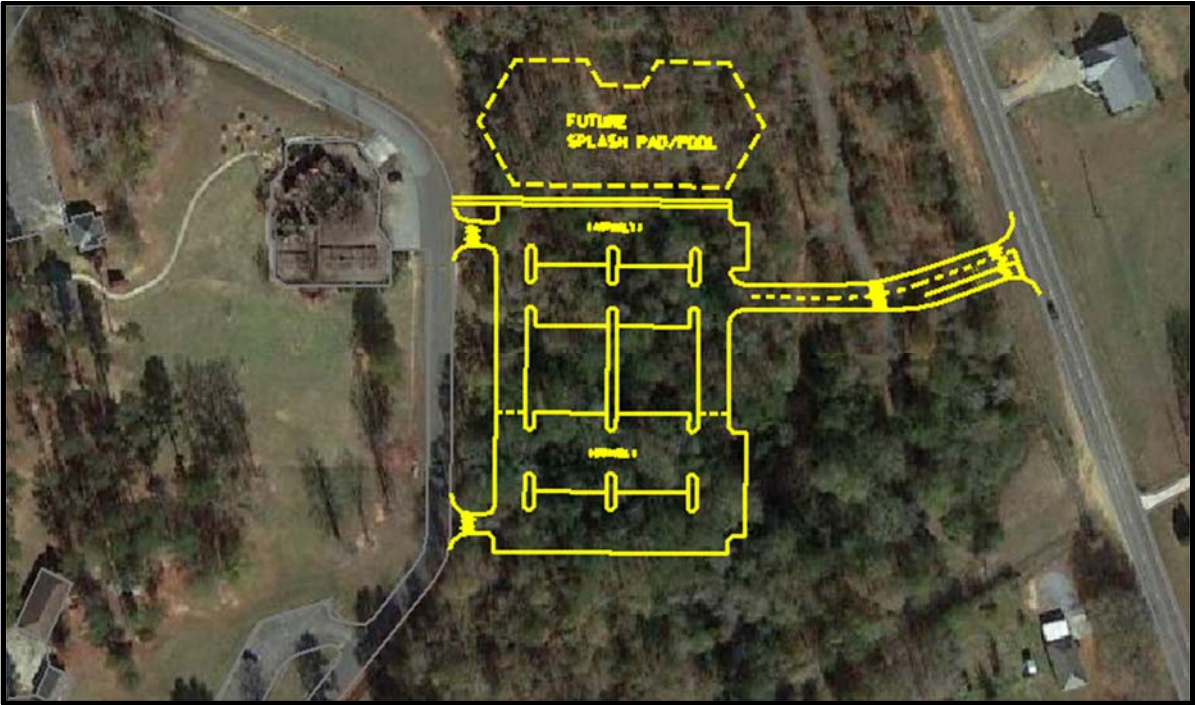


Figure 5.5 - Splash Pad Road Option 1 Conceptual Layout

Splash Pad Road – Option 2

Option 2 shows a new road connecting SR-34 to the internal park road at a location south of the new splash pad parking lot and east of the boat launch (see Figure 5.6). This new road is three lanes wide at SR-34 with both dedicated right and left turn lanes. The remainder of the road is two lanes wide. Since it crosses a walking path, a crosswalk is shown as well. This road would allow trucks pulling fishing boats to enter and leave the park without traveling between the playground and splash pad where children will likely be crossing the road. It also allows closer access to the splash pad and provides a secondary entrance/exit to the park for emergencies. Another benefit of this road is that it can be opened or closed seasonally or as needed. Figure 5.7 shows the proposed location of this road at the connection with SR-34.

This option is estimated to cost \$502,716 (100% city funds).



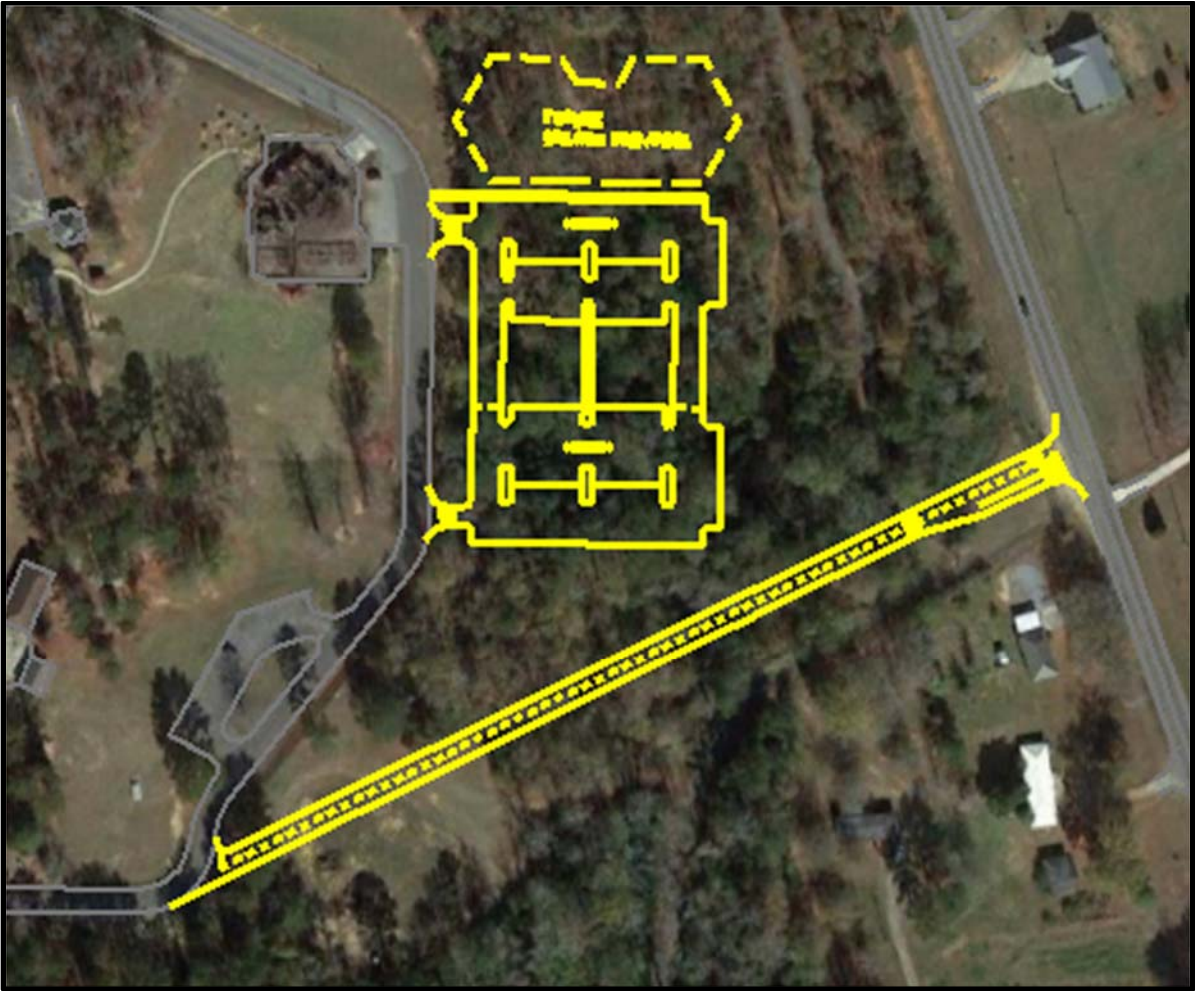


Figure 5.6 - Splash Pad Road Option 2 Conceptual Layout



Figure 5.7 - Splash Pad Road Proposed Connection to SR-34

Conceptual layouts for all options are included in Appendix G. Detailed cost estimates for all options are shown in Appendix H.

## **Section 6 – Summary & Recommendations**

Information collected during site visits and the results of the traffic analysis show that access changes to Lakeside Park are needed along Cropwell Road (SR-34). A secondary park entrance is also recommended to provide access to the new splash pad and the boat launch area.

### Cropwell Road (SR-34)

Based on the needs of Lakeside Park and the Civic Center, the estimated construction cost, and the intersection level-of-service, the conceptual layouts along Cropwell Road (SR-34) have been ranked as follows:

1. Option 3
2. Option 1
3. Option 2
4. Option 4

It is recommended that either Option 1 or Option 3 be implemented along Cropwell Road (SR-34). Option 3 is the least expensive to construct and does not have the high operations and maintenance costs associated with a traffic signal, so it has been given the highest ranking. A roundabout also offers the benefits of continuous flow and increased safety since it has fewer conflict points than a traditional traffic signal. Comparing Option 1 to Option 3, the intersection level-of-service is better in Option 1 using the traffic data collected on Thursday, October 8, 2015. However, level-of-service is equal for the Saturday, October 10, 2015 traffic counts.

### Splash Pad Road

The conceptual layouts for the proposed Splash Pad Road are ranked below:

1. Option 2
2. Option 1

It is recommended that Option 2 be constructed. Although Option 2 is more costly, it offers more flexibility. In addition to offering a more direct way to access the playground and splash pad, trucks hauling boats can use it to access the boat launch without traveling through areas with a high presence of children. This access point can also be opened or closed seasonally or as needed.

**Appendix A**

Existing Traffic Counts

(Southern Traffic Services, Inc.)

# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

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SR34 @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR THURSDAY  
Site Code : 15075-1  
Start Date : 10/8/2015  
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

Start Time	SR34 Southbound				CROPWELL DR Westbound				SR34 Northbound				CROPWELL DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:00	10	2	0	0	0	10	72	0	0	1	0	0	0	8	0	0	103
06:15	16	2	2	0	0	9	69	0	0	0	0	0	2	6	0	0	106
06:30	13	0	0	0	1	16	116	0	0	1	1	0	0	7	0	0	155
06:45	27	2	2	0	0	13	108	0	0	0	0	0	1	14	0	0	167
Total	66	6	4	0	1	48	365	0	0	2	1	0	3	35	0	0	531
07:00	28	1	1	0	0	31	157	0	1	1	0	0	1	15	1	0	237
07:15	33	0	3	0	0	48	175	0	0	2	0	0	3	35	0	0	299
07:30	71	1	2	0	1	45	151	0	0	1	0	0	3	40	0	0	315
07:45	66	2	0	0	0	20	97	0	0	1	0	0	5	20	0	0	211
Total	198	4	6	0	1	144	580	0	1	5	0	0	12	110	1	0	1062
08:00	52	0	1	0	0	21	106	0	0	0	0	0	1	17	0	0	198
08:15	44	0	3	0	0	13	92	0	0	1	0	0	4	24	1	0	182
08:30	47	1	3	0	0	18	87	0	1	1	0	0	3	12	0	0	173
08:45	45	5	1	0	0	24	95	0	1	0	1	0	2	14	2	0	190
Total	188	6	8	0	0	76	380	0	2	2	1	0	10	67	3	0	743
09:00	43	1	4	0	0	15	96	0	0	1	1	0	3	16	0	0	180
09:15	47	3	6	0	0	14	87	0	0	0	2	0	1	20	1	0	181
09:30	64	1	8	0	0	18	69	0	0	0	0	0	4	21	0	0	185
09:45	63	1	3	0	0	19	75	0	0	1	1	0	0	25	0	0	188
Total	217	6	21	0	0	66	327	0	0	2	4	0	8	82	1	0	734
10:00	68	3	3	0	0	15	76	0	1	4	0	0	0	11	3	0	184
10:15	51	0	3	0	0	12	75	0	0	3	0	0	6	12	0	0	162
10:30	55	1	4	0	0	14	50	0	1	0	1	0	1	21	0	0	148
10:45	68	2	3	0	0	11	83	0	0	5	0	0	0	12	0	0	184
Total	242	6	13	0	0	52	284	0	2	12	1	0	7	56	3	0	678
***BREAK***																	
14:00	78	2	1	0	0	17	67	0	0	1	1	0	3	21	1	0	192
14:15	82	3	4	0	0	22	72	0	0	3	0	0	1	18	0	0	205
14:30	87	0	4	0	0	24	80	0	0	2	0	0	2	19	0	0	218
14:45	91	0	8	0	1	22	88	0	1	2	0	0	2	30	0	0	245
Total	338	5	17	0	1	85	307	0	1	8	1	0	8	88	1	0	860
15:00	123	1	5	0	0	31	79	0	1	1	0	0	3	44	1	0	289
15:15	148	1	4	0	0	19	70	0	0	0	1	0	0	29	1	0	273
15:30	134	0	7	0	1	28	90	0	0	1	1	0	3	25	1	0	291
15:45	121	0	7	0	0	25	76	0	2	0	0	0	2	20	1	0	254
Total	526	2	23	0	1	103	315	0	3	2	2	0	8	118	4	0	1107
16:00	135	3	9	0	0	32	67	0	0	1	0	0	3	26	0	0	276
16:15	141	3	10	0	0	32	66	0	0	2	0	0	2	22	1	0	279
16:30	164	1	7	0	0	27	80	0	0	4	0	0	1	36	1	0	321
16:45	142	8	3	0	0	24	64	0	0	0	0	0	1	25	7	0	274
Total	582	15	29	0	0	115	277	0	0	7	0	0	7	109	9	0	1150
17:00	125	11	11	0	2	22	86	0	0	1	1	0	3	25	1	0	288
17:15	164	18	1	0	0	22	65	0	0	1	0	0	2	20	8	0	301
17:30	130	52	4	0	2	24	69	0	3	2	0	0	1	32	9	0	328
17:45	139	61	2	0	5	18	77	0	4	5	0	0	1	23	16	0	351
Total	558	142	18	0	9	86	297	0	7	9	1	0	7	100	34	0	1268
18:00	131	25	5	0	3	23	67	1	2	8	5	0	6	28	9	0	313
18:15	118	18	4	0	1	18	62	0	2	6	2	0	2	32	6	0	271

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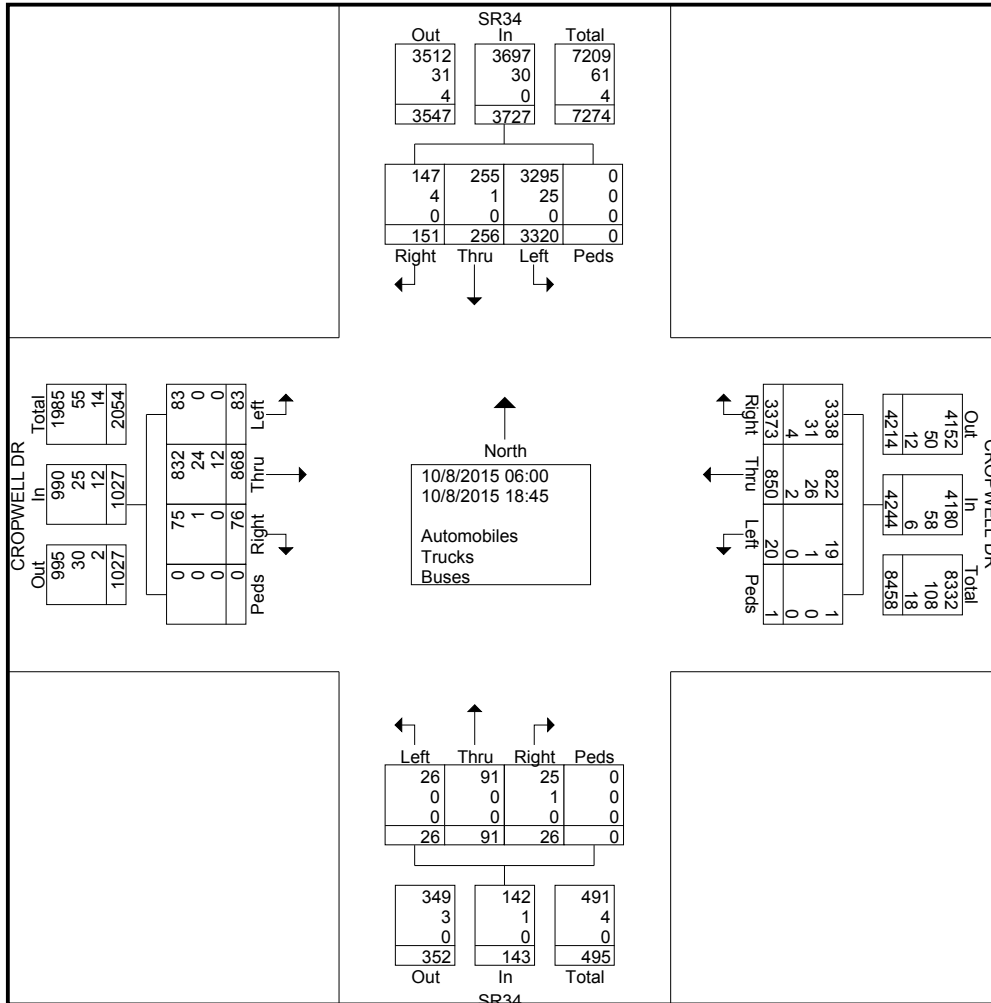
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SR34 @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR THURSDAY  
Site Code : 15075-1  
Start Date : 10/8/2015  
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

Start Time	SR34 Southbound				CROPWELL DR Westbound				SR34 Northbound				CROPWELL DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
18:30	83	16	2	0	3	19	67	0	3	13	6	0	2	22	2	0	238
18:45	73	5	1	0	0	15	45	0	3	15	2	0	3	21	3	0	186
<b>Total</b>	<b>405</b>	<b>64</b>	<b>12</b>	<b>0</b>	<b>7</b>	<b>75</b>	<b>241</b>	<b>1</b>	<b>10</b>	<b>42</b>	<b>15</b>	<b>0</b>	<b>13</b>	<b>103</b>	<b>20</b>	<b>0</b>	<b>1008</b>
<b>Grand Total</b>	<b>3320</b>	<b>256</b>	<b>151</b>	<b>0</b>	<b>20</b>	<b>850</b>	<b>3373</b>	<b>1</b>	<b>26</b>	<b>91</b>	<b>26</b>	<b>0</b>	<b>83</b>	<b>868</b>	<b>76</b>	<b>0</b>	<b>9141</b>
Apprch %	89.1	6.9	4.1	0	0.5	20	79.5	0	18.2	63.6	18.2	0	8.1	84.5	7.4	0	
Total %	36.3	2.8	1.7	0	0.2	9.3	36.9	0	0.3	1	0.3	0	0.9	9.5	0.8	0	
Automobiles	3295	255	147	0	19	822	3338	1	26	91	25	0	83	832	75	0	9009
% Automobiles	99.2	99.6	97.4	0	95	96.7	99	100	100	100	96.2	0	100	95.9	98.7	0	98.6
Trucks	25	1	4	0	1	26	31	0	0	0	1	0	0	24	1	0	114
% Trucks	0.8	0.4	2.6	0	5	3.1	0.9	0	0	0	3.8	0	0	2.8	1.3	0	1.2
Buses	0	0	0	0	0	2	4	0	0	0	0	0	0	12	0	0	18
% Buses	0	0	0	0	0	0.2	0.1	0	0	0	0	0	0	1.4	0	0	0.2



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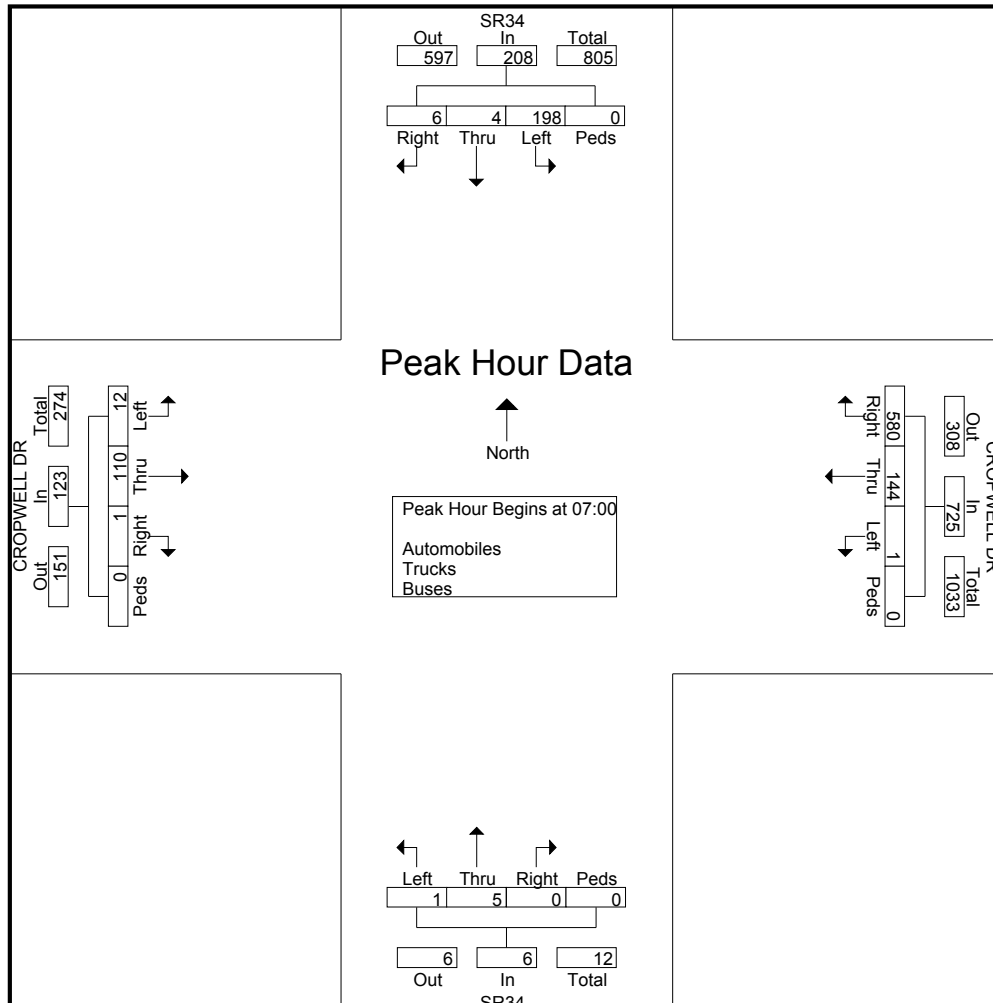
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Gulf Breeze, FL 32563

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SR34 @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR THURSDAY  
Site Code : 15075-1  
Start Date : 10/8/2015  
Page No : 3

Start Time	SR34 Southbound					CROPWELL DR Westbound					SR34 Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	28	1	1	0	30	0	31	157	0	188	1	1	0	0	2	1	15	1	0	17	237
07:15	33	0	3	0	36	0	48	175	0	223	0	2	0	0	2	3	35	0	0	38	299
07:30	71	1	2	0	74	1	45	151	0	197	0	1	0	0	1	3	40	0	0	43	315
07:45	66	2	0	0	68	0	20	97	0	117	0	1	0	0	1	5	20	0	0	25	211
Total Volume	198	4	6	0	208	1	144	580	0	725	1	5	0	0	6	12	110	1	0	123	1062
% App. Total	95.2	1.9	2.9	0		0.1	19.9	80	0		16.7	83.3	0	0		9.8	89.4	0.8	0		
PHF	.697	.500	.500	.000	.703	.250	.750	.829	.000	.813	.250	.625	.000	.000	.750	.600	.688	.250	.000	.715	.843



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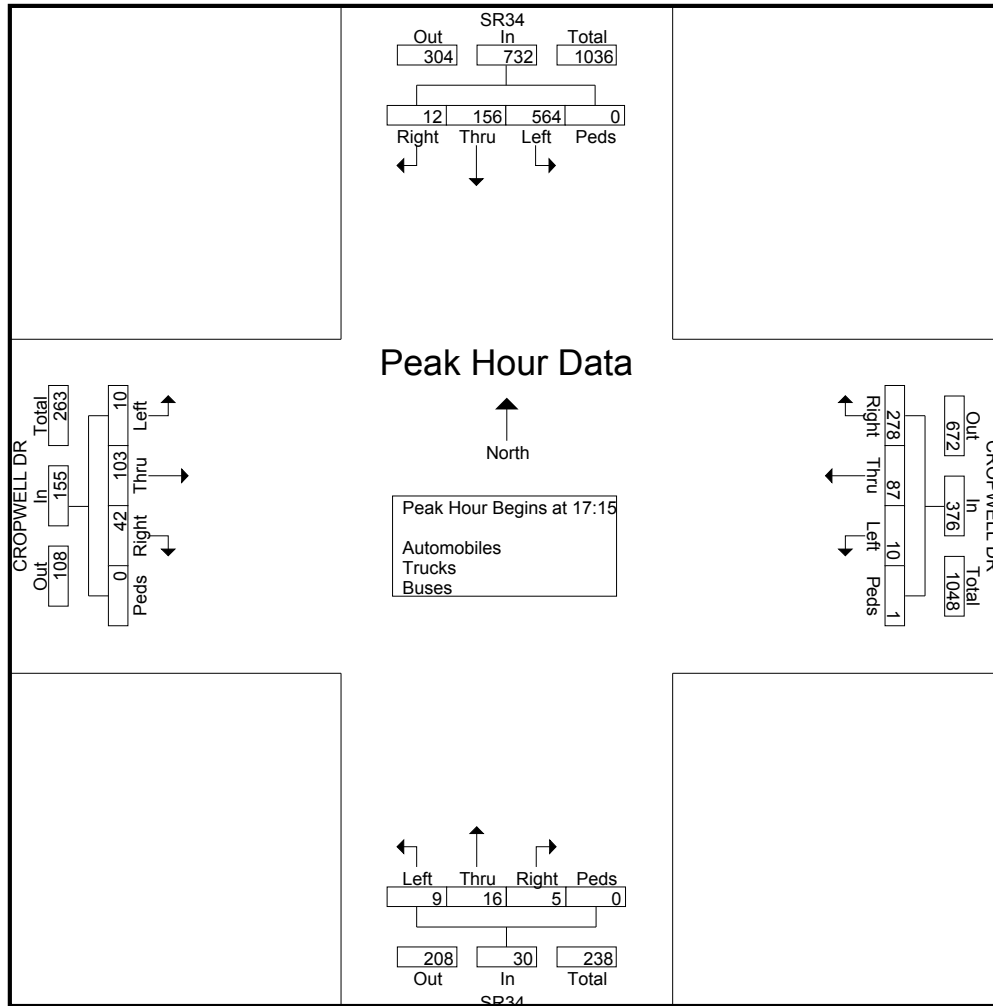
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PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR THURSDAY  
Site Code : 15075-1  
Start Date : 10/8/2015  
Page No : 4

Start Time	SR34 Southbound					CROPWELL DR Westbound					SR34 Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 to 18:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:15																					
17:15	164	18	1	0	183	0	22	65	0	87	0	1	0	0	1	2	20	8	0	30	301
17:30	130	52	4	0	186	2	24	69	0	95	3	2	0	0	5	1	32	9	0	42	328
17:45	139	61	2	0	202	5	18	77	0	100	4	5	0	0	9	1	23	16	0	40	351
18:00	131	25	5	0	161	3	23	67	1	94	2	8	5	0	15	6	28	9	0	43	313
Total Volume	564	156	12	0	732	10	87	278	1	376	9	16	5	0	30	10	103	42	0	155	1293
% App. Total	77	21.3	1.6	0		2.7	23.1	73.9	0.3		30	53.3	16.7	0		6.5	66.5	27.1	0		
PHF	.860	.639	.600	.000	.906	.500	.906	.903	.250	.940	.563	.500	.250	.000	.500	.417	.805	.656	.000	.901	.921







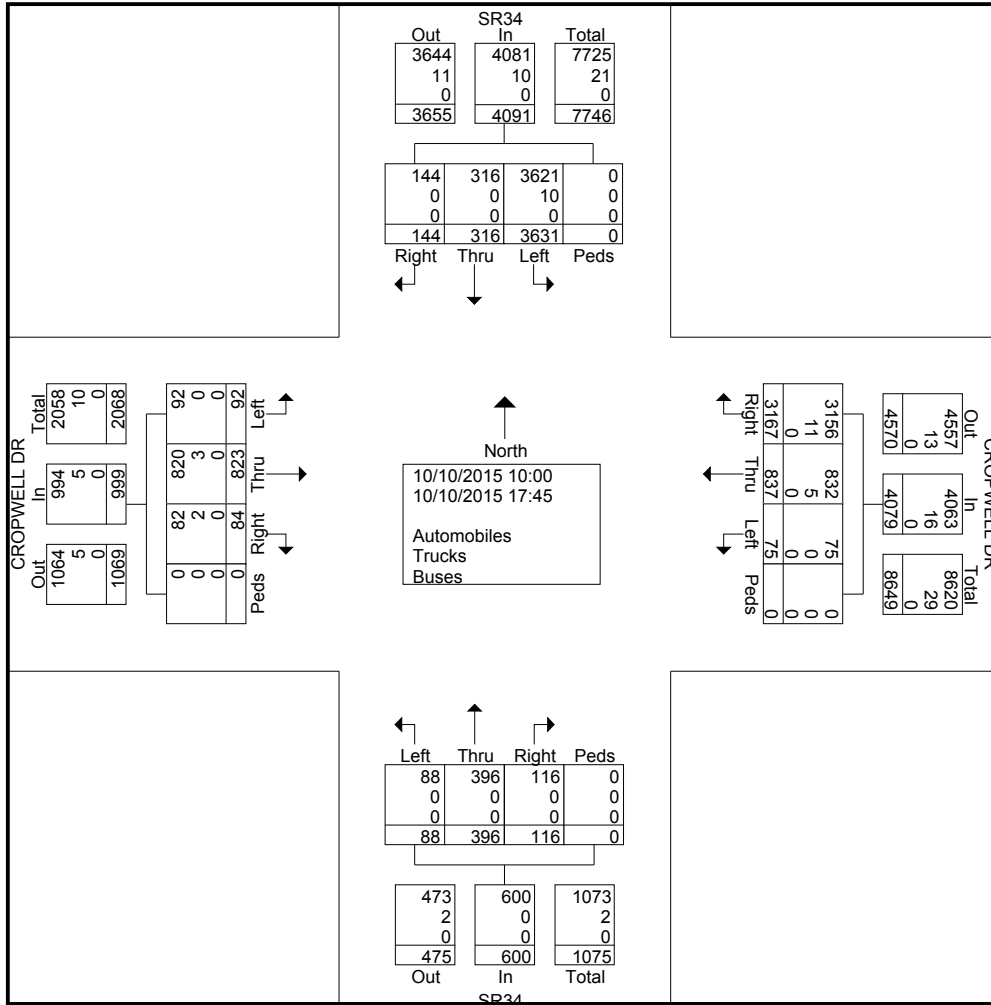
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2911 Westfield Rd  
Gulf Breeze, FL 32563

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SR34 @ CROPWELL DR SAT  
PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR SATURDAY  
Site Code : 15075  
Start Date : 10/10/2015  
Page No : 2



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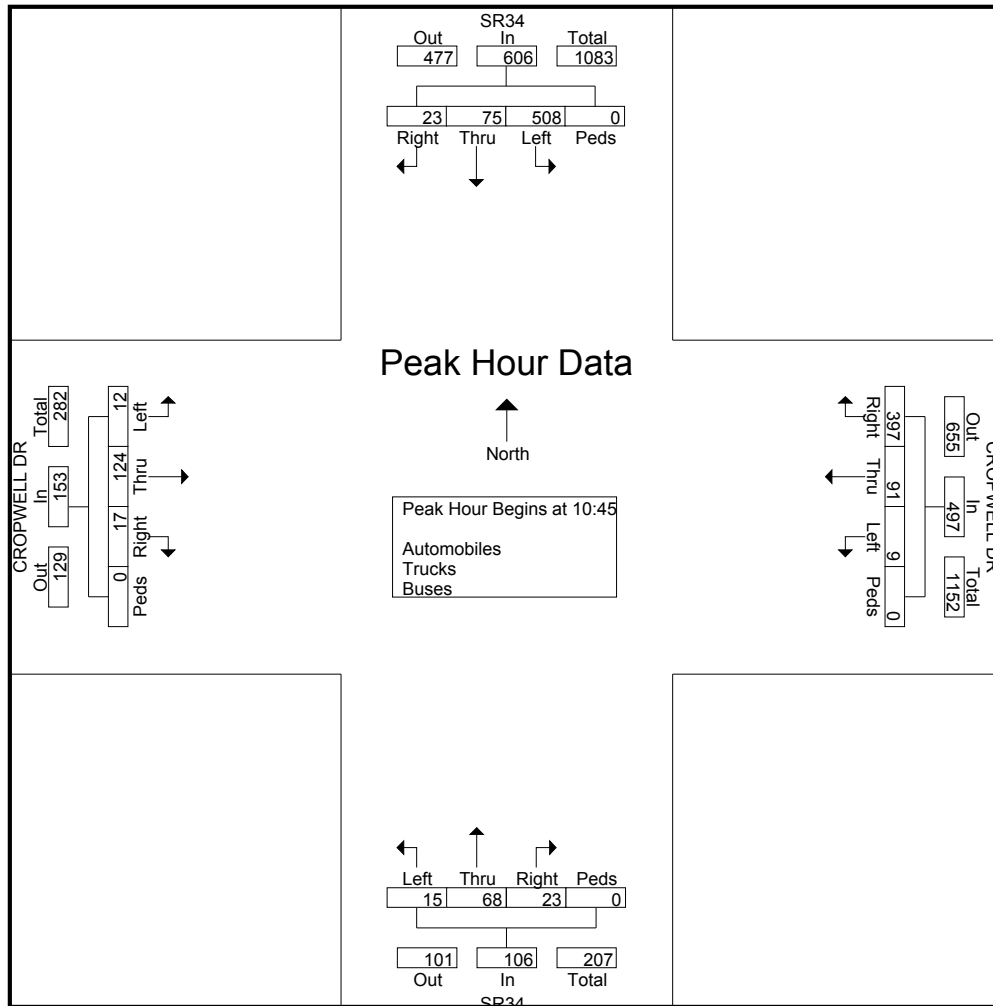
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SR34 @ CROPWELL DR SAT  
PELL CITY, ALABAMA

File Name : SR34 @ CROPWELL DR SATURDAY  
Site Code : 15075  
Start Date : 10/10/2015  
Page No : 3

Start Time	SR34 Southbound					CROPWELL DR Westbound					SR34 Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:45																					
10:45	126	20	8	0	154	0	22	107	0	129	2	2	0	0	4	6	35	5	0	46	333
11:00	120	17	2	0	139	3	29	101	0	133	3	28	8	0	39	1	27	1	0	29	340
11:15	129	24	7	0	160	3	17	93	0	113	7	22	10	0	39	4	22	7	0	33	345
11:30	133	14	6	0	153	3	23	96	0	122	3	16	5	0	24	1	40	4	0	45	344
Total Volume	508	75	23	0	606	9	91	397	0	497	15	68	23	0	106	12	124	17	0	153	1362
% App. Total	83.8	12.4	3.8	0		1.8	18.3	79.9	0		14.2	64.2	21.7	0		7.8	81	11.1	0		
PHF	.955	.781	.719	.000	.947	.750	.784	.928	.000	.934	.536	.607	.575	.000	.679	.500	.775	.607	.000	.832	.987



# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

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HARDWICK RD @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR THURSDAY  
Site Code : 15075-2  
Start Date : 10/8/2015  
Page No : 1

Groups Printed- Automobiles - Trucks - Buses

Start Time	HARDWICK RD Southbound				CROPWELL DR Westbound				HARDWICK RD Northbound				CROPWELL DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:00	7	0	5	0	0	76	15	0	1	0	0	0	2	15	1	0	122
06:15	5	1	1	0	0	76	13	0	0	1	0	0	2	18	2	0	119
06:30	4	0	3	0	0	131	27	0	0	0	1	0	3	19	0	0	188
06:45	8	0	2	0	2	119	24	0	0	0	0	0	7	33	1	0	196
Total	24	1	11	0	2	402	79	0	1	1	1	0	14	85	4	0	625
07:00	4	0	2	0	0	185	20	0	0	0	1	0	4	38	1	0	255
07:15	8	1	14	0	0	209	31	0	0	0	1	0	15	52	0	0	331
07:30	12	0	13	0	0	184	17	0	0	0	0	0	7	104	0	0	337
07:45	7	4	7	0	1	112	12	0	0	0	0	0	7	77	2	0	229
Total	31	5	36	0	1	690	80	0	0	0	2	0	33	271	3	0	1152
08:00	4	1	3	0	3	124	6	0	0	1	0	0	1	65	3	0	211
08:15	6	1	5	0	0	98	11	0	2	0	0	0	6	58	4	0	191
08:30	5	0	3	0	1	102	16	0	1	0	1	0	0	57	2	0	188
08:45	14	1	6	0	0	113	17	0	0	0	1	0	2	51	7	0	212
Total	29	3	17	0	4	437	50	0	2	2	2	0	9	231	16	0	802
09:00	7	0	2	0	1	109	15	0	0	0	1	0	1	55	5	0	196
09:15	9	0	2	0	3	98	15	0	0	0	1	0	4	62	3	0	197
09:30	11	1	2	0	2	85	10	0	0	0	0	0	5	77	3	0	196
09:45	9	0	2	0	1	92	16	0	0	0	1	0	7	82	1	0	211
Total	36	1	8	0	7	384	56	0	0	0	3	0	17	276	12	0	800
10:00	12	4	5	0	0	86	6	0	0	0	1	0	3	75	1	0	193
10:15	7	0	2	0	2	85	16	0	0	0	0	0	3	60	0	0	175
10:30	15	0	3	0	0	61	16	0	0	0	0	0	7	69	1	0	172
10:45	8	0	10	0	2	84	18	0	0	0	0	0	5	75	0	0	202
Total	42	4	20	0	4	316	56	0	0	0	1	0	18	279	2	0	742
***BREAK***																	
14:00	13	3	4	0	0	80	18	0	0	1	1	0	7	93	1	0	221
14:15	14	1	5	0	1	89	20	0	0	1	0	0	8	93	0	0	232
14:30	25	0	6	0	0	98	34	0	0	0	0	0	5	100	1	0	269
14:45	9	1	6	0	2	105	28	0	0	0	0	0	10	110	1	0	272
Total	61	5	21	0	3	372	100	0	0	2	1	0	30	396	3	0	994
15:00	28	0	18	0	0	92	11	0	0	0	1	0	22	141	4	0	317
15:15	18	0	5	0	0	84	21	0	0	0	0	0	7	168	1	0	304
15:30	20	2	6	0	0	113	17	0	0	0	0	0	2	157	1	0	318
15:45	16	1	7	0	0	94	26	0	0	0	0	0	4	136	3	0	287
Total	82	3	36	0	0	383	75	0	0	0	1	0	35	602	9	0	1226
16:00	24	2	6	0	1	92	26	0	1	0	0	0	4	155	1	0	312
16:15	20	1	9	0	0	87	24	0	0	0	0	0	5	157	2	0	305
16:30	20	0	5	0	3	102	13	0	0	1	0	0	10	189	2	0	345
16:45	24	0	4	0	1	84	29	0	0	0	1	0	4	160	3	0	310
Total	88	3	24	0	5	365	92	0	1	1	1	0	23	661	8	0	1272
17:00	18	3	6	0	7	104	17	0	0	2	1	0	1	147	3	0	309
17:15	22	7	5	0	8	82	30	0	0	0	1	0	7	170	7	0	339
17:30	22	12	5	0	8	90	19	0	0	1	1	0	5	152	5	0	320
17:45	14	16	6	0	28	93	20	0	1	0	2	0	5	148	9	0	342
Total	76	38	22	0	51	369	86	0	1	3	5	0	18	617	24	0	1310
18:00	26	11	10	0	8	84	16	0	0	0	3	0	7	153	4	0	322
18:15	23	4	8	0	6	72	18	0	1	3	1	0	6	146	0	0	288

# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

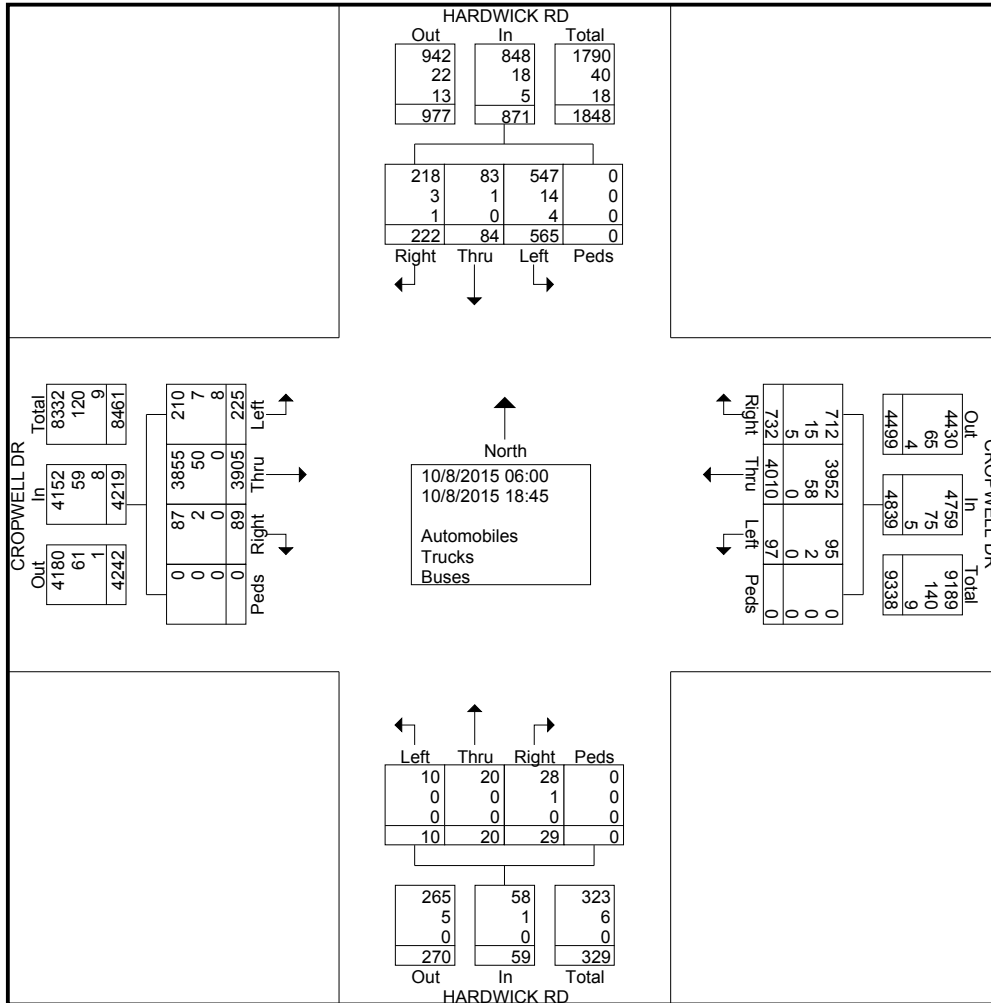
*Traffic is our only business!!!*

HARDWICK RD @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR THURSDAY  
Site Code : 15075-2  
Start Date : 10/8/2015  
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

Start Time	HARDWICK RD Southbound				CROPWELL DR Westbound				HARDWICK RD Northbound				CROPWELL DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
18:30	24	6	5	0	5	82	18	0	2	2	4	0	7	102	2	0	259
18:45	23	0	4	0	1	54	6	0	2	6	4	0	8	86	2	0	196
<b>Total</b>	<b>96</b>	<b>21</b>	<b>27</b>	<b>0</b>	<b>20</b>	<b>292</b>	<b>58</b>	<b>0</b>	<b>5</b>	<b>11</b>	<b>12</b>	<b>0</b>	<b>28</b>	<b>487</b>	<b>8</b>	<b>0</b>	<b>1065</b>
<b>Grand Total</b>	<b>565</b>	<b>84</b>	<b>222</b>	<b>0</b>	<b>97</b>	<b>4010</b>	<b>732</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>29</b>	<b>0</b>	<b>225</b>	<b>3905</b>	<b>89</b>	<b>0</b>	<b>9988</b>
Apprch %	64.9	9.6	25.5	0	2	82.9	15.1	0	16.9	33.9	49.2	0	5.3	92.6	2.1	0	
Total %	5.7	0.8	2.2	0	1	40.1	7.3	0	0.1	0.2	0.3	0	2.3	39.1	0.9	0	
Automobiles	547	83	218	0	95	3952	712	0	10	20	28	0	210	3855	87	0	9817
% Automobiles	96.8	98.8	98.2	0	97.9	98.6	97.3	0	100	100	96.6	0	93.3	98.7	97.8	0	98.3
Trucks	14	1	3	0	2	58	15	0	0	0	1	0	7	50	2	0	153
% Trucks	2.5	1.2	1.4	0	2.1	1.4	2	0	0	0	3.4	0	3.1	1.3	2.2	0	1.5
Buses	4	0	1	0	0	0	5	0	0	0	0	0	8	0	0	0	18
% Buses	0.7	0	0.5	0	0	0	0.7	0	0	0	0	0	3.6	0	0	0	0.2



# Southern Traffic Services, Inc.

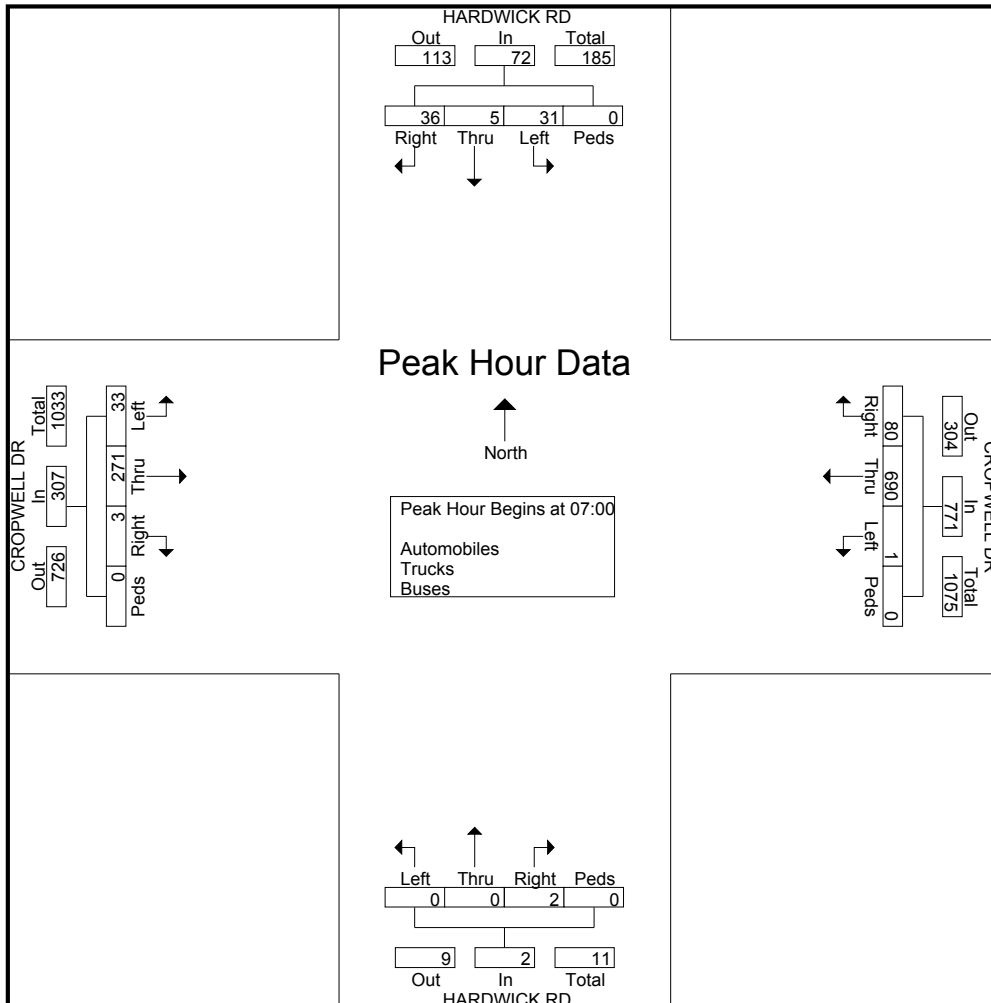
2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

HARDWICK RD @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR THURSDAY  
Site Code : 15075-2  
Start Date : 10/8/2015  
Page No : 3

Start Time	HARDWICK RD Southbound					CROPWELL DR Westbound					HARDWICK RD Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	4	0	2	0	6	0	185	20	0	205	0	0	1	0	1	4	38	1	0	43	255
07:15	8	1	14	0	23	0	209	31	0	240	0	0	1	0	1	15	52	0	0	67	331
07:30	12	0	13	0	25	0	184	17	0	201	0	0	0	0	0	7	104	0	0	111	337
07:45	7	4	7	0	18	1	112	12	0	125	0	0	0	0	0	7	77	2	0	86	229
Total Volume	31	5	36	0	72	1	690	80	0	771	0	0	2	0	2	33	271	3	0	307	1152
% App. Total	43.1	6.9	50	0		0.1	89.5	10.4	0		0	0	100	0		10.7	88.3	1	0		
PHF	.646	.313	.643	.000	.720	.250	.825	.645	.000	.803	.000	.000	.500	.000	.500	.550	.651	.375	.000	.691	.855



# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

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HARDWICK RD @ CROPWELL DR  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR THURSDAY  
Site Code : 15075-2  
Start Date : 10/8/2015  
Page No : 4

Start Time	HARDWICK RD Southbound					CROPWELL DR Westbound					HARDWICK RD Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 to 18:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:15																					
17:15	22	7	5	0	34	8	82	<b>30</b>	0	120	0	0	1	0	1	<b>7</b>	<b>170</b>	7	0	<b>184</b>	339
17:30	22	12	5	0	39	8	90	19	0	117	0	1	1	0	2	5	152	5	0	162	320
17:45	14	<b>16</b>	6	0	36	<b>28</b>	<b>93</b>	20	0	<b>141</b>	1	0	2	0	<b>3</b>	5	148	<b>9</b>	0	162	<b>342</b>
18:00	<b>26</b>	11	<b>10</b>	0	<b>47</b>	8	84	16	0	108	0	0	<b>3</b>	0	3	7	153	4	0	164	322
Total Volume	84	46	26	0	156	52	349	85	0	486	1	1	7	0	9	24	623	25	0	672	1323
% App. Total	53.8	29.5	16.7	0		10.7	71.8	17.5	0		11.1	11.1	77.8	0		3.6	92.7	3.7	0		
PHF	.808	.719	.650	.000	.830	.464	.938	.708	.000	.862	.250	.250	.583	.000	.750	.857	.916	.694	.000	.913	.967



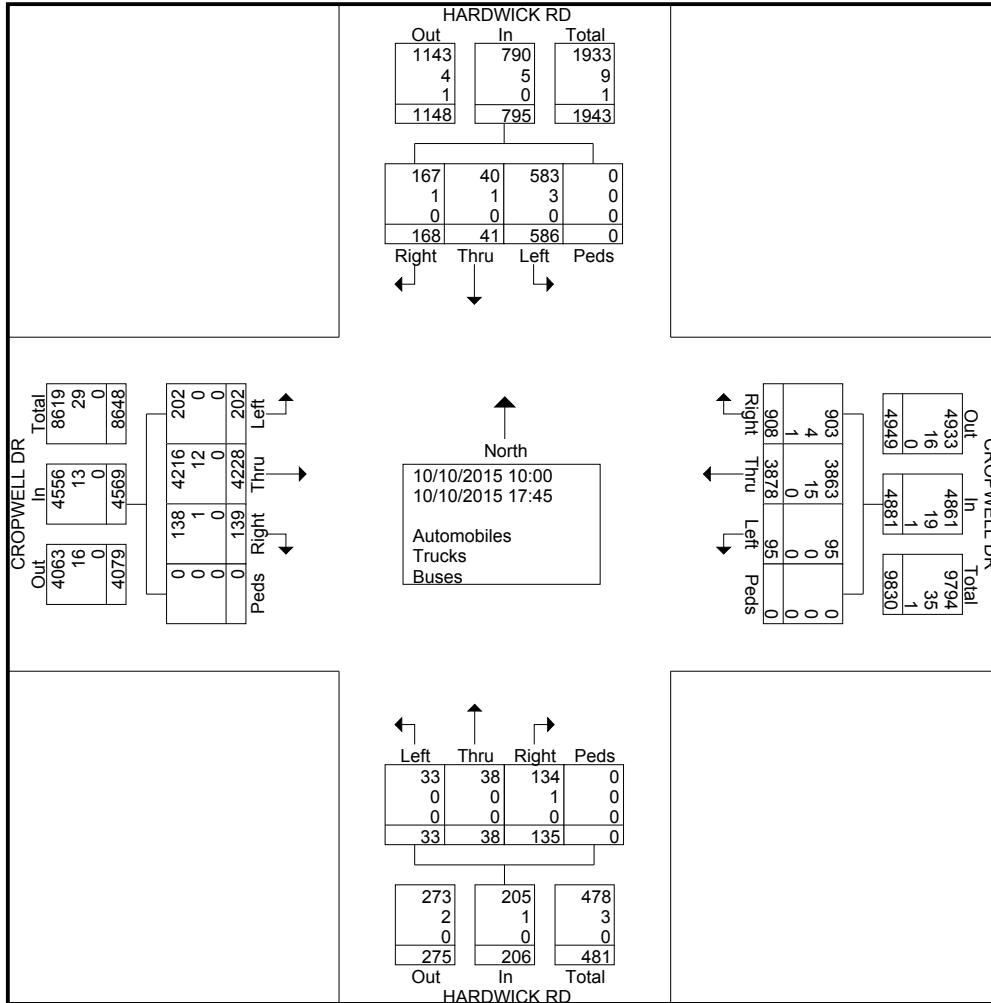
# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

CROPWELL DR @ HARDWICK RD  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR SATURDAY  
Site Code : 15075  
Start Date : 10/10/2015  
Page No : 2





# Southern Traffic Services, Inc.

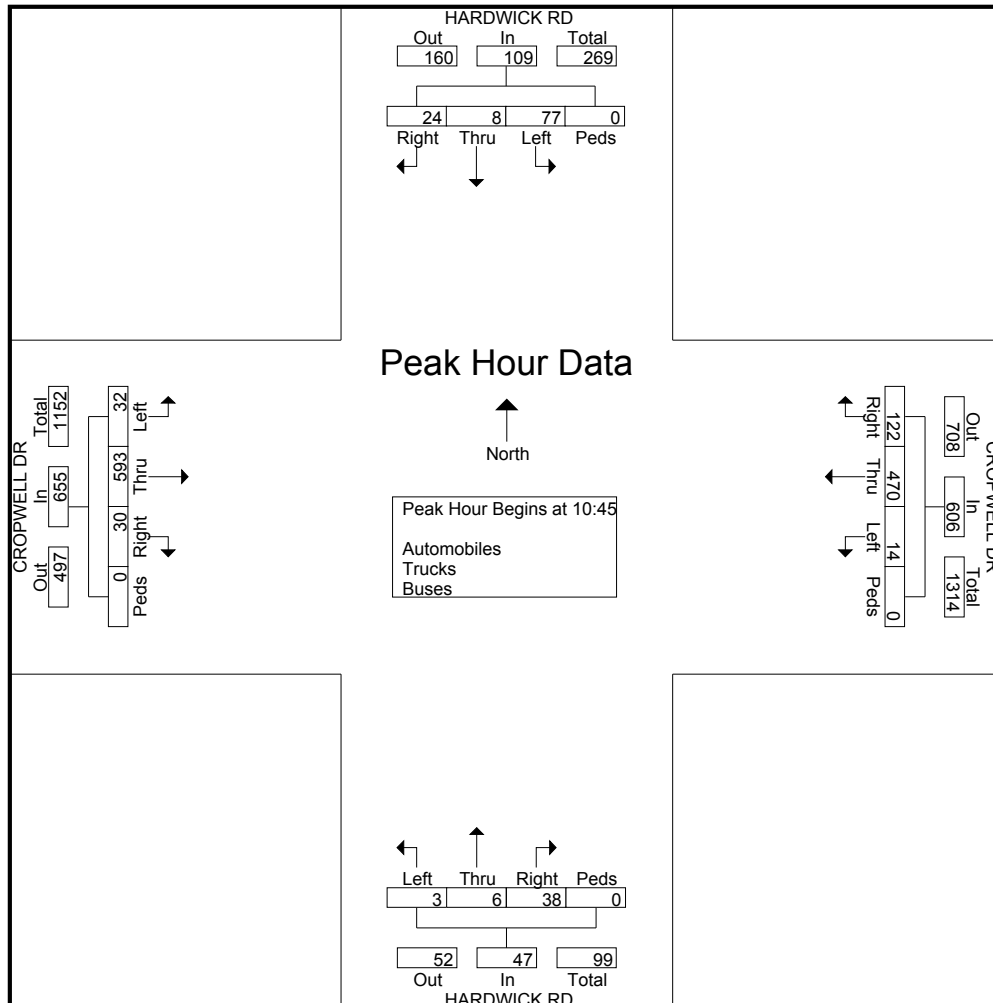
2911 Westfield Rd  
Gulf Breeze, FL 32563

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CROPWELL DR @ HARDWICK RD  
PELL CITY, ALABAMA

File Name : HARDWICK RD @ CROPWELL DR SATURDAY  
Site Code : 15075  
Start Date : 10/10/2015  
Page No : 3

Start Time	HARDWICK RD Southbound					CROPWELL DR Westbound					HARDWICK RD Northbound					CROPWELL DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:45																					
10:45	33	1	5	0	39	6	123	23	0	152	1	1	3	0	5	3	147	11	0	161	357
11:00	16	4	11	0	31	3	122	27	0	152	0	4	21	0	25	10	137	8	0	155	363
11:15	13	2	5	0	20	1	107	31	0	139	1	1	9	0	11	10	145	6	0	161	331
11:30	15	1	3	0	19	4	118	41	0	163	1	0	5	0	6	9	164	5	0	178	366
Total Volume	77	8	24	0	109	14	470	122	0	606	3	6	38	0	47	32	593	30	0	655	1417
% App. Total	70.6	7.3	22	0		2.3	77.6	20.1	0		6.4	12.8	80.9	0		4.9	90.5	4.6	0		
PHF	.583	.500	.545	.000	.699	.583	.955	.744	.000	.929	.750	.375	.452	.000	.470	.800	.904	.682	.000	.920	.968



# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

CIVIC CENTER DR @ CROPWELL DR File Name : CIVIC CENTER DRIVE @ CROPWELL DR THURSDAY  
 PELL CITY, ALABAMA Site Code : 15075-3  
 Start Date : 10/8/2015  
 Page No : 1

Groups Printed- Automobiles - Trucks - Buses

Start Time	CIVIC CENTER DRIVE Westbound			SR34 Northbound			CIVIC CENTER DRIVE Eastbound			Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	
06:00	0	91	0	1	0	0	21	2	0	115
06:15	0	98	0	0	0	0	21	1	0	120
06:30	1	163	0	0	0	0	22	0	0	186
06:45	0	140	0	0	0	0	45	0	0	185
<b>Total</b>	<b>1</b>	<b>492</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>3</b>	<b>0</b>	<b>606</b>
07:00	0	207	0	0	0	0	41	0	0	248
07:15	0	210	0	0	0	0	60	0	0	270
07:30	0	176	0	0	0	0	109	0	0	285
07:45	0	127	0	0	0	0	79	0	0	206
<b>Total</b>	<b>0</b>	<b>720</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>289</b>	<b>0</b>	<b>0</b>	<b>1009</b>
08:00	0	133	0	0	1	0	67	0	0	201
08:15	0	107	0	0	0	0	59	1	0	167
08:30	6	115	0	3	4	0	56	4	0	188
08:45	6	136	0	1	1	0	63	7	0	214
<b>Total</b>	<b>12</b>	<b>491</b>	<b>0</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>245</b>	<b>12</b>	<b>0</b>	<b>770</b>
09:00	3	116	0	6	0	0	57	4	0	186
09:15	3	114	0	6	0	0	71	12	0	206
09:30	7	95	0	1	0	0	79	15	0	197
09:45	9	106	0	2	2	0	81	9	0	209
<b>Total</b>	<b>22</b>	<b>431</b>	<b>0</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>288</b>	<b>40</b>	<b>0</b>	<b>798</b>
10:00	3	85	0	6	3	0	83	4	0	184
10:15	2	103	0	1	4	0	65	0	0	175
10:30	4	78	0	4	4	0	85	1	0	176
10:45	2	103	0	4	2	0	80	2	0	193
<b>Total</b>	<b>11</b>	<b>369</b>	<b>0</b>	<b>15</b>	<b>13</b>	<b>0</b>	<b>313</b>	<b>7</b>	<b>0</b>	<b>728</b>
***BREAK***										
14:00	1	91	0	9	1	0	107	4	0	213
14:15	3	102	0	13	4	0	104	5	0	231
14:30	0	126	0	9	3	0	125	5	0	268
14:45	0	116	0	11	2	0	118	4	0	251
<b>Total</b>	<b>4</b>	<b>435</b>	<b>0</b>	<b>42</b>	<b>10</b>	<b>0</b>	<b>454</b>	<b>18</b>	<b>0</b>	<b>963</b>
15:00	0	104	0	6	2	0	180	4	0	296
15:15	1	108	0	6	6	0	189	3	0	313
15:30	4	114	0	22	3	0	175	2	0	320
15:45	1	108	0	9	3	0	155	6	0	282
<b>Total</b>	<b>6</b>	<b>434</b>	<b>0</b>	<b>43</b>	<b>14</b>	<b>0</b>	<b>699</b>	<b>15</b>	<b>0</b>	<b>1211</b>
16:00	4	103	0	11	4	0	174	6	0	302
16:15	3	112	0	4	1	0	172	2	0	294
16:30	3	117	0	2	2	0	210	8	0	342
16:45	0	109	0	10	1	0	180	4	0	304
<b>Total</b>	<b>10</b>	<b>441</b>	<b>0</b>	<b>27</b>	<b>8</b>	<b>0</b>	<b>736</b>	<b>20</b>	<b>0</b>	<b>1242</b>
17:00	3	124	0	7	1	0	160	6	0	301
17:15	5	115	0	7	2	0	196	6	0	331
17:30	5	110	0	3	1	0	172	11	0	302
17:45	10	142	0	5	4	0	138	16	0	315
<b>Total</b>	<b>23</b>	<b>491</b>	<b>0</b>	<b>22</b>	<b>8</b>	<b>0</b>	<b>666</b>	<b>39</b>	<b>0</b>	<b>1249</b>
18:00	3	91	0	14	6	0	181	2	0	297

# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

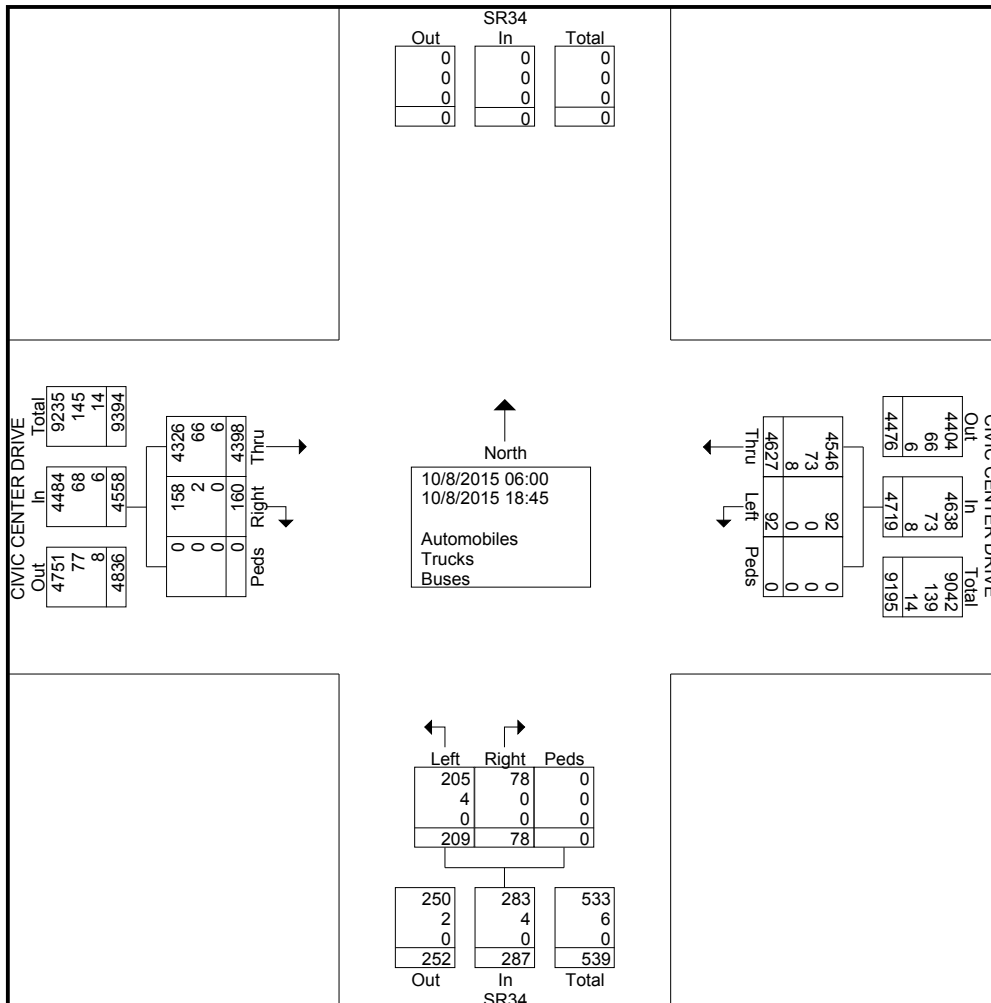
*Traffic is our only business!!!*

CIVIC CENTER DR @ CROPWELL DR File Name : CIVIC CENTER DRIVE @ CROPWELL DR THURSDAY  
PELL CITY, ALABAMA

Site Code : 15075-3  
Start Date : 10/8/2015  
Page No : 2

Groups Printed- Automobiles - Trucks - Buses

Start Time	CIVIC CENTER DRIVE Westbound			SR34 Northbound			CIVIC CENTER DRIVE Eastbound			Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	
18:15	0	81	0	9	4	0	168	1	0	263
18:30	0	95	0	12	5	0	129	2	0	243
18:45	0	56	0	5	2	0	121	1	0	185
<b>Total</b>	<b>3</b>	<b>323</b>	<b>0</b>	<b>40</b>	<b>17</b>	<b>0</b>	<b>599</b>	<b>6</b>	<b>0</b>	<b>988</b>
<b>Grand Total</b>	<b>92</b>	<b>4627</b>	<b>0</b>	<b>209</b>	<b>78</b>	<b>0</b>	<b>4398</b>	<b>160</b>	<b>0</b>	<b>9564</b>
Apprch %	1.9	98.1	0	72.8	27.2	0	96.5	3.5	0	
Total %	1	48.4	0	2.2	0.8	0	46	1.7	0	
Automobiles	92	4546	0	205	78	0	4326	158	0	9405
% Automobiles	100	98.2	0	98.1	100	0	98.4	98.8	0	98.3
Trucks	0	73	0	4	0	0	66	2	0	145
% Trucks	0	1.6	0	1.9	0	0	1.5	1.2	0	1.5
Buses	0	8	0	0	0	0	6	0	0	14
% Buses	0	0.2	0	0	0	0	0.1	0	0	0.1



# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

CIVIC CENTER DR @ CROPWELL DR File Name : CIVIC CENTER DRIVE @ CROPWELL DR THURSDAY  
PELL CITY, ALABAMA Site Code : 15075-3

Start Date : 10/8/2015

Page No : 3

Start Time	CIVIC CENTER DRIVE Westbound				SR34 Northbound				CIVIC CENTER DRIVE Eastbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00													
07:00	0	207	0	207	0	0	0	0	41	0	0	41	248
07:15	0	<b>210</b>	0	<b>210</b>	0	0	0	0	60	0	0	60	270
07:30	0	176	0	176	0	0	0	0	<b>109</b>	0	0	<b>109</b>	<b>285</b>
07:45	0	127	0	127	0	0	0	0	79	0	0	79	206
Total Volume	0	720	0	720	0	0	0	0	289	0	0	289	1009
% App. Total	0	100	0		0	0	0		100	0	0		
PHF	.000	.857	.000	.857	.000	.000	.000	.000	.663	.000	.000	.663	.885

# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

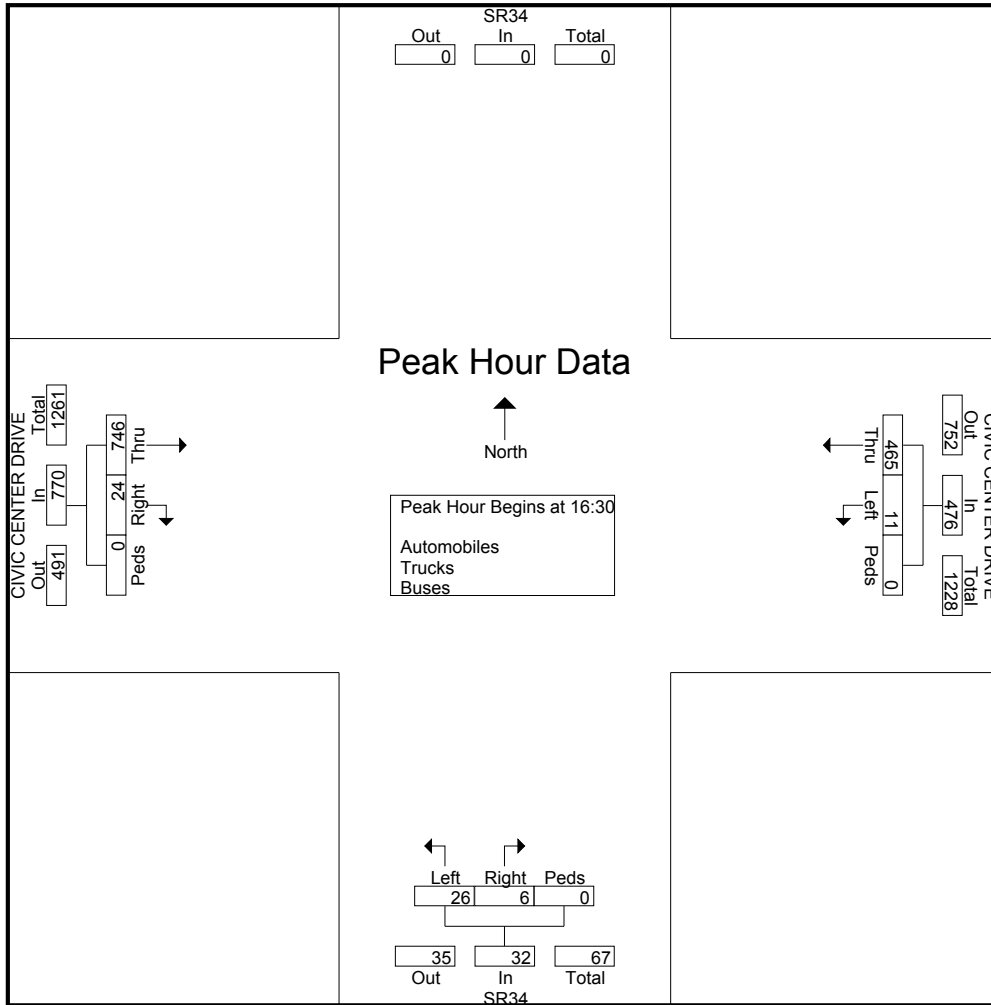
*Traffic is our only business!!!*

CIVIC CENTER DR @ CROPWELL DR File Name : CIVIC CENTER DRIVE @ CROPWELL DR THURSDAY  
PELL CITY, ALABAMA Site Code : 15075-3

Start Date : 10/8/2015

Page No : 4

Start Time	CIVIC CENTER DRIVE Westbound				SR34 Northbound				CIVIC CENTER DRIVE Eastbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 to 18:45 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 16:30													
16:30	3	117	0	120	2	2	0	4	210	8	0	218	342
16:45	0	109	0	109	10	1	0	11	180	4	0	184	304
17:00	3	124	0	127	7	1	0	8	160	6	0	166	301
17:15	5	115	0	120	7	2	0	9	196	6	0	202	331
Total Volume	11	465	0	476	26	6	0	32	746	24	0	770	1278
% App. Total	2.3	97.7	0		81.2	18.8	0		96.9	3.1	0		
PHF	.550	.938	.000	.937	.650	.750	.000	.727	.888	.750	.000	.883	.934





# Southern Traffic Services, Inc.

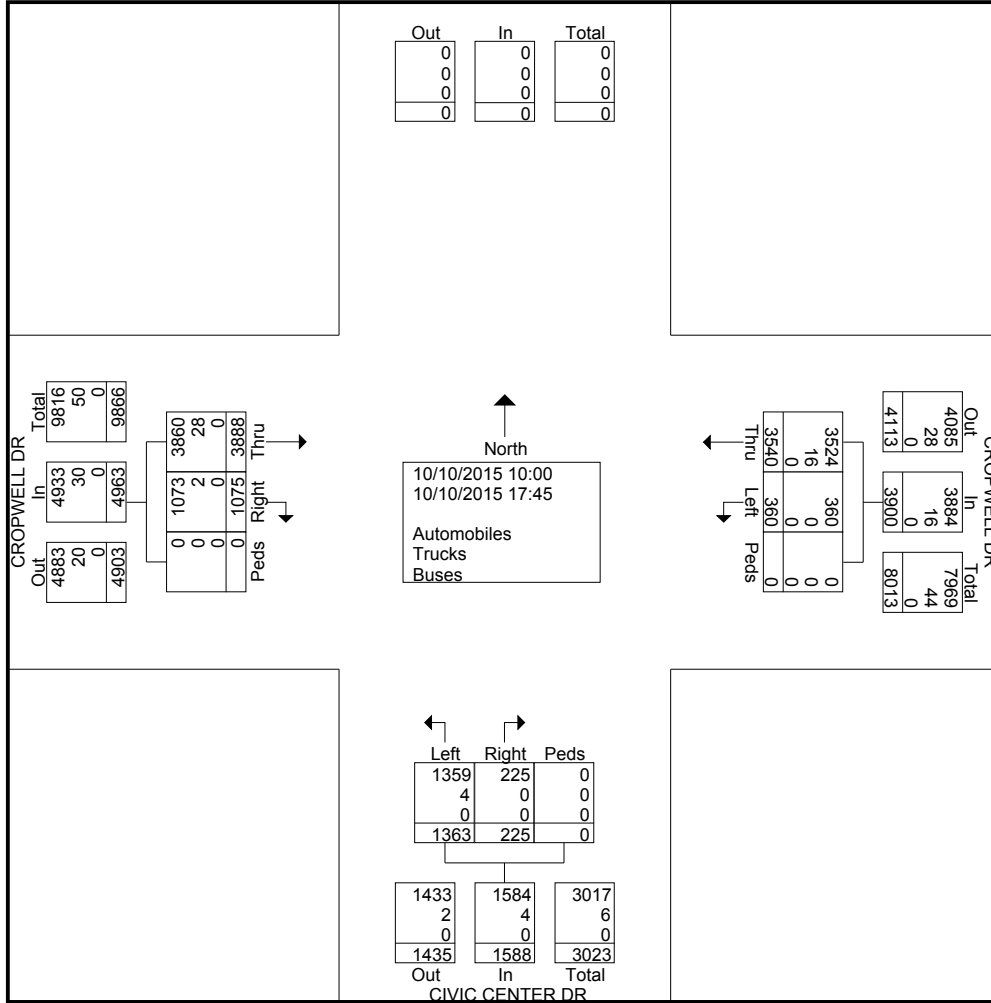
2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

CIVIC CENTER DRIVE @ CROPWELL DR Name : CIVIC CENTER DRIVE @ CROPWELL DR SATURDAY  
PELL CITY, ALABAMA Site Code : 15075-3

Start Date : 10/10/2015

Page No : 2



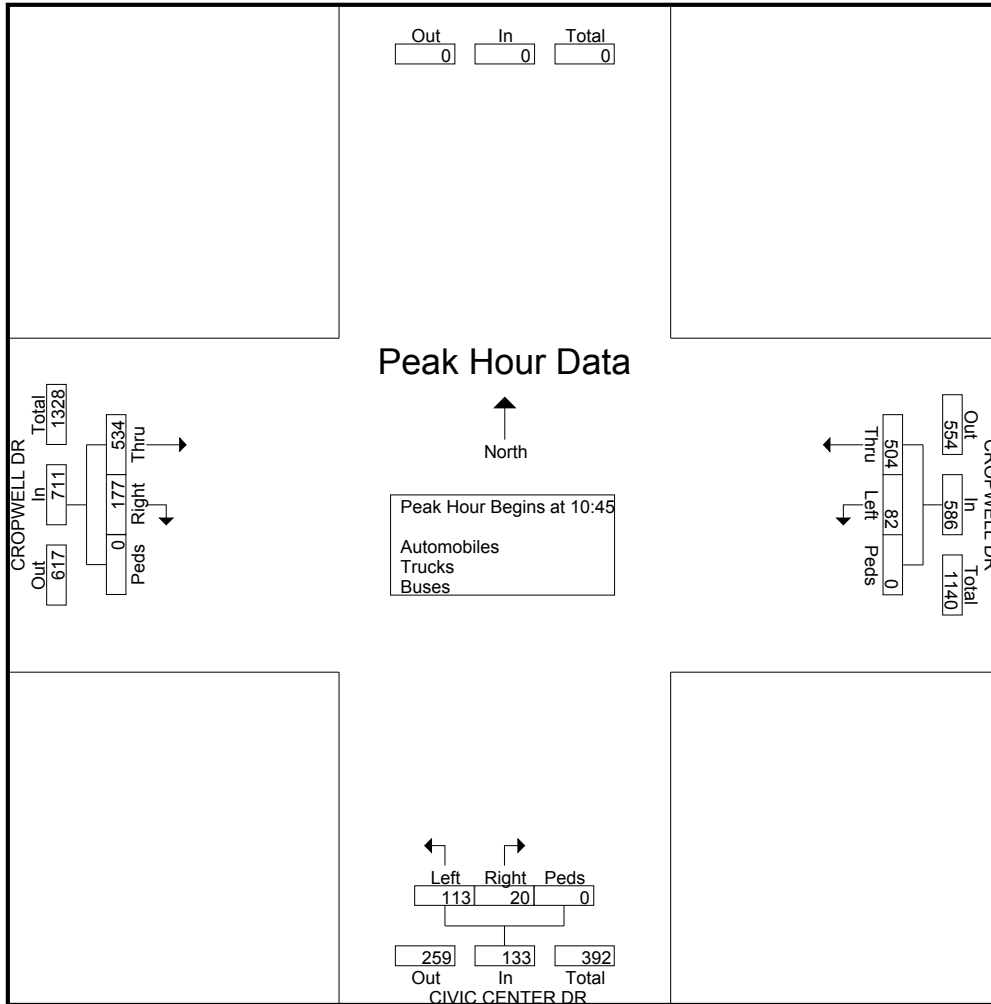
# Southern Traffic Services, Inc.

2911 Westfield Rd  
Gulf Breeze, FL 32563

*Traffic is our only business!!!*

CIVIC CENTER DRIVE @ CROPWELL DR Name : CIVIC CENTER DRIVE @ CROPWELL DR SATURDAY  
 PELL CITY, ALABAMA Site Code : 15075-3  
 Start Date : 10/10/2015  
 Page No : 3

Start Time	CROPWELL DR Westbound				CIVIC CENTER DR Northbound				CROPWELL DR Eastbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 to 17:00 - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 10:45													
10:45	27	138	0	165	23	11	0	34	136	48	0	184	383
11:00	20	110	0	130	33	4	0	37	133	41	0	174	341
11:15	16	112	0	128	36	4	0	40	120	47	0	167	335
11:30	19	144	0	163	21	1	0	22	145	41	0	186	371
Total Volume	82	504	0	586	113	20	0	133	534	177	0	711	1430
% App. Total	14	86	0		85	15	0		75.1	24.9	0		
PHF	.759	.875	.000	.888	.785	.455	.000	.831	.921	.922	.000	.956	.933





## Southern Traffic Services, Inc. Vehicle Counts

COUNTY RD SO CROPWELL DR NB

**Datasets:**

**Site:** [c6517] !MA.c 6517  
**Direction:** 1 - North bound, A hit first., Lane: 0  
**Survey Duration:** 18:58 Wednesday, October 07, 2015 => 9:10 Monday, October 12, 2015  
**File:** G:\DATA\2015\Private\15075\UMc6517a12.EC0 (Plus)  
**Identifier:** T504AQ4A MC56-L5 [MC55] (c)Microcom 19Oct04  
**Algorithm:** Factory default  
**Data type:** Axle sensors - Paired (Class, Speed, Count)

**Profile:**

**Filter time:** 0:00 Thursday, October 08, 2015 => 0:00 Friday, October 09, 2015  
**Included classes:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13  
**Speed range:** 0 - 100 mph.  
**Direction:** North (bound)  
**Separation:** All - (Headway)  
**Name:** Southern Traffic Services, Inc.  
**Scheme:** Vehicle classification (Scheme F2)  
**Units:** Non metric (ft, mi, ft/s, mph, lb, ton)  
**In profile:** Vehicles = 247

**Thursday, October 08, 2015 - Total=247, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	5	1	0	0	0	0	0	13	11	12	23	9	21	34	35	16	18	22	25	0	0	0	0	0
0	0	0	0	0	0	0	0	2	2	2	6	3	4	7	9	3	6	2	10	0	0	0	0	0
0	0	0	0	0	0	0	0	3	3	5	7	2	4	7	14	4	1	4	6	0	0	0	0	0
0	5	0	0	0	0	0	0	4	4	2	6	2	5	10	6	6	5	6	7	0	0	0	0	0
2	0	1	0	0	0	0	0	4	2	3	4	2	8	10	6	3	6	10	2	0	0	0	0	0

AM Peak 1100 - 1200 (23), AM PHF=0.82 PM Peak 1430 - 1530 (43), PM PHF=0.77

## Southern Traffic Services, Inc. Vehicle Counts

**COUNTY RD SO CROPWELL DR** **SB**

**Datasets:**

**Site:** [c6517] !MA.c 6517  
**Direction:** 1 - North bound, A hit first., Lane: 0  
**Survey Duration:** 18:58 Wednesday, October 07, 2015 => 9:10 Monday, October 12, 2015  
**File:** G:\DATA\2015\Private\15075\UMc6517a12.EC0 (Plus)  
**Identifier:** T504AQ4A MC56-L5 [MC55] (c)Microcom 19Oct04  
**Algorithm:** Factory default  
**Data type:** Axle sensors - Paired (Class, Speed, Count)

**Profile:**

**Filter time:** 0:00 Thursday, October 08, 2015 => 0:00 Friday, October 09, 2015  
**Included classes:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13  
**Speed range:** 0 - 100 mph.  
**Direction:** South (bound)  
**Separation:** All - (Headway)  
**Name:** Southern Traffic Services, Inc.  
**Scheme:** Vehicle classification (Scheme F2)  
**Units:** Non metric (ft, mi, ft/s, mph, lb, ton)  
**In profile:** Vehicles = 258

**Thursday, October 08, 2015 - Total=258, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	0	0	0	0	0	6	21	13	28	9	18	29	37	24	17	20	28	8	0	0	0	0	0
0	0	0	0	0	0	0	0	7	1	1	1	4	7	9	3	3	8	6	4	0	0	0	0	0
0	0	0	0	0	0	0	0	6	3	5	3	3	6	10	11	4	3	7	1	0	0	0	0	0
0	0	0	0	0	0	0	3	1	5	16	4	3	5	14	6	8	6	6	1	0	0	0	0	0
0	0	0	0	0	0	0	3	7	4	6	1	8	11	4	4	2	3	9	2	0	0	0	0	0

AM Peak 1000 - 1100 (28), AM PHF=0.44 PM Peak 1345 - 1445 (44), PM PHF=0.79

# Southern Traffic Services, Inc. Event Counts

STEMLEY BRIDGE RD SO MAY BEND RD NB

**Datasets:**

**Site:** [4488] 4488  
**Input A:** 1 - North bound, A hit first. - Added to totals. (1)  
**Input B:** 0 - Unused or unknown. - Subtracted from totals. (-1)  
**Survey Duration:** 18:29 Wednesday, October 07, 2015 => 9:07 Monday, October 12, 2015  
**File:** G:\DATA\2015\Private\15075\448812OCT2015.EC0 (Base)  
**Identifier:** P703EGYK MC56-L4 [MC55] (c)Microcom 19Sep03  
**Algorithm:** Event Count  
**Data type:** Axle sensors - Paired (Class, Speed, Count)

**Profile:**

**Filter time:** 0:00 Thursday, October 08, 2015 => 0:00 Friday, October 09, 2015  
**Name:** Southern Traffic Services, Inc.  
**Scheme:** Count events divided by two.  
**Units:** Non metric (ft, mi, ft/s, mph, lb, ton)  
**In profile:** Events = 4938

**Thursday, October 08, 2015=4938, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
10	14	10	12	38	78	209	352	490	363	346	249	279	270	318	311	320	330	353	235	146	95	64	46	-
2	5	3	1	3	11	36	63	133	89	92	57	86	61	66	67	79	79	76	62	53	29	13	8	-
5	4	1	4	8	18	42	76	145	86	95	72	65	81	88	68	82	91	83	64	39	24	21	15	-
0	1	3	4	13	22	71	115	112	91	77	42	73	53	86	88	81	78	102	66	19	25	16	15	-
3	4	3	3	14	27	60	98	100	97	82	78	55	75	78	88	78	82	92	43	35	17	14	8	-

AM Peak 0730 - 0830 (491), AM PHF=0.85

## Southern Traffic Services, Inc. Event Counts

**STEMLEY BRIDGE RD SO MAY BEND RD                      SB**

**Datasets:**

**Site:** [4488] 4488  
**Input A:** 1 - North bound, A hit first. - Excluded from totals. (0)  
**Input B:** 0 - Unused or unknown. - Added to totals. (1)  
**Survey Duration:** 18:29 Wednesday, October 07, 2015 => 9:07 Monday, October 12, 2015  
**File:** G:\DATA\2015\Private\15075\448812OCT2015.EC0 (Base)  
**Identifier:** P703EGYK MC56-L4 [MC55] (c)Microcom 19Sep03  
**Algorithm:** Event Count  
**Data type:** Axle sensors - Paired (Class, Speed, Count)

**Profile:**

**Filter time:** 0:00 Thursday, October 08, 2015 => 0:00 Friday, October 09, 2015  
**Name:** Southern Traffic Services, Inc.  
**Scheme:** Count events divided by two.  
**Units:** Non metric (ft, mi, ft/s, mph, lb, ton)  
**In profile:** Events = 5087

**Thursday, October 08, 2015=5087, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
55	20	26	11	19	16	32	85	203	184	227	264	237	316	304	347	530	547	456	437	312	210	166	83	
12	6	6	4	5	6	3	17	30	48	50	62	48	88	71	79	129	127	112	137	85	72	57	27	-
13	7	7	4	6	4	8	20	37	47	57	66	67	86	62	84	143	127	136	127	84	48	45	25	-
8	3	6	1	7	5	11	18	71	43	53	66	66	69	97	101	143	147	113	87	75	41	40	17	-
22	4	7	2	1	1	10	30	65	46	67	70	56	73	74	83	115	146	95	86	68	49	24	14	-

AM Peak 1100 - 1200 (264), AM PHF=0.94

**Appendix B**

Traffic Count Summary Sheets

## Cropwell Dr/SR 34

Seasonal Adjustment Factor      1  
 Annual Growth Factor            0%  
 Base Year                            2015  
 Horizon Year                        2015

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour Thursday</b>													
2015 Existing Traffic	1	5	0	198	4	6	12	110	1	1	144	580	1062
2015 Future Traffic	1	5	0	198	4	6	12	110	1	1	144	580	1062
<b>AM Peak Hour Saturday</b>													
2015 Existing Traffic	15	68	23	508	75	23	12	124	17	9	91	397	1362
2015 Future Traffic	15	68	23	508	75	23	12	124	17	9	91	397	1362
<b>PM Peak Hour Thursday</b>													
2015 Existing Traffic	9	16	5	564	156	12	10	103	42	10	87	278	1292
2015 Non-Site Traffic	9	16	5	564	156	12	10	103	42	10	87	278	1292
<b>PM Peak Hour Saturday</b>													
2015 Existing Traffic	9	77	16	489	64	8	18	102	11	13	80	461	1348
2015 Non-Site Traffic	9	77	16	489	64	8	18	102	11	13	80	461	1348

## Cropwell Dr/Hardwick Rd

Seasonal Adjustment Factor 1  
 Annual Growth Factor 0%  
 Base Year 2015  
 Horizon Year 2015

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour Thursday</b>													
2015 Existing Traffic	0	0	2	31	5	36	33	271	3	1	690	80	1152
2015 Future Traffic	0	0	2	31	5	36	33	271	3	1	690	80	1152
<b>AM Peak Hour Saturday</b>													
2015 Existing Traffic	3	6	38	77	8	24	32	593	30	14	470	122	1417
2015 Future Traffic	3	6	38	77	8	24	32	593	30	14	470	122	1417
<b>PM Peak Hour Thursday</b>													
2015 Existing Traffic	1	1	7	84	46	26	24	623	25	52	349	85	1323
2015 Non-Site Traffic	1	1	7	84	46	26	24	623	25	52	349	85	1323
<b>PM Peak Hour Saturday</b>													
2015 Existing Traffic	6	6	19	79	3	26	24	598	19	15	485	131	1411
2015 Non-Site Traffic	6	6	19	79	3	26	24	598	19	15	485	131	1411

### Cropwell Dr/Civic Center

Seasonal Adjustment Factor      1  
 Annual Growth Factor            0%  
 Base Year                            2015  
 Horizon Year                        2015

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour Thursday</b>													
2015 Existing Traffic	0	0	0	0	0	0	0	289	0	0	720	0	1009
2015 Future Traffic	0	0	0	0	0	0	0	289	0	0	720	0	1009
<b>AM Peak Hour Saturday</b>													
2015 Existing Traffic	113	0	20	0	0	0	0	534	117	82	504	0	1370
2015 Future Traffic	113	0	20	0	0	0	0	534	117	82	504	0	1370
<b>PM Peak Hour Thursday</b>													
2015 Existing Traffic	26	0	6	0	0	0	0	746	24	11	465	0	1278
2015 Non-Site Traffic	26	0	6	0	0	0	0	746	24	11	465	0	1278
<b>PM Peak Hour Saturday</b>													
2015 Existing Traffic	218	0	21	0	0	0	0	514	167	46	452	0	1418
2015 Non-Site Traffic	218	0	21	0	0	0	0	514	167	46	452	0	1418



**Appendix C**

Existing Traffic Counts

(City of Pell City)

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000002  
Station ID:

Latitude: 0' 0.0000 South

Start Time	02-Jul-15 Thu	Direction 1	Direction 2							Total
12:00 AM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		17	14							31
11:00		18	14							32
12:00 PM		14	5							19
01:00		22	8							30
02:00		22	9							31
03:00		21	7							28
04:00		18	8							26
05:00		28	4							32
06:00		30	11							41
07:00		6	15							21
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		196	95							291
Percent		67.4%	32.6%							
AM Peak	-	11:00	10:00	-	-	-	-	-	-	11:00
Vol.	-	18	14	-	-	-	-	-	-	32
PM Peak	-	18:00	19:00	-	-	-	-	-	-	18:00
Vol.	-	30	15	-	-	-	-	-	-	41

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000002  
Station ID:

Latitude: 0' 0.0000 South

Start Time	03-Jul-15 Fri	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		2	1							3
07:00		27	3							30
08:00		13	3							16
09:00		9	3							12
10:00		11	3							14
11:00		23	6							29
12:00 PM		25	13							38
01:00		26	11							37
02:00		14	3							17
03:00		16	11							27
04:00		24	5							29
05:00		12	4							16
06:00		22	10							32
07:00		6	8							14
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		230	84							314
Percent		73.2%	26.8%							
AM Peak	-	07:00	11:00	-	-	-	-	-	-	07:00
Vol.	-	27	6	-	-	-	-	-	-	30
PM Peak	-	13:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	26	13	-	-	-	-	-	-	38

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000002  
Station ID:

Latitude: 0' 0.0000 South

Start Time	04-Jul-15 Sat	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	9	9						
05:00		0	0	0						
06:00		3	1	4						
07:00		31	1	32						
08:00		8	2	10						
09:00		17	2	19						
10:00		27	4	31						
11:00		22	9	31						
12:00 PM		48	13	61						
01:00		51	11	62						
02:00		67	9	76						
03:00		57	7	64						
04:00		55	19	74						
05:00		52	19	71						
06:00		79	10	89						
07:00		139	5	144						
08:00		311	9	320						
09:00		30	140	170						
10:00		5	159	164						
11:00		3	1	4						
Total		1005	430	1435						
Percent		70.0%	30.0%							
AM Peak	-	07:00	04:00	-	-	-	-	-	-	07:00
Vol.	-	31	9	-	-	-	-	-	-	32
PM Peak	-	20:00	22:00	-	-	-	-	-	-	20:00
Vol.	-	311	159	-	-	-	-	-	-	320

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000002  
Station ID:

Latitude: 0' 0.0000 South

Start Time	05-Jul-15 Sun	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		2	0							2
07:00		12	0							12
08:00		<b>67</b>	4							<b>71</b>
09:00		14	<b>25</b>							39
10:00		21	2							23
11:00		21	2							23
12:00 PM		38	10							48
01:00		33	11							44
02:00		57	12							69
03:00		<b>71</b>	14							<b>85</b>
04:00		55	22							77
05:00		33	13							46
06:00		28	<b>34</b>							62
07:00		8	12							20
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		460	161							621
Percent		74.1%	25.9%							
AM Peak	-	08:00	09:00	-	-	-	-	-	-	08:00
Vol.	-	67	25	-	-	-	-	-	-	71
PM Peak	-	15:00	18:00	-	-	-	-	-	-	15:00
Vol.	-	71	34	-	-	-	-	-	-	85



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000003  
Station ID:

Latitude: 0' 0.0000 South

Start Time	24-Jul-15 Fri	Direction 1	Direction 2	Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		18	20	38
02:00		18	15	33
03:00		13	16	29
04:00		17	22	39
05:00		29	11	40
06:00		23	30	53
07:00		13	31	44
08:00		9	25	34
09:00		5	1	6
10:00		0	3	3
11:00		1	2	3
Total		146	176	322
Percent		45.3%	54.7%	
AM Peak	-	-	-	-
Vol.	-	-	-	-
PM Peak	-	17:00	19:00	18:00
Vol.	-	29	31	53





# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000003  
Station ID:

Latitude: 0' 0.0000 South

Start Time	26-Jul-15 Sun	Direction 1	Direction 2							Total
12:00 AM		2	13							15
01:00		1	1							2
02:00		1	1							2
03:00		0	0							0
04:00		0	0							0
05:00		1	1							2
06:00		2	2							4
07:00		3	1							4
08:00		4	1							5
09:00		9	11							20
10:00		<b>10</b>	<b>21</b>							<b>31</b>
11:00		9	8							17
12:00 PM		10	11							21
01:00		14	11							25
02:00		24	15							39
03:00		55	19							74
04:00		47	32							79
05:00		<b>80</b>	37							117
06:00		43	58							101
07:00		23	<b>126</b>							<b>149</b>
08:00		1	7							8
09:00		0	0							0
10:00		1	1							2
11:00		0	0							0
Total		340	377							717
Percent		47.4%	52.6%							
AM Peak	-	10:00	10:00	-	-	-	-	-	-	10:00
Vol.	-	10	21	-	-	-	-	-	-	31
PM Peak	-	17:00	19:00	-	-	-	-	-	-	19:00
Vol.	-	80	126	-	-	-	-	-	-	149

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000003  
Station ID:

Latitude: 0' 0.0000 South

Start Time	27-Jul-15 Mon	Direction 1	Direction 2							Total	
12:00 AM		1	0								1
01:00		0	0								0
02:00		1	0								1
03:00		0	0								0
04:00		0	0								0
05:00		0	0								0
06:00		5	1								6
07:00		*	*								*
08:00		*	*								*
09:00		*	*								*
10:00		*	*								*
11:00		*	*								*
12:00 PM		*	*								*
01:00		*	*								*
02:00		*	*								*
03:00		*	*								*
04:00		*	*								*
05:00		*	*								*
06:00		*	*								*
07:00		*	*								*
08:00		*	*								*
09:00		*	*								*
10:00		*	*								*
11:00		*	*								*
Total		7	1								8
Percent		87.5%	12.5%								
AM Peak	-	06:00	06:00	-	-	-	-	-	-	-	06:00
Vol.	-	5	1	-	-	-	-	-	-	-	6
PM Peak	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-
Grand Total		1162	1399								2561
Percent		45.4%	54.6%								
ADT		ADT 907		AADT 907							

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	31-Jul-15 Fri	Direction 1	Direction 2	Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		18	23	41
03:00		13	16	29
04:00		29	17	46
05:00		24	16	40
06:00		18	34	52
07:00		9	32	41
08:00		0	0	0
09:00		0	0	0
10:00		0	0	0
11:00		0	0	0
Total		111	138	249
Percent		44.6%	55.4%	
AM Peak	-	-	-	-
Vol.	-	-	-	-
PM Peak	-	16:00	18:00	18:00
Vol.	-	29	34	52

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	01-Aug-15 Sat	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		8	1	9						
07:00		12	8	20						
08:00		27	16	43						
09:00		33	27	60						
10:00		59	27	86						
11:00		42	34	76						
12:00 PM		29	41	70						
01:00		25	50	75						
02:00		16	47	63						
03:00		25	38	63						
04:00		15	24	39						
05:00		19	24	43						
06:00		27	26	53						
07:00		6	30	36						
08:00		0	0	0						
09:00		0	0	0						
10:00		0	0	0						
11:00		0	0	0						
Total		343	393	736						
Percent		46.6%	53.4%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	10:00
Vol.	-	59	34	-	-	-	-	-	-	86
PM Peak	-	12:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	29	50	-	-	-	-	-	-	75

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	02-Aug-15 Sun	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		4	0							4
07:00		21	6							27
08:00		<b>83</b>	12							95
09:00		13	<b>102</b>							<b>115</b>
10:00		22	20							42
11:00		27	25							52
12:00 PM		22	16							38
01:00		22	23							45
02:00		<b>52</b>	36							<b>88</b>
03:00		31	34							65
04:00		38	<b>50</b>							88
05:00		27	41							68
06:00		25	43							68
07:00		12	38							50
08:00		0	6							6
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		399	452							851
Percent		46.9%	53.1%							
AM Peak	-	08:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	83	102	-	-	-	-	-	-	115
PM Peak	-	14:00	16:00	-	-	-	-	-	-	14:00
Vol.	-	52	50	-	-	-	-	-	-	88

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	03-Aug-15 Mon	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		6	1							7
07:00		12	9							21
08:00		12	14							26
09:00		10	14							24
10:00		<b>23</b>	14							37
11:00		17	<b>21</b>							<b>38</b>
12:00 PM		18	22							40
01:00		17	23							40
02:00		16	21							37
03:00		<b>25</b>	16							41
04:00		15	<b>30</b>							<b>45</b>
05:00		25	16							41
06:00		18	24							42
07:00		3	24							27
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		217	249							466
Percent		46.6%	53.4%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	23	21	-	-	-	-	-	-	38
PM Peak	-	15:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	25	30	-	-	-	-	-	-	45

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	04-Aug-15 Tue	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		14	0							14
07:00		12	13							25
08:00		19	13							32
09:00		22	32							54
10:00		19	24							43
11:00		18	16							34
12:00 PM		16	20							36
01:00		24	24							48
02:00		16	20							36
03:00		11	17							28
04:00		11	10							21
05:00		12	13							25
06:00		15	20							35
07:00		5	15							20
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		214	237							451
Percent		47.5%	52.5%							
AM Peak	-	09:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	22	32	-	-	-	-	-	-	54
PM Peak	-	13:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	24	24	-	-	-	-	-	-	48

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	05-Aug-15 Wed	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		7	1							8
07:00		10	6							16
08:00		15	12							27
09:00		11	12							23
10:00		14	21							35
11:00		7	12							19
12:00 PM		12	11							23
01:00		20	18							38
02:00		8	16							24
03:00		13	15							28
04:00		19	16							35
05:00		21	12							33
06:00		18	22							40
07:00		3	24							27
08:00		0	2							2
09:00		0	0							0
10:00		0	0							0
11:00		0	3							3
Total		178	203							381
Percent		46.7%	53.3%							
AM Peak	-	08:00	10:00	-	-	-	-	-	-	10:00
Vol.	-	15	21	-	-	-	-	-	-	35
PM Peak	-	17:00	19:00	-	-	-	-	-	-	18:00
Vol.	-	21	24	-	-	-	-	-	-	40



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000004  
Station ID:

Latitude: 0' 0.0000 South

Start Time	06-Aug-15 Thu	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		6	0							6
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		*	*							*
12:00 PM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		*	*							*
Total		6	0							6
Percent		100.0%	0.0%							
AM Peak	-	06:00	-	-	-	-	-	-	-	06:00
Vol.	-	6	-	-	-	-	-	-	-	6
PM Peak	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-
Grand Total		1468	1672							3140
Percent		46.8%	53.2%							
ADT		ADT 574		AADT 574						

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	26-Aug-15 Wed	Direction 1	Direction 2							Total
12:00 AM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		17	14							31
09:00		15	19							34
10:00		31	24							55
11:00		26	28							54
12:00 PM		35	35							70
01:00		18	29							47
02:00		15	20							35
03:00		19	18							37
04:00		30	19							49
05:00		32	28							60
06:00		21	27							48
07:00		1	18							19
08:00		0	0							0
09:00		0	0							0
10:00		0	3							3
11:00		0	10							10
Total		260	292							552
Percent		47.1%	52.9%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	10:00
Vol.	-	31	28	-	-	-	-	-	-	55
PM Peak	-	12:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	35	35	-	-	-	-	-	-	70



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	28-Aug-15 Fri	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		6	0	6						
07:00		14	5	19						
08:00		25	15	40						
09:00		<b>31</b>	25	56						
10:00		10	18	28						
11:00		24	<b>33</b>	<b>57</b>						
12:00 PM		18	17	35						
01:00		9	<b>20</b>	29						
02:00		18	17	35						
03:00		13	10	23						
04:00		<b>19</b>	14	33						
05:00		10	16	26						
06:00		18	20	<b>38</b>						
07:00		2	13	15						
08:00		0	0	0						
09:00		0	0	0						
10:00		0	0	0						
11:00		0	0	0						
Total		217	223	440						
Percent		49.3%	50.7%							
AM Peak	-	09:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	31	33	-	-	-	-	-	-	57
PM Peak	-	16:00	13:00	-	-	-	-	-	-	18:00
Vol.	-	19	20	-	-	-	-	-	-	38

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	29-Aug-15 Sat	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		8	1							9
07:00		18	11							29
08:00		22	13							35
09:00		24	20							44
10:00		<b>32</b>	30							62
11:00		15	<b>81</b>							<b>96</b>
12:00 PM		19	18							37
01:00		12	12							24
02:00		18	12							30
03:00		22	18							40
04:00		49	60							109
05:00		<b>102</b>	<b>230</b>							<b>332</b>
06:00		9	47							56
07:00		2	8							10
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		352	561							913
Percent		38.6%	61.4%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	32	81	-	-	-	-	-	-	96
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	102	230	-	-	-	-	-	-	332

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	30-Aug-15 Sun	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		1	0							1
07:00		<b>54</b>	6							<b>60</b>
08:00		34	4							38
09:00		12	<b>37</b>							49
10:00		6	9							15
11:00		24	13							37
12:00 PM		<b>28</b>	16							44
01:00		28	19							47
02:00		27	30							57
03:00		28	<b>33</b>							<b>61</b>
04:00		14	32							46
05:00		13	10							23
06:00		7	21							28
07:00		0	11							11
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		276	241							517
Percent		53.4%	46.6%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	07:00
Vol.	-	54	37	-	-	-	-	-	-	60
PM Peak	-	12:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	28	33	-	-	-	-	-	-	61

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	31-Aug-15 Mon	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		8	2							10
07:00		15	11							26
08:00		12	10							22
09:00		<b>23</b>	<b>25</b>							<b>48</b>
10:00		5	10							15
11:00		22	13							35
12:00 PM		12	17							29
01:00		<b>21</b>	21							<b>42</b>
02:00		12	17							29
03:00		13	15							28
04:00		19	22							41
05:00		20	15							35
06:00		19	<b>23</b>							42
07:00		2	19							21
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
<b>Total</b>		<b>203</b>	<b>220</b>							<b>423</b>
<b>Percent</b>		<b>48.0%</b>	<b>52.0%</b>							
AM Peak	-	09:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	23	25	-	-	-	-	-	-	48
PM Peak	-	13:00	18:00	-	-	-	-	-	-	13:00
Vol.	-	21	23	-	-	-	-	-	-	42

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	01-Sep-15 Tue	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		7	0	7						
07:00		15	9	24						
08:00		14	12	26						
09:00		14	18	32						
10:00		16	13	29						
11:00		13	15	28						
12:00 PM		20	14	34						
01:00		22	30	52						
02:00		17	13	30						
03:00		12	22	34						
04:00		22	15	37						
05:00		24	15	39						
06:00		16	25	41						
07:00		1	14	15						
08:00		0	0	0						
09:00		0	0	0						
10:00		0	0	0						
11:00		0	0	0						
Total		213	215	428						
Percent		49.8%	50.2%							
AM Peak	-	10:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	16	18	-	-	-	-	-	-	32
PM Peak	-	17:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	24	30	-	-	-	-	-	-	52



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	02-Sep-15 Wed	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		8	4							12
07:00		<b>23</b>	9							32
08:00		21	19							<b>40</b>
09:00		13	<b>23</b>							36
10:00		16	19							35
11:00		19	16							35
12:00 PM		21	16							37
01:00		18	18							36
02:00		12	21							33
03:00		18	11							29
04:00		21	20							41
05:00		<b>23</b>	<b>22</b>							<b>45</b>
06:00		13	15							28
07:00		0	12							12
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	12							12
Total		226	237							463
Percent		48.8%	51.2%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	08:00
Vol.	-	23	23	-	-	-	-	-	-	40
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	23	22	-	-	-	-	-	-	45



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	04-Sep-15 Fri	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		10	1	11						
07:00		13	5	18						
08:00		<b>22</b>	14	<b>36</b>						
09:00		20	<b>26</b>	<b>46</b>						
10:00		20	23	43						
11:00		22	17	39						
12:00 PM		13	17	30						
01:00		15	<b>21</b>	<b>36</b>						
02:00		8	9	17						
03:00		10	17	27						
04:00		<b>16</b>	18	<b>34</b>						
05:00		7	12	19						
06:00		13	12	25						
07:00		0	10	10						
08:00		0	0	0						
09:00		0	0	0						
10:00		0	0	0						
11:00		0	0	0						
Total		189	202	391						
Percent		48.3%	51.7%							
AM Peak	-	08:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	22	26	-	-	-	-	-	-	46
PM Peak	-	16:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	16	21	-	-	-	-	-	-	36

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	05-Sep-15 Sat	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		11	0							11
05:00		19	2							21
06:00		8	0							8
07:00		11	8							19
08:00		22	10							32
09:00		24	16							40
10:00		24	34							58
11:00		35	23							58
12:00 PM		52	31							83
01:00		55	38							93
02:00		25	57							82
03:00		28	51							79
04:00		31	52							83
05:00		12	43							55
06:00		13	24							37
07:00		0	19							19
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		370	408							778
Percent		47.6%	52.4%							
AM Peak	-	11:00	10:00	-	-	-	-	-	-	10:00
Vol.	-	35	34	-	-	-	-	-	-	58
PM Peak	-	13:00	14:00	-	-	-	-	-	-	13:00
Vol.	-	55	57	-	-	-	-	-	-	93

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	06-Sep-15 Sun	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		3	0							3
07:00		12	7							19
08:00		<b>85</b>	6							91
09:00		14	<b>89</b>							<b>103</b>
10:00		17	11							28
11:00		45	28							73
12:00 PM		36	18							54
01:00		<b>66</b>	31							97
02:00		59	64							<b>123</b>
03:00		46	57							103
04:00		34	37							71
05:00		28	<b>65</b>							93
06:00		15	43							58
07:00		3	18							21
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		463	474							937
Percent		49.4%	50.6%							
AM Peak	-	08:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	85	89	-	-	-	-	-	-	103
PM Peak	-	13:00	17:00	-	-	-	-	-	-	14:00
Vol.	-	66	65	-	-	-	-	-	-	123

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	07-Sep-15 Mon	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		3	0							3
07:00		14	6							20
08:00		31	19							50
09:00		38	27							65
10:00		58	31							89
11:00		<b>73</b>	<b>33</b>							<b>106</b>
12:00 PM		46	46							92
01:00		<b>47</b>	<b>88</b>							<b>135</b>
02:00		27	58							85
03:00		39	33							72
04:00		30	43							73
05:00		44	39							83
06:00		19	34							53
07:00		0	31							31
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		469	488							957
Percent		49.0%	51.0%							
AM Peak	-	11:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	73	33	-	-	-	-	-	-	106
PM Peak	-	13:00	13:00	-	-	-	-	-	-	13:00
Vol.	-	47	88	-	-	-	-	-	-	135

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	08-Sep-15 Tue	Direction 1	Direction 2							Total	
12:00 AM		0	0								0
01:00		0	0								0
02:00		0	0								0
03:00		0	0								0
04:00		0	0								0
05:00		0	0								0
06:00		8	1								9
07:00		17	10								27
08:00		32	20								52
09:00		9	22								31
10:00		13	11								24
11:00		*	*								*
12:00 PM		*	*								*
01:00		*	*								*
02:00		*	*								*
03:00		*	*								*
04:00		*	*								*
05:00		*	*								*
06:00		*	*								*
07:00		*	*								*
08:00		*	*								*
09:00		*	*								*
10:00		*	*								*
11:00		*	*								*
Total		79	64								143
Percent		55.2%	44.8%								
AM Peak	-	08:00	09:00	-	-	-	-	-	-	-	08:00
Vol.	-	32	22	-	-	-	-	-	-	-	52
PM Peak	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-
Grand Total		3775	4107								7882
Percent		47.9%	52.1%								
ADT		ADT 597	ADT 597								
				AADT 597							

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	09-Oct-15 Fri	Direction 1	Direction 2	Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		19	20	39
02:00		24	36	60
03:00		41	23	64
04:00		<b>49</b>	<b>46</b>	<b>95</b>
05:00		36	46	82
06:00		8	33	41
07:00		0	1	1
08:00		1	1	2
09:00		1	0	1
10:00		0	1	1
11:00		0	1	1
Total		179	208	387
Percent		46.3%	53.7%	
AM Peak	-	-	-	-
Vol.	-	-	-	-
PM Peak	-	16:00	16:00	16:00
Vol.	-	49	46	95



# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	10-Oct-15 Sat	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		1	0							1
02:00		0	0							0
03:00		0	0							0
04:00		1	1							2
05:00		5	0							5
06:00		29	5							34
07:00		173	40							213
08:00		69	46							115
09:00		158	98							256
10:00		<b>306</b>	106							<b>412</b>
11:00		267	<b>126</b>							393
12:00 PM		152	210							362
01:00		141	216							357
02:00		136	226							362
03:00		157	<b>302</b>							<b>459</b>
04:00		<b>162</b>	273							435
05:00		94	281							375
06:00		31	252							283
07:00		3	15							18
08:00		0	8							8
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		1885	2205							4090
Percent		46.1%	53.9%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	10:00
Vol.	-	306	126	-	-	-	-	-	-	412
PM Peak	-	16:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	162	302	-	-	-	-	-	-	459

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	11-Oct-15 Sun	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		1	1	2						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		4	0	4						
07:00		5	1	6						
08:00		12	6	18						
09:00		26	21	47						
10:00		17	15	32						
11:00		30	14	44						
12:00 PM		44	33	77						
01:00		49	47	96						
02:00		64	50	114						
03:00		82	65	147						
04:00		44	80	124						
05:00		29	50	79						
06:00		3	40	43						
07:00		0	0	0						
08:00		0	0	0						
09:00		0	0	0						
10:00		0	0	0						
11:00		0	0	0						
Total		410	423	833						
Percent		49.2%	50.8%							
AM Peak	-	11:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	30	21	-	-	-	-	-	-	47
PM Peak	-	15:00	16:00	-	-	-	-	-	-	15:00
Vol.	-	82	80	-	-	-	-	-	-	147

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	12-Oct-15 Mon	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		8	1							9
07:00		9	5							14
08:00		12	12							24
09:00		18	13							31
10:00		14	22							36
11:00		25	16							41
12:00 PM		36	22							58
01:00		22	37							59
02:00		28	19							47
03:00		29	37							66
04:00		33	25							58
05:00		31	37							68
06:00		2	30							32
07:00		0	0							0
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		267	276							543
Percent		49.2%	50.8%							
AM Peak	-	11:00	10:00	-	-	-	-	-	-	11:00
Vol.	-	25	22	-	-	-	-	-	-	41
PM Peak	-	12:00	13:00	-	-	-	-	-	-	17:00
Vol.	-	36	37	-	-	-	-	-	-	68

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	13-Oct-15 Tue	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		8	0							8
07:00		8	8							16
08:00		22	16							38
09:00		13	18							31
10:00		21	17							38
11:00		22	20							42
12:00 PM		49	38							87
01:00		27	30							57
02:00		23	36							59
03:00		19	17							36
04:00		32	23							55
05:00		29	33							62
06:00		3	33							36
07:00		0	0							0
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		276	289							565
Percent		48.8%	51.2%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	22	20	-	-	-	-	-	-	42
PM Peak	-	12:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	49	38	-	-	-	-	-	-	87

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	14-Oct-15 Wed	Direction 1	Direction 2	Total
12:00 AM		0	0	0
01:00		0	0	0
02:00		0	0	0
03:00		0	0	0
04:00		0	0	0
05:00		0	0	0
06:00		3	0	3
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		3	0	3
Percent		100.0%	0.0%	
AM Peak	-	06:00	-	06:00
Vol.	-	3	-	3
PM Peak	-	-	-	-
Vol.	-	-	-	-
Grand Total		3020	3401	6421
Percent		47.0%	53.0%	
ADT		ADT 1,406	AADT 1,406	

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	15-Oct-15 Thu	Direction 1	Direction 2							Total
12:00 AM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		7	5							12
11:00		6	10							16
12:00 PM		13	8							21
01:00		5	9							14
02:00		10	8							18
03:00		3	7							10
04:00		13	6							19
05:00		96	15							111
06:00		55	31							86
07:00		15	78							93
08:00		2	55							57
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		225	232							457
Percent		49.2%	50.8%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	7	10	-	-	-	-	-	-	16
PM Peak	-	17:00	19:00	-	-	-	-	-	-	17:00
Vol.	-	96	78	-	-	-	-	-	-	111

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	16-Oct-15 Fri	Direction 1	Direction 2							Total
12:00 AM		1	0							1
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		3	2							5
07:00		4	6							10
08:00		1	10							11
09:00		9	3							12
10:00		8	6							14
11:00		3	6							9
12:00 PM		8	5							13
01:00		11	10							21
02:00		10	16							26
03:00		7	13							20
04:00		4	4							8
05:00		7	6							13
06:00		17	27							44
07:00		9	7							16
08:00		0	0							0
09:00		0	0							0
10:00		0	1							1
11:00		0	0							0
Total		102	122							224
Percent		45.5%	54.5%							
AM Peak	-	09:00	08:00	-	-	-	-	-	-	10:00
Vol.	-	9	10	-	-	-	-	-	-	14
PM Peak	-	18:00	18:00	-	-	-	-	-	-	18:00
Vol.	-	17	27	-	-	-	-	-	-	44





# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	18-Oct-15 Sun	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		3	4							7
07:00		1	1							2
08:00		3	1							4
09:00		6	10							16
10:00		6	3							9
11:00		9	7							16
12:00 PM		43	14							57
01:00		75	9							84
02:00		65	12							77
03:00		59	67							126
04:00		41	58							99
05:00		12	85							97
06:00		3	58							61
07:00		2	4							6
08:00		0	0							0
09:00		0	0							0
10:00		0	0							0
11:00		0	0							0
Total		328	333							661
Percent		49.6%	50.4%							
AM Peak	-	11:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	9	10	-	-	-	-	-	-	16
PM Peak	-	13:00	17:00	-	-	-	-	-	-	15:00
Vol.	-	75	85	-	-	-	-	-	-	126

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	19-Oct-15 Mon	Direction 1	Direction 2							Total	
12:00 AM		0	0								0
01:00		0	0								0
02:00		0	0								0
03:00		0	0								0
04:00		0	0								0
05:00		0	0								0
06:00		5	7								12
07:00		3	6								9
08:00		6	6								12
09:00		3	4								7
10:00		4	6								10
11:00		6	3								9
12:00 PM		*	*								*
01:00		*	*								*
02:00		*	*								*
03:00		*	*								*
04:00		*	*								*
05:00		*	*								*
06:00		*	*								*
07:00		*	*								*
08:00		*	*								*
09:00		*	*								*
10:00		*	*								*
11:00		*	*								*
Total		27	32								59
Percent		45.8%	54.2%								
AM Peak	-	08:00	06:00	-	-	-	-	-	-	-	06:00
Vol.	-	6	7	-	-	-	-	-	-	-	12
PM Peak	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-
Grand Total		1266	1262								2528
Percent		50.1%	49.9%								
ADT		ADT 610	ADT 610								AADT 610

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	19-Oct-15 Mon	Direction 1	Direction 2	Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		6	8	14
01:00		4	5	9
02:00		10	9	19
03:00		9	9	18
04:00		21	7	28
05:00		<b>246</b>	34	<b>280</b>
06:00		140	51	191
07:00		43	<b>207</b>	250
08:00		6	162	168
09:00		0	2	2
10:00		0	0	0
11:00		0	0	0
Total		485	494	979
Percent		49.5%	50.5%	
AM Peak	-	-	-	-
Vol.	-	-	-	-
PM Peak	-	17:00	19:00	17:00
Vol.	-	246	207	280

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	20-Oct-15 Tue	Direction 1	Direction 2	Total						
12:00 AM		0	0	0						
01:00		0	0	0						
02:00		0	0	0						
03:00		0	0	0						
04:00		0	0	0						
05:00		0	0	0						
06:00		5	3	8						
07:00		4	7	11						
08:00		4	6	10						
09:00		6	5	11						
10:00		4	2	6						
11:00		7	5	12						
12:00 PM		7	7	14						
01:00		3	7	10						
02:00		12	8	20						
03:00		4	7	11						
04:00		16	10	26						
05:00		188	27	215						
06:00		121	49	170						
07:00		45	124	169						
08:00		6	151	157						
09:00		1	24	25						
10:00		1	0	1						
11:00		0	0	0						
Total		434	442	876						
Percent		49.5%	50.5%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	7	7	-	-	-	-	-	-	12
PM Peak	-	17:00	20:00	-	-	-	-	-	-	17:00
Vol.	-	188	151	-	-	-	-	-	-	215

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	21-Oct-15 Wed	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	0							0
06:00		9	10							19
07:00		2	7							9
08:00		7	5							12
09:00		7	5							12
10:00		9	7							16
11:00		3	4							7
12:00 PM		7	8							15
01:00		5	6							11
02:00		11	6							17
03:00		2	7							9
04:00		1	1							2
05:00		16	6							22
06:00		6	20							26
07:00		1	1							2
08:00		0	0							0
09:00		0	1							1
10:00		0	0							0
11:00		0	0							0
Total		86	94							180
Percent		47.8%	52.2%							
AM Peak	-	06:00	06:00	-	-	-	-	-	-	06:00
Vol.	-	9	10	-	-	-	-	-	-	19
PM Peak	-	17:00	18:00	-	-	-	-	-	-	18:00
Vol.	-	16	20	-	-	-	-	-	-	26

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

Start Time	22-Oct-15 Thu	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		1	1							2
06:00		3	4							7
07:00		3	5							8
08:00		<b>10</b>	6							16
09:00		7	9							16
10:00		1	4							5
11:00		9	<b>11</b>							<b>20</b>
12:00 PM		9	4							13
01:00		10	14							24
02:00		7	8							15
03:00		4	6							10
04:00		33	11							44
05:00		<b>254</b>	35							<b>289</b>
06:00		177	92							269
07:00		45	<b>199</b>							244
08:00		8	172							180
09:00		0	18							18
10:00		0	0							0
11:00		0	0							0
Total		581	599							1180
Percent		49.2%	50.8%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	10	11	-	-	-	-	-	-	20
PM Peak	-	17:00	19:00	-	-	-	-	-	-	17:00
Vol.	-	254	199	-	-	-	-	-	-	289

# City Of Pell City

417 19th St S  
Pell City, AL 35125

Site Code: 00000001  
Station ID:

Latitude: 0' 0.0000 South

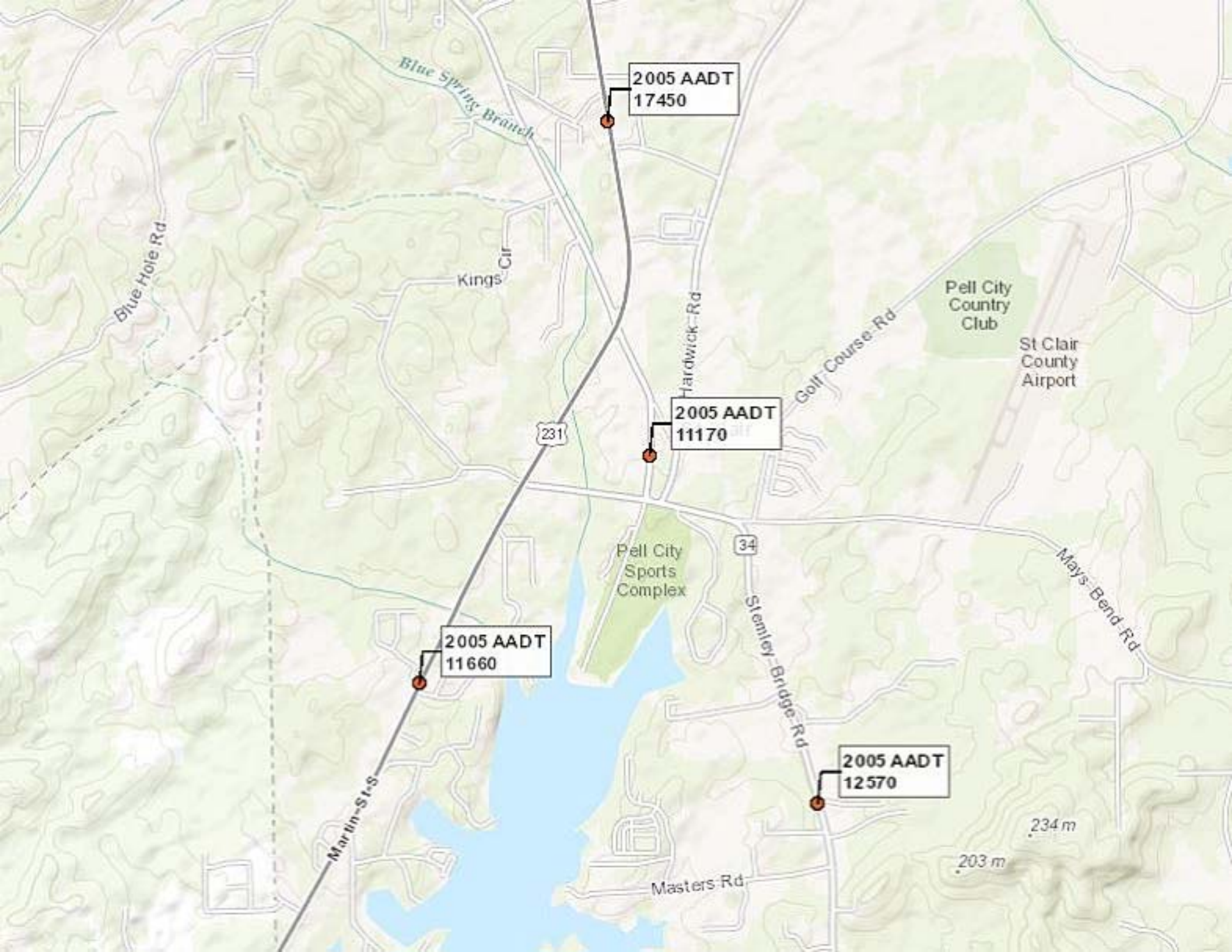
Start Time	23-Oct-15 Fri	Direction 1	Direction 2							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		2	2							4
06:00		4	6							10
07:00		<b>8</b>	<b>13</b>							<b>21</b>
08:00		7	5							12
09:00		7	8							15
10:00		6	5							11
11:00		6	5							11
12:00 PM		0	<b>2</b>							<b>2</b>
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		*	*							*
Total		40	46							86
Percent		46.5%	53.5%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	8	13	-	-	-	-	-	-	21
PM Peak	-	-	12:00	-	-	-	-	-	-	12:00
Vol.	-	-	2	-	-	-	-	-	-	2
Grand Total		1626	1675							3301
Percent		49.3%	50.7%							
ADT		ADT 823	AADT 823							

**Appendix D**

Historic Traffic Counts

(ALDOT)



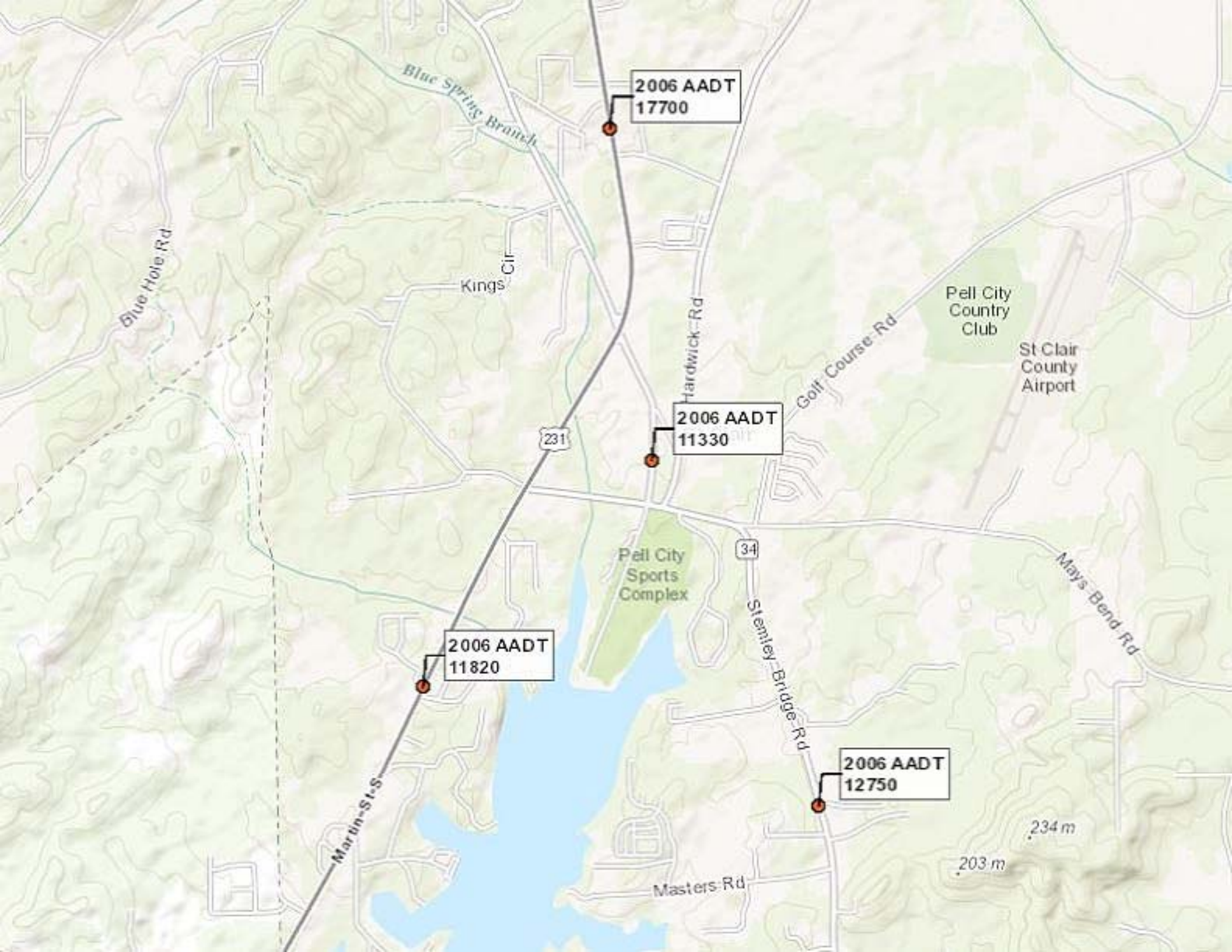


2005 AADT  
17450

2005 AADT  
11170

2005 AADT  
11660

2005 AADT  
12570



2006 AADT  
17700

2006 AADT  
11330

2006 AADT  
11820

2006 AADT  
12750

231

34

Blue Spring Branch

Blue Hole Rd

Kings Cir

Hardwick Rd

Golf Course Rd

Pell City  
Country  
Club

St Clair  
County  
Airport

Pell City  
Sports  
Complex

Mays Bend Rd

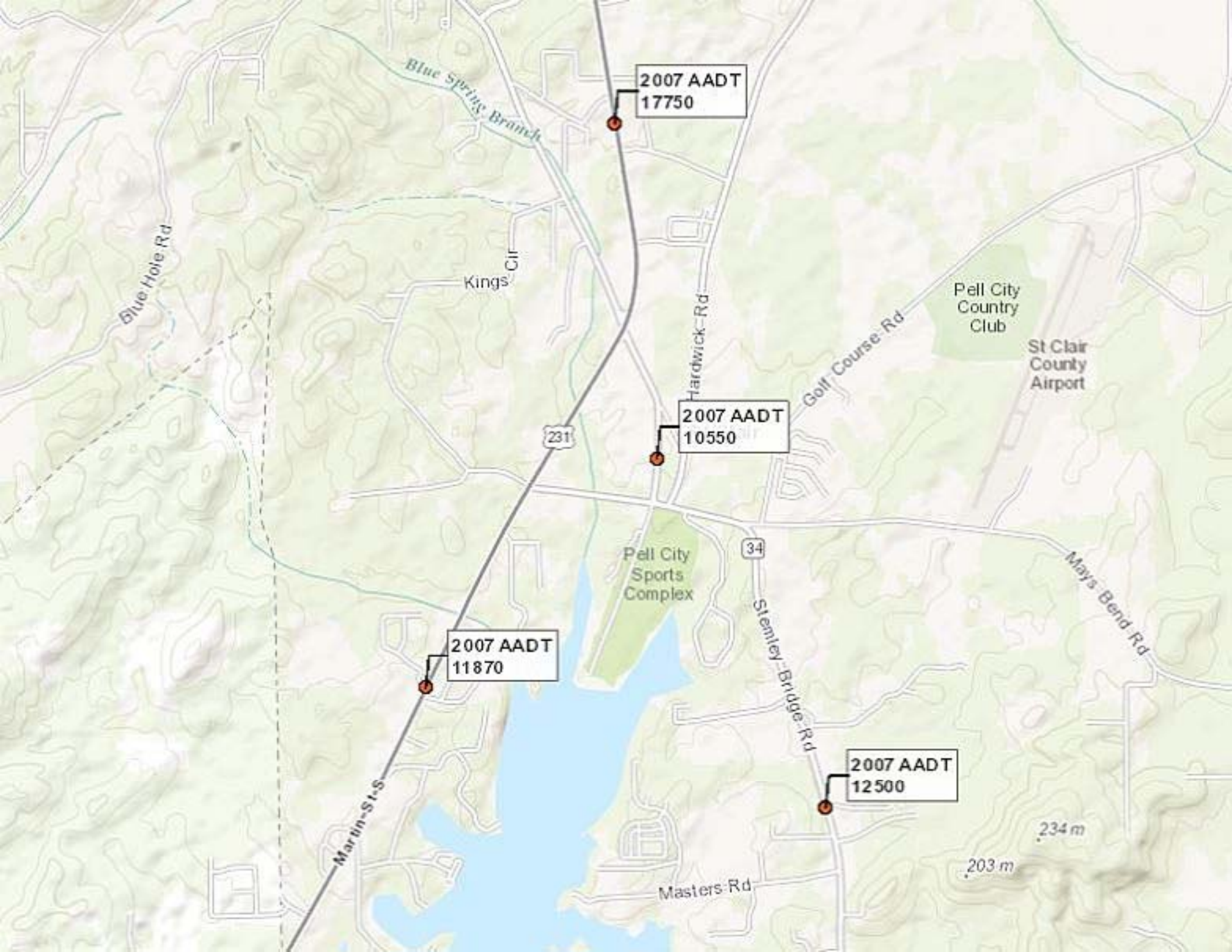
Martin St S

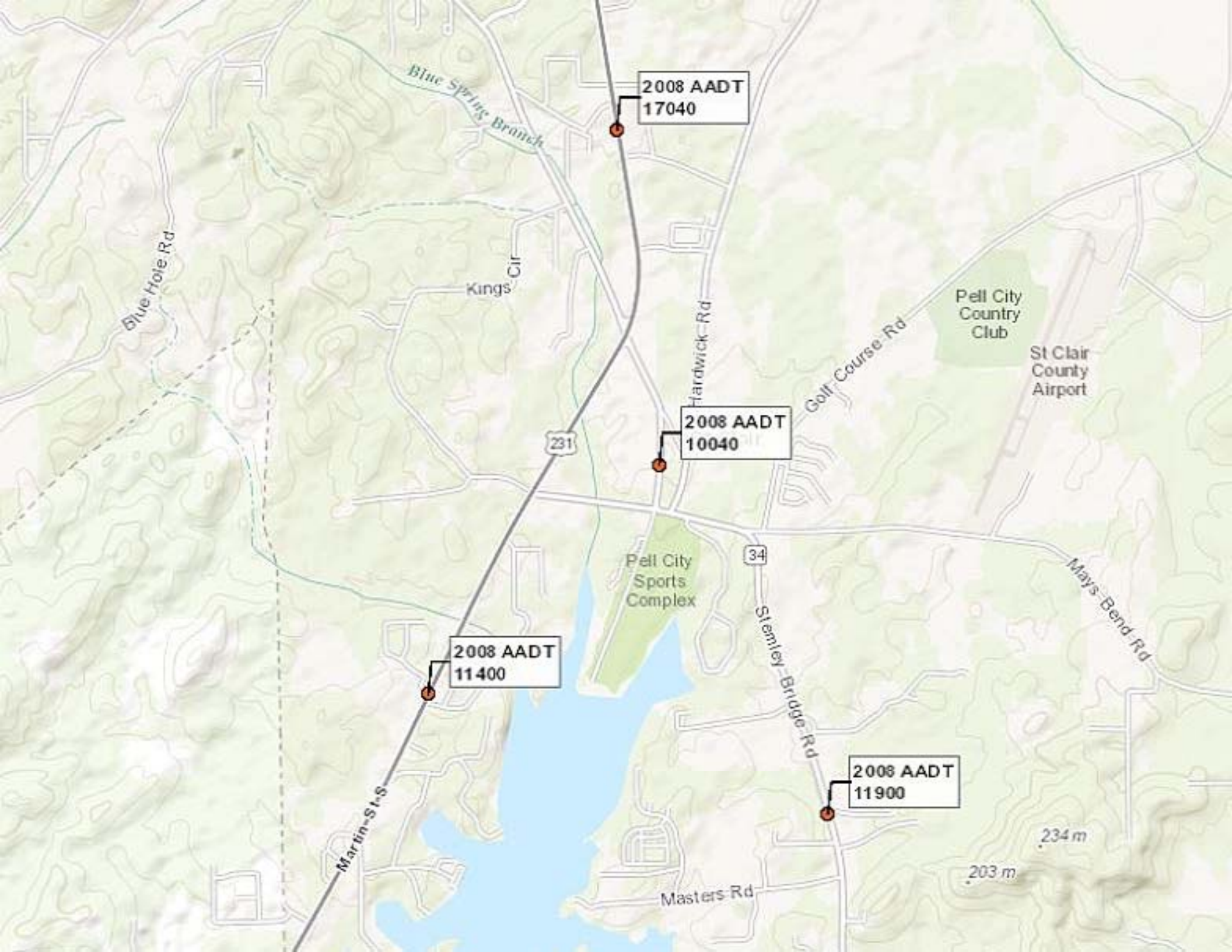
Stanley Bridge Rd

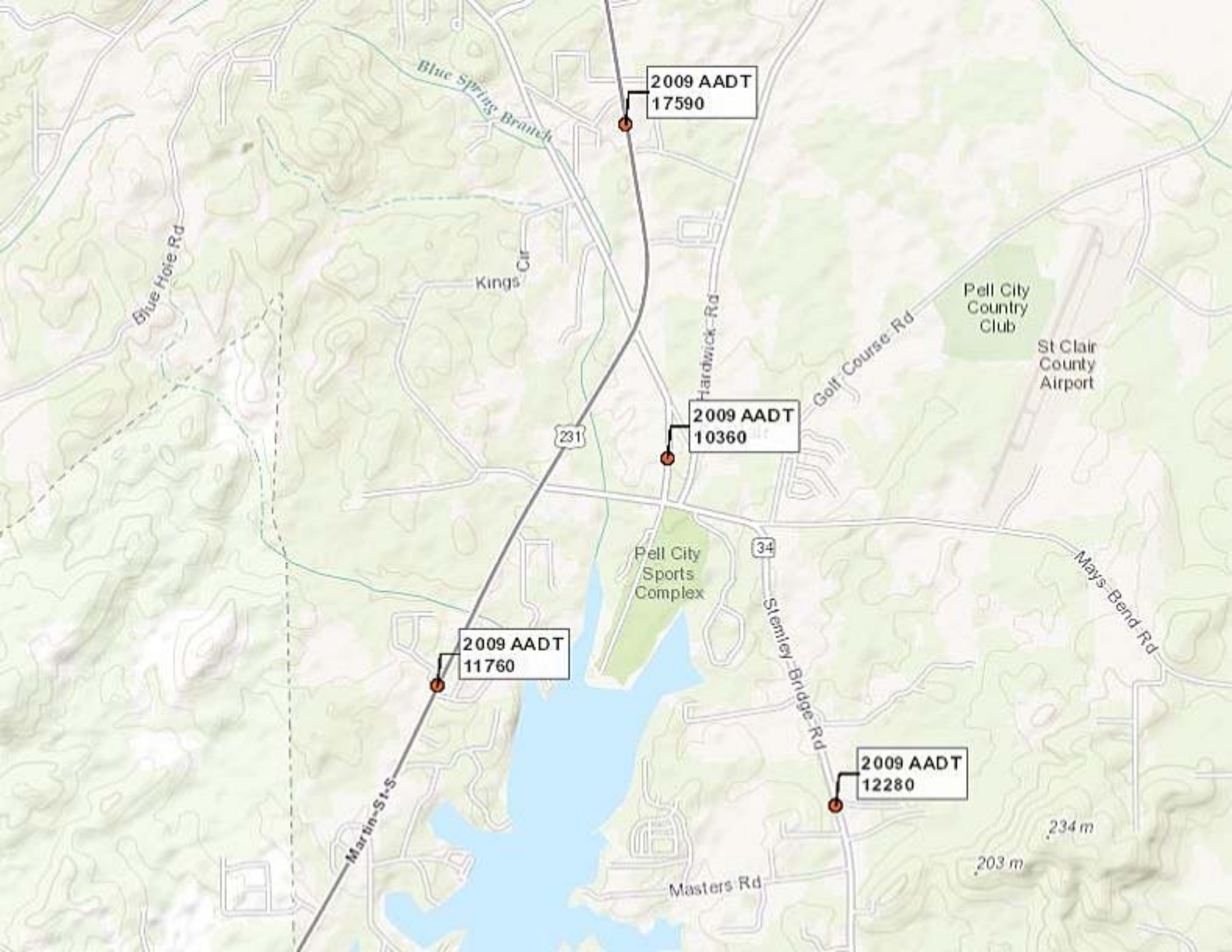
Masters Rd

234 m

203 m







2009 AADT  
17590

2009 AADT  
10360

2009 AADT  
11760

2009 AADT  
12280

Blue Springs Branch

Blue Hole Rd

Kings Cir

Hardwick Rd

Golf Course Rd

Pell City Country Club

St Clair County Airport

231

34

Pell City Sports Complex

Mays Bend Rd

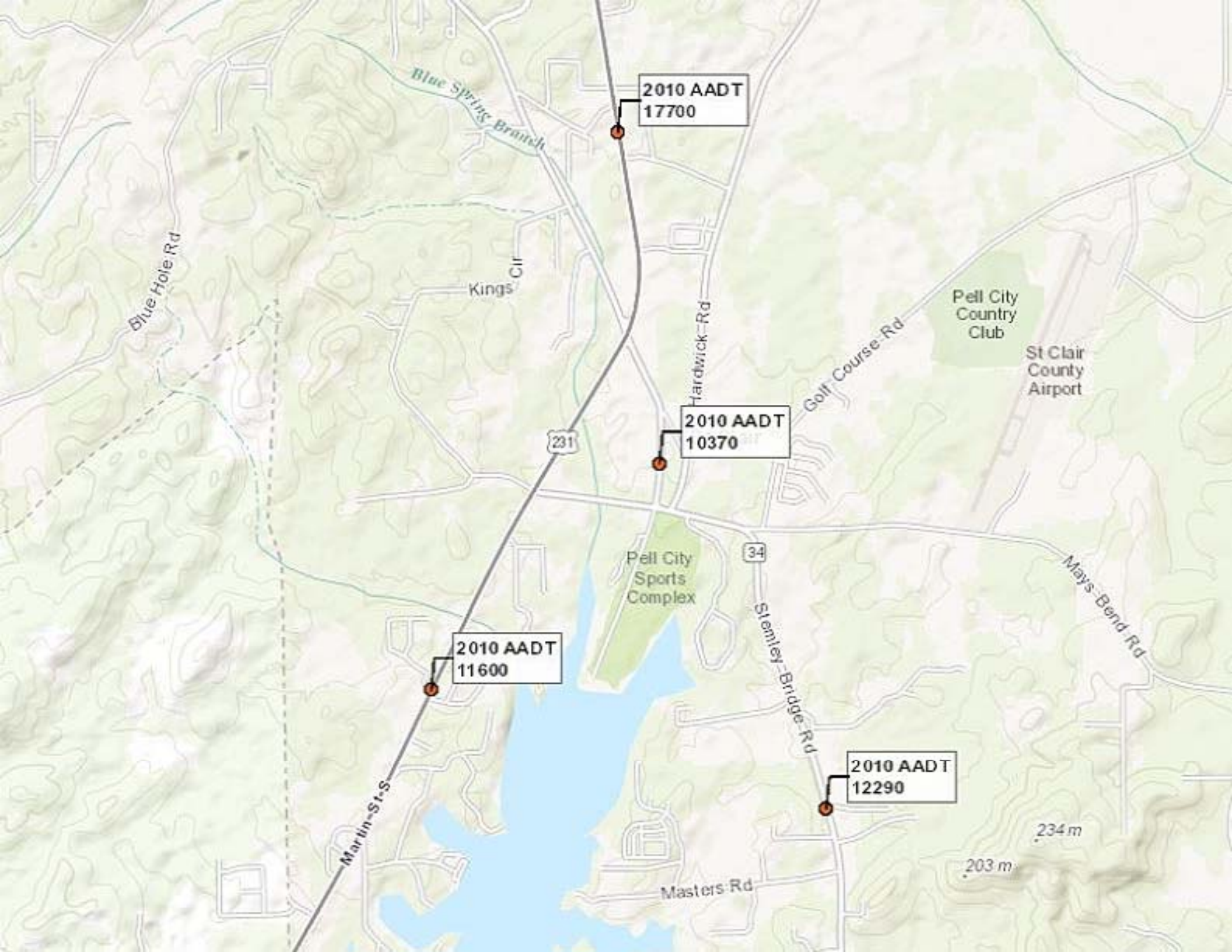
Martin St S

Stempley Bridge Rd

Masters Rd

234 m

203 m



2010 AADT  
17700

2010 AADT  
10370

2010 AADT  
11600

2010 AADT  
12290

Blue Hole Rd

Blue Spring Branch

Kings Cir

Hardwick Rd

Golf Course Rd

Pell City Country Club

St Clair County Airport

231

Pell City Sports Complex

34

Stanley Bridge Rd

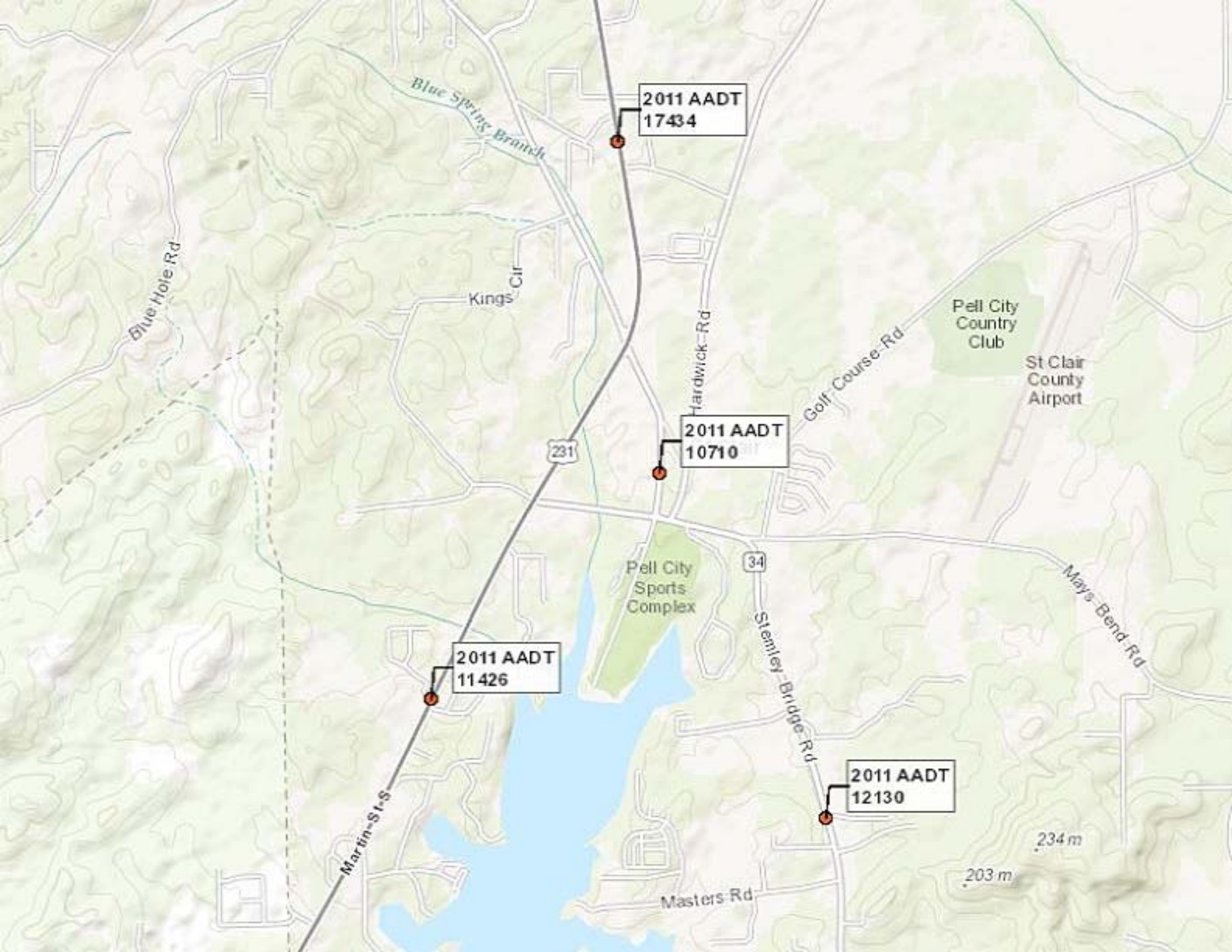
Mays Bend Rd

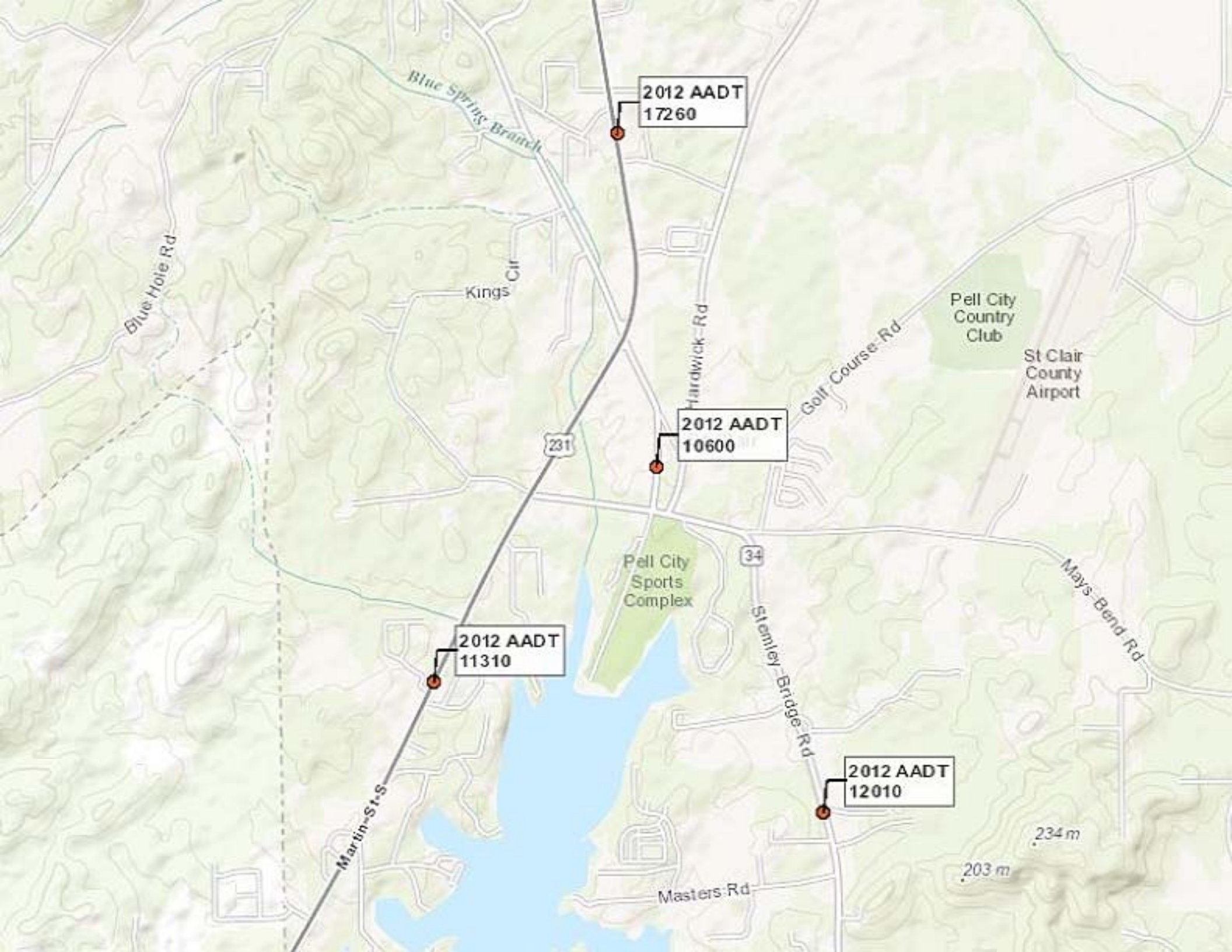
Martin St S

234 m

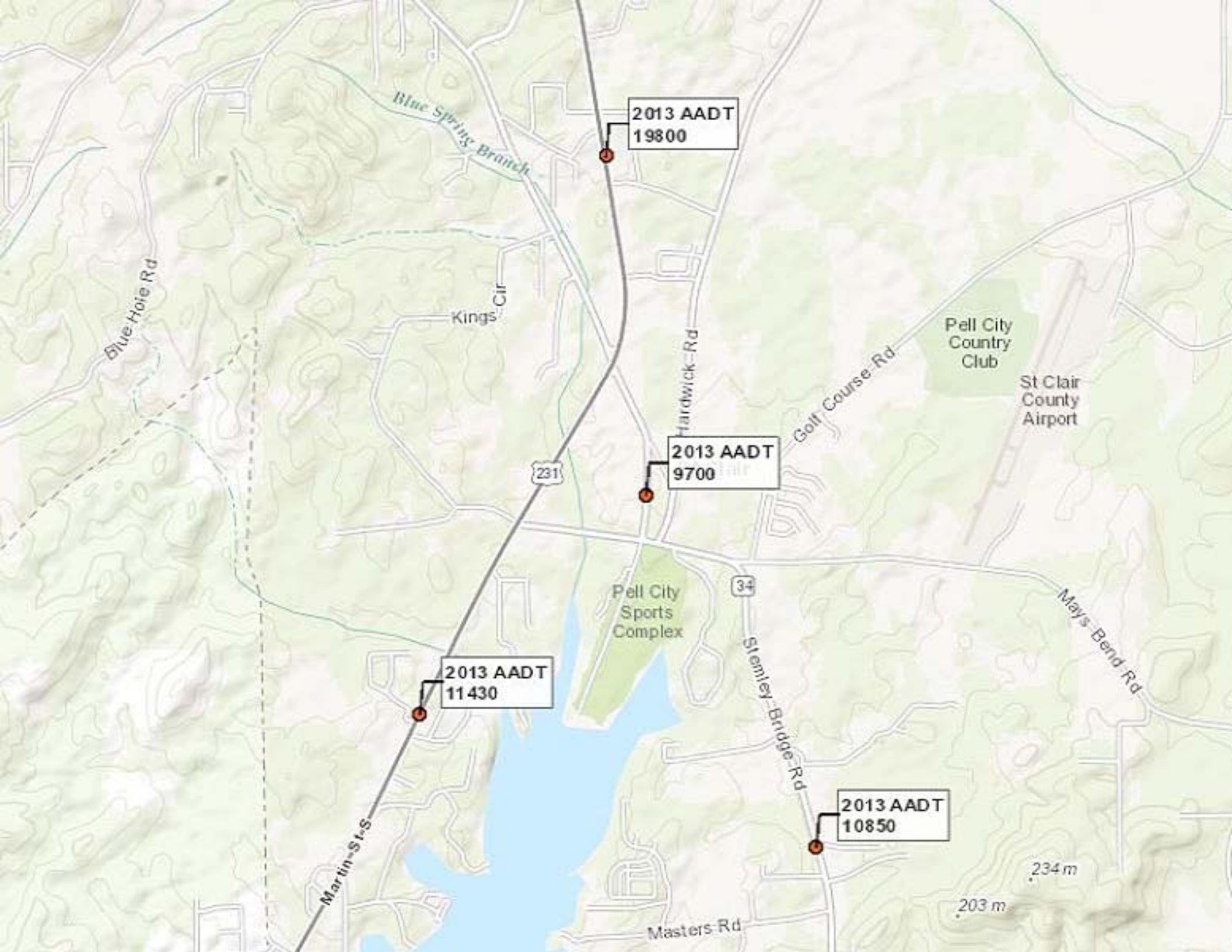
203 m

Masters Rd









2013 AADT  
19800

2013 AADT  
9700

2013 AADT  
11430

2013 AADT  
10850

231

34

Blue Spring Branch

Blue Hole Rd

Kings Cir

Hardwick Rd

Golf Course Rd

Pell City Country Club

St Clair County Airport

Pell City Sports Complex

Mays Bend Rd

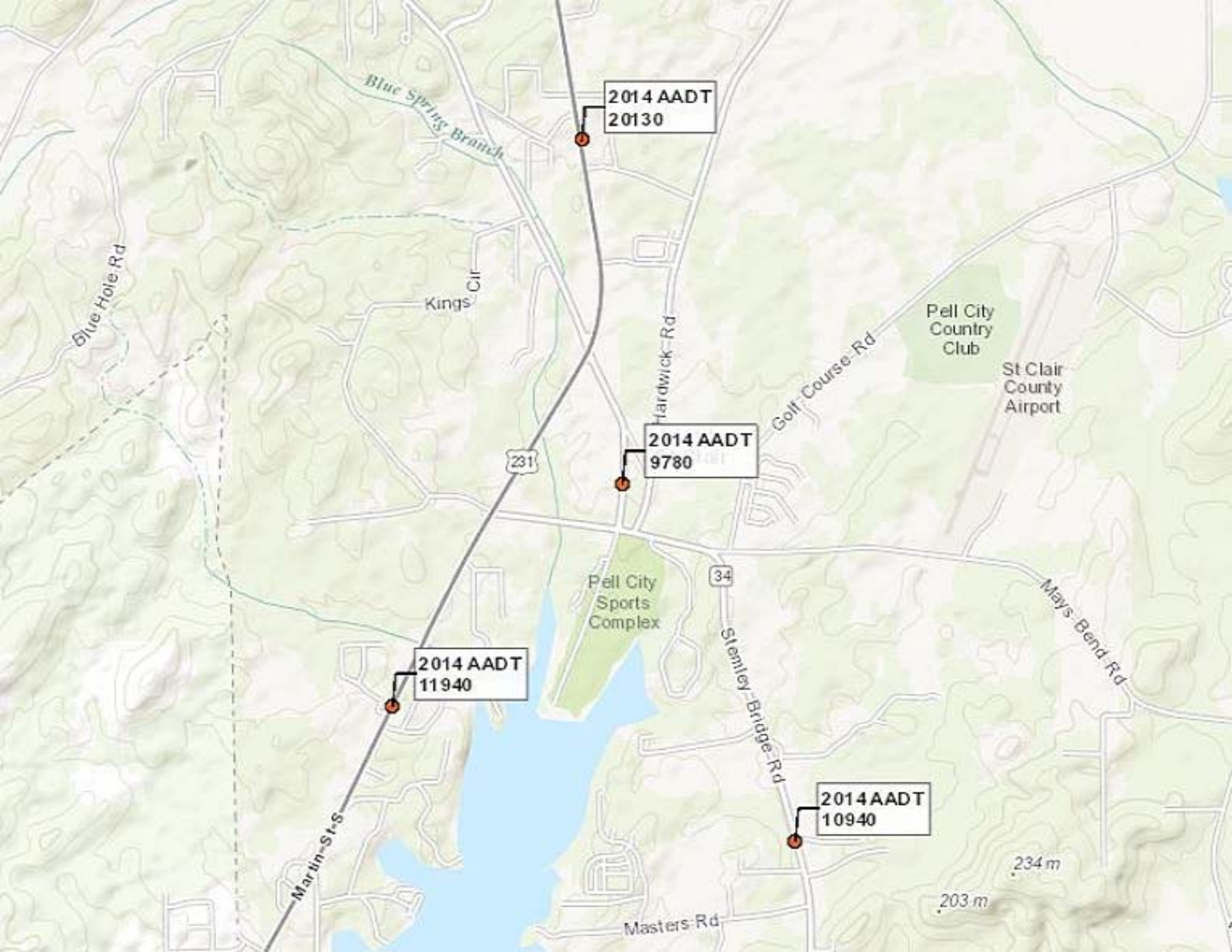
Martin St S

Stanley Bridge Rd

Masters Rd

234 m

203 m



**Appendix E**

Level-of-Service Analysis

HCM research does not support more than two 'Stop' controlled approaches at the intersection.

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	33	271	3	1	690	80	0	0	2	31	5	36
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	295	3	1	750	87	0	0	2	34	5	39

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	837	0	0	298	0	0	1186	1207	296	1165	1166	793
Stage 1	-	-	-	-	-	-	368	368	-	796	796	-
Stage 2	-	-	-	-	-	-	818	839	-	369	370	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	797	-	-	1263	-	-	166	183	743	171	194	389
Stage 1	-	-	-	-	-	-	652	621	-	380	399	-
Stage 2	-	-	-	-	-	-	370	381	-	651	620	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	797	-	-	1263	-	-	140	173	743	163	183	389
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	173	-	163	183	-
Stage 1	-	-	-	-	-	-	617	587	-	359	398	-
Stage 2	-	-	-	-	-	-	328	380	-	614	587	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	9.9	28.2
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	797	-	-	1263	-	-	232
HCM Lane V/C Ratio	0.003	0.045	-	-	0.001	-	-	0.337
HCM Control Delay (s)	9.9	9.7	0	-	7.9	0	-	28.2
HCM Lane LOS	A	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1.4

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	0	0	720	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	314	0	0	783	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	314
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1246
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1246
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1246	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

**Intersection**

Int Delay, s/veh -

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	0	0	0	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	0
Stage 1	-	-	0
Stage 2	-	-	0
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

HCM research does not support more than two 'Stop' controlled approaches at the intersection.



Intersection												
Int Delay, s/veh	10.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	32	593	30	14	470	122	3	6	38	77	8	24
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	645	33	15	511	133	3	7	41	84	9	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	677	0	0	1355	1404	661	1362	1355	577
Stage 1	-	-	-	-	-	-	730	730	-	608	608	-
Stage 2	-	-	-	-	-	-	625	674	-	754	747	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	942	-	-	915	-	-	127	140	462	125	149	516
Stage 1	-	-	-	-	-	-	414	428	-	483	486	-
Stage 2	-	-	-	-	-	-	473	454	-	401	420	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	942	-	-	915	-	-	107	128	462	102	136	516
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	128	-	102	136	-
Stage 1	-	-	-	-	-	-	389	402	-	454	473	-
Stage 2	-	-	-	-	-	-	429	442	-	338	395	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	19.5	128.4
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	299	942	-	-	915	-	-	127
HCM Lane V/C Ratio	0.171	0.037	-	-	0.017	-	-	0.933
HCM Control Delay (s)	19.5	9	0	-	9	0	-	128.4
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	6.2

**Intersection**

Int Delay, s/veh 5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	117	72	504	88	15
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	580	127	78	548	96	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	708
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	891
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	891
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	67
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	161	-	-	891	-
HCM Lane V/C Ratio	0.695	-	-	0.088	-
HCM Control Delay (s)	67	-	-	9.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	4.1	-	-	0.3	-

**Intersection**

Int Delay, s/veh 0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	549	5	10	576	25	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	597	5	11	626	27	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	602	1247
Stage 1	-	-	599
Stage 2	-	-	648
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	975	192
Stage 1	-	-	549
Stage 2	-	-	521
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	975	189
Mov Cap-2 Maneuver	-	-	189
Stage 1	-	-	549
Stage 2	-	-	512

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	25.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	211	-	-	975	-
HCM Lane V/C Ratio	0.155	-	-	0.011	-
HCM Control Delay (s)	25.2	-	-	8.7	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

HCM research does not support more than two 'Stop' controlled approaches at the intersection.

**Intersection**

Int Delay, s/veh 21

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	623	25	52	349	85	1	1	7	84	46	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	677	27	57	379	92	1	1	8	91	50	28

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	472	0	0	704	0	0	1321	1328	691	1286	1296	426
Stage 1	-	-	-	-	-	-	743	743	-	539	539	-
Stage 2	-	-	-	-	-	-	578	585	-	747	757	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1090	-	-	894	-	-	134	155	445	141	162	628
Stage 1	-	-	-	-	-	-	407	422	-	527	522	-
Stage 2	-	-	-	-	-	-	501	498	-	405	416	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	894	-	-	85	136	445	125	142	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	136	-	125	142	-
Stage 1	-	-	-	-	-	-	391	406	-	506	476	-
Stage 2	-	-	-	-	-	-	391	454	-	382	400	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1	19.5	172.7
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	1090	-	-	894	-	-	150
HCM Lane V/C Ratio	0.038	0.024	-	-	0.063	-	-	1.13
HCM Control Delay (s)	19.5	8.4	0	-	9.3	0	-	172.7
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-	-	9.3

**Intersection**

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	746	24	11	465	26	6
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	811	26	12	505	28	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	837
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	797
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	797
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	29.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	181	-	-	797	-
HCM Lane V/C Ratio	0.192	-	-	0.015	-
HCM Control Delay (s)	29.6	-	-	9.6	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

**Intersection**

Int Delay, s/veh -

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	0	0	0	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	0
Stage 1	-	-	0
Stage 2	-	-	0
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

HCM research does not support more than two 'Stop' controlled approaches at the intersection.



**Intersection**

Int Delay, s/veh 9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	598	19	15	485	131	6	6	19	79	3	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	650	21	16	527	142	7	7	21	86	3	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	671	0	0	1360	1415	660	1357	1354	598
Stage 1	-	-	-	-	-	-	713	713	-	631	631	-
Stage 2	-	-	-	-	-	-	647	702	-	726	723	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	920	-	-	919	-	-	126	137	463	126	150	502
Stage 1	-	-	-	-	-	-	423	435	-	469	474	-
Stage 2	-	-	-	-	-	-	460	440	-	416	431	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	920	-	-	919	-	-	110	127	463	109	139	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	127	-	109	139	-
Stage 1	-	-	-	-	-	-	404	415	-	448	461	-
Stage 2	-	-	-	-	-	-	419	428	-	374	412	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	24.6	108.6
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	217	920	-	-	919	-	-	135
HCM Lane V/C Ratio	0.155	0.028	-	-	0.018	-	-	0.87
HCM Control Delay (s)	24.6	9	0	-	9	0	-	108.6
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	5.6

**Intersection**

Int Delay, s/veh 42.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	514	167	46	452	218	21
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	559	182	50	491	237	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	740	1240
Stage 1	-	-	649
Stage 2	-	-	591
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	867	~ 193
Stage 1	-	-	520
Stage 2	-	-	553
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	867	~ 178
Mov Cap-2 Maneuver	-	-	~ 178
Stage 1	-	-	520
Stage 2	-	-	509

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	248.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	188	-	-	867	-
HCM Lane V/C Ratio	1.382	-	-	0.058	-
HCM Control Delay (s)	248.9	-	-	9.4	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	15.3	-	-	0.2	-

**Notes**

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

**Intersection**

Int Delay, s/veh -

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	0	0	0	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0





















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	0
Stage 1	-	-	0
Stage 2	-	-	0
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

AM Thursday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	110	1	1	144	580	1	5	0	198	4	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	120	0	1	157	0	1	5	0	215	4	7
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	391	354	0	418	331	0	437	251	0	669	164	287
Arrive On Green	0.01	0.19	0.00	0.00	0.18	0.00	0.00	0.13	0.00	0.14	0.27	0.27
Sat Flow, veh/h	1774	1863	0	1774	1863	0	1774	1863	0	1774	609	1066
Grp Volume(v), veh/h	13	120	0	1	157	0	1	5	0	215	0	11
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	0	1774	1863	0	1774	0	1675
Q Serve(g_s), s	0.2	1.7	0.0	0.0	2.2	0.0	0.0	0.1	0.0	2.7	0.0	0.1
Cycle Q Clear(g_c), s	0.2	1.7	0.0	0.0	2.2	0.0	0.0	0.1	0.0	2.7	0.0	0.1
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.00	1.00		0.64
Lane Grp Cap(c), veh/h	391	354	0	418	331	0	437	251	0	669	0	451
V/C Ratio(X)	0.03	0.34	0.00	0.00	0.47	0.00	0.00	0.02	0.00	0.32	0.00	0.02
Avail Cap(c_a), veh/h	606	2822	0	651	2822	0	670	1129	0	846	0	1184
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	10.4	0.0	10.0	11.0	0.0	11.1	11.2	0.0	7.5	0.0	8.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.0	0.0	1.2	0.0	0.0	0.0	0.0	1.3	0.0	0.1
LnGrp Delay(d),s/veh	9.9	11.0	0.0	10.0	12.0	0.0	11.1	11.2	0.0	7.8	0.0	8.0
LnGrp LOS	A	B		B	B		B	B		A		A
Approach Vol, veh/h		133			158			6			226	
Approach Delay, s/veh		10.9			12.0			11.2			7.8	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	9.6	4.0	12.0	4.4	9.3	8.0	8.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	45.0	4.0	21.0	4.0	45.0	7.0	18.0				
Max Q Clear Time (g_c+I1), s	2.0	3.7	2.0	2.1	2.2	4.2	4.7	2.1				
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	1.6	0.1	0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.9									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	33	271	3	1	690	80	0	0	2	31	5	36
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	295	3	1	750	87	0	0	2	34	5	39

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	837	0	0	298	0	0	1186	1207	296	1165	1166	793
Stage 1	-	-	-	-	-	-	368	368	-	796	796	-
Stage 2	-	-	-	-	-	-	818	839	-	369	370	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	797	-	-	1263	-	-	166	183	743	171	194	389
Stage 1	-	-	-	-	-	-	652	621	-	380	399	-
Stage 2	-	-	-	-	-	-	370	381	-	651	620	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	797	-	-	1263	-	-	140	173	743	163	183	389
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	173	-	163	183	-
Stage 1	-	-	-	-	-	-	617	587	-	359	398	-
Stage 2	-	-	-	-	-	-	328	380	-	614	587	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	9.9	28.2
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	797	-	-	1263	-	-	232
HCM Lane V/C Ratio	0.003	0.045	-	-	0.001	-	-	0.337
HCM Control Delay (s)	9.9	9.7	0	-	7.9	0	-	28.2
HCM Lane LOS	A	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1.4

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	0	0	720	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	314	0	0	783	0	0






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	314
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1246
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1246
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1246	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

PM Thursday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	103	42	10	87	278	9	16	5	564	156	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	112	0	11	95	0	10	17	5	613	170	13
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	219	0	283	219	186	53	42	12	765	737	56
Arrive On Green	0.01	0.12	0.00	0.01	0.12	0.00	0.03	0.03	0.03	0.43	0.43	0.43
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1384	407	1774	1709	131
Grp Volume(v), veh/h	11	112	0	11	95	0	10	0	22	613	0	183
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1791	1774	0	1840
Q Serve(g_s), s	0.2	2.2	0.0	0.2	1.9	0.0	0.2	0.0	0.5	11.7	0.0	2.5
Cycle Q Clear(g_c), s	0.2	2.2	0.0	0.2	1.9	0.0	0.2	0.0	0.5	11.7	0.0	2.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.23	1.00		0.07
Lane Grp Cap(c), veh/h	296	219	0	283	219	186	53	0	54	765	0	793
V/C Ratio(X)	0.04	0.51	0.00	0.04	0.43	0.00	0.19	0.00	0.41	0.80	0.00	0.23
Avail Cap(c_a), veh/h	457	906	0	444	906	770	727	0	734	1590	0	1648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.9	16.2	0.0	15.0	16.0	0.0	18.5	0.0	18.6	9.7	0.0	7.0
Incr Delay (d2), s/veh	0.1	1.8	0.0	0.1	1.4	0.0	1.7	0.0	4.9	2.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	0.0	0.1	1.0	0.0	0.1	0.0	0.3	6.0	0.0	1.3
LnGrp Delay(d),s/veh	15.0	18.0	0.0	15.0	17.4	0.0	20.2	0.0	23.5	11.7	0.0	7.2
LnGrp LOS	B	B		B	B		C		C	B		A
Approach Vol, veh/h		123			106			32			796	
Approach Delay, s/veh		17.8			17.1			22.5			10.6	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	8.6		20.8	4.5	8.6		5.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	19.0		35.0	4.0	19.0		16.0				
Max Q Clear Time (g_c+I1), s	2.2	4.2		13.7	2.2	3.9		2.5				
Green Ext Time (p_c), s	0.0	0.9		3.1	0.0	0.9		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			12.5									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 19.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	623	25	52	349	85	1	1	7	84	46	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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	677	27	57	379	92	1	1	8	91	50	28

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	472	0	0	704	0	0	1321	1328	691	1286	1296	426
Stage 1	-	-	-	-	-	-	743	743	-	539	539	-
Stage 2	-	-	-	-	-	-	578	585	-	747	757	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1090	-	-	894	-	-	134	155	445	141	162	628
Stage 1	-	-	-	-	-	-	407	422	-	527	522	-
Stage 2	-	-	-	-	-	-	501	498	-	405	416	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	894	-	-	89	142	445	129	148	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	142	-	129	148	-
Stage 1	-	-	-	-	-	-	397	412	-	514	489	-
Stage 2	-	-	-	-	-	-	402	466	-	388	406	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1	19.1	158.4
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	1090	-	-	894	-	-	155
HCM Lane V/C Ratio	0.037	0.024	-	-	0.063	-	-	1.094
HCM Control Delay (s)	19.1	8.4	-	-	9.3	-	-	158.4
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-	-	8.9



**Intersection**

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	746	24	11	465	26	6
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	811	26	12	505	28	7






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	811
Stage 1	-	-	811
Stage 2	-	-	529
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	815
Stage 1	-	-	437
Stage 2	-	-	591
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	815
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	437
Stage 2	-	-	582

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	379	-	-	815	-
HCM Lane V/C Ratio	0.17	0.017	-	-	0.015	-
HCM Control Delay (s)	31.1	14.7	-	-	9.5	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-

HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

AM Saturday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	124	17	9	91	397	15	68	23	508	75	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	135	0	10	99	0	16	74	25	552	82	25
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	304	246	0	275	241	205	144	108	37	683	528	161
Arrive On Green	0.01	0.13	0.00	0.01	0.13	0.00	0.08	0.08	0.08	0.39	0.39	0.39
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1333	450	1774	1371	418
Grp Volume(v), veh/h	13	135	0	10	99	0	16	0	99	552	0	107
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1783	1774	0	1789
Q Serve(g_s), s	0.3	2.8	0.0	0.2	2.0	0.0	0.3	0.0	2.2	11.4	0.0	1.6
Cycle Q Clear(g_c), s	0.3	2.8	0.0	0.2	2.0	0.0	0.3	0.0	2.2	11.4	0.0	1.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.25	1.00		0.23
Lane Grp Cap(c), veh/h	304	246	0	275	241	205	144	0	145	683	0	689
V/C Ratio(X)	0.04	0.55	0.00	0.04	0.41	0.00	0.11	0.00	0.68	0.81	0.00	0.16
Avail Cap(c_a), veh/h	453	865	0	430	865	735	694	0	697	1517	0	1530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	16.6	0.0	15.3	16.4	0.0	17.4	0.0	18.3	11.2	0.0	8.2
Incr Delay (d2), s/veh	0.1	1.9	0.0	0.1	1.1	0.0	0.3	0.0	5.6	2.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.6	0.0	0.1	1.1	0.0	0.2	0.0	1.3	6.0	0.0	0.8
LnGrp Delay(d),s/veh	15.3	18.5	0.0	15.4	17.5	0.0	17.8	0.0	23.9	13.6	0.0	8.3
LnGrp LOS	B	B		B	B		B		C	B		A
Approach Vol, veh/h		148			109			115			659	
Approach Delay, s/veh		18.2			17.3			23.1			12.7	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	9.4		19.8	4.5	9.3		7.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	19.0		35.0	4.0	19.0		16.0				
Max Q Clear Time (g_c+I1), s	2.2	4.8		13.4	2.3	4.0		4.2				
Green Ext Time (p_c), s	0.0	1.0		2.4	0.0	1.0		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			15.1									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	32	593	30	14	470	122	3	6	38	77	8	24
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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	645	33	15	511	133	3	7	41	84	9	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	677	0	0	1355	1404	661	1362	1355	577
Stage 1	-	-	-	-	-	-	730	730	-	608	608	-
Stage 2	-	-	-	-	-	-	625	674	-	754	747	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	942	-	-	915	-	-	127	140	462	125	149	516
Stage 1	-	-	-	-	-	-	414	428	-	483	486	-
Stage 2	-	-	-	-	-	-	473	454	-	401	420	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	942	-	-	915	-	-	110	133	462	105	141	516
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	133	-	105	141	-
Stage 1	-	-	-	-	-	-	399	412	-	465	478	-
Stage 2	-	-	-	-	-	-	434	447	-	346	404	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	19.2	121.2
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	942	-	-	915	-	-	130
HCM Lane V/C Ratio	0.168	0.037	-	-	0.017	-	-	0.911
HCM Control Delay (s)	19.2	9	-	-	9	-	-	121.2
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	6

**Intersection**

Int Delay, s/veh 7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	117	82	504	113	20
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	75	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	580	127	89	548	123	22






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	580
Stage 1	-	-	580
Stage 2	-	-	726
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	994
Stage 1	-	-	560
Stage 2	-	-	479
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	994
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	560
Stage 2	-	-	436

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	67.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	160	514	-	-	994	-
HCM Lane V/C Ratio	0.768	0.042	-	-	0.09	-
HCM Control Delay (s)	77.7	12.3	-	-	9	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	4.9	0.1	-	-	0.3	-

HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

PM Saturday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	102	11	13	80	461	9	77	16	489	64	8
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	20	111	0	14	87	0	10	84	17	532	70	9
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	217	0	289	207	176	142	120	24	666	607	78
Arrive On Green	0.02	0.12	0.00	0.01	0.11	0.00	0.08	0.08	0.08	0.38	0.38	0.38
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1505	304	1774	1618	208
Grp Volume(v), veh/h	20	111	0	14	87	0	10	0	101	532	0	79
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1809	1774	0	1826
Q Serve(g_s), s	0.4	2.2	0.0	0.3	1.7	0.0	0.2	0.0	2.1	10.3	0.0	1.1
Cycle Q Clear(g_c), s	0.4	2.2	0.0	0.3	1.7	0.0	0.2	0.0	2.1	10.3	0.0	1.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.17	1.00		0.11
Lane Grp Cap(c), veh/h	310	217	0	289	207	176	142	0	144	666	0	685
V/C Ratio(X)	0.06	0.51	0.00	0.05	0.42	0.00	0.07	0.00	0.70	0.80	0.00	0.12
Avail Cap(c_a), veh/h	458	916	0	447	916	778	734	0	749	1607	0	1654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	16.0	0.0	14.9	16.0	0.0	16.5	0.0	17.3	10.8	0.0	7.9
Incr Delay (d2), s/veh	0.1	1.9	0.0	0.1	1.4	0.0	0.2	0.0	6.0	2.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	0.0	0.1	0.9	0.0	0.1	0.0	1.3	5.4	0.0	0.6
LnGrp Delay(d),s/veh	14.9	17.9	0.0	15.0	17.4	0.0	16.7	0.0	23.3	13.0	0.0	8.0
LnGrp LOS	B	B		B	B		B		C	B		A
Approach Vol, veh/h		131			101			111			611	
Approach Delay, s/veh		17.4			17.1			22.7			12.4	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	8.5		18.5	4.8	8.3		7.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	19.0		35.0	4.0	19.0		16.0				
Max Q Clear Time (g_c+I1), s	2.3	4.2		12.3	2.4	3.7		4.1				
Green Ext Time (p_c), s	0.0	0.8		2.2	0.0	0.8		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			14.8									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	598	19	15	485	131	6	6	19	79	3	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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	650	21	16	527	142	7	7	21	86	3	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	671	0	0	1360	1415	660	1357	1354	598
Stage 1	-	-	-	-	-	-	713	713	-	631	631	-
Stage 2	-	-	-	-	-	-	647	702	-	726	723	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	920	-	-	919	-	-	126	137	463	126	150	502
Stage 1	-	-	-	-	-	-	423	435	-	469	474	-
Stage 2	-	-	-	-	-	-	460	440	-	416	431	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	920	-	-	919	-	-	113	131	463	112	143	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	131	-	112	143	-
Stage 1	-	-	-	-	-	-	411	423	-	456	466	-
Stage 2	-	-	-	-	-	-	424	432	-	380	419	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	24.1	101.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	920	-	-	919	-	-	139
HCM Lane V/C Ratio	0.152	0.028	-	-	0.018	-	-	0.845
HCM Control Delay (s)	24.1	9	-	-	9	-	-	101.1
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	5.4

**Intersection**

Int Delay, s/veh 24

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	514	167	46	452	218	21
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	559	182	50	491	237	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	559
Stage 1	-	-	559
Stage 2	-	-	591
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1012
Stage 1	-	-	572
Stage 2	-	-	553
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1012
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	572
Stage 2	-	-	526

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	140.5
HCM LOS			F






















Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	529	-	-	1012	-
HCM Lane V/C Ratio	1.139	0.043	-	-	0.049	-
HCM Control Delay (s)	152.9	12.1	-	-	8.7	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	11.4	0.1	-	-	0.2	-

**Notes**

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

HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd



















AM Thursday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	110	1	1	144	580	1	5	0	198	4	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	120	0	1	157	0	1	5	0	215	4	7
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	232	0	163	211	179	11	12	0	1225	421	736
Arrive On Green	0.01	0.12	0.00	0.00	0.11	0.00	0.01	0.01	0.00	0.69	0.69	0.69
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1863	0	1774	609	1066
Grp Volume(v), veh/h	13	120	0	1	157	0	1	5	0	215	0	11
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	1863	0	1774	0	1675
Q Serve(g_s), s	0.6	5.4	0.0	0.0	7.3	0.0	0.1	0.2	0.0	3.8	0.0	0.2
Cycle Q Clear(g_c), s	0.6	5.4	0.0	0.0	7.3	0.0	0.1	0.2	0.0	3.8	0.0	0.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.64
Lane Grp Cap(c), veh/h	141	232	0	163	211	179	11	12	0	1225	0	1156
V/C Ratio(X)	0.09	0.52	0.00	0.01	0.74	0.00	0.09	0.43	0.00	0.18	0.00	0.01
Avail Cap(c_a), veh/h	198	352	0	240	352	299	315	331	0	1225	0	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.78	0.78	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	36.9	0.0	35.4	38.6	0.0	44.5	44.6	0.0	4.9	0.0	4.3
Incr Delay (d2), s/veh	0.3	1.8	0.0	0.0	4.1	0.0	3.5	23.6	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.9	0.0	0.0	4.0	0.0	0.0	0.2	0.0	2.0	0.0	0.1
LnGrp Delay(d),s/veh	35.3	38.7	0.0	35.4	42.7	0.0	48.0	68.2	0.0	5.2	0.0	4.4
LnGrp LOS	D	D		D	D		D	E		A		A
Approach Vol, veh/h		133			158			6			226	
Approach Delay, s/veh		38.3			42.7			64.8			5.2	
Approach LOS		D			D			E			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.1	15.2		66.1	5.1	14.2		4.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	17.0		37.0	4.0	17.0		16.0				
Max Q Clear Time (g_c+I1), s	2.0	7.4		5.8	2.6	9.3		2.2				
Green Ext Time (p_c), s	0.0	1.0		0.7	0.0	0.8		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			25.6									
HCM 2010 LOS			C									



HCM 2010 Signalized Intersection Summary  
6: Cropwell Rd & Hardwick Rd

AM Thursday  
1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	33	271	3	1	690	80	0	0	2	31	5	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	36	295	3	1	750	87	0	0	2	34	5	39
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	679	1397	14	438	692	80	0	0	3	44	6	51
Arrive On Green	0.34	0.76	0.76	0.00	0.42	0.42	0.00	0.00	0.00	0.06	0.06	0.06
Sat Flow, veh/h	1774	1841	19	1774	1639	190	0	0	1583	731	108	839
Grp Volume(v), veh/h	36	0	298	1	0	837	0	0	2	78	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1859	1774	0	1829	0	0	1583	1678	0	0
Q Serve(g_s), s	0.0	0.0	4.1	0.0	0.0	38.0	0.0	0.0	0.1	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	4.1	0.0	0.0	38.0	0.0	0.0	0.1	4.1	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.10	0.00		1.00	0.44		0.50
Lane Grp Cap(c), veh/h	679	0	1411	438	0	772	0	0	3	101	0	0
V/C Ratio(X)	0.05	0.00	0.21	0.00	0.00	1.08	0.00	0.00	0.58	0.77	0.00	0.00
Avail Cap(c_a), veh/h	679	0	1411	515	0	772	0	0	281	298	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	3.1	16.4	0.0	26.0	0.0	0.0	44.9	41.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.0	0.0	57.5	0.0	0.0	102.4	11.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.2	0.0	0.0	31.4	0.0	0.0	0.1	2.2	0.0	0.0
LnGrp Delay(d),s/veh	19.8	0.0	3.5	16.4	0.0	83.5	0.0	0.0	147.3	53.4	0.0	0.0
LnGrp LOS	B		A	B		F			F	D		
Approach Vol, veh/h		334			838			2			78	
Approach Delay, s/veh		5.2			83.4			147.3			53.4	
Approach LOS		A			F			F			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.1	72.3		9.4	34.4	42.0		4.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0				
Max Q Clear Time (g_c+I1), s	2.0	6.1		6.1	2.0	40.0		2.1				
Green Ext Time (p_c), s	0.0	1.9		0.2	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			60.8									
HCM 2010 LOS			E									

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	0	0	720	0	0
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	75	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	314	0	0	783	0	0






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	314
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1246
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1246
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1246	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-



















HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

PM Thursday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	103	42	10	87	278	9	16	5	564	156	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	112	0	11	95	0	10	17	5	613	170	13
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	164	0	137	164	140	43	34	10	1240	1195	91
Arrive On Green	0.01	0.09	0.00	0.01	0.09	0.00	0.02	0.02	0.02	0.70	0.70	0.70
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1384	407	1774	1709	131
Grp Volume(v), veh/h	11	112	0	11	95	0	10	0	22	613	0	183
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1791	1774	0	1840
Q Serve(g_s), s	0.5	5.3	0.0	0.5	4.4	0.0	0.5	0.0	1.1	14.3	0.0	3.0
Cycle Q Clear(g_c), s	0.5	5.3	0.0	0.5	4.4	0.0	0.5	0.0	1.1	14.3	0.0	3.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.23	1.00		0.07
Lane Grp Cap(c), veh/h	150	164	0	137	164	140	43	0	44	1240	0	1286
V/C Ratio(X)	0.07	0.68	0.00	0.08	0.58	0.00	0.23	0.00	0.50	0.49	0.00	0.14
Avail Cap(c_a), veh/h	210	352	0	197	352	299	315	0	318	1240	0	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.93	0.93	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	39.8	0.0	36.9	39.4	0.0	43.1	0.0	43.4	6.2	0.0	4.5
Incr Delay (d2), s/veh	0.2	4.9	0.0	0.2	3.0	0.0	2.7	0.0	8.6	1.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.9	0.0	0.3	2.4	0.0	0.3	0.0	0.6	7.3	0.0	1.6
LnGrp Delay(d),s/veh	37.1	44.7	0.0	37.2	42.4	0.0	45.7	0.0	52.0	7.6	0.0	4.8
LnGrp LOS	D	D		D	D		D		D	A		A
Approach Vol, veh/h		123			106			32			796	
Approach Delay, s/veh		44.1			41.9			50.0			7.0	
Approach LOS		D			D			D			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	11.9		66.9	5.0	11.9		6.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	17.0		37.0	4.0	17.0		16.0				
Max Q Clear Time (g_c+I1), s	2.5	7.3		16.3	2.5	6.4		3.1				
Green Ext Time (p_c), s	0.0	0.7		3.1	0.0	0.7		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			16.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
6: Cropwell Rd & Hardwick Rd

PM Thursday  
1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	623	25	52	349	85	1	1	7	84	46	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	26	677	27	57	379	92	1	1	8	91	50	28
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	808	1173	47	304	432	105	2	2	13	112	62	34
Arrive On Green	0.79	1.00	1.00	0.04	0.30	0.30	0.01	0.01	0.01	0.12	0.12	0.12
Sat Flow, veh/h	1774	1779	71	1774	1449	352	163	163	1300	950	522	292
Grp Volume(v), veh/h	26	0	704	57	0	471	10	0	0	169	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1850	1774	0	1801	1625	0	0	1764	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	22.4	0.6	0.0	0.0	8.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.2	0.0	22.4	0.6	0.0	0.0	8.4	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.20	0.10		0.80	0.54		0.17
Lane Grp Cap(c), veh/h	808	0	1220	304	0	537	16	0	0	208	0	0
V/C Ratio(X)	0.03	0.00	0.58	0.19	0.00	0.88	0.63	0.00	0.00	0.81	0.00	0.00
Avail Cap(c_a), veh/h	808	0	1220	321	0	760	289	0	0	314	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.83	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.2	0.0	0.0	24.4	0.0	30.0	44.4	0.0	0.0	38.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7	0.3	0.0	8.4	33.9	0.0	0.0	9.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.6	1.1	0.0	12.4	0.4	0.0	0.0	4.6	0.0	0.0
LnGrp Delay(d),s/veh	5.2	0.0	1.7	24.7	0.0	38.4	78.3	0.0	0.0	48.0	0.0	0.0
LnGrp LOS	A		A	C		D	E			D		
Approach Vol, veh/h		730			528			10			169	
Approach Delay, s/veh		1.8			37.0			78.3			48.0	
Approach LOS		A			D			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	63.3		14.6	39.7	30.8		4.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0				
Max Q Clear Time (g_c+I1), s	4.2	2.0		10.4	2.0	24.4		2.6				
Green Ext Time (p_c), s	0.0	5.6		0.4	0.9	2.4		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			20.7									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	746	24	11	465	26	6
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	75	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	811	26	12	505	28	7






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	811
Stage 1	-	-	811
Stage 2	-	-	529
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	815
Stage 1	-	-	437
Stage 2	-	-	591
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	815
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	437
Stage 2	-	-	582

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	379	-	-	815	-
HCM Lane V/C Ratio	0.17	0.017	-	-	0.015	-
HCM Control Delay (s)	31.1	14.7	-	-	9.5	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-



















HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

AM Saturday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	124	17	9	91	397	15	68	23	508	75	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	135	0	10	99	0	16	74	25	552	82	25
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	188	0	135	183	155	133	100	34	1129	873	266
Arrive On Green	0.01	0.10	0.00	0.01	0.10	0.00	0.08	0.08	0.08	0.64	0.64	0.64
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1333	450	1774	1371	418
Grp Volume(v), veh/h	13	135	0	10	99	0	16	0	99	552	0	107
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1783	1774	0	1789
Q Serve(g_s), s	0.6	6.3	0.0	0.5	4.6	0.0	0.8	0.0	4.9	14.8	0.0	2.1
Cycle Q Clear(g_c), s	0.6	6.3	0.0	0.5	4.6	0.0	0.8	0.0	4.9	14.8	0.0	2.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.25	1.00		0.23
Lane Grp Cap(c), veh/h	163	188	0	135	183	155	133	0	134	1129	0	1139
V/C Ratio(X)	0.08	0.72	0.00	0.07	0.54	0.00	0.12	0.00	0.74	0.49	0.00	0.09
Avail Cap(c_a), veh/h	220	352	0	197	352	299	315	0	317	1129	0	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.82	0.82	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	39.2	0.0	36.2	38.7	0.0	38.8	0.0	40.7	8.6	0.0	6.3
Incr Delay (d2), s/veh	0.2	5.1	0.0	0.2	2.0	0.0	0.4	0.0	7.7	1.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.5	0.0	0.2	2.4	0.0	0.4	0.0	2.7	7.7	0.0	1.1
LnGrp Delay(d),s/veh	36.2	44.4	0.0	36.4	40.7	0.0	39.2	0.0	48.4	10.1	0.0	6.5
LnGrp LOS	D	D		D	D		D		D	B		A
Approach Vol, veh/h		148			109			115			659	
Approach Delay, s/veh		43.6			40.3			47.1			9.6	
Approach LOS		D			D			D			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	13.1		61.3	5.1	12.8		10.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	17.0		37.0	4.0	17.0		16.0				
Max Q Clear Time (g_c+I1), s	2.5	8.3		16.8	2.6	6.6		6.9				
Green Ext Time (p_c), s	0.0	0.7		2.4	0.0	0.8		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.9								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
6: Cropwell Rd & Hardwick Rd

AM Saturday  
1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	593	30	14	470	122	3	6	38	77	8	24
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	35	645	33	15	511	133	3	7	41	84	9	26
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	644	1196	61	353	551	143	4	9	52	108	12	33
Arrive On Green	0.62	1.00	1.00	0.01	0.39	0.39	0.04	0.04	0.04	0.09	0.09	0.09
Sat Flow, veh/h	1774	1757	90	1774	1426	371	96	223	1308	1224	131	379
Grp Volume(v), veh/h	35	0	678	15	0	644	51	0	0	119	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1847	1774	0	1797	1627	0	0	1735	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	30.8	2.8	0.0	0.0	6.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.5	0.0	30.8	2.8	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.21	0.06		0.80	0.71		0.22
Lane Grp Cap(c), veh/h	644	0	1258	353	0	694	64	0	0	153	0	0
V/C Ratio(X)	0.05	0.00	0.54	0.04	0.00	0.93	0.80	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	644	0	1258	408	0	759	289	0	0	308	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.00	0.84	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	0.0	18.4	0.0	26.4	42.9	0.0	0.0	40.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.4	0.0	0.0	16.7	19.5	0.0	0.0	8.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.5	0.2	0.0	18.4	1.6	0.0	0.0	3.3	0.0	0.0
LnGrp Delay(d),s/veh	11.5	0.0	1.4	18.4	0.0	43.2	62.4	0.0	0.0	48.5	0.0	0.0
LnGrp LOS	B		A	B		D	E			D		
Approach Vol, veh/h		713			659			51			119	
Approach Delay, s/veh		1.9			42.6			62.4			48.5	
Approach LOS		A			D			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	65.3		11.9	31.8	38.8		7.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0				
Max Q Clear Time (g_c+I1), s	2.5	2.0		8.0	2.0	32.8		4.8				
Green Ext Time (p_c), s	0.0	5.3		0.3	0.9	1.9		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			24.9									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	117	82	504	113	20
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	75	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	580	127	89	548	123	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	580
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	994
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	994
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-






















Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	67.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	160	514	-	-	994	-
HCM Lane V/C Ratio	0.768	0.042	-	-	0.09	-
HCM Control Delay (s)	77.7	12.3	-	-	9	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	4.9	0.1	-	-	0.3	-





















HCM 2010 Signalized Intersection Summary  
 1: SR 34 & Cropwell Rd

PM Saturday  
 1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	102	11	13	80	461	9	77	16	489	64	8
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	20	111	0	14	87	0	10	84	17	532	70	9
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	162	0	141	154	131	133	113	23	1148	1047	135
Arrive On Green	0.02	0.09	0.00	0.01	0.08	0.00	0.07	0.07	0.07	0.65	0.65	0.65
Sat Flow, veh/h	1774	1863	0	1774	1863	1583	1774	1505	304	1774	1618	208
Grp Volume(v), veh/h	20	111	0	14	87	0	10	0	101	532	0	79
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	0	1809	1774	0	1826
Q Serve(g_s), s	0.9	5.2	0.0	0.6	4.0	0.0	0.5	0.0	4.9	13.6	0.0	1.4
Cycle Q Clear(g_c), s	0.9	5.2	0.0	0.6	4.0	0.0	0.5	0.0	4.9	13.6	0.0	1.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.17	1.00		0.11
Lane Grp Cap(c), veh/h	160	162	0	141	154	131	133	0	136	1148	0	1181
V/C Ratio(X)	0.12	0.68	0.00	0.10	0.56	0.00	0.08	0.00	0.74	0.46	0.00	0.07
Avail Cap(c_a), veh/h	208	352	0	196	352	299	315	0	322	1148	0	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.82	0.82	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	39.9	0.0	37.2	39.7	0.0	38.7	0.0	40.8	8.0	0.0	5.9
Incr Delay (d2), s/veh	0.3	5.0	0.0	0.3	2.6	0.0	0.2	0.0	7.8	1.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.9	0.0	0.3	2.2	0.0	0.2	0.0	2.8	6.9	0.0	0.8
LnGrp Delay(d),s/veh	37.3	44.9	0.0	37.5	42.4	0.0	39.0	0.0	48.6	9.4	0.0	6.0
LnGrp LOS	D	D		D	D		D		D	A		A
Approach Vol, veh/h		131			101			111			611	
Approach Delay, s/veh		43.7			41.7			47.7			8.9	
Approach LOS		D			D			D			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	11.8		62.2	5.6	11.5		10.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	17.0		37.0	4.0	17.0		16.0				
Max Q Clear Time (g_c+I1), s	2.6	7.2		15.6	2.9	6.0		6.9				
Green Ext Time (p_c), s	0.0	0.6		2.1	0.0	0.7		0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				21.7								
HCM 2010 LOS				C								

HCM 2010 Signalized Intersection Summary  
6: Cropwell Rd & Hardwick Rd

PM Saturday  
1/13/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	598	19	15	485	131	6	6	19	79	3	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	26	650	21	16	527	142	7	7	21	86	3	28
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	647	1247	40	364	562	151	9	9	26	110	4	36
Arrive On Green	0.62	1.00	1.00	0.01	0.40	0.40	0.03	0.03	0.03	0.09	0.09	0.09
Sat Flow, veh/h	1774	1795	58	1774	1414	381	334	334	1002	1269	44	413
Grp Volume(v), veh/h	26	0	671	16	0	669	35	0	0	117	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1853	1774	0	1795	1669	0	0	1726	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	32.2	1.9	0.0	0.0	6.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.5	0.0	32.2	1.9	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.21	0.20		0.60	0.74		0.24
Lane Grp Cap(c), veh/h	647	0	1287	364	0	714	43	0	0	150	0	0
V/C Ratio(X)	0.04	0.00	0.52	0.04	0.00	0.94	0.81	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	647	0	1287	417	0	758	297	0	0	307	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.00	0.87	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	17.7	0.0	26.0	43.6	0.0	0.0	40.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.3	0.0	0.0	18.6	28.6	0.0	0.0	8.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	0.3	0.0	19.5	1.2	0.0	0.0	3.2	0.0	0.0
LnGrp Delay(d),s/veh	11.3	0.0	1.3	17.8	0.0	44.6	72.2	0.0	0.0	48.7	0.0	0.0
LnGrp LOS	B		A	B		D	E			D		
Approach Vol, veh/h		697			685			35			117	
Approach Delay, s/veh		1.7			44.0			72.2			48.7	
Approach LOS		A			D			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	66.5		11.8	32.1	39.8		6.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	38.0		16.0	4.0	38.0		16.0				
Max Q Clear Time (g_c+I1), s	2.5	2.0		8.0	2.0	34.2		3.9				
Green Ext Time (p_c), s	0.0	5.2		0.3	0.9	1.6		0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			25.8									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 24

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	514	167	46	452	218	21
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	75	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	559	182	50	491	237	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	559
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1012
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1012
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	140.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	529	-	-	1012	-
HCM Lane V/C Ratio	1.139	0.043	-	-	0.049	-
HCM Control Delay (s)	152.9	12.1	-	-	8.7	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	11.4	0.1	-	-	0.2	-

**Notes**

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

Intersection				
Intersection Delay, s/veh	12.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	134	788	6	226
Demand Flow Rate, veh/h	136	804	6	230
Vehicles Circulating, veh/h	224	19	354	162
Vehicles Exiting, veh/h	168	341	6	661
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	15.1	4.7	6.2
Approach LOS	A	C	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	136	804	6	230
Cap Entry Lane, veh/h	903	1109	793	961
Entry HV Adj Factor	0.982	0.980	0.984	0.982
Flow Entry, veh/h	134	788	6	226
Cap Entry, veh/h	887	1086	780	944
V/C Ratio	0.151	0.725	0.008	0.239
Control Delay, s/veh	5.5	15.1	4.7	6.2
LOS	A	C	A	A
95th %tile Queue, veh	1	7	0	1

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	33	271	3	1	690	80	0	0	2	31	5	36
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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	295	3	1	750	87	0	0	2	34	5	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	837	0	0	298	0	0	1186	1207	296	1165	1166	793
Stage 1	-	-	-	-	-	-	368	368	-	796	796	-
Stage 2	-	-	-	-	-	-	818	839	-	369	370	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	797	-	-	1263	-	-	166	183	743	171	194	389
Stage 1	-	-	-	-	-	-	652	621	-	380	399	-
Stage 2	-	-	-	-	-	-	370	381	-	651	620	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	797	-	-	1263	-	-	141	175	743	165	185	389
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	175	-	165	185	-
Stage 1	-	-	-	-	-	-	623	593	-	363	399	-
Stage 2	-	-	-	-	-	-	328	381	-	620	592	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	9.9	27.9
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	743	797	-	-	1263	-	-	234
HCM Lane V/C Ratio	0.003	0.045	-	-	0.001	-	-	0.334
HCM Control Delay (s)	9.9	9.7	-	-	7.9	-	-	27.9
HCM Lane LOS	A	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1.4

**Intersection**

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	289	0	0	720	0	0
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	314	0	0	783	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	314
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1246
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1246
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	1246	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-

Intersection				
Intersection Delay, s/veh	15.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	169	408	32	796
Demand Flow Rate, veh/h	172	416	32	811
Vehicles Circulating, veh/h	809	38	750	118
Vehicles Exiting, veh/h	120	744	231	336
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.7	7.4	7.5	21.0
Approach LOS	B	A	A	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	172	416	32	811
Cap Entry Lane, veh/h	503	1088	534	1004
Entry HV Adj Factor	0.981	0.981	0.990	0.981
Flow Entry, veh/h	169	408	32	796
Cap Entry, veh/h	494	1067	528	985
V/C Ratio	0.342	0.382	0.060	0.808
Control Delay, s/veh	12.7	7.4	7.5	21.0
LOS	B	A	A	C
95th %tile Queue, veh	2	2	0	9

**Intersection**

Int Delay, s/veh 19.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	623	25	52	349	85	1	1	7	84	46	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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	677	27	57	379	92	1	1	8	91	50	28

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	472	0	0	704	0	0	1321	1328	691	1286	1296	426
Stage 1	-	-	-	-	-	-	743	743	-	539	539	-
Stage 2	-	-	-	-	-	-	578	585	-	747	757	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1090	-	-	894	-	-	134	155	445	141	162	628
Stage 1	-	-	-	-	-	-	407	422	-	527	522	-
Stage 2	-	-	-	-	-	-	501	498	-	405	416	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1090	-	-	894	-	-	89	142	445	129	148	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	142	-	129	148	-
Stage 1	-	-	-	-	-	-	397	412	-	514	489	-
Stage 2	-	-	-	-	-	-	402	466	-	388	406	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1	19.1	158.4
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	1090	-	-	894	-	-	155
HCM Lane V/C Ratio	0.037	0.024	-	-	0.063	-	-	1.094
HCM Control Delay (s)	19.1	8.4	-	-	9.3	-	-	158.4
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-	-	8.9



**Intersection**

Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	746	24	11	465	26	6
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	811	26	12	505	28	7

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	811
Stage 1	-	-	811
Stage 2	-	-	529
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	815
Stage 1	-	-	437
Stage 2	-	-	591
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	815
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	437
Stage 2	-	-	582

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	166	379	-	-	815	-
HCM Lane V/C Ratio	0.17	0.017	-	-	0.015	-
HCM Control Delay (s)	31.1	14.7	-	-	9.5	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-

Intersection				
Intersection Delay, s/veh	12.1			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	166	541	115	659
Demand Flow Rate, veh/h	169	552	117	673
Vehicles Circulating, veh/h	657	104	714	127
Vehicles Exiting, veh/h	142	726	112	529
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	10.5	9.5	14.4
Approach LOS	B	B	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	169	552	117	673
Cap Entry Lane, veh/h	586	1018	553	995
Entry HV Adj Factor	0.984	0.980	0.979	0.980
Flow Entry, veh/h	166	541	115	659
Cap Entry, veh/h	576	998	542	975
V/C Ratio	0.289	0.542	0.211	0.676
Control Delay, s/veh	10.2	10.5	9.5	14.4
LOS	B	B	A	B
95th %tile Queue, veh	1	3	1	6

**Intersection**

Int Delay, s/veh 10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	32	593	30	14	470	122	3	6	38	77	8	24
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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	645	33	15	511	133	3	7	41	84	9	26

Major/Minor	Major1	Major2	Minor1	Minor2								
Conflicting Flow All	643	0	0	677	0	0	1355	1404	661	1362	1355	577
Stage 1	-	-	-	-	-	-	730	730	-	608	608	-
Stage 2	-	-	-	-	-	-	625	674	-	754	747	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	942	-	-	915	-	-	127	140	462	125	149	516
Stage 1	-	-	-	-	-	-	414	428	-	483	486	-
Stage 2	-	-	-	-	-	-	473	454	-	401	420	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	942	-	-	915	-	-	110	133	462	105	141	516
Mov Cap-2 Maneuver	-	-	-	-	-	-	110	133	-	105	141	-
Stage 1	-	-	-	-	-	-	399	412	-	465	478	-
Stage 2	-	-	-	-	-	-	434	447	-	346	404	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	19.2	121.2
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	942	-	-	915	-	-	130
HCM Lane V/C Ratio	0.168	0.037	-	-	0.017	-	-	0.911
HCM Control Delay (s)	19.2	9	-	-	9	-	-	121.2
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	6

**Intersection**

Int Delay, s/veh 7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	117	82	504	113	20
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	580	127	89	548	123	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	580
Stage 1	-	-	580
Stage 2	-	-	726
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	994
Stage 1	-	-	560
Stage 2	-	-	479
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	994
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	560
Stage 2	-	-	436

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	67.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	160	514	-	-	994	-
HCM Lane V/C Ratio	0.768	0.042	-	-	0.09	-
HCM Control Delay (s)	77.7	12.3	-	-	9	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	4.9	0.1	-	-	0.3	-

Intersection				
Intersection Delay, s/veh	11.8			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	143	602	111	611
Demand Flow Rate, veh/h	145	614	113	623
Vehicles Circulating, veh/h	628	116	676	113
Vehicles Exiting, veh/h	108	673	97	617
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	12.2	8.9	12.4
Approach LOS	A	B	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	145	614	113	623
Cap Entry Lane, veh/h	603	1006	575	1009
Entry HV Adj Factor	0.985	0.981	0.985	0.980
Flow Entry, veh/h	143	602	111	611
Cap Entry, veh/h	594	987	566	989
V/C Ratio	0.240	0.610	0.197	0.617
Control Delay, s/veh	9.2	12.2	8.9	12.4
LOS	A	B	A	B
95th %tile Queue, veh	1	4	1	4

Intersection												
Int Delay, s/veh	8.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	598	19	15	485	131	6	6	19	79	3	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	50	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	650	21	16	527	142	7	7	21	86	3	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	671	0	0	1360	1415	660	1357	1354	598
Stage 1	-	-	-	-	-	-	713	713	-	631	631	-
Stage 2	-	-	-	-	-	-	647	702	-	726	723	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	920	-	-	919	-	-	126	137	463	126	150	502
Stage 1	-	-	-	-	-	-	423	435	-	469	474	-
Stage 2	-	-	-	-	-	-	460	440	-	416	431	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	920	-	-	919	-	-	113	131	463	112	143	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	131	-	112	143	-
Stage 1	-	-	-	-	-	-	411	423	-	456	466	-
Stage 2	-	-	-	-	-	-	424	432	-	380	419	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	24.1	101.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	222	920	-	-	919	-	-	139
HCM Lane V/C Ratio	0.152	0.028	-	-	0.018	-	-	0.845
HCM Control Delay (s)	24.1	9	-	-	9	-	-	101.1
HCM Lane LOS	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	5.4

**Intersection**

Int Delay, s/veh 24

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	514	167	46	452	218	21
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	75	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	559	182	50	491	237	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	559
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1012
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1012
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	140.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	529	-	-	1012	-
HCM Lane V/C Ratio	1.139	0.043	-	-	0.049	-
HCM Control Delay (s)	152.9	12.1	-	-	8.7	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	11.4	0.1	-	-	0.2	-

**Notes**

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

Intersection				
Intersection Delay, s/veh	12.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	134	788	6	226
Demand Flow Rate, veh/h	136	804	6	230
Vehicles Circulating, veh/h	224	19	354	162
Vehicles Exiting, veh/h	168	341	6	661
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	15.1	4.7	6.2
Approach LOS	A	C	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	136	804	6	230
Cap Entry Lane, veh/h	903	1109	793	961
Entry HV Adj Factor	0.982	0.980	0.984	0.982
Flow Entry, veh/h	134	788	6	226
Cap Entry, veh/h	887	1086	780	944
V/C Ratio	0.151	0.725	0.008	0.239
Control Delay, s/veh	5.5	15.1	4.7	6.2
LOS	A	C	A	A
95th %tile Queue, veh	1	7	0	1



Intersection				
Intersection Delay, s/veh	14.6			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	334	838	2	78
Demand Flow Rate, veh/h	341	855	2	80
Vehicles Circulating, veh/h	41	37	373	766
Vehicles Exiting, veh/h	805	338	9	126
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	18.4	4.7	9.1
Approach LOS	A	C	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	341	855	2	80
Cap Entry Lane, veh/h	1085	1089	778	525
Entry HV Adj Factor	0.980	0.980	1.000	0.974
Flow Entry, veh/h	334	838	2	78
Cap Entry, veh/h	1063	1067	778	511
V/C Ratio	0.314	0.785	0.003	0.152
Control Delay, s/veh	6.5	18.4	4.7	9.1
LOS	A	C	A	A
95th %tile Queue, veh	1	8	0	1

Intersection			
Intersection Delay, s/veh	11.8		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	314	783	0
Demand Flow Rate, veh/h	320	799	0
Vehicles Circulating, veh/h	0	0	320
Vehicles Exiting, veh/h	799	320	0
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.9	14.2	0.0
Approach LOS	A	B	-
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	320	799	0
Cap Entry Lane, veh/h	1130	1130	821
Entry HV Adj Factor	0.980	0.980	1.000
Flow Entry, veh/h	314	783	0
Cap Entry, veh/h	1108	1108	821
V/C Ratio	0.283	0.707	0.000
Control Delay, s/veh	5.9	14.2	4.4
LOS	A	B	A
95th %tile Queue, veh	1	6	0

Intersection				
Intersection Delay, s/veh	15.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	169	408	32	796
Demand Flow Rate, veh/h	172	416	32	811
Vehicles Circulating, veh/h	809	38	750	118
Vehicles Exiting, veh/h	120	744	231	336
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.7	7.4	7.5	21.0
Approach LOS	B	A	A	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	172	416	32	811
Cap Entry Lane, veh/h	503	1088	534	1004
Entry HV Adj Factor	0.981	0.981	0.990	0.981
Flow Entry, veh/h	169	408	32	796
Cap Entry, veh/h	494	1067	528	985
V/C Ratio	0.342	0.382	0.060	0.808
Control Delay, s/veh	12.7	7.4	7.5	21.0
LOS	B	A	A	C
95th %tile Queue, veh	2	2	0	9

Intersection				
Intersection Delay, s/veh	15.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	730	528	10	169
Demand Flow Rate, veh/h	746	539	10	173
Vehicles Circulating, veh/h	202	29	811	446
Vehicles Exiting, veh/h	417	792	137	122
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	22.4	9.0	7.4	7.9
Approach LOS	C	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	746	539	10	173
Cap Entry Lane, veh/h	923	1098	502	723
Entry HV Adj Factor	0.979	0.980	0.998	0.977
Flow Entry, veh/h	730	528	10	169
Cap Entry, veh/h	904	1076	501	707
V/C Ratio	0.808	0.491	0.020	0.239
Control Delay, s/veh	22.4	9.0	7.4	7.9
LOS	C	A	A	A
95th %tile Queue, veh	9	3	0	1

Intersection			
Intersection Delay, s/veh	13.7		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	837	517	35
Demand Flow Rate, veh/h	854	527	36
Vehicles Circulating, veh/h	12	29	827
Vehicles Exiting, veh/h	544	834	39
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	16.9	8.8	8.4
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	854	527	36
Cap Entry Lane, veh/h	1116	1098	494
Entry HV Adj Factor	0.980	0.981	0.972
Flow Entry, veh/h	837	517	35
Cap Entry, veh/h	1094	1077	480
V/C Ratio	0.765	0.480	0.073
Control Delay, s/veh	16.9	8.8	8.4
LOS	C	A	A
95th %tile Queue, veh	8	3	0

Intersection				
Intersection Delay, s/veh	12.1			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	166	541	115	659
Demand Flow Rate, veh/h	169	552	117	673
Vehicles Circulating, veh/h	657	104	714	127
Vehicles Exiting, veh/h	142	726	112	529
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.2	10.5	9.5	14.4
Approach LOS	B	B	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	169	552	117	673
Cap Entry Lane, veh/h	586	1018	553	995
Entry HV Adj Factor	0.984	0.980	0.979	0.980
Flow Entry, veh/h	166	541	115	659
Cap Entry, veh/h	576	998	542	975
V/C Ratio	0.289	0.542	0.211	0.676
Control Delay, s/veh	10.2	10.5	9.5	14.4
LOS	B	B	A	B
95th %tile Queue, veh	1	3	1	6

Intersection				
Intersection Delay, s/veh	13.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	713	659	51	119
Demand Flow Rate, veh/h	728	672	52	122
Vehicles Circulating, veh/h	110	46	780	539
Vehicles Exiting, veh/h	551	786	58	179
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	15.9	12.0	8.4	7.8
Approach LOS	C	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	728	672	52	122
Cap Entry Lane, veh/h	1012	1079	518	659
Entry HV Adj Factor	0.980	0.980	0.978	0.974
Flow Entry, veh/h	713	659	51	119
Cap Entry, veh/h	992	1058	507	642
V/C Ratio	0.719	0.623	0.100	0.185
Control Delay, s/veh	15.9	12.0	8.4	7.8
LOS	C	B	A	A
95th %tile Queue, veh	6	5	0	1

Intersection			
Intersection Delay, s/veh	13.7		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	707	637	145
Demand Flow Rate, veh/h	722	650	147
Vehicles Circulating, veh/h	91	125	592
Vehicles Exiting, veh/h	684	614	221
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.9	13.6	8.8
Approach LOS	B	B	A
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	722	650	147
Cap Entry Lane, veh/h	1032	997	625
Entry HV Adj Factor	0.980	0.980	0.986
Flow Entry, veh/h	707	637	145
Cap Entry, veh/h	1011	977	617
V/C Ratio	0.700	0.652	0.235
Control Delay, s/veh	14.9	13.6	8.8
LOS	B	B	A
95th %tile Queue, veh	6	5	1



Intersection				
Intersection Delay, s/veh	11.8			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	143	602	111	611
Demand Flow Rate, veh/h	145	614	113	623
Vehicles Circulating, veh/h	628	116	676	113
Vehicles Exiting, veh/h	108	673	97	617
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.2	12.2	8.9	12.4
Approach LOS	A	B	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	145	614	113	623
Cap Entry Lane, veh/h	603	1006	575	1009
Entry HV Adj Factor	0.985	0.981	0.985	0.980
Flow Entry, veh/h	143	602	111	611
Cap Entry, veh/h	594	987	566	989
V/C Ratio	0.240	0.610	0.197	0.617
Control Delay, s/veh	9.2	12.2	8.9	12.4
LOS	A	B	A	B
95th %tile Queue, veh	1	4	1	4

Intersection				
Intersection Delay, s/veh	13.2			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	697	685	35	117
Demand Flow Rate, veh/h	711	699	35	120
Vehicles Circulating, veh/h	107	41	778	561
Vehicles Exiting, veh/h	574	772	40	179
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	15.1	12.5	7.8	8.0
Approach LOS	C	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	711	699	35	120
Cap Entry Lane, veh/h	1015	1085	519	645
Entry HV Adj Factor	0.980	0.981	0.996	0.975
Flow Entry, veh/h	697	685	35	117
Cap Entry, veh/h	995	1064	517	628
V/C Ratio	0.700	0.645	0.067	0.186
Control Delay, s/veh	15.1	12.5	7.8	8.0
LOS	C	B	A	A
95th %tile Queue, veh	6	5	0	1

Intersection			
Intersection Delay, s/veh	13.9		
Intersection LOS	B		
Approach	EB	WB	NB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	741	541	260
Demand Flow Rate, veh/h	756	552	265
Vehicles Circulating, veh/h	51	242	570
Vehicles Exiting, veh/h	743	593	237
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.6	13.8	11.8
Approach LOS	B	B	B
Lane	Left	Left	Left
Designated Moves	TR	LT	LR
Assumed Moves	TR	LT	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	756	552	265
Cap Entry Lane, veh/h	1074	887	639
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	741	541	260
Cap Entry, veh/h	1052	870	627
V/C Ratio	0.704	0.622	0.415
Control Delay, s/veh	14.6	13.8	11.8
LOS	B	B	B
95th %tile Queue, veh	6	4	2

**Appendix F**

Signal Warrant Analysis



# TRAFFIC SIGNAL WARRANTS

City/Town: **Pell City**  
 County:   
 Division:   
 Data Date:

Analysis Performed By: **Shane Bergin**  
 Date Analysis Performed: **11/10/2015**  
 Project Number if Applicable:   
 Weather Conditions:

Major Route: **Cropwell**  
 Minor Route: **SR 34**

Apr. Lanes: **1**      Critical Approach Speed (mph): **35**  
 Apr. Lanes: **1**

### Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ?       Yes     No  
 2. Is the intersection in a built-up area or isolated community of <10,000 population?       Yes     No  
 If Question 1 or 2 above is answered "Yes", then use "70%" volume level       70%     100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.      Satisfied:     Yes     No

Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied, given adequate trials of other remedial measures have been tried.

Adequate trial(s) of other remedial measures tried:       Yes     No

*List Remedial Measures Tried (Required for 80% Combination of A & B)*

#### Condition A - Minimum Vehicular Volume & Condition B - Interruption of Continuous Traffic

**100% Satisfied:**     Yes     No

**(Used if neither Condition A or B is satisfied) 80% Satisfied:**     Yes     No

		(volumes in veh/hr)		Minimum Requirements				Eight Highest Hours							
								5 PM	4 PM	3 PM	7 AM	6 PM	2 PM	8 AM	9 AM
		Approach Lanes		1	2 or more										
		Volume Level		100%	70%	100%	70%								
<b>W - 1A</b>	<b>100%</b>	Both Approaches on Major Street		500	350	600	420	533	517	549	848	459	490	536	484
		Highest Approach on Minor Street		150	105	200	140	718	626	551	208	481	360	202	244
<b>W - 1B</b>	<b>100%</b>	Both Approaches on Major Street		750	525	900	630	533	517	549	848	459	490	536	484
		Highest Approach on Minor Street		75	53	100	70	718	626	551	208	481	360	202	244
<b>W - 1A</b>	<b>80%</b>	Both Approaches on Major Street		400	280	480	336	533	517	549	848	459	490	536	484
		Highest Approach on Minor Street		120	84	160	112	718	626	551	208	481	360	202	244
<b>W - 1B</b>	<b>80%</b>	Both Approaches on Major Street		600	420	720	504	533	517	549	848	459	490	536	484
		Highest Approach on Minor Street		60	42	80	56	718	626	551	208	481	360	202	244

# TRAFFIC SIGNAL WARRANTS

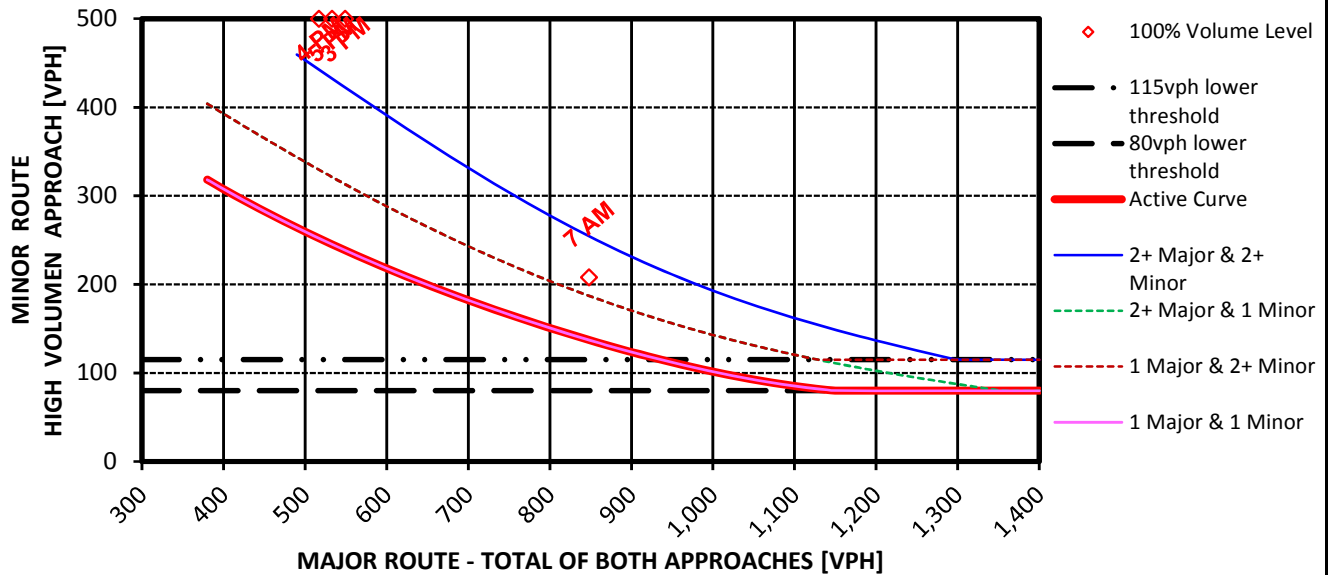
## WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

Satisfied:  Yes  No

*If all four points lie above the appropriate line, then this warrant is satisfied.*

<i>(Volumes in veh/hr)</i>	Four Highest Hours			
	5 PM	4 PM	3 PM	7 AM
SUM of Both Approaches on Major Street	533	517	549	848
Highest Minor Street Approach	718	626	551	208

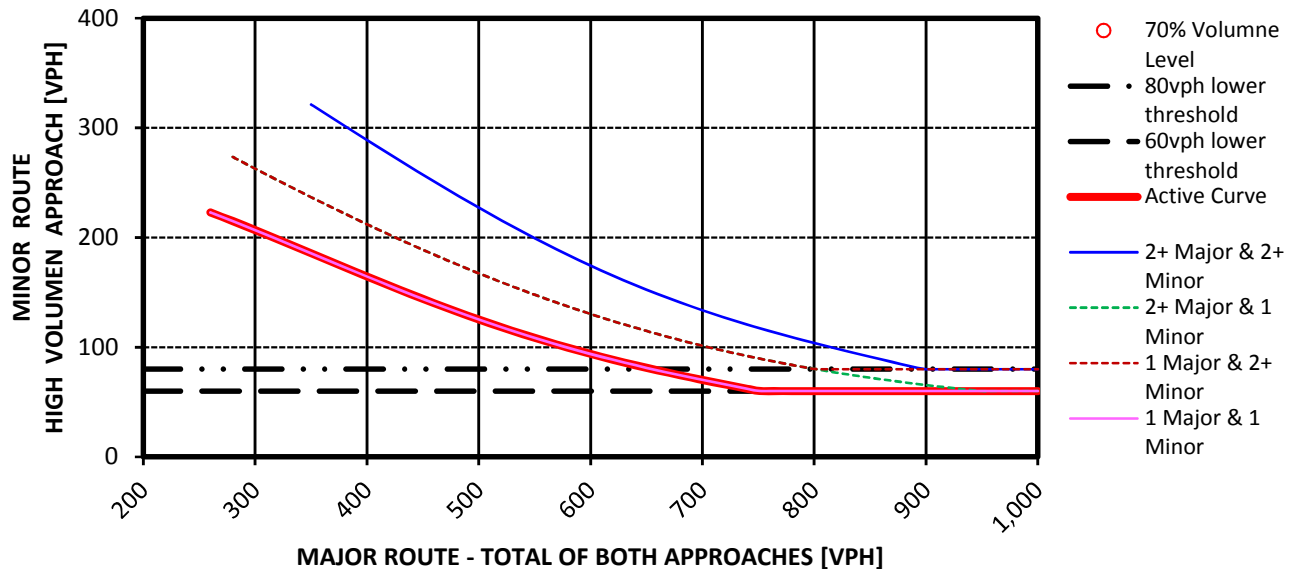
**FIGURE W-2: Criteria for "100%" Volume Level**



*\* Note: 115 vph applies as the lower threshold volume for a minor route approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor route approach with one lane.*

**FIGURE W-2: Criteria for "70%" Volume Level**

(Community less-than 10,000 population or speeds greater-than 70 km/hr [40 mph] on Major Street)



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

# TRAFFIC SIGNAL WARRANT SUMMARY

City/Town: Pell City  
 County: \_\_\_\_\_  
 Division: \_\_\_\_\_  
 Data Date: \_\_\_\_\_

Analysis Performed By: Shane Bergin  
 Date Analysis Performed: 11/10/2015  
 Project Number if Applicable: \_\_\_\_\_  
 Weather Conditions: \_\_\_\_\_

Major Route: Cropwell  
 Minor Route: Hardwick

Appr. Lanes: 1      Critical Approach Speed (mph): 35  
 Appr. Lanes: 1

**Warrant #1: Eight-Hour Vehicular Volume**

**SATISFIED**  
 Yes     No

1A - Minimum Vehicular Volume:       Yes     No       Yes     No  
 1B - Interruption of Continuous Traffic:       Yes     No       Yes     No

*Any Remedial Measures Tried and their Outcome.*

**Warrant #2: Four-Hour Vehicular Volume**

Yes     No

**Warrant #3: Peak Hour**

Yes     No

*The Unusual Case(s) that Justifies the use of this Warrant.*

**Warrant #4: Pedestrian Volume**

Yes     No

**Warrant #5: School Crossing**

Yes     No

*Any Remedial Measures Implemented to improve the Safety of the Students.*

**Warrant #6: Coordinated Signal System**

Yes     No

**Warrant #7: Crash Experience**

Yes     No

*Other Alternatives that have failed to reduce crashes.*

**Warrant #8: Roadway Network**

Yes     No

**Warrant #9: Intersection Near a Grade Crossing**

Yes     No

**CONCLUSIONS**

Warrants Satisfied:

Remarks:



# TRAFFIC SIGNAL WARRANTS

City/Town: **Pell City**  
 County:   
 Division:   
 Data Date:

Analysis Performed By: **Shane Bergin**  
 Date Analysis Performed: **11/10/2015**  
 Project Number if Applicable:   
 Weather Conditions:

Major Route: **Cropwell**  
 Minor Route: **Hardwick**

Apr. Lanes: **1** Critical Approach Speed (mph): **35**  
 Apr. Lanes: **1**

### Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ?  Yes  No  
 2. Is the intersection in a built-up area or isolated community of <10,000 population?  Yes  No  
 If Question 1 or 2 above is answered "Yes", then use "70%" volume level  70%  100%

### WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied. Satisfied:  Yes  No

Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied, given adequate trials of other remedial measures have been tried.

Adequate trial(s) of other remedial measures tried:  Yes  No

List Remedial Measures Tried (Required for 80% Combination of A & B)

### Condition A - Minimum Vehicular Volume & Condition B - Interruption of Continuous Traffic

100% Satisfied:  Yes  No

(Used if neither Condition A or B is satisfied) 80% Satisfied:  Yes  No

		(volumes in veh/hr)		Minimum Requirements				Eight Highest Hours							
								5 PM	4 PM	3 PM	7 AM	6 PM	2 PM	8 AM	9 AM
		Approach Lanes		1	2 or more										
		Volume Level		100%	70%	100%	70%								
W - 1A	100%	Both Approaches on Major Street		500	350	600	420	1,165	1,154	1,104	1,078	893	904	747	752
		Highest Approach on Minor Street		150	105	200	140	136	115	121	72	144	87	49	45
W - 1B	100%	Both Approaches on Major Street		750	525	900	630	1,165	1,154	1,104	1,078	893	904	747	752
		Highest Approach on Minor Street		75	53	100	70	136	115	121	72	144	87	49	45
W - 1A	80%	Both Approaches on Major Street		400	280	480	336	1,165	1,154	1,104	1,078	893	904	747	752
		Highest Approach on Minor Street		120	84	160	112	136	115	121	72	144	87	49	45
W - 1B	80%	Both Approaches on Major Street		600	420	720	504	1,165	1,154	1,104	1,078	893	904	747	752
		Highest Approach on Minor Street		60	42	80	56	136	115	121	72	144	87	49	45

# TRAFFIC SIGNAL WARRANTS

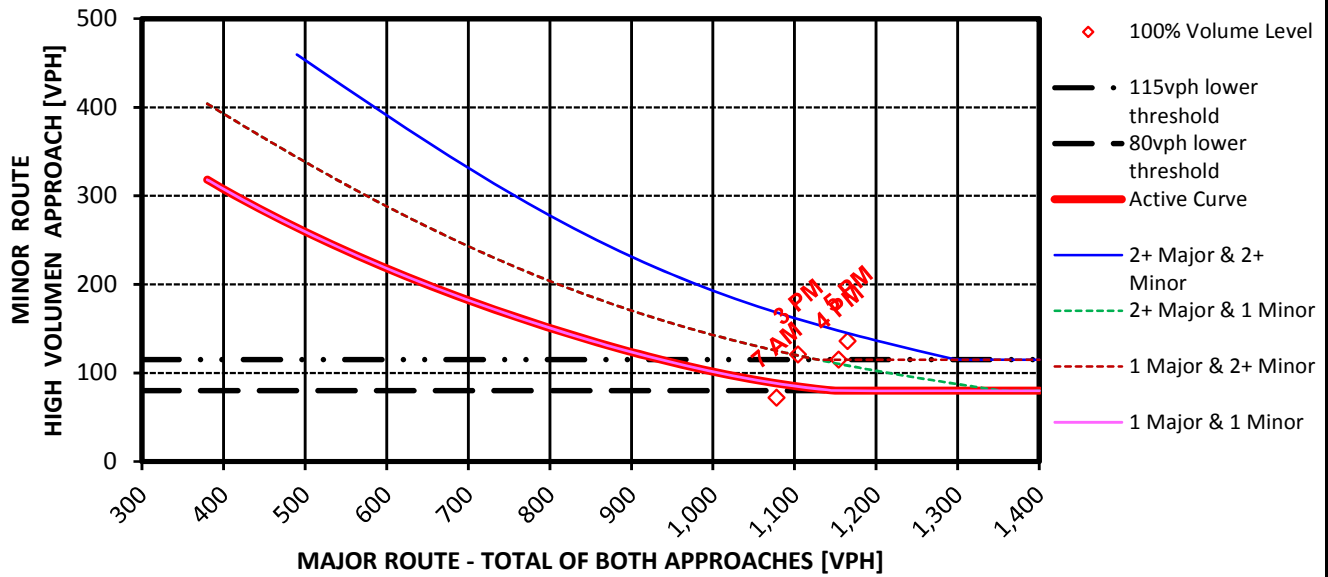
## WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

Satisfied:  Yes  No

*If all four points lie above the appropriate line, then this warrant is satisfied.*

	Four Highest Hours			
	5 PM	4 PM	3 PM	7 AM
(Volumes in veh/hr)				
SUM of Both Approaches on Major Street	1,165	1,154	1,104	1,078
Highest Minor Street Approach	136	115	121	72

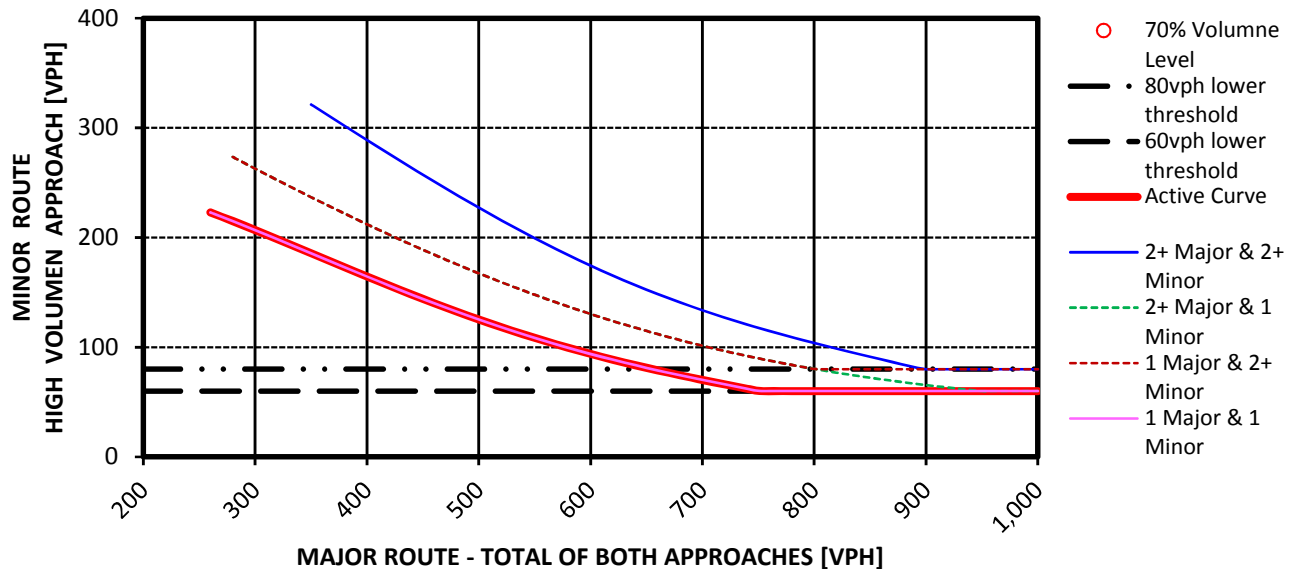
**FIGURE W-2: Criteria for "100%" Volume Level**



\* Note: 115 vph applies as the lower threshold volume for a minor route approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor route approach with one lane.

**FIGURE W-2: Criteria for "70%" Volume Level**

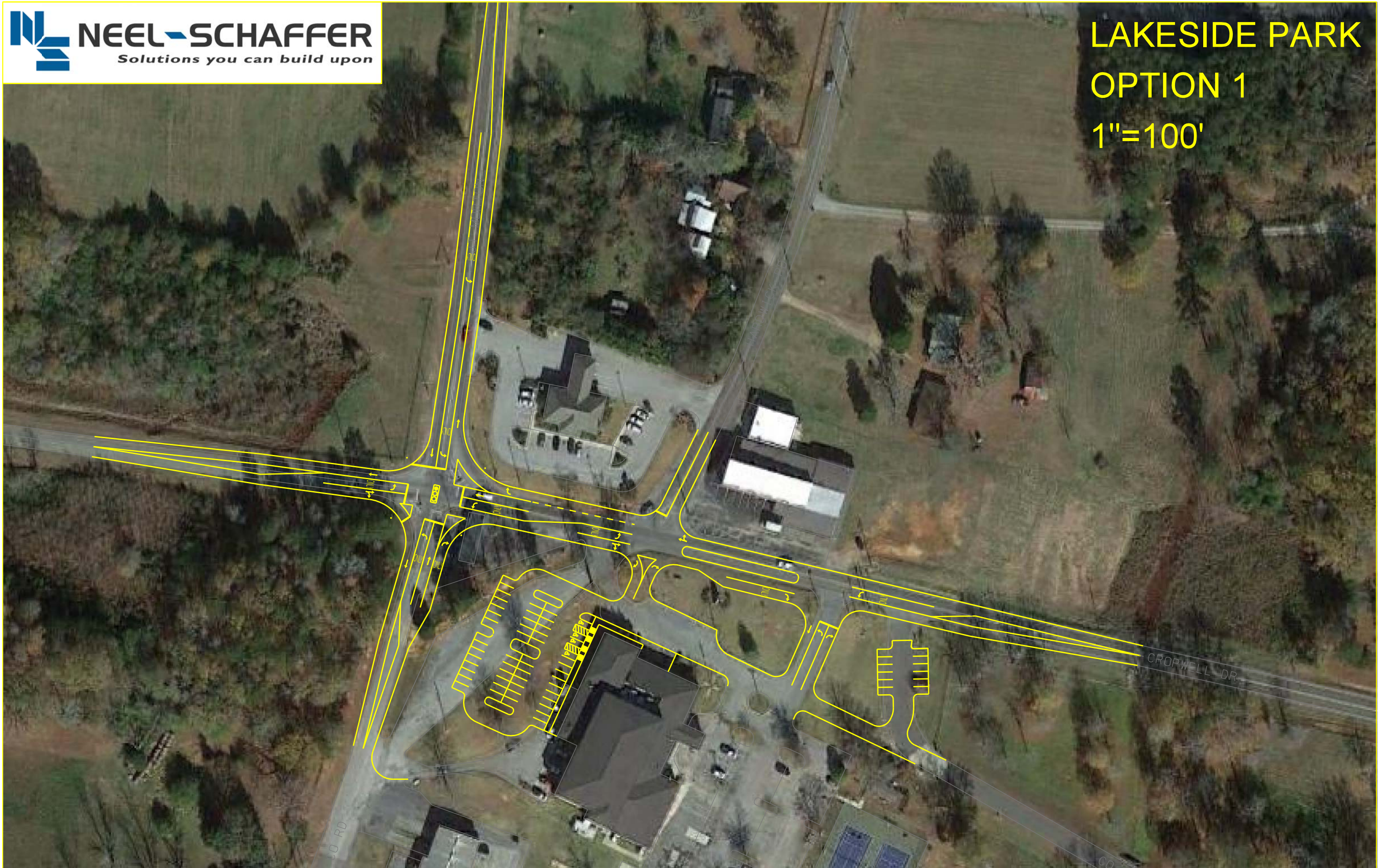
(Community less-than 10,000 population or speeds greater-than 70 km/hr [40 mph] on Major Street)



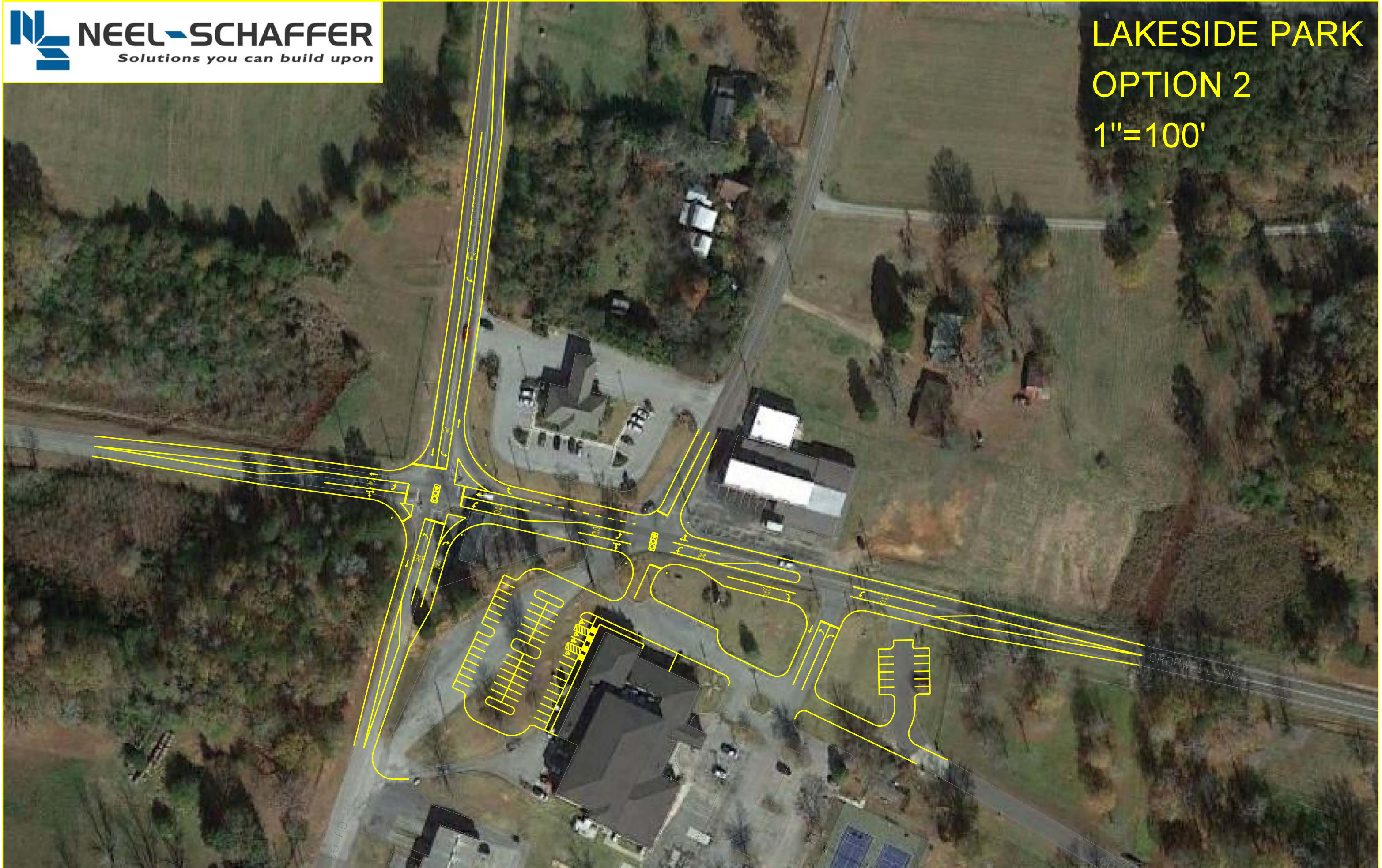
\* Note: 80 vph applies as the lower threshold volume for a minor route approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor route approach with one lane.

**Appendix G**  
Conceptual Layouts

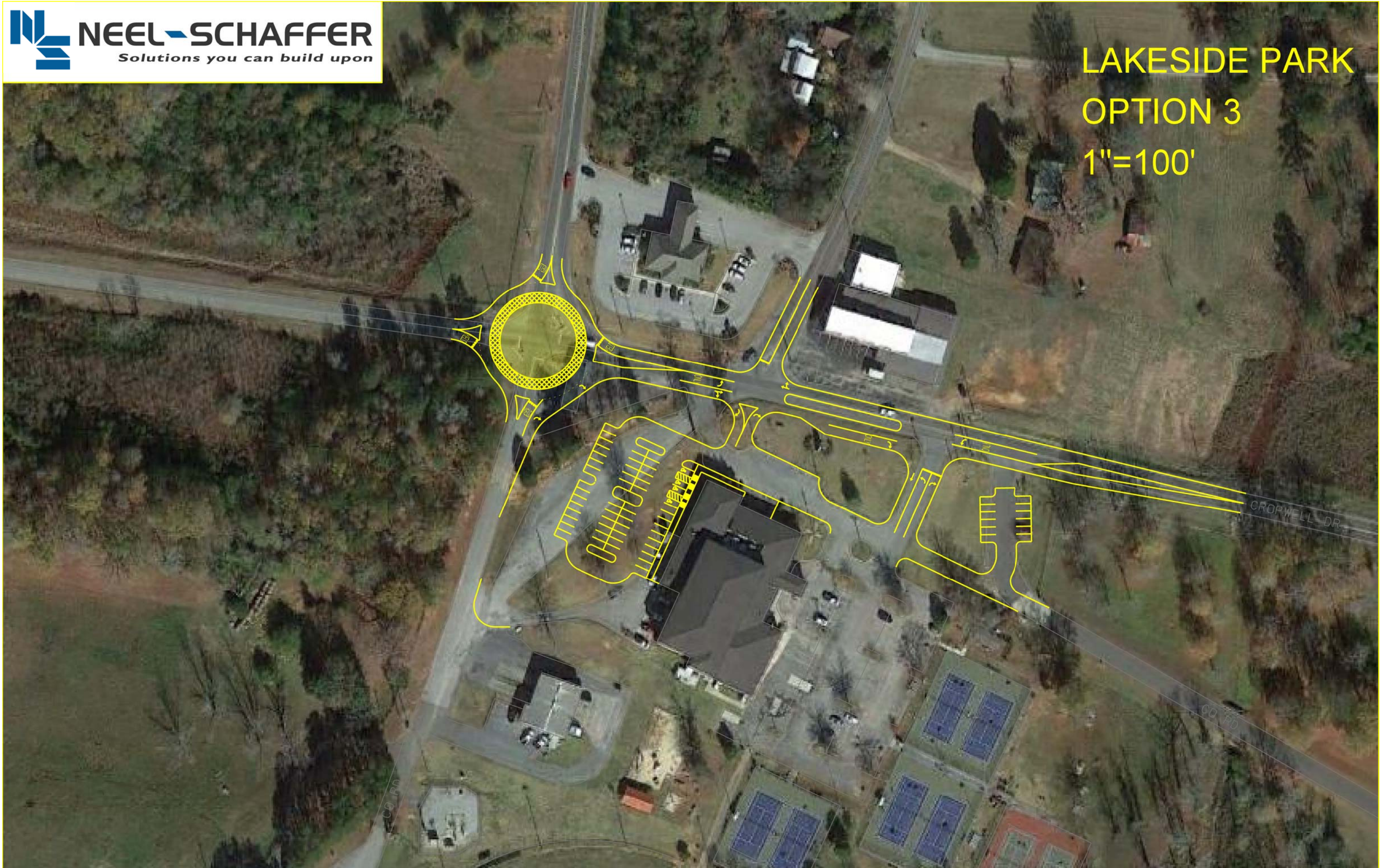
**LAKESIDE PARK  
OPTION 1  
1"=100'**



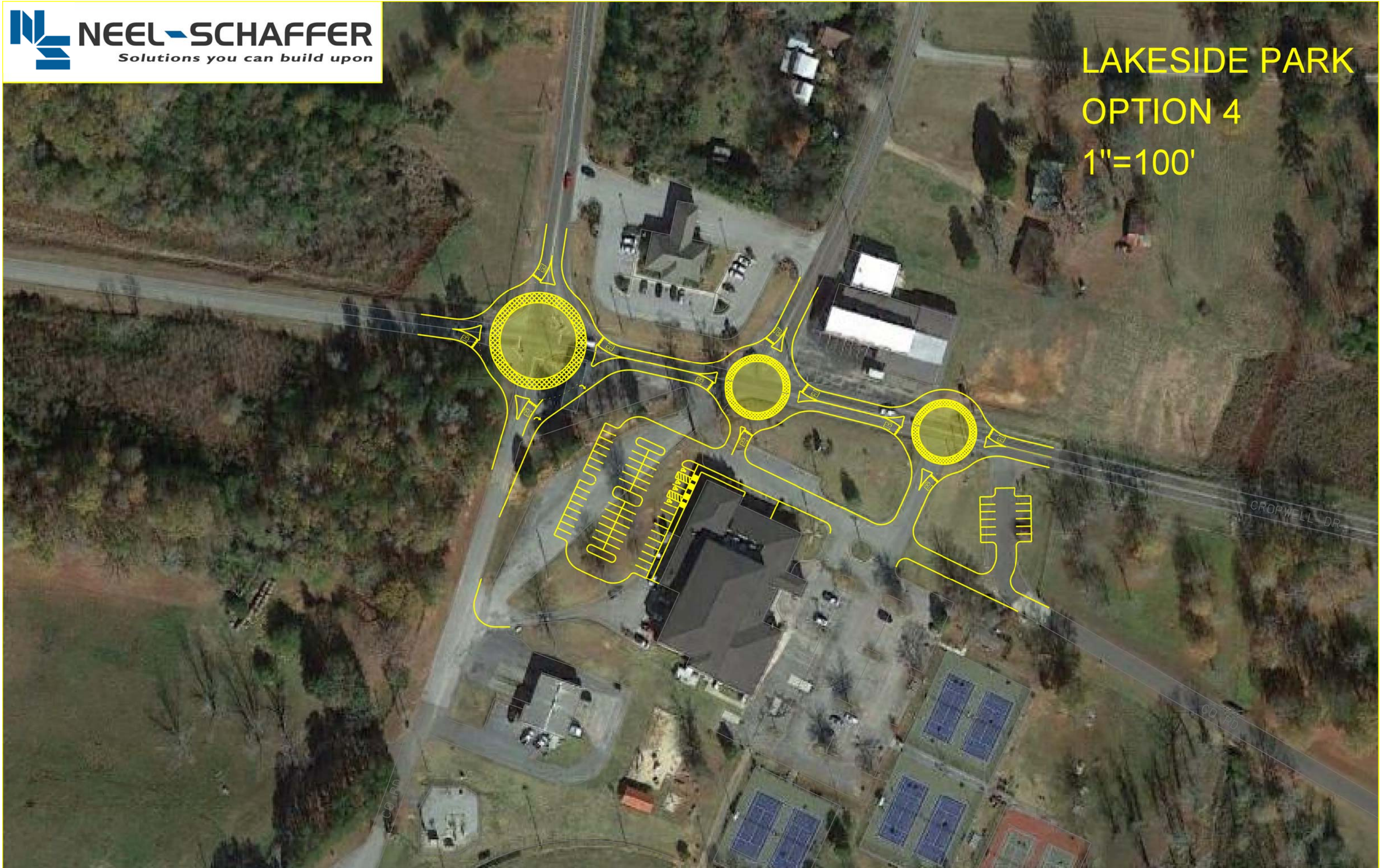
**LAKESIDE PARK  
OPTION 2  
1"=100'**



**LAKESIDE PARK  
OPTION 3  
1"=100'**



**LAKESIDE PARK  
OPTION 4  
1"=100'**



# LAKESIDE PARK FUTURE SPLASH PAD OPTION 1

1"=60'

FUTURE  
SPLASH PAD/POOL

( ASPHALT )

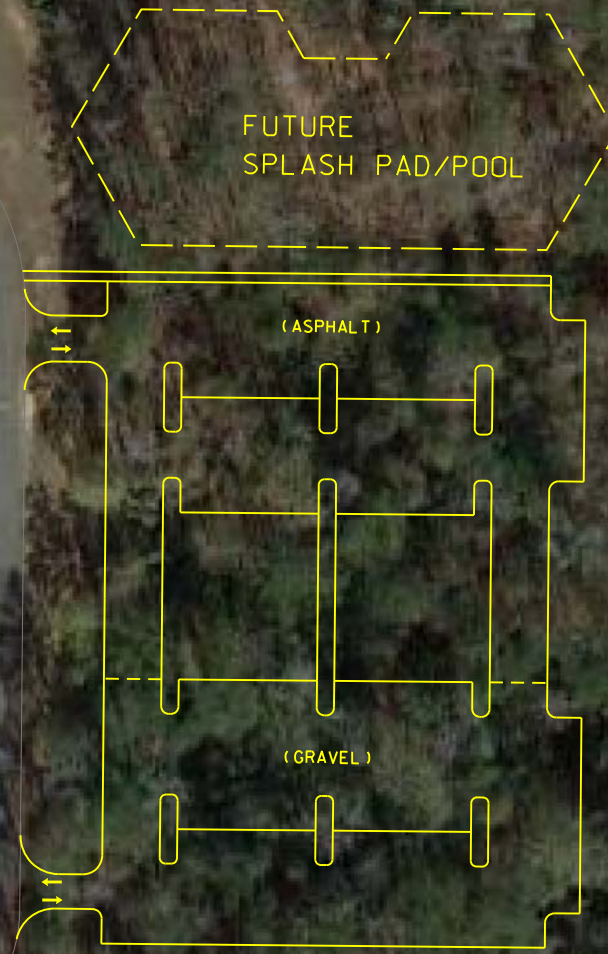
( GRAVEL )



**NEEL-SCHAFFER**  
*Solutions you can build upon*



LAKESIDE PARK  
FUTURE SPLASH PAD  
OPTION 2  
1"=100'



**Appendix H**

Preliminary Cost Estimates

**LAKESIDE PARK ACCESS STUDY  
OPTION NO. 1**

**PRELIMINARY COST ESTIMATE**

	Improvements on Right of Way Federal Funding, 20% Match) (80%				Site Improvements (100% City Funded)			
	Quantity	Units	Unit Price	Estimated Cost	Quantity	Units	Unit Price	Estimated Cost
Grade & Drain (Widening)	3,151	SY	\$ 45	\$ 141,795	3150	SY	\$ 20	\$ 63,000
Base & Pavement (Widening)	3,151	SY	\$ 106	\$ 334,006	3150	SY	\$ 50	\$ 157,500
Leveling & Overlay	6,240	SY	\$ 25	\$ 156,000	1580	SY	\$ 15	\$ 23,700
Curb & Gutter		LF	\$ 15	\$ -	960	LF	\$ 15	\$ 14,400
Sidewalk		SY	\$ 40	\$ -	270	SY	\$ 40	\$ 10,800
Pavement Removal	910	SY	\$ 5	\$ 4,550	2650	SY	\$ 5	\$ 13,250
Structure Removal	1	LS	\$ 5,000	\$ 5,000				\$ -
Traffic Handling	1	LS	\$ 11,550	\$ 11,550	1	LS	\$ 2,500	\$ 2,500
Traffic Signal incl. Controller	1	LS	\$ 125,000	\$ 125,000		LS	\$ 125,000	\$ -
Miscellaneous Items	1	LS	\$ 77,790	\$ 77,790	1	LS	\$ 28,515	\$ 28,515
				\$ -				\$ -
<b>SUBTOTAL</b>				\$ 855,691				\$ 313,665
Engineering Controls (1.3%)	1	LS	\$ 11,124	\$ 11,124	1	LS	\$ 4,078	\$ 4,078
Mobilization (9.7%)	1	LS	\$ 83,002	\$ 83,002	1	LS	\$ 30,426	\$ 30,426
CE & I (15%)	1	LS	\$ 128,354	\$ 128,354	1	LS	\$ 47,050	\$ 47,050
<b>Construction Cost</b>				\$ 1,078,171				\$ 395,219
P.E. (15%) (includes corridor study, survey, design and plans)	1	LS	\$ 161,726	\$ 161,726	1	LS	\$ 59,283	\$ 59,283
ALDOT Indirect Cost (13.63%)	1	LS	\$ 146,955	\$ 146,955				\$ -
R.O.W.				\$ -				\$ -
Utility				\$ -				\$ -
<b>TOTAL COST</b>				\$ 1,386,852				\$ 454,502

Note: Preliminary cost estimates are based on preliminary quantities and on typical ALDOT unit bid prices on projects developed for letting by ALDOT. Site improvement costs may be reduced if the work is to be completed with City forces.

**LAKESIDE PARK ACCESS STUDY  
OPTION NO. 2**

**PRELIMINARY COST ESTIMATE**

	Improvements on Right of Way Federal Funding, 20% Match) (80%				Site Improvements (100% City Funded)			
	Quantity	Units	Unit Price	Estimated Cost	Quantity	Units	Unit Price	Estimated Cost
Grade & Drain (Widening)	3,151	SY	\$ 45	\$ 141,795	3,150	SY	\$ 20	\$ 63,000
Base & Pavement (Widening)	3,151	SY	\$ 106	\$ 334,006	3,150	SY	\$ 50	\$ 157,500
Leveling & Overlay	6,240	SY	\$ 25	\$ 156,000	1,580	SY	\$ 15	\$ 23,700
Curb & Gutter		LF	\$ 15	\$ -	960	LF	\$ 15	\$ 14,400
Sidewalk		SY	\$ 40	\$ -	270	SY	\$ 40	\$ 10,800
Pavement Removal	910	SY	\$ 5	\$ 4,550	2,650	SY	\$ 5	\$ 13,250
Structure Removal	1	LS	\$ 5,000	\$ 5,000				\$ -
Traffic Handling	1	LS	\$ 11,550	\$ 11,550	1	LS	\$ 2,500	\$ 2,500
Traffic Signal incl. Controller	2	LS	\$ 125,000	\$ 250,000		LS	\$ 125,000	\$ -
Miscellaneous Items	1	LS	\$ 90,290	\$ 90,290	1	LS	\$ 28,515	\$ 28,515
			\$ -	\$ -				\$ -
<b>SUBTOTAL</b>				\$ 993,191				\$ 313,665
Engineering Controls (1.3%)	1	LS	\$ 12,911	\$ 12,911	1	LS	\$ 4,078	\$ 4,078
Mobilization (9.7%)	1	LS	\$ 96,340	\$ 96,340	1	LS	\$ 30,426	\$ 30,426
CE & I (15%)	1	LS	\$ 148,979	\$ 148,979	1	LS	\$ 47,050	\$ 47,050
<b>Construction Cost</b>				\$ 1,251,421				\$ 395,219
P.E. (15%) (includes corridor study, survey, design and plans)	1	LS	\$ 187,713	\$ 187,713	1	LS	\$ 59,283	\$ 59,283
ALDOT Indirect Cost (13.63%)	1	LS	\$ 170,569	\$ 170,569				\$ -
R.O.W.				\$ -				\$ -
Utility				\$ -				\$ -
<b>TOTAL COST</b>				\$ 1,609,703				\$ 454,502

Note: Preliminary cost estimates are based on preliminary quantities and on typical ALDOT unit bid prices on projects developed for letting by ALDOT. Site improvement costs may be reduced if the work is to be completed with City forces.

**LAKESIDE PARK ACCESS STUDY  
OPTION NO. 3**

**PRELIMINARY COST ESTIMATE**

	Improvements on Right of Way Federal Funding, 20% Match) (80%				Site Improvements (100% City Funded)			
	Quantity	Units	Unit Price	Estimated Cost	Quantity	Units	Unit Price	Estimated Cost
Grade & Drain (Widening)	2,314	SY	\$ 45	\$ 104,130	3150	SY	\$ 20	\$ 63,000
Base & Pavement (Widening)	2,314	SY	\$ 106	\$ 245,284	3150	SY	\$ 50	\$ 157,500
Leveling & Overlay	4,544	SY	\$ 25	\$ 113,600	1580	SY	\$ 15	\$ 23,700
Curb & Gutter		LF	\$ 15	\$ -	960	LF	\$ 15	\$ 14,400
Sidewalk		SY	\$ 40	\$ -	270	SY	\$ 40	\$ 10,800
Pavement Removal	910	SY	\$ 5	\$ 4,550	2650	SY	\$ 5	\$ 13,250
Structure Removal	1	LS	\$ 5,000	\$ 5,000		LS	\$ 5,000	\$ -
Traffic Handling	1	LS	\$ 11,550	\$ 11,550	1	LS	\$ 2,500	\$ 2,500
Traffic Signal incl. Controller		LS	\$ 125,000	\$ -		LS	\$ 125,000	\$ -
6" Concrete Roundabout	700	SY	\$ 75	\$ 52,500				
Miscellaneous Items	1	LS	\$ 53,661	\$ 53,661	1	LS	\$ 28,515	\$ 28,515
			\$ -	\$ -				\$ -
<b>SUBTOTAL</b>				\$ 590,275				\$ 313,665
Engineering Controls (1.3%)	1	LS	\$ 7,674	\$ 7,674	1	LS	\$ 4,078	\$ 4,078
Mobilization (9.7%)	1	LS	\$ 57,257	\$ 57,257	1	LS	\$ 30,426	\$ 30,426
CE & I (15%)	1	LS	\$ 88,541	\$ 88,541	1	LS	\$ 47,050	\$ 47,050
<b>Construction Cost</b>				\$ 743,747				\$ 395,219
P.E. (15%) (includes corridor study, survey, design and plans)	1	LS	\$ 111,562	\$ 111,562	1	LS	\$ 59,283	\$ 59,283
ALDOT Indirect Cost (13.63%)	1	LS	\$ 101,373	\$ 101,373				\$ -
R.O.W.				\$ -				\$ -
Utility				\$ -				\$ -
<b>TOTAL COST</b>				\$ 956,682				\$ 454,502

Note: Preliminary cost estimates are based on preliminary quantities and on typical ALDOT unit bid prices on projects developed for letting by ALDOT. Site improvement costs may be reduced if the work is to be completed with City forces.

**LAKESIDE PARK ACCESS STUDY  
SPLASH PAD OPTIONS 1 AND 2**
**PRELIMINARY COST ESTIMATE**

	Splash Pad Option No. 1 (100% City Funded)				Splash Pad Option No. 2 (100% City Funded)			
	Quantity	Units	Unit Price	Estimated Cost	Quantity	Units	Unit Price	Estimated Cost
Clearing and Grubbing	1	LS	\$ 3,500	\$ 3,500	1	LS	\$ 7,000	\$ 7,000
Grade & Drain	1,028	SY	\$ 35	\$ 35,980	2790	SY	\$ 35	\$ 97,650
Base & Pavement	1,028	SY	\$ 75	\$ 77,100	2790	SY	\$ 75	\$ 209,250
Leveling & Overlay		SY	\$ 15	\$ -		SY	\$ 15	\$ -
Curb & Gutter		LF	\$ 15	\$ -		LF	\$ 15	\$ -
Sidewalk		SY	\$ 40	\$ -		SY	\$ 40	\$ -
Pavement Removal		SY	\$ 5	\$ -		SY	\$ 5	\$ -
Structure Removal		LS	\$ 5,000	\$ -		LS	\$ 5,000	\$ -
Traffic Handling	1	LS	\$ 1,500	\$ 1,500	1	LS	\$ 1,500	\$ 1,500
Traffic Signal incl. Controller		LS	\$ 125,000	\$ -		LS	\$ 125,000	\$ -
6" Concrete Roundabout		SY	\$ -	\$ -			\$ -	\$ -
Miscellaneous Items	1	LS	\$ 11,808	\$ 11,808	1	LS	\$ 31,540	\$ 31,540
			\$ -	\$ -			\$ -	\$ -
<b>SUBTOTAL</b>				\$ 129,888				\$ 346,940
Engineering Controls (1.3%)	1	LS	\$ 1,689	\$ 1,689	1	LS	\$ 4,510	\$ 4,510
Mobilization (9.7%)	1	LS	\$ 12,599	\$ 12,599	1	LS	\$ 33,653	\$ 33,653
CE & I (15%)	1	LS	\$ 19,483	\$ 19,483	1	LS	\$ 52,041	\$ 52,041
<b>Construction Cost</b>				\$ 163,659				\$ 437,144
P.E. (15%) (includes corridor study, survey, design and plans)	1	LS	\$ 24,549	\$ 24,549	1	LS	\$ 65,572	\$ 65,572
ALDOT Indirect Cost (13.63%)		LS	\$ 22,307	\$ -				\$ -
R.O.W.				\$ -				\$ -
Utility				\$ -				\$ -
<b>TOTAL COST</b>				\$ 188,208				\$ 502,716

Note: Preliminary cost estimates are based on preliminary quantities and on typical ALDOT unit bid prices on projects developed for letting by ALDOT. Site improvement costs may be reduced if the work is to be completed with City forces.