

# Traffic Analysis Memorandum

## Executive Summary

The purpose of this document is to document traffic operations and safety analyses conducted to support a proposed roadway realignment and bridge project along Shelby County Highway 52 at U.S. Highway 31 in Pelham, Alabama. The following is a summary and documentation of the analyses performed.

**Project Description** – The proposed project is developed to realign the Shelby County Road 52 West roadway alignment with the existing Shelby County Highway 52 East alignment in Pelham Alabama. The following graphic illustrates the proposed project.

**Project Study Area** – The project study area includes the following intersections:

US Highway 31 at Shelby County Highway 52 East	Shelby County Highway 33 at Word Drive	Shelby County Highway 52 West at Crossing 352255T
US Highway 31 at Shelby County Highway 52 West/Word Drive	Shelby County Highway 52 at Shelby County Highway 33	Shelby County Highway 52 West at Crossing 639539V

**Existing Traffic Conditions** – The project was initiated by collecting traffic data and completing analyses to document the capacity and magnitude of existing traffic operations as well as the safety performance of the study area.

**Existing Capacity Analysis** – Study intersections currently poor levels of service and delay during morning and afternoon peak periods. The locations where delay is experienced is as follows:

AM Peak Deficiencies	PM Peak Deficiencies
US Highway 31 at Shelby County Highway 52 West – WB 52 & EB Word Drive approaches (LOS F)	US Highway 31 at Shelby County Highway 52 West – WB 52 & EB Word Drive approaches (LOS F&E)

**Existing Travel Time Analysis** – Travel times were evaluated along Shelby County Highway 52 from the I-65 corridor to a point west of US Highway 31. The travel times vary depending upon the presence of a train within the crossings. The travel times are as follows:

Average Weekday Travel Time within the study area Existing Conditions	
Average Weekday Travel Time during the morning peak hour along within the study area (seconds/vehicle)	378 seconds (6.3 minutes) (without train)
	476 seconds (7.9 minutes) (with train)
Average Weekday Travel Time during the afternoon peak hour along Shelby County Highway 52 from I-65 to Hinds Street	335 seconds (5.6 minutes) (without train)
	512 seconds (8.5 minutes) (with train)

**Existing Safety Analysis** – A crash analysis was conducted along the study area. The following is a summary of the crash experience at the study intersections:

	Crash Severity	2017	2018	2019	2020	2021	Total
Crash Totals	K	0	0	1	0	0	1 (1%)
	B	4	5	3	1	5	18 (3%)
	C	2	2	3	4	5	16 (3%)
	O	92	116	100	92	92	491 (93%)
Total		98	123	107	97	102	527

One non-vehicular crashes occurred at the single rail crossing, 352255T, with a vehicle traveling westbound and a train traveling northbound. The crash resulted in property damage only in 2019.

**Future Traffic Conditions**

**Future Traffic Growth** – To account for design year traffic, a traffic growth rate was applied to all existing traffic volumes. The proposed project is assumed to be opened during 2025, and the design year is assumed to be 2045. A background traffic growth rate of 2%/year was calculated based upon historical traffic volumes recorded by the Alabama Department of Transportation.

**Future Capacity Analysis** – Study area intersections anticipated to experience poor levels of service and delay during morning and afternoon peak periods for future conditions. The locations where delay is expected is as follows:

AM Peak Deficiencies	PM Peak Deficiencies
US Highway 31 at Shelby County Highway 52 West – WB 52 & EB Word Drive approaches (LOS F)	US Highway 31 at Shelby County Highway 52 West – WB 52 & EB Word Drive approaches (LOS F&E)

**Future Travel Time Analysis** – Travel times were projected for future traffic conditions along Shelby County Highway 52 from the I-65 corridor to a point west of US Highway 31. The travel times vary depending upon the presence of a train within the crossings. The travel times are as follows:

Average Weekday Travel Time along within study area – Future Conditions		
	Future 2045 No Build	Future 2045 Build
Average Weekday Travel Time during the morning peak hour within the study area	2014 seconds (33.6 minutes) (without train)	977 seconds (16.2 minutes)
	2084 seconds (34.7 minutes) (with train)	
Average Weekday Travel Time during the afternoon peak hour within the study area	1462 seconds (24.3 minutes) (without train)	889 seconds (14.8 minutes)
	2588 seconds (43.1 minutes) (with train)	

**Future Safety Analysis**

An analysis using the Highway Safety Manual 1<sup>st</sup> Edition was conducted to evaluate the impacts to roadway safety the proposed project would have. The following Table summarizes the analysis.

	Existing Conditions Analysis – HSM	Future No Build Analysis	Future Build Analysis
Projected crashes - U.S. Highway 31 at Shelby County Highway 52 East	4.321 Crashes	7.155 Crashes	7.444 Crashes
Projected Crashes – US Highway 31 at Shelby County Highway 52 West	4.189 Crashes	6.793 Crashes	3.491 Crashes
Totals	8.51 Crashes	13.95 Crashes	10.94 Crashes

The Table above show the project would result in a project 21.6% reduction in traffic crashes. This reduction was assumed to apply to all crashes and was applied to the existing crash experience.

# Appendix 1- Traffic Data Collection

## Traffic Data Collection

AECOM conducted a traffic study along the U.S. Highway 31 corridor in February 2017. The purpose of the study was to evaluate traffic signal upgrades along the corridor for the Alabama Department of Transportation (ALDOT). Traffic counts were collected at the study intersections as a part of that study and were used as the baseline for this traffic study. summarizes the data collected.

**Table 1. Summary of Traffic Data Collection**

Location	Date of Data Collection	Times of Data Collection
Intersection Traffic Data		
#1 – US Highway 31 at Shelby County Road 52/Word Drive	December 8, 2016	06:00-18:00
#2 – Word Drive at Home Depot Access	December 8, 2016	06:00-18:00
#3 – Shelby County Road 33 at Word Drive	December 8, 2016	06:00-18:00
#4 – US Highway 31 at Shelby County Road 52	December 8, 2016	06:00-18:00
#5 – Shelby County Road 52 at Shelby County Road 33	December 8, 2016	06:00-18:00

Source: AECOM, National Data Surveying Services

## Traffic Growth

As mentioned previously, traffic volumes were collected in December 2016 for a signal upgrade project in the study area. To reflect Existing 2022 Traffic Conditions, a growth rate was applied to the collected traffic counts, resulting in Existing 2022 Traffic Volumes.

A traffic growth percentage was calculated based on historical traffic count data obtained from ALDOT’s Traffic Data count stations within the study area. A growth rate of 12% (2% growth/year for 6 years) was calculated for the study area. The following equation illustrates the resulting Existing 2022 Traffic Volumes, illustrated in Figure 3.

$$\frac{\text{Existing 2022 Traffic Volumes}}{\text{Existing 2016 Traffic Volumes}} = 1 + \text{Growth Rate (12\%)}$$

A traffic growth percentage was calculated based on historical traffic count data obtained from ALDOT’s Traffic Data count stations within the study area. A growth rate of 58% (2% growth/year for 29 years) was calculated for the study area. The following equation illustrates the resulting Existing 2022 Traffic Volumes, illustrated in Figure 3.


$$\frac{\text{Existing 2045 Traffic Volumes}}{\text{Existing 2016 Traffic Volumes}} = 1 + \text{Growth Rate (58\%)}$$

# Appendix 2 - Traffic Operations Analysis

## Intersection Capacity Analysis

The capacity and operation of study intersections was evaluated for peak traffic periods. The methodology used for this analysis is outlined in the Highway Capacity Manual, 6th Edition by the Transportation Research Board. This methodology defines capacity as Level of Service (LOS) which correlates to varying levels of delay. Table 4 illustrates the levels of service and corresponding delay levels as defined by the Highway Capacity Manual.

**Table 2. Level of Service Descriptions**

Level of Service (LOS)	Description	Signalized Intersection	Unsignalized Intersection
		Vehicle Delay (Seconds/vehicle)	Vehicle Delay (seconds/vehicle)
Best	A Free flow operation	0-10	<10
	B Reasonably free flow operation	>10-20	>10 and <15
	C Stable operation	>20-35	>15 and <25
	D Less stable operation (approaching capacity)	>35-55	>25 and <35
	E Unstable operation (operating at capacity)	>55-80	>35 and <50
	Worst	F Congested operation (operating above capacity)	>80

Source: Highway Capacity Manual, Sixth Edition

The analysis software used to calculate the intersection levels of service is Synchro version 11. Peak hour intersection capacity analyses are summarized in the table below.

**Table 3. Intersection Capacity Analysis**

	2022						2045					
	No Build			Build			No Build			Build		
	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue
<b>Intersection 1 – County Road 52 East at County Road 33 – AM Peak</b>												
Eastbound County Road 52 East	B	11.7	418' (T)	B	11.2	254' (T)	C	31.4	1015' (T)	B	17.3	507' (T)
Westbound County Road 52 East	B	11.3	487' (T)	B	10.4	221' (T)	C	30.5	1142' (T)	B	14.9	423' (T)
Southbound County Road 33	D	39.7	191' (L)	D	41.9	190' (L)	D	45.9	278' (L)	D	47.6	277' (L)
<b>Overall Intersection</b>	<b>B</b>	<b>13.6</b>	<b>-</b>	<b>B</b>	<b>13.3</b>	<b>-</b>	<b>C</b>	<b>32.1</b>	<b>-</b>	<b>B</b>	<b>18.7</b>	<b>-</b>
<b>Intersection 2 – Relocated County Road 52 West/County Road 52 East at US Highway 31 – AM Peak</b>												
Eastbound Relocated County Road 52	Approach does not exist in this scenario			E	58.1	192' (L)	Approach does not exist in this scenario			E	66.8	276' (L)
Westbound County Road 52 East	D	44.0	277' (L)	E	65.8	192' (L)	E	70.9	443' (L)	F	183.1	277' (L)
Northbound US Highway 31	F	171.7	1272' (T)	C	28.4	798' (T)	F	587.3	2160' (T)	F	144.4	1477' (T)
Southbound US Highway 31	C	34.9	293' (L)	D	44.6	239' (L)	F	108.2	557' (L)	E	60.7	392' (L)
<b>Overall Intersection</b>	<b>F</b>	<b>113.3</b>	<b>-</b>	<b>D</b>	<b>42.8</b>	<b>-</b>	<b>F</b>	<b>368.8</b>	<b>-</b>	<b>F</b>	<b>128.0</b>	<b>-</b>
<b>Intersection 3 – Word Drive at County Road 33 – AM Peak</b>												
Eastbound Word Drive	B	18.1	133' (L)	B	16.2	104' (L)	C	21.9	205' (L)	B	19.9	182' (L)
Northbound County Road 33	A	5.3	100' (L)	A	4.8	64' (L)	A	8.5	210' (L)	A	6.2	128' (L)
Southbound County Road 33	B	13.4	67' (T)	B	11.7	69' (T)	B	19.0	108' (T)	B	15.7	124' (T)
<b>Overall Intersection</b>	<b>B</b>	<b>11.0</b>	<b>-</b>	<b>A</b>	<b>9.8</b>	<b>-</b>	<b>B</b>	<b>15.0</b>	<b>-</b>	<b>B</b>	<b>12.6</b>	<b>-</b>
<b>Intersection 4 – Word Drive at Home Depot Access – AM Peak</b>												
Eastbound Word Drive	A	3.4	53' (T)	A	4.2	44' (T)	A	3.5	87' (T)	A	4.2	72' (T)
Westbound Word Drive	A	4.2	95' (T)	A	4.9	65' (T)	A	5.3	178' (T)	A	5.4	114' (T)
Northbound Home Depot Access	A	9.6	26' (L)	A	7.3	21' (L)	B	12.4	37' (L)	A	9.1	37' (L)
<b>Overall Intersection</b>	<b>A</b>	<b>4.5</b>	<b>-</b>	<b>A</b>	<b>4.9</b>	<b>-</b>	<b>A</b>	<b>5.4</b>	<b>-</b>	<b>A</b>	<b>5.5</b>	<b>-</b>

	2022						2045					
	No Build			Build			No Build			Build		
	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue

**Intersection 5 – County Road 52 West/Word Drive at US Highway 31 – AM Peak**

Eastbound County Road 52 West	F	112.9	554' (T)	E	60.2	32' (T)	F	292.4	926' (T)	E	60.2	40' (T)
Westbound Word Drive	F	128.9	233' (T)	E	58.6	15' (T)	F	622.6	360' (T)	D	54.1	18' (T)
Northbound US Highway 31	D	38.0	678' (T)	C	27.7	900' (T)	F	143.9	1333' (T)	F	216.3	1605' (T)
Southbound US Highway 31	D	36.3	269' (L)	C	20.6	215' (L)	E	63.4	431' (L)	C	34.8	431' (L)
<b>Overall Intersection</b>	<b>E</b>	<b>64.5</b>	<b>-</b>	<b>C</b>	<b>30.3</b>	<b>-</b>	<b>F</b>	<b>223.9</b>	<b>-</b>	<b>F</b>	<b>147.2</b>	<b>-</b>

**Intersection 1 – County Road 52 East at County Road 33 PM Peak**

Eastbound County Road 52 East	B	13.7	282' (T)	B	14.6	185' (T)	B	19.1	12' (L)	B	18.0	301' (T)
Westbound County Road 52 East	C	24.5	914' (T)	B	17.0	357' (T)	F	132.7	1588' (T)	C	25.9	665' (T)
Southbound County Road 33	D	47.8	465' (L)	D	49.2	468' (L)	F	143.3	779' (L)	F	155.9	787' (L)
<b>Overall Intersection</b>	<b>C</b>	<b>24.7</b>	<b>-</b>	<b>C</b>	<b>21.9</b>	<b>-</b>	<b>F</b>	<b>94.3</b>	<b>-</b>	<b>D</b>	<b>46.4</b>	<b>-</b>

**Intersection 2 – Relocated County Road 52 West/County Road 52 East at US Highway 31 – PM Peak**

Eastbound Relocated County Road 52 West	Approach does not exist in this scenario			E	62.4	141' (L)	Approach does not exist in this scenario			E	67.1	201' (L)
Westbound County Road 52 East	F	86.8	277' (L)	E	57.9	387' (L)	F	234.8	1236' (L)	F	168.5	717' (L)
Northbound US Highway 31	C	34.6	1272' (T)	C	26.1	249' (T)	F	133.1	963' (T)	D	36.4	406' (T)
Southbound US Highway 31	C	26.9	293' (L)	D	49.4	223' (L)	D	49.9	493' (L)	F	164.1	400' (L)
<b>Overall Intersection</b>	<b>D</b>	<b>44.5</b>	<b>-</b>	<b>D</b>	<b>47.2</b>	<b>-</b>	<b>F</b>	<b>121.5</b>	<b>-</b>	<b>F</b>	<b>122.9</b>	<b>-</b>

**Intersection 3 – Word Drive at County Road 33 – PM Peak**

Eastbound Word Drive	B	15.6	58' (L)	B	14.7	39' (L)	B	19.2	103' (L)	B	17.2	65' (L)
Northbound County Road 33	A	4.2	51' (L)	A	3.9	21' (L)	A	6.0	97' (L)	A	4.2	34' (L)
Southbound County Road 33	B	10.7	111' (T)	A	9.2	114' (T)	B	12.6	204' (T)	A	9.8	196' (T)
<b>Overall Intersection</b>	<b>B</b>	<b>10.2</b>	<b>-</b>	<b>A</b>	<b>9.6</b>	<b>-</b>	<b>B</b>	<b>12.6</b>	<b>-</b>	<b>B</b>	<b>10.7</b>	<b>-</b>

**Intersection 4 – Word Drive at Home Depot Access – PM Peak**

	2022						2045					
	No Build			Build			No Build			Build		
	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue	LOS	Delay	Queue
Eastbound Word Drive	A	5.2	56' (T)	A	4.7	41' (T)	A	4.7	94' (T)	A	6.1	73' (T)
Westbound Word Drive	A	6.6	103' (T)	A	4.8	45' (T)	A	6.7	194' (T)	A	6.5	80' (T)
Northbound Home Depot Access	A	7.8	49' (L)	A	7.3	32' (L)	B	12.0	73' (L)	A	7.0	57' (L)
<b>Overall Intersection</b>	<b>A</b>	<b>6.4</b>	<b>-</b>	<b>A</b>	<b>5.4</b>	<b>-</b>	<b>A</b>	<b>7.1</b>	<b>-</b>	<b>A</b>	<b>6.5</b>	<b>-</b>

**Intersection 5 – County Road 52 West/Word Drive at US Highway 31 – PM Peak**

Eastbound County Road 52 West	F	228.3	595' (T)	E	62.6	32' (T)	F	487.2	944' (T)	E	62.7	39' (T)
Westbound Word Drive	E	60.4	277' (T)	E	60.3	18' (T)	E	71.7	476' (T)	E	57.5	21' (T)
Northbound US Highway 31	D	38.1	387' (T)	C	24.5	468' (T)	E	58.1	652' (T)	E	56.1	875' (T)
Southbound US Highway 31	D	48.5	299' (L)	C	21.7	225' (L)	F	226.4	473' (L)	E	78.8	454' (L)
<b>Overall Intersection</b>	<b>E</b>	<b>70.8</b>	<b>-</b>	<b>C</b>	<b>26.5</b>	<b>-</b>	<b>F</b>	<b>192.6</b>	<b>-</b>	<b>E</b>	<b>68.8</b>	<b>-</b>

Source: AECOM, Highway Capacity Manual, Sixth Edition

## Travel Time Analysis

A travel time analysis was completed for the study area. The SimTraffic software suite was utilized to analyze the network travel times present within the study area. As a part of this analysis method, the travel times for traffic within the study area network of intersections was developed using microsimulation modeling. This methodology was selected due to the proposed project's impacts on multiple intersections within the study area.

The simulation model was calibrated to existing conditions using Syncho and then analyzed for each scenario. The scenarios included the respective shift in traffic patterns anticipated by the proposed project.



**Table 4. Existing Travel Time Analysis**

<b>Average Weekday Travel Time within the study area Existing Conditions</b>	
Average Weekday Travel Time during the morning peak hour along within the study area (seconds/vehicle)	378 seconds (6.3 minutes) (without train)
	476 seconds (7.9 minutes) (with train)
Average Weekday Travel Time during the afternoon peak hour along Shelby County Highway 52 from I-65 to Hinds Street	335 seconds (5.6 minutes) (without train)
	512 seconds (8.5 minutes) (with train)

Source: Synchro

Note that train crossing data recorded by the City of Pelham was used to determine travel times when that include train activity.

In addition to the existing conditions, a future conditions travel time analysis was conducted assuming traffic growth would be in place for the design year. The following is a summary of the traffic conditions reflected in this scenario analysis.

**Table 5. Future Travel Time Analysis**

Average Weekday Travel Time along within study area – Future Conditions		
	Future 2045 No Build	Future 2045 Build
Average Weekday Travel Time during the morning peak hour within the study area	2014 seconds (33.6 minutes) (without train)	977 seconds (16.2 minutes)
	2084 seconds (34.7 minutes) (with train)	
Average Weekday Travel Time during the afternoon peak hour within the study area	1462 seconds (24.3 minutes) (without train)	889 seconds (14.8 minutes)
	2588 seconds (43.1 minutes) (with train)	

Source: Synchro

# Appendix 3 - Safety Analysis

## Existing Crash Analysis

A crash analysis was completed for the study area. The Shelby County Highway Department provided crash data via the CARE (Critical Analysis Reporting Environment) data analysis software by the Center for Advanced Public Safety. The analyses were conducted study area roadways and was examined for the years 2017-2021. The following tables illustrate the crash experience.

**Table 6. Existing Crash Analysis - Crash Type**

Manner of Crash	Crash Severity	Years of Crashes					Total
		2017	2018	2019	2020	2021	
Angle	B	1	1	2	1	1	6
	C	0	0	0	2	3	5
	O	4	13	12	5	6	40
Head On	B	0	0	0	0	2	2
	C	0	0	1	0	0	1
	O	1	3	1	0	3	8
Non-Vehicular	K	0	0	1	0	0	1
	B	1	1	0	0	0	2
	O	1	3	6	2	0	12
Rear End	B	2	2	1	0	2	7
	C	2	2	2	2	2	10
	O	79	81	77	77	74	388
Sideswipe - Opposite Direction	O	1	1	0	1	0	3
Sideswipe - Same Direction	O	6	14	3	6	9	38
Unknown	B	0	1	0	0	0	1
	O	0	1	1	1	0	3
Total	K	0	0	1	0	0	1
	B	4	5	3	1	5	18
	C	2	2	3	4	5	16
	O	92	116	100	92	92	491
<b>Total</b>		<b>98</b>	<b>123</b>	<b>107</b>	<b>97</b>	<b>102</b>	<b>527</b>

Source: CARE

**Table 7. Existing Crash Analysis - Lighting Conditions**

Lighting Conditions	Crash Severity	Years of Crashes					Total
		2017	2018	2019	2020	2021	
Dark – Roadway Not Lighted	B	0	0	0	0	1	1
	C	0	0	0	1	0	1
	O	1	0	1	1	0	3
Dark – Roadway Lighted	B	1	0	0	0	0	1
	C	0	0	0	1	1	2
	O	1	1	6	3	5	16
Dark – Spot Illumination	K	0	0	1	0	0	1
	B	1	1	1	0	1	4
	C	0	0	0	0	1	1
Dark – Unknown Roadway Lighting	O	8	13	6	13	5	45
	O	2	2	0	0	0	4
	O	6	6	3	3	1	19
Dawn	B	2	4	2	1	3	12
	C	2	2	3	1	3	11
	O	74	90	82	71	78	395
Daylight	C	0	0	0	1	0	1
	O	0	4	2	1	3	10
Dusk	C	0	0	0	1	0	1
	O	0	4	2	1	3	10

Source: CARE

**Table 8. Existing Crash Analysis - Roadway Conditions**

Roadway Conditions	Crash Severity	Years of Crashes					Total
		2017	2018	2019	2020	2021	
Dry	K	0	0	1	0	0	1
	B	2	4	3	0	5	14
	C	2	2	2	4	4	14
	O	74	92	81	81	79	407
Wet	B	2	1	0	1	0	4
	C	0	0	1	0	1	2
	O	16	20	14	9	13	72
Unknown	O	2	4	5	2	0	13

Source: CARE

**Table 9. Existing Crash Analysis - Weather Conditions**

Weather Conditions	Crash Severity	Years of Crashes					Total
		2017	2018	2019	2020	2021	
Clear	K	0	0	1	0	0	1
	B	1	4	3	0	5	13
	C	2	1	1	3	4	11
	O	56	69	68	67	58	318
Cloudy	B	3	0	0	0	0	3
	C	0	1	1	1	0	3
	O	21	33	24	20	24	122
Mist	B	0	1	0	1	0	2
	O	7	4	3	2	1	17
Rain	C	0	0	1	0	1	2
	O	8	10	5	3	9	35

Source: CARE

## Highway Safety Manual Crash Analysis

A safety analysis was completed using methodology included in the Highway Safety Manual, 1<sup>st</sup> Edition. Highway Safety Software was utilized to complete the analysis. As a part of the analysis, projected crash rates for existing and future conditions were developed for the intersections located along U.S. Highway 31. Note that there is no site specific SPF or C factors available for this analysis. Therefore, the safety analysis was developed to determine the impacts the proposed project would have on the intersections using a comparison between existing and proposed conditions. Once a rate of change was determined, the rates were applied to each intersection’s crash experience. The results are outlined in the following tables.

**Table 10. Highway Safety Manual Predictive Method Crash Analysis**

	Existing Conditions Analysis (2022)	Future No Build Analysis (2045)	Future Build Analysis (2045)
Projected crashes - U.S. Highway 31 at Shelby County Highway 52 East	4.321 Crashes	7.155 Crashes	7.444 Crashes
Projected Crashes – US Highway 31 at Shelby County Highway 52 West	4.189 Crashes	6.793 Crashes	3.491 Crashes
Totals	8.51 Crashes	13.95 Crashes	10.94 Crashes (-21%)

Source: Highway Safety Manual, First Edition

As shown, the proposed project would reduce crashes by approximately 21% along US Highway 31. The following table shows the specific impacts to the US 31 intersections.

**Table 11. Projected Crash Reduction - Proposed Project**

Location	Crash Severity	Existing Conditions	Future No Build	Future Build	Total Reduction
US Highway 31 at Shelby County Highway 52 East	K	0	0	0	0
	A	0	0	0	0
	B	1	2	2	0
	C	3	5	5	0
	O	51	84	82	2
US Highway 31 at Shelby County Highway 52 West	K	0	0	0	0
	A	0	0	0	0
	B	1	2	1	1
	C	1	2	1	1
	O	24	39	20	19
Shelby County Highway 52 Adjacent to Crossings	K	0	0	0	0
	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	O	15	15	0	15
<b>TOTALS</b>		<b>96</b>	<b>149</b>	<b>111</b>	<b>38</b>

Source: AECOM