# final report

January 19, 2018 Revised February 21, 2018 Revised June 30, 2021

# Traffic Impact Study

Aiken Road and Johnson Road Vicinity Louisville, KY

Prepared for

Louisville Metro Planning Commission Kentucky Transportation Cabinet



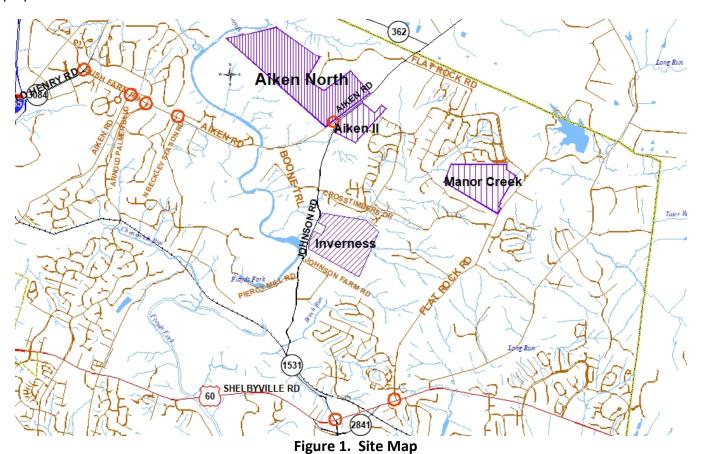


# **Table of Contents**

INTRODUCTION	2
Figure 1. Site Map	2
FUTURE CONDITIONS	2
Table 1. Developments Included in No Build Volumes	3
Table 2. Peak Hour Trips Generated by Adjacent Subdivisions	3
Figure 2. 2025 No Build Peak Hour Volumes Johnson Road	4
Figure 3. 2025 No Build Peak Hour Volumes Aiken Road	4
Table 3. Aiken North Trip Generation	4
Figure 4. 2025 Build Peak Hour Volumes Johnson Road	5
Figure 5. 2025 Build Peak Hour Volumes Aiken Road	5
ANALYSIS	6
Table 4. Peak Hour Level of Service Johnson Road	6
Table 5. Peak Hour Level of Service Aiken Road	7
RECOMMENDATIONS	8
CONCLUSIONS	8
ADDENINY	۵

### INTRODUCTION

This update of the February 21, 2018 study will add the traffic from the proposed Aiken North subdivision to the previous study. Aiken North is proposed with 866 single-family lots. **Figure 1** displays a map of the vicinity. The purpose of this study is to examine the traffic impacts of these developments upon the adjacent highway system. For this study, the impact area was defined to be the intersections of Aiken Road with Johnson Road, N. Beckley Station Road, Arnold Palmer Drive and Bush Farm Road; the intersection of Johnson Road with Shelbyville Road; and the intersection of Bush Farm Road with Old Henry Road. See the separate traffic impact study analyzing the proposed entrances.



### **FUTURE CONDITIONS**

The data for these intersections originates in the <u>1313 Johnson Road Traffic Impact Study</u>, dated October 5, 2017. The <u>1313 Johnson Road Traffic Impact Study</u> includes traffic specifically generated by the developments listed in **Table 1.** This analysis will use the <u>Aiken Road and Johnson Road Vicinity</u>, dated February 21, 2018, Figures 4 and 5 2025 Build volumes as the No-Build for this analysis. **Figures 2 and 3** are the 2025 No Build peak hour volumes.

Table 1. Developments Included in No Build Volumes

Development Current Name	Traffic Impact Study Name
Twin Lakes (137 lots)	Stapleton Ridge
TWIII Lakes (157 lots)	15528 Aiken Road
Manor at Floyds Fork, Meadows at Floyds Fork,	Sutherland Pointe
and Villas at Floyds Fork (237 lots)	15905 Aiken Road
Jefferson Development Group St. Joseph Property	
Ball Homes on Factory Lane (405 lots)	St. Joseph Orphanage Site
Old Henry Crossing Phases 2 and 3	
1313 Johnson Road (323 lots)	
Aiken II (178 lots)	
Manor Creek (204 lots)	

Table 2. Peak Hour Trips Generated by Adjacent Subdivisions

	A.M. I	Peak	Hour	P.M.	Peak H	lour
	Trips	In	Out	Trips	In	Out
Flat Rock Ridge by Ball Homes 116 lots	87	22	65	117	74	43
Inverness Homes 40 lots	33	8	25	42	27	15
Hills - Lake View 40 lots	33	8	25	42	27	15
Hills - Glen Lakes 41 lots	34	9	25	43	27	16
Bryant Farms by Ball Homes 102 lots	77	19	58	104	65	39
Total 339 lots	264	66	198	348	220	128

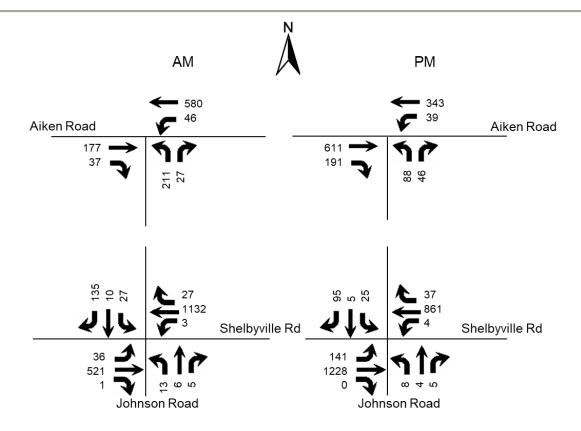


Figure 2. 2025 No Build Peak Hour Volumes Johnson Road

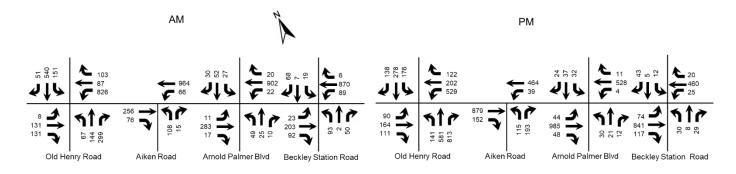


Figure 3. 2025 No Build Peak Hour Volumes Aiken Road

**Table 3. Aiken North Trip Generation** 

	A.M.	Peak I	lour	P.M.	Peak I	lour
Land Use	Trips	In	Out	Trips	In	Out
Single Family Detached (866 lots)	620	155	465	807	508	299

**Figures 4 and 5** are the 2025 Build peak hour volumes. The Build volumes include the trips generated by Aiken North.

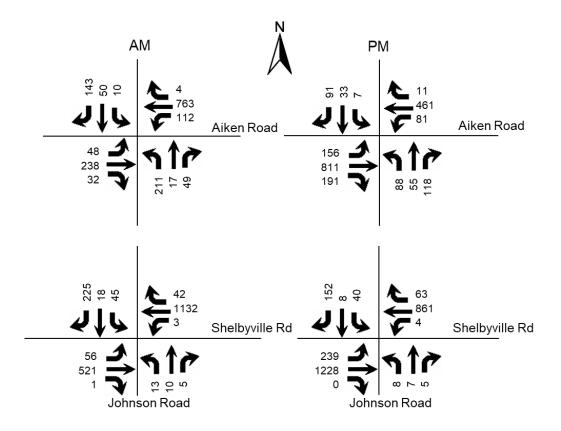


Figure 4. 2025 Build Peak Hour Volumes Johnson Road

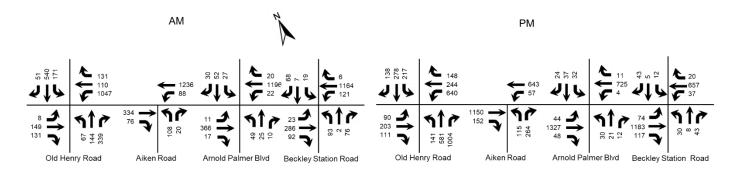


Figure 5. 2025 Build Peak Hour Volumes Aiken Road

### **ANALYSIS**

The qualitative measure of operation for a roadway facility or intersection is evaluated by assigning a "Level of Service". Level of Service is a ranking scale from A through F, "A" is the best operating condition and "F" is the worst. Level of Service results depend upon the facility that is analyzed. In this case, the Level of Service is based upon the total delay experienced at an intersection.

To evaluate the impact of the proposed development, the vehicle delays at the intersections were determined using procedures detailed in the <u>Highway Capacity Manual</u>, 6<sup>th</sup> edition. Future delays and Level of Service were determined for the intersections using the HCS Streets (version 7.9.5) software. The delays and Level of Service are summarized in **Tables 4 and 5**. The 2025 Build includes the recently constructed improvements at the Shelbyville Road intersection with Johnson Road, and the northbound right turn lane on Aiken at Bush Farm. The 2025 Build includes the improvements shown on the Aiken North plan for the intersection of Aiken Road with Johnson Road. The appendix includes on the Build and Improved column results.

Table 4. Peak Hour Level of Service Johnson Road

		A.	M.			Р	.M.	
		2025				2025		
Approach	2017	No	2025	2025	2017	No	2025	2025
	Existing	Build	Build	Improved	Existing	Build	Build	Improved
Aiken Road at Johnson Road			С				В	
			20.2				12.9	
Aiken Road Eastbound			В				Α	
			11.8				8.3	
Johnson Road Westbound (left)	Α	Α	В		Α	Α	Α	
	7.4	7.8	18.6		8.5	9.9	7.2	
Johnson Road Northbound	В	D	С		В	В	D	
	13.6	27.7	30.8		12.0	14.3	35.1	
Subdivision Road Southbound			С				С	
			25.8				33.4	
Shelbyville Road at Johnson Road								
Shelbyville Road Eastbound	В	В	В	В	Α	В	В	В
(left)	10.6	11.9	12.3	12.3	9.7	11.3	13.0	13.0
Shelbyville Road Westbound	Α	Α	Α	Α	В	В	В	В
(left)	9.5	9.8	9.8	9.8	10.8	11.8	11.8	11.8
Eastwood Fishersville Road	F	F	F	F	F	F	F	F
Northbound	63.2	647.9	~	~	113.4	~	326.6	258.3
Island Bas I Oc. dilland	D	F	F	F	F	F	F	F
Johnson Road Southbound	31.6	338.1	459.2	258.4	59.3	6561	1713.8	488.0

Key: Level of Service, Delay in seconds per vehicle

Page 6

Table 5. Peak Hour Level of Service Aiken Road

		Α.	M.			P.	M.	
Approach	2017* Existing	2025 No Build	2025 Build	2025 Improved	2017* Existing	2025 No Build	2025 Build	2025 Improved
Aiken Road at Beckley								
Station Road		В	В			Α	Λ	
Aiken Road Eastbound (left)		10.7	12.8			8.6	A 9.4	
Aiken Road Westbound (left)	Α	Α	Α		Α	В	В	
	7.8	8.3	8.7		8.6	10.4	12.6	
Beckley Station Road	С	F	F		В	D	F	
Northbound	20.4	237.1 D	2921 F		14.8	27.5 C	56.7 F	
Beckley Station Road Southbound		29.3	65.2			20.3	52.2	
Aiken Road at Arnold Palmer Blvd		20.0	03.2			20.0	52.2	
Aiken Road Eastbound (left)	Α	В	В	В	Α	Α	Α	Α
	8.6	10.3	12.1	12.1	7.9	8.7	9.5	9.5
Aiken Road Westbound (left)	A 7.6	A 8.0	A 8.2	A 8.2	A 8.6	B 10.6	B 12.6	B 12.6
Arnold Palmer Blvd	7.0 D	F	6.2 F	F.2	C C	F	F	F
Northbound	25.3	214.9	1871.4	922.8	24.9	297.4	~	~
Arnold Palmer Blvd	С	F	F	F	С	F	F	F
Southbound	21.3	108.3	511.8	102.5	24.0	271.5	2478	580
Aiken Road at Bush Farm Road								
Aiken Road Eastbound (left)	A 7.8	A 8.2	A 8.6	A 8.6	A 8.9	B 11.1	B 13.4	B 13.4
Aiken Road Northbound	C 23.6	F 165.1	F 953	F 91.8	D 25.5	F 456.7	F 508.1	F 221.1
Old Henry Road at Bush	В	F	F	E	В	F	F	Е
Farm Road	17.1	124.7	228.0	59.6	16.3	97.2	153.6	62.3
Old Harmy Dand Faathay 2	В	D	D	Е	В	F	F	Е
Old Henry Road Eastbound	15.2	48.2	49.7	66.1	13.6	112.7	169.1	73.4
Old Harm, Dood Wooth aread	В	D	D	D	В	С	С	С
Old Henry Road Westbound	17.8	41.6	40.1	50.4	14.9	28.3	29.9	29.1
Bush Farm Road Northbound	B 19.0	F 254.8	F	E 50.3	C 24.8	F 126.2	F	E 69.1
	18.9		460.8	59.3	24.8	136.3	242.3	68.1
Bush Farm Southbound	A 10.0	B 16.5	B 18.3	E 72.7	B 17.5	E 64.0	E 72.2	E 70.7
*D1-1 Ot-4: D A1-1-D-1	10.0	10.5	10.3	73.7	17.5	64.0	72.3	70.7

<sup>\*</sup>Beckley Station Road, Arnold Palmer Boulevard and Aiken Road are 2015

Page 7

### RECOMMENDATIONS

The cumulative impact of the approved residential developments has resulted in a need for additional improvements to Aiken Road and Shelbyville Road. The column in the table above labeled "2025 Improved" reflects the projects below. Funding for these projects needs to be identified. Note the intersection of Aiken Road at Beckley Station Road is being improved as part of the current development at this intersection and no additional improvements are recommended. The recommended projects are:

- Shelbyville Road at Johnson Road The improvements included are the widening of Johnson Road to have a thru/left and a right turn lane on both north and southbound approaches. The only option to reduce delays on Johnson Road would be to install a signal at this intersection. Signal installation is not warranted with the volumes in Figure 4.
- Aiken Road at Arnold Palmer Boulevard construct left turn lanes on Aiken Road at Arnold Palmer Boulevard.
- Aiken Road at Bush Farm Road construct a left turn lane on all approaches. The volumes in Figure 4 indicate the warrants for installing a traffic signal could be met.
- Bush Farm Road at Old Henry Road construct a dual left turn lane on the westbound approach of Bush Farm Road. The Old Henry Road construction project has been modified to include this improvement. Construction is anticipated in the fall of 2022.

### **CONCLUSIONS**

Based upon the volume of traffic forecasted for the year 2025, the projects identified in the Recommendations should be funded. The implementation of the roadway projects will improve the Level of Service. Traffic signals may be needed to reduce the delays experienced on the minor street approaches.

Page 8

# **APPENDIX**

## **HCS Reports**

		HCS	7 Sig	nalize	d Int	ersect	tion F	<b>cesul</b>	ts Sui	mmar	У				
General Inform	ation							T I	ntersec	tion Inf	ormatic	nn .		14441	la L
Agency	iution	Diane B. Zimmerma	an Traff	ic Engin	eering			$\rightarrow$	Duration		0.250		┨	7 }	
Analyst		DBZ	an nall			Jul 1,	2021	$\rightarrow$	Area Typ		Other		- J		
Jurisdiction		002		Time F		AM	2021	-	PHF	,,,	0.86		→ _*		*7
Urban Street		Aiken Road		-		_	Quild	_		Poriod	1> 7:	15	- 3		•
Intersection		Johnson Road		File Na	sis Year	-	on AM 2		Analysis	renou	177.	15	- B		
	tion	Aiken North		File IV	ame	Jonns	On AIVI A	20 D.XL	18				- 4	111	t- C
Project Descrip	lion	Alken North													
Demand Inforr	nation				EB			WB	3		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	Т	R	L	T	R
Demand ( $v$ ), $v$	eh/h			48	238	32	112	763	3 4	211	17	49	10	50	14
Signal Informa	tion					1 11:	7								₹
Cycle, s	80.0	Reference Phase	2	1		S42							<b>Z</b>		小
Offset, s	0	Reference Point	End		<b>~</b>	11:2	"					1	<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		19.3	0.0	0.0	0.0	0.0			<b>5</b> -		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow Red	3.0	3.0	0.0	0.0	0.0	0.0		5	6	7	Y
Torce Mode	Tixeu	Simult. Gap 14/5	OII	INCU	3.0	0.0	10.0	10.0	0.0	0.0					
Timer Results				EBI	-	EBT	WB	L	WBT	NBI	_	NBT	SBI		SBT
Assigned Phase	е					2			6			8			4
Case Number						5.0			6.0			5.0			7.0
Phase Duration	, s					53.7			53.7			26.3		$\perp$	26.3
Change Period	, ( Y+R	c ), S				7.0			7.0			7.0			7.0
Max Allow Head	dway (	MAH ), s				0.0			0.0			4.2			4.2
Queue Clearan	ce Time	e ( g s ), s										18.3			9.1
Green Extension	n Time	(ge),s				0.0			0.0			1.0			1.8
Phase Call Pro	bability											1.00			1.00
Max Out Proba	bility											0.84			0.04
Movement Gro	un Res	sults			EB			WB			NB			SB	
Approach Move	•			L	T	R	L	Т	R	L	T	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		) veh/h		56	277	37	130	892	10	245	20	57	<u> </u>	70	166
		ow Rate ( s ), veh/h/l	ln .	614	1885	1598	1102	1883		1356	1900	1598		1827	159
Queue Service		, ,,		6.3	5.7	0.8	5.2	29.9	_	13.9	0.6	2.2		0.0	7.1
Cycle Queue C		- ,:		36.3	5.7	0.8	11.0	29.9		16.3	0.6	2.2	_	2.3	7.1
Green Ratio ( g		e fille (gt), 3		0.58	0.58	0.58	0.58	0.58	_	0.24	0.24	0.24		0.24	0.2
Capacity ( c ), v				219	1101	933	655	1100		377	458	385		493	385
Volume-to-Capa		atio (X)				0.040		0.811				0.148		0.142	
<u>_</u>		/In ( 95 th percentile	)	47.8	90.9	10.7	54.8	433.9	_	204.3	12.6	37.8		46.1	119
	, .	eh/ln ( 95 th percent		1.9	3.6	0.4	2.2	17.2	_	8.1	0.5	1.5		1.8	4.7
	,,	RQ) (95 th percent		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.0
Uniform Delay (		,, ,	uio)	27.5	8.1	7.1	10.8	13.1		30.3	23.3	23.9		23.9	25.
Incremental De				2.8	0.5	0.1	0.7	6.5		2.7	0.0	0.2		0.1	0.8
Initial Queue De		,.		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.2		0.0	0.0
Control Delay (				30.3	8.7	7.2	11.5	19.6		33.0	23.3	24.1		24.1	26.
Level of Service				00.3 C	Α	1.2 A	B	19.6 B		C	23.3 C	C C		C C	26.
Approach Delay				11.8		В	18.6		В	30.8		С	25.8		C
Intersection De				11.6	'		0.2	,	В	30.0	,		25.6 C	,	0
torocotion De	.a, 5, 0, v														
Multimodal Re	sults				EB			WB			NB			SB	
				2.07	,	В	1.88	3	В	1.92		В	2.11		В
Pedestrian LOS	Score	/ LOS		2.07		ь	1.00	,		1.02	-	ь	2.1		

		HCS	7 Sig	nalize	d Inte	ersec	tion F	Resul	lts Sur	nmar	у				
General Inforr	nation								Intersec	tion Inf	ormatio	on	Į.	14741	يا مل
Agency		Diane B. Zimmerma	an Traff	ic Engin	eering			I	Duration	, h	0.250			24	
Analyst		DBZ		Analys	sis Date	Jul 1,	2021	/	Area Typ	е	Other		<u></u>		
Jurisdiction				Time F	Period	PM		1	PHF		0.94		<b>\$</b> →		¥
Urban Street		Aiken Road		Analys	sis Year	2025	Build	/	Analysis	Period	1> 4:4	45	2,		
Intersection		Johnson Road		File Na	ame	Johns	on PM 2	25 B.xı	us					5 t r	
Project Descrip	otion	Aiken North											T	4144	10
D 1 1	4!				ED			١٨/٦			ND			OD	
Demand Infor				L	EB T	R	1	WE	R		NB T	│ R		SB	F
Approach Mov				<del>-</del>	_	-	<del>-</del>	<del>-</del>	_	L	55		1 L	33	9
Demand ( v ), v	ven/n	_	-	156	811	191	81	461	1 11	88	55	118		33	9
Signal Informa	ation				R	IJij.	Т		$\overline{}$						Т
Cycle, s	80.0	Reference Phase	2	1	<b>2</b>	E42	21						4		4
Offset, s	0	Reference Point	End			101		100				1	2	3	
Uncoordinated	_	Simult, Gap E/W	On	Green Yellow		4.0	0.0	0.0	0.0	0.0			<b>Ş</b> −		-4
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	0.0	0.0	0.0	0.0		5	6	7	1
Timer Results				EBI	-	EBT	WB	L	WBT	NBI	L	NBT	SBI		SBT
Assigned Phas	se					2			6			8			4
Case Number						5.0			6.0			5.0			7.0
Phase Duration	n, s					62.9			62.9			17.1			17.1
Change Period	I, ( Y+R	c ), S				7.0			7.0			7.0			7.0
Max Allow Hea						0.0			0.0			4.2			4.2
Queue Clearar												8.8			6.5
Green Extension		1 - 1				0.0			0.0			1.3			1.4
Phase Call Pro												1.00			1.00
Max Out Proba												0.01			0.00
Movement Gr		sults			EB			WB		_	NB			SB	_
Approach Mov				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow				166	863	203	86	502	-	94	59	126		43	9
		ow Rate ( s ), veh/h/l	n	911	1900	1610	651	1892		1395	1900	1610		1849	16
Queue Service		- ,:		7.3	20.0	3.5	6.7	8.7	1	5.1	2.2	5.9		0.0	4.
		e Time ( g c ), s		16.0	20.0	3.5	26.7	8.7		6.8	2.2	5.9		1.6	4.
Green Ratio (				0.70	0.70	0.70	0.70	0.70	_	0.13	0.13	0.13		0.13	0.1
Capacity ( c ),		-41- / X/)		628	1329	1126	383	1323		237	239	202		285	20
Volume-to-Cap				0.264			0.225		_	0.395	0.245			0.149	0.4
		/In (95 th percentile)		58.7	245.4	37.5	45.3	109.8	5	78.9	45.9	107.8		32.8	80
	, , ,	eh/ln (95 th percenti		2.3	9.8	1.5	1.8	4.4		3.2	1.8	4.3		1.3	3.
	•	RQ) (95 th percent	uie)	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.0
Uniform Delay				8.2	6.6	4.1	14.0	4.9		34.3	31.6	33.2		31.3	32
Incremental De Initial Queue D		**		1.0	2.5	0.4	1.4	0.8		1.1	0.5	3.1		0.2	1.
		,,		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.
				9.2	9.1	4.5	15.3	5.8		35.4	32.1	36.3		31.5	34
Control Delay (				A	A	_ A	B 7.2	A	^	D 25.1	С	D	20	C	_ C
Control Delay ( Level of Service				8.3		Α 10	7.2		Α	35.1		D	33.4	1	С
Control Delay ( Level of Servic Approach Dela						12	2.9						В		
Control Delay ( Level of Service		117 LOS													
Control Delay ( Level of Servic Approach Dela	elay, s/ve	en / LOS			EB			WB			NB			SB	
Control Delay ( Level of Service Approach Dela Intersection De	elay, s/ve			2.04		В	1.85		В	1.93	_	В	2.13		В

		Н	CS7	Two-	-Way	Sto	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natio	1						_
Analyst	Diane	Zimme	rman				Inters	ection			Shelb	yville at	Johnson	1		
Agency/Co.	Diane	e B Zimn	nerman T	raffic En	gineerin	g	Jurisd	liction				-				
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Shelb	yville Rd				
Analysis Year	2025						North	/South S	Street		Johns	on Rd				
Time Analyzed	AM F	eak Buile	d				Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiker	North														
Lanes																
				A 7 4 4 7 ↑ 7 7		The street: Ea		7 4 4 7 6								
Vehicle Volumes and Adj	justme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	T	R	U	L	T	R	U	L	T	L
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	1
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	Ľ
Configuration	-	L		TR		L		TR			LTR				LTR	L
Volume (veh/h)	-	56	521	1		3	1132	42		13	10	5		45	18	2
Percent Heavy Vehicles (%)	-	0				66				10	0	0		0	0	L
Proportion Time Blocked	-														_	
Percent Grade (%)										-	0				0	_
Right Turn Channelized	+			1 -64	01											_
Median Type   Storage	٠.			Lett	Only								1			_
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)	_	4.1				4.1				7.1	6.5	6.2		7.1	6.5	6
Critical Headway (sec)	-	4.10				4.76				7.20	6.50	6.20		7.10	6.50	6
	+	2.2				2.2				3.5	4.0	3.3		3.5	4.0	3
Base Follow-Up Headway (sec)		2.20				2.79				3.59	4.00	3.30		3.50	4.00	3.
Follow-Up Headway (sec)	<u> </u>															
	d Leve		ervice												242	l
Follow-Up Headway (sec)	d Leve	l of S	ervice			3					30				313	$\vdash$
Follow-Up Headway (sec) <b>Delay, Queue Length, an</b> Flow Rate, v (veh/h)  Capacity, c (veh/h)	d Leve	61 551	ervice			753					30				168	
Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio	d Leve	61 551 0.11	ervice			753 0.00					30				168 1.87	
Follow-Up Headway (sec)  Pelay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)	d Leve	61 551 0.11 0.4	ervice			753 0.00 0.0					30				168 1.87 23.2	
Follow-Up Headway (sec)  Pelay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)	d Leve	61 551 0.11 0.4 12.3	ervice			753 0.00 0.0 9.8					30				168 1.87 23.2 459.2	
Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)  Level of Service (LOS)	d Leve	61 551 0.11 0.4 12.3 B				753 0.00 0.0 9.8 A					30				168 1.87 23.2 459.2 F	
Follow-Up Headway (sec)  Pelay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)	d Leve	61 551 0.11 0.4 12.3 B	ervice			753 0.00 0.0 9.8 A	.0				30				168 1.87 23.2 459.2	

			C31	TWO.	vvay	310	o-Co	Huloi	nep	Ort						
General Information							Site	Inforr	natio	1						
Analyst	Diane	Zimme	rman				Inters	ection			Shelb	yville at .	Johnson			
Agency/Co.	Diane	B Zimn	nerman 1	raffic En	gineerin	g	Jurisd	liction								
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Shelb	yville Rd				
Analysis Year	2025						North	/South S	Street		Johns	on Rd				
Time Analyzed	AM P	eak Buil	d Improv	/ed			Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
						ን ት ቀ ሃ ' or Street: Ea		1 4 4 4 6								
Vehicle Volumes and Ad	justme	nts														
Approach		Eastl	ound			Westl	bound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	1	1	0		1	1	0		1	1	0
Configuration		L		TR		L		TR		L		TR		L		TR
Volume (veh/h)		56	521	1		3	1132	42		13	10	5		45	18	22:
Percent Heavy Vehicles (%)		0				66				10	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)	+										0				)	
Right Turn Channelized	+															
Median Type   Storage				Left	Only							1	1			
Critical and Follow-up H	leadwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.76				7.20	6.50	6.20		7.10	6.50	6.2
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.79				3.59	4.00	3.30		3.50	4.00	3.3
Delay, Queue Length, ar	nd Leve	l of S	ervice	•												
Flow Rate, v (veh/h)		61				3				14		16		49		26
Capacity, c (veh/h)		551				753						80		130		17
v/c Ratio		0.11				0.00						0.20		0.38		1.4
95% Queue Length, Q <sub>95</sub> (veh)		0.4				0.0						0.7		1.6		16.
Control Delay (s/veh)		12.3				9.8						61.4		48.5		297
<u> </u>		В				А						F		E		F
Level of Service (LOS)																
Level of Service (LOS)  Approach Delay (s/veh)		1	.2			0	0.0							25	8.4	

					-Way											
General Information							Site	Inforr	natio	n						
Analyst	Diane	Zimme	rman				Inters	ection			Shelb	yville at	Johnson	1		
Agency/Co.	Diane	B Zimn	nerman 1	raffic En	gineerin	g	Jurisd	liction								
Date Performed	7/1/2	1					<u> </u>	Nest Stre			_	yville Rd				
Analysis Year	2025						_	/South S				on Rd				
Time Analyzed	+	eak Build	t				_	Hour Fac			0.93					
Intersection Orientation	East-\						Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
						ヤ マイ or Street: Ea		F + C 0								
Vehicle Volumes and Adj	justme	nts														
Approach		Eastl	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
			1	0	0	1	1	0		0	1	0		0	1	0
Number of Lanes	0	1	_		Ů	_										
Configuration	0	L		TR	Ť	L		TR			LTR				LTR	
Configuration Volume (veh/h)	0	L 239	1228	TR 0	, and the second	L 4	861	TR 63		8	7	5		40	8	<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)	0	L		_		L		_		8 0		5		40		<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked	0	L 239		_		L 4		_		0	7			0	8	<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)	0	L 239		_		L 4		_		0	7			0	8	15:
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized	0	L 239		0		L 4		_		0	7	0		0	8	<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage		L 239 0		0	Only	L 4		_		0	7			0	8	<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H		L 239 0		0		L 4		_		0	7 0	0	1	0	0	0
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)		L 239 0		0		L 4 0 0		_		7.1	7 0	6.2	1	7.1	0 6.5	6
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)		L 239 0		0		4.1 4.10		_		7.1 7.10	7 0 0 6.5 6.50	6.2		7.1 7.10	8 0 0 6.5 6.50	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)		L 239 0		0		4.1 4.10 2.2		_		7.1 7.10 3.5	7 0 0 6.5 6.50 4.0	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0	6
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)	eadwa	ys 4.1 4.10 2.2 2.20	1228	Left		4.1 4.10		_		7.1 7.10	7 0 0 6.5 6.50	6.2		7.1 7.10	8 0 0 6.5 6.50	<b>—</b>
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)	eadwa	ys 4.1 4.10 2.2 2.20	1228	Left		4.1 4.10 2.2		_		7.1 7.10 3.5	7 0 0 6.5 6.50 4.0	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)	eadwa	ys 4.1 4.10 2.2 2.20 257	1228	Left		4.1 4.10 2.2 2.20		_		7.1 7.10 3.5	6.5 6.50 4.0 4.00	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0 4.00	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)	eadwa	ys 4.1 4.10 2.2 2.20 I of Solution 704	1228	Left		4.1 4.10 2.2 2.20		_		7.1 7.10 3.5	6.5 6.50 4.00 22 26	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.00 215 49	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio	eadwa	ys 4.1 4.10 2.2 2.20 I of So 257 704 0.36	1228	Left		4.1 4.10 2.2 2.20 4 530 0.01		_		7.1 7.10 3.5	6.5 6.50 4.0 4.00 22 26 0.81	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0 4.00	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)	eadwa	ys 4.1 4.10 2.2 2.20 l of So 257 704 0.36 1.7	1228	Left		4.1 4.10 2.2 2.20 4 530 0.01 0.0		_		7.1 7.10 3.5	6.5 6.50 4.0 4.00 22 26 0.81 2.5	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0 4.00 215 49 4.43 24.2	6.2
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)	eadwa	ys 4.1 4.10 2.2 2.20 l of So 257 704 0.36 1.7 13.0	1228	Left		4.1 4.10 2.2 2.20 4 530 0.01 0.0		_		7.1 7.10 3.5	6.5 6.50 4.0 4.00 22 26 0.81 2.5 326.6	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0 4.00 215 49 4.43 24.2	6
Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)	eadwa	ys 4.1 4.10 2.2 2.20 l of Solution 1.7 13.0 B	1228	Left		4.1 4.10 2.2 2.20 4 530 0.01 0.0 11.8 B		_		7.1 7.10 3.5 3.50	6.5 6.50 4.0 4.00 22 26 0.81 2.5	6.2 6.20 3.3		7.1 7.10 3.5 3.50	6.5 6.50 4.0 4.00 215 49 4.43 24.2	6. 6.2 3.

		Н	ICS7	Two-	-Way	Stop	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natio	1						_
Analyst	Diane	Zimme	rman				Inters	ection			Shelb	yville at .	Johnson	1		
Agency/Co.	Diane	B Zimn	nerman T	Fraffic En	gineerin	g	Jurisd	iction				<u>-                                      </u>				
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Shelb	yville Rd				
Analysis Year	2025						North	/South S	Street		Johns	on Rd				
Time Analyzed	PM P	eak Build	d				Peak	Hour Fac	tor		0.93					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				A 7 4 4 Y ↑ Y ↑		ን ተ ቀ ሃ 1 or Street: Ea		7 4 4 6 6								
Vehicle Volumes and Ad	ljustme	nts														
Approach		Eastb	oound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	1	1	0		1	1	0		1	1	0
Configuration		L		TR		L		TR		L		TR		L		TR
Comiguration		222	1228	0	l .	4	0.04	63		8	7			40	8	152
Volume (veh/h)		239	1220	_			861	03				5		10		
Volume (veh/h) Percent Heavy Vehicles (%)		0	1220			0	861	03		0	0	0		0	0	0
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked			1220			_	861	0.5		0	0			0		0
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)			1220			_	861	0.5		0	_			0	0	0
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized			1220			_	861			0	0	0		0		0
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage		0		Left	Only	_	861			0	0		1	0		0
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized	leadwa	0	1220	Left	Only	_	861			0	0	0	1	0		0
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage	leadwa	0		Left	Only	_	861			0	0	0		0		
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H	leadwa	o ys		Left	Only	0	861			0	0	0	1	0		6.2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec)	Headwa	0 <b>ys</b> 4.1		Left	Only	4.1	861			7.1	6.5	6.2	1	7.1	6.5	6.20
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)	leadwa	9 <b>ys</b> 4.1 4.10		Left	Only	4.1 4.10	861			7.1	6.5	6.2		7.1 7.10	6.5	6.2 6.20 3.3
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)		0 <b>ys</b> 4.1 4.10 2.2 2.20			Only	4.1 4.10 2.2	861			7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.20 3.3
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)		0 <b>ys</b> 4.1 4.10 2.2 2.20			Only	4.1 4.10 2.2	861			7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.20 3.3		7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.20 3.3 3.30
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, ar		9 4.1 4.10 2.2 2.20 I of Se			Only	4.1 4.10 2.2 2.20	861			7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.20 3.3 3.30		7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.20 3.3 3.30
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, ar  Flow Rate, v (veh/h)		9 4.1 4.10 2.2 2.20 1 of So			Only	4.1 4.10 2.2 2.20	861			7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.20 3.3 3.30		7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.2 3.3 3.3 172 137
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h)		0 4.1 4.10 2.2 2.20 1 of Se 257 704			Only	4.1 4.10 2.2 2.20	861			7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.20 3.3 3.30		7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.22 6.20 3.3 3.30 172 137 1.25
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		0 4.1 4.10 2.2 2.20 1 of So 257 704 0.36			Only	4.1 4.10 2.2 2.20 4 530 0.01	861			7.1 7.10 3.5 3.50 9 78 0.11	6.5 6.50 4.0	6.2 6.20 3.3 3.30		7.1 7.10 3.5 3.50 43 14 3.18	6.5 6.50 4.0	6.2 6.2 3.3 3.3 172 137 1.25 223.4
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, ar  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)		0 4.1 4.10 2.2 2.20 1 of Se 257 704 0.36 1.7			Only	4.1 4.10 2.2 2.20 4 530 0.01 0.0	861			7.1 7.10 3.5 3.50 9 78 0.11 0.4	6.5 6.50 4.0	6.2 6.20 3.3 3.30		7.1 7.10 3.5 3.50 43 14 3.18 6.3	6.5 6.50 4.0	6.2 6.20 3.3 3.30 172 137 1.25
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, ar  Flow Rate, v (veh/h)  V/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)		0 4.1 4.10 2.2 2.20 l of So 257 704 0.36 1.7 13.0 B			Only	4.1 4.10 2.2 2.20 4 530 0.01 0.0 11.8 B	1			7.1 7.10 3.5 3.50 9 78 0.11 0.4 56.8 F	6.5 6.50 4.0	6.2 6.20 3.3 3.30 18 0.70 1.9 392.7		7.1 7.10 3.5 3.50 43 14 3.18 6.3 1548.2 F	6.5 6.50 4.0	6.2 6.2 3.3 3.3 172 137 1.2 10.5 223.

		H	CS/	TWO-	-way	Sto	o-Co	ntrol	кер	ort						
General Information							Site	Inforn	natio	n						
Analyst	DBZ						Inters	ection			Aiken	at Beckl	ley Statio	on		
Agency/Co.	DBZ						Jurisd	iction								
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Aiken	Road				
Analysis Year	2025						North	/South S	Street		Beckl	ey Statio	n/Entrar	nce		
Time Analyzed	AM P	eak Build	i				Peak	Hour Fac	tor		0.83					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiker	North														
Lanes																
				9744 4 + ↑ ↑ ↑		ን ታ ቀ ሃ 1 or Street: Ea	t fr	1 C P C O								
Vehicle Volumes and Ad	justme	nts														
Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	F
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		1	1	0		0	1	1
Configuration	_	L	T	R		L		TR		L		TR		LT		F
Volume (veh/h)	+	23	286	92		121	1164	6		93	2	76		19	7	6
		1				1				1	3	1		1	1	1
Percent Heavy Vehicles (%)	+															
Proportion Time Blocked																
Proportion Time Blocked Percent Grade (%)										(	)			(		
Proportion Time Blocked Percent Grade (%) Right Turn Channelized		N	lo	1-0	0-1-					(	)				lo	
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage			lo	Left	Only					(	)		1			
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H	eadwa		lo	Left	Only					(	)		i			
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage	eadwa		lo	Left	Only	4.1				7.1	6.5	6.2	1			6.
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H	leadwa	<b>ys</b> 4.1 4.11	lo	Left	Only	4.1						6.2		N	lo	6.
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	leadwa	<b>ys</b> 4.1 4.11 2.2	lo	Left	Only	4.11 2.2				7.1 7.11 3.5	6.5 6.53 4.0	6.2 6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0	6.3
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)		4.1 4.11 2.2 2.21			Only	4.11				7.1 7.11	6.5 6.53	6.2		7.1 7.11	6.5 6.51	6.2
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)		4.1 4.11 2.2 2.21			Only	4.11 2.2				7.1 7.11 3.5	6.5 6.53 4.0	6.2 6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0	6.2
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)		4.1 4.11 2.2 2.21			Only	4.11 2.2				7.1 7.11 3.5	6.5 6.53 4.0	6.2 6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0	6.2 3.
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and		4.1 4.11 2.2 2.21			Only	4.11 2.2 2.21				7.1 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.21 3.3 3.31		7.1 7.11 3.5 3.51	6.5 6.51 4.0	6.2 3.3 3.3 8.1
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an		ys 4.1 4.11 2.2 2.21 I of Se			Only	4.11 2.2 2.21				7.1 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.21 3.3 3.31		7.1 7.11 3.5 3.51	6.5 6.51 4.0	6.2 3. 3.3
Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, and  Flow Rate, v (veh/h)  Capacity, c (veh/h)		ys 4.1 4.11 2.2 2.21 I of Se 28			Only	4.11 2.2 2.21 146 1110				7.1 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.21 3.3 3.31 94 500		7.1 7.11 3.5 3.51	6.5 6.51 4.0	6.2 3. 3.3 8. 17 0.4
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		ys 4.1 4.11 2.2 2.21 I of Se 487 0.06			Only	4.11 2.2 2.21 146 1110 0.13				7.1 7.11 3.5 3.51 112 10 11.27	6.5 6.53 4.0	6.2 6.21 3.3 3.31 94 500 0.19		7.1 7.11 3.5 3.51 31 59 0.53	6.5 6.51 4.0	8 17 0.4
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)		ys 4.1 4.11 2.2 2.21 I of So 28 487 0.06 0.2			Only	4.11 2.2 2.21 146 1110 0.13 0.5				7.1 7.11 3.5 3.51 112 10 11.27 15.5	6.5 6.53 4.0	6.2 6.21 3.3 3.31 94 500 0.19 0.7		7.1 7.11 3.5 3.51 31 59 0.53 2.1	6.5 6.51 4.0	6.2.3 3.3.3 8 177 0.4.2 43
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)		ys 4.1 4.11 2.2 2.21 I of Se 487 0.06 0.2 12.8 B			Only	4.11 2.2 2.21 146 1110 0.13 0.5 8.7 A	.8			7.1 7.11 3.5 3.51 112 10 11.27 15.5 5359.2 F	6.5 6.53 4.0	6.2 6.21 3.3 3.31 94 500 0.19 0.7 13.9		7.1 7.11 3.5 3.51  31 59 0.53 2.1 120.8 F	6.5 6.51 4.0	6.2 3. 3.3 8.

		Н	CS7	Two-	-Way	Stop	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Aiker	at Beck	ley Statio	on		
Agency/Co.	Diane	B Zimm	nerman T	raffic			Jurisd	iction								
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Aiker	Road				
Analysis Year	2025						North	/South :	Street		Beckl	ey Statio	n/Entrar	nce		
Time Analyzed	PM Pe	eak Build	t				Peak	Hour Fac	tor		0.96					_
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				9 7 4 4 Y 1 7 7		ን ሶ • ሃ 1		7 4 4 4 4 6 6								
Vehicle Volumes and Adj	justme	nts			iviajo	or street; ca	si-wesi									
Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	Т	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Filonty			1 1	1 1	0	1	1	0		1	1	0	l	0	1 1	1
Number of Lanes	0	1	'	<u> </u>	L v	<u>'</u>		_		' '	<u>'</u>	0		Ů	<u> </u>	<u>'</u>
·	0	1 L	T	R		L		TR		L		TR		LT		-
Number of Lanes	0	_		-	Ü	_	657	_			8	-		-	5	R 43
Number of Lanes Configuration	0	L	T	R	0	L		TR		L		TR		LT		R 43
Number of Lanes Configuration Volume (veh/h)	0	L 74	T	R		L 37		TR		L 30	8	TR 43		LT 12	5	R 43
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)	0	L 74	T	R		L 37		TR		L 30 1	8	TR 43		LT 12 1	5	R 43
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked	0	L 74 1	T	R		L 37		TR		L 30 1	8	TR 43		LT 12 1	5	R 43
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	0	L 74 1	T 1183	R 117	Only	L 37		TR		L 30 1	8	TR 43	1	LT 12 1	5 1	R 43
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized		1 1	T 1183	R 117		L 37		TR		L 30 1	8	TR 43	1	LT 12 1	5 1	R 43
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage		1 1	T 1183	R 117		L 37		TR		L 30 1	8	TR 43	1	LT 12 1	5 1	R 43
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H		1 N	T 1183	R 117		1 1		TR		L 30 1	8 3	TR 43 1	1	12 1 1 ( N	5 1 1 0 0 O O O O O O O O O O O O O O O O	R 4:
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)		L 74 1 1 N ys 4.1	T 1183	R 117		L 37 1		TR		L 30 1	8 3	TR 43 1	1	12 1 1 ( N	5 1 0 10	6.3 6.2
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)		L 74 1 1 N Y S 4.1 4.11	T 1183	R 117		L 37 1 4.1 4.11		TR		7.1 7.11	8 3 0 6.5 6.53	TR 43 1 1 6.2 6.21	1	LT 12 1 1 (N N N N N N N N N N N N N N N N N	5 1 1 lo 6.5 6.51	6.3 6.2 3.3
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)	eadwa	L 74 1 1 N Y S 4.1 4.11 2.2 2.21	T 1183	R 117 Left		L 37 1 4.1 4.11 2.2		TR		7.1 7.11 7.5	6.5 6.53 4.0	TR 43 1 1 6.2 6.2 6.21 3.3	1	12 1 1 (N N N N N N N N N N N N N N N N N	5 1 1 00 do 6.5 6.51 4.0	6 6.2 3
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)	eadwa	L 74 1 1 N Y S 4.1 4.11 2.2 2.21	T 1183	R 117 Left		L 37 1 4.1 4.11 2.2		TR		7.1 7.11 7.5	6.5 6.53 4.0	TR 43 1 1 6.2 6.2 6.21 3.3	1	12 1 1 (N N N N N N N N N N N N N N N N N	5 1 1 00 do 6.5 6.51 4.0	6.3 3.3
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an	eadwa	L 74 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T 1183	R 117 Left		4.1 4.11 2.2 2.21		TR		7.1 7.11 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31	1	LT 12 1 1 (N N N N N N N N N N N N N N N N N	5 1 1 00 do 6.5 6.51 4.0	6.3 6.2 3.3 4.5
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h)	eadwa	L 74 1 1 1 1 2.2 2.21 1 of Sc 77	T 1183	R 117 Left		4.1 4.11 2.2 2.21		TR		7.1 7.11 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31	1	LT 12 1 1 ( N N N N N N N N N N N N N N N N N	5 1 1 00 do 6.5 6.51 4.0	6.3 6.2 3.3 4.5 4.4
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h)	eadwa	L 74 1 1 1 1 1 2.2 2.21 1 of Se 77 897	T 1183	R 117 Left		L 37 1 4.1 4.11 2.2 2.21		TR		7.1 7.11 3.5 3.51	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31	1	T.1 7.1 7.11 3.5 3.51 18 41	5 1 1 00 do 6.5 6.51 4.0	6.3 6.2 3.3 45 44 0.1
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio	eadwa	L 74 1 1 N Y S 4.1 4.11 2.2 2.21 I of Sc 77 897 0.09	T 1183	R 117 Left		4.1 4.11 2.2 2.21 39 511 0.08		TR		7.1 7.11 3.5 3.51 31 91 0.34	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31 53 127 0.42		7.1 7.11 3.5 3.51 18 41 0.43	5 1 1 00 do 6.5 6.51 4.0	6.3 6.2 3.3 45 44 0.11
Number of Lanes  Configuration  Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)	eadwa	L 74 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T 1183	R 117 Left		4.1 4.1 4.11 2.2 2.21 39 511 0.08 0.2		TR		7.1 7.11 3.5 3.51 31 91 0.34 1.3	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31 53 127 0.42 1.8		7.1 7.11 3.5 3.51 18 41 0.43 1.5	5 1 1 00 do 6.5 6.51 4.0	R
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) V/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)	eadwa	L 74 1 1 1 1 2.2 2.21 1 of Se 77 897 0.09 0.3 9.4 A	T 1183	R 117 Left		4.1 4.1 4.11 2.2 2.21 39 511 0.08 0.2	657	TR		7.1 7.11 7.11 3.5 3.51 31 91 0.34 1.3 64.2 F	6.5 6.53 4.0	6.2 6.2 6.21 3.3 3.31 53 127 0.42 1.8 52.4		7.1 7.1 7.11 3.5 3.51 18 41 0.43 1.5 148.6 F	5 1 1 00 do 6.5 6.51 4.0	6 6.2 3 3.3 44 44 0.1 0

		Н	CS7	Two-	-Way	Sto	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natio	1						
Analyst	DBZ						Inters	ection			Aiken	at Arno	ld Palme	er		
Agency/Co.	Diane	B. Zimr	nerman i	Traffi			Jurisd	iction								
Date Performed	7/1/2	1					East/\	West Stre	et		Aiken	Road				_
Analysis Year	2025						North	/South S	Street		Arnol	d Palmei	r Boulev	ard		
Time Analyzed	AM P	eak Buil	d				Peak	Hour Fac	tor		0.91					_
Intersection Orientation	East-\	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														_
Lanes																
				A 7 4 4 7 7 7 7 7		** or Street: Ea		↑ ¼ ♣ Ľ U								
Vehicle Volumes and Ad	ljustme	nts				51 54 CC 11 CC	J. W.S.									
Approach		Eastl	oound			West	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	_1
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	Ŀ
Configuration			LTR				LTR				LTR				LTR	
		11	366	17		22	1196	20		49	25	10		27	52	3
Volume (veh/h)		I 4				1				1	1	1		1	1	L
Volume (veh/h)  Percent Heavy Vehicles (%)		1	_													
		<u>'</u>														
Percent Heavy Vehicles (%)											0				0	
Percent Heavy Vehicles (%) Proportion Time Blocked											0				0	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)				Undi	vided						0				0	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	leadwa			Undi	vided						0				0	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage	leadwa			Undi	vided	4.1				7.1	6.5	6.2		7.1	6.5	6
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H	leadwa	ys		Undi	vided	4.1						6.2				⊢
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec)	leadwa	<b>ys</b> 4.1		Undi	vided					7.1	6.5	_		7.1	6.5	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec)	leadwa	<b>ys</b> 4.1 4.11		Undi	vided	4.11				7.1 7.11	6.5 6.51	6.21		7.1 7.11	6.5	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)		ys 4.1 4.11 2.2 2.21	ervice		vided	4.11 2.2				7.1 7.11 3.5	6.5 6.51 4.0	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		ys 4.1 4.11 2.2 2.21	ervice		vided	4.11 2.2				7.1 7.11 3.5	6.5 6.51 4.0	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar		ys 4.1 4.11 2.2 2.21	ervice		vided	4.11 2.2 2.21				7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h)		ys 4.1 4.11 2.2 2.21 I of So	ervice		vided	4.11 2.2 2.21				7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h)		ys 4.1 4.11 2.2 2.21 I of So 12 519	ervice		vided	4.11 2.2 2.21 24 1143				7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0 4.01	6.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pollow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		ys  4.1  4.11  2.2  2.21  l of So  12  519  0.02	ervice		vided	2.21 2.21 24 1143 0.02				7.1 7.11 3.5	6.5 6.51 4.0 4.01 92 21 4.34	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0 4.01 120 67 1.79	6
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q95 (veh)		ys 4.1 4.11 2.2 2.21 l of S 12 519 0.02 0.1	ervice		vided	2.21 2.21 24 1143 0.02 0.1				7.1 7.11 3.5	6.5 6.51 4.0 4.01 92 21 4.34 11.8	6.21 3.3		7.1 7.11 3.5	6.5 6.51 4.0 4.01 120 67 1.79 10.8	66.33.3.
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)		ys  4.1  4.11  2.2  2.21  I of So  12  519  0.02  0.1  12.1  B	ervice		vided	24 1143 0.02 0.1 8.2 A	.8			7.1 7.11 3.5 3.51	6.5 6.51 4.0 4.01 92 21 4.34 11.8 1871.4	6.21 3.3		7.1 7.11 3.5 3.51	6.5 6.51 4.0 4.01 120 67 1.79 10.8 511.8	6.

		H	CS/	IWO-	-Way	Stop	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natio	1						
Analyst	DBZ						Inters	ection			Aiken	at Arnol	d Palme	er		
Agency/Co.	Diane	B. Zimn	nerman '	Traffi			Jurisd	iction								
Date Performed	7/1/2	1					East/\	West Stre	et		Aiken	Road				
Analysis Year	2025						North	/South S	Street		Arnol	d Palmer	Bouleva	ard		
Time Analyzed	AM P	eak Build	d Improv	red			Peak	Hour Fac	tor		0.91					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				2 4 4 7 7 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2		ን ት ተ ሃ ሰ or Street: Ea		7 4 7 6 0								
Vehicle Volumes and Adj	justme	nts														
Approach		Eastb	ound			Westl	oound			North	oound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	1	1	0		1	1	0		1	1	0
Configuration	+	L		TR		L		TR		L		TR		L		TF
Volume (veh/h)	+	11	366	17		22	1196	20		49	25	10		27	52	30
Percent Heavy Vehicles (%)	_	1				1				1	1	1		1	1	1
Proportion Time Blocked	-															
Percent Grade (%)	+									(	)			-	0	
Right Turn Channelized	+											1				
Right Turn Channelized  Median Type   Storage				Left	Only											
Right Turn Channelized  Median Type   Storage	eadwa	ys		Left	Only											
Right Turn Channelized Median Type   Storage	eadwa	<b>ys</b> 4.1		Left	Only	4.1				7.1	6.5	6.2		7.1	6.5	6.
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H	eadwa	_		Left	Only	4.1 4.11				7.1 7.11	6.5 6.51	6.2		7.1 7.11	6.5 6.51	-
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)	eadwa	4.1		Left	Only							-		_	_	6.2
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)	eadwa	4.1 4.11		Left	Only	4.11				7.11	6.51	6.21		7.11	6.51	6.2 3.:
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)		4.1 4.11 2.2 2.21	ervice		Only	4.11 2.2				7.11 3.5	6.51 4.0	6.21 3.3		7.11 3.5	6.51 4.0	6.2
Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		4.1 4.11 2.2 2.21	ervice		Only	4.11 2.2				7.11 3.5	6.51 4.0	6.21 3.3		7.11 3.5	6.51 4.0	6.2 3.3
Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an		4.1 4.11 2.2 2.21	ervice		Only	4.11 2.2 2.21				7.11 3.5 3.51	6.51 4.0	6.21 3.3 3.31		7.11 3.5 3.51	6.51 4.0	6.2 3.3 3.3
Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h)		4.1 4.11 2.2 2.21 I of Se	ervice		Only	4.11 2.2 2.21				7.11 3.5 3.51	6.51 4.0	6.21 3.3 3.31		7.11 3.5 3.51	6.51 4.0	6.2 3.3 3.3 90 10 0.8
Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h)  Capacity, c (veh/h)		4.1 4.11 2.2 2.21 I of Se 12 519	ervice		Only	4.11 2.2 2.21 24 1143				7.11 3.5 3.51 54	6.51 4.0	6.21 3.3 3.31 38 32		7.11 3.5 3.51 30 122	6.51 4.0	6.2 3.3 3.3
Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		4.1 4.11 2.2 2.21 I of Se 12 519 0.02	ervice		Only	2.21 2.21 24 1143 0.02				7.11 3.5 3.51 54 19 2.90	6.51 4.0	6.21 3.3 3.31 38 32 1.20		7.11 3.5 3.51 30 122 0.24	6.51 4.0	90 10 0.8
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>as</sub> (veh)		4.1 4.11 2.2 2.21 I of So 12 519 0.02 0.1	ervice		Only	2.21 2.21 24 1143 0.02 0.1				7.11 3.5 3.51 54 19 2.90 7.2	6.51 4.0	3.3 3.31 38 32 1.20 4.2		7.11 3.5 3.51 30 122 0.24 0.9	6.51 4.0	6.2 3. 3.3 3.3 90 10 0.8 4.
Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)  Capacity, c (veh/h)  v/c Ratio  95% Queue Length, Q <sub>95</sub> (veh)  Control Delay (s/veh)		4.1 4.11 2.2 2.21 1 of Se 12 519 0.02 0.1 12.1 B	ervice		Only	24 1143 0.02 0.1 8.2 A	.1			7.11 3.5 3.51 54 19 2.90 7.2 1285.2	6.51 4.0 4.01	3.3 3.31 38 32 1.20 4.2 415.3		7.11 3.5 3.51 30 122 0.24 0.9 43.9	6.51 4.0	6.2 3.3 3.3 90 10 0.8 4.5

			ICS7	IWO-	-vvay	Sto	o-Co	ntrol	кер	ort						
General Information							Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Aiken	at Arno	ld Palme	er		_
Agency/Co.	DBZ						Jurisd	liction								
Date Performed	7/1/2	1					East/\	West Stre	eet		Aiken	Road				
Analysis Year	2025						North	/South :	Street		Arnol	d Palme	r Boulev	ard		
Time Analyzed	PM P	eak Build	d				Peak	Hour Fac	tor		0.96					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiker	North														
Lanes																
				9 7 4 4 Y 4 Y 7		† † Y f		4 + 4 4 4 6 10								
Vehicle Volumes and Ad	justme	nts														
Approach		Eastl	oound			Westl	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	L
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	1
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	
Configuration			LTR				LTR				LTR				LTR	L
Volume (veh/h)		44	1327	48		4	725	11		30	21	12		32	37	2
Percent Heavy Vehicles (%)		1				1				1	1	1		1	1	L
Proportion Time Blocked																
Percent Grade (%)											0				0	
Right Turn Channelized																
Median Type   Storage				Undi	vided											_
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)	Т	4.1				4.1				7.1	6.5	6.2		7.1	6.5	6
Critical Headway (sec)		4.11				4.11				7.11	6.51	6.21		7.11	6.51	6.
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3
Follow-Up Headway (sec)		2.21				2.21				3.51	4.01	3.31		3.51	4.01	3.
Delay, Queue Length, an	d Leve	l of S	ervice													
Flow Rate, v (veh/h)	T	46				4					66				97	
Capacity, c (veh/h)		851				477									17	
v/c Ratio		0.05				0.01									5.54	
95% Queue Length, Q <sub>95</sub> (veh)		0.2				0.0									12.8	
Control Delay (s/veh)		9.5				12.6									2477.8	
(-,,	1	А				В									F	
Level of Service (LOS)																_
<u> </u>	1	2	2.8			0	.3		l				l	24	77.8	

		, in	ICS7	TWO-	-vvay	Stop	J-C0	ritroi	кер	ort						
General Information							Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Aiken	at Arno	ld Palme	er		
Agency/Co.	DBZ						Jurisd	liction								
Date Performed	7/1/2	1					East/\	Nest Str	eet		Aiken	Road				
Analysis Year	2025						North	/South	Street		Arnol	d Palme	r Boulev	ard		
Time Analyzed	PM P	eak Build	d Improv	ed			Peak	Hour Fac	tor		0.96					
Intersection Orientation	East-	West					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiker	North														
Lanes																
				1 4 4 4 4 4 C	ጉተ	† † Y 1 or Street: Ea		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
Vehicle Volumes and Ad	ljustme	nts			-											
Approach		Eastb	oound			Westl	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	T	
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	1
Number of Lanes	0	1	1	0	0	1	1	0		0	1	0		0	1	(
Configuration		L		TR		L		TR			LTR				LTR	L
Volume (veh/h)		44	1327	48		4	725	11		30	21	12		32	37	2
Percent Heavy Vehicles (%)		1				1				1	1	1		1	1	L
Proportion Time Blocked																L
Percent Grade (%)											0				0	
Right Turn Channelized																
Median Type   Storage				Left	Only								1			_
Critical and Follow-up H	leadwa	ys														
Base Critical Headway (sec)	$\top$	4.1				4.1				7.1	6.5	6.2		7.1	6.5	6
Critical Headway (sec)		4.11				4.11				7.11	6.51	6.21		7.11	6.51	6.
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3
Follow-Up Headway (sec)		2.21				2.21				3.51	4.01	3.31		3.51	4.01	3.
Delay, Queue Length, ar	nd Leve	l of S	ervice													
Flow Rate, v (veh/h)	T	46				4					66				97	Г
Capacity, c (veh/h)		851				477									52	
v/c Ratio		0.05				0.01									1.87	
95% Queue Length, Q <sub>95</sub> (veh)		0.2				0.0									9.5	
Control Delay (s/veh)		9.5				12.6									580.0	
		А				В									F	
Level of Service (LOS)																_
Level of Service (LOS)  Approach Delay (s/veh)		C	).3			0	.1						l	58	30.0	

		Н	ICS7	Two-	-Way	Sto	o-Co	ntrol	Rep	ort						
General Information							Site	Inforn	natior	1						_
Analyst	DBZ						Inters	ection			Aiken	at Bush	Farm			
Agency/Co.	Diane	B. Zimr	nerman i	Traffi			Jurisd	iction								
Date Performed	7/1/2	1					East/\	West Stre	et		Aiken	Road/B	ush Farn	n Road		
Analysis Year	2025						North	/South S	Street		Aiken	Road				
Time Analyzed	AM P	eak Buile	d				Peak	Hour Fac	tor		0.89					
Intersection Orientation	East-\	Vest					Analy	sis Time	Period (l	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				9744777		ሻ ሶ	<b>T</b> st-West	4 4 4 4 4 6								
Vehicle Volumes and Adj	justme	nts														
Approach		Eastb	oound			West	bound			North	bound			South	bound	
Movement	U	L	T	R	U	L	T	R	U	L	Т	R	U	L	T	
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	1
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	L
Configuration				TR		LT				L		R				┖
Volume (veh/h)			334	76		88	1236			108		20				L
Percent Heavy Vehicles (%)						1				1		1				L
Proportion Time Blocked																L
Percent Grade (%)	$\bot$										)					
Right Turn Channelized	+									N	lo					
Median Type   Storage				Undi	vided											
	eadwa	ys														
Critical and Follow-up H						4.1				7.1		6.2				L
Critical and Follow-up H  Base Critical Headway (sec)	$\perp$			l .		4.11				6.41		6.21				L
			_			_				3.5		3.3				L
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)						2.2					_					1
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)						2.2				3.51		3.31			<u> </u>	_
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	d Leve	l of Se	ervice													
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)	d Leve	l of S	ervice													
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, an	d Leve	l of S	ervice			2.21				3.51		3.31				
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h)	d Leve	l of Se	ervice			2.21				3.51		3.31				
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h)	d Leve	l of So	ervice			99 1105				3.51 121 40		3.31 22 637				
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio	d Leve	l of Se	ervice			99 1105 0.09				3.51 121 40 3.03		22 637 0.04				
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)	d Leve	l of Se	ervice			99 1105 0.09 0.3				3.51 121 40 3.03 13.5		3.31 22 637 0.04 0.1				
Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)	d Leve	l of So	ervice			99 1105 0.09 0.3 8.6 A	.7			3.51 40 3.03 13.5 1127.4 F	3.0	3.31 22 637 0.04 0.1 10.9				

		Н	CS7	Iwo-	-Way	Stop	o-Co	ntrol	Rep	ort						
General Information							Site	Inforn	natio	n						Т
Analyst	DBZ						Inters	ection			Aiken	at Bush	Farm			
Agency/Co.	Diane	B. Zimr	nerman	Traffi			Jurisd	iction								
Date Performed	7/1/2	 1					East/\	Nest Stre	eet		Aiken	Road/B	ush Farn	n Road		
Analysis Year	2025						North	/South S	Street		Aiken	Road				
Time Analyzed	AM P	eak Buil	d Improv	/ed			Peak	Hour Fac	tor		0.89					_
Intersection Orientation	East-\	Vest					Analy	sis Time	Period (	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				0 7 4 4 Y ↑ Y ↑		ን ፫ ቀ ሃ f or Street: Ea	st-West	በጉላቀኮተ								
Vehicle Volumes and Ad	ljustme	nts														
Approach	$\perp$	Eastl	oound			Westl	oound			North	bound			South	bound	_
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	L
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	
				TR		L	Т			L		R				L
Configuration	_			76		88	1236			108		20		l .		L
Configuration Volume (veh/h)			334			- 00	1230			100		20			-	
			334			1	1230			1		1				L
Volume (veh/h)			334				1230									
Volume (veh/h) Percent Heavy Vehicles (%)			334				1230			1						
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked			334				1230			1	D lo					
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage			334		Only		1230			1		1	1			
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	Headwa	ys	334		Only		1230			1		1	1			
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage	leadwa	ys	334		Only		1230			1		1	1			
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H	leadwa	ys	334		Only	1	1230			1 (		1	1			
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec)	Headwa	ys	334		Only	4.1	1250			1 (N)		6.2	1			
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)	leadwa	ys	334		Only	4.1	1250			7.1 6.41		6.2	1			
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)				Left	Only	4.1 4.11 2.2	1250			7.1 6.41 3.5		6.2 6.21 3.3	1			
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)				Left	Only	4.1 4.11 2.2	1250			7.1 6.41 3.5		6.2 6.21 3.3	1			
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, and				Left	Only	4.1 4.11 2.2 2.21	1250			7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31	1			
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and				Left	Only	4.1 4.11 2.2 2.21	1250			7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h)				Left	Only	4.1 4.11 2.2 2.21	1250			7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio				Left	Only	4.1 4.11 2.2 2.21 99 1105 0.09	1250			7.1 6.41 3.5 3.51 121 139 0.87		6.2 6.21 3.3 3.31 22 637 0.04				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, at Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)				Left	Only	4.1 4.11 2.2 2.21 99 1105 0.09 0.3				7.1 6.41 3.5 3.51 121 139 0.87 5.7		6.2 6.21 3.3 3.31 22 637 0.04 0.1				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) V/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)				Left	Only	4.1 4.11 2.2 2.21 99 1105 0.09 0.3 8.6 A	.66			7.1 6.41 3.5 3.51 121 139 0.87 5.7 106.8 F		6.2 6.21 3.3 3.31 22 637 0.04 0.1 10.9				

			ICS/	IWO-	-Way	Stop	o-Co	ntrol	Rep	ort						
General Information							Site	Inforr	natior	1						Т
Analyst	DBZ						Inters	ection			Aiken	at Bush	Farm			
Agency/Co.	Diane	B. Zimr	nerman	Traffi			Jurisd	iction								
Date Performed	7/1/2	1					East/\	Nest Stre	eet		Aiken	Road/B	ush Farr	n Road		
Analysis Year	2025						North	/South S	Street		Aiken	Road				
Time Analyzed	PM Pe	eak Buil	d				Peak	Hour Fac	tor		0.93					_
Intersection Orientation	East-\	Vest					Analy	sis Time	Period (l	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				A 7 4 4 Y ↑ Y ↑	Majo	ን ር ቀ ሃ 1 or Street: Ea	<b>↑</b> ↑	4 4 4 4 4 6 6								
Vehicle Volumes and Adj	justme	nts														
Approach		Eastk	ound			Westl	oound		L	North	bound			South	bound	_
Movement	U	L	Т	R	U	L	T	R	U	L	T	R	U	L	T	L
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	
Number of Lanes	0	0	1	0	0	0	1	0		1	0	1		0	0	L
				TR		LT				L		R				L
Configuration			1150	152		57	643			115		264				L
Configuration  Volume (veh/h)			_	-				-						_		
						1				1		1				L
Volume (veh/h)						1				1		1				
Volume (veh/h) Percent Heavy Vehicles (%)						1				1	)	1				
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked						1						1				
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)				Undi	vided	1				(		1				
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage	eadwa	ys		Undi	vided	1				(		1				
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage	eadwa	ys		Undi	vided	4.1				(		6.2				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H	eadwa	ys		Undi	vided					( N						
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec)	eadwa	ys		Undi	vided	4.1				7.1		6.2				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec)	eadwa	ys		Undi	vided	4.1				7.1 6.41		6.2				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)			ervice		vided	4.1 4.11 2.2				7.1 6.41 3.5		6.2 6.21 3.3				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an			ervice		vided	4.1 4.11 2.2				7.1 6.41 3.5		6.2 6.21 3.3				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)			ervice		vided	4.1 4.11 2.2 2.21				7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Volume (veh/h)  Percent Heavy Vehicles (%)  Proportion Time Blocked  Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)  Follow-Up Headway (sec)  Delay, Queue Length, an  Flow Rate, v (veh/h)			ervice		vided	4.1 4.11 2.2 2.21				7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h)			ervice		vided	4.1 4.11 2.2 2.21 61 491				7.1 6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio			ervice		vided	4.1 4.11 2.2 2.21 61 491 0.12				7.1 6.41 3.5 3.51 124 44 2.84		6.2 6.21 3.3 3.31 284 193 1.47				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Pelay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)			ervice		vided	4.1 4.11 2.2 2.21 61 491 0.12 0.4				7.1 6.41 3.5 3.51 124 44 2.84 13.5		6.2 6.21 3.3 3.31 284 193 1.47 17.4				
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, an Flow Rate, v (veh/h) V/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)			ervice		vided	4.1 4.11 2.2 2.21 61 491 0.12 0.4 13.4 B	.66			7.1 6.41 3.5 3.51 124 44 2.84 13.5 1025.6		6.2 6.21 3.3 3.31 284 193 1.47 17.4 282.7				

		Н	CS7	Two-	-Way	Stop	o-Co	ntrol	Repo	ort						
General Information							Site	Inforn	natior	1						_
Analyst	DBZ						Inters	ection			Aiken	at Bush	Farm			
Agency/Co.	Diane	B. Zimr	nerman <sup>*</sup>	Traffi			Jurisd	iction								
Date Performed	7/1/2	1					East/\	Nest Stre	et		Aiken	Road/B	ush Farn	n Road		
Analysis Year	2025						North	/South S	Street		Aiken	Road				
Time Analyzed	PM Pe	eak Buil	d Improv	ved			Peak	Hour Fac	tor		0.93					_
Intersection Orientation	East-\	Vest					Analy	sis Time	Period (I	hrs)	0.25					
Project Description	Aiken	North														
Lanes																
				2 7 4 4 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		ን ር ቀ ሃ 1 or Street: Ea		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4								
Vehicle Volumes and Ad	justme	nts														
Approach	$\perp$	Easth	ound			Westl	oound			North	bound			South	bound	_
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	L
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	Ľ
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	L
Configuration				TR		L	T			L		R				L
Volume (veh/h)			1150	152		57	643			115		264				L
Percent Heavy Vehicles (%)						1				1		1				L
Proportion Time Blocked																
										(						
Percent Grade (%)	+									N	lo					
Percent Grade (%) Right Turn Channelized																
Percent Grade (%) Right Turn Channelized Median Type   Storage				Left	Only							-	1			
Percent Grade (%) Right Turn Channelized Median Type   Storage	eadwa	ys		Left	Only								1			
Percent Grade (%) Right Turn Channelized Median Type   Storage	eadwa	ys		Left	Only	4.1				7.1		6.2	1			
Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)	eadwa	ys		Left	Only	4.1 4.11				7.1 6.41			1			
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec)  Critical Headway (sec)  Base Follow-Up Headway (sec)	eadwa	ys		Left	Only					6.41 3.5		6.2 6.21 3.3				
Percent Grade (%)  Right Turn Channelized  Median Type   Storage  Critical and Follow-up H  Base Critical Headway (sec)  Critical Headway (sec)	eadwa	ys		Left	Only	4.11				6.41		6.2				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)			ervice		Only	4.11 2.2				6.41 3.5		6.2 6.21 3.3				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)			ervice		Only	4.11 2.2				6.41 3.5		6.2 6.21 3.3				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar			ervice		Only	4.11 2.2 2.21				6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h)			ervice		Only	4.11 2.2 2.21				6.41 3.5 3.51		6.2 6.21 3.3 3.31				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h)			ervice		Only	4.11 2.2 2.21 61 491				6.41 3.5 3.51 124 159		6.2 6.21 3.3 3.31 284 193				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio			ervice		Only	4.11 2.2 2.21 61 491 0.12				6.41 3.5 3.51 124 159 0.78		6.2 6.21 3.3 3.31 284 193 1.47				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)			ervice		Only	4.11 2.2 2.21 61 491 0.12 0.4				6.41 3.5 3.51 124 159 0.78 4.9		6.2 6.21 3.3 3.31 284 193 1.47				
Percent Grade (%) Right Turn Channelized Median Type   Storage  Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)  Delay, Queue Length, ar Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh) Control Delay (s/veh)			ervice		Only	4.11 2.2 2.21 61 491 0.12 0.4 13.4 B	.1			6.41 3.5 3.51 124 159 0.78 4.9 79.5	1.1	6.2 6.21 3.3 3.31 284 193 1.47 17.4 282.7				

	_	HCS	7 Sig	nalize	dinte	ersec	tion R	(esu	lts Sur	nmar	У	_	_		
General Inforr	nation								Intersec	tion Inf	ormatic	n n		A AAA I	ьų
Agency	iiatioii	Diane B. Zimmerma	an Troff	ic Engin	eering			$\rightarrow$	Duration		0.250		<b>⊢</b>	47	
Analyst		DBZ	all IIall	v	sis Date	Jul 1	2021	$\overline{}$	Area Typ		Other				
Jurisdiction		DUZ		Time F		AM Pe			PHF		0.92		→ <u></u> -^		*
Urban Street		Old Henry Road			is Year	-		$\rightarrow$	Analysis	Period	1> 7:	15			¥
Intersection		Bush Farm Road		File Na		-	enry AM			Tonou	11. 11.	10		K 4.	_
Project Descrip	otion	Aiken North		11.1011	41110	Join III	5111 y 7 11 V	LOLO	Dixao				- 4	MINY	2- (*
, , , , , , , , , , , , , , , , , , , ,		, a													
Demand Infor	mation				EB			WE	3		NB			SB	
Approach Move				L	Т	R	L	Т	R	L	Т	R	L	T	R
Demand ( v ), v	/eh/h			67	144	339	171	540	51	1047	110	131	8	149	13
Signal Informa	ation						Ι κ								7
Cycle, s	139.8	Reference Phase	2	1	20	- 2	<b></b>	7	27			_	<b>Z</b>	ļ,	本
Offset, s	0	Reference Point	End	<u> </u>		1	Pi.					1	<b>Y</b> 2	3	
Uncoordinated		Simult. Gap E/W	On	Green Yellow		4.0	34.8	75.0 4.3		0.0		7	<del>5</del>		_4
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.3	1.3	3.0	1.3	_	0.0		5	6	7	
		,													
Timer Results				EBI	-	EBT	WB	L	WBT	NBI	-	NBT	SBI	_	SBT
Assigned Phas	ned Phase					2	1		6			8			4
Case Number						3.0	1.1		4.0			6.0			6.0
Phase Duration	-			11.1	4	11.4	17.7	7	48.1			80.6			80.6
Change Period				5.3	-	6.6	5.3	-	6.6			5.6			5.6
Max Allow Hea				3.1	$\rightarrow$	3.2	3.1	-	3.2			3.7			3.7
Queue Clearar				6.1	-	32.4	12.4	-	22.4			77.0			15.6
Green Extension		( g e ), s		0.1	$\overline{}$	2.4	0.1	-	2.4			0.0		$\perp$	8.4
Phase Call Pro				0.94	-	1.00	1.00	-	1.00		-	1.00		_	1.00
Max Out Proba	ibility			0.00	, (	0.00	1.00	,	0.00			1.00			0.01
Movement Gre	oup Res	sults			EB			WB			NB			SB	
Approach Move				L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ement			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow		), veh/h		72	154	362	186	326	317	1138	262		9	304	
-		ow Rate ( s ), veh/h/l	n	1810	1900	1610	1810	1900	1842	1092	1731		1135	1752	
Queue Service	Time (	g s ), S		4.1	9.2	30.4	10.4	20.3	20.4	61.4	11.6		0.6	13.6	
		e Time ( <i>g շ</i> ), s		4.1	9.2	30.4	10.4	20.3		75.0	11.6		12.1	13.6	
Green Ratio ( g	g/C )			0.29	0.25	0.25	0.35	0.30	0.30	0.54	0.54		0.54	0.54	
Capacity ( c ),				235	474	401	442	564	547	531	929		567	940	
Volume-to-Cap				0.304	0.325		0.421	_		2.143			0.015	0.324	
Back of Queue	(Q), ft/	/In ( 90 th percentile)	)	82.5	171.3	420.6	183.1	338	330.2	3821. 7	183.9		7.2	212.5	
Back of Queue	( Q ), ve	eh/ln ( 90 th percent	ile)	3.3	6.9	16.8	7.3	13.5	13.2	152.9	7.4		0.3	8.5	
		RQ) (90 th percent		0.41	0.29	0.72	1.22	0.23		7.64	0.37		0.01	0.38	
Uniform Delay				37.6	42.9	50.8	33.2	41.7		42.2	17.7		21.0	18.2	
Utiliottii Delay	elay ( d 2	), s/veh		0.2	0.1	4.0	0.2	0.3	0.4	520.6	0.1		0.0	0.1	
Incremental De	elay ( d	з ), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
	d), s/ve	eh		37.8	43.0	54.8	33.4	42.0	42.1	562.7	17.7		21.0	18.2	
Incremental De	e (LOS)			D	D	D	С	D	D	F	В		С	В	
Incremental De Initial Queue D	0 (200)	/1.08		49.7	'	D	40.1	1	D	460.	8	F	18.3	3	В
Incremental De Initial Queue D Control Delay (		7 200				22	8.0						F		
Incremental De Initial Queue D Control Delay ( Level of Service	y, s/veh														
Incremental De Initial Queue D Control Delay ( Level of Servic Approach Dela Intersection De	y, s/veh lay, s/ve				EP			\A/D			NP			QP.	
Incremental De Initial Queue D Control Delay ( Level of Servic Approach Dela	y, s/veh elay, s/ve	eh / LOS		1.94	EB	В	1.94	WB	В	2.10	NB	В	2.27	SB	В

		HCS	7 Sig	nalize	d Inte	ersec	tion F	Resul	lts Sur	nmar	y				
General Infor	nation								Intersect	tion Inf	ormatic	n	U	4741	يا مل
Agency		Diane B. Zimmerma	an Traff	ic Engin	eering				Duration,	h	0.250			44	
Analyst		DBZ		Analys	sis Date	Jul 1,	2021		Area Typ	е	Other		± _,		
Jurisdiction				Time F	Period	AM Pe	eak		PHF		0.92		<b>♦</b>		
Urban Street		Old Henry Road		Analys	sis Year	2025 I	Build Im	ıp /	Analysis	Period	1> 7:1	15	3		
Intersection		Bush Farm Road		File Na	ame	Old He	enry AM	1 2025	B IMP.xu	ıs				<b>ጎጎ</b> ት	ſ
Project Descrip	otion	Aiken North											In In	4144	1- 1
Daman d Infan					- FB			١٨/٢	,		ND			C.D.	
Demand Infor				L	EB T	R		WE		+ -	NB T	R	+ -	SB T	
Approach Mov				67	144	339	171	540		1047		131	L 8	149	1
Demand ( v ),	ven/n			07	144	339	171	540	0   51	1047	110	131	0	149	
Signal Inform	ation				-	5	_ 5	<u> </u>	2						T
Cycle, s	172.6	Reference Phase	2		1	1 2			17			<b>^</b> ]_	$\Leftrightarrow$	,	<b>4</b>
Offset, s	0	Reference Point	End	Green	6.9	2.8	42.3	32.		0.0		1	¥ 2	3	
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow		4.0	3.6	4.3		0.0		7	<b>→</b>		K
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.3	1.3	3.0	1.3		0.0		5	6	7	
						EDT			MIDT	L.E.		ND.			0.7
Timer Results				EBI	-	EBT	WB	L	WBT	NBI	-	NBT	SBI	-	SB
Assigned Phas	se			5		2	1	_	6			8			40.0
Case Number				1.1	_	3.0	1.1	-	4.0		_	10.0		$\rightarrow$	10.0
Phase Duratio		\ -		12.2	-	48.9	20.3	-	57.0	_		65.5			37.8
Change Period				5.3	-	6.6	5.3	-	6.6		_	5.6	-	-	5.6
Max Allow Hea				3.1	_	3.2	3.1	_	3.2			3.1	-	_	3.2
Queue Clearar		, - ,		7.1	_	39.8	15.0	_	27.4		-	56.0	-		31.5
Green Extensi		( <i>g</i> e ), S		0.0	-	2.3	0.0	-	2.4			3.8			0.6
Phase Call Pro				0.97	_	1.00	1.00	-	1.00		$\rightarrow$	1.00		-	1.00
Max Out Proba	มาแก้			0.00	, , '	0.01	1.00	,	0.00			0.02			0.00
Movement Gr	oup Res	ults			EB			WB			NB			SB	
Approach Mov	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	F
Assigned Move	ement			5	2	12	1	6	16	3	8	18	7	4	1
Adjusted Flow	Rate ( v	), veh/h		72	154	362	186	326	317	1138	262		9	304	
Adjusted Satur	ation Flo	w Rate ( s ), veh/h/l	n	1810	1900	1610	1810	1900	1842	1757	1731		1810	1752	
	Time ( g	g ε ), S		5.1	11.5	37.8	13.0	25.3	25.4	54.0	20.1		0.7	29.5	
Queue Service	Clearance	e Time ( a c ) s		5.1	11.5	37.8	13.0	25.3	25.4	54.0	20.1		0.7	29.5	
		c IIIIc ( 9 c ), 3						0.29	0.29	0.35	0.35		0.19	0.19	
Cycle Queue (		- Time ( g t ), 3		0.29	0.25	0.25	0.34	0.20	0.20				338	328	
Cycle Queue ( Green Ratio (	g/C )	- Time ( g t ), 3		0.29 221	0.25 466	0.25 395	0.34 423	554	_	1221	601		000		
Cycle Queue ( Green Ratio ( ¿ Capacity ( c ),	g/C) veh/h				466	-		554	538		601 0.436		0.026	0.929	_
Cycle Queue C Green Ratio ( c Capacity ( c ), Volume-to-Cap	g/C) veh/h pacity Ra		)	221	466	395	423	554 0.587	538				_	0.929 460.5	
Cycle Queue C Green Ratio ( ¿ Capacity ( c ), Volume-to-Cap Back of Queue	g/C) veh/h pacity Ra e(Q), ft/	tio (X)		221 0.324	466 0.330	395 0.917	423 0.439	554 0.587	538 7 0.589 9 407.4	0.932	0.436		0.026		
Cycle Queue C Green Ratio ( ( Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue	g/C) veh/h pacity Ra e(Q), ft/ e(Q), ve	tio (X) In (90 th percentile)	le)	221 0.324 103.7	466 0.330 208.8	395 0.917 539.6	423 0.439 225.4	554 0.587 416.9	538 7 0.589 9 407.4 16.3	0.932 790.8	0.436 313.4		0.026 14.2	460.5	
Cycle Queue (Green Ratio ( Capacity ( c ), Volume-to-Capack of Queue Back of Queue Queue Storage	g/C) veh/h vacity Ra c (Q), ft/ c (Q), vec Ratio (	tio ( X ) In ( 90 th percentile) ch/in ( 90 th percenti	le)	221 0.324 103.7 4.1	466 0.330 208.8 8.4	395 0.917 539.6 21.6	423 0.439 225.4 9.0	554 0.587 416.9 16.7	538 7 0.589 9 407.4 16.3 0.27	0.932 790.8 31.6	0.436 313.4 12.5		0.026 14.2 0.6	460.5 18.4	
Cycle Queue (Green Ratio ( Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue Storage Uniform Delay	g/C) veh/h pacity Ra e (Q), ft/ e (Q), ve e Ratio ((d 1), sa	tio (X) In (90 th percentile) ch/ln (90 th percenti RQ) (90 th percent	le)	221 0.324 103.7 4.1 0.52	466 0.330 208.8 8.4 0.36	395 0.917 539.6 21.6 0.92	423 0.439 225.4 9.0 1.50	554 0.587 416.9 16.7 0.28	538 7 0.589 9 407.4 16.3 0.27	0.932 790.8 31.6 1.58	0.436 313.4 12.5 0.63		0.026 14.2 0.6 0.03	460.5 18.4 0.82	
Cycle Queue ( Green Ratio ( g Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue Queue Storage Uniform Delay Incremental De	g/C) veh/h pacity Ra e (Q), ft/ e (Q), ve e Ratio ( (d1), selay (d2	tio (X) I'n (90 th percentile) ch/ln (90 th percentile) RQ) (90 th percentile) Veh ), s/veh	le)	221 0.324 103.7 4.1 0.52 47.2	466 0.330 208.8 8.4 0.36 53.6	395 0.917 539.6 21.6 0.92 63.5	423 0.439 225.4 9.0 1.50 42.1	554 0.587 416.9 16.7 0.28 52.3	538 7 0.589 9 407.4 16.3 0.27 52.4	0.932 790.8 31.6 1.58 54.4	0.436 313.4 12.5 0.63 43.4		0.026 14.2 0.6 0.03 57.4	460.5 18.4 0.82 69.1	
Cycle Queue ( Green Ratio ( ) Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue C	g/C) veh/h pacity Ra e (Q), ft/ e (Q), ve e Ratio ( (d1), sa elay (d2 pelay (d	tio (X) In (90 th percentile) wh/in (90 th percentile) RQ) (90 th percentile/veh ), s/veh 3), s/veh	le)	221 0.324 103.7 4.1 0.52 47.2 0.3	466 0.330 208.8 8.4 0.36 53.6	395 0.917 539.6 21.6 0.92 63.5 11.6	423 0.439 225.4 9.0 1.50 42.1 0.3	554 0.587 416.9 16.7 0.28 52.3 0.4	538 7 0.589 9 407.4 16.3 0.27 52.4 0.4 0.0	0.932 790.8 31.6 1.58 54.4 8.5	0.436 313.4 12.5 0.63 43.4 0.2		0.026 14.2 0.6 0.03 57.4 0.0	460.5 18.4 0.82 69.1 5.0	
Cycle Queue C Green Ratio ( c Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D	g/C) veh/h veh/h pacity Ra e (Q), ft/ e (Q), ve e Ratio ( (d1), si elay (d2 pelay (d (d), s/ve	tio (X) In (90 th percentile) wh/in (90 th percentile) RQ) (90 th percentile/veh ), s/veh 3), s/veh	le)	221 0.324 103.7 4.1 0.52 47.2 0.3 0.0	466 0.330 208.8 8.4 0.36 53.6 0.1	395 0.917 539.6 21.6 0.92 63.5 11.6 0.0	423 0.439 225.4 9.0 1.50 42.1 0.3	554 0.587 416.9 16.7 0.28 52.3 0.4 0.0	538 7 0.589 9 407.4 16.3 0.27 52.4 0.4 0.0	0.932 790.8 31.6 1.58 54.4 8.5 0.0	0.436 313.4 12.5 0.63 43.4 0.2 0.0		0.026 14.2 0.6 0.03 57.4 0.0	460.5 18.4 0.82 69.1 5.0 0.0	
Cycle Queue C Green Ratio ( C Capacity ( c ), Volume-to-Cap Back of Queue Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Service	g/C) veh/h pacity Ra e (Q), ft/ e (Q), ve e Ratio ( (d1), s. elay (d2) elay (d), s/ve elay (d), s/ve	tio (X) In (90 th percentile) wh/in (90 th percentile) RQ) (90 th percentile) /veh ), s/veh 3), s/veh wh	le)	221 0.324 103.7 4.1 0.52 47.2 0.3 0.0 47.4	466 0.330 208.8 8.4 0.36 53.6 0.1 0.0 53.7	395 0.917 539.6 21.6 0.92 63.5 11.6 0.0 75.1	423 0.439 225.4 9.0 1.50 42.1 0.3 0.0 42.4	554 0.587 416.9 16.7 0.28 52.3 0.4 0.0 52.7	538 7 0.589 9 407.4 16.3 0.27 52.4 0.4 0.0 52.7	0.932 790.8 31.6 1.58 54.4 8.5 0.0 62.9	0.436 313.4 12.5 0.63 43.4 0.2 0.0 43.6 D	E	0.026 14.2 0.6 0.03 57.4 0.0 0.0 57.4	460.5 18.4 0.82 69.1 5.0 0.0 74.1	E
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Service	g/C) veh/h pacity Ra e (Q), ft/ e (Q), ve Ratio ( (d1), s. elay (d2 elay (d , s/ve e (LOS) yy, s/veh	tio (X) In (90 th percentile) eh/in (90 th percentile) RQ) (90 th percentiveh ), s/veh 3), s/veh eh	le)	221 0.324 103.7 4.1 0.52 47.2 0.3 0.0 47.4	466 0.330 208.8 8.4 0.36 53.6 0.1 0.0 53.7	395 0.917 539.6 21.6 0.92 63.5 11.6 0.0 75.1 E	423 0.439 225.4 9.0 1.50 42.1 0.3 0.0 42.4	554 0.587 416.9 16.7 0.28 52.3 0.4 0.0 52.7	538 7 0.589 9 407.4 16.3 0.27 52.4 0.4 0.0 52.7 D	0.932 790.8 31.6 1.58 54.4 8.5 0.0 62.9	0.436 313.4 12.5 0.63 43.4 0.2 0.0 43.6 D	E	0.026 14.2 0.6 0.03 57.4 0.0 0.0 57.4 E	460.5 18.4 0.82 69.1 5.0 0.0 74.1	
Cycle Queue (Coreen Ratio (Cor	g/C) veh/h pacity Ra e (Q), ft/ e (Q), we Ratio ( (d1), si elay (d2) elay (dy), si elay (dy), si elay (dy), si elay (dy), si elay, si elay	tio (X) In (90 th percentile) eh/in (90 th percentile) RQ) (90 th percentiveh ), s/veh 3), s/veh eh	le)	221 0.324 103.7 4.1 0.52 47.2 0.3 0.0 47.4	466 0.330 208.8 8.4 0.36 53.6 0.1 0.0 53.7	395 0.917 539.6 21.6 0.92 63.5 11.6 0.0 75.1 E	423 0.439 225.4 9.0 1.50 42.1 0.3 0.0 42.4 D	554 0.587 416.9 16.7 0.28 52.3 0.4 0.0 52.7 D	538 7 0.589 9 407.4 16.3 0.27 52.4 0.0 52.7 D	0.932 790.8 31.6 1.58 54.4 8.5 0.0 62.9	0.436 313.4 12.5 0.63 43.4 0.2 0.0 43.6 D	E	0.026 14.2 0.6 0.03 57.4 0.0 0.0 57.4 E	460.5 18.4 0.82 69.1 5.0 0.0 74.1 E	
Cycle Queue C Green Ratio ( c ), Volume-to-Cap Back of Queue Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Servic Approach Delay	g/C) veh/h vacity Ra e (Q), ft/ e (Q), se Ratio ( (d1), se Relay (d2 relay (d), s/ve re (LOS) ry, s/veh relay, s/veh relay, s/veh relay, s/veh relay, s/veh	tio (X) In (90 th percentile) ch/in (90 th percentile) RQ) (90 th percenti /veh ), s/veh 3), s/veh ch / LOS	le)	221 0.324 103.7 4.1 0.52 47.2 0.3 0.0 47.4	466 0.330 208.8 8.4 0.36 53.6 0.1 0.0 53.7 D	395 0.917 539.6 21.6 0.92 63.5 11.6 0.0 75.1 E	423 0.439 225.4 9.0 1.50 42.1 0.3 0.0 42.4 D	554 0.587 416.9 16.7 0.28 52.3 0.4 0.0 52.7 D	538 7 0.589 9 407.4 16.3 0.27 52.4 0.0 52.7 D	0.932 790.8 31.6 1.58 54.4 8.5 0.0 62.9	0.436 313.4 12.5 0.63 43.4 0.2 0.0 43.6 D	E	0.026 14.2 0.6 0.03 57.4 0.0 0.0 57.4 E	460.5 18.4 0.82 69.1 5.0 0.0 74.1 E	

									ts Su	aı	_				
General Inforn	nation								Intersec	tion Info	ormatic	n		JAJAI.	ьų
Agency Diane B. Zimmerman Traffi				ic Engineering					Intersection Information  Duration, h 0.250					47	
Analyst DBZ			Analysis Date Jul 1, 2021					Area Typ		Other		- 2			
Jurisdiction DB2			Time Period PM Peak					PHF	0.93		→ - <sup>7</sup>		4		
Urban Street Old Henry Road				is Year				Analysis	Period	1> 5:0	00	- 4		4	
Intersection Bush Farm Road			File Na		-	Old Henry PM 2025				11 010		- -	K 4.		
Project Descrip	tion	Aiken North		11.011	41110	Join III	5111 y 1 11	LOLO	Dixao				1 7	MINY	14 (*
r reject Becomp		rancarraterar													
Demand Inforr	nation				WB			NB				SB			
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	Т	R
Demand ( v ), veh/h			141	581	1004	217	278	3 138	640	244	148	90	203	11	
				,											
Signal Informa					La	_ {	1.2 5	날씨	2			_			人
Cycle, s	127.0	Reference Phase	2	-	_ 2	1 2	R'	5	17			1	₹ 2	3	Ψ-
Offset, s	0	Reference Point	End	Green		0.0	42.0	23.	_				<u> </u>		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0		0.0		^	Y		4
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	1.0	1.0	1.0	1.0	0.0		5	6	7	
Timer Results				EBI		EBT	WB		WBT	NBI		NBT	SBI		SBT
Assigned Phase			5	-	2	1	_	6	NDI	-	8	361	-	4	
Case Number			1.1	_	3.0	1.1		4.0	_		10.0			11.0	
Phase Duration, s			12.0	-	17.0	17.0		52.0		35.0			_	28.0	
Change Period, ( Y+R c ), s					5.0	5.0		5.0		5.0				5.0	
Max Allow Headway ( MAH ), s					3.2	3.1		3.2		3.1			_	3.1	
Queue Clearance Time ( g s ), s					14.0			13.6		32.0				23.1	
Green Extension Time ( $g \circ y$ , s			0.1	_	0.0	0.0	-	4.4		_	0.0		_	0.0	
Phase Call Probability			0.98	_	1.00	1.00	$\rightarrow$	1.00		$\rightarrow$	1.00			1.00	
Max Out Probability			0.10	,	1.00	1.00		0.02		$\neg$	1.00		$\neg$	1.00	
Movement Gro		sults			EB			WB			NB			SB	
Approach Move				L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Movement		5	2	12	1	6	16	3	8	18	7	4	14		
Adjusted Flow Rate ( v ), veh/h		111	456	787	233	233	214	688	422			315	119		
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1810	1900	1610	1810	1900	_	1810	1779			1871	161		
Queue Service Time ( g s ), s			5.1	26.8	42.0	10.5	11.2	_	30.0	30.0			21.1	8.3	
Cycle Queue Clearance Time ( g c ), s			5.1	26.8	42.0	10.5	11.2		30.0	30.0		_	21.1	8.3	
Green Ratio ( g/C ) Capacity ( c ), veh/h			0.39	0.33	0.33	0.44	0.37	_	0.24	0.24		_	0.18	0.1	
Volume-to-Capacity Ratio ( X )			408	628	532	341	703	625	427	420		_	339	29	
Back of Queue ( Q ), ft/ln ( 90 th percentile)			91.9	0.725 406.1	1.479 1736.	0.684 192.4			1.610 1728.	1.003 596			0.930 430.6	0.40	
Dack of Queue	( 🔾 ), IU	iii ( 30 tii percentile)	,	31.5	400.1	7	132.4	133.7	107	5	330			450.0	142
Back of Queue	( Q ), ve	eh/ln ( 90 th percent	ile)	3.7	16.2	69.5	7.7	8.0	7.5	69.1	23.8			17.2	5.7
Queue Storage Ratio ( RQ ) ( 90 th percentile)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.0
Uniform Delay	( d 1 ), s	/veh		25.8	37.4	42.5	27.1	28.7	28.9	48.5	48.5			51.2	46.
Incremental Delay ( d 2 ), s/veh			0.1	2.3	221.6	4.6	0.1	0.1	285.2	44.6			30.9	0.3	
Initial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	
Control Delay ( d ), s/veh			25.9	39.7	264.1	31.7	28.8	29.0	333.7	93.1			82.1	46.	
Level of Service	e (LOS)			С	D	F	С	С	С	F	F			F	D
Approach Delay, s/veh / LOS			169.	1	F	29.9	9	С	242.	3	F	72.3	3	Е	
Intersection De	lay, s/ve	h / LOS				15	3.6						F		
Multimodal Results					EB			WB			NB	NB B		SB	
Pedestrian LOS Score / LOS Bicycle LOS Score / LOS			1.93		В	1.93		В	2.16			2.30		В	

		HCS	7 Sig	nalize	d Inte	ersect	tion R	Resu	lts Sur	nmar	/				
General Information									Intersec	- 1	14 1/44 1	je li			
Agency Diane B. Zimmerman Traffi							Duration	<u> </u>	0.250						
Analyst DBZ		Analysis Date Jul 1, 2									<u></u> =		4		
Jurisdiction				-		PM Peak			PHF		0.93		*		÷
Urban Street Old Henry Road			Analys	sis Year	2025 Improv	,		Analysis	alysis Period		1> 5:00				
Intersection Bush Farm Road					lenry PM 2025 B IMP.xi			lle.			- 1	<u> ጎጎ</u> የ			
Project Descrip	tion	Aiken North		FIIE IN	- 10 Hallo Joint Holly I W 2020 D HVII AUG									NIMY	14
Project Descrip	illori	AikeiriNorui													
Demand Information					EB			W	В	$\overline{}$	NB		$\overline{}$	SB	
Approach Movement			L	Т	R	L	T	R	L	Т	R	L	Т	R	
Demand (v), v	/eh/h			141	581	1004	217	27	8 138	640	244	148	90	203	11
\ \frac{1}{2}															
Signal Informa	ition				2	2	= 2 5	크기	7			_			$\mathbf{L}$
Cycle, s	127.0	Reference Phase	2		~ ~	7 2	T∺°		S12		×		♣ 』	2	хţх
Offset, s	0	Reference Point	End	Green	6.7	0.3	42.0	23	.0 30.0	0.0			K	-	
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	0.0		7	7		\sqrt{1}
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	1.0	1.0	1.0	1.0	0.0		5	6	7	<u> </u>
									14:55						
Timer Results			EBI	-	EBT	WB	L	WBT	NBL	-	NBT	SBI	_	SBT	
Assigned Phase			5	_	2	1	$\rightarrow$	6	_	_	8	_	_	4	
Case Number			1.1	-	3.0	1.1	_	4.0	_	_	10.0			11.0	
Phase Duration, s			11.7	$\rightarrow$	47.0	17.0	-	52.3			35.0	_	_	28.0	
Change Period		,.		5.0	_	5.0	5.0	$\rightarrow$	5.0	-		5.0		_	5.0
Max Allow Headway ( <i>MAH</i> ), s  Queue Clearance Time ( <i>g</i> s ), s			3.1	_	3.2	3.1		3.2		_	3.1		_	3.1	
				6.8	-	14.0	12.5	-	13.6	_		32.0	_	-	23.1
Green Extension Time ( g e ), s			0.1	$\overline{}$	0.0	0.0	-	3.4		_	0.0	_	_	0.0	
Phase Call Pro Max Out Proba				0.98	-	1.00	1.00	$\rightarrow$	1.00 0.01		_	1.00		_	1.00
Wax Out 1 Toba	Dility			0.07		1.00	1.00		0.01			1.00			1.00
Movement Gro	oup Res	sults			EB			WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Movement		5	2	12	1	6	16	3	8	18	7	4	14		
Adjusted Flow Rate ( v ), veh/h		105	432	591	233	233	214	688	422			315	119		
Adjusted Saturation Flow Rate ( s ), veh/h/ln		1810	1900	1610	1810	190	1689	1757	1779			1871	161		
Queue Service Time ( g s ), s		4.8	25.0	42.0	10.5	11.1	_	23.6	30.0			21.1	7.8		
Cycle Queue Clearance Time ( $g\ _{c}$ ), s		4.8	25.0	42.0	10.5	11.1		23.6	30.0			21.1	7.8		
Green Ratio ( g				0.38	0.33	0.33	0.44	0.37		0.24	0.24			0.18	0.2
Capacity ( c ), v				407	628	532	357	708	_	830	420			339	377
Volume-to-Cap		. ,		0.258	0.688	1.109	0.653	-	_	0.829	1.003			0.930	0.31
		/In ( 90 th percentile)		88	379.1	830.6	189.2	199		379.8	596		_	430.6	133
		eh/ln ( 90 th percenti		3.5	15.2	33.2	7.6	8.0	_	15.2	23.8			17.2	5.4
		RQ) (90 th percent	ile)	0.00	0.00	0.00	0.00	0.00		0.00	0.00			0.00	0.0
Uniform Delay				25.9	36.8	42.5	26.6	28.5	_	46.1	48.5			51.2	40.2
Incremental De				0.1	1.6	64.9	3.3	0.1	_	6.6	44.6			30.9	0.2
Initial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	_	0.0	0.0			0.0	0.0	
Control Delay ( d ), s/veh Level of Service (LOS)			26.0	38.4	107.4	29.9	28.6	_	52.7	93.1			82.1	40.4	
` ′			C 70.4	D	F	C 20.4	С	C	D 00.4	F		70 -	F 7	_ D	
Approach Delay, s/veh / LOS Intersection Delay, s/veh / LOS			73.4	-	E	29.1		С	68.1		E	70.7		E	
intersection De	iay, S/V6	en / LOS				62	2.3						E		
Multimodal Results				EB			WB			NB			SB		
Multimoual Re	Pedestrian LOS Score / LOS			II		_					_				_
	S Score	/LOS		2.12	2	В	1.93	3	В	2.16	; ]	В	2.60	)	С