final report

December 27, 2022

Traffic Impact Study

Farm Credit Mid-America 12501 Lakefront Place Louisville, KY

Prepared for

Louisville Metro Planning Commission





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INTRODUCTION

The development plan for the Farm Credit office building in Louisville, KY shows an office expansion of 138,000 square feet. **Figure 1** displays a map of the site. The site is currently occupied with 177,000 square feet of office. The building expansion is on an existing surface parking lot. Access to the development will be from the existing access on Lakefront Place and Sycamore Station Place. The purpose of this study is to examine the traffic impacts of the development upon the adjacent highway system. For this study, the impact area was defined to be the intersections of Tucker Station Road with Lakefront Place and Sycamore Station Place.



Figure 1. Site Map

EXISTING CONDITIONS

Tucker Station Road is a Metro maintained road with an estimated 2022 ADT of 8,300 vehicles per day between Lakefront Place and Sycamore Station Place as estimated from the turning movement count. The road is a two-lane road with twelve-foot lanes, a two-way left turn lane with curb and gutter. The speed limit is 35 mph. There are sidewalks on the north side. The intersections with Lakefront Place and Sycamore Station Place are controlled with a stop sign. At both intersections there are left turn lanes on Tucker Station Road. There is a right turn lane on eastbound Bluegrass Parkway, northbound Tucker Station Road, and southbound Sycamore Station Place.

Peak hour traffic counts for the intersections were obtained on Thursday, November 3, 2022. The a.m. peak hour occurred between 7:30 and 8:30 and the p.m. peak hour occurred between 4:30 and 5:30. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes.

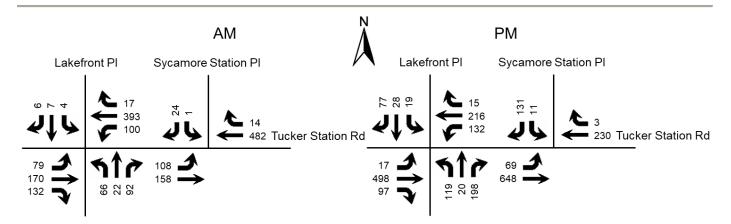


Figure 2. Existing Peak Hour Volumes

FUTURE CONDITIONS

The project completion date is 2024. An annual growth rate of 1.0 percent was applied to the volumes. **Figure 3** displays the 2024 No Build peak hour volumes.

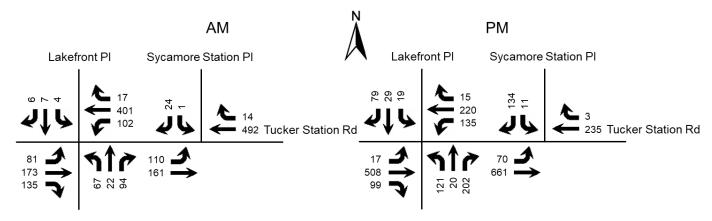


Figure 3. No Build Peak Hour Volumes

TRIP GENERATION

The Institute of Transportation Engineers <u>Trip Generation Manual</u>, 11th Edition contains trip generation rates for a wide range of developments. The land use of "Office 710" was reviewed and determined to be the best match. The trip generation results are listed in **Table 1**. The trips were assigned to the highway network with the percentages shown in **Figure 4**. **Figure 5** shows the trips generated by this development and distributed throughout the road network during the peak hours. **Figure 6** displays the individual turning movements for the peak hours when the development is completed.

Table 1. Peak Hour Trips Generated by Site

	A.M. I	Peak H	lour	P.M. F	Peak	Hour
Land Use	Trips	In	Out	Trips	In	Out
Office (138,000 square feet)	221	194	27	217	37	180



Figure 4. Trip Distribution Percentages

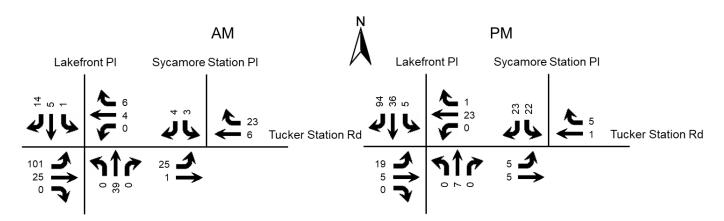


Figure 5. Peak Hour Trips Generated by Site

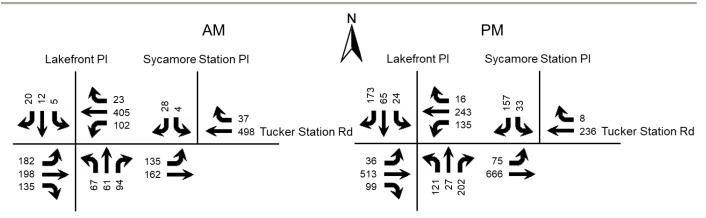


Figure 6. Build Peak Hour Volumes

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>, 7th edition. Future delays and Level of Service were determined for the intersections using the HCS Streets and TWSC (version 2023) software. The delays and Level of Service are summarized in **Table 2**.

Table 2. Peak Hour Level of Service

		A.M.			P.M.	
Approach	2022	2024	2024	2022	2024	2024
Approach	Existing	No Build	Build	Existing	No Build	Build
Bluegrass Parkway at Lakefront Place						
Bluegrass Parkway Eastbound (left)	Α	Α	Α	Α	Α	Α
bluegrass Farkway Easibouriu (leit)	8.5	8.6	9.0	7.9	7.9	8.0
Tucker Station Road Westbound (left)	Α	Α	Α	Α	Α	Α
Tucker Station Road Westbound (left)	8.2	8.2	8.3	9.5	9.6	9.6
Tucker Station Road Northbound	С	С	F	D	Е	F
Tucker Station Road Northbodild	19.9	20.6	115.5	34.9	38.6	240.7
Lakefront Place Southbound	С	С	F	Е	Е	F
Lakeroni Piace Southbound	21.5	22.1	127.3	36.1	45.1	196.7

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		A.M.			P.M.	
Approach	2022	2024	2024	2022	2024	2024
	Existing	No Build	Build	Existing	No Build	Build
Tucker Station Road at Sycamore Station Place						
Tucker Station Road Eastbound (left)	A	A	A	A	A	A
	9.0	9.0	9.3	7.9	7.9	7.9
Sycamore Station Place Southbound	B	B	B	B	B	B
	12.1	12.2	12.7	10.9	11.0	12.0

Key: Level of Service, Delay in seconds per vehicle

The intersection of Bluegrass Parkway/Tucker Station Road with Lakefront Place/Tucker Station Road will experience significant minor street delays. Additional lanes will not reduce the delay below Level of Service F. The only improvement that will reduce the minor street delay is a traffic signal. The intersection does currently meet the Manual on Uniform Traffic Control Devices Warrant 1 B for three of the four hours counted. Metro Traffic Engineering should continue to monitor the intersection volumes to determine when the signal warrant has been satisfied.

CONCLUSIONS

Based upon the volume of traffic generated by the development and the amount of traffic forecasted for the year 2024, there will be an impact to the existing highway network. The minor street delays on Lakefront Place and Tucker Station Road will exceed reasonable levels. The intersection of Bluegrass Parkway/Tucker Station Road with Lakefront Place/Tucker Station Road should continue to be monitored to determine when the signal warrant has been satisfied.

APPENDIX

Traffic Counts

Classified Turn Movement Count | | All vehicles

Marr Traffic DATA COLLECTION

Louisville, KY

Site 1 of 4 Tucker Station Rd (South) Lakefront PI (North) Bluegrass Pkwy Tucker Station Rd (East)

Date

Thursday, November 3, 2022

Weather Fair 61°F

Lat/Long

38.216555°, -85.531101°

0700 - 0900 (Weekday 2h Session) (11-03-2022)

All vehicles

		No	rthbou	nd			So	uthbou	nd			Е	astbour	ıd			W	/estbou	nd		
		Tucker S	tation R	d (South)		Lakef	ront Pl (i	North)			Blu	egrass P	kwy			Tucker	Station I	Rd (East)		
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
TIME	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0700 - 0715	9	3	19	0	31	0	3	0	0	3	8	20	11	0	39	6	47	3	0	56	129
0715 - 0730	15	1	20	0	36	0	1	4	0	5	13	21	30	0	64	22	77	2	0	101	206
0730 - 0745	22	7	24	0	53	1	0	2	0	3	12	23	29	0	64	20	107	1	0	128	248
0745 - 0800	14	7	23	0	44	0	3	1	0	4	23	39	31	0	93	29	95	5	0	129	270
Hourly Total	60	18	86	0	164	1	7	7	0	15	56	103	101	0	260	77	326	11	0	414	853
0800 - 0815	11	4	24	0	39	1	0	2	0	3	27	55	39	0	121	32	100	2	0	134	297
0815 - 0830	19	4	21	0	44	2	4	1	0	7	17	53	35	0	105	19	91	9	0	119	275
0830 - 0845	13	6	17	0	36	2	0	3	0	5	16	38	42	0	96	17	53	6	0	76	213
0845 - 0900	20	5	24	0	49	1	3	3	0	7	14	35	30	0	79	18	52	1	0	71	206
Hourly Total	63	19	86	0	168	6	7	9	0	22	74	181	146	0	401	86	296	18	0	400	991
Grand Total	123	37	172	0	332	7	14	16	0	37	130	284	247	0	661	163	622	29	0	814	1844
Approach %	37.05	11.14	51.81	0.00	-	18.92	37.84	43.24	0.00	-	19.67	42.97	37.37	0.00	-	20.02	76.41	3.56	0.00	-	
Intersection %	6.67	2.01	9.33	0.00	18.00	0.38	0.76	0.87	0.00	2.01	7.05	15.40	13.39	0.00	35.85	8.84	33.73	1.57	0.00	44.14	
PHF	0.75	0.79	0.96	0.00	0.85	0.50	0.44	0.75	0.00	0.61	0.73	0.77	0.86	0.00	0.79	0.78	0.92	0.47	0.00	0.95	0.92

1600 - 1800 (Weekday 2h Session) (11-03-2022)

All vehicles

		No	orthbou	nd			Sc	uthbou	nd			Е	astbour	ıd			W	estboui	nd		1
	1	Tucker S	tation R	d (South)		Lakef	ront Pl (I	North)			Blu	egrass P	kwy			Tucker 9	Station F	Rd (East)		<u> </u>
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
TIME	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1600 - 1615	33	3	28	0	64	10	15	33	0	58	3	97	23	0	123	29	46	7	0	82	327
1615 - 1630	23	2	26	0	51	7	3	14	0	24	6	101	23	1	131	24	50	3	0	77	283
1630 - 1645	37	7	47	0	91	7	9	30	0	46	5	108	23	0	136	33	84	3	0	120	393
1645 - 1700	28	7	48	0	83	5	8	18	0	31	2	98	33	0	133	30	47	2	0	79	326
Hourly Total	121	19	149	0	289	29	35	95	0	159	16	404	102	1	523	116	227	15	0	358	1329
1700 - 1715	28	3	56	0	87	3	9	18	0	30	6	139	20	0	165	38	49	3	0	90	372
1715 - 1730	26	3	48	0	77	4	2	11	0	17	4	153	21	0	178	31	37	7	0	75	347
1730 - 1745	18	9	35	0	62	8	7	8	0	23	5	106	20	0	131	22	43	2	0	67	283
1745 - 1800	22	3	31	0	56	4	5	9	0	18	1	82	21	0	104	25	34	3	0	62	240
Hourly Total	94	18	170	0	282	19	23	46	0	88	16	480	82	0	578	116	163	15	0	294	1242
Grand Total	215	37	319	0	571	48	58	141	0	247	32	884	184	1	1101	232	390	30	0	652	2571
Approach %	37.65	6.48	55.87	0.00	-	19.43	23.48	57.09	0.00	1	2.91	80.29	16.71	0.09	-	35.58	59.82	4.60	0.00		
Intersection %	8.36	1.44	12.41	0.00	22.21	1.87	2.26	5.48	0.00	9.61	1.24	34.38	7.16	0.04	42.82	9.02	15.17	1.17	0.00	25.36	
																					<u> </u>
PHF	0.80	0.71	0.89	0.00	0.93	0.68	0.78	0.64	0.00	0.67	0.71	0.81	0.73	0.00	0.86	0.87	0.65	0.54	0.00	0.76	0.91
																					i —

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Classified Turn Movement Count | | All vehicles



Louisville, KY www.marrtraffic.com

Site 4 of 4

Driveway Sycamore Station PI Tucker Station Rd (West) Tucker Station Rd (East) Date

Thursday, November 3, 2022

Weather

Fair 61°F

Lat/Long

38.217145°, -85.528456°

0700 - 0900 (Weekday 2h Session) (11-03-2022)

All vehicles

		No	orthbou	nd			Sc	uthbou	nd			Е	astbour	ıd			W	estbou	nd		
			Driveway	/			Sycan	nore Sta	tion Pl			Tucker S	tation R	d (West)			Tucker 9	Station I	Rd (East)		
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
TIME	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0700 - 0715	0	0	1	0	1	0	0	3	0	3	8	30	0	0	38	0	54	0	0	54	96
0715 - 0730	0	0	0	0	0	0	0	5	0	5	9	34	0	0	43	0	95	4	0	99	147
0730 - 0745	0	0	0	0	0	0	0	3	0	3	7	37	0	0	44	0	120	2	0	122	169
0745 - 0800	0	0	0	0	0	0	0	5	0	5	17	48	0	1	66	0	123	1	0	124	195
Hourly Total	0	0	1	0	1	0	0	16	0	16	41	149	0	1	191	0	392	7	0	399	607
0800 - 0815	0	0	0	0	0	0	0	9	0	9	39	36	0	0	75	0	128	5	0	133	217
0815 - 0830	0	0	0	0	0	1	0	7	0	8	44	37	0	0	81	0	111	6	0	117	206
0830 - 0845	0	0	0	0	0	0	0	2	0	2	19	33	0	0	52	0	74	2	0	76	130
0845 - 0900	0	0	0	0	0	0	0	6	0	6	18	47	0	0	65	0	64	1	0	65	136
Hourly Total	0	0	0	0	0	1	0	24	0	25	120	153	0	0	273	0	377	14	0	391	689
								•											•		
Grand Total	0	0	1	0	1	1	0	40	0	41	161	302	0	1	464	0	769	21	0	790	1296
Approach %	0.00	0.00	100.00	0.00	-	2.44	0.00	97.56	0.00	-	34.70	65.09	0.00	0.22	-	0.00	97.34	2.66	0.00	-	
Intersection %	0.00	0.00	0.08	0.00	0.08	0.08	0.00	3.09	0.00	3.16	12.42	23.30	0.00	0.08	35.80	0.00	59.34	1.62	0.00	60.96	1
									-												
PHF	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.67	0.00	0.69	0.61	0.82	0.00	0.25	0.82	0.00	0.94	0.58	0.00	0.93	0.91

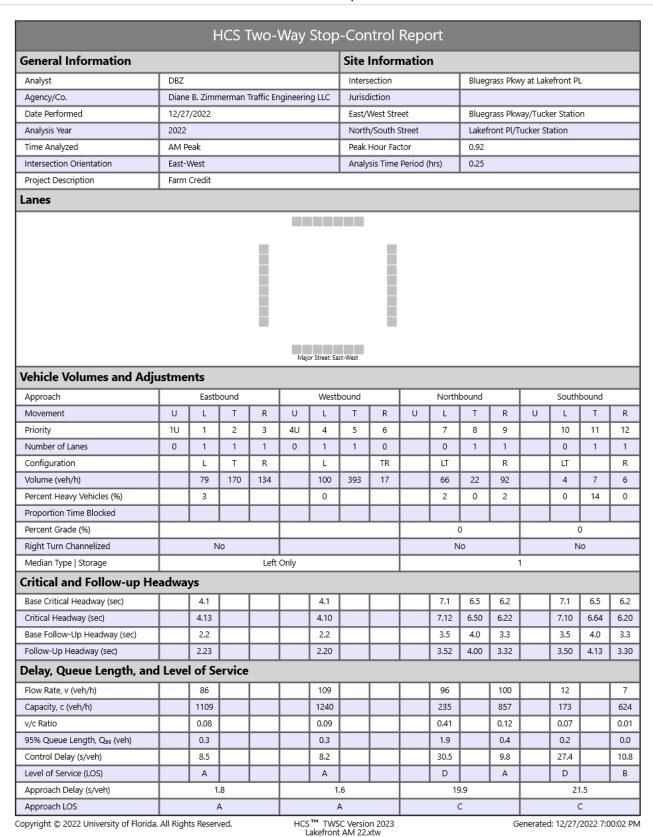
1600 - 1800 (Weekday 2h Session) (11-03-2022)

All vehicles

		No	orthbou	nd			Sc	uthbou	nd			Е	astbour	ıd			W	estbour	nd		
		[Driveway	/			Sycan	nore Sta	tion Pl			Tucker S	tation R	d (West)			Tucker 9	Station F	Rd (East)		
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
TIME	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1600 - 1615	0	0	0	0	0	4	0	27	0	31	8	124	1	0	133	0	55	1	0	56	220
1615 - 1630	0	0	2	0	2	1	0	26	0	27	11	120	0	0	131	0	51	2	0	53	213
1630 - 1645	0	0	0	0	0	4	0	67	0	71	12	149	0	0	161	0	54	0	0	54	286
1645 - 1700	0	0	0	0	0	4	0	27	0	31	15	133	0	0	148	0	52	3	0	55	234
Hourly Total	0	0	2	0	2	13	0	147	0	160	46	526	1	0	573	0	212	6	0	218	953
1700 - 1715	0	0	0	0	0	2	0	29	0	31	19	178	0	0	197	0	59	0	0	59	287
1715 - 1730	0	0	0	0	0	1	0	8	0	9	23	188	0	0	211	0	66	0	0	66	286
1730 - 1745	0	0	0	0	0	1	0	10	0	11	11	140	0	0	151	0	58	0	0	58	220
1745 - 1800	0	0	0	0	0	2	0	9	0	11	13	107	0	0	120	0	53	0	0	53	184
Hourly Total	0	0	0	0	0	6	0	56	0	62	66	613	0	0	679	0	236	0	0	236	977
Grand Total	0	0	2	0	2	19	0	203	0	222	112	1139	1	0	1252	0	448	6	0	454	1930
Approach %	0.00	0.00	100.00	0.00	-	8.56	0.00	91.44	0.00	-	8.95	90.97	0.08	0.00	-	0.00	98.68	1.32	0.00		
Intersection %	0.00	0.00	0.10	0.00	0.10	0.98	0.00	10.52	0.00	11.50	5.80	59.02	0.05	0.00	64.87	0.00	23.21	0.31	0.00	23.52	
PHF	0.00	0.00	0.00	0.00	0.00	0.69	0.00	0.49	0.00	0.50	0.75	0.86	0.00	0.00	0.85	0.00	0.88	0.25	0.00	0.89	0.95

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HCS Reports



		ŀ	HCS T	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information	_						Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Blued	rass Pkv	vy at Lak	efront P	L	
Agency/Co.	Diane	B. Zimr	nerman i	Traffic Er	ngineerir	ng LLC	Juriso	liction								
Date Performed	-	/2022					East/\	West Str	eet		Blueg	rass Pkv	vay/Tuck	er Statio	n	
Analysis Year	2024						North	/South	Street		Lakef	ront PI/1	ucker St	ation		
Time Analyzed	AM P	eak No I	Build				Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_											
					Majo	or Street: Ea	st-West									
Vehicle Volumes and Adj	ustme	nts														
Approach	Т	Easth	oound			West	bound			North	bound		П	South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Movement									-	_			_			
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
	1U 0	1	2	3	4U 0	4					_	_		10	11	12 1
Priority	-	_	_	_			5	6		7	8	9				-
Priority Number of Lanes	-	1	1	1		1	5	6		7	8	9		0		_
Priority Number of Lanes Configuration	-	1 L	1 T	1 R		1 L	5	6 0 TR		7 0 LT	8	9 1 R		0 LT	1	1 R
Priority Number of Lanes Configuration Volume (veh/h)	-	1 L 81	1 T	1 R		1 L 102	5	6 0 TR		7 0 LT 67	8 1 22	9 1 R 94		0 LT 4	7	1 R 6
Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	-	1 L 81	1 T	1 R		1 L 102	5	6 0 TR		7 0 LT 67 2	8 1 22	9 1 R 94		0 LT 4 0	7	1 R 6
Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked	-	1 L 81 3	1 T	1 R		1 L 102	5	6 0 TR		7 0 LT 67 2	8 1 22 0	9 1 R 94		0 LT 4 0	7 14	1 R 6
Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	-	1 L 81 3	1 T 173	1 R 135		1 L 102	5	6 0 TR		7 0 LT 67 2	22 0	9 1 R 94 2	1	0 LT 4 0	7 14	1 R 6
Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	0	1 L 81 3	1 T 173	1 R 135	0	1 L 102	5	6 0 TR		7 0 LT 67 2	22 0	9 1 R 94 2		0 LT 4 0	7 14	1 R 6
Priority Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	0	1 L 81 3	1 T 173	1 R 135	0	1 L 102	5	6 0 TR		7 0 LT 67 2	22 0	9 1 R 94 2		0 LT 4 0	7 14	1 R 6
Priority 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 He	0	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2	8 1 22 0 0 Jo	9 1 R 94 2		0 LT 4 0	7 14 00 No	1 R 6 0
Priority 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 He Base Critical Headway (sec)	0	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2	22 0 0	9 1 R 94 2		0 LT 4 0	7 14 00 lo 6.5	1 R 6 0
Priority 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 He Base Critical Headway (sec) Critical Headway (sec)	0	1 L 81 3 ys 4.1 4.13	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2	8 1 22 0 0 0 10	9 1 R 94 2		0 LT 4 0 N	1 7 14 00 No 6.5 6.64	1 R 6 0 0 6.22 6.22 3.3
Priority 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	o eadwa	1 L 81 3 ys 4.1 4.13 2.2 2.23	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2 N 7.1 7.12 3.5	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2		0 LT 4 0 N 7.1 7.10 3.5	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	1 R 6 0 0 6.22 6.22 3.3
Priority 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)	o eadwa	1 L 81 3 ys 4.1 4.13 2.2 2.23	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2 N 7.1 7.12 3.5	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2		0 LT 4 0 N 7.1 7.10 3.5	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	1 R 6 0 0 6.22 6.20 3.3
Priority 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and	o eadwa	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0	5	6 0 TR		7 0 LT 67 2 7.1 7.12 3.5 3.52	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.2 6.2 3.3 3.3 7
Priority 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 He 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)	o eadwa	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0 4.1 4.10 2.2 2.20	5	6 0 TR		7 0 LT 67 2 7.1 7.12 3.5 3.52	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.2 6.2 6.2 7 617
Priority 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Pollow-Up Headway (sec) Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h)	o eadwa	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0 O O O O O O O O O O O O O O O O O O	5	6 0 TR		7 0 LT 67 2 7.1 7.12 3.5 3.52	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.2 6.2 6.2 7 617 0.0
Priority 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 He 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	o eadwa	1 L 81 3	1 T 173	1 R 135	0	1 L 102 0 O O O O O O O O O O O O O O O O O O	5	6 0 TR		7 0 LT 67 2 N 7.1 7.12 3.5 3.52 97 227 0.43	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.22 6.20 3.33 7 617 0.01
Priority 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Pollow-Up Headway (sec) Delay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q ₉₅ (veh)	o eadwa	1 L 81 3 S S S S S S S S S S S S S S S S S S	1 T 173	1 R 135	0	1 L 102 0 O 1 111 1236 0.09 0.3	5	6 0 TR		7 0 LT 67 2 7.1 7.12 3.5 3.52 97 227 0.43 2.0	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.22 3.3 3.32 102 854 0.12 0.4		7.1 7.10 3.5 3.50 12 167 0.07	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.2 6.2 6.20 3.3 3.30
Priority 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 He 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) y/c Ratio 95% Queue Length, Qas (veh) Control Delay (s/veh)	o eadwa	1 L 81 3 YS 4.1 4.13 2.2 2.23 I of So 88 1101 0.08 0.3 8.6 A	1 T 173	1 R 135	0	1 L 102 0 0 4.1 4.10 2.2 2.20 1111 1236 0.09 0.3 8.2 A	5	6 0 TR		7 0 LT 67 2 N N N N N N N N N N N N N N N N N N	8 1 22 0 0 lo 6.5 6.50 4.0	9 1 R 94 2 6.2 6.22 3.3 3.32 102 854 0.12 0.4 9.8		7.1 7.10 3.5 3.50 12 167 0.07 0.2 28.2 D	7 14 10 10 10 10 10 10 10 10 10 10 10 10 10	6.2 6.2 6.2 6.2 7 617 0.0 10.9

		ŀ	ICS T	[wo-	Way	Stop	-Cor	trol	Repo	ort						
General Information							Site	nforn	natio	n						
Analyst	DBZ						Inters	ection			Blueg	rass Pkw	y at Lak	efront Pl	_	
Agency/Co.	Diane	B. Zimn	nerman i	Traffic Er	ngineerin	ig LLC	Jurisd	iction								
Date Performed	12/27	/2022				_	East/\	Vest Stre	et		Blueg	rass Pkw	/ay/Tuck	er Statio	n	
Analysis Year	2024						North	/South S	Street		Lakef	ront PI/T	ucker St	ation		
Time Analyzed	AM P	eak Build	i				Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					Maĵo	or Street: Ea	st-West									
Vehicle Volumes and Adj	iustme	nts														
Approach	T		ound			Westk	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	1	0	1	1	0		0	1	1		0	1	1
Configuration		L	Т	R		L		TR		LT		R		LT		R
Volume (veh/h)		182	198	135		102	405	23		67	61	94		5	12	6
Percent Heavy Vehicles (%)		3				0				2	0	2		0	14	0
Proportion Time Blocked											$\overline{}$					
Proportion Time Blocked Percent Grade (%)					l											
·		N	lo							N	lo			N	lo	
Percent Grade (%)		Ν	lo	Left	Only					N	lo		1	N	lo	
Percent Grade (%) Right Turn Channelized	eadwa		lo	Left	Only					N	lo		1	N	lo	
Percent Grade (%) Right Turn Channelized Median Type Storage	eadwa		lo	Left	Only	4.1				7.1	6.5	6.2	1	7.1	6.5	6.2
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	eadwa	ys	lo	Left	Only	4.1							1			\vdash
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec)	eadwa	ys 4.1	lo	Left	Only	_				7.1	6.5	6.2		7.1	6.5	6.20
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H Base Critical Headway (sec) Critical Headway (sec)	eadwa	ys 4.1 4.13	lo	Left	Only	4.10				7.1 7.12	6.5	6.22		7.1 7.10	6.5 6.64	6.20
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 4.13 2.2 2.23			Only	4.10 2.2				7.1 7.12 3.5	6.5 6.50 4.0	6.2 6.22 3.3		7.1 7.10 3.5	6.5 6.64 4.0	6.20
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 4.13 2.2 2.23			Only	4.10 2.2				7.1 7.12 3.5	6.5 6.50 4.0	6.2 6.22 3.3		7.1 7.10 3.5	6.5 6.64 4.0	6.20
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		4.1 4.13 2.2 2.23			Only	4.10 2.2 2.20				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	6.5 6.64 4.0	6.20 3.3 3.30
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)		4.1 4.13 2.2 2.23 I of Se			Only	4.10 2.2 2.20				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	6.5 6.64 4.0	6.20 3.3 3.30 7 611
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)		4.1 4.13 2.2 2.23 I of Se 198			Only	4.10 2.2 2.20 111 1208				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	6.5 6.64 4.0	6.20 3.3 3.30 7 611 0.01
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		4.1 4.13 2.2 2.23 I of Se 198 1091 0.18			Only	4.10 2.2 2.20 111 1208 0.09				7.1 7.12 3.5 3.52 139 122 1.14	6.5 6.50 4.0	6.2 6.22 3.3 3.32 102 825 0.12		7.1 7.10 3.5 3.50 18 38 0.49	6.5 6.64 4.0	6.20 3.3 3.30 7 611 0.01
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 ₉₅ (veh)		4.1 4.13 2.2 2.23 I of So 198 1091 0.18 0.7			Only	4.10 2.2 2.20 111 1208 0.09 0.3				7.1 7.12 3.5 3.52 139 122 1.14 8.4	6.5 6.50 4.0	6.2 6.22 3.3 3.32 102 825 0.12 0.4		7.1 7.10 3.5 3.50 18 38 0.49 1.7	6.5 6.64 4.0	6.2 6.20 3.3 3.30 7 611 0.01 0.0 11.0 B
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, Qas (veh) Control Delay (s/veh)		95 4.1 4.13 2.2 2.23 1 of Se 198 1091 0.18 0.7 9.0 A			Only	4.10 2.2 2.20 111 1208 0.09 0.3 8.3 A	.6			7.1 7.12 3.5 3.52 139 122 1.14 8.4 192.9	6.5 6.50 4.0	6.2 6.22 3.3 3.32 102 825 0.12 0.4 10.0		7.1 7.10 3.5 3.50 18 38 0.49 1.7 168.3 F	6.5 6.64 4.0	6.20 3.3 3.30 7 611 0.01 0.0 11.0

		ŀ	HCS T	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						_
Analyst	DBZ						Inters	ection			Blue	rass Pkv	vy at Lak	efront P	L	
Agency/Co.	Diane	B. Zimn	nerman '	Traffic Er	ngineerin	ng LLC	Jurisd	liction								
Date Performed	12/27	7/2022					East/\	West Str	eet		Blueg	grass Pkv	vay/Tuck	er Statio	n	
Analysis Year	2022						North	/South	Street		Lakef	ront PI/I	Tucker St	ation		
Time Analyzed	PM P	eak					Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					Maio	or Street: Ea	st-West									
Vehicle Volumes and Adj	listme	nte			7											
	T					384				N14h-	la a consul			C4b	la a consul	
Approach Movement	U	L	ound	R	U		oound T	R	U	L	bound T	R	U	L	bound T	R
	+		2	3	4U	L 4	5	6	-	_			0	10	11	12
Priority																
Priority Number of Lanes	10	1								7	8	9				_
Number of Lanes	0	1	1	1	0	1	1	0		0	1	1		0	1	1
Number of Lanes Configuration	-	1 L	1 T	1 R		1 L	1	0 TR		0 LT	1	1 R		0 LT	1	1 R
Number of Lanes Configuration Volume (veh/h)	-	1 L 17	1	1		1 L 132		0		0 LT 119		1 R 198		0 LT 19		1 R
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	-	1 L	1 T	1 R		1 L	1	0 TR		0 LT	20	1 R		0 LT	1 28	1 R 77
Number of Lanes Configuration Volume (veh/h)	-	1 L 17	1 T	1 R		1 L 132	1	0 TR		0 LT 119 2	20	1 R 198		0 LT 19 0	1 28	1 R 77
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked	-	1 L 17 12	1 T	1 R		1 L 132	1	0 TR		0 LT 119 2	20	1 R 198		0 LT 19 0	1 28 0	1 R 77
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	-	1 L 17 12	1 T 498	1 R 97		1 L 132	1	0 TR		0 LT 119 2	20 0	1 R 198 2	1	0 LT 19 0	1 28 0	1 R 77
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	0	1 L 17 12	1 T 498	1 R 97	0	1 L 132	1	0 TR		0 LT 119 2	20 0	1 R 198 2	1	0 LT 19 0	1 28 0	1 R 77
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	0	1 L 17 12	1 T 498	1 R 97	0	1 L 132	1	0 TR		0 LT 119 2	20 0	1 R 198 2	1	0 LT 19 0	1 28 0	1 R 77 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 He	0	1 L 17 12	1 T 498	1 R 97	0	1 L 132 1	1	0 TR		0 LT 119 2	20 0	1 R 198 2	1	0 LT 19 0	28 0	1 R 777 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 He Base Critical Headway (sec)	0	1 L 17 12 N ys	1 T 498	1 R 97	0	1 L 132 1	1	0 TR		0 LT 119 2	20 0 0	1 R 198 2	1	0 LT 19 0	1 28 0 0 lo 6.5	1 R 777 1 1 6.2 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 He Base Critical Headway (sec) Critical Headway (sec)	0	1 L 17 12 N ys 4.1 4.22	1 T 498	1 R 97	0	1 L 132 1	1	0 TR		0 LT 119 2 N	20 0 0 0 0 6.5 6.50	1 R 198 2 2 6.2 6.22	1	0 LT 19 0 N	28 0 0 0 No	1 R 77 1 1 6.2 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	o	1 L 17 12 Ys 4.1 4.22 2.2 2.31	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2	1	0 TR		0 LT 119 2 N 7.1 7.12 3.5	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2	1	0 LT 19 0 N 7.1 7.10	28 0 0 0 10 6.5 6.50 4.0	1 R 77 1 1 6.2 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)	o	1 L 17 12 Ys 4.1 4.22 2.2 2.31	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2	1	0 TR		0 LT 119 2 N 7.1 7.12 3.5	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2	1	0 LT 19 0 N 7.1 7.10	28 0 0 0 10 6.5 6.50 4.0	1 R 777 1 6.2 6.2 3.3 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and	o	1 L 17 12 N YS 4.1 4.22 2.2 2.31 I of Sc	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2 2.21	1	0 TR		0 LT 119 2 N 7.1 7.12 3.5 3.52	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 2 6.2 6.22 3.3 3.32	1	0 LT 19 0 N 7.1 7.10 3.5 3.50	28 0 0 0 10 6.5 6.50 4.0	1 R 777 1 1 6.22 6.2 3.3 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 He 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)	o	1 L 17 12 Vys 4.1 4.22 2.2 2.31 l of Set 18	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2 2.21	1	0 TR		7.1 7.12 3.5 3.52	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 2 6.2 6.22 3.3 3.32	1	0 LT 19 0 7.1 7.10 3.5 3.50	28 0 0 0 10 6.5 6.50 4.0	1 R 777 1 1 6.22 6.22 3.33 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 He 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)	o	1 L 17 12 N YS 4.1 4.22 2.2 2.31 I of Se 18 1258	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2 2.21 143 944	1	0 TR		0 LT 119 2 N 7.1 7.12 3.5 3.52	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 6.2 6.22 3.3 3.32 215 541	1	7.1 7.10 3.5 3.50	28 0 0 0 10 6.5 6.50 4.0	6.2 6.2 3.3 3.3 84 798 0.10
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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Pelay, Queue Length, and Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio	o	1 L 17 12 Sys 4.1 4.22 2.2 2.31 I of So 18 1258 0.01	1 T 498	1 R 97	0	1 L 132 1 1 14.1 2.2 2.21 143 944 0.15	1	0 TR		7.1 7.12 3.5 3.52 151 202 0.75	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 2 6.2 6.22 3.3 3.32 215 541 0.40	1	7.1 7.10 3.5 3.50 51 96 0.53	28 0 0 0 10 6.5 6.50 4.0	6.22 6.22 3.3 3.3 844 798 0.11 0.3
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 He 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, Qas (veh)	o	1 L 17 12 N YS 4.1 4.22 2.31 I of Se 18 1258 0.01 0.0	1 T 498	1 R 97	0	1 L 132 1 1 14.1 4.11 2.2 2.21 143 944 0.15 0.5	1	0 TR		7.1 7.12 3.5 3.52 151 202 0.75 5.0	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 2 6.2 6.22 3.3 3.32 215 541 0.40 1.9	1	7.1 7.10 3.5 3.50 51 96 0.53 2.4	28 0 0 0 10 6.5 6.50 4.0	1 R 77
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 He 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) y/c Ratio 95% Queue Length, Q ₉₅ (veh) Control Delay (s/veh)	o	1 L 17 12 Vys 4.1 4.22 2.2 2.31 l of So 0.01 0.0 7.9 A	1 T 498	1 R 97	0	1 L 132 1 1 4.1 4.11 2.2 2.21 143 944 0.15 0.5 9.5 A	1	0 TR		7.1 7.12 3.5 3.52 151 202 0.75 5.0 61.9	1 20 0 0 lo 6.5 6.50 4.0	1 R 198 2 2 6.2 6.22 3.3 3.32 215 541 0.40 1.9 16.0	1	7.1 7.10 3.5 3.50 51 96 0.53 2.4 78.9	28 0 0 0 10 6.5 6.50 4.0	6.2 6.2 6.2 3.3 3.3 10.0

		ŀ	HCS T	wo-	Way	Stop	-Cor	itrol	Repo	ort						
General Information		_					Site	Inforn	nation	1						_
Analyst	DBZ						Inters	ection			Blued	rass Pkv	vy at Lak	efront PI	L	
Agency/Co.	Diane	B. Zimr	nerman i	Traffic Er	ngineerir	ng LLC	Jurisd	iction								
Date Performed	_	/2022					East/\	Nest Stre	et		Blued	rass Pkv	vay/Tuck	er Statio	n	
Analysis Year	2024						North	/South S	Street		_		ucker St			
Time Analyzed	PM P	ak No E	Build				Peak	Hour Fac	tor		0.92					
Intersection Orientation	East-\	Vest					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_		_									
						or Street: Ea										
Vehicle Volumes and Adj	iustme	nts														
Approach	T		oound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
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		0	1	1		0	1	1
Configuration	+	L	T	R	-	L		TR		LT		R		LT		R
	+-	17	508	99		135	220	15		121	20	202		19	29	79
Volume (veh/h)				ı												1
Volume (veh/h) Percent Heavy Vehicles (%)	_	12				1				2	0	2		0	0	
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked		12								2	0	2		0	0	Ė
Percent Heavy Vehicles (%)		12									0	2				
Percent Heavy Vehicles (%) Proportion Time Blocked			No							(2		(
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)			No	Left	Only					(0		1	()	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	eadwa	N	No	Left	Only					(0		1	()	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	eadwa	N	No	Left	Only					(0		1	()	
Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	eadwa	ys	No	Left	Only	1				N) lo		1	N) lo	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)	eadwa	ys 4.1	No	Left	Only	4.1				7.1) lo	6.2	1	7.1) lo	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) Critical Headway (sec)	eadwa	ys 4.1 4.22	No	Left	Only	4.1				7.1 7.12	6.5 6.50	6.2	1	7.1 7.10	6.5 6.50	6.2 6.2 3.3
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)		ys 4.1 4.22 2.2 2.31			Only	4.1 4.11 2.2				7.1 7.12 3.5	6.5 6.50 4.0	6.2 6.22 3.3	1	7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.2 3.3
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)		ys 4.1 4.22 2.2 2.31			Only	4.1 4.11 2.2				7.1 7.12 3.5	6.5 6.50 4.0	6.2 6.22 3.3	1	7.1 7.10 3.5	6.5 6.50 4.0	6.2 6.2 3.3 3.3
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, an		ys 4.1 4.22 2.2 2.31			Only	4.1 4.11 2.2 2.21				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32	1	7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.2 3.3 3.3
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, an Flow Rate, v (veh/h)		ys 4.1 4.22 2.2 2.31 I of Se			Only	4.1 4.11 2.2 2.21				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32		7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.2 3.3 3.3
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, an Flow Rate, v (veh/h) Capacity, c (veh/h)		ys 4.1 4.22 2.2 2.31 of So 18 1253			Only	4.1 4.11 2.2 2.21				7.1 7.12 3.5 3.52	6.5 6.50 4.0	6.2 6.22 3.3 3.32	1	7.1 7.10 3.5 3.50	6.5 6.50 4.0	6.2 6.2 3.3 3.3 86 79 ² 0.11
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		4.1 4.22 2.2 2.31 1 of So 18 1253 0.01			Only	1 4.1 4.11 2.2 2.21 147 933 0.16				7.1 7.12 3.5 3.52 153 194 0.79	6.5 6.50 4.0	6.2 6.22 3.3 3.32 220 533 0.41	1	7.1 7.10 3.5 3.50 52 83 0.63	6.5 6.50 4.0	6.2 6.2 3.3 3.3 86 794 0.1
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, Qas (veh)		4.1 4.22 2.2 2.31 l of So 18 1253 0.01 0.0			Only	1 4.1 4.11 2.2 2.21 147 933 0.16 0.6				7.1 7.12 3.5 3.52 153 194 0.79 5.5	6.5 6.50 4.0	6.2 6.22 3.3 3.32 220 533 0.41 2.0		7.1 7.10 3.5 3.50 52 83 0.63 2.9	6.5 6.50 4.0	6.22 6.22 3.3 3.3 866 794
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 ₉₅ (veh) Control Delay (s/veh)		ys 4.1 4.22 2.2 2.31 of So 18 1253 0.01 0.0 7.9 A			Only	1 4.1 4.11 2.2 2.21 147 933 0.16 0.6 9.6 A	5			7.1 7.12 3.5 3.52 153 194 0.79 5.5 70.3 F	6.5 6.50 4.0	6.2 6.22 3.3 3.32 220 533 0.41 2.0 16.4		7.1 7.10 3.5 3.50 52 83 0.63 2.9 102.8 F	6.5 6.50 4.0	6.2 6.2 3.3 3.3 86 79 ² 0.11 0.4

Analyst DBZ Agency/Co. Diane B. Zimmerman Traff Date Performed 12/27/2022 Analysis Year 2024 Time Analyzed PM Peak Build Intersection Orientation East-West Project Description Farm Credit Lanes Vehicle Volumes and Adjustments Approach Eastbound Movement U L T Priority 1U 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1												
Agency/Co. Diane B. Zimmerman Traff Date Performed 12/27/2022 Analysis Year 2024 Time Analyzed PM Peak Build Intersection Orientation Project Description Farm Credit Lanes Vehicle Volumes and Adjustments Approach Movement U L T Priority 1U 1 2 Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Right Turn Channelized Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Pelay, Queue Length, and Level of Service Flow Rate, v (veh/h) Capacity, C (veh/h) Possible Queue Length, Qas (veh) Possible Queue			Site	Inforn	natio	n						_
Agency/Co. Diane B. Zimmerman Traff Date Performed 12/27/2022 Analysis Year 2024 Time Analyzed PM Peak Build Intersection Orientation Project Description Farm Credit Lanes Vehicle Volumes and Adjustments Approach Movement U L T Priority 1U 1 2 Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Right Turn Channelized Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Pelay, Queue Length, and Level of Service Flow Rate, v (veh/h) Capacity, C (veh/h) Possible Queue Length, Qas (veh) Possible Queue			Inters	ection			Blueg	rass Pkw	y at Lak	efront Pl	L	
Analysis Year 2024 Time Analyzed PM Peak Build Intersection Orientation East-West Project Description Farm Credit Lanes Vehicle Volumes and Adjustments Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 Proportion Time Blocked Percent Grade (%) Right Turn Channelized No Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) 4.1 Critical Headway (sec) 4.22 Base Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 Pyc Ratio 0.03 95% Queue Length, Qas (veh) 0.1	: Engine	ering LLC	Juriso	liction								
Time Analyzed			East/	West Stre	eet		Blueg	rass Pkw	/ay/Tuck	er Statio	n	
Vehicle Volumes and Adjustments			North	n/South S	Street		Lakef	ront PI/T	ucker St	ation		
Vehicle Volumes and Adjustments Approach Eastbound Movement U L T I Priority 1U 1 2 I Number of Lanes 0 1 1 I			Peak	Hour Fac	tor		0.92					
Vehicle Volumes and Adjustments Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked No 12 12 Percent Grade (%) No Median Type Storage 4.1 1 Critical and Follow-up Headways Sase Critical Headway (sec) 4.22 1 Base Follow-Up Headway (sec) 4.22 1 1 Critical Headway (sec) 2.2 1 1 Follow-Up Headway (sec) 2.2 1 1 Pelay, Queue Length, and Level of Service 1 1 1 Flow Rate, v (veh/h) 39 1 1 1 Capacity, c (veh/h) 1226 1 1 1 1 Yor Ratio			Analy	sis Time	Period (hrs)	0.25					
Vehicle Volumes and Adjustments Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked Percent Grade (%) No Right Turn Channelized No Median Type Storage Critical and Follow-up Headways Sase Critical Headway (sec) 4.1 1 Critical Headway (sec) 4.22 2 2 Base Follow-Up Headway (sec) 2.2 2 2 Follow-Up Headway (sec) 2.31 1 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 0.03 0.03 0.03 95% Queue Length, Qas (veh) 0.1 0.1 0.1 0.1												
Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked No No Median Type Storage No No Critical and Follow-up Headways Base Critical Headway (sec) 4.1 1 Critical Headway (sec) 4.22 2 Base Follow-Up Headway (sec) 2.2 5 Follow-Up Headway (sec) 2.31 2 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 1 v/c Ratio 0.03 0.03 95% Queue Length, Qas (veh) 0.1 0.1												
Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked No No Right Turn Channelized No No Median Type Storage Storage 4.1 Critical and Follow-up Headways Ses 4.22 Base Critical Headway (sec) 4.22 4.22 Base Follow-Up Headway (sec) 2.2 5 Follow-Up Headway (sec) 2.31 5 Delay, Queue Length, and Level of Service Elow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 1 1 v/c Ratio 0.03 0.03 0.03 95% Queue Length, Qas (veh) 0.1 0.1 0.1												
Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked No No Median Type Storage No No Critical and Follow-up Headways Sase Critical Headway (sec) 4.1 1 Critical Headway (sec) 4.22 2 1 Base Follow-Up Headway (sec) 2.2 2 2 Follow-Up Headway (sec) 2.31 2 2 Delay, Queue Length, and Level of Service Elow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 1 1 V/C Ratio 0.03 0.03 0.03 95% Queue Length, Qss (veh) 0.1 0.1 0.1												
Approach Eastbound Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked No No Median Type Storage No No Critical and Follow-up Headways Sase Critical Headway (sec) 4.1 1 Critical Headway (sec) 4.22 2 1 Base Follow-Up Headway (sec) 2.2 2 2 Follow-Up Headway (sec) 2.31 2 2 Delay, Queue Length, and Level of Service Elow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 1 1 V/C Ratio 0.03 0.03 0.03 95% Queue Length, Qss (veh) 0.1 0.1 0.1		Major Street: E	ast-West									
Movement U L T Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked Percent Grade (%) No Right Turn Channelized No No Median Type Storage Volume Leadways 4.1 1 Critical and Follow-up Headways 4.22 4.22 2 Base Critical Headway (sec) 2.2 4.22	—				_							
Priority 1U 1 2 Number of Lanes 0 1 1 Configuration L T 1 Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked Percent Grade (%) No Right Turn Channelized No No Median Type Storage Volume Headway No Critical and Follow-up Headways 4.1 1 Base Critical Headway (sec) 4.2 2 Base Follow-Up Headway (sec) 2.2 2 Follow-Up Headway (sec) 2.31 2 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 1 1 v/c Ratio 0.03 0.03 0.03 95% Queue Length, Qas (veh) 0.1 0.1 0.1	-	_	tbound	_			bound	_			bound	_
Number of Lanes 0 1 1 Configuration L T Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked 12 12 Percent Grade (%) No No Median Type Storage No No Critical and Follow-up Headways Base Critical Headway (sec) 4.1 4.22 Base Follow-Up Headway (sec) 2.2 50 Follow-Up Headway (sec) 2.31 2.2 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 39 Capacity, c (veh/h) 1226 30 30 v/c Ratio 0.03 30 30 95% Queue Length, Qss (veh) 0.1 0.1	_		T	R	U	L	T	R	U	L	T	R
Configuration L T Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked 12 12 Percent Grade (%) No No Median Type Storage No No Critical and Follow-up Headways Base Critical Headway (sec) 4.1 4.22 Critical Headway (sec) 2.2 50 Follow-Up Headway (sec) 2.31 2.2 Follow-Up Headway (sec) 2.31 39 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 4.22 V/c Ratio 0.03 0.03 95% Queue Length, Qas (veh) 0.1 0.1	-	_	5	6		7	8	9		10	11	12
Volume (veh/h) 36 513 9 Percent Heavy Vehicles (%) 12 12 Proportion Time Blocked 12 12 Percent Grade (%) No No Median Type Storage No No Critical and Follow-up Headways Base Critical Headway (sec) 4.1 1 Critical Headway (sec) 4.22 2 Base Follow-Up Headway (sec) 2.2 2 Follow-Up Headway (sec) 2.31 2 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 1 Capacity, c (veh/h) 1226 0.03 v/c Ratio 0.03 0.03 95% Queue Length, Qss (veh) 0.1 0.1	_	_	1	0 TR		0 LT	1	1 R		0	1	1 R
Percent Heavy Vehicles (%) 12 Proportion Time Blocked Percent Grade (%) Right Turn Channelized No Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) 4.1 Critical Headway (sec) 2.2 Base Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q _{SS} (veh) 0.1	-	135	243	16		121	27	202		LT 24	65	173
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) Capacity, c (veh/h) 1226 v/c Ratio 95% Queue Length, Q ₃₅ (veh) 0.1	+	1	243	10		2	0	202		0	0.5	17.
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) Capacity, c (veh/h) 1226 v/c Ratio 95% Queue Length, Q ₉₅ (veh) Onl	+	+					_	-		H	L u	
Right Turn Channelized Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) Capacity, c (veh/h) 1226 v/c Ratio 95% Queue Length, Qas (veh) 0.1	+))	
Median Type Storage Critical and Follow-up Headways Base Critical Headway (sec) 4.1 Critical Headway (sec) 4.22 Base Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Qas (veh) 0.1	+						lo				lo	
Critical and Follow-up Headways Base Critical Headway (sec) 4.1 Critical Headway (sec) 4.22 Base Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Qas (veh) 0.1	eft Only								<u> </u>			
Base Critical Headway (sec) 4.1 Critical Headway (sec) 4.22 Base Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃s (veh) 0.1												
Critical Headway (sec) 4.22 Base Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1	$\overline{}$	4.1	т			7.1	6.5	6.2		7.1	6.5	6.2
Base Follow-Up Headway (sec) 2.2 Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1	+	4,11				7.12	6.50	6.22		7.10	6,50	6.2
Follow-Up Headway (sec) 2.31 Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1		2.2				3.5	4.0	3.3		3.5	4.0	3.3
Delay, Queue Length, and Level of Service Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1	+	2.21				3.52	4.00	3.32		3.50	4.00	3.3
Flow Rate, v (veh/h) 39 Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1			-									
Capacity, c (veh/h) 1226 v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1	$\overline{}$	147				161		220		97		188
v/c Ratio 0.03 95% Queue Length, Q₃₅ (veh) 0.1	+	929				83		529		53		768
95% Queue Length, Q₃s (veh) 0.1		0.16				1.94		0.41		1.82		0.2
		0.6				14.0		2.0		9.3		1.0
	\top	9.6				546.7		16.5		557.2		11.3
Level of Service (LOS) A		А				F		С		F		В
Approach Delay (s/veh) 0.4			3.3			24	0.7				6.7	
Approach LOS A	_		А			1	=			ı	F	

		ŀ	ICS T	ſwo-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						_
Analyst	DBZ						Inters	ection			Tucke	r Statior	n at Syca	more Sta	ation Pla	ce
Agency/Co.	Diane	B. Zimn	nerman i	Traffic Er	ngineerin	ng LLC	Juriso	liction								
Date Performed	12/27	/2022					East/	Nest Str	eet		Tucke	r Station	1			
Analysis Year	2022						North	/South :	Street		Sycan	nore Stat	tion Plac	e		
Time Analyzed	AM P	eak					Peak	Hour Fac	tor		0.91					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_		-									
				_				_								
					Mair	or Street: Ea	st-West									
Vehicle Volumes and Adj	iustma	nte														
	Justilie															
Approach			ound				bound				bound _			_	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	0	1	0		0	0	0		1	0	1
		L	Т					TR						L		R
Configuration	_	l														
Volume (veh/h)		108	158				482	14						1		-
Volume (veh/h) Percent Heavy Vehicles (%)		108 1	158				482	14						1		-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked			158				482	14						0		-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)			158				482	14						0	0	-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized			158				482	14						0	0	-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage		1	158	Left	Only		482	14					1	0		-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	eadwa	1	158	Left	Only		482	14					1	0		-
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	eadwa	1	158	Left	Only		482	14						0		4
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	eadwa	1 ys	158	Left	Only		482	14						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) Critical Headway (sec) Base Follow-Up Headway (sec)	eadwa	1 ys 4.1	158	Left	Only		482	14						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 4.1 4.11	158	Left	Only		482	14						7.1 6.40		6.2 6.2 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)		ys 4.1 4.11 2.2 2.21			Only		482	14						7.1 6.40 3.5		6.2 6.2 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)		ys 4.1 4.11 2.2 2.21			Only		482	14						7.1 6.40 3.5		6.2 6.2 3.3 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		ys 4.1 4.11 2.2 2.21 I of Se			Only		482	14						7.1 6.40 3.5 3.50		6.2 6.2 3.3 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 Flow Rate, v (veh/h)		ys 4.1 4.11 2.2 2.21 l of Sc			Only		482	14						7.1 6.40 3.5 3.50		6.2 6.2 3.3 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 Flow Rate, v (veh/h) Capacity, c (veh/h)		ys 4.1 4.11 2.2 2.21 I of Se 119 1029			Only		482	14						7.1 6.40 3.5 3.50		6.2 6.2 3.3 3.3 26 54 0.0
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		1 4.1 4.11 2.2 2.21 1 of So 119 1029 0.12			Only		482	14						7.1 6.40 3.5 3.50 1 388 0.00		6.2 6.2 3.3 3.3 2e 54 0.0
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 ₉₅ (veh)		1 4.1 4.11 2.2 2.21 1 of Se 119 1029 0.12 0.4			Only		482	14						7.1 6.40 3.5 3.50 1 388 0.00		6.2 6.2 3.3 3.3 26 544 0.0 0.2 12.
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 ₉₅ (veh) Control Delay (s/veh)		1 4.1 4.11 2.2 2.21 1 of Se 119 1029 0.12 0.4 9.0 A			Only		482	14						7.1 6.40 3.5 3.50 1 388 0.00 0.0 14.3 B		6.2 6.2 3.3 3.3 26 544 0.0 0.2 12.
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 ₉₅ (veh) Control Delay (s/veh) Level of Service (LOS)		1 4.1 4.11 2.2 2.21 119 1029 0.12 0.4 9.0 A	ervice		Only		482	14						7.1 6.40 3.5 3.50 1 388 0.00 0.0 14.3 B		6.2 6.2 3.3 3.3 266 540 0.0 0.2 12.1 B

		ŀ	ICS T	Two-	Way	Stop	-Cor	itrol	керс	ort						
General Information							Site	nforr	natio	1						_
Analyst	DBZ						Inters	ection			Tucke	er Station	n at Syca	more Sta	ation Pla	ce
Agency/Co.	Diane	B. Zimr	nerman	Traffic Er	ngineerir	ng LLC	Jurisd	iction								
Date Performed	12/27	/2022					East/\	Vest Stre	et		Tucke	er Station	1			
Analysis Year	2024						North	/South 9	Street		Sycan	nore Stat	tion Plac	e		
Time Analyzed	AM P	eak No I	Build				Peak	Hour Fac	tor		0.91					
Intersection Orientation	East-\	Nest					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_											
						or Street: Ea										
Vehicle Volumes and Adj	ustme	nts														
Approach	Т	Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
Configuration		L	Т					TR						L		R
Volume (veh/h)		110	161				492	14						1		24
	$\overline{}$	-												0		4
Percent Heavy Vehicles (%)	1	1												-		
Percent Heavy Vehicles (%) Proportion Time Blocked		<u> </u>														
															0	
Proportion Time Blocked) lo	
Proportion Time Blocked Percent Grade (%)		1		Left	Only								1			
Proportion Time Blocked Percent Grade (%) Right Turn Channelized	eadwa			Left	Only								1			
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	eadwa			Left	Only								1			6.2
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Ho	eadwa	ys		Left	Only								1	N		\vdash
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec)	eadwa	ys 4.1		Left	Only								1	7.1		6.2
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up House Critical Headway (sec) Critical Headway (sec)	eadwa	ys 4.1 4.11		Left	Only								1	7.1 6.40		6.2 ⁴ 3.3
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up House Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)		ys 4.1 4.11 2.2 2.21	ervice		Only									7.1 6.40 3.5		6.24 3.3
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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		Only									7.1 6.40 3.5		6.24 3.3 3.34
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Homeonic Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and		ys 4.1 4.11 2.2 2.21 I of So	ervice		Only									7.1 6.40 3.5 3.50		6.2 ⁴ 3.3 3.3 ⁴
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Home 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)		ys 4.1 4.11 2.2 2.21 I of So	ervice		Only									7.1 6.40 3.5 3.50		6.24 3.3 3.34 26 532
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up 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)		ys 4.1 4.11 2.2 2.21 I of So 121 1020	ervice		Only									7.1 6.40 3.5 3.50		6.2 6.2 ⁴ 3.3 3.3 ⁴ 26 532 0.05 0.2
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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		4.1 4.11 2.2 2.21 1 of So 121 1020 0.12	ervice		Only									7.1 6.40 3.5 3.50 1 382 0.00		6.24 3.3 3.34 26 532 0.05
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Homeonic 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, Qas (veh)		4.1 4.11 2.2 2.21 I of Se 121 1020 0.12 0.4	ervice		Only									7.1 6.40 3.5 3.50 1 382 0.00 0.0		6.24 3.3 3.34 26 532 0.05
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Home 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, Qas (veh) Control Delay (s/veh)		ys 4.1 4.11 2.2 2.21 l of So 121 1020 0.12 0.4 9.0 A	ervice		Only									7.1 6.40 3.5 3.50 1 382 0.00 0.0 14.5 B		6.24 3.3 3.34 26 532 0.05 0.2
Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Pollow-Up Headway (sec) Delay, Queue Length, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Qas (veh) Control Delay (s/veh) Level of Service (LOS)		ys 4.1 4.11 2.2 2.21 l of So 121 1020 0.12 0.4 9.0 A			Only									7.1 6.40 3.5 3.50 1 382 0.00 0.0 14.5 B		6.2 ⁴ 3.3 3.3 ⁴ 26 532 0.05 0.2 12.1

Diane B. Zimmerman

		ŀ	ICS T	wo-	way	Stop	-COI	itrol	Repo	ort						
General Information							Site	Inform	natio	1						_
Analyst	DBZ						Inters	ection			Tucke	er Station	n at Syca	more Sta	ation Pla	ce
Agency/Co.	Diane	B. Zimn	nerman i	Traffic Er	ngineerin	ng LLC	Jurisd	iction								
Date Performed	_	7/2022					East/\	Nest Stre	eet		Tucke	r Statior	1			
Analysis Year	2024						North	/South 9	Street		Sycan	nore Stat	tion Plac	e		
Time Analyzed	AM P	eak Build	<u> </u>				Peak	Hour Fac	tor		0.91					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					Majo	or Street: Ea	st-West									
Vehicle Volumes and Adj	ustme	nts														
Approach	Т	Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
Configuration		L	Т					TR						L		R
Volume (veh/h)		135	162				498	37						4		28
Percent Heavy Vehicles (%)		1												0		4
Proportion Time Blocked															_	
Proportion Time Blocked Percent Grade (%)															0	
															0 10	
Percent Grade (%) Right Turn Channelized Median Type Storage				Left	Only								1			
Percent Grade (%) Right Turn Channelized	adwa	ys		Left	Only								1			
Percent Grade (%) Right Turn Channelized Median Type Storage	adwa	ys 4.1		Left	Only								1			6.2
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He	eadwa	_		Left	Only								1	N		-
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec)	adwa	4.1		Left	Only								1	7.1		6.2
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec)	eadwa	4.1 4.11		Left	Only								1	7.1 6.40		6.2 3.3
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)		4.1 4.11 2.2 2.21	ervice		Only								1	7.1 6.40 3.5		6.2 3.3
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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									7.1 6.40 3.5		6.2- 3.3 3.3-
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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	ervice		Only									7.1 6.40 3.5 3.50		6.24 3.3 3.34
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 I of Se	ervice		Only									7.1 6.40 3.5 3.50		6.2 6.2 3.3 3.3 3.3 519
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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)		4.1 4.11 2.2 2.21 I of Se 148 992	ervice		Only								1	7.1 6.40 3.5 3.50 4 352		3.3 3.3 3.3 3.1 519 0.00
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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		4.1 4.11 2.2 2.21 1 of Se 148 992 0.15	ervice		Only									7.1 6.40 3.5 3.50 4 352 0.01		6.24 3.3 3.34 31 519 0.00
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 ₉₅ (veh)		4.1 4.11 2.2 2.21 I of So 148 992 0.15 0.5	ervice		Only									7.1 6.40 3.5 3.50 4 352 0.01 0.0		6.24 3.3 3.34 31 519
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 ₉₅ (veh) Control Delay (s/veh)		4.1 4.11 2.2 2.21 1 of So 148 992 0.15 0.5 9.3 A	ervice		Only									7.1 6.40 3.5 3.50 4 352 0.01 0.0 15.4		6.24 3.3 3.34 31 519 0.00 0.2
Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 ₉₅ (veh) Control Delay (s/veh) Level of Service (LOS)		4.1 4.11 2.2 2.21 1 of So 148 992 0.15 0.5 9.3 A			Only									7.1 6.40 3.5 3.50 4 352 0.01 0.0 15.4 C		6.24 3.3 3.34 31 519 0.00 0.2

		ŀ	HCS T	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information	_						Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Tucke	er Station	n at Syca	more St	ation Pla	ice
Agency/Co.	Diane	B. Zimn	nerman i	Traffic Er	ngineerin	ng LLC	Juriso	liction								
Date Performed	12/27	7/2022					East/\	Nest Str	eet		Tucke	er Station	n			
Analysis Year	2022						North	/South	Street		Sycar	nore Star	tion Plac	e		
Time Analyzed	PM P	eak					Peak	Hour Fac	tor		0.95					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_											_
Vehicle Volumes and Adj	ustme	nts			Majo	or Street: Ea	st-West									
Approach	Т	Eastb	ound		П	West	bound		Π	North	bound		Г	South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
		_	_			-	_	_							_	
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
	0	1 L	1 T	0	0	0	1	0 TR		0	0	0		1 L	0	R
Number of Lanes	0			0	0	0	230	-		0	0	0		-	0	-
Number of Lanes Configuration	0	L	T	0	0	0		TR		0	0	0		L	0	R
Number of Lanes Configuration Volume (veh/h)	0	L 69	T	0	0	0		TR		0	0	0		L 11	0	R 131
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%)	0	L 69	T	0	0	0		TR		0	0	0		L 11	0	R 131
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked	0	L 69	T	0	0	0		TR		0	0	0		L 11 0		R 131
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)	0	L 69	T		Only	0		TR		0	0		1	L 11 0	0	R 131
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized		L 69 3	T			0		TR		0	0		1	L 11 0	0	R 131
Number of Lanes Configuration Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage		L 69 3	T			0		TR		0	0		1	L 11 0	0	R 131
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 He		69 3	T			0		TR		0	0		1	L 11 0	0	R 131 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 He Base Critical Headway (sec)		L 69 3	T			0		TR		0	0		1	L 11 0	0	R 131 2 6.2 6.2 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 He Base Critical Headway (sec) Critical Headway (sec)		ys 4.1 4.13	T			0		TR		0	0		1	L 11 0 7.1 6.40	0	6.2 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	eadwa	ys 4.1 4.13 2.2 2.23	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5	0	R 131 2 6.2 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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)	eadwa	ys 4.1 4.13 2.2 2.23	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5	0	6.22 6.22 3.33
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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and	eadwa	ys 4.1 4.13 2.2 2.23	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5 3.50	0	6.22 6.22 3.33 3.32
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 He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and	eadwa	ys 4.1 4.13 2.2 2.23 I of Se	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5 3.50	0	R 131
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 He 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)	eadwa	ys 4.1 4.13 2.2 2.23 I of Se 73 1315	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5 3.50	0	6.22 6.22 3.3 3.32 138 795 0.17
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 He 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	eadwa	ys 4.1 4.13 2.2 2.23 l of Sc 73 1315 0.06	T 648	Left		0		TR		0	0		1	7.1 6.40 3.5 3.50	0	6.22 6.22 3.33 3.32 1388 7989 0.111
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 He 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, Qas (veh)	eadwa	ys 4.1 4.13 2.2 2.23 l of Sc 73 1315 0.06 0.2	T 648	Left		0		TR		0			1	7.1 6.40 3.5 3.50 12 335 0.03 0.1	0	6.2 6.2 3.3 3.3 3.32
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 He 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) y/c Ratio 95% Queue Length, Q ₉₅ (veh) Control Delay (s/veh)	eadwa	ys 4.1 4.13 2.2 2.23 I of Se 73 1315 0.06 0.2 7.9 A	T 648	Left		0		TR		0				7.1 6.40 3.5 3.50 12 335 0.03 0.1 16.1 C	0	6.22 6.22 3.3 3.3 2 138 795 0.17 0.6 10.5

		ľ	HCS	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Tucke	r Station	n at Syca	more Sta	ation Pla	ce
Agency/Co.	Diane	B. Zimr	nerman	Traffic Er	ngineerin	ng LLC	Jurisd	liction								
Date Performed	12/27	/2022					East/\	West Stre	eet		Tucke	r Statior	1			
Analysis Year	2024						North	/South S	Street		Sycan	nore Stat	tion Plac	e		
Time Analyzed	PM P	eak No E	Build				Peak	Hour Fac	tor		0.95					
Intersection Orientation	East-	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
						or Street: Ea										
Vehicle Volumes and Adj	justme	nts														
Approach	T	Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
		L	Т					TR						L		R
Configuration							225	3					_			13
Configuration Volume (veh/h)		70	661				235	3						11		
	\vdash	70 3	661				235	3						0		2
Volume (veh/h)			661				235	3								2
Volume (veh/h) Percent Heavy Vehicles (%)			661				235	3						0	0	2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked			661				235	3						0	0	2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)			661	Left	Only		235	3					1	0		2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized	eadwa	3	661	Left	Only		235	3					1	0		2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage	eadwa	3	661	Left	Only		235	3					1	0		
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up H	eadwa	ys	661	Left	Only		235	3					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)	eadwa	3 ys 4.1	661	Left	Only		235						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 4.1 4.13	661	Left	Only		235	3					1	7.1 6.40		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)		ys 4.1 4.13 2.2 2.23			Only		235	3					1	7.1 6.40 3.5		6.2 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)		ys 4.1 4.13 2.2 2.23			Only		235	3						7.1 6.40 3.5		6.2 6.2 3.3 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		ys 4.1 4.13 2.2 2.23 I of Se			Only		235							7.1 6.40 3.5 3.50		6.2 6.2 3.3 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 Flow Rate, v (veh/h)		ys 4.1 4.13 2.2 2.23 I of So 74			Only		235						1	7.1 6.40 3.5 3.50		6.2 6.2 3.3 3.3 14
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)		ys 4.1 4.13 2.2 2.23 I of Se 74 1309			Only		235						1	7.1 6.40 3.5 3.50		6.2 6.2 3.3 3.3 14 790 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, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio		3 4.1 4.13 2.2 2.23 1 of So 74 1309 0.06			Only		235							7.1 6.40 3.5 3.50 12 329 0.04		6.2 6.2 3.3 3.3 14 79 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, an Flow Rate, v (veh/h) Capacity, c (veh/h) v/c Ratio 95% Queue Length, Q ₉₅ (veh)		3 4.1 4.13 2.2 2.23 I of Se 74 1309 0.06 0.2			Only		235							7.1 6.40 3.5 3.50 12 329 0.04 0.1		6.2 6.2 3.3 3.3 14 790 0.1 0.6 10.
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 ₉₅ (veh) Control Delay (s/veh)		3 4.1 4.13 2.2 2.23 1 of So 74 1309 0.06 0.2 7.9 A			Only		235						1	7.1 6.40 3.5 3.50 12 329 0.04 0.1 16.3 C		6.2 3.3 3.3 14 79 0.1 0.6 10.
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 ₉₅ (veh) Control Delay (s/veh) Level of Service (LOS)		ys 4.1 4.13 2.2 2.23 1 of So 74 1309 0.06 0.2 7.9 A	ervice		Only		235							7.1 6.40 3.5 3.50 12 329 0.04 0.1 16.3 C		6.2 6.2 3.5 3.3 3.3 144 790 0.1 0.6 10. B

Diane B. Zimmerman

Traffic Engineering, LLC. Page 20

		ŀ	ICS T	Two-	Way	Stop	-Cor	ntrol	Repo	ort						
General Information							Site	Inforr	natio	n						
Analyst	DBZ						Inters	ection			Tucke	er Station	n at Syca	more Sta	ation Pla	ice
Agency/Co.	Diane	B. Zimn	nerman i	Traffic Er	ngineerin	ng LLC	Juriso	liction								
Date Performed	12/27	/2022					East/\	Nest Str	eet		Tucke	er Station	1			
Analysis Year	2024						North	/South	Street		Sycan	nore Star	tion Plac	e		
Time Analyzed	PM Pe	eak Build	i				Peak	Hour Fac	tor		0.95					
Intersection Orientation	East-\	West					Analy	sis Time	Period (hrs)	0.25					
Project Description	Farm	Credit														
Lanes																
					_											
						or Street: Ea										
Vehicle Volumes and Adj	ustme	nts														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
									_							
Configuration		L	Т					TR						L		R
Volume (veh/h)		75	T 666				236	TR 8						33		157
Volume (veh/h) Percent Heavy Vehicles (%)		_	_				236							-		_
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked		75	_				236							33		157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%)		75	_				236							33	0	157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized		75	_				236							33	0	157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage		75 3	_	Left	Only		236						1	33		157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He	eadwa	75 3	_	Left	Only		236						1	33 0		157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec)	eadwa	75 3 ys 4.1	_	Left	Only		236						1	33 0 N		157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec)	eadwa	75 3 ys 4.1 4.13	_	Left	Only		236						1	7.1 6.40		157 2 6.2 6.2
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)	eadwa	75 3 ys 4.1 4.13 2.2	_	Left	Only		236							7.1 6.40 3.5		6.2 6.22 3.3
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		75 3 ys 4.1 4.13 2.2 2.23	666		Only		236							7.1 6.40		6.2 6.22 3.3
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)		75 3 ys 4.1 4.13 2.2 2.23	666		Only		236						1	7.1 6.40 3.5		6.2 6.22 3.3
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)		75 3 ys 4.1 4.13 2.2 2.23	666		Only		236							7.1 6.40 3.5		6.22 6.22 3.3 3.32
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec) Delay, Queue Length, and		75 3 ys 4.1 4.13 2.2 2.23	666		Only		236							7.1 6.40 3.5 3.50		6.2 6.22 3.3 3.32
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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)		75 3 ys 4.1 4.13 2.2 2.23 I of So	666		Only		236							7.1 6.40 3.5 3.50		6.2 6.2 3.3 3.3 786
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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)		75 3 ys 4.1 4.13 2.2 2.23 I of Se 79 1302	666		Only		236							7.1 6.40 3.5 3.50		157
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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		75 3 ys 4.1 4.13 2.2 2.23 l of So 79 1302 0.06	666		Only		236							7.1 6.40 3.5 3.50 35 322 0.11		6.22 6.22 3.33 3.32 165 786 0.21
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 ₉₅ (veh)		75 3 4.1 4.13 2.2 2.23 1 of Se 79 1302 0.06 0.2	666		Only		236							7.1 6.40 3.5 3.50 35 322 0.11		6.2 6.22 3.3 3.32 165 786 0.21
Volume (veh/h) Percent Heavy Vehicles (%) Proportion Time Blocked Percent Grade (%) Right Turn Channelized Median Type Storage Critical and Follow-up He 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 ₉₅ (veh) Control Delay (s/veh)		75 3 4.1 4.13 2.2 2.23 I of Se 79 1302 0.06 0.2 7.9 A	666		Only		236							33 0 7.1 6.40 3.5 3.50 35 322 0.11 0.4 17.5 C		6.22 6.22 3.3 3.3 2.2 165 786 0.21 0.8