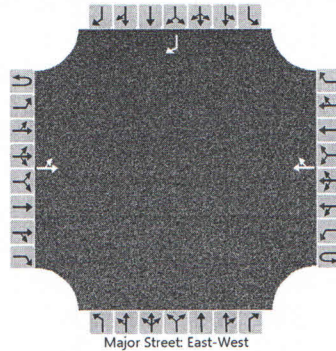


HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	B Stimmel	Intersection	ernston road/west driveway (d1)
Agency/Co.	Stimmel Engineering	Jurisdiction	
Date Performed	4/1/2025	East/West Street	ernston road
Analysis Year	2025	North/South Street	west driveway
Time Analyzed	weekday morning	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	216 ernston road - sayreville, nj		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration		LT						TR								R
Volume (veh/h)		8	283				363	3								13
Percent Heavy Vehicles (%)		0														0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.2
Critical Headway (sec)		4.10														6.20
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.20														3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		9														14
Capacity, c (veh/h)		1163														650
v/c Ratio		0.01														0.02
95% Queue Length, Q ₉₅ (veh)		0.0														0.1
Control Delay (s/veh)		8.1	0.1													10.7
Level of Service (LOS)		A	A													B
Approach Delay (s/veh)	0.3												10.7			
Approach LOS	A												B			

HCS Two-Way Stop-Control Report

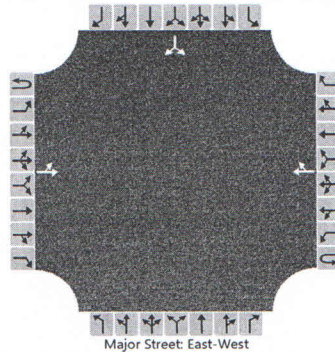
General Information

Analyst	B Stimmel
Agency/Co.	Stimmel Engineering
Date Performed	4/1/2025
Analysis Year	2025
Time Analyzed	weekday morning
Intersection Orientation	East-West
Project Description	216 ernston road - sayreville, nj

Site Information

Intersection	ernston road/east driveway (d2)
Jurisdiction	
East/West Street	ernston road
North/South Street	east driveway
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		5	278				361	7						5		5
Percent Heavy Vehicles (%)		0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type Storage																

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.10												6.40		6.20
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.20												3.50		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6													11	
Capacity, c (veh/h)		1161													490	
v/c Ratio		0.00													0.02	
95% Queue Length, Q ₉₅ (veh)		0.0													0.1	
Control Delay (s/veh)		8.1	0.0												12.5	
Level of Service (LOS)		A	A												B	
Approach Delay (s/veh)		0.2												12.5		
Approach LOS		A												B		

HCS Two-Way Stop-Control Report

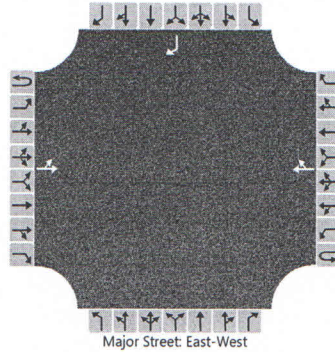
General Information

Analyst	B Stimmel
Agency/Co.	Stimmel Engineering
Date Performed	4/1/2025
Analysis Year	2025
Time Analyzed	weekday evening
Intersection Orientation	East-West
Project Description	216 ernston road - sayreville, nj

Site Information

Intersection	ernston road/west driveway (d1)
Jurisdiction	
East/West Street	ernston road
North/South Street	west driveway
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration		LT						TR								R
Volume (veh/h)		27	708				797	12								13
Percent Heavy Vehicles (%)		0														0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.2
Critical Headway (sec)		4.10														6.20
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.20														3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		30														14
Capacity, c (veh/h)		764														344
v/c Ratio		0.04														0.04
95% Queue Length, Q ₉₅ (veh)		0.1														0.1
Control Delay (s/veh)		9.9	0.7													15.9
Level of Service (LOS)		A	A													C
Approach Delay (s/veh)	1.0												15.9			
Approach LOS	A												C			

HCS Two-Way Stop-Control Report

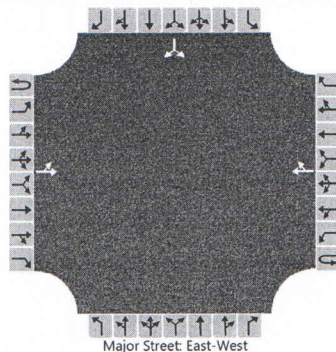
General Information

Analyst	B Stimmel
Agency/Co.	Stimmel Engineering
Date Performed	4/1/2025
Analysis Year	2025
Time Analyzed	weekday evening
Intersection Orientation	East-West
Project Description	216 ernston road - sayreville, nj

Site Information

Intersection	ernston road/east driveway (d2)
Jurisdiction	
East/West Street	ernston road
North/South Street	east driveway
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		15	693				804	23						5		5
Percent Heavy Vehicles (%)		0												0		0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type Storage																

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.10												6.40		6.20
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.20												3.50		3.30

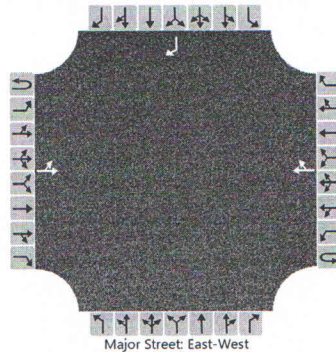
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17													11	
Capacity, c (veh/h)		751													151	
v/c Ratio		0.02													0.07	
95% Queue Length, Q ₉₅ (veh)		0.1													0.2	
Control Delay (s/veh)		9.9	0.4												30.8	
Level of Service (LOS)		A	A												D	
Approach Delay (s/veh)		0.6												30.8		
Approach LOS		A												D		

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	B Stimmel	Intersection	ernston road/west driveway (d1)
Agency/Co.	Stimmel Engineering	Jurisdiction	
Date Performed	4/1/2025	East/West Street	ernston road
Analysis Year	2025	North/South Street	west driveway
Time Analyzed	friday noon	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	216 ernston road - sayreville, nj		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration		LT						TR								R
Volume (veh/h)		38	635				779	16								59
Percent Heavy Vehicles (%)		0														0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.2
Critical Headway (sec)		4.10														6.20
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.20														3.30

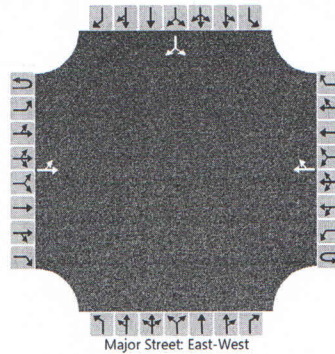
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		42														66
Capacity, c (veh/h)		774														352
v/c Ratio		0.05														0.19
95% Queue Length, Q ₉₅ (veh)		0.2														0.7
Control Delay (s/veh)		9.9	0.9													17.6
Level of Service (LOS)		A	A													C
Approach Delay (s/veh)	1.4												17.6			
Approach LOS	A												C			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	B Stimmel	Intersection	ernston road/east driveway (d2)
Agency/Co.	Stimmel Engineering	Jurisdiction	
Date Performed	4/1/2025	East/West Street	ernston road
Analysis Year	2025	North/South Street	west driveway
Time Analyzed	friday noon	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	216 ernston road - sayreville, nj		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		21	614				768	32						21		27
Percent Heavy Vehicles (%)		0												0		0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

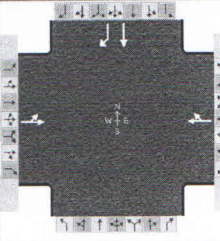
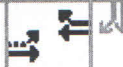
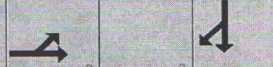
Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.10												6.40		6.20
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.20												3.50		3.30

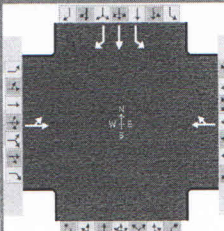
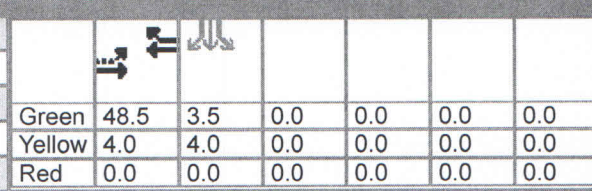
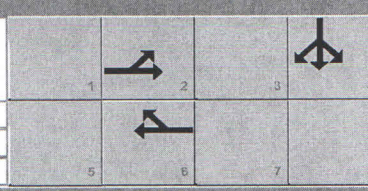
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		23													53	
Capacity, c (veh/h)		771													182	
v/c Ratio		0.03													0.29	
95% Queue Length, Q ₉₅ (veh)		0.1													1.2	
Control Delay (s/veh)		9.8	0.5												32.8	
Level of Service (LOS)		A	A												D	
Approach Delay (s/veh)	0.8												32.8			
Approach LOS	A												D			

HCS Signalized Intersection Results Summary

General Information							Intersection Information								
Agency							Duration, h		0.250						
Analyst				Analysis Date		4/1/2025		Area Type		Other					
Jurisdiction				Time Period				PHF		1.00					
Urban Street		ernston road		Analysis Year		2025		Analysis Period		1> 7:00					
Intersection		ernston road/west drive...		File Name		d1 friday b.xus									
Project Description															
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				38	635			779	16					0	59
Signal Information															
Cycle, s	60.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	48.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2		6				4				
Case Number					8.0		8.0				11.0				
Phase Duration, s					52.2		52.2				7.8				
Change Period, (Y+R c), s					4.0		4.0				4.0				
Max Allow Headway (MAH), s					0.0		0.0				3.4				
Queue Clearance Time (g s), s											4.1				
Green Extension Time (g e), s					0.0		0.0				0.1				
Phase Call Probability											0.63				
Max Out Probability											0.00				
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				5	2			6	16					4	14
Adjusted Flow Rate (v), veh/h					673			795					0	59	
Adjusted Saturation Flow Rate (s), veh/h/ln					1812			1893					1900	1610	
Queue Service Time (g s), s					0.0			8.5					0.0	2.1	
Cycle Queue Clearance Time (g c), s					6.4			8.5					0.0	2.1	
Green Ratio (g/C)					0.80			0.80					0.06	0.06	
Capacity (c), veh/h					1520			1522					119	101	
Volume-to-Capacity Ratio (X)					0.443			0.522					0.000	0.585	
Back of Queue (Q), ft/ln (95 th percentile)															
Back of Queue (Q), veh/ln (95 th percentile)					1.0			1.4					0.0	1.5	
Queue Storage Ratio (RQ) (95 th percentile)					0.00			0.00					0.00	0.00	
Uniform Delay (d 1), s/veh					1.8			2.0					0.0	27.4	
Incremental Delay (d 2), s/veh					0.9			1.3					0.0	2.0	
Initial Queue Delay (d 3), s/veh					0.0			0.0					0.0	0.0	
Control Delay (d), s/veh					2.7			3.3					0.0	29.4	
Level of Service (LOS)					A			A							C
Approach Delay, s/veh / LOS				2.7	A	3.3	A	0.0		29.4	C				
Intersection Delay, s/veh / LOS				4.0						A					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.29	A	1.58	B	1.71	B	1.71	B				
Bicycle LOS Score / LOS				1.60	B	1.80	B			0.58	A				

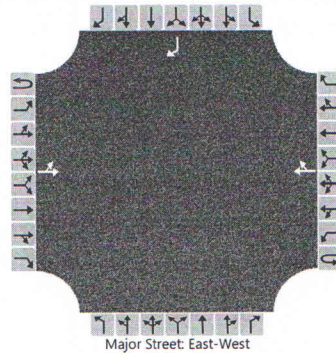
HCS Signalized Intersection Results Summary

General Information						Intersection Information											
Agency						Duration, h		0.250									
Analyst						Analysis Date		4/1/2025		Area Type						Other	
Jurisdiction						Time Period				PHF						0.90	
Urban Street		ernston road		Analysis Year		2025		Analysis Period		1> 7:00							
Intersection		ernston road/east drive...		File Name		d2 friday b.xus											
Project Description																	
Demand Information						EB			WB			NB			SB		
Approach Movement						L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h						21	614			768	32				21	0	27
Signal Information																	
Cycle, s	60.0	Reference Phase	2														
Offset, s	0	Reference Point	End														
Uncoordinated	No	Simult. Gap E/W	On														
Force Mode	Fixed	Simult. Gap N/S	On														
						Green	48.5	3.5	0.0	0.0	0.0	0.0					
						Yellow	4.0	4.0	0.0	0.0	0.0	0.0					
						Red	0.0	0.0	0.0	0.0	0.0	0.0					
Timer Results						EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase							2		6				4				
Case Number							8.0		8.0				9.0				
Phase Duration, s							52.5		52.5				7.5				
Change Period, (Y+R _c), s							4.0		4.0				4.0				
Max Allow Headway (MAH), s							0.0		0.0				3.3				
Queue Clearance Time (g _s), s													3.1				
Green Extension Time (g _e), s							0.0		0.0				0.1				
Phase Call Probability													0.59				
Max Out Probability													0.00				
Movement Group Results						EB			WB			NB			SB		
Approach Movement						L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement						5	2			6	16				7	4	14
Adjusted Flow Rate (v), veh/h							706			889					23	0	30
Adjusted Saturation Flow Rate (s), veh/h/ln							1851			1886					1810	1900	1610
Queue Service Time (g _s), s							0.0			10.3					0.7	0.0	1.1
Cycle Queue Clearance Time (g _c), s							6.8			10.3					0.7	0.0	1.1
Green Ratio (g/C)							0.81			0.81					0.06	0.06	0.06
Capacity (c), veh/h							1557			1524					107	112	95
Volume-to-Capacity Ratio (X)							0.453			0.583					0.219	0.000	0.316
Back of Queue (Q), ft/ln (95 th percentile)																	
Back of Queue (Q), veh/ln (95 th percentile)							1.0			1.6					0.6	0.0	0.7
Queue Storage Ratio (RQ) (95 th percentile)							0.00			0.00					0.00	0.00	0.00
Uniform Delay (d ₁), s/veh							1.8			2.1					26.9	0.0	27.1
Incremental Delay (d ₂), s/veh							1.0			1.6					0.4	0.0	0.7
Initial Queue Delay (d ₃), s/veh							0.0			0.0					0.0	0.0	0.0
Control Delay (d), s/veh							2.7			3.7					27.3	0.0	27.8
Level of Service (LOS)							A			A					C		C
Approach Delay, s/veh / LOS						2.7	A	3.7	A	0.0		27.6	C				
Intersection Delay, s/veh / LOS						4.1						A					
Multimodal Results						EB			WB			NB			SB		
Pedestrian LOS Score / LOS						1.28	A	1.80	B	1.71	B	1.71	B				
Bicycle LOS Score / LOS						1.65	B	1.95	B			0.58	A				

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	B Stimmel	Intersection	ernston road/west driveway (d1)
Agency/Co.	Stimmel Engineering	Jurisdiction	
Date Performed	4/1/2025	East/West Street	ernston road
Analysis Year	2025	North/South Street	west driveway
Time Analyzed	saturday morning	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	216 ernston road - sayreville, nj		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration		LT						TR								R
Volume (veh/h)		19	739				764	8								29
Percent Heavy Vehicles (%)		0														0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.2
Critical Headway (sec)		4.10														6.20
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.20														3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		21														32
Capacity, c (veh/h)		792														362
v/c Ratio		0.03														0.09
95% Queue Length, Q ₉₅ (veh)		0.1														0.3
Control Delay (s/veh)		9.7	0.5													15.9
Level of Service (LOS)		A	A													C
Approach Delay (s/veh)	0.7												15.9			
Approach LOS	A												C			

HCS Two-Way Stop-Control Report

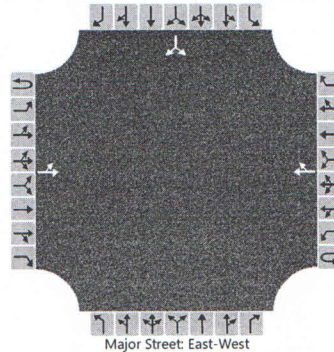
General Information

Analyst	B Stimmel
Agency/Co.	Stimmel Engineering
Date Performed	4/1/2025
Analysis Year	2025
Time Analyzed	saturday morning
Intersection Orientation	East-West
Project Description	216 ernston road - sayreville, nj

Site Information

Intersection	ernston road/east driveway (d2)
Jurisdiction	
East/West Street	ernston road
North/South Street	east driveway
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
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
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		10	729				759	16						11		13
Percent Heavy Vehicles (%)		0												0		0
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.10												6.40		6.20
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.20												3.50		3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		11													27	
Capacity, c (veh/h)		789													167	
v/c Ratio		0.01													0.16	
95% Queue Length, Q ₉₅ (veh)		0.0													0.6	
Control Delay (s/veh)		9.6	0.2												30.6	
Level of Service (LOS)		A	A												D	
Approach Delay (s/veh)	0.4												30.6			
Approach LOS	A												D			