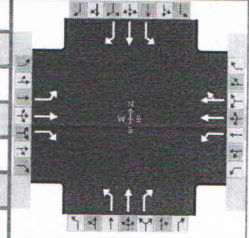


# HCS Signalized Intersection Results Summary

## General Information

Agency				Intersection Information	
Analyst		Analysis Date	Sep 27, 2024	Duration, h	0.250
Jurisdiction		Time Period		Area Type	Other
Urban Street		Analysis Year		PHF	0.98
Intersection	Ernston Road/Bordento...	File Name	i1 friday existing.xus	Analysis Period	1> 7:00
Project Description	ernston road - friday existing				



## Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	144	379	107	157	457	99	173	354	181	43	318	123

## Signal Information

Cycle, s	131.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	18.0	38.0	19.0	40.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	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	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	22.0	42.0	22.0	42.0	23.0	44.0	23.0	44.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	8.9	26.7	9.5	19.7	10.1	24.2	3.8	21.5
Green Extension Time (g <sub>e</sub> ), s	0.2	1.8	0.2	2.0	0.2	1.9	0.0	1.9
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.00	0.07	0.00	0.01	0.00	0.01	0.00	0.01

## Movement Group Results

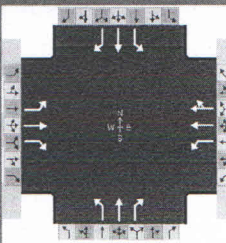
Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	147	387	109	160	291	276	177	361	185	44	324	126
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1404	1753	1841	1727	1753	1841	1560	1753	1841	1560
Queue Service Time (g <sub>s</sub> ), s	6.9	24.7	7.8	7.5	17.5	17.7	8.1	22.2	12.2	1.8	19.5	8.0
Cycle Queue Clearance Time (g <sub>c</sub> ), s	6.9	24.7	7.8	7.5	17.5	17.7	8.1	22.2	12.2	1.8	19.5	8.0
Green Ratio (g/C)	0.43	0.29	0.29	0.43	0.29	0.29	0.45	0.31	0.31	0.45	0.31	0.31
Capacity (c), veh/h	412	534	407	380	534	501	456	562	476	430	562	476
Volume-to-Capacity Ratio (X)	0.357	0.724	0.268	0.421	0.545	0.551	0.387	0.643	0.388	0.102	0.577	0.264
Back of Queue (Q), ft/ln (50 th percentile)												
Back of Queue (Q), veh/ln (50 th percentile)	2.9	11.7	2.7	3.1	8.0	7.6	3.3	10.3	4.7	0.8	8.9	3.0
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d <sub>1</sub> ), s/veh	25.2	41.8	35.8	26.9	39.2	39.3	24.1	39.3	35.9	22.6	38.4	34.4
Incremental Delay (d <sub>2</sub> ), s/veh	0.2	4.2	0.1	0.3	0.7	0.8	0.2	2.0	0.2	0.0	1.0	0.1
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.4	46.0	35.9	27.2	39.9	40.1	24.3	41.3	36.0	22.7	39.3	34.5
Level of Service (LOS)	C	D	D	C	D	D	C	D	D	C	D	C
Approach Delay, s/veh / LOS	39.6	D		37.1	D		35.8	D			36.6	D
Intersection Delay, s/veh / LOS	37.3						D					

## Multimodal Results

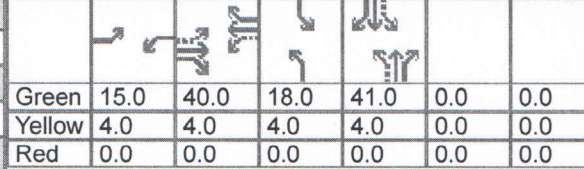
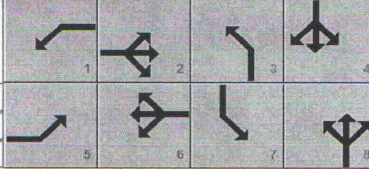
	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.13	B		2.13	B		2.13	B			2.30	B
Bicycle LOS Score / LOS	1.55	B		1.09	A		1.68	B			1.30	A



# HCS Signalized Intersection Results Summary

General Information				Intersection Information					
Agency		Duration, h	0.250						
Analyst		Analysis Date	Sep 27, 2024					Area Type	Other
Jurisdiction		Time Period						PHF	0.99
Urban Street		Analysis Year	2023					Analysis Period	1 > 7:00
Intersection	Ernstn Road/Bordento...	File Name	i1 sunday existing.xus						
Project Description	ernstn road - sunday existing								

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	140	387	58	145	467	77	145	413	194	53	343	147

Signal Information												
Cycle, s	130.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	15.0	40.0	18.0	41.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	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	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	19.0	44.0	19.0	44.0	22.0	45.0	22.0	45.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	8.6	26.3	8.8	18.4	8.5	28.1	4.2	22.6
Green Extension Time (g <sub>e</sub> ), s	0.1	1.8	0.1	1.9	0.2	2.0	0.0	2.2
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.02	0.02	0.03	0.00	0.00	0.05	0.00	0.01

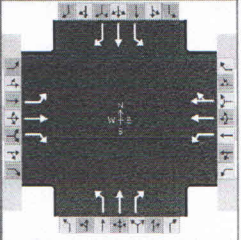
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	141	391	59	146	280	269	146	417	196	54	346	148
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1560	1753	1841	1750	1753	1841	1560	1753	1841	1560
Queue Service Time (g <sub>s</sub> ), s	6.6	24.3	3.5	6.8	16.2	16.4	6.5	26.1	12.8	2.2	20.6	9.4
Cycle Queue Clearance Time (g <sub>c</sub> ), s	6.6	24.3	3.5	6.8	16.2	16.4	6.5	26.1	12.8	2.2	20.6	9.4
Green Ratio (g/C)	0.42	0.31	0.31	0.42	0.31	0.31	0.45	0.32	0.32	0.45	0.32	0.32
Capacity (c), veh/h	398	566	480	361	566	538	442	581	492	393	581	492
Volume-to-Capacity Ratio (X)	0.355	0.690	0.122	0.406	0.495	0.500	0.331	0.719	0.398	0.136	0.597	0.302
Back of Queue (Q), ft/ln (50 th percentile)												
Back of Queue (Q), veh/ln (50 th percentile)	2.7	11.3	1.3	2.8	7.3	7.0	2.7	12.2	4.9	0.9	9.4	3.6
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d <sub>1</sub> ), s/veh	25.1	39.6	32.4	26.7	36.8	36.8	23.5	39.4	34.8	23.2	37.5	33.7
Incremental Delay (d <sub>2</sub> ), s/veh	0.2	3.0	0.0	0.3	0.2	0.3	0.2	3.7	0.2	0.1	1.2	0.1
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.3	42.5	32.4	27.0	37.0	37.1	23.6	43.1	35.0	23.3	38.7	33.8
Level of Service (LOS)	C	D	C	C	D	D	C	D	D	C	D	C
Approach Delay, s/veh / LOS	37.4		D	34.9		C	37.3		D	35.9		D
Intersection Delay, s/veh / LOS	36.4						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.13		B	2.13		B	2.13		B	2.29		B
Bicycle LOS Score / LOS	1.46		A	1.06		A	1.74		B	1.39		A



# HCS Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.250		
Analyst		Analysis Date	Sep 27, 2024	Area Type	Other		
Jurisdiction		Time Period		PHF	0.98		
Urban Street		Analysis Year		Analysis Period	1> 7:00		
Intersection	Ernstn Road/Bordento...	File Name	i1 friday no build.xus				
Project Description	ernston road - friday no build						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	152	400	113	166	482	105	183	374	191	45	336	130

Signal Information												
Cycle, s	131.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	18.0	38.0	19.0	40.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	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	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	22.0	42.0	22.0	42.0	23.0	44.0	23.0	44.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	9.3	28.5	10.0	20.9	10.6	25.8	3.9	22.8
Green Extension Time (g <sub>e</sub> ), s	0.2	1.8	0.2	2.1	0.2	2.0	0.0	2.0
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.00	0.14	0.01	0.01	0.00	0.03	0.00	0.01

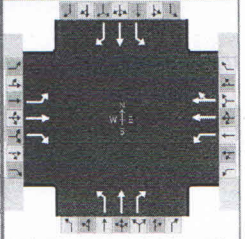
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	155	408	115	169	308	291	187	382	195	46	343	133
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1560	1753	1841	1726	1753	1841	1560	1753	1841	1560
Queue Service Time (g <sub>s</sub> ), s	7.3	26.5	7.4	8.0	18.7	18.9	8.6	23.8	13.0	1.9	20.8	8.5
Cycle Queue Clearance Time (g <sub>c</sub> ), s	7.3	26.5	7.4	8.0	18.7	18.9	8.6	23.8	13.0	1.9	20.8	8.5
Green Ratio (g/C)	0.43	0.29	0.29	0.43	0.29	0.29	0.45	0.31	0.31	0.45	0.31	0.31
Capacity (c), veh/h	401	534	452	366	534	501	443	562	476	416	562	476
Volume-to-Capacity Ratio (X)	0.387	0.764	0.255	0.463	0.576	0.582	0.421	0.679	0.409	0.110	0.610	0.278
Back of Queue (Q), ft/ln (50 th percentile)												
Back of Queue (Q), veh/ln (50 th percentile)	3.0	12.8	2.8	3.3	8.5	8.1	3.5	11.1	5.0	0.8	9.6	3.2
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d <sub>1</sub> ), s/veh	25.6	42.4	35.6	27.5	39.6	39.7	24.6	39.9	36.1	23.0	38.8	34.5
Incremental Delay (d <sub>2</sub> ), s/veh	0.2	5.9	0.1	0.3	1.0	1.1	0.2	2.7	0.2	0.0	1.4	0.1
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.8	48.3	35.8	27.9	40.6	40.9	24.8	42.6	36.3	23.0	40.2	34.7
Level of Service (LOS)	C	D	D	C	D	D	C	D	D	C	D	C
Approach Delay, s/veh / LOS	41.0	D		37.9	D		36.6	D			37.3	D
Intersection Delay, s/veh / LOS	38.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	2.13	B	2.30	B
Bicycle LOS Score / LOS	1.61	B	1.12	A	1.75	B	1.35	A



# HCS Signalized Intersection Results Summary

General Information				Intersection Information		
Agency		Duration, h	0.250			
Analyst		Analysis Date	Sep 27, 2024		Area Type	Other
Jurisdiction		Time Period			PHF	0.99
Urban Street		Analysis Year	2023		Analysis Period	1> 7:00
Intersection	Ernstn Road/Bordento...	File Name	i1 sunday no build.xus			
Project Description	ernston road - sunday no build					



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	148	409	61	153	493	81	153	436	205	56	362	155

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	130.0	Reference Phase	2	Green	15.0	40.0	18.0	41.0	0.0	0.0	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	0.0	0.0	5	6	7	8	
Uncoordinated	Yes	Simult. Gap E/W	On	Red	0.0	0.0	0.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	19.0	44.0	19.0	44.0	22.0	45.0	22.0	45.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	9.0	28.0	9.3	19.4	8.9	30.0	4.4	24.1
Green Extension Time (g <sub>e</sub> ), s	0.1	1.8	0.1	2.0	0.2	2.1	0.1	2.3
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.04	0.05	0.05	0.00	0.00	0.10	0.00	0.02

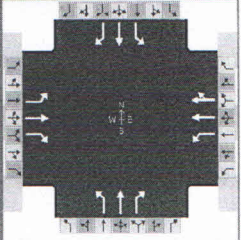
Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Approach Movement													
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate (v), veh/h	149	413	62	155	296	284	155	440	207	57	366	157	
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1560	1753	1841	1750	1753	1841	1560	1753	1841	1560	
Queue Service Time (g <sub>s</sub> ), s	7.0	26.0	3.7	7.3	17.3	17.4	6.9	28.0	13.6	2.4	22.1	9.9	
Cycle Queue Clearance Time (g <sub>c</sub> ), s	7.0	26.0	3.7	7.3	17.3	17.4	6.9	28.0	13.6	2.4	22.1	9.9	
Green Ratio (g/C)	0.42	0.31	0.31	0.42	0.31	0.31	0.45	0.32	0.32	0.45	0.32	0.32	
Capacity (c), veh/h	388	566	480	346	566	538	428	581	492	377	581	492	
Volume-to-Capacity Ratio (X)	0.386	0.729	0.128	0.447	0.523	0.527	0.361	0.759	0.421	0.150	0.630	0.318	
Back of Queue (Q), ft/ln (50 th percentile)													
Back of Queue (Q), veh/ln (50 th percentile)	2.9	12.3	1.4	3.0	7.8	7.5	2.8	13.3	5.2	1.0	10.1	3.8	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d <sub>1</sub> ), s/veh	25.4	40.2	32.4	27.3	37.1	37.2	23.9	40.0	35.1	23.7	38.0	33.9	
Incremental Delay (d <sub>2</sub> ), s/veh	0.2	4.2	0.0	0.3	0.4	0.5	0.2	5.2	0.2	0.1	1.7	0.1	
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	25.7	44.3	32.5	27.7	37.5	37.7	24.1	45.2	35.3	23.8	39.7	34.0	
Level of Service (LOS)	C	D	C	C	D	D	C	D	D	C	D	C	
Approach Delay, s/veh / LOS	38.7	D		35.5	D		38.6	D			36.6	D	
Intersection Delay, s/veh / LOS	37.4						D						

Multimodal Results	EB			WB			NB			SB			
Pedestrian LOS Score / LOS	2.13	B		2.13	B		2.13	B			2.29	B	
Bicycle LOS Score / LOS	1.52	B		1.09	A		1.81	B			1.44	A	



# HCS Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.250		
Analyst				Analysis Date	Sep 27, 2024		
Jurisdiction				Time Period			
Urban Street				PHF	0.98		
Intersection	Ernston Road/Bordento...	Analysis Year			Analysis Period	1> 7:00	
Project Description	ernston road - friday build						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	152	453	113	190	546	117	183	374	214	50	336	130

Signal Information												
Cycle, s	131.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	18.0	38.0	19.0	40.0	0.0	0.0		
				Yellow	4.0	4.0	4.0	4.0	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	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	22.0	42.0	22.0	42.0	23.0	44.0	23.0	44.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	9.3	33.2	11.3	23.8	10.6	25.8	4.2	22.8
Green Extension Time (g <sub>e</sub> ), s	0.2	1.5	0.2	2.3	0.2	2.0	0.0	2.1
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.00	0.63	0.03	0.05	0.00	0.03	0.00	0.01

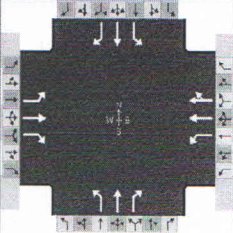
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	155	462	115	194	348	329	187	382	218	51	343	133
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1560	1753	1841	1728	1753	1841	1560	1753	1841	1560
Queue Service Time (g <sub>s</sub> ), s	7.3	31.2	7.4	9.3	21.7	21.8	8.6	23.8	14.8	2.2	20.8	8.5
Cycle Queue Clearance Time (g <sub>c</sub> ), s	7.3	31.2	7.4	9.3	21.7	21.8	8.6	23.8	14.8	2.2	20.8	8.5
Green Ratio (g/C)	0.43	0.29	0.29	0.43	0.29	0.29	0.45	0.31	0.31	0.45	0.31	0.31
Capacity (c), veh/h	377	534	452	329	534	501	443	562	476	416	562	476
Volume-to-Capacity Ratio (X)	0.411	0.866	0.255	0.588	0.652	0.655	0.421	0.679	0.458	0.123	0.610	0.278
Back of Queue (Q), ft/ln (50 th percentile)												
Back of Queue (Q), veh/ln (50 th percentile)	3.0	16.0	2.8	4.0	10.1	9.6	3.5	11.1	5.7	0.9	9.6	3.2
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d <sub>1</sub> ), s/veh	26.3	44.1	35.6	29.2	40.7	40.8	24.6	39.9	36.8	23.1	38.8	34.5
Incremental Delay (d <sub>2</sub> ), s/veh	0.3	13.4	0.1	1.9	2.2	2.5	0.2	2.7	0.3	0.0	1.4	0.1
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.6	57.5	35.8	31.1	42.9	43.2	24.8	42.6	37.0	23.1	40.2	34.7
Level of Service (LOS)	C	E	D	C	D	D	C	D	D	C	D	C
Approach Delay, s/veh / LOS	47.5	D		40.4	D		36.8	D			37.2	D
Intersection Delay, s/veh / LOS	40.6						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.13	B		2.13	B		2.13	B			2.30	B
Bicycle LOS Score / LOS	1.70	B		1.21	A		1.79	B			1.36	A



# HCS Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.250		
Analyst				Analysis Date	Sep 27, 2024		
Jurisdiction				Area Type	Other		
Urban Street				Time Period	PHF		
Intersection	Ernston Road/Bordento...			PHF	0.99		
Project Description	ernston road - sunday build			Analysis Year	2023		
				Analysis Period	1> 7:00		
				File Name	i1 sunday build.xus		



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	148	420	61	159	509	84	153	436	210	57	362	155

Signal Information												
Cycle, s	130.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	15.0	40.0	18.0	41.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	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	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	19.0	44.0	19.0	44.0	22.0	45.0	22.0	45.0
Change Period, (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Queue Clearance Time (g <sub>s</sub> ), s	9.0	29.0	9.6	20.1	8.9	30.0	4.4	24.1
Green Extension Time (g <sub>e</sub> ), s	0.1	1.8	0.1	2.1	0.2	2.1	0.1	2.3
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.04	0.08	0.08	0.00	0.00	0.10	0.00	0.02

Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Approach Movement													
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate (v), veh/h	149	424	62	161	306	293	155	440	212	58	366	157	
Adjusted Saturation Flow Rate (s), veh/h/ln	1753	1841	1560	1753	1841	1750	1753	1841	1560	1753	1841	1560	
Queue Service Time (g <sub>s</sub> ), s	7.0	27.0	3.7	7.6	17.9	18.1	6.9	28.0	14.0	2.4	22.1	9.9	
Cycle Queue Clearance Time (g <sub>c</sub> ), s	7.0	27.0	3.7	7.6	17.9	18.1	6.9	28.0	14.0	2.4	22.1	9.9	
Green Ratio (g/C)	0.42	0.31	0.31	0.42	0.31	0.31	0.45	0.32	0.32	0.45	0.32	0.32	
Capacity (c), veh/h	381	566	480	338	566	538	428	581	492	377	581	492	
Volume-to-Capacity Ratio (X)	0.392	0.749	0.128	0.475	0.540	0.544	0.361	0.759	0.431	0.153	0.630	0.318	
Back of Queue (Q), ft/ln (50 th percentile)													
Back of Queue (Q), veh/ln (50 th percentile)	2.9	12.8	1.4	3.2	8.1	7.8	2.8	13.3	5.3	1.0	10.1	3.8	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d <sub>1</sub> ), s/veh	25.6	40.5	32.4	27.7	37.4	37.4	23.9	40.0	35.3	23.7	38.0	33.9	
Incremental Delay (d <sub>2</sub> ), s/veh	0.2	4.9	0.0	0.4	0.6	0.6	0.2	5.2	0.2	0.1	1.7	0.1	
Initial Queue Delay (d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	25.8	45.4	32.5	28.1	37.9	38.1	24.1	45.2	35.5	23.8	39.7	34.0	
Level of Service (LOS)	C	D	C	C	D	D	C	D	D	C	D	C	
Approach Delay, s/veh / LOS	39.5	D		35.9	D		38.6	D			36.6	D	
Intersection Delay, s/veh / LOS	37.7						D						

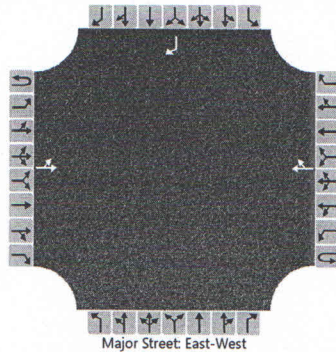
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	2.13	B	2.29	B
Bicycle LOS Score / LOS	1.54	B	1.11	A	1.82	B	1.44	A



# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	W Stimmel			Intersection	Ernston-West Drive (d1)		
Agency/Co.				Jurisdiction			
Date Performed	09/27/24			East/West Street	Ernston Road		
Analysis Year	2024			North/South Street	West Driveway		
Time Analyzed				Peak Hour Factor	0.98		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	ernston road - friday build						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6								
Priority																
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1
Configuration		LT						TR								R
Volume (veh/h)		52	665				784	21								69
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

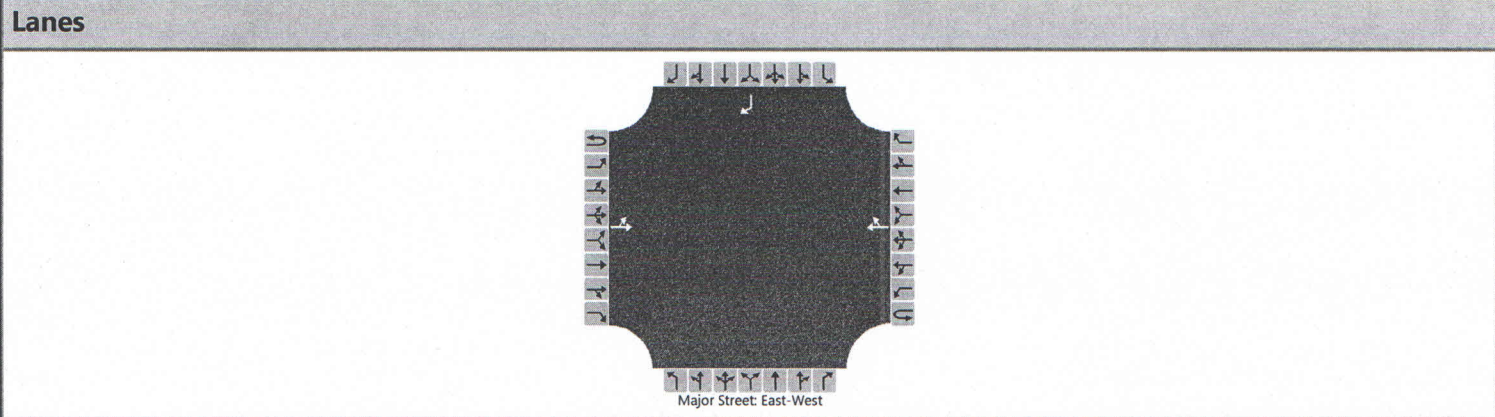
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		53															70
Capacity, c (veh/h)		817															383
v/c Ratio		0.06															0.18
95% Queue Length, Q <sub>95</sub> (veh)		0.2															0.7
Control Delay (s/veh)		9.7	1.0														16.5
Level of Service (LOS)		A	A														C
Approach Delay (s/veh)		1.6														16.5	
Approach LOS		A														C	



# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	W Stimmel	Intersection	Ernston-West Drive (d1)	Jurisdiction			
Agency/Co.		East/West Street	Ernston Road	North/South Street	West Driveway		
Date Performed	09/27/24	Peak Hour Factor	0.99				
Analysis Year	2024	Analysis Time Period (hrs)	0.25				
Time Analyzed							
Intersection Orientation	East-West						
Project Description	ernston road - sunday build						



**Vehicle Volumes and Adjustments**

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration		LT						TR								R
Volume (veh/h)		11	676				735	4								17
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

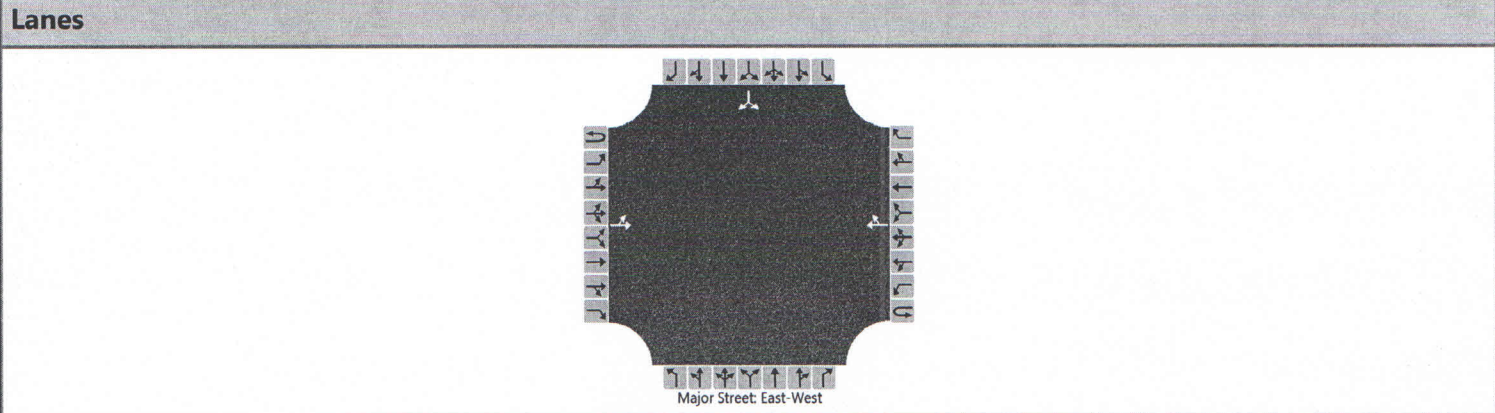
**Delay, Queue Length, and Level of Service**

Flow Rate, v (veh/h)		11														17	
Capacity, c (veh/h)		871														418	
v/c Ratio		0.01														0.04	
95% Queue Length, Q <sub>95</sub> (veh)		0.0														0.1	
Control Delay (s/veh)		9.2	0.2													14.0	
Level of Service (LOS)		A	A													B	
Approach Delay (s/veh)		0.3												14.0			
Approach LOS		A												B			



# HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	W Stimmel	Intersection	Ernston-East Drive (d2)
Agency/Co.		Jurisdiction	
Date Performed	09/27/24	East/West Street	Ernston Road
Analysis Year	2024	North/South Street	East Driveway
Time Analyzed		Peak Hour Factor	0.98
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	ernston road - friday build		



**Vehicle Volumes and Adjustments**

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR								LR
Volume (veh/h)		29	636				774	43						21		31
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**

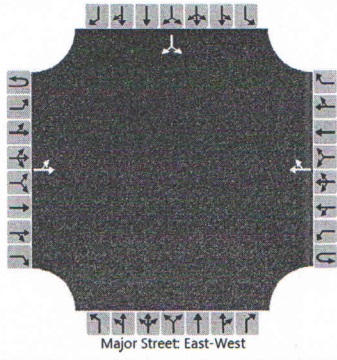
Flow Rate, v (veh/h)		30														53
Capacity, c (veh/h)		808														208
v/c Ratio		0.04														0.25
95% Queue Length, Q <sub>95</sub> (veh)		0.1														1.0
Control Delay (s/veh)		9.6	0.6													28.1
Level of Service (LOS)		A	A													D
Approach Delay (s/veh)		0.9												28.1		
Approach LOS		A												D		



# HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	W Stimmel	Intersection	Ernston-East Drive (d2)
Agency/Co.		Jurisdiction	
Date Performed	09/27/24	East/West Street	Ernston Road
Analysis Year	2024	North/South Street	East Driveway
Time Analyzed		Peak Hour Factor	0.99
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	ernston road - sunday build		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6								
Priority																
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0		0	1	0	
Configuration		LT						TR							LR	
Volume (veh/h)		6	670				731	9						5		8
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)		6														13	
Capacity, c (veh/h)		870														246	
v/c Ratio		0.01														0.05	
95% Queue Length, Q <sub>95</sub> (veh)		0.0														0.2	
Control Delay (s/veh)		9.2	0.1													20.5	
Level of Service (LOS)		A	A													C	
Approach Delay (s/veh)		0.2												20.5			
Approach LOS		A												C			



**Study Name 1-ERNSTON RD AT DRIVEWAYS**

**Start Date 04-29-2022**

**Start Time 12:00 PM**

**Site Code**

Start Time	EAST DRIVEWAY Southbound				ERNSTON RD Westbound				ERNSTON RD Eastbound				WEST DRIVEWAY Southeastbound			
	Left	Right	Hard Right	U-Turn	Thru	Bear Right	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Hard Left	Bear Left	Hard Right	U-Turn
12:00 PM	0	1	0	0	137	0	1	0	0	0	2	147	0	0	0	0
12:15 PM	0	0	0	0	169	0	0	0	0	1	1	156	0	0	0	0
12:30 PM	0	1	0	0	166	0	10	0	0	3	3	144	0	0	0	0
12:45 PM	0	1	0	0	143	0	13	0	0	10	10	147	0	0	0	0
1:00 PM	0	0	0	0	154	4	30	0	1	26	26	158	0	0	1	0
1:15 PM	0	0	0	0	151	1	20	0	5	30	30	155	0	1	0	0
1:30 PM	0	0	0	0	168	0	11	0	3	16	16	144	0	0	0	1
1:45 PM	1	8	0	0	132	0	2	0	0	1	1	166	0	0	3	25
2:00 PM	1	21	0	0	99	0	0	0	0	0	0	160	0	0	7	63
2:15 PM	0	3	0	0	183	1	1	0	0	0	0	155	0	0	2	12
2:30 PM	0	3	0	0	172	0	0	0	0	1	1	139	0	0	1	0
2:45 PM	0	2	0	0	169	0	1	0	0	0	0	148	0	0	0	1
3:00 PM	0	3	0	0	187	1	0	0	0	1	1	171	0	0	0	0
3:15 PM	0	1	0	0	156	0	0	0	0	1	1	162	0	0	0	0
3:30 PM	0	1	0	0	170	0	0	0	0	0	0	165	0	0	0	0
3:45 PM	0	1	0	0	164	0	0	0	0	1	1	157	0	0	0	0
peak hour	1	8	0	0	605	5	63	0	9	73	623	0	1	4	26	0



Study Name 1-ERNSTON RD & BORDENTOWN AVE-FRI  
 Start Date 06-16-2023  
 Start Time 12:00 PM  
 Site Code

Start Time	BORDENTOWN AVE Southbound				ERNSTON RD Westbound				BORDENTOWN AVE Northbound				ERNSTON RD Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
12:00 PM	11	93	31	0	31	111	22	0	29	90	61	0	27	89	19	0
12:15 PM	13	74	33	0	31	114	23	0	37	96	48	0	31	92	10	0
12:30 PM	13	100	30	0	38	113	21	0	22	98	39	0	34	90	18	0
12:45 PM	8	87	38	0	41	111	19	0	30	103	43	0	28	92	14	0
1:00 PM	8	75	38	0	41	97	19	0	29	92	42	0	32	96	24	0
1:15 PM	10	92	29	0	41	100	14	0	38	106	34	0	30	86	22	0
1:30 PM	3	79	27	0	36	107	18	0	49	106	35	0	20	81	27	0
1:45 PM	12	92	30	0	27	85	16	0	38	102	41	0	28	74	14	0
2:00 PM	9	87	23	0	35	86	10	0	42	80	51	0	26	74	14	0
2:15 PM	5	82	39	0	34	88	18	0	42	96	52	0	20	72	17	0
2:30 PM	5	94	30	0	34	77	9	0	30	113	56	0	27	94	21	0
2:45 PM	9	104	26	0	26	92	12	0	35	110	40	0	25	83	27	0
3:00 PM	12	103	31	0	28	83	24	0	49	133	53	0	26	92	23	0
3:15 PM	11	75	33	0	40	110	21	0	42	92	52	0	28	83	19	0
3:30 PM	10	86	41	0	39	96	26	0	45	111	63	0	35	80	34	0
3:45 PM	10	83	34	0	51	90	18	0	33	95	41	0	32	105	30	0
peak hour vol.	33	338	124	0	145	389	67	0	154	406	152	0	110	337	87	0

Study Name 1-ERNSTON RD & BORDENTOWN AVE-SUN  
 Start Date 06-18-2023  
 Start Time 9:30 AM  
 Site Code

Start Time	BORDENTOWN AVE Southbound				ERNSTON RD Westbound				BORDENTOWN AVE Northbound				ERNSTON RD Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
9:30 AM	8	44	19	0	22	86	27	0	31	47	28	0	28	73	11	0
9:45 AM	14	60	27	0	20	97	19	0	26	55	33	0	33	121	13	0
10:00 AM	11	49	30	0	23	88	18	0	26	86	29	0	30	110	14	0
10:15 AM	10	46	26	0	33	95	29	0	30	68	29	0	19	81	17	0
10:30 AM	10	49	42	0	26	87	22	0	34	85	39	0	28	108	19	0
10:45 AM	6	75	25	0	35	64	22	0	25	92	35	0	42	119	19	0
11:00 AM	15	53	32	0	23	118	21	0	29	87	38	0	37	100	27	0
11:15 AM	14	66	25	0	40	97	16	0	38	79	36	0	37	83	27	0
11:30 AM	11	81	32	0	24	92	22	0	39	94	32	0	38	111	24	0
11:45 AM	10	68	39	0	27	122	19	0	22	86	42	0	36	114	21	0
12:00 PM	16	60	39	0	26	80	12	0	36	96	42	0	38	104	27	0
12:15 PM	8	80	34	0	26	113	26	0	24	97	37	0	40	97	15	0
12:30 PM	15	75	34	0	26	115	21	0	37	112	47	0	45	97	20	0
12:45 PM	15	94	36	0	33	138	22	0	40	74	36	0	36	90	19	0
1:00 PM	13	97	36	0	45	95	22	0	36	117	60	0	25	96	7	0
1:15 PM	10	77	41	0	41	119	12	0	32	110	51	0	33	104	12	0
peak hour vol.	53	343	147	0	145	467	77	0	145	413	194	0	140	387	58	0



Study Name 1- BORDENTOWN AVE AND ERNSTON RD  
 Start Date 03-01-2024  
 Start Time 12:00 PM  
 Site Code

Start Time	BORDENTOWN AVE Southbound				ERNSTON RD Westbound				BORDENTOWN AVE Northbound				ERNSTON RD Eastbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
12:00 PM	12	78	18	0	28	121	39	0	40	78	50	0	30	95	27	0
12:15 PM	14	70	22	0	36	123	26	0	29	76	33	0	37	107	27	0
12:30 PM	14	72	27	0	41	95	27	0	48	97	49	0	26	95	29	0
12:45 PM	11	70	26	0	39	91	27	0	32	93	29	0	31	91	19	0
1:00 PM	11	67	18	0	41	125	22	0	35	87	43	0	37	94	27	0
1:15 PM	11	76	27	0	51	103	43	0	43	86	44	0	35	94	21	0
1:30 PM	12	81	35	0	34	123	19	0	55	85	55	0	36	100	33	0
1:45 PM	9	94	43	0	31	106	15	0	40	96	39	0	36	91	26	0
2:00 PM	9	85	45	0	28	113	21	0	54	100	51	0	41	92	34	0
2:15 PM	16	91	42	0	56	88	14	0	47	99	44	0	33	99	25	0
2:30 PM	15	111	27	0	42	97	19	0	53	88	63	0	41	90	29	0
2:45 PM	16	109	39	0	37	107	20	0	45	116	50	0	38	88	29	0
3:00 PM	19	93	12	0	42	88	36	0	49	97	58	0	45	102	34	0
3:15 PM	9	78	44	0	34	116	35	0	38	109	55	0	35	93	31	0
3:30 PM	14	108	27	0	43	95	19	0	38	113	57	0	39	76	23	0
3:45 PM	15	92	28	0	40	95	23	0	47	106	53	0	31	103	19	0
peak hour vol	43	318	123	0	157	457	99	0	173	354	181	0	144	379	107	0



Study Name 1- Fire Hall  
 Start Date Friday, May 17, 2024  
 Start Time 12:00 PM  
 Site Code

Start Time	West Lot (Fire House)		East Lot (Baseball Field)		Combined (W & E Lots)	
	Enter	Exit	Enter	Exit	Enter	Exit
12:00 PM	0	0	1	0	1	0
12:15 PM	0	0	1	0	1	0
12:30 PM	12	0	0	0	12	0
12:45 PM	28	0	9	0	37	0
1:00 PM	44	0	26	0	70	0
1:15 PM	2	34	5	22	7	56
1:30 PM	15	42	3	12	18	54
1:45 PM	23	3	5	4	28	7
2:00 PM	13	11	1	4	14	15
2:15 PM	1	46	1	4	2	50
2:30 PM	0	3	1	1	1	4
2:45 PM	0	0	0	2	0	2
3:00 PM	0	2	0	0	0	2
3:15 PM	0	0	2	0	2	0
3:30 PM	1	0	0	0	1	0
3:45 PM	0	1	0	0	0	1
total					194	191
peak hour vol.					132	110



**TRAFFIC DATABANK LLC**  
 716 SOUTH SIXTH AVE  
 MT VERNON, NY, 10550

Site Code:  
 Date Start: 17-May-24  
 Date End: 24-May-24  
 1-ERNSTON RD W OF CENTER AVE  
 PARLIN, NJ

Start Time	13-May-24		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	122	127	110	105
01:00	*	*	*	*	*	*	*	*	*	*	*	*	64	75	47	63
02:00	*	*	*	*	*	*	*	*	*	*	*	*	51	53	35	54
03:00	*	*	*	*	*	*	*	*	*	*	*	*	26	38	18	35
04:00	*	*	*	*	*	*	*	*	*	*	*	*	36	34	27	24
05:00	*	*	*	*	*	*	*	*	*	*	*	*	71	55	50	43
06:00	*	*	*	*	*	*	*	*	*	*	*	*	145	118	100	82
07:00	*	*	*	*	*	*	*	*	*	*	*	*	266	237	177	170
08:00	*	*	*	*	*	*	*	*	*	*	*	*	347	341	311	280
09:00	*	*	*	*	*	*	*	*	*	*	*	*	546	516	448	484
10:00	*	*	*	*	*	*	*	*	*	*	*	*	574	666	522	587
11:00	*	*	*	*	*	*	*	*	*	*	*	*	690	711	624	658
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	669	739	639	743
01:00	*	*	*	*	*	*	*	*	641	669	641	669	658	736	694	731
02:00	*	*	*	*	*	*	*	*	611	730	611	730	587	703	666	683
03:00	*	*	*	*	*	*	*	*	638	675	638	675	644	749	606	680
04:00	*	*	*	*	*	*	*	*	625	703	625	703	595	661	550	655
05:00	*	*	*	*	*	*	*	*	634	703	634	703	551	624	505	604
06:00	*	*	*	*	*	*	*	*	646	788	646	788	502	678	514	605
07:00	*	*	*	*	*	*	*	*	671	737	671	737	458	568	479	571
08:00	*	*	*	*	*	*	*	*	550	621	550	621	392	487	437	448
09:00	*	*	*	*	*	*	*	*	450	518	450	518	333	406	338	338
10:00	*	*	*	*	*	*	*	*	330	428	330	428	228	291	172	215
11:00	*	*	*	*	*	*	*	*	268	354	268	354	156	208	106	96
Total Day	0	0	0	0	0	0	0	0	6307	7149	6307	7149	8711	9821	8077	8954
AM Peak Vol.	-	-	-	-	-	-	-	-	13456	13456	13456	13456	18532	17031	17031	17031
PM Peak Vol.	-	-	-	-	-	-	-	-	1800	1700	1800	1700	690	711	624	658
	-	-	-	-	-	-	-	-	671	788	671	788	669	749	694	743



**TRAFFIC DATABANK LLC**  
 716 SOUTH SIXTH AVE  
 MT VERNON, NY, 10550

Site Code:  
 Date Start: 17-May-24  
 Date End: 24-May-24  
 1-ERNSTON RD W OF CENTER AVE  
 PARLIN, NJ

Start Time	20-May-24		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	57	51	62	66	50	50	58	57	67	63	59	57	*	*	*	*
01:00	24	20	27	27	33	31	33	33	34	39	30	30	*	*	*	*
02:00	19	22	20	21	26	17	22	25	24	30	22	23	*	*	*	*
03:00	23	28	33	26	23	25	25	30	33	29	27	28	*	*	*	*
04:00	62	45	63	49	72	59	66	48	69	55	66	51	*	*	*	*
05:00	123	123	128	128	129	121	122	125	119	109	124	121	*	*	*	*
06:00	240	332	310	318	255	356	252	364	257	327	263	339	*	*	*	*
07:00	429	589	429	595	470	581	438	593	451	552	443	582	*	*	*	*
08:00	535	607	520	637	511	667	544	623	596	603	541	627	*	*	*	*
09:00	497	542	532	548	562	574	505	503	555	612	530	556	*	*	*	*
10:00	530	537	560	575	509	560	451	475	587	639	527	557	*	*	*	*
11:00	576	566	586	560	558	631	492	518	602	658	563	587	*	*	*	*
12:00 PM	592	698	595	628	605	662	570	602	667	750	606	668	*	*	*	*
01:00	572	716	556	712	569	653	566	710	646	770	582	712	*	*	*	*
02:00	656	691	598	620	576	669	592	704	654	685	615	674	*	*	*	*
03:00	591	720	562	630	633	687	612	696	637	671	607	681	*	*	*	*
04:00	632	738	627	709	653	790	659	720	658	747	646	741	*	*	*	*
05:00	631	773	666	729	635	749	663	726	686	772	656	750	*	*	*	*
06:00	627	749	620	696	637	708	683	749	640	725	641	725	*	*	*	*
07:00	613	632	595	627	572	641	572	621	561	697	583	644	*	*	*	*
08:00	454	524	454	787	506	581	582	601	566	613	512	621	*	*	*	*
09:00	324	406	334	756	355	402	342	472	380	524	347	512	*	*	*	*
10:00	177	229	176	348	198	282	212	318	292	334	211	302	*	*	*	*
11:00	87	114	104	131	119	163	141	134	190	189	128	146	*	*	*	*
Total	9071	10452	9157	10923	9256	10659	9202	10447	9971	11193	9329	10734	0	0	0	0
Day	19523	20080	20080	19915	19915	19649	19649	21164	21164	20063	20063	20063	0	0	0	0
AM Peak	11:00	08:00	11:00	08:00	09:00	08:00	08:00	08:00	11:00	11:00	11:00	08:00	-	-	-	-
Vol.	576	607	586	637	562	667	544	623	602	658	563	627	-	-	-	-
PM Peak	14:00	17:00	17:00	20:00	16:00	16:00	18:00	18:00	17:00	17:00	17:00	17:00	-	-	-	-
Vol.	656	773	666	787	653	790	683	749	686	772	656	750	-	-	-	-

Comb. Total	19523	20080	19915	19649	34620	33519	18532	17031
ADT	ADT 19,413	AADT 19,413						



**Study Name Dunhams Corner Rd & Anjuman Mosque Driveway**

**Start Date 6/30/2023**

**Start Time 12:00 PM**

**Site Code**

Start Time	Exit		Entrance				Pedestrains	
	Left-Veh	Right -Veh	Left-Veh	Left-Occupancy	Right -Veh	Right-Occupancy	Enter	Exit
12:00 PM	1	0	2	1,1	0	0	0	0
12:15 PM	1	2	0	0	0	0	0	0
12:30 PM	0	0	2	1,2	1	2	0	0
12:45 PM	1	0	4	2,3,3,2	8	4,2,2,1,1,2,1,2	0	0
1:00 PM	1	1	6	2,2,1,1,1,4	5	1,2,2,4,3,	1	0
1:15 PM	0	0	4	1,1,2,2	2	2,2	2	0
1:30 PM	6	7	0	0	0	0	0	1
1:45 PM	6	6	0	0	1	2	0	0
2:00 PM	0	2	0	0	0	0	0	0
2:15 PM	2	0	0	0	0	0	0	0
2:30 PM	0	1	2	1,1	0	0	0	0
2:45 PM	1	2	0	0	1	3	0	0
3:00 PM	3	2	0	0	1	2	0	0
3:15 PM	1	2	0	0	1	1	1	0
3:30 PM	1	1	0	0	2	2,1	0	0
3:45 PM	4	1	6	1,1,2,3,2,2	2	1,1	0	0

average occupancy 1.82



**Study Name Churchill Dawatul Islamia**

**Start Date 06-16-2023**

**Start Time 12:00 PM**

**Site Code**

Start Time	Exit		Entrance				Pedestrains	
	Left-Veh	Right -Veh	Left-Veh	Left-Occupancy	Right -Veh	Right-Occupancy	Enter	Exit
12:00 PM	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0
12:30 PM	0	0	9	1,2,2,2,1,3,3,1,2	6	1,1,1,3,2,2	2	0
12:45 PM	0	2	14	1,2,3,3,1,4,2,3,1,2,1,1,4,1	9	2,1,1,3,4,3,2,1,1	1	0
1:00 PM	0	3	0	0	6	2,1,2,2,1,1,	5	0
1:15 PM	1	0	0	0	3	2,2,1	4	11
1:30 PM	0	0	0	0	0	0	4	3
1:45 PM	14	6	0	0	0	0	0	0
2:00 PM	5	7	0	0	0	0	0	0
2:15 PM	3	2	0	0	0	0	0	0
2:30 PM	2	2	1	2	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	3	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0

average occupancy 1.88



# NJDOT ACCESS PERMIT ANNUAL BACKGROUND GROWTH RATE TABLE

Valid for NJDOT Access Permits submitted November 2023 - November 2025

COUNTY	Functional Classification													
	RURAL							URBAN						
	Interstate	Freeway	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	Interstate	Freeway	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local
ATLANTIC	N/A	2.25%	1.50%	2.00%	1.75%	1.00%	1.00%	N/A	2.25%	2.00%	1.50%	2.25%	2.50%	1.00%
BERGEN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.25%	2.50%	2.75%	2.75%	2.00%	1.00%	1.75%
BURLINGTON	2.50%	3.00%	2.50%	2.25%	1.00%	1.00%	1.00%	3.00%	2.00%	2.25%	3.00%	1.00%	1.25%	1.25%
CAMDEN	2.25%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	2.25%	2.00%	2.25%	1.00%	2.25%	1.25%	1.00%
CAPE MAY	N/A	2.25%	2.00%	1.00%	1.50%	1.00%	1.00%	N/A	2.25%	1.50%	1.50%	1.25%	1.25%	1.25%
CUMBERLAND	N/A	2.25%	1.75%	2.50%	1.25%	1.00%	1.00%	N/A	3.00%	1.25%	2.00%	1.00%	1.25%	1.00%
ESSEX	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.25%	1.75%	2.00%	1.75%	1.00%	1.00%	1.00%
GLOUCESTER	2.75%	2.00%	1.00%	1.50%	1.25%	1.00%	1.00%	2.75%	2.25%	2.00%	1.75%	1.25%	1.25%	1.00%
HUDSON	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.50%	1.00%	2.50%	2.25%	1.25%	1.00%	1.50%
HUNTERDON	2.25%	1.50%	2.50%	1.75%	1.00%	1.00%	1.75%	1.00%	1.75%	2.00%	1.00%	2.00%	1.00%	1.00%
MERCER	2.75%	1.75%	1.00%	1.25%	1.00%	1.00%	1.25%	2.50%	2.25%	3.00%	1.50%	1.00%	1.00%	1.00%
MIDDLESEX	2.75%	1.75%	1.00%	1.25%	1.50%	1.50%	1.00%	2.75%	3.00%	2.50%	2.75%	1.00%	1.00%	1.00%
MONMOUTH	2.50%	2.25%	1.50%	2.25%	1.50%	1.00%	1.00%	1.00%	1.75%	2.00%	1.00%	2.75%	1.00%	1.00%
MORRIS	3.00%	1.75%	1.00%	1.25%	1.50%	1.50%	1.25%	2.75%	2.00%	2.00%	2.50%	1.00%	1.00%	1.25%
OCEAN	1.25%	2.00%	1.75%	2.00%	2.00%	1.50%	1.50%	1.00%	2.50%	2.00%	2.00%	1.00%	2.00%	1.00%
PASSAIC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.25%	2.25%	2.00%	1.00%	1.25%	1.00%	1.00%
SALEM	2.00%	2.00%	2.00%	1.75%	1.25%	1.00%	1.00%	3.00%	2.25%	1.00%	2.25%	1.00%	1.25%	1.00%
SOMERSET	2.25%	2.00%	2.00%	1.00%	1.75%	3.00%	1.00%	2.50%	2.75%	2.75%	1.00%	1.75%	1.00%	1.75%
SUSSEX	1.00%	1.75%	3.00%	1.00%	1.25%	1.75%	2.25%	2.00%	1.75%	1.00%	2.00%	2.50%	2.00%	1.00%
UNION	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.50%	2.75%	2.25%	2.25%	2.75%	1.00%	1.00%
WARREN	3.00%	1.50%	1.00%	2.75%	1.00%	1.00%	1.00%	2.00%	1.75%	1.75%	2.75%	1.00%	1.50%	1.75%

**NOTE: For use in short term (within 1-3 years) background growth ONLY.**

**Example:** Assume existing condition is 1,500 peak hour trips and the applicable growth rate is 2%. The multiplication factor for 2% compounded for 3 years is 1.0612. The three-year peak hour forecast is 1,591.8, or 1,592 peak hour trips.  $[1592 = 1500(1 + 0.02)^3 = 1500(1.0612)]$

**Future Growth (compounded) = Present Growth \* (1+Growth Rate)<sup># of years</sup>**



## *Report on Masjid Sadar & Community Center Events*

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Masjid Sadar & Community Center located at 216 Ernston Rd, Parlin, NJ 08859, has been a central hub for the Muslim community in the area. The center hosts a range of events, catering to the community's religious and social needs. The proposed Masjid Sadar & Community Center will have 105 parking spots, highlighting the center's high level of activity. The events will be for various reasons, such as meetings, seminars, or other gatherings. However, the following is a summary of events hosted by the center with an approximate number of attendees.

Note: **There is ONLY ONE activity taking place at a time.**

### **Janaza: Prayer for the Deceased**

Janazah is a funeral prayer performed in the Muslim faith. The funeral prayer was conducted in accordance with Islamic customs and traditions, and the community members gathered to pay their respects to the deceased. Masjid Sadar & Community Center hosted 100 -150 people for this event. After the 1:20 pm prayer on a weekday, Some will leave and the family would join with remaining congregants to pray the funeral prayer which lasts for 15 min.

### **Family Nights:**

The community center occasionally organized family nights that offered families an opportunity to come together, learn and bond. The events attracted 100 - 130 attendees, with an average of 3-4 people per carpool. The initiative not only helped to reduce traffic congestion but also promoted social cohesion within the community. Once a Month, this time is on Friday Nights 7pm to 8pm

### **Nikah: Religious Wedding**

Masjid Sadar & Community Center served as a location for Nikah events, which is a Muslim marriage ceremony. The events were generally attended by 45-50 people. This ceremony as per Islamic customs and traditions. This usually happens on Saturday at 4pm

### **MAIN EVENT WEEKLY Jumah: Friday Prayers:**

Jumma is a congregational prayer that is performed every Friday in the Muslim faith. Masjid Sadar & Community Center hosted Jumma events, with two prayer sessions. The events were attended by 180-200 Person per prayer . These times are: 1<sup>st</sup> Prayer 12:15 to 12:45, 2<sup>nd</sup> Prayer 1:20-1:45.

### **Regular Prayers:**

The community center hosted regular prayer sessions attended by 30-45 person . These sessions provided community members with the opportunity to engage in religious practices within a communal environment. Prayer Times changes with change of time, summer months, winter months

Regular Prayers is Fajr-6am, Zuhr-1:20pm, Asr-4:30pm, Magrib-7pm, Easha-8:30pm.  
All prayes are about 15min -20 min long.



## *Report on Masjid Sadar & Community Center Events*

---

### Saturdays:

We have Ladies/ Sisters Classes, 9am- 1pm, 45 Person attends this sessions.

### SUNDAYS:

From 10am to 1pm is the Kids Islamics Classes, with approx 45-50 students  
Parents Drop off and Pick up afterwards

Our Eid Prayers and Carnival are held twice a year and are done at JFK Park or At the High School,

This means any services with over a certain amount of people are taken off premises.

**Ramadaan:** Holy Month once a year.

Ramadaan brings out more because its night Prayers, 8pm-10:30pm with an average of 300-350  
Person and they comes as families in a mini vans 4-5 person in a van

Also Any Night events that required any additional Parking would consider parking at SAMSEL  
School

### Conclusion:

Masjid Sadar & Community Center at 216 Ernston Rd, Parlin, NJ 08859, plays a critical role in serving the Muslim community's religious and social needs. The range of events hosted by the center is indicative of the community's diversity and the center's commitment to serving its members. The center's management should continue to provide a welcoming and safe environment for the community's various needs, fostering a sense of belonging and inclusion.



# Church (560)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban  
Number of Studies: 16  
Avg. 1000 Sq. Ft. GFA: 38  
Directional Distribution: 48% entering, 52% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.36	3.36 - 51.31	7.83

## Data Plot and Equation

