A-23



## McDonough & Rea Associates, Inc.

### **Traffic and Transportation Consulting**

Kevin P. McDonough (1953-1994) John H. Rea, P.E. Jay S. Troutman, Jr., P.E. Scott T. Kennel

November 19, 2019

Marlboro Township Zoning Board of Adjustment Town Hall 1979 Township Drive Marlboro, NJ 07746

Re:

Improvements at Marlboro Mall Lots 2 & 3 in Block 351 Marlboro Township, Monmouth County MRA File No. 18-144

Dear Board Members:

McDonough & Rea Associates (MRA) has been asked to provide the Zoning Board of Adjustment with a *Traffic Impact Analysis* to improve and expand the *Marlboro Mall*, located on the southwest corner of New Jersey State Route 79 and School Road in Marlboro Township, as shown on *Figure 1*, a *Site Location Map* in the *Appendix*.

Plans prepared by French & Parrello Associates (FPA) show the following changes:

- ➤ A 12,000 SF 1-story building addition which will be added to the existing 24,272 SF main shopping center building.
- ➤ A 10,000 SF day care center.
- An automated tunnel car wash.

Access to the property will continue to be gained from a right-in/right-out driveway from and to the southbound lanes of Route 79 as well as a full access driveway to School Road West which lines up with the aisle in front of the main building as well as a driveway to School Road West that lines up with the loading zone behind the building.

Please reply to:



### Traffic and Transportation Consulting

1431 Lakewood Road, Suite C, Manasquan, NJ 08736 • (732) 528-7076 • Fax (732) 528-6673 105 Elm Street, Lower Level, Westfield, NJ 07090 • (908) 789-7180 • Fax (908) 789-7181

Marlboro Township Zoning Board of Adj.

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### **SCOPE OF STUDY**

In order to prepare a thorough *Traffic Impact Analysis* for this project, MRA conducted the following tasks:

- 1. Made field visits to the site to establish existing roadway and traffic conditions in the area.
- 2. Conducted peak hour traffic counts during the weekday PM peak street hour and mid-day Saturday peak hour at the site access points to the *Marlboro Mall*.
- 3. Prepared estimates of additional traffic to be generated by the expansion of the mall based upon Institute of Transportation Engineers (ITE) data.
- 4. Distributed new site generated trips to the access points in accordance with anticipate origins and destinations of site traffic.
- 5. Prepared estimates of future traffic volume demand for the design year of the project (2022) including background traffic growth.
- 6. Conducted level of service capacity analyses for the site driveways for the 2022 design year.
- 7. Reviewed the *Site Plan* with respect to availability and accessibility of the parking supply and conformance to proper traffic engineering principles.

The following report sets forth the database accumulated and the conclusions reached with respect to the improvements at the *Marlboro Mall*.

### EXISTING CONDITIONS

The subject property is located generally in the southwest quadrant of the intersection of Route 79 at School Road in Marlboro Township. The property wraps around an existing gas station which is located immediately at the southwest quadrant of the intersection. The property currently contains a 24,272 SF 1-story retail building and a 3,000 SF 1-story bank pad with drive-up windows. The property currently has a right-in/right-out driveway from and to the southbound lanes of Route 79 and 2 driveways to School Road West.



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The intersection of Route 79 at School Road is a signalized intersection under the jurisdiction of the New Jersey Department of Transportation (NJDOT). School Road West is a 2-lane east/west Municipal roadway providing for 1 lane in each direction across the property frontage.

### EXISTING TRAFFIC VOLUMES

Traffic volume data was collected at the site access points by conducting manual turning movement counts in March and April 2018 during the weekday PM peak street hour (4:00 PM-7:00 PM) and the mid-day Saturday peak hour (11:00 AM-2:00 PM). Existing traffic volumes utilizing the site access points to the shopping center are shown in *Figure 2* in the *Appendix*.

### TRIP GENERATION/DISTRIBUTION

Estimates of traffic to be generated by the expansion of the *Marlboro Mall* were made after consulting the 10<sup>th</sup> Edition of the ITE Trip Generation Manual. The additional space to be provided within the mall (a total of 12,000 SF of retail space, a 10,000 SF day care center and a tunnel car wash) were analyzed as per the ITE data and NJDOT methodology. Table I illustrates the anticipated additional traffic that will be generated by the retail space, day care space and car wash.

TABLE I
TRIP GENERATION
MARLBORO MALL EXPANSION

		<u>PM P</u>	<u>SH</u>		SAT ]	<u>PH</u>
<u>USE</u>	<u>IN</u>	OUT	TOTAL	IN	<u>Out</u>	TOTAL
12,000 SF retail	35	35	70	49	36	75
10,000 SF Daycare	52	59	111	11	6	17
Tunnel Car Wash	<u>39</u>	<u>39</u>	<u>_78</u>	<u>30</u>	<u>30</u>	<u>_60</u>
Totals	126	133	259	81	<b>72</b>	153

With respect to the distribution of site generated traffic, a review was made of population surrounding the site, traffic volumes on the adjacent roadway network and existing traffic patterns exhibited by the retail uses on the site. Based upon that review, traffic was distributed as follows:



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### TABLE II TRAFFIC DISTRIBUTION

DIRECTION	PERCENTAGE
To/from the north	20%
To/from the east	20%
To/from the west	20%
To/from the south	<u>40%</u>
	100%

Site generated and distributed traffic is shown on Figure 3 in the Appendix.

### ANALYSIS OF FUTURE TRAFFIC

A design year of 2022 was assumed for analysis. The NJDOT's *Background Traffic Growth Rate* data for the area was consulted and 4 years' worth of background traffic growth was added to existing traffic volumes in order to arrive at design year 2022 *no-build* traffic volumes which are shown on *Figure 4* in the *Appendix*. New site generated and distributed traffic volumes were then surcharged onto design year 2022 *no-build* volumes and are shown on *Figure 5* in the *Appendix*, entitled *Design Year 2022 Build Traffic Volumes*.

It should be noted that in order to prepare a conservative analysis, MRA did not take any pass-by credits for traffic generated by the retail expansion on the property, although ITE data permits such a credit.

Traffic engineers calculate levels of service of unsignalized intersections which relate to the quality of traffic flow. Level of service is a measure of average control delay. Average control delay is the time lost due to deceleration and the amount of time from when a vehicle is stopped for a traffic control device (or at the end of the queue) to when the vehicle departs the intersection. Delay is a relative quantity of driver discomfort, frustration, fuel consumption, and loss in travel time.

Levels of service range from "A" to "F" with "A" being the highest or best attainable level of service. Level of service "E" with average control delays of not more than 50 seconds per vehicle at an unsignalized intersection indicates near to or at capacity conditions and is generally considered the limit of acceptable level of service and delay.



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Full definitions of levels of service for unsignalized intersections and level of service summaries are included in the *Appendix*. The intersections studied by this report were analyzed according to the procedures set forth in the *Highway Capacity Manual 2010*, using the *Highway Capacity Software (HCS7 version 7.5)*.

### ROUTE 79 DRIVEWAY

Exiting movements to southbound Route 79 at the right-in/right out Route 79 driveway were evaluated for the 2022 design year. Findings were that exiting movements would operate at level of service "C" for the PM peak street hour and level of service "D" for the mid-day Saturday peak hour. Both levels of service are considered to be within acceptable traffic engineering parameters.

### SCHOOL ROAD WEST/WEST ACCESS

At the west access to the shopping center from School Road West, which generally lines up with the service/loading aisle behind the buildings, findings were that exiting movements to School Road West at this location would do so at level of service "B" for both the PM peak street hour and mid-day Saturday peak hour. Therefore, this intersection will operate within acceptable traffic engineering parameters.

#### SCHOOL ROAD WEST/EAST ACCESS

At the main access to the shopping center from School Road West, which lines up with the access and circulation aisle in front of the larger retail building, findings were that exiting movements will do so at level of service "B" for the PM peak street hour and level of service "C" for the mid-day Saturday peak hour. Therefore, this intersection will operate within acceptable traffic engineering parameters.

### SITE PLAN AND PARKING

The Site Plan, prepared by FPA, shows a reorientation of existing parking stalls and maintaining the 3 existing access points to the shopping center in their current configuration. The following expansion to the shopping center is proposed:

- A 12,000 SF expansion to the existing 1-story masonry building in a southerly direction.
- ➤ A 10,000 SF day care center along the southern boundary of the property.
- An automated tunnel car wash adjacent to Route 79.



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Based on the plans prepared by FPA, approximately 30 vehicles can be stacked prior to entering the car wash tunnel. Based on MRA's experience in conducting traffic studies for car washes, we have typically found that vehicle stacking for 24-26 vehicles is usually adequate. Therefore, the revised plans which show stacking for approximately 30 vehicles, meets and exceeds this requirement.

Customers will proceed directly to the car wash tunnel without having employees vacuum the vehicles prior to the car wash tunnel. Upon exiting the car wash tunnel, customers can proceed to 1 of 5 vacuum stations where they can self-vacuum their vehicles.

The 3 access points to the shopping center will provide for adequate every day and emergency vehicle access. A parking supply of 270 spaces is proposed to serve the site and the parking is deemed to be more than adequate. Overall, MRA finds that the circulation system within the shopping center meets accepted traffic engineering practices.

### **CONCLUSIONS**

It is concluded, based on the analysis set forth in this report, that plans to improve and expand the *Marlboro Mall* shopping center located in the southwest quadrant of Route 79/School Road, can be approved and operate compatibly with existing and future traffic conditions in the area. An analysis of the 3 unsignalized driveways serving the property from Route 79 and School Road West shows that these driveways will operate within accepted traffic engineering parameters for the 2022 design year.

The parking supply of 270 parking spaces is well distributed and is deemed adequate to support the site. The circulation system throughout the shopping center is sound and logical and will operate safely and efficiently in our opinion.

A representative from MRA will be in attendance at an upcoming Marlboro Township Zoning Board of Adjustment meeting to provide expert testimony and to answer any questions board members, board experts or the public may have.

John H. Rea, PE

Principal

Scott T. Kennel

Sr. Associate

cc:

Brian Decina, PE Ken Pape, Esq. Peter Passarella Chris Frew





# McDONOUGH & REA ASSOCIATES

FIGURE

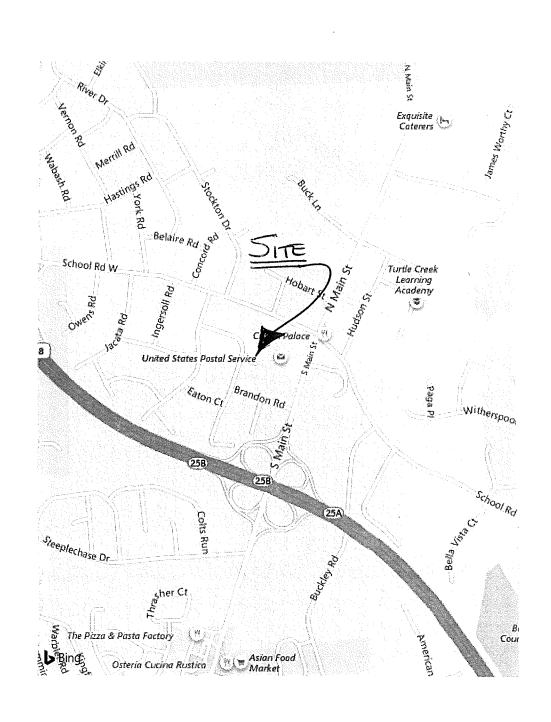
TRAFFIC AND TRANSPORTATION CONSULTING

JOB NO. 18-144

DATE: JULY 2018

SUBJECT:

NORTHEASTERN DEVELOPMENT - MARLBORO S. C. SITE LOCATION MAP



# MR

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FIGURE

JOB NO. 18-144

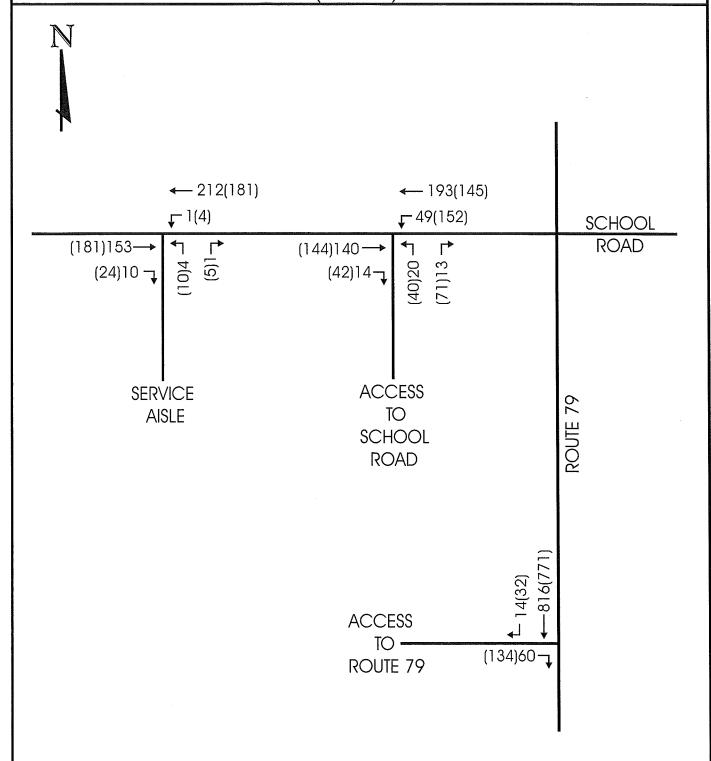
DATE: NOV 2019

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TRAFFIC AND TRANSPORTATION CONSULTING

SUBJECT:

NORTHEASTERN DEVELOPMENT - MARLBORO S. C. EXISTING PM PSH(SAT PSH) TRAFFIC VOLUMES



# M R

## McDONOUGH & REA ASSOCIATES

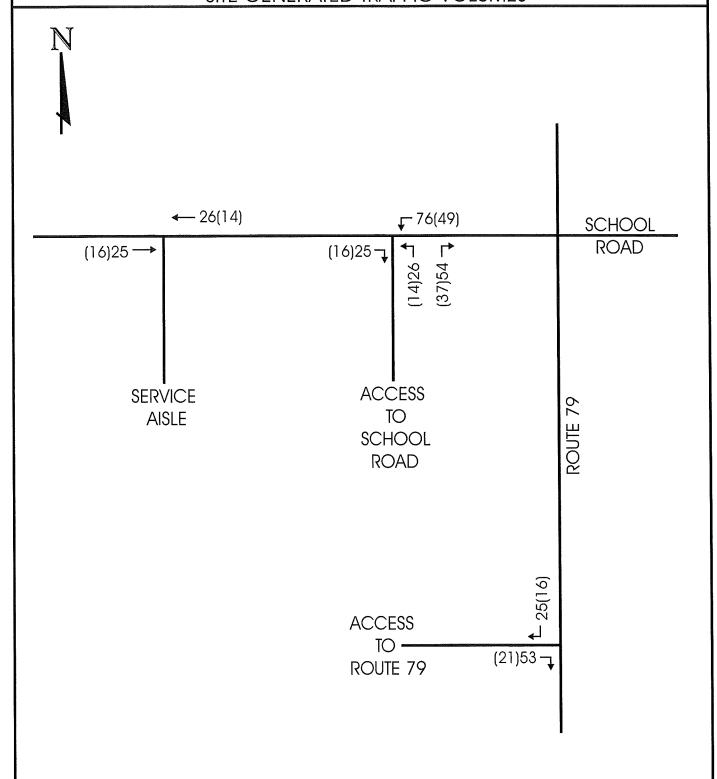
FIGURE 3

TRAFFIC AND TRANSPORTATION CONSULTING

JOB NO. 18-144 DATE: NOV 2019

SUBJECT:

# NORTHEASTERN DEVELOPMENT - MARLBORO S. C. SITE GENERATED TRAFFIC VOLUMES



# M Mo

# McDONOUGH & REA ASSOCIATES

FIGURE 4

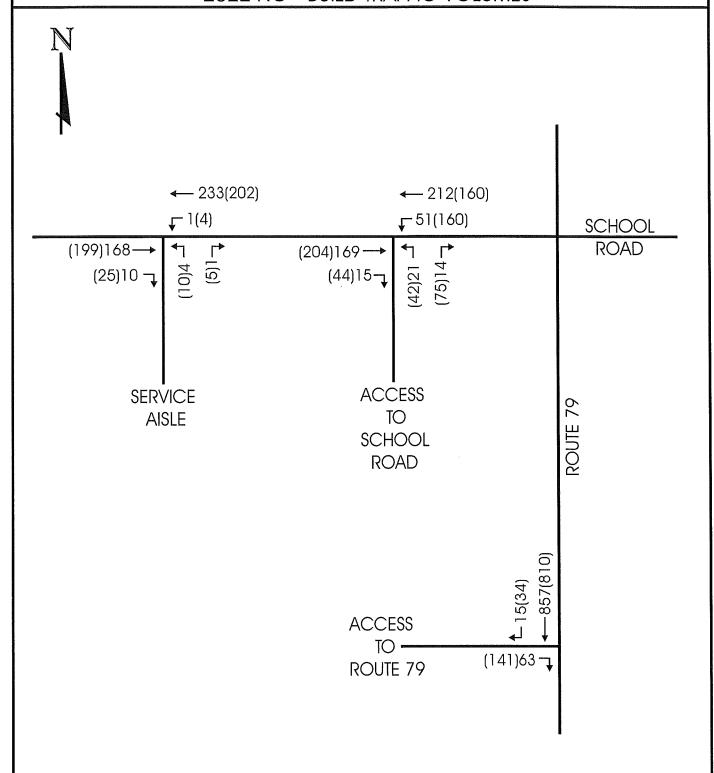
JOB NO. 18-144

DATE: NOV 2019

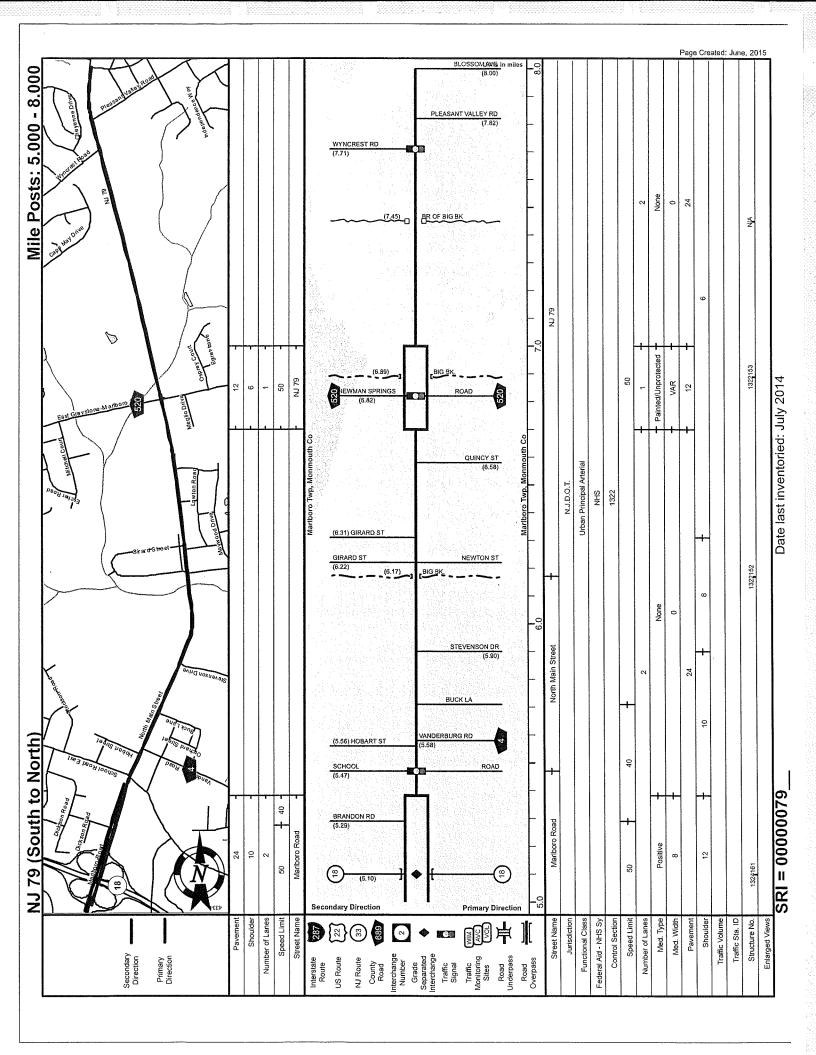
TRAFFIC AND TRANSPORTATION CONSULTING

SUBJECT:

NORTHEASTERN DEVELOPMENT - MARLBORO S. C. 2022 NO - BUILD TRAFFIC VOLUMES



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ROUTE 79 & MARLBORO MALL MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 THURSDAY PM COUNT NORTHEASTERN DEVELOPMENT

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076

File Name: 18144 rt 79 & marlboro ctr pm1 Site Code: 00018144

Start Date : 4/5/2018 Page No :: 1

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NORTHEASTERN DEVELOPMENT ROUTE 79 & MARLBORO MALL MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 SATURDAY COUNT

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076

File Name: 18144 rt 79 & marlboro ctr sat1 Site Code: 00018144

Start Date : 4/7/2018

Page No

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11:15 AM	183	∞	191			221
11:30 AM	201	000	209			240
11:45 AM	191	7	198			235
Total	771	32	803	134	134	937
12:00 PM	206	4	210			237
12:15 PM	203	. 4	207		17	224
12:30 PM	175	. 2	177		25	202
12:45 PM	176	9	182		21	203
Total	760	16	9//	06	06	866
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01:15 PM	207	. ~	208		600	237
01:30 PM	191	- ന	194		220	216
01:45 PM	175	0 8	177	20	202	197
Total	736	13	749		06	839
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Total %	85.8	2.3	88.1	11.9	11.9	
		Route 79 Southbound		Marlboro Mall Eastbound	Mall Jnd	
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Peak Hour From 11:00 AM to 01:45 PM - Peak 1 of 1 Intersection 11:00 AM	Σ					
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	201	α	200		37	

37 0.905

37

209

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201

Volume Peak Factor

SCHOOL ROAD WEST & MARLBORO MALL MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 WEDNESDAY PM COUNT NORTHEASTERN DEVELOPMENT

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076

File Name: 18144 school w & marlboro mall pm1 Site Code: 00018144

Start Date: 4/4/2018 Page No: 1

			Int. Total	93	88	102	104	388	113	92	120	101	426	101	105	100	9/	382	1196		
			App. Total	25	23	37	34	119	35	36	49	28	148	4	33	28	24	126	393		32.9
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Printed- CARS	5		Left	2	က	က	က	11	4	2	4	4	14	4	2	က	4	13	38	34.5	3.2
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:	School Road West	Westbound	Thru	31	30	29	48	138	46	43	26	52	197	45	53	55	34	187	522	75.3	43.6
	Sch		Left	26	25	20	13	84	19	10	7	12	48	∞	12	6	10	39	171	24.7	14.3
			Start Time	04:00 PM	04:15 PM	04:30 PM	04:45 PM	Total	05:00 PM	05:15 PM	05:30 PM	05:45 PM	Total	06:00 PM	06:15 PM	06:30 PM	06:45 PM	Total	Grand Total	Apprch %	Total %
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	Sch	School Road West		2	Marlboro Mall		Sch	School Road West		
		Westbound		-	Northbound			Eastbound		
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 04:00 PM to 06:45 PM - Peak 1 of 1	M - Peak 1 of 1									
Intersection 04:45 PM	04:45 PM									
Volume	49	193	242	13	20	33	140	14	154	429
Percent	20.2	79.8		39.4	9.09		6.06	9.1		
05:30 Volume	7	26	63	4	4	80	43	9	49	120
Peak Factor	:									0.894
High Int.	05:00 PM	-		05:00 PM			05:30 PM			
Volume	19	46	65	4	6	13	43	9	49	
Peak Factor			0.931			0.635			0.786	

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NORTHEASTERN DEVELOPMENT SCHOOL ROAD WEST & MARLBORO MALL MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 SATURDAY COUNT

File Name: 18144 school w & marlboro mall sat1 Site Code: 00018144 Start Date: 3/24/2018

Page No

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		Westbound			Northbound			Eastbound		
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
00 AM	36	44		7	18	29	42	18	09	169
11:15 AM	40	35	75	13	15	28	39	7	46	149
30 AM	46	34	80	10	19	29	25	∞	33	142
1:45 AM	30	32	62	9	19	25	38	6	47	134
Total	152	145	297	40	71	111	144	42	186	594
12:00 PM	39	48	87	7	13	20	39	7	46	153
15 PM	34	45	79	10	13	23	36	13	49	151
30 PM	25	31	26	10	15	25	25	9	.31	112
45 PM	25	26	51	14	6	23	49	10	29	133
Total	123	150	273	41	20	91	149	36	185	549
01:00 PM	33	47	80	_	13	24	41	9	47	151
15 PM	21	42	63	7	13	20	40	9	46	129
30 PM	23	27	20	9	7	17	43	2	45	112
15 PM	20	22	77	4	တ	13	42	က	45	135
Total	97	173	270	28	46	74	166	17	183	527
Grand Total	372	468	840	109	167	276	459	92	554	1670
Apprch %	44.3	55.7		39.5	60.5		82.9	17.1		
otal %	22.3	28.0	50.3	6.5	10.0	16.5	27.5	5.7	33.2	

	Sch	School Road West			Mariboro Mali		Sch	School Road West		
		Westbound			Northbound			Eastbound		
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour From 11:00 AM to 01:45 PM - Peak 1 of 1	M - Peak 1 of 1									
Intersection 11:00 AM	11:00 AM									
Volume	152	145	297	40	71	111	144	42	186	594
Percent	51.2	48.8		36.0	64.0		77.4	22.6		
11:00 Volume	36	44	80	11	18	29	42	18	09	169
Peak Factor	2	-								0.879
High Int.	11:00 AM			11:00 AM			11:00 AM			
Volume	36	44	80	=======================================	18	29	42	18	09	
Peak Factor			0.928			0.957			0.775	

NORTHEASTERN DEVELOPMENT SCHOOL ROAD W & MARLBORO MALL SERVICE MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 WEDNESDAY PM COUNT

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076

File Name: 18144 service & school w pm1 Site Code: 00018144

Start Date: 4/4/2018 Page No: 1

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	School Road West		Mariboro	Mariboro Mall Service Kd		School Road West	Vest	
	Westbound	,	Ż	Northbound		Eastbound		
Start Time	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	-	<u> </u>	
04:15 PM	_	_	<b>-</b>	0	_	2	2	
04:30 PM	0	0	_	0	_	ည	2	
04:45 PM	0	0	0	0	0	2	2	
Total		+	2	0	- 5	10	10	
05:00 PM	0	0	2	~	8	<del>-</del>	<del></del> (	
05:15 PM	-		0	0	0	2	2	
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06:15 PM	0	0	0	0	0	~ (	~ 0	
06:30 PM	0	0	0	0	0	5	7	
06:45 PM	0	0	0	0	0	2	2	***************************************
Total	0	0	0	τ		9	<u> </u>	
Grand Total	2	2	7	2	6	23	23	
% Approch	100.0		77.8	22.2		100.0		
Total %	5.9	5.9	20.6	5.9	26.5	9.79	9.79	

	School Road West	est	2	Marlboro Mall Service Rd	5d	School Road West	West		
	Westbound			Northbound		Eastboun			
Start Time	Left	App. Total	P	Right	App. Total	Right	App. Total		Int. Total
Peak Hour From 04:00 PM to 06:45 PM - Peak 1 of 1	1 of 1				_				
Intersection 04:15 PM	1:15 PM					;	,		,
Volume	_	_	4	<del></del>	2	10	10		9.
Percent	100.0		80.0	20.0		100.0	1		(
04:30 Volume	0	0	_	0	_	ιΩ	ۍ م	1	٥
	ŧ							0.007	
	04:15 PM		05:00 PM		1	04:30 PM	L		
Volume	_	<b>7</b>	2	_	က	ည	2 6		
Peak Factor		0.250			0.417		0.500		

SCHOOL ROAD W & MARLBORO MALL SERVICE MARLBORO TOWNSHIP, MONMOUTH COUNTY MRA JOB 18-144 SATURDAY COUNT NORTHEASTERN DEVELOPMENT

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076

File Name: 18144 service & school w sat1 Site Code: 00018144 Start Date: 3/24/2018 Page No: 1

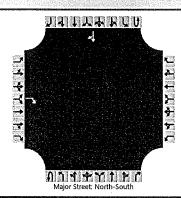
			SYOTIGE SOLVE POSSESSION	ONDITED SEA		ו מאם ואס	-	
			Groups Primed-	ARS - 1RUCRS		-		
	School Road West Westbound	/est	Maribo	Marlboro Mail Service Kd Northbound		School Road West Eastbound	West	
Start Time	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
11:00 AM	0	0	5	0	5	10	10	15
11:15 AM	0	0	0	0	0	വ	S	S
11:30 AM	0	0	2	0	2	က	8	5
11:45 AM	-		_	0		4	4	9
Total	_	_	8	0	8	22	22	31
12:00 PM	_	~	0	<del>-</del>	~	ω	 &	10
12;15 PM	0	0	2	0	2	2	2	4
12:30 PM	2	2	က	_	4	22	-C2	=
12:45 PM	0	0	· ~	· <del></del>	. 0	1	10	12
Total	3	3	9	က	6	25	25	37
01:00 PM	2	2	2	2	1 2	9	9	15
01:15 PM	0	0	~~	_	2	ო	က	5
01:30 PM	0	0	က	-	4	7	7	7
01:45 PM	Υ-	_	2	0	2	_	_	4
Total	က	3	1	4	15	17	17	35
Grand Total	7	7	25	7	32	64	64	103
% Apprch %	100.0		78.1	21.9		100.0		
Total %	6.8	6.8	24.3	6.8	31.1	62.1	62.1	
	School Road West	/est	Marlbo	Marlboro Mall Service Rd		School Road West	West	
CmiT trot	VV ESIDOUIIO	lotoT and	#0-	Notificountd	Ann Total	Diaht	IctoT and	letoT tal
Post Hour From 11:00 AM to 01:45 BM - Bost 1 of	_	App. Total		INGINE.	חשט. ו טומו	night.	App. Lotal	וווני ו טומו
Intersection 1.50 Aware teaching 1.50 Intersection 1	12:30 PM							
	4	4	10	2	15	24	24	43
Percent	100.0		66.7	33.3		100.0		
01:00 Volume	2	2	2	2	7	9	9	15
					*	0.45	0	0.717
High Int.	12:30 PIVI		01:00 PIM	0	7 /	12.43 FW	10	
Peak Factor	1	0.500	>	ı	0.536	2	0.600	
					-		-	

# LEVEL OF SERVICE CRITERIA FOR $\label{eq:Two-Way} \textbf{Two-Way Stop-Controlled Intersections}^1$

Level of Service	<b>Average Control Delay</b>
A	≤ 10.0 Seconds Per Vehicle
В	$> 10.0$ and $\le 15.0$ Seconds Per Vehicle
C	$> 15.0$ and $\leq 25.0$ Seconds Per Vehicle
D	$>$ 25.0 and $\leq$ 35.0 Seconds Per Vehicle
Е	$>$ 35.0 and $\leq$ 50.0 Seconds Per Vehicle
F	> 50.0 Seconds Per Vehicle

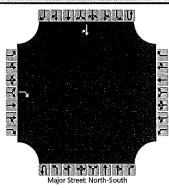
<sup>&</sup>lt;sup>1</sup> Transportation Research Board, <u>Highway Capacity Manual 2010</u>, National Research Council, Washington, DC, 2010.

And the second second	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	A Company Comp
Analyst	STK	Intersection	RTOUTE 79 & SITE ACCESS
Agency/Co.	MRA	Jurisdiction	
Date Performed	7/21/2018	East/West Street	SITE ACCESS
Analysis Year	2018	North/South Street	ROUTE 79
Time Analyzed	PM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	18-144PE-1EXIST	armillanishini yana mada karan muunay merunabakkan yees daka da kemusuwa karan ka kepanda ee saada ka baka a s	



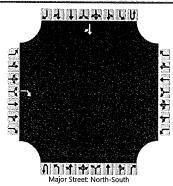
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	T	R	U	L	Ť	R	Ų	, F , y	Т	R	U	) L	ăt i	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	0	0	0	0	<b>11.</b>	0
Configuration				R				***************************************								TR
Volume (veh/h)			1 14	60											816	14
Percent Heavy Vehicles (%)				3												
Proportion Time Blocked		1 10 344				Norman) New 1861				asti a						
Percent Grade (%)			0	Avenue de la constante de la c				A		ficación de la constantina de la const		distribution of the second		*	A	
Right Turn Channelized		Ŋ	lo						A Property				V.15			
Median Type   Storage				Undi	vided		a de la light de condimunio eq						\$			Personal Property and Property
Critical and Follow-up H	eadwa	ys														
Base Critical Headway (sec)				6.2												
Critical Headway (sec)		F145		6.23												
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)		1000		3.33						W. T.						
Delay, Queue Length, an	d Leve	of S	ervice													
Flow Rate, v (veh/h)				65			l		T			T	T	T		T
Capacity, c (veh/h)				338	N. W.										9 1 1 1 1	
v/c Ratio				0.19												1
95% Queue Length, Q <sub>95</sub> (veh)		3 1 3 4 4 3 7 7 7		0.7	38.44	178 (1784)				10(5.15)						l design
Control Delay (s/veh)		PRODUCTION STREET		18.2	The second second second									-		1
Level of Service (LOS)				С			100 Page 100 D 100		YA.							
Approach Delay (s/veh)		1	8.2	<del></del>			<del></del>		-	<u> </u>	<del>La constante</del>	a de començar e començ			A CONTRACTOR OF THE PARTY OF TH	<u>, L., ., ., ., ., ., ., ., ., ., ., ., ., .</u>
Approach LOS		Comment district	С	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						r greenin		er an eregana	18 -0.0			

in the second se	HCS7 Two-	Way Stop-Control Report	
<b>General Information</b>		Site Information	
Analyst	STK	Intersection	RTOUTE 79 & SITE ACCESS
Agency/Co.	MRA	Jurisdiction	
Date Performed	11/11/2019	East/West Street	SITE ACCESS
Analysis Year	2022	North/South Street	ROUTE 79
Time Analyzed	PM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	18-144PFB-1BUILD		



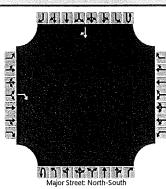
					Major	Street: No	th-South	,								
Vehicle Volumes and Adju	ıstme	nts														
Approach	Particular Control	Eastb	ound	Section Control of the Control of th		West	bound			North	bound	Colores and Property and a second		South	bound	250,000,000,000,000
Movement	Ü	L	Ť.	- R	U	L	Til	R	U	L	Ţ	R	U	L	Ţ	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		. 0	0	0	0	0	0	0	0	0	1	0
Configuration				R												TR
Volume (veh/h)				116				W.							857	40
Percent Heavy Vehicles (%)				3												
Proportion Time Blocked				AND AND												
Percent Grade (%)		(	)													
Right Turn Channelized		N	lo													
Median Type   Storage				Undi	vided											
Critical and Follow-up He	adwa	ys													a MadE	
Base Critical Headway (sec)				6.2												
Critical Headway (sec)				6.23					( 10 m /			1571.74				
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)			37	3,33												
Delay, Queue Length, and	l Leve	l of Se	ervice	1												
Flow Rate, v (veh/h)				126												
Capacity, c (veh/h)	1,25,55 5,1,10,3,2			313											334	
v/c Ratio				0.40												
95% Queue Length, Q <sub>95</sub> (veh)				1.9		7 3 3 - 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7								Addison		
Control Delay (s/veh)				24.1												
Level of Service (LOS)				Ç	7.7	10 St. 12										
Approach Delay (s/veh)		24	1.1				<del>(T-1),</del>	Through the state of								-
Approach LOS			G													

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	STK	Intersection	RTOUTE 79 & SITE ACCESS
Agency/Co.	MRA	Jurisdiction	
Date Performed	7/21/2018	East/West Street	SITE ACCESS
Analysis Year	2018	North/South Street	ROUTE 79
Time Analyzed	SAT	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	18-144SE-1EXIST		



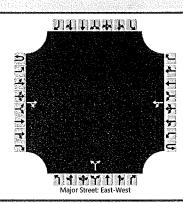
Approach		Easth	oound			Westl	oound	-		North	bound			South	bound	
Movement	U	L	Ţ	R	υ	L	ुं⊤्	R	Ų	L	T	R	U	L	ा व	R
Priority		10	11	12	***************************************	7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		.0	0	0	0	0	0	0	0	0	1	0
Configuration		***************************************		R								ļ				TR
Volume (veh/h)			. (6)	134			25 (1451) 10 (25 )								771	32
Percent Heavy Vehicles (%)			-	3												
Proportion Time Blocked	\$43.50 \$45.50								415							
Percent Grade (%)		(	0	S		L										L
Right Turn Channelized		V	lo		× 3.55											
Median Type   Storage	Control Manual State of State			Undi	vided					. Distribution of the second		2/01-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	L		Terbelos in phayman and the	رجان المستدالي
Critical and Follow-up He	adway	/S		0.5											04 (L. 1906) 12 (1907)	
Base Critical Headway (sec)				6.2												
Critical Headway (sec)		1 9%		6.23												
Base Follow-Up Headway (sec)		V. 2		3.3					distribution in the second							
Follow-Up Headway (sec)	7	1.5		3.33			N/A				1,5143					
Delay, Queue Length, and	Level	of Se	ervice					Tal.		4						
Flow Rate, v (veh/h)				146			***************************************			1,000,000,000,000				(2004-00-0		
Capacity, c (veh/h)				356	11	1843	\$0.5g		**********		The state		1 1 2 2		1044	
v/c Ratio				0.41											- Delication	
95% Queue Length, Q <sub>95</sub> (veh)				1.9			jane.			2.54.45						
Control Delay (s/veh)				21.9			-		MINTON STATE	l					THE RESIDENCE OF THE PERSON NAMED IN COLUMN	<b></b> -
Level of Service (LOS)	- 10		TENEN	C		444					11 - 10		1 2 1 14			Night.
revel of Service (ros)	- 32 A 1	今年人。2007年	· 在 10 10 10 10 10 10 10 10 10 10 10 10 10				100			•				1.00		

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	STK	Intersection	RTOUTE 79 & SITE ACCESS
Agency/Co.	MRA	Jurisdiction	
Date Performed	11/11/2019	East/West Street	SITE ACCESS
Analysis Year	2022	North/South Street	ROUTE 79
Time Analyzed	SAT	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	18-144SFB-1BUILD	a de mentre con quarte construence con contra con contra con en manero en construe de la problema de la problema	



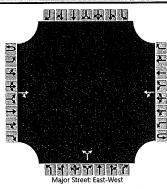
					Major	Street: No	rth-South									
Vehicle Volumes and Ad	justme	nts														
Approach		Eastb	ound	KMKKIII OM		West	bound			North	bound	- N. Y-Mu		South	bound	
Movement	U	L	Т	R	U	L	τ	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	0	0	0	0	<b>1</b>	0
Configuration				R												TR
Volume (veh/h)			3,50,500	162		30.00			6.1744						810	50
Percent Heavy Vehicles (%)				3												
Proportion Time Blocked		JAME!				ra y y a					TO SERVI	A Circus Colony				
Percent Grade (%)		A	0					-								
Right Turn Channelized	- 14 (14 (14 (14 (14 (14 (14 (14 (14 (14	ı	10	MALEY AND			3 - 47 - 4						123.5			
Median Type   Storage				Undi	vided											
Critical and Follow-up H	leadwa	ys														
Base Critical Headway (sec)		<u> </u>		6.2			T T		T	Ī	ori distributioni di di					
Critical Headway (sec)			1,34.5	6.23		1,542.5										
Base Follow-Up Headway (sec)				3.3												
Follow-Up Headway (sec)				3.33		1,11		,4765					N. A.	15/10 15/10		
Delay, Queue Length, ar	nd Leve	l of S	ervice	•												
Flow Rate, v (veh/h)	200,000			176							I					
Capacity, c (veh/h)		2,711.00	2.1	332							1 A 3 B 18					
v/c Ratio				0.53									-			
95% Queue Length, Q <sub>95</sub> (veh)				2.9												
Control Delay (s/veh)				27.4							***************************************		WELLINGTON SAN			
Level of Service (LOS)		der unterneum etc.		D		The same of the sa								**************************************		
Approach Delay (s/veh)		2	7.4		<b>***********</b>		-								-	
Approach LOS			D					THE PARTY OF THE P							NA. AND DESCRIPTION AS A SECOND	

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	STK	Intersection	SCHOOL & WEST ACCESS
Agency/Co.	MRA	Jurisdiction	
Date Performed	7/21/2018	East/West Street	SCHOOL ROAD
Analysis Year	2018	North/South Street	SITE ACCESS- WEST
Time Analyzed	PM	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	18-144PE-2		



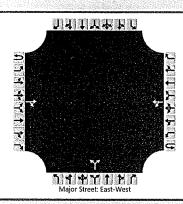
Approach		Eastb	ound			West	oound			North	oound			South	bound	
Movement	U	L	Т	.R	U	j.	T	R	U	L,	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	3/1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			153	10		1	212		3.	4	1.81	1				ALANTA Majan
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked						100		111111111111111111111111111111111111111					11.3			
Percent Grade (%)		<del>gSpace at out and the total</del>				-				(	)					
Right Turn Channelized												regi t				
Median Type   Storage				Undi	vided									<del>TO AT THE COLUMN TO A THE COL</del>	THE PERSON NAMED IN COLUMN NAM	
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)			The second se			4.1				7.1		6.2				
Critical Headway (sec)						4.13		ANS.		6.43		6.23		\$155. \$155.		
Base Follow-Up Headway (sec)			-			2.2				3.5		3.3				
Follow-Up Headway (sec)		7			V 24 - 35 -	2.23				3.53	J. A.	3.33				
Delay, Queue Length, and	Leve	l of Se	ervice													
Flow Rate, v (veh/h)				T	T	1	T				5		T	T		l
Capacity, c (veh/h)			14,176			1393					640		313			
Capacity C (10.010			-			0.00					0.01					
v/c Ratio		1 1			A STATE OF THE PARTY OF THE PAR		12.858.303-801	11111111	33455		0.0			12.70		753 8 19
	eren ere ger er			1.5. M 1.5. M 1.2. M		0.0		(数) National			1 7 7 7 7 7 7 7 7			4 (1997)		1000
v/c Ratio				24.7		7.6					10.7			A GOODS	# # Philips	
v/c Ratio 95% Queue Length, Q <sub>95</sub> (veh)																

HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	STK	Intersection	SCHOOL & WEST ACCESS						
Agency/Co.	MRA	Jurisdiction							
Date Performed	11/11/2019	East/West Street SCHOOL ROAD							
Analysis Year	2022	North/South Street	SITE ACCESS- WEST						
Time Analyzed	PM	Peak Hour Factor	0.92						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	18-144PFB-2-BUILD	And the state of t							



Vehicle Volumes and Adju	Eastbound			[ Wasthound ]				Northbound				Southbound				
Approach		Eastb	7 8 7 3 6 7 3 7		Westbound											
Movement	U	3 L	i i	R	U	L	Ţ	R	Ü	L	Ţ	R	U	L	Ţ	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	<b>1</b> 1	0		0	1	0		- 0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			193	10		- 1	259			4		1			A CO	
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked								200 (1866) 200 (1866)		1409/1503 1409/1503 1409/1503	Posts St Alignet					150
Percent Grade (%)										(	)					
Right Turn Channelized																
	Undivided															
Median Type   Storage				Ond	viaca				<u> </u>							
Median Type   Storage  Critical and Follow-up He	eadwa	ys		Ond	· IIaca											
	eadwa	ys		Ondi	, water	4.1				7,1		6.2				
Critical and Follow-up He	eadwa	ys				4.1 4.13				7.1 6.43		6.2 6.23				
Critical and Follow-up He	eadwa	ys														
Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec)	eadwa	ys				4.13				6.43		6.23				
Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec)			ervice			4.13 2.2				6.43 3.5		6.23 3.3				
Critical and Follow-up He Base Critical Headway (sec) Critical Headway (sec) Base Follow-Up Headway (sec) Follow-Up Headway (sec)			ervice			4.13 2.2				6.43 3.5	5	6.23 3.3				
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			ervice			4.13 2.2 2.23				6.43 3.5	5 570	6.23 3.3				
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)			ervice			4.13 2.2 2.23				6.43 3.5		6.23 3.3				
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)			ervice			4.13 2.2 2.23 1 1 1343				6.43 3.5	570	6.23 3.3				
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			ervice			4.13 2.2 2.23 1 1 1343 0.00				6.43 3.5	570 0.01	6.23 3.3				
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 <sub>95</sub> (veh)			ervice			4.13 2.2 2.23 1 1343 0.00 0.0				6.43 3.5	570 0.01 0.0	6.23 3.3				

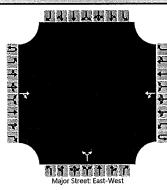
HCS7 Two-Way Stop-Control Report											
General Information Site Information											
Analyst	STK	Intersection	SCHOOL & WEST ACCESS								
Agency/Co.	MRA	Jurisdiction									
Date Performed	7/21/2018	East/West Street	SCHOOL ROAD								
Analysis Year	2018	North/South Street	SITE ACCESS- WEST								
Time Analyzed	SAT	Peak Hour Factor	0.92								
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25								
Project Description	18-144SE-2	E-2									



	100	payment and the	A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		12.0	
I Mobic	$10.1/\Delta1$	IIIMAC	2nd /	14:		MANTE
Vehic	IC VUI	umes	allu r	٦ui	usu	HEHLS
				700		Edition (Edition

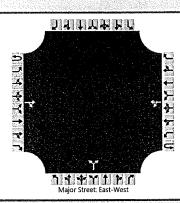
Approach		Eastbound Westbound			Northbound				Southbound							
Movement	U	L	Т	R	U	L	Ť	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0	24.74	0	1	0		0	0	Ö
Configuration				TR		LT					LR					
Volume (veh/h)			181	24		4	181	N, Š		10		5		743. 1947 14. 7141		
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked		70.14									5.30					
Percent Grade (%)										(	0	Average personal and		4		Name of the last o
Right Turn Channelized																
Median Type   Storage				Undi	vided			MOTOR OFF CONTRACTOR (NEW		***************************************				<u> </u>		***************************************
Critical and Follow-up Hea	adwa	ys														
Base Critical Headway (sec)		,		O CONTRACTOR AND		4.1			Total Control	7.1		6.2				
Critical Headway (sec)						4.13			1 (40 to 1 (4) 3 (1)	6.43		6.23				1000
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23	ing san San ili			3.53		3.33		19.75.655 V = 5.55		New Years Galley year
Delay, Queue Length, and	Leve	l of S	ervice										Paragraphy (1986)			
Flow Rate, v (veh/h)						4					16					
Capacity, c (veh/h)				**************************************		1340	7.37			NAK.	652	3/43		414	224543 25A,373	
v/c Ratio	***************************************					0.00					0.02					
95% Queue Length, Q <sub>95</sub> (veh)			1			0.0					0,1		43.	\$100 EVO		
Control Delay (s/veh)						7.7			1		10.7	1				
Level of Service (LOS)				ACMERICAL PROPERTY AND		Α					В					
Approach Delay (s/veh)			A	<u> </u>		0	.2			10	0.7			Marine Rouse Construction & Construc		A
Approach LOS	4 (24 8 g)		Gastalek						В							

HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	STK	Intersection	SCHOOL & WEST ACCESS							
Agency/Co.	MRA	Jurisdiction								
Date Performed	11/11/2019	East/West Street	SCHOOL ROAD							
Analysis Year	2022	North/South Street	SITE ACCESS- WEST							
Time Analyzed	SAT	Peak Hour Factor	0.92							
Intersection Orientation	East-West	Analysis Time Period (hrs) 0.25								
Project Description	18-144SFB-2-BUILD									



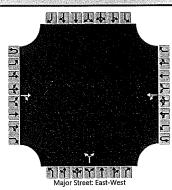
Approach		Fasth	ound		Westbound				Northbound				Southbound			
				U L T R				U L T R				U L T R				
Movement	U	L	T	R	Mile March (H	440 200 200 200	200000000000000000000000000000000000000	Stadeness	U.V	111111111111111111111111111111111111111	3 14 19 19 19 19 19 19 19 19 19 19 19 19 19	+ 2044 (N) (N)	V	100 S 400,000	25,6,16,60	1,54,74,75
Priority	1U	1	2	3	4U	4	5	6	V., 14, 1744	7	8	9	No. 10 September	10	11	12
Number of Lanes	. 0	0		0	0	0	1	0		0	1	0	A. Salah	0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			215	25		4	216			10		5				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)								_		(	)					
Right Turn Channelized																
Median Type   Storage		Undivided														
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)	\$150					4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33		- 19 a		
Delay, Queue Length, and	Leve	l of S	ervice	1					10							
Flow Rate, v (veh/h)						4	I				16					
Capacity, c (veh/h)			100			1298	100				598					100 AST
v/c Ratio						0.00					0.03					
95% Queue Length, Q <sub>95</sub> (veh)			No.		(10.00)	0.0		N. W.	46 335 6	1000,000	0.1					
Control Delay (s/veh)	-35,-4	r se meggi				7.8					11.2					
Level of Service (LOS)						Α			\$15.50 15.50		В		18.75.			
one program a community of the program of the contract of the				0.2			11.2				Disc and sould have presented in the constant and services					
Approach Delay (s/veh)						C	).2			1	1.2					

HCS7 Two-Way Stop-Control Report											
General Information Site Information											
Analyst	STK	Intersection	SCHOOL & EAST ACCESS								
Agency/Co.	MRA	Jurisdiction									
Date Performed	7/21/2018	East/West Street	SCHOOL ROAD								
Analysis Year	2018	North/South Street	SITE ACCESS- EAST								
Time Analyzed	PM	Peak Hour Factor	0.92								
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25								
Project Description											



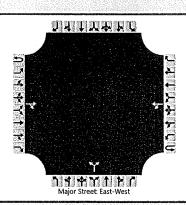
Approach		Eastb	ound			Westb	ound		prick series	North	oound			South	bound	
Movement	U	Ĺ	Т	R	υ	L	Т	R	U	L.	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6	***************************************	7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR				ALCOHOLD STATES	
Volume (veh/h)			140	14		49	193			20		13			in angle	
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked		OR PORT OF THE PROPERTY OF THE					Page 1									
Percent Grade (%)			<del>Special de la contraction de </del>	A						(	)					
Right Turn Channelized																
Median Type   Storage				Undi	ivided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)	T					4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53	10 min	3.33				
Delay, Queue Length, and	l Leve	l of S	ervice			- 4										
Flow Rate, v (veh/h)						53			T		36					T
Capacity, c (veh/h)						1404	443				625					
v/c Ratio						0.04					0.06					
95% Queue Length, Q <sub>95</sub> (veh)						0.1		125			0,2					
Control Delay (s/veh)				T	T	7.7					11.1					
Level of Service (LOS)						Α					В			5 5 6 9 5 6 5 6 7 6 6		
Approach Delay (s/veh)				1.8			11.1									
Approach LOS									В							

HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	STK	Intersection	SCHOOL & EAST ACCESS						
Agency/Co.	MRA	Jurisdiction							
Date Performed	11/11/19	East/West Street	SCHOOL ROAD						
Analysis Year	2022	North/South Street	SITE ACCESS- EAST						
Time Analyzed	PM	Peak Hour Factor	0.92						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	18-144PFB-3BUILD	Rational Control of the Control of t	A STATE OF THE STA						



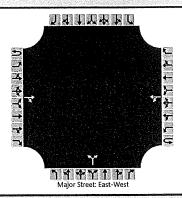
	Eacth														
Eastbound			Westbound				Northbound				Southbound				
U	Ŀ	π	R	U	Ļ	Т	R	U	L	T	R	Ü	L	Т	R
1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
0	0	1	0	0	0	1	Ō		0	11	0		0	0	- 0
			TR		LT					LR					
		169	40		127	212			47		68				
					3				3		3				
			708-		7.7										
									(	)					
					/ Fe. 5 1										
			Undi	ivided	•										
adwa	ys														
					4.1				7.1		6.2				
					4,13				6.43		6.23				
					2.2				3.5		3.3				
			-0.1		2.23	704 74470			3.53		3.33		151		
Leve	l of S	ervice	•										4.1		
Service of Williams					138					125					
					:1335					539			1		
					0.10					0.23					
		V.			0.3					0.9					
					8.0					13.7					
		705) 2500			А					В			V Plany V Stary		
				3.6				1		3.7	1				
	1U 0 0	1U 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1U 1 2 0 169 169 169 169 169 169 169 169 169 169	1U 1 2 3 0 0 1 0 TR 169 40	1U 1 2 3 4U 0 0 1 0 0 TR 169 40 Undivided	1U 1 2 3 4U 4 0 0 1 0 0 0 1 TR LT 169 40 127 3  Undivided  Adways  4.1 4.13 2.2 2.23  Level of Service 138 138 1335 0.10 0.3	1U	1U 1 2 3 4U 4 5 6 0 0 1 0 0 0 1 0  TR LT  169 40 127 212  3 3 4U 4 5 6  Undivided  Undivided  LT  4.1 4.13 2.2 2 2.23  Level of Service  138 138 1335 0.10 0.10 0.3 8.0	1U 1 2 3 4U 4 5 6  0 0 1 0 1 0 0 0 1 0  TR LT  169 40 127 212  3 3 4 1 4 1 4 1 4 1 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 4 1	1U 1 2 3 4U 4 5 6 7 0 0 1 0 0 0 0 1 0 0  TR LT	1U 1 2 3 4U 4 5 6 7 8 0 0 1 0 0 0 0 1 0 0 0 1  TR LT LT LR  169 40 127 212 47  Undivided  Undivided  4.1 7.1  4.13 6.43  2.22 3.55  2.23 3.53  Level of Service  138 125  138 125  138 125  138 125  138 125  138 125	1U 1 2 3 4U 4 5 6 7 8 9 0 0 1 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1 0 1	1U 1 2 3 4U 4 5 6 7 8 9  0 0 1 0 0 0 1 0 0 0 1 0 1 0 1 0 1 0 1	1U 1 2 3 4U 4 5 6 7 8 9 10 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0  TR LT LT LR CR	1U 1 2 3 4U 4 5 6 7 8 9 10 11 0 0 1 0 0 0 1 0 0 0 1 0 0 1 0 0 0  TR LT LT LR  169 40 127 212 47 68  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	STK .	Intersection	SCHOOL & EAST ACCESS							
Agency/Co.	MRA	Jurisdiction								
Date Performed	7/21/2018	East/West Street	SCHOOL ROAD							
Analysis Year	2018	North/South Street	SITE ACCESS- EAST							
Time Analyzed	SAT	Peak Hour Factor	0.92							
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25							
Project Description	18-144SE-3 EXIST									



Vehicle Volumes and Adju	stme	nts														
Approach	Eastbound				Westbound			Northbound				Southbound				
Movement	Ŭ.	L	(2 <b>1</b> ,	R	U	L	Т	R	U	L	Τ	R	U	L	Т	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	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			144	42		152	145			40	, New Y	71			10	
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked	T										agrandya. Elizaran					
Percent Grade (%)											0	***************************************		***************************************		
Right Turn Channelized														Miga		
Median Type   Storage				Undi	vided	,										
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)	40-14-14-14-14-14-14-14-14-14-14-14-14-14-					4.1				7.1		6.2				
Critical Headway (sec)	10.00	N. S.		1.0		4.13				6.43		6.23		180 J. A. S.		
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3,53		3,33			NAMES OF	
Delay, Queue Length, and	Leve	of S	ervice			ta est an	. 13					10.00			31.50	ar er
Flow Rate, v (veh/h)		<u> </u>	T			165		T T			121			T	V	
Capacity, c (veh/h)	1494				N. O.	1364					583	200				
v/c Ratio						0.12					0.21					
95% Queue Length, Q <sub>95</sub> (veh)			148 Sec. 9			0.4	nestrejv		15 V 15 V 1		0.8					
Control Delay (s/veh)				*		8.0	aniacontrata de la constanta d	***************************************			12.8					
Level of Service (LOS)						Α					В				7975 (154) 14.11 (14)	TO SE
Approach Delay (s/veh)	-	4.6				<del></del>	12.8					**************************************	odravno orozo	. <del></del>		
Approach LOS			***************************************					B								

HCS7 Two-Way Stop-Control Report											
General Information		Site Information									
Analyst	STK	Intersection	SCHOOL & EAST ACCESS								
Agency/Co.	MRA	Jurisdiction									
Date Performed	11/11/19	East/West Street	SCHOOL ROAD								
Analysis Year	2022	North/South Street	SITE ACCESS- EAST								
Time Analyzed	SAT	Peak Hour Factor	0.92								
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25								
Project Description	18-144SFB-3BUILD										



Approach	Eastbound				Westbound			Northbound				Southbound					
Movement	U	L	Т	R	U	L	T	R	Ü	L	Т	R	Ü	L	Т	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	1	0		0	0	0	
Configuration	×1101101101111111111111111111111111111			TR		LT					LR						
Volume (veh/h)	1883		204	60	· · ·	209	160			56		112					
Percent Heavy Vehicles (%)						3				3		3					
Proportion Time Blocked			1991,13	11484,54			1.54			9-14.5 TA							
Percent Grade (%)											0						
Right Turn Channelized																	
Median Type   Storage		A VANCOUS PROPERTY OF THE PARTY		Undi	vided												
Critical and Follow-up He	adwa	ys															
Base Critical Headway (sec)			Ī			4.1				7.1		6.2					
Critical Headway (sec)				100		4.13				6.43		6.23					
Base Follow-Up Headway (sec)						2.2				3.5		3.3					
Follow-Up Headway (sec)						2.23				3.53		3.33					
Delay, Queue Length, and	I Leve	l of S	ervice								F						
Flow Rate, v (veh/h)			I			227			1		183			T	T	T	
Capacity, c (veh/h)	11 144					1269					467						
v/c Ratio						0.18					0.39						
95% Queue Length, Q <sub>95</sub> (veh)			-			0.7					1.8						
Control Delay (s/veh)						8.5					17.6						
Level of Service (LOS)						Α					C						
Approach Delay (s/veh)					5.5				17.6								
Approach LOS								С									