

Traffic and Transportation Consulting

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

May 19, 2020

Montgomery Township Planning Board 2761 Route 206 Bellemead, NJ 08502

Re:

Haven at Princeton Lot 7 in Block 37003

Montgomery Township, Somerset County

MRA File No. 19-143

Dear Board Members:

McDonough & Rea Associates (MRA) has been asked to provide the Planning Board with a *Traffic Impact Analysis* for *Haven at Princeton*, 154 multi-family dwellings that includes 122 townhomes and 32 apartments, proposed for the noted property. Specifically, plans prepared by D.S. Engineering PC (DSE) show the following elements of the plan:

- > Haven at Princeton
 - 122 townhomes
 - 32 apartments
 - Full movement access to River Road
 - Full access to Blue Spring Road via Salisbury Road Extension

The subject property is located west of River Road and north of Blue Spring Road, as shown on *Figure 1*, a *Site Location Map* in the *Appendix*.

SCOPE OF STUDY

In order to prepare a thorough *Traffic Impact Analysis* for the *Haven at Princeton* 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 manual turning movement traffic counts during the critical AM and PM peak hours at the following intersections:

Please reply to:

☐ 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



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

Montgomery Township Planning Board

-2-

May 19, 2020

- ➤ Blue Spring Road and River Road
- ➤ Blue Spring Road and Salisbury Road/Hoover Avenue
- 3. Installed an automatic traffic recording device on River Road adjacent to the site to record hourly and daily traffic volumes.
- 4. Conducted trip generation estimates during critical AM and PM peak hours for the residential dwellings based upon data published by the Institute of Transportation Engineers (ITE).
- 5. Distributed site generated traffic to the adjacent roadway network in accordance with existing travel patterns in the area and access to higher order roadways such as Route 206, Route 27, Route 518, etc.
- 6. Projected traffic volumes to a design year of 2025 in consideration of historical growth rate data published by the New Jersey Department of Transportation (NJDOT) and the future site generated traffic volumes.
- 7. Conducted level of service capacity analyses for the River Road and Blue Spring Road study locations.
- 8. Reviewed the *Site Plan* with respect to adherence to New Jersey Residential Site Improvement Standards (RSIS) and conformance to proper traffic engineering principles.

The following report sets forth the database accumulated and the conclusions reached with respect to *Haven at Princeton*.

EXISTING CONDITIONS

The subject property previously contained the *Trap Rock* corporate offices and is bounded to the east by River Road and to the west/south by the multi-family development *Montgomery Woods*. Salisbury Road is a 2 lane, 30 MPH residential collector roadway which terminates at the westerly property line of the subject property. Salisbury Road will be extended in an easterly direction through the subject property to intersect River Road to form a "T" shaped intersection.

Blue Spring Road is a 2-lane median divided collector roadway with an east/west orientation connecting to River Road to the east and to Princeton Avenue to the west through the *Montgomery Woods* development. Blue Spring Road has a posted speed limit of 35 MPH, along with bike lanes in both directions.



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

Montgomery Township Planning Board

-3-

May 19, 2020

River Road, in the vicinity of the proposed site access is a 2-lane north/south County Route 605 roadway with sporadic shoulders and a posted speed limit of 45 MPH south of the site and a posted speed limit of 35 MPH north of the site.

Blue Spring Road intersects River Road from the west and is controlled by a stop sign on the Blue Spring Road approach. Each approach to the intersection provides a single lane to accommodate all movements.

The Blue Spring Road and Salisbury Road/Hoover Avenue intersection is a 4-way unsignalized intersection controlled by stop signs on the Salisbury Road and Hoover Avenue approaches.

EXISTING TRAFFIC VOLUMES

Traffic volume data was collected by conducting peak hour traffic manual turning movement counts at the following 2 locations during the critical AM and PM peak hours. The counts were conducted in April and May 2019 on multiple dates when schools were in session and weather conditions did not impact routine traffic flow.

- Blue Spring Road and River Road
- ➤ Blue Spring Road and Salisbury Road/Hoover Avenue

An automatic traffic recording device was installed on River Road north of Blue Spring Road in April 2019 to record the hourly and daily traffic volumes.

Figure 2, Existing Peak Hour Traffic Volumes, is attached to the Appendix and details the AM and PM weekday peak hour volumes which were balanced based on the manual and automatic traffic counts collected.

TRIP GENERATION/DISTRIBUTION

Estimates of traffic to be generated by the 154 multi-family residential units were made after consulting the 10^{th} Edition of the ITE Trip Generation manual. ITE Land Use Code 220, Multifamily Housing, was utilized for the analysis herein. Table I illustrates AM and PM peak street hour traffic generation.



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

Montgomery Township Planning Board

-4-

May 19, 2020

TABLE I TRIP GENERATION 154 MULTI-FAMILY RESIDENTIAL UNITS

	AM F	SH		PMP	SH
IN	OUT	TOTAL	In	OUT	TOTAL
18	57	75	55	35	90

Estimates of traffic distribution were made after reviewing the adjacent roadway network, access to higher order roadways such as Route 1, Route 206, Route 27 and Route 518 and existing traffic volume patterns in the area. Based upon this review, site traffic was distributed as follows:

TABLE II TRAFFIC DISTRIBUTION

To/From	PERCENTAGE
River Road-South	60%
River Road-North	20%
Blue Spring Road-West	20%

Figure 3 in the Appendix illustrates site generated and distributed traffic volumes.

ANALYSIS OF FUTURE TRAFFIC

A design year of 2025 was established as an appropriate time frame to obtain approval, construct the dwellings and occupy the development. The NJDOT's *Background Growth Rate* data for the area was consulted and a 1.0-1.75 percent growth rate was recommended. The analysis herein considered a background traffic growth rate of 2.0 percent per year for 3 years and 0.50 percent for 3 years or approximately 10 percent was added to base traffic volumes in order to arrive at year 2025 *no-build* traffic volumes in accordance with the NJDOT methodology. *Figure 4* in the *Appendix* illustrates design year pre-development traffic volumes including background traffic growth. *Figure 5* in the *Appendix* illustrates design year 2025 post-development traffic volumes including traffic generated from the *Havens at Princeton* project. In addition, a portion of the traffic from the *Montgomery Woods* dwellings located along Salisbury Road were assigned to Salisbury Road Extension and are included in the 2025 post-development traffic volumes.



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

Montgomery Township Planning Board

-5-

May 19, 2020

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.

Full definitions of levels of service for unsignalized intersections as well as 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 (HCS)*, release 7.5.

BLUE SPRING ROAD AND SALISBURY ROAD/HOOVER AVENUE

Findings were that this unsignalized 4-way intersection currently operates at level of service "B" and will continue to operate at level of service "B" for both peak hours analyzed under 2025 future traffic volumes. Both levels of service are considered to be well within acceptable traffic engineering parameters.

RIVER ROAD AND BLUE SPRING ROAD

The Blue Spring Road approach to River Road currently operates at level of service "C" and "B" for the AM and PM peak hours respectively. Under the 2025 pre and post-development conditions, the eastbound approach will continue to operate at level of service "C" and "B" for the AM and PM peak hours respectively. The River Road northbound approach currently operates at level of service "A" for both the AM and PM peak hours and will continue to operate at level of service "A" under 2025 pre and post-development conditions.



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

Montgomery Township Planning Board

-6-

May 19, 2020

RIVER ROAD AND SALISBURY ROAD EXTENSION (SITE ACCESS)

At the River Road access which will serve *Montgomery Woods* traffic and the *Haven at Princeton* project, findings were that exiting movements would do so at level of service "B" during the AM peak street hour and level of service "D" during the PM peak street hour. The northbound left turn movement is projected to operate at level of service "A" for the post-development condition for both peak hours analyzed. Therefore, this intersection will operate within acceptable traffic engineering parameters.

SITE PLAN & PARKING

The Site Plan, prepared by DSE shows the residential component of Haven at Princeton being designed to conform to New Jersey RSIS with 24 foot wide roadways serving the townhomes and apartments. The plan complies with the RSIS Horizontal Roadway Design and Accessibility standards. According to the RSIS, 2.4 spaces per unit are required for the 122 three-bedroom townhome units or 293 parking spaces. A total of 305 parking spaces are proposed to support the 122 townhomes consisting of 122 garage spaces, 122 driveway spaces and 61 on-street parking spaces. The apartment buildings will be served by 65 parking spaces where 64 parking spaces are required by RSIS. The parking supply provided meets and exceeds the RSIS requirement and will be more than adequate to support the community.

The extension of Salisbury Road from its terminus in *Montgomery Woods* through the subject property to River Road will provide a more complete street system from Blue Spring Road to River Road to better accommodate Municipal emergency services, public works and the school district.

CONCLUSIONS

It is concluded, based on the analysis set forth in this report, that plans to construct *Haven at Princeton*, consisting of 122 townhomes and 32 apartments on the noted property, can be approved and operate compatibly with future traffic conditions in the area.



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

Montgomery Township Planning Board

-7-

May 19, 2020

An extension of Salisbury Road, in an easterly direction, will serve the *Haven at Princeton* project as well as the adjoining *Montgomery Woods* multi-family project. Therefore, the *Haven at Princeton* project will have direct access to both Blue Spring Road and to River Road. The Salisbury Road extension will provide direct access to River Road for the existing dwellings west of the project to River Road. In addition, the Salisbury Road extension will provide a complete roadway network from Blue Spring Road to River Road to better accommodate Township services such as emergency services, public works and the school system.

Levels of service at the River Road and Blue Spring Road intersection and at the site access to River Road will operate within acceptable traffic engineering parameters for the 2025 design year. The *Site Plan* itself has been designed in accordance with New Jersey RSIS, with regard to parking and circulation, thereby ensuring safe and efficient internal circulation.

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

Very truly yours,

Jay S. Troutman, Jr., PE

Principal

Scott T. Kennel

Sr. Associate

cc:

David Schmidt, P.E

Trip Brooks





McDONOUGH & REA ASSOCIATES

TRAFFIC AND TRANSPORTATION CONSULTING

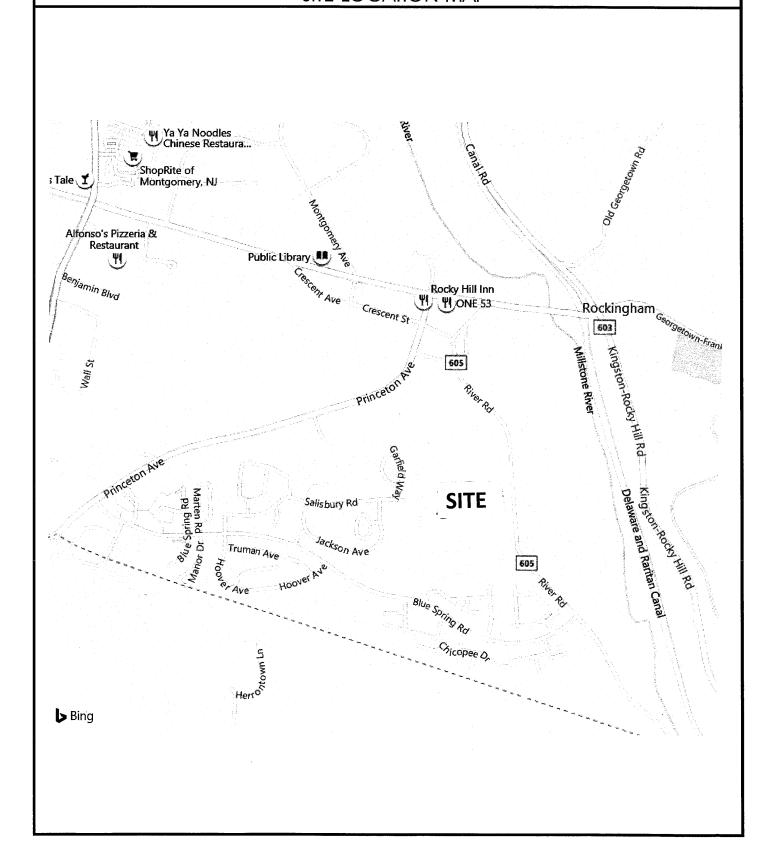
FIGURE

JOB NO.

DATE:

19-143 MAR 2020

HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO. SITE LOCATION MAP SUBJECT:



MR

McDONOUGH & REA ASSOCIATES

TRAFFIC AND TRANSPORTATION CONSULTING

FIGURE

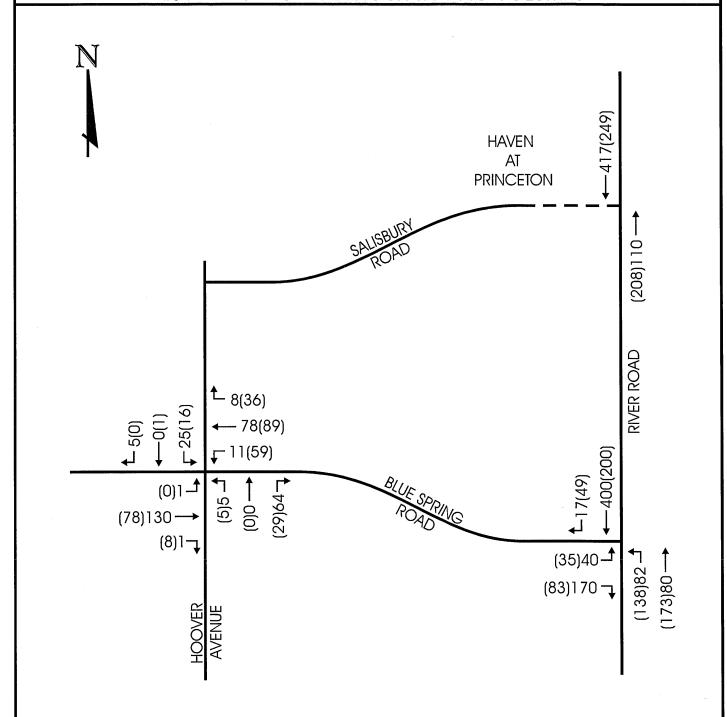
2

JOB NO. 1**9-**143

MAR 2020

SUBJECT:

HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO. 2019 EXISTING PEAK HOUR TRAFFIC VOLUMES



M McD

McDONOUGH & REA ASSOCIATES

TRAFFIC AND TRANSPORTATION CONSULTING

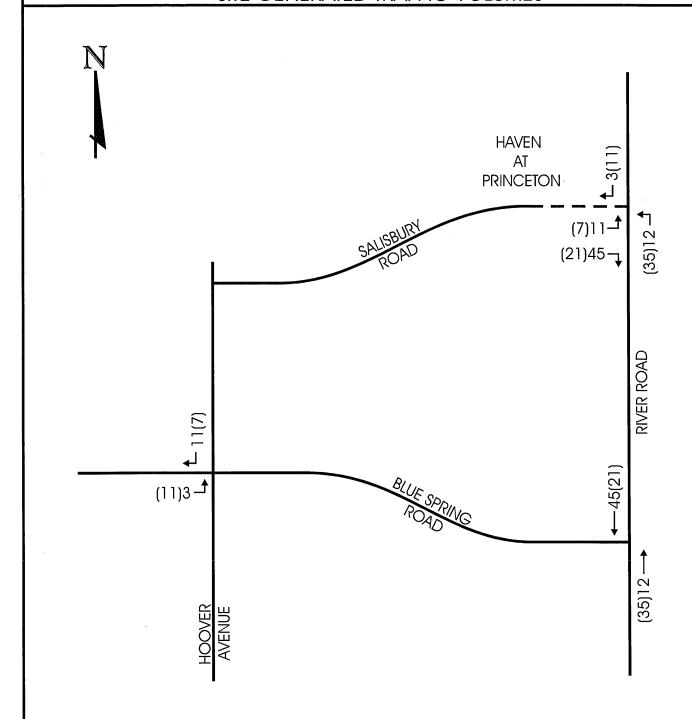
FIGURE 3

JOB NO.

DATE:

19-143 MAR 2020

SUBJECT: HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO.
SITE GENERATED TRAFFIC VOLUMES



McDONOUGH & REA ASSOCIATES TRAFFIC AND TRANSPORTATION CONSULTING

FIGURE

JOB NO.

DATE:

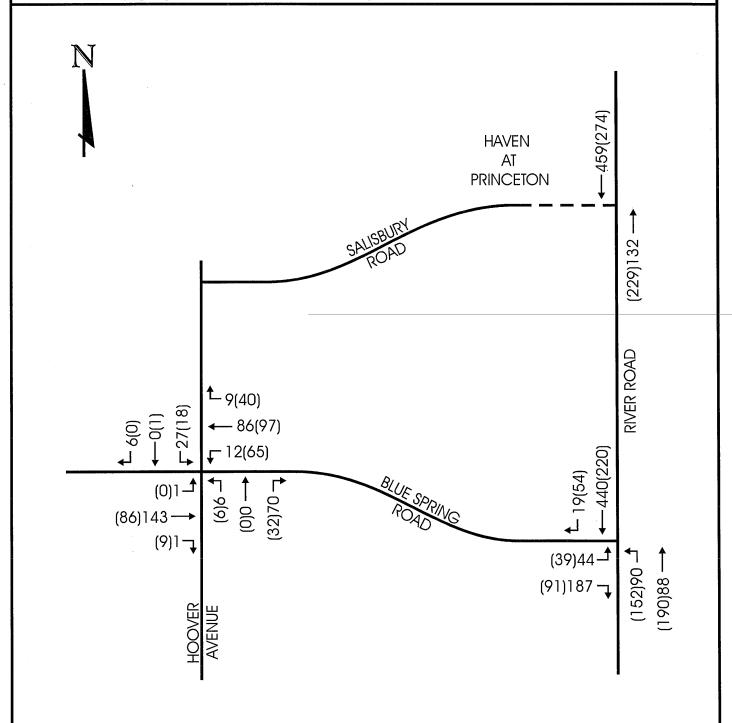
4

19-143

MAR 2020

SUBJECT:

HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO. 2025 FUTURE PRE - DEVELOPMENT TRAFFIC VOLUMES



MR

McDONOUGH & REA ASSOCIATES

TRAFFIC AND TRANSPORTATION CONSULTING

FIGURE

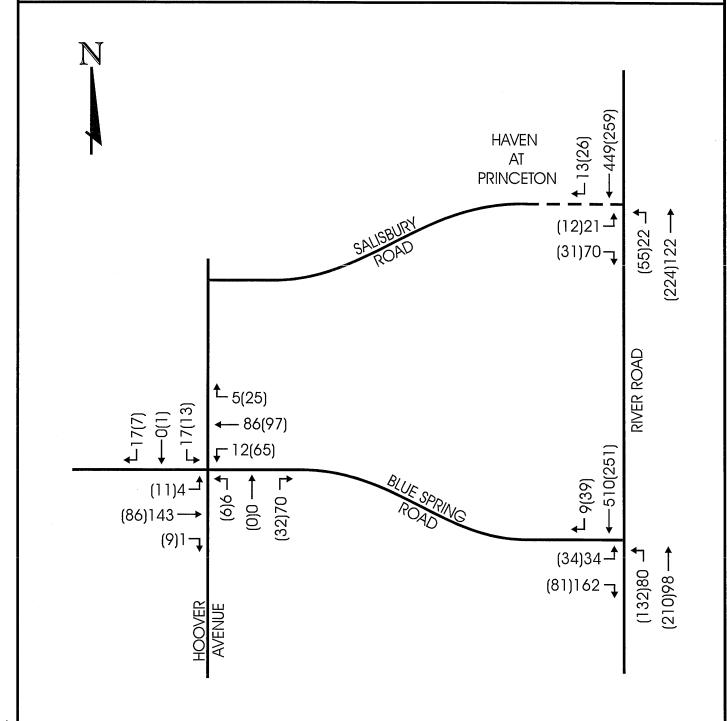
JOB NO. 19-143

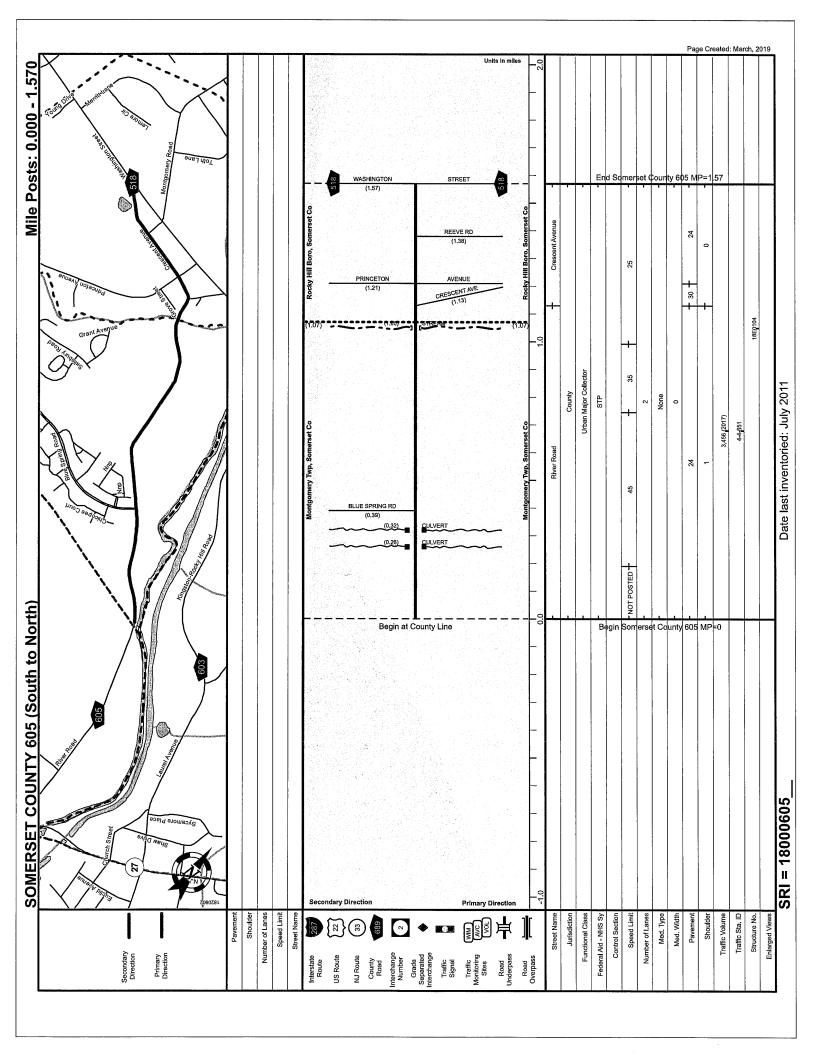
DATE: MAR 2020

5

SUBJECT:

HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO. 2025 FUTURE POST - DEVELOPMENT TRAFFIC VOLUMES





HAVENS AT PRINCETON RIVER ROAD (CR 605) MONTGOMERY TOWNSHIP, SOMERSET COUNTY MRA JOB 19-143 ATR COUNT

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

Site Code: 19143
19143 RIVER RD MONTGOMERY ATR COUNT1
Located on River Road (CR 605)
North of Blue Spring Road
Station ID: 16293

	NB(B)	SB(A)	NB(B)	SB(A)	Wed NB(B)	SB(A)	I nu NB(B)	SB(A)	rn NB(B)	SB(A)	Sat NB(B)	SB(A)	Sun NB(B)	Week Average SB(A) NB(B)	verage NB(
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	¥	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	**	
*	*	*	*	*	*	*	*	*	*	*	*	*	*		
*	*	*	*	*	*	*	*	*	*	*	*	**	*	· *	
*	*	*	*	*	*	*	*		*	* 50 14 1.3	*		*	***	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
*	*	*	*	*		*	*	*	•	*			09	92	9
*	*	*	*	*	*	*	*	*	*	*	*	86	22	86	Ωi
	*	*			*	*	*	*	*	*	*		64	62	9
*	*	*	*	*	*	*	*	*	*	*	*	68	41	68	41
*	*	*	*	*	*	*	*	*	*		*	53	38	53	87
*	*	*	*	*	*	*	*	*	*	*	*	33	20	39	Ñ
*	*	*	*	*					*	*	*	29	10	29	-
*	*	*	*	*	*	*	*	*	*	*	*	8	8	80	
*	*	*	*	*	*	***************************************	*	*	*	*	*	5	9	2	
0	0	0	0	0	0	0	0	0	0	0	0	480	304	480	304
0			0		0	0	0		0)	0	. 784	34	784	
	1	•	1	,	1	1	ı	1	1	1	•	1	1	•	
-			1	1	1		1	1	•	1				1	
		1	1	1	•	1	•	•	•	•	•	15:00	17:00	15:00	17:00
	•	ı	1		•	•	•	•	•	•	•	92	64	92	_Q

HAVENS AT PRINCETON RIVER ROAD (CR 605) MONTGOMERY TOWNSHIP, SOMERSET COUNTY MRA JOB 19-143 ATR COUNT

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

Site Code: 19143
19143 RIVER RD MONTGOMERY ATR COUNT1
Located on River Road (CR 605)
North of Blue Spring Road
Station ID: 16293

/erade	NB(B)	2	ی ا	1 ~	•	- «	<u>ہ</u> م	5. 4.	87	88	92	80	85	88	82	79	106	142	162	115	65	41	22	15	9	1426		00:60	92	17:00	162
Week A	SB(A) NB(B)	4		10	٥ ا	10	1 5	<u>.</u> 92	239	326	195	66	E	118	110	115	143	176	206	194	104	71	52	23	13	2395	3821	08:00	326	17:00	206
_	NB(B)	*	*	*	*	*	*	*	*.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0		,			•
Sun	SB(A)	*	*	*	* 10 · 5 ·	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*		0	0		•	,	
Sat	NB(B)	2	ď	, —	•	. 0	14	· თ	22	34	64	79	73	79	29	61	99	74	49	*	*	*	*	*	*	069		10:00	79	12:00	62
တ	SB(A)	9	~	•	۳.	, 				44									À.	*	*	*		*		929		11:00	121	12:00	114
=	NB(B)	4	0	2	•	- m	10	32	72	72	83	83	73	97	121	96	9	114	120	29	29	37	22	24	F	1294	_	00:60	83	13:00	121
Ξ	SB(A)	8	٣	က		, , ,				231																20		08:00	231	17:00	186
Thu	NB(B)	5	c	0	2	1 ^	23	26	107	105	91	64	71	84	9/	80	119	155	195	133	29	47	27	15	9	1530	~	07:00	107	17:00	195
-	SB(A)	S.	22	0	2	1 4	10	26	290	397	188	103	06	130	104	116	178	230	235	182	127	80	47	32	17	2669	4196	08:00	397	17:00	235
Wed	NB(B)	0	•	2	Ť	7	24	53	117	66	112	20	85	92	77	82	126	178	207	11		40	24	12	တ	1579	7.	00:20	117	17:00	207
≤	SB(A)	4		7	0	0	11	06	338	423	203	111	117	104	103	127	153	180	226	196	110	78	65	17	10	2675	4254	00:80	423	17:00	226
Tue	NB(B)	က		7	0	7	17	09	108	106	112	120	130	114	82	71	123	170	198	144	- 61	46	15	7	7	1706		11:00	130	17:00	198
	SB(A)	2	0	_	0	4	13	100	327	426	285	06	103	123	93	123	178	201	257	289	110	69	20	22	14	2880	4586	08:00	426	18:00	289
r-19	NB(B)	0	2	0	2	<u></u> 0	16	29	94	101	92	62	9/	80	63	80	110	163	202	130	75	36	21	13	4	1493		08:00	101	17:00	202
15-Apr-19	SB(A)	0	7	7	.	7	16	94	297	435	247	112	Ξ	117	66	109	151	210	257	194	92	62	43	14	10	2697	4190	08:00	435	17:00	257
Start	Time	12:00 AM	01:00	02:00	03:00	04:00	02:00	00:90	02:00	08:00	00:60	10:00	11:00	12:00 PM	01:00	05:00	03:00	04:00	00:50	00:90	02:00	08:00	00:60	10:00	11:00	Lane	Day	AM Peak	Vol.	PM Peak	Jo.

4605

784

1649

3311

4199

4254

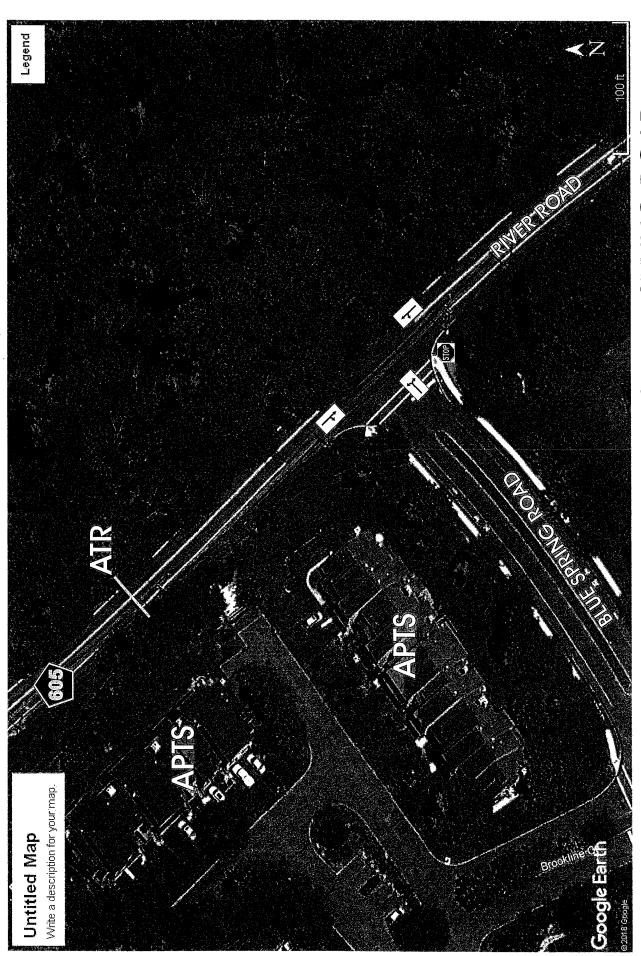
4586

4190

Comb. Total **AADT 4,307**

ADT 4,307

ADT



MRA JOB 19-143 RIVER ROAD & BLUE SPRING ROAD MONTGOMERY TOWNSHIP, SOMERSET COUNTY

McDonough & Rea Associates

1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076 HAVENS AT PRINCETON
RIVER ROAD & BLUE SPRING ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY
MRA JOB 19-143 WEDNESDAY AM COUNT

File Name: 19143 river & blue spring am1 Site Code: 00019143 Start Date: 5/1/2019 Page No: 1

Page No

				Int. Total	125	141	+ 1	154	191	611	5	156	200	2 6	162	134	652	700	1263				
				App. Total	32	38	၃ ၄	46	23	170	771	42	46	P (36	33	166	200	338		28.8	- 5 5 7	
		Blue Spring Road	Eastbound	Right	30	. 60	- ·	36	42	420	<u> </u>	36	30	60	33	တ္တ	120	020	277	82.0	0,70	S:-14	
•		Blue	_	Left	r.C	1 0	,	10	7	00	ဂ္ဂ	9	7	_	9	ග	90	07	61	18.0	0 7	t. Ö	
	OL BUS			App. Total	30	3 6	န	27	43	007	130	31	27	74	46	45	707	104	300		c	0.62	
	Groups Printed- CARS - TRUCKS - SCHOOL BUS	River Road (CR 605)	Northbound	Thru	10	2 (53	4	17	101	દ	13	ç	23	27	12	11.	ري	148	49.3		7.1.7	
	inted- CARS -	River		- Bill	1	= !	13	13	26	21	83	18	. 4	3	19	33	3 8	68 8	152	50.7		12.0	
	Groups Pr			Ann Total	BO . red	3	29	84	96.	8	303	83) (112	77	. ני	3	322	625	2	1	49.5	
		River Road (CR 605)	Southhound	Diaht	T. C.	7	4	ď	0 0	7	-	œ	ו	_	^	10	7	17	28	у У .г.	ţ.	2.2	
AY AM COC		River		144	ם ב	သို	63	78	2 6	95	292	77	- !	105	75	2 9	40	305	507	S 12	93.3	47.3	
MKA JOB 19-143 WEDNESDAY AM COON				i H	Start Fillie	07:00 AIM	07:15 AM	02:30 AM	07.70 07.46	U1.43 AIVI	Total	MV 00:00	WIT 00:00	08:15 AM	08:30 AM	MA 11-00	U8:45 AIVI	Total		Glain Total	Appicit %	Total %	
<u>Ŷ</u>																							

	Rive	River Road (CR 605)		Rive	River Road (CR 605)	(<u></u>	Blue Spring Road	,		
		Southbound			Northbound			Eastbound			
		2000000		9-1	1000	Into Total	Ha I	Right	Ann Total		Int. Total
Start Time	Thru	Right	App. Total	Leπ	חוחו		רפונ	1 Marie	in and a		
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1	M - Peak 1 of 1		-				_				
Intersection 07:45 AM	07:45 AM						ć	4	0		200
Volume	350	17	367	85	80	162	08 <u>.</u>	150	081		807
Percent	95.4	4.6		20.6	49.4	;	16.7	83.3	9		Ċ
08:15 Volume	105	7	112	19	23	42	,	ž	04	9880	700
Peak Factor							17 10			0.00	
	08:15 AM			08:30 AM		•	U7:45 AM	Ş	CL		
Volume	105	7	112	19	27	46		47	23		
Peak Factor			0.819			0.880			0.0		

HAVENS AT PRINCETON
RIVER ROAD & BLUE SPRING ROAD
MONTGOMERY TOWNSHIP, SOMERSET COUNTY
MRA JOB 19-143 THURSDAY PM COUNT

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

File Name: 19143 river & blue spring pm1 Site Code: 00019143 Start Date: 4/18/2019 Page No: 1

		1	Int. Iotal	125	148	146	144	563	158	151	185	127	621	1184		
			App. Total	21	21	24	31	97	23	23	41	17	104	201		12.0
,	Blue Spring Road	astbound	Right	15	16	18	22	71	17	15	53	12	73	144	71.6	. 12.2
	Blue	- 1	Left	9	Ŋ	9	6	26	9	∞	12	2	31	22	28.4	4.8
OL BUS			App. Total	25	29	99	99	251	83	11	82	61	306	222		47.0
SUCKS - SCHO	River Road (CR 605)	orthbound	Thru	20	39	38	31	128	51	44	47	23	165	293	52.6	24.7
Groups Printed - CARS - TRUCKS - SCHOOL BUS	River R	No						123					141		47.4	22.3
Groups Pr			App. Total	52	09	26	47	215	52	52	59	49	211	426		36.0
	River Road (CR 605)	Southbound	Right	18	13	12	<u>(</u> 2	56	15	· 6	, 6	1.	53	109	25.6	9.2
	River	S	Thru	34	47	4	34	159	37	42	47	32 :	158	317	74.4	26.8
			Start Time	04:00 PM	04:15 PM	04:30 PM	04:45 PM	Total	05:00 PM	05:05 05:15 PM	05:30 PM	05:35 IV	Total	Grand Total	Apprch %	. Total %

				1000		ā			
ø	River Road (CR 605)		Rive	r Road (CR 605)		<u></u>	Blue Spring Koad		
	Southbound			Northbound			Eastbound		
1		App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
							;		•
	49	209	138	173	311	32	83	118	638
	23.4		44.4	55.6		29.7	70.3		
	12	29	38	47	85	12	29	41	185
						: : :			0.862
			05:30 PM			05:30 PM			
	12.	29	38	47	82	12	59	41	
		0.886			0.915			0.720	

McDonough & Rea Associates 1431 Lakewood Road Suite C SALISBURY ROAD & BLUE SPRING ROAD MONTGOMERY TOWNSHIP, SOMERSET COUNTY MRA JOB 19-143 THURSDAY AM COUNT HAVENS AT PRINCETON

Manasquan NJ 08736 (732) 528-7076

File Name: 19143 salisbury & blue spring am1 Site Code: 00019143 Start Date: 5/2/2019 Page No: 1

				Int. Total	64	75	71	75	285	91	85	72	8	328	613		
				App. Total	26	56	19	34	105	41	31	31	59	132	237		38.7
		ng Road	pund	Right	က	7	_	0	9	0	0	_	0	-	7	3.0	1.1
		Blue Spring Road	Eastbound	Thru	23	52	18	34	97	4	31	53	29	130	227	95.8	37.0
2000				Left	0	7	0	0	2	0	0	-	0	-	က	د .	0.5
-				App. Total	11	4	22	16	63	19	18	12	20	69	132		21.5
	ဟ	Avenue	puno	Right	∞	13	19	16	26	19	16	6	20	64	120	90.9	19.6
	HOOL BU	Hoover Avenue	Northbound	Thru	0	0	_	0	-	0	0	0	0	0	~	0.8	0.2
	KS-SCF			Left	က	_	7	0		0	7	က	0	5	17	8.3	1.8
	Groups Printed- CARS - TRUCKS - SCHOOL BUS			App. Total	19	22	20	16	11	52	27	22	23	97	174		28.4
	rinted- C/	Spring Road	punc	Right	0	9	0	0	9	4	7	,		80	4	8.0	2.3
	Groups P	Blue Sprin	Westbound	Thru	16	12	16	13	22	17	22	20	19	78	135	9.77	22.0
				Left	က	4	4	က	14	4	က	-	က	11	25	14.4	4.1
				App. Total	80	13	10	o	40	9	<u>о</u>	7	<u></u>	30	70		11.4
)		/ Road	puno	Right	4	4	က	7	13	•	7	_	_	2	8	25.7	2.9
		Salisbury Road	Southbound	Thru	0	0	-	0	1	0	0	0	0	0		1.4	0.2
				Left	4	တ	9	7	26	2	7	9	7	25	51	72.9	8.3
				Start Time	07:00 AM	07:15 AM	07:30 AM	07:45 AM	Total	08:00 AM	08:15 AM	08:30 AM	08:45 AM	Total	Grand Total	Apprch %	Total %

		Int. Total			328		91	0.901			
		=						o.			
		App. Total			132		41			4	0.805
ig Road	pund	Right			_	0.8	0			0	
Blue Spring Road	Eastbound	Thru			130	98.5	41			41	
		Left			~	0.8	0		08:00 AM	0	
		App. Total			69		19			20	0.863
\venue	puno	Right			64	95.8	19			20	
Hoover Avenue	Northbound	Thru			0	0.0	0			0	
		Left			2	7.2	0)8:45 AM	0	
		App. Total			26		25		_	27	0.898
Spring Road	punc	Right			œ	8.2	4			7	
Blue Sprir	Westbound	Thru			28	80.4	17			22	
		Left			=	11.3	4		38:15 AM	က	
		Thru Right App. Total			30		9		0	6	0.833
/ Road	puno	Right	of 1		2	16.7	-			7	
Salisbury Road	Southbound	Thru	1 - Peak 1 c		0	0.0	0			0	
		Start Time Left	M to 08:45 AN	08:00 AM	25	83.3	5		08:15 AM	7	
		Start Time	Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1	Intersection 08:00 AM	Volume	Percent	08:00 Volume	Peak Factor	High Int. 08:15 AM	Volume	Peak Factor,

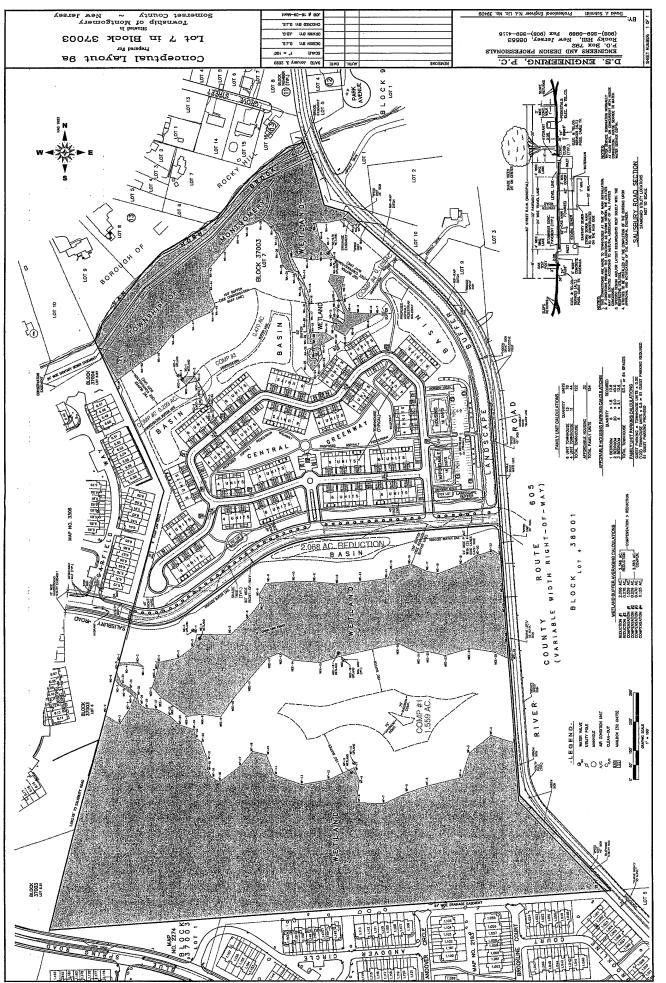
HAVENS AT PRINCETON SALISBURY ROAD & BLUE SPRING ROAD MONTGÖMERY TOWNSHIP, SOMERSET COUNTY MRA JOB 19-143 THURSDAY PM COUNT

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

File Name: 19143 salisbury & blue spring pm1 Site Code: 00019143 Start Date: 5/2/2019 Page No: 1

	it. Total	28	89	21	65	242	53	84	94	8	321	563		
	_		78	<u></u> б	19	69	10	27	24	25	98	155		27.5
y Road	Ħ		2	Ψ-	3	10	က	က	7	0	∞	18	11.6	3.2
Slue Spring	Thru	=	75	7	16	56	7	24	22	25	78	134	86.5	23.8
	Left	-	-	-	0	3	0	0	0	0	0	က	1.9	0.5
	App. Total	6	7	2	4	20	4	9	14	10	34	- 24		9.6
Avenue	Right	8	7	Ŋ	က	18	4	9	12	7	29	47	87.0	8 8
Hoover A	Thru	0	0	0	~	τ-	0	0	0	0	0	~	1. 9.	0.2
2	Left	-	0	0	0	-	0	0	7	က	2	9	7.	7.
	App. Total	34	36	33	38	141	35	47	53	49	184	325		57.7
ng Road	ouna Right	5	6	2	7	26	10	9	7	တ	36	62	19.1	11.0
Blue Sprir	Thru	22	17	16	22	11	15	22	27	22	89	166	51.1	29.5
	fie	7	9	12	6	88	10	12	19	9	29	26	29.8	17.2
	Ann Total	2	7	4	4	12	4	4	က	9	17	29		5.2
/ Road	ound	0	0	-	_	2	0	0	0	0	0	2	6.9	0.4
Salisbun	South	0	0	0	—	-	~	0	0	0	_	2	6.9	0.4
	fa	2	-2	က	7	6	က	4	က	9	16	25	86.2	4.4
	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	Grand Total	Apprch %	Total %
	id Blue Spring Road Hook But North Control Blue Spring Road Hook But North Control B	Salisbury Road Blue Spring Road Hover Town Southbound Eastbound Blue Spring Road Hover Bloom Blue Spring Road Hover Bloom Blue Spring Road Southbound Eastbound Eastbound Bloom Bloo	Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thu Right App. Total Left Thru Th	Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thru Right App. Total Int. 2 0 0 2 2 1 1 1 1 1 1 2 3 3 3 3	Salisbury Road Blue Spring Road Blue Spring Road Hoover Avenue Blue Spring Road Hoover Avenue Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Hoover Avenue Eastbound Hoover Avenue Hoover Aven	Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thru Right App. Total Int. Thru Thru Thru Right App. Total Int. Thru Thru <td>Salisbury Road Blue Spring Road Hooverhound How Pape Total Int. 13 Int. 13 1 <</td> <td>Salisbury Road Blue Spring Road Hower Avenue Blue Spring Road Hower Avenue Blue Spring Road Left Thru Right App. Total Left Thru Thru Thru Thru Thru Thru Thru Thru <</td> <td>Salisbury Road Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Blue Spring Road Hoover Avenue Hoover Avenue Blue Spring Road Hoover Avenue Hoover Ave</td> <td>Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Hoover Avenue Blue Spring Road Int. 2 0 ultipound Left Thru Right App. Total Left Thru Thru Right App. Total Thru<!--</td--><td>Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Thru Right App. Total Thru Thru App. Total App. Total App. Total App. T</td><td>Salisbury Road Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Hoover Avenue</td><td>Salisbury Road Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue <</td><td>Salisbury Road Blue Spring Road Hover Control of Eastbound Hover Particular App. Total Left Thru Thru Right App. Total Left Thru Left Thru Right App. Total</td></td>	Salisbury Road Blue Spring Road Hooverhound How Pape Total Int. 13 Int. 13 1 <	Salisbury Road Blue Spring Road Hower Avenue Blue Spring Road Hower Avenue Blue Spring Road Left Thru Right App. Total Left Thru Thru Thru Thru Thru Thru Thru Thru <	Salisbury Road Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Blue Spring Road Hoover Avenue Hoover Avenue Blue Spring Road Hoover Avenue Hoover Ave	Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Hoover Avenue Blue Spring Road Int. 2 0 ultipound Left Thru Right App. Total Left Thru Thru Right App. Total Thru </td <td>Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Thru Right App. Total Thru Thru App. Total App. Total App. Total App. T</td> <td>Salisbury Road Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Hoover Avenue</td> <td>Salisbury Road Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue <</td> <td>Salisbury Road Blue Spring Road Hover Control of Eastbound Hover Particular App. Total Left Thru Thru Right App. Total Left Thru Left Thru Right App. Total</td>	Salisbury Road Blue Spring Road Hoover Avenue Blue Spring Road Left Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Right App. Total Thru Thru Right App. Total Thru Thru App. Total App. Total App. Total App. T	Salisbury Road Blue Spring Road Hoover Avenue Eastbound Hoover Avenue Hoover Avenue	Salisbury Road Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue Hower Avenue Bule Spring Road Hower Avenue <	Salisbury Road Blue Spring Road Hover Control of Eastbound Hover Particular App. Total Left Thru Thru Right App. Total Left Thru Left Thru Right App. Total

		Int. Total			321		94	0.854			
		Right App. Total	-	•	98		24		-	27	0.796
ng Road	pund	Right			∞	9.3	7			က	
Blue Spring Road	Eastbound	Thru			78	90.7	22			24	
		Left			0	0.0	0		05:15 PM	0	
		Right App. Total	-		34		4				209.0
Avenue	ound	Right			59	85.3	12			12	
Hoover Avenue	Northb	Thru			0	0.0	0			0	
		Left			2	14.7	7		05:30 PM	2	
		Right App. Total	•		184		53			53	0.868
ng Road	Westbound	Right			36	19.6	7			7	
Blue Spring Road	Westb	Thru			88	48.4	27			27	
		Left			29	32.1	19		05:30 PM	19	
		Right App. Total			17		က			9	0.708
/ Road	puno	Right	of 1		0	0.0	0			0	
Salisbury Road	Southbound	Thru	M - Peak 1 o		_	5.9	0			0	
		Left	'M to 05:45 PI	05:00 PM	16	94.1			05:45 PM	9	
		Start Time	Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1	Intersection 05:00 PM	Volume	Percent	05:30 Volume .	Peak Factor	High Int.	Volume 6	Peak Factor,



Size of Develorment:	I E Land Ose: 220, mutitamily housing		(Low-Rise)									
J Developinent.	154	-	Units	10th								
Time Period	Average Rate	Studies	Avg. Size	22	Trips		Equ	Equation		Trips	Split	
Veekday Daily	7.32	29	168	96.0	1127.3	<u></u>	7.560		(x)- 40.860	1123.4	50 50	
AM Peak Street Hour	0.46	42	199	06.0		Ln(T)=	0.950	Ln(x)- 0.510	0.510	71.9	23 77	
PM Peak Street Hour	0.56	20	187	0.86	86.2	Ln(T)=	0.890	Ln(x)- (0.020	86.7	63 37	
AM Peak Hour of Generator	0.56	36	161	0.91	86.2	Ln(T)=	1	Ln(x)- 0.290	7.290	85.2		
PM Peak Hour of Generator	0.67	35	146	0.94	103.2	<u> </u>	0.660	+(×)	1.410	103.1	59 41	
Saturday Daily	8.14	2	88	0.93	1253.6	<u> </u>	14.010	×	(x)- 521.690	1635.9		
Saturday Peak Hour of Generator	0.70	2	88	0.92	107.8	<u> </u>	1.080	<u>×</u>	(x)- 33.240	133.1	N/A	
	6.28	2	68	96.0	967.1	<u>"</u>	10.130	<u>×</u>	(x)- 341.890	1218.1	50 50	
Sunday Peak Hour of Generator	0.67	5	89	0.93	103.2	=_	1.120	, -(×)	(x)- 40.410	132.1	N/A	

MR

McDONOUGH & REA ASSOCIATES

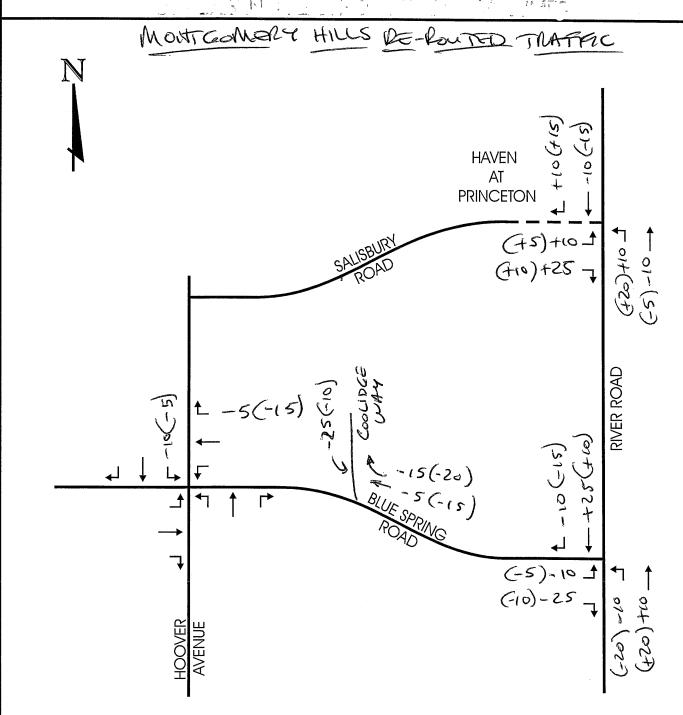
TRAFFIC AND TRANSPORTATION CONSULTING

FIGURE

JOB NO. 19-143

DATE: MAR 2020

SUBJECT: HAVEN AT PRINCETON - MONTGOMERY TWP., SOMERSET CO.

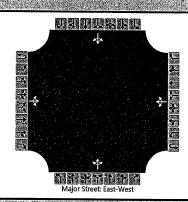


LEVEL OF SERVICE CRITERIA FOR $\label{eq:Two-Way Stop-Controlled Intersections}^1$

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

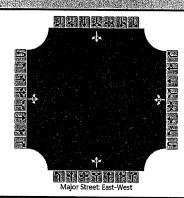
¹ Transportation Research Board, <u>Highway Capacity Manual 2010</u>, National Research Council, Washington, DC, 2010.

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst STK SALISBURY-HOOV & BLUE SPR Intersection Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** 2019 Analysis Year North/South Street SALISBURY-HOOVER Time Analyzed AM Peak Hour Factor Intersection Orientation East-West Analysis Time Period (hrs) 0.25 Project Description 19-143AE-2 EXIST



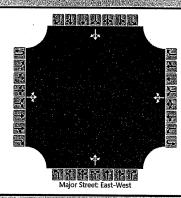
Vehicle Volumes and Adju	ustme	nts														
Approach		Eastk	oound			West	bound	Sec. and Control of Sec. and Sec. and Sec.		North	bound	<u>Olici (menopeleccion non</u>	S. Allahoro Orto Allahororo	South	bound	ARTE COLLEGE OF STREET
Movement	* Ü	Ļ	T	R	JU -	Ĺ	3 T	∉ R	Ü	Ĺ	T	Ŕ	. U	ΛL,	Ť	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0		0		0	1	. 0 -
Configuration			LTR	·			LTR				LTR				LTR	
Volume (veh/h)		1	130	1		11	78	- 8		- 5	0	64		25	0	5 5
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked							1 0.									
Percent Grade (%)										1	0				0	
Right Turn Channelized													10.0			100
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7,13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, and	l Leve	l of Se	ervice							1						
Flow Rate, v (veh/h)		1				12		270 to gasting.	7.000	CONTRACTOR OF THE PARTY OF THE	77	CV-8-000-991-1-10-20-40-0-1	A Paragraphic sales of the construction of the	general paras	33	9800488044*****
Capacity, c (veh/h)		1492				1430					. 879	ens.			636	P. Sane
v/c Ratio		0.00				0.01					0.09				0.05	A Target (After the
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.3				0.2	No.
Control Delay (s/veh)		7.4		0.0		7.5		0.1			9.5		70	CONTRACTOR S	11.0	Parameters, r
Level of Service (LOS)		Α		Α:		Α		Α	100	1 1 1 1 1 1	Α	. PAI			. В	
Approach Delay (s/veh)		0	.1			0	.9			9	.5			1	1.0	SOPRE MARRIED
Approach LOS		1	4							1, 5,5	Ą				В	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection SALISBURY-HOOV & BLUE SPR Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** 2019 Analysis Year SALISBURY-HOOVER North/South Street Time Analyzed PM Peak Hour Factor 0.90 Intersection Orientation East-West 0.25 Analysis Time Period (hrs) **Project Description** 19-143PE-2 EXIST



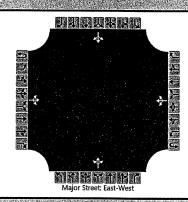
Vehicle Volumes and Adju	ustme	nts														
Approach	STERROS STATE OF THE STATE OF T	Eastl	bound	20 Constitues	And the second second	West	bound	AND REPOSE ASTROPHY	SWADOWN PORYECTS	North	bound	Billion Christian	i de la composition della comp	South	bound	
Movement	Ü	L	Ť	R	Ü	L,	T.	R	Ü÷	L	T	:R	Ü	ii Lii	T	l R
Priority	1U	1	2	3	4U	4	5	6	Same and the same	7	8	9	To the contract of	10	11	12
Number of Lanes	0	0	1	0	. 0	0	1	0		0	1	0		0	1	0 .
Configuration			LTR				LTR				LTR	3.2-	dronder out	IPCTMP-F	LTR	SETTLE STREET
Volume (veh/h)		0	78	8	9 62 - 21 9	59	89	⇒36		-5	0	29		16	1	0.
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked												# 15 S S S S S S S S S S S S S S S S S S				
Percent Grade (%)											0	7		174.11	0	to come ou seem
Right Turn Channelized		111								e.						
Median Type Storage				Undi	ivided									Address .	Chr. Lan.	2015
Critical and Follow-up Hea	adwa	ys														
Base Critical Headway (sec)		4.1				4.1	Company attenues	Strong San San	Calcone January	7.1	6.5	6.2	SASSESSES BARRIES	7.1	6.5	6.2
Critical Headway (sec)		4.13			5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	4,13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2		320.	33,233	3.5	4.0	3.3	Science en ones agree	3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23	\$ 2.52			3.53	4.03	3.33		3,53	4.03	3,33
Delay, Queue Length, and	Leve	l of Sr	ervice													
Flow Rate, v (veh/h)		0				66	445000		Season Connect -	Storesame	38	NOT PRESENTED AND ADDRESS.	22000 1990 400 400 v	AND PROPERTY.	19	A Section from the
Capacity, c (veh/h)		1438			45-3	1492	1				881				555	
v/c Ratio		0.00				0.04		'	Kara - L .		0.04	305 to 1175	318/3 (San Sa	12270,144,415	0.03	APRIL MARRIE
95% Queue Length; Q ₉₅ (veh)		0,0				0.1					0.1		100		0.1	1500
Control Delay (s/veh)		7.5		0.0		7.5		0.4	9031.00	Name and	9.3	Barbaras	Agriculture.	13875.2.00	11.7	Herogrami.
Level of Service (LOS)		Α		Α.		Α		A			A				В.,	
Approach Delay (s/veh)		0.	.0			2	2.7	ANTE ANT	Production of the second	Ĉ	9.3	Arterio acc	Service States of the	1	1.7	Seles in jobs com-
Approach LOS	*							ar in com	# 350 m		À:			20170751	В	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection SALISBURY-HOOV & BLUE SPR Agency/Co. MRA Jurisdiction **Date Performed** 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street SALISBURY-HOOVER Time Analyzed AM Peak Hour Factor 0.90 Intersection Orientation Analysis Time Period (hrs) East-West 0.25 Project Description 19-143ANB-2 NOBUILD



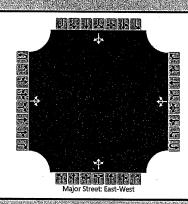
Vehicle Volumes and Adju	ıstme	nts														
Approach		Eastb	oound			West	bound	on the second plant of the second second	and the state of t	North	bound	or Made to the complete		South	bound	######################################
Movement	U	L L	, T	R.⊯	Ü	L	EET.	R	i-U-	, L.,	i T	∦ R -	U	L.	T-+	R
Priority	1U	1	2	3	4U	4	5	6		7.	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1.1	- 0		0 .	- 1	0		0:	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		- 1	143	-1		. 12	86 :	-9		6	0.	70		27	0	6
Percent Heavy Vehicles (%)		3 .				3				3	3	3		3	3	3
Proportion Time Blocked															7.0	
Percent Grade (%)										1	0				0	100 100 100 100 100 100 100 100 100 100
Right Turn Channelized													¥		4.0	
Median Type Storage				Undi	vided								37,734	20 TH 42 CH FAC.		and the same of th
Critical and Follow-up He	adwa	yś						1000								
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	. 6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, and	Leve	l of Se	ervice		50 a 1 a 1 a 1 a 1 a 1 a 1 a 1 a 1 a 1 a	10										
Flow Rate, v (veh/h)		1				13					84				37	
Capacity, c (veh/h)		1479				1413					859				609	
v/c Ratio		0.00				0.01				- Case (Case (Case	0.10	2.3/2/2011/02/2011	9-71-70-30-4T-30	124/9/10/12/20	0.06	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0		100			0.3				0.2	
Control Delay (s/veh)		7.4		0.0		7.6	- 100 Maria - Danger 148	0.1	1515-14-14-1255-24-1	es as mos troong lab	9.7	, also especializado de la constante de la con	e para Principal Production in	ARREST AND SELECT	11.3	SPACE MARK
Level of Service (LOS)		Α		Α		Ä		A			Α				В	
Approach Delay (s/veh)		0.	.1			0	.9			9	.7	■ MACHINERY (ME)	2000 E144 600 2000	1	1.3	e Parancial III
Approach LOS		1	7						errane Tokasiasan Againta		Δ		Consumer of		В	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection SALISBURY-HOOV & BLUE SPR Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street SALISBURY-HOOVER Time Analyzed PM Peak Hour Factor Intersection Orientation East-West 0.25 Analysis Time Period (hrs) Project Description 19-143PNB-2 NO BUILD



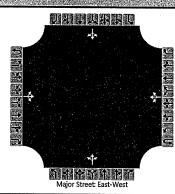
Vehicle Volumes and Adju	ıstme	nts			11		- 10 10									
Approach		Eastk	oound			West	bound			North	bound			South	bound	TARIA HONORATOR
Movement	U.	L	T.	R	Ü	Ľ	T.	R	:U	, L,	ŢΤ	R	. U	L.	Ť	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9	200 - 12. 2. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	10	11	12
Number of Lanes	0	0	1.1	0	0	* 0	1	0		0	1.1	0:1		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	- 86	9		65	97	40		6	0	32		18.	1	0 .
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)											0				0	
Right Turn Channelized													, #			
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Gritical Headway (sec)		4.13				4.13				7,13	6.53	6.23		7.13	6,53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec):		-2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33
Delay, Queue Length, and	Leve	l of Se	ervice								1000		ar en			
Flow Rate, v (veh/h)		0				72					42		50,500 00 00 00 00 00 00		21	
Capacity, c (veh/h)		1422				1479	10 m				856				521	
v/c Ratio		0.00				0.05					0.05			100000000000000000000000000000000000000	0.04	***************************************
95% Queue Length, Qes (veh)		0.0				0.2					0.2		is in the		0.1	1500
Control Delay (s/veh)		7.5		0.0		7.6	1.00 kg 200	0.4			9.4	an opposite the first to	REAL PROPERTY OF STATE	**************************************	12.2	K# \$12 118 G 14
Level of Service (LOS)		Α		A		Α		A			Â				В	
Approach Delay (s/veh)		0	.0			2	.7			9	.4	■ soon and the control of the	- 400-1275 H- 60	1	2.2	■ 1.5 PM (1.2(4))
Approach LOS						S-11 (4%)		7 - W 10 -			À .				В	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection SALISBURY-HOOV & BLUE SPR MRA Agency/Co. Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street SALISBURY-HOOVER Time Analyzed ΑM Peak Hour Factor Intersection Orientation East-West Analysis Time Period (hrs) 0.25 Project Description 19-143AFB-2 BUILD



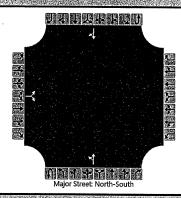
Vehicle Volumes and Adju	istme	nts												Ţ		
Approach		Eastb	oound			Westl	oound			North	bound	and the state of the second	500000000000000000000000000000000000000	South	bound	1000
Movement	Ų	Ľ	F. T	∦ R =	Ų	人。	扩	i R	Ü	E.	Ť	R	U	J. L. T	Ť	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	. / 0	1	0	0 :	0	5.1	0		Ö	1	0.		. 0	1	0
Configuration			LTR				LTR				LTR				LTR	
:Volume (veh/h)		. 4	143	1		12	86	⊴9 =		6	. 0	.70		17	0.0	17
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked										1 1 2 3						
Percent Grade (%)											0			1	0	
Right Turn Channelized					110					1.119						
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7,13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23 .				2.23				3.53	4,03	3.33		3.53	4.03	-3.33
Delay, Queue Length, and	Leve	l of Se	ervice								in +111			and the		
Flow Rate, v (veh/h)		4				13					84		AND CONTRACTOR		38	
Capacity, c (veh/h)		1479				1413					855			STATE OF	703	
v/c Ratio		0.00				0.01					0.10				0.05	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.3				0.2	
Control Delay (s/veh)		7.4		0.0		7.6	<u> </u>	0.1			9.7	12010112	3447		10.4	decimal and a second
Level of Service (LOS)	¥ .	Α		. A		A	į.	À			Α				В	
Approach Delay (s/veh)		0	.2			0	.9			g	.7			. 1	0.4	agraphic and Charles (Self Self Self Self Self Self Self Self
Approach LOS		,	Ą								Α				В	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection SALISBURY-HOOV & BLUE SPR MRA Agency/Co. Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street SALISBURY-HOOVER: Time Analyzed PM Peak Hour Factor Intersection Orientation East-West Analysis Time Period (hrs) 0.25 **Project Description** 19-143PFB-2 BUILD



Vehicle Volumes and Adju	ıstme	nts	100								-10					
Approach		Eastb	oound		200000000000000000000000000000000000000	Westl	bound	CHARLES CONTRACTOR CONTRACTOR	ATTENDED TO BRITISH AND ADDRESS.	North	bound	STORE ZEROWENDOWN	MARKAN CHERCHAR	South	bound	CONTRACTOR OF STREET
Movement	Ü	Ĺ	Ť	R	Ü		1.	i R	- U	L	T	, R	U.	* L	T	R
Priority	1U	1	2	3	4U	4	.5	6		7	8	9		10	11	12
Number of Lanes	.0	0	. 1	0	0	0	1	0		. 0	1	0		0	1.1	.,0
Configuration			LTR				LTR				LTR				LTR	Alexander of the second
Volume (veh/h)		11	86	9		65	97-	25		6'	Ö	-32		13	1	7
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked								1787-18								
Percent Grade (%)										(0				0	
Right Turn Channelized									ar i							
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2	STATE OF STA	7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3	Section and Street or	3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		.3.53	4.03	3.33
Delay, Queue Length, and	Level	of Se	ervice													
Flow Rate, v (veh/h)		12				72				-105 (4.5)	42	ATTACH TO STATE OF THE STATE OF		CONTROL OF STREET, STR	23	
Capacity, c (veh/h)		1443				1479					846				596	
v/c Ratio		0.01				0.05					0.05				0.04	1 Sell-Marie P. D. B. Assessment
95% Queue Length, Q ₉₅ (veh)		0.0				0.2.					0.2				0.1	
Control Delay (s/veh)		7.5		0.1		7.6		0.4			9.5				11.3	State Production
Level of Service (LOS)		.A		Α		A		Α			Α				В	
Approach Delay (s/veh)		0.	.8			2	.9			9	.5		333333	1	1.3	Tribus CH-4 - 2 - 2
Approach LOS											Ą				В .	

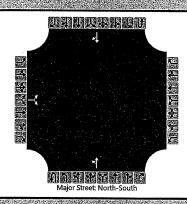
HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst STK Intersection RIVER & BLUE SPRING Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** 2019 Analysis Year North/South Street RIVER Time Analyzed AM Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 **Project Description** 19-143AE-1 EXIST



Vehicle Volumes and Adju	istme	nts					100 E									
Approach		Eastb	ound		ı	West	bound			North	bound	grand of Copulation and the		South	bound	days 12-19-2 49-117
Movement	Ü	Ü	T	R	U	L	T	R	Ü.	r L	T	R	Ų	, L	Ť	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		. 0	Ó	0	. 0	0	1	0	0	0	. 1	0
Configuration			LR							LT						TR
Volume (veh/h)		- 40		170						82	80 .		is a side		350	17
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked												*			E.	
Percent Grade (%)		(0											Control Constant		
Right Turn Channelized																
Median Type Storage				Undi	vided								2000 200 ,0000			
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		7.1		6.2						4.1				*PARIE CON 142.04/		
Critical Headway (sec)	F 1260 S	6.43	W.	6.23					7473,1404	4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)	TOWNS	3.53		3.33						2.23			7 7 7	r en en		A. C.
Delay, Queue Length, and	Leve	of Se	ervice													
Flow Rate, v (veh/h)			233							91			-40.20.0-40.2-40	on Property of Allen		29.00.00.00.00.00
Gapacity, c (veh/h)			575						1000	1:146					4.0	
v/c Ratio			0.41							0.08	76.280-130730045	0.0000.000		President Services	/ regarded peloty	4/469c0; POZYZON
95% Queue Length, Q ₉₅ (veh)			2.0							0.3						
Control Delay (s/veh)			15.5		20.00.00			and the second second		8.4	Comment of the Commen		221-221-0100	ement 1/20/0/2012	V continuenting	
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		15	5.5				_ section to security the fire	- 2 PMC 840 E 2	And the mining of the	4	.6	***************************************	0.0000000000000000000000000000000000000		1-00-00-00-00-00-00-00-00-00-00-00-00-00	
Approach LOS	rus versi Karanera	(-											17.5	land a	

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection **RIVER & BLUE SPRING** Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2019 North/South Street RIVER Time Analyzed РМ Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 Project Description 19-143PE-1 EXIST

Lanes



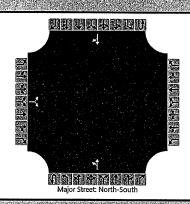
		e												

Approach		Eastb	ound			West	bound				bound				bound	With the Constitution of t
Movement.	7 U 1	Ĺ	Ť	R	Ü	L.	žΤ	R	U	Livi	计计算	R	Ů	L	Î.T.	i R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1.	0	4200	0	0	0 -	0 .	0	1	i 0	0	.0.	1.1	0
Configuration			LR							LT			1 to 14 - 1 to 14 to 1 to 1			TR
Volume (veh/h)		35		. 83			Section 1			138	173				200	. 49
Percent Heavy Vehicles (%)		3		3						3				112 344 - 444	22.27.2	All public of the service
Proportion Time Blocked																
Percent Grade (%)		(0												a service of beautiful	1
Right Turn Channelized									e e							No.
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys														1111
Base Critical Headway (sec)		7.1		6.2						4.1		ALL SUCCESS CHAP BASE	5000031G1170400001	3500-135000020	an engrasan agai	
Critical Headway (sec)		6.43		6.23				10.374.00		4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2			100000000000000000000000000000000000000		231-97-338	Jan - Clysteren
Follow-Up Headway (sec)		3.53		3.33						2.23						3 de 18 de 18
Delay, Queue Length, and	Leve	l of Se	ervice							1						
Flow Rate, v (veh/h)	- control participation	MARINE DEBONDO	131		BISK PERSONAL STREET	RECOMPANION STATE		eremperasias p		153				100000000000000000000000000000000000000		T
Capacity, c (veh/h)			560						10.00	1280			3			
v/c Ratio	WWW. 100 100 100 100 100 100 100 100 100 10	TOTAL PROPERTY.	0.23	\$40.000 (20) EXE	\$400,000 E.S. \$300.0		Taran and a second	(Marcon programs of the	407502954290-	0.12	1 100,000,000,000	Service Services			-clas55076-51	
95% Queue Length, Q ₉₅ (veh)	4 - 5 - 5		0.9						1.1	0.4						
Control Delay (s/veh)	- Decomposition	2 1 m / Ton 2 M / 1	13.4	or and the production of the	The William Street of Street	21 - 40 (32 7 WELLS		Company of Self.	44. Co-455.CO (1.6. \$	8.2	11/04F56189318E		- tt. (9568 JB(8		
L'evel of Service (LOS)			В					10.55		Α						
Approach Delay (s/veh)	- 1000000000000000000000000000000000000	13	3.4					The state of the s	200000000000000000000000000000000000000	4	.2	Services and the			and residence of the	· Market Co.

В

Approach LOS

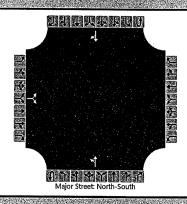
HCS7 Two-Way Stop-Control Report Site Information **General Information** Analyst Intersection RIVER & BLUE SPRING Agency/Co. MRA Jurisdiction **Date Performed** 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street . RIVER Time Analyzed AM Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 19-143ANB-1 NO-BUILD **Project Description**



Vehicle Volumes and Adju	ıstme	nts														
Approach		Eastk	oound			West	bound			North	bound	A CONTRACTOR BUSINESS	THE STREET STREET	South	bound	a option that the
Movement	Ü	L	ंग	, R	i U	Ü	Ş.T	R	U	(E)	Ť	Ŕ	÷,U	L	Ť	i. R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1.,	0		ž 0	0	- 0	0	, 0 ,	1	. 0	0	0	1	0
Configuration			LR							LT			· ·			TR
Volume (veh/h)		44		187						90	- 88				440	19
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked					\$150.00 1											The second
Percent Grade (%)			0													*************************************
Right Turn Channelized											1	, Part	acedae co			114 22 31
Median Type Storage				Undi	vided											
Critical and Follow-up He	adwa	ys							100							
Base Critical Headway (sec)		7.1	,	6.2						4.1						34.54.22.4.4.20.00.40
Critical Headway (sec)		6.43		6.23			3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			4.13			0.941			
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3,53		3.33						2.23						
Delay, Queue Length, and	Leve	l of Se	ervice													
Flow Rate, v (veh/h)			257							100					3. 11. dail. 12. dail. 13. dail.	THE STATE OF THE PERSON
Gapacity, c (veh/h)			496		100					1050	ar ye		作品 を言語			
v/c Ratio			0.52							0.10						
95% Queue Length, Q ₉₅ (veh)			2.9							0.3						
Control Delay (s/veh)			19.8							8.8						2 Sept 645 1045 155
Level of Service (LOS)			Ű-Č							Ă						
Approach Delay (s/veh)		19	9.8							4	.9		and the second s	LONG STREET	A STATE OF THE STA	- Programme Brider
Approach LOS			C				A de la composition della comp									

	HCS7 Tw	vo-Way Stop-Control Report	
General Informati	On promo all transfer and the	Site Information	
Analyst	STK	Intersection	RIVER & BLUE SPRING
Agency/Co.	MRA	, Jurisdiction	
Date Performed	4/21/2020	East/West Street	BLUE SPRING
Analysis Year	2025	/ North/South Street	RIVER
Time Analyzed	PM	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	19-143PNB-1 NO-BUILD	•	

Lanes



Approach			ound				bound			North			Southbound				
Movement	U	L.	Ť	R	U	L	T	R	Ü	L	T	∘R-	Ü.	Ľ	Ť	R	
Priority		10	11	12		. 7	8	9 ·	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	, 1	- 0		0	0	0	0	0	1	0	0	0	- 1	0	
Configuration			LR							LT						TR	
Volume (veh/h)		39		91						152	190				-220	54	
Percent Heavy Vehicles (%)		3		3						3							
Proportion Time Blocked													4				
Percent Grade (%)	<u> </u>	(0														
Right Turn Channelized	The St.																
Median Type Storage				Undi	vided												
Critical and Follow-up He	eadwa	ys															
Base Critical Headway (sec)		7.1		6.2						4.1	100 mm		The contract of the contract o	CANADAMINE N			
Critical Headway (sec)		6.43		6.23					1	4.13							
Base Follow-Up Headway (sec)		3.5		3.3						2.2				100 344 14-0-74- 4-9	ION INTO A SOCIAL		
Follow-Up Headway (sec)		3.53		3.33						2.23			ř.				
Delay, Queue Length, and	l Leve	l of Se	ervice														
Flow Rate, v (veh/h)			144					232000000000000000		169		and water takens	PERSONAL PROPERTY OF THE PARTY				
Capacity, c (veh/h)			517				A contract for the contract			1251							
v/c Ratio			0.28							0.14			A A A STORY OF THE SECTION OF THE SE	20 A COLOR OF SUR	2 2022 1/20	CONTRACTOR STATE	
95% Queue Length, Q ₉₅ (veh)			1,1							0.5					1		
Control Delay (s/veh)			` 14.6							8.3				2000, KT 5 KT 1 T 5 KT	en alta de si ne rital	44.00 2005. P. St. Salg	

Level of Service (LOS)

Approach Delay (s/veh)

Approach LOS

Vehicle Volumes and Adjustments

В

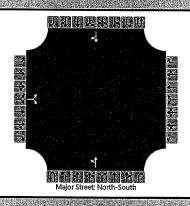
14.6

Α

4.4

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	STK	Intersection	RIVER & BLUE SPRING
Agency/Co.	MRA	Jurisdiction	
Date Performed	4/21/2020	East/West Street	BLUE SPRING
Analysis Year	2025	North/South Street	RIVER
Time Analyzed	AM	Peak Hour Factor	0.90
Intersection Orientation	North-South	- Analysis Time Period (hrs)	0.25
Project Description	19-143AFB-1 BUILD		

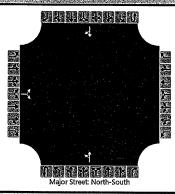
Lanes



Vehicle Volumes and Adj	ustme	nts															
Approach		Eastl	oound			West	bound			North	bound		Southbound				
Movement	U	i, L	J.	R	Ü	L	Т	. R	Ü	LS	Т	R	U	Ĺ	ΥT	R .	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		- 0.	1	0		0	0	0	0	- 0 -	-1	0.	0	. 0	1	:0	
Configuration			LR							LT						TR	
Volume (veh/h)		:34		162						80	- 98				ø 510	. 9	
Percent Heavy Vehicles (%)		3		3						3							
Proportion Time Blocked							12.74									25	
Percent Grade (%)			0														
Right Turn Channelized																	
Median Type Storage				Undi	vided											1012 17 41 -1040	
Critical and Follow-up H	eadwa	ys							100								
Base Critical Headway (sec)		7.1		6.2						4.1			no reproduction			500000000000000000000000000000000000000	
Critical Headway (sec)		6.43		6.23				4 1 1		4.13							
Base Follow-Up Headway (sec)		3.5		3.3						2.2					30,000		
Follow-Up Headway (sec)		3,53		3.33	4 (1) (1) 46 (1) (4) (4)		1			2.23							
Delay, Queue Length, an	d Leve	l of S	ervice														
Flow Rate, v (veh/h)			218							89		12.00.00.10.10.10.10.10.10.10.10.10.10.10.					
Capacity, c (veh/h)			459		4 . (4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.					992							
v/c Ratio			0.47							0.09	an armond the	S. A. S.	A CONTRACTOR OF PROPERTY.	* / 1000-A147/A16	on and was to apply is	- Constitution	
95% Queue Length, Q ₉₅ (veh)			2,5						3	0,3							
Control Delay (s/veh)			19.7					30.000	2 00 10 mm 10 2 mm	9.0	00-260 pt 20 apr (1981).		141 S. 1 S. 2 S. 2 S. 2 S. 2 S. 2 S. 2 S.		e encapera	a consumer of the	
Level of Service (LOS)			C		41					A							
Approach Delay (s/veh)		19	9.7		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				FOR MANAGEMENT	4	.5	A PROPERTY LINES (\$100)	2675/jesseg/5/957	C + 37-42 C 200 2 (47)	e construction	294 4250	

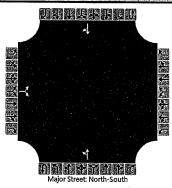
Approach LOS

HCS7 Two-Way Stop-Control Report **General Information** Site Information Analyst Intersection **RIVER & BLUE SPRING** Agency/Co. MRA Jurisdiction Date Performed 4/21/2020 East/West Street **BLUE SPRING** Analysis Year 2025 North/South Street RIVER . . . Time Analyzed Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 **Project Description** 19-143PFB-1 BUILD



Vehicle Volumes and Adju	ıstme	nts			100									1845 C		- 1
Approach		Eastb	oound	e and the same state of	1100000	West	bound	STATUS ELECTRONICA	PROCESSOR SERVICES	North	bound	an or a transfer of		South	bound	
Movement	U.	L	Ť	R	Ü	L	T	R	+ U	L	т.	R	U	i L	Ť	R
Priority		- 10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1 ;	- 0		0	0 .	0	0	0 -	11.	- 0	: 0	0	1	0
Configuration			LR							Ľ						TR
Volume (veh/h)		34		81	100					132	210		1.00		251	-39
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked															Page 1	
Percent Grade (%)	en - outeratuus ten - ou	(0													
Right Turn Channelized																
Median Type Storage	· Na salas da Aramana san		of the transfer and	Undi	vided											
Critical and Follow-up He	adwa	ys														
Base Critical Headway (sec)		7.1		6.2						4.1				30120001000000 C		CHARLES
Critical Headway (sec)		6.43		- 6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						. 35-2-1-2-2-2
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	Leve	of Se	ervice									•				
Flow Rate, v (veh/h)			128							147	Services and his ferritoring	COMPANIES (1994)	ATTENDED TO STATE OF THE STATE	100000000000000000000000000000000000000	20.64627.006.000.00.00	SDAME OF STREET
Capacity, c (veh/h)			515							1232						
v/c Ratio			0.25							0.12					######################################	23.52.42.65.65.55
95% Queue Length, Q ₉₅ (veh)			1.0				10			0.4				4		
Control Delay (s/veh)			14.3							8.3						
Level of Service (LOS)			В	100 July 100						Α.						
Approach Delay (s/veh)		14	1.3							3	.9			_		- decidad consults
Approach LOS		i i	3 · · · ·						1,77	100			E to East			

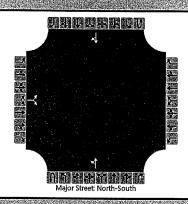
HCS7 Two-Way Stop-Control Report General Information Site Information Analyst Intersection RIVER & SALISBURY EXT Agency/Co. MRA. Jurisdiction Date Performed 4/21/2020 East/West Street SALISBURY EXT Analysis Year 2025 North/South Street RIVER : Time Analyzed ΑM Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 **Project Description** 19-143AFB-3 BUILD



Vehicle Volumes and Adju	ıstme	nts						111									
Approach		Eastb	ound	ACAGEMENT OF THE PARTY		West	bound	our de la company	NAMES OF THE PARTY.	North	bound		Southbound				
Movement	. U å	Ĺ.	Ť	† R ⊨	J. U	i L	т,	R	J, U	L.	Ť	R	∛.UŠ	L.	Ť	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4 U	4	5	6	
Number of Lanes		0	1	0		0	ž 0	<i>:</i> 0	Ö	0	1.	0	- 0	0	1	- 0	
Configuration			LR							LT						TR	
Volume (veh/h)		21		70						- 22	-122		1		449	13	
Percent Heavy Vehicles (%)		3		3						3							
Proportion Time Blocked																	
Percent Grade (%)		(כ													The Address of the Land	
Right Turn Channelized																	
Median Type Storage				Undi	vided												
Critical and Follow-up He	adwa	ys							i lace								
Base Critical Headway (sec)		7.1		6.2						4.1							
Critical Headway (sec)		6.43		6,23						4.13							
Base Follow-Up Headway (sec)		3.5		3.3						2.2					341172.000.000.000		
Follow-Up Headway (sec)		3.53		3.33						2.23							
Delay, Queue Length, and	Level	of Se	ervice														
Flow Rate, v (veh/h)			101			ero waterstand needs.)	and the constant of the			24	- Committee Committee						
Capacity, c (veh/h)			515			5				1047						i i	
v/c Ratio			0.20							0.02	10/23/01/20/21/19/2	1	N. H. Barrier (S. Carrier)	HORSE STREET	ANTONIO CONTRACTOR	188114804097	
95% Queue Length, Q ₉₅ (veh)			0.7							0.1,							
Control Delay (s/veh)			13.7						A STATE OF THE STA	8.5	- No recognition (v - semenuration		4: 15:38:36:55:56		· Charles (10)	
Level of Service (LOS)		7.	B.	ť		Costa				A			and the second				
Approach Delay (s/veh)		13	.7	1100				quanta PERSON	- Consumption First A	1	.5	Table 1 Schools of Street	Management in the second in th				
Approach LOS		E	3	1 1 1 1 1							- 11						

HCS7 Two-Way Stop-Control Report **General Information** Site Information. Analyst Intersection RIVER & SALISBURY EXT MRA Agency/Co. Jurisdiction Date Performed 4/21/2020 East/West Street SALISBURY EXT Analysis Year 2025 North/South Street RIVER Time Analyzed PM Peak Hour Factor 0.90 Intersection Orientation North-South Analysis Time Period (hrs) 0.25 **Project Description** 19-143PFB-3 BUILD

Lanes



venicle volumes and Adju	usume	nts															
Approach		Eastb	oound			West	bound			North	bound	-	Southbound				
Movement	U	L	Τ	R	Ü	L	T	Ŕ	U.	Ľ.	ΥT	R	. U	L	T'.	R	
Priority		10	11	12		7	8	9	10	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	0	.0	0	0	1	0	.0	-0	1	0'	
Configuration			LR							LT						TR	
Volume (veh/h)		12		31						- 55	224				259	26	
Percent Heavy Vehicles (%)		3		3						3							
Proportion Time Blocked																	
Percent Grade (%)		(0														
Right Turn Channelized																	
Median Type Storage				Undi	vided											37.7.7.4.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7	
Critical and Follow-up He	adwa	ys															
Base Critical Headway (sec)		7.1		6.2						4.1			ACCOUNTS OF THE COMPANY		100 (200 (200 (200)	**************************************	
Critical Headway (sec)		6.43		6,23						4.13							
Base Follow-Up Headway (sec)		3.5		3.3						2.2					A STATE OF THE STA	(a) 1960 (891 (2010)	
Follow-Up Headway (sec)		3.53		3,33						2.23					e all		
Delay, Queue Length, and	l Leve	l of Se	ervice								interest						
Flow Rate, v (veh/h)			48							61				CONSTRUCTOR		PSP AND THE PARTY OF THE PARTY	
Capacity, c (veh/h)			595							1238			1			##175 1	
v/c Ratio			0.08							0.05			and the starting of the starti	200		CONTRACTOR.	
95% Queue Length, Q ₉₅ (veh)			0.3							0.2							
Control Delay (s/veh)			11.6							8.1				20002 Spanish 1943	A SECURITION OF WARRANT	200 ADMINISTS (\$1)	
Level of Service (LOS)	1		В							A							
Approach Delay (s/veh)		11	.6							2	.0		A CONTRACTOR MARCH		THE PERSON NAMED IN		

Approach LOS