TRAFFIC IMPACT ANALYSIS

Springtree
Martin County, FL

Prepared for:
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CA 29013

EXECUTIVE SUMMARY

MacKenzie Engineering & Planning, Inc. was retained to prepare an analysis of the traffic impacts from Springtree. The site is located at the northwest corner of Springtree Place and Federal Highway, Stuart, Florida, Parcel ID 52-38-41-000-000-01101-0 and 52-38-41-000-000-01102-0.

The applicant proposes 280 mid-rise multi-family dwelling units. The development is planned for completion by the end of 2024. The analysis was performed for the 2024 roadway conditions.

The traffic analysis was performed in accordance with the City of Stuart Code, Section 4.00.00 Traffic Impact Analysis. The project meets the thresholds of Section 4.00.00. The results of the analysis show that the roadways are projected to operate acceptably with the addition of the proposed development and the project meets Stuart's concurrency requirements.

The proposed project is expected to generate the following net external and driveway trips:

- 1,524 daily, 94 AM peak hour (24 in/70 out), and 119 PM peak hour (73 in/46 out)

All roadway segments are projected to operate acceptably in 2024 with the proposed development.

Based on project traffic volumes, the driveways are projected to operate acceptably. Turn lanes are not recommended.

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LIST OF EXHIBITS

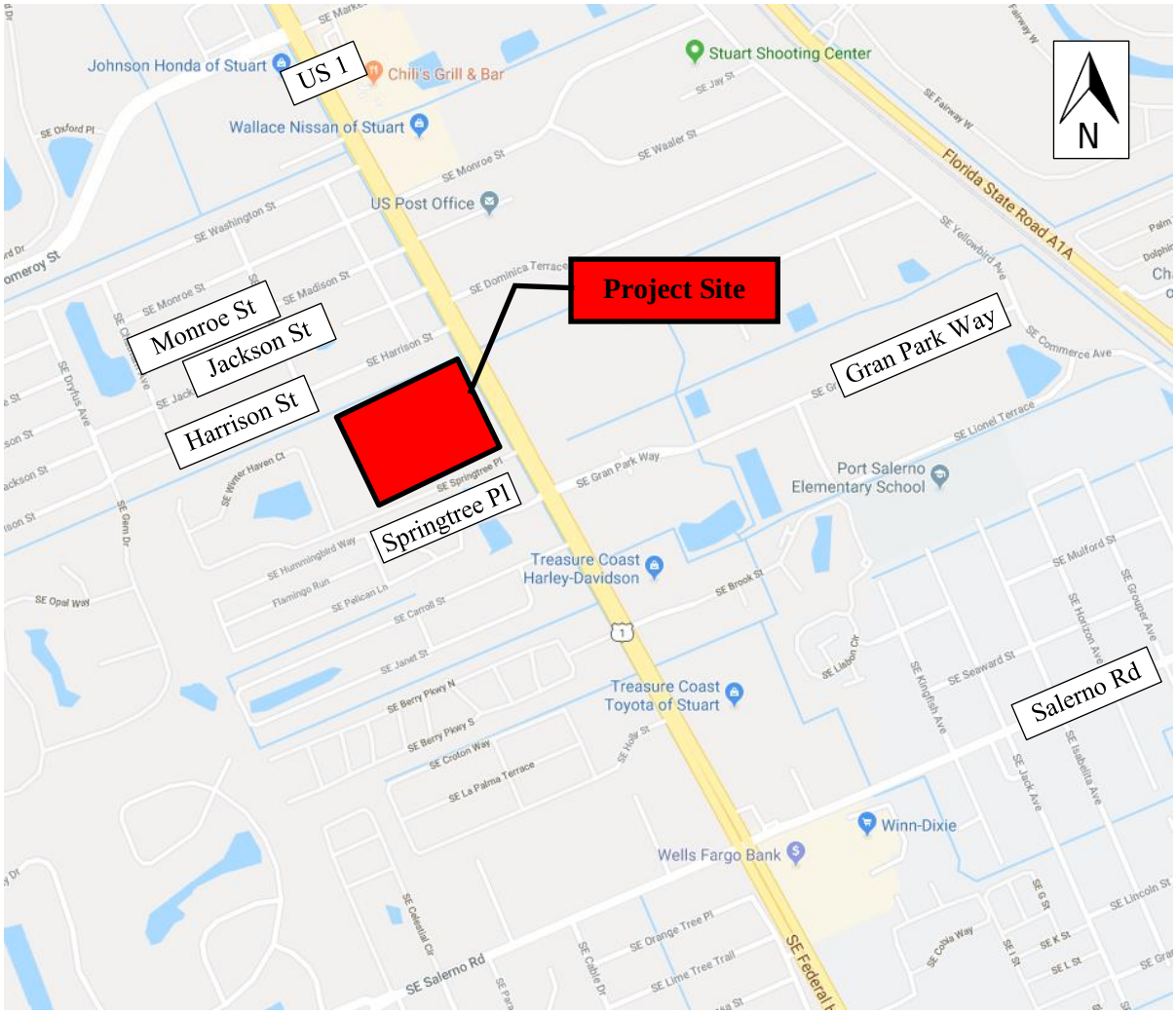
Exhibit 1. Trip Generation

INTRODUCTION

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The applicant proposes 280 mid-rise multi-family dwelling units. The development is planned for completion by the end of 2024. The analysis was performed for the 2024 roadway conditions. A site location map is shown below in Figure 1.

Figure 1. Site Location Map



INVENTORY AND PLANNING DATA

The traffic data used in this analysis were obtained from Martin County, MacKenzie Engineering and Planning, Inc. (MEP), and FDOT. The data included:

- FDOT's Q/LOS Manual
- *Trip Generation, 10th Edition* (ITE report)
- Martin County's 2018 Roadway Level of Service Inventory Report
- Martin County Impact Fee Study Technical Report, 12/2012, Walter H. Keller, Inc.

Bowman Consulting Group, Ltd., Inc. provided project development information.

PROJECT TRAFFIC

Traffic Generation

The daily and peak hour traffic generation for the development used the trip generation rates published by the Institute of Transportation Engineers (ITE)'s report, *Traffic Generation (10th Edition)* for Land Use 221, Multi-Family Housing (Mid-Rise). The proposed development plan consists of the following:

Proposed Uses

- 280 Mid-Rise Multi-Family Dwelling Units (ITE Land Use 221)

The proposed project is expected to generate the following net external and driveway trips:

- 1,524 daily, 94 AM peak hour (24 in/70 out), and 119 PM peak hour (73 in/46 out)

Internal Capture

In order to provide a conservative analysis, internal capture is not utilized.

Pass-by Capture

The site contains no pass-by capture.

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Table 1. Trip Generation

Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
		Trips	Total	In	Out	Total	In	Out
Proposed Site Traffic								
Multifamily Housing(Mid-Rise)	280 DU	1,524	94	24	70	119	73	46
NET CHANGE IN TRIPS (FOR THE PURPOSES OF CONCURRENCY)		**1,524**	**94**	**24**	**70**	**119**	**73**	**46**
NET CHANGE IN DRIVEWAY VOLUMES		**1,524**	**94**	**24**	**70**	**119**	**73**	**46**

Note: Trip generation was calculated using the following data:

				Pass-by	AM Peak Hour		PM Peak Hour	
Land Use	ITE Code	Unit	Daily Rate	Rate	in/out	Rate	in/out	Equation
Multifamily Housing(Mid-Rise)	221	DU	T = 5.45 (X) + -1.75	0%	26/74	Ln(T) = 0.98 Ln(X) + -0.98	61/39	Ln(T) = 0.96 Ln(X) + -0.63

s:\jobs - share drive\027 - bowman\011 - springtree\traffic analysis\1-22-2020 280 units\[trip generation springtree.xlsx]tgen-prop

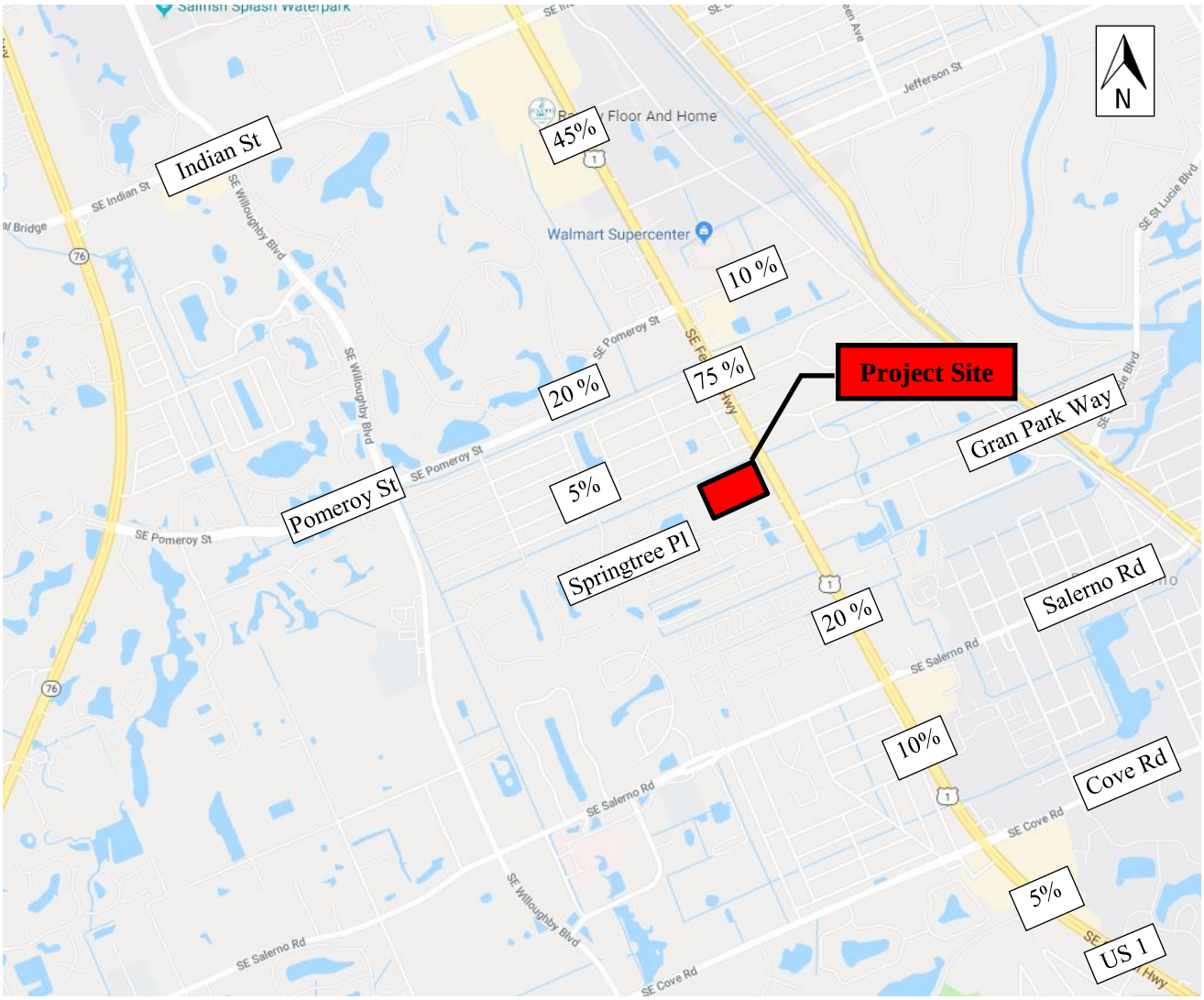
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TRAFFIC ASSIGNMENT

The traffic assignment was developed based upon existing and proposed developments, generators, destinations, and knowledge of the local area. These factors were applied using traffic engineering rationale similar to the gravity model.

- North – 75%
- South – 20%
- West – 5%

Figure 2. Traffic Assignment



SIGNIFICANCE

Significant Impact

A project significantly impacts a facility if its peak hour trips use more than five percent (5%) of a roadway's capacity (City of Stuart Code, 4.05.02 Traffic Impact Analysis). The project's traffic assignment and net external trips were utilized to determine the number of project trips on each road segment. Road capacities from Martin County's Roadway Inventory report were utilized in the study. In order to determine the project significance, the project's trips were divided by the roadway segment capacity. Based on the City's significance methodology, the proposed project does not significantly impact US 1. However, the study area will include the intersection at US 1 & Jackson Street and US 1 & SE Gran Park Way. The roadway capacities and the project significance are shown in Table 2.

Study Area

Based on Section 4.05.02 of the Code, the study area for transportation concurrency is all links and aggregated segments or parts thereof, on the major road network on which the project traffic has an impact of at least 5 percent and the first directly accessed roadway link (segment).

Table 2. Project Impacts 1-Way Peak Hour (Significance)

Roadway	From	To	Lanes	Generalized Service Capacity	Assign	Project Traffic	Significance	Significant Impact (Y/N)
SR-5 (US-1)	Cove Rd	Salerno Rd	6	3,020	15%	11	0.36%	no
	Salerno Rd	Pomeroy St	6	3,020	75%	55	1.82%	no
	Pomeroy St	Indian St	6	3,020	45%	33	1.09%	no
Pomeroy St	Willoughby Blvd	SR-5	2	790	20%	15	1.90%	no

As shown in Table 2, there are no roadways that are significantly impacted by the project.

Intersection Analysis

The study analyzed the following intersections, because this is the peak period of impact for each intersection:

- US Highway No. 1 & Monroe Street – AM / PM
- US Highway No. 1 & Jackson Street – PM
- US Highway No. 1 & Harrison Street – AM
- US Highway No. 1 & Springtree Place - AM
- US Highway No. 1 & SE Gran Park Way - AM

The intersection traffic volumes were grown to the buildout year of 2024. MacKenzie Engineering and Planning, Inc. collected AM and PM peak hour turning movements. The counts were adjusted to peak season conditions using FDOT's peak season adjustment factors. Signal timings were obtained from Martin County. Based on this analysis, the intersection is projected to operate acceptably.

US 1 & Monroe Street – AM / PM

Intersection analysis at US 1 & Monroe Street was performed during the AM and PM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, the intersection is projected to operate acceptably with all movements operating under capacity (v/c ratio less than 1.0) during the PM peak hour. All of the turn-lanes used by vehicles destined to or from Springtree are projected to be adequate.

Table 3. US 1 & Monroe Street AM and PM 2024 Storage Analysis

Direction	Turn-Lane	AM Peak 95th % Queue (ft)	PM Peak 95th % Queue (ft)	Existing Storage (ft)	Adequate
Eastbound	Left	132	119	115	*
Northbound	Left	7	10	300	Yes
Southbound	Right	5	15	600	Yes

*Adequate pavement (200 feet) is available for storage, striping is 115 feet

US 1 & Jackson Street - PM

Intersection analysis at US 1 & Jackson Street was performed during the PM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, the intersection is projected to be under capacity with all movements operating under capacity (v/c ratio less than 1.0) during the PM peak hour. All of the turn-lanes used by vehicles destined to or from Springtree are projected to be adequate.

Table 4. US 1 & Jackson Street PM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Eastbound	Right	1	-	Yes
Northbound	Left	5	10	Yes

US 1 & Harrison Street - AM

Intersection analysis at US 1 & Harrison Street was performed during the AM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, the intersection is projected to be under capacity with all movements operating under capacity (v/c ratio less than 1.0) during the AM peak hour. Harrison Street 95th percentile queue is 25 feet at US 1 during the busiest time of the day (AM Peak Hour) on eastbound Harrison Street. Queues from US 1 intersection will not affect project driveway.

Table 5. US 1 & Harrison Street AM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Eastbound	Right	1	-	Yes

US 1 & Springtree Place - AM

Intersection analysis at US 1 & Springtree Place was performed during the AM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, the intersection is projected to be under capacity with all movements operating under capacity (v/c ratio less than 1.0) during the AM peak hour. Springtree Place 95th percentile queue is 50 feet at US 1 during the busiest time of the day (AM Peak Hour) on eastbound Springtree Place. Queues from US 1 intersection will not affect project driveway.

Table 6. US 1 & Springtree Place AM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Eastbound	Right	1	-	Yes

US 1 & SE Gran Park Way - AM

Intersection analysis at US 1 & SE Gran Park Way was performed during the AM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, all movements operate under capacity (v/c ratio less than 1.0) during the AM peak hour. All of the turn-lanes used by vehicles destined to or from Springtree are projected to be adequate.

Table 7. US 1 & SE Gran Park Way AM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Eastbound	Right	0	-	Yes
Westbound	Right	2	-	Yes
Northbound	Left	1	10	Yes
Southbound	Left	7	11	Yes

Roadway Analysis

A PM peak hour peak direction roadway analysis was undertaken for SR-5 (US-1) from Salerno Road to Pomeroy Street, considering its total one-way peak hour traffic volume and the roadway laneage to be in place at 2024. Traffic volumes were obtained from the Martin County 2018 Roadway Level of Service Inventory Report. As shown in Table 8, all roadways are projected to operate acceptably with the project.

Table 8. Roadway Analysis Peak Hour Direction

Roadway	From	To	Lanes	Service Capacity	Peak Hour Existing Traffic	Count Year	Growth Rate	2024 Traffic Growth	2024 Background Traffic	Project Traffic	2024 Total Traffic	Meets Service Volume
SR-5 (US-1)	Salerno Rd	Project Site	6	3,020	1,775	2018	0.9%	98	1,873	55	1,928	YES
	Project Site	Pomeroy St	6	3,020	1,775	2018	0.9%	98	1,873	55	1,928	YES

ACCESS

The project proposes two points of access as follows:

- Harrison Street – Full Access
- Springtree Place – Full Access

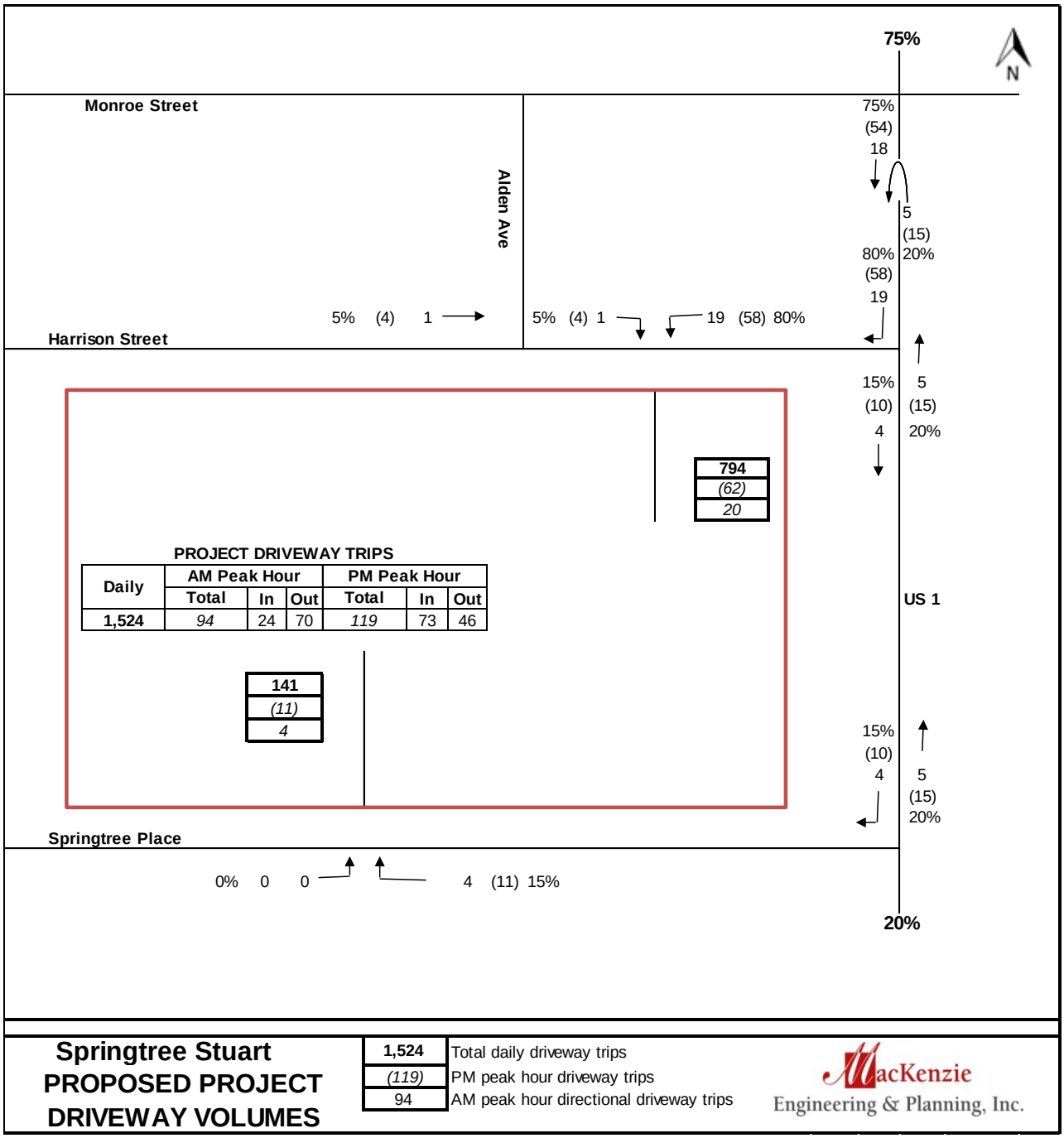
Alden Avenue

Alden Avenue northbound peak hour traffic is 22 and 30 for the AM and PM peak hour, respectively. The existing AM and PM peak hour traffic volumes along Alden Avenue are shown in Table 9. The existing trips are relatively low. The development is projected to add 42 and 28 northbound AM and PM peak hour trips, respectively. Therefore, the total AM and PM peak hour northbound traffic volume is projected to be 64 and 58, respectively. Peak hour peak direction traffic is projected to be about 1 vehicle per minute and Alden Avenue ADT is projected to be less than 1,000 vehicles per day [(64+14) x 10 = 780 vpd]. Therefore Alden is projected to function acceptably as a local road with the proposed project.

Table 9. Alden Avenue Existing Peak Hour AM and PM Traffic Volumes

AM Peak Hour		PM Peak Hour	
South of Alden		South of Alden	
NB	SB	NB	SB
22	14	30	10

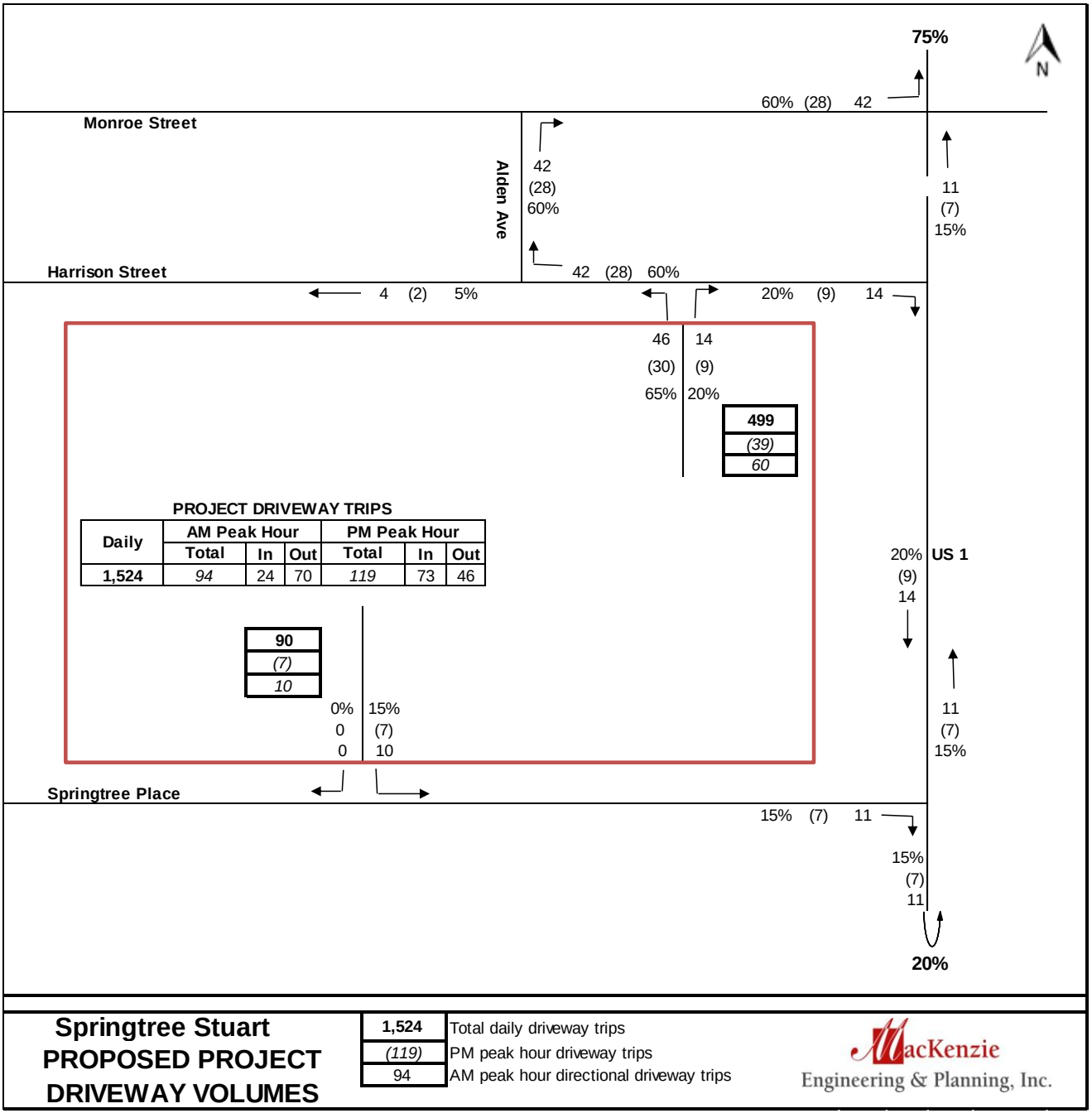
Figure 3a. Driveway In-Trips



Springtree Stuart PROPOSED PROJECT DRIVEWAY VOLUMES		
	1,524	Total daily driveway trips
	(119)	PM peak hour driveway trips
	94	AM peak hour directional driveway trips

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Figure 3b. Driveway Out-Trips



Springtree Stuart PROPOSED PROJECT DRIVEWAY VOLUMES		
	1,524	Total daily driveway trips
	(119)	PM peak hour driveway trips
	94	AM peak hour directional driveway trips

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Driveways

Harrison Street & Project Entrance - PM

Intersection analysis at Harrison Street & Project Entrance was performed during the PM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, all movements operate under capacity (v/c ratio less than 1.0) during PM peak hour. Operation is acceptable during busiest inbound time period (PM Peak hour). Therefore, AM peak hour analysis is not needed. No turn lanes needed.

Table 10. Harrison St & Project Entrance PM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Westbound	Left	1	-	Yes

Springtree Place & Project Entrance - PM

Intersection analysis at Springtree Place & Project Entrance was performed during the PM Peak Hour using HCS 7. The queueing analysis can be found in the Appendix. With project traffic, all movements operate under capacity (v/c ratio less than 1.0) during the PM peak hour. Operation is acceptable during busiest inbound time period (PM Peak hour). Therefore, AM peak hour analysis is not needed. No turn lanes needed.

Table 11. Springtree Place & Project Entrance PM Post 2024 Storage Analysis

Direction	Turn-Lane	PM Peak 95th % Queue (veh)	Existing Storage (veh)	Adequate
Eastbound	Left	0	-	Yes

CONCLUSION

MacKenzie Engineering & Planning, Inc. was retained to prepare an analysis of the traffic impacts from Springtree. The site is located at the northwest corner of Springtree Place and Federal Highway, Stuart, Florida, Parcel ID 52-38-41-000-000-01101-0 and 52-38-41-000-000-01102-0.

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EXHIBITS

Exhibit 1. Trip Generation

APPENDICES

Intersection Volume Development

Post-Development Intersection Analysis

Institute of Traffic Engineers' (ITE) Report, Trip Generation (10th Edition)

Site Plan

EXHIBIT 1
Springtree Stuart
Trip Generation

Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
		Trips	Total	In	Out	Total	In	Out
Proposed Site Traffic								
Multifamily Housing(Mid-Rise)	280 DU	1,524	94	24	70	119	73	46
NET CHANGE IN TRIPS (FOR THE PURPOSES OF CONCURRENCY)		**1,524**	**94**	**24**	**70**	**119**	**73**	**46**
NET CHANGE IN DRIVEWAY VOLUMES		**1,524**	**94**	**24**	**70**	**119**	**73**	**46**

Note: Trip generation was calculated using the following data:

Land Use	ITE Code	Unit	Daily Rate	Pass-by Rate	AM Peak Hour in/out	AM Peak Hour Rate	PM Peak Hour in/out	PM Peak Hour Equation
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Springtree

AM PEAK HOUR TURNING MOVEMENTS

US 1 & Monroe Street

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0	4	2	5	0	5	0	5	0	7	268	8	0	19	276	3	602
7:15 AM	7:30 AM	0	5	2	5	0	4	1	6	0	3	293	10	0	23	271	3	626
7:30 AM	7:45 AM	0	6	7	1	0	7	4	6	0	6	330	12	0	40	292	1	712
7:45 AM	8:00 AM	0	5	4	5	0	3	0	3	0	3	283	19	0	44	236	2	607
8:00 AM	8:15 AM	0	2	1	3	0	9	1	8	0	4	274	8	0	33	273	3	619
8:15 AM	8:30 AM	0	7	5	4	0	3	0	9	0	6	305	11	0	29	264	5	648
8:30 AM	8:45 AM	0	8	2	5	0	4	2	6	0	5	290	9	0	20	262	2	615
8:45 AM	9:00 AM	0	2	2	5	0	10	2	4	0	1	286	6	0	28	280	0	626
Peak Hour Traffic Volume																		
7:30 AM	8:30 AM	0	20	17	13	0	22	5	26	0	19	1192	50	0	146	1065	11	2586

Count Taken:	1/23/2018	2/27/2020	PHF	0.91	
Buildout year:	2024				
Growth Rate:	0.9%				
Seasonal Factor:	1.02	1			

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	20	17	13	0	22	5	26	0	19	1192	50	0	146	1065	11
PSCF	0	0	0	0	0	0	0	0	0	0	24	0	0	0	21	0
Adjusted Volumes		20	17	13		22	5	26		19	1216	50		146	1086	11
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%
Growth		1	1	1		1	0	1		1	67	3		8	60	0
2024 Volumes		21	18	14		23	5	27		20	1283	53		154	1146	11
Pre-Development		21	18	14		23	5	27		20	1283	53		154	1146	11
Project	0	42	0	0	0	0	0	0	0	0	11	0	0	0	18	0
Post	0	63	18	14	0	23	5	27	0	20	1294	53	0	154	1164	11

Project Traffic		Out									Out				In	
Assignment	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	75%	0%

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

PM PEAK HOUR TURNING MOVEMENTS

US 1 & Monroe Street

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
4:00 PM	4:15 PM	0	4	3	4	0	7	2	12	0	6	362	7	0	6	368	5	786
4:15 PM	4:30 PM	0	8	2	4	0	13	2	17	0	3	353	4	0	15	384	9	814
4:30 PM	4:45 PM	0	3	0	5	0	16	3	24	0	8	380	9	0	22	357	7	834
4:45 PM	5:00 PM	0	6	0	7	0	6	3	16	0	4	420	8	0	19	435	5	929
5:00 PM	5:15 PM	0	10	0	2	0	22	5	37	0	5	329	5	0	11	401	7	834
5:15 PM	5:30 PM	0	11	2	2	0	8	1	11	0	7	307	5	0	14	360	11	739
5:30 PM	5:45 PM	0	12	4	2	0	9	2	11	0	7	307	5	0	11	322	4	696
5:45 PM	6:00 PM	0	8	1	2	0	5	0	13	0	5	265	6	0	11	274	3	593
Peak Hour Traffic Volume																		
4:15 PM	5:15 PM	0	27	2	18	0	57	13	94	0	20	1482	26	0	67	1577	28	3411

Count Taken:	1/23/2018	2/26/2020	PHF	0.92
Buildout year:	2024			
Growth Rate:	0.9%			
Seasonal Factor:	1.02	1		

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	27	2	18	0	57	13	94	0	20	1482	26	0	67	1577	28
PSCF	0	0	0	0	0	0	0	0	0	0	30	0	0	0	32	0
Adjusted Volumes		27	2	18		57	13	94		20	1512	26		67	1609	28
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%
Growth		1	0	1		3	1	5		1	84	1		4	89	1
2024 Volumes		28	2	19		60	14	99		21	1596	27		71	1698	29
Pre-Development		28	2	19		60	14	99		21	1596	27		71	1698	29
Project	0	28	0	0	0	0	0	0	0	0	7	0	0	0	55	0
Post	0	56	2	19	0	60	14	99	0	21	1603	27	0	71	1753	29

Project Traffic		Out									Out				In	
Assignment	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	75%	0%

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

PM PEAK HOUR TURNING MOVEMENTS

US 1 & Jackson Street

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
4:00 PM	4:15 PM	0	0	0	2	0	0	0	0	8	4	362	0	0	0	368	7	751
4:15 PM	4:30 PM	0	0	0	1	0	0	0	0	15	7	353	0	0	0	384	4	764
4:30 PM	4:45 PM	0	0	0	1	0	0	0	0	25	9	380	0	0	0	357	3	775
4:45 PM	5:00 PM	0	0	0	2	0	0	0	0	8	6	420	0	0	0	435	7	878
5:00 PM	5:15 PM	0	0	0	1	0	0	0	0	20	8	329	0	0	0	401	4	763
5:15 PM	5:30 PM	0	0	0	2	0	0	0	0	16	6	307	0	0	0	360	4	695
5:30 PM	5:45 PM	0	0	0	0	0	0	0	0	10	11	307	0	0	0	322	1	651
5:45 PM	6:00 PM	0	0	0	0	0	0	0	0	9	1	265	0	0	0	274	0	549
Peak Hour Traffic Volume																		
4:15 PM	5:15 PM	0	0	0	5	0	0	0	0	68	30	1482	0	0	0	1577	18	3180

Count Taken:	1/23/2018	9/17/2019	PHF	0.91	
Buildout year:	2024				
Growth Rate:	0.9%				
Seasonal Factor:	1.02	1.09			

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	0	0	5	0	0	0	0	68	30	1482	0	0	0	1577	18
PSCF	0	0	0	0	0	0	0	0	6	3	30	0	0	0	32	2
Adjusted Volumes		0	0	5		0	0	0	74	33	1512	0		0	1609	20
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%		0.9%	0.9%	0.9%
Growth		0	0	0		0	0	0	3	2	84	0		0	89	1
2024 Volumes		0	0	5		0	0	0	77	35	1596	0		0	1698	21
Pre-Development		0	0	5		0	0	0	77	35	1596	0		0	1698	21
Project	0	0	0	0	0	0	0	0	15	0	7	0	0	0	55	0
Post	0	0	0	5	0	0	0	0	92	35	1603	0	0	0	1753	21

Project Traffic									In		Out				In		
Assignment	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	15%	0%	0%	0%	75%	0%	

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

AM PEAK HOUR TURNING MOVEMENTS

US 1 & Harrison

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM											268				276		544
7:15 AM	7:30 AM											293				271		564
7:30 AM	7:45 AM											330				292		622
7:45 AM	8:00 AM											283				236		519
8:00 AM	8:15 AM											274				273		547
8:15 AM	8:30 AM											305				264		569
8:30 AM	8:45 AM											290				262		552
8:45 AM	9:00 AM											286				280		566
Peak Hour Traffic Volume																		
7:30 AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	1192	0	0	0	1065	0	2257

Count Taken:	1/23/2018	9/24/2019		PHF	0.91
Buildout year:	2024				
Growth Rate:	0.9%				
Seasonal Factor:	1.02	1.08			

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	0	0	47	0	0	0	0	0	0	1192	0	0	0	1065	47
PSCF	0	0	0	4	0	0	0	0	0	0	24	0	0	0	21	4
Adjusted Volumes		0	0	51		0	0	0	0	0	1216	0	0	0	1086	51
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Growth		0	0	3		0	0	0	0	0	67	0	0	0	60	2
2024 Volumes		0	0	54		0	0	0	0	0	1283	0	0	0	1146	53
Pre-Development		0	0	54		0	0	0	0	0	1283	0	0	0	1146	53
Project	0	0	0	14	0	0	0	0	0	0	16	0	0	0	4	18
Post	0	0	0	68	0	0	0	0	0	0	1299	0	0	0	1150	71

					Out							In				In	In
Project Traffic Assignment	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	15%	75%
											Out					
											15%					

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

AM PEAK HOUR TURNING MOVEMENTS

US 1 & Springtree Place

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM											268				276		544
7:15 AM	7:30 AM											293				271		564
7:30 AM	7:45 AM											330				292		622
7:45 AM	8:00 AM											283				236		519
8:00 AM	8:15 AM											274				273		547
8:15 AM	8:30 AM											305				264		569
8:30 AM	8:45 AM											290				262		552
8:45 AM	9:00 AM											286				280		566
Peak Hour Traffic Volume																		
7:30 AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	1192	0	0	0	1065	0	2257

Count Taken:	1/23/2018	9/24/2019	PHF	0.91	
Buildout year:	2024				
Growth Rate:	0.9%				
Seasonal Factor:	1.02	1.08			

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	0	0	47	0	0	0	0	0	0	1192	0	0	0	1065	47
PSCF	0	0	0	4	0	0	0	0	0	0	24	0	0	0	21	4
Adjusted Volumes		0	0	51		0	0	0	0	0	1216	0	0	0	1086	51
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Growth		0	0	3		0	0	0	0	0	67	0	0	0	60	2
2024 Volumes		0	0	54		0	0	0	0	0	1283	0	0	0	1146	53
Pre-Development		0	0	54		0	0	0	0	0	1283	0	0	0	1146	53
Project	0	0	0	11	0	0	0	0	0	0	16	0	0	0	14	4
Post	0	0	0	65	0	0	0	0	0	0	1299	0	0	0	1160	57

					Out							In				Out	In
Project Traffic Assignment	0%	0%	0%	15%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	20%	15%
											Out					
											15%					

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

AM PEAK HOUR TURNING MOVEMENTS

US 1 & Gran Park Way

													NB					SB	
		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	Total	sbu	sbl	sbt	sbr	Total	totals
7:00 AM	7:15 AM	0	0	0	0	0	0	0	22	8	0	252	8	268	0	46	230	0	276	566
7:15 AM	7:30 AM	0	0	0	1	0	0	0	38	8	**3**	221	61	293	2	52	210	7	271	603
7:30 AM	7:45 AM	0	0	0	0	0	0	0	16	10	**1**	285	34	330	4	42	246	0	292	638
7:45 AM	8:00 AM	0	0	0	2	0	0	0	10	5	**1**	260	17	283	2	26	207	1	236	531
8:00 AM	8:15 AM	0	0	0	0	0	0	0	9	4	**1**	251	18	274	1	27	244	1	273	556
8:15 AM	8:30 AM	0	0	0	0	0	0	0	16	3	1	288	13	305	11	28	223	2	264	585
8:30 AM	8:45 AM	0	0	0	1	0	0	0	6	4	3	268	15	290	2	6	253	1	262	559
8:45 AM	9:00 AM	0	0	0	2	0	0	0	11	9	3	268	6	286	0	14	266	0	280	579
Peak Hour Traffic Volume																				
7:00 AM	8:00 AM	0	0	0	3	0	0	0	86	31	5	1018	120		8	166	893	8		2338

Count Taken:	1/23/2018	9/24/2019	PHF	0.92
Buildout year:	2024			
Growth Rate:	0.9%			
Seasonal Factor:	1.02	1.08		

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt *	nbr	sbu	sbl	sbt *	sbr
1/23/2018	0	0	0	3	0	0	0	86	31	5	1018	120	8	166	893	8
PSCF	0	0	0	0	0	0	0	7	2	0	20	10	1	13	18	1
Adjusted Volumes		0	0	3		0	0	93	33	5	1038	130	9	179	911	9
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Growth		0	0	0		0	0	4	2	0	57	6	0	8	50	0
2022 Volumes		0	0	3		0	0	97	35	5	1095	136	9	187	961	9
Pre-Development		0	0	3		0	0	97	35	5	1095	136	9	187	961	9
Project	0	0	0	0	0	0	0	0	0	0	5	0	11	0	14	0
Post	0	0	0	3	0	0	0	97	35	5	1100	136	20	187	975	9

Project Traffic											In		Out		Out	
Assignment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	15%	0%	20%	0%

* NBT and SBT Volumes obtained from the FDOT Count Station 89 5038, 1/23/2018

Springtree

PM PEAK HOUR TURNING MOVEMENTS

Harrison & Project Entrance

Count Taken: 9/17/2019
Buildout year: 2024
Growth Rate: 0.9%
Seasonal Factor: 1.09

Use PHF of 0.90 to be conservative

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
9/17/2019			47				47									
PSCF	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Adjusted Volumes		0	51	0		0	51	0	0	0	0	0		0	0	0
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%		0.9%	0.9%	0.9%
Growth		0	2	0		0	2	0	0	0	0	0		0	0	0
2024 Volumes		0	53	0		0	53	0	0	0	0	0		0	0	0
Pre-Development		0	53	0		0	53	0	0	0	0	0		0	0	0
Project	0	0	0	4	0	58	0	0	0	30	0	9	0	0	0	0
Post	0	0	53	4	0	58	53	0	0	30	0	9	0	0	0	0
Project Traffic				In		In				Out		Out				
Assignment	0%	0%	0%	5%	0%	80%	0%	0%	0%	65%	0%	20%	0%	0%	0%	0%

*** Traffic volumes based on highest inbound or outbound volume from US 1 & Jackson Street intersection turning movement count in order to provide conservative analysis of driveway**

Springtree

PM PEAK HOUR TURNING MOVEMENTS

Springtree & Project Entrance

Count Taken: 9/17/2019
Buildout year: 2024
Growth Rate: 0.9%
Seasonal Factor: 1.09

Use PHF of 0.90 to be conservative

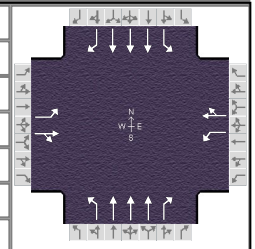
	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
9/17/2019			47				47									
PSCF	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0
Adjusted Volumes		0	51	0		0	51	0	0	0	0	0		0	0	0
Growth Rate		0.9%	0.9%	0.9%		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%		0.9%	0.9%	0.9%
Growth		0	2	0		0	2	0	0	0	0	0		0	0	0
2024 Volumes		0	53	0		0	53	0	0	0	0	0		0	0	0
Pre-Development		0	53	0		0	53	0	0	0	0	0		0	0	0
Project	0	0	0	0	0	0	0	11	0	0	0	0	0	7	0	0
Post	0	0	53	0	0	0	53	11	0	0	0	0	0	7	0	0

Project Traffic								In						Out		
Assignment	0%	0%	0%	0%	0%	0%	0%	15%	0%	0%	0%	0%	0%	15%	0%	0%

*** Traffic volumes based on highest inbound or outbound volume from US 1 & Jackson Street intersection turning movement count in order to provide conservative analysis of driveway**

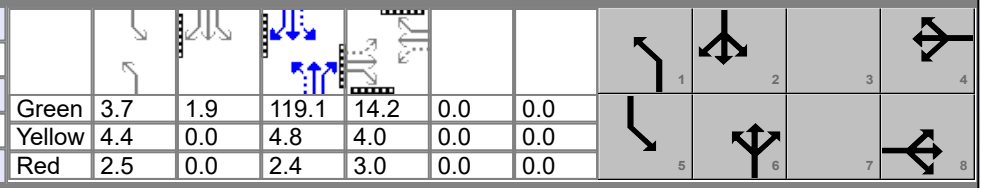
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.91
Urban Street		Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 AM.xus		
Project Description	2024 AM Post-Development				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	18	14	23	5	27	20	1294	53	154	1164	11

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.9	119.1	14.2	0.0	0.0						
Yellow	4.4	0.0	4.8	4.0	0.0	0.0						
Red	2.5	0.0	2.4	3.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	18	14	23	5	27	20	1294	53	154	1164	11
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		2	2		2	2	2	2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	115	0		90	0		300	0	435	330	0	600
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	25	25	25	25	25	25	45	45	45	45	45	45

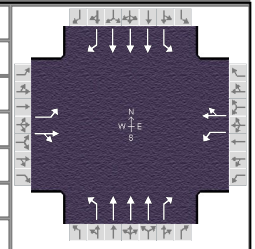
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		30.0		30.0	20.0	110.0	20.0	110.0
Yellow Change Interval (*Y*), s		3.4		4.0	4.4	4.8	4.4	4.8
Red Clearance Interval (R_c), s		4.4		3.0	2.5	2.4	2.1	2.1
Minimum Green (G_{min}), s	7	7	7	7	6	7	6	7
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	5.0	0.0	5.0	0.0	7.0	0.0	7.0
Pedestrian Clearance Time (*PC*), s	0.0	30.0	0.0	31.0	0.0	20.0	0.0	13.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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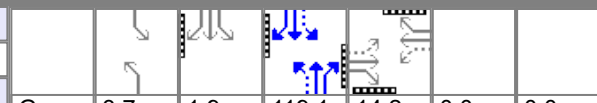
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.91
Urban Street		Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 AM.xus		
Project Description	2024 AM Post-Development				

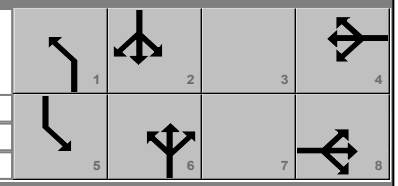


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	18	14	23	5	27	20	1294	53	154	1164	11

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.9	119.1	14.2	0.0	0.0
Yellow	4.4	0.0	4.8	4.0	0.0	0.0
Red	2.5	0.0	2.4	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		6.0		6.0	1.1	3.0	1.1	3.0
Phase Duration, s		21.2		21.2	10.6	126.3	12.5	128.2
Change Period, ($Y+R_c$), s		7.8		7.8	6.9	7.2	6.5	7.2
Max Allow Headway (*MAH*), s		3.3		3.3	3.0	0.0	3.0	0.0
Queue Clearance Time (g_s), s		13.2		7.8	2.5		5.7	
Green Extension Time (g_e), s		0.2		0.3	0.0	0.0	0.2	0.0
Phase Call Probability		1.00		1.00	0.62		1.00	
Max Out Probability		0.00		0.00	0.00		0.00	

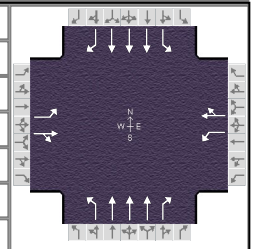
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	69	35		25	35		22	1422	58	169	1279	12
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1373	1734		1373	1624		1781	1698	1585	1781	1698	1585
Queue Service Time (g_s), s	8.0	3.0		2.8	3.2		0.5	15.8	1.6	3.7	13.1	0.3
Cycle Queue Clearance Time (g_c), s	11.2	3.0		5.8	3.2		0.5	15.8	1.6	3.7	13.1	0.3
Green Ratio (*g/C*)	0.08	0.08		0.08	0.08		0.77	0.74	0.74	0.78	0.76	0.76
Capacity (*c*), veh/h	133	145		134	136		372	3792	1180	355	3851	1198
Volume-to-Capacity Ratio (*X*)	0.522	0.242		0.188	0.258		0.059	0.375	0.049	0.477	0.332	0.010
Back of Queue (*Q*), ft/ln (95 th percentile)	131.8	63		46.2	63.2		7	228.7	22.7	54.1	193.5	4.3
Back of Queue (*Q*), veh/ln (95 th percentile)	5.2	2.5		1.8	2.5		0.3	9.0	0.9	2.1	7.6	0.2
Queue Storage Ratio (*RQ*) (95 th percentile)	1.15	0.00		0.51	0.00		0.02	0.00	0.05	0.16	0.00	0.01
Uniform Delay (d_1), s/veh	73.8	68.5		71.2	68.6		5.0	7.3	5.4	5.6	6.4	4.8
Incremental Delay (d_2), s/veh	1.2	0.3		0.2	0.4		0.0	0.3	0.1	0.4	0.2	0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	75.0	68.9		71.5	69.0		5.0	7.5	5.5	6.0	6.6	4.8
Level of Service (LOS)	E	E		E	E		A	A	A	A	A	A
Approach Delay, s/veh / LOS	72.9	E		70.0	E		7.4	A		6.5	A	
Intersection Delay, s/veh / LOS	10.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.4	C	3.4	C	2.2	B	2.2	B
Bicycle LOS Score / LOS	0.7	A	0.6	A	1.3	A	1.3	A

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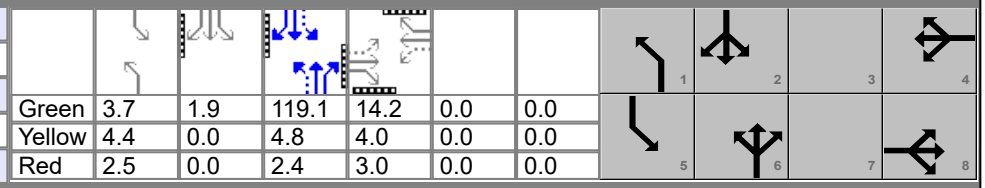
HCS7 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.91
Urban Street		Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 AM.xus		
Project Description	2024 AM Post-Development				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	18	14	23	5	27	20	1294	53	154	1164	11

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.7	1.9	119.1	14.2	0.0	0.0
Yellow	4.4	0.0	4.8	4.0	0.0	0.0
Red	2.5	0.0	2.4	3.0	0.0	0.0

Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles and Grade Factor (f_{HVg})	0.984	0.984	1.000	0.984	0.984	1.000	0.984	0.984	0.984	0.984	0.984	0.984
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.908	1.000	1.000	0.908	1.000
Left-Turn Adjustment Factor (f_{LT})	0.723	0.000		0.723	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.927	0.927		0.868	0.868		0.000	0.847		0.000	0.847
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Work Zone Adjustment Factor (f_{wz})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Movement Saturation Flow Rate (s), veh/h	1373	975	759	1373	254	1370	1781	5095	1585	1781	5095	1585
Proportion of Vehicles Arriving on Green (P)	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.74	0.74	0.04	0.76	0.76
Incremental Delay Factor (k)	0.04	0.04		0.04	0.04		0.04	0.50	0.50	0.04	0.50	0.50

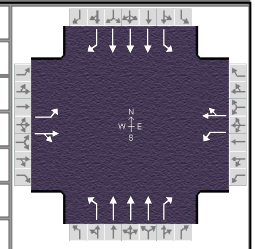
Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)		7.8		7.8	6.9	7.2	6.5	7.2
Green Ratio (g/C)		0.08		0.08	0.77	0.74	0.78	0.76
Permitted Saturation Flow Rate (s_p), veh/h/ln		1373		1373	432	0	377	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s		13.4		13.4	119.1	0.0	119.1	0.0
Permitted Service Time (g_u), s		10.2		10.4	105.8	0.0	103.2	0.0
Permitted Queue Service Time (g_{ps}), s		8.0		2.8	0.7		13.0	
Time to First Blockage (g_f), s		0.0		0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln						0		0
Protected Right Effective Green Time (g_R), s						0.0		0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.644	0.00	2.644	0.00	1.557	0.00	1.557	0.00
Pedestrian F_s / F_{delay}	0.000	0.169	0.000	0.168	0.000	0.066	0.000	0.062
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	167.28	67.18	177.28	66.45	1489.01	5.22	1515.96	4.69
Bicycle F_w / F_v	-3.64	0.17	-3.64	0.10	-3.64	0.83	-3.64	0.80

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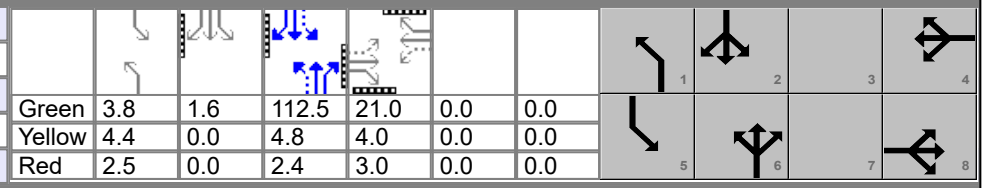
HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street		Analysis Year	2024	Analysis Period	1> 16:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 PM.xus		
Project Description	2024 PM Post-Development				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	2	19	60	14	99	21	1603	27	71	1753	29

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	3.8	1.6		112.5	21.0	0.0	0.0					
Yellow	4.4	0.0		4.8	4.0	0.0	0.0					
Red	2.5	0.0		2.4	3.0	0.0	0.0					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	2	19	60	14	99	21	1603	27	71	1753	29
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		2	2		2	2	2	2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	115	0		90	0		300	0	435	330	0	600
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	25	25	25	25	25	25	45	45	45	45	45	45

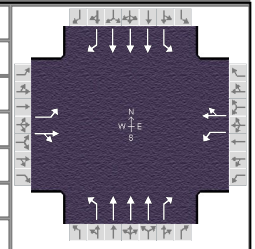
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s		28.0		28.0	15.0	117.0	15.0	117.0
Yellow Change Interval (*Y*), s		3.4		4.0	4.4	4.8	4.4	4.8
Red Clearance Interval (R_c), s		4.4		3.0	2.5	2.4	2.1	2.1
Minimum Green (G_{min}), s	7	7	7	7	6	7	6	7
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	5.0	0.0	5.0	0.0	7.0	0.0	7.0
Pedestrian Clearance Time (*PC*), s	0.0	30.0	0.0	31.0	0.0	20.0	0.0	13.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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HCS7 Signalized Intersection Results Summary

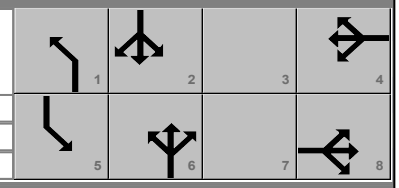
General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street		Analysis Year	2024	Analysis Period	1> 16:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 PM.xus		
Project Description	2024 PM Post-Development				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	2	19	60	14	99	21	1603	27	71	1753	29

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.8	1.6	112.5	21.0	0.0	0.0						
Yellow	4.4	0.0	4.8	4.0	0.0	0.0						
Red	2.5	0.0	2.4	3.0	0.0	0.0						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4	1	6	5	2
Case Number		6.0		6.0	1.1	3.0	1.1	3.0
Phase Duration, s		28.0		28.0	10.7	119.7	12.3	121.3
Change Period, (*Y+R c*), s		7.8		7.8	6.9	7.2	6.5	7.2
Max Allow Headway (*MAH*), s		3.4		3.4	3.0	0.0	3.0	0.0
Queue Clearance Time (*g s*), s		21.1		13.5	2.6		3.9	
Green Extension Time (*g e*), s		0.0		0.3	0.0	0.0	0.0	0.0
Phase Call Probability		1.00		1.00	0.64		0.97	
Max Out Probability		1.00		0.08	0.00		0.09	

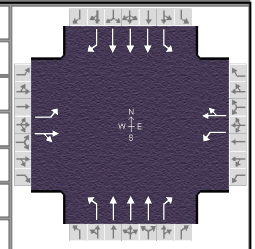
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h	61	23		65	123		23	1742	29	77	1905	32
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1268	1608		1389	1616		1781	1698	1585	1781	1698	1585
Queue Service Time (*g s*), s	7.6	2.0		7.0	11.5		0.6	24.7	0.9	1.9	27.4	0.9
Cycle Queue Clearance Time (*g c*), s	19.1	2.0		9.0	11.5		0.6	24.7	0.9	1.9	27.4	0.9
Green Ratio (*g/C*)	0.13	0.13		0.13	0.13		0.73	0.70	0.70	0.74	0.71	0.71
Capacity (*c*), veh/h	114	203		203	204		213	3582	1114	262	3632	1130
Volume-to-Capacity Ratio (*X*)	0.534	0.112		0.322	0.602		0.107	0.486	0.026	0.295	0.525	0.028
Back of Queue (*Q*), ft/ln (95 th percentile)	118.8	38.5		115.8	220.4		9.3	343.1	13.8	30.3	370.2	14.2
Back of Queue (*Q*), veh/ln (95 th percentile)	4.7	1.5		4.6	8.7		0.4	13.5	0.5	1.2	14.6	0.6
Queue Storage Ratio (*RQ*) (95 th percentile)	1.03	0.00		1.29	0.00		0.03	0.00	0.03	0.09	0.00	0.02
Uniform Delay (*d 1*), s/veh	75.1	62.0		65.9	66.1		8.7	10.7	7.2	8.3	10.5	6.7
Incremental Delay (*d 2*), s/veh	2.6	0.1		0.3	3.5		0.1	0.5	0.0	0.2	0.5	0.0
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	77.7	62.0		66.3	69.6		8.8	11.2	7.2	8.6	11.1	6.8
Level of Service (LOS)	E	E		E	E		A	B	A	A	B	A
Approach Delay, s/veh / LOS	73.4	E		68.5	E		11.1	B		10.9	B	
Intersection Delay, s/veh / LOS	14.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.4	C	3.4	C	2.2	B	2.2	B
Bicycle LOS Score / LOS	0.6	A	0.8	A	1.5	A	1.6	B

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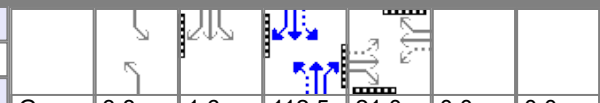
HCS7 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	MEP			Duration, h	0.25
Analyst	MEP	Analysis Date	2/27/2020	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street		Analysis Year	2024	Analysis Period	1> 16:00
Intersection	Monroe St & US 1	File Name	Monroe & US 1 PM.xus		
Project Description	2024 PM Post-Development				

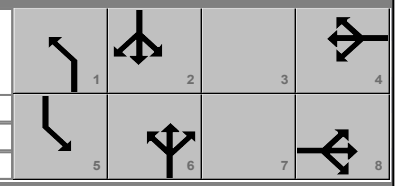


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	2	19	60	14	99	21	1603	27	71	1753	29

Signal Information			
Cycle, s	160.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.8	1.6	112.5	21.0	0.0	0.0
Yellow	4.4	0.0	4.8	4.0	0.0	0.0
Red	2.5	0.0	2.4	3.0	0.0	0.0



Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles and Grade Factor (f_{HVg})	0.984	0.984	1.000	0.984	0.984	1.000	0.984	0.984	0.984	0.984	0.984	0.984
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.908	1.000	1.000	0.908	1.000
Left-Turn Adjustment Factor (f_{LT})	0.668	0.000		0.731	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.860	0.860		0.864	0.864		0.000	0.847		0.000	0.847
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Work Zone Adjustment Factor (f_{wz})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Movement Saturation Flow Rate (s), veh/h	1268	153	1455	1389	200	1415	1781	5095	1585	1781	5095	1585
Proportion of Vehicles Arriving on Green (P)	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.70	0.70	0.04	0.71	0.71
Incremental Delay Factor (k)	0.07	0.04		0.04	0.13		0.04	0.50	0.50	0.04	0.50	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)		7.8		7.8	6.9	7.2	6.5	7.2
Green Ratio (g/C)		0.13		0.13	0.73	0.70	0.74	0.71
Permitted Saturation Flow Rate (s_p), veh/h/ln		1268		1389	236	0	277	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s		20.2		20.2	112.5	0.0	112.5	0.0
Permitted Service Time (g_u), s		8.7		18.2	84.6	0.0	87.8	0.0
Permitted Queue Service Time (g_{ps}), s		7.6		7.0	3.0		9.5	
Time to First Blockage (g_f), s		0.0		0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln						0		0
Protected Right Effective Green Time (g_R), s						0.0		0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	2.644	0.00	2.644	0.00	1.557	0.00	1.557	0.00
Pedestrian F_s / F_{delay}	0.000	0.165	0.000	0.164	0.000	0.078	0.000	0.075
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	252.50	61.08	262.50	60.38	1406.18	7.05	1429.69	6.51
Bicycle F_w / F_v	-3.64	0.14	-3.64	0.31	-3.64	0.99	-3.64	1.11

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HCS7 Two-Way Stop-Control Report

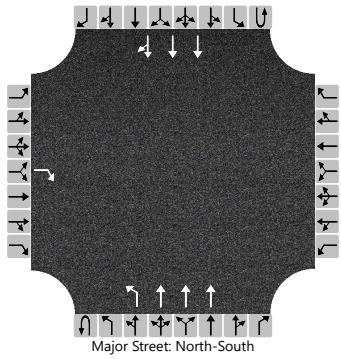
General Information

Analyst	MEP
Agency/Co.	MEP
Date Performed	1/27/2020
Analysis Year	2024
Time Analyzed	
Intersection Orientation	North-South
Project Description	Springtree 2024 Post PM

Site Information

Intersection	US 1 & Jackson Street
Jurisdiction	
East/West Street	Jackson St
North/South Street	US 1
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	1	3	0	0	0	3	0
Configuration				R						L	T				T	TR
Volume (veh/h)				5					92	35	1603				1753	21
Percent Heavy Vehicles (%)				2					2	2						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)				7.1					5.6	5.3						
Critical Headway (sec)				7.14					5.64	5.34						
Base Follow-Up Headway (sec)				3.9					2.3	3.1						
Follow-Up Headway (sec)				3.92					2.32	3.12						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				6						141						
Capacity, c (veh/h)				212						196						
v/c Ratio				0.03						0.72						
95% Queue Length, Q_{95} (veh)				0.1						4.6						
Control Delay (s/veh)				22.4						60.1						
Level of Service (LOS)				C						F						
Approach Delay (s/veh)	22.4								4.4							
Approach LOS	C															

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HCS7 Two-Way Stop-Control Report

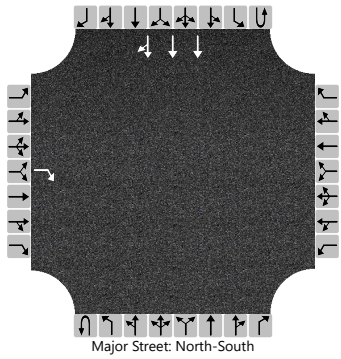
General Information

Analyst	MEP
Agency/Co.	MEP
Date Performed	1/27/2020
Analysis Year	2024
Time Analyzed	
Intersection Orientation	North-South
Project Description	Springtree Post-Development AM

Site Information

Intersection	US 1 & Harrison St
Jurisdiction	
East/West Street	Harrison St
North/South Street	US 1
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		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	3	0
Configuration				R											T	TR
Volume (veh/h)				68											1150	71
Percent Heavy Vehicles (%)				2												
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)				7.1												
Critical Headway (sec)				7.14												
Base Follow-Up Headway (sec)				3.9												
Follow-Up Headway (sec)				3.92												

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				75												
Capacity, c (veh/h)				342												
v/c Ratio				0.22												
95% Queue Length, Q_{95} (veh)				0.8												
Control Delay (s/veh)				18.4												
Level of Service (LOS)				C												
Approach Delay (s/veh)		18.4														
Approach LOS		C														

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HCS7 Two-Way Stop-Control Report

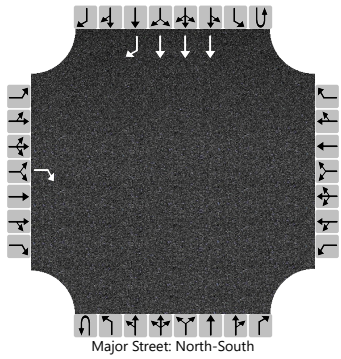
General Information

Analyst	MEP
Agency/Co.	MEP
Date Performed	1/27/2020
Analysis Year	2024
Time Analyzed	
Intersection Orientation	North-South
Project Description	Springtree Post-Development AM

Site Information

Intersection	US1 & Springtree Place
Jurisdiction	
East/West Street	US 1
North/South Street	Springtree Place
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		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	3	1
Configuration				R											T	R
Volume (veh/h)				65											1160	57
Percent Heavy Vehicles (%)				2												
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)				7.1												
Critical Headway (sec)				7.14												
Base Follow-Up Headway (sec)				3.9												
Follow-Up Headway (sec)				3.92												

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				71												
Capacity, c (veh/h)				360												
v/c Ratio				0.20												
95% Queue Length, Q_{95} (veh)				0.7												
Control Delay (s/veh)				17.5												
Level of Service (LOS)				C												
Approach Delay (s/veh)		17.5														
Approach LOS		C														

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HCS7 Two-Way Stop-Control Report

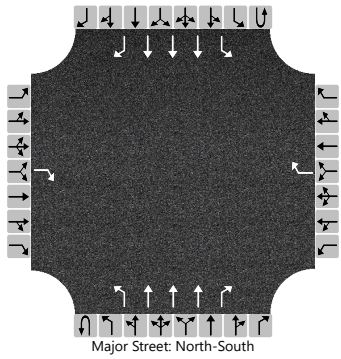
General Information

Analyst	MEP
Agency/Co.	MEP
Date Performed	1/27/20
Analysis Year	2024
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Springtree 2024 Post AM

Site Information

Intersection	US 1 & Gran Park Way
Jurisdiction	
East/West Street	Gran Park Way
North/South Street	US 1
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	1	0	1	3	1	0	1	3	1
Configuration				R				R		L	T	R		L	T	R
Volume (veh/h)				3				97	35	5	1100	136	20	187	975	9
Percent Heavy Vehicles (%)				2				2	2	2			2	2		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No				No			
Median Type | Storage	Left Only								2							

Critical and Follow-up Headways

Base Critical Headway (sec)				7.1				7.1	5.6	5.3			5.6	5.3		
Critical Headway (sec)				7.14				7.14	5.64	5.34			5.64	5.34		
Base Follow-Up Headway (sec)				3.9				3.9	2.3	3.1			2.3	3.1		
Follow-Up Headway (sec)				3.92				3.92	2.32	3.12			2.32	3.12		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				3				105		43				225		
Capacity, c (veh/h)				423				382		541				274		
v/c Ratio				0.01				0.28		0.08				0.82		
95% Queue Length, Q_{95} (veh)				0.0				1.1		0.3				6.6		
Control Delay (s/veh)				13.6				18.0		12.2				58.5		
Level of Service (LOS)				B				C		B				F		
Approach Delay (s/veh)	13.6				18.0				0.4				10.2			
Approach LOS	B				C											

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HCS7 Two-Way Stop-Control Report

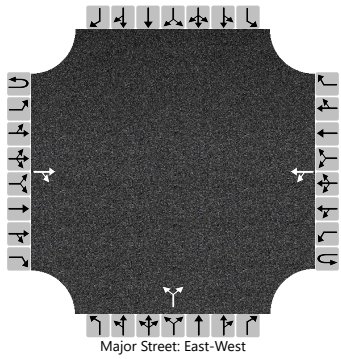
General Information

Analyst	MEP
Agency/Co.	MEP
Date Performed	1/27/2020
Analysis Year	2024
Time Analyzed	
Intersection Orientation	East-West
Project Description	Springtree Post-Development PM

Site Information

Intersection	Harrison St & Entrance
Jurisdiction	
East/West Street	Harrison St
North/South Street	Entrance
Peak Hour Factor	0.90
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			53	4		58	53			30		9				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage				Undivided												

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

Delay, Queue Length, and Level of Service

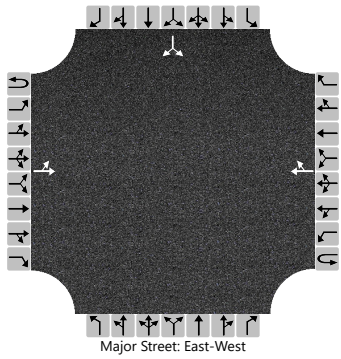
Flow Rate, v (veh/h)						64					43					
Capacity, c (veh/h)						1539					759					
v/c Ratio						0.04					0.06					
95% Queue Length, Q_{95} (veh)						0.1					0.2					
Control Delay (s/veh)						7.4					10.0					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)						4.0				10.0						
Approach LOS										B						

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HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MEP	Intersection	Springtree & Entrance
Agency/Co.	MEP	Jurisdiction	
Date Performed	1/27/2020	East/West Street	Springtree
Analysis Year	2024	North/South Street	Project Entrance
Time Analyzed		Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Springtree Post-Development PM		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		0	53				53	11						7		0
Percent Heavy Vehicles (%)		2												2		2
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.12												6.42		6.22
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.22												3.52		3.32

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0													8	
Capacity, c (veh/h)		1529													871	
v/c Ratio		0.00													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.4													9.2	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		0.0												9.2		
Approach LOS														A		

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COUNTY: 89
STATION: 5038
DESCRIPTION: SR 5/US 1 - N OF SALERNO RD (COUNTY LINK: 110)
START DATE: 01/23/2018
START TIME: 2345

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	11	7	8	12	38	16	13	15	14	58	96
0100	10	9	7	21	47	16	5	10	10	41	88
0200	7	11	10	5	33	8	4	5	7	24	57
0300	7	13	8	5	33	10	13	9	10	42	75
0400	11	20	23	34	88	15	24	37	36	112	200
0500	43	55	68	75	241	45	68	73	99	285	526
0600	107	145	157	221	630	139	178	183	213	713	1343
0700	268	293	330	283	1174	276	271	292	236	1075	2249
0800	274	305	290	286	1155	273	264	262	280	1079	2234
0900	301	301	298	285	1185	263	267	262	238	1030	2215
1000	300	297	352	350	1299	282	272	288	314	1156	2455
1100	270	335	317	326	1248	288	303	325	326	1242	2490
1200	365	318	410	335	1428	307	293	374	324	1298	2726
1300	334	365	343	364	1406	357	392	323	370	1442	2848
1400	378	348	375	342	1443	376	359	357	351	1443	2886
1500	344	357	373	339	1413	336	350	366	361	1413	2826
1600	362	353	380	420	1515	368	384	357	435	1544	3059
1700	329	307	307	265	1208	401	360	322	274	1357	2565
1800	294	261	255	202	1012	273	243	243	205	964	1976
1900	190	146	120	100	556	183	174	169	179	705	1261
2000	89	96	89	96	370	142	123	124	119	508	878
2100	68	73	83	71	295	120	93	77	61	351	646
2200	55	40	30	25	150	71	53	34	36	194	344
2300	27	27	17	16	87	36	24	22	13	95	182
24-HOUR TOTALS:					18054					18171	36225

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	730	1192	800	1079	845	2258
P.M.	1600	1515	1615	1577	1600	3059
DAILY	1600	1515	1615	1577	1600	3059

GENERATED BY SPS 5.0.53P

MARTIN COUNTY TRAFFIC

LOCATION: **85** **SR-5 (US1) @ MONROE ST**

Day Plan

Day 2 = Weekdays Day 1 = Weekends

DAY	START	COBALT plan			
1	9:00	1			
1	21:00	99	Free		
2	6:00	3			
2	9:30	5			
2	15:00	7			
2	18:30	9			
2	20:30	99	Free		

Plan		1		3	5	7	9	
OFFSET		85		40	87	39	4	
CYCLE LENGTH		160		160	160	160	140	
Cobalt Sequence		1		1	1	1	1	
PHASE		SPLITS (SECONDS)						
1	NBLT	16		20	18	15	22	
2	SB	115		110	101	117	87	
3		0		0	0	0	0	
4	WB	29		30	41	28	31	
5	SBLT	25		20	22	15	21	
6	NB	106		110	97	117	88	
7		0		0	0	0	0	
8	EB	29		30	41	28	31	

Lagging phase when **BOLD** type & gray box

Printed 02/26/20

MARTIN COUNTY TRAFFIC

Intersection: 85 SR-5 (US1) @ MONROE ST

	NBLT	SB		WB	SBLT	NB		EB
PHASE	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Min green	6	15	0	7	6	15	0	7
Vehicle Ext	4	4	0	4	4	4	0	4
Max 1	20	60	0	30	20	60	0	30
Max 2								
Yellow	4.4	4.8	3	4	4.4	4.8	3	3.4
Red Clear	2.5	2.1	0	3	2.1	2.4	0	4.4
Walk	0	7	0	5	0	7	0	5
Ped Clear	0	13	0	31	0	20	0	30
Start Up		Green				Green		
Locking Detector		X				X		
Veh. Recalls		Min				Min		
Assigned ph.	1				5			
Cross Switch Ph	6				2			

February 26, 2020

Land Use: 221
Multifamily Housing (Mid-Rise)

Description

Mid-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors). Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (Land Use 225), and mid-rise residential with 1st-floor commercial (Land Use 231) are related land uses.

Additional Data

In prior editions of *Trip Generation Manual*, the mid-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.46 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 95.7 percent of the total dwelling units were occupied.

Time-of-day distribution data for this land use are presented in Appendix A. For the eight general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:00 and 8:00 a.m. and 4:45 and 5:45 p.m., respectively.

For the four dense multi-use urban sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:15 and 8:15 a.m. and 4:15 and 5:15 p.m., respectively. For the three center city core sites with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 6:45 and 7:45 a.m. and 5:00 and 6:00 p.m., respectively.

For the six sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.46 residents per occupied dwelling unit.

For the five sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 95.7 percent of the units were occupied.

The average numbers of person trips per vehicle trip at the five center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 1.84 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.94 during Weekday, AM Peak Hour of Generator
- 2.07 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.59 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 32 dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.90 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.90 during Weekday, AM Peak Hour of Generator
- 2.00 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.08 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 13 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.56 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.88 during Weekday, AM Peak Hour of Generator
- 1.70 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.07 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), British Columbia (CAN), California, Delaware, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, Ontario, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, Virginia, and Wisconsin.

Source Numbers

168, 188, 204, 305, 306, 321, 357, 390, 436, 525, 530, 579, 638, 818, 857, 866, 901, 904, 910, 912, 918, 934, 936, 939, 944, 947, 948, 949, 959, 963, 964, 966, 967, 969, 970

Multifamily Housing (Mid-Rise)
(221)

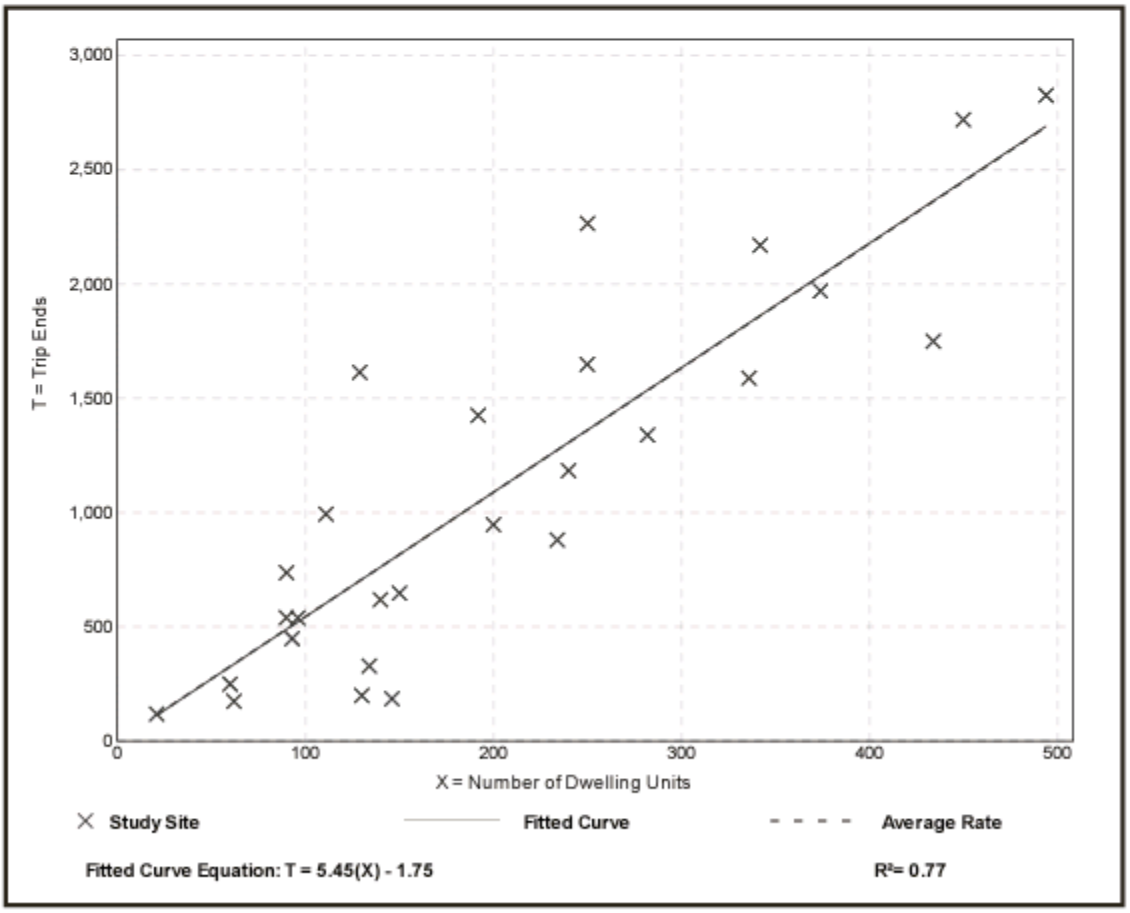
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 27
Avg. Num. of Dwelling Units: 205
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.44	1.27 - 12.50	2.03

Data Plot and Equation



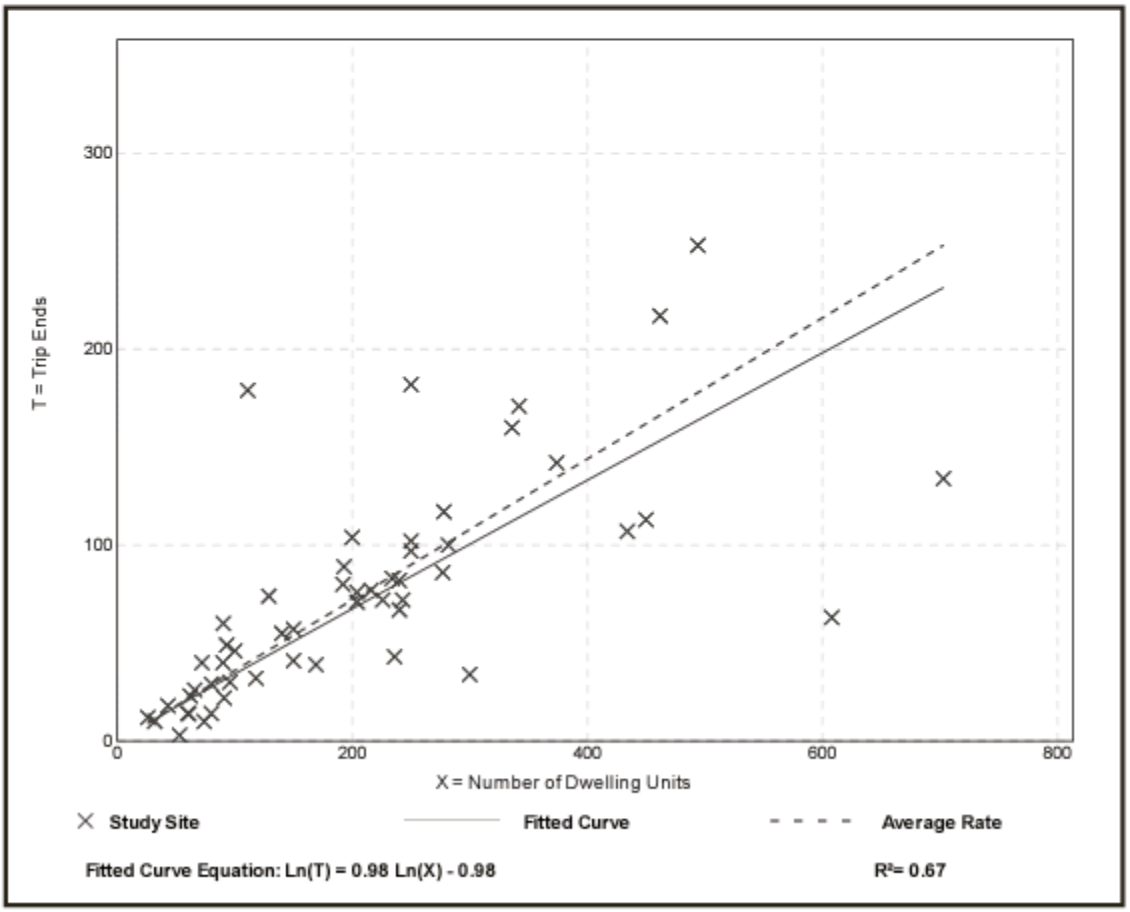
Multifamily Housing (Mid-Rise)
(221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 53
Avg. Num. of Dwelling Units: 207
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.06 - 1.61	0.19

Data Plot and Equation



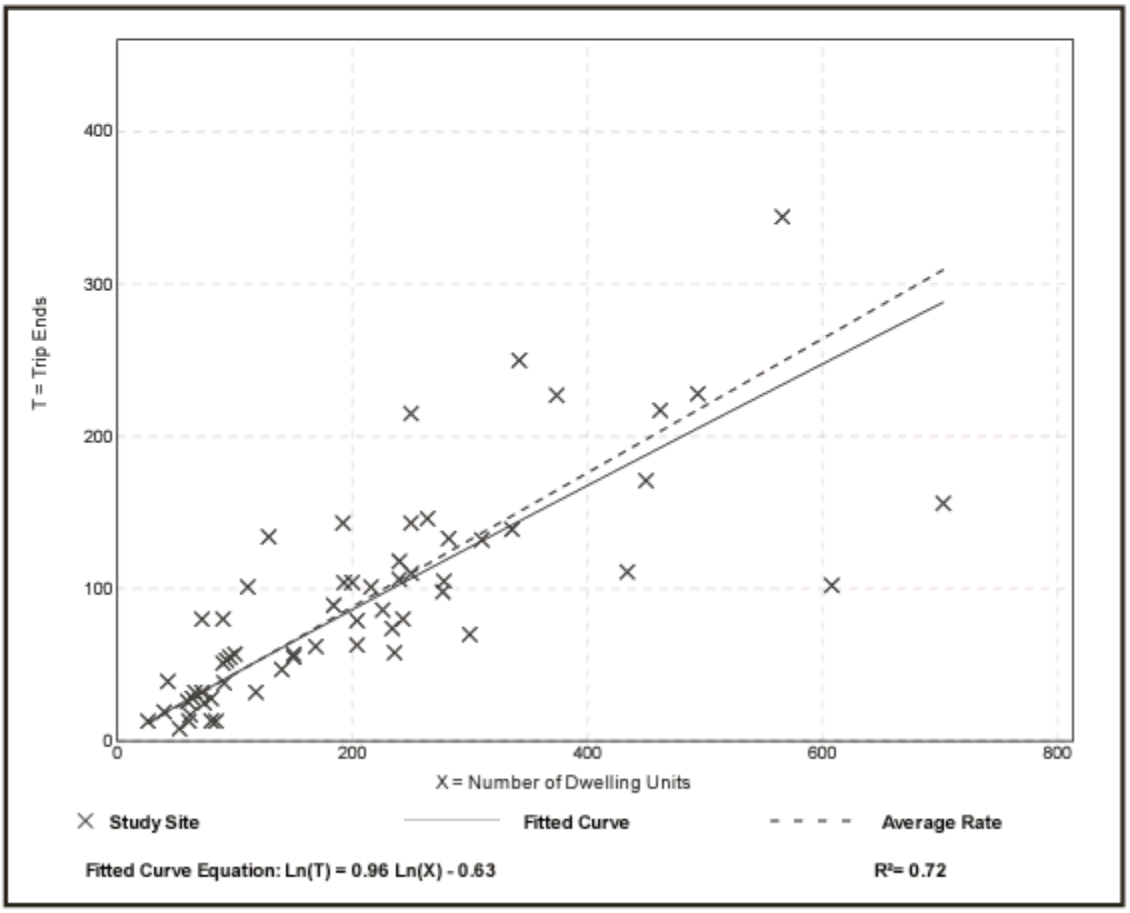
Multifamily Housing (Mid-Rise)
(221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 60
Avg. Num. of Dwelling Units: 208
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.15 - 1.11	0.19

Data Plot and Equation



Martin County, Florida - Laurel Kelly, C.F.A

generated on 9/17/2019 11:44:58 AM EDT

Summary

Parcel ID	Account #	Unit Address	Market Total Value	Website Updated
52-38-41-000-000-01102-0	1107101	SE FEDERAL HIGHWAY, STUART	$758,680	9/14/2019

Owner Information

Owner(Current)	STUART 13 ACRES LLC
Owner/Mail Address	2055 S KANNER HWY STUART FL 34994
Sale Date	9/10/2010
Document Book/Page	2475 1736
Document No.	2232235
Sale Price	1116700

Location/Description

Account #	1107101
Tax District	3100
Parcel Address	SE FEDERAL HIGHWAY, STUART
Acres	7.2570
Map Page No.	HG-47
Legal Description	HANSON GRANT S/D OF LOTS 18 19 20 S 1/3 OF N 9/15 W OF US 1 HWY DESC AS THE S 434.35' OF THE FOLLOWING: BEG W R/W US 1 & S/LN N 9/15THS, NLY ALG HWY 781.49 TO N/LN OF S 3/15 OF S 9/15, W 727.88', SLY PARALLEL US 1 782.47' & E 727.78' TO POB

NOTE: Legal description as shown is not to be used on legal documents. The legal description is intended for general information only. The Property Appraiser assumes no responsibility for the consequences of inappropriate uses or interpretations of the legal description.

Parcel Type

Use Code	1000 Vacant Commercial
Neighborhood	50700 Federal_Indian to Cove

Assessment Information

Market Land Value	$758,680
Market Improvement Value	
Market Total Value	$758,680

Martin County, Florida - Laurel Kelly, C.F.A

generated on 9/17/2019 11:45:44 AM EDT

Summary

Parcel ID	Account #	Unit Address	Market Total Value	Website Updated
52-38-41-000-000-01101-0	128526	SE FEDERAL HIGHWAY, STUART	$800,530	9/14/2019

Owner Information

Owner(Current)	TIERRA DEL LAGO INC
Owner/Mail Address	PO BOX 3306 PALM BEACH FL 33480
Sale Date	8/4/1986
Document Book/Page	0995 1479
Document No.	
Sale Price	0

Location/Description

Account #	128526
Tax District	3100
Parcel Address	SE FEDERAL HIGHWAY, STUART
Acres	5.7430
Map Page No.	HG-47
Legal Description	HANSON GRANT S/D OF LOTS 18 19 20 S 1/3 OF N 9/15 W OF US 1 HWY DESC AS: BEG W R/W US 1 & S/LN N 9/15THS, NLY ALG HWY 781.49 TO N/LN OF S 3/15 OF S 9/15, W 727.88', SLY PARALLEL US 1 782.47' & E 727.78' TO POB (LESS THE S 434.35' AS DESC IN OR 2475/1736)

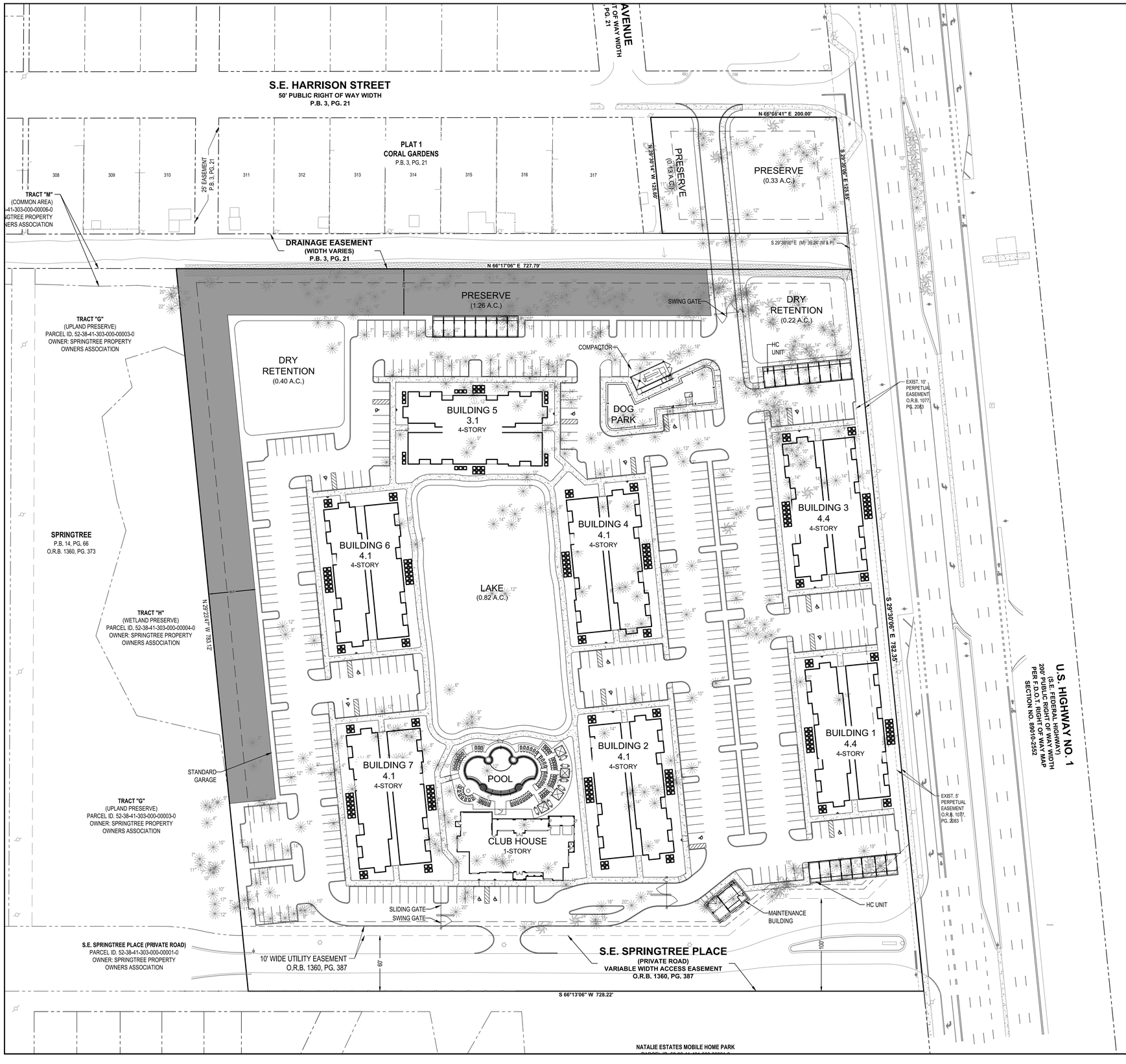
NOTE: Legal description as shown is not to be used on legal documents. The legal description is intended for general information only. The Property Appraiser assumes no responsibility for the consequences of inappropriate uses or interpretations of the legal description.

Parcel Type

Use Code	1000 Vacant Commercial
Neighborhood	50700 Federal_Indian to Cove

Assessment Information

Market Land Value	$800,530
Market Improvement Value	
Market Total Value	$800,530



TREE LEGEND:

- 4" OAK TREE WITH SIZE
- 4" PALM TREE WITH SIZE
- 4" PINE TREE WITH SIZE
- 4" UNKNOWN TREE WITH SIZE

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.
N.A.V.D. 88

LEGEND:

ARV	AIR RELEASE VALVE	INV	INVERT
BFP	BACKFLOW PREVENTER	LP	LIGHT POLE
(C)	CALCULATED DATA	(M)	MEASURED DATA
CLF	CHAINLINK FENCE	N:	NORTHING
CM	CONCRETE MONUMENT	NAVD	NORTH AMERICAN VERTICAL DATUM
CMP	CORRUGATED METAL PIPE	O.R.B.	OFFICIAL RECORDS BOOK
CRB	COMMUNICATIONS RISER BOX	(P)	PLAT DATA
CONC.	CONCRETE	P.B.	PLAT BOOK
(A)	DEED DATA	PG.	PAGE
E:	EASTING	PVC	POLYVINYLCHLORIDE PIPE
EL.	ELEVATION	R/W	RIGHT OF WAY
FH	FIRE HYDRANT	RCP	REINFORCED CONCRETE PIPE
F.P.L.	FLORIDA POWER AND LIGHT COMPANY	R.T.K.	REAL-TIME KINEMATIC
F.A.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION	SV	SEWER VALVE
G.P.S.	GLOBAL POSITIONING SYSTEM	TYP.	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE PIPE	WV	WATER VALVE
ID.	IDENTIFICATION		
IRR	IRRIGATION CONTROL VALVE	TS	TRAFFIC SIGNAL HANDHOLE
F	FIBER OPTIC HANDHOLE		FOUND CONCRETE MONUMENT WITH IDENTIFICATION
FO	FIBER OPTIC MARKER		NAIL & DISK WITH IDENTIFICATION
	SIGN		FOUND IRON ROD OR PIPE WITH IDENTIFICATION
	GUY ANCHOR		SET 5/8" IRON ROD WITH CAP STAMPED "BOWMAN CG LB8030"
	CONCRETE POWER POLE	X	DENOTES TITLE COMMITMENT EXCEPTION NUMBER
	WOOD POWER POLE	1	CONTOUR LINE
S	SEWER MANHOLE	X	FENCE LINE
		OHE	OVERHEAD ELECTRICAL
D	STORM MANHOLE	× 100.00	SPOT ELEVATION
	STORM INLET		ASPHALT PAVEMENT
T	TELEPHONE MANHOLE		CONCRETE

Site Data

Total Site Area	592,416 Sf / 13.6 Ac.		
Density	270 Units	19.85 UNITS / Ac.	
Upland Preserve / Nature Area			
Proposed Upland Preservation	76,665 sf	1.76 Ac.	25%
Open Space			
Open Space Provided:	161,608 sf	3.71 Ac.	28%
Impervious Area			
Building Coverage	87,556 sf	2.01 Ac.	
Vehicular / Sidewalks / Pads	196,456 sf	4.51 Ac.	
Lake	31,363 sf	0.72 Ac.	
Pervious Area			
Dry Detention Area	20,909 sf	0.48 Ac.	
Upland Preserve Area	76,665 sf	1.76 Ac.	
Open Space	161,608 sf	3.71 Ac.	
Total:		6.01 Ac.	
Parking	(9' x 18')		
Stalls/Spaces	467 each	1.73 space/ Unit	

Bowman CONSULTING

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STUART - SPRINGTREE

FLORIDA

CITY OF STUART

PROJECT NO.
30210-01-002

REVISIONS	
DATE	DESCRIPTION

	JMB	HE
	DRAWN	CHKD

SCALE: 1" = 50'
JOB No. 30210-01-002
DATE: 7/19/2019
FILE:
SHEET 1 OF 1