

SOUTHSIDE ESTATES TRAFFIC CALMING

A detailed traffic safety analysis was performed along the corridors of Peach Drive, Forest Boulevard (between Peach Dr and Live Oak Dr) and Live Oak Drive in the Southside Estates study area. Crash analysis was performed using Signal 4 Analytics and compared to JSO crash reports. Both the analyses reported similar crash numbers. Crash analysis statistics and crash maps are attached.

Speed studies were conducted by two different methods for maximum level of accuracy.

- Method 1: This method involved collecting data using a traffic device, which was mounted on existing poles. The data collected from the traffic device was then analyzed to provide 85th percentile speeds
- Method 2: This method is a more direct approach for speed data collection. A traffic technician uses a hand-held radar speed gun to register traffic speeds of vehicles traveling on road.

Below is a table with a *summary of the speed study results*

Corridor	85 th percentile speeds (in mph)	
	Method – 1 (pole mounted traffic device)	Method – 2 (hand-held radar speed gun)
Peach Drive	38	38
Forest Boulevard	35	39
Live Oak Drive	36	39

After analyzing the study results, the following alternatives are proposed.

Alternative 1:

This alternative includes the design and construction of approximately 23 speed tables along the study corridors, each spaced 600-feet apart. The detail of a speed table is attached. A cost estimate for the same is attached towards the end of this document.

Alternative 2:

The alternative includes the design and construction of three mini-roundabouts in the study area. The locations of these mini-roundabouts are mentioned below.

- Mini-roundabout 1 – at the intersection of Peach Drive and Leahy Road
- Mini-roundabout 2 – at the intersection of Peach Drive and Forest Boulevard
- Mini-roundabout 3 – at the intersection of Forest Boulevard and Live Oak Drive

Attached is a concept sketch of the above discussed alternative. A cost estimate for this alternative is currently in progress.

DRAFT

Southside Estates Traffic Calming Crash Summary

Peach Drive (Beach Blvd to Forest Blvd) Crash Summary; ~1.42 miles; 2018 AADT – 2,933

Type of crash	No. of crashes
Angle	5
Head On	1
Left Turn	3
Off Road	14
Other	7
Rear End	6
Rollover	1
Sideswipe	5
Total	42

Year of crash	No. of crashes
2014	8
2015	12
2016	8
2017	8
2018	6
Total	42

Time of crash	No. of crashes
6AM-10AM	1
10AM-1PM	10
1PM-4PM	9
4PM-7PM	8
7PM-10PM	5
10PM-6AM	9
Total	42

Crashes per mile = 5.91 crashes
Crashes per year = 8.40 crashes

Forest Boulevard (Peach Dr to Live Oak Dr) Crash Summary; ~0.27 miles

Type of crash	No. of crashes
Angle	1
Left Turn	1
Off Road	9
Other	1
Rear End	4
Right Turn	2
Total	18

Year of crash	No. of crashes
2014	8
2015	1
2016	3
2017	2
2018	4
Total	18

Time of crash	No. of crashes
6AM-10AM	4
10AM-1PM	3
1PM-4PM	4
4PM-7PM	4
7PM-10PM	2
10PM-6AM	1
Total	18

Crashes per year = 3.60 crashes

Live Oak Drive (Forest Blvd to Atlantic Blvd) Crash Summary; ~0.80 miles; 2018 AADT – 6,103

Type of crash	No. of crashes
Head On	1
Left Turn	2
Off Road	4
Other	3
Pedestrian	1
Rear End	8
Right Turn	2
Total	21

Year of crash	No. of crashes
2014	3
2015	7
2016	2
2017	5
2018	4
Total	21

Time of crash	No. of crashes
6AM-10AM	2
10AM-1PM	3
1PM-4PM	6
4PM-7PM	5
7PM-10PM	4
10PM-6AM	1
Total	21

Crashes per mile = 5.25 crashes

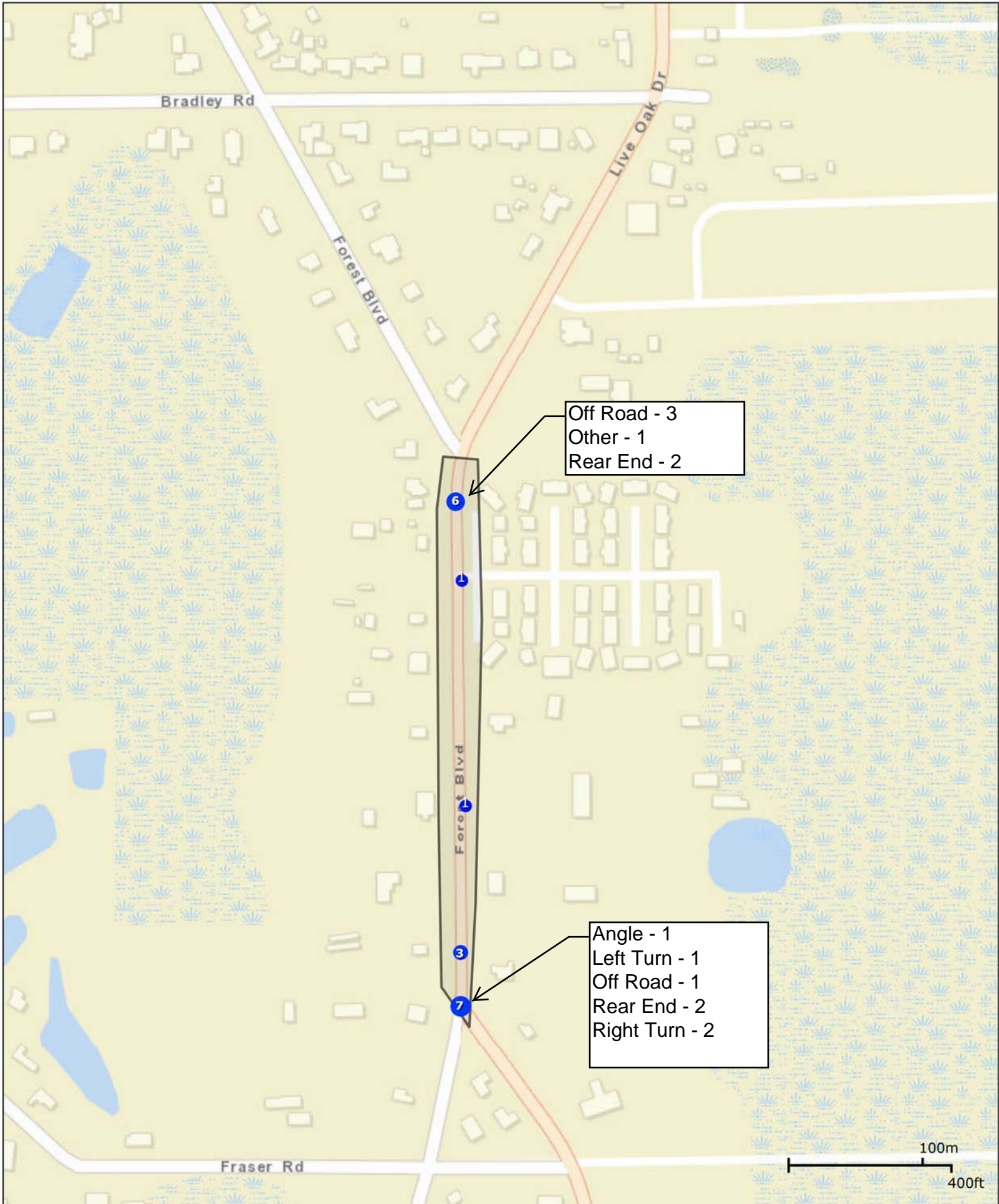
Crashes per year = 4.20 crashes

Peach Drive Crash Map



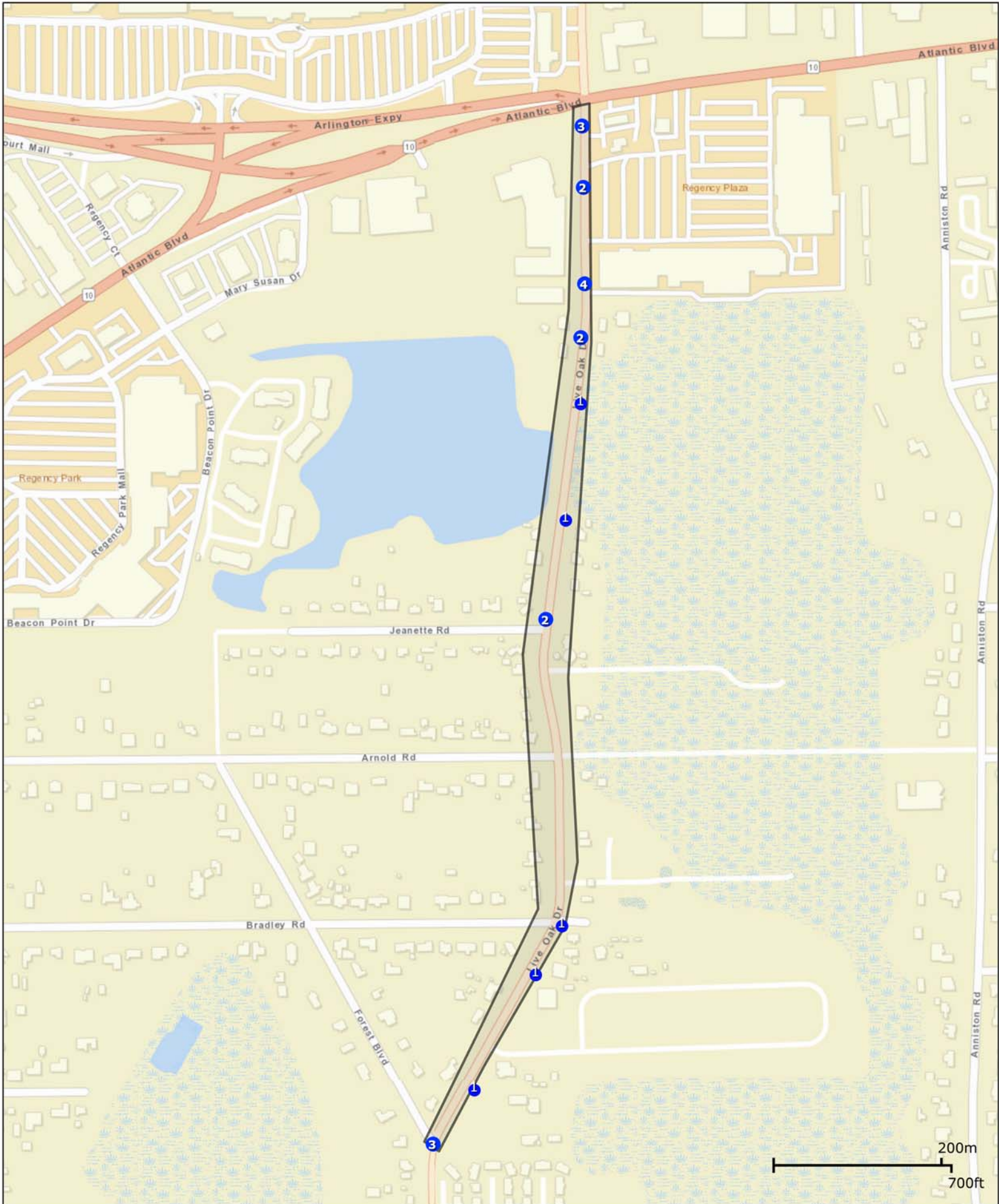
Limits from Beach Blvd to Live Oak Dr ; Five-year crash analysis 2014-2018

Forest Boulevard Crash Map



Limits from Live Oak Dr to Peach Dr ; Five-year crash analysis 2014-2018

Live Oak Drive Crash Map



Limits from Forest Blvd to Atlantic Blvd ; Five-year crash analysis 2014-2018

Southside Estates Traffic Calming

Alternative 1 - Speed Tables; Overview Map

ATLANTIC BLVD

Legend

▲ Proposed Speed Table

PEACH DR

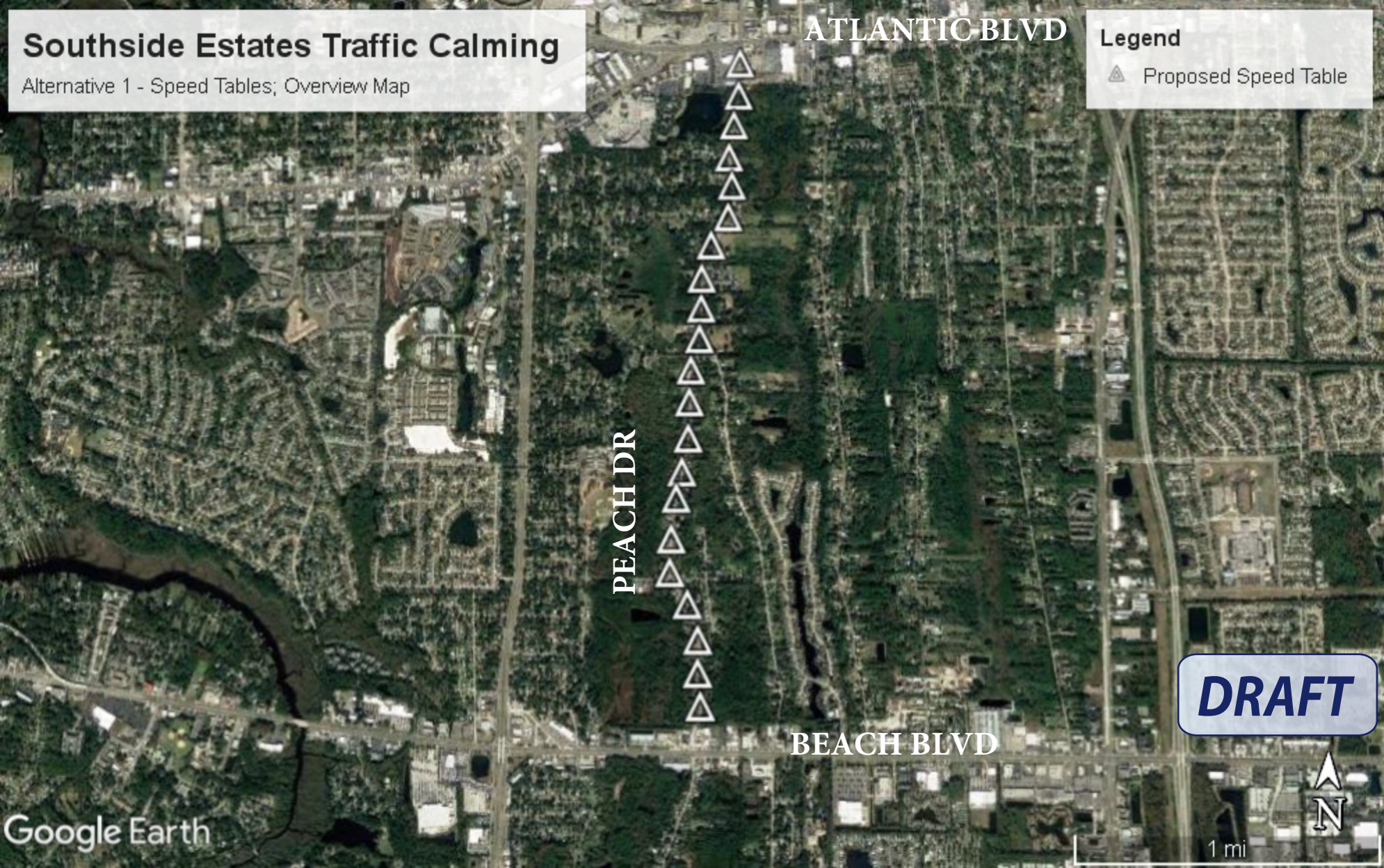
BEACH BLVD

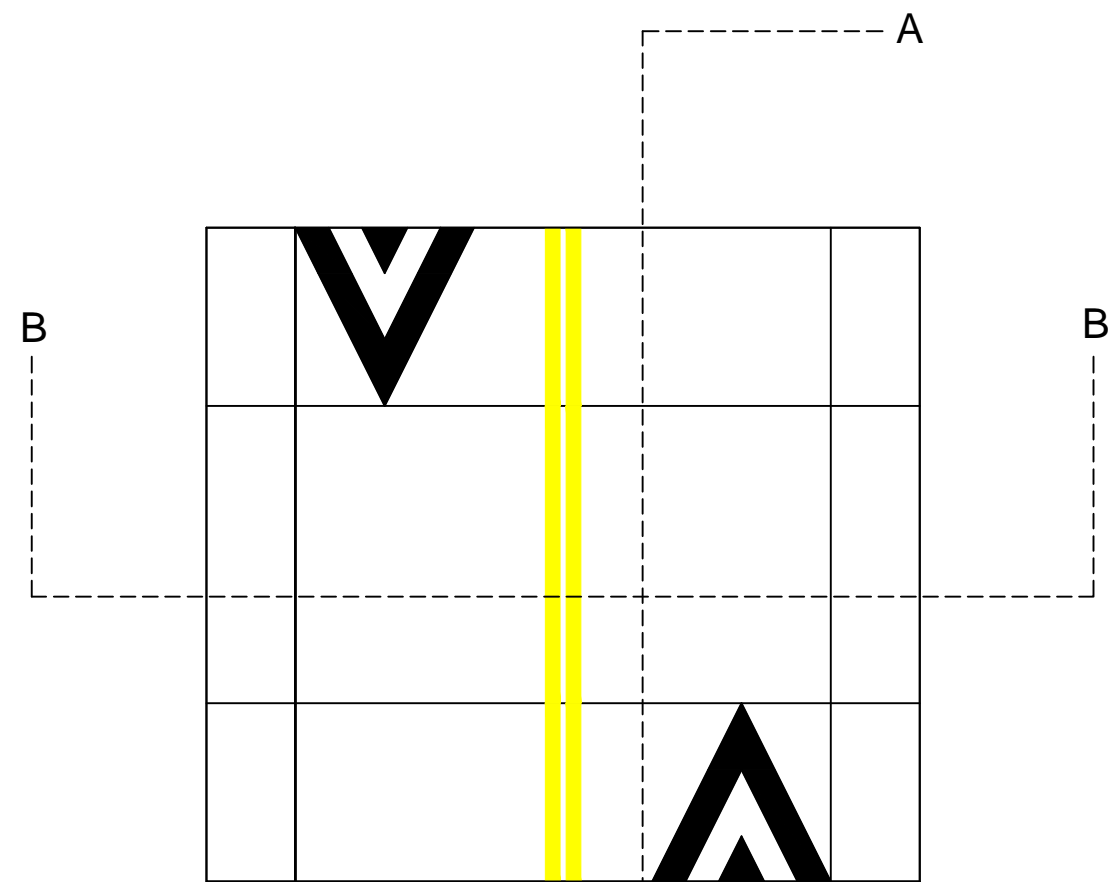
DRAFT



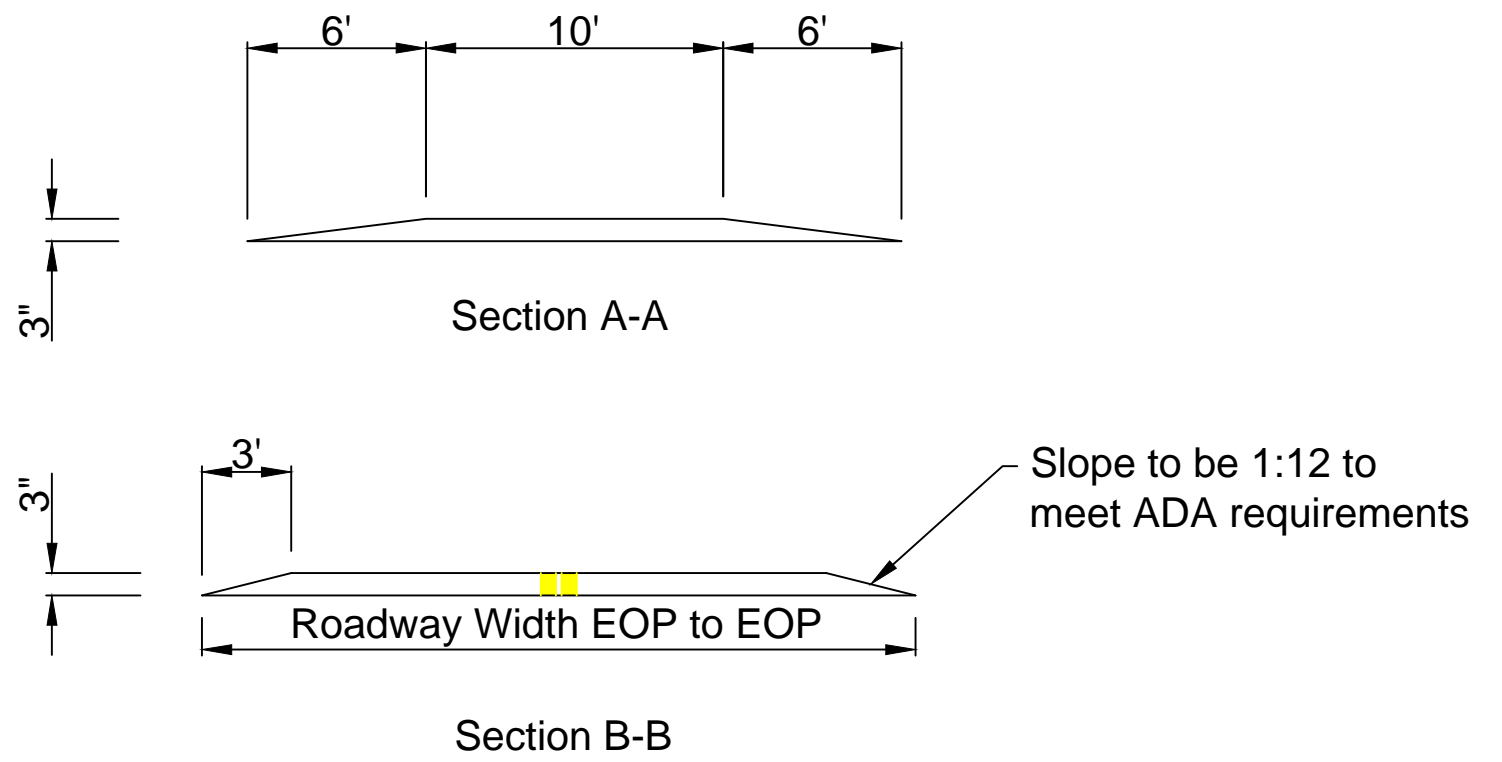
1 mi

Google Earth





Overhead view. Crosswalk not shown for clarity



Location: Southside Estates Traffic Calming (Alternative 1 - Speed Tables)

Estimated By: Usha Nadella

Date: 05/07/2019

Item No	Description	Unit	COJ Unit price	Estimated quantity	Final quantity	Estimated Cost	Final Cost
1	Asphalt Speed Table	EA	\$4,650.00	23		\$106,950.00	
Total						\$106,950.00	
Contingency (20%)						\$32,085.00	
Total Estimated Cost						\$139,035.00	

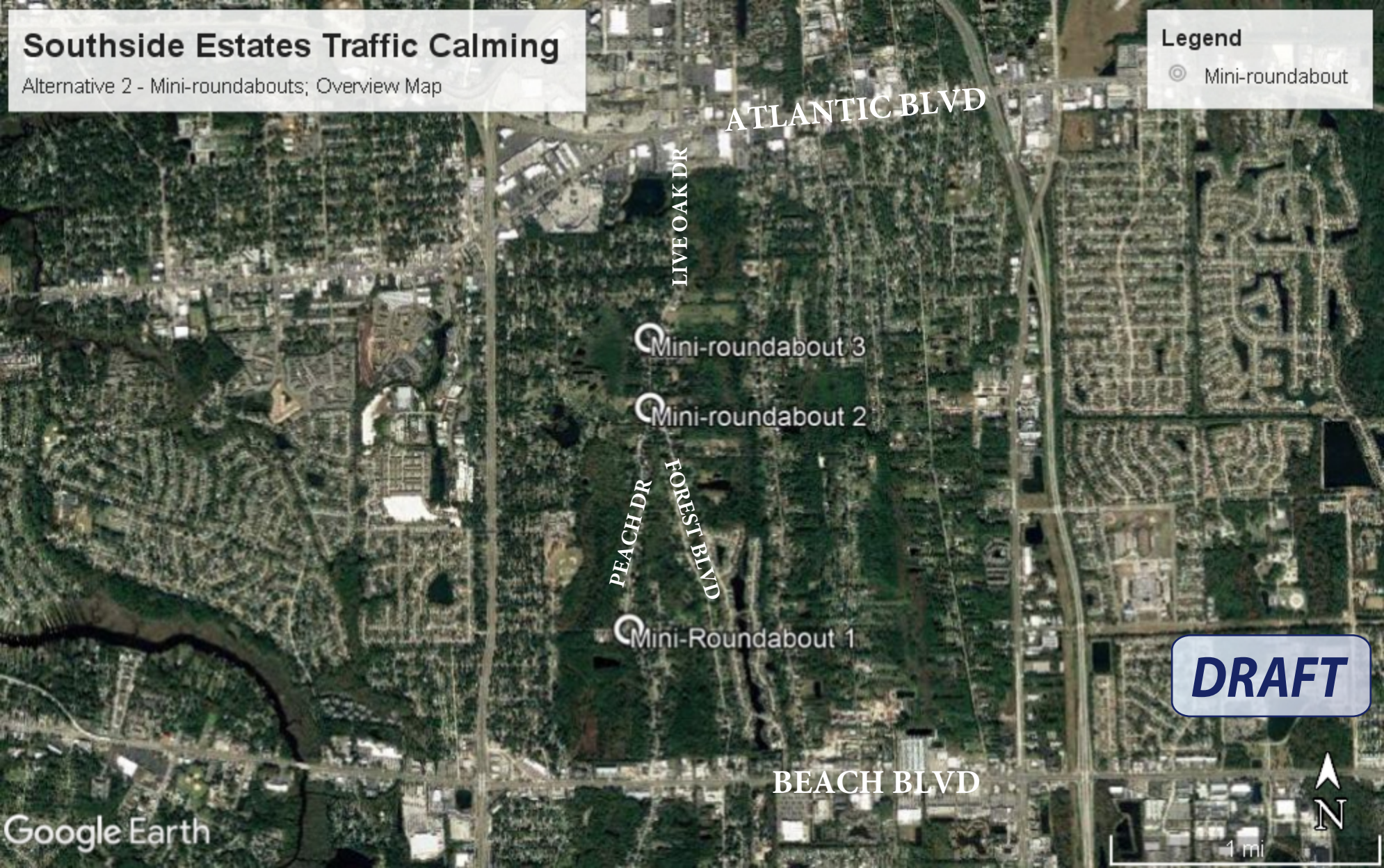
DRAFT

Southside Estates Traffic Calming

Alternative 2 - Mini-roundabouts; Overview Map

Legend

- ⊙ Mini-roundabout



LIVE OAK DR

ATLANTIC BLVD

Mini-roundabout 3

Mini-roundabout 2

PEACH DR
FOREST BLVD

Mini-Roundabout 1

BEACH BLVD

DRAFT

Google Earth

1 mi



2586

19905

Mini roundabout
Inscribed circle diameter - 60'
Central island - 40'

LEAHY DR

9904

9874

2802

PEACH DR

2815

DRAFT

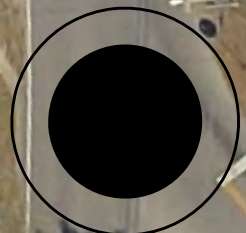


2104

2115

FOREST BLVD

Mini-roundabout 2
Inscribed circle diameter - 45' (min)
Central island - 30'



2124

PEACH DR

FOREST BLVD

2124

DRAFT



1915

FOREST BLVD

LIVE OAK DR

1875

1872



Mini-roundabout 3
Inscribed circle diameter - 45' (min)
Central island - 30'

1916

1925

FOREST BLVD

1930

1935

DRAFT