

AGENDA

- Project Purpose
- Traffic Study Findings
- Traffic Calming Improvement Opportunities



PROJECT PURPOSE

- Corradino provided traffic engineering services to prepare an update to the Townwide Traffic and Pedestrian Safety Study
- The focus of the updated Townwide Traffic and Pedestrian Safety Study was to
 - Evaluate the traffic operations along key roadway corridors
 - Confirm vehicle operating speeds along certain key roadway corridors
 - Complete an updated crash review of the key segments and intersections within the Town of Surfside.
 - Recommend potential new traffic calming
 - Recommend potential pedestrian safety/walkability improvements



TRAFFIC STUDY FINDINGS- TRAVEL SPEEDS

Vehicle Operating Speeds along Key Corridors

- 85th Percentile Speeds along State Road A1A/Collins Avenue were 35 to 36 mph (5-6 mph over the posted speed limit). Posted speed limit is 30 mph.
- **85th Percentile Speeds along the residential streets west of State Road A1A/Harding Avenue were between 20 and 28 mph (0 to 8 mph over the posted speed limit). Posted speed limit is 20 mph.**

ROADWAY	Posted Speed (mph)	Average Speed (mph)	85th Percentile Speed (mph)	85th Percentile Speed above/below Posted Speed (mph)	Exceeds Speed Threshold ***
001- Bay Dr Bet. SR 922/Kane Concourse/96th St & 95th St	20	18 (15)	25 (23)	5 (3)	Yes
002- Byron Ave Bet. 95th & 94th St	20	19 (21)	24 (25)	4 (5)	Yes
003- Carlyle Ave Bet. 94th St & 93rd St	20	22 (21)	28 (27)	8 (7)	Yes
004- Abbott Ave Bet. 93rd St & 92nd St	20	20 (19)	26 (26)	6 (6)	Yes
005- 94th St Bet. Carlyle Ave & Byron Ave	20	18 (16)	22 (21)	2 (1)	No
006- 93rd St Bet. Carlyle Ave & Byron Ave	20	17 (17)	22 (22)	2 (2)	No
007- 92nd St Bet. Dickens Ave & Carlyle Ave	20	18 (18)	23 (23)	3 (3)	No
008- 91st St Bet. Carlyle Ave & Byron Ave	20	17 (17)	22 (22)	2 (2)	No
009- 90th St Bet. Carlyle Ave & Byron Ave	20	17 (16)	22 (20)	2 (0)	No
010- Emerson Ave Bet. 91st St & 90th St	20	21 (20)	27 (26)	7 (6)	Yes
011- 89th St Bet. Carlyle Ave & Byron Ave	20	18 (19)	23 (24)	3 (4)	No
012- Byron Ave Bet. 88th St & 86th St	20	19 (20)	27 (27)	7 (7)	Yes
013- SR A1A/Collins Ave Bet. 92nd St & 91st St	30	28	36	6	Yes
014- SR A1A/Collins Ave Bet. 88th St & 87th Terrace	30	27	35	5	Yes

*Roadway segments highlighted in Light Yellow exceeds the 85th Percentile Speed by 5 mph or more above the posted speed limit.

** Roadway segments highlighted in Bright Yellow exceeds the 85th Percentile Speed by 10 mph or more above the posted speed limit.

*** Speed threshold as per Miami-Dade County Traffic Flow Modifications/Street Closures Procedure (Revised January 2009)

**** Only segments with existing posted speed limit sign of 20 mph. 20 mph speed limit was assumed for the remaining road segments based on Town's direction

TRAFFIC STUDY FINDINGS- TRAVEL SPEEDS

Miami Dade County PWD- Traffic Engineering Division Policy on Traffic Calming Devices

- For municipalities with traffic calming funding, 85th percentile speeds exceeding the posted speed limit by 5 mph or more are considered to have an excessive speeding issue.
- The speed threshold that warrants the use of traffic calming devices per Miami Dade County is 85th percentile speeds that are 10 mph or greater than the posted speed limits

Public Works Department – Traffic Engineering Division Policy on Traffic Calming Measures

Must meet the first criteria and at least one of the remaining criteria in order for the Public Works Department to consider traffic calming measures:

Criterion	Residential Local Streets	Residential Collector Streets
Minimum Traffic Volume	>1,500 VPD <3000**	>3,000 VPD <8,000***
	>150 VPH <300***	>300 VPH <800
85th Percentile Speed+	10 MPH> Speed Limit	10 MPH> Speed Limit
Correctable Accidents per year	>3 per year	>6 per year
Cut Through Traffic during the a.m. or p.m. peak hour	>25%	>50%
Pedestrian Crossing Volume during the a.m. or p.m. peak hour	>25	>50
Concurrence from affected residents/property owners.*	2/3 of returned ballots**	2/3 of returned ballots **

VPD = Vehicles per day;
VPH = Vehicles per hour

+ It is the speed at which 85% of motorists travel.
* Affected residents/property owners to be determined on a case by case basis.

** For traffic circle 100% concurrence from adjacent affected residents and or property owners is required.
Municipal Jurisdictions: In lieu of concurrence a resolution is acceptable from municipalities.

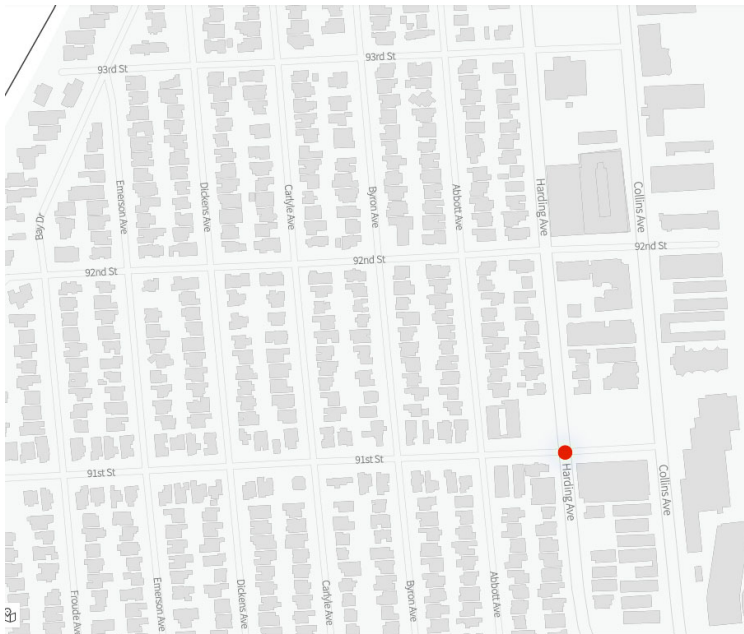
*** The traffic volume within a municipal boundary could be reduced by a total of 30%, and speed by 50% at the request of and for those municipalities, which provide funding for their traffic calming program.

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TRAFFIC STUDY FINDINGS- SAFETY REVIEW

- 5 Year Crash Review- Signal Four Analytics (Overall)
 - 09/01/2018- 09/01/2023
 - 1,148 Total vehicular crashes
 - 191 Injury crashes
 - 1 Fatal crash- Harding Avenue and 91st Street
- Predominant Crash Pattern- Rear End Crashes and Sideswipe Crashes



TRAFFIC STUDY FINDINGS- SAFETY REVIEW

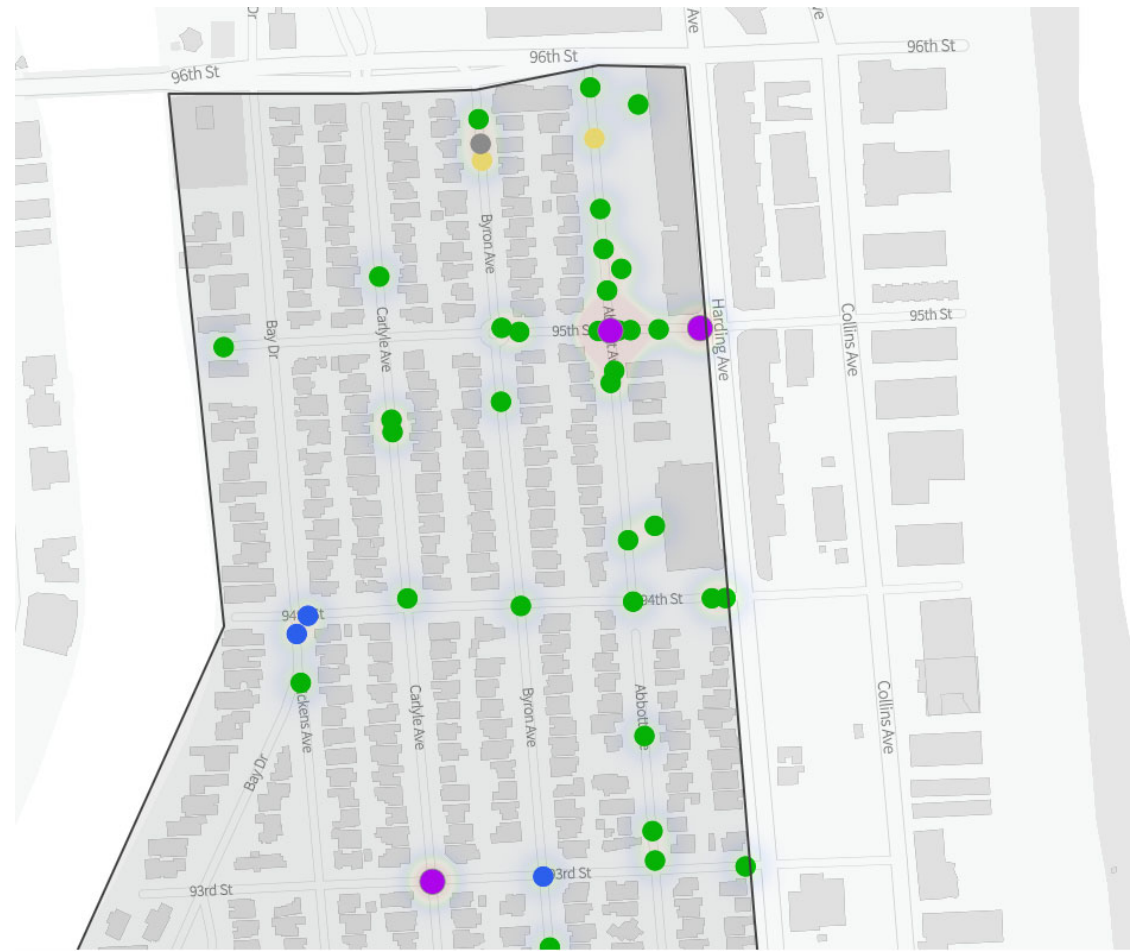
- 5 Year Crash Review- Signal Four Analytics (Residential Area West of State Road A1A/Harding Avenue)
 - 09/01/2018-09/01/2023
 - 102 Total vehicular crashes
 - 13 Injury crashes
- Predominant Crash Pattern- Left Turn and Angle Crashes



THE CORRADINO GROUP

TRAFFIC STUDY FINDINGS- SAFETY REVIEW

- 5 Year Crash Review- Signal Four Analytics (Residential Area West of State Road A1A/Harding Avenue)
 - 96th Street south to 93rd Street- High Crash Locations
 - 95th Street and Abbott Avenue
 - Byron Avenue between 96th Street and 93rd Street



TRAFFIC STUDY FINDINGS- SAFETY REVIEW

- 5 Year Crash Review- Signal Four Analytics (Residential Area West of State Road A1A/Harding Avenue)
 - 93rd Street south to 90th Street- High Crash Locations
 - 92nd Street and Bay Drive/Froude Avenue
 - 92nd Street and Byron Avenue
 - 91st Street between Abbott Avenue and Dickens Avenue



TRAFFIC STUDY FINDINGS- SAFETY REVIEW

- 5 Year Crash Review- Signal Four Analytics (Residential Area West of State Road A1A/Harding Avenue)
 - 90th Street south to 88th Street- High Crash Locations
 - 88th Street and Byron Avenue
 - 88th Street west of Emerson Avenue
 - 89th Street and Carlyle Avenue

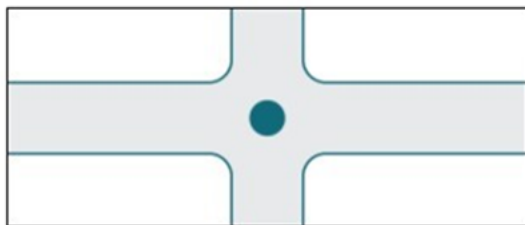


TRAFFIC STUDY FINDINGS- SAFETY REVIEW

- 5 Year Crash Review- Signal Four Analytics (Overall Bicycle and Pedestrian Crashes)
 - 09/01/2018- 09/01/2023
 - 53 Bicycle and Pedestrian crashes
 - 44 Injury crashes
- Predominantly located along State Road A1A/Collins Avenue, State Road A1A/Harding Avenue and State Road 922/96th Street
- 91st Street Corridor, Carlyle Avenue, Byron Avenue and Bay Drive crash locations

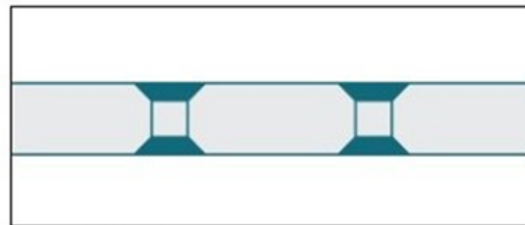


TRAFFIC CALMING DEVICES/SPEED CONTROL/WALKABILITY DEVICES



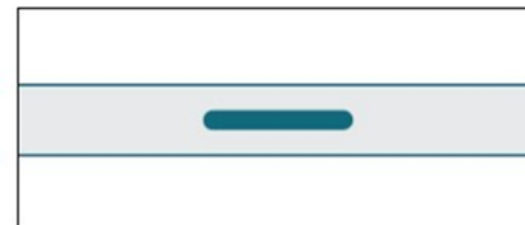
Roundabout

Roundabouts reduce traffic speeds at intersections by requiring motorists to move with caution through conflict points.



Speed Hump

Speed humps vertically deflect vehicles and may be combined with a midblock crosswalk.



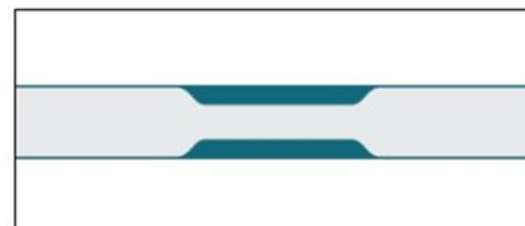
Median

Medians create a pinchpoint for traffic in the center of the roadway and can reduce pedestrian crossing distances.



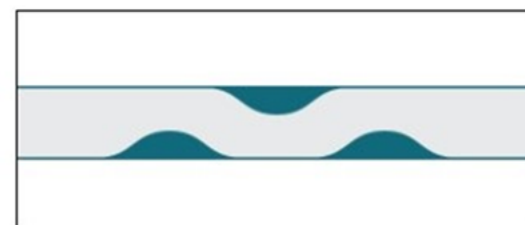
Diverter

A traffic diverter breaks up the street grid while maintaining permeability for pedestrians and bicyclists.



Pinchpoint

Chokers or pinchpoints restrict motorists from operating at high speeds on local streets and significantly expand the sidewalk realm for pedestrians.



Chicane

Chicanes slow drivers by alternating parking or curb extensions along the corridor.

TRAFFIC CALMING DEVICES/SPEED CONTROL/WALKABILITY DEVICES

Neighborhood Traffic Circle

- Pros- Crashes reduced by 50-90 % compared to two-way and four-way stop sign applications
- Pros- Effective in lowering travel speeds and potential beatification elements
- Cons- Impacts to multimodal users

Speed Table/Speed Hump

- Pros- Effective in lowering travel speeds
- Cons- Specific design parameters for transit, emergency vehicles to traverse without impact to response time
- Cons- Noise and potential damage to vehicles at higher travel speeds

Raised Intersections

- Pros- Reinforce slow speeds and encourage motorists to yield to pedestrians at crosswalks
- Cons- potential impact to street drainage

Road Closures- Full/Partial

- Pros- Discourages cut through vehicle traffic
- Cons- Impact to Emergency Response Time and Vehicular Access to street network

Median Diverter

- Pros- Discourages cut through vehicle traffic
- Cons- Impact to Emergency Response Time and Vehicular Access to street network
- Cons- Potential redistribution of vehicle through traffic to adjacent streets

Chicanes

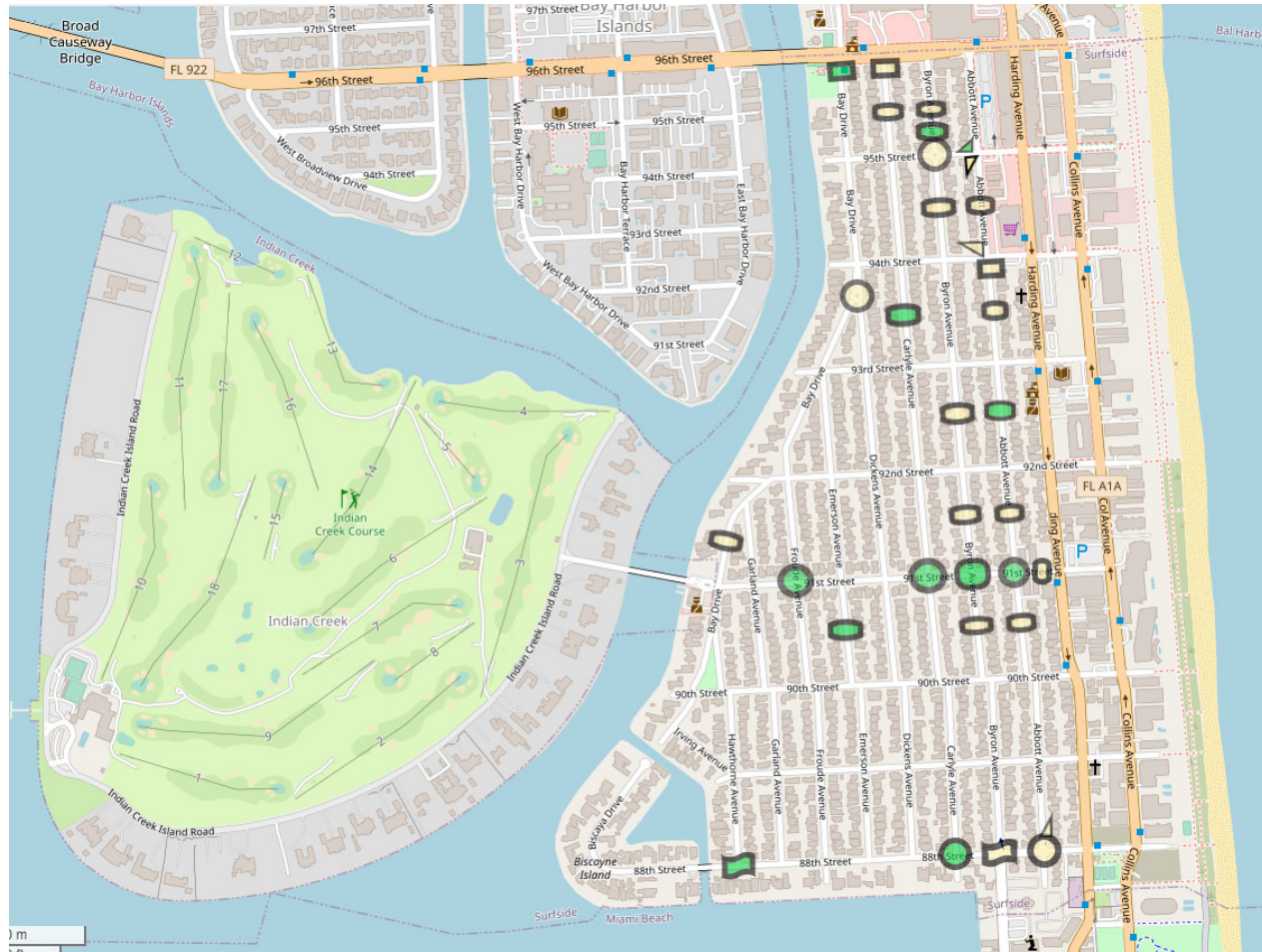
- Pros- Effective in lowering travel speeds
- Cons- potential impact to residential driveway access and available on street parking

TRAFFIC CALMING DEVICES/SPEED CONTROL/WALKABILITY DEVICES



SURFSIDE TRAFFIC CALMING DEVICES/OPPORTUNITIES

- **Neighborhood Traffic Circles**
 - Byron Avenue and 95th Street
 - Bay Drive and Dickens Avenue
 - Abbott Avenue and 88th Street
- **Speed Hump/Speed Tables**
 - Byron Avenue- 95th, 94th, 92nd, 91st, 90th
 - Abbott Avenue- 94th, 93rd, 91st, 90th
 - 91st Street- East of Abbott Avenue
 - Bay Drive- 91st
- **Median Diverters**
 - Byron Avenue and 88th Street
- **Road Closures (Full/Partial)**
 - Carlyle at 96th Street- Full
 - Abbott Avenue at 94th Street- Full
 - Abbott Avenue at 95th Street- Partial
 - Abbott Avenue at 88th Street
 - 94th Street at Abbott Avenue- Partial



SURFSIDE TRAFFIC CALMING DEVICES/OPPORTUNITIES

CORRIDOR SEGMENT	RECOMMENDED IMPROVEMENTS	LOCATION	85th Percentile Over Posted Speed	Short/Mid/Long Term
Bay Drive and 96th Street	Road Closure of Bay Drive at 96th Street	Bay Drive at 96th Street	5	Mid/Long
Byron Avenue and 95th Street	Raised Speed Table at marked crosswalk at north side of intersection	Byron Avenue at 95th Street	5	Short
Abbot Avenue and 95th Street	Partial Road Closure on 95th Street at Abbott Avenue	Abbott Avenue at 95th Street	6	Mid/Long
Carlyle Avenue- 93rd Street to 94th Street	Raised Speed Table/Speed Hump	Carlyle Avenue between 93rd Street and 94th Street	8	Short
Abbott Avenue- 92nd Street to 93rd Street	Raised Speed Table/Speed Hump	Abbott Avenue between 92nd Street and 93rd Street	6	Short
Froude Avenue at 91st Street	Neighborhood Traffic Circle	Froude Avenue at 91st Street	5	Mid
Carlyle Avenue at 91st Street	Neighborhood Traffic Circle	Carlyle Avenue at 91st Street	5	Mid
Abbott Avenue at 91st Street	Neighborhood Traffic Circle	Abbott Avenue at 91st Street	5	Mid
Emerson Avenue- 90th Street to 91st Street	Raised Speed Table/Speed Hump	Emerson Avenue between 90th Street and 91st Street	7	Short
Carlyle Avenue and 88th Street	Neighborhood Traffic Circle	Carlyle Avenue at 88th Street	0	Mid
Hawthorne Avenue and 88th Street	Median Diverter	Hawthorne Avenue at 88th Street	0	Mid

REVIEW SAFE STREETS SURVEY

