

8

TRAFFIC CALMING



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# TRAFFIC CALMING

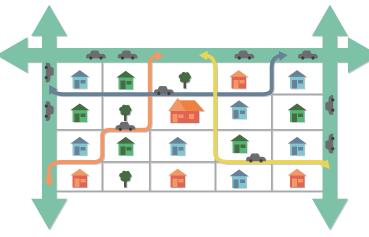
Traffic calming works to Reduce traffic

speed & volume through

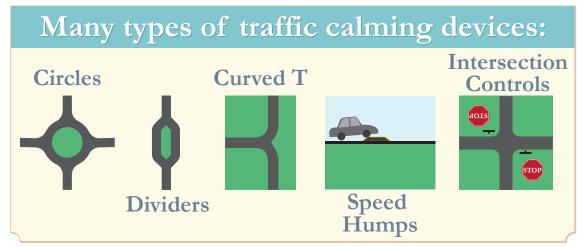




deflection of vehicles



Smart phone apps are routing through traffic through local streets

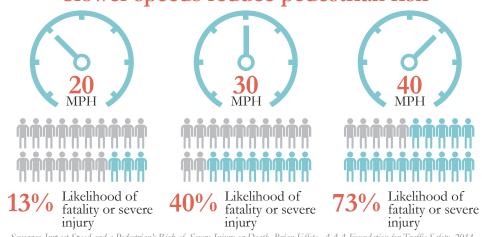


82 existing traffic circles & roundabouts

Speed humps and speed cushions can reduce speeds on residential streets by more than

20%

# Slower speeds reduce pedestrian risk



Source: Impact Speed and a Pedestrian's Risk of Severe Injury or Death, Brian Effete, AAA Foundation for Traffic Safety, 2011

# 8 TRAFFIC CALMING

Traffic calming in Coral Gables is focused on reducing the impact of excessive traffic volumes and speed on residential neighborhoods. One of the best ways to improve neighborhood livability and safety is to reduce traffic speeds while discouraging cut-through traffic.

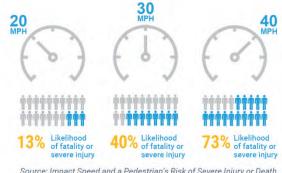
A robust definition of traffic calming was developed by the Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE) for the online ePrimer for Traffic Calming (https://safety.fhwa.dot.gov/speedmgt/ePrimer\_modules/module2.cfm#mod21). That definition follows:

The primary purpose of traffic calming is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or psycho-perception means to produce desired effects.

# 8.1 CONTEXT

Neighborhoods are the heart of the community, and the City places high importance on "neighborhood livability". Managing traffic in neighborhoods through traffic calming is part of that bigger picture. Many residential districts in the City experience cut-through traffic, and the city has received numerous complaints about excessive traffic speeds. High traffic speeds not only pose a risk to drivers and passengers, but to pedestrians as well. The likelihood of pedestrian fatalities increases substantially as traffic speeds approaches 40 mph, per **Figure 8.1**.

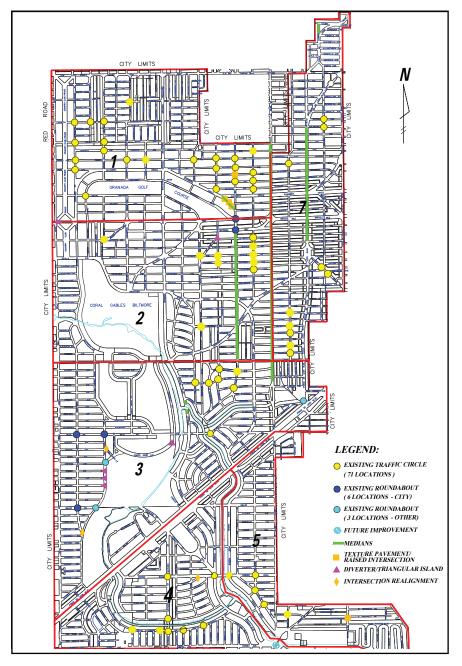
Figure 8.1: Likelihood of Pedestrian Harm Versus Vehicle Speed

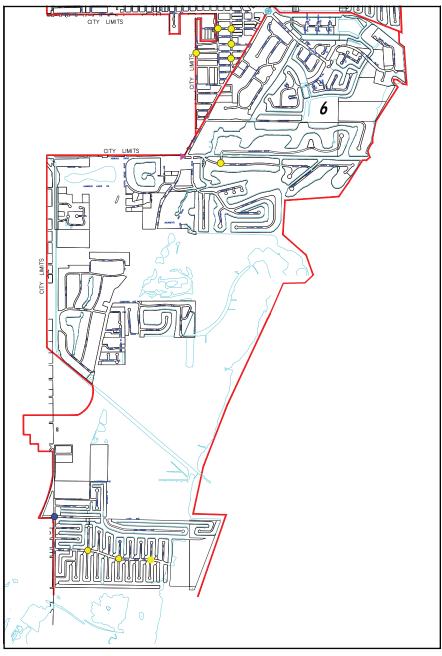


Source: Impact Speed and a Pedestrian's Risk of Severe Injury or Death Brian Tefft, AAA Foundation for Traffic Safety, 2011

The City has responded to these concerns by consistently pursuing the installation of traffic calming devices in locations demonstrating excessive speeding or traffic volumes. **Figure 8.2** shows the location of traffic calming devices in place at the beginning of this plan preparation.

Figure 8.2: Existing Traffic Calming Devices (Continued)





Examples of the types of traffic control devices that the City has deployed are shown in Figures 8.3 through 8.6.

Figure 8.3: Typical Intersection Circle



Figure 8.4: Roundabout at Blue Road and Alhambra Circle



Figure 8.5: Existing Median Divider



Figure 8.6: Curvilinear T-Intersection



More recently the City has been in the process of installing speed humps or speed tables to more effectively control vehicle speeds. Figure 8.7 references a Miami Herald traffic calming story which featured temporary speed cushions on Biltmore Drive.

Figure 8.7: Biltmore Drive Speed Humps



A rubberized speed hump is designed to slow the streams of rush-hour traffic on Blue Road in Coral Gables.

Source: Posted on November 5, 2018 – Miami Herald: "Sick of speeders on your street? Put away the middle finger, try 'traffic calming' "

# Traffic Calming Management

Traffic calming management is a traffic engineering function involving problem identification, data collection and technical analysis, development of engineering plans, and construction of the improvement.

Locally, Miami-Dade County has an oversight role for all public streets, with approval authority over roadway geometry and traffic controls. The County has established rules pertaining to analysis and approval of traffic calming improvements. In the past, applying the standard County traffic calming thresholds led to few sites of concern in Coral Gables being eligible for traffic calming improvement actions.

However, under agreements with a city, the County can delegate certain authority over traffic calming management to that city. Coral Gables decided to pursue a new traffic calming agreement with the County that was more tailored to the needs of the City, would establish a different threshold methodology, and would grant the City more authority over some traffic calming decisions.

The process of negotiations and approval of the new agreement with the County took almost two years, but the outcome of the agreement will make more local Coral Gables streets eligible for traffic calming.

The new traffic calming agreement, approved in August 2018, provides for:

- Traffic calming thresholds better tailored to Coral Gables residential streets.
- Pre-approval by the County of specific traffic calming treatments.
- More investigation still required for treatments not pre-approved for use in the City.

The new Coral Gables traffic calming methodology uses a point system and is shown in **Table 8.1**. Proposed locations for traffic calming improvements are evaluated against the list of factors shown, including traffic volume and traffic speed, and points are awarded accordingly. Those sites with more than 10 points are eligible for possible traffic calming improvement actions.







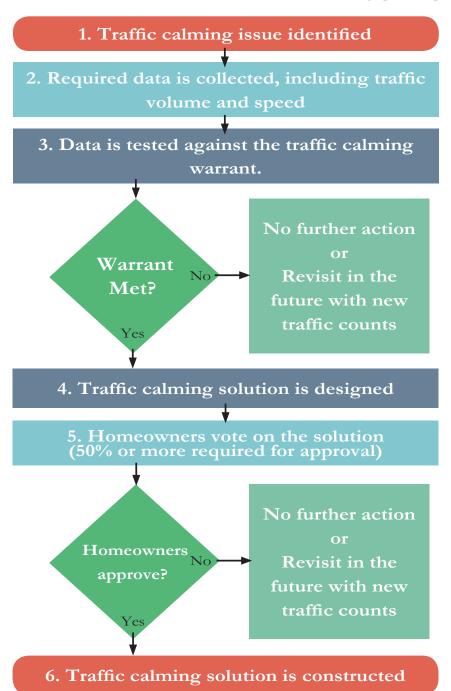
Table 8.1: Revised Traffic Calming Methodology for Residential Streets Only

	Narrow Residential Local Street	Residential Local Street	Residential Collector Street	Points					
	0 to 500 VPD	0 to 1,000 VPD	0 to 2,000 VPD	0					
	501 to 750 VPD	1,001 to 1,250 VPD	2,001 to 2,500 VPD	1					
Daily	751 to 1,100 VPD	1,251 to 1,750 VPD	2,501 to 3,000 VPD	2					
Volume	1,101 to 1,700 VPD	1,751 to 2,500 VPD	3,001 to 4,000 VPD	3					
	1,701 to 2,300 VPD	2,501 to 3,000 VPD	4,001 to 5,000 VPD	4					
	> 2,300 VPD	> 3,000 VPD	5,001 to 8,000 VPD	5					
	(	to 1.0 MPH > speed li	mit	0					
	1	.1 to 2.0 MPH > speed 1	limit	1					
	2	.1 to 3.0 MPH > speed	limit	2					
	3.1 to 4.0 MPH > speed limit								
85th	4.1 to 5.0 MPH > speed limit								
Percentile Speed	5.1 to 6.0 MPH > speed limit								
speed	6.1 to 7.0 MPH > speed limit								
	7.1 to 8.0 MPH > speed limit								
	8.1 to 9.0 MPH > speed limit								
	9.1 to 10.0 MPH > speed limit								
	> 10 MPH > speed limit								
Presence of	Both sides								
Pedestrian Facilities	One Side								
racinues	None								
Pedestrian	Schools within 0.5 miles (each)								
Generators	Ι	Parks within 0.5 miles (ea	ach)	0.5					
		Transit lines with stop	s	0.5					
Number of correctable		≥ 10 Driveway per 500 to veways should be considerable.		1					
crashes	≥ 3 p	er year	≥ 6 per year	5					

The general steps in the traffic calming problems process are listed here:

- 1. A traffic calming issue is identified by City staff or the public.
- 2. Traffic speed and volume data, as well as other needed data, is collected at the specific location.
- 3. Data and criterion are tested to determine if the traffic calming threshold is met.
- 4. If the traffic calming warrant is met, the traffic calming solution is designed.
- 5. The traffic calming solution is voted on by homeowners, with the approval requiring 50% or more of the homeowners.
- 6. If approved by the homeowners, then the traffic calming solution is constructed once funds are programmed.

The flow chart below summarizes the traffic calming project process:



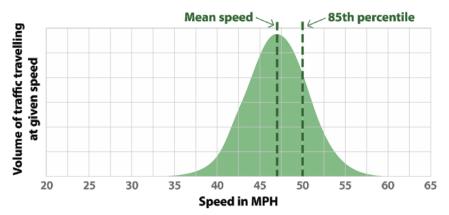
There are a variety of technical considerations in the evaluation of the need for a traffic calming improvement. These include the following:

- Traffic volume data
- Traffic speed data (85th percentile speed)
- Street width
- Functional classification
- Historical designation, if any
- Speed limits
- Sidewalks
- Existing traffic calming features
- Street responsibility (city, county, state)
- Bicycle facilities (existing and planned)
- Traffic flow continuity
- Proximity to pedestrian/bicycle activity generators

Key factors include the traffic volume and traffic speed data collected for the proposed improvement site as well as other existing traffic calming features nearby.

Figure 8.8 shows a graph of the 85th percentile speed concept. The 85th percentile speed is the speed at which 85% of observed traffic travels at or below.

Figure 8.8: 85th Percentile Speed



Other key considerations include the location of existing traffic control devices, as shown in **Figure 8.8**, as well as existing intersection traffic controls. As part of this plan, traffic controls at all intersections in the City were inventoried and mapped as shown in **Figure 8.9**. Besides showing intersection controls themselves, the figure also shows "traffic flow continuity", those street segments where traffic control types and orientation permit the unimpeded flow of vehicles along a street. Long segments of uninterrupted traffic flow can be expected on major arterial streets.

However, where they appear on local streets, there can be opportunities to modify intersection controls to shorten segments of flow continuity, especially where there are traffic calming concerns. Installing stop signs and signals, where warranted, on local streets can also improve pedestrian connectivity and create safer intersection crossings. The figure shows several local street segments that may be candidates for strategic revisions to intersection traffic controls.

Figure 8.9: Intersection Controls and Street Flow Continuity

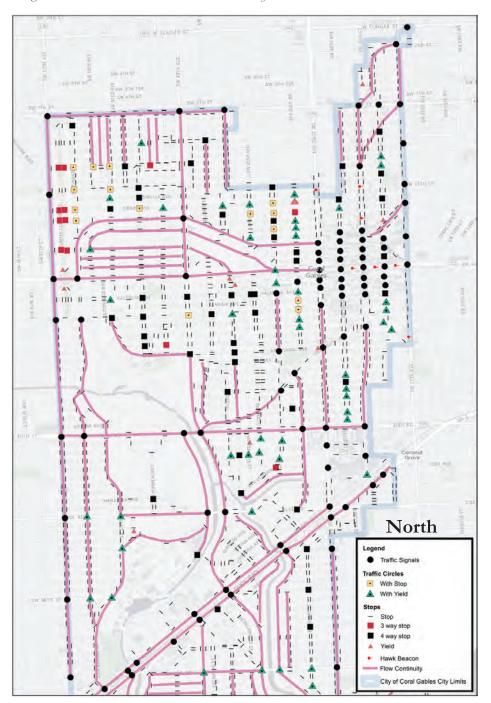
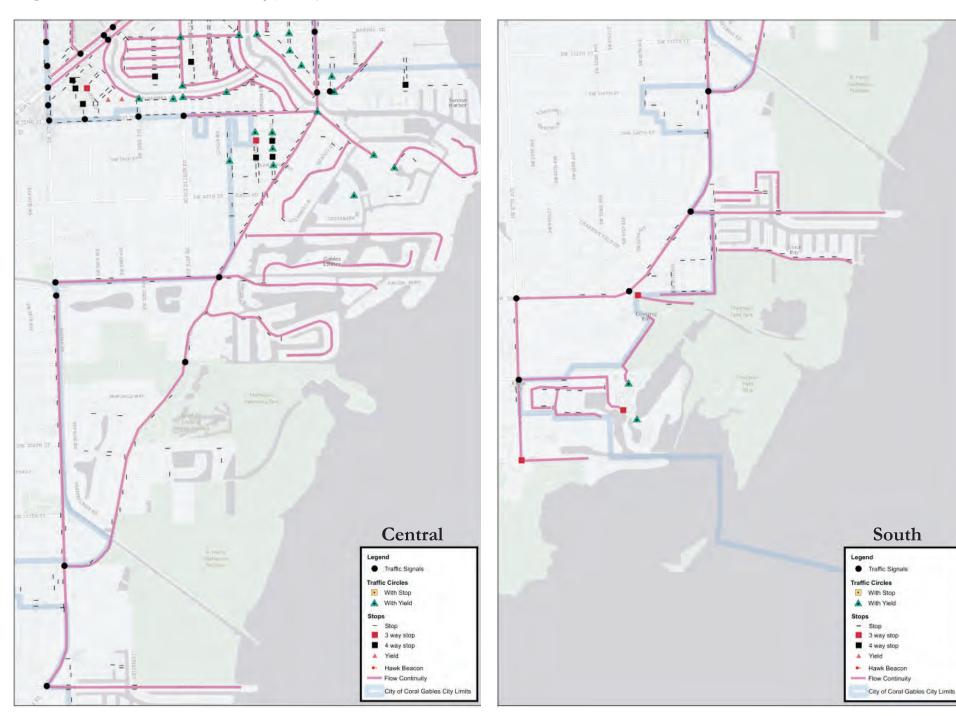


Figure 8.9: Intersection Controls and Street Flow Continuity (Continued)



Under its new traffic calming agreement with Miami-Dade County, there are presently five "pre-approved" traffic calming devices in the traffic calming toolkit that the City can install at sites which meet the new traffic calming threshold. The advantages of using these devices is that they require no further County review and thus allow for quicker turnaround in implementation. These pre-approved devices are:

- Speed humps and speed tables: These have raised shapes that force
  vehicles to travel at an acceptable speed to negotiate the device, which
  extends across the entire road. The speed table can also be used for a midblock pedestrian crossing.
- Speed cushions: These are like speed humps but do not extend across the
  entire road. They are designed so that cars have to slow down, but wider
  axle vehicles such as fire trucks do not need to slow down.
- Pedestrian crossings: These are denoted by signing and pavement markings for the passage of pedestrians across a street. They could be used with a speed table as described previously.
- Traffic circles/roundabouts: These devices involve the placement of a central raised area in an intersection, requiring vehicles to move in a circular manner to exit the intersection. The center island is usually land-scaped. Approaches typically have a splitter island to direct traffic into and out of the circle. Coral Gables has already installed dozens of circles and roundabouts across the city. Traffic circles are small radius circles that fit within small intersections, with usually with limited pavement markings and no splitter islands. Roundabouts are larger radius circles with full design features including splitter islands, center aprons to accommodate larger vehicles, and pedestrian crossings integrated into the design.
- Raised intersections: These devices are like speed tables but cover an
  entire intersection. The intersection platform is raised above the level of

the intersecting streets, and often has a brick pattern.

Figure 8.10 illustrates these five traffic control devices.

Figure 8.10: Pre-Approved Traffic Calming Devices







Speed Hump and Speed Table

- Full width of stree
- Also used for pedestrian crossing

Speed Hump Cushion

- Care class but amore
- Cars slow but emergency vehicles can pass

**Pedestrian Crossing** 

- · With signing
- With Markings





Traffic Circle Roundabout

- Used at Intersections
- Creates circular turning pattern

#### **Intersection Table**

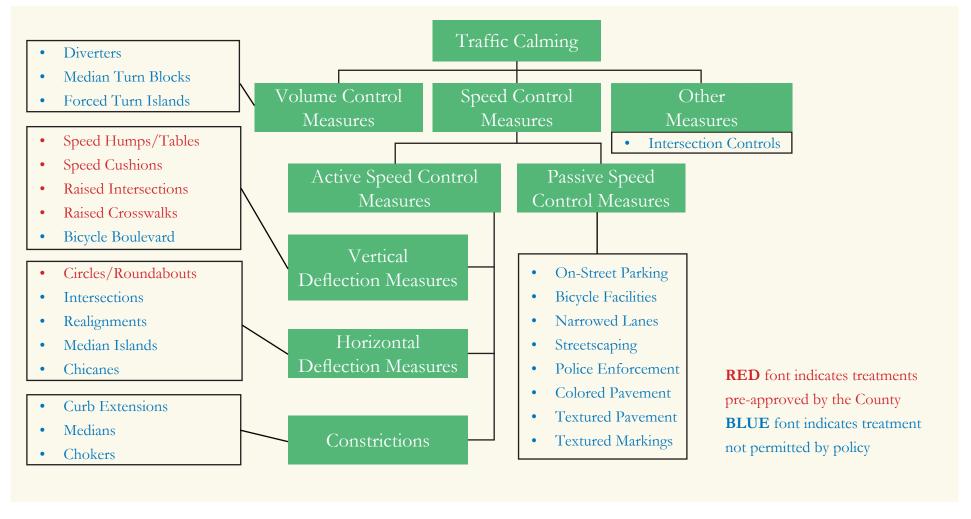
- Like a speed table
- Covers full intersection
- Often with brick patter

There are several other traffic control devices that can be considered to address particular traffic concerns in neighborhoods. By policy, the City will not use those types of devices shown in bright blue type that block or close off movements at intersections. In **Figure 8.11** are a variety of traffic calming devices, organized into several categories. Under speed control measures are active and passive treatments. Shown in red are those devices which are pre-approved by the County, and in dark blue, other potential traffic control devices which could be considered.

Figure 8.11: Pre-Approved Traffic Calming Devices

Examples of some of the other traffic calming options include the following:

- Raised medians: These can be used in mid-block areas to constrain the roadway and force slower travel speeds, or at intersections to better define turning patterns.
- Chicanes: These devices introduce curved travel paths into the roadway alignment, also to manage travel speeds of vehicles.
- Chokers: These are a less commonly used traffic calming device that



require opposing traffic movements to yield to each other in order to traverse the device.

- **Intersection controls:** The application of intersections controls should conform to accepted traffic engineering practice for warrants and usage, but there are situations where their appropriate use can contribute to traffic calming.
- **Intersection realignments:** These treatments are another way to improve driver understanding and expected behavior at intersections, usually by simplifying intersection geometry and removing confusing paved areas.
- **Bulb-outs:** These are another geometric treatment to better define intersection geometry and in some cases shorten the length of pedestrian crosswalks.

These traffic calming treatments are shown in Figure 8.12.

Traffic calming treatments can address concerns about vehicular volumes and speeds in residential districts, and in so doing, contribute to enhanced neighborhood livability.

# Other Neighborhood Livability Initiatives

# **Speed Limit Reduction**

During the development of this transportation plan, the City undertook the process of seeking to reduce neighborhood speed limits from a statutory 30 mph to 25 mph. The purpose of this effort was to reduce typical vehicular speeds on neighborhoods to enhance safety for other users of the street, and in so doing make excessive speeds incrementally easier to enforce by virtue of the 25 mph threshold versus a 30 mph threshold. Typically police do not issue tickets unless speeds about 7 mph over the limit are observed to allow for arguments in court regarding speed measurement device accuracy.

Figure 8.12: Other Types of Traffic Calming Devices







#### Chicanes

#### Choker







#### Intersection Realignment



### Bulb-out

This speed limit change required to conduct an organized collection of vehicle speed data at 25 residential locations across the City for a seven-day period. The results of that data collection and analysis demonstrated results that met the thresholds for speed limit reduction. The City petitioned Miami-Dade County with the results of the study, and in August 2018 received approval for the speed reduction to 25 mph in neighborhoods. About 70% of attendees at the first round of open houses conducted for this plan supported the speed limit reduction.

The City designed a signing plan to post the new speed limits on the perimeters of neighborhoods, and procured a contractor to implement the sign installations. A publicity and education effort was undertaken as well to make residents and others aware of the change. The City plans to conduct future speed studies to assess the effectiveness of the speed limit change.



### Pace Car Program

The City promotes the Pace Car Program which enlists residents to drive prudently in neighborhoods. By operating at the 25 mph speed limit, Pace Car drivers demonstrate compliance and can cause following cars to experience the same. Participants receive a Neighborhood Pace Car magnet if they pledge to:

- Be aware of their speed and observe the speed limit.
- Slow down near schools and other areas such as playgrounds, parks, residential streets where children are present.
- Always yield to pedestrians crossing the street
- Come to a complete stop at stop signs and then look carefully before proceeding.
- Be courteous to bicyclists and other road users
- Not tailgate.
- Not block walkways, bike lanes, or driveways when parking.
- Consider using alternate means of transportation and consolidate car trips to lessen traffic on residential streets.
- Display the Pace Car Bumper Sticker on their vehicle so other drivers know why they are driving courteously and at a safe speed.
- Encourage others to sign the pledge. The more Pace Car drivers, the safer City streets will become.

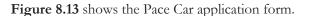


Figure 8.13 Pace Car Application Form



#### 8.2 ANALYSIS

This subsection addresses the development of traffic calming actions that begin to address issues identified by the public in a manner compatible with the context and requirements for traffic calming as discussed in the previous subsection.

# Traffic Calming Process Summary

The traffic calming analysis performed as part of this transportation plan development consisted of these basic steps:

1. The City provided a set of emails relating to traffic calming issues received in the Public Works Department from citizens extending back 2-3 years. There were 143 emails in the data set.

- The consultant created a tabulation of these comments referred to as the traffic calming tracking table, to include an identification number, date, traffic analysis zone, email sender and address, nature of the comment (speed issue, volume issue, other issue), and a short narrative summary of the comment. Using street addresses, the comments were geocoded and mapped by issue and ID number to provide a graphic depiction of patterns of distribution and issues.
- Using available resources, 48 locations were selected for field data collection of vehicular speed data. Another 20 locations previously counted by the City yielded a total of 68 locations for which data became available
- 4. Another City consultant tested the 68 locations against the newly approved City traffic calming threshold to determine which sites met the required standard of at least 10 points when scored against the rating criteria. Of the 68 locations, 50 were found to satisfy the new traffic calming warrant.
- 5. For each site for which traffic calming comments were received, the consultant reviewed the comment content, the traffic calming warrant results, field conditions, and other relevant background data, including nearby traffic calming devices, traffic flow continuity, and citizen feedback from open house meetings.
- 6. Traffic calming improvement proposals were made for each location which met the new traffic calming warrant, based on the analysis and assessment. In some cases, proposals were made for nearby locations for which field speed counts and the subsequent warrant test had not been performed. This analysis was captured in the traffic calming tracking table. Proposals were posted onto mapping of City streets which also showed the locations of existing

traffic calming devices.

Another round of open house meetings at six locations around the City was conducted to present the traffic calming proposals to the public for reaction and feedback. The public comments related not only to the traffic calming proposals on the maps, but also to other additional traffic calming issues they perceived in their neighborhoods. These additional reported "problem areas" were added to the traffic calming tracking table: there were an additional 79 comments tabulated, for a total of 222 comments. Of those, 42 related to the City's arterial streets and were segregated for consideration in Section 7 – Vehicles of the plan. The 60 net new traffic calming comments were not analyzed further but will be included with those traffic calming issue locations in the original group which have not yet been tested against the new traffic calming warrant.

Because of its scale, the City traffic calming program is a continuous, long-term effort. The City has been budgeting a significant amount of its operating and Capital Improvement Program funds to address further analysis, design, and construction of new traffic calming treatments.

As was discussed in Section 3 of this plan, extensive civic engagement occurred through the plan development process. This began with a kick-off meeting that was held at the Coral Gables Library. There were two additional rounds of open houses, the first consisting of five meetings in September 2017. At these meetings, additional public input was sought on a variety of topics, including neighborhood traffic issues. The second set of open houses were held in September/October 2018. At these meetings, proposals for traffic calming actions in neighborhoods were presented for feedback and additional input on traffic issues across the City was received as well.







St Teresa: 16 - 5 Temple Judea: 4 - 0 Library+StThomas: 0 - 0 Sunset Dr: 5 - 0 Miracle Mile: 8 - 5

### Mini Roundabout

Free-flowing vehicular movement for small, neighborhood streets



Museum: 2 - 0 St Teresa: II - 0 Temple Judea: 0 - 0 Library+StThomas: 7 - 0 Sunset Dr: 2 - 0 Miracle Mile: 5 - 2

## Median

Addition of a strip of land between travel lanes



Museum: I - 4 St Teresa: 3 - 8 Temple Judea: I - 0 Library+StThomas: 0 - 2 Sunset Dr: 0 - 0 Miracle Mile: 0 - 2

# Stop Sign

Addition of a stop sign to control speeding or to replace traffic light











# St Teresa: 20 - 0 Temple Judea: 5 - 0 Library+StThomas: 7 - 0

# Tree Lined Streets

Sunset Dr: 6 - 0

Planted rows of shade trees to reduce speeding



Museum: 3 - 0 St Teresa: 13 - 2 Temple Judea: I - 0 Library+StThomas: 4 - 3 Sunset Dr: 3 - 0 Miracle Mile: 3 - I

# Two-Way

Re-configuring the existing one-way streets to accommodate two-way traffic





## **Shared Space** or Woonerf

Street design that mixes vehicular traffic with pedestrians and bikes, and encourages slow speeds in order to negotiate priority



#### TRANSPORTATION ENHANCEMENT VISUAL PREFERENCE

Love it!



Not so much



Museum: 6 - 0 St Teresa: 10 - 21 Temple Judea: 3 - 0 Library+StThomas: Sunset Dr: 3 - 0 Miracle Mile: 7 - 0

#### Road Diet

Reduction of the number of traffic lanes and reallocation of pavement to other modes of transportation and street





Temple Judea: I - 0 Library+StThomas: 3 - 0 Sunset Dr: 0 - 0 Miracle Mile: 13 - 7

# Traffic Diverter

Roadway design feature that either slows or prohibits through traffic on local streets







Museum: 5 - 0 St Teresa: 22 - 4 T emple Judea: 4 - 0 Library+StThomas: 4 - 0 Sunset Dr: 2 - 0 Miracle Mile: 6 - 0

### Reduce Speed Limit

Lower speed limits to discourage speeding near residents and businesses





At all meetings, visitors were invited to make comments, directly on the table maps of the City or with "sticky notes, and on comment forms that were provided. In fact, a significant number of public comments relating to neighborhood traffic calming were received. Figure 8.14 shows public feedback from the kick-off meeting, and Figure 8.15 shows example input from the 2018 open house meetings.

Figure 8.15: Example Public Comments from 2018 Open House Meetings



Figure 8.16 shows mapping of all citizen traffic calming comments.

From the mapping it is seen that:

- The density of comments is highest in the northern analysis area north of Coral Way.
- Part of Analysis Area B between Coral Way and Bird Road also has a dense rate of comments. Intensity drops off to the south but there are still many comments.
- Comments about speeding are dominant, but there are numerous comments about traffic volume as well.
- Comment types are generally distributed across the City.
- Coverage of the southern part of the City is omitted as there were no traffic calming comments from this area with limited access and gated access communities.

Figure 8.16: Mapping of All Citizen Traffic Calming Comments

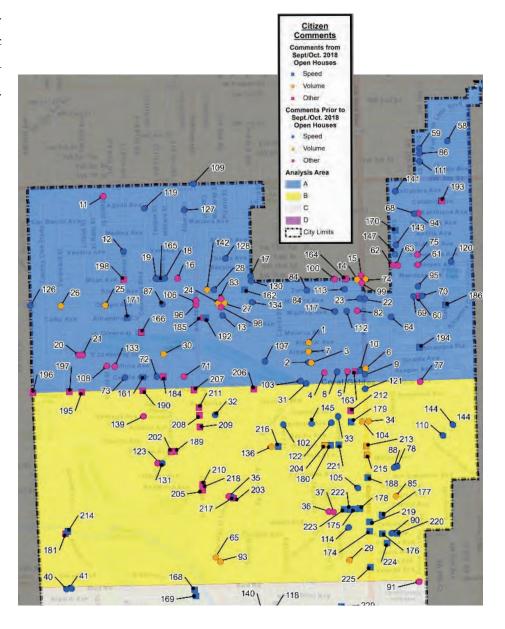
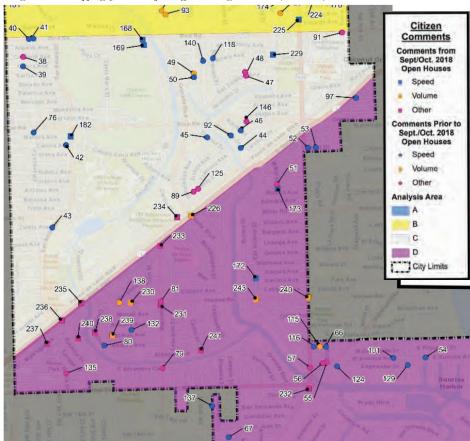


Figure 8.16: Mapping of All Citizen Traffic Calming Comments (Continued)



As noted in the process description above, large maps depicted traffic calming proposals were prepared for the second round of open house meetings. Other exhibits depicting relevant background information and other residential area traffic improvement concepts were also presented.

Figure 8.17 shows the existing traffic calming devices in a simplified format. Figure 8.18 shows the locations that were tested for the new traffic calming warrant, included those which did and did not meet the required threshold. Figure **8.19** shows the information of the two preceding figures in a combined format. Table 8.2 provides an excerpt of the traffic calming tracking table which was used to record the supporting information and analysis.

Figure 8.17: Existing Traffic Calming, Those in Design, and Barricaded Street Ends

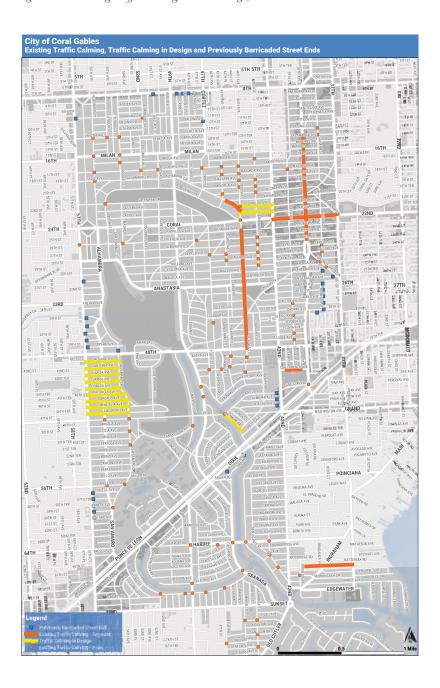


Figure 8.18: Locations Tested Against the New Traffic Calming Warrants



Figure 8.19: Prior Two Figures Combined



Table 8.2: Excerpt from Traffic Calming Tracking Table

a A	В	С	D	Ε	F	G	н	1	М	N	0	P	o	R	5	Т	U	ν	W	×	Y	Z	AA	AB
1 × P		+	Hot 🕶	-	Mi 🕶	7	Street_1	₩ Street_2	Comment_Ty 🕶	Comment_Su 🔻	Notes	POINT 🕶	POINT, 🕶	Ri 🕶	Mai 🕶	ē 🕶	Ane 2 <del>↓</del> ↑	To Ref. 🕶	Traffic Calmi Assessmen	Act 🕶	Proposal Notes	Mair 🕶	Cate 🕶	Act 🕶
E9 T20	5	7	а	Б	March	2017	Mences Avenue		Speeding	Traffic Calming	Pequesting traffic calming due to speeding along Menores across from the park.	-80.258457583	25. 158500408	120	Speed	т			Nonered.		Not tested for TC threshold. Other adjacent streets should be expose to a similar problem if there is critical mass. Proposed for future traffic volumeIspeed count.		3	20
70 121	5	1	1	5	March		Lejeune		Speeding		Speeds afficion Leileune all daylong.		25.148885242				Ä		Notered.		Arreial street issue, not part of neighborhood livabile, effor.	5	3	20
71 126	5	1	1	26	April	2017	Dhispo	RedRoad	Speeding	Connuer traffic	une or Dod Band have Obleme	-80.28TS78838	25.1548883318	EE	Speed	1			Notremed.	See notes.	Arterial street issue, not part of neighborhood livebility effort.	5	3	20
72	5	1	а	т	April	2017	Alberca Stoest		Speeding	Volume	Currently no speed limit signs on Alberca, mostly in PM peak. Boer not ware speed bumps, would prefer the steet closed similar to adjacent ones.	-80.275245741	25. 162060451	TET	Speed	1	٨	47	Tested, meets valids calling threshold.	Speed outhio	Placented five not. Speed via 24-3, solution only 430. Commence close on a via repeal funging, radios close the enser which is not possible. Placement of table very difficult due to natrow street, frequent driest, use of male for partiting. Suggest 2 paint of speed outsident to acceer neighborhood begloads.	5	1	2
73 tza	5	1	а	Б	March	2011	Pizzaro Street	Direga Avenue	Speeding	Stop righ	Speeding down Ortega: running stop sign. Perquesting 4ne se stop at PicserolOrtega.	-80.2TS143TTT	23.15651663	128	Speed	1			Nonered.	Traffic circle	IFTC threshold is met, install circle of Plesero/Okego.	5	3	4
74 190	5	1	1	п	January	2016	Mendoca Asenue	Естых	Speeding	Traffic Calming	Requesting measures to addless the 'raffic situation' arthic intersection.  Lengths true to the across large soon are saying.	-81 2TE 18000	25. 1568/16000	TSD	Speed	1	A		Nonered.	Intersection realignment	Install curvilinear T-intersection geometry at this intersection.	5	3	נד
25 133	D	1	1	25	June	2017	Acturia Avenue		Notspeeding	No traffic problems	there is not a traffic or speeding problem down this	-80.287230425	25.150443563	133	Other	1	A		Notrested.	Seenares.	Comment noted.		3	20
76 134	5	1	1	24	August	ZDTT	Madeita Asersae	TDD Block	Speeding	Traffic Volume	Address speeding and traffic solume problem.	-80.2TTH/S14	25.158311066	134	Speed	1	A		Nonemed.	Speedlyung	Install 1 speed table if TC threshold to met.	3	3	1
77	5	7	а	T	March	201Τ	Antiqueta	Salmedo	Speeding	Cut-dirough traffic	Diversuse Salbedo as a divortous to avoid Lejeune and get to 6th and dive at dangerously high speeds		25. 163636333	н	Speed	т	٨		Nonemed.	Speedlyunp	Technologia in transition, assessed in technologia and accept read in Technologia in the property of the property of the and never TC fived old, popore to install 4 speed tables along Saland St. between Salamanca Ase, and SW 6th street. See also	5	2	1
7B 142	V	1	1	20	March		Sorolla	Cortex to Granada	Traffic Volume		Concerned about traffic solumes during righ hours.				Volume	1	A		Notremed.	Speedhump	house. M.T. Install 1 speed table if TC threshold is nest, in between the telo legs of Piccaro. See also here 28.	V	3	1
9 143	5	7	а		March	ZDTT	Satredo	Sidonia	Speeding	Traffic Calming	Would like speed bumps on Salbado.	***************************************	25.15061510	143	Speed	T	A		Notrested.	Speedlyunp	See hem 141.	5	3	1
G 400		- 1					Miller Ave. Columbus Blvd.	Capri St. Venetie Ave.						960					Nottested. Nottested.		Citole to calm traffic and steamline turns.	<del>- 8</del>	- 8	
100														151							Citole to calm half to and steamline turns.  Citole to calm half to and steamline turns. Also Action 13 at south	-	3	4
82 EI							County Club Prado	San Marco Ave.						152		'	A .		Nonered.	Traffic citale	Intersection	0	3	13
152		1					Milen Ave.	Cordona St.								,			Nothested.		Modify existing Tintersection with curvine at treatment.	U	3	13
153		1					Acturia Avenue	Madid Street to Corec Street						183		1	Α		5	controls	In line with proposals for Castile Ase. Remo 71, 72 and 731, revetue sto sign of entation from N+S to E+M.	. D	5	15
154		1					N. Greenway Dr.	Maded Street to Corine Street						154		1	٨		S	realignment	In line with proposals for N. Deeme as Dr. each of Coherbas B. and for S. Greene ay Dr. between Coherbas Bl. and N. Greene ay Dr., noted oursilines Trinstruction geometry on N. Greene as Dr. at intersection with Madrid Br., Cohumbus Bl., and Coher St.	0	5	13
g 199		7					E. Ponce de Leon Blvd.	Santillane Avenue to Calabria Aver	MP.					166		7			6		Propose making segments of E. Ponce de Leon Blad. one—vay NB to Calabéa St. and one—vay SB to Castilane St.		5	15
29	v	2	2	26	November	2014	Candia Asenue	Riviesia to Lejeune	Cut-dwough	Traffic Calming	Speed bumpkraffic calming/school bursecuring as our-through		25. 136322433	25	Volume	2	Б	22	Tested, does NDT meet staffic calming theeshold.	See notes.	Tessed for TC fewed old and did not meet. Loe staff to volume and slight elevated speed of 30.5 Could be affected by filled fill be keruer Rd intersection congestion, but volume it only 350 selvicles. City offer nearby commercial RH on Cadima New with similar remarks. Suggest looking a passible review eleveral from TH is investigated.		z	20
BB 32	5	2	2	10	May	2013	Valencia Street	500e Block	Speeding	Salety	Worked about our speeds (kids + pets.)	-80.2TSTE2TE	25.146542444	32	Speed	2	Б		Notremed.	Speed outhio	If tested and TC threshold is met, install speed outshions midblook on Valencia Ave, between Granda Blvd, and Toledo St.	5	3	2
33	9	2	2	27	iune	2015	Hemendo Avenue	Valencia to Almeria	Speeding	Anti-traffic circle	Youth center, morning/seering ruch hour speeding, staffic circle on hernando and valencia "dicasse"		25.746909606	33	Speed	2	В		Nothested.	Intersection controls	Pending speed/solvers counts and reseting TC theshold, action would be to rester whenevertine counts of finded spiral along Hermands. St. From Valentia Ass. southers of, here set fire consecutive cacles, 4 with Yield digns and Twith Stop signs. On-other parting also in block from Valencia to Stimone. Nieed to velly insue.	8	3	15
90 34	V	2	2	Б	March	20%	Lejeune (SV 42nd)	Almeria Avenue	Left Turns	Signage	Seella Wiseria. Requesting note signage. Evening	-80.2525TETO	25.146515055	34	Volume	2	В		Nonemed.	See notes.	Investigate under exterial traffic proposals. Goes with item 104.	V	3	20
91 35	D	2	2	8	August	2014	Fliviera Déve	Banos Court	Traffic Calming	Traffic Circle	Wanas traffic circle on Risiera.	•••••	25.740907255	36	Other	2	8	30	Tested, does NDT neer staffic calming theeshold.	Traffic circle	Banco Ct. was tested for TC fivedhold. Suggest retest for Pisiera Dr. segment where speeds and volumes likely greater. If TC thesthold is nest, propose a "double" staffic circle (see directly) or variation.	0	2	4
92 36	D	2	2	3	April	2015	Rivieta Drive	University Drise	Traffic	Traffic Light	Concerns with removing traffic, adding traffic circle. Suggests "no left".	-80.25507405T	25, 130616305	36	Other	2	Б	31	Tested, does NOT meet is aftic calming threshold.	See notes.	'w'so tested for TC criteria and passed but is a county road and collector street. Consider under atteil traffic actions.	а	2	20
93 37	D	2	2	2	April	2015	Riviera Drive	University Drine	Dangerous Intersection	Traffic Calming/Circle	Pequesting traffic citcle to promote flow and minimize accidents:	•••••	25,739684581	37	Other	2	8	31	Tested, doecNDT neer staffic calming theeshold.	See notes.	Was re-med for TC criteria and passed but is a county road and collector street. Consider under assetal staffic actions.	0	2	20
94 65	V	2	а	3	March	20%	Durango Stoeet	Algaringo Avenue	Traffic	Traffic Calming/Circle	Traffic circle request - lots of traffic at this intersection including UPI tour buses	-80.2T34824T3	25, 138250245	65	Volume	2	Б		Nonemed.	Retred Intersection	If location is tested and meets TO fireshold, it is proposed to install a naised intersection, as the sleer angle precludes a traffic circle. Comments 65 and 63 are similar at this location.	v	3	5
78	s	-7	0	12	July	2016	University Dries	Santander Asiense	Crosswak	Speedno	Requesting painted sidewalk here/speeding on		25.743294645	78	Speed	7	8	70_	Tested, does NOT meet	See notes.	Tested against TC freehold - Collector steet posted at 30 mph, so consider under etietal street proposals. Had the highest measured	8	2	20

The following subsections present the results of the traffic calming analysis process just described. These results are summarized for each individual traffic calming analysis area, A, B, C, and D, from north to south across the City.

# Traffic Calming Analysis Area A

Traffic calming analysis area A lies north of Coral Way. It is the area of the most citizen comments, and also the area historically that has had the most traffic calming devices, mostly intersection circles, installed.

Figure 8.20 shows the original citizen comment locations, and presents the locations that were tested against the new City traffic calming warrant, and which of those met the old and new threshold. There were 18 locations tested, 11 of which passed the test.

Figure 8.21 depicts the proposed traffic calming improvements, as well as some that are proposed but not yet tested. Those would require further analysis to validate moving forward with traffic calming treatments. The latter were proposed were there were multiple citizen comments speaking to a common issue, adding to the possibility that they would meet the warrant once tested.

It is seen that the proposals are a mix of speed humps, speed cushions, roundabouts, intersection traffic control changes, and intersection improvements. The latter are T-intersection treatments as shown in Figure 8.22 which follows. Proposed traffic calming actions are summarized as follows:

# Tested and Warranted Traffic Calming Actions

- Alberca St. (SW 8th St. to Pinero Ave.): two speed cushions
- Obispo Ave (Columbus Blvd. to Madrid St.): two speed cushions
- Obispo Ave. at Pizzaro St.: roundabout
- Mendoza Ave./SW 16th St. (LeJeune Rd. to Hernando St.): speed cushion
- Majorca Ave. (LeJeune Rd. to Hernando St.): speed cushion
- Boabadilla St. (Ponce de Leon Blvd. to Cibao Ct.): speed cushions north and south of Avila Ct.; convert Yield sign on Avila Ct. to Stop sign
- This segment is part of the "Flagler Street Community Vision" that proposes to reduce pavement area and incorporate street trees.
- Menores Ave. (Ponce de Leon Blvd. to Salzedo St.): speed cushion
- Milan Ave. (Tunis St. to Tangier St. and Cordova St. to Alberca St.): two speed cushions
- Milan Ave. at Cortez St.: install curvilinear T-intersection
- South Greenway Dr. at Madrid St.: T-intersection treatment
- Castile Ave. at Cordova St., Columbus Blvd., and Madrid St.: reverse twoway Stops signs from N-S orientation to E-W orientation
- North Greenway Drive (Coral Way to Casilla St.): one speed table midblock and T-intersection treatment at Casilla St.

# **Untested Proposed Actions**

- Genoa St. at LaMancha Ave.: reverse two-way Stops signs from E-W orientation to N-S orientation or install 4-way Stop signs
- San Marco Ave. at Country Club Prado: oval roundabout
- Columbus Boulevard at Venetia Terrace: A twin roundabout configuration is proposed.

- Ortega Ave. at Pizzaro St.: small roundabout
- Milan Ave. at Capri St.: T-intersection treatment
- Sorolla Ave. at Pizzaro St.: speed hump between the two legs of Pizzaro St.
- Obispo Ave. (Granada Blvd. to Columbus Blvd.): two speed cushions
- Obispo Ave. (Madrid St. to Ferdinand St.): two speed cushions
- Madeira Ave. (Costado St. to Casillo St.): speed cushion
- Zamora Ave. at Segovia Ave.: small roundabout
- Madeira Ave. at Hernando St.: small roundabout
- Zamora Ave./SW 16th St. (LeJeune Rd. to Hernando St.): speed cushion
- Madeira Ave. (LeJeune Rd. to Hernando St.): speed cushion
- Galliano Street at East Ponce de Leon Boulevard south of Calabria Avenue: revised East Ponce de Leon Blvd. as one-way away from Galliano Street on both sides for one block
- Salzedo Street (Antiquera Ave. south to Zamora Ave.) (possible bicycle boulevard corridor):
  - Intersection table at Calabria Ave. (per Planning Dept. as a neighborhood focal feature)
  - Calabria Ave. to Antiquera Ave: speed cushion
  - Just north of Santilla Ave: speed cushion
  - Phoenetia Ave. to Antilla Ave. speed cushion
  - Antilla Ave. to Sidonia Ave.: speed cushion
  - Zamora Ave. to Mendoza Ave.: speed cushion
- Asturia Ave. at Madrid St., Columbus Blvd., and Cordova St.: reverse twoway Stops signs from N-S orientation to E-W orientation

- South Greenway Dr. at Columbus Blvd., Cordova St., and Toledo St.: curvilinear T-intersection treatment
- North Greenway Dr. at Madrid St., Columbus Blvd., Cordova St., and Cortez St.: curvilinear T-intersection treatment
- North Greenway Dr. (Granada Blvd. to Casilla St.): two speed tables, one in each midblock area

# Planning Department Recommendations

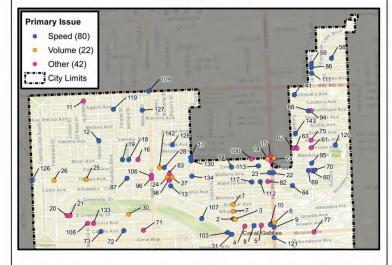
# (subject to meeting traffic calming warrant)

- Galiano Ave. from Antiquera St. to Antilla St.: speed humps with crosswalks and/or roundabouts near the trolley stop and the school
- Galiano Ave. at Majorca St.: install a 4-way Stop or relocate 4-way Stop at Madeira Ave.
- Coral Gable Prep Academy area: consider traffic calming to address school traffic issues
- East Ponce de Leon Blvd: traffic calming measures to addressed perceived speeding issue
- Alhambra Circle from LeJeune Rd. to Douglas Rd.: needs traffic calming and narrowing per Planning Dept. schematics from the North Ponce Visioning exercise
- Ponce de Leon Blvd. (Phase III): address perceived speeding issue with traffic calming
- Central Business District: consider lowering speed limit to 20 mph
- Galiano Street at Merrick Way/Giralda Ave.: simplify the confusing intersection possible actions may be a roundabout, or closing the segment of Merrick Way between Giralda Ave. and Galiano St. with a three-phase signal operation for NB/SB, WB, and SE bound

Figure 8.20: Analysis Area A Inputs

# Analysis Area A

### Citizen Comments



# Tested Locations Meeting County Criteria



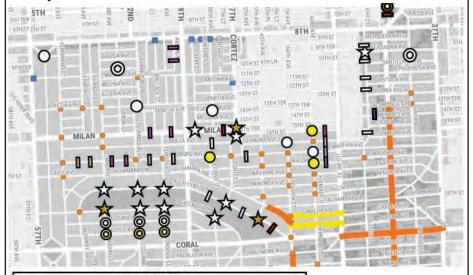


Figure 8.21: Analysis Area A Proposals

# Coral Gables Neighborhood Livability

Traffic Calming Improvement Proposals

# Analysis Area A



		LEGEN	ID
Existing	Proposed Criteria Met	Proposed Criteria Not Tested	Traffic Calming Element
0			Existing Traffic Calming - Point - Segment
			Previously Barricaded Street End
			Traffic Calming in Design
	0	0	Roundabout Pedestrian Crossing
	★	□□□☆◎	Speed Table Speed Cushion Median Treatment Intersection Improvement Intersection Controls

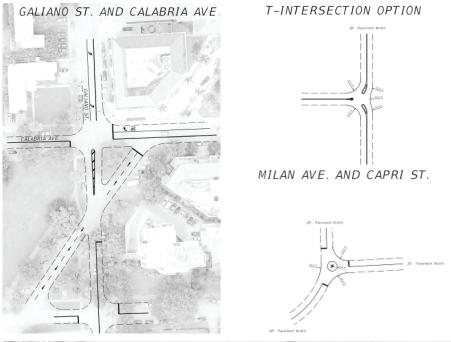
Intersection controls refer to Stop signs and Yield signs.

Figure 8.22 highlights proposed improvements at intersections:

- Milan Avenue and Capri Street: A small roundabout is proposed. It is noted that Milan Avenue is proposed for a bicycle boulevard facility. This site was tested and met the traffic calming warrant.
- Galliano Street at East Ponce de Leon Boulevard south of Calabria Avenue: The proposal is to make the diagonal street one-way away from Galliano Street on both sides for one block to simplify traffic movements. This site has not been tested against the traffic calming warrant.
- The T-intersection treatment would be applied to the "star" locations on North and South Greenway Drive in Figure 8.21. Only one of these locations was tested and met the traffic calming warrant.
- Country Club Prado at San Marco Avenue: An oval roundabout is proposed. Per a comment from the Planning Dept., the pavement curvature around the fountain could be retained as pedestrian plazas with a connecting sidewalk. This site has not yet been tested against the traffic calming warrant.
- Columbus Boulevard at Venetia Terrace: A twin roundabout configuration is proposed. Roundabouts would have pedestrian crossing features on each approach. The smaller roundabout could be replaced by a T-intersection treatment as is shown for the intersection south of the larger roundabout, and a pocket park created on the excess right-of-way. It is noted that Columbus Boulevard is proposed as a bicycle boulevard facility. This site has not yet been tested against the traffic calming warrant.

Figures 8.23 and 8.24 show renderings of the latter two intersection treatments.

Figure 8.22: Analysis Area A Intersection Proposals – Preliminary Concepts





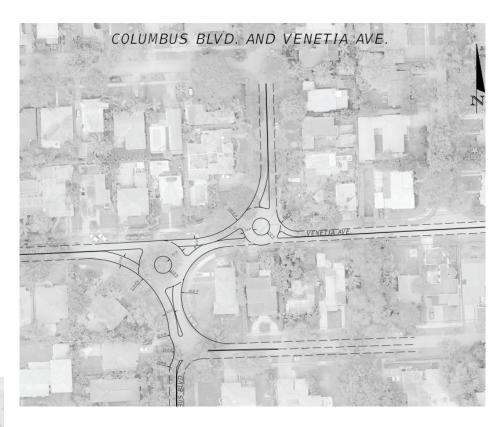


Figure 8.23: Country Club Prado at San Marco Avenue Concepts (Looking Southwest) – Preliminary Concepts









Figure 8.24: Columbus Boulevard at Venetia Terrace Proposed Roundabout

(Looking east along Venetia Terrace) – Preliminary Concepts





# Traffic Calming Analysis Area B

Traffic calming analysis area B lies between of Coral Way and Bird Road. This area has numerous citizen comments on traffic issues, and also contains a number of existing traffic calming devices.

Figure 8.25 shows the original citizen comment locations and presents the locations that were tested against the new City traffic calming warrant, and which of those met the old and new threshold. There were nine locations tested, four of which passed the test.

Figure 8.26 depicts the proposed traffic calming improvements, as well as some that are proposed but not yet tested. Those would require further analysis to validate moving forward with traffic calming treatments. The latter were proposed were there were multiple citizen comments speaking to a common issue, adding to the possibility that they would meet the warrant once tested.

It is seen that the proposals are a mix of speed humps, roundabouts, pedestrian crossings and intersection improvements. Proposed traffic calming actions are summarized as follows:

# Tested and Warranted Traffic Calming Actions

- Orduna Drive (Paradiso Avenue to Palma Ave.): speed cushion
- Toledo Street/Colma Court/Geronimo Drive: traffic circle
- Oak Avenue at Industrial Drive: T-intersection treatment
- Desoto Boulevard at Palermo Street/Cordova Avenue: Proposal is for twin roundabouts or a single roundabout with intersection realignment.
- Desoto Boulevard and Catalonia Avenue: An intersection realignment and pedestrian crosswalk is proposed.

- Fluvia, Candia, and Velarde Avenues (Riviera Drive to LeJeune Road): speed cushions on each block
- Alhambra Circle (Bird Road to Blue Road): four roundabouts

# <u>Untested Proposed Actions</u>

- Sistena Avenue at Benevento Avenue: roundabout
- Orduna Drive (Paradiso Avenue to Benevento Avenue): two speed cushions
- Ronda Drive: two speed humps
- San Esteban Avenue at Segovia Street: roundabout within a larger roundabout
- Durango Street/at Banos Court and Tendilla Avenue: intersection realignment and pedestrian crosswalk
- San Esteban Avenue at Segovia Street: A roundabout within a larger roundabout is proposed
- Toledo Street at Toledo Plaza: An intersection realignment is proposed.
- Riviera Drive at Toledo Street and Banos Court: A roundabout within a larger roundabout is proposed.

# Planning Department Actions (subject to meeting traffic calming warrant)

- University Drive east of LeJeune Road: traffic calming to "right-size" the street and manage traffic speeds
- Segovia Street (primarily between Valencia Avenue and Anastasia Avenue): traffic calming/pedestrian crosswalks to further calm the street

# Figure 8.27 highlights proposed improvements at intersections:

Desoto Boulevard at Palermo Street and Cordova Avenue: The proposal is for twin roundabouts or a single roundabout with an intersection

- realignment.
- Desoto Boulevard and Catalonia Avenue: An intersection realignment and pedestrian crosswalk is proposed.
- Durango Street/ at Banos Court and Tendilla Avenue: An intersection realignment and pedestrian crosswalk is proposed.
- San Esteban Avenue at Segovia Street: A roundabout within a larger roundabout is proposed.
- Toledo Street at Toledo Plaza: An intersection realignment is proposed.
- Riviera Drive at Toledo Street and Banos Court: A roundabout within a larger roundabout is proposed. It is recommended to retest this area with a speed count on Riviera Drive rather than Banos Court which did not meet the traffic calming warrant.

Figures 8.28 and 8.29 show renderings of the latter two intersection treatments.

# Traffic Calming Analysis Area C

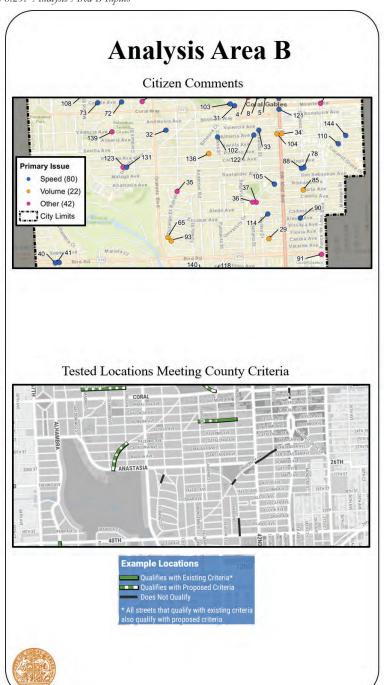
Traffic calming analysis area C lies between Bird Road and US 1. This area had fewer citizen comments on traffic issues than the areas to the north. There are about 20 existing traffic calming devices spread through this area.

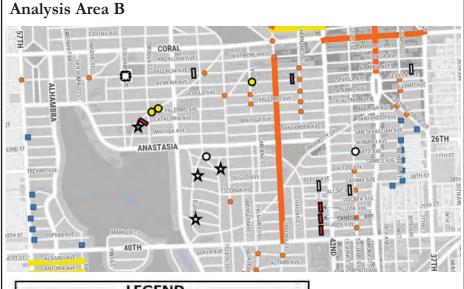
Figure 8.30 shows the original citizen comment locations and presents the locations that were tested against the new City traffic calming warrant, and which of those met the old and new threshold. There were nine locations tested, four of which passed the test.

Figure 8.31 depicts the proposed traffic calming improvements, as well as some that are proposed but not yet tested. Those would require further analysis to validate moving forward with traffic calming treatments. The latter were proposed were there were multiple citizen comments speaking to a common issue, adding to the possibility that they would meet the warrant once tested. It is seen that the

Figure 8.26: Analysis Area B Proposals Coral Gables Neighborhood Livability

Traffic Calming Improvement Proposals





LEGEND Proposed Traffic Calming **Existing Proposed** Criteria Criteria Element Not Tested Met **Existing Traffic Calming** - Point - Segment **Previously Barricaded** Street End Traffic Calming in Design Roundabout **Pedestrian Crossing** Speed Table **Speed Cushion Median Treatment** Intersection Improvement Intersection Controls

Intersection controls refer to Stop signs and Yield signs.

Figure 8.27: Analysis Area B Intersection Proposals – Preliminary Concepts

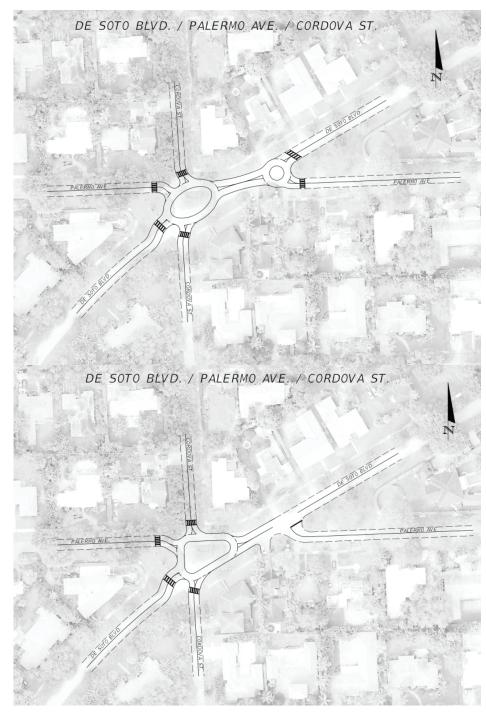


Figure 8.27: Analysis Area B Intersection Proposals – Preliminary Concepts (Continued)

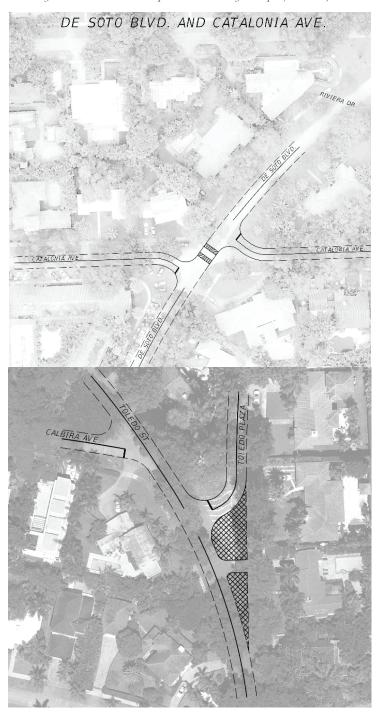


Figure 8.27: Analysis Area B Intersection Proposals – Preliminary Concepts (Continued)

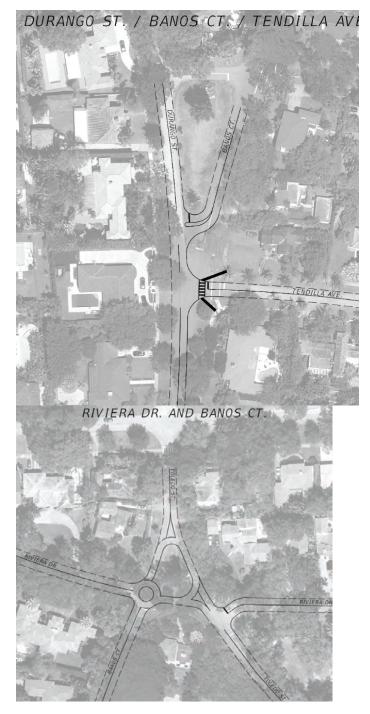


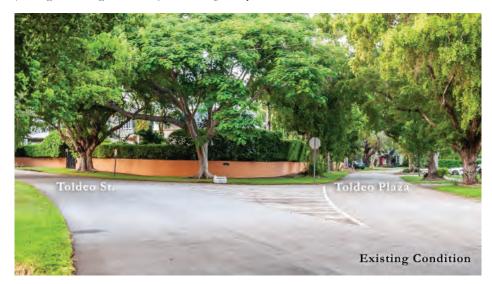
Figure 8.28: Riviera Drive at Toledo Street and Banos Court

(Looking Westbound along Riviera Drive) – Preliminary Concepts



Figure 8.29: Toledo Street and Toledo Plaza Realignment

(Looking North along Toledo Street) - Preliminary Concepts





proposals are a mix of speed humps, roundabouts, and intersection improvements. Proposed traffic calming actions are summarized as follows:

# Tested and Warranted Traffic Calming Actions

- Orduna Drive (Paradiso Avenue to Palma Ave.): speed cushion
- Toledo Street/Colma Court/Geronimo Drive: traffic circle
- Oak Avenue at Industrial Drive: T-intersection treatment
- Alhambra Circle (Bird Road to Blue Road): four roundabouts

# **Untested Proposed Actions**

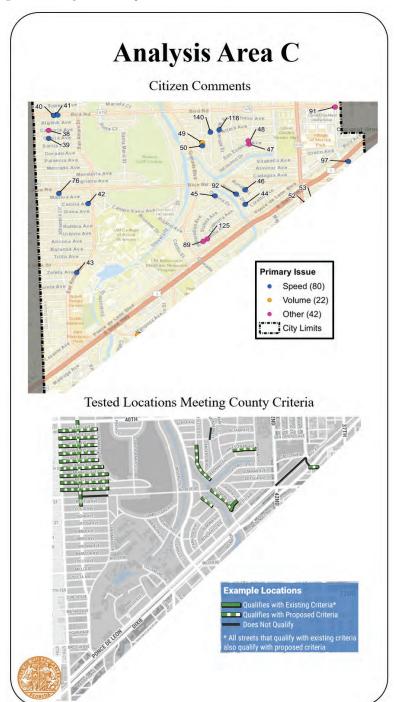
- Sistena Avenue at Benevento Avenue: roundabout
- Orduna Drive (Paradiso Avenue to Benevento Avenue: two speed cushions
- Ronda Drive: two speed humps
- Anderson Road: two speed humps
- Cecelia Avenue: speed hump
- Alhambra Circle (Blue Road to Miller Drive): three roundabouts

Figure 8.32 shows the proposed improvement concept for the Segovia Street/ San Esteban Ave. intersection which still needs testing for the traffic calming warrant.

# Traffic Calming Analysis Area D

Traffic calming analysis area D lies between US 1 and Davis Road/SW 80th Street. This area had fewer citizen comments on traffic issues than the areas to the north. There are about 20 existing traffic calming devices spread through this area.

Figure 8.31: Analysis Area C Proposals



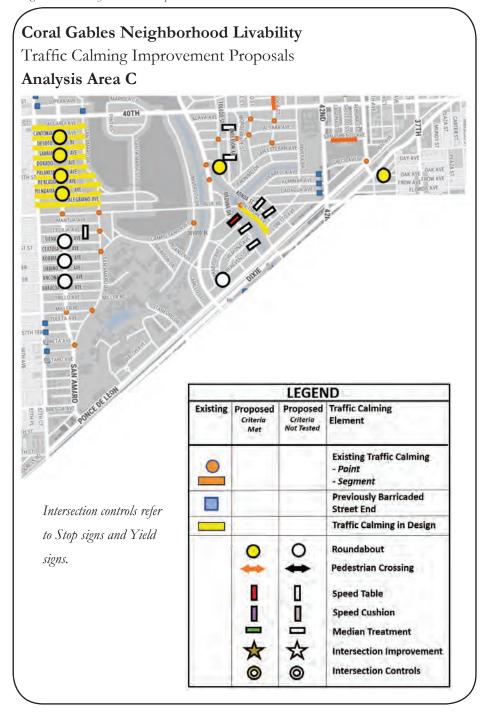


Figure 8.32: Segovia Street and San Estaban Street Intersection – Preliminary Concept



Figure 8.33 shows the original citizen comment locations and presents the locations that were tested against the new City traffic calming warrant, and which of those met the old and new threshold. There were nine locations tested, four of which passed the test.

Figure 8.34 depicts the proposed traffic calming improvements, as well as some that are proposed but not yet tested. Those would require further analysis to validate moving forward with traffic calming treatments. The latter were proposed were there were multiple citizen comments speaking to a common issue, adding to the possibility that they would meet the warrant once tested. Proposed traffic calming actions are summarized as follows:

## Tested and Warranted Traffic Calming Actions

- W. Sunrise Avenue: three speed cushions
- Castania Avenue at Maggiore Street: intersection table
- Maggiore Street at Menendez Avenue: roundabout
- Grant Drive: two speed humps
- Hardee Road at Caballero Boulevard: roundabout as part of the adjacent Paseo development
- Hardee Road at Madruga Avenue: intersection realignment as part of the adjacent Paseo development

# **Untested Proposed Actions**

- Hardee Road: speed tables and median dividers (could be modified if this segment is designated for a bicycle facility)
- Edgewater Drive: four median dividers
- Edgewater Drive at Douglas Road: T-intersection rounded curb treatment
- Morningside Drive: two speed cushions
- E. Sunrise Drive east of Douglas Road: speed cushion
- Nervia Street (south leg at San Remo Avenue): marked crosswalk
- Caballero Boulevard: two speed cushions
- Andorra Avenue: two speed cushions

It is seen that the proposals are a mix of speed humps, speed cushions, roundabouts, and an intersection improvement. The latter is at Castania Avenue and Maggiore Street and is proposed to be an intersection table.

Figure 8.35 highlights proposed improvements at one intersection:

 Menendez Avenue at Almalfi Avenue and Maggiore Street: The proposal is for an oval roundabout to simplify this five-legged intersection.

Figure 8.36 shows a rendering of the latter intersection treatment.

**Figure 8.37** provides details for proposed improvements to Edgewater Drive, assuming the street is tested for and meets traffic calming warrants. Four short median dividers two feet in width and approximately eight feet in length would be installed in the median, near the addresses of 10, 81, 171, and 185 Edgewater Drive. The road would be widened to maintain the 11-foot wide lanes, unless the City receives County approval for 10-foot lanes. The intersection of Edgewater Drive with Douglas Road would be given a modified T-intersection treatment, if traffic calming warrants are met.

### Traffic Calming Design

The design of all traffic calming should be context-sensitive and thoughtfully designed to be compatible with the existing character of the neighborhood in terms of design, materials, and colors. To the extent practicable, the traffic calming should serve multiple purposes:

- Speed table also serves as a raised sidewalk.
- Median divider also provides for landscaping.
- Roundabout also allows for shade trees, pedestrian crossing, and sidewalk connections.

In this way, neighborhood enhancement occurs through the traffic management improvements whose design is integrated with the setting.

Figure 8.33: Analysis Area D Inputs

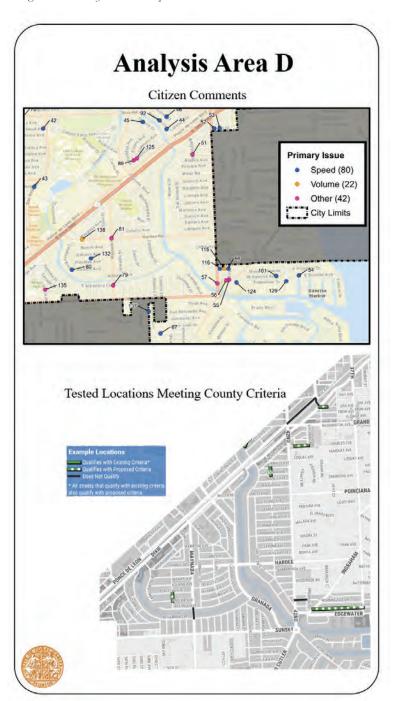


Figure 8.35: Menendez Avenue/Amalfi Avenue / Maggiore Street Roundabout - Preliminary Concept

# Coral Gables Neighborhood Livability

Traffic Calming Improvement Proposals

# Analysis Area D

		LEGEN	ID
Existing	Proposed Criteria Met	Proposed Criteria Not Tested	Traffic Calming Element
0			Existing Traffic Calming - Point - Segment
			Previously Barricaded Street End
			Traffic Calming in Design
	○	0 \$ == [   ☆ @	Roundabout Pedestrian Crossing Speed Table Speed Cushion Median Treatment Intersection Improvement Intersection Controls

Intersection controls refer to Stop signs and Yield signs.



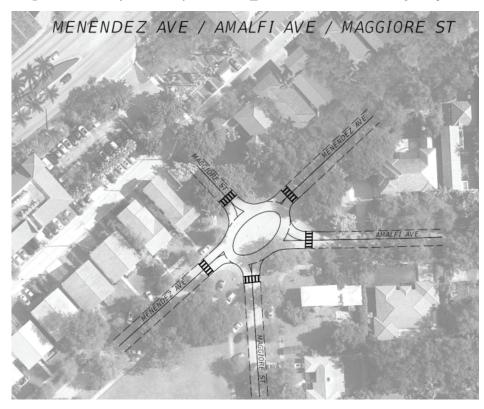


Figure 8.36: Menendez Avenue/Amalfi Avenue/Maggiore Street Roundabout Rendering

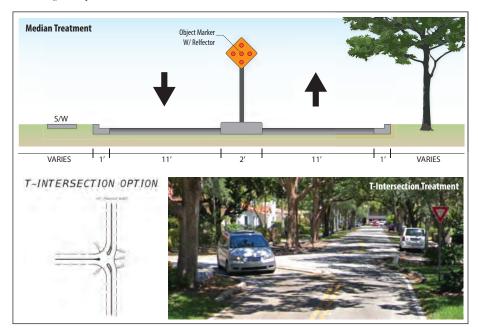
(Looking northeast along Menendez Avenue) – Preliminary Concepts





Figure 8.37: Edgewater Drive Treatments – T-Intersection at Douglas Road and Median Dividers –

### Preliminary Concepts



### RECOMMENDATIONS 8.3

Traffic calming is a critical component of neighborhood livability and the city's long term transportation goals. This section has highlighted a large number of additional traffic calming improvements and other intersection specific improvements. Table 8.3 summarizes the recommendations that were identified to advance the state of neighborhood livability in the City.

Table 8.3: Traffic Calming Actions

	Implementation Phase *										Conceptua	l Cost Estimate		
Project No.	Policy	Pro- gram	Project	Short Range	Me- dium Range	Long Range	Title	Description	Capital Cost	Planning	Design	Construction, Engineering, Inspection	Soft Cost Subtotal	TOTAL
TC-1			<b>✓</b>	<b>√</b>			Implement Analysis Area A traffic calming improvements.	Pertains to those locations which have been tested. Involves design and construction. NOTE: current 5-year traffic calming budget is \$2.431 million.	\$321,802	\$22,526	\$57,924	\$32,180	\$112,631	\$434,433
TC-2		Implement Analysis Area A intersection improvements. which have been ed. Involves design construction.		Pertains to those locations which have been tested. Involves design and construction. None yet tested.	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	\$-				
TC-3			<b>√</b>			✓	Prioritize additional Analysis Area A traffic calming and in- tersection improvements for testing against the traffic calm- ing warrant.	Requires testing against new traffic calming war- rant, and followup analy- sis. Assume 50% approval rate.	\$588,026	\$41,162	\$105,845	\$58,803	\$205,809	\$793,834
TC-4			✓	<b>√</b>			Implement Analysis Area B traffic calming improvements.	Pertains to those locations which have been tested. Involves design and con- struction.	\$102,733	\$7,191	\$18,492	\$10,273	\$35,957	\$138,690
TC-5			<b>✓</b>		<b>√</b>		Implement Analysis Area B intersection improvements.	Pertains to those locations which have been tested. Involves design and con- struction.	\$172,262	\$12,058	\$31,007	\$17,226	\$60,292	\$232,554
TC-6			<b>✓</b>			✓	Prioritize additional Analysis Area B traffic calming and in- tersection improvements for testing against the traffic calm- ing warrant.	Requires testing against new traffic calming warrant, and followup analysis. Assume 50% approval rate.	\$210,615	\$14,743	\$37,911	\$21,061	\$73,715	\$284,330
TC-7			<b>✓</b>	✓			Implement Analysis Area C traffic calming improvements.	Pertains to those locations which have been tested.	\$252,367	\$17,666	\$45,426	\$25,237	\$88,328	\$340,695
TC-8			<b>√</b>		<b>✓</b>		Implement Analysis Area C intersection improvements.	Pertains to those locations which have been tested. Involves design and construction.	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	<b>\$</b> -	\$-
TC-9			✓			✓	Prioritize additional Analysis Area C traffic calming and in- tersection improvements for testing against the traffic calm- ing warrant.	new traffic calming war- rant, and followup analy-	\$224,958	\$15,747	\$40,492	\$22,496	\$78,735	\$303,693
TC-10			<b>✓</b>	<b>✓</b>			Implement Analysis Area D traffic calming improvements.	Pertains to those locations which have been tested. Involves design and con- struction.	\$243,134	\$17,019	\$43,764	\$24,313	\$85,097	\$328,231
TC-11			<b>✓</b>		<b>✓</b>		Implement Analysis Area D intersection improvements.	Pertains to those locations which have been tested. Involves design and con- struction.	\$85,021	\$5,951	\$15,304	\$8,502	\$29,757	\$114,778
* NOTE: Shor	rt Range	1-2 years	Medium	n Range 3	-5 years	Long Rai	nge 6-10 years   FDOT - Flor	rida Dept. of Transportation	DTPW - N	Miami-Dade D	ept. of Transp	. & Public Works		

												City o	of Coral	'Galles	
	Implementation Phase * Conceptual Cost I											al Cost Estimate	stimate		
Project No.	Policy	Pro- gram	Project	Short Range	Me- dium Range	Long Range	Title	Description	Capital Cost	Planning	Design	Construction, Engineering, Inspection	Soft Cost Subtotal	TOTAL	
TC-12			<b>√</b>			<b>√</b>	Prioritize additional Analysis Area D traffic calming and in- tersection improvements for testing against the traffic calm- ing warrant.	new traffic calming war-	<b>\$</b> 181,812	\$12,727	\$32,726	<b>\$</b> 18,181	\$63,634	\$245,446	
TC-13			<b>√</b>		<b>√</b>		Assess additional citizen traffic calming comments from the second round of open house meetings.	These would be prioritized along with those from actions TC-3, -6, -9, and -12. Assume 50 locations meet traffic calming warrant at average cost of \$25,000 each.	\$1,250,000	\$87,500	\$225,000	\$125,000	\$437,500	\$1,687,500	
TC-14		✓		✓	1	✓	Continue to promote the Pace Car Program.		\$-	\$5,000	\$-	Ş-	\$5,000	\$5,000	
TC-15		✓		<b>✓</b>	✓	✓	Selectively monitor traffic calming implementation with vehicle speed studies.		<b>\$</b> -	\$10,000	\$-	<b>\$</b> -	\$10,000	\$10,000	
TC-16		✓		<b>✓</b>	<b>✓</b>	<b>✓</b>	Utilize the traffic calming track- ing table to continue to log and monitor citizen comments on issues.		<b>\$</b> -	\$20,000	<b>\$</b> -	<b>\$</b> -	\$20,000	\$20,000	
SUBTOTAL									\$3,632,729	\$289,291	\$653,891	\$363,273	\$1,306,455	\$4,939,183	
* NOTE: Shor	rt Range	1-2 years	Medium	n Range 3	3-5 years	Long Ra	nge 6-10 years   FDOT - Flor	rida Dept. of Transportation	DTPW - 1	Miami-Dade D	ept. of Transp	o. & Public Works			