Residential Traffic Safety

January 10, 2023

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Palm Coast Roadway Network

Residential	439 miles
Arterial	103 miles

Traffic Safety - Process

- Investigate
- Identify
- Apply

Traffic Safety –Public Input

10 to 15 Engineering Traffic Issues per month

- Palm Coast Connect
- Calls to City Hall
- City Council
- City Staff Observations

Residential Traffic Safety Examples

Residential Lighting

https://www.palmcoast.gov/engineering

Residential Sidewalks Retrofit

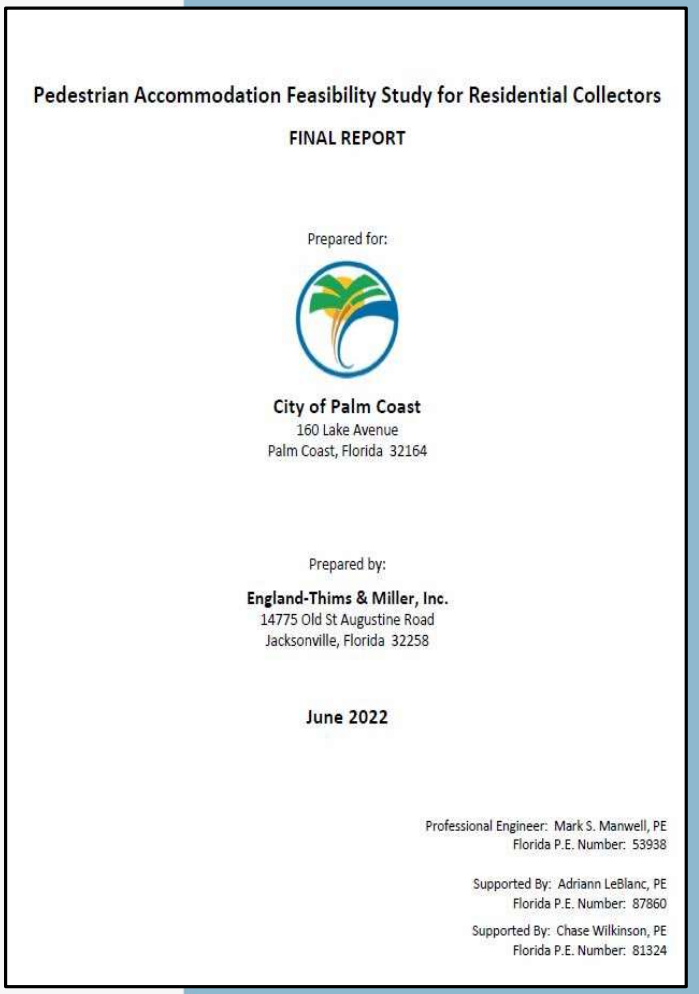
Not Feasible

High Installation Cost

Every Property

Easement

Driveway Reconstruction



Pedestrian Accommodation Feasibility Study for Residential Collectors

FINAL REPORT

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Residential Signing

Residential Speed Studies

Palm Coast Residential Speed Limit

FL Statute 316.183 (2)

Residential Speed Studies

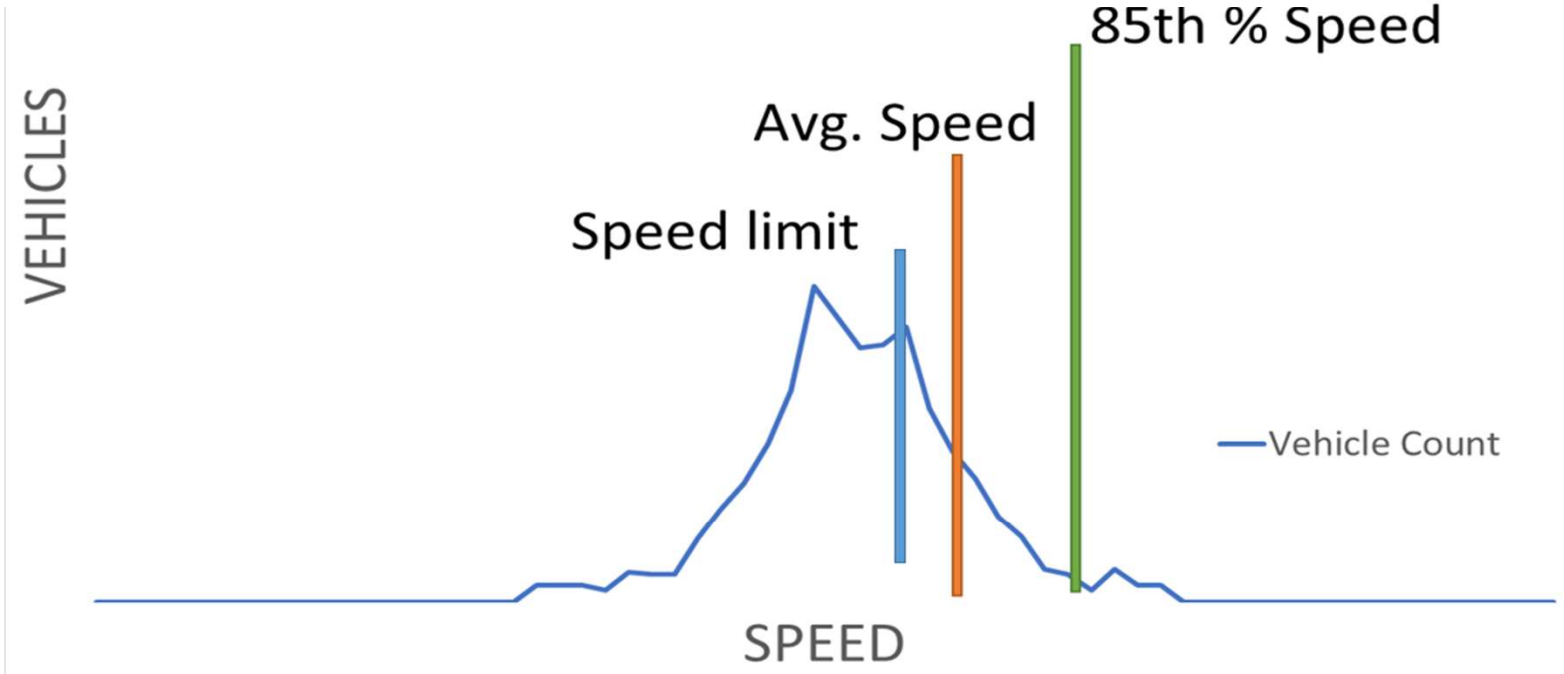
Data Collection

- City Owns Radar Speed Recorders
- The Recorder is Placed for 7 Days

Residential Speed Studies

Data Evaluation

- Normal Distribution



Residential Speed Studies

Project Outcome

- **Evaluation**: Speed Profile – Within Normal Range
- **Evaluation:** Crash History – Zero or Low
- **Action:** Forward Speed Data to Flagler County Sheriff's Office
- **Action:** Inform residents of the outcome

Traffic Calming

What is Traffic Calming?

"Traffic Calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users"

- *www.ITE.org*

Institute of Transportation Engineers *"Traffic Calming"* *https://www.ite.org/technical-resources/traffic-calming/.* ITE Document. 07 12 2022.
IOWA Department of Transportation Study. ***Temporary Speed Hump Impact Evaluation***. Atlantic: IOWA State University, 2022.
Project for Public Spaces. "Traffic Calming 101." 31 December 2008. *https://www.pps.org/article/livememtraffic.* 07 December 2022.

Traffic Calming – Palm Coast

Landscaped Median Residential & Roadway Layout

Traffic Calming

Speed Limit Radar Sign

In Palm Coast

Florida Park Drive

Casper Drive

Traffic Calming

Speed Limit Radar Sign

Expected Result

Short Term

Mild average speed reduction

Long Term

Minimal average speed reduction

Traffic Calming

Speed Limit Radar Sign

Unintended Consequences

- More devices – less effective
- Lose impact over time
- Moderate annual maintenance cost

Traffic Calming

Speed Bumps

Width

12 to 24 inches

Height

2 to 4 inches

Traffic Calming

Speed Humps

Width

12 to 14 feet

Height

3 to 4 inches

Traffic Calming

Speed Tables

Width

Ramp 6 to 9 feet

Table 10 to 20 feet

Height

3 to 4 inches

Traffic Calming

Speed Bumps, Humps, Tables

Area of Effect

Prior **After**

200 feet **300 feet**

Recommended Spacing

300 feet

- IADOT Study

Traffic Calming

Emergency Response Delay

Table 4. Speed Hump/Table Design and Emergency Response Time*

Jurisdiction	Speed Hump/Table Design	Delay per Hump/Table (Seconds)
Portland, Oregon	14' humps	1.0 to 9.4
	22' tables	0.0 to 9.2
Austin, Texas	12' humps	2.3 to 9.7
Montgomery County, Maryland	12' humps	2.8 to 7.3
Sarasota, Florida	12' humps	4.7
Boulder, Colorado	12' humps	2.8 to 6.0

*Sources: Ewing, 1999; Knapp, 2000; Transportation Association of Canada, 1998; Atkins and Coleman, 1997; Montgomery County Fire and Rescue Commission, 1997; Gutschick, 1998.

Traffic Calming

Speed Bumps, Humps, Tables

Expected Benefit

Point Speed Reduction

High Controversy

- IADOT Study

Traffic Calming

Speed Bumps, Humps, Tables

Unintended Consequences

Extreme Road Noise

High acceleration rates beyond the hump

Unexpected driver behavior

Large Impact on Fire Rescue Times

All Drivers impacted

Wear on vehicles

- IADOT Study

Summary

- City staff is constantly focused on traffic safety.
- Traffic Safety studies are occurring on a regular basis. No issue is left behind.