

PINELLAS COUNTY

Pedestrian Safety Action Plan



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SECTION 1 - INTRODUCTION

PEDESTRIAN SAFETY ACTION PLAN APPROACH	1
PURPOSE OF PEDESTRIAN SAFETY ACTION PLAN	1
RECENT ACTIVITY SUMMARY	4
ACTION PLAN SUMMARY	4

SECTION 2 - GOAL CONCEPTS/OVERVIEW

CONCEPTUAL AND OPERATIONAL GOALS	7
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SECTION 3 - GOALS, OBJECTIVES, AND ACTION ITEMS

Goal 1: Improve transportation system infrastructure through the implementation of strategic countermeasures and construction of new transportation facilities to optimize the safety of all users	14
Goal 2: Change the “culture” of drivers and pedestrians to increase Compliance with existing laws and encourage mutual respect and courtesy	28
Goal 3: Manage competing objectives of efficient automobile travel and pedestrian safety and mobility through land use strategies	31
Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.	35

TECHNICAL APPENDICES:

- Appendix A: PSAP Existing Conditions Inventory
- Appendix B: Summary of Education and Enforcement Programs and Practices
- Appendix C: Relevant Statutes
- Appendix D: Pinellas County Pedestrian Crash Data & Analysis

LIST OF FIGURES

Figure 1.01a: Pedestrian Aversion to Detour	14
Figure 1.01b: Frequent Crossing Opportunities	15
Figure 1.02: Traffic Control Island	17
Figure 1.03a: Large Intersection Pedestrian Exposure	18
Figure 1.03b: Depiction of Multiple Threat Pedestrian Crash..	20
Figure 1.03c: Left-Turn Lane Separator/Median Refuge Island	21
Figure 1.03d: Right Turn Channelization Island.....	22
Figure 1.05: Comparison of Stopping Distance and Pedestrian Injury Severity	24
Figure 1.06a: Driveway Designed to Look Like Driveway.....	27
Figure 2.01: Pedestrian Crash Pedestrian Age and Sex	28
Figure 3.02a: Pinellas 2003-07 Pedestrian Crash and Severe Crash Location Types	33
Figure 3.02b: Parking Lot Pedestrian Design Elements I	33
Figure 3.03c: Parking Lot Pedestrian Design Elements II.....	33

LIST OF MAPS

Map 1.01: Pinellas County Signal Spacing	16
Map 1.02: Major Undivided Roadways or Roadways with Two-Way Left Turn Lanes	19
Map 4.01: 40% Roadways	37





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PEDESTRIAN SAFETY ACTION PLAN APPROACH

The Pinellas County Pedestrian Safety Action Plan (PSAP) approach was based on the PSAP Template developed with funding and assistance from the Federal Highway Administration (FHWA) in close cooperation with the University of North Carolina's Highway Safety Research Center. Florida Department of Transportation (FDOT), FHWA advisors, and other pedestrian stakeholders applied the PSAP Template to suit the needs of Pinellas County. The purpose of the PSAP is to help local government agencies focus on the pedestrian crash issues specific to their jurisdiction, provide a set of proven strategies for consideration, and help practitioners understand the tools and organizational changes necessary to implement these strategies.

On September 8, 2008, representatives from the following entities met for a day-long workshop led by FHWA national pedestrian safety experts:

- Pinellas County Metropolitan Planning Organization,
- Pinellas County Sheriff's Office,
- Pinellas County Public Works,
- Pinellas County School System,
- FDOT staff and consultants,
- City of Clearwater, and
- City of St. Petersburg.

This Stakeholder Committee workshop brainstormed and completed the Pinellas County PSAP Template, defined overall pedestrian safety goals, and developed strategies to move forward. This *Pedestrian Safety Action Plan* is a synthesis of the ideas generated in the workshop and a quantitative analysis of the Pinellas County pedestrian crash problem.

Throughout this document, underlined terms are defined in the sidebar area.

PURPOSE OF PEDESTRIAN SAFETY ACTION PLAN




Over the past five years, the number of per capita pedestrian crash fatalities in the State of Florida has been higher (worse) than every other state except New Mexico. While other fast growing sunbelt states such as Arizona, Nevada, California, and Texas also have higher per capita pedestrian crash fatality rates than the national average, Florida's rate is 50% higher than California's rate, 62% higher than Texas's rate, and 85% above the national average. The State's tourist economy and demographics may contribute to this unenviable status; however, Florida's pedestrian crash performance cannot be explained solely as a byproduct of these factors.

As with most of Florida's urban counties, Pinellas County's per capita pedestrian crash fatality rate of 3.02 fatalities per 100,000 persons is comparable with the state average of 2.99 per 100,000 persons. Over the past five years, on average, 28 people per year have died in Pinellas County pedestrian crashes, nearly 100 people per year have sustained incapacitating injury, and an additional 260 people per year have sustained less severe injuries. If the Pinellas County per capita crash rate was reduced to the rate of California or Texas, 40 – 45 people per year could be spared death or incapacitating injury. If the County's rate could be brought to the national average, lives saved would increase to nearly 60 people per year.





State Name	2007	2006	2005	2004	2003	2002	Average
New Mexico	2.64	3.55	3.18	2.96	2.73	3.24	3.13
Florida	2.91	3.02	3.22	2.84	2.95	2.92	2.99
Arizona	2.43	2.71	2.65	2.26	2.17	2.83	2.52
Nevada	2.03	2.09	2.62	2.58	2.90	2.40	2.52
Hawaii	2.10	2.42	2.76	2.39	1.85	2.69	2.42
South Carolina	2.40	2.89	2.30	2.05	1.93	2.39	2.31
Dist of Columbia	3.23	2.90	2.75	1.55	3.12	1.21	2.31
Louisiana	2.49	2.26	2.51	2.30	2.08	2.31	2.29
Delaware	1.85	3.17	1.31	1.93	2.33	1.99	2.14
California	1.75	1.98	2.06	1.91	1.99	2.03	1.99
North Carolina	1.89	1.95	1.89	1.89	1.82	2.12	1.93
Maryland	2.06	1.68	1.83	1.75	2.07	1.93	1.85
Mississippi	1.99	1.93	2.48	1.52	1.39	1.92	1.85
Texas	1.62	1.62	1.87	1.99	1.82	1.92	1.84
New Jersey	1.72	1.90	1.77	1.76	1.59	2.07	1.82
Georgia	1.60	1.58	1.65	1.71	1.78	1.87	1.72
New York	1.44	1.62	1.67	1.65	1.74	1.76	1.69
National (Average)	1.54	1.60	1.65	1.59	1.64	1.69	1.62

-  Highest Number of Per Capita Pedestrian Fatalities
-  Second Highest Number of Per Capita Pedestrian Fatalities
-  Third Highest Number of Per Capita Pedestrian Fatalities

The purpose of the Pinellas County PSAP is to establish a framework to realize improved pedestrian safety performance through the following processes:

- Define the characteristics of the pedestrian crash problem in Pinellas County;
- Identify short term actions to improve pedestrian safety;
- Identify longer term policy initiatives to sustain pedestrian safety improvements;
- Identify opportunities for interagency and intra-agency coordination; and
- Provide an opportunity for elected leaders to support agency staff in implementing short and long term strategies.

PSAP Template

The template is a set of FHWA guidelines used to develop a pedestrian safety action plan.

Per Capita Pedestrian Crash Fatality Rates

A standardized number representing number of pedestrians fatally injured per population.





Where appropriate, the Pinellas PSAP applies a multi-disciplined “4E” approach to improve pedestrian safety. The term “4E” refers to engineering, enforcement, education, and emergency medical services (EMS). For the purpose of the PSAP, each of these entities is defined as follows:

- Engineering – Capital infrastructure, operating, and planning functions of transportation agencies such as FDOT, City and County Public Works Departments, and the Pinellas Suncoast Transit Authority (PSTA) and MPO.
- Enforcement – Law enforcement agencies and court systems.
- Education – Primary and secondary school programs and curriculum, public information programs, and social services agencies and community organizations.
- Emergency Medical Services (EMS) – Generally emergency responders, however the Pinellas PSAP expands the definition to include public health agencies as these may also play a preventative role rather than strictly responding to pedestrian crash events.

Many of the most effective pedestrian safety engineering countermeasures are of limited applicability along the higher speed, higher volume roadways, where most Pinellas County pedestrian crashes occur. Therefore, a 4E approach is especially relevant in addressing the County’s pedestrian crash problem.

In addition to a multifaceted approach, another central theme of the PSAP is coordination within and between agencies. Consideration of these questions is a crucial component of the PSAP.

- How can transportation planning and maintaining agencies such as FDOT, the Pinellas County MPO, and Pinellas County Public Works, effectively include pedestrian safety improvements in their overall programs?
- How can law enforcement address traffic safety and pedestrian safety outside of traffic units?

What can be done to coordinate law enforcement, education, and engineering efforts to work together along a corridor to maximize results? Consideration of these questions is a crucial component of the PSAP.

It is important to note that while bicyclist and pedestrian safety are often lumped together this report is focused on pedestrian safety. In many instances, improvement in pedestrian safety can improve safety for bicyclists as well as pedestrians and to that extent this report addresses bicycle safety. Beyond that intersection, however, this report will not address bicycle safety.

The *Goals, Objectives, and Action Items* section of the Plan describes specific steps to improve pedestrian safety in Pinellas County based on an analysis of the County’s pedestrian crash history. This report also includes the following technical appendices:

- Appendix A: PSAP Existing Conditions Inventory
- Appendix B: Summary of Education and Enforcement Programs and Practices
- Appendix C: Relevant Statutes
- Appendix D: Pinellas County Pedestrian Crash Data & Analysis





RECENT ACTIVITY SUMMARY

While the PSAP is intended to provide direction for pedestrian improvements in Pinellas County, it is recognized that pedestrian safety has been an important part of state and local efforts for a number of years. The following provides an overview of significant activities recently occurring within the county with regards to pedestrian safety. This list is merely a sampling of activities and not meant to be comprehensive—Additional information regarding ongoing activities can be found in Appendix A of this report.

- The Pinellas MPO spearheaded a statewide effort to require drivers to stop for pedestrians in crosswalks as opposed to just yielding to pedestrians. MPO staff felt strongly that pedestrians need a greater assurance of safety in order to encourage walking and other alternative modes of transportation. Florida Statute 316.130 was passed in 2008.
- FDOT District 7 has invested substantially in pedestrian safety in the last two years. The Highway Safety Program has invested \$2 million in countdown pedestrian signals and the Safe Routes to School program has invested in excess of \$3.5 million in solar-powered speed feedback signs, school flashers, and sidewalks.
- The City of St. Petersburg has conducted trial installation of crosswalk flashing beacons at several locations through-out the city—including multi-lane collector roadways. The use of Rectangular Red Flashing Beacons was granted interim approval by FHWA in July of 2008 (http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm)
- Pinellas County has a policy of installing high-visibility crosswalks and has allotted \$3 million in FY 08/09 for sidewalks and ADA compliance.
- The City of Clearwater reconstructed Cleveland Street to enhance walkability and has an aggressive street lighting program.

ACTION PLAN SUMMARY

Core recommendations of the PSAP are as follows:

- Most Pinellas County pedestrian crashes involve pedestrians attempting to cross major roads. These crashes happen at mid-block and signalized locations. To address this issue, the following actions should be taken:
 - Roadway maintaining agencies should identify potential opportunities to improve pedestrians' ability to safely cross major roadways through the following activities:
 - Installing enhanced mid-block crosswalks;
 - Installing raised medians and traffic control islands along roadways without raised medians;
 - Making signing, striping, and traffic signal operational improvements to signalized intersections; and
 - Improving street lighting at signalized intersections, major transit stops, high crash corridors, and mid-block crossing locations.
 - Concurrent with resurfacing or reconstruction projects, reconstruction of major intersections should be considered.
 - Resurfacing and capacity projects, along high pedestrian crash corridors, should include a Pedestrian Safety Audit prior to design scoping.
 - Retrofits and future enhancements should primarily focus on major transit routes and stops.





- Most pedestrian crashes, both nationally and in Pinellas County, involve adult males being struck by automobiles. Education efforts should focus on this group while enhancing primary and secondary school traffic safety education efforts. Enforcement efforts should also be used as opportunities to educate. Recommended actions include:
 - A multi-media public education/awareness campaign should be employed to raise awareness of the pedestrian crash problem and improve driver and pedestrian compliance with existing traffic laws. It should include information on the new state law (F.S. 316.130) that requires drivers to stop for pedestrians as opposed to yielding to them.
 - Transit infrastructure should be used as a focal point for pedestrian safety education/awareness materials, since most transit trips include a pedestrian component. Many of the highest pedestrian crash concentrations are along transit routes and/or in areas where demographic trends suggest a high propensity for transit use.
 - Secondary school Health and Safety curriculum should include traffic safety as this is a public health issue. Non-traditional media, including social networking websites, should be used to educate secondary school students regarding their rights and responsibilities as drivers and pedestrians.
 - Driver-oriented enforcement efforts should include a strong educational component and should be coordinated with the court system to ensure tickets are not seen as frivolous. Mass media and roadway signs should be used to “warn” drivers along corridors prior to and during enforcement waves since the principal goal is to educate drivers and pedestrians.
 - Pedestrian enforcement should, where feasible, utilize a community policing approach.

Mid-Block Crosswalks

A pedestrian crosswalk located in the middle of a roadway block, not at an intersection.

May also refer to a marked crosswalk on a major roadway at any unsignalized location.

Example shown includes landscaped island.



Community Policing Approach

This approach is a policing strategy and philosophy based on the notion that community interaction and support can help control crime and reduce fear, with community members helping to identify suspects, detain vandals and bring problems to the attention of police.

Local Option Fuel Tax

There are three local option gas taxes available to counties: One-Six Cents Local Option Fuel Tax, One-Five Cents Local Option Fuel Tax, and Ninth-Cent Fuel Tax. The One-Six Cents Local Option Fuel Tax, or First Local Option, is a tax of 1 to 6 cents on every net gallon of motor and diesel fuel sold within a county. Pinellas has adopted all six cents of this tax. The One-Five Cents Local Option Fuel Tax is in addition to the previous One-Six Cents Local Option in which the Legislature authorized an additional tax of 1 to 5 cents on every net gallon of motor fuel sold within a county. This tax does not include diesel fuel. Pinellas County has not adopted any of this tax. The Ninth-Cent Fuel Tax is a tax of one cent on every net gallon of motor and diesel fuel sold within a county. Pinellas County has adopted this tax.





- The PSAP recommends a coordinated strategy as follows:
 - Implement multiple simultaneous pedestrian safety infrastructure improvements along a corridor or within a neighborhood area.
 - While under construction, use print media, billboards, and variable message signs to advertise the projects and educate pedestrians and drivers in the area. Consider “branding” PSAP projects in a similar manner to planned use of a distinctive logo to be used with American Recovery and Reinvestment Act projects. Issue press releases when projects go under construction and invite elected leaders to ribbon-cutting ceremonies for new infrastructure.
 - Once operational, deploy law enforcement along the subject corridor to educate, issue warnings, and then issue citations.
- Analysis shows that more than 40% of pedestrian crashes are concentrated along less than 5% of the Pinellas County major roadway network. Based on a concentrated approach to this sub-set of the major roadway network, infrastructure strategies and costs identified in the PSAP, an annual funding level of \$2 to 3 million for pedestrian safety capital projects over the next ten years is recommended based on analysis discussed as part of Objective 4.01 in Section 2 of this report. This approach could utilize approximately 40% FDOT/FHWA Highway Safety Program funds and 60% local funds including:
 - MPO flexible federal funds ,
 - Local Option Fuel Tax, Penny for Pinellas, and CIT funds, and
 - Federal and State traffic safety grant funds.

SAFETEA-LU also allows District 7 to utilize federal safety funds to conduct limited public education campaigns in conjunction with specific safety construction projects. Of the State component of PSAP funding, \$80 - \$120 thousand annually should be directed towards pedestrian safety public information campaigns.

Penny for Pinellas

Penny for Pinellas is a 1 percent local option government sales tax that is earmarked for capital improvement projects dealing with roads, flood control, park improvements, preservation of endangered lands and public safety. The Penny for Pinellas was passed by voters countywide in 1989. In March 2007, voters approved extending Penny for Pinellas until 2020.

CIT Funds

Capital Infrastructure Tax – A local option penny or half-cent sales tax used to fund infrastructure investments.

SAFETEA-LU

The **Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users** is the current federal funding legislation for highways, highway safety, and public transportation. Totaling \$244.1 billion, SAFETEA-LU represents the largest surface transportation investment in our Nation's history. The two landmark bills that brought surface transportation into the 21st century—the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21)—shaped the highway program to meet the Nation's changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure.

<http://www.fhwa.dot.gov/safetealu/summary.htm>





CONCEPTUAL AND OPERATIONAL GOALS

The ultimate goal of the Pinellas PSAP is to reduce the countywide per capita rate of pedestrian crashes, injuries, and fatalities. To achieve this end goal, the PSAP Stakeholder Committee suggested the following goal statements:

- Transform the existing transportation network to accommodate bicycling and walking;
- Change the character of roadways to allow safe/convenient crossing by pedestrians;
- Reduce the number of pedestrian crashes; and
- Reduce the pedestrian crash rate (as a function of population) to within one standard deviation of the fifty state crash rates by the year 2020.

The last goal statement translates to a per capita pedestrian fatality rate of less than 2.08 fatal pedestrian crashes per 100,000 people (down from approximately 3.02 over the past five years). Because fatal crashes tend to fluctuate from year to year, a reasonable way to express this goal is in terms of “severe” crashes, i.e. crashes in which a fatality or incapacitating injury is recorded. A pedestrian crash reduction of this type would result in an economic benefit of at least \$70 million per year based on the most recent crash cost data provided by the State Safety Office.

Reduce the per capita rate of severe pedestrian crashes from over 13 per 100,000 people currently to fewer than 10 per 100,000 people by 2020.

Achieving this 10-year goal puts Pinellas County closer to the State of California ranking and establishes a trajectory to bring the County’s pedestrian crash rate in line with the national average (1.6 fatal crashes or approximately 7.5 severe crashes per 100,000 people). Once these goals are achieved, Pinellas County may elect to push forward and become a national leader in pedestrian safety and mobility (less than 1 fatal crash or less than approximately 4.5 severe crashes per 100,000 people).

PSAP Stakeholder Committee

The committee is a group of individuals from various agencies interested in pedestrian safety. These include individuals from transit agencies, municipalities, MPOs, law enforcement, and the department of transportation.

One Standard Deviation

Standard Deviation is a measure of the variability or dispersion of a population, a data set, or a probability distribution. A low standard deviation indicates that the data points tend to be very close to the same value (the mean), while high standard deviation indicates that the data are spread out over a large range of values. To calculate standard deviation, determine the mean for a set of data points. Subtract the mean from each data point and square the results of each. Then sum these figures together and divide by the number of data points. One standard deviation results from the range created by adding the standard deviation to the mean and subtracting the standard deviation from the mean.

Crash Cost

Data compiled annually by the State Safety Office based on Florida crash experience and national crash cost data. Crash costs consider vehicle and property damage, medical expenses, lost wages, and quality of life impacts.

Florida Crash and Injury Cost Data

	No Injury	Possible Injury	Non-Incap. Injury	Incap. Injury	Fatality
CRASH DOLLAR VALUE	\$ 3,000	\$ 63,510	\$ 104,052	\$ 521,768	\$ 6,380,000
INJURY DOLLAR VALUE	\$ -	\$ 42,340	\$ 80,040	\$ 401,360	\$ 5,800,000

<http://www.tfsrc.gov/safety/pubs/05051/03.htm#mon>





It is important to note that the quantitative goals of achieving short-term and long-term reductions in the frequency and rate of pedestrian crashes was preceded by goals to “transform” and “change” the character of the transportation network to accommodate non-motorized travel modes (biking and walking). While one means to reduce the pedestrian crash rate would be to discourage pedestrian activity along the major roadway network, this (dubious) approach would clearly contradict the goals proposed by the stakeholder committee.

The conceptual goals stated above must be achieved through attaining specific, measurable objectives. These objectives can be grouped under a series of implementation goals which consider not only the conceptual goals discussed above, but also incorporate data collected as part of the PSAP Template. These operational goals can be summarized as follows:

- Goal 1: Improve transportation system infrastructure (through the implementation of strategic countermeasures and construction of new transportation facilities) to optimize the safety of all users.
- Goal 2: Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.
- Goal 3: Reduce real and perceived conflicts between the need to efficiently move automobiles and pedestrian safety and mobility through private investment in compact, mixed-use developments.
- Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.

Each of these goals is explained in greater detail on the following pages.





Goal 1: Improve transportation system infrastructure through the implementation of strategic countermeasures and construction of new transportation facilities to improve the safety of all users.

Long-term improvements in pedestrian crash rates rely on drivers and pedestrians behaving prudently; however, it is generally understood that enforcement and education strategies in the absence of good design are seldom effective in the long term. Conversely, appropriate, intuitive design of public facilities fosters “good” behavior among most users and allows law enforcement and education initiatives to focus on the comparatively small group of individuals who continue to misuse/misunderstand transportation facilities.

As part of a 4E approach to improving Pinellas County’s pedestrian safety performance, public agencies can ask drivers and pedestrians to change their behavior through education and enforcement. They may also act to address the pedestrian safety problem through transportation system capital and operational improvements. While tactical infrastructure improvements should be used to address specific problem issues, the “random” nature of pedestrian crashes often requires a broad, strategic approach based on prototypical pedestrian crash experience rather than specific crash histories at individual improvement sites. A highly visible, strategic investment in pedestrian safety infrastructure may also help “wake up” the driving and walking public, especially when coordinated with education and enforcement activities.

Analysis of Pinellas County’s pedestrian crash history indicates that pedestrian crashes are concentrated along major multilane roadway corridors. They predominantly involve attempts to cross these higher speed, higher volume facilities at both signalized intersections and un-signalized locations. Based on this analysis, the objectives and action items associated with Goal 1 are oriented towards improving the ability of pedestrians to safely cross major roadways.

Goal 1 also includes objectives and actions to articulate trade-offs between pedestrian safety and automobile travel efficiency and safety. When a pedestrian safety improvement may increase automobile crash risks, a quantitative analysis should be considered to determine the appropriate course of action. However this analysis should consider crash injury severity rather than crash incidence alone. On average, pedestrian crashes are much more likely to result in death or incapacitating injury than most automobile crash types. When a pedestrian (or automobile) safety improvement is likely to reduce roadway capacities/average travel speeds, this should be considered in the overall context of the community as discussed in Goals 3 and 4.

Goal 2: Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.

Observation of driver and pedestrian behavior in Pinellas County, and elsewhere in the State of Florida, suggests that laws governing driver-pedestrian interactions are not well understood or well respected. While certainly a challenge to improving pedestrian safety, past experience shows that long-term education and enforcement campaigns have proven effective in adjusting attitudes of drivers. For example: The national proportion of drivers in fatal crashes who had been drinking and had a BAC of .08 or higher decreased from 35% in 1982 to 20% in 2005. Safety belt use in the U.S. has increased from 73% in 2001 to 83% in 2008.

Other examples of successful efforts to change public attitudes and behavior in the face of perceived social norms include the following initiatives:

- National efforts to change attitudes about recycling resulting in curbside collection programs in recycling programs in urban areas.





- Campaigns to educate the public that cigarettes are addictive and unhealthy and, at a minimum, that it is immoral to expose children to secondhand smoke.
- For better or worse, creation of markets for bottled water, 24-hour cable news, “music” television, running shoes, and \$4.00 cups of coffee.

Based on these broad changes in perception and behavior, it is reasonable to surmise that educating drivers and pedestrians on existing traffic laws is not beyond the scope of a robust public information campaign, supported by appropriate law enforcement activity. Based on a review of the County’s pedestrian crash history and other data, campaigns should address specific statutory compliance issues:

- Pedestrian understanding of and compliance with traffic signals and/or pedestrian crossing signals;
- Pedestrians allowing sufficient stop/yield response time when crossing at unmarked crosswalks;
- Pedestrians yielding to motor vehicle traffic when crossing outside of crosswalks;
- Drivers yielding to pedestrians when making permissive right turn, permissive left turn, and right-turn-on-red movements at intersections;
- Drivers yielding to or stopping for pedestrians as they approach the curb at marked and unmarked crosswalks; general awareness of the circumstances under which drivers, in all approaching lanes, are required to stop for pedestrians;
- Public intoxication, driving under the influence of drugs and/or alcohol, and responsible vendor behavior; and
- Compliance with posted speed limits and speeds appropriate for conditions.

Public education efforts should also promote the use of light-colored or retro-reflective apparel by pedestrians to improve their nighttime visibility.

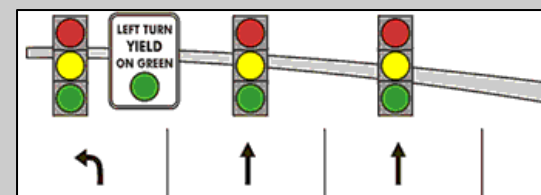
Unmarked Crosswalks

The “logical” extension of a sidewalk running perpendicular to the street being crossed. Motorists must yield to pedestrians crossing in unmarked crosswalks, though many motorists (and pedestrians) are un-aware of their responsibilities and rights in these circumstances.



Permissive Left Turn

At a protected left turn (signal includes a green turn arrow), after the green arrow terminates, it is followed by a yellow arrow to indicate the exclusive left turn movement (“protected”) has ended. However, motorists will see a solid green ball indication without a red arrow so they can still make a left turn when safe to do so (“permissive”), as long as they yield to on-coming traffic. This makes the intersection more efficient and reduces delay.





Goal 3: Manage competing objectives of efficient automobile travel and pedestrian safety and mobility through land use strategies.

As with most communities that developed extensively in the second half of the 20th century, Pinellas County’s built environment is oriented towards automobile mobility, often at the expense of safe and efficient pedestrian mobility. This is especially true in the northern half of Pinellas County where the grid street system gives way to a more widely spaced web of six-lane, arterial roadways with limited local and collector street connectivity. Generally, planners recognize the need to retrofit suburbs developed in the era following World War II to provide practical and safe alternatives to automobile travel; however, this process often requires redevelopment of existing commercial and residential land and therefore will not bear fruit in the near-term. Just as a pedestrian-oriented built environment can contribute to positive driver and pedestrian behavior and interactions, an environment which makes pedestrians the exception, rather than the rule, can contribute to unsafe behavior on the part of both drivers and pedestrians.

Pinellas County’s elected and appointed leaders and the County’s citizens have expressed interest in improving pedestrian mobility and consternation at the County’s pedestrian safety track record. However the necessity of traveling long distances to work and shop limits the ability of County leaders to act practically and decisively to prioritize pedestrian safety and mobility above automobile travel efficiency. Automobile dependency also complicates issues associated with elder road users and limits the viability of implementing stricter licensing requirements for young drivers and repeat traffic offenders.

While Goal 1 contemplates objectives and actions to increase the suitability of the transportation system for pedestrians through marginal capital and operational improvements, Goal 3 includes objectives and actions to re-

orient the mobility needs of the County such that walking becomes a viable means of serving daily trip purposes for all socioeconomic strata. Achieving this “transformative” goal would provide policy makers with real options to transition new and existing transportation system assets to prioritize pedestrian, bicycle, and transit mobility.

Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.

Achieving the benchmark pedestrian crash rate reductions identified in the PSAP Conceptual Goals will require a long-term commitment to the 4E strategies identified in the Plan. While pedestrian safety tends to emerge as a “hot-button” issue from time to time, a critical goal of the PSAP is to keep pedestrian safety at the forefront of agency agendas and public policy platforms. Besides maintaining a sense of urgency with respect to achieving pedestrian safety objectives, the support of elected and appointed leaders is also imperative in helping agencies responsible for implementing the Plan to act in concert and prioritize the financing of the capital and operating components.

Education programs, law enforcement activities, pedestrian supportive land development codes, and the County’s elected and appointed leadership can help bridge organizational silos when intra-agency and interagency coordination is required. Coordination between agencies can create issues:

- **Limiting measures of effectiveness** – Roadway resurfacing programs are often rated based on lane miles per dollar spent. Including pedestrian and automobile safety improvements in roadway resurfacing project scopes can optimize use of agency funds, but reduces the number of lane miles per dollar and may therefore “count against” resurfacing programs.





- **Separation between general fund and enterprise fund revenues** – Stormwater projects offer an opportunity to install new sidewalks and the most complex aspect of sidewalk and curb ramp projects is often stormwater design. Although it may be necessary and appropriate to avoid mixing enterprise (stormwater) and general (sidewalk) funds, this should not prevent project coordination such as “split-funding” combined sidewalk/stormwater projects and use of lower overhead, in-house design resources based on inter-department reciprocity or cross-charges.
- **Limited coordination between land development review, traffic operations, and project development groups** – Needed pedestrian safety improvements may be incorporated into roadway capacity projects necessitated by development traffic impact studies or planned projects in an agency’s capital program. Lack of early identification and coordination of pedestrian (and other operational/safety needs) may limit opportunities to include these in the design phase of roadway capacity projects. This is especially true of developer-motivated projects as these may respond to ad hoc needs and not be planned in a 5-year or longer Capital Improvement Program cycle.

Often, these organizational barriers are artifacts of budget line items and otherwise well-meaning and logical measures of effectiveness. Regardless of cause, it is the responsibility of agency staff to identify barriers to progress and recommend reasoned alternatives to the County leadership whenever these barriers cannot be resolved at a departmental or division level.

Built Environment

As opposed to the natural environment, the build environment refers to the man-made surroundings that provide the setting for human activity.

Silos

A term used to refer to isolated business units within a hierarchal organization which limit peer-to-peer interaction between departments.

General Fund

General revenues funded principally by property tax and sales tax which are not earmarked for specific purposes and are often competed for between public safety, parks and recreation, administration, and capital needs.

Enterprise Funds

An Enterprise Fund is a fund generated when a government agency provides goods or services to the public in exchange for a fee that makes the agency self-supporting.

Split-Funding

Using revenues from two different sources to fund a multi-part project. For example, while enterprise funds are used for stormwater projects and general funds are used for sidewalk projects, a stormwater/sidewalk project would require split-funding from both the enterprise and general funds to complete the different phases of the project.

Cross-Charges

A cross-charge represents the movement of funds from one department to another department within the same governmental unit. The funds are moved in order to reimburse the one department for doing work on behalf of the other department.





Another important role of County leadership is supporting agency staff when the right decision for improving pedestrian safety may conflict with other community goals or values. In some circumstances, pedestrian safety infrastructure improvements may compete with automobile capacity needs.

Redirection of limited law enforcement resources to raise the profile of pedestrian safety may take away from other traffic priorities or the efficiency with which enforcement agencies can process non-emergency case reports. There are a limited number of hours in the school calendar; time spent teaching pedestrian and traffic safety takes away from other educational objectives. County leaders must make these “political” choices to prioritize traffic safety and pedestrian safety commensurate with their human and fiscal impacts on society.





Goal 1: Improve transportation system infrastructure through the implementation of strategic countermeasures and construction of new transportation facilities to optimize the safety of all users.

Objective 1.01 Reduce the average distance between improved crossing locations along the County’s major roadway network; provide improved crossing facilities at transit shelters and high-volume transit stops and/or realign transit shelter/stop locations to improve safe pedestrian crossing.

Excluding downtown St. Petersburg, downtown Clearwater and Clearwater Beach, the average traffic signal spacing along the major roadway network exceeds 0.5 miles (Map 1.01). Based on experience with elevated pedestrian crossings, it is unlikely that more frequent improved crossing locations will result in pedestrians detouring more than a few hundred feet from their “crow-flies” path to reach a destination (Figure 1.01a). However, many pedestrian trips require travel along a major roadway as well as across it. In these cases, if more frequent signalization can be warranted, it will result in a greater likelihood that an improved crossing location is along the pedestrian’s travel path (Figure 1.01b). Where more frequent signalization is not warranted, above- and below-grade crossing should also be considered. As shown in the call-out box below, the FHWA Pedestrian.

Improved Crossing Locations

These are pedestrian crossing locations with enhanced features beyond the minimum standards intended to increase pedestrian safety at those crossings.

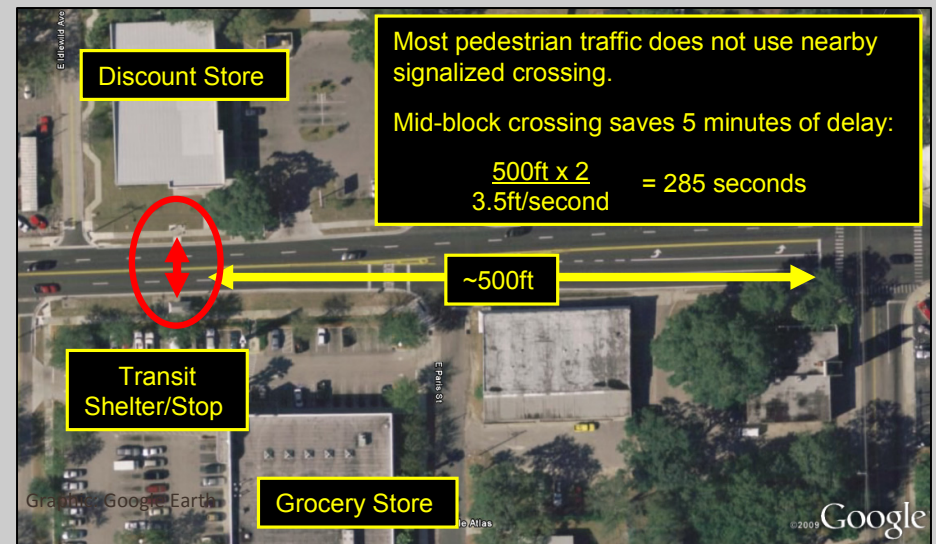
Major Roadway Network

Major roadways are a roadway classification that makes up the grid of higher volume/speed roadways encompassing the roadway system. These include freeways, multilane highways and other roadways that supplement the interstate system.

High-Volume Transit Stops

These transit stops serve a high volume of transit passengers (i.e. in excess of 50 passengers per day). Often these transit stops are located near pedestrian attractors such as shopping centers or colleges and/or service multiple intersecting transit routes.

Figure 1.01a: Illustration of Pedestrian Aversion to Crossing Detour

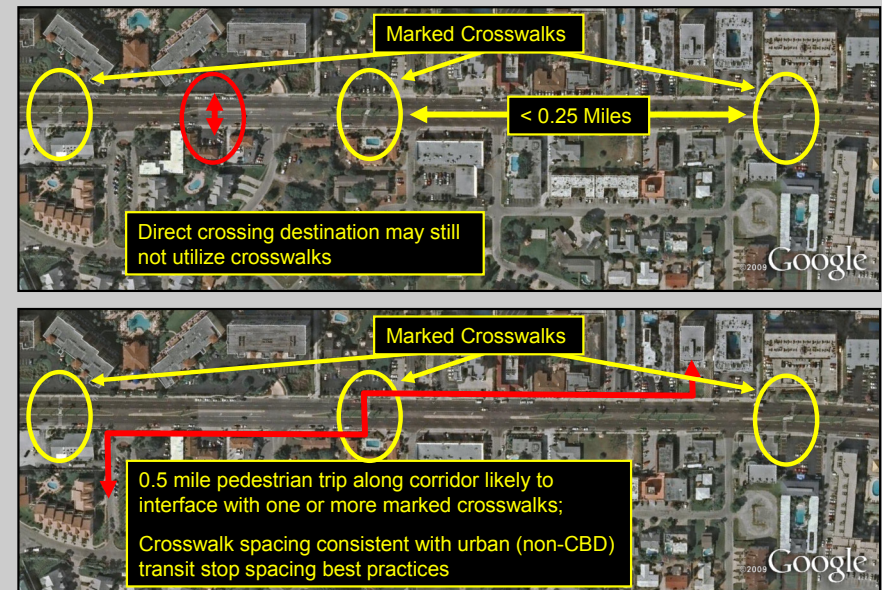




Action Items:

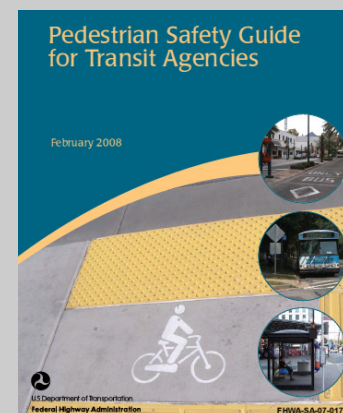
- Inventory existing marked mid-block crossing locations and perform the following tasks:
 - Update the improved-crossing frequency data shown in Map 1.01 to include appropriately signed and/or signalized mid-block crosswalks.
 - Evaluate existing mid-block crosswalks; consider criteria such as the DRAFT revision of the FDOT Mid-Block Crossing Guidelines; enhance, remove, or relocate as appropriate.
 - Maintain/upgrade markings and advance warning signs/flashers as appropriate.
- Inventory the following prioritization factors:
 - Roadway segments with high mid-block crossing pedestrian crash frequencies,
 - Mid-block transit shelter locations or high-volume transit stops,
 - Mid-block pedestrian attractors such as shopping centers, parks, and high density residential developments,
 - Mid-block sidewalk termini,
 - Unmarked mid-block crosswalks, and
 - Multi-lane undivided roadway segments.
- Classify corridors based on MPO roadway cross-section, traffic volume data and available speed limit data to determine what type of traffic control is needed consistent with the pending revision of the FDOT Mid-Block Crossing Guidelines.
- Consider other approaches identified in the FHWA *Pedestrian Safety Guide for Transit Agencies* discussed in the call-out box to the right.

Figure 1.01b: Frequent Crossing Opportunities Benefit Trips along Roadway Corridors



Graphic: Google Earth

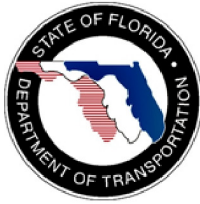
The FHWA *Pedestrian Safety Guide for Transit Agencies* is intended to provide transit agency staff with an easy-to-use resource for improving pedestrian safety.



The guide includes a variety of approaches to address common pedestrian safety issues that are likely to arise near transit stations, bus stops, and other places where transit (bus or rail) is operated. It provides references to publications, guides and other tools to identify pedestrian safety problems. Descriptions of engineering, education and enforcement programs that have been effectively applied by transit agencies are included as well as background information about pedestrian safety and access to transit.



Map 1.01 Pinellas County Average Signal Spacing



Legend

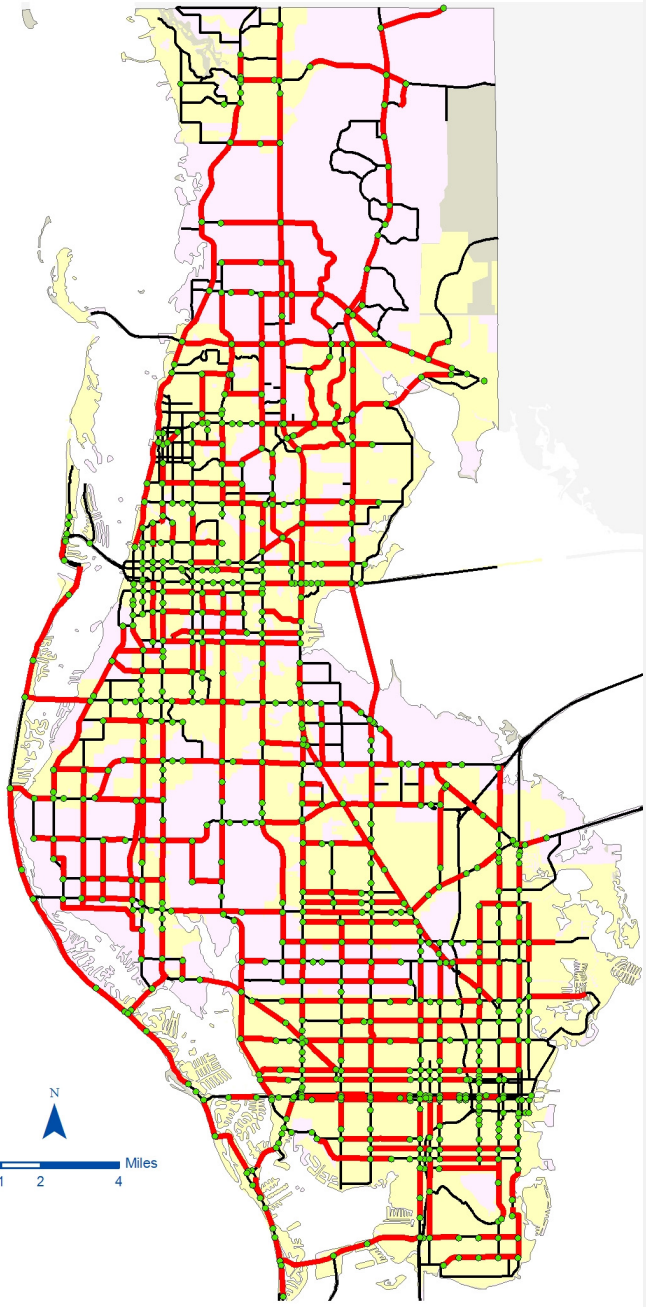
- Signal Location
- Urban Areas
- Suburban Areas
- Pinellas County
- Signal Spacing > 0.50 Mile
- Major Roadways

Accuracy: It is intended that the accuracy of this map comply with U.S. national map accuracy standards. However, such accuracy is not guaranteed. This map is for illustrative purposes only.

Note: Signals within the St Petersburg and Clearwater CBD were omitted.
Source: State Road signal data is from the FDOT GIS database. Non-State Road signal data is from Pinellas County.

Average Signal Spacing (Miles)

	Urban	Suburban	Total
State Roads	0.5	0.7	0.5
Non-State Arterials	0.5	0.7	0.5
Non-State Collectors	0.5	1.1	0.5
Total	0.5	0.8	0.5



File: Map_1_SignalSpacing.mxd





Objective 1.02 Install raised medians or traffic control islands along major roadways, especially when regularly spaced improved crossing locations are not provided.

Daytime traffic volumes along the County's major roadway network reduce the availability of adequate pedestrian crossing "gaps" in both travel directions. As such, many pedestrians make a two-stage crossing by seeking out a gap in approaching traffic and then pausing in the median until a gap becomes available in the opposing travel lanes. On roadways where the median is not raised, but is merely a two-way, left-turn lane, pedestrians are exposed to left-turning vehicles. On undivided roadways, the hazard is even more acute for obvious reasons. Map 1.02 shows elements of the Pinellas County major roadway network which are either multi-lane undivided roadways or roadways with a two-way, left-turn lane.

Converting two-way left turn lanes to fully restricted medians is often difficult because of impacts to business access and limited capacity for U-turn movements on 4-lane and 2-lane roadways. An alternative is to position evenly spaced "traffic control" islands (Figure 1.02) along a two-way left turn lane. While these islands are not designated as pedestrian crosswalks, they mitigate the threat of drivers prematurely entering (and then traveling along) a two-way left turn lane and provide shelter to pedestrians who may choose to cross adjacent to them. Care should be taken to avoid landscaping features which obscure drivers' view of pedestrians in a median area and prohibit pedestrians from crossing islands.

Traffic Control Islands

Raised median with or without landscaping sited within a center turn lane. Distinguished from a mid-block pedestrian refuge island by the absence of a marked crosswalk and ADA compliant cut-through.

Figure 1.02: Traffic Control Island



Graphic: Google Earth Street View (8700 Block, Blind Pass Rd, R)



Action Items:

- Use Map 1.02 and other resources to identify undivided roadways and roadways with two-way left turn lanes.
- Inventory the following prioritization factors:
 - Roadway segments with high mid-block crossing pedestrian crash frequencies,
 - Mid-block transit shelter locations or high-volume transit stops,
 - Mid-block pedestrian attractors such as shopping centers, parks, and high density residential developments,
 - Mid-block sidewalk termini, and
 - Unmarked mid-block crosswalks.
- Review MPO existing and future traffic volume data and automobile crash data to identify multilane undivided roadway segments for potential road diet candidates. These roadways may exhibit some these characteristics:
 - Existing (and preferably future) annual average daily traffic (AADT) counts less than 24,000,
 - Automobile crash rate above 3.0 crashes per million vehicle miles of travel,
 - Narrow travel lanes (less than 11 ft wide), and
 - Operational/safety issues at signalized intersections where no left turn lane/phase is provided.
- Based on the prioritization criteria discussed above, perform traffic studies on candidate roadways and implement resulting recommendations:
 - Install raised median,
 - Install traffic control islands, or
 - No improvement feasible.
- In the event a detailed study recommends a no-build scenario, elevate the subject corridor with respect to other Goal 1 objectives.

Road (Lane) Diet

This technique in transportation planning reduces the number of travel lanes on a roadway and/or the effective width of the roadway in order to achieve systemic improvements like inclusion of a bicycle lane, two way left turn lane, and increased corner radii.

Pedestrian Crossing Conflicts and Pedestrian Exposure

Conflict points are locations where vehicles and pedestrians both interact. Most commonly, these include intersections and driveways.

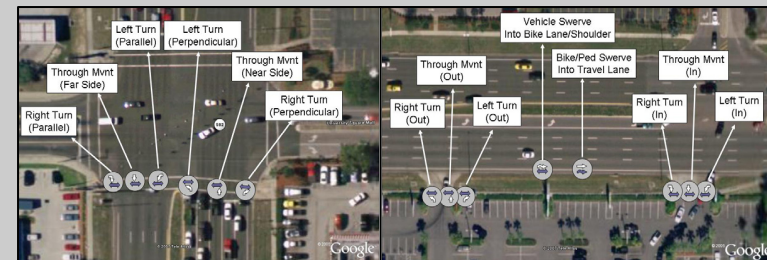
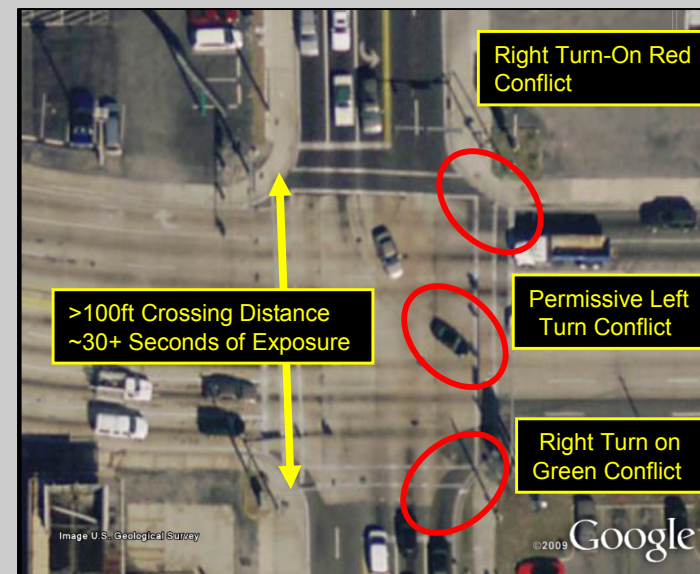


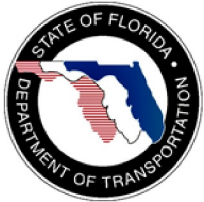
Figure 1.03a: Large Intersection Pedestrian Exposure



Graphic: Google Earth



**Map 1.02
Pinellas County
Undivided and Paved
Median Pedestrian Crashes**



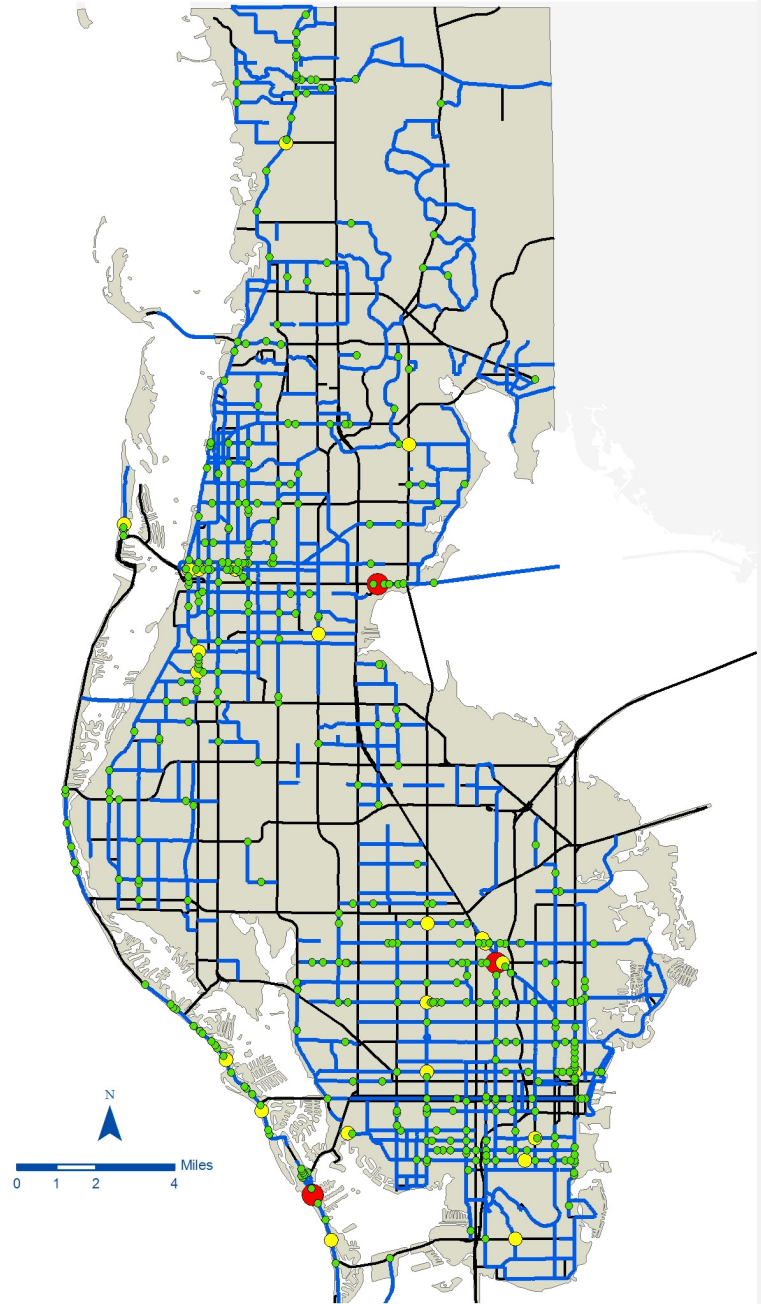
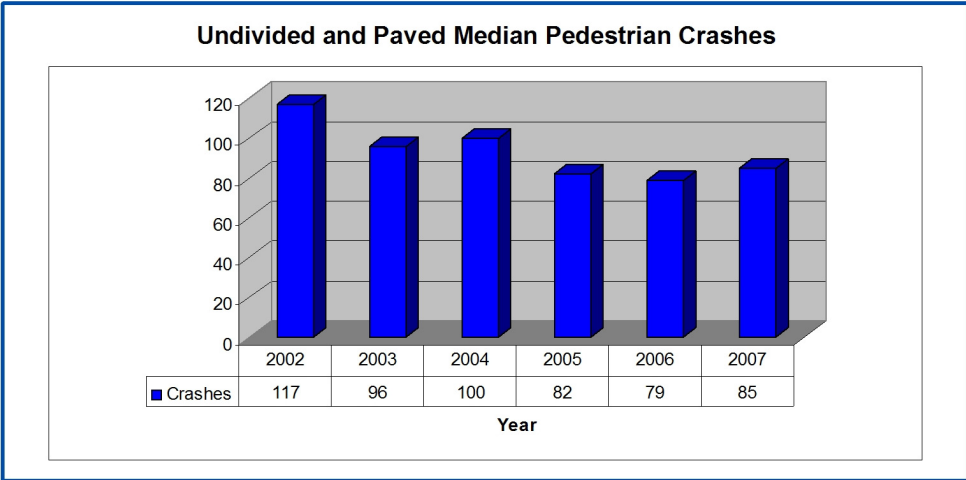
Legend

Pedestrian Crashes

- 1 - 2 Crashes
- 3 - 5 Crashes
- > 5 Crashes

- Undivided or Painted Median Roadways
- Major Roadways
- Pinellas County

Accuracy: It is intended that the accuracy of this map comply with U.S. national map accuracy standards. However, such accuracy is not guaranteed. This map is for illustrative purposes only.



File: Map 2 Undivided PedCrashes.mxd





Objective 1.03 Reduce the average number of pedestrian crossing conflicts and pedestrian exposure at signalized intersections along the major roadway network.

Signalized intersections assign right of way to different traffic movements and therefore should be perceived as safer crossing points than unsignalized mid-block locations. However, most Florida intersections allow right-turn-on-red movements and many allow permissive left turn movements. These movements, along with right-turn-on-green movements are required to yield to through traffic and pedestrians in the intersection crosswalks. It is more often the case that pedestrians yield to turning automobiles. Major roadway intersections are also much wider than the approaching roadway segments because of auxiliary right and left turn lanes and wide corner radii designed to accommodate high speed right turns and heavy truck movements. Typical crossing distances across a six-lane roadway can exceed 150 feet resulting in over 40 seconds of pedestrian exposure (Figure 1.03a).

These conditions may contribute to pedestrian crashes at signalized intersections and also are likely to result in pedestrians avoiding signalized intersections with a consequent increase in mid-block crashes. Observation and review of pedestrian crash reports indicates that pedestrians will frequently choose to walk a few dozen feet away from a signalized intersection and cross through the standing queue rather than at the signal. This behavior, though perceived as safer by the pedestrian, may result in multiple threat crashes, especially if the through-movement queue lengths differ from auxiliary lane queues (Figure 1.03b).

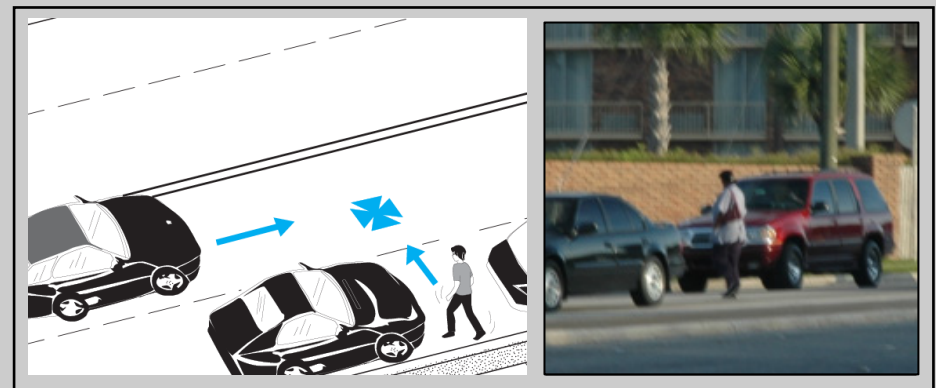
Standing Queue

A group of vehicles or pedestrians waiting together or as group. Typically these occur at signalized intersections while drivers wait during the red indication.

Multiple Threat Crashes

It is a condition where the geometry, or other factors, creates more than one hazard for a pedestrian. These include crossing through a standing queue.

Figure 1.03b: Depiction of Multiple Threat Pedestrian Crash



Graphic: FHWA PEDSAFE Manual

Through-Movement Queues

This term refers to automobiles stopped at a traffic signal waiting to travel in the through-movement lanes of an intersection. Through-movement lanes are those lanes which permit straight travel through an intersection as opposed to turning movements. Pedestrians may cross through stopped traffic at a major intersection approach and can emerge into free-flowing turn lane or become trapped when traffic starts moving.

Auxiliary Lanes Queues

These are lanes provided for turning movements as opposed to through movement.



Action Items:

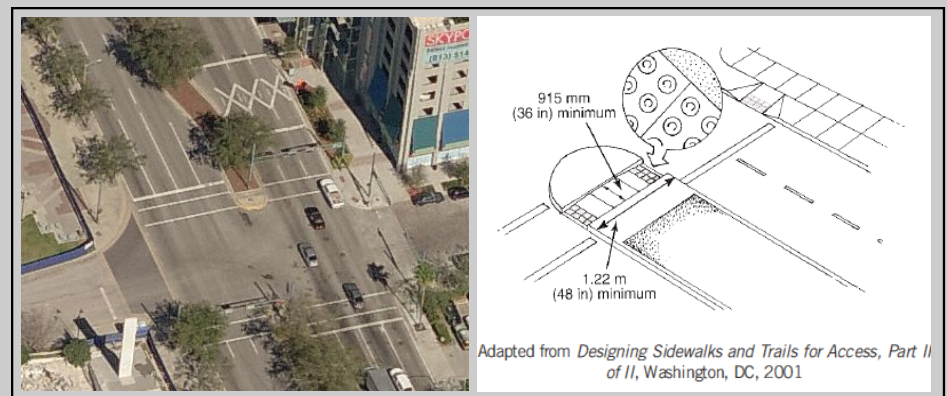
- Review existing signalized intersections for geometric improvement opportunities.
 - Prioritize review based on intersection or corridor pedestrian crash experience and intersection size (number of intersecting through lanes). Also, consider reviews concurrent with signal maintenance activity or ADA reviews.
 - Note sidewalk ramp configuration and deficiencies and ADA/accessibility issues.
 - Install left turn lane separator/median refuge islands as part of intersection reconstruction projects. Retrofit where feasible based on left turn separator width and truck turning radii requirements (Figure 1.03c).
- Install high-emphasis crosswalk markings at all approaches of collector or arterial roadway signalized intersections concurrent with roadway resurfacing or other intersection improvements. Consider installing high-emphasis crosswalks as a stand-alone project when the intersection is identified as a priority location based on pedestrian crash history or transit activity and no resurfacing or improvement project is programmed within five years.
- Complete installation of countdown pedestrian signals at collector or arterial roadway signalized intersections; where feasible set pedestrian signals to countdown concurrent with the coordinated main street phase.

Left-Turn Lane Separator/Median Refuge Islands

A median or refuge island is a raised longitudinal space separating the two main directions of traffic. Median islands, by definition, run one or many blocks. Refuge islands are much shorter than medians. Medians and refuge islands can be designed to block side-street or driveway crossings of the main road, as well as block left-turning movements. Because medians reduce turning movements, they can increase the flow rate (capacity) and safety of a roadway.



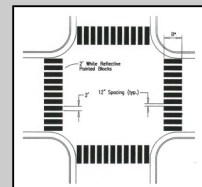
Figure 1.03c: Left-Turn Lane Separator/Median Refuge Island



Graphics: Microsoft Maps.Live.Com Birds Eye

High-Emphasis Crosswalk

Also called a special emphasis crosswalk, these crosswalks have pavement markings consisting of white two-foot wide bars with a one foot space in between intended to increase pedestrian crossing location conspicuity.



Countdown Pedestrian Signals

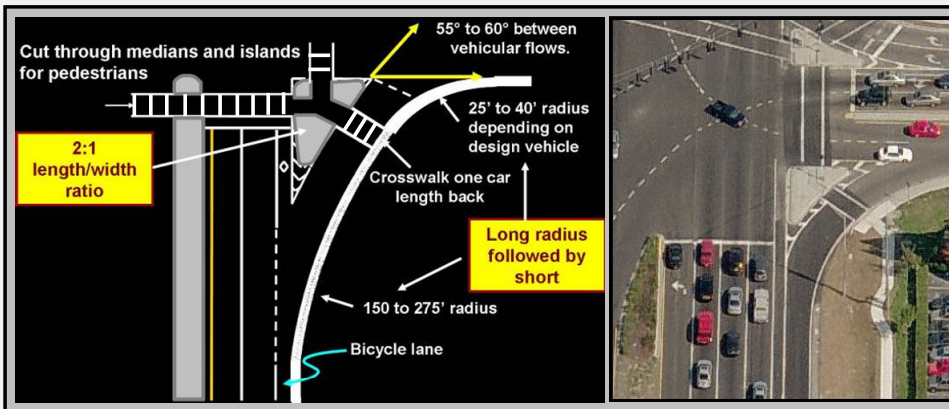
These signals are used at crosswalks to provide a display of the amount of time remaining for pedestrians to cross the street. Pedestrians use the information to make better decisions on when to start crossing and when to hasten already initiated crossing.





- When curb radii cannot be reduced due to traffic operational or heavy truck traffic history, construct/reconstruct intersection with appropriately designed (large then small radii) right turn channelization islands (Figure 1.03d). Consider opportunities to construct islands of sufficient size to accommodate traffic signal masts and crash attenuators. Determine whether pedestrian crossing from curb to island can function without signalization to reduce pedestrian crossing interval and improve intersection signal optimization.
- Evaluate traffic control options to reduce left and right turn movement pedestrian conflicts. Consider:
 - Protected-only left turn or lead/lag protected left turn (as may be appropriate and/or necessary based on opposing traffic volume and queue storage capacity);
 - Pedestrian actuated no-right-turn-on-red LED signs; or
 - Leading pedestrian interval and/or R10-15 “Turning Traffic Must Stop for Pedestrians in Crosswalk” signs.

Figure 1.03d: Right Turn Channelization Island



Graphic: PSAP Template/FHWA PEDSAFE Manual

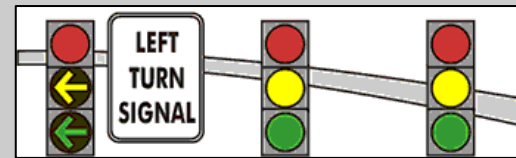
Image: Microsoft bing.com/maps

Right Turn Channelization Islands

These islands are located between the through lanes and a right-turn only lane at an intersection. These islands offer refuge for pedestrians and can provide for signal pole placement, however if improperly designed they can create conflicts for pedestrians, especially when designed to facilitate high-speed right-turn movements.

Protected-Only Left Turn

Protected-only left turn signals allow vehicles to proceed during the display of the green left turn arrow only. No permissive green ball is displayed, therefore vehicles may not move during gaps in the opposing through traffic.



Lead/Lag Protected Left-Turn

A traffic signal phasing configuration where opposing left turns do not occur concurrently at the beginning of the cycle. It is used primarily to accommodate through movements in coordinated signal systems.

No-Right-Turn-On-Red LED

These signs are post-mounted, blank-out signs used to prohibit vehicular turning movements. These signs are applied at signalized intersections to reduce vehicle/pedestrian conflicts by prohibiting right turns across channelized right turns.



Leading Pedestrian Interval

A leading pedestrian interval (LPI) is a pedestrian safety measure used at roadway intersections with traffic signals. The term LPI refers to when the ‘walk’ signal appears three or more seconds before the green traffic signal. The ‘walk’ signal then remains active for the duration of the green signal. This brief timing adjustment allows pedestrians more time to cross the street, and increases their visibility to driv-



Objective 1.04 Provide enhanced street lighting along high pedestrian crash corridors, at marked crossing locations, and transit shelters and high-volume transit stops.

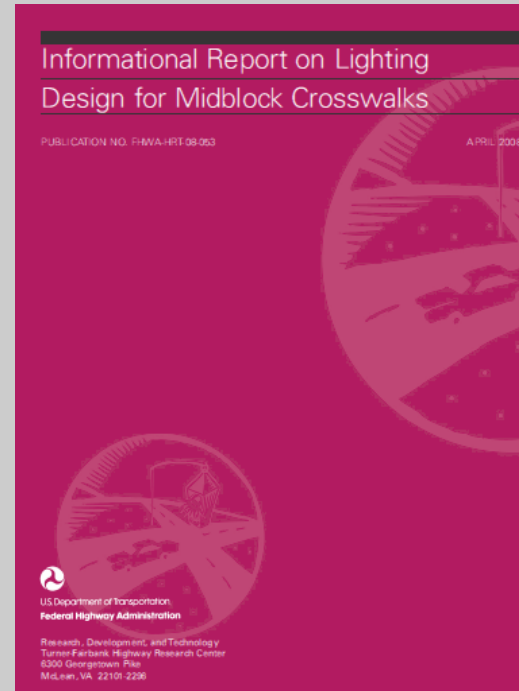
About 40% of Pinellas County pedestrian crashes occur at night compared with less than 25% of all motor vehicle crashes. While it is impractical to provide enhanced street lighting along the entire major roadway network, enhanced street lighting should be provided as per the action items below.

Action Items:

- Study/inventory lighting levels at signalized intersections and improved crossing locations; prioritize review based on pedestrian crash history or transit activity. Consider comprehensive signalized intersection lighting level inventory concurrent with periodic traffic signal preventative maintenance cycles.
- Provide enhanced street lighting at improved crossing locations including signalized intersections.
- Provide enhanced street lighting along roadway corridors with high pedestrian crash and/or nighttime pedestrian crash experience to illuminate the roadway area and pedestrian areas.
- Provide enhanced street lighting at high-volume transit stops.
- Consider strategies identified in the FHWA *Informational Report on Lighting Design for Midblock Crosswalks*.

Enhanced Street Lighting

Street lighting beyond the minimum standard intended to increase nighttime pedestrian safety.



The *Informational Report on Lighting Design for Midblock Crosswalks* provides information on lighting parameters and design criteria that should be considered when installing fixed roadway lighting for midblock crosswalks. The information is based on static and dynamic experiments of driver performance with regard to the detection of pedestrians and surrogates in midblock crosswalks. Experimental condition variables included lamp type, vertical illuminance level, color of pedestrian clothing, position of the pedestrians and surrogates in the crosswalk, and the presence of glare. Two additional lighting systems, a Probeam luminaire and ground-installed LEDs, were also

evaluated. The research found that a vertical illuminance of 20 lx in the crosswalk, measured at a height of 1.5 m (5 ft) from the road surface, provided adequate detection distances in most circumstances. Although the research was constrained to midblock placements of crosswalks, the report includes a brief discussion of considerations in lighting crosswalks co-located with intersections.





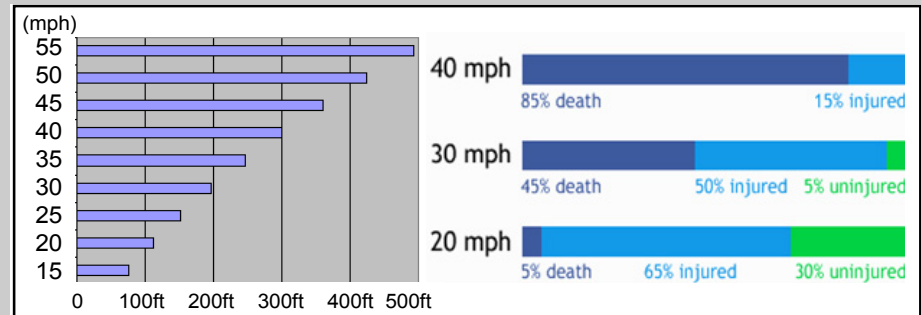
Objective 1.05 Implement strategies to reduce travel speeds along urban collector and urban minor arterial roadways through geometric design and traffic signal coordination.

Pedestrian crash fatality rates increase significantly above 30 mph. While it is impractical to reduce travel speeds to 30 mph on all arterial and collector roadways, a general reduction in travel speeds allows drivers and pedestrians more time to react when a conflict occurs (Figure 1.05). Reduction in travel speeds also lessens the severity of automobile versus automobile crashes and enables the safe installation of un-signalized mid-block crossing features in a wider range of roadway settings.

While it is impractical (and unenforceable) to reduce speed limits arbitrarily, roadway “owner” agencies may elect to set a lower design speed when roadways are constructed/reconstructed. When geometric modifications are not able to reduce 85th percentile speeds, another approach to reduce travel speeds and, in some circumstances, improve roadway throughput, is to set traffic signal progression speeds to a speed lower than the maximum design speed of the road. This technique is most effective along local commuter corridors where drivers can “learn” the signal progression and/or when active “advisory speed” feedback is provided to drivers. Feedback can be provided through variable advisory speed limit signs, other Intelligent Transportation System (ITS) messaging devices or through signal spacing which is sufficiently close to allow drivers to anticipate downstream signal phases.

When close signal spacing is employed with reduced cycle lengths to enhance compliance with corridor progression speed, automobiles tend to pack into tighter platoons leaving more consistent gaps for mid-block pedestrian crossing activity (and automobile cross street through and turning movements). While overly short cycle lengths can increase left turn, angle and rear-end crash exposure for automobiles, overly long cycle lengths contribute to speeding and disregard of traffic signals by pedestrians and motorists.

Figure 1.05: Comparison of Stopping Distance and Pedestrian Injury Severity



Graphic: http://www.saferoutesinfo.org/guide/engineering/slowing_down_traffic.cfm

85th Percentile Speeds

The 85th percentile speed concept is based on empirical research that shows, in the absence of a posted speed limit, that 85 percent of drivers would travel at or below the subject speed based on roadway and traffic conditions. As a rule, 85th percentile speed is used as the basis for setting speed limits in Florida.

Progression Speeds

Along signalized roadway corridors, signalized are timed such that a vehicle traveling at the “progression speed” will flow through multiple intersections without stopping. Though generally set to match the posted speed limit, traffic congestion, irregular signal spacing, and other factors may reduce progression speeds.



Variable Advisory Speed Limit Signs

These signs indicate speed limits which change with road congestion and other factors. These signs look to promote savings in journey times, smoother-flowing traffic, and a fall in the number of accidents.

Intelligent Transportation Systems (ITS)

ITS refers to efforts to add information and communications technology to transport infrastructure and vehicles in an effort to manage factors that typically are at odds





Action Items:

- Where feasible, design new and reconstructed urban collector and minor arterial roads for travel speeds below 45 mph.
- Along urban roadways with high pedestrian crash activity, consider opportunities to reduce travel speeds through signal progression.
- Identify existing intersection locations with moderate traffic volumes as candidates for “volume warrant” or “systems warrant” traffic signal installation to improve progression speed feedback.
- Consider positive and negative automobile safety impacts of signal installation and timing.

Cycle Lengths

A cycle length refers to the amount of time it takes for a complete sequence of a traffic signal indication: green-yellow-red.

Volume Warrant

Section 4C.01 of the Manual of Uniform Traffic Control Devices (MUTCD) lists eight warrants to establish the need for a traffic signal. Warrants #1 – 4 are based on vehicular or pedestrian volume. The other warrants include: #5 school crossing, #6 coordinated signal system, #7 crash experience (which reduces the volume criteria of Warrants 1 – 4), and #8 roadway network considerations. The satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic control signal.

Systems Warrant

Basis for installing a traffic signal in order to promote progression along a corridor even when the subject intersection does not meet other (volume) warrants.





Objective 1.06 Provide high-quality continuous sidewalks within the urban service area in the following locations:

- Both sides of arterial roadways,
- One side of collector roadways (at a minimum),
- Both sides of collector roadways with fixed-route transit service,
- One side of high-volume local streets, and
- Both sides of roadways, whenever feasible.

Although most (approximately 75%) pedestrian crashes do not involve pedestrians walking along the road, sidewalks provide for pedestrian mobility, keep pedestrians off of the roadway shoulder, and enable pedestrians to walk comfortably along major roadways to improved crossing locations. As noted in the criteria above, sidewalks should be constructed along both sides of the roadway when that roadway serves as a transit route, even if it is only a collector road. This enables transit riders to walk along the sidewalk to an improved crossing location or “unmarked crosswalk.”

Action Items:

- Inventory sidewalks along the major roadway network and prioritize sidewalk construction based on the following criteria:
 - Gaps in existing sidewalk sections, especially resulting in sidewalk termini at unimproved crossing locations,
 - Roadway functional class,
 - Transit route and route ridership,
 - Pedestrian crash history and adjacent use, and
 - Prioritization criteria already established by the MPO, local governments, and FDOT.

High-Quality Continuous Sidewalks

Sidewalks that meet all ADA requirements, provide excellent traveling conditions, and do not end abruptly forcing street crossing at unsafe locations.

Urban Service Area

The urban service area is an area of a municipality where typical urban services are provided.

High-Volume Local Streets

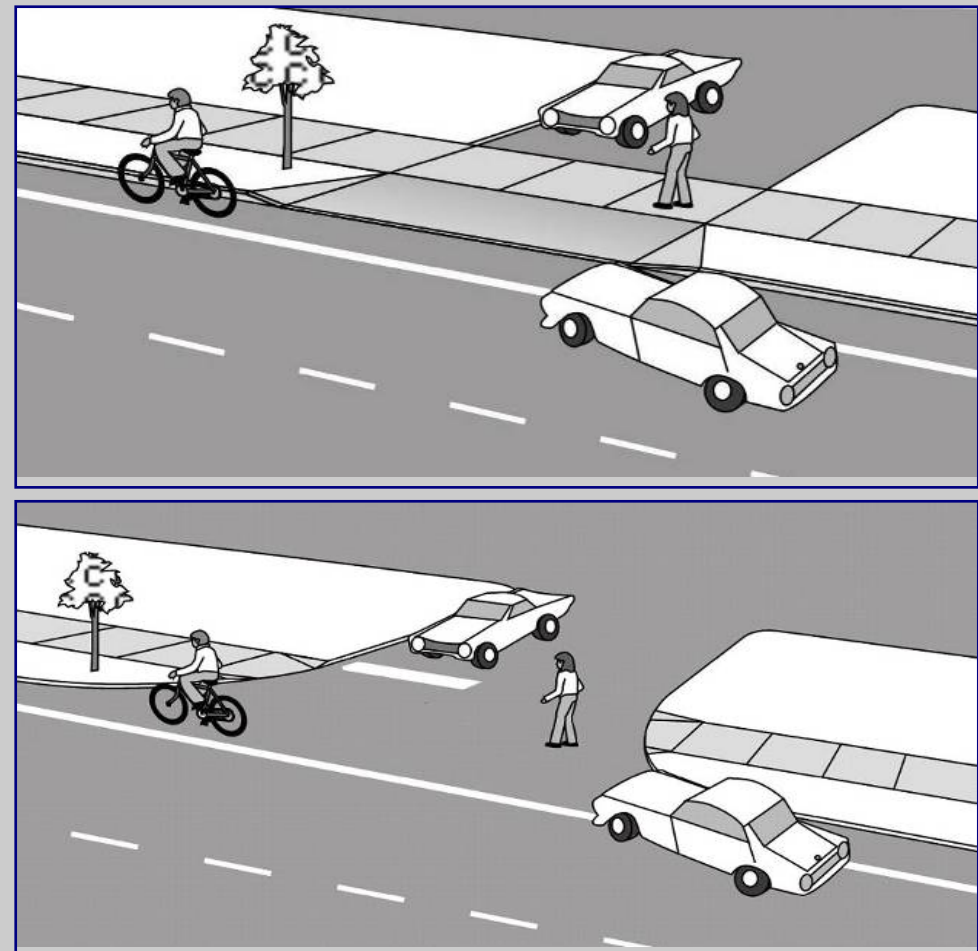
Local streets with traffic volumes that exceed the traffic generated by the land uses along the street. For a single family neighborhood street, a volume in excess of ~1,200 daily trips would be considered “high volume.”





- Identify local streets with high traffic volumes (i.e. more than 1200 – 1500 trips per day) that lack sidewalks. These may be identified through:
 - Citizen complaints,
 - Collection of traffic volume data along local streets that
 - Intersect collector or arterial roadway facilities at signalized intersections
 - Provide a direct connection between two collector or arterial roadways
- Aggressively implement driveway/access management standards concurrent with roadway resurfacing projects and property development/redevelopment.
- Design driveways to look like driveways (Figure 1.06a) except when specific traffic operational conditions (high volumes, heavy truck volumes) dictate otherwise. Sidewalks should continue through the driveway, the level of the sidewalk should be maintained, and the driveway should be sloped so that the driver goes up and over the sidewalk.
- Along high crash corridors, mark crosswalks along the major roadway travel direction(s) to warn drivers entering or exiting the major roadway to expect/watch for pedestrians.

Figure 1.06a: Example of Preferred (top) and Discouraged (bottom) Driveway Designs



Graphic: FHWA PSAP Template

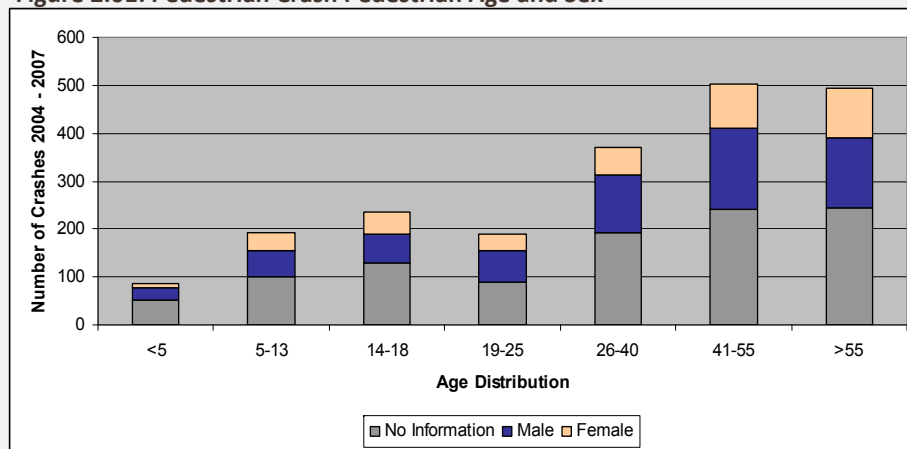


Goal 2: Change the “culture” of drivers and pedestrians to increase compliance with existing laws and encourage mutual respect and courtesy.

Objective 2.01 Improve the awareness of adult pedestrians and motorists about the legal rights and responsibilities of pedestrians.

Although all age groups are represented in the County’s pedestrian crash problem, adult men in their 40’s and 50’s are the most prominent demographic group (Figure 2.01). Education of adult pedestrians and drivers is best accomplished through mass media approaches including commercial television, posters, newspaper ads, billboards, radio, public access and brochures/pamphlets. Modern media including social networking websites can also be used with adults. Information should provide an understanding of existing laws and traffic citation fine structure, safe crossing practices for pedestrians, and appropriate yield behavior for drivers. Education material should also focus on improving nighttime conspicuity and the dangers of walking while intoxicated.

Figure 2.01: Pedestrian Crash Pedestrian Age and Sex



Action Items:

- Focus on transit riders by implementing the following:
 - Pedestrian safety placards on buses and transit stops/shelters,
 - Pedestrian safety material on bus route maps and schedule books, and
 - Pedestrian safety crossing instruction announcements at bus stops.
- Utilize available federal or local funds to implement mass-media campaigns in conjunction with infrastructure projects. Use the “Walk Wise Pinellas” logo to brand pedestrian safety-related projects.
- Use a campaign to educate pedestrians that walking while intoxicated increases chances of being struck by an automobile.
- Distribute pedestrian safety information through public health providers (e.g., health department, hospitals, etc.) and in public buildings such as libraries, recreation centers, and other sites.
- Involve community groups in identifying pedestrian safety issues and education and infrastructure strategies.
- Use professional media consultants to direct pedestrian safety campaigns to specific demographic groups. Utilize all available media:
 - Websites (including social networking websites),
 - Billboards,
 - Radio,
 - Public access and commercial television,
 - Brochures/pamphlets and posters, and
 - Newspaper ads.
- Pursue 402 state safety grants and public health grants to support ongoing and enhanced adult traffic safety education efforts.





Objective 2.02 Ensure that younger generations of pedestrians and (future) drivers have an appropriate understanding of pedestrian and driver legal rights and responsibilities.

In order to promote long-term changes in pedestrian and driver behavior, education of new drivers with respect to traffic safety and pedestrian safety is critical. Continuation of existing primary school programs is a good start. However, more can be done in secondary schools to educate future drivers and adult pedestrians.

Action Items:

- Continue existing school-age education programs:
 - Bicycle and Pedestrian Safety course entitled “Safe Wheels and Safe Walkers” taught to Pinellas County first grade students by More Health Inc.,
 - Safe Routes to School related education outreach,
 - International Walk Your Child to School Day and Walk this Way program,
 - Include pedestrian safety education as part of primary school curriculum and secondary school/drivers education curriculum.
- Continue existing traffic safety events/programs:
 - Include traffic safety (including pedestrian safety from the perspective of drivers and pedestrians) in high school Health and Safety course curriculum;
 - Ensure that pedestrian safety is a prominent component of driver’s education curriculum; and
 - Utilize modern media (social networking websites and other internet resources) to educate secondary school children and provide a forum for teenagers to discuss traffic behavior and issues.
- Pursue 402 safety grants, Safe Routes to School grants, and public health grants to support ongoing and enhanced school traffic safety education efforts.



Join kids and families around the globe to walk and bicycle to school in October!



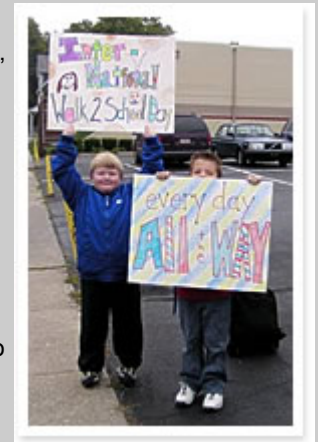
About International Walk to School Day and Month

It began as an idea

In 1997, the Partnership for a Walkable America sponsored the first National Walk Our Children to School Day in Chicago, modeled after the United Kingdom’s lead. Back then, it was simply a day to bring community leaders and children together to create awareness of the need for communities to be walkable.

It evolved into a movement

By the year 2002, children, parents, teachers and community leaders in all 50 states joined nearly 3 million walkers around the world to celebrate the second annual International Walk to School Day. The reasons for walking grew just as quickly as the event itself.



Whether your concern is [safer and improved streets](#), [healthier habits](#), or [cleaner air](#), Walk to School Day events are aimed at bringing forth permanent change to encourage a more walkable America — one community at a time.

Now it’s a priority



In 2005, new legislation recognized the value of [Safe Routes to School](#) programs and is providing funding for States to establish programs. Politicians and other government officials are paying attention to the importance of safe walking and biking to school. Obesity, concern for the environment and the effects of urban sprawl on communities has led to the joining of efforts among those that care about these and other related issues like school siting and traffic congestion

<http://www.walktoschool-usa.org/about/index.cfm>





Objective 2.03 Enhance enforcement of pedestrian traffic laws.

While enforcement alone cannot sustain appropriate driver and pedestrian behavior, enforcement activity can help support education and engineering efforts, especially when these efforts closely follow infrastructure improvement.

Action Items:

- Employ “roll-call” videos or other supplemental training to ensure that law enforcement officers are familiar with laws governing pedestrian-automobile interaction, especially laws related to unmarked crosswalks.
- Utilize available MPO crash data to efficiently deploy available enforcement resources.
- Provide law enforcement officers with pedestrian safety education materials to distribute along with warnings or citations.
- Coordinate pedestrian enforcement activities with overall neighborhood policing/ relationship-building efforts.
- Utilize available federal or local funds to provide enhanced law enforcement activities in conjunction with pedestrian safety projects.
- Incorporate the T² Pedestrian/Bicycle Law Enforcement Training Program into local agency law enforcement curriculum.

New Jersey Governor’s Pedestrian Safety Initiative:

In September 2006 Governor Jon Corzine announced an unprecedented **five-year, \$74 million program to reduce pedestrian risks** throughout the state by combining infrastructure improvements with enforcement and educational strategies. Resources are being targeted to areas of greatest need, based on improved data management systems that allow the state to monitor and map statewide pedestrian safety patterns.

A key element of the initiative is the **Pedestrian Safety Corridor program**, which targets selected corridors with a history of pedestrian safety problems for investigation and improvement. This program was modeled in part on an existing Safe Corridors program enacted in New Jersey in 2003, which couples intensive enforcement with engineering countermeasures for highway segments with high motor vehicle crash rates. The program design also drew on the experience of other states with corridor-based pedestrian safety programs, as well as federal guidance on zone-based approaches to pedestrian safety (Zone Guide for Pedestrian Safety, NHTSA/FHWA, 1998).

Other aspects of the program include:

- Pedestrian Safety Improvement Projects
- Pedestrian Law Enforcement
- Safe Routes to School
- Improved Driver Education
- Safe Streets to Transit Program
- Risk Prevention Through Pedestrian Planning

One early success is a significant increase in interagency coordination to address pedestrian safety as a shared problem. For example, **NJDOT and NJ Transit are working together to expedite priority pedestrian improvements** in the vicinity of bus stops on the pedestrian safety corridors.

Roll Call Videos

Informational videos played at the beginning of the day to educate police officers on the activities for the day.

T² Pedestrian/Bicycle Law Enforcement Training Program

This course educates law enforcement officers on Florida’s pedestrian and bicycle laws and trains them in the methods to educate motorist’s using traffic enforcement operations. Target audience is law enforcement and bicycle/pedestrian coordinators.





Goal 3: Manage competing objectives of efficient automobile travel and pedestrian safety and mobility through land use strategies.

Objective 3.01 Increase the non-automobile (i.e., walking, biking, and transit) mode share through pedestrian and transit oriented development and redevelopment.

Presently, many local agencies are implementing elements of transit oriented or traditional neighborhood design within their comprehensive plans and elements of their land development code. The action items included with this objective are by no means a comprehensive set of land development recommendations, but serve to highlight key points which can lead to a more pedestrian oriented built environment.

Action Items:

- Require shared driveways and/or cross-access provisions to reduce sidewalk conflict points.
- Identify mixed-use redevelopment corridors and require or encourage buildings to be oriented to pedestrian access. Non-residential buildings should be no more than 15 feet from the sidewalk such that the buildings are sited close to the street and parking is in the rear.
- Consider land development code landscaping requirements to plant shade trees along right-of-way (consistent with clear zone requirements).
- Implement land development code policies to enable developers to contribute towards pedestrian infrastructure, especially when roadway improvements are not feasible or not cost effective.

Livable Communities Model Land Development Code



**Pinellas County
Metropolitan Planning Organization
2008**

Through the Livable Communities Task Force, the Pinellas MPO has developed a set of model comprehensive plan policies and land development codes designed to implement livable community features in the design and construction of streetscape improvements and land development projects.





- Allow/encourage high-density, mixed use developments along major commercial corridors and/or mass transit corridors.
 - Consider density/intensity bonuses for combination residential/office or residential/commercial development.
 - Consider reduced parking requirements for mixed-use development and/or replace minimum parking requirements with maximum parking requirements.
 - Consider implementation of form-based zoning codes in areas or along corridors to require/support pedestrian and transit oriented development.
 - Establish multimodal transportation districts or concurrency exception areas where existing or planned density and diversity of land use can support alternative modes of travel. Evaluate strategies to implement recent State legislation (SB 360) which enables Pinellas County and the municipalities therein to waive transportation concurrency requirements and instead requires local agencies to develop mobility strategies which consider land use and alternative modes.
- Continue initiatives to improve mass transit to provide for travel between major residential, retail, and employment nodes thereby allowing transportation infrastructure decisions to focus less on maintaining capacity and focus more on addressing safety for all users.

Form-Based Zoning

Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The regulations and standards in Form-based codes, presented in both diagrams and words, are keyed to a *regulating plan* that designates the appropriate form and scale (and therefore, character) of development rather than only distinctions in land-use types.

<http://www.formbasedcodes.org/definition.html>

SB 360

Senate Bill 360 (2009) aka “Community Renewal Act” designates Pinellas and Hillsborough Counties (among others) as “Dense Urban Land Areas” eligible for exemption from transportation concurrency. Although the legislation raises growth management issues, the relaxation of concurrency reduces external pressures on local governments to widen roads in response to growth.

Transportation Concurrency

State of Florida requirement that transportation infrastructure necessary to maintain adopted level of service standards be in place (or programmed in local government capital improvement elements) concurrent with issuance of permits for development.





Objective 3.02 Improve pedestrian safety in parking lots.

Approximately 22% of Pinellas County pedestrian crashes occur in parking lots. While these crashes account for only 12% of fatal and incapacitating injuries (Figure 3.02a), parking lot crashes must nonetheless be a focus of the PSAP. For obvious reasons, the level of pedestrian and automobile interaction/exposure in parking lots is high. Design measures, however, can be undertaken to improve pedestrian safety. In addition to siting buildings close to roadways with parking in the rear, as discussed in Objective 3.01, improved parking lot design can reduce pedestrian/automobile conflicts.

Figure 3.02a: Pinellas County 2003-2007 Pedestrian Crash Location Distribution

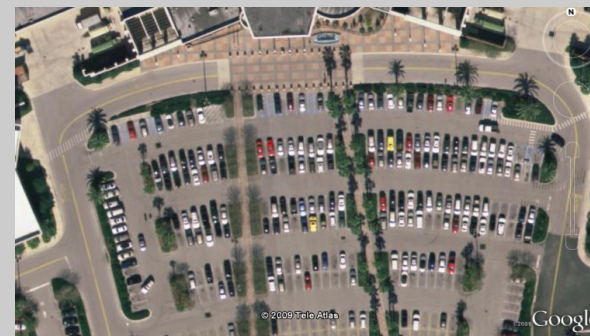
Roadway Type	Number of Pedestrian Crashes	Percent of Total	Number of Fatal and Incapacitating Crashes	Percent of Fatal and Incapacitating Total
Parking Lot	453	22%	79	12%
Major Road	1,235	59%	458	72%
Local Road	197	9%	55	9%
Unknown	197	9%	42	7%
Total	2,082	100%	634	100%

Figure 3.02b: Parking Lot Pedestrian Design Elements



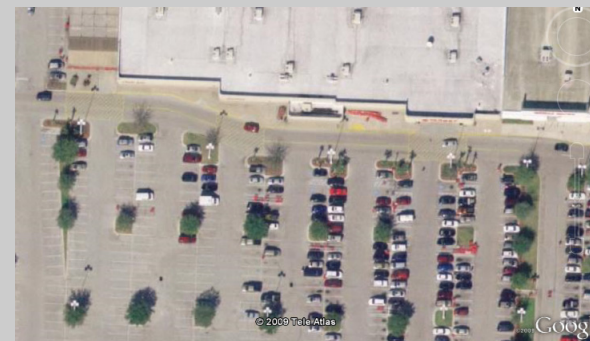
Graphic: Shape Sioux Falls Parking Policy - http://www.siouxfalls.org/Planning/ssf/dev_policies/parking

Figure 3.02c: Parking Lot Pedestrian Design Elements



Pedestrian Friendly Parking Lot Design Elements (Citrus Park Mall, FL)

- Parking rows oriented parallel to storefront, rows not accessed from storefront drive—reduces automobile volume and turning movements where pedestrian activity is most intense
- Pronounced storefront crosswalk feature
- Landscaped pedestrian walkways collect pedestrians from parking area and funnel them to the front door



Undesirable Parking Lot Design Elements (Waters Avenue Target Shopping Center, FL)

- Parking rows oriented perpendicular to storefront, rows accessed from storefront drive—increases automobile volume and turning movements where pedestrian activity is most intense
- Minimal storefront crosswalk features
- No pedestrian walkways to collect pedestrians from parking area and funnel them to the front door

Graphic: Google Earth, Hillsborough County, Florida





Action Items:

- Review current land development codes and determine whether pedestrian safety in parking lots and garages is adequately considered. Principal concerns include the following items:
 - Sidewalks/walkways connecting buildings to adjacent roads/public sidewalks,
 - Clearly designated pedestrian walkways to collect pedestrians in parking lots and garages and funnel them to their destination, and
 - Minimize use of area between storefronts and parking lanes (Figures 3.03b and c) for distribution and cross access.
 - Use appropriate treatments (e.g., crosswalks, signage, speed bumps, etc.) to enhance pedestrian safety in these high-traffic areas.

- Make necessary revisions to land development codes as discussed above.
 - Consider reducing required parking space requirements when necessary to implement measures to safely accommodate pedestrians.
 - When sites change use, are developed, or redeveloped, include pedestrian accommodation in parking lots in the site traffic impact review procedures or other standard development review process.

- Consider establishing a grant program to help businesses retrofit parking lot areas.





Goal 4: Coordinate 4E activities with the full support of elected and appointed leaders.

Objective 4.01 Fund 10-year pedestrian safety/mobility capital projects plan consistent with Goal 1 infrastructure priorities.

Improving pedestrian infrastructure, especially when not done as part of a roadway capacity or resurfacing project, can be costly. Representative costs for the infrastructure improvements discussed in Goal 1 are provided below.

- Construction of improved pedestrian crossings (complete with advanced warning signs and solar flashers, crosswalk pavement markings, and street lighting enhancements) can cost \$10,000 to \$25,000; signalized and semi-signalized crossings can cost up to \$50,000—more if full mast arms are required.
- Traffic control islands/pedestrian crossing islands can cost from \$5,000 to \$30,000.
- Installation of raised medians and major intersection geometric improvements can cost several hundred thousand dollars or more if right-of-way acquisition is required.

As shown in Map 4.01, between 6% and 10% of Pinellas County crashes occur in the St. Petersburg and Clearwater downtown areas. Of the remainder, over 40% of all pedestrian crashes occur along less than 5% percent of the County’s major roadway network. This represents less than 100 miles of roadways and about 200 signalized intersections.

This order of magnitude of improvements could total \$25 to \$30 million—more than double FDOT District 7’s annual district-wide Highway Safety Program (HSP) federal funding allocation. Though substantial, a \$25 to \$30 million, 10-year pedestrian safety capital improvement would be just over 3% of the County’s approximately \$80 million transportation capital infrastructure budget and is equivalent to the cost of adding one travel lane in each direction to 5 to 6 miles of urban roadway according to FDOT’s latest cost estimates (assuming no right-of-way costs).

Example unit costs and quantities to implement PSAP capital improvements:

Improvement	Estimated Unit Cost	Units	Quantity	Cost
Improved Crossing	\$25,000	Crossing	200	\$5,000,000
Major Intersection Improvement	\$250,000	Intersection	50	\$12,500,000
Lighting	\$400,000	Mile	20	\$8,000,000
Traffic Control Island	\$10,000	Crossing	150	\$1,500,000





Action Items:

- Include pedestrian safety as part of MPO planning process:
 - Explicitly consider pedestrian safety benefits as part of the Congestion Management System project selection criteria and other flexible fund project development and prioritization.
 - Consider pedestrian safety enhancements as part of Long Range Transportation Plan (LRTP) project development and prioritization.
- Identify and allocate available funding streams for pedestrian safety infrastructure improvements.
 - Establish annual “set aside” from FDOT controlled federal safety funds (recommend \$1 million per year).
 - Establish annual “set aside” from MPO and local agency flexible funds to match FDOT/HSP funding.
- Based on the County’s pedestrian crash experience (60% of all pedestrian crashes and over 70% of fatal and incapacitating injury pedestrian crashes occur along the major roadway network), consider redirecting components of local street sidewalk and neighborhood traffic calming annual budgets and staff/consultant resources to pedestrian safety infrastructure action items identified in Goal 1.
- Utilize the Bicycle/Pedestrian Coordinator position within the MPO to coordinate activities, monitor progress, and aggressively pursue federal and state grant funding for education and enforcement activities. Evaluate workload in context of existing responsibilities and consider supplemental staffing as necessary.
- Identify pedestrian safety “czars” within each transportation infrastructure agency and key education and enforcement agencies (i.e. Pinellas County Public Works, Municipal Public Works, Florida DOT, Pinellas County Sheriff, School Board of Pinellas County) and coordinate pedestrian safety activities as part of the Pedestrian Technical Advisory Committee or a sub-committee to the Pinellas County Community Traffic Safety Team (CTST).

Long Range Transportation Plan (LRTP)

Produced by the MPO, the Long Range Transportation Plan is a long-range (20+year) strategy and capital improvement program developed to guide the effective investment of public funds in multi modal transportation facilities

Community Traffic Safety Team (CTST)

Florida's Community Traffic Safety Teams (CTSTs) are locally based groups of highway safety advocates who are committed to solving traffic safety problems through a comprehensive, multi-jurisdictional, multi-disciplinary approach. Members include local city, county, state, and occasionally federal agencies, as well as private industry representatives and local citizens.

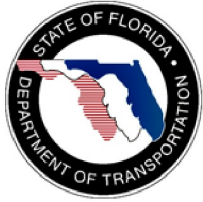
Flexible Funds

The Federal Transportation Funding Bill (SAFETEA-LU) Allows up to 10% of Highway Safety Program funds to be spent on non-infrastructure projects under certain circumstances.





Map 4.01 Pinellas County 40% Roadways



Legend

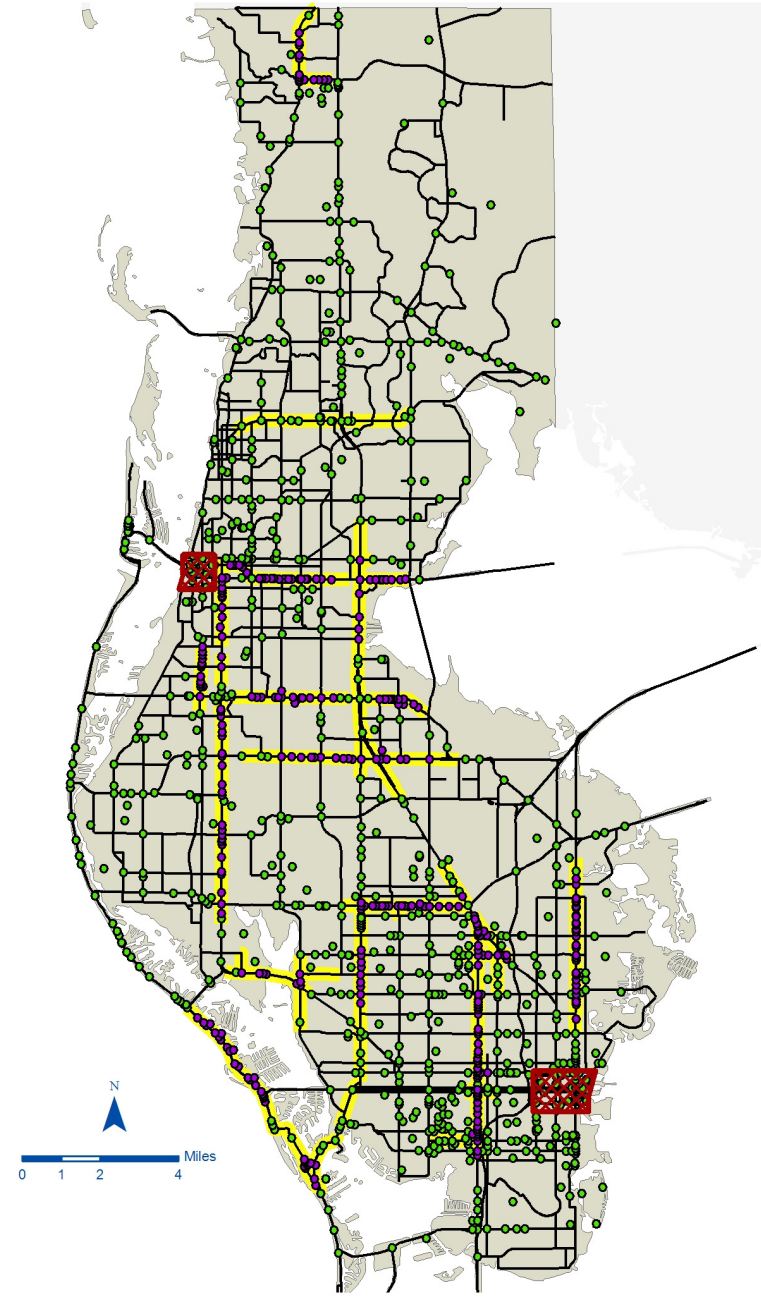
- █ 40% Roadways
- Major Roadways
- Local Roadways
- 40% Roadway Pedestrian Crashes
- Pedestrian Crashes
- CBDs
- Pinellas County

Accuracy: It is intended that the accuracy of this map comply with U.S. national map accuracy standards. However, such accuracy is not guaranteed. This map is for illustrative purposes only.

40% Roadways State Roads vs. Non-State Roads Roadway Mileage and Number of Signals

Roadway	Major Roadway Miles (Centerline)	% of Total Major Roadway Network	# of Signalized Intersections	% of Total Signalized Intersections
State Roads	71	77%	185	84%
Non-State Roads	21	23%	36	16%
Total	92	100%	221	100%

File: Map_3_40%_PedCrashes.mxd





Objective 4.02 Identify and take advantage of intra-agency and inter-agency opportunities for coordination; remove organizational barriers.

Public works improvements provide a permanent, public focal point for the implementation of the PSAP—but are only part of the solution. To capture the maximum value of education, enforcement, and engineering efforts, all three activities should be coordinated. Agencies must also make pedestrian safety part of their everyday business plans. Stand-alone capital improvements, education and enforcement activity are costly and limited resources are available.

Action Items:

- Conduct pedestrian safety audits prior to scoping roadway capacity and resurfacing projects along corridors with pedestrian crash concentrations or along transit routes; incorporate audit recommendations in design scopes; implement pedestrian safety improvements as warranted.
- Coordinate education and enforcement activities with corridor infrastructure improvements. As capital improvements are under construction at an intersection or along a roadway corridor, pedestrian safety information should be provided to transit route riders, local businesses, area residents, and drivers (via portable variable message signs or billboards) prior to installation of the pedestrian safety infrastructure. Upon project completion, law enforcement should be deployed to issue warnings/citations to help ensure driver and pedestrian compliance with traffic safety laws.
- The Pinellas MPO should continue to support law enforcement, engineering, and education agencies with timely, accurate pedestrian crash data in order to effectively deploy available resources.

- Coordinate with land development activities to implement public right-of-way and private property pedestrian safety/mobility enhancements.
 - Review site-plans for pedestrian safety issues—especially parking lot plans and pedestrian site access accommodation
 - Review comprehensive plan amendments for opportunities to enhance pedestrian safety/mitigate automobile/pedestrian conflicts.
- Fully utilize FHWA “Flexible Fund” allowances to fund education and enforcement activities as part of pedestrian safety infrastructure projects.
- Agency directors should review departmental and division performance measures and standard operating procedures to ensure that internal policies do not create “roadblocks” to implementing pedestrian safety 4E initiatives.
 - Consider whether resurfacing/rehabilitation programs provide sufficient opportunities to improve traffic safety—especially pedestrian safety.
 - Consider whether law enforcement performance measures reward officers not specifically assigned to traffic enforcement for conducting traffic safety stops.
 - Identify pedestrian safety improvement needs so that appropriate coordination can be undertaken within the land development review process.
 - Coordinate with traffic court judges and hearing officers to ensure that contested pedestrian safety-related traffic citations will be upheld to the same degree as other citations.





- Coordinate pedestrian safety infrastructure, education and enforcement activities with transit infrastructure.
 - In addition to prioritizing pedestrian crossing infrastructure improvements based on the location of existing transit shelters and higher volume transit stops, PSTA should coordinate with the roadway maintaining agency to evaluate whether a mid-block improved crossing can be installed at the transit shelter.
 - ◆ If a crossing is not feasible, PSTA should consider shifting the location of the planned shelter to a spot where an improved crossing can be installed, or, at a minimum, to a location where either a raised median or traffic control island is available to improve opportunities for safe crossing.
 - ◆ If an improved crossing is feasible, pedestrian safety information should be provided to transit route riders, local businesses, area residents, and drivers (via portable variable message signs) prior to installation of the improved crossing infrastructure. Once operational, law enforcement should be deployed to issue warnings/citations to help ensure driver and pedestrian compliance with traffic safety laws at the new crosswalk location.
 - If a roadway capacity or resurfacing project is planned along a transit route, the roadway maintaining agency should coordinate with PSTA to identify necessary and appropriate transit shelter access and crossing safety improvements.
 - If additional crossing conflicts are being created adjacent to transit stops (i.e., addition of through lanes or auxiliary lanes), the roadway maintaining agency should coordinate with PSTA to either provide improved crossing infrastructure, relocate impacted stops to safer locations, or re-align stops along the impacted corridor to optimize access and crossing safety.
 - Consider opportunities to use signalized and semi-signalized mid-block crossings in conjunction with transit vehicle bays to provide safe crossing opportunities and secure transit vehicles' reentry into the traffic stream.





Objective 4.03 Keep PSAP relevant and updated.

The Pedestrian Safety Action Plan includes long-term strategies and must remain in the focus of County leadership. Increased efforts to educate primary and secondary school children, implementation of land development policies to reduce automobile dependence and improve the pedestrian environment, and roadway design approaches to retrofit and reconstruct roadways consistent with the safety needs of pedestrians will occur over decades and are not likely to result in immediate “pay-offs.” Individuals within the many agencies responsible for implementing the Plan must step forward and be accountable for their individual contributions to help ensure progress is made over time. An accountability table has been included in Appendix H.

As the Plan is implemented, another certainty is change. Change in the nature of the pedestrian crash patterns, change in funding availability, and change in elected and appointed leaders are all inevitable over the coming years. To remain relevant, the PSAP must be updated to respond to changing facts while still maintaining the core principals of a coordinated multi-disciplinary approach.

Action Items:

- Evaluate success of individual objectives and action items on an annual basis; keep what works, modify or discard unproductive action items.
- Establish a Community Traffic Safety Team (CTST) sub-committee to monitor and promote the implementation of the PSAP.
- Provide quarterly updates to the MPO Pedestrian Technical Advisory Committee and annual updates to the MPO Board.
- Evaluate countywide pedestrian crash experience including crash locations and attributes. Compare to baseline data and analysis.
- Revise and update the PSAP as necessary/appropriate; recommend comprehensive updates prior to and in sequence with Pinellas MPO LRTPs.
- Establish department/division-specific accountability for measurable PSAP action items (e.g., intersections improved, mid-block crossings installed, school workshops held, warnings and citations issued).





APPENDIX A: Existing Conditions Inventory/PSAP Template

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
I. GOALS & OBJECTIVES					
<p>I-1. Clear goals are needed for a pedestrian plan to be successful in reducing pedestrian crashes and neighborhoods. It can be done electronically or on a simple pin map that is done by hand. Typically, five years of crash data should be displayed. In rapidly changing areas, three years might be appropriate. In older areas that are not changing, seven years may be appropriate. Once completed, it should be used to as a base line to focus resources and select counter measures.</p> <p>Do you have clearly stated goals for reducing pedestrian crashes and increasing the number of pedestrian trips? Yes / No If yes, state existing policy:</p>	<p>Yes. Reduce the rate of fatalities and serious injuries involving vulnerable road users (pedestrians, bicyclists, motorcyclists). Florida Statistic Highway Safety Plan Section 8-9</p>	<p>No. Not in the LRTP Safety Element and not for Pedestrian trips. The LRTP seeks to reduce accident occurrences by monitoring bicycle and pedestrian related crashes and working within the appropriate agencies to implement measures to reduce them. No specific analysis of crash data for pedestrian crashes. A primary goal of the MPO is a safe and energy efficient "multi-modal" and "inter-modal" transportation system that enhances the quality of life for the citizens of Pinellas County (Countywide Bicycle and Pedestrian Master Plan).</p>	<p>No. Have ideas, not goals as a Department. Idea, would be to build additional trails and sidewalks. Generally, it is Pinellas County's goal to provide completed sidewalk networks on all of its arterial and collector roadways and on major local streets that serve as school walk routes. This would in effect, increase pedestrian trips.</p>	<p>Yes. St. Petersburg City Trails Bicycle Pedestrian Master Plan Chapter 1 Goal 5 states: Enhance the safety of pedestrians and bicyclists in St. Petersburg. Objective 1.1 under this goal states: Reduce the pedestrian crash rate. The City's goal for participation in the Pinellas Community Traffic Safety Team states that Engineering members will analyze crash data, identifying and implementing countermeasures for crash reductions. Focus will be on but not limited to, improving safety at crosswalks, school zones, intersection, mid-block pedestrian & bicycle crashes and intersections with a high incidence of red-light running.</p>	<p>Yes. Clearwater Bicycle Pedestrian Master Plan (2006, not adopted) Objective 1-4: Provide safe and convenient crossings for all pedestrians. Objective 1-5: Encourage slower traffic to provide a safer environment on the roadways for bicyclists and pedestrians. Objective 1-6: Provide safe routes for our school children.</p>
<p>I-2. Reducing crashes and encouraging more walking accomplishes other objectives. If recognized and embraced, they help provide the rational for allocating resources to implement countermeasures that reduce crashes and create a pedestrian friendly community.</p> <p>Do you have clearly articulated objectives that can be accomplished by reducing crashes and encouraging walking? Yes / No If yes, state existing objectives:</p>	<p>Yes. Rate of fatalities and serious injuries per 100,000 population involving pedestrians and bicyclists. Rate of fatalities and serious injuries involving motorcycle riders per 100k licensed motorcyclists.</p>	<p>Yes. Reducing crashes and encouraging walking. Obesity, possibility others. This involves shifting the focus of the way streets and land development projects are designed to effectively address the needs of bicyclists and walkers. The concept is the central theme behind the livable communities initiative launched by the MPO through its Livable Communities Task Force in 2002 as part of the effort to update the Transportation Impact Fee Ordinance. Well designed communities in terms of land, street and building design provide quality of life benefits and encourage a healthy lifestyle. Page 9 in the Pedestrian Master Plan.</p>	<p>Yes. Our objective to encourage walking is quite simply to connect-the-dots; connecting people to places by building a comprehensive sidewalk system on our arterial and collector road system that links citizens with transit and utilitarian attractors thereby encouraging pedestrian and mass transit transportation modalities.</p>	<p>Yes. The City of St Petersburg has an Action Plan to implement the 2003 Bicycle Pedestrian Master Plan. Implementation began in 2003. The pedestrian crash rate has been reduced each year beginning in 2004 by an average of 17% annually from the previous year, or from 134 crashes to 91 crashes from 2004-2006.</p>	<p>Yes. Clearwater Bicycle Pedestrian Master Plan (2006, not adopted) Objective 1-1: Establish minimum bicycle and pedestrian level of service standards for roadways within the City of Clearwater. These minimum standards will ensure accommodation of bicycling and walking in all roadway and facility designs.</p>
II. DATA COLLECTION, ANALYSIS AND PRIORITIZATION					
<p>II-1. Identifying where crashes occur can be a cheap, easy way to identify high crash locations, corridors and neighborhoods. It can be done electronically or on a simple pin map that is done by hand. Typically, five years of crash data should be displayed. In rapidly changing areas, three years might be appropriate. In older areas that are not changing, seven years may be appropriate. Once completed, it should be used to as a base line to focus resources and select counter measures.</p> <p>Do you routinely collect pedestrian crash location data and display it on a map? Yes / No; do you use it to focus resources and select counter measures? Yes / No. If yes, state existing practice:</p>	<p>Yes. CDMS can query pedestrian on GIS map.</p>	<p>Yes and no. Comment: Can determine target locations for partner agencies, in process of getting collision diagram per intersection – not currently selecting countermeasures. This will be a part of LRTP Safety Element (Target year 2035) to be completed in 2008.</p>	<p>No. However, data and map is accessed through MPO. Not routinely, however. Data base is not scanned for pedestrian crashes. Citizen concern driven, except school. School areas are routinely scanned, counted.</p>	<p>Yes. The City maps pedestrian crash locations by using the PB Crash Analysis Tool. This tool allows the city to further define the specific crash type and helps to determine how to mitigate the circumstance which helped cause the crash.</p>	<p>No. Pedestrian crash data is used when needed for specific improvement projects, but not mapped routinely.</p>
<p>II-2. Computerized, timely, geo-coded pedestrian crash data is extremely useful to determine whether pedestrian crashes are occurring at a) spot locations, b) along corridors, c) in a neighborhood area, or d) throughout an entire jurisdiction (poor standard practice such as falling to install pedestrian indicators at signals), or e) among certain populations (e.g., children, older adults). Typically, five years of crash data should be displayed. In rapidly changing areas, three years might be appropriate. In older areas that are not changing, seven years may be appropriate. Once categorized, this information can be used to select countermeasures, focus resources, and set priorities for education and enforcement programs.</p> <p>The data can also be used in crash typing (see web reference to Ped/Safe Guide). Crash typing categorizes all crashes based on situational and behavioral circumstances and is a way to target countermeasures, education and enforcement programs at very specific types of crashes.</p> <p>Do you routinely collect and geo-code pedestrian crash data? Yes / No If yes, state existing practice:</p>	<p>Yes. All crash data including pedestrian and bicycle updated monthly.</p>	<p>Yes. Charles Shultz, Tindale-Oliver does this for the Pinellas MPO. PRIDE (prisoners) enter data using the Tindale Oliver program.</p>	<p>No. MPO does do this.</p>	<p>No. The City's Transportation Department does not receive crash information in detail from its Police Department to accurately geo-code.</p>	<p>No.</p>
<p>II-3. Pedestrian counts along with field observations (e.g., driver yielding, conflicts, and pedestrian assertiveness) can be very useful in understanding pedestrian behavior and in considering the need for facilities. Counts and behavior studies, when combined with crash data, can also provide insights into specific crash causes and potential countermeasures. On-site observations will often reveal behavior patterns that lead to design changes. Before and after counts can be used to measure success which in turn can be used to help secure funding. Pedestrian counts are also important to access when and where signals, stop signs and marked crosswalks should be installed.</p> <p>Do you routinely collect pedestrian counts and complete crossing observations? Yes/no State existing practice (how often?, how many sites?, same sites each year?, etc):</p>	<p>No. Done upon request, case by case. TMCs do not include ped count unless specified.</p>	<p>No. No manual turn movement counts are performed as part of machine counts which count AADTs. Pinellas Trail rangers do eyeball counts daily at 3 different locations using a converter ratio based on 15 minute counts done in intervals. No modes are being counted as part of the Trail ranger counts. A Pinellas Trail User Survey was completed in 2000 at a total of 6 Pinellas Trail location sites.</p>	<p>No. Done only on a citizen driven basis. Ped and bike data is collected as part of TMCs however. TMCs may be done for signal retiming, citizen concerns, etc. Done for schools on a routine basis.</p>	<p>Yes. The City has installed the Pedestrian Enhancer System at 19 locations. It performs 7-day counts after implementation. Additionally, it performs, 30, 60, 90, 120, 180, 270, 365 day and 2-year counts after implementation of the Enhancer System. This is done to prove that the Enhancer System is working as expected. Additionally, the City has purchased 2 cameras that store video on an SD card. They can count 24 hours of data. The cameras will be deployed at the remaining 60 crosswalk locations that do not have the Enhancer. Analysis will be done to determine if these locations are candidates for the Enhancer. Up until now, unless there were pedestrian issues or concerns, a count was not normally done.</p>	<p>No. Pedestrian counts and crossing observations are performed as needed and primarily used for school walk right of way. All Turn Movement Counts performed for the City include bicycle, pedestrian and truck counts.</p>
<p>II-4. Sidewalk inventories help identify system gaps and unsafe conditions. Sidewalk inventories can simply identify where sidewalks do or do not exist. More extensive sidewalk inventories assess the condition of existing sidewalks (frequently done for ADA purposes). When combined with crash data, pedestrian counts, behavior studies and traffic characteristics, they can be very useful in prioritizing locations for improving existing sidewalks, filling in short gaps between existing sidewalks and in installing new sidewalks.</p> <p>It is recognized that completing comprehensive sidewalk inventories can be expensive. When resources are scarce, an alternative approach is to inventory smaller areas focused around schools, neighborhood commercial areas, neighborhood centers and facilities that serve people with special needs.</p> <p>Do you have an inventory of your sidewalks? Yes / No; Do you have an inventory of the condition of your sidewalks? Yes / No; If yes, state existing practice:</p>	<p>Yes. District-wide pedestrian LOS in 2000. Related to RCI. If in RCI, updated every couple years.</p>	<p>Yes. Pinellas County now inventories sidewalks by aerial photograph. They are plotted where the sidewalk lays, and is a better indication of sidewalk location. Digitized by aerial. BCCIS will work with GIS department, functional class, road type, all characteristics. City/County maintained. Will now take another year. Current database applies to 2007, but has recent updates.</p>	<p>Yes. Public Works Operations, formerly Highway Dept, may have an inventory of condition, but not sure. List of all requests past ten years, internally and externally, have been prioritized. Sidewalk Priority Matrix housed in PW transportation. This limited list is developed by request only, not a needs assessment. The Planning Dept. did a sidewalk inventory map which shows where sidewalk exists and this information is also available on the GIS data base. However I can't speak to how often information is updated. This Division also keeps an inventory of completed sidewalk and ADA ramp projects and listings of gaps on our arterial and collector road system (more specifically where gaps exist within a 2-mile radius of an elementary school network). The MPO does have an inventory of sidewalks, based on the Planning Dept. inventory.</p>	<p>Yes. A sidewalk inventory was completed in April 2008 which shows where sidewalk is and where sidewalk is incomplete. A list of gaps has been created from the inventory.</p>	<p>Yes. Sidewalks are inventoried and mapped. The City map is a subset of the MPO sidewalk inventory map. The map details existing and missing sidewalk. Sidewalks are prioritized by need with school walk routes receiving highest priority. Connector, major thoroughfares and arterial roads have priority over local streets for sidewalk improvement. Level of Service (LOS) and Cost Benefit Analysis are considered when prioritizing sidewalk improvement.</p>
<p>II-5. Marked crosswalk (controlled and uncontrolled locations) inventories are needed to establish annual re-marking programs and to work with local transit agencies (wherever there is a transit stop, there needs to be a location to cross the roadway). When combined with crash data, pedestrian counts, behavior studies and traffic characteristics, they can be very useful in prioritizing locations for evaluating the crosswalk and then identifying measures to upgrade and improve the crosswalk. Maintaining an up to date inventory of marked crosswalks is particularly important since the majority of pedestrian crashes involve crossing the roadway.</p> <p>Do you have an inventory of your marked crosswalks? Yes / No If yes, state existing practice:</p>	<p>Yes and no. Signal location inventory does have marked crosswalk inventory where signals exist, but not for uncontrolled locations.</p>	<p>No. Pinellas County PW does not have inventory of crosswalks or traffic signals.</p>	<p>No. School crossings only, but not otherwise.</p>	<p>Yes. The City has a diagram which details the crosswalks that have the Enhancer and the 11 additional proposed locations. A star denotes the Enhancer location, a circle denotes a marked crosswalk.</p>	<p>Yes. Marked crosswalks are part of the manual markings inventory performed annually. This includes location and condition. Thermal plastic marking is typically used. The Sign Shop performs the inventory.</p>
<p>II-6. ADT (Average Daily Traffic), road widths (number of lanes) and speeds are three of the most important factors to consider when evaluating crosswalks. When combined with actual crash data and pedestrian counts, this information can be very useful in prioritizing locations for making crossing improvements and determining where to install new marked crosswalks.</p> <p>Do you have ADT, number of lanes and speeds information for your roadways? Yes / No; Do you use it to evaluate crosswalks, existing/proposed marked crosswalks? Yes / No. If yes, state existing practice:</p>	<p>Yes. Characteristics are a part of Roadway Characteristics Inventory (RCI). Information is used for crosswalk installation evaluation.</p>	<p>Yes. Annual Level of Service Document. Areas that should be considered when evaluating crosswalks or marked crosswalks include comfort level, why they use crosswalks, why they don't use the crosswalk.</p>	<p>Yes. MPO does through ADT. Speeds on GIS, but question of accuracy has not been updated.</p>	<p>Yes. This is done where information is needed that is then used to evaluate crosswalks. Also, the City uses the MPO LOS data to supplement. ADTs are used when considering the need for a crosswalk and/or Enhancer.</p>	<p>Yes. The City utilizes the annual MPO LOS update, the County PW Highway Inventory (Gina H) and Clearwater performs it's own version of the County's Highway Inventory. City ADTs include road classification the majority of the time.</p>
<p>II-7. Providing appropriate lighting at pedestrian crossing locations is one of the most important factors to consider when evaluating and improving crosswalks. A disproportion of pedestrian crashes occurs at night. When combined with actual crash data and pedestrian counts, information about lighting can be very useful in prioritizing locations for making lighting improvements.</p> <p>Do you have lighting information where there are roadway crossings? Yes / No; Do you use it to evaluate crosswalks, existing/proposed marked crosswalks? Yes / No. If yes, state existing practice:</p>	<p>Yes. Have Lighting Level Inventory (LLI). No. Not using to evaluate. Separate study done to evaluate lighting on case by case.</p>	<p>No. Case by Case basis. Lighting is being used in places such as Downtown Clearwater, Clearwater Beach, Downtown Palm Harbor. Pinellas County PW is working to develop policy for street lighting (PW - Karen).</p>	<p>No. Evaluated on per case basis, but no formal information.</p>	<p>Yes. Lighting information is part of a checklist the City uses when it evaluates a location for a crosswalk. However, the City inventory of streetlights is not used for this determination. A visual inspection is performed to determine proximity for lighting to the crosswalk, if trees are blocking the light, etc.</p>	<p>Yes. The City is luminated to Illumination Engineering Standards (I.E.S.) The City makes use of the Florida Progress Inventory of streetlights in Clearwater and has an agreement with Florida Progress as it relates to streetlight rental, energy, pole and maintenance.</p>

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

 Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
<p>II-8. Existing projects and programs should be a listed and described in one place to allow for overall agency coordination and to avoid duplication. Examples include programs to repair sidewalks, install new sidewalks, install new curb ramps, install countdown signals, upgrade crosswalks, implement safe routes to school programs and implement enforcement and education programs.</p> <p><input type="checkbox"/> Do you have an inventory of all pedestrian related programs and projects? Yes / No</p> <p><input type="checkbox"/> State existing projects and programs (include scope, budget and products).</p>	No	Yes. LRTP Safety Element and LRTP Cost Feasible Plan. Pedestrian Master Plan, TIP, CIP, Annual Budget. Public Works Department and other departments do not have an inventory of pedestrian related programs and projects.	Yes. These are listed in our Capital Improvement Program and individual priority lists. Countdown signals, Safe Routes To School annual basis funded by FDOT grant, Traffic Safety, Intersection Improvement. Development code requires new sidewalk on property frontage. General and ADA Sidewalk Program - in fiscal year 2008 approx. \$3,000,000 was allotted. This program provides for new sidewalk construction on our arterial and collector road system though some funding also is expended on our local street network. Pinellas County also has a MSTU Sidewalk Program. In fiscal year 2008, approx. \$1.1 million was allotted. This funding is typically directed to new sidewalk and ramp construction on local and local major streets and towards sidewalk repair. ADA upgrades are funded through both these programs.	Yes. The Annual CIP has several categories for related projects/programs including: Bike/Ped Programs - 200k annually, Traffic Safety (can be used for ped safety) - 200k annually. Penny for Pinellas \$ for previous 2 programs. Intersection Modification - 200k annually, Sidewalk Repair for new, infill only = 100k annually, money for upgrading Signing and Marking as well. Project to upgrade School Zones to 15 mph, flashing beacons, speed dilemma zone - 50 locations	No. Programs are housed in various departments including Parks, Public Works and Engineering, for example. Parks oversees trails, PW oversees sidewalk and Engineering oversees production.
<p>II-9. Pedestrian crash data along with other data (described earlier) should always be considered when prioritizing agency projects and programs. This will help ensure that all projects and programs make pedestrian improvements where appropriate. Since most pedestrian infrastructure is built in conjunction with other projects, inclusion of pedestrian crash data when prioritizing projects is of particular importance.</p> <p><input type="checkbox"/> Do you routinely consider (include) pedestrian crash data, along with other data, when prioritizing projects and programs? Yes / No</p>	Yes. The Crash Data Management System (CDMS) is used to access all crash types for appropriate subject. CDMS is used to determine trends. Pedestrian crash data is used when determining 3R project scope.	Yes. One of many steps used to evaluate projects. East Bay and Keene, Curlew and Alt 19, 119th/Ulmerton Road, St Pete Bch... all improvement projects are examples of use of the MPO process. US 19 task force.... Funded by appropriate agency.	No. Not waiting for crash data to make improvement. Using ped crash data as one factor when implementing project improvement such as Oakhurst Rd near Publix. School scenarios - into crash prevention. Ped crash data does not really drive decisions on project. Decisions based on demand, factors on both sides such as at Oakhurst Rd.	Yes. Pedestrian crash data is used to help prioritize which sites are improved.	No. All projects include pedestrian facilities regardless of crash data statistics, when improved.
<p>II-10. Prioritizing pedestrian safety improvements is the final step once all appropriate data has been collected. Priorities should be established based on a variety of factors including safety consequences, cost, travel demand, availability of right-of-way, federal and / or state mandates and public support. Countermeasures can be phased and divided into temporary or permanent improvements.</p> <p><input type="checkbox"/> Do you routinely prioritize (rank) pedestrian safety improvements based on crash data, along with other data? Yes / No</p> <p><input type="checkbox"/> If yes, state existing practice:</p>	Yes. Funding is 1 million annually. Part of Strategic Highway Safety Program. Ranked by crashes and other factors. Lee Royal. Just started doing.	No. Final ranking for high crash areas not based on pedestrian safety. Crash maps do not indicate specific areas in need. Crashes are everywhere, not grouped in clusters. PTAC does rate for pedestrian safety when considering funding allocation but not other MPO technical committees. No separate pedestrian safety priority list.	No. We prioritize sidewalk projects but crash data is not part of the matrix. We look at various criteria which include the following on our Collector and Arterials Roads: shoulder conditions, traffic counts, road classifications, links to attractors, links to existing networks and transit connectivity. On our Local and Local Major Streets: shoulder conditions, road classification, links to attractors (with points added if location is within 1/2 mile of a public school), transit connectivity, socio-economics, and density are included in this process. Emphasis is placed on shoulder conditions with additional points awarded to those locations where clear zone recommendations are not met.	Yes. Work priorities are determined based on where crash problems exist. The PB Crash Analysis Tool/Map is used. There is a 9 or 10 month lag on crash data. Previous years are considered for crash patterns. There is no need to rank. The funding is adequate to address any problem determined.	No. Pedestrian issues/concerns are addressed when a need arises and on an individual basis.
1. WALKING ALONG THE ROAD CRASHES					
<p>III-1. Paved shoulders provide room for pedestrians to walk away from traffic; they also provide room for bicyclists and increase safety for motor vehicle operators. To be effective paved shoulders should be 6' wide or more; 4' is considered the minimum acceptable width. Where parking is expected shoulders should be 8'. A painted (thermoplastic preferred) edge line should define the edge of the travel land next to the shoulder</p> <p><input type="checkbox"/> Do you routinely provide paved shoulders on rural highways and trunk roads? Yes / No</p> <p><input type="checkbox"/> If yes, state your existing policy (include width)</p>	Yes. Florida Statute 335.065 states "Bicycle and pedestrian ways along state roads and transportation facilities.-(1) (a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into state, regional and local transportation plans and programs. Bicycle and pedestrian ways shall be established in conjunction with the construction reconstruction, or other change of any state transportation facility, and special emphasis shall be given to projects in or within 1 mile (1.6 kilometers) of an urban area (b) Notwithstanding the provisions of paragraph (a), bicycle and pedestrian ways are not required to be established: (1) Where their establishment would be contrary to public safety; (2) When the cost would be excessively disproportionate to the need or probable use; (3) Where other available means or factors indicate an absence of need."	No policy for road shoulders.	No. Pavement restoration does not necessarily widen road. If County is to build the road, then paved shoulders are provided. Focus in on providing sidewalks and standards call for urban-type roadway design.	No rural cross sections in City.	No. All City streets are urban and have sidewalks as opposed to paved shoulders.
<p>III-2. Sidewalks reduce walk-along-the-road crashes by providing positive separation from traffic. Continuous and connected sidewalks are needed along both sides of roadways to prevent unnecessary roadway crossings. Sidewalks should be buffered with a planter strip to increase pedestrian safety and comfort; separation makes it easier to meet ADA requirements for a continuous level passage and for a clear passage around obstacles.</p> <p><input type="checkbox"/> Do you routinely provide sidewalks on urban and suburban arterials? Yes / No</p> <p><input type="checkbox"/> If yes, please state your policy:</p> <p><input type="checkbox"/> If so, what is the standard width?</p> <p><input type="checkbox"/> Are your sidewalks curb/curb or separated by a planting strip (furniture zone)?</p>	Yes. State Statute 335.065. Based on justification. Standard width: 5' or 6' if at back of curb Planting Strip or Curb/curb: Usually separated unless constricted by ROW.	Yes. MPO policy for sidewalk and bike lanes where feasible is required. Standard Width: Bike lanes urban - 4' and rural 5' Sidewalk 5' or 6' if against curb Planting Strip or Curb/curb: Both, depends on ROW. Separated as much as possible.	Yes. To construct sidewalk on our County arterial road network that will service 2 mile walk routes to County Elementary Schools, connect to utilitarian and transit attractors and respond to requested ADA upgrades. Standard width: 5' unless sidewalk is at back of curb then 6' Planting Strip or Curb/curb: Curb/curb or separated, both. Based available ROW	Yes. The City goal is to have sidewalk on at least one side of each street or both sides of street if possible. However, the City policy is not to build on County or State roads, unless a development project will allow such to take place. Standard Width: 5 feet with 5 feet separation. If against curb, 6 feet. Planting Strip or Curb/curb:	Yes. All development must provide for sidewalks on urban and suburban arterials. Standard Width: 4' local road, 5' arterial road Planting Strip or Curb/curb: This depends on ROW width
<p>III-3. Access management can be achieved through the installation of medians and a reduction in the number of driveways. Both countermeasures limit the number of left turns across sidewalks where pedestrians are vulnerable.</p> <p><input type="checkbox"/> Do you have an access management policy that is being implemented? Yes / No</p> <p><input type="checkbox"/> If yes, please state your policy.</p>	Yes. 14-97.003 Access Management Classification System and Standards. (1) The Classification System and Standards. This section provides a seven classification access management system to be used for all roads on the State Highway System. Single Category I connections, as defined in Rule Chapter 14-96, F.A.C., with expected peak hour two-way traffic of five vehicles or less may be exempt from the connection spacing requirements of this rule where the proposed connection can be shown, as part of the application process, as not creating a safety or operational hazard. The Department will, to the greatest extent possible, encourage joint use driveways and work with local governments to ensure individual residential driveways on State Highways are kept to a minimum. This exemption also means that these minor connections will not be considered in measuring the distance to other connections for their compliance with the spacing standards in this rule chapter.	Not applicable	Yes. Mirrors FDOT Access Mgmt policy. Access Management is part of the County Code and stipulates minimum spacing for median openings.	Yes. Zoning Department has oversight of Access Management. No roadways are access limited. The City determines where, when, how many, width restriction, number restriction through the Zoning Department. Sidewalk must be contiguous through the driveway and is installed on at least one side of all collector and arterial streets. Zoning uses a checklist.	Yes. access management considerations are a part of the City's Site Plan Review process. The Community Development Code Sec. 3-102 Access Management states: The separation between access points, median openings, and traffic signals shall be in accordance with the access management classification system of the Florida Department of Transportation (FDOT) rules, Chapter 14-96 and Chapter 14-97 and the requirements of this Section.
<p>III-4. Driveways should be designed to look like driveways, not roadway intersections: sidewalks should continue through the driveway, the level of the sidewalk should be maintained, and the driveway should be sloped so that the driver goes up and over the sidewalk. Driveways should be away from intersections. The number and width of driveways should be minimized.</p> <p><input type="checkbox"/> Do you routinely require that driveways be located away from intersections and designed to look like driveways, not intersections? Yes/No</p> <p><input type="checkbox"/> If yes, please state your policy.</p>	Yes. Driveways are not required to go up to where the sidewalk crosses. When restoring or reconstructing existing commercial turnout connections on new construction and reconstruction projects, the maximum 10% commercial grade may be exceeded provided this does not create any adverse roadway operational or safety impacts. This shall be approved by the District Design Engineer and be supported by documented site specific findings. FDOT Design Standard 515 summarizes geometric requirements for turnouts and addresses driveway sections on curbed facilities with sidewalks.	Not applicable	Yes. Pinellas County Community Development Code Chapter 154-107 states: Intersections shall be substantially at right angles on all streets and meet all state department of transportation sight distance requirements. At the intersection of any arterial road or collector road and another street, additional right-of-way in the form of a triangle 15 feet long on each leg shall be provided on all corners.	Yes. Zoning Department requires driveways be set back as far from intersection as possible.	Yes. The City Code requires location of driveways away from intersections.
<p>III-5. Roadway illumination greatly increases the driver's ability to see pedestrians walking along the road at night. Double-sided lighting should be provided along wide arterial roadways; this enables drivers to see pedestrians along the road, who may decide to cross anywhere, anytime.</p> <p><input type="checkbox"/> Do you routinely provide illumination on both sides of the roadway? Yes / No</p> <p><input type="checkbox"/> If yes, please state your policy.</p>	Yes and no. FDOT illuminates multi-lane roads. Does not illuminate 2-lane roads. Lighting zone is edge line to edge line and may not include sidewalk. Refer to K. Dunn for evaluation suggestion.	No.	No. It is an exception that it is provided at all, unfortunately. Roadway lighting is only provided at major signalized intersections. Stated policy relates to lighting can be provided at signalized intersections on County Collector and above roadway system where there has been night-time crashes. Received 20 requests to light up areas where students congregate for bus pickup.	No. Both sides of road are lighted depending on roadway width. One side may only be lighted where width dictates.	Yes. All street lighting in Clearwater is to I.E.S. standards by way of its agreement with Florida Progress. Street lighting is in a "Straight Across" or staggered pattern.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
2. Crossing the road crashes					
<p>III-6. Pedestrian accessible crossing islands reduce crashes substantially at uncontrolled locations, especially on busy multi-lane roadways where gaps are difficult to find. A properly designed island breaks an otherwise complex crossing maneuver into two easier steps: a pedestrian looks left, finds an acceptable gap in one direction, crosses to the island, then looks right and finds a second gap.</p> <p>Ø Do you routinely provide pedestrian accessible crossing islands at identified crossing points? Yes / No Ø If yes, please state your policy.</p>	Yes. Trying to provide refuge islands for 3-lane roadways or greater.	No, the MPO does not have opportunity to influence. Not routinely provided.	No. Started to provide based on need, such as Oakhurst Road, Park Blvd, relocated crossing. Gulfport Blvd at Pasadena Road, east of Pasadena, going to do median island. 3 lane undivided Alt 19, Palm Harbor U, previously did not have a divider - refuge will be provide. Gulfport Blvd already had medians, reshaped. This has been accomplished in some locations but is not a policy.	Yes. Enhanced crosswalks receive medians if space permits. Depends on number of lanes (5 lanes would receive medians, maybe not 4 lanes however).	No. Provided as needed.
<p>III-7. Curb extensions reduce the total crossing distance on roadways with on-roadway parking and increase visibility; the waiting pedestrian can better see approaching traffic and drivers can better see pedestrians waiting to cross the road, as their view is no longer blocked by parked cars.</p> <p>Ø Do you routinely provide curb extensions at identified crossing points? Yes / No Ø If yes, please state your policy.</p>	No. Done on a case by case basis. Parking is not permitted on most state roadways.	Not applicable	No. On-street parking is not typical on County roads. Curb extensions were included in the Palm Harbor downtown Project.	Yes. Done through the development process. There is funding in the CIP at 60k annually for curb extensions in the downtown area. The money provides for one curb extension annually. A map exists for downtown of existing curb extensions, ones developers are doing and missing (prioritized). 1st and 2nd Streets are priority. 200k cumulative will be implemented in 2008.	Yes. The Transportation/Traffic Division policy is to provide curb extensions at all identified crossing points.
<p>III-8. Crosswalk area illumination greatly increases the driver's ability to see pedestrians crossing the road. Increased lighting should be provided at identified primary crossing points.</p> <p>Ø Do you routinely provide illumination at primary crossing points? Yes / No Ø If yes, please state your policy.</p>	No. Consider if it is a non-illuminated section and approving a mid-block, then should be illuminated.	Not applicable	No. Based on need or demand only. Thus far, only at signalized intersections.	Yes. Comprehensive Plan Transportation Element Transportation System Safety and Efficiency Issue Policy T5.8 states: The City shall support the installation of pedestrian and street lighting along major roadways, and in areas occupied by transit terminals, bus stops and where heavy bicycle and pedestrian activity occurs.	Yes. Street lighting on all City streets is to I.E.S. standards. Crossing are located near streetlights. Typically, crossings are approved based on existing location of lighting.
3. Popular Crossing Countermeasures & how to improve them					
The public often responds to a tragic pedestrian crash with a call for an immediate solution. Commonly requested solutions include traffic signals, flashers, overcrossings or undercrossings, or marked crosswalks. While these can be effective solutions in certain places, in some instances they are not appropriate or effective.					
A. Traffic Signals:					
The primary purpose of a traffic signal is to assign right-of-way and create gaps in traffic that otherwise would be hard to find. The MUTCD warns against the overuse of signals for a variety of reasons. Inappropriate traffic signals may increase crashes. Traffic signals are expensive, from \$70,000 to \$300,000 for one intersection, not including any associated road widening.					
But in some cases, the only solution to crossing a busy roadway is to install a pedestrian crossing signal. This is especially true in locations where there is no other signal for a quarter of a mile or more in an area with lots of pedestrian activity.					
<p>III-9. Traffic signals at intersections may be the only way to create a gap for pedestrians to cross busy multi-lane highways with significant volumes. Since it's difficult to meet MUTCD warrants for a pedestrian signal based solely on existing pedestrian counts, it may be necessary to anticipate how many pedestrians might cross once a signal is installed.</p> <p>Ø Do you install traffic signals based on anticipated pedestrian volumes? Yes / No Ø If yes, please state your policy.</p>	No. Would have to be a very strong case.	No. Case by case basis. 34th Street at Gibbs H.S./Pinellas Trail is a recent example.	No. Ped volume for school - 150th Ave and 58th St. Highpoint Elementary. Existing 4-way stop with left turns on all approaches. Crossing guards have fun. Belcher at Sutherland Elementary. Community and school based projected need for pedestrians.	No. Must meet warrant of 107 pedestrians during a 4 hour period. Minimum vehicle warrants also must be met.	No. All traffic signals installed take into account pedestrians and pedestrian features our provided. All City intersections now have countdown LED pedestrian signals.
<p>III-10. A mid-block, two-stage traffic signal at a crossing island helps reduce impacts on motor vehicle flow while helping the pedestrian cross multi-lane roadways. The pedestrian stops one direction of traffic at a time, and the two crossings are separated with a fenced-in median island</p> <p>Ø Do you install mid-block, two-stage traffic signals on multi-lane roadways? Yes / No Ø If yes, please state your policy.</p>	No.	Not applicable	No.	No. Not enough pedestrian volume at one location to meet signal warrant for pedestrians alone.	No.
B. Over or Under-Crossings:					
<p>III-11. Although overcrossings or undercrossings are appealing because they create complete separation of pedestrians from motor vehicle traffic, in practice this rarely occurs because:</p> <p>a) Overcrossings and undercrossings are expensive and cannot be provided at most locations where pedestrians want to cross. b) Undercrossing are often prone to security problems due to low visibility c) The out-of-distance travel is so inconvenient many pedestrians will refuse to walk this extra distance and cross at-grade. d) Overcrossings or undercrossings are seldom used, and drivers are frustrated when they see pedestrians crossing in the vicinity of an overcrossing or undercrossing; this in turn increases the risk to pedestrians crossing at-grade.</p> <p>The high cost of an overcrossing or undercrossing makes them impractical for all but a few locations. Overcrossings and undercrossings should only be considered at locations where there are high pedestrian volumes, no other alternatives and topography allows easy access. (river crossings, depressed highway/railways).</p> <p>Ø Do you install separated crossings based on well-defined criteria? Yes / No Ø If yes, please state your policy</p>	Yes. Based on traffic and pedestrian volumes. Primarily at trails when funding is made available.	Yes. Based on well-defined criteria, public need, public support, FDOT cooperation. Pinellas Trail, Curlew Road west of McMullen Booth Rd elementary, Madeira Beach Elementary, 22nd Ave over interstate, N of 38th Ave on 34th St are examples of overpasses/underpasses.	Yes. Trail primarily, but considered pedestrian only crossings.	No. Done because of development related projects such as I-275, Tropicana Field. National criteria is used, other than Pinellas Trail. The overpass near Gibbs HS is to be removed, it is not used. The City did initiate the 34th St overpass for the Pinellas Trail based on volumes. Other overpasses on the Trail include Park St, 38th Ave, Central Ave, and 66th St.	No.
C. Crosswalk Enhancements:					
<p>III-12. It is important to create safe places for pedestrians to cross roadways at regular intervals. Un-signalized location marked crosswalks should only be installed where there is an expectation of a significant number of pedestrians such as near a school, park or other generator. Without the associated features mentioned so far (signage, islands, curb extensions, illumination etc.), marked crosswalks on their own do not necessarily increase or decrease the security of a pedestrian crossing the roadway, if placed with the following criteria.</p> <p>Two-lane roads: No significant difference in crashes Multilane roads (3 or more lanes): Under 12,000 ADT: no significant difference in crashes Over 12,000 ADT without median: crashes marked > crashes unmarked Over 15,000 ADT & with median: crashes marked > crashes unmarked</p> <p>The study also made the following observations: Medians reduce crashes by 40% Pedestrians over 65 are over-represented in crashes relative to crossing volumes No evidence was found to indicate that pedestrians are less vigilant in marked crosswalks.</p> <p>Ø Do you have a program for evaluating, upgrading and installing marked crosswalks at unsignalized locations? Yes / No Ø If yes, please state your policy:</p>	Yes. Crosswalks are evaluated on an individual basis. Type of data considered in crosswalk evaluation include pedestrian and vehicle volume, # of lanes, crashes, location of proposed crosswalk, vehicle speeds and gap study.	Not applicable	No. Citizen complaint driven. We don't mark unsignalized crossings as a general rule, but they do exist. A study would have been done to back up the need. Seven going in on Gulf Blvd in Indian Rocks Bch. City request, no study. Unsignalized, intersection crosswalks.	Yes. St Petersburg standard is high visibility thermal crosswalk. This is a departmental practice, not a policy which city council has formally approved. The crosswalks have the ladder effect. All crosswalks in the City will eventually be upgraded to the high visibility thermal standard. The City does not necessarily follow the state and national policy for crosswalk visibility as it relates to volume requirement. The City tends to be more flexible.	Yes. Unsignalized marked crossings have high visibility markings, advanced pedestrian signage and pedestrian signage including yield to pedestrian and stop for pedestrian signage. This is done as part of the program for upgrading mid-block crossings, which may include flashers and distinct types of pushbuttons. If a crossing does get placed in an unsignalized area, it must meet very strict criteria and is now somewhat minimal.
<p>III-13. Textured and/or colored crosswalks are another popular request. Things to consider: In reality, they are less visible to drivers than white marked crosswalks, may create maintenance problems, and are difficult for pedestrians with disabilities to negotiate. Painted are preferable to texture. Textured crosswalks to slow vehicles should not be used. Consider use of speed tables (not humps) instead.</p> <p>Ø Do you routinely install textured and/or colored crosswalks? Yes / No Ø If yes, please state your policy:</p>	No. Standard Specification 523 references low volume roadways. The local agency must agree to maintain. For the purpose of this Specification, patterns are defined as visible surface markings: imprinted textures are defined as palpable surface markings. Use the location, pattern/texture type (brick, stone, etc.), and coating color as specified in the plans. Joint openings shall not exceed 1/2 inch in width.	Not applicable	No.	No. Downtown policy only.	No. However, the City does have paver crosswalks framed by white thermal marking on concrete bands at the new Beachwalk, on Clearwater Beach. Also, on Cleveland St as part of new downtown landscape. Keene Rd/Cleveland St uses impressed brick crosswalk.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
<p>III-14. High visibility crosswalk markings ensure that drivers see the crosswalk, not just the pedestrian.</p> <p>Ø Do you routinely install high-visibility crosswalks? Yes / No Ø If yes, please state your policy:</p>	Yes. Current D7 standard. High emphasis marking at all crosswalks other than textured.	Yes. All crosswalks are now high-visibility.	Yes. Following FDOT's/D7 policy. Everything installed is High Visibility including always at schools. Policy may be located in Traffic Engineering Manual. Check US 19 final ped study.	Yes. See above respons in III-12.	Yes. Division policy is to install high-visibility crosswalks.
<p>III-15. High Visibility Crosswalk Markings with advance stop bar (or yield line) at uncontrolled intersections help prevent "multiple-threat" crashes on multi-lane roadways: a driver in the outside lane stops to let a pedestrian cross, but so close to the crosswalk as to mask a driver in the adjacent lane who is not slowing down; the 2nd driver does not have time to react and the pedestrian is struck at high speed. The advance stop bar (or yield line) requires the 1st driver to stop back 30 feet (+/-) so the pedestrian can see if a driver in the 2nd lane is not stopping. This enables the pedestrian to wait, or even pull back if he has started to proceed into the 2nd lane.</p> <p>Yield for Uncontrolled/ Stop at Controlled Intersection</p> <p>Ø Do you routinely install advance stop bars (w/signs) at crosswalks on multi-lane roadways? Yes / No Ø If yes, please state your policy:</p>	No. As law is implemented, this policy may change. Currently not using advanced yield line because it is considered additional pavement marking. The contractor only keeps up with existing projects, now contracted for new - related to pavement marking.	Not applicable	Yes. In accordance with MUTCD and FDOT Index.	No. Advanced yield bars have been installed and have not been converted to advance stop bars. This will be easy to update to conform to new law.	Yes. Stop bars/yield lines are installed where mid-block crossings are placed.
<p>III-16. Proper signing increases the driver's awareness of a pedestrian crossing. Best practice includes Advanced and at crosswalk MUTCD-compliant fluorescent green walking pedestrian signs</p> <p>Ø Do you routinely provide required MUTCD signing at pedestrian crossings? Yes / No Ø If yes, please state your policy:</p>	Yes. High visibility crosswalks are currently the FDOT standard. Provide advanced warning signs and warning signs at crosswalks.	Yes. See PW response.	Yes. In accordance with MUTCD and FDOT Index. Always at school locations.	Yes. Signs have been upgraded to MUTCD compliant fluorescent green pedestrian in all school zones.	Yes. Used at unsignalized intersection crossings and at mid-block crossings. Mid-block crossings also have stop bars/yield lines with associated signage.
<p>III-17. Removable Signs</p> <p>Mid-road State Law Yield to Pedestrian removable signs [with school crossings] Often used with flagger training for safe installation and</p> <p>Ø Do you routinely use Mid-road State Law Yield to Pedestrian removable signs [with school crossings]? Yes / No Ø If yes, please state your policy:</p>	No.	No.	Yes. At multi-lane roadways - by PSO. One exists at Ridgecrest. Racetrack Rd has them in Hillsborough County.	No. Experimented with these at six intersections. Signs run over too many times. Trying one additional site on 2nd Ave S near St Pete Times with signs set at edge lines and making use of white flexible posts.	No.
4. Intersection Geometry:					
<p>III-18. Intersection geometry has a profound effect on pedestrian safety as it determines to a large extent whether or not drivers will perceive pedestrians, the length of crosswalks, and the speed of approaching and turning vehicles.</p> <p>Ø Do you have an intersection design policy that takes pedestrian safety into account? Yes / No Ø If yes, please state your policy:</p>	Yes. Designs where there is a concrete island separating the right turns. The pedestrian crossing is marked at the mid-point of the curve. Crossings should be moved as far to the beginning of the curve as possible, allowing for the maximum pedestrian visibility. This puts driver in slow down mode. Visibility should be top priority when determining a crosswalk. See Florida Intersection Design Guideline 2007.	Not applicable	No. Plan review comments - Sidewalk at ROW line. Come up to intersection, angled down toward intersection. Design consideration, but not enforceable. Nothing in terms of intersection radius, islands, ped safety into consideration. Many crosswalks have had to be redesigned after implementation.	Yes. Department practice is used when implementing improvements using the annual CIP Intersection Modification funds. This practice includes radius type, minimizing crossing distances, use of median islands, removing right turn slip-off lanes and incorporating into intersection.	Yes. Division policy dictates that all intersections are designed to accommodate pedestrian needs.
<p>III-19. Tighter radii benefit pedestrians by shortening the crossing distance, bringing crosswalks closer to the intersection, increasing visibility of pedestrians, and slowing right-turning vehicles. The appropriate radius must be calculated for each corner of an intersection; difficult turns occasionally occur (for example a large moving truck turning onto a local roadway using a part of another lane). (See design manual p. 28) [Medium list]</p> <p>Ø Do you routinely encourage tight radii at urban/suburban intersections? Yes / No See: [link to Seattle language] – tighter as norm, considerations for changing turning radii when truck or bus route – (for arterial-arterial, arterial-non-arterial, residential-residential) Design speed is an important factor.</p> <p>Ø If yes, please state your policy:</p>	No. See Florida Intersection Design Guideline 2007. Provisions for pedestrian and bicycle traffic should be incorporated into the original intersection design. All new or major reconstruction projects should be designed with the consideration that pedestrians and bicyclists will use them. Decisions on appropriate pedestrian and bicycle facilities shall be determined with input from the District Pedestrian/Bicycle Coordinators and District Americans with Disabilities Act (ADA) Coordinators. Return radii at an intersection must balance the needs of the pedestrian and the design vehicle. Large radii are needed to accommodate a vehicle's turning ability while small radii are needed to minimize the crossing distance for pedestrians. In urban areas, where a parking lane is present, curb extensions may be used to minimize the crossing distance. Ch.3, Section 3.5 for Pedestrian Considerations	Not applicable	No. Design consideration, intersection by intersection.	Yes. Design vehicle used is a City Solid Waste vehicle. The City feels there is nothing wrong with driving over the center line, traffic is generally light enough.	Yes. Radii is based on a multitude of factors. There is no room in the division policy for a one solution fits all approach. The division policy is unwritten.
<p>III-20. Lamb/Pork-chop shaped islands between an exclusive right-turn lane and through lanes shorten the crossing distance, reduce pedestrian exposure and improve signal timing. The island enables pedestrians and drivers to negotiate one conflict separately from another. The island should have the longer tail pointing upstream to the approaching right-turn driver; so drivers approach at close to 90° and are looking at the crosswalk. The crosswalk is placed one car length back from the intersecting roadway so the driver can move forward once the pedestrian conflict has been resolved. The right-tuning driver can focus on traffic and the pedestrian can focus on cross or through traffic. [Long list]</p> <p>Ø Do you routinely provide pedestrian-friendly pork chop shaped islands (long tail design) at right-turn lanes? Yes / No Ø If yes, please state your policy:</p>	Yes. Good sense and judgement. Based on ROW. Radii determined by available ROW. If large sweeping radius, install island. If not then don't. All state highways are designated truck routes.	Not applicable	No. Design consideration, intersection by intersection.	Yes. See above department standard. The City practice removes right turn slip-off lanes and incorporates into intersection.	Yes. Radii is based on a multitude of factors. There is no room in the division policy for a one solution fits all approach. The division policy is unwritten.
<p>III-21. Median islands channelize and slow down left-turning vehicles. An island provides pedestrians a refuge for long, unsignalized crossings or if a conflict cannot be avoided, though signalized intersections should be designed to allow pedestrians to cross the entire roadway during a single signal cycle.</p> <p>Ø Do you routinely provide pedestrian accessible median islands at intersections? Yes / No Ø If yes, please state your policy:</p>	Yes. Use the Florida Pedestrian Planning and Design Handbook (guidebook) Chapter 9 and FHWA Guide. This is not a specific policy. The typical conditions where refuge islands can provide the greatest benefit, and thus are recommended, include: " Complex or irregularly shaped intersections where islands could provide a pedestrian with the opportunity to rest and become oriented to the flow of oncoming traffic." " Wide, two-way streets (four lanes or more) with high traffic volumes, high travel speeds, and large pedestrian volumes;" " Wide streets where the elderly, people with disabilities, and children cross regularly;" " Wide, two-way intersections with high traffic volume and significant numbers of crossing pedestrians; and " Low volume side street traffic demands with insufficient green time to cross.	Not applicable	No. Do not extend median nose, then provide break, somebody in wheel chair would be provided access. Only done based on geometric constraint.	Yes. See above standard which incorporates use of median islands at intersections.	Yes. Performed as needed and guided by same unwritten Division policy as explained above.
<p>III-22. Proper Curb ramp placement and design ensures that all users cross in crosswalks, close to the intersection, where drivers can see them, and without undue delay.</p> <p>Curb ramps aligned with crosswalk direction of travel – two preferable to one. Ramps (wings not included) must be wholly contained within the marked crosswalk. Poorly placed or oriented ramps force wheelchair users to make long detours and they may not cross in the allotted time at a signalized intersection; they may be crossing outside the crosswalk lines where drivers don't expect them. [Short list]</p> <p>Ø Do you routinely provide crosswalks and ramps at all corners of all intersections (as required by ADA or if not, is this within your ADA Transition Plan)? Yes / No Ø If yes, please state your policy:</p>	Yes. Even if a sidewalk is not currently in place, ramp installed prior to sidewalk. Ramp per corner is norm, in-line with crosswalk ramp orientation.	Not applicable	No ADA Transition Plan. Ramps put in. Crosswalks not in at unsignalized intersections. Question to what ADA requires. Tyrone Elementary example... landing area needed, place to turn. Ramp on one side street.	Yes. The ADA Transition Program is an Engineering Department program whereby intersections get upgraded to include ADA ramp and sidewalk connections.	Yes. The FDOT Curb Ramp policy is followed and implemented. Crosswalks are routinely provided at corners of all signalized intersections.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
5. Signalized intersections: All signalized intersections where pedestrians are reasonably expected to cross should have the following characteristics.					
<p>III-23. Pedestrian signal indications to ensure pedestrians know when the signal phasing allows them to cross, and when they should not be crossing. On one-way roadways a pedestrian approaching from the opposite direction cannot see the vehicle signal heads and may not realize an intersection is signalized, nor know when it is safe to cross. Left turn arrows are not visible to the pedestrian. [Short list]</p> <p>Do you routinely provide ped signal indicators at signalized intersections? Yes / No If yes, please state your policy:</p>	Yes. Provided at all new signalized intersections. Implementing for existing signals.	Yes. See PW response.	Yes. New installations are receiving ped signal indicators at signalized intersections. Not many new signals in County but it is being done when this occurs. No actual statement in code.	Yes. Pedestrian signal indicators are provided at signalized intersections.	Yes. All traffic signals receive countdown LED pedestrian signals.
<p>III-24. Marked crosswalks indicate to the driver where to expect pedestrians and help keep the crossing area clear of vehicles. All legs of a signalized intersection should be marked. [Add sentence] Considerations include one walk roadways, lack of pedestrian facilities on one leg [Medium list]</p> <p>Do you routinely provide marked crosswalks at signalized intersections? Yes / No If yes, please state your policy:</p>	Yes. District Seven Traffic Design Guideline. All signalized pedestrian crossings have high emphasis crosswalk markings.	Yes. See PW response.	Yes. New installations, no standard or policy. No transition plan to inventory or retrofit others. Citizen complaint driven.	Policy stated above. High visibility, ladder effect. Crosswalks get updated as roads get bike lanes - part of a state grant.	Yes. All have high visibility markings and yes, routinely provided at signalized intersections.
<p>III-25. A WALK signal long enough to get pedestrians started and a clearance interval long enough to ensure a pedestrian can fully cross the roadway. The new MUTCD is 3.5 ft. /sec. is assumed adequate though 2.8 ft. /sec. is CA MUTCD- appropriate at some locations. [Short list-urban; medium list - rural;-long list all urban] What is your standard? Do you use the variability allowed by CA-MUTCD based on the characterization of your pedestrians</p> <p>Yes / No If yes, please state your policy:</p>	Yes. 3.5 feet per second is standard. High elderly 3.0 feet per second.	Yes. 3.5 feet per second	Yes. Using 3.5 feet second, some school areas, using 3.0 based on need. Complex signalization.	Yes. Standard walk time is 3.5 ft/sec. Senior areas receive 3.0 ft/sec and pedestrian audible receive 3.0 ft/sec	Yes. Standard clearance is 3.5 feet per second. However, a unique pedestrian need may require a variation, such as school crossings or elderly crossing. That clearance time would then be 2.8 feet per second.
<p>III-26. Location of Push B-buttons placed where a pedestrian who is in a wheelchair or is visually impaired can easily reach them, and that clearly indicate which crosswalk the button regulates Where a preset cycle operates, push buttons are not needed in downtown/central business districts and other area of high pedestrian use where pedestrians can be expected at every signal cycle [medium list]</p> <p>How do you routinely ensure that pedestrian push buttons are placed where they can be reached? Yes / No If yes, please state your policy: Do you routinely avoid using pedestrian push buttons in downtown/central business districts and other areas of high pedestrian use? Yes/No</p>	Yes. Designed by ADA requirements/standard.	Not applicable	Yes. Signal design for MUTCD standards and ADA. No automated call-ups on mainlines downtown. No real CBDs in Pinellas County. Must push button in downtown areas.	Yes. Placement information cards are pointed in correct direction, sidewalk accessible, upgrading locations where needed. Important that pushbutton is placed appropriately. Sidewalk relocation is sometimes necessary in relation to pushbuttons. No. City is using pedestrian push buttons in the downtown area. However, signals run on fixed time and pedestrian must activate push button.	Yes. Location of pedestrian pushbuttons are installed using FDOT and ADA standards. No. The City is currently considering using an exclusive pedestrian phase downtown at Cleveland Street and Ft Harrison.
<p>III-27. Protected left-turn phases that allow pedestrians to cross without interference from left-turning drivers; red (then green) left turn arrows make it clear to drivers they must wait before turning (especially important where there are double right or double left turns).</p> <p>Do you routinely provide protected left turns at signalized intersections? Yes / No If yes, please state your policy:</p>	Yes. Restricted left turns are installed where warranted.	Not applicable	No. Based on demand. Typically go less restrictive to most restrictive. No policy that states crossing 3 lanes of traffic, must be protected, for example.	Yes. Provided where appropriate and needed.	Yes. Protected permissive and protected turn arrows are installed where 10% or greater of the approach volume is left turns that is the trigger for left turn arrows..
<p>III-28. Lead Pedestrian Interval (LPI) reduces conflicts between turning vehicles and pedestrians when turning vehicles encroach onto the crosswalk before pedestrians leave the curb. The LPI releases pedestrians 3-5 seconds prior to the green light for vehicles so pedestrians can enter and occupy the crosswalk before turning drivers enter it.</p> <p>Do you provide a LPI at signalized intersections with known turning conflicts? Yes / No If yes, please state your policy:</p>	Yes. LPI installed where warranted.	Not applicable	No	No. One intersection was done as an experiment at 1st Ave N and 4th St	Yes. Can be done where warranted. Possibly Pinellas St and Ft Harrison intersection. No current locations have this scenario.
<p>III-29. Pedestrian countdown signal (likely required 2009) tells the pedestrian how much time is left in the pedestrian clearance interval and encourages pedestrians to finish crossing before the crossing time runs out, and reduces the number of pedestrians who initiate a crossing too late in the cycle. [Short list]</p> <p>Do you provide countdowns at signalized intersections where it would help? Yes / No If yes, please state your policy:</p>	Yes. Policy is that FDOT supplies to maintaining agencies. The maintaining agency installs. They are the standard for new traffic signals. All pedestrian signals are now countdown.	Yes. Public Works Department policy. Bicycle and Pedestrian Master Plan encourages this effort.	Yes. Ped countdown signals at all intersections. Department standard requires. FDOT Standard.	Yes. All intersections have been upgraded.	Yes. All pedestrian signals have LED countdowns.
6. Other techniques to slow traffic					
<p>III-30. Road diets: Reducing the number of travel lanes a pedestrian has to cross can be beneficial to all users. A well-documented technique takes a 4-lane undivided roadway (2 lanes in each direction) and reconfigures it to 2 travel lanes, a center-turn lane and 2 bike lanes (without changing the curb lines). The benefits for pedestrians include fewer lanes to cross and slower traffic speeds. The center-turn lane also creates space for pedestrian crossing islands. The bike lanes add a buffer for pedestrians as well as a place for bicyclists to ride. Variations include reducing a multi-lane one-way roadway by one lane; narrowing the travel lanes to slow traffic and create space for bike lanes; or moving the curbs in to narrow the roadway.</p> <p>Do you routinely consider reducing the number of travel lanes where practical? Yes / No If yes, please state your policy:</p>	Yes. Engineering evaluation and judgement. Nebraska Avenue downtown is an example.	No. MPO supports cities (such as Largo, Clearwater) but County does not implement.	No.	Yes. Being done as part of the bike lane implementation effort. Considerations include level of service, number of lanes, reduced lanes, maintenance of service. Two examples completed include 9th Ave N (66th St to Park) and 40th Ave N east of 1st St. 5th Ave N west of 66th St is now being considered for a reduction of lanes to incorporate bike lane installation.	Yes. Consideration as part of the planning process for all projects.
<p>III-31. Speed Management Education Policy - Arterial Roadway Design: high speeds make it harder to avoid a crash, and increase the severity of a crash or the likelihood of a fatality. Speed reduction should be a primary tool in reducing pedestrian crashes. Simply lowering speed limits is usually ineffective. Roadways must be redesigned to encourage lower speeds. [Medium list]</p> <p>Are your design standards predicated on slow speeds in urban environments? Yes / No If yes, please state your policy:</p>	No. Predicated on 85th percentile speed.	Yes. Public Work Department policy	Yes. Maximum speed in urban area is 45 mph. Refer to green book	Yes. Travel lanes are being reduced to 10 feet to incorporate bike lanes in some cases.	Yes. The speed limit is 25 mph on local roads and 30 mph or greater on collector and arterial roadways.
<p>III-32. Residential Roadway Design: residential roadways built in the last few decades are often wide and barren, encouraging speeds higher than appropriate for roadways where children can be expected. Good residential roadway designs are narrow and have on-roadway parking, tight curb radii, short block length, buffered sidewalks with roadway trees, short building setbacks, and roadway lights. Cross reference zoning. [Medium list]</p> <p>Have you adopted pedestrian-oriented residential roadway design standards? Yes / No If yes, please state your policy:</p>	No. Does not apply to FDOT, no residential roadway.	Yes. Livable Communities encourages development patterns that integrate the physical environment with local parks, trails and natural resources. Furthermore, it ensures that new construction and the redevelopment of existing facilities provide for connectivity within and between developments for motorized and non-motorized travel modes. Roadway designs are to support a more walkable, transit and bicycle friendly environment. The central theme of Livable Communities involves the shifting of focus of the way streets and land development projects are designed to effectively address the needs of bicyclists and pedestrians.	No. Minimum sidewalk width is now 5 feet.	No. Not currently building residential streets.	Yes. The Residential Traffic Management Program has incorporated pedestrian-oriented residential roadway design standards.
<p>III-33. Traffic calming slows traffic inside neighborhoods. Common techniques include speed tables [delete or humps?], traffic circles, diverters, chokers, and chicanes to break up long straight roadways. It is critical that traffic calming be properly designed [Short term]</p> <p>Do you routinely consider traffic calming on neighborhood roadways? Yes / No If yes, please state your policy:</p>	No Traffic Calming.	Yes. Public Works Neighborhood Traffic Calming program is in place.	Yes. Where requested by the neighborhood. Have Residential Traffic Mgmt. program.	Yes. The City has had a neighborhood traffic calming program in place for 10 years. 500k is allocated annually to the program for implementation. Traffic calming has been implemented in 2/3rds of all residential neighborhoods.	Yes. Residential Traffic Management Program in place.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

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7. Transit-related crashes					
Many crashes involve a pedestrian crossing the roadway to access transit. All roadway-crossing techniques are applicable to transit stops. Transit providers and road authorities should ensure that all transit stops are accessible to all pedestrians. The following policies are recommended:					
<p>III-34. All stops should consider the safety of the pedestrian crossing: not necessarily a marked crosswalk at each stop location; rather, locating stops where it is possible for a pedestrian to cross safely at or very near the stop.</p> <p>School bus stops - merit special, careful consideration. Is there any coordination between district and traffic engineering re placement & design? Far side stops behind transit vs. front crossing at school bus stops.</p> <p>Do you collaborate with transit & school district providers to ensure pedestrians can cross the roadway wherever there is a transit stop? Yes / No [short list] If yes, please state your policy:</p>	Yes. PSTA usually considers the transit stop location based on accessibility and safety. FDOT facilitates the coordination between the agencies, project managers, and design offices. Traffic operations receives school bus stop refereral concerns.	No. Need policy as US 19 is very dangerous.	Transit, no. Schools - yes. Transit stop enhancements provided when sidewalk projects are taking place. Working with School Bd on proactive basis and has been for years.	No. Policy is set by PSTA.	Yes. Collaboration and coordination with PSTA and Pinellas County School System when possible.
<p>III-35. Provide a safe place to stand and wait at transit, and access to and from the stop. Transit stops with a lack of space push people out into the roadway. [Medium list]</p> <p>Do you collaborate with transit providers (& school districts) to ensure stops have a hard surface & safe crossings? Yes / No [short list] If yes, please state your policy:</p>	Yes. FDOT facilitates coordination on crossings between PSTA/Pinellas County Schools and it's project managers and design offices.	Not applicable	Yes. Transit - sidewalk project collaboration. PSTA goes to Regulatory Services for Bus Pad and Bus Stop. Does not come up for school related.	Yes. PSTA policy in place for hard surfaces and safe crossings, loading pad, raised ramp. City does coordinate with school districts on guard crossings.	No. However, only when input is requested.
<p>III-36. Sidewalks or paved shoulders provide pedestrian access to all transit stops. [Medium list] cross reference CA court case - Contra Costa County Transit</p> <p>Do you collaborate with transit providers to ensure stops are accessible? Yes / No If yes, please state your policy:</p>	Yes. FDOT coordinates with PSTA to ensure safe access to all state road transit stops and for ADA compliance.	Not applicable	Yes. Our sidewalk designers typically forward plans impacting PSTA bus routes to that agency for their review and comment.	No.	No. When input is requested.
<p>III-37. Lighting should be provided at or near all bus stop locations. [Medium list]</p> <p>Do you collaborate with transit providers to ensure stops are lit? Yes / No [medium list] If yes, please state your policy:</p>	No	Not applicable	No.	No.	No. When input is requested.
<p>III-38. Coordination with transit agency to review all stop locations to facilitate access and crossing. [Note - audience is not transit agency]</p> <p>Techniques include: 1. Provide input on pedestrian patterns to transit agencies for consideration by transit agencies to place stops for adequate and efficient service. Closely-spaced stops may limit the number of crossings and improve transit efficiency as the buses stop less often but stops too distantly placed may deter pedestrian usage 2. [Clarify that focus is crossing the roadway]Moving stops to a location where it is easier to cross. In general, far side locations are preferred for pedestrian safety, as pedestrians cross behind the bus, and the bus can leave without having to wait for pedestrians to cross. However, there are locations where a nearside stop is safer for operational reasons. 3. [Clarify that focus is crossing the roadway] MidBlock Crossing Transit Stop Placement. Placing crosswalks (where warranted) behind the bus stop at midblock locations so pedestrians cross behind the bus, where they can see oncoming traffic; it also enables the bus driver to pull away without endangering pedestrians.</p> <p>Transit providers also have their concerns: 1. Bus stops should be easily accessible: a stop should not be moved to a far side location if this location requires a lot of out-of-direction travel for users. 2. Bus stops should be located where the driver can easily stop and move back into traffic again. 3. Bus stops need to be located where passengers with disabilities can board the bus.</p> <p>Do you collaborate with transit providers to ensure stops are practical? Yes / No If yes, please state your policy:</p>	Yes. FDOT coordinates with transit provider using project managers and design offices on bus stop issues.	Not applicable	No.	No.	No. Clearwater coordinates with PSTA on location of shelters. Otherwise, coordination takes place when PSTA initiates.
8. Other Countermeasures Not Discussed Above:					
<p>Do you routinely use countermeasures other than those described in Questions III-1-38? Yes / No</p> <p>If yes, please describe:</p>	No.	No.	No.	No.	Yes. Rephasing a traffic signal to guarantee gaps in the mainline traffic stream. Done so that pedestrians can safely cross a street. For example: Court St at Ft Harrison St. Court St is the mainline but is phased as the side street so that gaps are guaranteed.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

 Yes No Mixed

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V. LAND USE AND SITE DESIGN					
Land use patterns impact pedestrian crashes. Pedestrian crash severity is higher in suburban, auto-oriented locations where speeds are faster and drivers don't expect pedestrians. Pedestrian crashes are less severe in established, traditional urban areas where drivers are more aware of pedestrians. Sample land use and site design techniques that can encourage more walking and help manage speed and therefore affect crash rates include:					
<p>V-1. Buildings that define roadways. Buildings located at the back of the sidewalk give the driver sense of enclosure, buildings set back with large parking lots in front create wide high-speed roads.</p> <p><input type="checkbox"/> Have you adopted city codes for Building Setbacks/Build-To lines that create a pedestrian-friendly environment? Yes / No</p> <p><input type="checkbox"/> State your existing policies (may need additional sheets):</p>	No. FDOT does not have these codes. Relates to local agencies.	Yes. Figure 7 - Bike and Ped Master Plan. Principles and key features include: drawing buildings to the edge of the street to create a human-scaled pedestrian environment with a clearly defined edge; using buildings to shape the street as a public room to create an attractive, walkable streetscape; maximum setbacks should be established to control the ratio of building height to street width (1:3 ratio building height to road width); discourage parking lots and large building setbacks	No.	Yes. The Transportation Element of the Comprehensive Plan Policy T16.20 states: The City shall amend the Land Development Regulations within one year of the date of adoption of this policy to encourage pedestrian ways such as sidewalks and crosswalks that connect pedestrian facilities in adjacent road rights-of-way to buildings proposed for construction. The City shall adopt incentives for existing developments to construct pedestrian ways to accommodate pedestrian movements within parking areas between buildings and pedestrian facilities in adjacent roads right-of-way.	Yes. Section 3-903. Required setbacks. A. Except for fences, walls, outdoor lighting, signs, minimum door landing required by the Florida Building Code, walkways leading to building entrances, driveway access to garages, and/or vehicular cross access (driveways), shared parking, and trash staging areas, no building or structure shall be permitted in a setback required by the applicable zoning district. Sidewalks shall be no greater than 42 inches feet in width, nor greater in width than that required by the Florida Building Code B. Irregularly shaped lots (i.e. those lots having property lines not generally parallel with or perpendicular to adjoining street rights-of-way or street right-of-way easements) shall have side and rear setbacks established by the community development coordinator generally consistent with the side or rear setback requirements for the applicable zoning districts and the orientation of the lots to adjoining properties and structures. C. A double frontage lot located within a plat of record which has a deed or plat restriction prohibiting access to the nonfrontage, i.e. the street with no address, may
<p>V-2. Mixed-use development: Buildings with retail on the bottom and housing on the top encourage pedestrian activity.</p> <p><input type="checkbox"/> Have you adopted city codes for mixed-use development that create a pedestrian-friendly environment? Yes / No</p> <p><input type="checkbox"/> State your existing policies (may need additional sheets):</p>	No	Yes. Livable Communities details this depending for numerous scenarios.	No	Yes. Revised Land Development Regulation includes mixed-use development codes. Nodes are set up for development. Grand Central downtown is considered one node in hopes of reducing overall travel. Other core centers are set up as nodes including 4th St and again hope to reduce trips.	No. Possibly in Beach By Design, but not in Community Development Code for entire city.
<p>V-3. Roadway connectivity encourages walking because of the reduced travel distance to reach destinations (cul-de-sacs without connector paths reduce pedestrian connectivity).</p> <p><input type="checkbox"/> Have you adopted city codes for roadway connectivity that create a pedestrian-friendly environment? Yes / No</p> <p><input type="checkbox"/> State your existing policies (may need additional sheets):</p>	No	Yes. Livable Communities encourages development patterns that integrate the physical environment with local parks, trails and natural resources. Furthermore, it ensures that new construction and the redevelopment of existing facilities provide for connectivity within and between developments for motorized and non-motorized travel modes. Roadway designs are to support a more walkable, transit and bicycle friendly environment. The central theme of Livable Communities involves the shifting of focus of the way streets and land development projects are designed to effectively address the needs of bicyclists and pedestrians.	No	Yes. An existing grid system is in place.	Yes. Adjacent nonresidential properties classified as major traffic generators shall provide across access drive and pedestrian access to allow circulation between sites. B. A system of joint use driveways and cross access easements shall be established wherever feasible along major arterials and the building site shall incorporate the following: 1. A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the accessmanagement classification system and standards; 2. A design speed of 10 mph and of sufficient width to accommodate two-way aisles designed to accommodate automobiles, service vehicles, and loading vehicles; 3. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross access by means of a service drive; 4. A unified access and circulation system plan that includes coordinated or shared parking areas is encouraged where feasible.
<p>V-4. Parking should not be placed between the sidewalk and buildings; on-roadway parking is a very effective way to slow traffic and encourage pedestrian-oriented development. The principles of access management should be extended to parking; single lots serving multiple stores are preferred over single stores each with its own parking and driveway.</p> <p><input type="checkbox"/> Have you adopted city codes for parking that create a pedestrian-friendly environment? Yes / No</p> <p><input type="checkbox"/> State your existing policies (may need additional sheets):</p>	No	Yes. Figure 8 - Bike and Ped Master Plan. Principles and Key Features include: Parking lots should be placed to side or rear of buildings; buildings should be drawn to the street edge creating a public room for pedestrians; placing parking in the rear and drawing buildings up to the street adds vitality to the sidewalk and welcomes pedestrians; on-street parking reduces the need for surface parking; and, on-street parking provides and important buffer between pedestrians and moving vehicles.	No. Try to address during plans review.	Yes. The practice is no parking between sidewalks and building or sidewalk and curb.	No. There is an entire division in the Community Development Code pertaining to parking. It is standard code and no more pedestrian friendly than minimum.
<p>V-5. School siting and space requirements should ensure that schools are placed in neighborhoods, have pedestrian access and allow for shared facilities with parks and community centers.</p> <p><input type="checkbox"/> Have you adopted city codes for school siting that create a pedestrian-friendly environment? Yes / No</p> <p><input type="checkbox"/> State your existing policies (may need additional sheets):</p>	No	No	No. Comp Plan Concurrency Act where pedestrian issues are raised. Chapter 3 of Transportation Element. School siting still appears to be a land grab - get where you can and deal with transportation after. Tyrone Elementary located on 38th Ave at 37th St. New school location, not new property. Example creates challenges. Have only one node on entrance.	No. City will work with school board when approached. School siting policy should be included in Comp Plan.	No. This is covered by state law, not in Clearwater Community Development Code. School siting policy should be included in Comp Plan.
VI. IMPLEMENTATION					
<p>VI-1. Commitment to safety for all modes should be the number one goal and priority of local transportation agencies. Once this commitment is made, it allows transportation agencies to allocate funds to reducing all crash types, including pedestrian crashes.</p> <p><input type="checkbox"/> Do you have a clearly stated commitment to safety as your number one priority? Yes / No</p> <p><input type="checkbox"/> State existing policy:</p>	Yes. FDOT vision - safety is #1. To ensure the safe mobility of people and goods over our transportation network by utilizing efficient transportation systems and technology.	No. Mission is for increased mobility, identified in LRTP Safety Element. The Pinellas County MPO seeks to improve transportation in the county for all modes of travel including mass transit, walking, and bicycling, as well as the automobile. The MPO prioritizes capital improvements to address the county's travel needs and allocates federal funding to implement projects identified in the LRTP.	No. Our Public Works Mission is to serve the Citizens and Visitors of Pinellas County by providing, implementing, operating and maintaining transportation, surface water, and building programs in a professional manner which supports economic and community growth.	Yes. City Trails Bicycle Pedestrian Master Plan Goal 5 - Enhance the safety of pedestrians and bicyclists in St Petersburg. There are a series of objectives including reducing the pedestrian and bicyclist crash rates.	Yes. Traffic Operations Division mission statement is to provide for the safest and most efficient movement of people and goods within and through the City of Clearwater.

Pinellas County Pedestrian Safety Action Plan - Existing Conditions Questionnaire Responses

Yes No Mixed

Question	FDOT District 7 Existing Practice/Policy Details:	Pinellas MPO Existing Practice/Policy Details:	Pinellas County Existing Practice/Policy Details:	St. Petersburg Existing Practice/Policy Details:	City of Clearwater Existing Practice/Policy Details:
1. Design and Project Development Guidelines					
<p>VI-2. Design manuals and standard specifications should ensure roadways and intersections are designed to maximize pedestrian safety and access. This includes intersection design, curb radii, marked crosswalks, design speed, number of lanes, signal warrants, transit stop design, sidewalk widths, sidewalk setbacks etc. Updating them can be a fairly big effort but can be done once the crash countermeasures (see section __) have been identified. To start, it is important to identify existing manuals and specifications.</p> <p>Ø Do you have an inventory of all design manuals, standard specifications, other relevant state and local design guidelines? Yes / No Ø State existing relevant manuals, standard specifications and other relevant design guidelines:</p>	Yes. Design Standards 2008.	Yes. Public Works should have in place.	Yes. Documents are referenced on Department Key sheets that they are to be designing to.	Yes. The City has a large inventory of appropriate documents that is used regularly and housed in a department library area.	Yes. FDOT Standards, AASHTO, MUTCD, Florida Building Code, ADA standards
<p>VI-3. ADA transition plans are required in all communities to ensure that all pedestrian facilities are accessible over time.</p> <p>Ø Do you have adopted ADA transition plan? Yes / No Ø If yes, state existing plan:</p>	Yes. Usually a part of design projects.	No. Public Works may have in place.	No	Yes. Contained in the Engineering Department	Yes/No. Unsure if plan is in place. ADA standards are followed, however.
2. Providing Funding					
<p>VI-4. Complete Roadways (also called routine accommodation) is the most cost-effective funding strategy for reducing pedestrian crashes and encouraging more walking by including pedestrian improvements in all projects, programs and maintenance activities. The majority of pedestrian infrastructure is built in conjunction with other projects. It allows for significant improvements over time, even if there is no special funding available for pedestrian safety improvements.</p> <p>Ø Do you routinely include pedestrian safety improvements in all projects, programs and maintenance activities? Yes / No Ø Do you have adopted complete roadways and/or routine accommodation requirements? Yes / No Ø State existing requirements:</p>	Yes. PD&E and planning related. Shall be considered for inclusion in all projects, programs and maintenance activities.	Checklist to be developed when project or road being built – LRTP safety element addresses non-motorized transportation.	No. By demand or review only. Part 2. New roadways include roadway, sidewalk and bikeways. Existing Roadways. Bikelane implementation plan. Other than MSTU sidewalk program, no for sidewalk program. MSTU program is 1.1 million annually. Includes 1.6 million for 07 and 08 for sidewalk repairs above and beyond. Bikelane implementation plan retrofits roads with bike lanes. Complete inventory of county roads done. Identified feasible projects. 175k annually through FY 2011 for a total of 700k for next 4 years.	Yes. Bicycle and pedestrian issues and concerns are always considered as part of an overall roadway improvement project.	Yes. Require full pedestrian accommodation and ADA accessibility on all projects. No. No adopted requirements in place.
<p>VI-5. Sidewalk Network Completion</p> <p>Ø Do you routinely set aside funds that are dedicated to construct new sidewalks (not part of roadway enhancements/reconstruction)? Yes / No Ø Please describe and state approximate annual budget:</p>	Yes. SRTS. Don't know annual budget, but believe yes. JPA sidewalk bunch.	Yes. Public Works Department	Yes. See 11-8.	Yes. CIP/Annual Budget Sidewalk program is 100k annually	Yes. 100k per annum.
<p>VI-6. Sidewalk Maintenance</p> <p>Ø Do you routinely set aside funds that are dedicated to sidewalk maintenance? Yes / No Ø Please describe and state approximate annual budget:</p>	Yes. There is annual amount, unsure of amount.	Yes. Public Works Department	Yes. Safe Routes to School, Intersection Safety study element (Penny). SRTS is 1 million over next 3 years. 100k for traffic safety studies (Penny). General Sidewalk and ADA program is 3 million annually (Penny). Bikelane Program (Penny). Courtyard Ped 100k	Yes. CIP/Annual Budget Sidewalk Maintenance program is 500k annually for broken sidewalks, ADA complaints, Hex Block repair sidewalk preservation policy	Yes. 100k per annum.
<p>VI-7. General pedestrian safety funds and set-asides for pedestrian projects allow for immediate action in addressing high crash locations, corridors, and other targeted areas. They can be federal, state or local funds and are often a percentage of another fund.</p> <p>Ø Do you routinely set aside funds that are dedicated to pedestrian safety? Yes / No Ø Please describe:</p>	Yes. \$1 million annually for FDOT 7, locations based on determination.	Yes. Dedicated programs for pedestrian education. Pedestrian Safety awareness day. No set funding amount. Commuter choices week, Walk a Child To School Day, Community activities.	Yes. Safe Routes to School, Intersection Safety study element (Penny). SRTS is 1 million over next 3 years. 100k for traffic safety studies (Penny). General Sidewalk and ADA program is 3 million annually (Penny). Bikelane Program (Penny). Courtyard Ped 100k annually (TIF). Intersection improvements 1.5 million by Penny and TIF	Yes. See above programs	No. All projects include design for pedestrian access and ADA.
3. Public Involvement					
<p>VI-8. A Pedestrian Advisory Board (PAC) is another excellent way to get a better product. They also build public support for policies, programs and policies to reduce pedestrian crashes. To be effective, stakeholders must be involved in the review of policies, programs and projects.</p> <p>Ø Do you have a PAC that regularly reviews policies, programs and projects? Yes / No Ø Please describe:</p>	Yes. FDOT has a representative on PTAC, STEPS and CTST.	Yes. Items come before MPO PTAC technical committee for review and recommendation.	Yes. MPO and PW has active role.	Yes. The City has a Bike and Ped Advisory Committee to the Mayor which meets on a monthly basis	Yes. Pinellas MPO PTAC, BAC, TCC and CAC. City Traffic Advisory Committee a distinct possibility.
<p>VI-9. Public agency staff in other agencies are also stakeholders. Building positive, working relationships is essential for coordination on regional planning issues; it also provides a way to coordinate on solving specific problems such as identifying high crash locations where additional enforcement may be needed, and coordinating transit stops with crossing locations.</p> <p>Ø Do you routinely coordinate with other agencies on crash data collection and analysis, transit etc. issues? Yes / No Ø Please describe:</p>	Yes. Set up CDMS for all agencies. Coordinate through CTST on all issues.	Yes. Crash database coordination including St Pete. Housed by MPO. Transit data (bus stops) in County GIS.	Yes. Crash data. Getting from MPO. Do not get analysis from them. Conflict diagrams. Not transit. Should have access to D7 Crash Mgmt System in Oct 2008.	Yes. Pinellas County Crash Data Center, PSTA/transit sometimes and Pinellas County School crossing guard program and other occasional issues	Yes. MPO Crash Data Center. Electronic transfer of records. St Pete does this as well. Other agencies are manual transfer.
<p>VI-10. Individual stakeholder involvement is an excellent way to get a better product. Public stakeholders should be viewed as partners who are the on-the-ground scouts who can identify problems, needs and opportunities. To be effective, stakeholders must be involved in a regular, ongoing and systematic way.</p> <p>Ø Do you routinely provide for individual stakeholder involvement? Yes / No Ø Please describe:</p>	Yes. CTST, Public Information meetings	Yes. MPO technical advisory committee process.	Yes. CIP projects require public information meetings. RTM has public meeting component. BAC and CAC is citizen involvement. High profile trail and school safety is public driven.	Yes. Neighborhood compatibility meetings related to development	Yes. Clearwater has 8 active Neighborhood Transportation Technical Teams made up of Clearwater citizens, work with staff. Similar to police department block patrol program. Stakeholder involvement also happens by way of Residential Traffic Calming program process.
VII. EVALUATION/ACCOUNTABILITY					
Performance measures evaluate whether a plan is meeting its goals (e.g. to reduce crashes and increase use). In all cases, performance measures must be measurable. Examples include, number of crashes involving pedestrians, number of injuries, number of fatalities (are they going down); and number of people walking (census, counts etc). Infrastructure accomplishments can be measured (e.g. miles of shoulders constructed; sidewalks built, crosswalks improved; ramps constructed; systems completed etc.). Other measurements include sales and events (e.g. walking shoes sold participation in public runs and walks; use of public transit etc.).					
<p>VII-1. Evaluation of results ensures that implemented countermeasures are effective in reducing crashes and improving safety; it also helps ensure future funding opportunities if the plan is perceived as a success. Success should be measured against the objectives set forth in the Pedestrian Safety Action Plan – typically to reduce pedestrian crashes by a certain percentage.</p> <p>Ø Do you routinely evaluate results of your efforts to reduce pedestrian crashes? Yes / No Ø Please describe:</p>	Yes and no. Based on project needs and requirements. Not specifically for pedestrians unless they are big problem part of the contract.	No.	Yes. Do not have concentrated crash problem that is known. Mid-block crossings implemented, situation is monitored. School crossings monitored daily by school crossing guards, seeking feedback. No formal afterstudies.	Yes. The City is diligent about this. It compiles a list of the Top 25 Crash Intersections annually, by year, and pulls crash reports to analyze trends. It considers national/state and county trends and innovations as well.	Yes. Observational studies, pedestrian counts, etc... Before and after implementation. Adjustments made as necessary. Ped issues arise and are incorporated. City makes use of staff advisory committees to address problems in traffic safety arena.



APPENDIX B: EDUCATION INITIATIVES

Best Practices in Pedestrian Transportation Safety Education

Bicycle and Pedestrian Safety

More Health Inc. teaches a Bicycle and Pedestrian Safety course entitled “Safe Wheels and Safe Walkers” to Pinellas County first grade students. This 40-minute presentation teaches children about the importance of wearing a helmet when biking, and protecting your brain. They sing along with Spike and learn it is cool to wear a bicycle helmet. The course teaches Safe Walkers the importance of following the rules for pedestrian safety. Students actively build a “Safe Town” while learning bicycle and pedestrian safety rules.

More Health was awarded funding through the FDOT Safe Routes to School Program for September 2007 – September 2009. More Health is applying for an additional two years of funding. If awarded, the program will continue through September 2011 in both Pinellas and Hillsborough Counties. An average of 6,351 first grade students attended this course in Pinellas County during the 2007-2008 and 2008-2009 school years. Students are given a pre- and post-course test. Scores rise approximately 60% on average for the post-test results. More information about this course is available by contacting Carlene Lemaster with More Health at 727-287-5302.

Pedestrian Safety Awareness Day

Since the late 1990s, the Pinellas County Metropolitan Planning Organization (MPO) has recognized the Monday following the annual Daylight Savings Time change in the fall, as Pedestrian Safety Awareness Day. The MPOs Pedestrian Transportation Advisory Committee (PTAC) uses this opportunity to remind drivers and pedestrians to be more alert and practice safe behavior at crosswalks and intersections. The Safely to School & Back Again brochure features:

- Seven Steps to Driving Safely
- Seven Steps To Pedestrian Safety
- Explanation and diagram of pedestrian pushbutton traffic signalization instructions
- Bicycle Safety tips
- School Bus Safety tips

The MPO adopts a resolution each year to recognize Pedestrian Safety Awareness Day. PTAC has incorporated several components from the Pinellas County School District’s “Safety First” campaign, including a list of safe practices that should be followed by both pedestrians and motorists. This list is widely circulated to the public and private schools and other key agencies



including law enforcement, municipalities and senior centers. In November 2008, brochure distribution included: Public Schools – 105,000, Private Schools – 20,000, Law Enforcement – 2,400, Municipalities – 3,300, Senior Centers – 3,600 and Libraries – 650. Additionally, the St Petersburg Times has published the “Seven Steps” for Driving and Pedestrian Safety in its editorial section numerous times as part of Pedestrian Safety Awareness Day.

Safety First – Pinellas County School Board

The “Be Cool – Follow the Rules” brochure details Safe Travel To and From School by providing tips on Pedestrian Safety, Bike Safety, Bus Safety and Driving Safety. The brochure is distributed to students in class and is available to parents and students online at the School Boards website. Parents are expected to review these important tips and rules with their school age children. Some of what is detailed here is covered in the Safely to School & Back again brochure that promotes the MPO Pedestrian Safety Awareness Day.

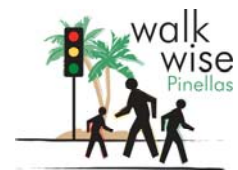
Crosswalk Safety – Courtesy Promotes Safety!

This technique is offered in an environment in which crashes are less likely. Pedestrians are encouraged to thank drivers who yield at crosswalks. The brochure is presented in two parts, one for Drivers and one for Pedestrians. Drivers are provided four rules to protect pedestrians at crosswalks. Pedestrians are instructed with six rules to make crosswalks work for them. All rules have picture inserts. This brochure is prepared by the Center for Education and Research in Safety and published by the Florida Department of Transportation. The concepts were introduced to the Pinellas Community Traffic Safety Team approximately ten years ago. Additionally, the concepts are incorporated in pedestrian law enforcement training in District 7 and throughout Florida. The City of St Petersburg recommends this technique for use to its residents.

Walk to School Day

This international event is celebrated annually throughout the month of October. Walk to School began in England and eventually made its way to the United States in 1997. Pinellas County generally celebrates this event for one day during the first week of October. The main goal is to promote safe walking and biking. Event activities include classroom instruction, creating signs for the walk, the “walking school bus” and a walk to school parade.

In 2008, over 30 elementary schools in Pinellas County held this event where students and parents joined together to walk to school in the morning, instead of driving. The event is coordinated locally by Safe Kids Coalition and supported by the Pinellas CTST. It is tied closely to the federal Safe Routes To School program, which is promoted by the Florida Department of Transportation. Safe Routes to School is a program which has funded millions of dollars in improvements to the pedestrian network throughout Pinellas County and Florida.



Pinellas County Back To School Blitz

At the beginning of each school year, beginning in 2007, local fire departments hold signs at major intersections throughout Pinellas County. They are there to remind drivers to slow down and be aware of children walking and crossing at intersections. Generally the firemen and women participate for several days during the first week of the new school year. The idea and activity originated with the EMS/Education Subcommittee of the Pinellas CTST.

Best Practices Manual 2008 – Florida Community Traffic Safety Team Coalition

- Rectangular Rapid Flashing Beacons (RRFB) at Pedestrian Crosswalks (Enhancer) – Pinellas County CTST. When activated by a pedestrian, motorist is warned that a pedestrian crossing is in progress. Goal is to increase motorist yielding compliance at mid-block and unprotected intersection crosswalks where enhancers are installed. Compliance is high. RRFBs are installed throughout the City of St Petersburg and at several locations in Pinellas County.
- Roadway Lighting Analysis – Hillsborough County CTST. Studies indicate that over 50% of pedestrian crashes occur during night and most are fatal and severe injuries. Field measurements of roadway lighting systems are often conducted with handheld light meters at a short sample section of roadways. Conversely, a Mobile Lighting Measurement System (MLMS) is used to collect massive light data in short periods of time. The system will reduce the cost of future data collection efforts and improve the safety of the data collection personnel. The MLMS is being used to collect lighting levels along 250 miles of state roadway in FDOT District 7.
- Walk Safe Program – Miami-Dade CTST. This is a 3-day curriculum based educational classroom program teaching children safe street crossing skills as well as encouraging them to walk to and from school. Impact is assessed on street crossing behaviors of children who have received the class. Various agencies are involved including the MPO, Law Enforcement and Safe Kids.
- Pedestrian and Bicycle Safety Program – City of Miami Gardens CTST. Geared to elementary and middle school students. The School Crossing Guard Division has been trained in the “Walk Safe” program curriculum administered by the Ryder Trauma Center. Program is school based educational injury prevention for grades K-5. It is provided to students throughout the year.
- Safe Route to School Survey – Hillsborough County CTST. A pilot survey was conducted on students travel mode to school for 14 elementary and middle schools in Hillsborough County prior to the SRTS encouragement program starting. Student survey results showed that student demographic characteristics such as grade, gender, number of children in family and distance from home to school affect travel mode to school. Survey results show that when conditions improve, parents will allow children to walk or bike to school.



Safe Routes to School Project Funding

Pinellas County and various local agencies within the County have been the recipients of federal Safe Routes to School (SRTS) grant funding awards in recent years. Projects in Pinellas County include sidewalk construction at or near Blanton Elementary, Bardmoor Elementary and Lealman Elementary Schools. Construction of these sidewalk projects is scheduled to begin in late October 2009. Additionally, MK Rawlings and Pinellas Park Middle School were the recipients of Hawk Pedestrian Traffic Signals through SRTS. Finally, the cities of Tarpon Springs, St Pete Beach, and Dunedin, as well as Pinellas County received funding for the purchase of 32 speed feedback signs as part of the most recent award cycle. An additional 24 speed feedback signs and 2.75 miles of sidewalk are contemplated for FY 2009/10.



APPENDIX C: RELEVANT STATUTES

Florida Statute 316.130 Pedestrians; traffic regulations.--

(1) A pedestrian shall obey the instructions of any official traffic control device specifically applicable to the pedestrian unless otherwise directed by a police officer.

(2) Pedestrians shall be subject to traffic control signals at intersections as provided in s. 316.075, but at all other places pedestrians shall be accorded the privileges and be subject to the restrictions stated in this chapter.

(3) Where sidewalks are provided, no pedestrian shall, unless required by other circumstances, walk along and upon the portion of a roadway paved for vehicular traffic.

(4) Where sidewalks are not provided, any pedestrian walking along and upon a highway shall, when practicable, walk only on the shoulder on the left side of the roadway in relation to the pedestrian's direction of travel, facing traffic which may approach from the opposite direction.

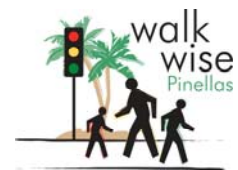
(5) No person shall stand in the portion of a roadway paved for vehicular traffic for the purpose of soliciting a ride, employment, or business from the occupant of any vehicle.

(6) No person shall stand on or in proximity to a street or highway for the purpose of soliciting the watching or guarding of any vehicle while parked or about to be parked on a street or highway.

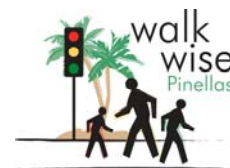
(7)(a) The driver of a vehicle at an intersection that has a traffic control signal in place shall stop before entering the crosswalk and remain stopped to allow a pedestrian, with a permitted signal, to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

(b) The driver of a vehicle at any crosswalk where signage so indicates shall stop and remain stopped to allow a pedestrian to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

(c) When traffic control signals are not in place or in operation and there is no signage indicating otherwise, the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger. Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.



- (8) No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.
- (9) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.
- (10) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.
- (11) Between adjacent intersections at which traffic control signals are in operation, pedestrians shall not cross at any place except in a marked crosswalk.
- (12) No pedestrian shall, except in a marked crosswalk, cross a roadway at any other place than by a route at right angles to the curb or by the shortest route to the opposite curb.
- (13) Pedestrians shall move, whenever practicable, upon the right half of crosswalks.
- (14) No pedestrian shall cross a roadway intersection diagonally unless authorized by official traffic control devices, and, when authorized to cross diagonally, pedestrians shall cross only in accordance with the official traffic control devices pertaining to such crossing movements.
- (15) Notwithstanding other provisions of this chapter, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human-powered vehicle and give warning when necessary and exercise proper precaution upon observing any child or any obviously confused or incapacitated person.
- (16) No pedestrian shall enter or remain upon any bridge or approach thereto beyond the bridge signal, gate, or barrier after a bridge operation signal indication has been given. No pedestrian shall pass through, around, over, or under any crossing gate or barrier at a railroad grade crossing or bridge while such gate or barrier is closed or is being opened or closed.
- (17) No pedestrian may jump or dive from a publicly owned bridge. Nothing in this provision requires the state or any political subdivision of the state to post signs notifying the public of this provision. The failure to post a sign may not be construed by any court to create liability on the part of the state or any of its political subdivisions for injuries sustained as a result of jumping or diving from a bridge in violation of this subsection.
- (18) No pedestrian shall walk upon a limited access facility or a ramp connecting a limited access facility to any other street or highway; however, this subsection does not apply to



maintenance personnel of any governmental subdivision.

(19) A violation of this section is a noncriminal traffic infraction, punishable pursuant to chapter 318 as either a pedestrian violation or, if the infraction resulted from the operation of a vehicle, as a moving violation.

History.--s. 1, ch. 71-135; ss. 1, 8, ch. 76-31; s. 2, ch. 83-68; ss. 1, 2, ch. 83-74; s. 3, ch. 84-309; s. 306, ch. 95-148; s. 123, ch. 99-248; s. 2, ch. 2008-33.

Note.--Former s. 316.057.

Florida Statute 316.003 Definitions.--The following words and phrases, when used in this chapter, shall have the meanings respectively ascribed to them in this section, except where the context otherwise requires:

(3) **BUS.**--Any motor vehicle designed for carrying more than 10 passengers and used for the transportation of persons and any motor vehicle, other than a taxicab, designed and used for the transportation of persons for compensation.

(6) **CROSSWALK.**--

(a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway.

(b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

(17) **INTERSECTION.**--

(a) The area embraced within the prolongation or connection of the lateral curblines; or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles; or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.

(b) Where a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways 30 feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.

(21) **MOTOR VEHICLE.**--Any self-propelled vehicle not operated upon rails or guideway, but



not including any bicycle, motorized scooter, electric personal assistive mobility device, or moped.

(28) PEDESTRIAN.--Any person afoot.

(29) PERSON.--Any natural person, firm, copartnership, association, or corporation.

(40) RIGHT-OF-WAY.--The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian approaching under such circumstances of direction, speed, and proximity as to give rise to danger of collision unless one grants precedence to the other.

(42) ROADWAY.--That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder. In the event a highway includes two or more separate roadways, the term "roadway" as used herein refers to any such roadway separately, but not to all such roadways collectively.

(44) SAFETY ZONE.--The area or space officially set apart within a roadway for the exclusive use of pedestrians and protected or so marked by adequate signs or authorized pavement markings as to be plainly visible at all times while set apart as a safety zone.

(45) SCHOOL BUS.--Any motor vehicle that complies with the color and identification requirements of chapter 1006 and is used to transport children to or from public or private school or in connection with school activities, but not including buses operated by common carriers in urban transportation of school children. The term "school" includes all preelementary, elementary, secondary, and postsecondary schools.

(47) SIDEWALK.--That portion of a street between the curblines, or the lateral line, of a roadway and the adjacent property lines, intended for use by pedestrians.

(53) STREET OR HIGHWAY.--

(a) The entire width between the boundary lines of every way or place of whatever nature when any part thereof is open to the use of the public for purposes of vehicular traffic;

(b) The entire width between the boundary lines of any privately owned way or place used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons, or any limited access road owned or controlled by a special district, whenever, by written agreement entered into under s. 316.006(2)(b) or (3)(b), a county or municipality exercises traffic control jurisdiction over said way or place;

(c) Any area, such as a runway, taxiway, ramp, clear zone, or parking lot, within the boundary



of any airport owned by the state, a county, a municipality, or a political subdivision, which area is used for vehicular traffic but which is not open for vehicular operation by the general public; or

(d) Any way or place used for vehicular traffic on a controlled access basis within a mobile home park recreation district which has been created under s. 418.30 and the recreational facilities of which district are open to the general public.

(57) TRAFFIC.--Pedestrians, ridden or herded animals, and vehicles, streetcars, and other conveyances either singly or together while using any street or highway for purposes of travel.

(63) BICYCLE PATH.--Any road, path, or way that is open to bicycle travel, which road, path, or way is physically separated from motorized vehicular traffic by an open space or by a barrier and is located either within the highway right-of-way or within an independent right-of-way.

(74) TRANSPORTATION.--The conveyance or movement of goods, materials, livestock, or persons from one location to another on any road, street, or highway open to travel by the public.

(75) VEHICLE.--Every device, in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting devices used exclusively upon stationary rails or tracks.

(83) ELECTRIC PERSONAL ASSISTIVE MOBILITY DEVICE.--Any self-balancing, two-nontandem-wheeled device, designed to transport only one person, with an electric propulsion system with average power of 750 watts (1 horsepower), the maximum speed of which, on a paved level surface when powered solely by such a propulsion system while being ridden by an operator who weighs 170 pounds, is less than 20 miles per hour. Electric personal assistive mobility devices are not vehicles as defined in this section.

APPENDIX D: PEDESTRIAN CRASH DATA AND ANALYSIS

CRASH DATA SUMMARY

Tables E-1 to E-6 and Figures E-1 to E-6 provide a summary of the pedestrian crashes in Pinellas County during the five year span between 2003 and 2007. The tables and figures display crash data relating to the following categories:

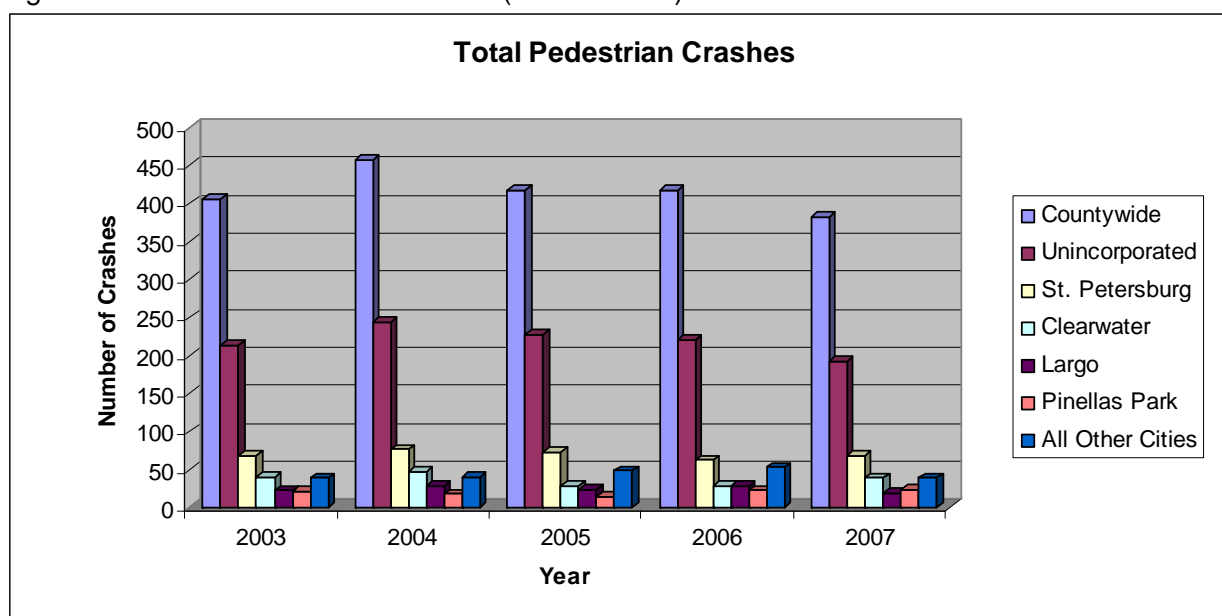
- 5 Year Pedestrian Crash Trend
- Fatal and Severe Injury Pedestrian Crashes
- Roadway Type Distribution
- Age Distribution
- Lighting Condition
- Alcohol Involvement

5 Year Trend

Table E-1: Total Pedestrian Crashes (2003 – 2007)

Year	2003	2004	2005	2006	2007	Total
St. Petersburg	69	77	73	63	69	351
Clearwater	40	48	29	29	39	185
Largo	23	29	24	29	19	124
Pinellas Park	22	18	15	23	24	102
All Other Cities	39	41	49	53	39	221
Unincorporated	213	244	228	221	193	1,099
Countywide	406	457	418	418	383	2,082

Figure E-1: Total Pedestrian Crashes (2003 – 2007)

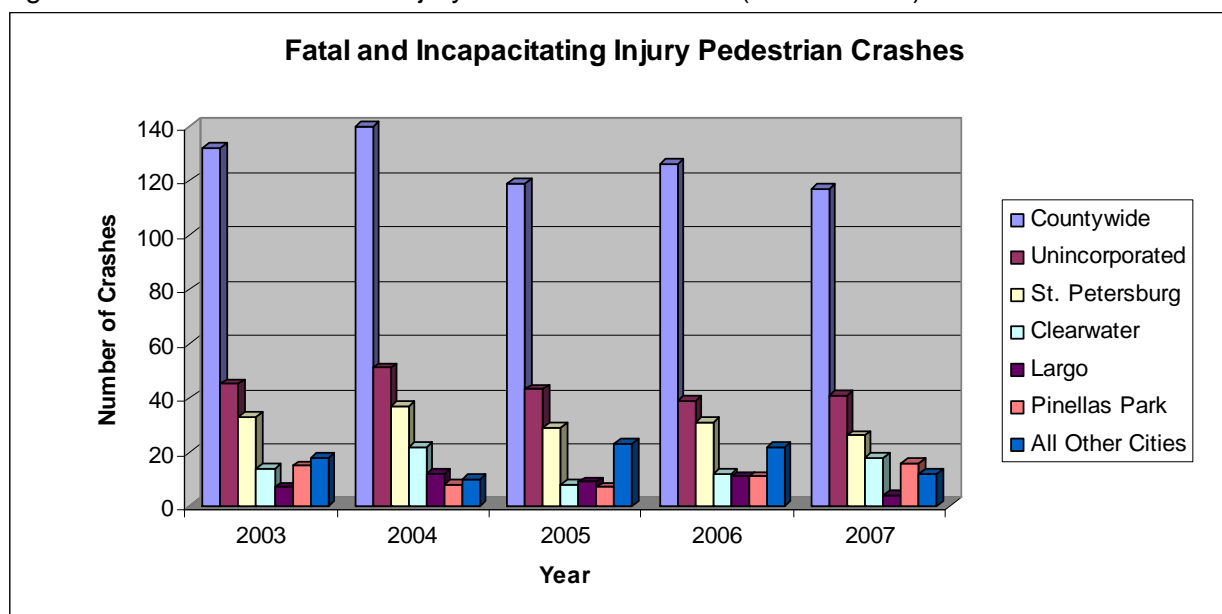


Fatal and Severe Injury Crashes

Table E-2: Fatal and Severe Injury Pedestrian Crashes (2003 – 2007)

Year	2003	2004	2005	2006	2007	Total
St. Petersburg	33	37	29	31	26	156
Clearwater	14	22	8	12	18	74
Largo	7	12	9	11	4	43
Pinellas Park	15	8	7	11	16	57
All Other Cities	18	10	23	22	12	85
Unincorporated	45	51	43	39	41	219
Countywide	132	140	119	126	117	634

Figure E-2: Fatal and Severe Injury Pedestrian Crashes (2003 – 2007)



Roadway Type Distribution

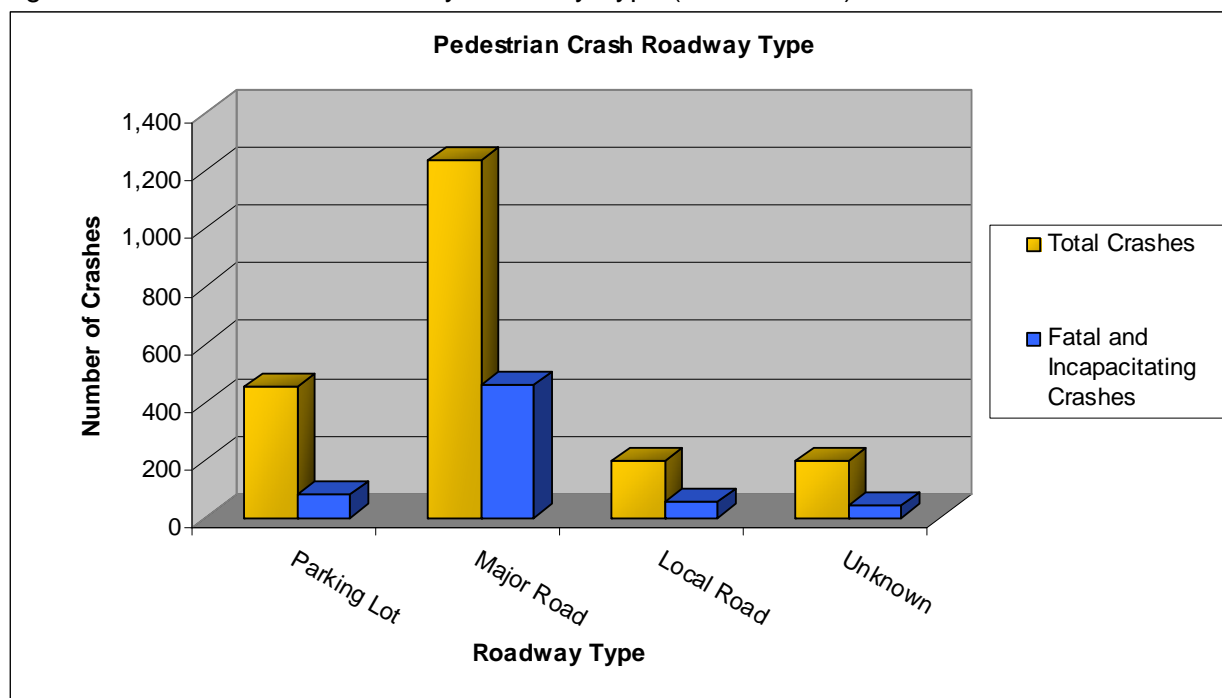
Table E-3a: Pedestrian Crashes by Roadway Type (2003 – 2007)

Roadway Type	Number of Pedestrian Crashes	Percent of Total	Number of Fatal and Incapacitating Crashes	Percent of Fatal and Incapacitating Total
Parking Lot	453	22%	79	12%
Major Road	1,235	59%	458	72%
Local Road	197	9%	55	9%
Unknown	197	9%	42	7%
Total	2,082	100%	634	100%

Table E-3b: Pedestrian Crashes by Roadway Type – Major Road and Local Road (2003 – 2007)

Roadway Type	Number of Pedestrian Crashes	Percent of Total	Number of Fatal and Incapacitating Crashes	Percent of Fatal and Incapacitating Total
Major Road	1,235	86%	458	89%
Local Road	197	14%	55	11%
Total	1,432	100%	513	100%

Figure E-3: Pedestrian Crashes by Roadway Type (2003 – 2007)

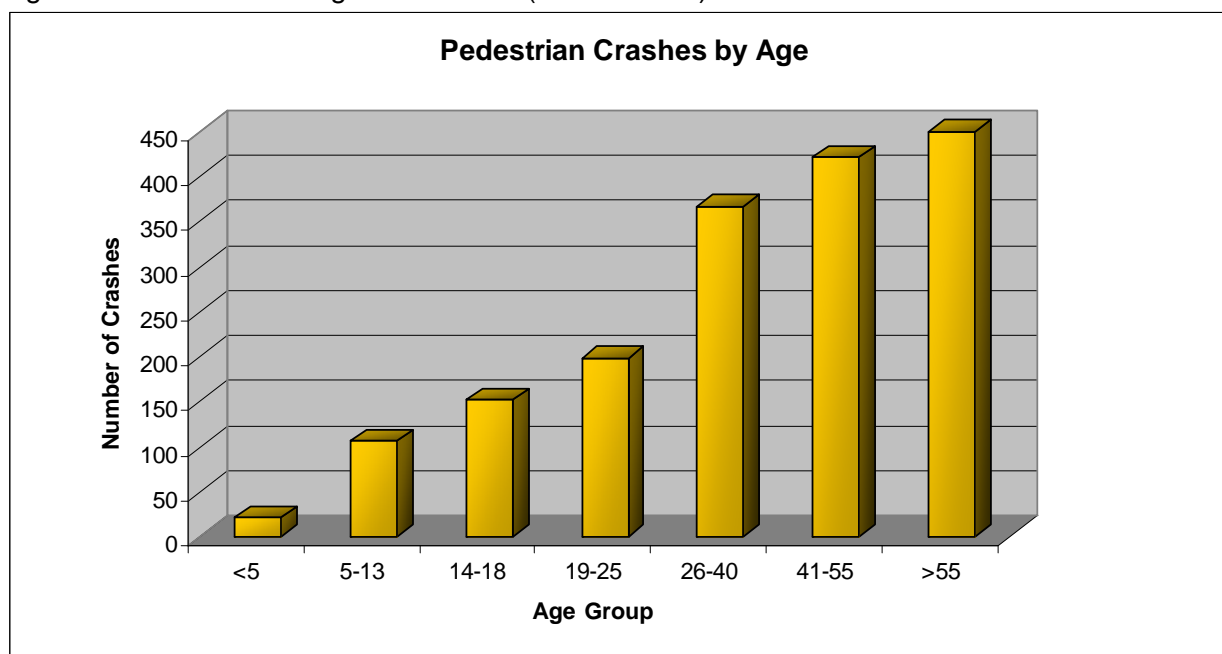


Age Distribution

Table E-4: Pedestrian Age Distribution (2003 – 2007)

Pedestrian Age Group	Total Crashes	Distribution
<5	21	1.2%
5-13	106	6.2%
14-18	152	8.9%
19-25	198	11.5%
26-40	367	21.4%
41-55	421	24.5%
>55	450	26.2%
Unknown	367	N/A

Figure E-4: Pedestrian Age Distribution (2003 – 2007)

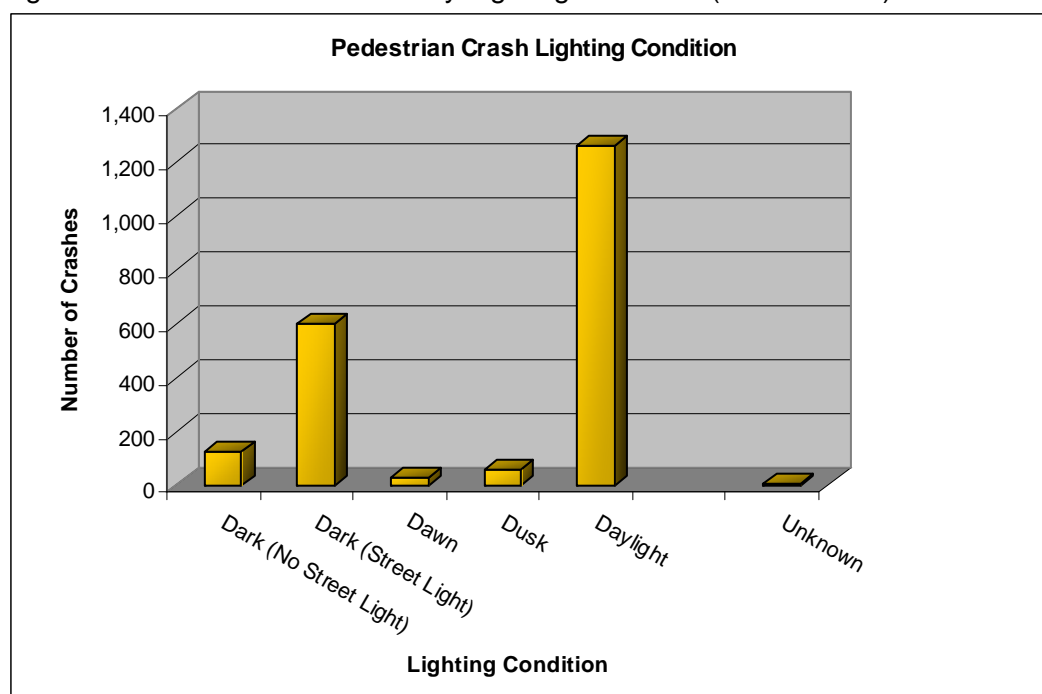


Lighting Condition

Table E-5: Pedestrian Crashes by Lighting Condition (2003 – 2007)

Lighting	Number of Crashes	Distribution
Dark (No Street Light)	127	39.4%
Dark (Street Light)	603	
Dawn	29	
Dusk	59	
Daylight	1,259	60.6%
Unknown	5	N/A

Figure E-5: Pedestrian Crashes by Lighting Condition (2003 – 2007)



Alcohol Involvement

Table E-6: Pedestrian Crash Alcohol and Drug Involvement (2003 – 2007)

Intoxication	Total Crashes	Distribution
Alcohol Involved	112	16.9%
Drugs Involved	2	
Alcohol And Drugs	19	
Had Been Drinking	139	
Pending Alc/Drug Test Results	22	
Not Drinking Or Using Drugs	1,443	83.1%
No Data	345	N/A

Figure E-6: Pedestrian Crash Alcohol and Drug Involvement (2003 – 2007)

