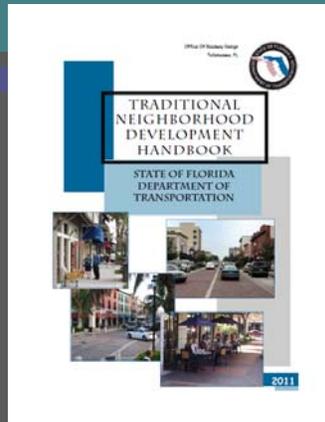


Florida's Traditional Neighborhood Development Chapter



Billy L. Hattaway, PE
District One Secretary

Why is this important to you?



- Provides an opportunity to implement Smart Growth principles, while respecting the integrity of traditional practices.
- Local governments may use these guidelines to ensure that development projects follow the best practices for Traditional Neighborhood Development.
- Provides guidance needed to create Complete Streets.

Why is this important to you?



- Previously criteria provided only for “conventional” development and highways.
- Direction is needed to establish the context for when the criteria are appropriate
- Established criteria will reduce liability for all parties

3

TND Chapter Goals



- Thoroughfare design that truly balance pedestrian, transit and bicycle mobility with the automobile
- Clearly defined context and conditions for TND thoroughfare design
- Criteria that is usable for TND without extensive use of “exception” process

4



Land Development Patterns

- Conventional Suburban
 - Auto dominant
 - Separated use
 - Single use zoning
 - Low density
 - All trips depend on "the arterial"

- TND
 - Focus on pedestrian
 - Mixed use
 - Compact
 - Multi-modal
 - Less dependent on "the arterial"

SOURCE: DPZ ARCHITECTS AND TOWN PLANNERS

Separated Land Use



Supersizing of America



- Regional Malls
- Regional Parks
- Regional "Athletic" Fields
- Office "Parks"
- Superstores

School Board Policy



Orange County
Elementary School
830 Students

- 1969 - 48% of students walk or bike to school
- 2012 - less than 13% walk or bike to school
- Since 1945, the number of schools declined 70% while average school size grew 127 to 653 students

* National Household Travel Survey

Land Development Regulations



What influences a driver's speed?



- Form
 - Road geometrics
 - Road/Lane width
 - On street parking
 - Adjacent land use/development
- Traffic volume (Including presence of Pedestrians & Bicycles)



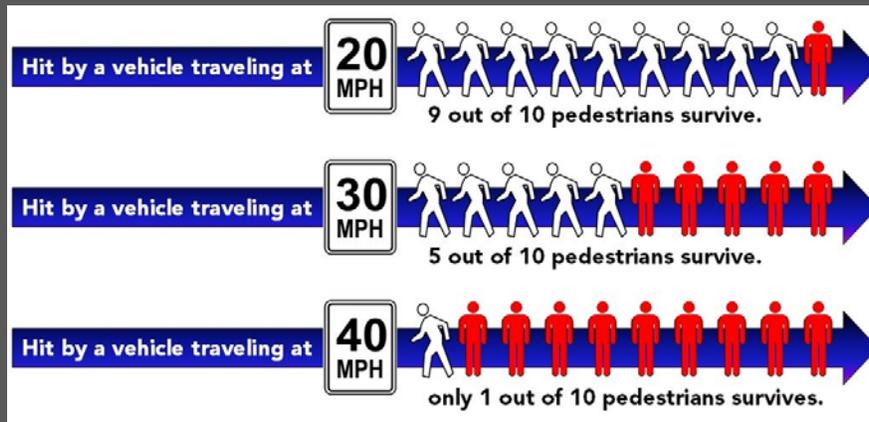
Driver Expectation



Driver Expectation



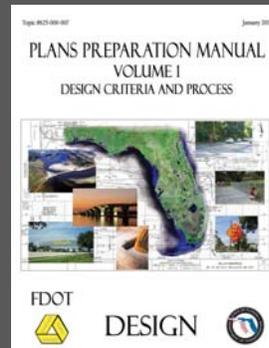
Pedestrian Fatalities & Speed



FDOT Plans Preparation Manual



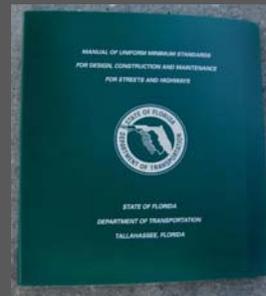
- Based on AASHTO criteria
- State of Florida highways – generally focus on:
 - Higher speeds
 - Highway capacity
 - Functional classification
 - Rural & suburban development



Florida Greenbook



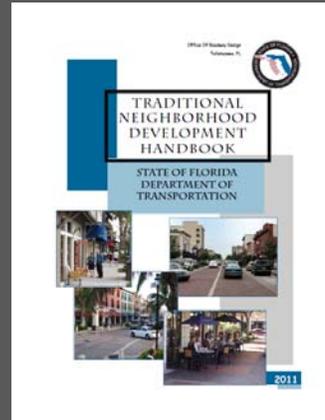
- Based on AASHTO “minimums”
- County & City Roads – focus on:
 - Rural & suburban development
 - Highway capacity
 - Functional classification
- Traffic calming & Residential Street (suburban) chapters recently added



Florida Greenbook



- Established through Florida rulemaking process
- For local streets
- Includes a TND Handbook
 - Best Practices
 - Educational



<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FloridaGreenbook.pdf>

<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/TND-Handbook.pdf>

Florida Greenbook



A project may be considered a TND when at least the first seven of the following principles are included:

1. Has a compact, pedestrian-oriented scale that can be traversed in a five to ten-minute walk from center to edge.
2. Is designed with low speed, low volume, interconnected streets with short block lengths, 150 to 500 feet, and cul-de-sacs only where no alternatives exist. Cul-de-sacs, if necessary, should have walkway and bicycle connections to other sidewalks and streets to provide connectivity within and to adjacent neighborhoods.

Florida Greenbook



3. Orients buildings at the back of sidewalk, or close to the street with off-street parking located to the side or back of buildings, as not to interfere with pedestrian activity.
4. Has building designs that emphasize higher intensities, narrow street frontages, connectivity of sidewalks and paths, and transit stops to promote pedestrian activity and accessibility.

Florida Greenbook



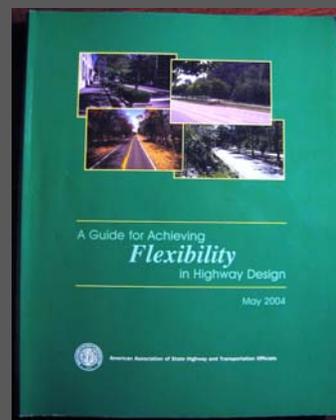
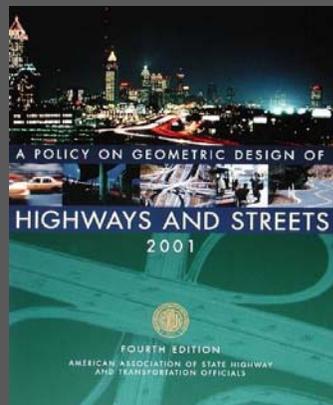
5. Incorporates a continuous bike and pedestrian network with wider sidewalks in commercial, civic, and core areas, but at a minimum has sidewalks at least five feet wide on both sides of the street. Accommodates pedestrians with short street crossings, which may include mid-block crossings, bulb-outs, raised crosswalks, specialty pavers, or pavement markings.
6. Varies residential densities, lot sizes, and housing types, while maintaining an average net density of at least eight dwelling units per acre, and higher density in the center.
7. Uses on-street parking adjacent to the sidewalk to calm traffic, and offers diverse parking options, but planned so that it does not obstruct access to transit stops.

Florida Greenbook



8. Integrates at least ten percent of the developed area for nonresidential and civic uses, as well as open spaces.
9. Has only the minimum right of way necessary for the street, median, planting strips, sidewalks, utilities, and maintenance that are appropriate to the adjacent land uses and building types.
10. Locates arterial highways, major collector roads, and other high-volume corridors at the edge of the TND and not through the TND.

AASHTO A Guide for Achieving Flexibility in Highway Design



Design Speed



- “Every effort should be made to use as high a design speed as practical to attain a desired degree of safety, mobility and efficiency.” AASHTO

VS

- Picking a desired speed based on the built environment (urban, suburban, rural)

TND Chapter Design Speed



- **Yield:** Design speed of less than 20 mph; this type should accommodate bicycle routes through the use of shared lanes.
- **Slow:** Design speed of 20-25 mph; this type should accommodate bicycle routes through the use of shared lanes.
- **Low:** Design speeds of 30-35 mph; this type can accommodate bicycle routes through the use of bike lanes.

Lane Width



Lane Width



Lane Width



- The normal range of design lane width is 9-12'.
- Lane widths substantially less than 12 feet are considered adequate for a wide range of volume, speed and other conditions.
- There is less direct evidence of a safety benefit associated with wider lanes in urban areas.

AASHTO - A Guide for Achieving Flexibility In Highway Design, 2004

Lane Width



Movement Type	Design Speed	Travel Lane Width
Yield	Less than 20 mph	N/A*
Slow	20-25 mph	9-10 feet
Low	30-35 mph	10-11 feet

*Yield street width is 24' curb face to curb face.

Speed Management



Speed Management



Speed Management



Speed Management



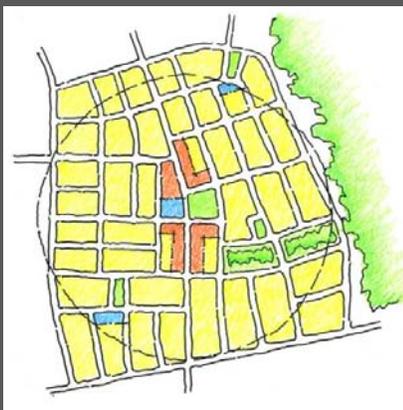
Curb Radius



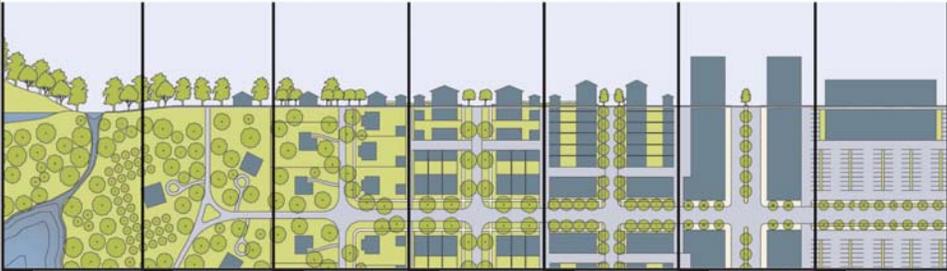
Movement Type	Design Speed	Curb Radius w/On Street Parking
Yield	Less than 20 mph	5-10 feet
Slow	20-25 mph	10-15 feet
Low	30-35 mph	15-20 feet

Curb return radii should be kept small to keep intersections compact. The use of on-street parking and/or bike lanes increases the effective size of the curb radii, further improving the ability of design vehicles to negotiate turns without running over the curb return.

Development Patterns



Define the Context



T1 NATURAL ZONE	T2 RURAL ZONE	T3 SUB-URBAN ZONE	T4 GENERAL URBAN ZONE	T5 URBAN CENTER ZONE	T6 URBAN CORE ZONE	SD SPECIAL DISTRICT
------------------------	----------------------	--------------------------	------------------------------	-----------------------------	---------------------------	----------------------------

Transect Zones, Smart Code

T-3 Suburban



By James Wassell

T-3 Suburban



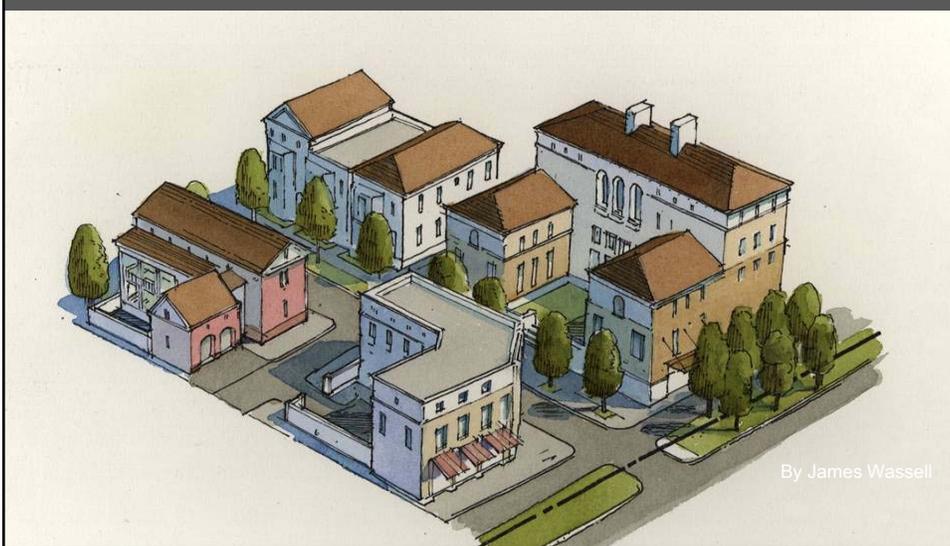
T-4 General Urban



T-4 General Urban



T-5 Urban Center

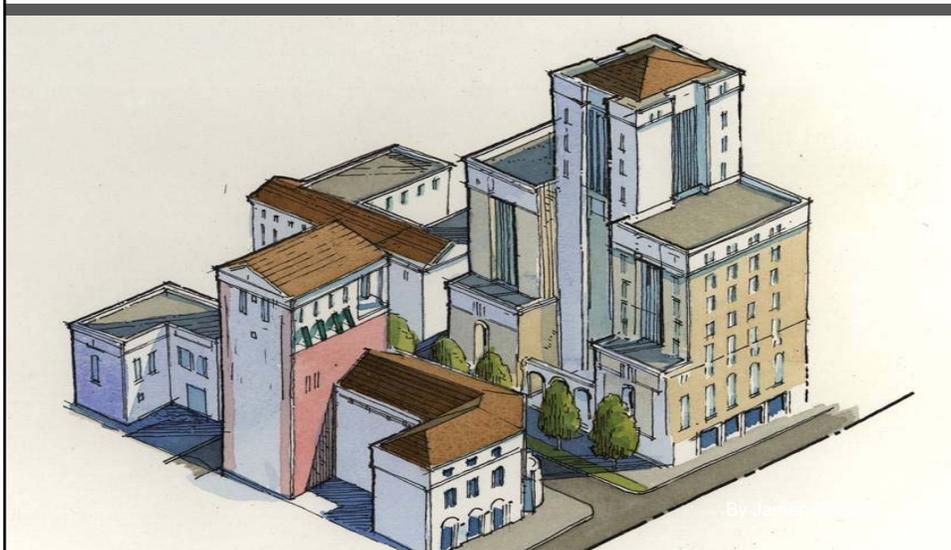


By James Wassell

T-5 Urban Center



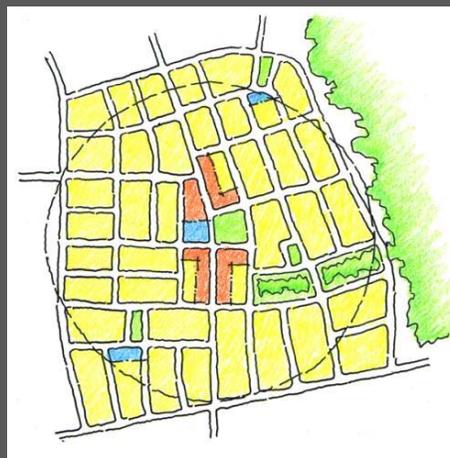
T-6 Urban Core



T-6 Urban Core

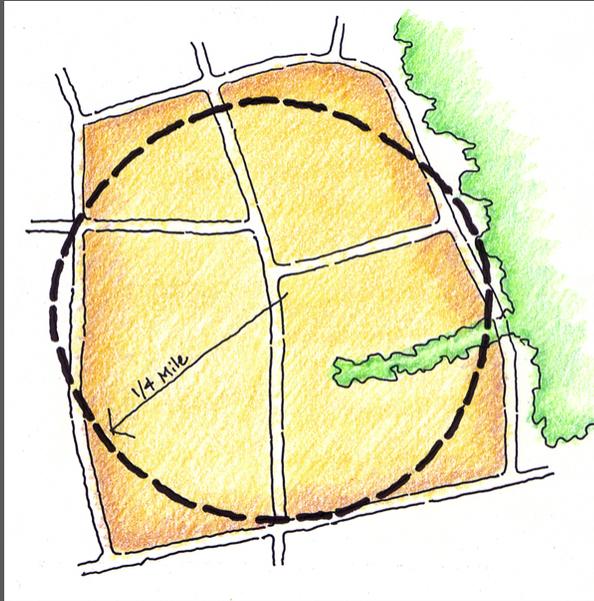


Neighborhood Scale



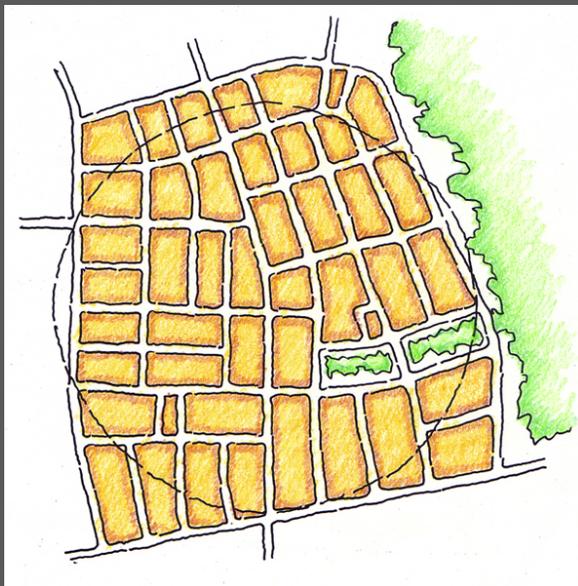
Highly Connected Street Network

Convenience and Efficiency



Size of neighborhoods for a 5-minute walk

Convenience and Efficiency

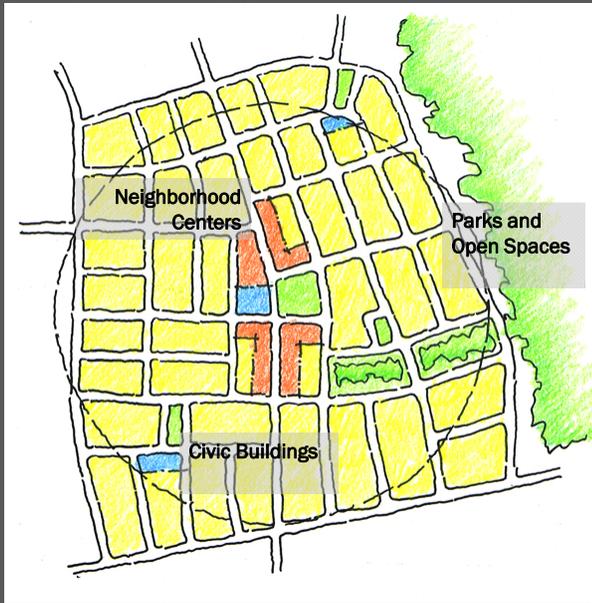


Make blocks walkable:

Maximum block perimeter of 1,320'

Average intersection spacing of 300-400'

Convenience and Efficiency



Design for a mix of land uses:

Centers include denser housing, a square, civic uses, and neighborhood-oriented retail.

Mixed Use Development



Neighborhood Stores



Neighborhood Schools

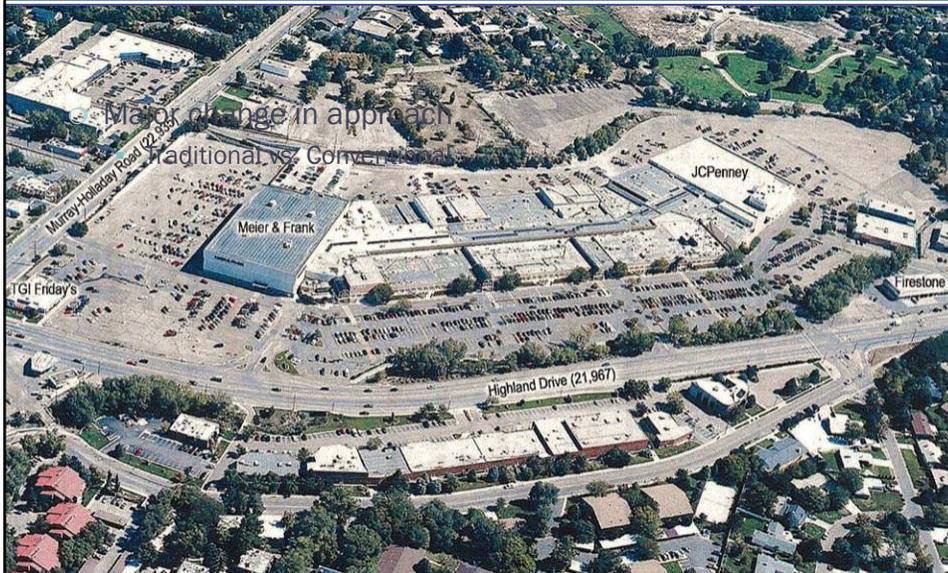


Roosevelt Elementary School, Tampa, FL

Neighborhood Parks



Cottonwood Mall, Holladay, Utah



Redevelopment Plan, DPZ



Making a Street Complete



Johnnie Dodds Boulevard, Mount Pleasant, SC

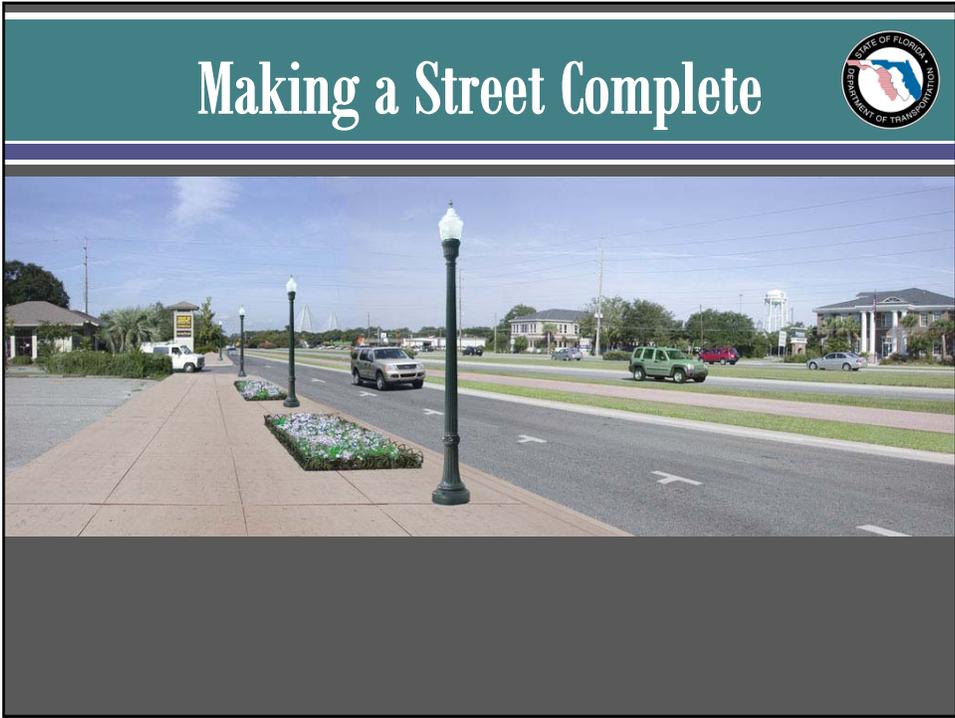


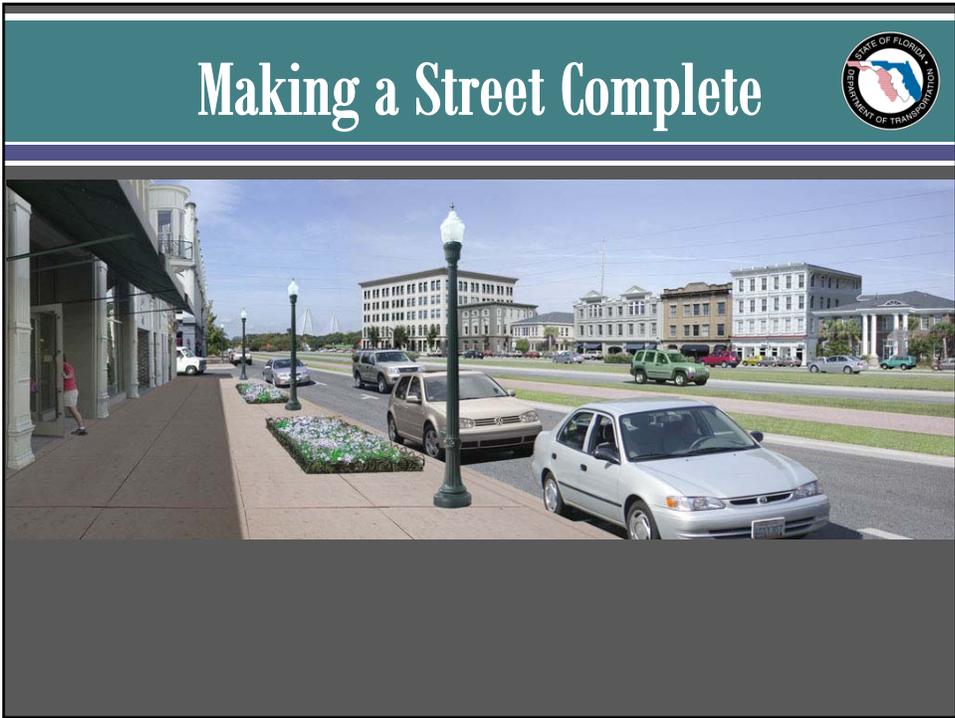
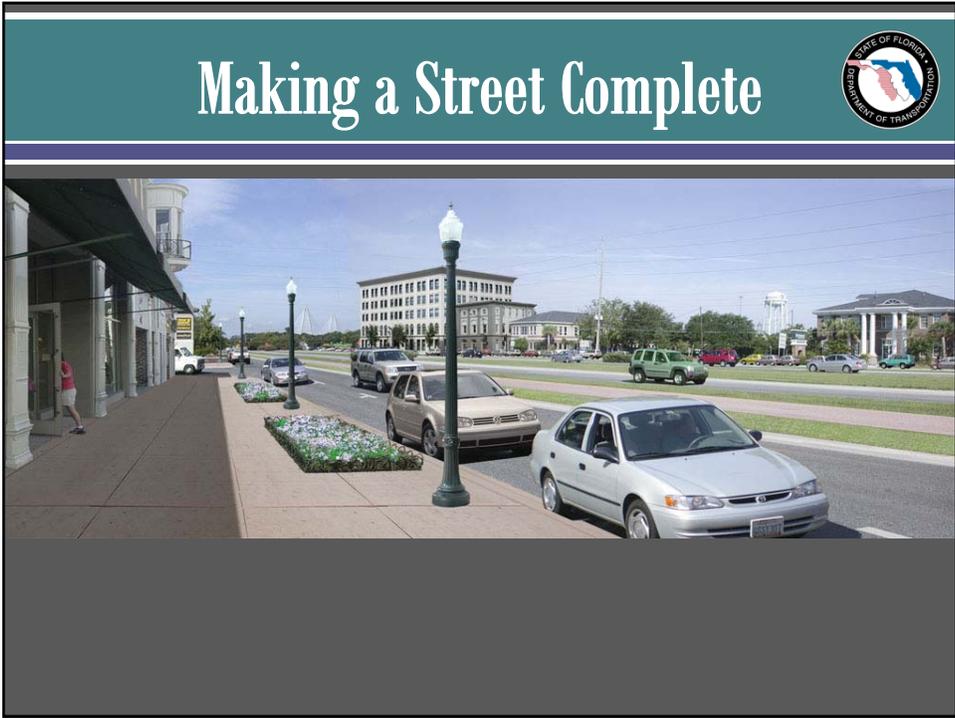
Making a Street Complete

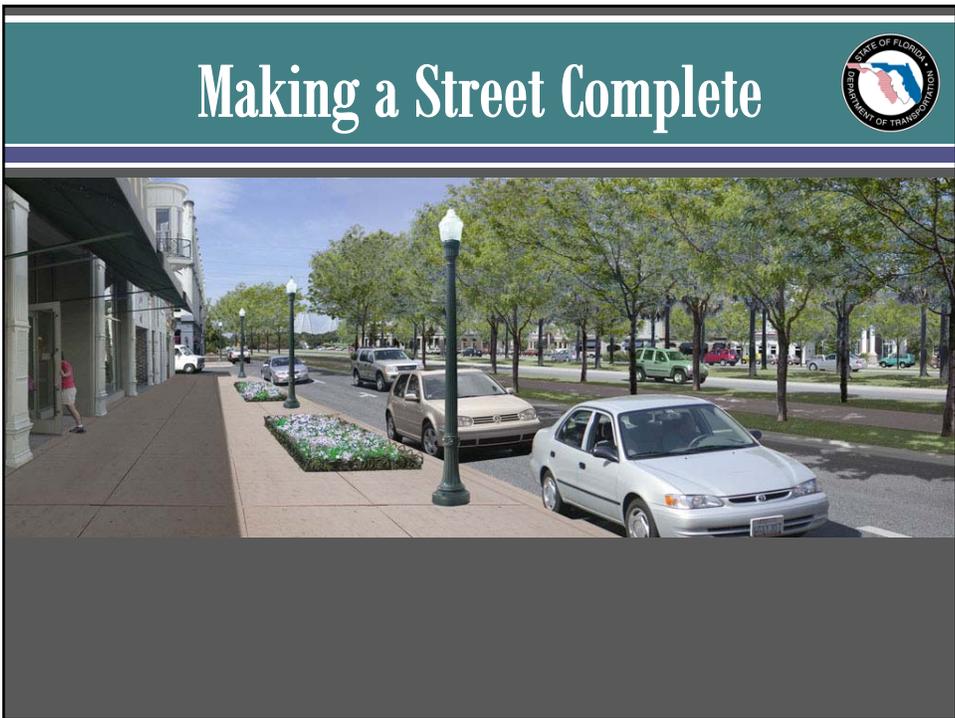
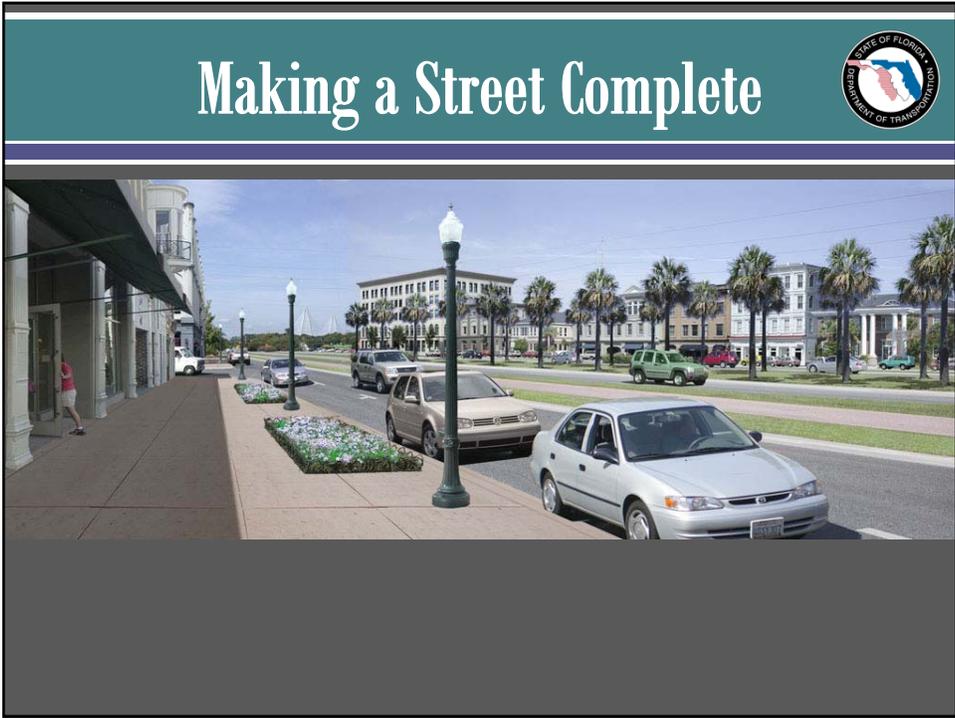


Dover, Kohl and Partners

Steve Price – Urban Advantage







Making a Street Complete



Making a Street Complete





DRIVING DOWN FATALITIES

Questions???

ALERT TODAY
ALIVE TOMORROW

Billy L. Hattaway, P.E.
billy.hattaway@dot.state.fl.us

66