GDOT Pedestrian & Streetscape Guide Update - Preview

9th Annual Georgia ITE/ASHE – Transportation Winter Workshop

GDOT Georgia Department of Transportation

March 3, 2019

Project Schedule

Initial External Stakeholder Meeting

September 2017

10 Individual Stakeholder Meetings

January - May 2018

Final External Stakeholder Meeting

September 2018

Chapter Progress Meetings GDOT

September 2017 - October 2018

30 - Day Comment period.

November 2018

Publish Guide

2019!

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Project Process/Stakeholder Driven

Stakeholder Input:

- GDOT Advisory Committee
- External Advisory Committee
- Statewide Individual Interviews

Project Advisory Committee

- **GDOT Advisory Committee:**
- David Adams
- Michelle Adejumo
- Jack Anninos
- Christina Barry
- Katelyn DiGioia
- Iris Gorduk
- Daniel Pass
- Michelle Pate
- Andrew Pearson
- Walt Taylor
- Scott Zehngraff

Statewide Stakeholder Feedback:

- **Cross Section Input:**

- Douglas County
- City of Suwanee
- City of Norcross
- City of Decatur
- Emory University
- Augusta/Richmond County
- Cobb County
- Gwinnett County
- Southern Regional Commission
- City of Valdosta

External Stakeholder Committee

- **ARC, MARTA, CDC, COA, The Beltline, PEDS, Citizens**

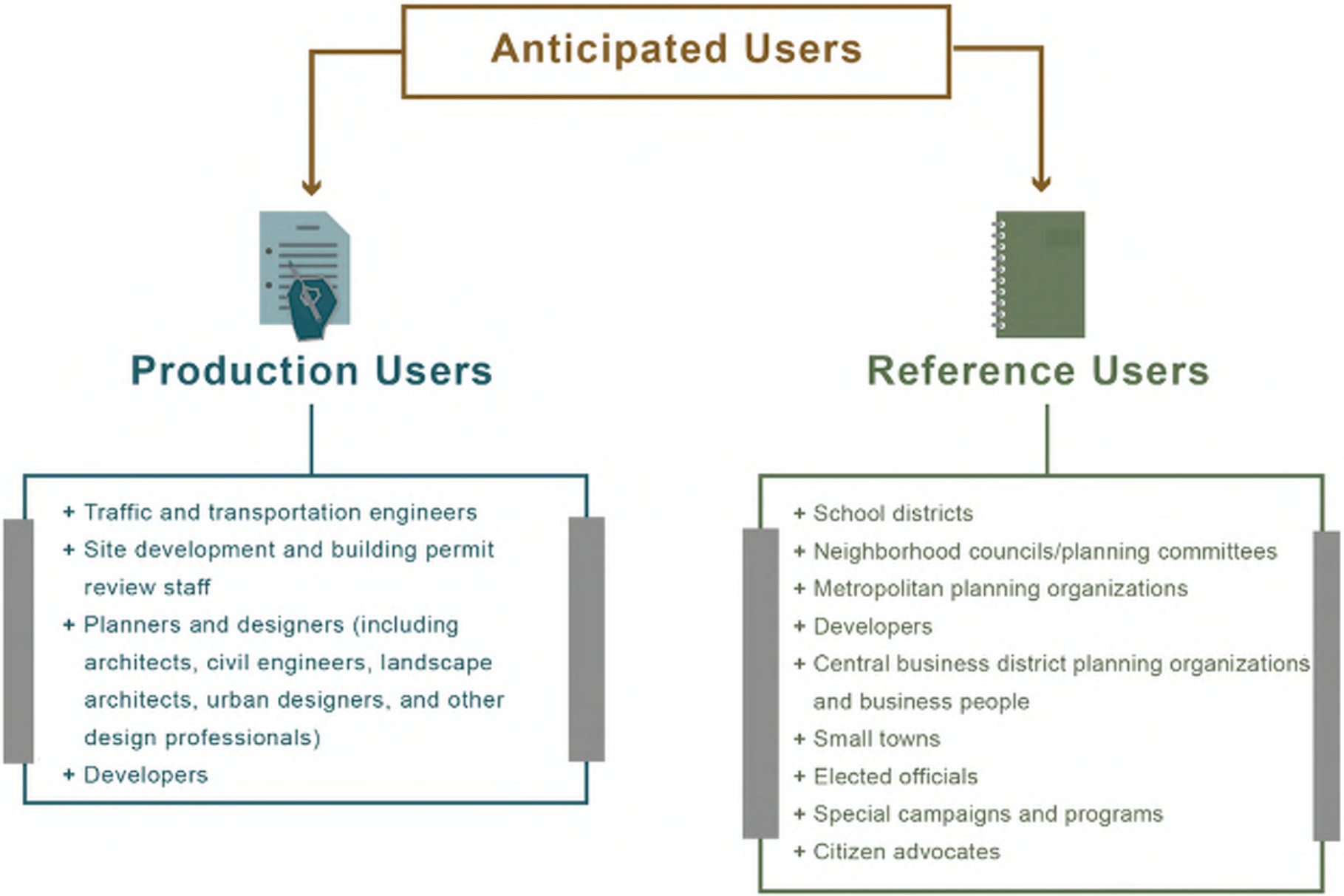
- Corentin Auguin, MARTA
- Brad Belo, Macon-Bibb County
- Kelly Cornett, Center for Disease Control
- Sally Flocks, PEDS
- Amy Goodwin, Atlanta Regional Commission
- Byron Rushing, Atlanta Regional Commission
- Tamara Graham, City of Atlanta, Watershed Management
- Shaun Green, Atlanta BeltLine
- Sibetta Kakwete, Association of American Retired Persons
- Jack Kittle, Citizen/Decatur
- Dee Merriam, Landscape Architect/Citizen
- Kemberli Sargent, PEDS
- Andrew Walter, City of Atlanta, Office of Mobility

General Input Received

- Midblock Crossing Guidance
- Graphically Rich
- Remove Redundancy
- Encourage design flexibility on “Off System” or local roads
- Use Georgia relevant projects/examples
- Guidance on traffic calming measures

Chapter 1 – Introduction

Users of the Guide/Initial Guidance!



Relationship to Other Policies and Design Guidelines/Hyperlinks

- American Association of State Highway and Transportation Officials (AASHTO) *Roadside Design Guide* (2011)
- AASHTO *A Policy on Geometric Design of Highways and Streets* ("Green Book") (2018)
- FHWA *Manual on Uniform Traffic Control Devices for Streets and Highways* (2009)
- GDOT *Context Sensitive Design Online Manual* (2016)
- GDOT *Design Policy Manual* (2018)
- GDOT *Plan Development Process* (2017)
- AASHTO *Guide for the Development of Bicycle Facilities* (2012)
- National Association of City Transportation Officials (NACTO) *Urban Street Design Guide* (2013)
- Institute of Transportation Practitioners (ITE) *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* (2010)

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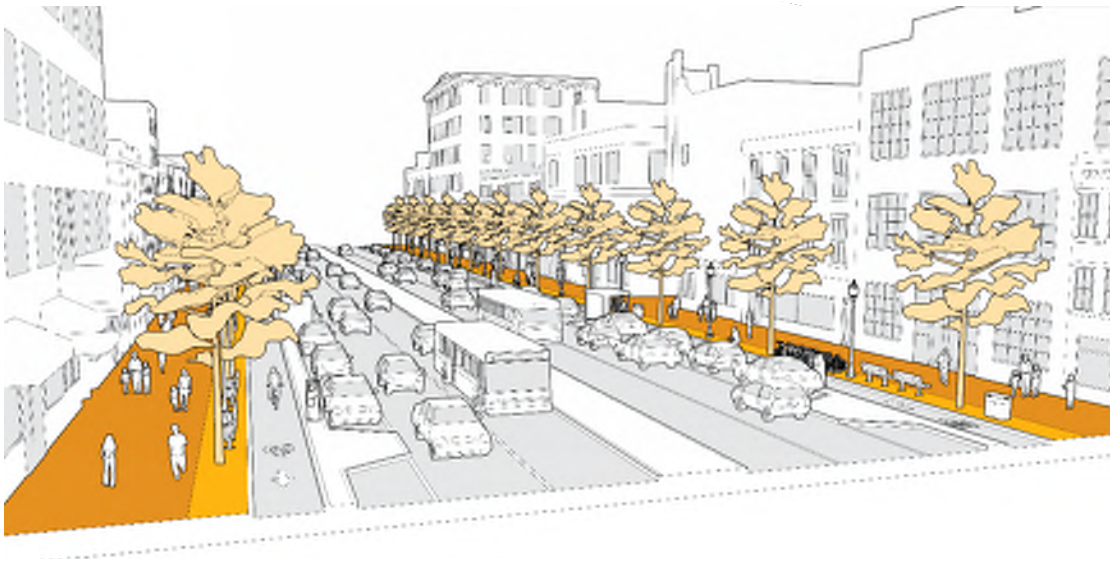
Navigating the Guide

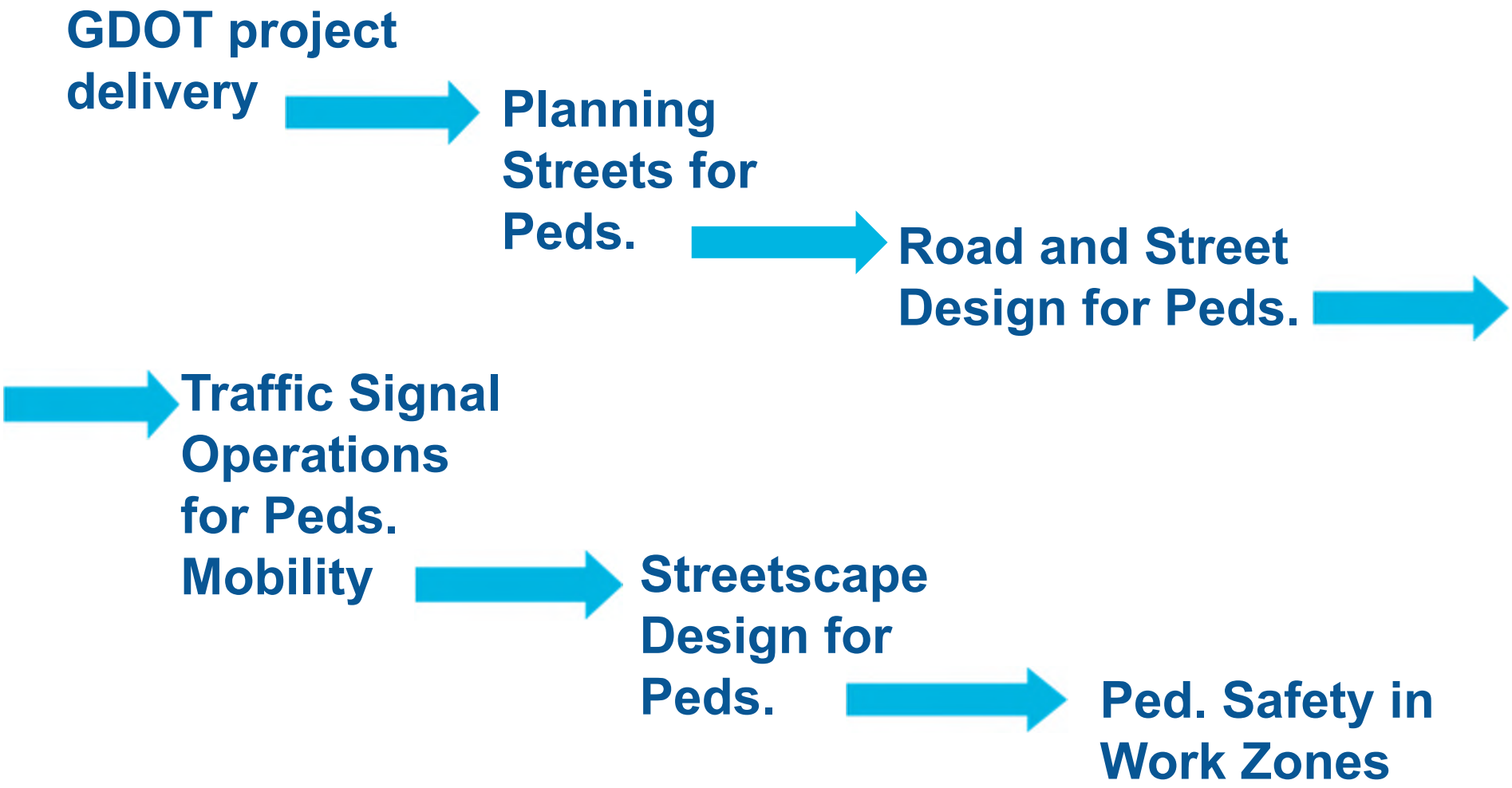
Organized two ways:

- **By the project process**

- **Context**



Navigating the Guide/Project Process



Navigating the Guide

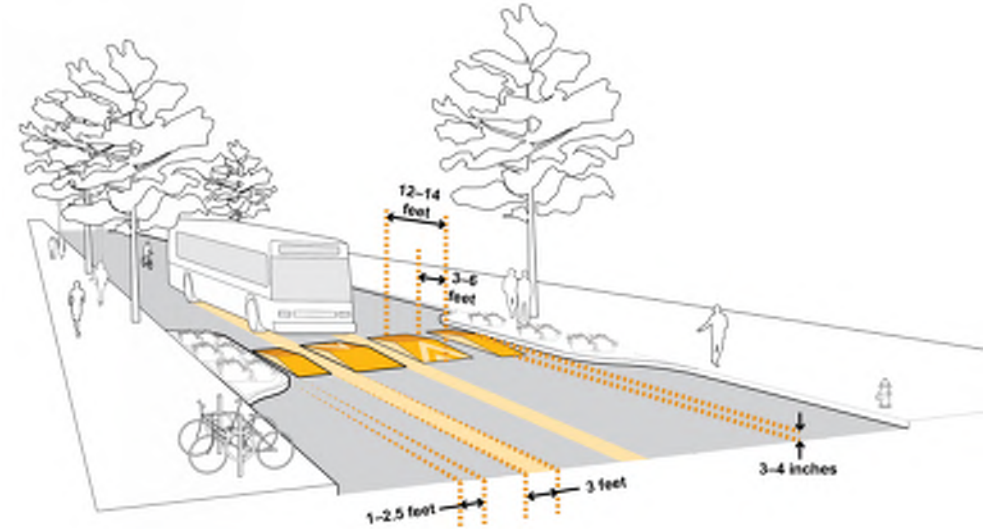
Appendix:

A. Mid-Block Pedestrian Crossing Evaluation

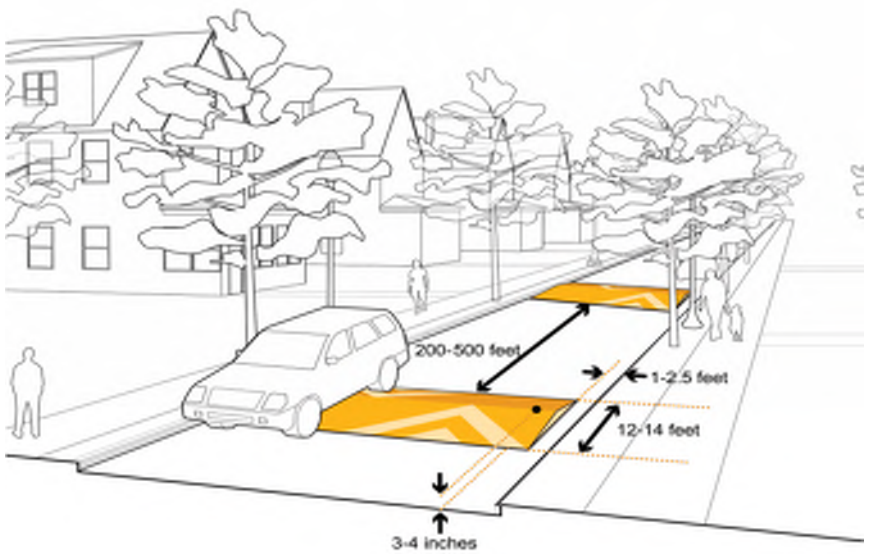
B. Landscape Maintenance Program

Navigating the Guide

Navigating the Guide



- **Speed cushion**



- **Speed hump**

≤40 mph — Less than or equal to 40 miles per hour

Not advised for routes with large volumes of truck traffic.

≤25 mph — Less than or equal to 25 miles per hour

Not advised for routes with large volumes of truck traffic.

Chapter 2. GDOT Project Delivery

2.1 Plan Development Process and Presentation Guide

2.2 Design Variances and Exceptions

Plan Development Process + Design Variances and Exceptions

- **On System/State Facilities**
- **Off System/Local Facilities**

Georgia Code § 50-21-24, Exceptions to state liability.

1. **Employees of the Department** are directly involved in the engineering and design, right-of-way acquisition, and/or construction letting of a project on an off-system roadway.

2. Any deviation proposed to **"Design Loading Structural Capacity"** standards will require the normal approval of a Design Variance from the Department's State Bridge Engineer and/or the Department's Chief Engineer before any deviation can be incorporated into a project.

Chapter 3. Planning Streets for Pedestrians

3.1 Prioritizing Pedestrian Safety

3.2 GDOT Complete Streets Policy

3.3 Connected Pedestrian Networks

3.4 Pedestrian-Oriented Data Collection

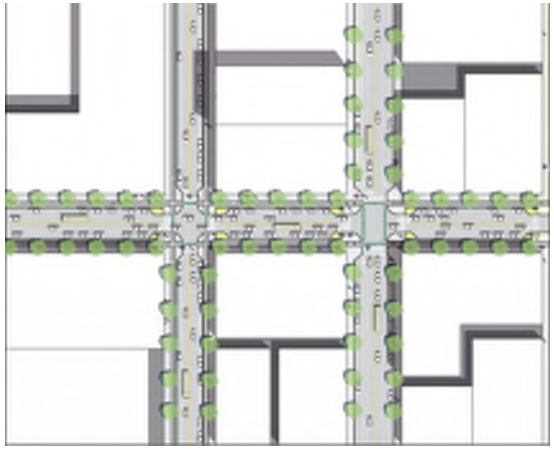
3.5 Context Sensitive Design for Pedestrian Facilities

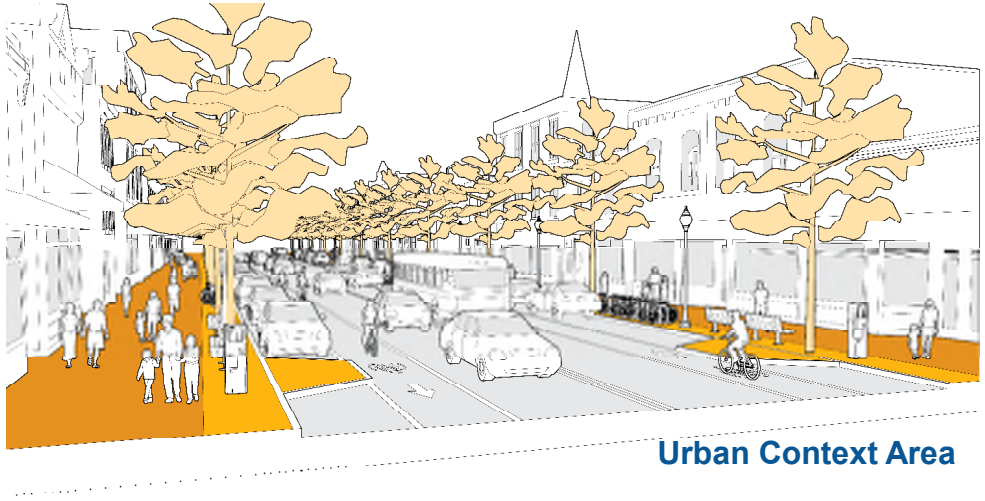
Street Types and Adjacent Land Uses

- One Size does not fit all!
- Not all roads are created equal
- Context is a significant influence

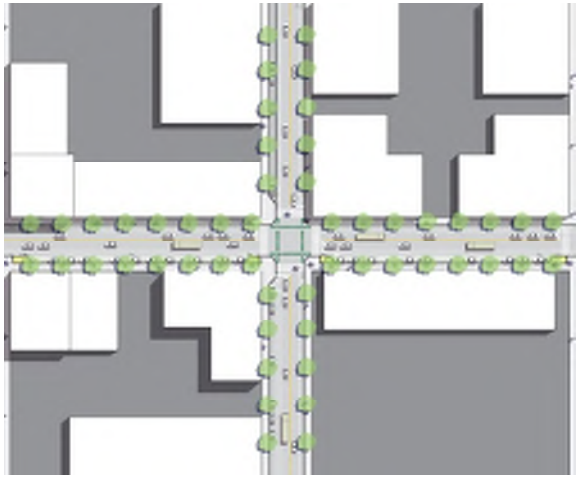
Street Types and Adjacent Land Uses

Urban Core Context Area





Urban Context Area



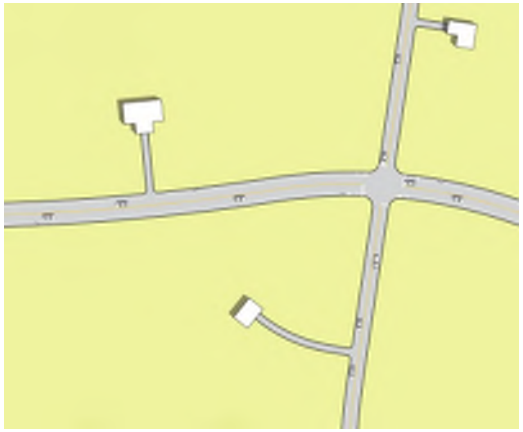
Street Types and Adjacent Land Uses

Industrial Park Land Use

Suburban Context Area

Street Types and Adjacent Land Uses

Rural Context Area



Rural Town Context Area

Chapter 4. Road and Street Design for Pedestrians

4.1 Vehicle Speeds

4.2 Traffic Calming

4.3 Optimizing the Cross Section for Pedestrians

4.4 Intersection Design

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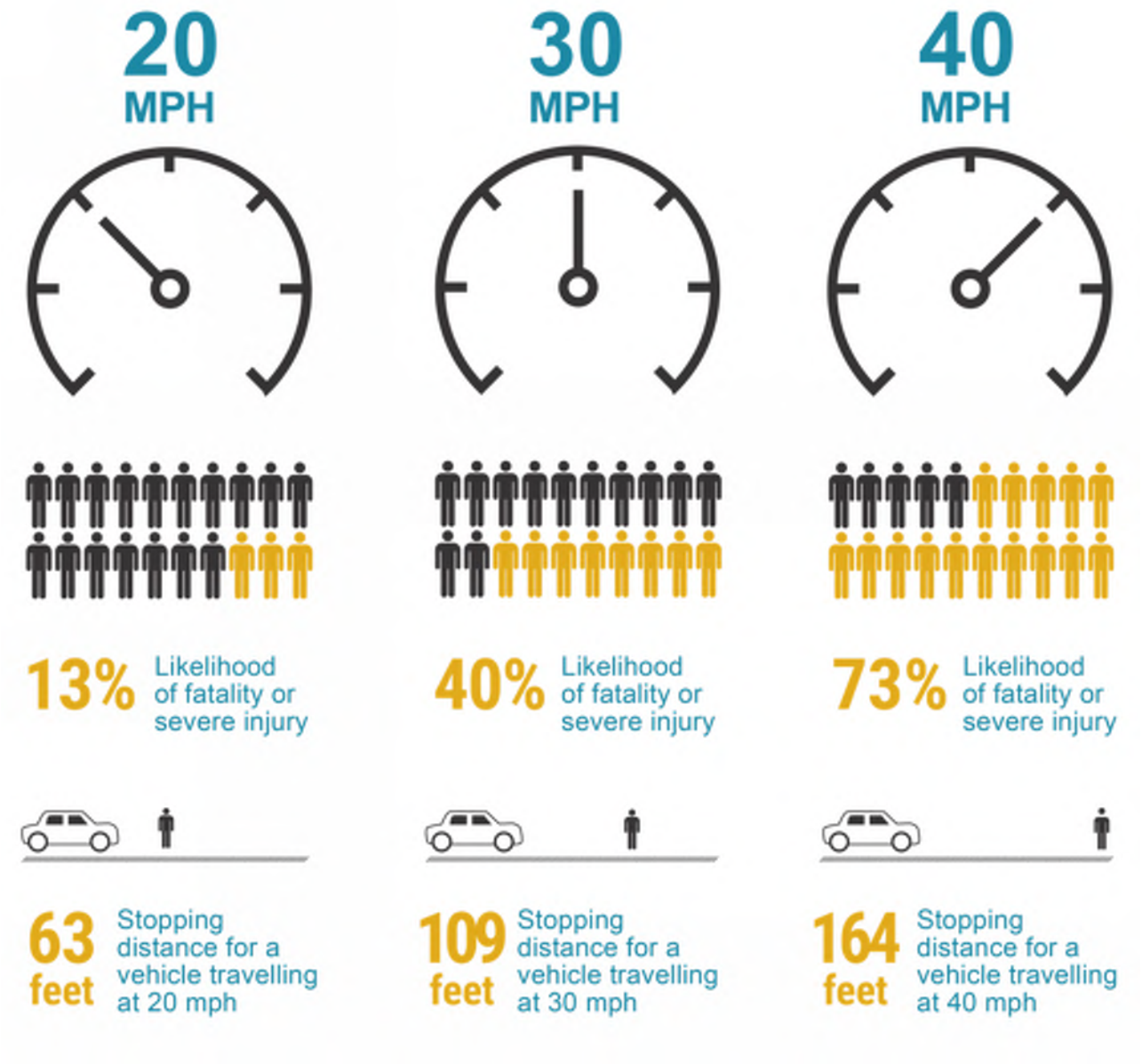
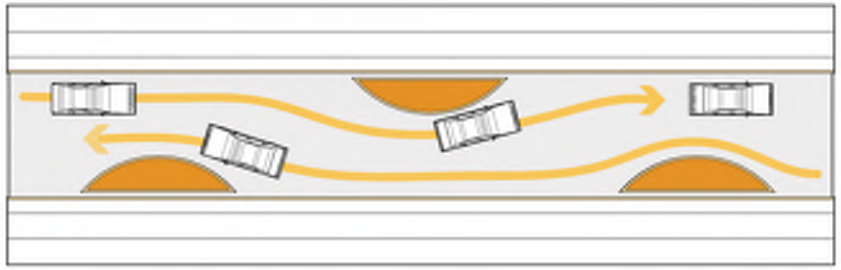
Vehicle Speeds

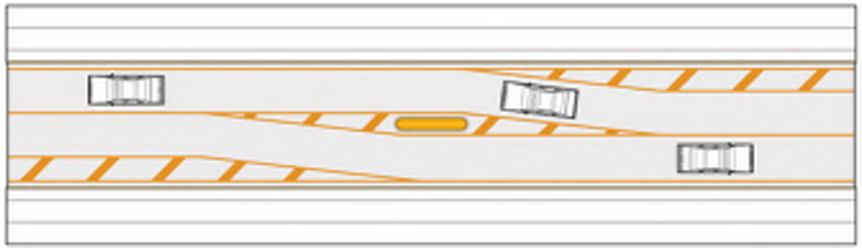
Relationship among Vehicle Speed, Pedestrian Injuries and Fatalities



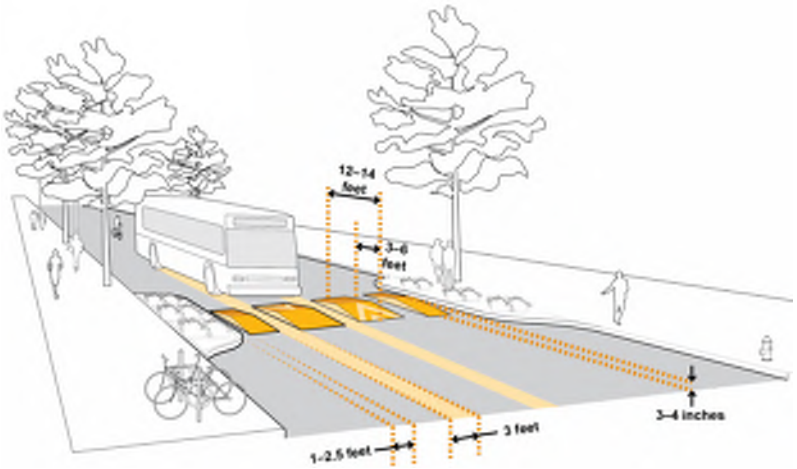
Traffic Calming



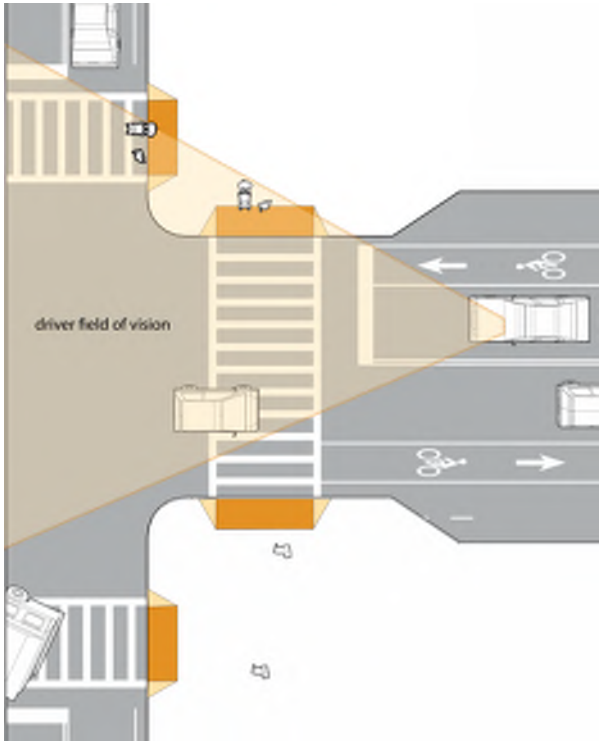
- Chicanes



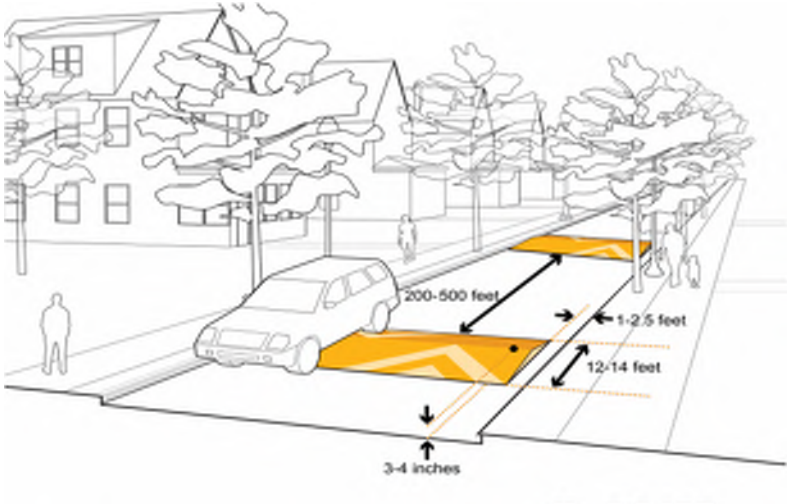
- Lane Shifts



- Speed Cushions



- Curb Extensions



- Speed Humps

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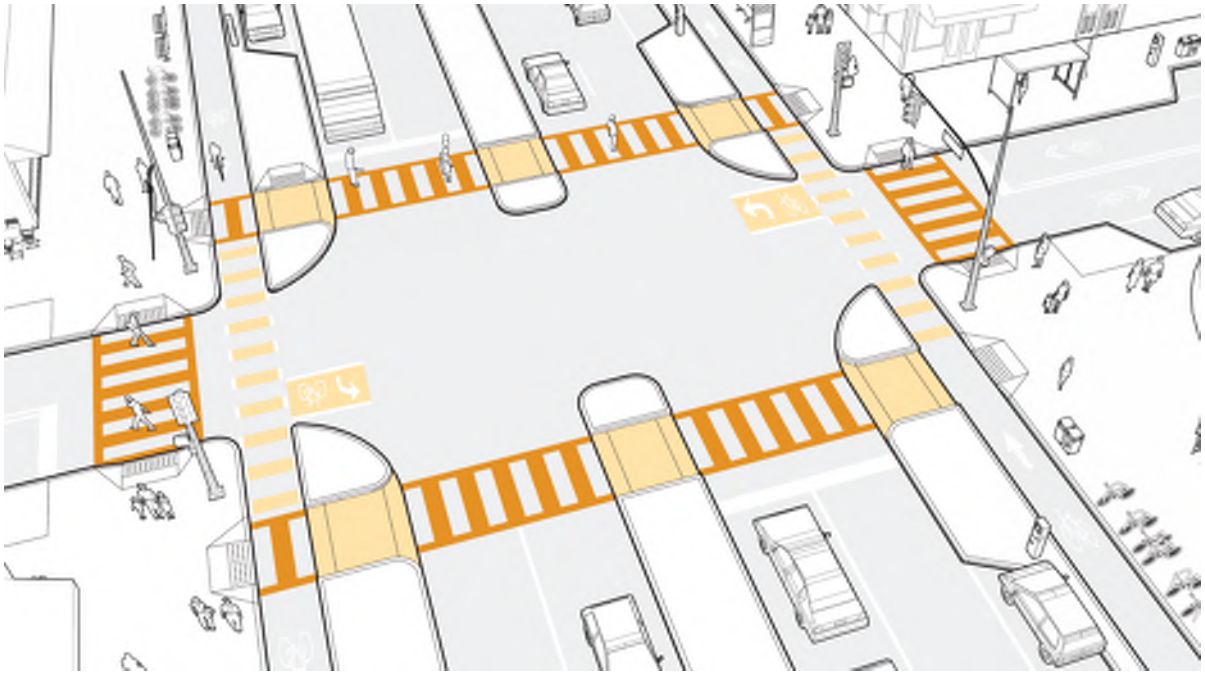
Intersection Design



- Channelized Right-Turn Lanes
- Corner Extensions
- Corner Radii
- Curb Ramps
- Diverging Diamond Interchanges
- Diverters
- Driveway Crossings
- Marked Crosswalks
- Pedestrian Bridges and Underpasses
- Protected Intersections
- Raised Crosswalks
- Raised Intersections
- Roundabouts
- Single-Point Urban Interchanges
- Skewed Intersections

Chapter 5. Traffic Signal Operations for Pedestrian Mobility

5.1 Signal Timing Strategies for Pedestrians

5.2 Pedestrian Infrastructure at Traffic Signals

5.3 Traffic Control Devices for Uncontrolled Pedestrian Crossing Locations

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Signal Timing Strategies for Pedestrians

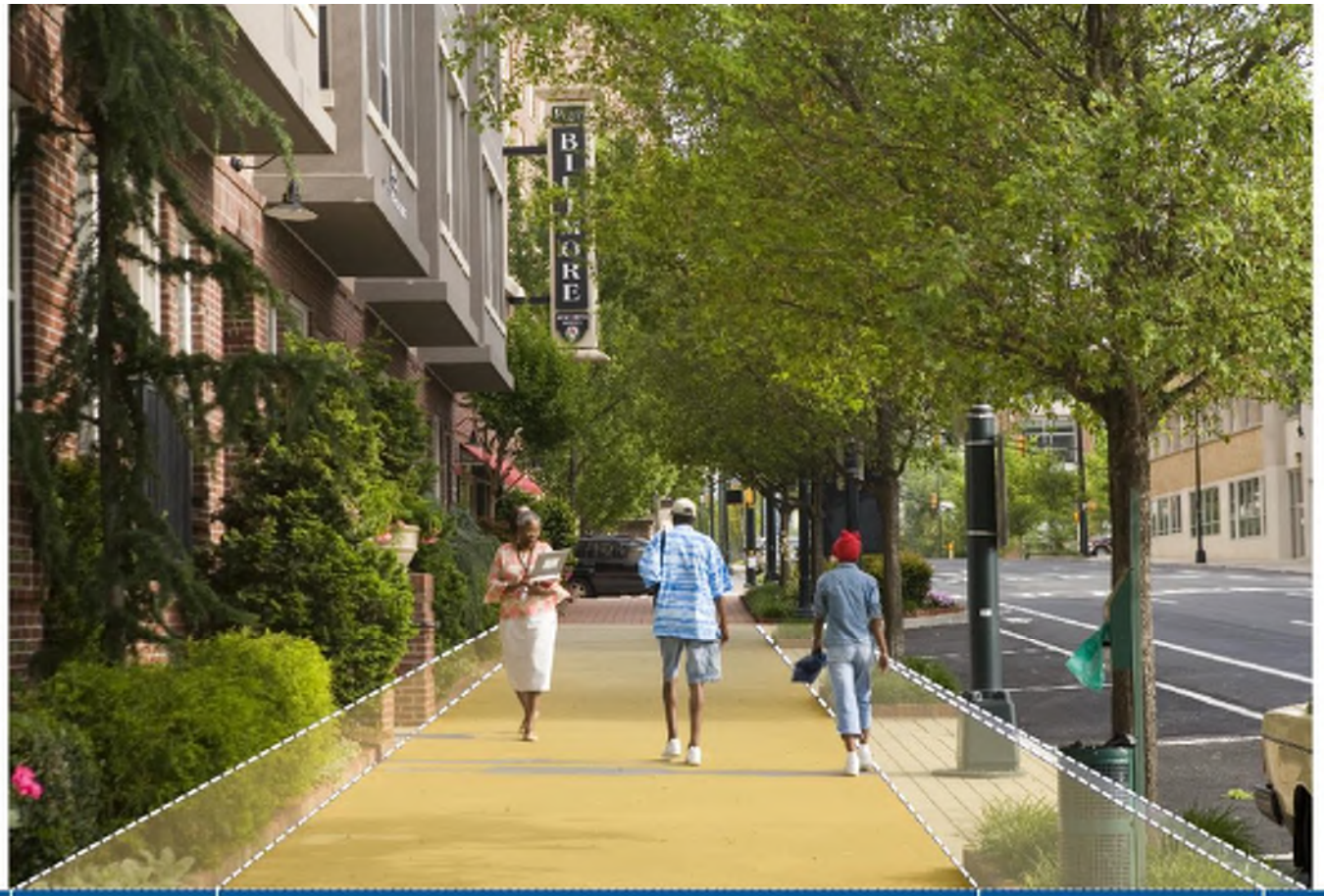
- **CONTEXT!**
- This chapter provides ***guidance on traffic signal timing strategies that improve accessibility, reduce pedestrian delay, and give more priority to pedestrians crossing the street***, i.e, leading ped. interval, etc.

Chapter 6. Streetscape Design for Pedestrians

Utilities

- Guidance on utility coordination, “Early and Often”
- Utility installations are governed by the GDOT Utility Accommodation Policy and Standards Manual. Designers should read and understand the referenced policy, in conjunction with the policies and guidelines set forth in the GDOT Design Policy Manual.

Sidewalk Zones/Context



	Frontage Zone	Pedestrian Circulation Zone	Greenscape / Furniture Zone	Curb Zone
Urban Core	0 - 10'	10 - 12' or greater	4 - 6'	6"
Urban	0 - 10'	8 - 10' or greater	4 - 8'	6"
Suburban	0 - 10'	6 - 8'	4 - 10'	6"
Rural Town	0' - 10'	5 - 8'	4 - 6'	6"

Components of a Streetscape / Urban Design Elements

- Hardscape materials
- Bike Parking
- Bollards/Pedestrian-Scale Lighting
- Seating/ART
- Transit Stop Amenities
- Liter Receptacles
- Wayfinding Signage
- Street Trees

Green Stormwater Infrastructure

- Green infrastructure techniques are often the most effective when used in combination with conventional storm drainage systems such as inlets and pipes.
- The **MS4 process** should be used for “On Street” State Facilities.

N. McDonough Street – Decatur, GA

Street Tree and Plant Considerations

GDOT Policy 6755-9, Policy for Landscaping and Enhancements on GDOT Right of Way.

Tree Selection List

Small Canopy: 15 to 20 feet tall with a spread of 15 to 30 feet wide	
Amelanchier arborea | Downey Serviceberry	*Crataegus phaenopyrum* | Washington Hawthorn
Cercis canadensis | Eastern Redbud	*Koelreuteria paniculata* | Golden Rain Tree
Chionanthus virginicus | White Fringe Tree	*Lagerstroemia indica* | Crepe-Myrtle
Cornus florida | Flowering Dogwood	*Prunus x yedoensis* | Yoshino Cherry
Medium Canopy: 35 to 40 feet tall with a spread of 25 to 35 feet wide	
Acer buergerianum | Trident Maple	*Metasequoia glyptostroboides* | Davin Redwood
Acer ginnala | Amur Maple	*Nyssa ogeche* | Ogeechee Lime, Ogeechee Tupelo
Acer rubrum | Red Maple	*Nyssa sylvatica* | Black tupelo
Carpinus betulus | European Hornbeam	*Oxydendrum arboretum* | Sourwood
Carpinus caroliniana | American Hornbeam	*Pistacia chinensis* | Chinese Pistache
Cercidiphyllum japonicum | Katsura Tree	*Platanus x acerifolia* | London Plane tree
Cladrastis kentukea | American Yellowwood	*Prunus caroliniana* | Carolina Cherry laurel
Cupressus arizonica | Arizona (Carolina Saphire) Cypress	*Taxodium distichum* | Bald cypress
Juniperus virginiana | Eastern Redcedar	*Ulmus parvifolia* | Chinese (Athena, Bosque, etc.) Elm
Magnolia virginiana | Sweetbay Magnolia	*Ulmus americana* 'Jefferson' | Jefferson Elm
Large Canopy: 40 to 80 feet tall with a spread of 30 to 40 feet wide	
Acer rubrum 'Autumn Blaze' | Autumn Blaze Maple	*Quercus phellos* | Willow Oak
Fraxinus americana | White Ash	*Quercus prinus* | Chestnut Oak
Ginkgo biloba | Ginkgo (male variety only)	*Quercus rubra* | Northern Red Oak
Liquidambar styraciflua 'Rotundiloba' | Sweet Gum	*Quercus shumardii* | Shumard Oak
Platanus × acerifolia | London Planetree	*Quercus stellate* | Post Oak
Quercus alba | White Oak	*Quercus texana* | Nuttal Oak
Quercus coccinea | Scarlet Oak	*Quercus virginiana* | Live Oak
Quercus falcate | Southern Red Oak	*Sabal palmetto* | Palmetto Palm
Quercus hemisphaerica | Laurel Oak	*Ulmus americana* 'Princeton' | American Elm
Quercus lyrata | Overcup Oak	

Horizontal Clearances for Trees and Shrubs (Keep shrubs below 30” max. height).

Horizontal Clearances for Trees and Shrubs	
Posted / Design Speed	**Minimum Horizontal Clearance[1]**
≤ 35 mph (Commercial Area[2])	4-ft. 8-ft. median
≤ 35mph	8-ft. 8-ft. in median
40 mph	10-ft. 16-ft. in median[3]
45 mph	14-ft. 22-ft. in median[3]
>45 mph	Outside the clear zone
Interstates	120% of the clear zone requirement

[1] From center of tree to face of curb.

[2]In a Central Business District and/or where commercial businesses are typically directly adjacent to the rights of way.

[3]Small trees and shrubs that mature at ≤ 4” in diameter may be planted a minimum of 8 feet from the face of the curb in medians adjacent to 40 to 45 mph speeds. Tree size is diameter of the tree at maturity, measured at dbh (4.5 feet above the ground).

Certain situations may require an increased horizontal clearance setback for additional safety considerations.

For rural shoulders, trees should be placed outside the clear zone.

Horizontal Clearances for Trees and Shrubs	
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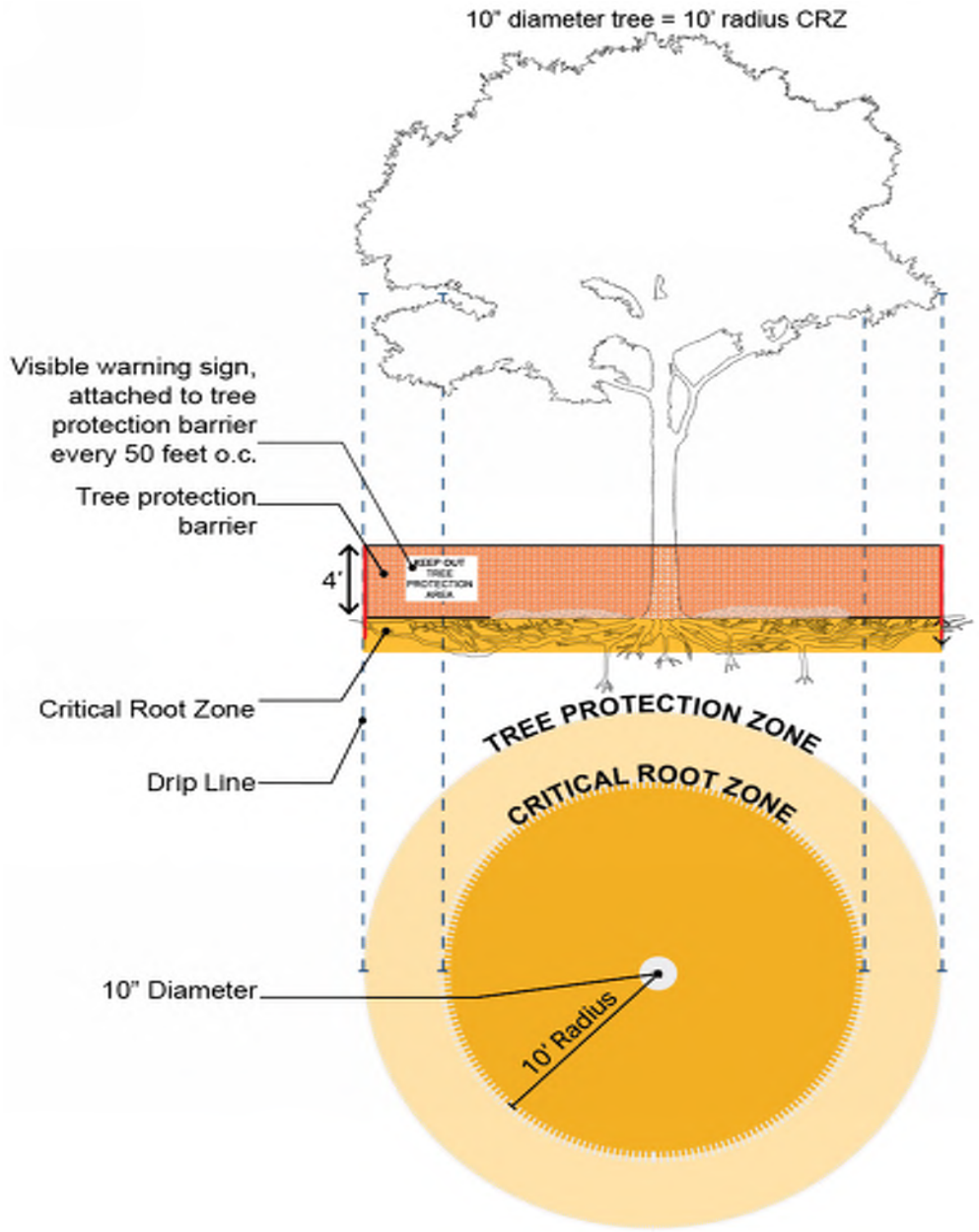
Tree Protection in Work Zones



Chapter 7. Pedestrian Safety in Work Zones

7.1 Temporary Traffic Control and Detour Plans

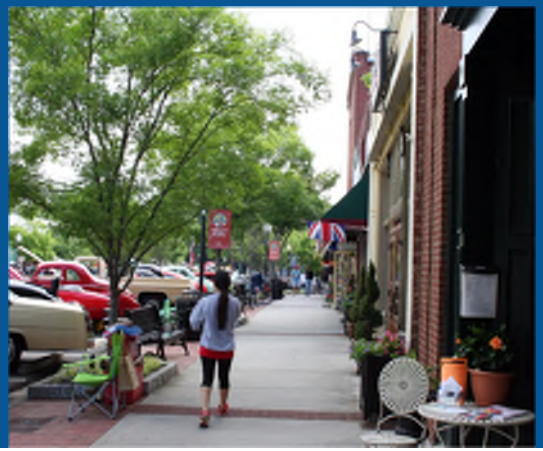
7.2 Components of an Accessible Work Zone

7.3 Maintenance of Pedestrian and Bicycle Infrastructure in Work Zones

Pedestrian Safety in Work Zones

- GDOT, Special Provision Section 150 – Traffic Control (latest edition)
- US Access Board, PROWAG (latest edition)

Together we can make a difference! Thank you!



Goals and Objectives of the Guide

- **Goal 1**:
  Articulate GDOT's Vision, building on the GDOT "Complete Streets" Policy

- **Goal 2:**
  Update Guide Content/Format

- **Goal 3:**
  Provide guidance for a broad range of users on pedestrian countermeasures and proper streetscape design

- **Goal 4**
  Reduce Pedestrian Crashes