

MULTIMODAL & PUBLIC SPACE

Design Guidelines

VIRGINIA DEPARTMENT OF RAIL
AND PUBLIC TRANSPORTATION



JUNE 15, 2011

STEERING COMMITTEE MEETING

AGENDA

- Presentation, review and discussion of draft table of contents
- Walkabout tour and lunch
- Tour observations and discussion
- Next steps

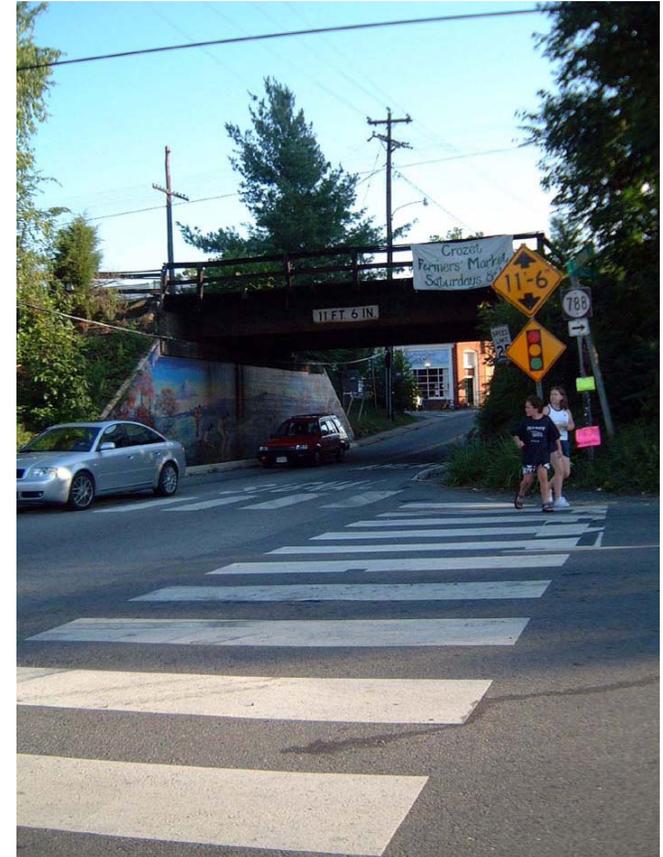


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 - Chapter 2 - Statewide Context – Existing Communities
 - Chapter 3 – Planning Context
 - Chapter 4 – Multimodal and Public Space Design Guidelines
 - Chapter 5 - Transportation Demand Management (TDM) Strategies
 - Chapter 6 - Implementation and Funding Best Practices

- Describe how the guidelines were developed and how they can be used
- Describe the benefits of multimodal transportation



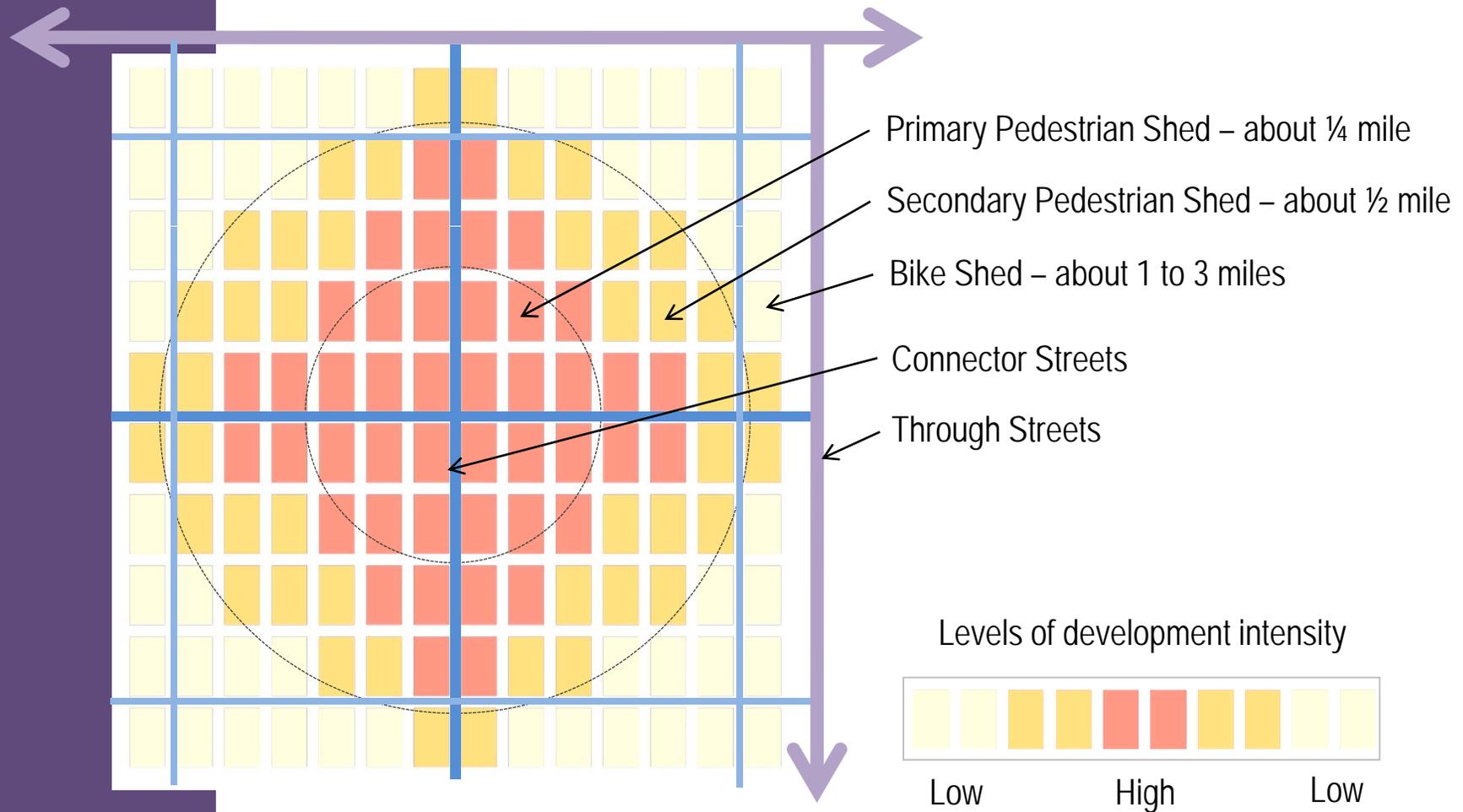
- Profile of existing places in Virginia
 - Quick assessment of urban form character
 - Multimodal intensity and other transportation characteristics
 - Utilizing aerials and available GIS or travel demand data
 - Highlight notable best practices in multimodal planning and implementation

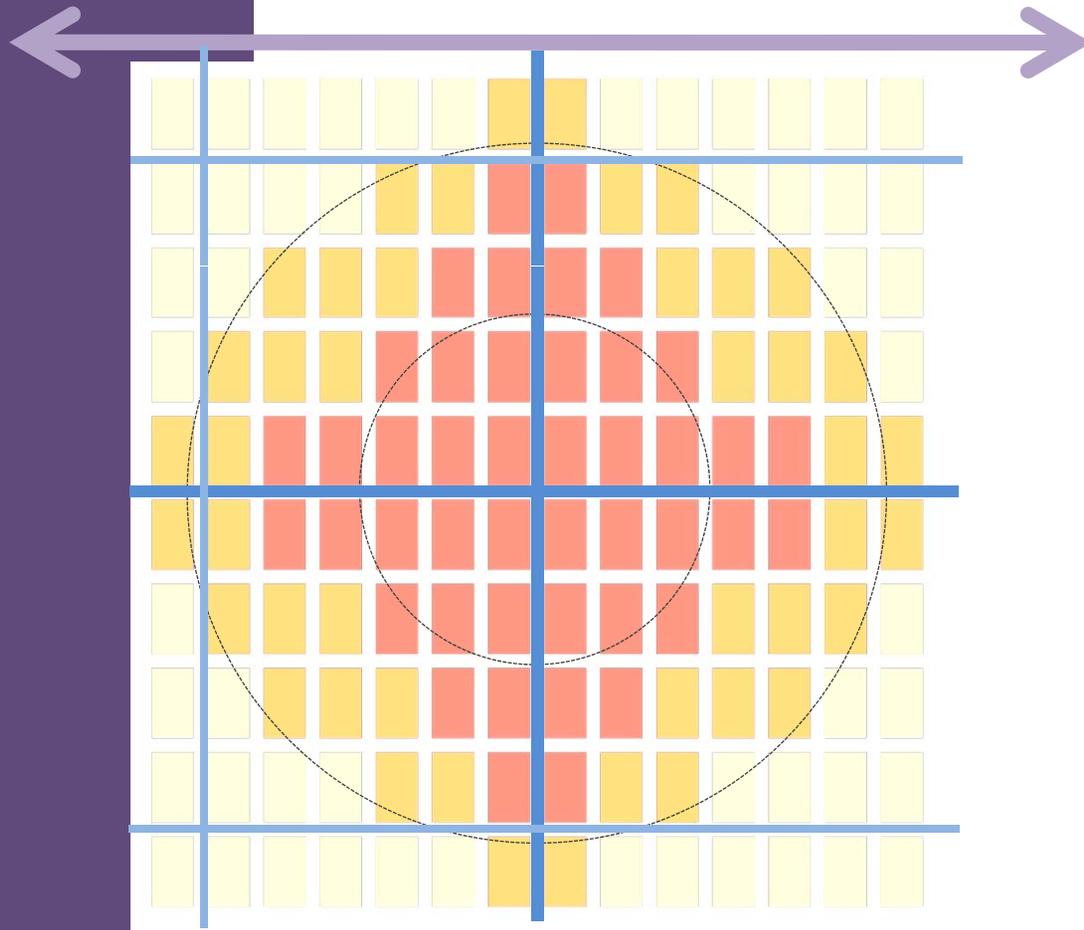


Urban form diagrams Northern Virginia

- Differing scales & geographies
 - The Multimodal Placetype – Prototypical
 - The basic element of a multimodal placetype is the one-quarter to one-half mile walking shed
 - Different placetypes reflect different surrounding community contexts – from rural to urban
 - The Multimodal Corridor Intensity Zone
 - Locations where multiple Multimodal Placetypes overlap
 - Multimodal Regions
 - Scale to help seek regional multimodal connections between placetypes and zones

- Based on overlapping non-auto mode sheds



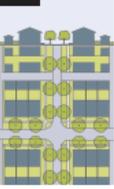
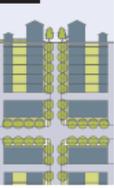


- Basic building block for larger multimodal zones
- Different placetypes to reflect kinds of communities
- Differentiate between through and connector streets

- Develop placetypes to reflect different community conditions from rural to urban



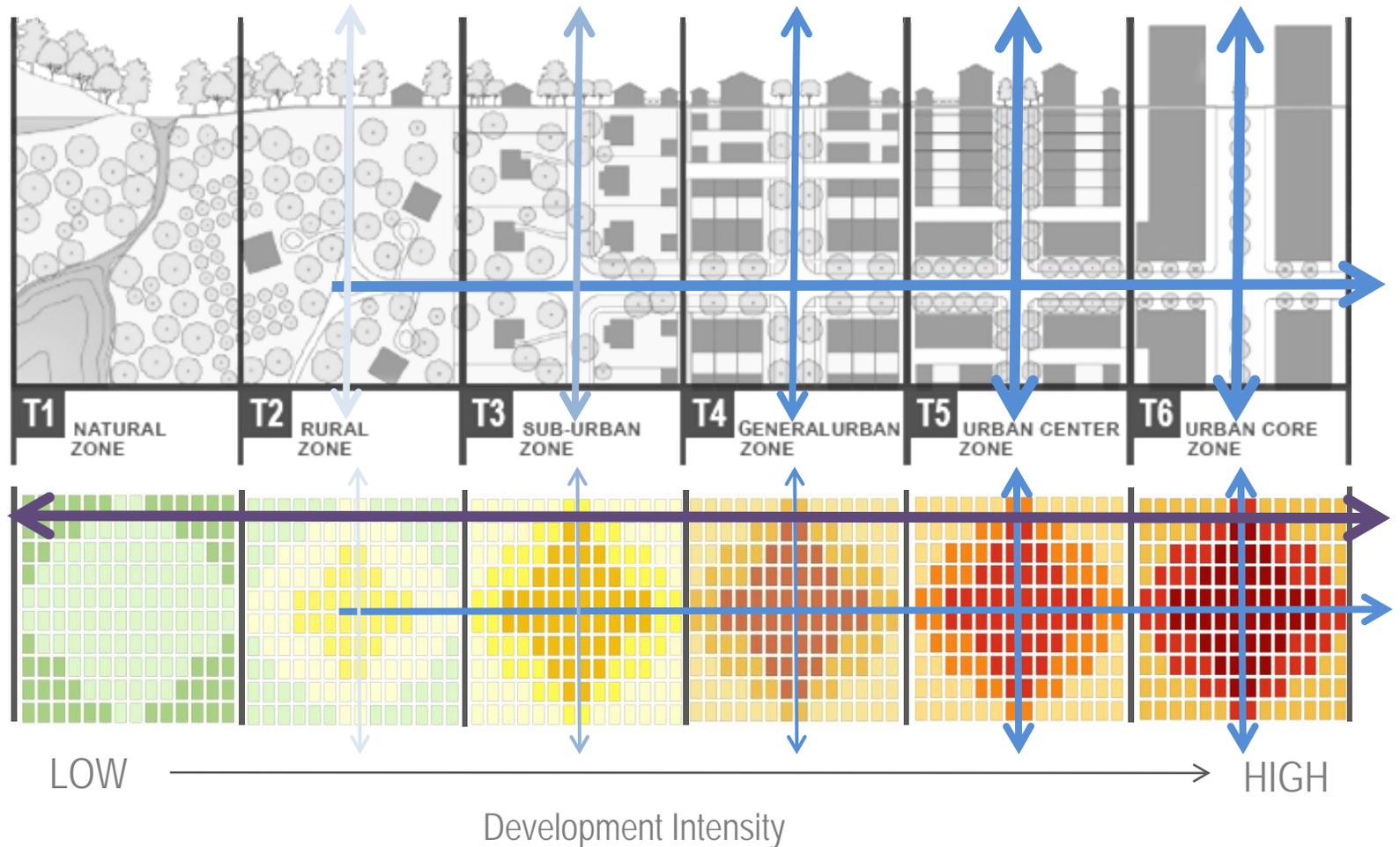
TABLE 1: Transect Zone Descriptions. This table provides descriptions of the character of each T-zone.

 <p>T1</p>	<p>T-1 NATURAL T-1 Natural Zone consists of lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.</p>	<p>General Character: Natural landscape with some agricultural use Building Placement: Not applicable Frontage Types: Not applicable Typical Building Height: Not applicable Type of Civic Space: Parks, Greenways</p>
 <p>T2</p>	<p>T-2 RURAL T-2 Rural Zone consists of sparsely settled lands in open or cultivated states. These include woodland, agricultural land, grassland, and irrigable desert. Typical buildings are farmhouses, agricultural buildings, cabins, and villas.</p>	<p>General Character: Primarily agricultural with woodland & wetland and scattered buildings Building Placement: Variable Setbacks Frontage Types: Not applicable Typical Building Height: 1- to 2-Story Type of Civic Space: Parks, Greenways</p>
 <p>T3</p>	<p>T-3 SUB-URBAN T-3 Sub-Urban Zone consists of low density residential areas, adjacent to higher zones that some mixed use. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.</p>	<p>General Character: Lawns, and landscaped yards surrounding detached single-family houses; pedestrians occasionally Building Placement: Large and variable front and side yard Setbacks Frontage Types: Porches, fences, naturalistic tree planting Typical Building Height: 1- to 2-Story with some 3-Story Type of Civic Space: Parks, Greenways</p>
 <p>T4</p>	<p>T-4 GENERAL URBAN T-4 General Urban Zone consists of a mixed use but primarily residential urban fabric. It may have a wide range of building types: single, sideyard, and rowhouses. Setbacks and landscaping are variable. Streets with curbs and sidewalks define medium-sized blocks.</p>	<p>General Character: Mix of Houses, Townhouses & small Apartment buildings, with scattered Commercial activity; balance between landscape and buildings; presence of pedestrians Building Placement: Shallow to medium front and side yard Setbacks Frontage Types: Porches, fences, Dooryards Typical Building Height: 2- to 3-Story with a few taller Mixed Use buildings Type of Civic Space: Squares, Greens</p>
 <p>T5</p>	<p>T-5 URBAN CENTER T-5 Urban Center Zone consists of higher density mixed use building that accommodate retail, offices, rowhouses and apartments. It has a tight network of streets, with wide sidewalks, steady street tree planting and buildings set close to the sidewalks.</p>	<p>General Character: Shops mixed with Townhouses, larger Apartment houses, Offices, workplace, and Civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity Building Placement: Shallow Setbacks or none; buildings oriented to street defining a street wall Frontage Types: Stoops, Shopfronts, Galleries Typical Building Height: 3- to 5-Story with some variation Type of Civic Space: Parks, Plazas and Squares, median landscaping</p>
 <p>T6</p>	<p>T-6 URBAN CORE T-6 Urban Core Zone consists of the highest density and height, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks; streets have steady street tree planting and buildings are set close to wide sidewalks. Typically only large towns and cities have an Urban Core Zone.</p>	<p>General Character: Medium to high-Density Mixed Use buildings, entertainment, Civic and cultural uses. Attached buildings forming a continuous street wall; trees within the public right-of-way; highest pedestrian and transit activity Building Placement: Shallow Setbacks or none; buildings oriented to street, defining a street wall Frontage Types: Stoops, Dooryards, Forecourts, Shopfronts, Galleries, and Arcades Typical Building Height: 4-plus Story with a few shorter buildings Type of Civic Space: Parks, Plazas and Squares; median landscaping</p>

PLANNING CONTEXT

- Utilizing the transect to help define community context
- Congress for New Urbanism (CNU) and the Institute of Transportation Engineers (ITE) collaborated on urban thoroughfare design guidelines

- Align placetypes with different context zones



- What are the variables that will be described for each placetype?
 - Land use and urban form
 - Density and intensity
 - Street types - network connectivity, facility function and traffic volumes

LOW

DEVELOPMENT INTENSITY

HIGH



T6



T-6 URBAN CORE

T-6 Urban Core Zone consists of the highest density and height, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks; streets have steady street tree planting and buildings are set close to wide sidewalks. Typically only large towns and cities have an Urban Core Zone.

General Character:

Medium to high-Density Mixed Use buildings, entertainment, Civic and cultural uses. Attached buildings forming a continuous street wall; trees within the public right-of-way; highest pedestrian and transit activity

Building Placement:

Shallow Setbacks or none; buildings oriented to street, defining a street wall

Frontage Types:

Stoops, Dooryards, Forecourts, Shopfronts, Galleries, and Arcades

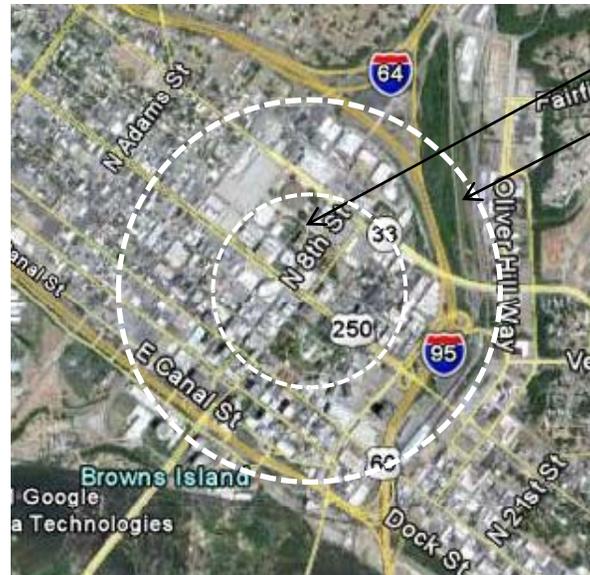
Typical Building Height:

4-plus Story with a few shorter buildings

Type of Civic Space:

Parks, Plazas and Squares; median landscaping

Placetype Example – Downtown Richmond



Primary Pedestrian Shed

Secondary Pedestrian Shed



T5 – URBAN CENTER

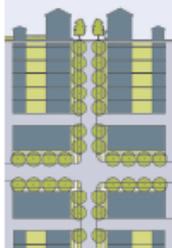
LOW

DEVELOPMENT INTENSITY

HIGH



T5



T-5 URBAN CENTER

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- Building Placement:** Shallow Setbacks or none; buildings oriented to street defining a street wall
- Frontage Types:** Stoops, Shopfronts, Galleries
- Typical Building Height:** 3- to 5-Story with some variation
- Type of Civic Space:** Parks, Plazas and Squares, median landscaping

Placetype Example – Downtown Charlottesville



Primary Pedestrian Shed

Secondary Pedestrian Shed

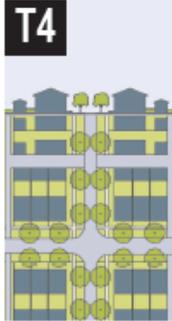
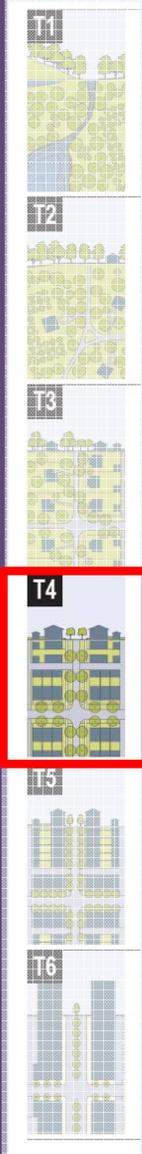


T4 – GENERAL URBAN

LOW

DEVELOPMENT
INTENSITY

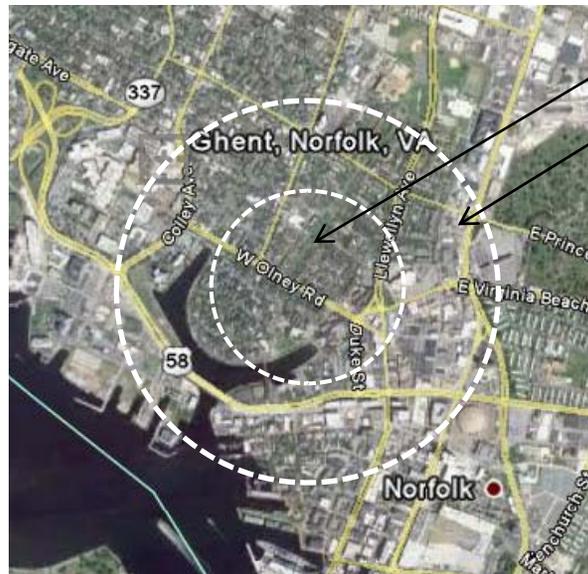
HIGH



T4 GENERAL URBAN
T-4 General Urban Zone consists of a mixed use but primarily residential urban fabric. It may have a wide range of building types: single, sideyard, and rowhouses. Setbacks and landscaping are variable. Streets with curbs and sidewalks define medium-sized blocks.

- General Character:** Mix of Houses, Townhouses & small Apartment buildings, with scattered Commercial activity; balance between landscape and buildings; presence of pedestrians
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- Frontage Types:** Porches, fences, Dooryards
- Typical Building Height:** 2- to 3-Story with a few taller Mixed Use buildings
- Type of Civic Space:** Squares, Greens

Placetype Example – Ghent District, Norfolk



Primary Pedestrian Shed

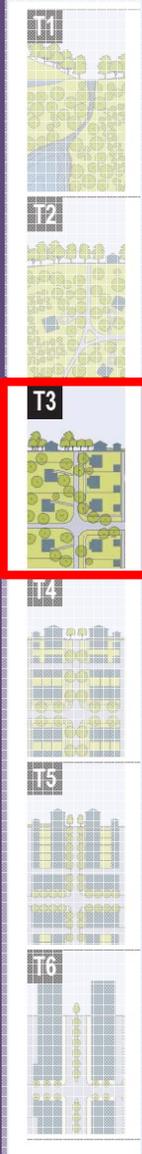
Secondary Pedestrian Shed



LOW

DEVELOPMENT
INTENSITY

HIGH



T3



T-3 SUB-URBAN

T-3 Sub-Urban Zone consists of low density residential areas, adjacent to higher zones that some mixed use. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.

General Character: Lawns, and landscaped yards surrounding detached single-family houses; pedestrians occasionally

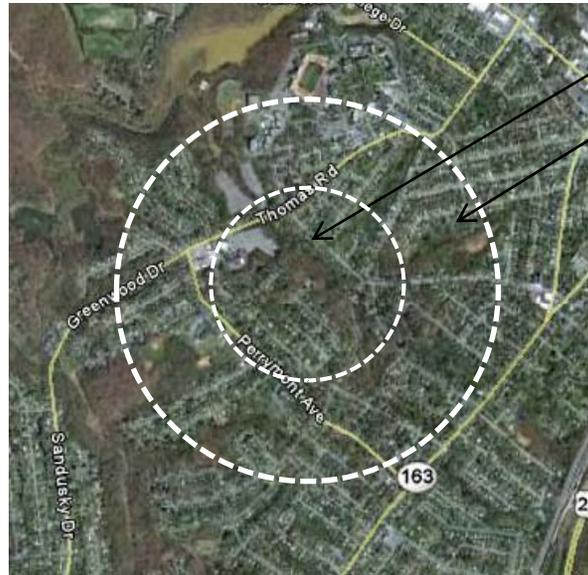
Building Placement: Large and variable front and side yard Setbacks

Frontage Types: Porches, fences, naturalistic tree planting

Typical Building Height: 1- to 2-Story with some 3-Story

Type of Civic Space: Parks, Greenways

Placetype Example – Sub-Urban – Fort Hill, Lynchburg



Chapter 3

T2 – RURAL

LOW

DEVELOPMENT INTENSITY

HIGH

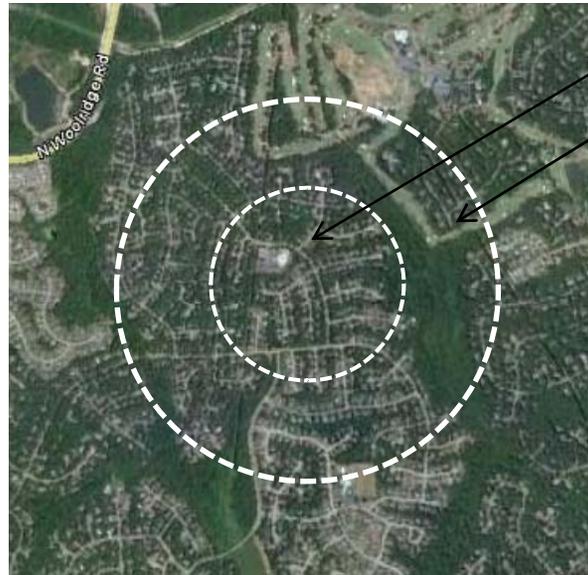


T-2 RURAL

T-2 Rural Zone consists of sparsely settled lands in open or cultivated states. These include woodland, agricultural land, grassland, and irrigable desert. Typical buildings are farmhouses, agricultural buildings, cabins, and villas.

- General Character:** Primarily agricultural with woodland & wetland and scattered buildings
- Building Placement:** Variable Setbacks
- Frontage Types:** Not applicable
- Typical Building Height:** 1- to 2-Story
- Type of Civic Space:** Parks, Greenways

Rural – Brandywine, Chesterfield



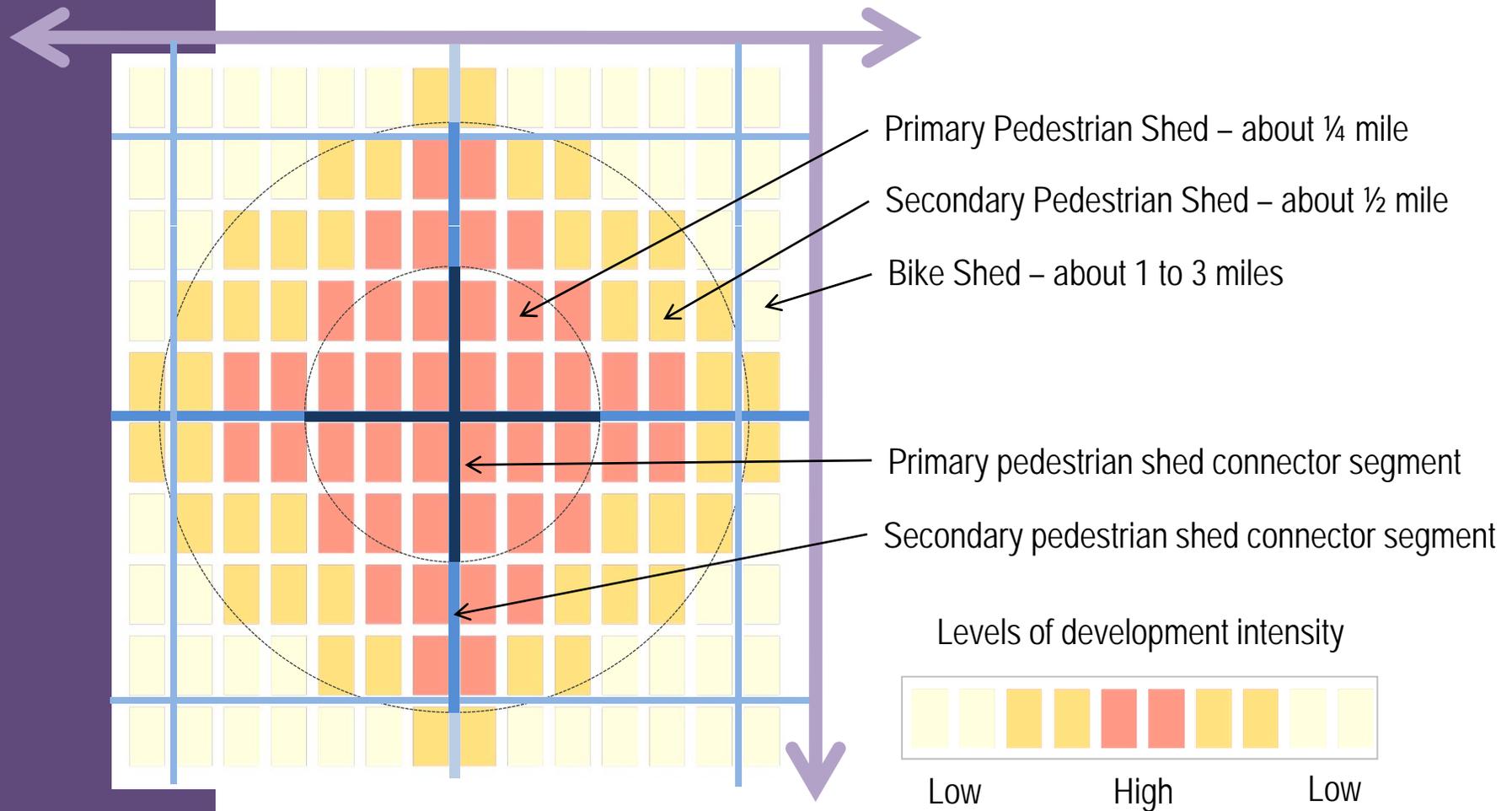
Primary Pedestrian Shed

Secondary Pedestrian Shed



- Transect zones reflect placetype development patterns and intensities
- Mode overlap zones reflect the degree of mode shed overlap within placetypes
- Transect / Mode overlap matrix is basic design guideline construct

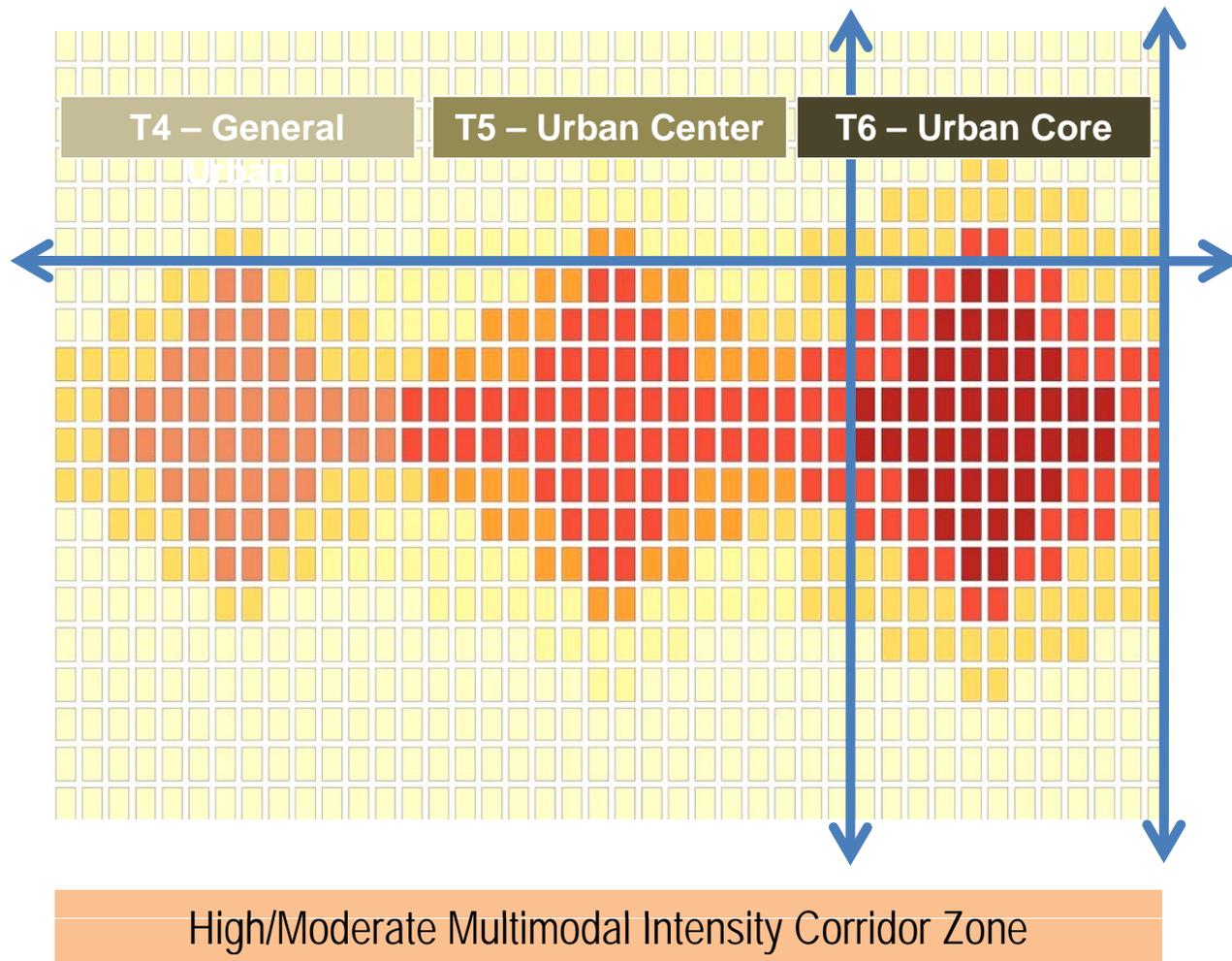
- Amount of overlap differentiates design guidelines



Mode Shed	T1	T2	T3	T4	T5	T6
M1 Bike						
M2 Secondary pedestrian						
M3 Primary pedestrian						
M4 Transit station area						

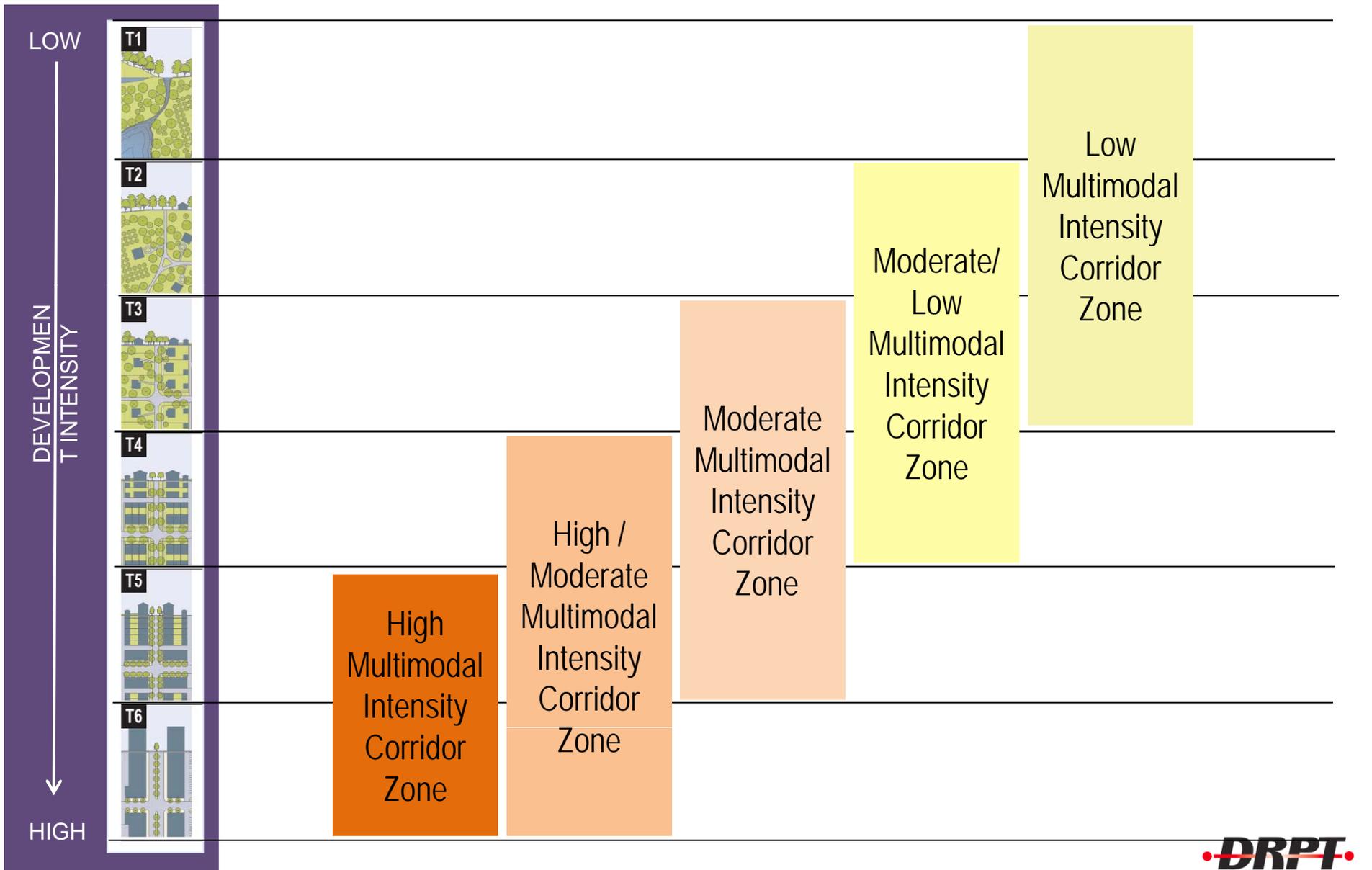
- Transect approach basis for several form-based/smart codes in Virginia and nationwide
- Placetype scale reflects $\frac{1}{4}$ and $\frac{1}{2}$ mile standards for walking sheds
- Street types by function – reflect the range of either through streets or connector streets
 - Can easily align with functional class/latest CNU/ITE guidelines

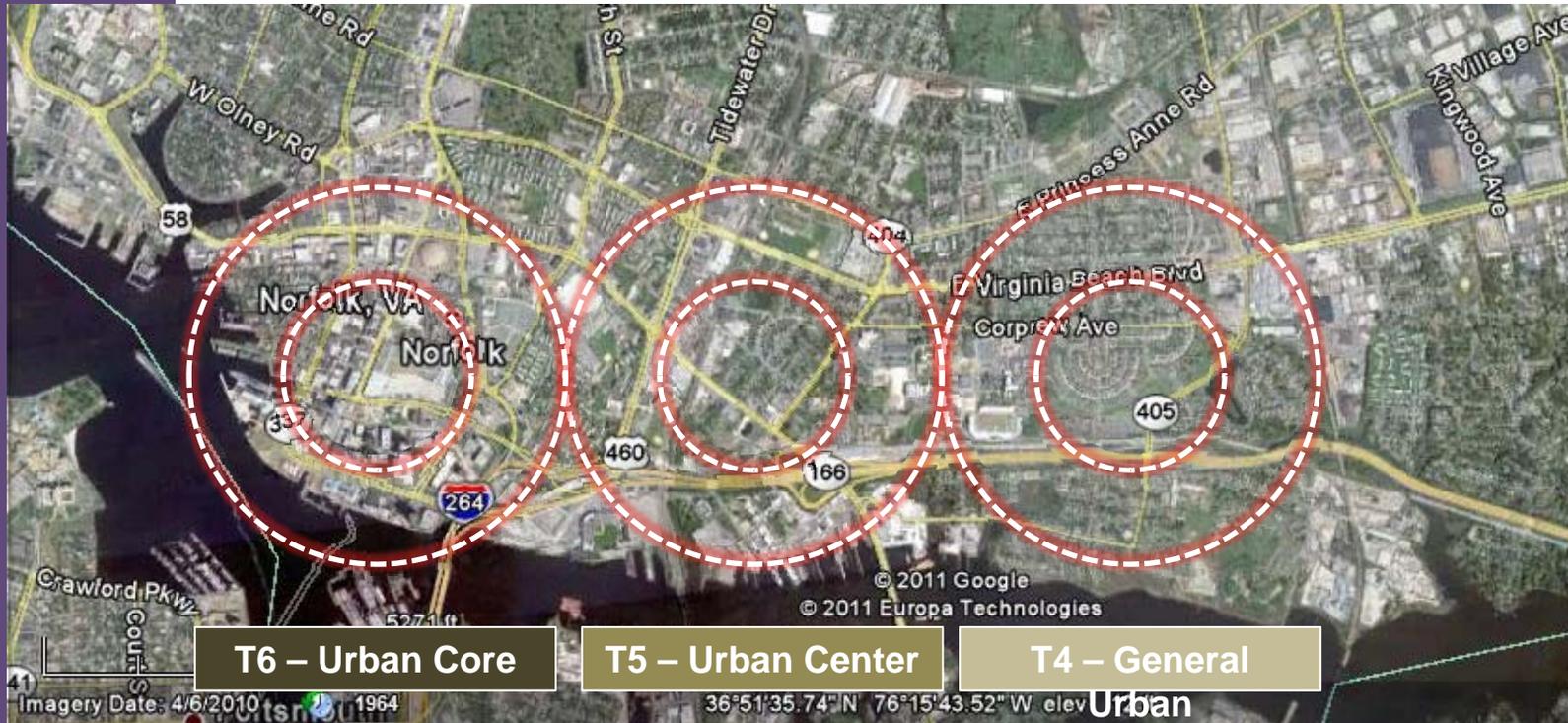
- While each placetype represents a single multimodal district....districts can be linked together to create a multimodal intensity zone
- Multimodal corridor intensity zones present logic for how districts might organize within a given region
 - Zones made up of multiple transect placetypes
 - Reflect size of urban area



Chapter 3

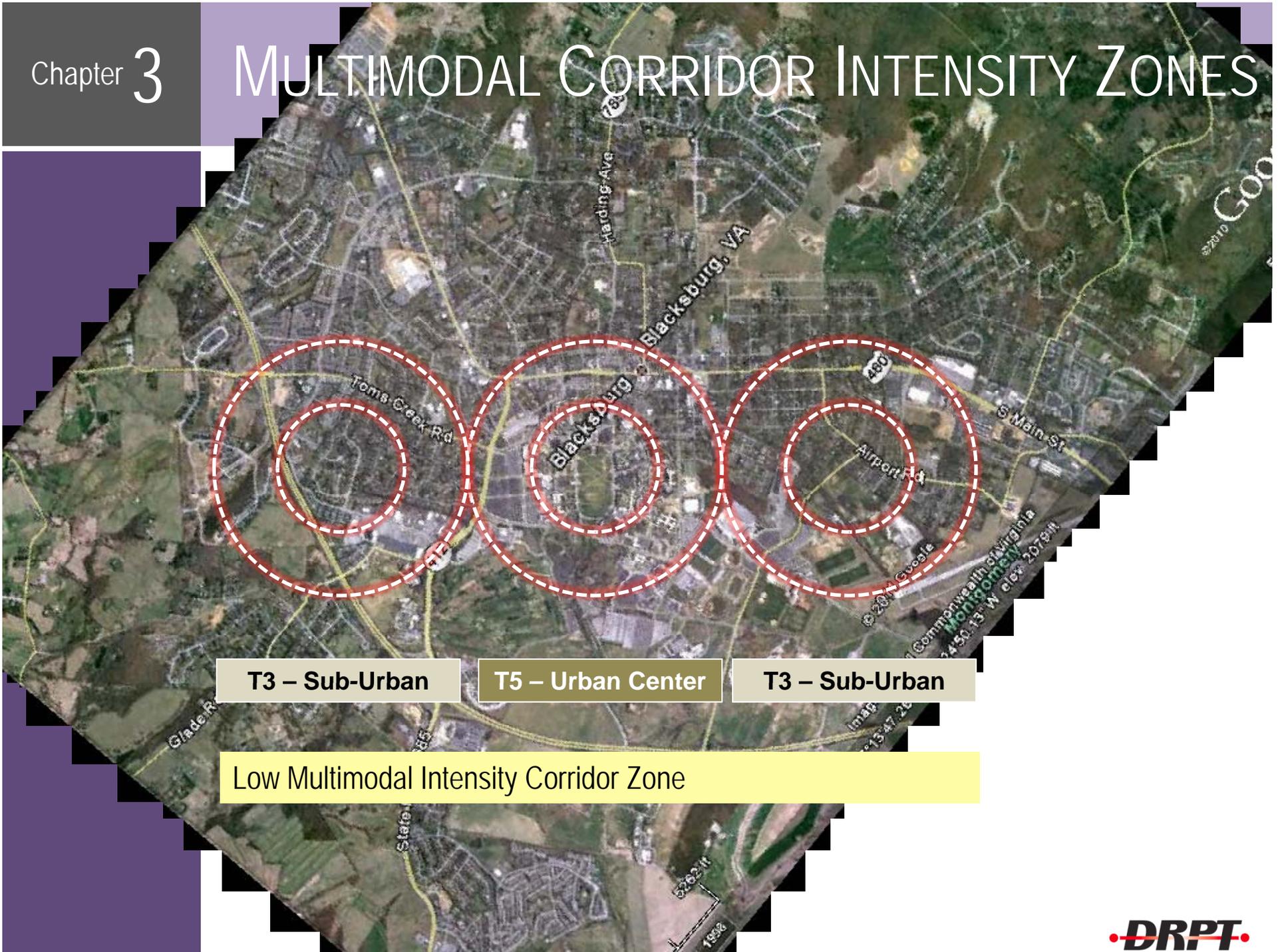
MULTIMODAL CORRIDOR INTENSITY ZONES



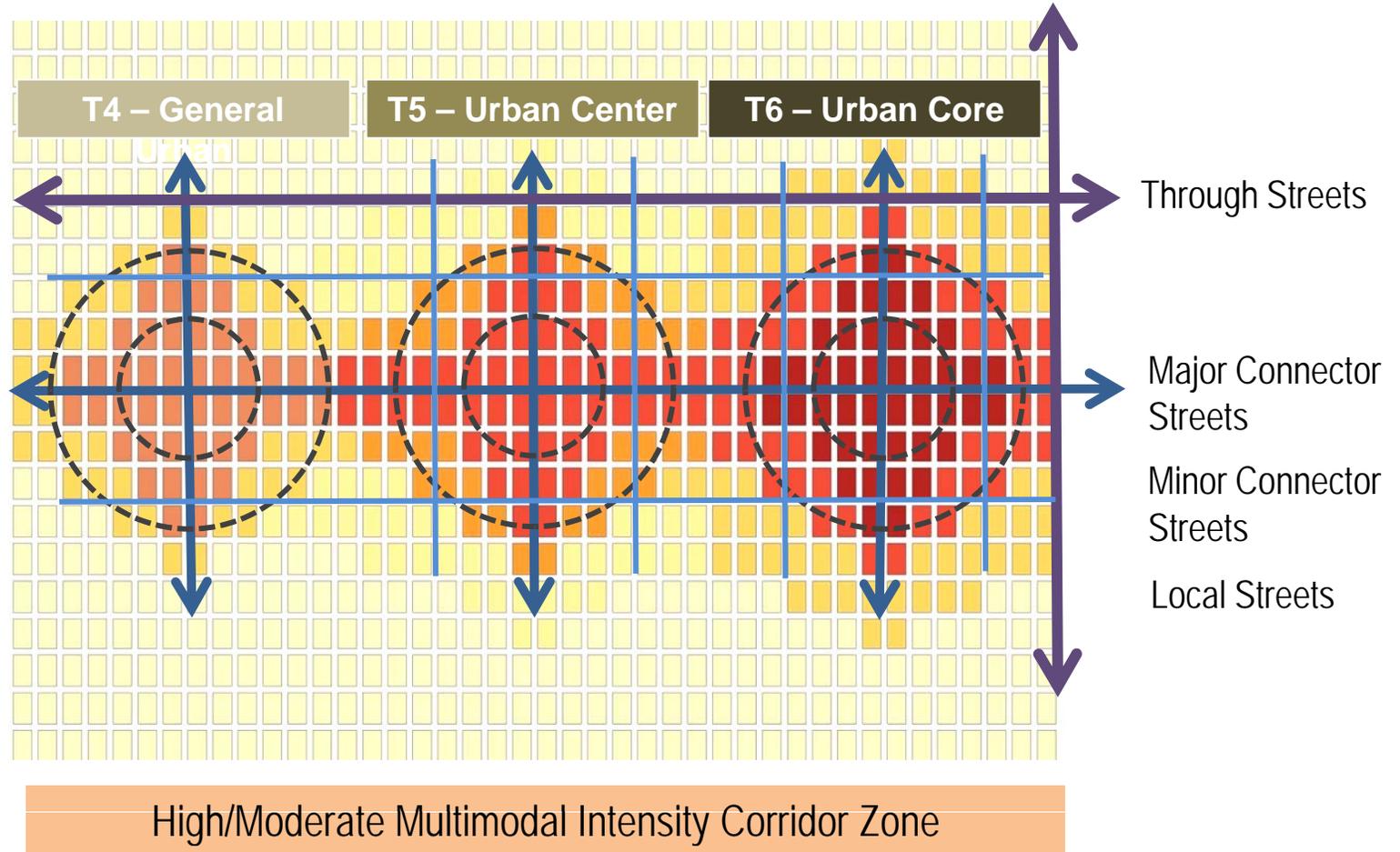


High/Moderate Multimodal Intensity Corridor Zone

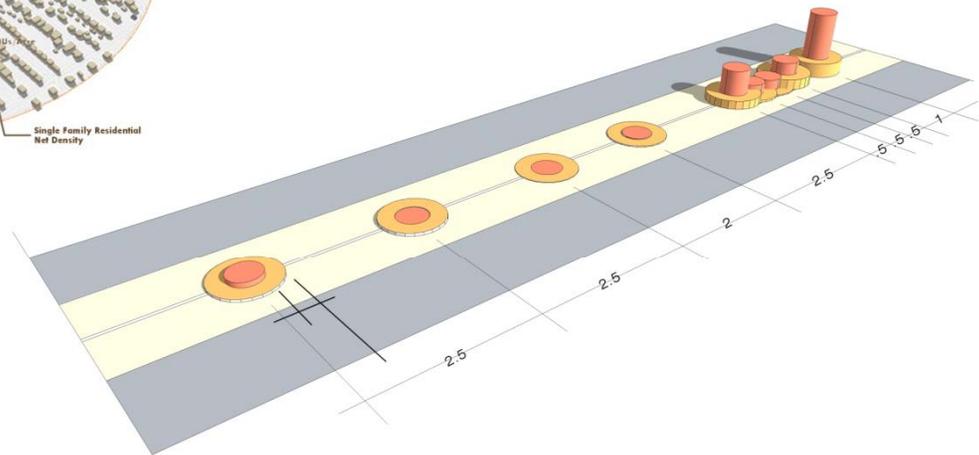
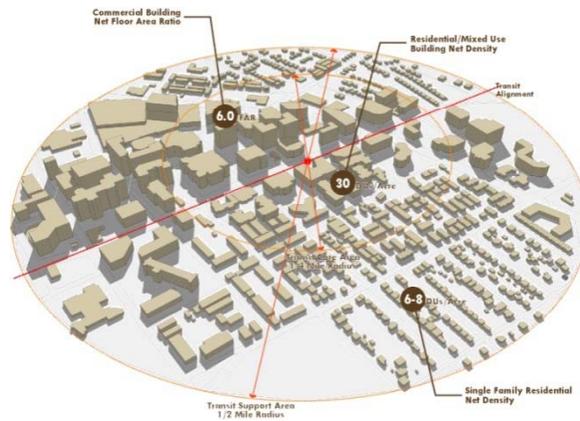
MULTIMODAL CORRIDOR INTENSITY ZONES



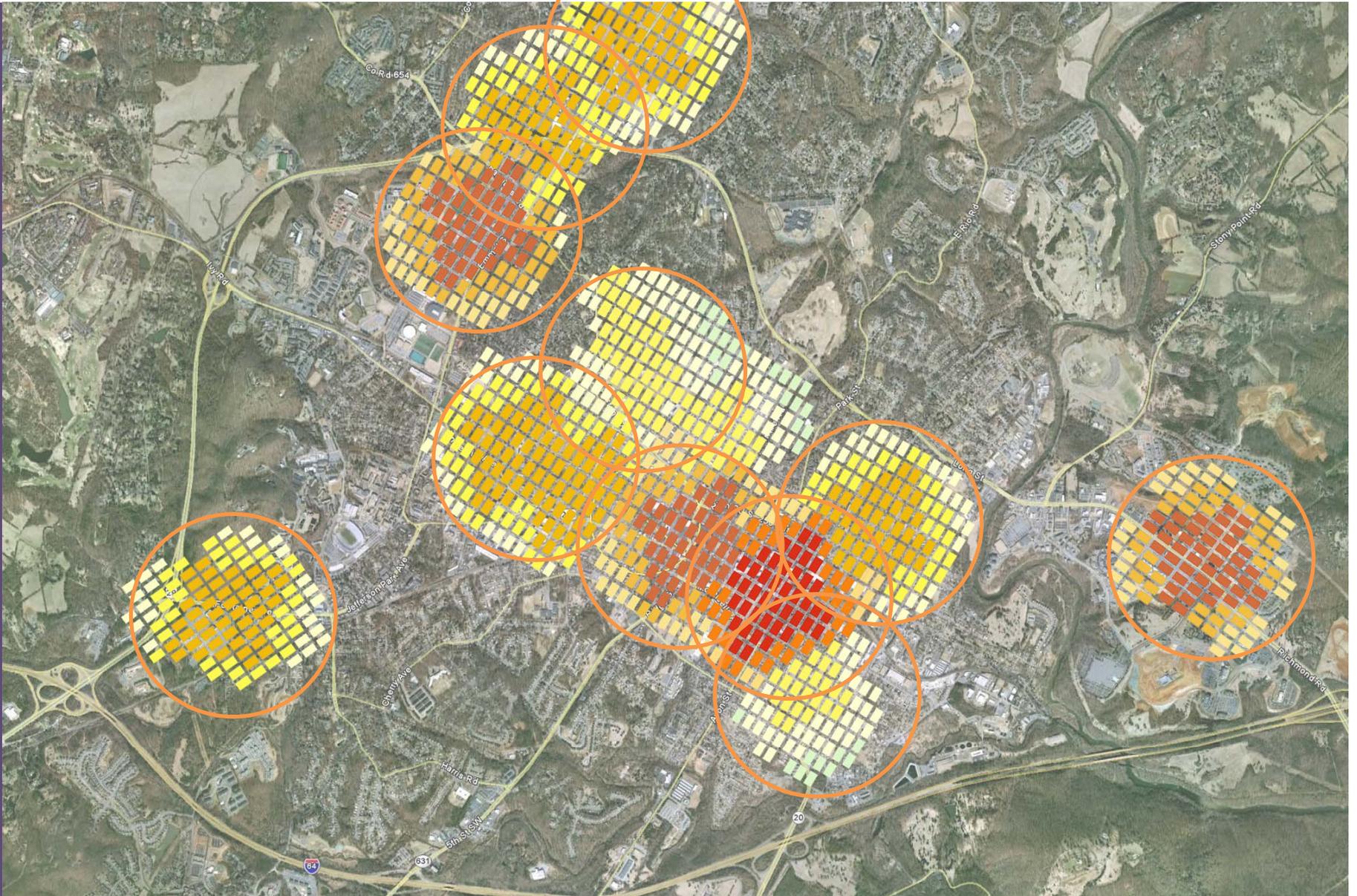
- Orientation and spacing of street types, block sizes



- A subset of the multimodal district placetypes and the multimodal intensity corridor zones
- Defined by placetype and transit types



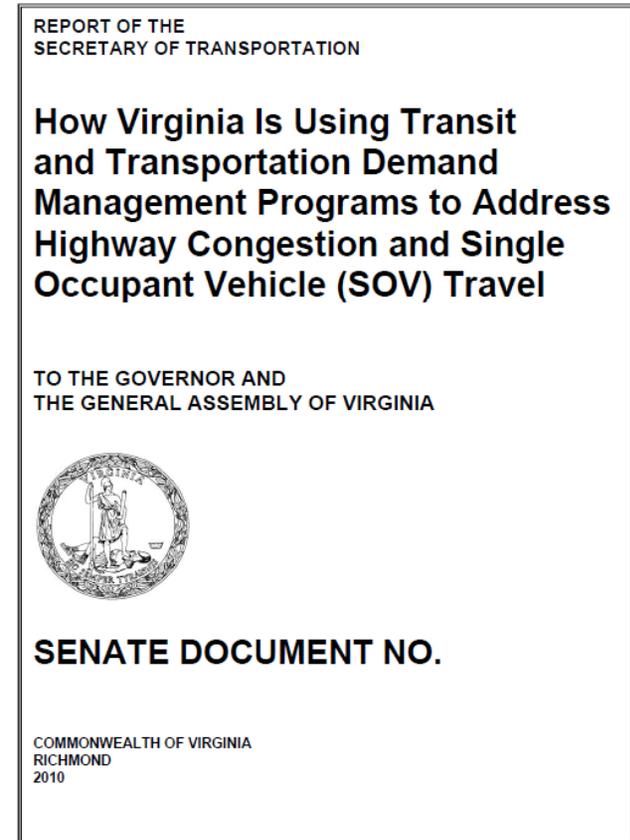
- Context for creating continuity from one placetype to another within a larger geography
- Identifies opportunities for multimodal synergy – different levels of multimodal strategies and investments
- Framework for connectivity between modes across a region
- Align with transit corridors when transit is present
 - Transit Oriented Development (TOD) as subset





- Different facility types and different mobility functions
- Addresses ROW and public realm
- Builds on significant work already completed in this area relative to complete streets, facility design, etc.
- Will align street types in the guidelines with VDOT functional class of roadways

- Describe overall TDM strategies
- Describe applicability of strategies to different Multimodal Intensity Corridor Zones



- Best practices and strategies for:
 - Funding infrastructure or transit improvements
 - Public private partnerships
 - Phasing in improvements over time
 - Value capture concepts/strategies for transit



Before



After

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OPEN DISCUSSION

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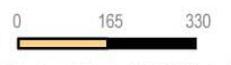
OPEN DISCUSSION

WALKABOUT TOUR



1/4 mile radius

- 1 TJPDC Water Street Center
- 2 Transit Center



1 inch = 330 feet (1/16th Mile)
(2009 Aerial)



MULTIMODAL CONDITIONS

- Public realm/urban design
 - What are the public spaces like?
 - How comfortable is the walking experience?
 - What is the block structure?
 - What is the urban form like (setbacks, street trees, etc.)?
- Transportation/infrastructure
 - How walkable is the station area?
 - What sort of bike facilities are available?
 - What kind of transit services are present? How accessible are they?
 - How much parking is available? What does it cost?
 - Is the area accessible for all users?

MULTIMODAL CONDITIONS

- Development
 - Do the densities/intensities support walkability or TOD?
 - What is the mixture of uses?
 - How many 'front doors' are nearby?
 - Is there affordable housing nearby?
 - What are the opportunities for infill or redevelopment?

WALKABOUT OBSERVATIONS

- Rethinking the area...
 - What improvements – policy level or physical design level would you make?
 - Urban design/public realm
 - Transportation
 - Development
 - What are the potential barriers to implementation?
 - What are potential solutions to implementation?

GROUND RULES

- Stay with your group
- Take notes/record observations
- Eat lunch
- Be prepared to report out (use the flip charts) by 1:00 pm back in the meeting room

WALKABOUT REPORT OUT

- Next Steps
 - Development of prototypical placetypes
- Next Steering Committee Meeting
 - Tentative Dates/Location:
 - In Lynchburg – the week of August 8th or 15th
- Project website www.drpt.virginia.gov
 - Click on 'transit' and 'transit planning' and other links 'Multimodal and Public Space Design Guidelines'

www.drpt.virginia.gov/activities/MultimodalandPublicSpaceDesignGuidelines.aspx