Urban Street Design Guidelines in Fairfax County, Virginia

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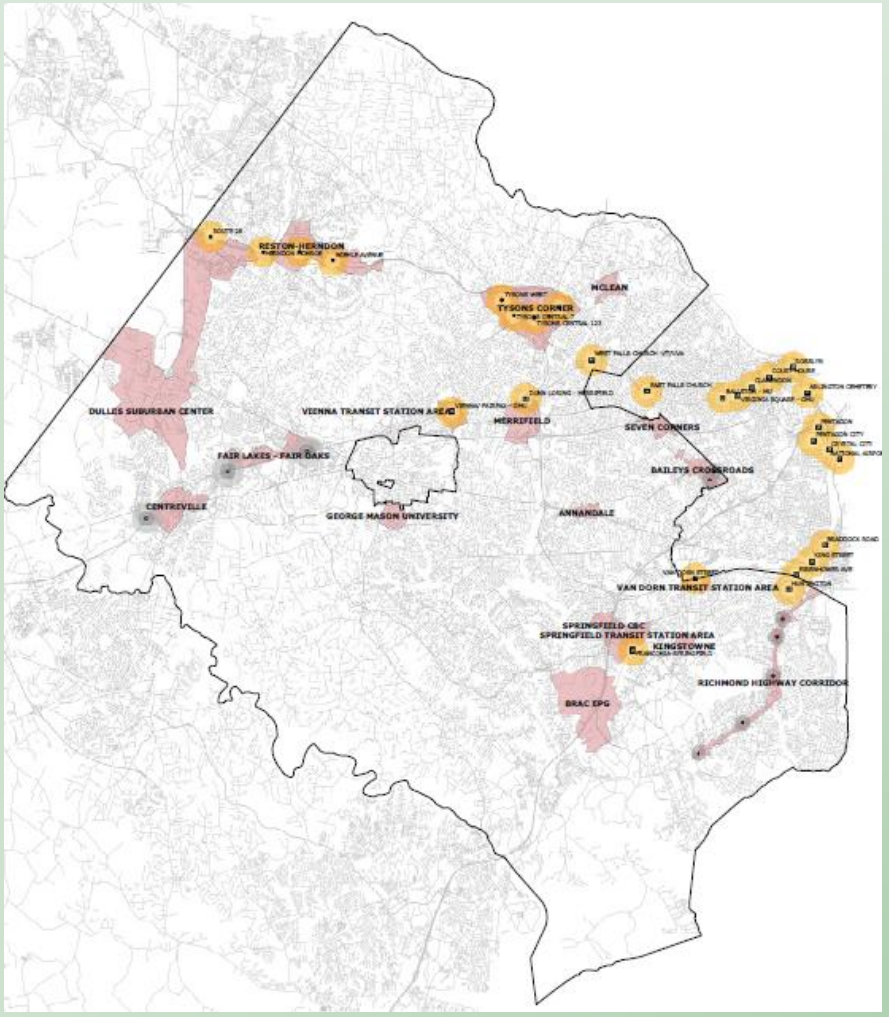
The Humble Street

Overview

- Fairfax County transitioning from suburban community to one with urban densities
- ‘Complete streets’ approach needed in urbanizing areas
- Necessary to develop urban design guidelines for streets
- Guidelines needed to be coordinated between FCDOT & VDOT

A Sense of Place

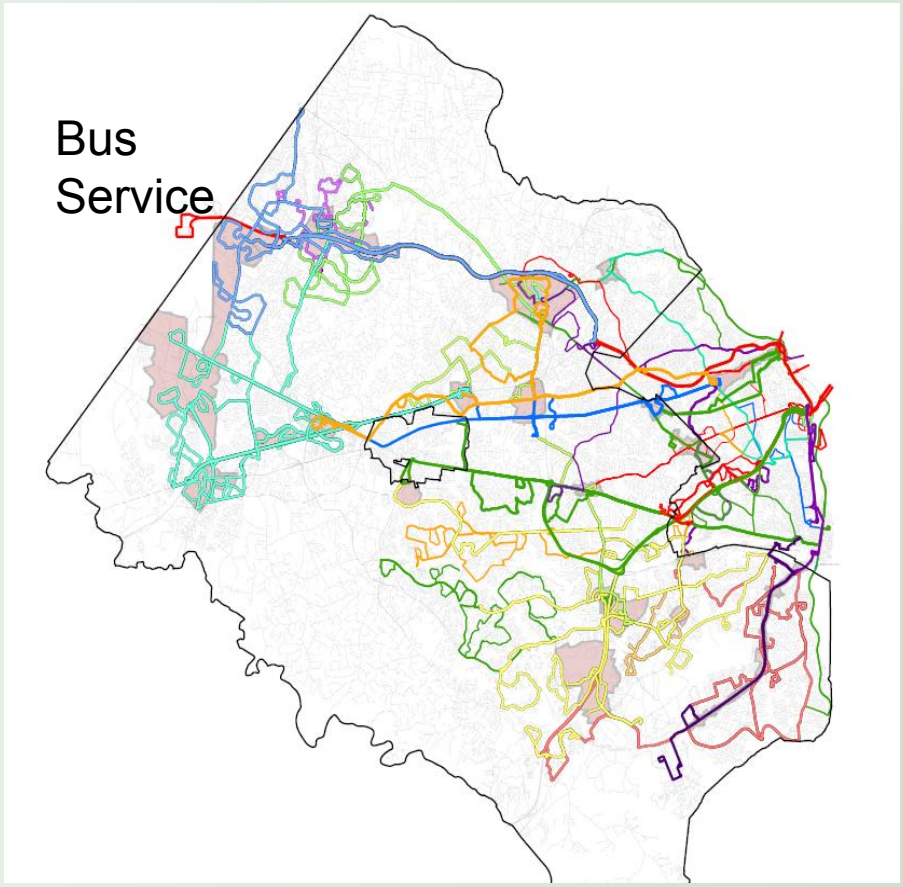


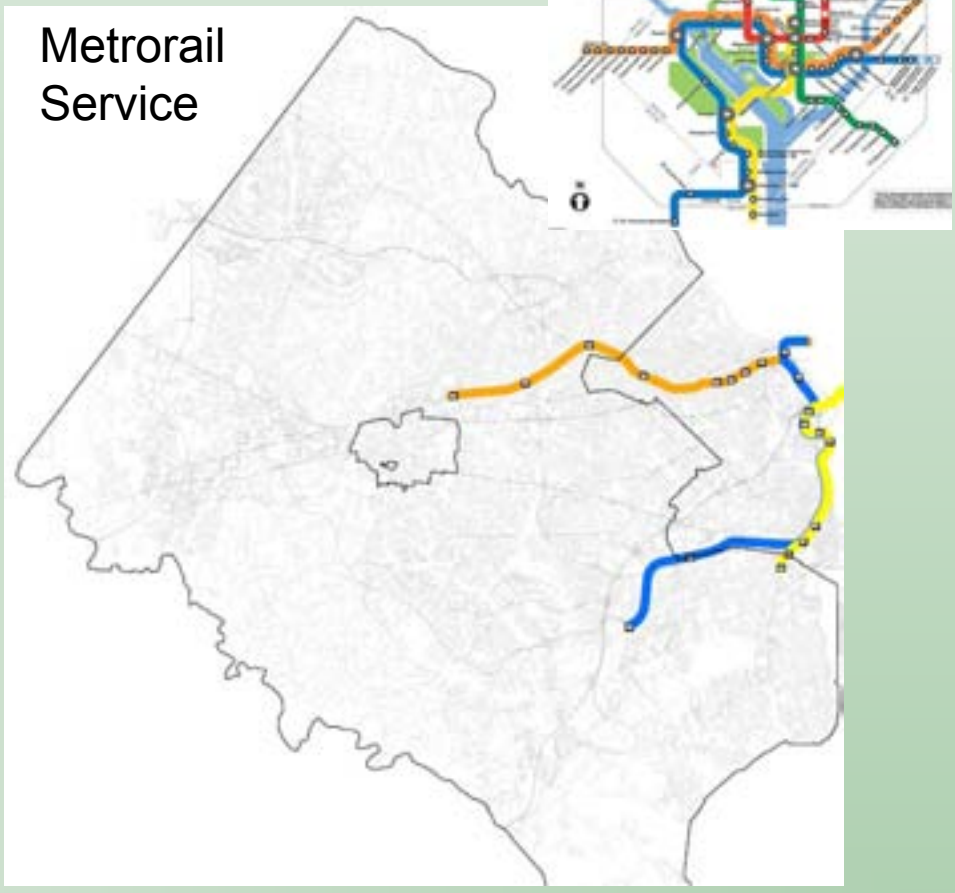
Rail/Transit Service in Fairfax County

Fairfax Connector

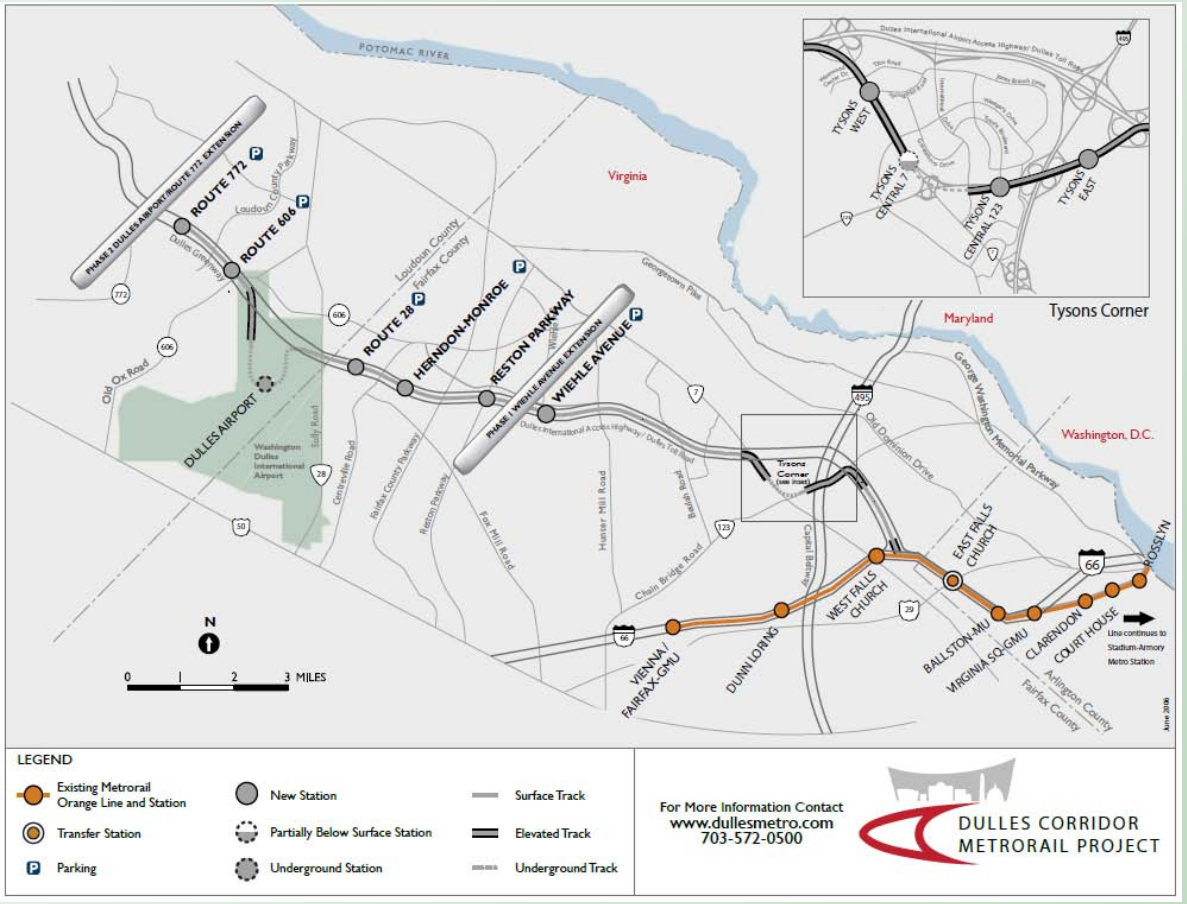
Metrorail and bus

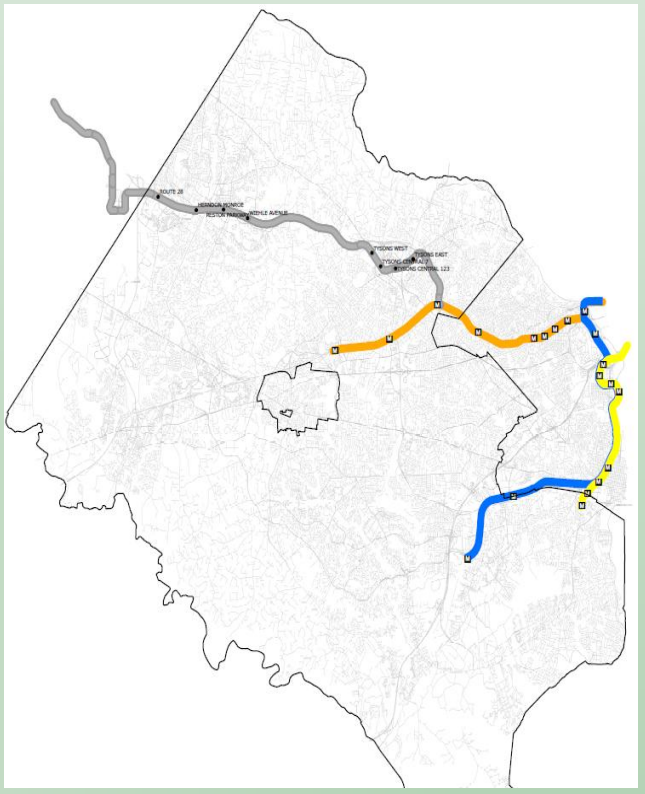
Transit Service in Fairfax County





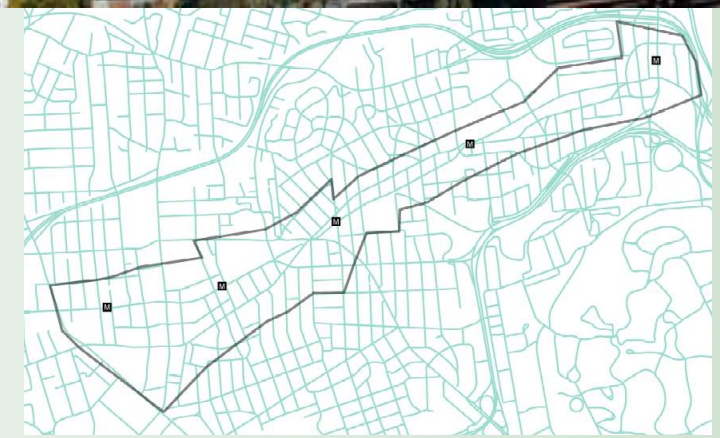
Silver Line Extension





Surrounding Urban Success

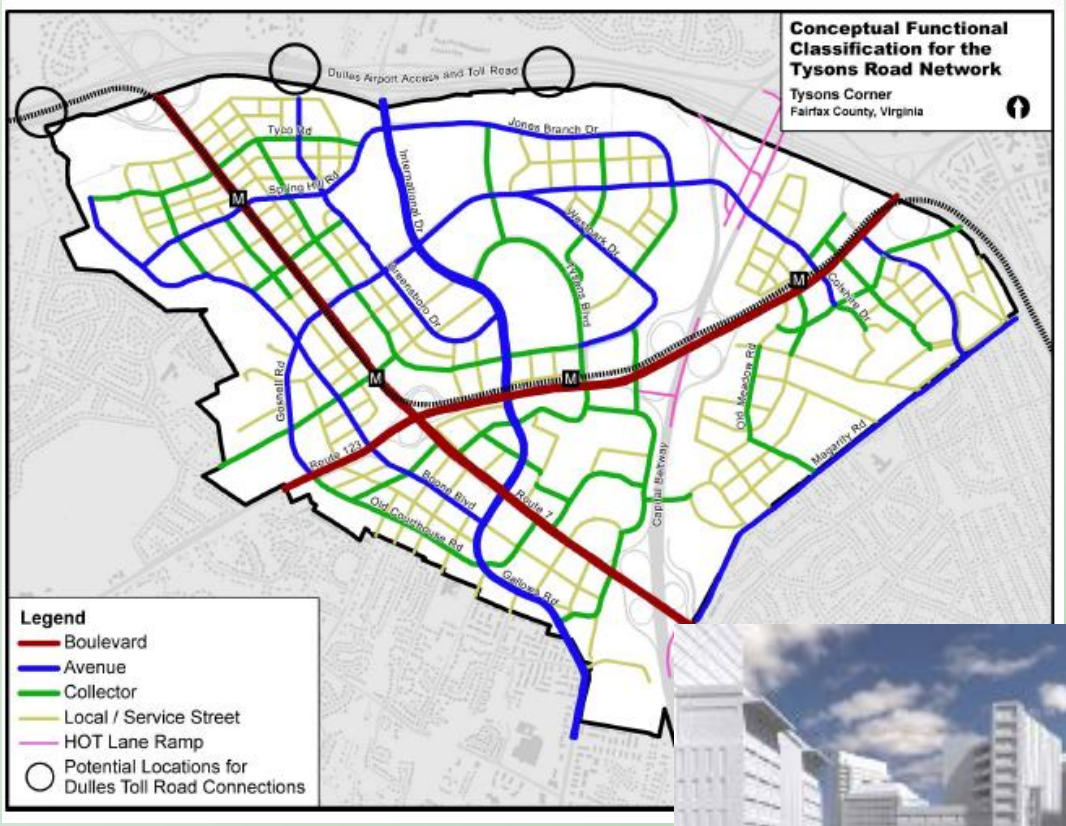
Rosslyn Ballston Corridor –
Arlington County



Tysons Corner –
Fairfax County

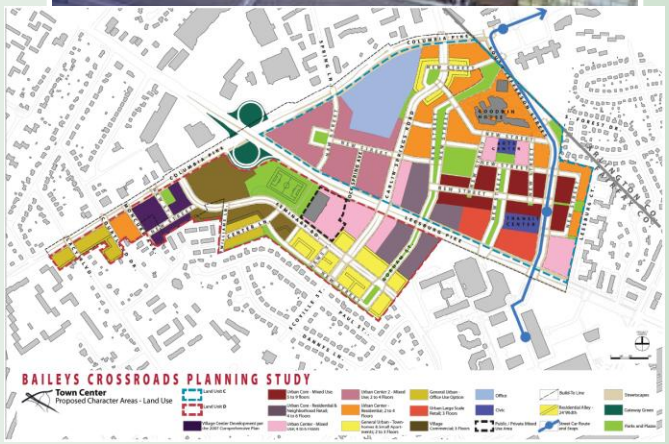
Transformation from a suburban to urban framework

1960



2010 & Beyond

County planning for many activity centers increasingly reflective of urban design principles



Street design needs to be adapted to urban design principles

Road System in Fairfax County

All public roads under control of Virginia Department of Transportation (VDOT)

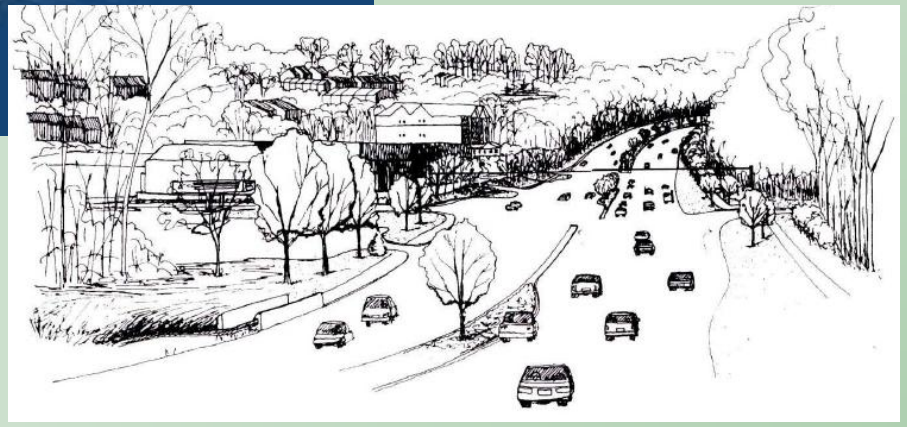
VDOT has Road Design Manual (RDM) that is used concurrently with AASHTO guidance

Road plans for County capital projects reviewed and approved by VDOT

County staff coordinates with VDOT on development proposals

Historically…

- Dichotomy between urban reality and rural/suburban design
- Adding capacity and optimizing flow has been general approach



Addressing the Urban Reality

- Planning begins to envision urban grid pattern development
- TOD and urban roadways generally expected to be a development and developer-driven process to achieve
- Need for acceptable ‘standards’ that allow urban street design to occur
- Important to pursue urban street design to retain viability of public streets

Public Versus Private Streets

- Inflexible state standards have encouraged private street construction
- Private streets have implications for maintenance, design, connectivity, law enforcement, and public access

Public Street Network

- Staff concerns
  - Historically collaboration with VDOT has been difficult
  - Are urban streets possible with VDOT standards?
  - Developer pushback – hard VDOT lessons

Public Streets

The driving principle became the assumption that public streets provide a greater benefit than privately maintained roadways

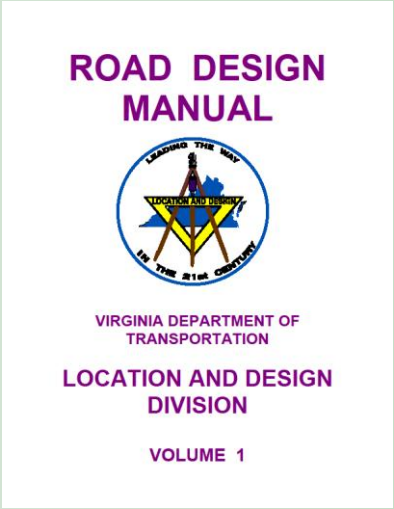
Public Street Goals

- Work with private developers and public entities to create a complete public street
- Provide sufficient flexibility to accommodate different road scenarios
- Sidewalks may be private

Development of Design Standards

Existing State Standards

- VDOT Road Design Manual (RDM) is basis for roadway design in Virginia. AASHTO supplements this.
- VDOT adopted Context Sensitive Solutions approach for projects in 2006.
- VDOT also recently updated Subdivision Street Acceptance Requirements (SSAR)



Development of Design Standards

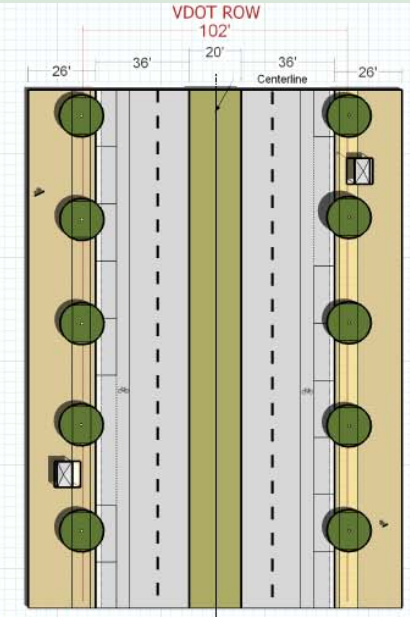
Process

- Created FCDOT internal group to evaluate design criteria
- Collaborated on development of cross-sections reflecting Complete Streets principles
- Used flexibility within VDOT Road Design Manual (RDM) and other state standards as baseline
- Desire to address not only design but holistic function of street – utility locations, engineering issues
- Collaboration with VDOT to discuss cross-sections
- Collaboration with developers, County, VDOT

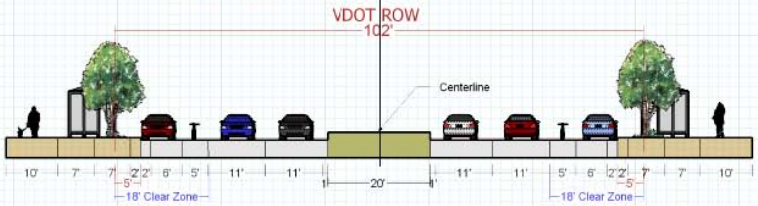
Sample cross section

Minor Arterials

- Access to adjoining properties is minimized by consolidated points of entry or use of collector/local street network.
- While functioning for a higher level of traffic throughput, on-road bicycle facilities and parking can be accommodated. Bumpouts to enhance streetscaping, traffic calming, and pedestrian safety are possible on this roadway.
- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD*)
- Right turn lanes are typically discouraged in an urban environment. However, some circumstances may require their construction. If so needed, 11 feet of pavement width should be added to each approach needing a right turn lane.



Scale: 1"=40 Feet



Scale: 1"=20 Feet

Typical Section Right of Way Requirements

	Pavement Width (each side)
Six Lanes Divided Four Lanes Undivided	See Minor Arterials Option 1 Minimum of 52 feet of total pavement width
Dual Lefts	Add 11 feet
On Street Parking Bulb Outs	Add 2 feet
On Road Bike Lane with Bulb Outs without Parking	Add 1 foot Subtract 7 feet

*See Alternatives sheet for further details.

Minor Arterials Option 2 - Four Lanes Divided

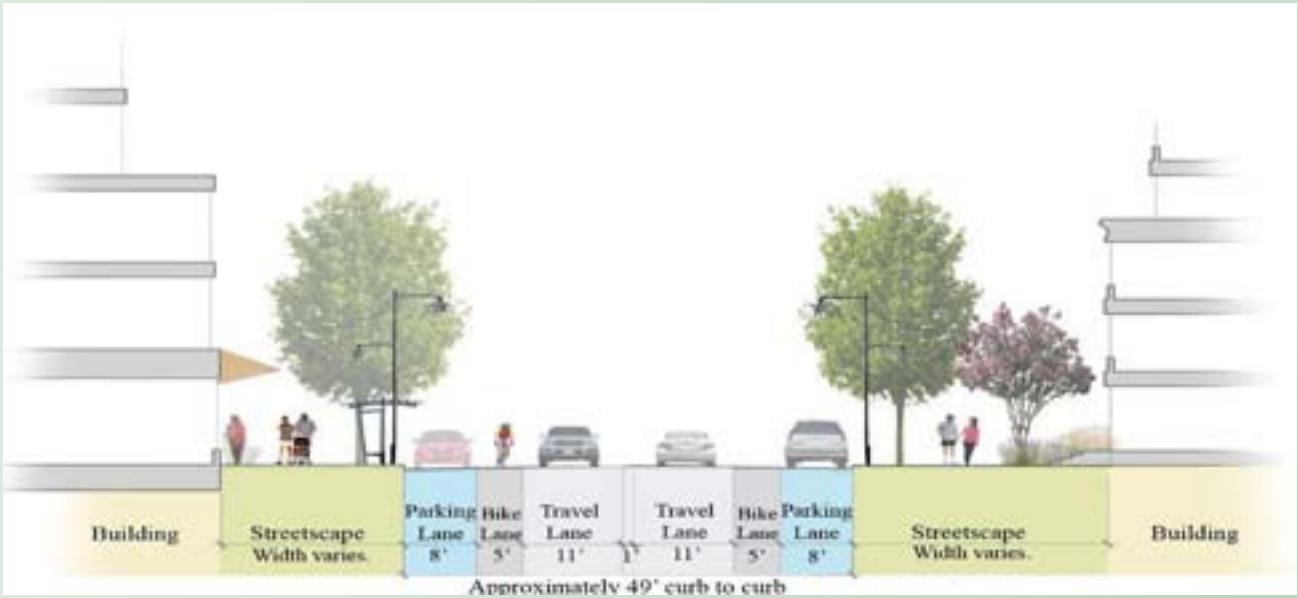
Urban Roadway Design Guidelines
Fairfax County Department of Transportation

May 2010

Development of Design Standards

Process Outcome

- Baseline designs were incorporated in street design criteria for Tysons Corner Comprehensive Plan review
- VDOT has approved the design standards for implementation in TOD and urban centers



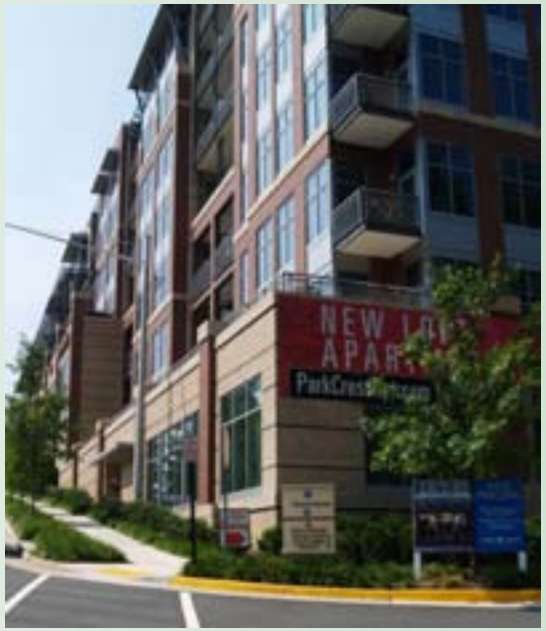
Continuing Steps

- VDOT coordination at multiple levels
- Continuous collaborative process with development review
- Revisions to County design standards where necessary
- Further integrate road design principles with urban design principles and guidance and major transportation improvements

Rationale for Success

Right Timing

- Changes at VDOT
- Opportunity in Tysons
- Interest and incentives to pursue urban streets



Lessons

- Define your goals for streets
- Research flexibility in existing standards
- Work with larger authorities
- Accommodate public and private interests
- Holistic approach to avoid getting tripped up in implementation
- Apply standards to all transportation projects