Urban Street Design Guidelines in Fairfax County, Virginia

Michael A. Davis
Senior Transportation Planner
Fairfax County Department of Transportation
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

Bus Service

Metrorail Service
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 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 streetscape, 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.

Typical Section Right of Way Requirements

<table>
<thead>
<tr>
<th>Right of Way Requirement</th>
<th>Pavement Width (each side)</th>
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</thead>
<tbody>
<tr>
<td>Six Lanes Divided</td>
<td>See Minor Arterials Option 1</td>
</tr>
<tr>
<td>Four Lanes Undivided</td>
<td>Minimum of 52 feet of total pavement width</td>
</tr>
<tr>
<td>Dual Lanes</td>
<td>Add 11 feet</td>
</tr>
<tr>
<td>On Street Parking Bulb Outs</td>
<td>Add 2 feet</td>
</tr>
<tr>
<td>On Road Bike Lane with Bulb Outs</td>
<td>Add 1 foot</td>
</tr>
<tr>
<td>without Parking</td>
<td>Subtract 7 feet</td>
</tr>
</tbody>
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*See Alternatives sheet for further details.
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