

Route 28 Station South Study Grid of Streets

Presentation to Route 28 Station South
Working Group

March 14, 2013



Presentation Outline

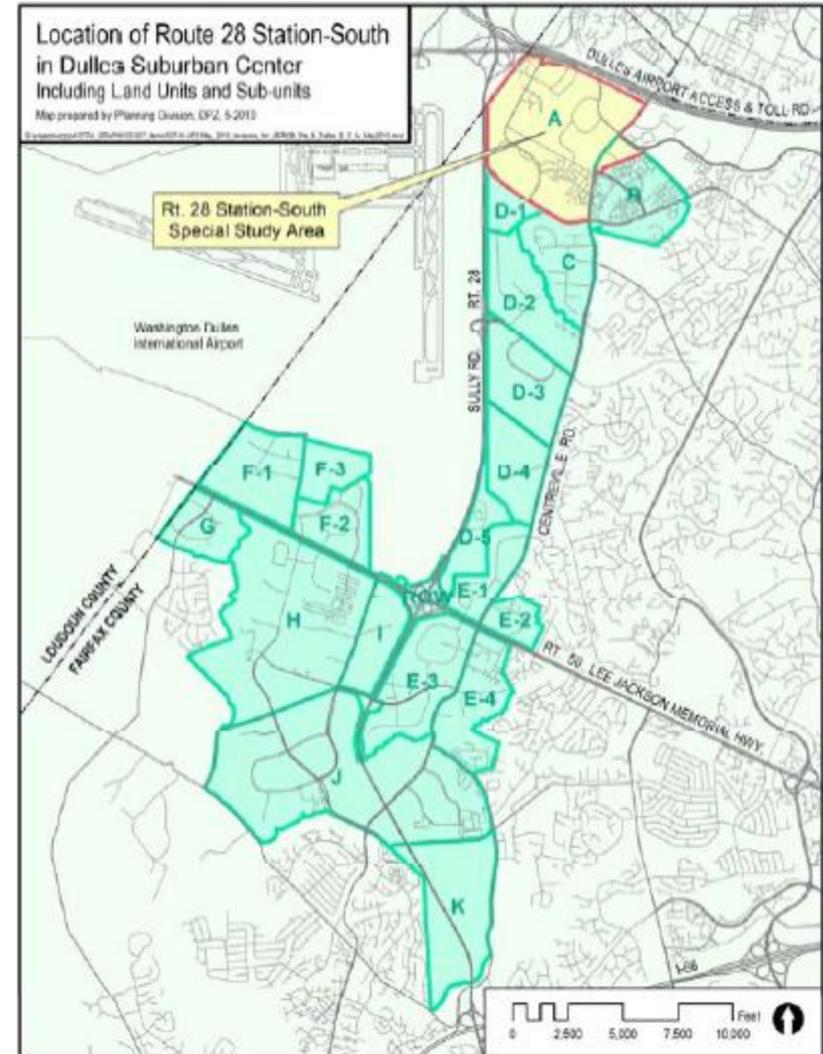
- Background of Route 28 Station South Study
- Background of transportation analysis for the study
- Advantages of a grid of streets
- Route 28 Station South Study area grid of streets assumptions
- Purpose of the grid of streets analysis
- Discussion/Questions

Objective for Tonight

To answer questions and solicit comments from the public on the proposed grid of streets for the Route 28 Station South area.

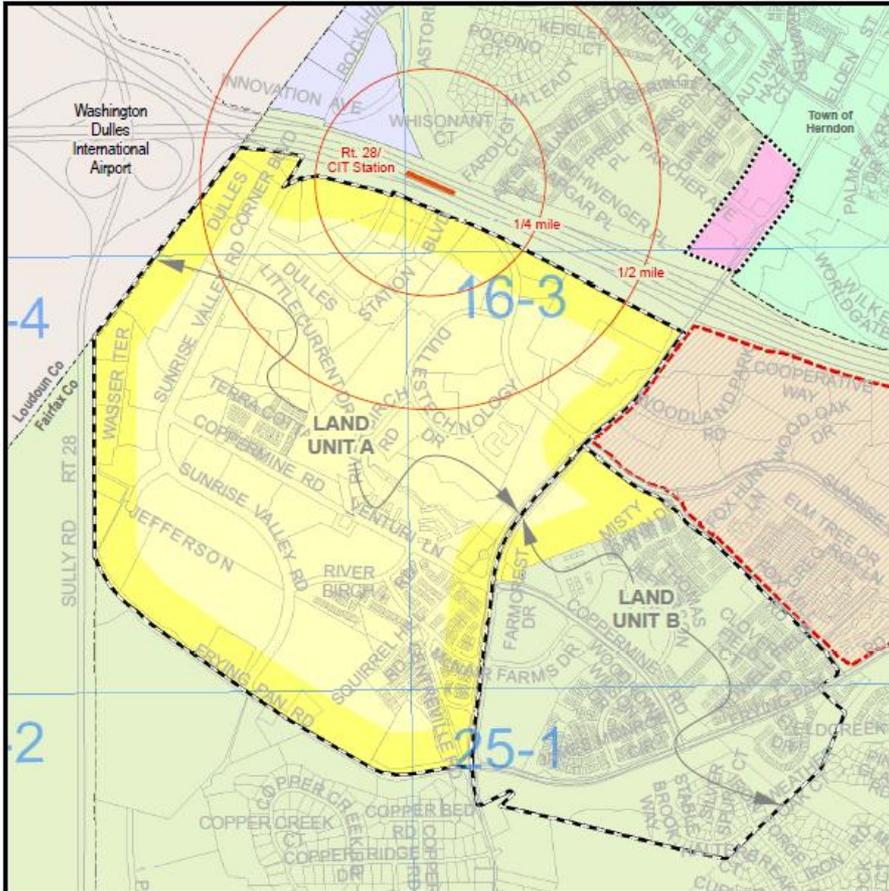
Route 28 Station Study Area – Part of the Dulles Suburban Center

- The current study effort is planning for development that will support rail
- Study area is located in the Dulles Suburban Center
 - Consists of Land Unit A and a portion of Land Unit B
 - Study area has the highest planned intensities in the Dulles Suburban Center
- Area is 675 acres
 - Consists of residential (townhomes and apartments), hotel, retail, office, and industrial



Current Plan

- Mixed Use
 - Residential, office, retail, and hotel
- Highest density and urban design standards north of Coppermine Road
- Density tapering down from the Metro Station
 - 1.5 FAR within $\frac{1}{4}$ mile of the metro station
 - 1.25 FAR within $\frac{1}{4}$ to $\frac{1}{2}$ mile of the metro station
 - 0.5-1.0 FAR beyond a half mile of the metro station



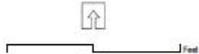
Route 28 Station-South Study

March 2010

Map prepared by
Department of
Planning & Zoning

Legend

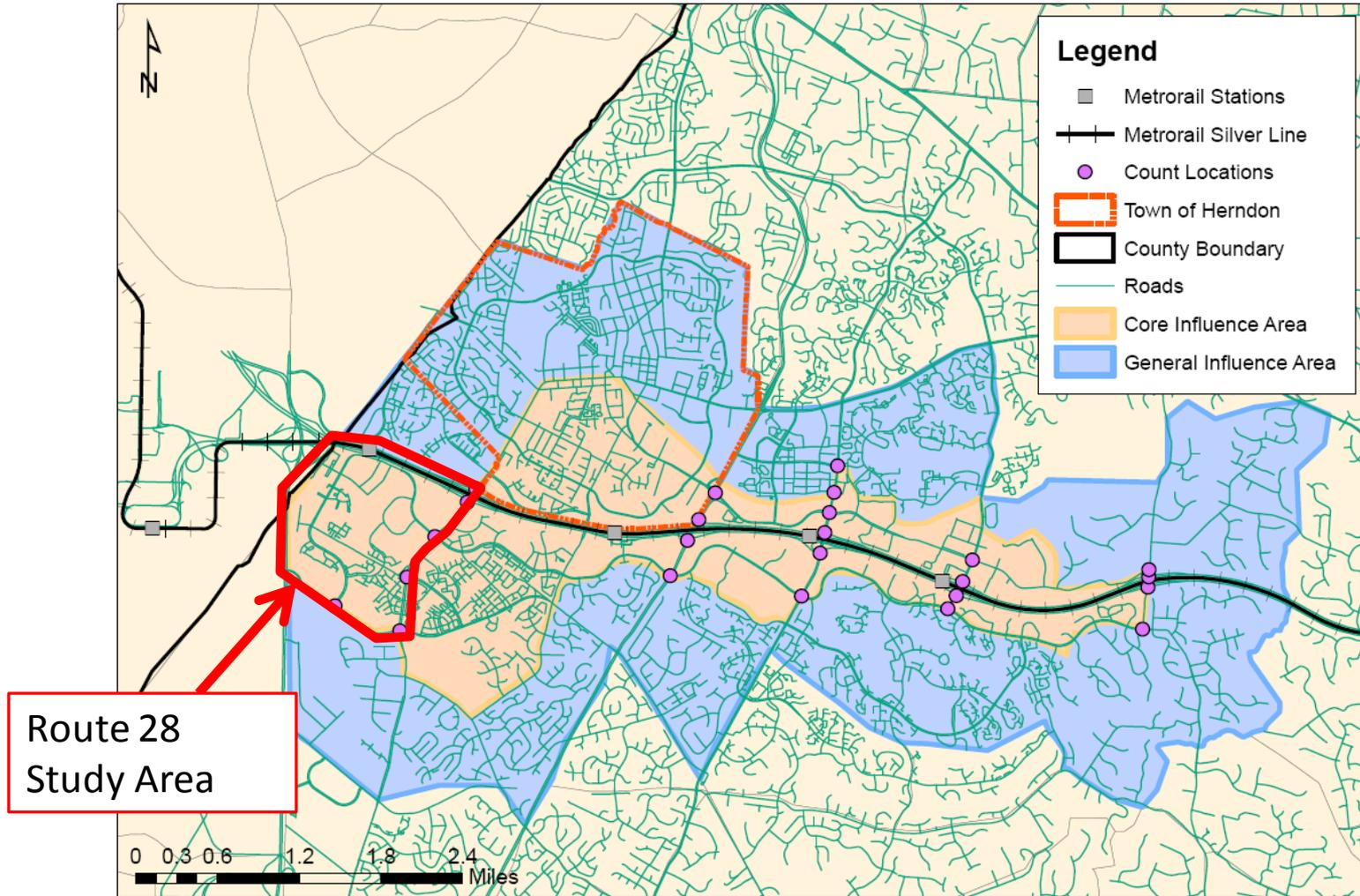
- Route 28 Station-South Study Area
- Plan Amendment S09-III-UP2
- Reston Master Plan Special Study Area
- Group of three Dranesville APR Items in the Rt. 28 / CIT Station Area
- Dulles Suburban Center Land Units A and B



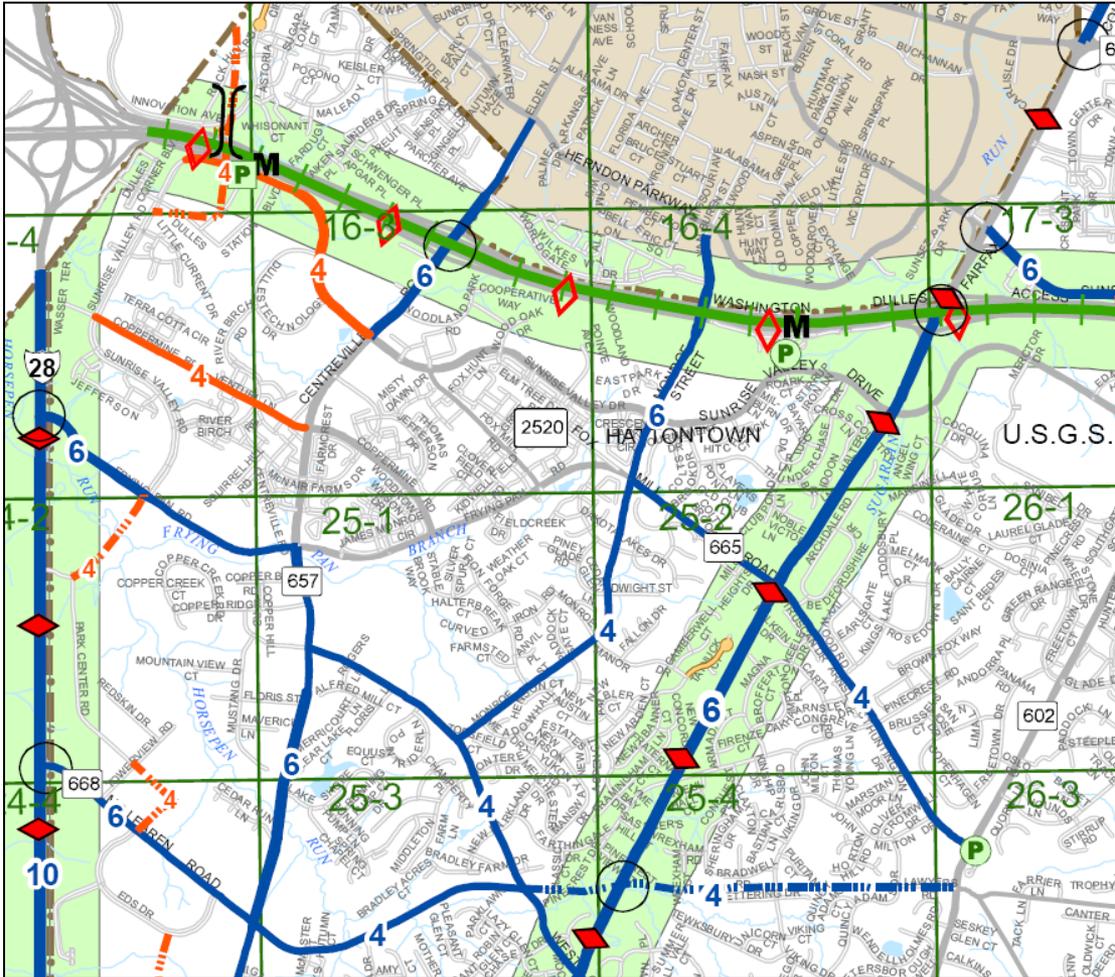
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Transportation Analysis Study Area



Current Fairfax County Transportation Plan Road Network Assumed



- Road Improvements
 - Route 28 improved to 10 lanes
 - Frying Pan Road improved to 6 lanes
 - Sunrise Valley Drive improved to 4 lanes
 - Coppermine Road improved to 4 lanes
 - Rock Hill Road Overpass

What is the Model?

- Regional Travel Demand Forecasting Model
 - Used by MWCOG and all other MPO's in US
- Land Use is Divided into Zones (TAZ's)
- Supply of Transportation is represented by the highway and transit network
- Demand for Travel Developed Using a Series of Mathematical Models

Reason to use the model

- To project future traffic and transit passenger volumes
- Assess the future road network

Mitigation Strategies

- Strategic Land Use (TOD)
 - Mixed –Use, Location, Type
- Increase Use of Transit
- Enhanced TDM
- Signal Optimization
- Turn Lanes *
- Local Connections (grid of streets) *

Mitigation Strategy – Grid of Streets



River Birch Extension to Flying Pan Road



Route 28 Station South Existing Street Network



Route 28 Station South Proposed Street Grid

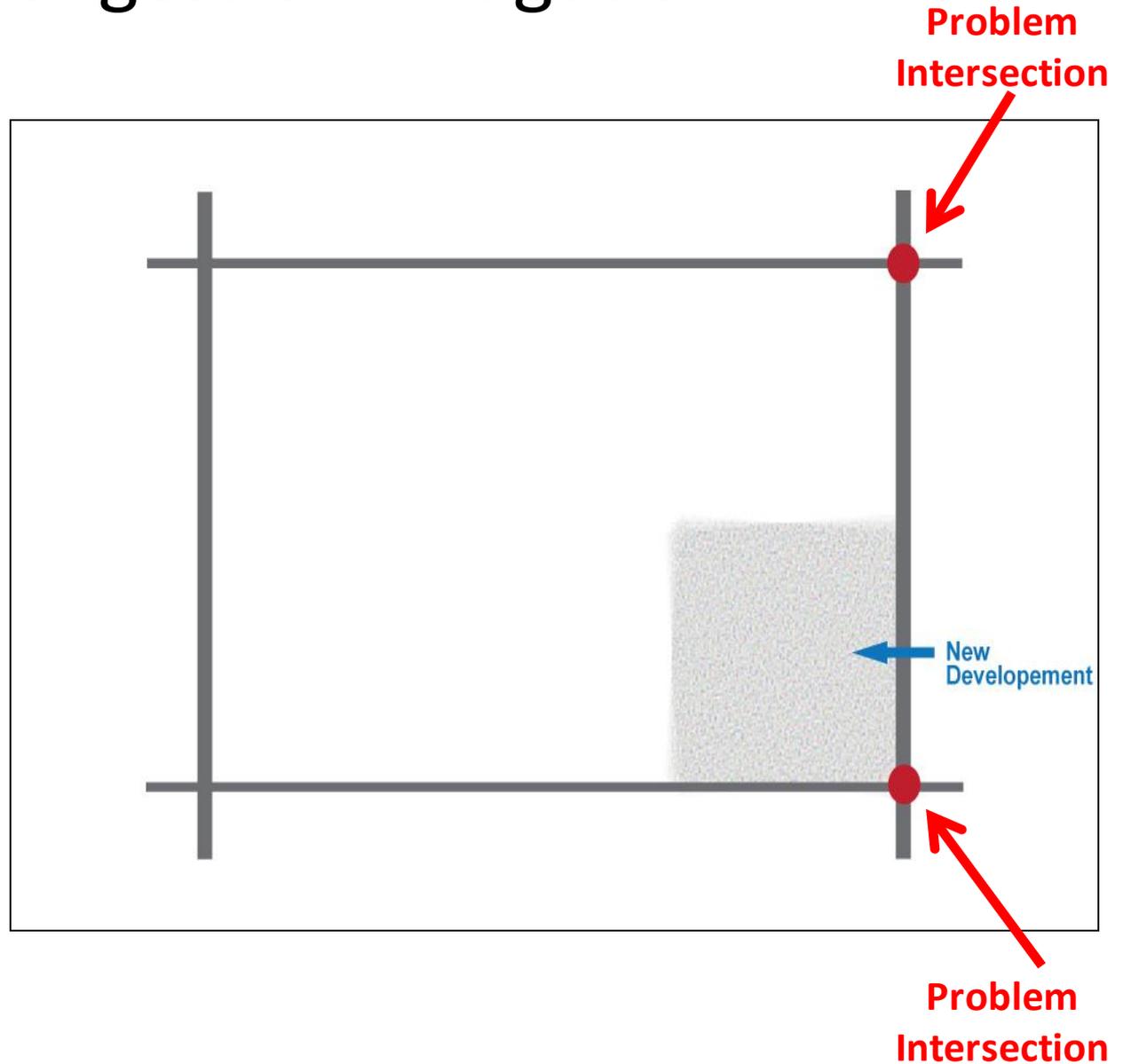


Advantages of a Grid of Streets

- Why have a grid of streets?
 - Walkability
 - Encourage all modes of travel (pedestrian, bicycles, and transit users)
 - Connectivity/Alternative paths of travel
 - Congestion mitigation
 - Convenient and shorter travel distances
 - Ability to choose more direct route
 - Support for adjacent development and higher intensity of development (within the grid)

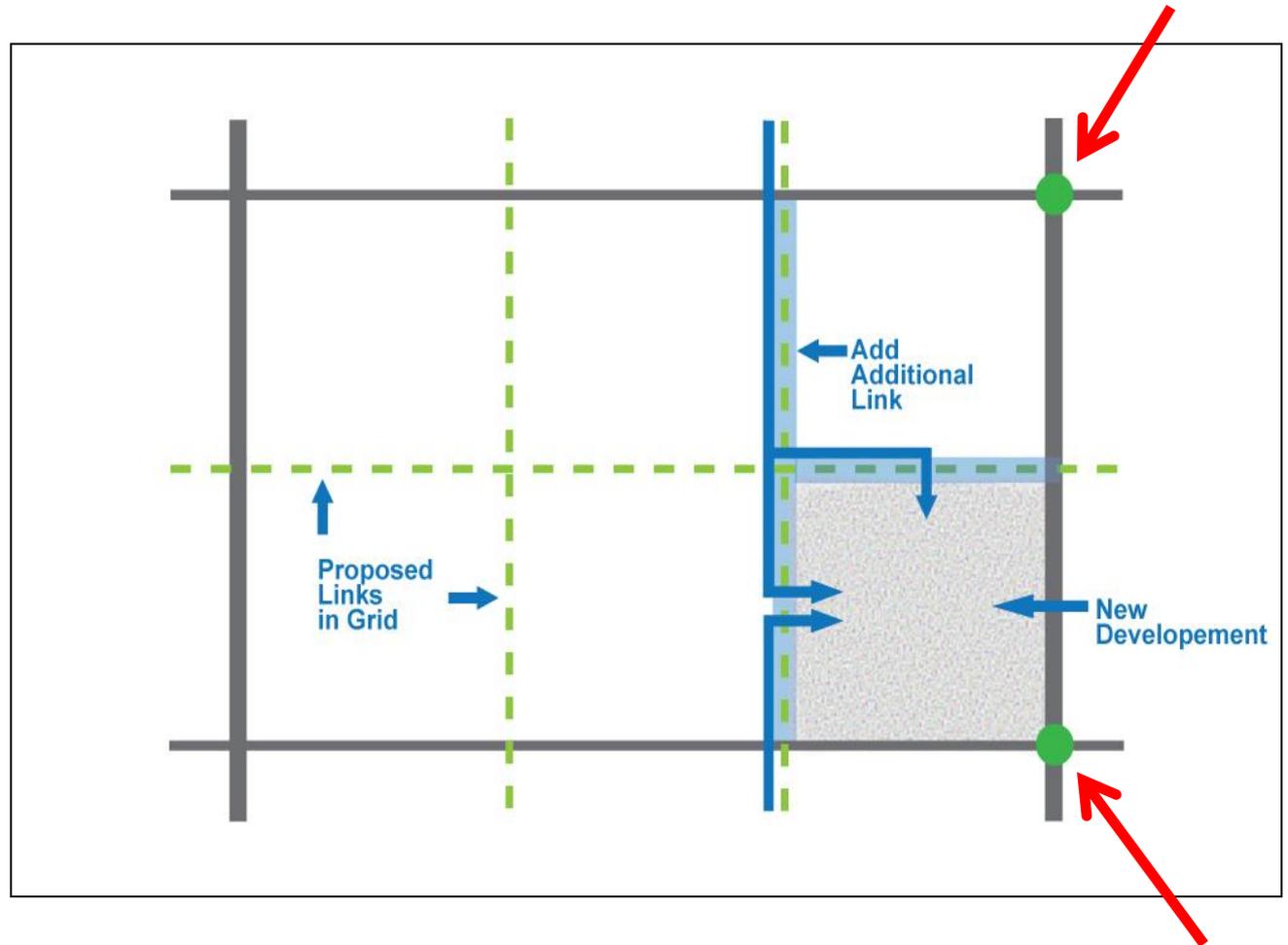
Congestion Mitigation

Building the
Grid of Streets



Congestion Mitigation

Building the Grid of Streets (cont.)



The grid, by providing alternative paths, helps with congestion mitigation, which is shown at intersections that were problematic.

Elements of a Grid of Streets

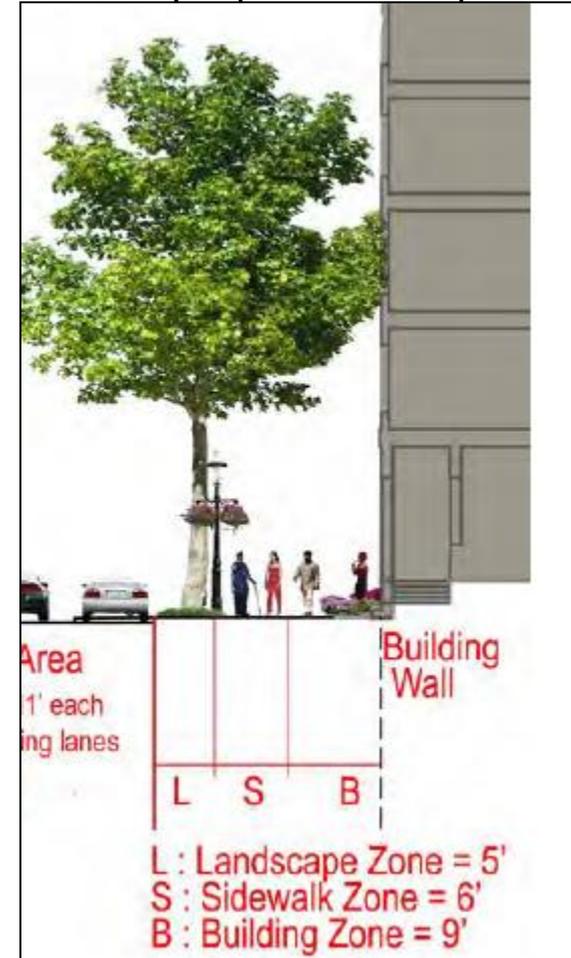
- Block Size (optimal range 400 to 600 feet)
- Complete streets
 - traffic lanes, bike lanes or wide curb lanes, traffic lanes, on-street parking, streetscape (pedestrian) zone
- Minimize exclusive turn lanes
- Avoid intersections with acute angles, awkward dog legs, and intersections with more than four legs

Grid of Streets – Cross Section Examples

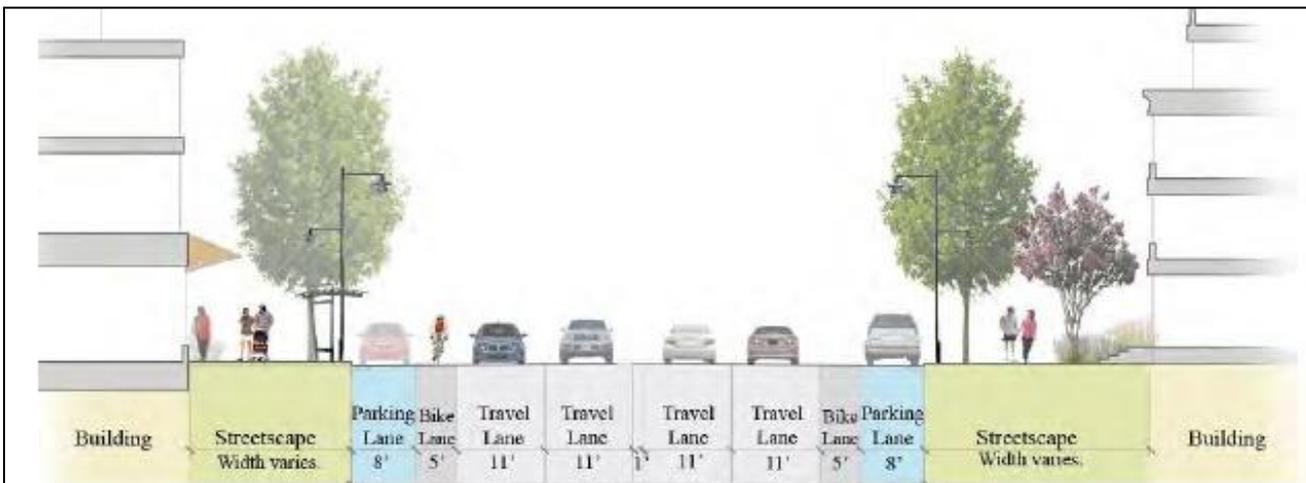
Local Street



Streetscape (Pedestrian) Zone



Collector Street



Considerations in Creating the Grid of Streets

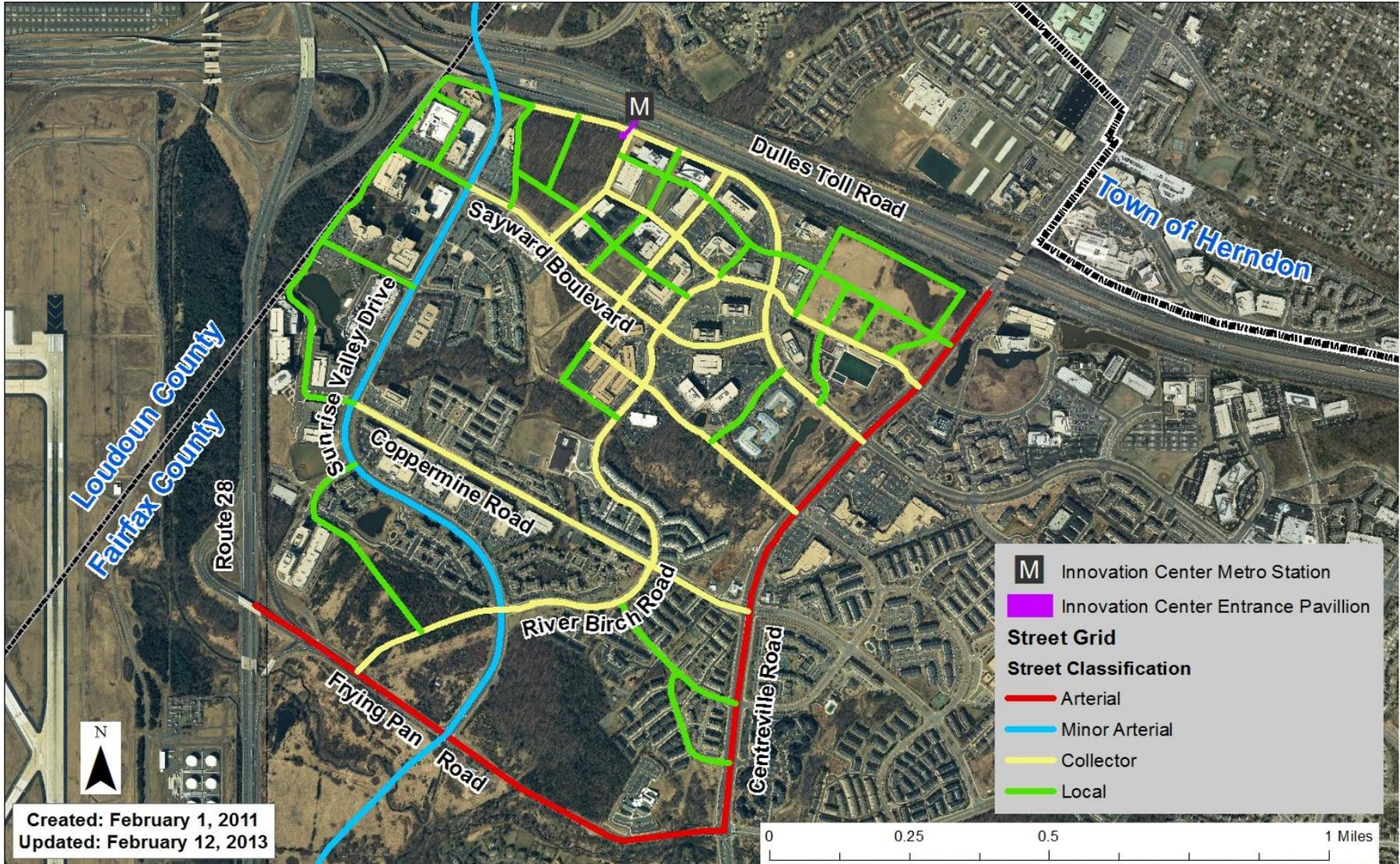
Land Use

- Existing land use
- Existing streets
- Approved rezonings
- Physical environment
- Potential redevelopment areas

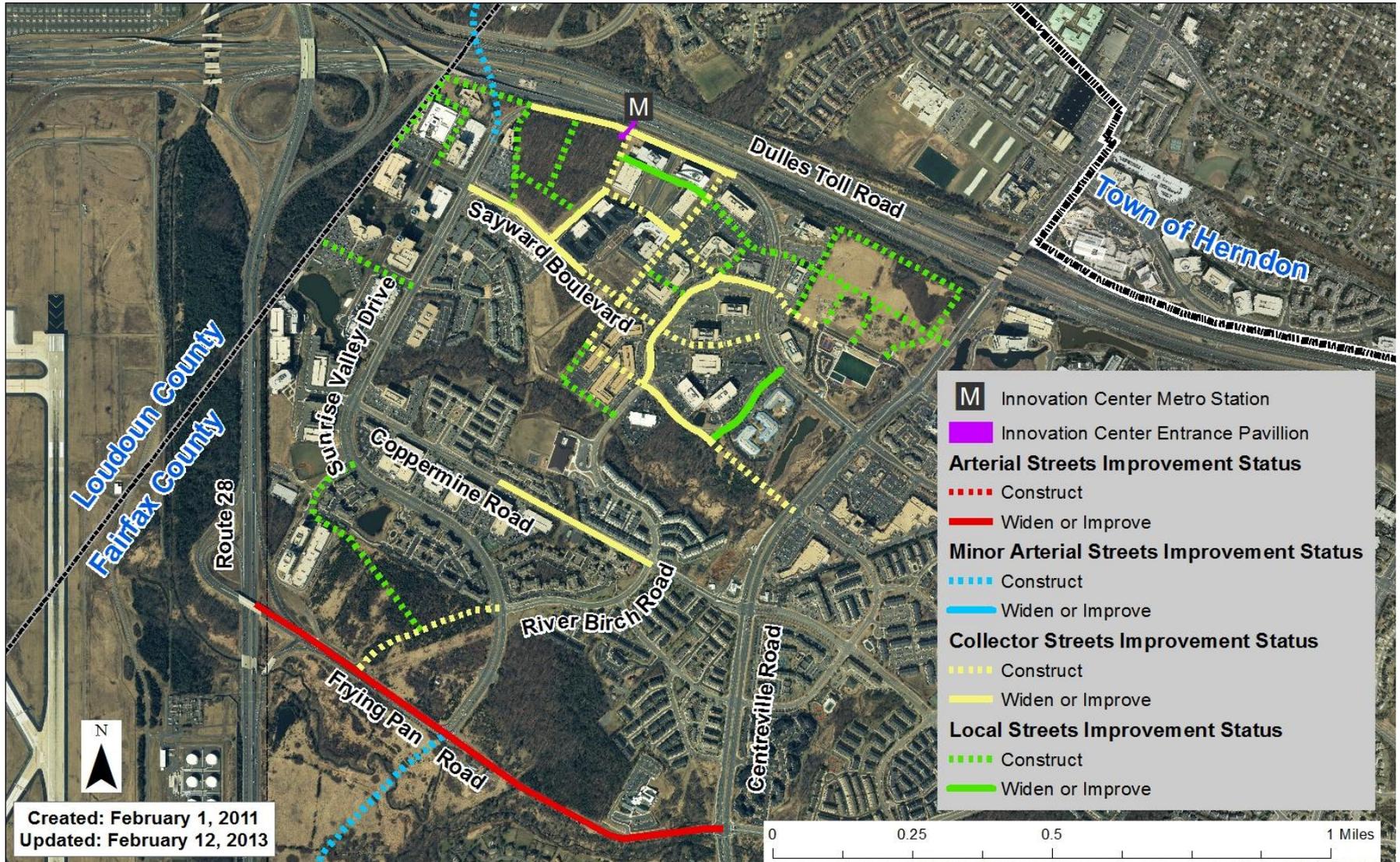
Transportation

- Location of Metro Station
- Spacing of intersections (block sizes)
- Connectivity with existing streets
- Classification of road (affects capacity and function)

Route 28 Station South Proposed Street Grid Classification



Route 28 Station South Proposed Street Grid Status



Purpose of the Grid Analysis

- Evaluate proposed grid
- Determine right-of-way needs
 - Number of lanes
 - Exclusive turn lanes
 - Intersection control
- Assist rezoning applications in study area

Contact Information

- Please provide any comments on the street grid by Friday, March 22, 2013

Send them to:

Michael Garcia (Michael.Garcia3@fairfaxcounty.gov)

- For more information on the study please visit the project's website:

<http://www.fairfaxcounty.gov/dpz/projects/route28.htm>

Or contact:

Clara Johnson (Clara.Johnson@fairfaxcounty.gov)



Questions/Discussions

