



Transforming Tysons Corner

The Transportation Requirements





Tysons Today

- **Economic engine of Fairfax County**

But:

- **17,000 residents; 105,000 jobs**
- **167,000 parking spaces**
- **Auto-oriented, single-use development pattern**
- **Few transit options**

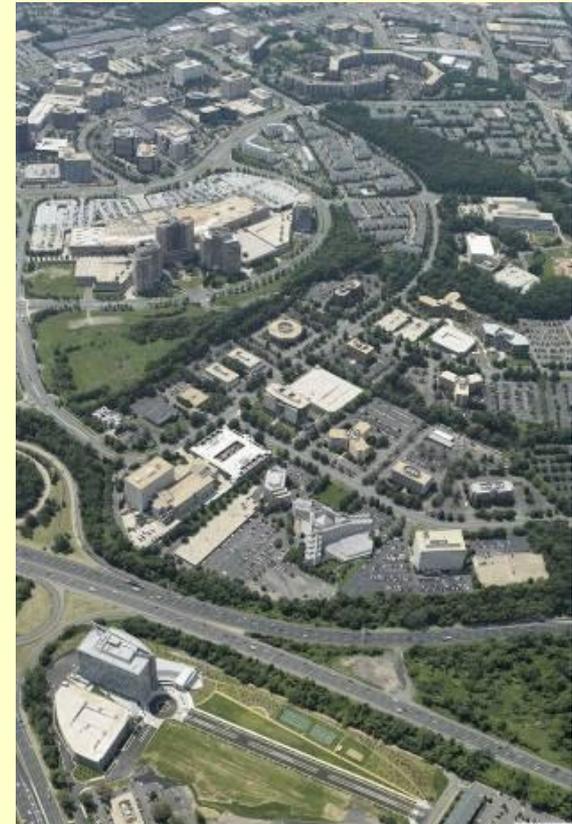
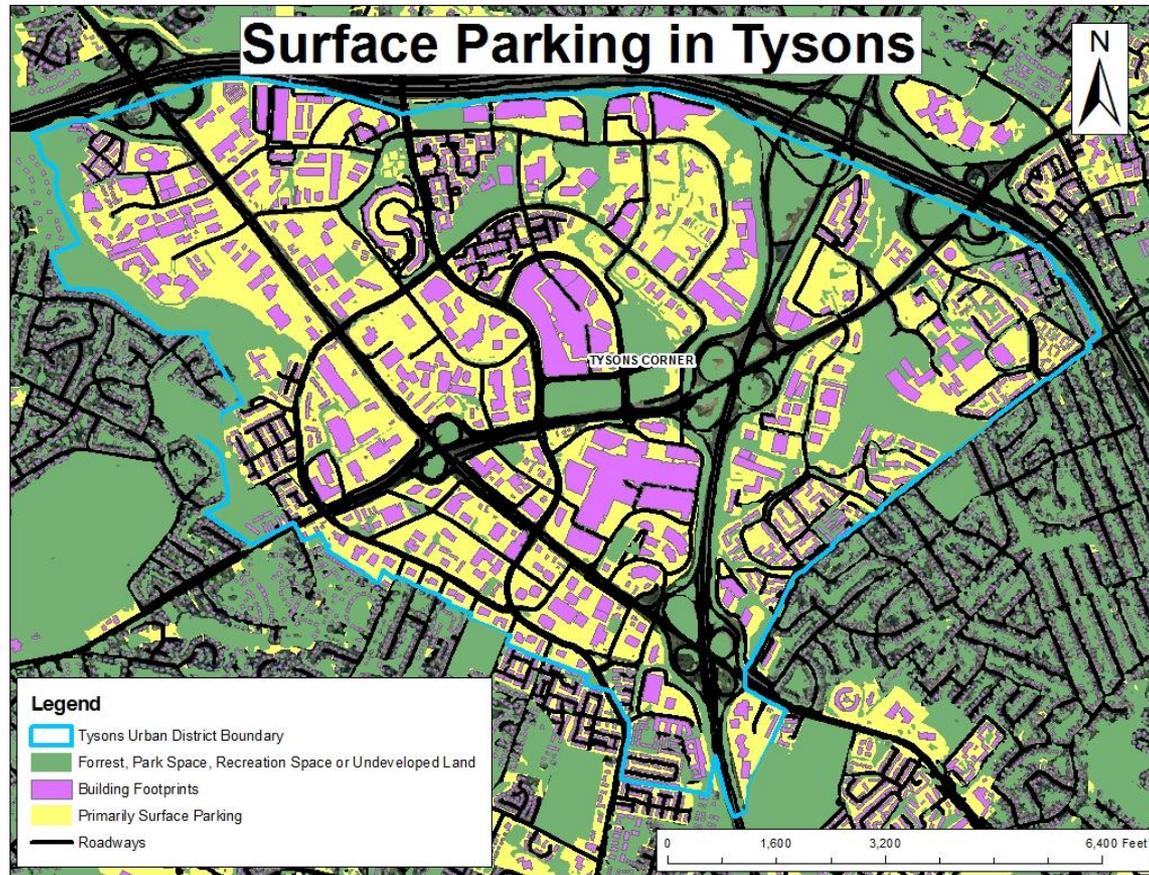


Image source: Fairfax County EDA

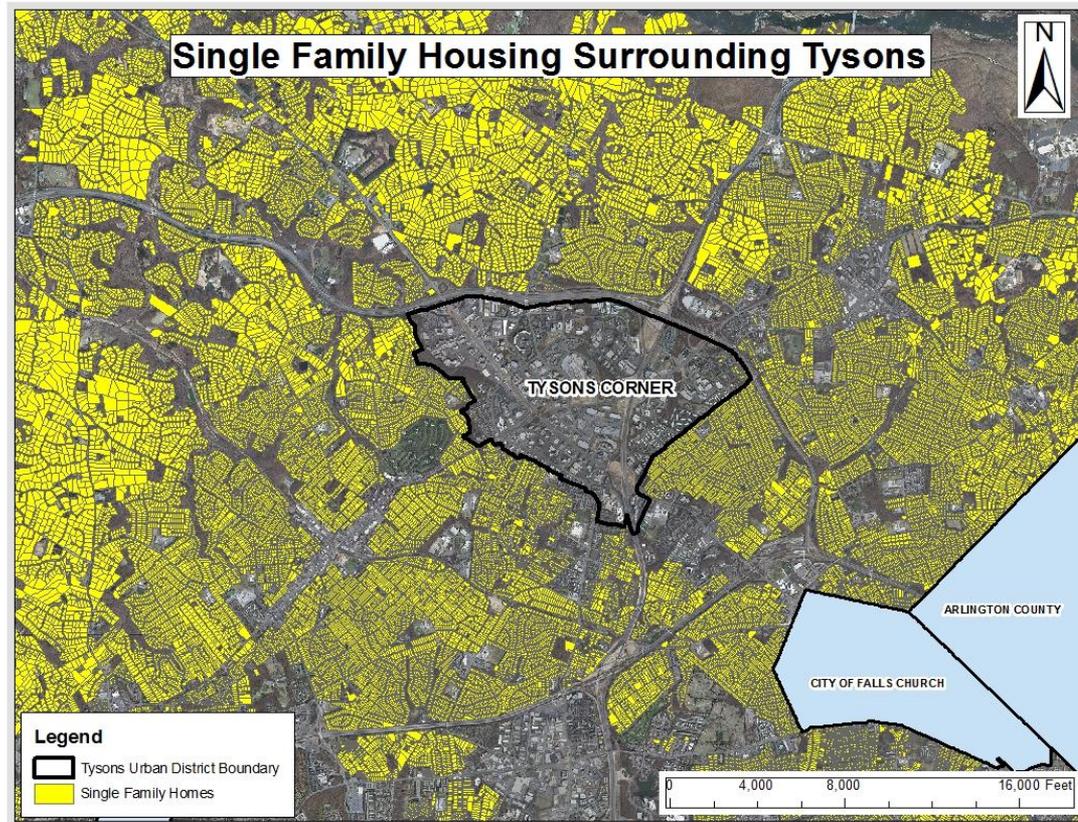


Surface Parking in Tysons (yellow)





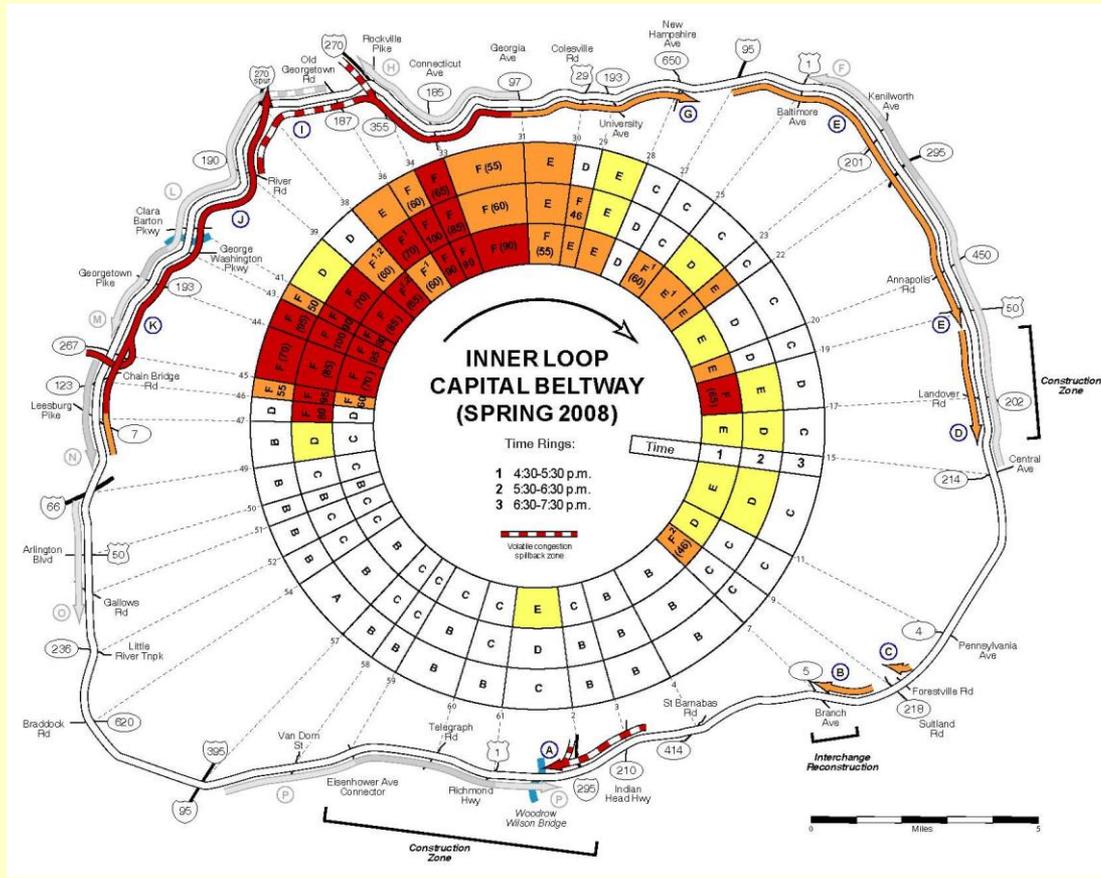
Tysons Surrounded by Single Family Housing (yellow)





County of Fairfax, Virginia

Congestion in Tysons Area: Beltway (I-495)



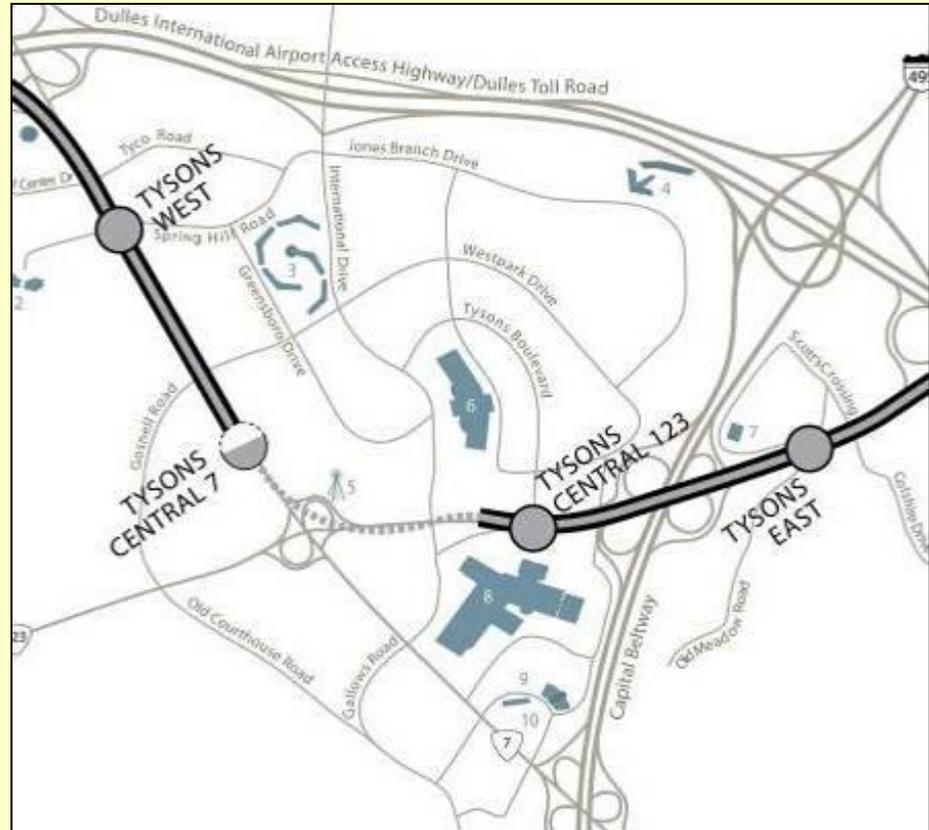
Source: MWCOG





Why Re-Plan Tysons?

- **Metrorail expansion to Dulles**
- **Policy of higher density, mixed use development in activity centers**
- **Tysons is not sustainable**





Dulles Rail Construction





County of Fairfax, Virginia

Beltway (I-495) HOT Lanes Construction





The Tysons Planning Effort

- **About 5 years**
- **Hundreds of meetings**
- **Close scrutiny!**



The Vision

A livable urban center with:

- **Transit-oriented development**
- **A variety of modes for trip making**
- **Fewer parking spaces**
- **Pedestrian and bicycle friendly streets**





Maximum Land Use Intensity Recommendation (2050)

- **Total of 113-116 million sq. ft. (presently 45 million sq. ft.)**
- **100,000 residents (presently 17,000)**
- **190,000 jobs (presently 103,000)**



Tysons Compared to Other Cities

Central Business District Employment Rankings (U.S. Cities)

Rank	Urban Area	Employment (existing)
1	New York	1,736,900
2	Chicago	541,500
3	Washington D.C.	382,400
4	San Francisco-San Jose	350,600
5	Boston	257,000
6	Philadelphia	220,100
7	Tysons Corner (By 2030)	166,000
8	Seattle	155,100
9	Houston	153,400
10	Los Angeles	143,700



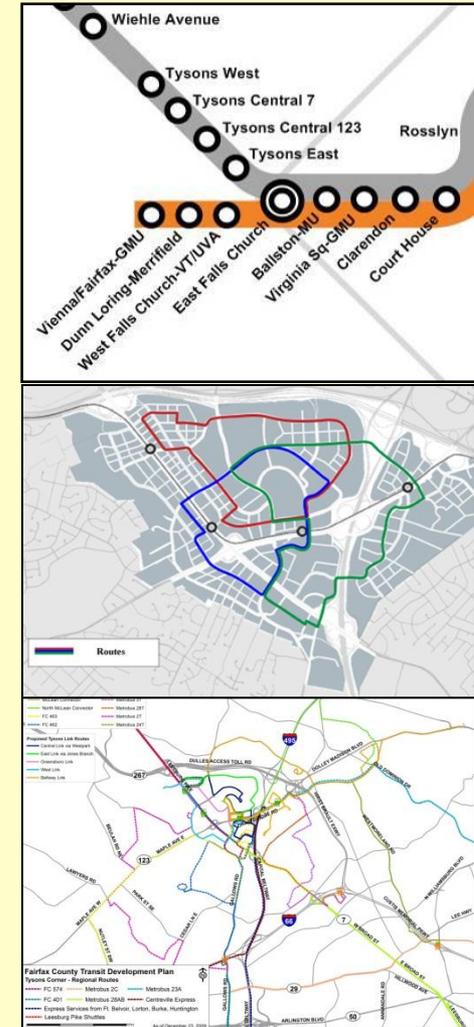
What's Necessary?





Transit Improvements

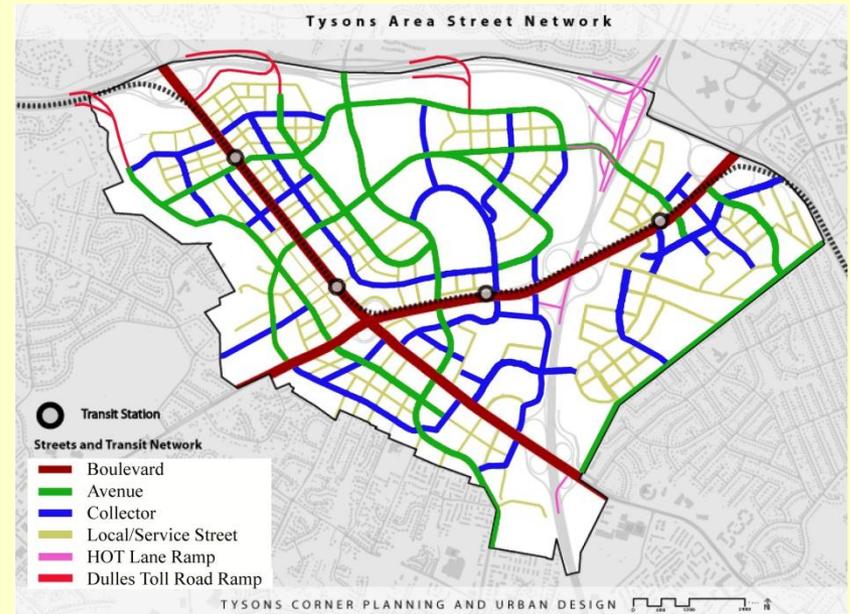
- **Metrorail extension to Tysons and Dulles Airport**
- **Internal circulator**
- **Expanded local and regional bus service**
- **Additional high quality transit corridors**





Urban Street Grid

Tysons “super-blocks” today



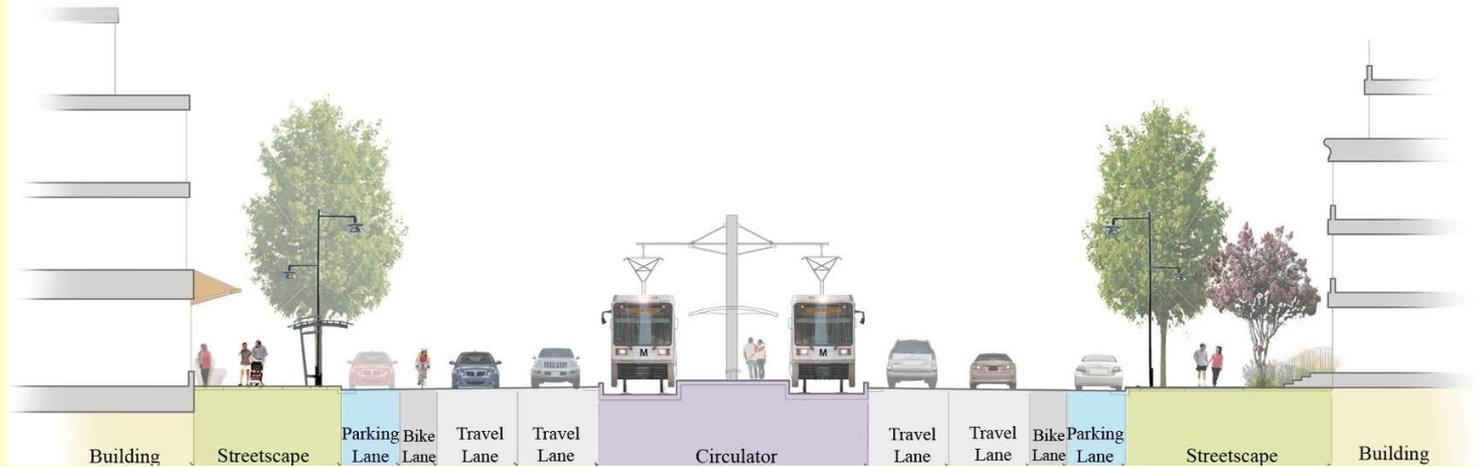
Potential for smaller, walkable blocks



Complete Streets

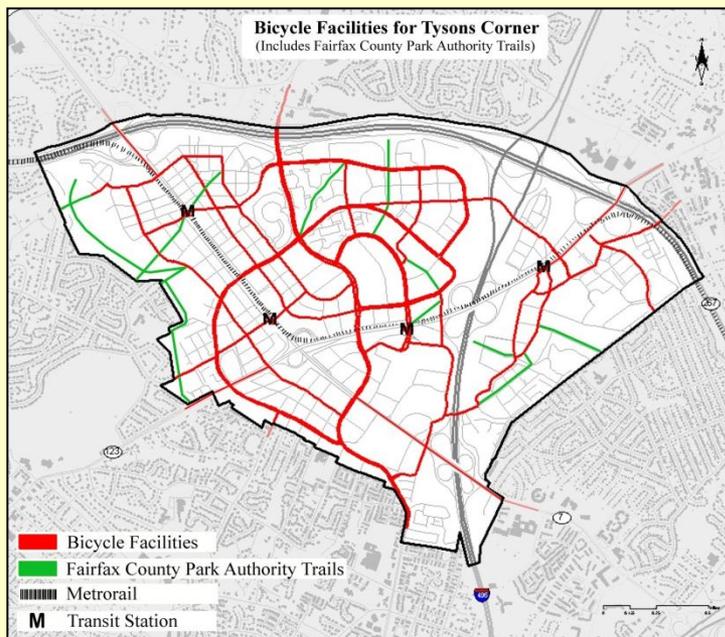


Facilities for pedestrians, bikes, transit circulators, and cars





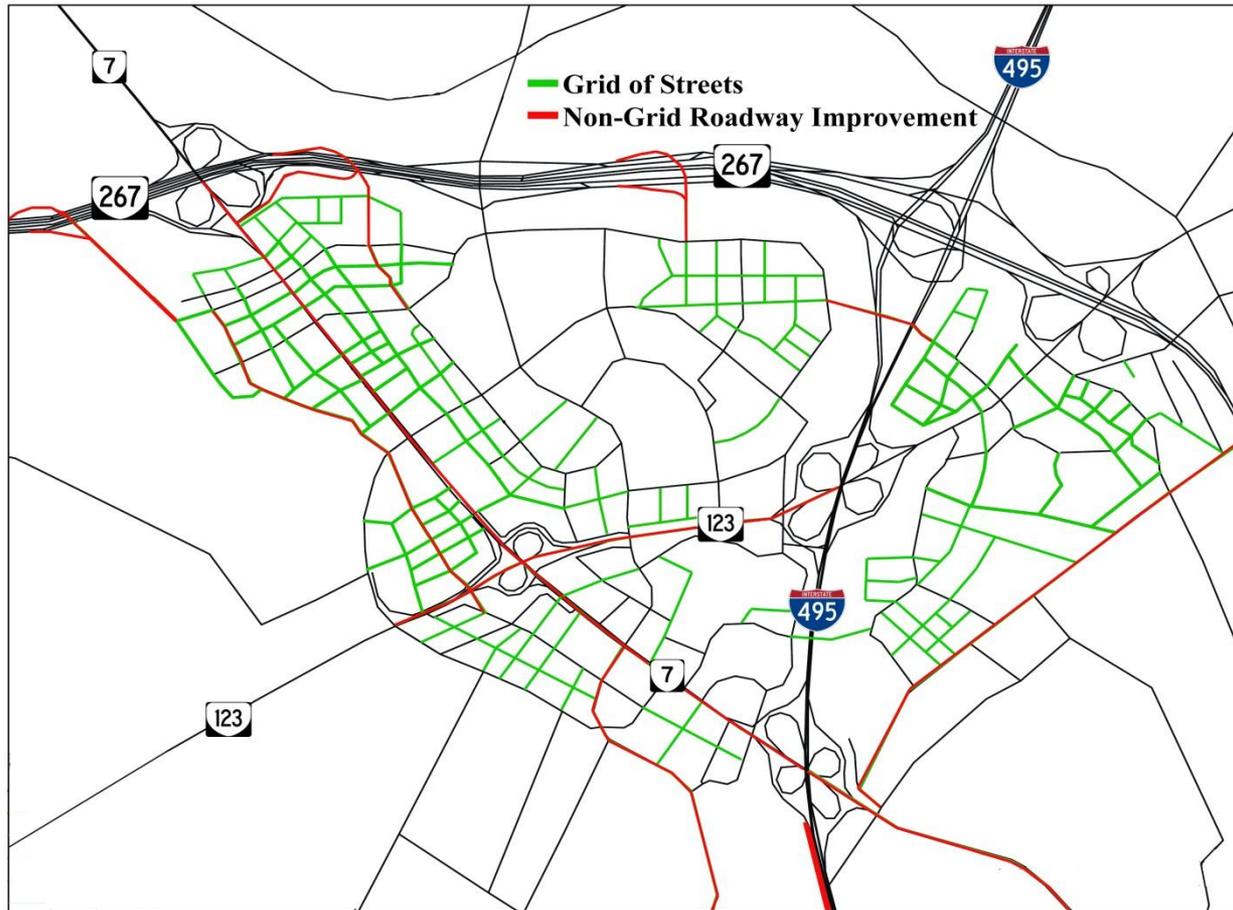
Expanded Bicycle Network



- **On-Road Bicycle Lanes**
- **Off-Road Multiuse Paths**
- **Bicycle Parking Requirements**



Roadway Improvements





TDM Goals/Measures

Development levels in total square feet (with corresponding forecast year)	TDM Vehicle Trip Reduction Goals, (Percentage Reduction from ITE Rates)			
	TOD Locations			Non-TOD Locations (more than 1/2 mile from station)
	0 to 1/8 Mile from Station	1/8 to 1/4 Mile from Station	1/4 to 1/2 Mile from Station	
2010 to 2020	45%	35%	30%	25%
84 million (2030)	55%	45%	40%	35%
96 million (2040)	60%	50%	45%	40%
113 million (2050) (Comprehensive Plan Level)	65%	55%	50%	45%



Parking Management

Parking Spaces Per 1,000 sq. ft.								
Previous (2009)	< 1/8 mile From Metro Station		1/8 - 1/4 mile From Metro Station		1/4 - 1/2 mile From Metro Station		Non-TOD	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
2.6	none	1.6	none	2.0	none	2.2	2.0	2.4

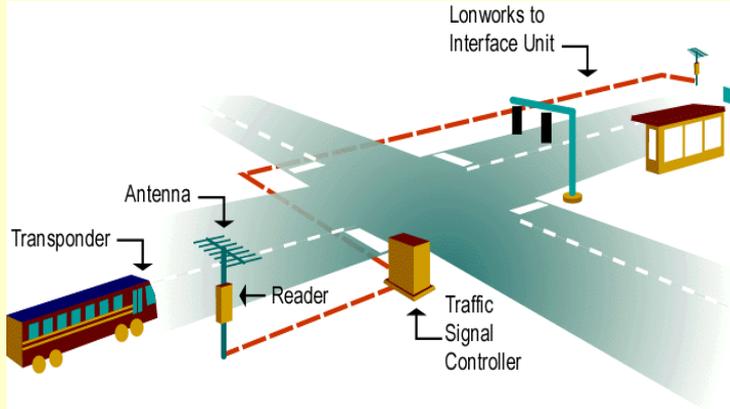


Observations of Maximum Parking Occupancy (Fairfax County)

Area	Spaces per 1,000 Square Feet	Maximum Parking Occupancy
Reston	3.20	53%
Merrifield	3.56	38%
Herndon	3.73	54%
Herndon	3.74	40%
Fair Oaks	3.93	58%
Tysons	3.97	41%



Smart Technology





Vehicle Monitoring System

To maintain a balance between land use and transportation

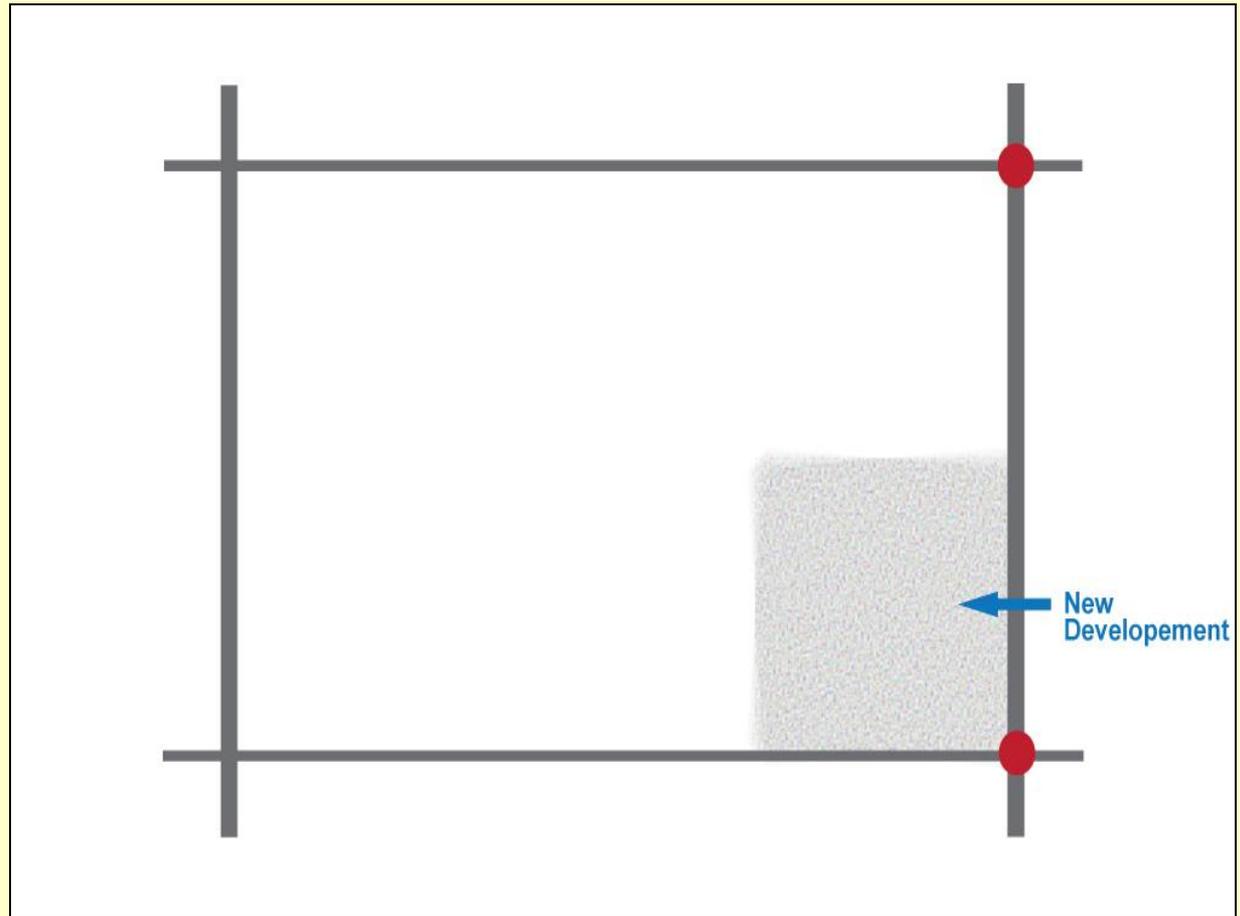
Possible Corrective Measures

- The use of TDM Remedial and Contingency Funds to increase TDM activities
- Modify Plan intensities and/or mix of uses
- Congestion pricing



Congestion Mitigation:

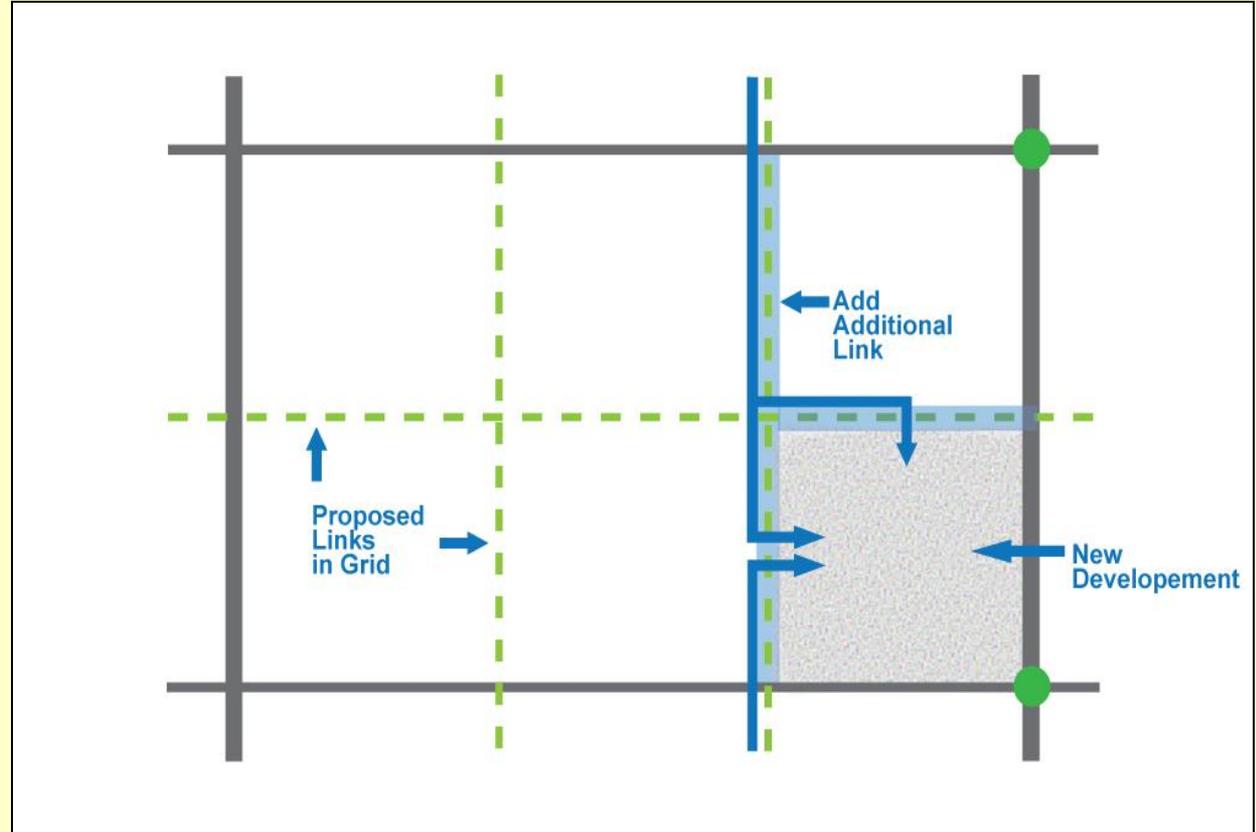
Building the Grid of Streets





Congestion Mitigation:

Building the Grid of Streets (cont.)





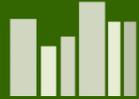
Estimated Cost of Transportation Improvements (2012 to 2030)

Type of Cost	\$'s (millions)
Transit (capital and operational)	\$374
Tysons-wide highway projects	\$810
Grid of streets	\$444
Bicycle and Pedestrian	\$70
Total	\$1,698



Update on Transportation Planning Studies Related to Tysons

February 15, 2012



Tyson's Metrorail Station Access Management Study



Goals

1. Educate the public on alternative mode transportation improvement recommendations that have been made to **improve access to the four Metrorail Stations in Tysons.**
2. Identify how the **public** would like these improvement recommendations to be **prioritized.**
3. Identify areas or topics, pertaining to improving bus, bicycle and pedestrian access to the rail stations in Tysons, that need **additional analysis or study.**



Next Steps

- TMSAMS Final report is complete and has been posted on the TMSAMS website:
<http://www.fairfaxcounty.gov/fcdot/tmsams/>
- The TMSAMS Final Report was presented to the Fairfax County Board of Supervisors, on December 6th, with a recommendation that it be, referred back to **FCDOT staff to be used as a tool to develop a FCDOT Staff Recommended List of alternative mode transportation improvement priorities**, designed to access the Metrorail stations in Tysons Corner, that **can be moved forward to the design phase. The BOS approved this request.**

Jones Branch / Scotts Crossing Connector

Summary of Preliminary Design Efforts

Jones Branch / Scotts Crossing Connector Summary of Preliminary Design Efforts

Goals

- Develop preliminary design for the Jones Branch Connector which will provide connection between Dolley Madison Blvd (Route 123) and Jones Branch Drive
- Develop a cross section which is in accordance with urban design elements for Tysons and which will support multi-modal forms of transportation including transit, pedestrians, bicycles and vehicles

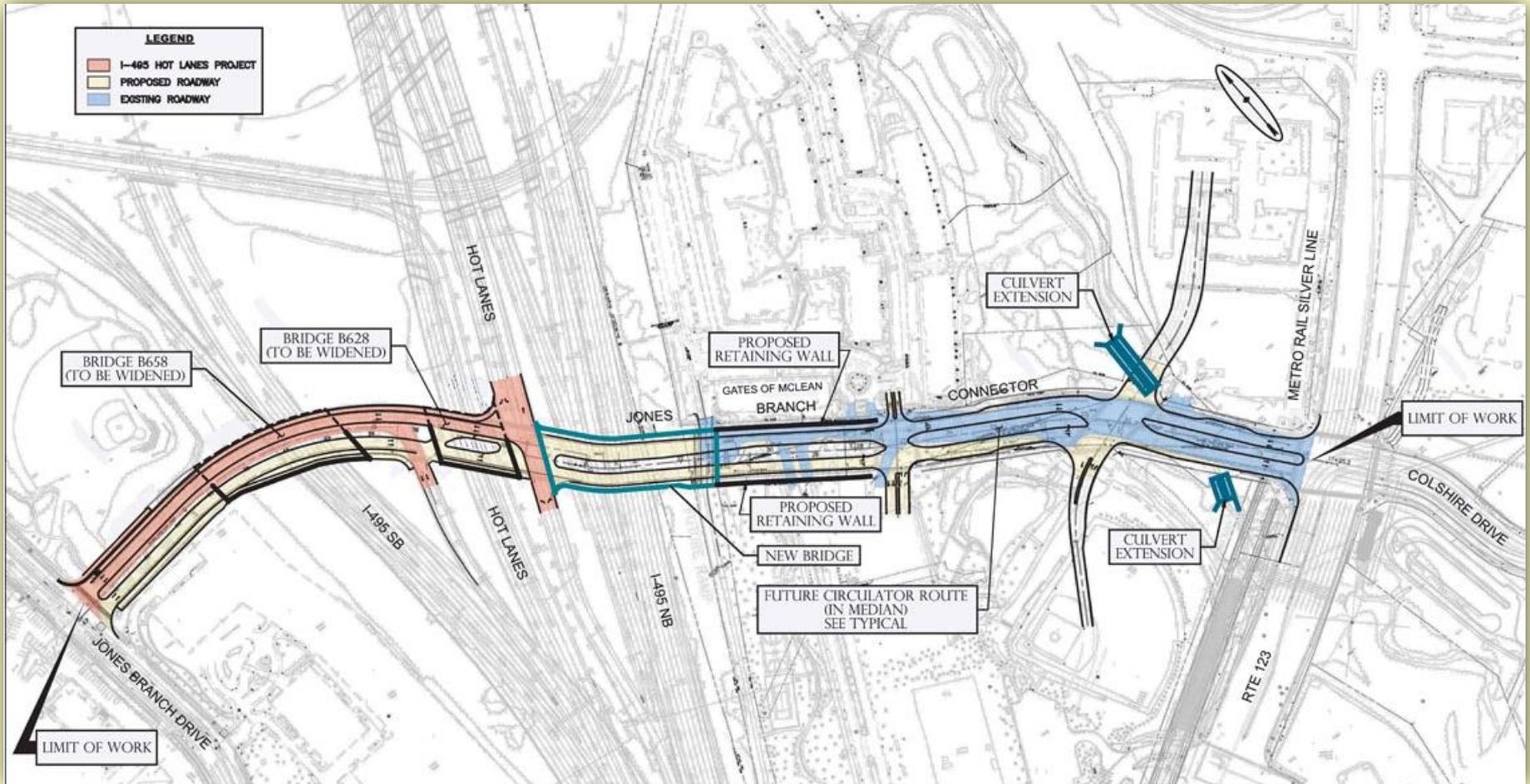
Jones Branch / Scotts Crossing Connector Summary of Preliminary Design Efforts

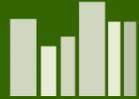
Project Update

- Preliminary conceptual layout developed
- Design (30% level), environmental and traffic analyses tasks initiated in October 2011
- Estimated completion: Fall 2012
- Funding for construction has not been identified

Jones Branch / Scotts Crossing Connector

Conceptual Layout





Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons



Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Project Description

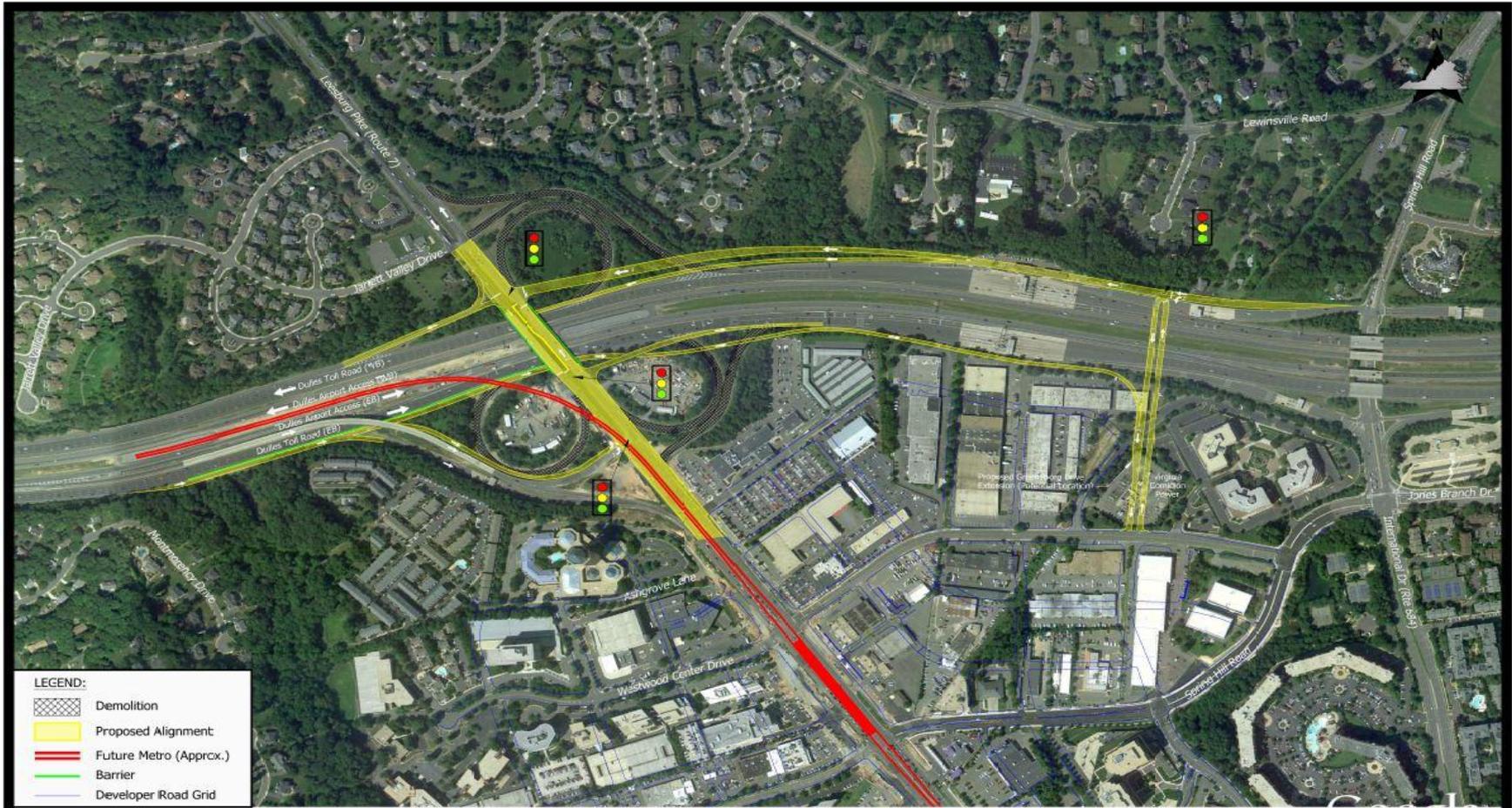
- Recommend improvements to the existing DTR interchanges at Route 7 and Spring Hill Road
- Recommend additional connections between DTR and Tysons

Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Project Progress

- Data collection has been completed
- Baseline model has been developed and calibrated
- 2030 No Build Model is being developed
- Alternative ramp connections have been identified

Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons Alternative Ramps



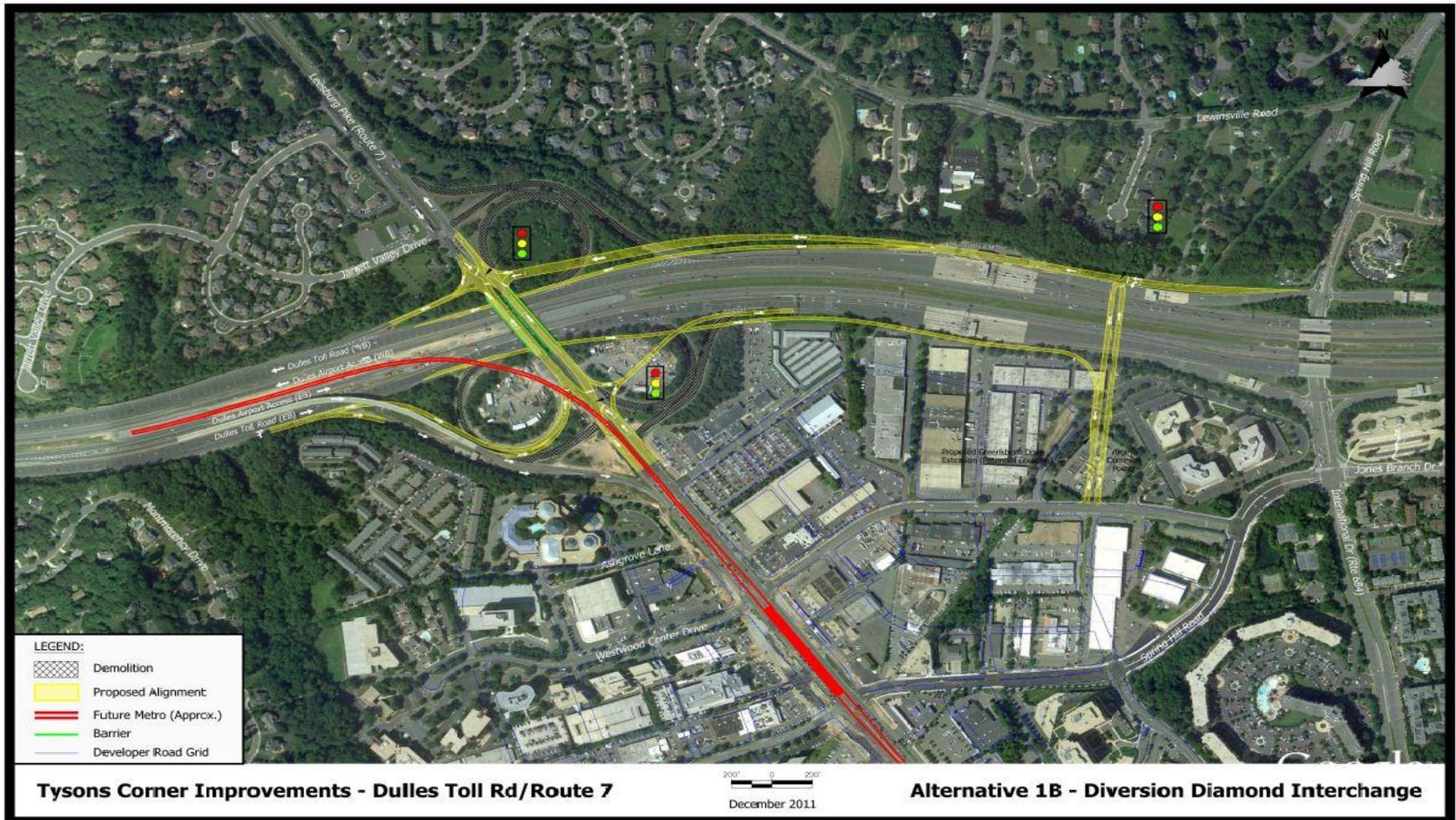
Tysons Corner Improvements - Dulles Toll Rd/Route 7

0 200' 400'
December 2011

Alternative 1A - Diamond Interchange

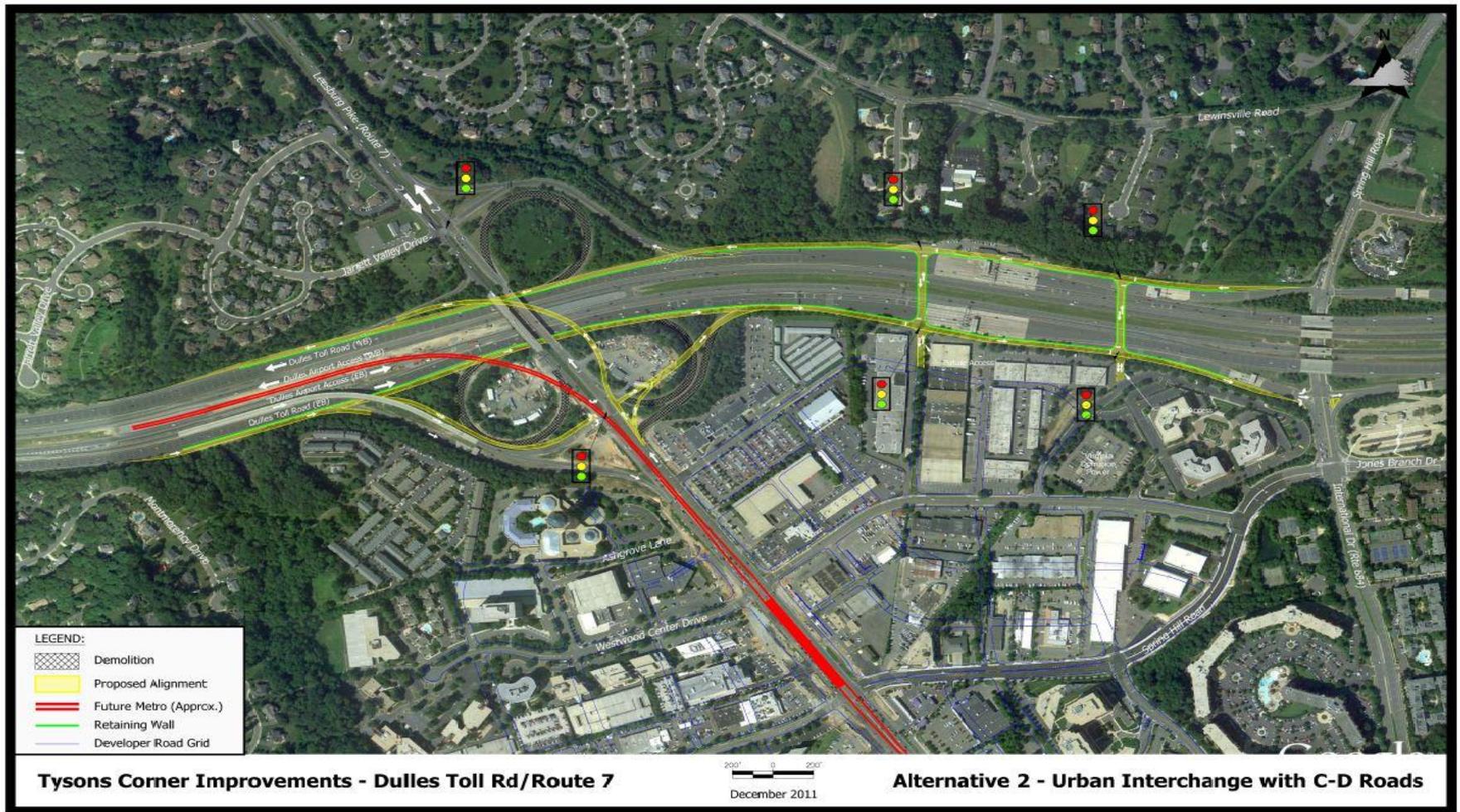
Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Alternative Ramps



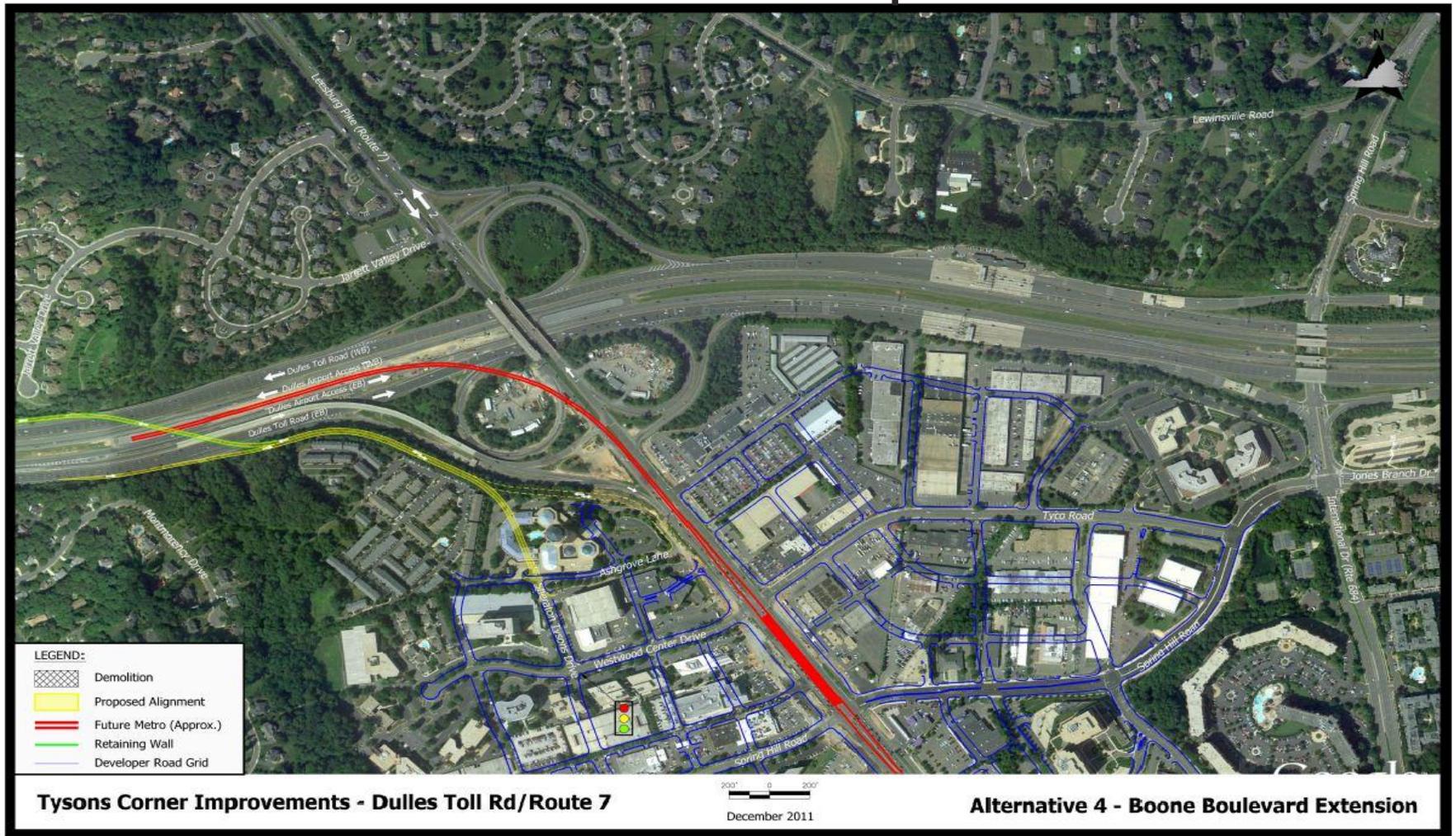
Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Alternative Ramps



Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Alternative Ramps



Detailed Operational Analysis of Dulles Toll Road Ramps To Tysons

Upcoming Tasks and Completion Date

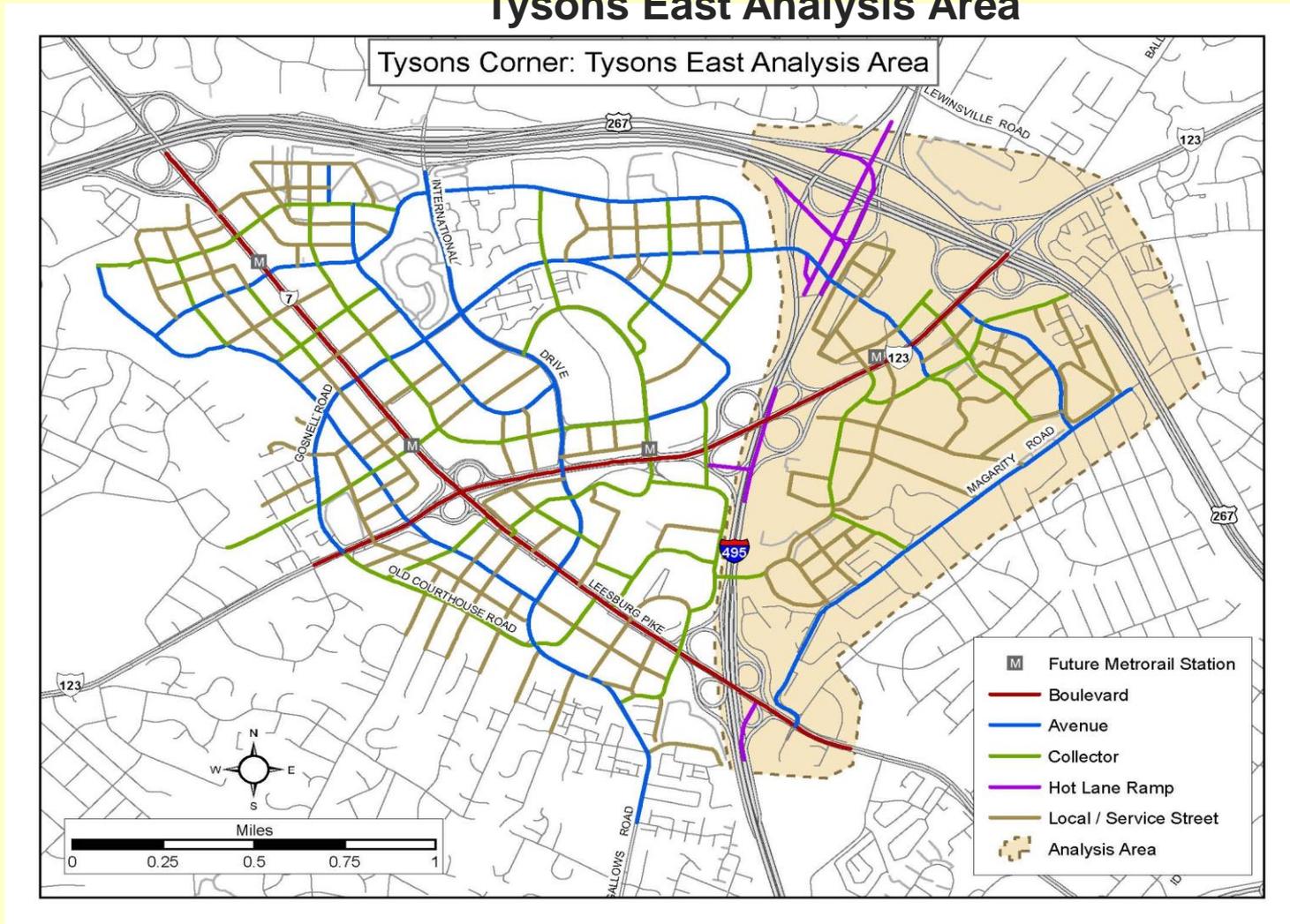
- Preliminary analysis of alternatives
- Meetings planned with the BOS, the Tysons Partnership, and individual developers between February and April
 - Conduct public meeting in March
- Perform detailed analysis of top alternatives (including environmental analysis, operational analysis, etc.)
 - Recommend best feasible alternative
 - Study to be completed by April 2012



Tyson's Corner Consolidated Transportation Impact Analyses (CTIAs)

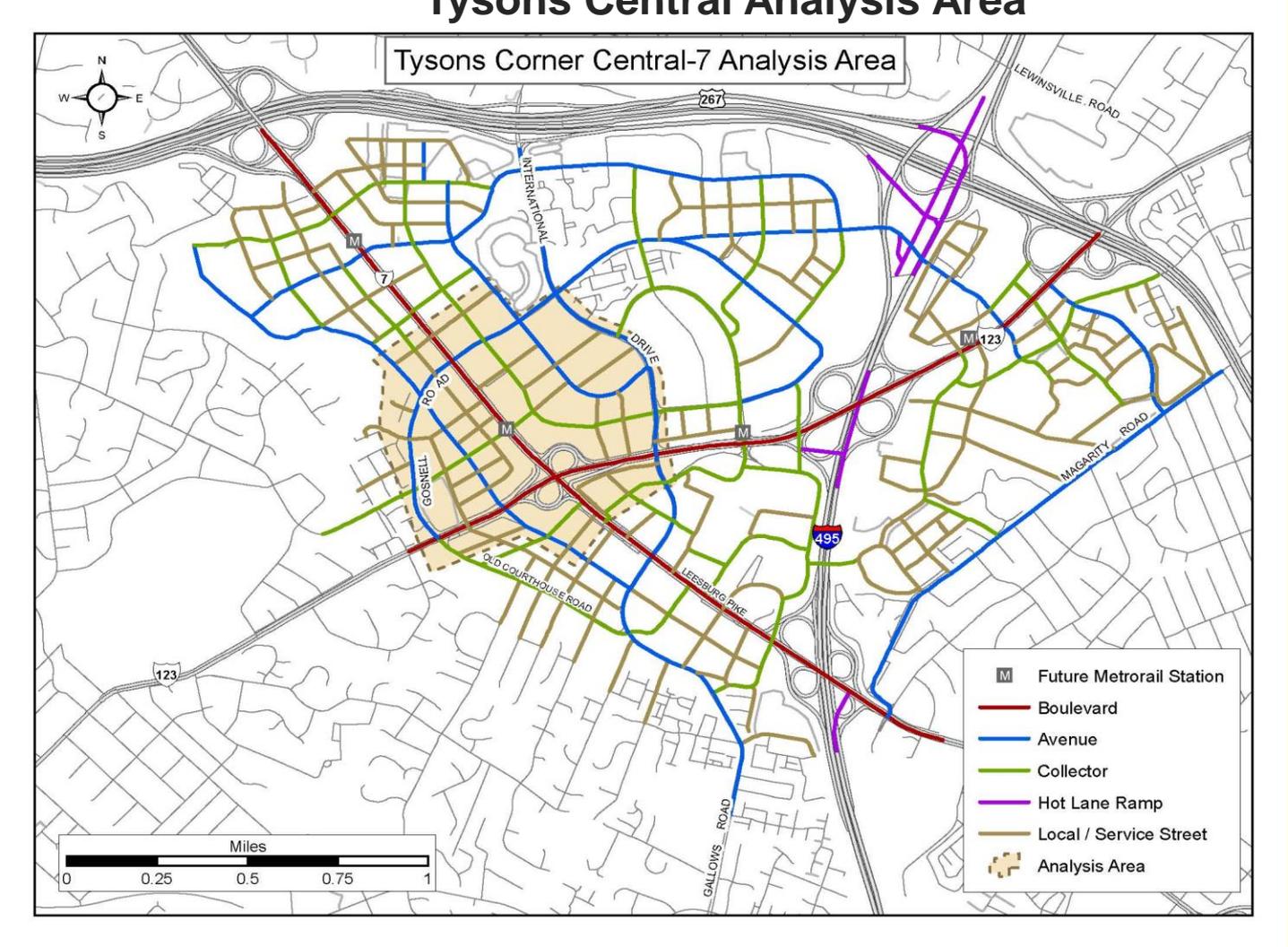
Tyson's Corner Consolidated Transportation Impact Analyses (CTIAs)

Tyson's East Analysis Area



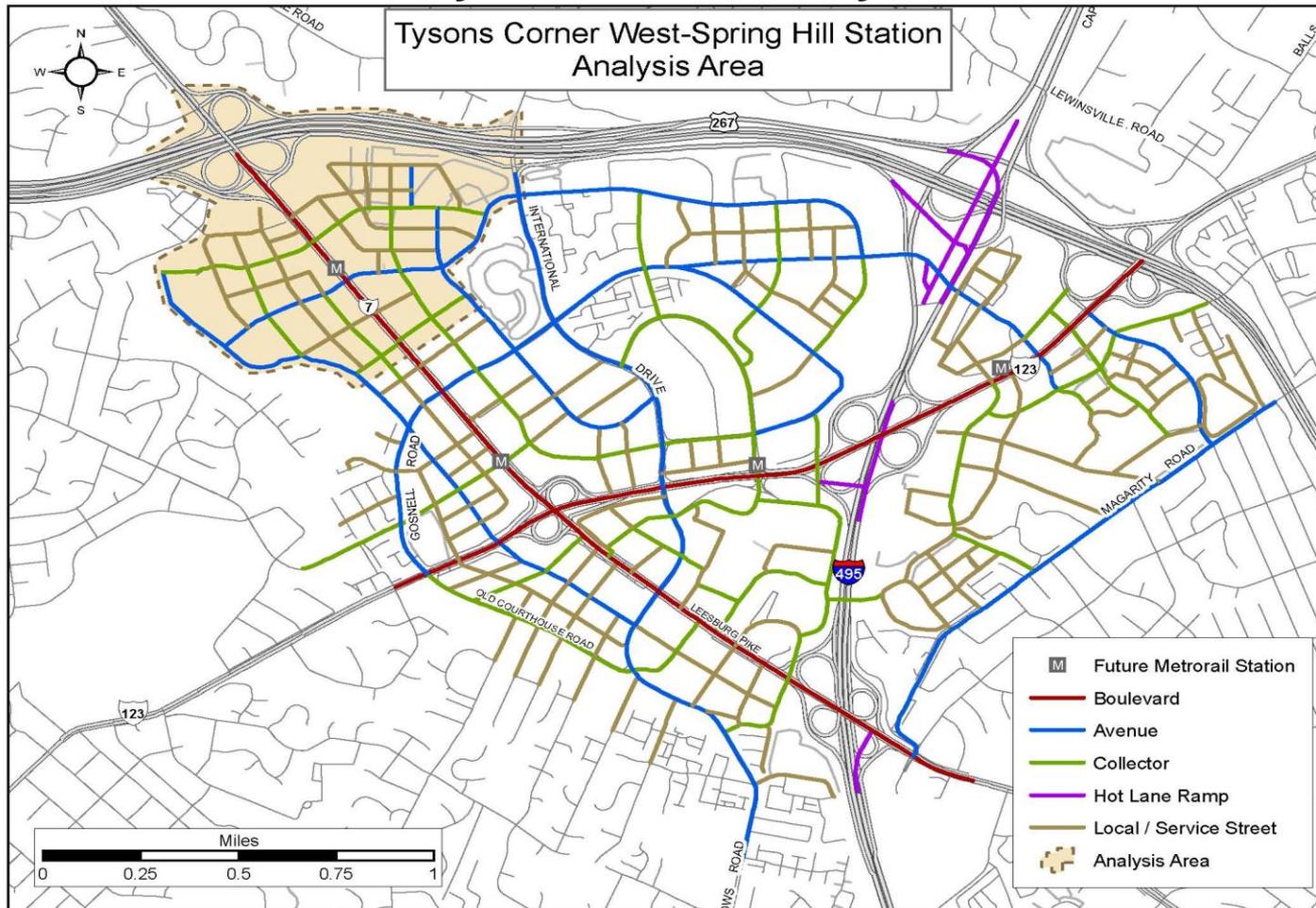
Tyson's Corner Consolidated Transportation Impact Analyses (CTIAs)

Tyson's Corner Central Analysis Area



Tyson's Corner Consolidated Transportation Impact Analyses (CTIAs)

Tyson's West Analysis Area



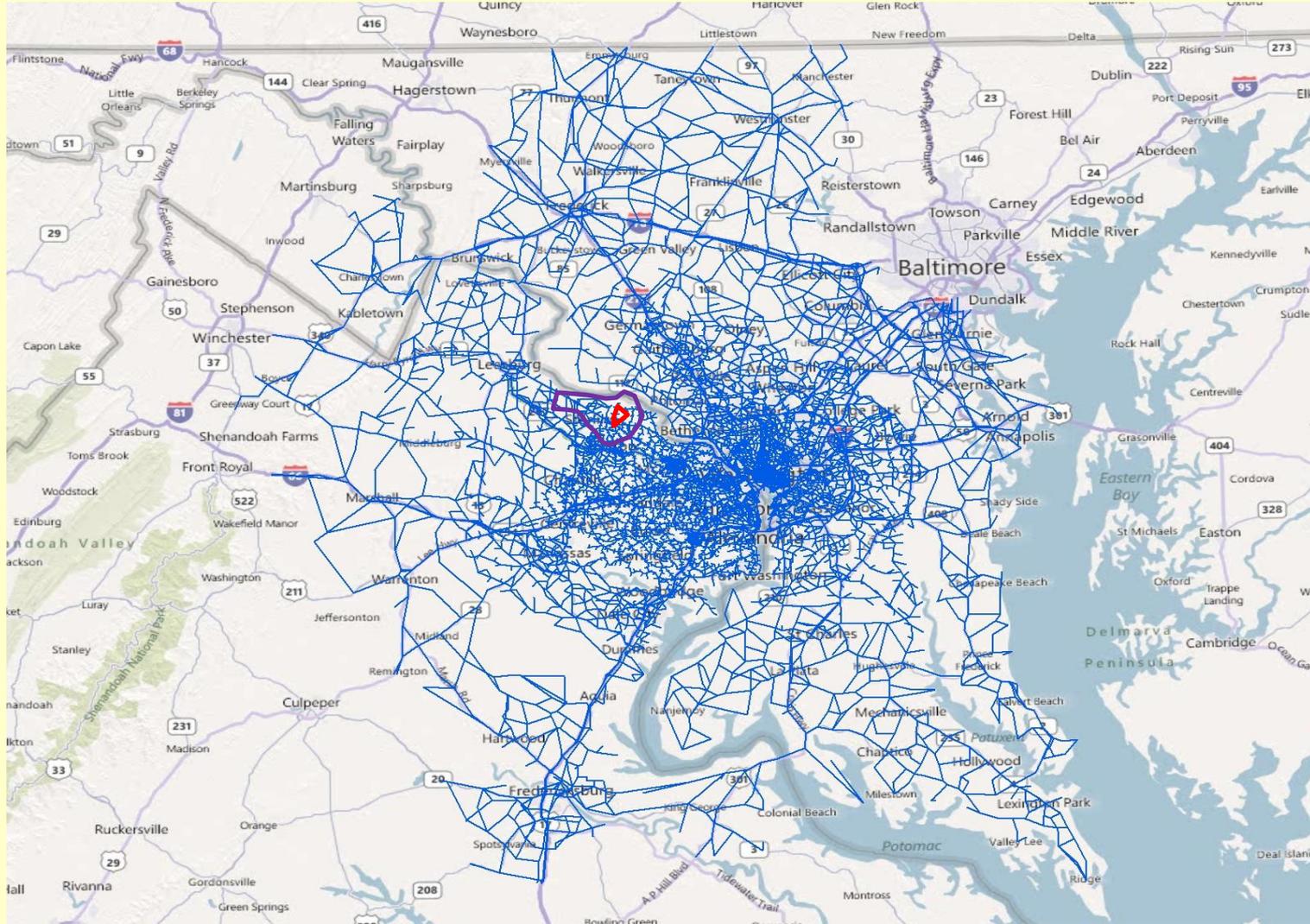
Tysons Corner Consolidated Transportation Impact Analyses (CTIAs) Update

Purpose

- Analyze 2030 and 2050 levels of development for the analysis area and determine associated mitigation measures for:
 - Grid of streets
 - Gateways to analysis area
- Perform detailed micro-simulation analysis to assess future traffic operations and opportunities for operational improvements

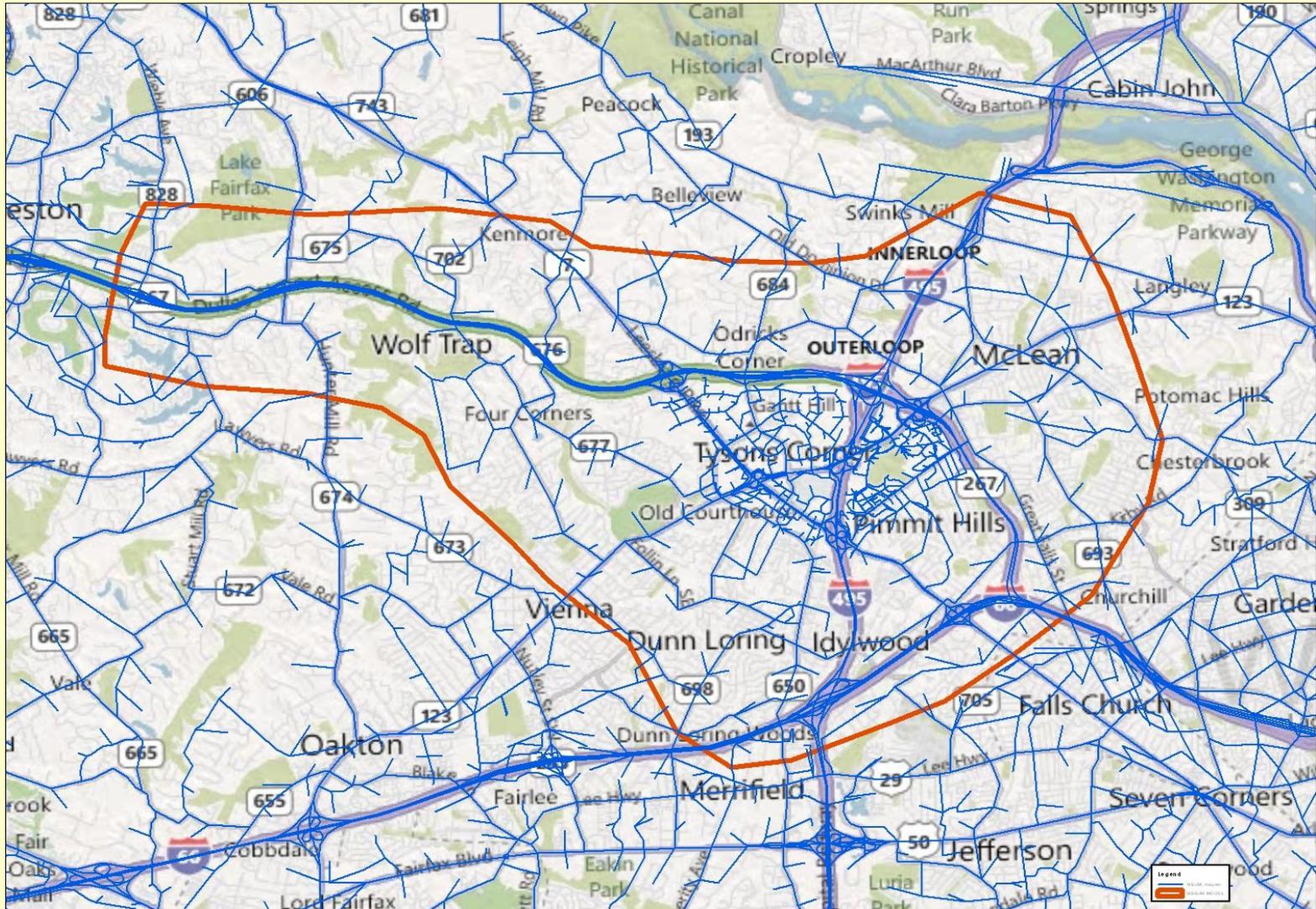
Tysons Corner Consolidated Transportation Impact Analyses (CTIAs)

MWCOG Regional Model



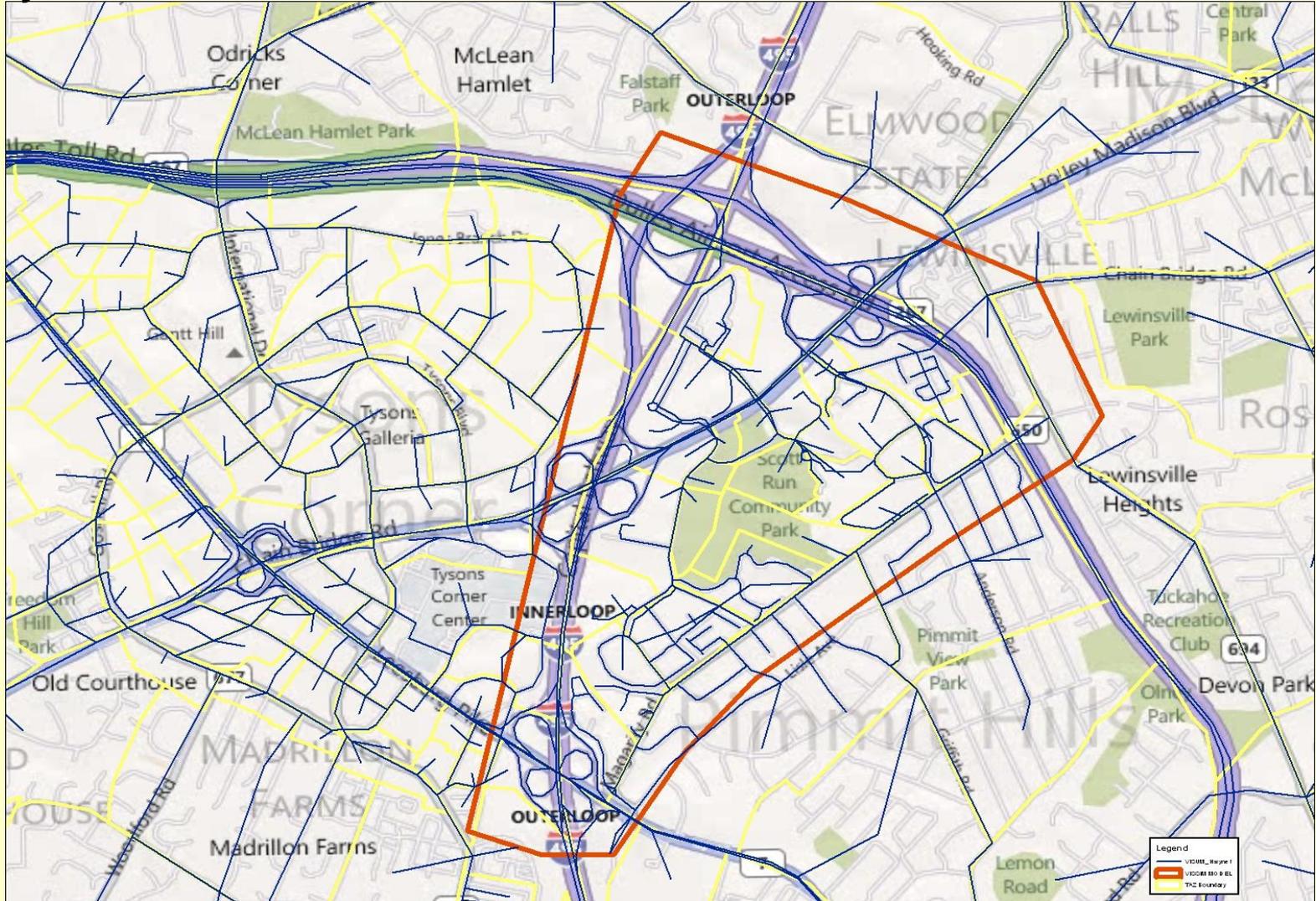
Tysons Corner Consolidated Transportation Impact Analyses (CTIAs)

Tysons Corner VISUM Model



Tyson's Corner Consolidated Transportation Impact Analyses (CTIAs)

Tyson's Corner East VISSIM Model





Tysons Circulator Study

Tysons Circulator Study

Circulator Definition

The Tysons Comprehensive Plan emphasizes importance of providing a system of transit circulators with the two main functions of providing quick and convenient access for Metrorail passengers to and from locations within Tysons but beyond walking distance from the Metrorail stations and providing a quick and convenient way to travel within Tysons.