

North Potomac Yard Small Area Plan Transportation

A hundred years after we are gone and forgotten, those who never heard of us will be living with the results of our actions. - Oliver Wendell Holmes



Planning Commission Work Session

April 6, 2010

Potomac Yard

Agenda

- Process
- Background
- Analysis
- Findings
- Phasing

Potomac Yard

Process

- Meetings where Transportation and Circulation discussed:
 - PYPAG meetings (7) (December 2008 – February 2010)
 - Metrorail Feasibility Work Group meetings (6) (February – December 2009)
 - PYPAG Transportation Subcommittee meetings (4) (March to August 2009)
 - Community Workshops (2) (January and October 2009)
 - Planning Commission Work Session (1) (June 2009)
 - City Council Work Session (1) (June 2009)
- Topics discussed
 - Circulation and Connectivity
 - Transportation Study
 - Best Practices
 - Existing Conditions and Neighborhood Character
 - Preserving Neighborhood Character
 - Conceptual Plan for Adjacent Neighborhoods

Potomac Yard

PYPAG and Transportation Subcommittee Consensus Points

- Planning for Potomac Yard should include a Metro
- Generally comfortable with conditions with 2.5 FAR
- The proposed level of delay is acceptable
- Framing of findings in terms of travel time delay is reasonable
- Maximize access to transit corridor
- Manage impacts to protect surrounding neighborhoods

Potomac Yard

Overview of Approach

- Develop Study Area
- Work with surrounding neighborhoods
- Protect neighborhood character

Study Area

Legend

-  Potomac Yard
-  Study Area



Arlington County

City of Alexandria

Dell Ray

Old Town Alexandria

Potomac Yard

Methodology

- Data Collection
 - Where?
 - Along major routes proximate to Landbay F
 - Major access points to study area
 - How?
 - Manual turning movements at intersections during PM Peak hour (worst peak hour)
 - Calibrated against previous traffic counts
 - Field observation

Potomac Yard

Scenarios

- Existing Traffic (2009)
 - Traffic on Roads today
- Background Traffic (2030)
 - Existing traffic
 - Traffic from approved and unbuilt development (i.e. Crystal City, Potomac Yard)
 - Growth on major corridors (Route 1)
- Future Traffic (2030)
 - Background traffic
 - Traffic from proposed development (Landbay F)
 - Remove existing trips (retail center)

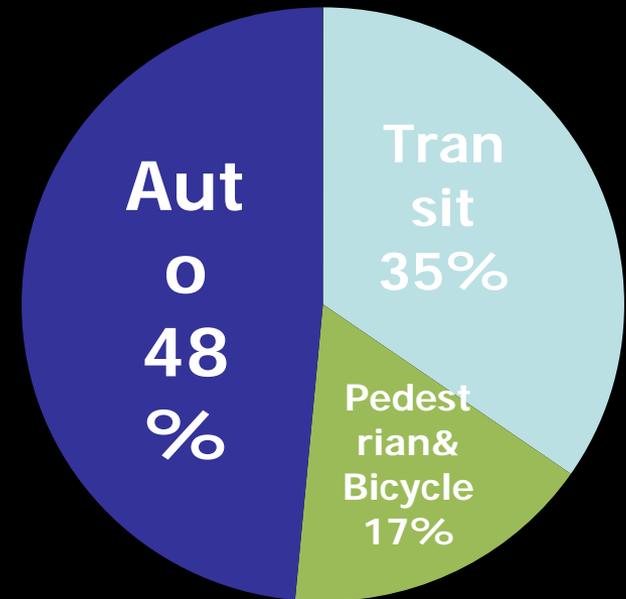
Potomac Yard

Assumptions

- Development:
 - 2.5 FAR
 - Approximately 7.5 million SF
- Background Development:
 - Approximately 4.7 million SF in rest of Potomac Yard
- Average modal split: 52% non-SOV
- Metro and Transitway operational
- Enhanced Bicycle and Pedestrian network
- Increased connectivity (including full movement at Reed)

Mode Split

2.5 FAR Scenario



Potomac Yard

Neighborhood Issues

- Truck traffic
- Volume (on neighborhood streets)
- Speed
- Noise
- Quality of life

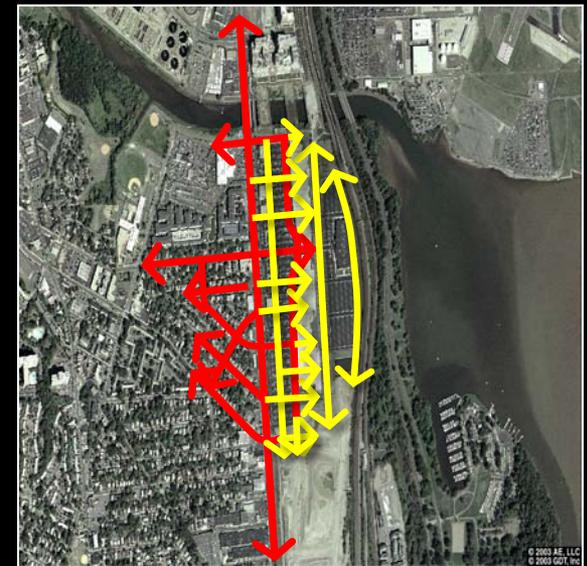
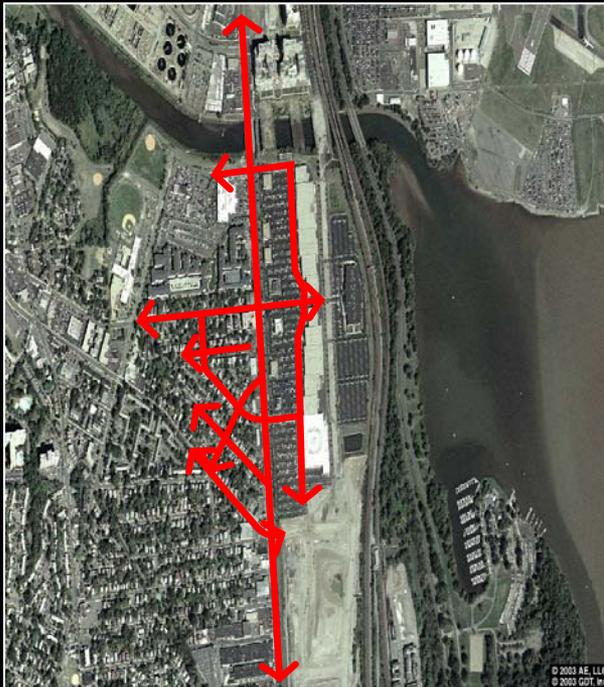
Neighborhood Benefits

- Enhanced Metro and Transit
- Walkable Amenities
- Parks
- Trails
- Shopping

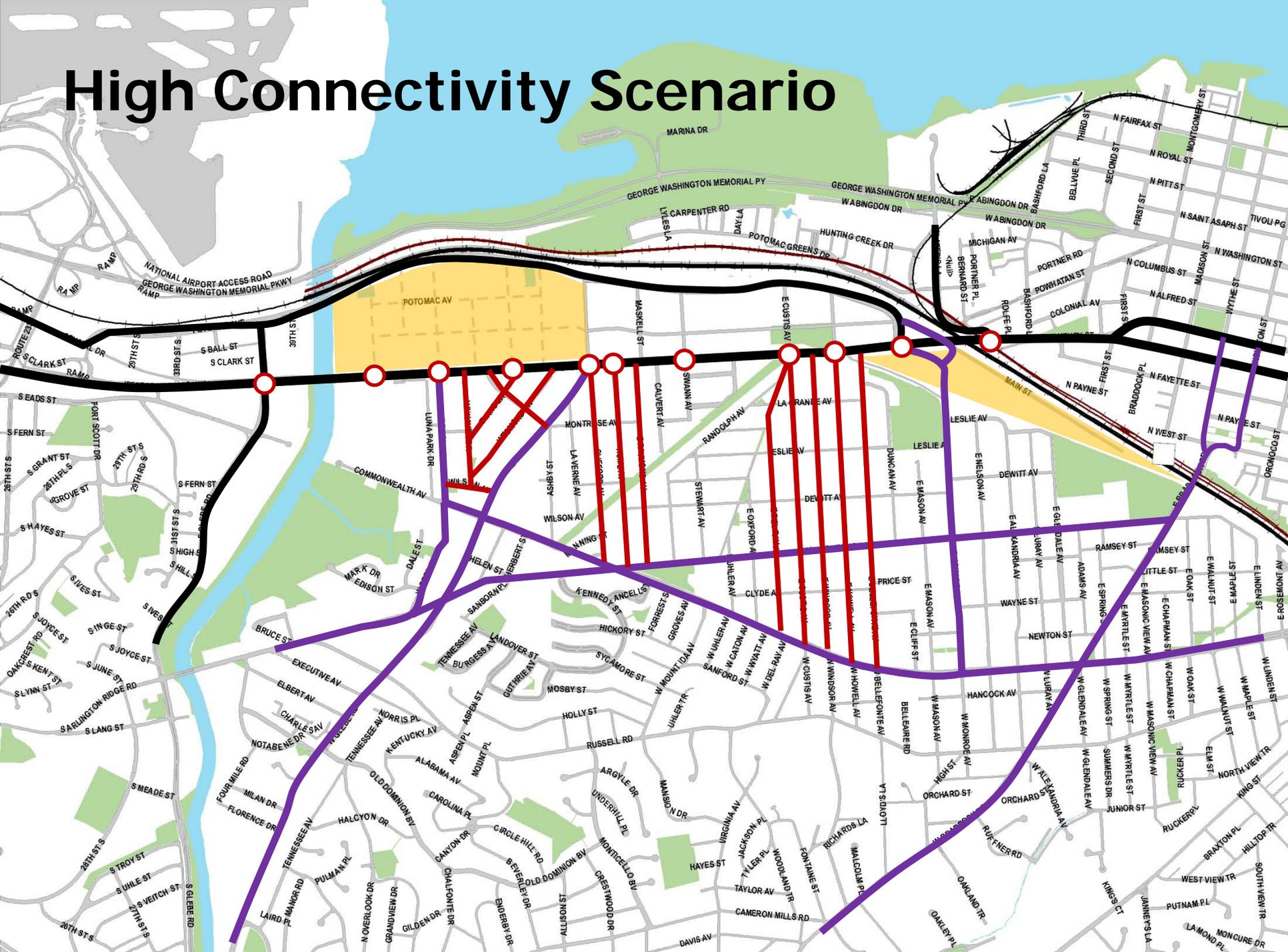
Potomac Yard

Transportation Infrastructure – Existing vs. Future

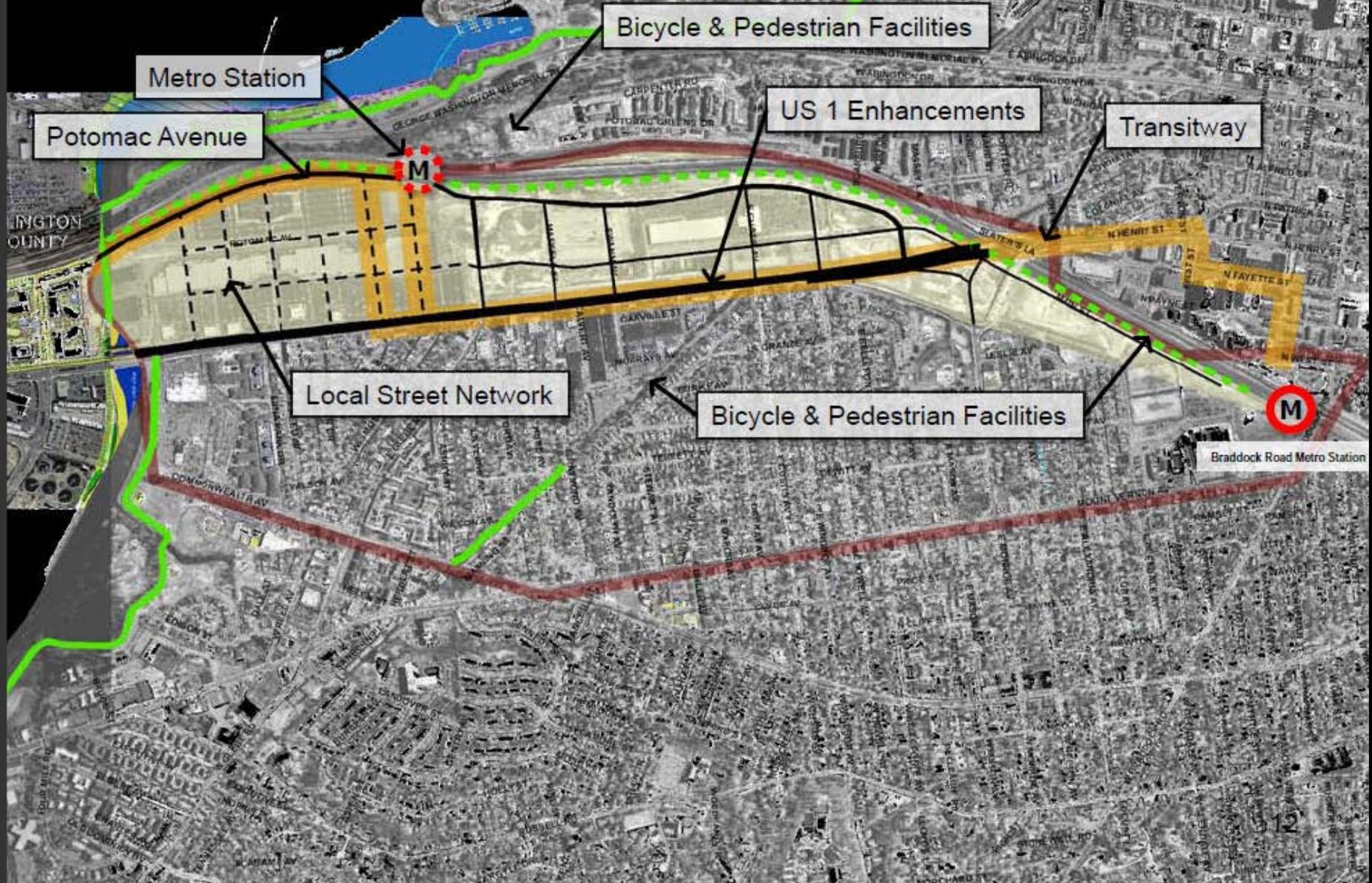
- Local bus service
- Limited connectivity
- Incomplete bicycle and pedestrian network
- Metro Station
- Dedicated Transitway
- Robust local bus service
- Robust street grid
- Enhanced Bicycle and Pedestrian network (on and off street)



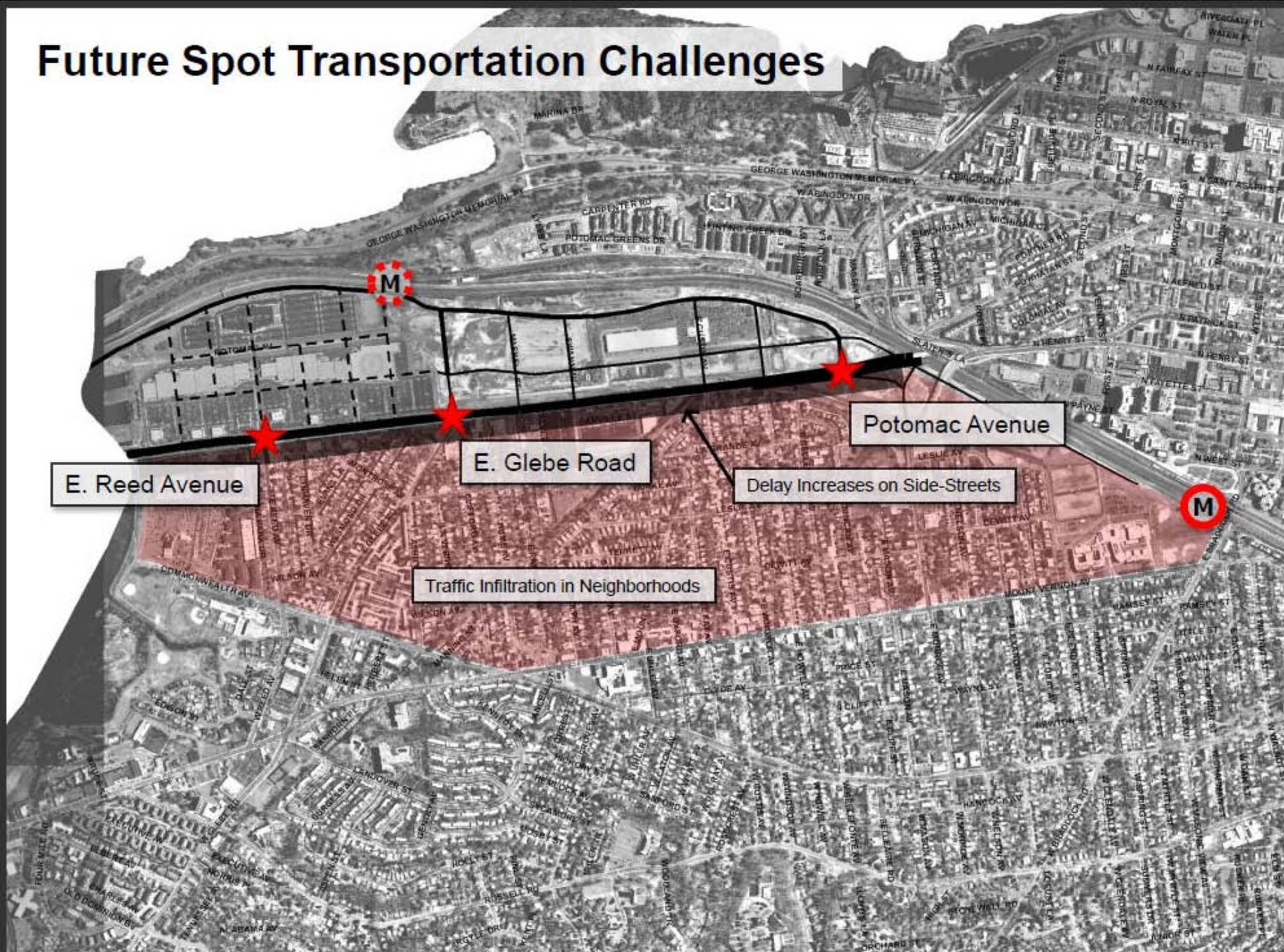
High Connectivity Scenario



Future Transportation Network



Future Spot Transportation Challenges



Travel Time on Route 1

Table 5. Travel Speed and Time on Route 1 Corridor

2030 Future Conditions with Development Average Weekday PM Peak Hour Travel Speeds and Times for US 1				
Scenario	Southbound		Northbound	
	Speed (mph)	Travel Time (min)	Speed (mph)	Travel Time (min)
Existing	20.9	5.0	22.3	4.5
Future Conditions without Development	13.1	8.0	14.7	7.0
Future Conditions with Development	16.6	7.0	12.1	8.5

* Future conditions assume the construction of the transitway on US 1, Diamond Road, and Potomac Avenue

**Under Future Conditions with Development, US 1 signals are timed with lead-lag left turns and coordinated with 140-second cycle length. Potomac Avenue is timed with coordinated, 90-second cycle length signals.

Source: Kimley-Horn and Associates, Inc.

Recommended Transportation Improvements in Plan

- Potomac Yard Metrorail Station
- Crystal City/Potomac Yard (CCPY) Transitway
- Local and Circulator Transit Service
- Neighborhood Protection Plan
- Potomac Avenue
- Fine-Grained Internal Street Network
- New Commuter and Recreational Bicycle/Pedestrian Facilities
- Improvements at the intersection of E. Glebe Road and Route 1
- New east-west connectivity or comparable street, circulation, and/or transit improvements, as part of any proposed development and any future planning efforts

- Metrorail Station
- CCPY Transitway



Potomac Yard Washington Street



PM peak on Columbus Street



AM peak on St. Asaph Street



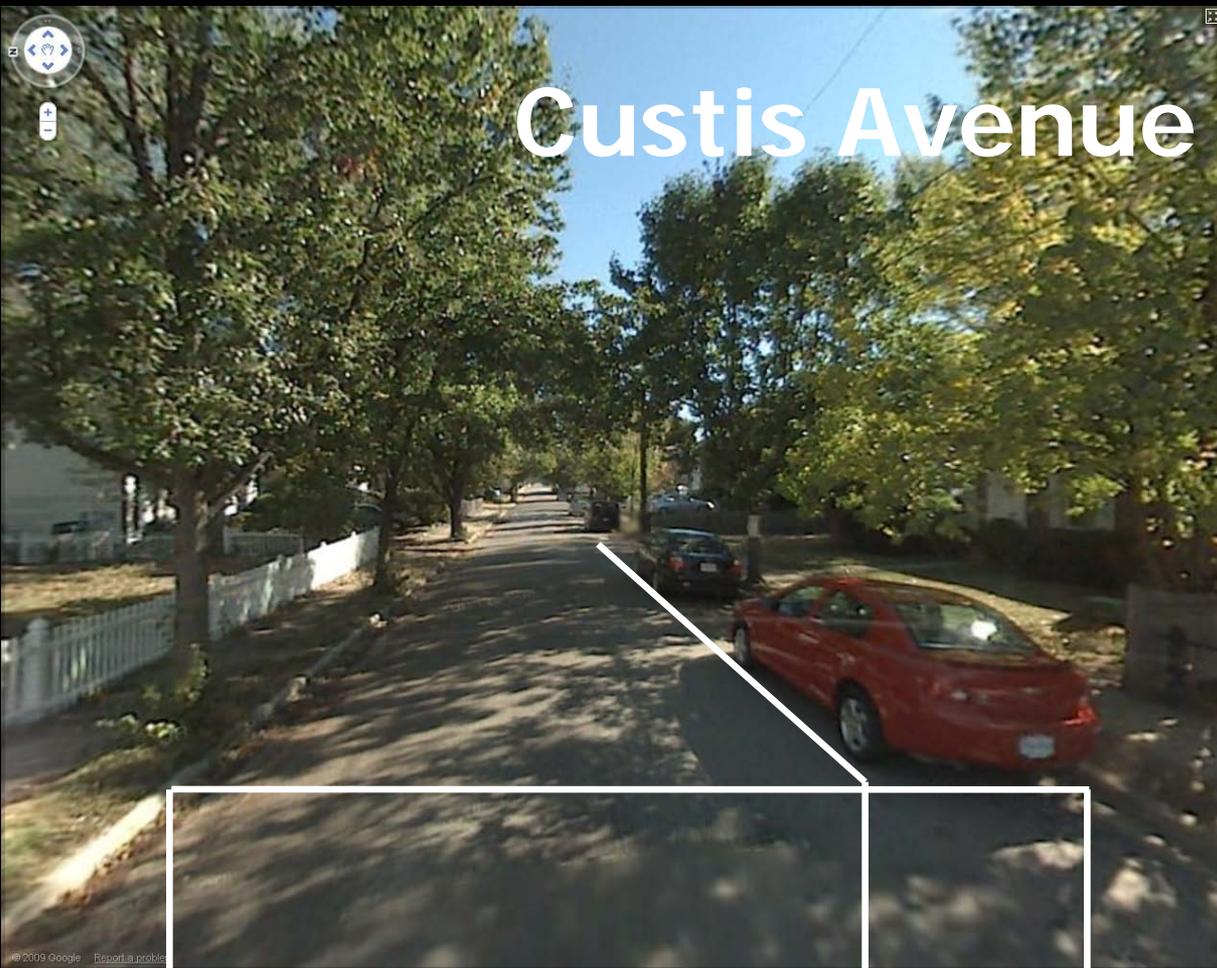
Potomac Yard

Neighborhood Character/Existing Conditions

Typical Neighborhood Street

- 24 feet wide
- One lane in each direction
- Parking on one side
- Sidewalks on both sides
- Tree lawn (verge)
- “Urban” curb and gutter design (not typical VDOT)
- Monroe is wider

Custis Avenue



312 Clifford Avenue



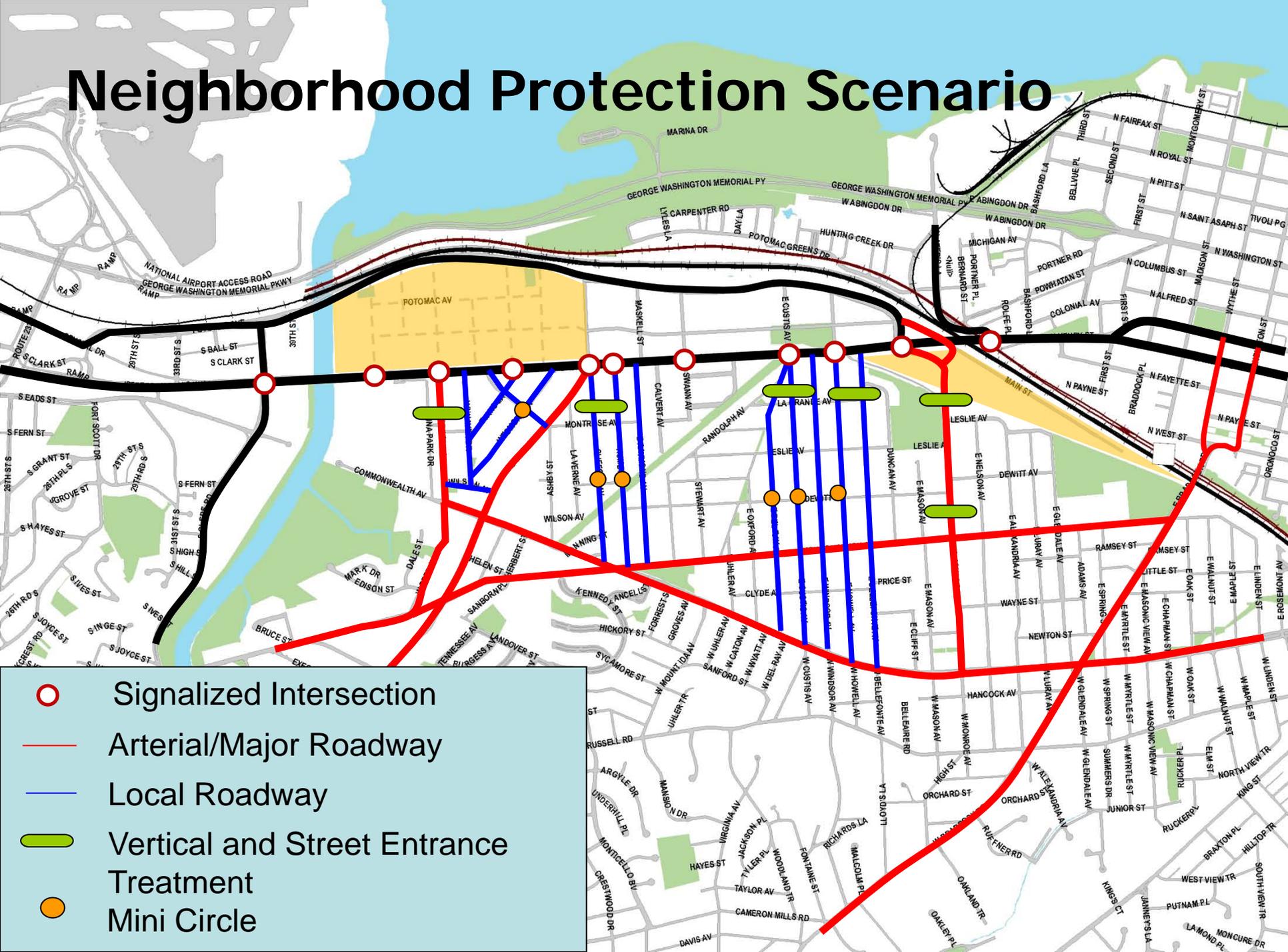
210 E. Oxford Avenue

Potomac Yard Toolbox

- Radar signs
- On-street parking
- Streetscaping
- Textured pavement
- Pavement markings
- High-visibility crosswalks
- Bulb-outs/curb extensions
- Small curb radii
- Traffic circles
- Speed humps
- Gateways
- Chicanes
- Neck-downs/chokers
- Traffic signal head louvers

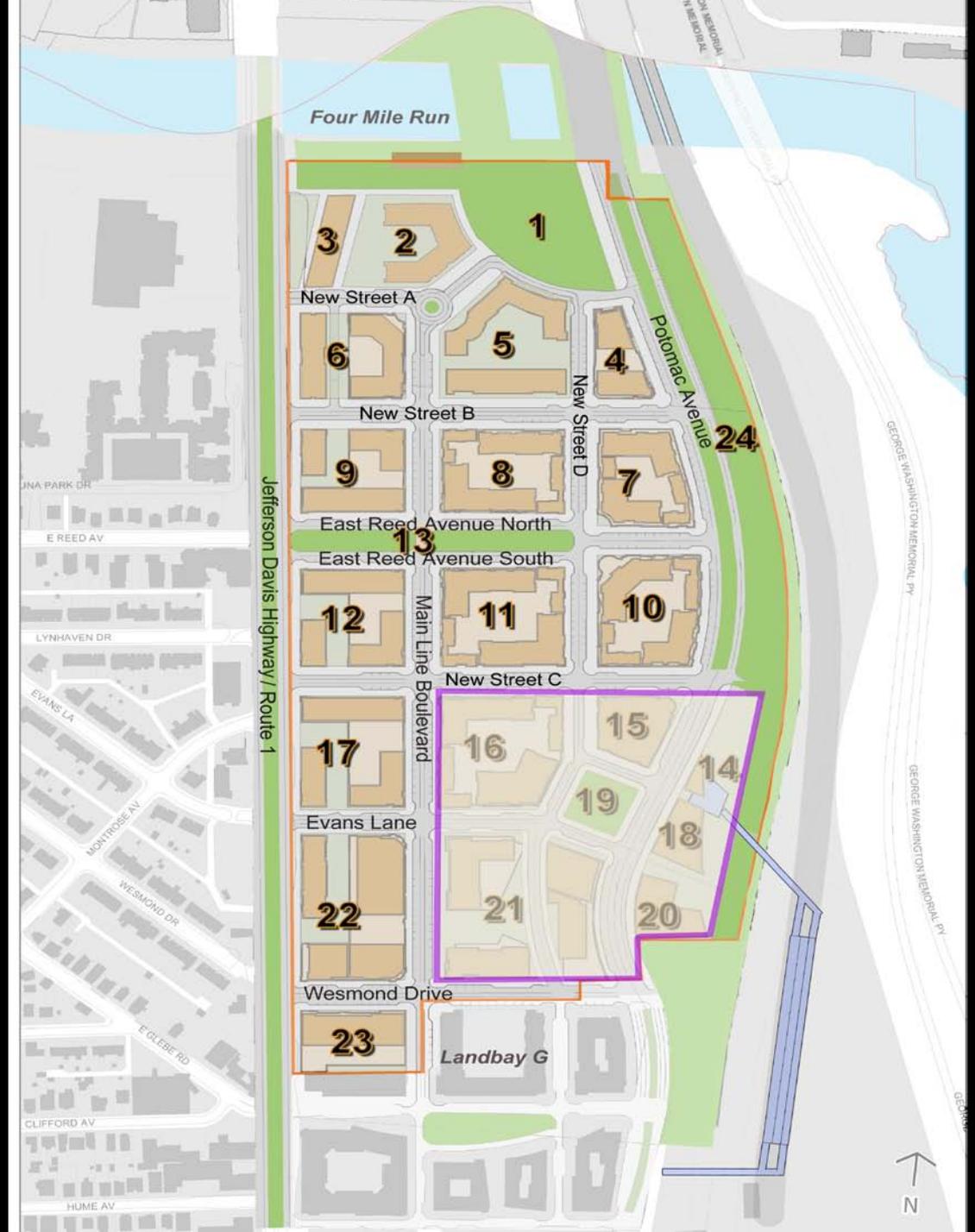


Neighborhood Protection Scenario



- Signalized Intersection
- Arterial/Major Roadway
- Local Roadway
- Vertical and Street Entrance Treatment
- Mini Circle

Development Phasing



Potomac Yard

Questions?