Potomac Yard Metrorail Station
Environmental Impact Statement

PYMIG Meeting
January 30, 2013
Agenda

- Welcome and Review of Project to Date
- Results of Remaining Technical Reports
  - Visual Resources
  - Cultural Resources
  - Transportation
  - Air Quality
  - Noise and Vibration
  - Construction
  - Economic Impacts
  - Secondary and Cumulative
- Schedule
- Next Steps
Study Area

Study area bounded by:

- Route 1 on the west
- George Washington Memorial Parkway and Potomac Greens Drive on the east
- Slaters Lane on the south
- Ronald Reagan National Airport Access Road on the north
Progress to Date

- Potomac Yard Metrorail Station Concept Development Study (February 2010)
- Scoping Report (June 2011) & first meeting of Potomac Yard Metrorail Implementation Group (PYMIG)
- Screening Document and meeting of PYMIG (October 2011)
- Refinement of Alternatives (October 2011)
- Proposed Station Locations, and meeting of PYMIG (February 2012)
- Review of Public Input and Decision Making (May 2012)
- Review of 4f/6f/106 processes (May 2012)
- Social, Economic, Environmental, and Transportation Impact Identification and Assessment (on-going)
Build Alternatives
EIS Process

- **EIS Scoping**: Early/Mid 2011
- **Draft EIS (DEIS)**: Early/Mid 2012
- **Public Hearing and Comment on DEIS**: Mid 2013
- **Final EIS**: Early/Mid 2014
- **Record of Decision (ROD)**: Mid/Late 2014

On-going Agency Coordination and Public Involvement

We are Here
EIS Public Input and Decision Making Flowchart

EIS Scoping
- Notice of Intent to conduct EIS
- Scoping
  - Identification of Alternatives and Issues to Consider in EIS
  - Public Scoping Meeting Feb. 2011

Draft Environmental Impact Statement (DEIS)
- Technical Analyses
  - Assessment of Potential Environmental Consequences of Project Alternatives
  - Discussion of Potential Mitigation Measures
  - Conceptual Design of Alternatives
  - Evaluation of Alternatives
- Preliminary Cost Estimates
- Agency Coordination
  - National Park Service (GW Memorial Parkway)
  - U.S. Army Corps of Engineers (Wetlands)
  - VA Dept. of Historic Resources
  - Metropolitan Washington Airports Authority (MWAA)
  - Other Federal, State and Local Agencies
- Public Meeting Project Update April 2012
- Public Meeting Project Update Fall 2012

Public Hearing and Comment on DEIS
- Publication of Draft EIS
- Public Hearing
  - Public Comments (45-day Comment Period)

Final EIS
- Review and Recommendation(s) from respective City Workgroups and Commissions
- Selection of Preferred Alternative by Alexandria City Council
- Publication of Final EIS
- Public Comments and Responses From Draft EIS
- Environmental Consequences of Preferred Alternative
- Mitigation Commitments
- Determination of Compliance with Federal/State Environmental Laws and Regulations

Record of Decision
- WMATA Board Amendment of Mass Transit Plan
- Records of Decision by Federal Transit Administration & National Park Service
- Begin Final Engineering Design and Construction of Preferred Alternative

City of Alexandria Decision
- Review and Recommendation(s) from respective City Workgroups and Commissions
- Selection of Preferred Alternative by Alexandria City Council
- Publication of Final EIS
- Public Comments and Responses From Draft EIS
- Environmental Consequences of Preferred Alternative
- Mitigation Commitments
- Determination of Compliance with Federal/State Environmental Laws and Regulations

Public Involvement Milestone
- Technical Task
- Agency Review
- Agency Decision
- City of Alexandria Review/Recommendation
- City of Alexandria Decision
Visual Resources

Analysis Reviewed:
- Visual Character
- Visual Quality
  - Vividness
  - Intactness
  - Unity
- Visual Sensitivity
- Impact
Balloon Tests

- Conducted November 19-20, 2012
- Used to visually represent the elevations of the proposed station locations.
- Still photos were taken at viewsheds as denoted.
- Will be used to validate visual resources report.
Preliminary Visual – Alt A

Balloon Test Photo & Rendering
Preliminary Visual – Alt B

Balloon Test Photo & Rendering

Height from balloon test
Preliminary Visual – Alt D

Balloon Test Photo & Rendering
Preliminary Visual – Alt D

Balloon Test Photo & Rendering
Preliminary Visual Resources

- Under the No-Build, Potomac Yard development will be seen from George Washington Memorial Parkway (GWMP)
- Under Build Alternatives, station and future Potomac Yard development will be seen from some GWMP viewsheds but vegetation will partially screen structures
Cultural Resources

- Mount Vernon Memorial Highway
- Parkways of the National Capital Region
- George Washington Memorial Parkway
- Potomac Crossing at Old Town Condominiums
- Old and Historic Alexandria District

NOTE: Archaeological Resource analysis is ongoing per testing completed in Aug 2012
# Cultural Resources: Preliminary Findings

<table>
<thead>
<tr>
<th>Alternative</th>
<th>MVMH</th>
<th>PNCR</th>
<th>GWMP</th>
<th>Potowmack</th>
<th>O&amp;HAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Build</td>
<td></td>
<td></td>
<td></td>
<td>No Impact</td>
<td></td>
</tr>
<tr>
<td>Alternative A</td>
<td>No direct adverse effects. No indirect adverse effects</td>
<td></td>
<td></td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>Alternative B</td>
<td>Direct and potential indirect adverse effects to visuals, traffic and construction</td>
<td></td>
<td></td>
<td>No Impact</td>
<td>Direct Impact</td>
</tr>
<tr>
<td>Alternative D</td>
<td>Direct and potential indirect adverse effects to visuals, traffic and construction</td>
<td></td>
<td></td>
<td>No Impact</td>
<td>Direct Impact</td>
</tr>
</tbody>
</table>

MVMH – Mount Vernon Memorial Highway  
PNCR – Parkways of the National Capital Region  
GWMP – George Washington Memorial Parkway  
O&HAD – Old & Historic Alexandria District

NOTE: Archaeological Resource analysis is ongoing per testing completed in Aug 2012
Transportation

Analysis Reviewed:

- Roadway Network
- Traffic Conditions
- Rail Operations
- Rail Ridership
- Surface Transit Network
- Bicycle & Pedestrian Facilities
- Parking & Access
- Airport Facilities & Operations
## Transportation: Preliminary Findings

<table>
<thead>
<tr>
<th>Alt</th>
<th>Roads</th>
<th>Traffic*</th>
<th>Rail Ops</th>
<th>Rail Ridership (2040)</th>
<th>Transit</th>
<th>Bike/ Ped</th>
<th>Parking</th>
<th>Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Build</td>
<td>No effect</td>
<td>Rt 1/E Glebe LOS E in AM/PM peak (2040)</td>
<td>No impact</td>
<td>No change</td>
<td>CCPY Additional changes to DASH/WMATA routes</td>
<td>No effect</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td>Alt A</td>
<td>No effect</td>
<td>No effect</td>
<td></td>
<td></td>
<td>24-hour access between PY and PG/OTG</td>
<td>No effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alt B</td>
<td>No effect</td>
<td>No effect</td>
<td></td>
<td>9,979</td>
<td>No effect beyond No-Build</td>
<td>No effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alt D</td>
<td>No effect</td>
<td>No effect</td>
<td></td>
<td>10,013</td>
<td>No effect beyond No-Build</td>
<td>No effect</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Required a two LOS grade change if LOS A/B/C or one level if LOS D/E/F
PY – Potomac Yard
PG/OTG – Potomac Greens/Old Town Greens Neighborhood(s)
Preliminary Transportation Impacts

• Traffic will continue to increase in both the No-Build and Build Alternatives but within acceptable Levels of Service

• One additional train will be necessary in each of the Build Alternatives in the off-peak direction as well to maintain headways

• With or without the Metrorail station, a 24-hour access pedestrian/bicycle bridge will be provided between Potomac Yard and Potomac Greens/Old Town Greens
Air Quality

Analysis Reviewed:

- Pollutants
  - Carbon Monoxide (CO)
  - Nitrogen Dioxide (NO₂)
  - Ozone (O₃)
  - Sulfur Dioxide (SO₂)
  - Particulate Matter (PM₁₀)
  - Lead (Pb)

- Greenhouse Gas Emissions
- Regional Air Quality Conformity
- Hot-Spot Analysis (none needed)
## Air Quality: Preliminary Findings

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Pollutants</th>
<th>Green House Gases</th>
<th>VMT change (miles/weekday)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Build</td>
<td>Similar to existing conditions</td>
<td>No change from baseline</td>
<td>No change</td>
</tr>
<tr>
<td>Alternative A</td>
<td>Included in TPB 2012 CLRP*</td>
<td>VMT for all build alternatives decreases. Minimal/insignificant effect on GHG emissions from baseline</td>
<td>(2,410)</td>
</tr>
<tr>
<td>Alternative B</td>
<td></td>
<td></td>
<td>(2,430)</td>
</tr>
<tr>
<td>Alternative D</td>
<td></td>
<td></td>
<td>(2,653)</td>
</tr>
</tbody>
</table>

Note: This project is not a project of local air quality concern under 40 CFR93.123(b)(1). Therefore, not potential effects are expected on regional air quality.

TPB 2012 CLRP – MWCOG Transportation Planning Board 2012 Constrained Long Range Plan
VMT – Vehicle Miles Traveled
Preliminary Air Quality Impacts

- All Build Alternatives have temporary impacts during construction
- All Build Alternatives reduce vehicles from roads
- All Build Alternatives reduce emissions
Existing Noise at Representative Locations in the Vicinity of the Potomac Yard Metrorail Station

<table>
<thead>
<tr>
<th>Location</th>
<th>Land Use</th>
<th>Peak hr $L_{eq}$ (dBA)</th>
<th>24-hr $L_{dn}$ (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potomac Greens, Potomac Greens Drive</td>
<td>Residential</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Lynhaven, E Glebe Rd</td>
<td>Residential</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Potomac Greens Park/Trail (north of Potomac Greens)</td>
<td>Park</td>
<td>63</td>
<td>--</td>
</tr>
<tr>
<td>Potomac Yard (proposed development)</td>
<td>Residential</td>
<td>60</td>
<td>62</td>
</tr>
</tbody>
</table>
Items Reviewed:

- Vibration
  - Existing plus new
    - FTA – increase of 3VdB and exceed 72VdB
    - WMATA – exceed 80VdB
# Noise & Vibration: Preliminary Findings

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Noise*</th>
<th>Vibration</th>
<th>Construction Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTA</td>
<td>WMATA</td>
<td>FTA</td>
</tr>
<tr>
<td>No-Build</td>
<td>0</td>
<td>7</td>
<td>No change</td>
</tr>
<tr>
<td>Alternative A</td>
<td>1 Moderate (residence)</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Alternative B</td>
<td>1 Moderate (residence)</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Alternative D</td>
<td>8 Moderate (residences)</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

Noise is measured in the number of exceedences of the standard for moderate (M) or severe (S).  
NOTE: FTA criteria accounts for the change in noise level from baseline conditions. WMATA does not account for a change in the baseline but at a point in time.
Preliminary Noise & Vibration Impacts

- The No-Build and all Build Alternatives result in noise and vibration to those residences closest to Potomac Greens Park
- Additional noise and vibration will be observed by these residences most with Alternatives A and D due to the location of track/station
Construction

Items Reviewed:

- Construction Staging and Laydown Areas
- Adjacent Buildings & Infrastructure
## Construction: Preliminary Findings

<table>
<thead>
<tr>
<th></th>
<th>No-Build</th>
<th>Alternative A</th>
<th>Alternative B</th>
<th>Alternative D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td>Metrorail operations – shutdowns within 76 hour window &amp; single tracking CSXT right-of-way–work within 25-feet of CSXT track for pedestrian &amp; rail bridges Public Roadways/Private Driveways – temporary impact based on final design.</td>
<td>Residential neighborhoods adjacent to project impacted by construction vehicles. Some activities would take place at night when Metrorail service is not operational and would require temporary lighting. Staging activities will occur in portions of Potomac Greens Park and Potomac Yard Park restricting use by neighborhood residents during construction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Neighborhoods &amp; Community Resources</strong></td>
<td>No impact</td>
<td>No adverse impacts to Low income or minority residents</td>
<td>Temporary impacts including removal of vegetation expected</td>
<td></td>
</tr>
<tr>
<td><strong>EJ</strong></td>
<td>No impact</td>
<td>No impact</td>
<td>Impact due to access off GWMP and use of scenic easement area</td>
<td>Impact due to access off GWMP</td>
</tr>
<tr>
<td><strong>Visual Resources</strong></td>
<td>Temporary construction impacts to parkland (City and/or NPS) anticipated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cultural Resources</strong></td>
<td>No impact</td>
<td>No impact</td>
<td>Impact due to access off GWMP and use of scenic easement area</td>
<td>Impact due to access off GWMP</td>
</tr>
<tr>
<td><strong>Parklands</strong></td>
<td>Temporary impacts during construction at neighboring residences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td>Anticipated noise impacts during construction at neighboring residences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>Anticipated vibration impacts during construction at neighboring residences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vibration</strong></td>
<td>Temporary impacts to wetlands, floodplains, and resource protection areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Resources</strong></td>
<td>Temporary impacts may displace wildlife directly or indirectly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ecosystems</strong></td>
<td>Potential exists to encounter Fly Ash, TPH, Cinder Ballast, and Groundwater</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Haz/Contam Mat</strong></td>
<td>Stormwater, water, sanitary, petroleum pipeline and Metrorail ductbank utilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>Increased employment and tax revenue. Financial Plan outlines debt service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Preliminary Construction Impacts

• Construction traffic will be seen on City roadways for all Build Alternatives
• Some construction work to happen outside of normal work hours (during 76 hour Metrorail outages) and single tracking
• Vegetation will be removed in areas for construction access/laydown. After construction, will be replaced in-kind or better
• Construction will result in temporary impacts related to noise, vibration, water resources, parkland, air quality, visual quality
Economic Impacts

- Construction-related Employment
- Operations-related Employment
- Station Accessibility Impacts
- Evaluation of Additional Tax Base Impacts
- Property Premium Impacts
## Economic Impacts: Preliminary Findings

<table>
<thead>
<tr>
<th>Alt</th>
<th>Construction (persons employed in job-years)(^1)</th>
<th>Operations (persons employed in job-years)(^1)</th>
<th>Annual City Property Tax Revenue</th>
<th>Tax Gains due to development (over No-Build)</th>
<th>Travel Time Savings(^2)</th>
<th>Travel Cost Savings(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Build</td>
<td>No impact</td>
<td>No impact</td>
<td>$321.7M</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Alt A</td>
<td>1,400-2,700</td>
<td>10</td>
<td>$321.7M</td>
<td>$3.6M</td>
<td>$40.3M</td>
<td>$9.82M</td>
</tr>
<tr>
<td>Alt B</td>
<td>1,800-3,400</td>
<td>10</td>
<td>$321.7M</td>
<td>$6.8M</td>
<td>$40.4M</td>
<td>$9.85M</td>
</tr>
<tr>
<td>Alt D</td>
<td>2,900-5,900</td>
<td>10</td>
<td>$321.7M</td>
<td>$3.8M</td>
<td>$41.3M</td>
<td>$9.90M</td>
</tr>
</tbody>
</table>

\(^1\) Persons includes those directly, indirectly or induced employment due to construction of the station. These numbers are shown in job years. With construction anticipated at 30-months, numbers shown in these columns should be divided by 2.5 for a total amount of direct, indirect or induced jobs from construction of the station.

\(^2\) Total Hours saved equated to monetary value based on OMB guidance over a 20-year horizon based on $2012.

\(^3\) Total difference between costs of driving an automobile and taking metrorail over a 20-year horizon based on $2012.
Preliminary Economic Impacts

- All build alternatives provide increased employment in the area
- All build alternatives provide additional tax revenue due to development for the City
- All build alternatives provide for travel time and cost savings to users of the Metrorail system.
Secondary and Cumulative Impacts

Items Reviewed:

- Planned Development
- Land Use
- Transportation

Opening Year 2016 Land Use

Legend:
- Land Use Analysis Area
- Existing Metrorail Blue/Yellow Line
- CSX T Tracks
- City/County/State Boundary

Land Use:
- Residential
- Commercial
- Office
- Mixed Use
- Industrial
- Public Open Space/Park
- National Park Service
- Parkland/Facilities
- Utilities
- Government & Community Facilities
- Office/Ap Art Hotel (Arlington)
- Water
## Secondary and Cumulative Effects: Preliminary Findings

<table>
<thead>
<tr>
<th>Alt</th>
<th>2040 total sq ft (millions)</th>
<th>Transportation</th>
<th>Visual Resources</th>
<th>Air Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Build</td>
<td>9.250</td>
<td>Increased traffic due to lack of transit access</td>
<td>Tall buildings in PY will be seen from GWMP</td>
<td>Development anticipated in PY will go elsewhere and result in increased VMT</td>
</tr>
<tr>
<td>Alt A</td>
<td>11.275*</td>
<td>Provision of Metrorail station will help offset additional trips from development</td>
<td>Tall buildings in PY and metrorail station will be seen from GWMP and Potomac Greens</td>
<td>By providing access to Metrorail, approximately 4,000 trips per day by automobile will be diverted to Metrorail</td>
</tr>
<tr>
<td>Alt B</td>
<td>13.075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alt D</td>
<td>11.375*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Anticipated land use based on what would be accepted if Alternative A or Alternative D were the preferred Alternative and a revision to the North Potomac Yard Small Area Plan was completed.

Please NOTE: Construction on any of the build alternatives will occur with other construction in the area and will result in cumulative construction impacts

PY – Potomac Yard
Preliminary Secondary and Cumulative Impacts

• With the addition of a Metrorail station at Potomac Yard, vehicle trips from new development will be partially off-set due to Metrorail access and use

• With any Build Alternative, development will occur with sufficient amenities to control impacts to the region. Otherwise development will still occur but likely outside of the core area increasing environmental and transportation impacts
## Schedule

- Further delays due to review times of DEIS

<table>
<thead>
<tr>
<th>Item</th>
<th>Original Completion</th>
<th>Updated/ Anticipated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft Environmental Impact Statement</td>
<td>Jan 2013</td>
<td>May 2013</td>
</tr>
<tr>
<td>Public Hearing</td>
<td>Feb 2013</td>
<td>June 2013</td>
</tr>
<tr>
<td>City determination of Locally Preferred Alternative</td>
<td>March-May 2013</td>
<td>July - Sept 2013</td>
</tr>
<tr>
<td>Final Environmental Impact Statement</td>
<td>Feb 2014</td>
<td>June 2014</td>
</tr>
<tr>
<td>Begin Design/Build</td>
<td>Mid 2014</td>
<td>Late 2014</td>
</tr>
<tr>
<td>Complete Design/Build</td>
<td>Late 2016</td>
<td>Mid 2017</td>
</tr>
<tr>
<td>Opening of Station</td>
<td>Late 2016</td>
<td>Mid 2017</td>
</tr>
</tbody>
</table>
Next Steps

- Financing Plan for each Alternative
- Next PYMIG meeting – Financing Plan (tentatively Mid April 2013)
- Public Meeting (anticipated March 13, 2013)
- Community Forums (May/June)
- Release of DEIS (anticipated May 27, 2013)
- Public Hearing (anticipated June 24, 2013)
For more information on this project or other capital or planning projects in Potomac Yard:

www.alexandriava.gov/potomacyard

For the project website see:

www.potomacyardmetro.com