Project Description

• 16 mile east-west light rail line between Bethesda in Montgomery County and New Carrollton in Prince George’s County

• Operates mostly on the surface with 21 stations
Project Overview

• Linking the Washington D.C. region:
  • Links 4 branches of the Metro
    o Red Line at Bethesda
    o Red Line at Silver Spring
    o Green Line at College Park
    o Orange Line at New Carrollton
  • Connects to all three MARC lines
  • Connects to Amtrak Northeast Corridor at New Carrollton
  • Connects to regional and local bus services

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Project Characteristics

- $5.6B, 36-year contract, that expires in 2052
- $2.0B to construct and $3.6B to maintain & operate
- Opens with 59,500 daily riders in 2022 that will grow to more than 74,000 riders by 2040
- 26 trains will serve 21 stations. Headways are 7.5 minutes in the peak and 10-15 minutes off-peak
- Fare system will be compatible with WMATA’s system
- End-to-end travel time is about one hour
What’s the status of the Purple Line?

- Purple Line is being delivered as a Public-Private Partnership (P3) to complete design, construction, operation, maintenance and financing.
- Selection of P3 concessionaire announced on March 2, 2016.
- Maryland Board of Public Works approved P3 Concessionaire contract with the Purple Line Transit Partners (PLTP) on April 6, 2016.
- Right-of-Way offers and property settlements are continuing.
- Pre-construction activities such as survey work and geotechnical investigations are continuing.
- Construction start scheduled for early 2017, pending resolution of environmental lawsuit.
- Service anticipated to begin in spring 2022.
What are the benefits of the Purple Line?

- Improve transit reliability and travel times
- Enhance accessibility and connections by transit within the corridor and the entire Washington DC region
- Connect to major activity centers and employment complexes, and boost local/regional economic vitality
- Support community revitalization and transit-oriented development
- Generate thousands of new jobs

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What is P3?

- Combines the design, construction, financing, operations and maintenance into one umbrella contract
- 6 year design/construction + 30 year O&M period
- Shares risk between MTA and the Concessionaire
- Allows the Concessionaire to manage costs and innovate to mitigate risk and earn return on investment
- Based on performance standards, not detailed specifications
- Payments are tied to construction, financing, capital renewal and operating performance
- 30-year handback standards protect long-term public interest
Why go P3 for Purple Line?

- **Operational Issues** – Purple Line is a natural stand-alone asset that lies outside the MTA’s area of operations. The P3 approach also incentivizes higher quality service.

- **Project size and level of complexity** – 16 mile light rail line appropriate for concessionaire to bid

- **Schedule discipline** – MTA Agreement structure is focused on asset availability and provides strong incentives for the Concessionaire to deliver the project on time (RSA Payment = $100M).

- **Cost & Constructability** – Concessionaire teams were encouraged to propose Alternative Technical Concepts that would save money and improve constructability.

- **Risk Allocation** – P3 contract provides a reasonable allocation of project risk between the Owner and Concessionaire.

- **Performance Incentives** – Construction, operations and maintenance activities are subject to financial incentives.
How Does the Concessionaire Get Paid?

- Construction Payments
- MTA will pay the concessionaire $990 million through a variety of funding sources.
- Concessionaire will finance the remaining $1 billion which includes a very large TIFIA loan.
- Includes a $100M Revenue Service Availability Payment.
- Monthly Availability Payments (on average $147M annually) to the concessionaire once the project opens.
- The concessionaire uses these funds to repay financing as well as fund ongoing operating, maintenance, insurance, and capital renewal costs over the 30 years.
Purple Line Transit Partners (PLTP)

- Long-term investors who intend to stay invested over entire life of the 36-year contract
- Relevant projects include I-495/I-95 Express Lanes P3 in Virginia and Eagle P3 Commuter Rail Project in Denver
- Safety Culture – Key PLTP firms all have accident rates below industry averages
- Emphasis on Partnering – Co-location with Owner for over-the-shoulder design reviews and quality assurance
PLTP – Innovative Ideas and a Strong Design

- PLTP offered more innovative ideas and Alternative Technical Concepts (ATCs) than any other proposer.
- PLTP’s ATCs will save more than $100M during the construction and will reduce future operational costs and impacts.
Concessionaire: Purple Line Transit Partners
Alignment Characteristics – Prince George’s County

- 11 stations and 2 Metrorail connections
- Primary Maintenance Facility at Glenridge
- Serves the core of UMD campus via Campus Drive
- Strong presence of small, independently owned minority businesses. Several community services in the area.
- # of businesses to be relocated:
  - Langley Park: 3
  - Riverdale: 5
  - Glenridge / Beacon Heights: 2
  - West Lanham Hills: 1
Light Rail Vehicle

- 26 Vehicles Made by CAF
- Five Articulated Modules, 139’ long
- 80% Low Floor
- 80 Seats
- Max. Capacity – 300 Passengers
- 1500 Volt Operating System
- Eight Wheelchairs and Eight Bicycles Accommodated

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Design Challenges and Solutions
## Light Rail Power System

### FEIS Locations, using with 750V

<table>
<thead>
<tr>
<th>Q01</th>
<th>0.40</th>
<th>0.86</th>
<th>Montgomery Ave, beyond Wisconsin Ave</th>
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<tbody>
<tr>
<td>Q02</td>
<td>1.26</td>
<td>1.07</td>
<td>Georgetown Branch right-of-way, prior to Connecticut Ave</td>
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<tr>
<td>Q03</td>
<td>2.33</td>
<td>0.84</td>
<td>Montgomery County Ride On Depot</td>
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<td>Q04</td>
<td>3.17</td>
<td>1.04</td>
<td>Approaching CSX tracks, near Kansas Ave</td>
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<td>Q05</td>
<td>4.21</td>
<td>0.91</td>
<td>Intersection of Colesville Rd and CSX tracks</td>
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<td>Q06</td>
<td>5.12</td>
<td>0.95</td>
<td>Wayne Ave, just past Cloverfield Rd</td>
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<tr>
<td>Q07</td>
<td>6.07</td>
<td>0.79</td>
<td>Arliss St, just past Flower Ave</td>
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<td>Q08</td>
<td>6.86</td>
<td>0.88</td>
<td>University Blvd, just past Seek Ln</td>
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<td>Q09</td>
<td>7.74</td>
<td>0.83</td>
<td>University Blvd, past 14th Avenue</td>
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<td>Q10</td>
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<td>1.12</td>
<td>Intersection of Campus Dr and Presidential Dr</td>
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<td>Q12</td>
<td>10.56</td>
<td>1.03</td>
<td>UMD campus, just past East Campus Station</td>
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<td>Q13</td>
<td>11.59</td>
<td>0.86</td>
<td>UMD property, past College Park Metro Station</td>
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<td>Q14</td>
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<td>River Rd, prior to Kenilworth Ave</td>
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<td>Intersection of Riverdale Rd and 61st Pl</td>
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<td>Q16</td>
<td>14.21</td>
<td>0.99</td>
<td>Veterans Pkwy, beyond Riverdale Rd</td>
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<tr>
<td>Q17</td>
<td>15.21</td>
<td>0.93</td>
<td>Veterans Pkwy and Annapolis Rd</td>
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<tr>
<td>Q18</td>
<td>16.14</td>
<td>--</td>
<td>Ellin Rd, beyond Emerson Pl, adjacent to WMATA (0.21 miles to the end of the line)</td>
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### Updated Locations, using 1500V

<table>
<thead>
<tr>
<th>Montgomery Ave, past Wisconsin Ave</th>
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<tr>
<td>Montgomery Co Ride-On Depot</td>
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<td>Wayne Ave, SSIMS</td>
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<td>University Blvd, just past Seek Ln</td>
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<td>UMD campus, east of Adelphi Rd</td>
</tr>
<tr>
<td>UMD property</td>
</tr>
<tr>
<td>Ellin Road</td>
</tr>
</tbody>
</table>
Silver Spring Station

- Reduces station height from 80’ to level with the SSTC upper level
- Does not displace building at 1110 Bonifant Street
Silver Spring Library Station
University Boulevard

- Existing conditions
  - Six-lane road
  - Service roads
  - High pedestrian activity
  - High pedestrian crash rate compared to statewide average
  - Low auto ownership
University Boulevard Solution

- Convert two existing roadway lanes to transit
  - 22’ less than prior alternative
- Improves pedestrian facilities/safety
- Provides opportunities for wider sidewalks and green buffers in some areas
- Significantly reduces right-of-way impacts
  - Reduces building displacements from 11 to six
  - Maintains a portion of several service drives and residential and commercial parking lots (120 fewer residential spaces lost)
- Provides more space for future sector plan improvements such as cycle tracks and/or wider sidewalks
University of Maryland Considerations

- Five Purple Line Stations
  - 37,000 Students
  - 14,000 Faculty and Staff
  - Major Athletic and Cultural Events
- Purple Line concerns on campus
  - Pedestrian safety
  - Traffic routing
  - EMI (interface with research equipment)
  - Vibration
  - Aesthetics
  - Security

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University of Maryland Alternatives
Campus Drive Options
College Park Metro Station
Riverdale Park Station – looking southwest

- Change Order to return to original open design coordinated between MTA and Prince George’s County
- Provides light, open space beneath station
- Enhances connectivity and improves aesthetics
- Supports future development
Riverdale Park Station – looking southeast
Avoidance of construction impacts at Baltimore Washington Parkway by boring under the roadway
• Relocates Purple Line station to Ellin Road
• Enhances the street and better accommodates future development
• Reduces the number of lost parking spaces by up to 80%
New Carrollton Metro Station
Next Steps

- Remedy Litigation on the ROD
- ROW Acquisition Continues
- Design and Pre-construction Activities Move Forward
- Commence Construction – TBA
- Begin Revenue Service – Spring 2022