



# Record of Decision Attachment F

## Design Refinements since the August 2013 FEIS

### Introduction and Methodology

The environmental and socioeconomic impacts evaluated in the August 2013 Final Environmental Impact Statement (FEIS) for the project were based on conceptual engineering plans. Maryland Transit Administration (MTA), in coordination with the Federal Transit Administration (FTA), refined the conceptual engineering plans of the Purple Line Preferred Alternative in response to comments and coordination, to reduce environmental and socioeconomic impacts, and to respond to updated mapping and more detailed engineering. Some of the refinements presented below were considered prior to the publication of the FEIS and were presented at the May 2013 Open Houses. However, they were not incorporated into the FEIS due to the need to coordinate with the the public and agencies and complete the environmental analysis. Other refinements were made by MTA, in coordination with FTA, after the FEIS during meetings with agencies, property owners, and stakeholder groups, in the project corridor and after consideration of public comments related to the FEIS. MTA performed more detailed engineering at specific locations and corridor wide to:

- Refine the location and configuration of project elements, including elements of the Capital Crescent Trail (CCT), traction power substations, and signal bungalows
- Reduce project impacts to sensitive environmental resources
- Reduce project impacts to adjacent homes and businesses
- Reduce the project-related right-of-way acquisition
- Respond to agency, stakeholder, and public comments (see ROD Attachments C and E)
- Improve station access and circulation
- Improve water quality by expanding some stormwater management facilities
- Address some project-related changes to access and parking
- Improve traffic and transit operations
- Respond to adjacent planned development
- Reflect more detailed drainage, stormwater management, and utility design
- Address updated survey data, right-of-way information, mapping, and design criteria

FTA and MTA assessed each refinement individually and then collectively to determine the anticipated change in effects, if any, to the natural and built environment. On an individual level, this assessment considered the rationale for the refinement, the public and agency coordination MTA undertook related to the refinement, and the effects of the refinement on the natural and built environment. FTA and MTA's assessment of the collective effect of the design refinements has considered the cumulative effects on the environmental and socioeconomic resources.

Tables 1 and 2 summarize FTA and MTA's assessment for each of the refinements. Specifically,

- Table 1 describes the refinement, the reason that the refinement has been made, the context for the refinement, and the change in impacts
- Table 2 provides more detailed information for refinements that resulted in an increase in environmental or socioeconomic impacts

FTA and MTA assessed the effects of the design refinements on the environmental and socioeconomic resources in the corridor. This assessment included both physical and related (visual, noise, etc.) impacts. The tables only include those environmental areas where changes in impacts are anticipated to occur as a result of the design refinement. The tables also include assessments of potential impacts to Section 4(f) resources. Finally, changes to trail user experience on the Capital Crescent Trail are included under the "Transportation" heading.

The conceptual engineering plan sheets are contained in FEIS Volume II. The current design—incorporating the refinements—is documented in updated engineering plan sheets (Preliminary Engineering Plan Sheets, dated December 2013), which are posted on the project's website. The description of the Preferred Alternative in the Record of Decision is based on the the December 2013 plan sheets. Where appropriate, Table 1 includes references to specific pages in the FEIS Volume II plan sheets and in the December 2013 plan sheets.

## Assessment of Refinements

Most of MTA's design refinements are entirely within the FEIS Limits of Disturbance (LOD), without changing the LOD. For example, some refinements involved shifting a stairway location in a station area, which leaves the LOD unchanged. In some cases, the design refinements enabled MTA to reduce the LOD, thereby having fewer impacts on the natural and built environment than presented in the FEIS. For example, by refining the design of the signal bungalow on University Boulevard, MTA was able to reduce property and parking impacts; and by refining the alignment on Rossborough Lane east of US Route 1, MTA was able to avoid a contributing structure within the University of Maryland historic district.

In a few instances, MTA's design refinements resulted in a slightly expanded LOD. For example, one design refinement removes the separate Capital Crescent Trail (CCT) structure across CSX at Michigan Avenue. The CCT will continue east along the Talbot Avenue residential block to the new Talbot Avenue Bridge where the CCT will share the bridge with vehicular traffic. MTA realigned the Talbot Avenue Bridge to accommodate this change. The LOD is reduced on the north side of CSX from Michigan Avenue to the Talbot Avenue Bridge as compared to the FEIS LOD. The LOD is slightly expanded into the CSX and residential properties on the south side where the CCT continues to the new Talbot Avenue Bridge. However, the overall effect is a reduction in the number of impacted private properties.

As explained in Tables 1 and 2, this refinement will slightly change the visual appearance of the CCT between Stewart Avenue and Michigan Avenue as the CCT will be along the existing ground rather than being elevated and will eliminate the proposed CCT bridge over CSX. Neither refinement changes the FEIS finding of low visual effect at this location. In addition, MTA's refinement improves access from the Lyttonville and Rosemary Hills communities to the CCT by providing trail access at Michigan Avenue and Kansas Avenue. The refinement will replace the Talbot Avenue Bridge, thereby resulting in the same Section 106 Adverse Effect determination as in the FEIS and the mitigation remains the same (see Programmatic Agreement).

FTA's and MTA's cumulative assessment of the design refinements indicates an overall reduction in the number of parcels affected by the project. Based on the design refinements outlined in Table 1, MTA has reduced the number of properties affected by the project from the over 700 described in the FEIS (both property acquisition and temporary easements) to approximately 615 properties. In addition, slight increases in LOD at specific locations are offset to some degree by reductions in the LOD in other areas as compared to the FEIS LOD. For example, some of the design refinements provide greater benefits compared with the FEIS design, such as improvements to traffic and transit operations, trail experience, and water quality. Also, some of the refinements reduce property impacts and displacements, avoid or minimize impacts to historic resources, and some provide mitigation.

## FTA Determination

FTA has considered and evaluated the assessment of effects, individually and cumulatively, of the design refinements to the Preferred Alternative on the environmental and socioeconomic resources. FTA has determined that these design refinements made since the FEIS are typical of refinements made by a project sponsor as public and agency outreach continues and engineering design advances in response to that outreach during the NEPA process. In addition, FTA has determined, in accordance with 23 CFR 771.129, that the design refinements made since the FEIS do not result in new significant impacts beyond those evaluated in the FEIS. Refinements that affect park and historic resources have been included in the Section 106 Programmatic Agreement and Final Section 4(f) Evaluation, as appropriate. Both the Programmatic Agreement and the Final Section 4(f) Evaluation are attached to the ROD. Therefore, no supplemental environmental documentation is warranted beyond inclusion of these design refinement findings in the Record of Decision.

**Table 1. Summary of Design Refinements Made between FEIS Conceptual Design and the ROD**

#	Design Refinement	Reason for Refinement and Relevant Supporting Coordination	Context / Setting	Effect of Refinement <i>(changes in LOD are described in comparison to FEIS LOD)</i>
<i>Refinements to design of Capital Crescent Trail (CCT)</i>				
1	<p><b>Refined CCT connection to Rock Creek Trail and CCT underpass of Purple Line east of Rock Creek.</b> CCT design in FEIS included a switchback connection from the CCT to the Rock Creek Trail. In addition, the CCT passed under the Purple Line in a tunnel approximately 220 feet long to the south side of the tracks just east of Rock Creek Stream Valley Park (See FEIS Volume II, Conceptual Engineering drawing Sheets 103 and 104 of 497). MTA’s refinement modifies the connection between the CCT and the Rock Creek Trail and adjusts the alignment of the CCT under the Purple Line (See December 2013 Preliminary Engineering plan Sheets 126 and 127 of 691). The refined trail tunnel was reduced to approximately 110 feet long, half the length of the 220-foot tunnel shown in the FEIS.</p>	<p>MTA’s design reviews and coordination with Montgomery County Department of Transportation (MCDOT) and Maryland-National Capital Park and Planning Commission (M-NCPPC) resulted in the refinements to improve the user experience along the trail and Rock Creek connection, address constructability issues, and maximize opportunities for landscaping along the connection. MTA’s refinements are supported by both MCDOT and M-NCPPC and were included on the mapping shown at the May 2013 Open Houses.</p>	<p>The refinement is almost entirely within the FEIS LOD in an area that would have been disturbed by construction activities anticipated in the FEIS. The area through Rock Creek Park is within the county-owned right-of-way and is not on park property. The area to the east is wooded adjacent to existing apartment buildings.</p>	<p>The LOD remains largely the same as the FEIS LOD with minor exceptions. The LOD (temporary) is expanded slightly at the tie-in of the CCT connection at the Rock Creek Trail. Additionally, the LOD is slightly expanded on the south side of the Purple Line transitway where the CCT emerges from the trail tunnel. MTA’s refinement addresses constructability issues associated with the trail connection and provides additional opportunities for landscaping along the switchback and associated retaining walls. The tunnel is shorter and at less of an angle, allowing more natural light and a better trail user experience.</p>

Table 1. Summary of Design Refinements Made between FEIS Conceptual Design and the ROD (continued)

#	Design Refinement	Reason for Refinement and Relevant Supporting Coordination	Context / Setting	Effect of Refinement (changes in LOD are described in comparison to FEIS LOD)
2	<p><b>Separate CCT crossing of CSX at Michigan Avenue to 4th Avenue removed; CCT to share Talbot Avenue Bridge over CSX.</b>                      The design of the CCT in the FEIS included the CCT climbing from Stewart Avenue to Michigan Avenue where it crossed over CSX on a separate trail structure and then continued on the north side of CSX to Talbot Avenue (See FEIS Volume II, Conceptual Engineering drawing Sheets 107 and 108 of 497). MTA’s refinement removes the separate CCT structure across CSX at Michigan Avenue. Instead, the CCT will remain at grade from Stewart Avenue to Michigan Avenue. The CCT will continue along the Talbot Avenue residential block to the new Talbot Avenue Bridge where the CCT will share the bridge with vehicular traffic. The Talbot Avenue Bridge has been realigned to accommodate this change. (See December 2013 Preliminary Engineering plan Sheet 131 of 691).</p>	<p>MTA’s refinement is a result of its coordination with MCDOT and Montgomery County Public Schools, community input, and comments from CSX as well as trail and roadway design and constructability issues.                      MTA shared the refinement at a series of meetings with Montgomery County and elected officials as well as representatives from Rosemary Hills Elementary School and the local communities.</p>	<p>The refinement is primarily within the FEIS LOD except in a few locations. The area from Stewart Avenue to Kansas Avenue is along the old rail right-of-way through an industrial area. From Kansas Avenue to Lanier Drive, the area is bounded by CSX to the north and residential properties to the south. Finally, the Rosemary Hills Elementary School is adjacent to Talbot Avenue from Lanier Drive to the bridge over CSX. The Talbot Avenue Bridge is a Section 106 historic property and is a contributing element to the Metropolitan Branch, B&amp;O Railroad historic property. The FEIS, Section 106 and Draft Section 4(f) Evaluation documented FTA’s adverse effect determination regarding these resources due to the demolition and replacement of the Talbot Avenue Bridge.</p>	<p>Reduces overall right-of-way requirements by reducing the number of impacted private properties. The LOD is reduced on the north side of CSX from Michigan Avenue to the Talbot Avenue Bridge. MTA’s refinement avoids some property acquisition from CSX. The LOD expands slightly into the CSX and residential properties on the south side where the CCT continues to the new Talbot Avenue Bridge.                      Slight change in visual appearance between Stewart Avenue and Michigan Avenue as the trail will be along the existing ground rather than elevated. This area, Visual Assessment Unit 2 (VAU 2), was described in the FEIS as having low visual sensitivity and low visual effects from the project (See Table 4-22 of the FEIS). MTA’s refinements are consistent with this finding and eliminate a new visual feature, the trail bridge over CSX.                      The refinement improves access from the Lyttonville and Rosemary Hills communities to the CCT by providing trail access at Michigan Avenue and Kansas Avenue.                      The refinement will result in the same Section 106 Adverse Effect determination as in the FEIS, because the Talbot Avenue Bridge will be removed and the mitigation remains the same (See Programmatic Agreement (PA). It is also included in the Final Section 4(f) Evaluation. Both the PA and Final Section 4(f) Evaluation are attached to the ROD.</p>

Table 1. Summary of Design Refinements Made between FEIS Conceptual Design and the ROD (continued)

#	Design Refinement	Reason for Refinement and Relevant Supporting Coordination	Context / Setting	Effect of Refinement (changes in LOD are described in comparison to FEIS LOD)
<i>Refinements to local property access</i>				
3	<b>American Center for Physics: new access road and sidewalk added off River Road.</b> The FEIS design removed the driveway access from River Road and relied on the existing access from Rivertech Court (See FEIS Volume II, Conceptual Engineering drawing Sheet 152 of 497). MTA's refinement adds a new access road and a sidewalk off River Road (See December 2013 Preliminary Engineering plan Sheet 175 of 691).	MTA's coordination with Prince George's County and the property owner led to this refinement. It addresses the loss of one of the site access points to the east and provides improved pedestrian access to the site from the Purple Line and Metrorail. The refinement was supported by the County and the property owner and was included in the mapping shown at the May 2013 Open Houses.	The refinement is in a partially wooded area off River Road.	Increases the LOD near River Road with an approximate 0.7 acre of additional tree loss. The area of additional tree loss is included in the Forest Stand Delineation being prepared for the project and the tree loss will be mitigated with other forest impacts associated with the project. Retains direct access to the site from River Road and enhances pedestrian access to the site from River Road, the Purple Line, and Washington Metropolitan Area Transit Authority (WMATA).
<i>Refinement due to utility conflict and coordination with affected property owners</i>				
4	<b>River Road near Haig Drive: shifted transitway alignment and refined stormwater design.</b> The FEIS design kept the Purple Line tracks close to River Road east of Haig Drive (See FEIS Volume II, Conceptual Engineering drawing Sheet 154 of 497). In addition, the FEIS design included a submerged gravel wetland (stormwater feature) to the west of Haig Drive, south of the station area. The refinement shifts the alignment approximately 10 feet south to avoid a climate controlled Verizon vault east of Haig Drive (See December 2013 Preliminary Engineering plan Sheet 177 of 691). While making this refinement, MTA redesigned the submerged gravel wetland to be more linear in shape to reduce impacts to the development site adjacent to the station on the M Square property.	MTA refined the design to avoid the climate controlled Verizon vault and to reduce impacts to the M Square property adjacent to the station. Ongoing coordination with Verizon identified this vault as highly sensitive and difficult and costly to relocate. At the same time, as part of ongoing coordination, the University of Maryland stressed their concern regarding the M Square property and their desire to maintain developable land in the area. Prince George's County and local elected officials also shared a desire to have more transit-supportive uses near the station rather than a large stormwater management facility. MTA's coordination with all parties resulted in the refinement which addresses the Verizon vault conflict and minimizes encroachment on the M Square property. The change in impact to the Section 4(f) resource was coordinated with M-NCPPC and was included in the de minimis finding for the park.	The refinement is in the area of the M Square station. West of Haig Drive is vacant land that is part of the M Square research park. The land east of the M Square property is part of the Anacostia River Stream Valley Park and Northeast Branch Trail. The alignment shift occurs on both sides of Haig Drive and when in the park the alignment shift is in an undeveloped area that was shown in the FEIS and Draft Section 4(f) Evaluation as both permanent use and temporary occupancy of the park.	The refinement results in an overall reduction in right-of-way requirements. It reduces LOD on M Square property west of Haig Drive, minimizing impacts to this future development parcel. No change in LOD occurs east of Haig Drive in Anacostia River Stream Valley Park; however, a slight increase (0.16 acre) in permanent use will occur from what was shown in the Draft Section 4(f) Evaluation in the FEIS. This increase is in the area shown for construction staging (temporary occupancy) in the FEIS. The change in impact to the Section 4(f) resource was coordinated with M-NCPPC and was included in the <i>de minimis</i> finding for the park. It is also included in the Final Section 4(f) Evaluation attached to the ROD.

Table 1. Summary of Design Refinements Made between FEIS Conceptual Design and the ROD (continued)

#	Design Refinement	Reason for Refinement and Relevant Supporting Coordination	Context / Setting	Effect of Refinement <small>(changes in LOD are described in comparison to FEIS LOD)</small>
<i>Refinements based on changes to planned adjacent development</i>				
5	<p><b>Rossborough Lane: shifted transitway alignment to the south to avoid the police offices. The traction power substation (TPSS) is shifted due to the roadway shift.</b> The FEIS alignment clipped the southern edge of the Service Building housing the campus police offices (See FEIS Volume II, Conceptual Engineering drawing Sheet 146 of 497). The refinement shifts the transitway alignment south, avoiding the building (See December 2013 Preliminary Engineering plan Sheet 169 of 691). The traction power substation (TPSS) is shifted south as well due to the roadway shift.</p>	<p>Input from University of Maryland (UMD): the Service Building was planned to be removed as part of the planned East Campus development. The scope and timing of UMD’s development plan has changed and the building is no longer slated for demolition at this time. UMD requested a shift in the alignment to avoid impacts to the building, which is also a Section 106 contributing element in the UMD historic district. UMD reviewed several options developed by MTA. MTA’s refinement is a result of this coordination and is supported by UMD.</p>	<p>The refinement occurs near US 1 and Rossborough Lane. This area is within the UMD historic district. The shift occurs primarily in the existing roadway and parking areas.</p>	<p>The LOD changes on Rossborough Lane. Refinement avoids impacts to the Service Building, a contributing structure within the historic property. At the time of the FEIS, UMD had imminent plans to demolish the building as part of its planned East Campus development project; therefore, the building was not included in the discussion of potential Purple Line effects to the property in the FEIS. Due to the delay in UMD’s development, and if the alignment had remained as it was proposed in the FEIS, a portion of the building would have been impacted. The shift of the alignment avoids the building. The refinement is included in the Final Section 4(f) Evaluation attached to the ROD.</p>
<i>Refinements to minimize or mitigate impacts and/or address specific design issues or stakeholder concerns</i>				
6	<p><b>TPSS on Montgomery Avenue moved.</b> The FEIS design had the TPSS parallel to the transitway, displacing two commercial properties on Montgomery Avenue (See FEIS Volume II, Conceptual Engineering drawing Sheet 95 of 497). MTA’s refinement moves the TPSS approximately 100 feet east to the easternmost parcel owned by the same landowner (See December 2013 Preliminary Engineering plan Sheet 118 of 691). The TPSS has been rotated to be perpendicular to the transitway and its access drive has been adjusted accordingly.</p>	<p>During right-of-way coordination with the affected property owner, MTA discussed ideas to minimize the right-of-way impact and the number of business displacements. The property owner asked if the TPSS could be shifted to his easternmost parcel. MTA’s refinement is a result of this coordination and has been shared with the property owner.</p>	<p>The refinement is in a developed area with small commercial buildings along Montgomery Avenue.</p>	<p>MTA’s refinement reduces overall business displacements and overall right-of-way requirement, but changes the LOD. The FEIS design displaced two commercial buildings. MTA’s refinement displaces one building. The refinement avoids the two buildings shown as displacements in the FEIS and requires the acquisition of the building immediately to the east. Therefore the LOD is reduced to no longer include the parcels originally shown as displacements and expanded to include the parcel that will now be displaced by the TPSS.</p>
7	<p><b>Rock Creek Trail: raised a portion of the trail.</b> The FEIS design did not include any changes to the Rock Creek Trail (See FEIS Volume II, Conceptual Engineering drawing Sheet 103 of 497). As part of the Section 4(f) mitigation, MTA’s refinement adds a boardwalk type trail approximately 170 feet long within the Montgomery County right-of-way to raise the portion of the Rock Creek Trail out of the 1-year floodplain (See December 2013 Preliminary Engineering plan Sheet 126 of 691).</p>	<p>As this portion of the trail is subject to regular flooding, the refinement was suggested during MTA’s discussions with M-NCPPC regarding County-wide park mitigation. The design has been discussed with M-NCPPC and is included in the Final Section 4(f) mitigation commitments for Rock Creek Stream Valley Park and trail.</p>	<p>MTA’s refinement is within the FEIS LOD and is within the County-owned right-of-way. It is along the existing trail alignment, in an area that MTA would access during construction.</p>	<p>The refinement does not change the LOD as presented in the FEIS. MTA’s refinement will reduce the frequency of flooding on the trail. The refinement is included as part of the mitigation included in the Final Section 4(f) Evaluation attached to the ROD.</p>

Table 1. Summary of Design Refinements Made between FEIS Conceptual Design and the ROD (continued)

#	Design Refinement	Reason for Refinement and Relevant Supporting Coordination	Context / Setting	Effect of Refinement (changes in LOD are described in comparison to FEIS LOD)
8	<p><b>Falklands Apartments: adjusted the LOD to account for building modifications.</b> The design of the project in this area has not changed (See FEIS Volume II, Conceptual Engineering drawing Sheet 112 of 497). This refinement was made prior to the publication of the FEIS and is included in the Section 4(f) Evaluation and Section 106 Programmatic Agreement. It is documented here to clarify the mapping shown in the FEIS.</p>	<p>MTA's refinement to the LOD is based on coordination with the property owner/manager and review of the existing building plans. MTA's coordination included a field visit on-site to discuss the needed building modifications with the property owner. This refinement was made prior to the publication of the FEIS and was included in the FEIS's assessment of impacts and shown on the graphics in Chapter 6, Draft Section 4(f) Evaluation, but was not shown in the Environmental Resource Mapping in Volume II of the FEIS.</p>	<p>This refinement is located in the Falkland Apartment complex adjacent to CSX. The site is a Section 106 historic property.</p>	<p>The refinement does not change project impacts or LOD within the Falkland Apartment complex as reported in the FEIS. The refinement is included in this table to clarify the information provided in the FEIS. The Environmental Resource Mapping included in Volume II of the FEIS did not show the updated LOD, but this refinement was included in the FEIS assessment of impacts and shown on the graphics in Chapter 6, Draft Section 4(f) Evaluation. It is also included in the Final Section 4(f) Evaluation and Programmatic Agreement attached to the ROD.</p>

Table 2. Summary of Anticipated Changes (positive and negative) in Environmental Impacts Associated with Design Refinements Outlined in Table 1

#	Design Refinement	Land Use, Public Policy, and Zoning	Neighborhoods and Community Facilities	Property Acquisitions and Displacements	Economic Activity	Parks, Recreational Land, and Open Space	Historic Properties and Archeological Resources	Visual Resources	Air Quality	Noise	Vibration	Habitat and Wildlife	Water Resources	Hazardous Materials	Utilities	Environmental Justice	Transportation	Notes	
1	Refined CCT connection to Rock Creek Trail and CCT underpass of Purple Line east of Rock Creek																	✓	The LOD remains largely the same as the FEIS LOD with minor exceptions. The LOD (temporary) is expanded slightly at the tie in of the CCT connection at the Rock Creek Trail. Additionally, the LOD is slightly expanded on the south side of the Purple Line transitway where the CCT emerges from the trail tunnel. MTA's refinement addresses constructability issues associated with the trail connection and provides additional opportunities for landscaping along the switchback and associated retaining walls. The tunnel is shorter and at less of an angle allowing more natural light and a better trail user experience.
2	Separate CCT bridge crossing of CSX at Michigan Avenue to 4 <sup>th</sup> Avenue removed; CCT to share Talbot Avenue Bridge over CSX.			✓				✓										✓	MTA's refinement reduces overall right-of-way requirements by reducing the number of impacted private properties. The LOD is reduced on the north side of CSX from Michigan Avenue to the Talbot Avenue Bridge. MTA's refinement avoids some property acquisition from CSX. The LOD expands slightly into the CSX and residential properties on the south side where the CCT continues to the new Talbot Avenue Bridge.
3	American Center for Physics: new access road and sidewalk added off River Road.			✓								✓						✓	MTA's refinement increases the LOD near River Road with an approximate 0.7 acre of additional tree loss. It retains direct access to the site from River Road and enhances pedestrian access to the site from River Road, the Purple Line, and WMATA.

Table 2. Summary of Anticipated Changes (positive and negative) in Environmental Impacts Associated with Design Refinements Outlined in Table 1 (continued)

#	Design Refinement	Land Use, Public Policy, and Zoning	Neighborhoods and Community Facilities	Property Acquisitions and Displacements	Economic Activity	Parks, Recreational Land, and Open Space	Historic Properties and Archeological Resources	Visual Resources	Air Quality	Noise	Vibration	Habitat and Wildlife	Water Resources	Hazardous Materials	Utilities	Environmental Justice	Transportation	Notes
4	River Road near Haig Drive: Shifted transitway alignment and refined design of the submerged gravel wetland.					✓												No change in LOD occurs east of Haig Drive in Anacostia River Stream Valley Park; however, a slight increase (0.16 acre) in permanent use will occur from what was shown in the Draft Section 4(f) Evaluation in the FEIS. This increase is in the area shown for construction staging (temporary occupancy) in the FEIS. The change in impact to the Section 4(f) resource was coordinated with M-NCPPC and was included in the de minimis finding for the park. It is also included in the Final Section 4(f) Evaluation attached to the ROD.
5	Rosborough Lane: Shifted transitway alignment to the south to avoid the police offices. Traction power substation (TPSS) is shifted due to the roadway shift.						✓											The LOD changes on Rosborough Lane. Refinement avoids impacts to the Service Building, a contributing structure within the historic property. At the time of the FEIS, UMD had imminent plans to demolish the building as part of its planned East Campus development project; therefore, the building was not included in the discussion of potential Purple Line effects to the property in the FEIS. Due to the delay in UMD's development, and if the alignment had remained as it was proposed in the FEIS, a portion of the building would have been impacted. The shift of the alignment avoids the building. The refinement is included in the Final Section 4(f) Evaluation attached to the ROD.
6	TPSS on Montgomery Avenue moved.			✓														MTA's refinement reduces overall business displacements and overall right-of-way requirement but changes the LOD. The FEIS design displaced two commercial buildings. MTA's refinement only displaces one building. MTA's refinement avoids the two buildings shown as displacements in the FEIS and requires the acquisition of the building immediately to the east.

Table 2. Summary of Anticipated Changes (positive and negative) in Environmental Impacts Associated with Design Refinements Outlined in Table 1 (continued)

#	Design Refinement	Land Use, Public Policy, and Zoning	Neighborhoods and Community Facilities	Property Acquisitions and Displacements	Economic Activity	Parks, Recreational Land, and Open Space	Historic Properties and Archeological Resources	Visual Resources	Air Quality	Noise	Vibration	Habitat and Wildlife	Water Resources	Hazardous Materials	Utilities	Environmental Justice	Transportation	Notes
7	Rock Creek Trail: raised a portion of the trail.					✓												The FEIS design did not include any changes to the Rock Creek Trail. MTA's refinement will add a boardwalk type trail within the Montgomery County right-of-way to raise the portion of the Rock Creek Trail out of the 1-year floodplain. The refinement does not change the LOD as presented in the FEIS MTA's refinement will reduce the frequency of flooding on the trail. The refinement is included as mitigation in the Final Section 4(f) Evaluation attached to the ROD.
8	Falklands Apartments: Adjusted the LOD to account for building modifications.																	The refinement does not change project impacts or LOD within the Falkland Apartment complex as reported in the FEIS. The refinement is included in this table to clarify the information provided in the FEIS. The Environmental Resource Mapping included in Volume II of the FEIS did not show the updated LOD, but this refinement was included in the FEIS assessment of impacts and shown on the graphics in Chapter 6, Draft Section 4(f) Evaluation.

