

**Exhibit E:**

**Substantial/Final Completion  
P3 Agreement, ¶¶ 7.10.3-7.14**

**7.8.4.3** The Hazardous Materials Remediation Allowance may also be available for Hazardous Materials Management Work directly attributable to a Hazardous Materials Relief Event in accordance with Section 15.3.3.2.

**7.8.4.4** No Change Order is required for invoicing amounts within the Hazardous Materials Remediation Allowance amount. Concessionaire shall promptly notify Owner if it becomes apparent that the Hazardous Materials Remediation Allowance amount will be exceeded, in which event the Parties shall negotiate a Change Order increasing the Allowance amount and/or modifying the scope of the Work to avoid the need to increase the Allowance.

## **7.9 Public Art**

**7.9.1** Concessionaire shall select one or more artists, from a prequalified pool of artists to be provided by Owner prior to Financial Close, to develop and implement concepts for integration of artwork into the Project in accordance with Owner's art in transit program and the requirements in Part 2B, Section 8.3.2 of the Technical Provisions. Concessionaire shall pay a stipend of up to \$3,500 to each prequalified artist who submits a conforming proposal. Concessionaire or its Design-Build Contractor shall enter into Contract(s) with selected artist(s), and shall coordinate with Owner, stakeholders and neighborhood work groups in development of the concepts.

**7.9.2** An Artwork Allowance in the amount of \$12,140,000 is available to reimburse Concessionaire for the stipends payable to shortlisted artists and amounts paid to selected artists for their work product and costs of transportation and installation of said product, subject to the limitations on reimbursement in Part 2B, Section 8.3.2.2 of the Technical Provisions, without markup. Concessionaire acknowledges and agrees that other payments to Concessionaire provided under this Agreement provide compensation for all other costs relating to the artwork, including designing the Project to accommodate the artist's concepts and overhead expenses associated with administration of the artwork Contract. If at any time the estimated costs of developing and implementing the art concepts exceed the Artwork Allowance amount, the Parties shall consult regarding measures to bring the cost within budget. Concessionaire shall have no obligation to expend funds in excess of the Artwork Allowance amount.

## **7.10 Availability and Final Completion**

### **7.10.1 Revenue Service Availability Deadline; Acceleration Request**

Concessionaire shall exercise its best efforts to achieve Revenue Service Availability on or before the RSA Deadline. Failure to achieve Revenue Service Availability by the Long Stop Date is a Concessionaire Default under Section 17.1.1(d)(i). Owner approval is required for any proposed opening before the RSA Deadline. Any request for early opening must be submitted to Owner at least 12 months before the date on which Concessionaire wishes the O&M Period to commence.

### **7.10.2 Conditions to Revenue Service Availability**

The Independent Engineer's Certificate of Revenue Service Availability may be issued only after satisfaction of the following conditions to Revenue Service Availability:

**7.10.2.1** Concessionaire has completed all D&C Work required for running normal and safe passenger service on the System, including (a) full access to all points of entry and exit and (b) completion of all Construction Work other than agreed-upon punch list items;

**7.10.2.2** Concessionaire has provided Certificates of System Element Compliance, Certificate of Operational Compliance, Certificate of Operational Compliance – Trial Running, Certificate of Total System Compliance and Safety and Security Certification Verification Report, in accordance with and as such terms are used in Part 2C, Section 2.7 of the Technical Provisions;

**7.10.2.3** Owner has issued the signed Certificates of System Element Completion, Operational Readiness, Operational Compliance – Trial Running and the Final Safety and Security Certification of Total System Conformance for Revenue Service in accordance with and as such terms are used in Part 2C, Section 2.7 of the Technical Provisions;

**7.10.2.4** All systems and equipment installed by or on behalf of Concessionaire comply, in all respects, with applicable Laws and are operational and functional;

**7.10.2.5** Concessionaire has substantially completed the Capital Crescent Trail enabling safe use by the public of said trail for its entire length thereof, as determined in Owner's discretion, including completion of the following:

- (a) The paved path and unpaved shoulders;
- (b) All bridges, underpasses, connections to Project stations, trail access facilities and other structures;
- (c) Lighting; and
- (d) Safety fencing;

**7.10.2.6** D&C Work remaining to be performed is limited to (a) punch list items approved by Owner under Section 7.10.2.1 and (b) any other D&C Work that the Contract Documents contemplate will be performed after the RSA Date, which remaining D&C Work shall in no event require closure of any portion of the System or traffic lanes;

**7.10.2.7** All Submittals required by the Project Management Plan or Contract Documents to be submitted and/or approved by Owner prior to Revenue Service Availability have been submitted to and approved by Owner (as applicable), including the final Threat and Vulnerability Assessment;

**7.10.2.8** Concessionaire has delivered to Owner documents and evidence that (a) electromagnetic interference caused by System operations between stationing 598+00 and 658+00 as described in the "Spectral Analysis of Radiated Emissions – Trial Running," defined in Part 2B, Section 11.3.5.4 of the Technical Provisions, does not exceed the greater of 0.1 mG or the ambient level immediately prior to the energization of traction power as described by the "Spectral Analysis of Existing background Radiation levels – Pre-Energization," as defined in Part 2B, Section 11.3.5.4 of the Technical Provisions or (b) mitigation measures have been implemented that reduce the impacts to sensitive equipment below said maximum level, in accordance with Part 2B, Section 11.3.5.1 of the Technical Provisions;

**7.10.2.9** There exists no uncured Concessionaire Default that is the subject of a notice, unless (a) Revenue Service Availability will effect its full and complete cure, or (b) with respect to a non-monetary Concessionaire Default, (i) Concessionaire has a right to cure and is diligently pursuing cure within the applicable cure period or (ii) Collateral Agent has a right to cure and is diligently pursuing cure within the applicable cure period specified in any Direct Agreement; provided, however, that the Collateral Agent's and Concessionaire's respective cure periods shall be deemed to run concurrently, and not serially, for purposes of this condition to Revenue Service Availability;

**7.10.2.10** Concessionaire has delivered to Owner (a) all manufacturer warranties required under, and in the form and content specified by the Technical Provisions and (b) all documents and other evidence of warranties under Sections 7.10 and 7.11;

**7.10.2.11** Concessionaire demonstrates to Owner's reasonable satisfaction that Concessionaire has acquired and properly stored, or arranged for immediate availability, a reasonable inventory of all spare parts, spare components, spare equipment, tools, materials, expendables and consumables necessary for operation and maintenance of the Project during the O&M Period as identified in the Operating Plan, Maintenance Plan and Maintenance Manuals;

**7.10.2.12** Concessionaire has (a) completed training of operations and maintenance personnel in accordance with Part 2C, Section 3.1.3 of the Technical Provisions, (b) delivered to Owner a certificate, in form acceptable to Owner, executed by Concessionaire that it and its Contractors are fully staffed with such trained personnel and are ready, willing and able to operate and maintain the Project in accordance with the terms of the Contract Documents including the approved Staff Management Policies and Procedures Manual, and (c) delivered to Owner training records evidencing compliance with training requirements including copies of course completion certificates issued to each of the subject personnel;

**7.10.2.13** Owner has reviewed and approved the final plans required in Part 3, Section 1 of the Technical Provisions;

**7.10.2.14** Concessionaire has received, and paid all associated fees for, all applicable Governmental Approvals (excluding Owner-Provided Approvals) and other third party approvals required for use and operation of the Purple Line System, such Governmental Approvals and other third party approvals are in full force and effect, there exists no uncured material violation of the terms of any such Governmental Approval or other third party approvals and all such Governmental Approvals are in final form and are not subject to appeal;

**7.10.2.15** Subject to Section 11.1.7, all Insurance Policies required under this Agreement to be in effect during the O&M Period (excluding insurance for capital asset replacement work) have been obtained and are in full force and effect and Concessionaire has delivered to Owner verification thereof as required under Section 11.2;

**7.10.2.16** Any Performance Security required under Section 11.2.3 for the O&M Period has been obtained, delivered to Owner and is in full force and effect;

**7.10.2.17** Concessionaire has verified that (a) all deposits to the Intellectual Property Escrow(s) required to be provided at or before Revenue Service Availability under Section 23.5 have been made and (b) all Cost and Pricing Data required to be provided at or before Revenue Service Availability under Section 23.6 has been delivered to Owner;

**7.10.2.18** Concessionaire has satisfied any other requirements for commencement of O&M Work in the Technical Provisions, including obtaining Owner's Approval of the Submittals required by Part 3, Section 1.17 of the Technical Provisions; and

**7.10.2.19** Concessionaire has provided evidence satisfactory to Owner that Concessionaire's Equity Member(s) have completed direct investment of good and immediately available funds, including the purchase of equity shares in and/or the provision of Subordinate Debt, to Concessionaire.

### **7.10.3 Process for Issuance of Revenue Service Availability Certificate**

**7.10.3.1** Promptly following award of a contract to the Independent Engineer under Section 5.10, the Independent Engineer shall meet with the Parties to review the requirements to be met as conditions to Revenue Service Availability, including Owner's final checklist for use by the Independent Engineer regarding Concessionaire's compliance with the Technical Provisions, substantially in the form of Exhibit 15B.

**7.10.3.2** Approximately six months before the date on which Concessionaire expects to achieve Revenue Service Availability, Concessionaire shall provide a schedule for the period up to and including the anticipated RSA Date for the purpose of enabling Owner and the Independent Engineer to schedule their activities relating to the System opening.

**7.10.3.3** Concessionaire shall promptly advise Owner and the Independent Engineer if at any time Concessionaire determines that Revenue Service Availability will be delayed beyond the date specified in the notice in Section 7.10.3.2. Such notice shall not excuse Concessionaire from meeting the requirements in Part 2C of the Technical Provisions.

**7.10.3.4** Concessionaire's schedule under Section 7.10.3.2 shall include, at a minimum:

(a) Dates when Concessionaire will submit all remaining documentation required by Part 2C, Section 2.7 of the Technical Provisions with respect to "Safety and Security Certification";

(b) Dates when Concessionaire will submit all remaining evidence required by Part 2C, Section 4.7 of the Technical Provisions with respect to "Readiness for Revenue Service" as such term is defined in said Section 4.7; and

(c) Dates when Concessionaire will complete all remaining Work required for "Trial Running and Revenue Service," as identified in Concessionaire's "Operational Readiness Plan/Strategy".

**7.10.3.5** Concessionaire shall provide an updated schedule to Owner and the Independent Engineer three weeks before the date of expected Revenue Service Availability. During the ensuing period, Concessionaire, Owner and the Independent Engineer shall meet, confer and exchange information on a regular cooperative basis, and Owner and the Independent Engineer will conduct, either jointly or independently, an inspection of the entire Project and its assets, a review of the Final Design Documents and such other investigation and review of reports, data and documentation as may be necessary to evaluate whether all of the conditions to Revenue Service Availability have been satisfied or will be satisfied before the RSA Date. Concessionaire shall provide daily updates to Owner and the Independent Engineer regarding any potential delay in Revenue Service Availability.

**7.10.3.6** When Concessionaire is ready to start Revenue Service, Concessionaire shall deliver to Owner and the Independent Engineer notification of readiness to commence Revenue Service, as required in Part 2C, Section 4.7 of the Technical Provisions. The notice shall be accompanied by a certification, in form reasonably acceptable to Owner, stating that Concessionaire has met all the conditions in Section 7.10.2.

**7.10.3.7** Within two business days after receipt of the notice and evidence given by Concessionaire to Owner under Section 7.10.3.6, the Independent Engineer shall deliver a report of findings and recommendations to Owner and Concessionaire stating in the Independent Engineer's opinion whether Revenue Service Availability has been achieved or provide notice to Concessionaire stating the reasons why the conditions to Revenue Service Availability have not been met.

**7.10.3.8** Within two business days after Owner's receipt of the report given by the Independent Engineer under Section 7.10.3.7, Owner will either (a) notify Concessionaire that it concurs with the Independent Engineer's determination that conditions to Revenue Service Availability have been met and authorize the immediate commencement of Revenue Service or (b) notify Concessionaire regarding the reasons why Owner believes the conditions to Revenue Service Availability have not been satisfied. If Owner provides notice under Section 7.10.3.8(b), then it will nevertheless permit the System to be opened for Revenue Service and will make the RSA Payment.

**7.10.3.9** In accordance with the Project Management Plan, Concessionaire shall prepare a punch list of D&C Work to be completed as a condition precedent to achievement of Final Completion, obtain Owner's approval of the punch list, and maintain the list until all such Work is completed. Concessionaire shall also obtain approval from Utility Owners of any punch list items relating to Utility Work. The punch list shall not include any items that adversely affect the safety, use or operability of the Purple Line System. The schedule for preparation of the punch list shall be consistent and coordinated with the requirements for Revenue Service Availability.

**7.10.3.10** Concessionaire shall notify Owner and the Independent Engineer not less than five days before the scheduled date when Concessionaire will commence punch list field inspections and punch list preparation. The Design-Build Contractor and the Independent Engineer shall prepare, and Owner may participate in the development of, the punch list. Each participant shall have the right to add items to the punch list and none shall remove any item added by any other without such other's express permission. If Concessionaire objects to the addition of an item and the Parties are unable to resolve the objection, the Dispute shall be subject to resolution under the Dispute Resolution Procedures.

**7.10.3.11** Concessionaire shall deliver to Owner and the Independent Engineer a true and complete copy of the punch list and any modifications as soon as they are prepared.

#### **7.10.4 Final Completion**

**7.10.4.1** Promptly after achieving Revenue Service Availability, Concessionaire shall perform all remaining D&C Work. If Owner disputes the Independent Engineer's determination of Revenue Service Availability under Section 7.10.3.8(b), then all such items shall be required to be completed as a condition to Final Completion.

**7.10.4.2** The following are conditions to Final Completion:

(a) Owner has determined that all conditions to Revenue Service Availability have been satisfied;

(b) All remaining D&C Work has been completed, including completion of all punch list items and landscape establishment Work in accordance with Part 2B, Section 10.7 of the Technical Provisions;

(c) The Project ROW, other areas within the Limits of Disturbance and any Project-Specific Locations in the vicinity of the Project ROW shall be cleaned of all surplus and discarded materials, spilled materials, excess materials left deposited on the permanent Work as a result of the D&C Work, falsework, and rubbish and temporary structures and buildings, placed thereon by Concessionaire-Related Entities;

(d) Project-Specific Locations shall be reshaped, seeded and mulched, or otherwise restored to the extent required by the condition on which access was provided;

(e) Concessionaire has delivered, and Owner has accepted, all Submittals required as conditions precedent to Final Completion in accordance with Part 2A, Section 10 of the Technical Provisions (including Owner approval of (i) as-built survey sheets for the Project and (ii) a complete set of the Record Documents in form and content required by Part 2A, Section 26 of the Technical Provisions);

(f) If any Authority Having Jurisdiction requires any form of certification of design, engineering or construction with respect to the Project or any portion thereof, including any certifications from the Engineer of Record and architect of record for the Project, Concessionaire has caused such certificates to be executed and delivered and has concurrently issued identical certificates to Owner;

(g) All D&C Work that Concessionaire is obligated to perform for, or on behalf of, Third Parties and Utility Owners has been accepted by Owner for, or on behalf of, such Third Parties and Utility Owners, as provided under the Contract Documents, and Concessionaire has paid for all work performed by third parties that Concessionaire is obligated to pay for, other than disputed amounts;

(h) Concessionaire has verified that (i) all deposits to the Intellectual Property Escrow(s) required at or before Final Completion under Section 23.5 have been made and (ii) all Cost and Pricing Data required to be provided at or before Final Completion under Section 23.6 has been delivered to Owner;

(i) There exist no uncured Concessionaire Defaults that are the subject of a notice, or with the giving of notice or passage of time, or both, could become a Default Termination Event under Section 19.3.1 except for (i) any Concessionaire Default for which Final Completion will effect full and complete cure or for which corrective work is proceeding under the warranty provisions of the Agreement or (ii) any Concessionaire Default relating to the O&M Work if Concessionaire has a right to cure and is diligently prosecuting such cure;

(j) Concessionaire has submitted to Owner (i) documentation of DBE utilization and (ii) if the DBE Goal is not met, documentation supporting good faith efforts, as required under Section 9.10; and

(k) Concessionaire, all relevant Contractors and the O&M Contractor have delivered to Owner certified copies of Labor Peace Agreement required under Section 9.14.1.

**7.10.4.3** Concessionaire shall notify Owner upon completion of all physical Work and delivery of Submittals required under Section 7.10.4.2, excluding the requirements of subsections (f) and (g). Concessionaire and Owner shall meet, confer and exchange information on a regular cooperative basis. Owner will conduct inspections and other investigations whether jointly or independently in order to evaluate whether said conditions to Final Completion are satisfied.

**7.10.4.4** When Concessionaire believes that it has satisfied all conditions to Final Completion, it shall provide notice to Owner to that effect, including certification, in form reasonably acceptable to Owner, stating that Concessionaire has satisfied all the criteria in Section 7.10.4.2. Following receipt of such notice and certification, Owner will conduct such additional inspections and investigations either jointly or independently as it deems advisable to determine whether Final Completion has been achieved.

**7.10.4.5** Within three business days after Owner's receipt of the notice from Concessionaire under Section 7.10.4.4, Owner will either (a) issue a certificate of Final Completion or (b) provide notice to Concessionaire stating the reasons why the conditions to Final Completion have not been satisfied. If Owner provides notice under Section 7.10.4.5(b), then the notifications and processes in Section 7.10.4.3 to 7.10.4.4 shall be repeated until (i) Owner issues a certificate of Final Completion or (ii) either Party initiates the Dispute Resolution Procedures. The certificate of Final Completion will indicate the actual date on which Concessionaire achieved Final Completion.

## **7.11 Warranties**

**7.11.1** Concessionaire shall obtain from all Prime Contractors, and shall ensure that all other Contractors and Suppliers provide, representations, warranties, guarantees and obligations in accordance with Good Industry Practice for work of similar scope and scale, with respect to design, materials, workmanship, equipment, tools and supplies furnished by all such Contractors and Suppliers, which shall extend not only to Concessionaire but also to Owner and relevant Third Parties.

**7.11.2** To the extent that any Contractor warranty or guaranty is voided after termination of this Agreement by reason of Concessionaire's negligence or failure to comply with the requirements of the Contract Documents in incorporating material or equipment into the Work, Concessionaire shall correct any defects in the Work performed by such Contractor which would otherwise have been covered by such warranty.

**7.11.3** Contractor warranties are in addition to all rights and remedies available under the Contract Documents or applicable Law, and shall not limit Concessionaire's liability or responsibility imposed by the Contract Documents or applicable Law with respect to the Work, including liability for design defects, construction defects, strict liability, breach, negligence, willful misconduct or fraud.

**7.11.4** Notwithstanding the foregoing, Concessionaire shall cause all Contractors performing Renewal Work during the last two years of the Term, and all Contractors, Suppliers and manufacturers providing warranties or guaranties that extend beyond the scheduled end of the Term, to provide such warranties and guaranties for the joint benefit of Owner and Concessionaire. Concessionaire hereby assigns to Owner all such warranties and guaranties,



as well as Concessionaire's rights under the relevant Contracts, effective as of the end of the Term.

**7.11.5** If a part of Work is replaced due to an identified Fleet Defect, the period of the LRV Supplier's warranty under the LRV Supply Contract as to that part of Work shall commence again from the date of completion of the replacement of the identified Fleet Defect and continue for the duration of the original, unextended warranty.

#### **7.12 Warranties for Third Party Improvements**

Concessionaire shall provide, or obtain and ensure performance under as if Concessionaire provided, warranties and guaranties for all Work performed for Third Parties for a minimum of one year after the date of acceptance of such Work by the Third Party or such longer term as may be required in Part 1, Section 8 of the Technical Provisions, for such Third Party's benefit (with rights of enforcement). Owner shall have, and shall be identified as a third party beneficiary of the right to enforce, all such warranties and guaranties of such Work. Upon acceptance of such Work by the Third Party and delivery of an assignment of the relevant warranty and guaranty rights to the Third Party, Concessionaire shall be relieved of responsibility for maintenance of such Work. Concessionaire shall also provide any warranties or guaranties required under the Utility Agreements with respect to Utility Work performed by Concessionaire-Related Entities.

#### **7.13 Responsibility for Loss or Damage**

**7.13.1** The D&C Work includes having full charge and care of the Project through the RSA Date, except to the extent that third parties have accepted elements of the Work and assumed responsibility for maintenance of such elements before the RSA Date. Following the RSA Date, the D&C Work shall include continued responsibility for all improvements not yet completed as of such date, until Final Completion is achieved or maintenance responsibility is assumed by third parties.

**7.13.2** Concessionaire shall take every reasonable precaution against loss or damage to any part of the Project by the action of the elements, or from any other cause, whether arising from the performance or nonperformance of the D&C Work.

**7.13.3** As part of the D&C Work, Concessionaire shall repair, restore and replace losses or damages to any portion of the Work occasioned by any of the above causes before Revenue Service Availability (or as part of the Punch List, or before Final Completion, for Work not accepted as of the RSA Date) or transfer of responsibility to third parties, as applicable and shall bear the expense thereof except to the extent that compensation is allowed under the Relief Event provisions of this Agreement.

**7.13.4** Concessionaire shall repair, restore or replace materials lost or structures damaged as a result of faulty temporary drainage during construction or the action of the elements.

#### **7.14 Nonconforming Work**

##### **7.14.1 Obligation to Replace Nonconforming Work**

Concessionaire shall perform all Work in conformity with the Contract Documents. If Concessionaire has not performed the Work in conformity with the Contract Documents, then, in addition to any other remedies available to Owner, Owner may direct Concessionaire to, and

Concessionaire shall, remove and replace or otherwise remedy the Nonconforming Work, without entitlement to make a Claim in connection with such Work.

#### **7.14.2 Concessionaire's Plan of Correction**

**7.14.2.1** Promptly after Nonconforming Work is identified and no later than 10 business days after Concessionaire first obtains knowledge of such Nonconforming Work, Concessionaire shall submit a proposed plan of correction to Owner, for review and approval, describing the error or defect giving rise to the Nonconforming Work and describing Concessionaire's planned remedial action. Such proposal shall address System integrity, aesthetics, operational impact, maintainability, the effect on the Project Schedule and other relevant issues.

**7.14.2.2** If Owner determines that a proposed plan of correction may infringe upon System integrity, operations or maintainability, then Owner may elect to perform a technical assessment of Concessionaire's proposal. Owner shall notify Concessionaire promptly upon determining that an assessment is required, and shall take reasonable efforts to expedite the assessment. Should Owner elect to perform any such technical assessment, (a) if so requested by Owner, Concessionaire shall not proceed with the plan of correction until Owner has conducted its technical assessment and provided prior approval of the plan of correction and (b) Concessionaire shall not be entitled to make any Claim in connection with the technical assessment or reasonable delay in the plan of correction pending Owner's approval.

#### **7.14.3 Owner's Remedies**

Owner shall have the right and authority to cause Nonconforming Work to be removed, replaced or otherwise remedied and to withhold or deduct the costs from any monies due or that become due to Concessionaire under the Contract Documents upon (a) any failure of Concessionaire to provide a proposed remedial plan as described in Section 7.14.2.1 and obtain Owner's approval thereof, promptly following discovery of the Nonconforming Work, or (b) any failure of Concessionaire to comply with Owner's direction under this Agreement relating to any safety issue, including Safety Compliance Orders under Section 10.4.

#### **7.15 System Integration**

Concessionaire shall manage, administer, control, coordinate and integrate the work of all of the Contractors in execution of the D&C Work as detailed in Part 2 of the Technical Provisions, and shall be responsible for the successful commissioning, testing and acceptance of all components of the System, including the LRVs, subsystems and Fare System Equipment, in accordance with Part 2C of the Technical Provisions, so that the System may be opened for Revenue Service by the RSA Deadline.

5-10

**Exhibit F:**

**Long Branch Sector Plan p. 29**

- Create a Heart Smart Trail using the existing loop trail around the ballfield.
- Add local art and cultural amenities.
- Resolve vehicular access issues to the Long Branch Pool and Recreation Center in light of proposed traffic restrictions along Piney Branch Road associated with the Purple Line.

The following additional options should be explored by the Maryland Transit Administration (MTA) as a means to accommodate full turning movements into and from the Pool and Recreation Center:

- Realigning the driveway to the Long Branch Local Park across from Barron Street.
- Adding a left turn lane on Piney Branch Road upon the redevelopment of 8700 Barron Street.

- New Hampshire Estates Neighborhood Park

- As part of or immediately following the approval of the Purple Line alignment, design and renovate the park with space for community gatherings and a variety of urban recreation such as pickup soccer, futsal, frisbee, etc.
- Explore educational programming of the park with Montgomery County Public Schools (MCPS) and improve the functional and spatial relationship with New Hampshire Estates Elementary School.
- Pursue a land swap with MTA to mitigate loss of park frontage due to Purple Line construction, as well as from the County, to accommodate the proposed extension of Gilbert Street.
- Ensure that the extension of Gilbert Street includes on-street parking to help serve the park.
- Support extending Gilbert Street through the park to help improve traffic circulation in the Plan area, replace lost parking attributed to the Purple Line along University Boulevard, and improve access to the adjacent property. The builder of the Gilbert Street extension should contribute to the facility planning, detailed design, and construction of the park.
- Divest remnant parkland on the north side of the Gilbert Street extension that results from extending the road.
- Recommend the County purchase the remnant parkland as part of the right-of-way for the new road.
- Through land exchanges, expand the park to include the County-owned property to the south, to improve land use synergy with the adjacent school and create the potential for a full-size adult rectangular field.
  - Additionally, as a part of the proposed expansion of the New Hampshire Estates Neighborhood Park, the Plan proposes relocating the use and service currently provided at 734 University Boulevard East to Site #5 (Piney Branch Neighborhood Village) upon development of the new neighborhood service center.
  - This new center should be developed under the CR Zone's incentive density provision to provide social, educational, and naturalization services including but not limited to legal services, vocational training, employment placement, health education, and community outreach.
  - This park redesign and expansion that includes County property should not be pursued until after the neighborhood service center is built and operating.
- Ensure the proposed access road includes on-street parking to help serve the park.
- Time park redesign and construction in a way that ensures a neighborhood center is available and operational to serve community needs and does not create a gap in services.

**Exhibit G:**

**Montgomery County  
Letter of Agreement  
February 5, 2016**



OFFICE OF THE COUNTY EXECUTIVE

Isiah Leggett  
County Executive

Timothy L. Firestine  
Chief Administrative Officer

February 5, 2016

Mr. Casey Anderson, Chair  
Montgomery County Planning Board  
8787 Georgia Avenue  
Silver Spring, MD 20910

Dear Mr. Anderson:

I am aware that the Maryland Transit Administration (MTA), in cooperation with the Federal Transit Administration as the lead federal agency, has prepared a Final Environmental Impact Statement and Section 4(f) Evaluation for MTA's Purple Line project. This effort, coupled with subsequent design and engineering work, has revealed that the project will impact seven M-NCPPC park units in Montgomery County. These park units include Elm Street Urban Park, Long Branch Stream Valley Park Unit 1, Long Branch Local Park, Sligo Creek Stream Valley Park Units 1 and 2, Sligo Cabin Neighborhood Park, and New Hampshire Estates Neighborhood Park. The impacts to these park units are permanent and total 0.89 acres. According to the November 2013 *de minimus* letters for the project, MTA identified replacement land adjacent to New Hampshire Estates Neighborhood Park ("New Hampshire Park") that is intended to serve as mitigation for the permanent use of this parkland. I am aware that the Montgomery County Planning Board supported this strategy.

It is my understanding that the land identified as replacement land is located at 734 University Boulevard East, Silver Spring, MD and is owned by Montgomery County ("Exchange Property"). This property (Tax Account Number 13-00975345; Liber 11983, Folio 561 in the land records of Montgomery County, MD) totals 63,162 square feet (1.45 acres) and is located on the south side of the 4.74 acre New Hampshire Park (See Attachment A).

The Long Branch Sector Plan ("Plan"), adopted by the County Council on November 19, 2013, recommends a series of future land exchanges which will result in the expansion of New Hampshire Estates Neighborhood Park (see page 29 of the Plan) -- and allow MTA to fulfill its aforementioned Section 4(f) related mitigation requirements for Purple Line impacts to M-NCPPC park units in Montgomery County.

The Plan proposes relocating the County supported use and service currently provided at 734 University Boulevard East to Redevelopment Site #5, Piney Branch Neighborhood Village, upon development of a new neighborhood services center at the Site #5 location. The Plan further recommends that future expansion and redesign of New Hampshire Estates Neighborhood Park -- including the County-owned property at 743 University Boulevard East -- "*should not be pursued until after the neighborhood service center is built and operating.*" The neighborhood services center contemplated in the approved master plan would serve as a

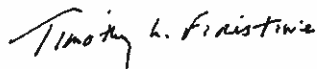
Mr. Casey Anderson, Chair  
February 5, 2016  
Page 2

replacement facility for the current use and operations at 734 University Boulevard East as well as other services as described in the Sector Plan.

Given Montgomery County's strong support for MTA's proposed Purple Line project and in consideration of M-NCPPC's cooperation in furthering the goals of Purple Line project which benefits the County, the County agrees to the following:

- (1) To list the Exchange Property in the County's Memorandum of Agreement with MTA ("County MOA") as one of the County properties to be conveyed to MTA, subject to the same disposition process as the other County-owned property interests necessary for Purple Line as set forth in the County MOA (referred to as the "County Property Disposition").
- (2) If Montgomery County Council approves the disposition of this subject County property, then the County agrees to grant and transfer a fee simple title to the Exchange Property via two deeds to MTA or M-NCPPC, as mutually agreed to by MTA and M-NCPPC, as follows: (a) approximately 0.4 acres of the unimproved portion of the Exchange Property (designated as "Phase 1 Mitigation" on Attachment B) as promptly as possible following the execution of the County MOA, but before the Purple Line project construction on any M-NCPPC property begins; and (b) approximately 1.05 acres of the remaining portion of the Exchange Property (designated as Phase 2 Mitigation on Attachment B) (referred to as the "Phase 2 Property") promptly upon the earlier of (i) opening of the new neighborhood service center at the Site #5 location; or (ii) 10 years from the date of this LOA.
- (3) This LOA shall become binding and effective upon the full execution of the County's Memorandum of Agreement with the Maryland Transit Administration of the Maryland Department of Transportation regarding the Maryland-National Capital Purple Line.

Sincerely,



Timothy L. Firestine  
Chief Administrative Officer

TLF:rbp

Enclosures

cc: Greg Ossont, Deputy Director, Montgomery County Department of General Services  
Michael F. Riley, Director, M-NCPPC, Department of Parks  
John E. Hench, Ph.D., Chief, Department of Parks, Park Planning and Stewardship Division  
William Gries, Land Acquisition Specialist, Department of Parks, Park Development Division  
Ramona Bell-Pearson, Assistant Chief Administrative Officer, Office of the County Executive



New Hampshire Estates NP

New Hampshire Estates Elementary School

+/- 40 Acres

Phase 1 Mitigation

Phase 2 Mitigation




+/- 1.05 Acres

SEEK LN

SEEK CT

PINEY BRANCH RD

734 UNIVERSITY BLVD EAST

-  New Hampshire Estates ES
-  734 University Blvd East
-  M-NCPPC

250

Feet





**ATTACHMENT B****Parkland Real Estate Interests Required for the Purple Line**

<u>Park</u>	<u>Fee Simple</u>	<u>Temp. Const. Ease.</u>	<u>Perm. Drain. Ease.</u>	<u>Perm. Utility Ease.</u>
Elm Street U.P.	0	0	1,727 Sq. Ft.	0
Long Branch S.V.U. #1	2,751 Sq. Ft.	12,827 Sq. Ft.	2,514 Sq. Ft.	0
Long Branch L.P.	1,857 Sq. Ft.	11,654 Sq. Ft.	2,816 Sq. Ft.	0
Sligo Creek S.V.U. 1 & 2, and Sligo Cabin N.P.	19,291 Sq. Ft.	27,248 Sq. Ft.	12,520 Sq. Ft.	13,683 Sq. Ft.
New Hampshire Estates L.P.	<u>14,720 Sq. Ft.</u>	<u>9,950 Sq. Ft.</u>	<u>0</u>	<u>0</u>
<b>GRAND TOTAL</b>	<b>38,619 Sq. Ft. (0.89 +/- acres)</b>	<b>61,679 Sq. Ft. (1.42 +/- acres)</b>	<b>19,577 Sq. Ft. (0.45 +/- acres)</b>	<b>13,683 Sq. Ft. (0.31 +/- acres)</b>

Note: The real estate interests required for the Purple Line as stated above may be subject to slight modifications as the final engineering and design plans for the project move forward. Increases in these amounts, up to 10% of that which is stated, may be permitted by staff without additional Planning Board or full Commission approval.

**Exhibit H:**

**Not Used**

**Exhibit I (eye):**

**Montgomery County Planning Board  
Mandatory Referral Recommendations**



**MONTGOMERY COUNTY PLANNING BOARD**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

April 1, 2014

James T. Smith, Secretary  
Maryland Department of Transportation  
7201 Corporate Center Drive  
Hanover, Maryland 21076

Re: Mandatory Referral for the Purple Line

Dear Mr. Smith,

The Montgomery County Planning Board/Parks Commission reviewed and approved the Mandatory Referral for the Purple Line at our regularly scheduled meeting on March 20, 2014. Our comments to the Maryland Transit Administration (MTA) are in Attachment 1, to the Maryland State Highway Administration (SHA) in Attachment 2, and the Montgomery County Department of Transportation (MCDOT) in Attachment 3. As you know, this project is of statewide and regional importance. Accordingly, your assistance is requested to ensure a coordinated joint response by MTA and SHA, constituent agencies of the Maryland Department of Transportation (MDOT).

While MTA is the overall sponsoring agency that will construct the Purple Line, this is a large and complex project that requires approvals from different agencies. Many of the major station areas are located on or near State highways and therefore the assistance of SHA is essential in achieving optimal pedestrian and bicyclist access to these stations. We believe that MDOT should take the lead to ensure the highest level of coordination between MTA and SHA, as well as input from MDOT's staff in order to achieve the best possible conditions for Purple Line passengers and surrounding communities.

While the project as currently designed is substantially consistent with the County's approved and adopted master plans, we believe that the pedestrian accommodation and station access in the project area must be improved to ensure the success of the Purple Line. The stations of greatest concern accessible by State roads are Woodside Station, located on MD 390 (16<sup>th</sup> Street), and Piney Branch Road Station, located on MD 193 (University Boulevard).

The introduction of a rail station and the land use changes recommended by approved and adopted master plans will fundamentally change the nature of many of the Purple Line station

areas from being largely focused on automobiles to being equally focused on pedestrians. Yet pedestrians are not adequately prioritized at these station areas. For example:

- MTA is appropriately proposing a marked crosswalk on MD 390 to provide access to the Woodside Station. However, the crossing as planned is unsafe because pedestrians would be directed to cross MD 390, a six-lane highway with a posted speed limit of 35 mph and an AADT of over 25,000 vehicles, without the protection of a traffic signal.
- The intersection of MD 390 and Spring Street includes an excessive crossing distance on the east leg, requiring two pedestrian signals and three refuge islands to break up the crossing. The intersection geometry also enables vehicles traveling northbound on 16th Street and turning right onto Spring Street to speed across one of the crosswalks. MTA is planning to acquire the Spring Center to the northeast of the intersection and reconstruct the Spring Street bridge over the tracks, so there is an opportunity to make major improvements for pedestrians in an area that connects the Silver Spring CBD with the Woodside Station. With the coming of the Woodside Station, the redevelopment of the Spring Center site after construction of the Purple Line, the completion of the Fenwick Place development at the southwest corner of Spring Street and Second Avenue, an approved redevelopment of the north Falklands parcel, and the potential redevelopment of the southeast corner of the 16<sup>th</sup> Street/Spring Street intersection, this pedestrian crossing will become far busier than it is currently.
- The proposed Piney Branch Road Station is one of only two Purple Line stations along the entire 16 mile alignment that have a single-ended platform. Station access is from the north side of the platform, so passengers coming from the south have to walk out of their way to get to the station. The longer travel time would decrease the station's catchment area and therefore its ridership. The Long Branch Sector Plan recommends a traffic signal at the intersection of MD 193 (University Boulevard) and Gilbert Street to not only improve station access, but also to facilitate a connection between the Sligo Creek Trail and the Long Branch Trail to the Northwest Branch Trail. SHA has not yet agreed to provide this traffic signal.

A thorough review of this project is needed with the goal of meeting both AASHTO recommendations for pedestrian facilities and ADA Best Practices at a minimum; the use of both of these policies is recommended by the Federal Highway Administration in providing access to transit stations.

James T. Smith, Secretary

April 1, 2014

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In commercial areas, a higher level of accommodation is required to ensure that transit patrons have safe and adequate access, that potential patrons are encouraged to use the Purple Line and justify the State's and County's significant investment in this facility, and to support and promote transit-oriented development. Needed improvements within the Purple Line corridor should be completed in the near term, with the rail facility itself. Other longer term improvements will probably be needed to enhance station access, improvements that will require a partnership between SHA and MCDOT as the P3 design progresses. It is important, though, that additional improvements be identified and dealt with as quickly as possible and responsibility assigned so that construction can be expedited.

Embedding the Purple Line tracks on University Boulevard is of particular importance in this coordination effort. While we concur with the decision to repurpose two travel lanes on University Boulevard for the Purple Line, we believe that this transitway should be accessible to the County's planned bus rapid transit service unless it is clearly demonstrated that this would have a negative effect on overall transit service.

In addition, we request assistance from the SHA for access to our facility at Long Branch Local Park. The Purple Line will restrict access (no left turns in and out) to the community center and pool facilities along MD 320 (Piney Branch Road). MTA has committed to constructing a new driveway for the park to connect to the Barron Street signal, which will allow for left turns out of the park, but left turns in remain a problem. While this is a state highway, the park includes County facilities. We would like MDOT and SHA to work with M-NCPPC, Montgomery County Department of Parks and Montgomery County DOT to find a way to allow left turns into the park directly from Piney Branch Road, particularly during large community events and swim meets at the park; this would eliminate the need to make circuitous detours on County streets through the neighborhood to make the turn.

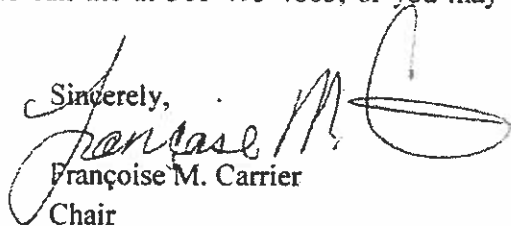
While MTA is only required to meet minimum MDE standards for stormwater management on this project, there appear to be significant opportunities to retrofit existing untreated impervious areas that drain through the project area to help mitigate some of the existing water quality issues along this urban corridor. M-NCPPC requests that MDOT view this as an opportunity to provide additional stormwater management treatment to these areas and continue to work with the Department of Environmental Protection and the Department of Parks to determine stormwater management opportunities within the impacted watershed. Additionally, it is imperative that the design team identify ways to maximize on-site treatment, ensure impervious runoff is actually intercepted, and balance the treatment facility

James T. Smith, Secretary  
April 1, 2014  
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capacity with the impervious areas draining to them. There is significant potential to address the state and local water quality goals by combining the efforts and funding of various agencies through this process.

Finally, I would like to ask that you identify a point of contact for issues that require a high level of coordination. This person would provide a way to make you aware of issues that come to our attention and have them addressed as efficiently as possible.

Thank you for your assistance in coordinating a joint response from MDOT that reflects coordination between MTA's and SHA's responses to the individual Planning Board/Parks Commission recommendations, as well as any necessary input from your staff. We request that these responses be provided to us within 45 days. If you have any questions or comments concerning our review, please do not hesitate to call me at 301-495-4605, or you may call David Anspacher of our staff at 301-495-2191.

Sincerely,  
  
Françoise M. Carrier  
Chair

**Attachments**

Attachment 1: Planning Board Comments to MTA  
Attachment 2: Planning Board Comments to SHA  
Attachment 3: Planning Board Comments to MCDOT

**Cc:**

Jamie Kendrick  
Mike Madden  
Stuart Montgomery  
Jeffrey Folden  
Sean Johnson  
Gary Erenrich  
Glenn Orlin

## **PURPLE LINE MANDATORY REFERRAL**

On March 20, 2014, the Planning Board made the following comments sitting as both the Planning Board and the Parks Commission. The Maryland Transit Administration (MTA) made numerous commitments to each individual park impacted by the Purple Line project. These commitments are identified and documented in the de minimis letters for each park, and these commitments are expected to be reflected by the FTA's Record of Decision due to be released at the end of March 2014. The following comments are in addition to those commitments.

### **General Comments**

Perhaps the greatest benefit but also the greatest challenge of a P3 process is that bidders have the opportunity to propose refinements to the project. The benefit is that proposals will be evaluated based upon a set of criteria, creating an incentive for bidders to propose innovative designs and to reduce costs and provide improvements to the project. The challenge is that only items that are specifically required by the RFP are binding on the bidders – all other elements of the project can be modified. As with any new project delivery approach there are challenges to be worked out, especially in the tight, urban context of the project. We are still learning what those challenges will be with the Purple Line. One issue that has emerged in the staff's review of the Purple Line is that due to the competitive procurement process, MTA is unable to publicly discuss what aspects of the project are binding in the RFP. The binding elements will not be made public until a preferred concessionaire is selected in late 2014.

- *In future P3 projects endeavor to provide greater assurance to the public and municipalities, before the final concessionaire is selected, about what aspects of the project are binding and what aspects of the project the bidding concessionaires have the opportunity to change. If the final design of this project or future projects changes in any substantial way from what has been presented to the Board for review, the requirement in State law for Mandatory Referral of the project will not have been met and MTA will need to resubmit the project for Mandatory Referral.*
- *Provide regular briefings to the Planning Board on the Purple Line project over the course of final design and construction, much as the State did for the Intercounty Connector project.*

Communities along the Purple Line corridor continue to voice concerns about location-specific aspects of the project. One example is the design of a highly visible power substation located on the north side of Wayne Avenue between Cloverfield Road and Greenbrier Drive. MTA, with the participation of Department staff, continues to work with the community to address this issue. Similar issues remain in other neighborhoods and will likely arise in other areas during project design and construction.

Therefore, MTA should:

- *Commit to regular meeting with neighborhood working groups throughout final design and construction of the projects to: 1) provide communities with regular updates, 2) hear community concerns with construction, 3) receive feedback on final design treatments.*
- *Consider design guidelines that have been approved or will be approved by the Montgomery County Planning Board for station areas (such as for the Bethesda CBD, Chevy Chase Lake Sector Plan, Silver Spring CBD, Long Branch Sector Plan, and Takoma Langley Crossroad Sector Plan) and community feedback for the design of retaining walls, traction power substations, catenary poles and wires, and other structures that will have a visual presence.*



MTA has suggested that an objective analysis of pedestrian access is needed to determine whether station access is adequate, and has indicated that one such metric is multimodal level of service (including level of service evaluations for pedestrians, bicycles, transit, and automobiles). We agree that an objective measure would be useful, but to our knowledge only automobile level of service has been evaluated to date. We therefore request that MTA:

- *Conduct a multimodal level of service analysis within the immediate station areas. If deficiencies are identified, MTA, in coordination with MDOT, SHA, and MCDOT, should identify potential solutions and incorporate them into the Purple Line RFP.*

Pedestrian access to the Purple Line stations in Montgomery County can be improved, especially at the Lyttonsville, Woodside, and Piney Branch Road stations. In many locations sidewalks or paths are directly adjacent to the curb with minimum width sidewalks. Since pedestrian volumes around Purple Line stations will increase substantially once the Purple Line is operational, MTA should work with MCDOT and SHA to:

- *Commit to providing quality pedestrian and bicycle improvements between stations and the communities in their immediate vicinities.*
- *Conduct a thorough review of this project with the goal of meeting both AASHTO recommendations for pedestrian facilities as well as ADA Best Practices at a minimum.*
- *Identify near term and long term improvements to enhance station access.*

MTA should further support pedestrian and bicycle access to transit. One way to do this is to:

- *Establish a mechanism during the final design and construction phases of the Purple Line project to enable Montgomery County to supplement Purple Line funding to enhance pedestrian and bicycle station access in locations where additional infrastructure is needed. This will ensure efficient use of public funds and minimize post-Purple Line disruption.*

MTA's commitment to allowing bicycles on the light rail vehicles at all times recognizes the growing importance of bicycle access. In fact, the Purple Line / Red Line Urban Design Guidelines Draft (dated 9/12/2012) recommends installing a quantity of bicycle racks at every station that provides for a number of cyclists equal to 1% of anticipated daily transit ridership, but no less than eight bicycles. Therefore, MTA should:

- *Estimate the number of bicycle parking spaces needed at each station based on the Purple Line / Red Line Urban Design Guidelines and determine how many additional spaces are needed beyond what the Purple Line project can accommodate.*

This will assist Montgomery County in identifying additional locations for bicycle parking spaces during the development review and facility planning.

#### **General Parkland Comments**

The Purple Line impacts six parks and one park easement in Montgomery County. Some impacts are minor, while others are more significant. It is important that when MTA completes the Purple Line project that all parks be safe and functional for our park patrons and restored to park standards. Therefore:

- *All parks shall be restored to a condition that Parks considers fully functioning for long-term park usage following construction.*

### **Environmental Comments**

Interior forest clearing is proposed along the limits of disturbance (LOD) adjacent to Rock Creek Stream Valley Park. The LOD line jogs out in places furthering the impacts to the Rock Creek Stream Valley requiring additional clearing of interior forest, specimen trees and steep slopes. Therefore, MTA should further:

- *Minimize the clearing of forest along with its associated steep slopes and erodible soils.*

In addition:

- *Work with Montgomery County Planning staff to identify forest mitigation opportunities outside of parkland prior to approval of the Forest Conservation Plan.*

According to the FEIS there will be approximately 193 specimen trees (over 30" diameter at breast height 'DBH') removed and forest cleared within the Purple Line right-of-way in Montgomery County. In an effort to greater understand the final proposed impacts and mitigation measures taken by MTA, staff requests MTA:

- *Provide the draft Maryland Forest Conservation Plan when available for staff comment and information about the quantities proposed for forest clearing, specimen tree removal, and mitigation sites.*

The legends included on the landscape plans (Volume 1 starting on plan sheet #570) do not include a clear and consistent representation of which trees are proposed for removal, and which trees will be preserved. Therefore, MTA must:

- *Modify the landscape plans to clearly differentiate the trees that will be removed from the trees that are being proposed for planting.*
- *Provide native canopy cover landscape trees along the limits of disturbance as a replacement for the canopy tree loss due to the construction of the Purple Line. Canopy cover trees must reach a height of 50 feet or greater at maturity.*

There are a number of questions and concerns staff has regarding the selected tree and shrubs proposed as landscape planting along the Purple Line. There is significant inconsistency throughout the mandatory referral submission regarding the spacing of the proposed trees would like adjustments to the landscape plan for more consistency, uniformity, shading, habitat, and symmetry. Provide additional plantings throughout the Purple Line particularly in the following locations:

- *Provide uniform tree planting spacing (35'-40' on center) and additional native canopy tree cover in the following areas within the Limits of Disturbance, where feasible:*

*South Side of Purple Line within the LOD at stations:*

- *111+00 to 145+00*
- *183+00 to 194+00*
- *235+00 to 236+00 (outfall)*
- *238+00 to 239+00*
- *242+00 to 243+00*
- *258+00 to 265+00*
- *296+00 to 297+00 (plant along newly graded bank on the west side of 16th Street)*

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- 358+00 to 395+00
- 401+00 to 408+00
- 428+00 to 432+50
- 435+50 to 440+50
- 445+00 to 446+00
- 461+00 to 502+00 (University Boulevard)

*North Side of Purple Line within the LOD at stations:*

- 135+00 to 147+00
- 183+00 to 194+00
- 196+00 to 206+00
- 219+00 to 237+00 (behind the Montgomery County bus depot )
- 258+00 to 264+00
- 265+00 to 267+00
- 280+00 to 292+00
- 304+00 to 309+50
- 321+50 to 324+00
- 330+00 to 332+00
- 358+00 to 395+00
- 401+00 to 408+00
- 435+50 to 440+50
- 445+00 to 446+00
- 461+00 to 502+00 (University Boulevard)

- *Work with property owners to plant additional native trees, flowering trees, or shrubs on their private property as buffers to the Purple Line in the following locations:*
  - *North side of the Purple Line from station 119+00 to 127+00*
  - *South side of the Purple Line from station 111+00 to 132+00*
  - *North and south side of the Purple Line at stations 349+00 to 352+00*
- *Staff requests MTA collaborate with Columbia Country Club for tree replacement locations and species preferences as there are numerous trees being removed and planting proposed which may further affect the view and experience of the Club members.*

MTA should strive to recreate the natural stratified structure of forests when replanting natural areas. These plantings should follow the document titled "Natural Resources Management Plan for M-NCPPC Parkland in Montgomery County." Therefore, MTA should:

- *Collaborate with M-NCPPC Parks Department to provide acceptable plantings for stratified reforestation areas (non-mitigation sites) on parkland to include shrubs, flowering and canopy trees in the following Park natural areas: Rock Creek Stream Valley Park, Sligo Creek Stream Valley Park, Long Branch Stream Valley Park*

According to the FEIS, moderate noise impacts ranging from 50-80 dBA are projected during operations at seven single family residences and four apartment buildings. The noise exposure projected at these sites is due primarily to the sounding of horns required as the LRT approaches stations and grade crossings. If horns exposure is utilized, MTA must:

- *Demonstrate how the noise levels will either be abated, or be in compliance with federal noise requirements for the seven single family residences and four apartment buildings identified as M-23, M26, M-27A & M-28 in the FEIS (Noise Technical Report, page 20).*

The use of ESD's within the right-of-way is limited. In some instances, runoff from the Purple Line is not draining specifically into the ESD's shown on the plan. Therefore, MTA should:

- *Work with M-NCPPC and DEP staff to provide stormwater treatment, particularly by increasing the use of ESDs within the limit of disturbance.*

This is likely government's last best opportunity to improve existing water quality conditions in these down-county watersheds to comply with state and local water quality goals. The Purple Line project provides a mechanism to treat significant amounts of uncontrolled runoff within the project area that negatively affect receiving streams, including Sligo Creek and Long Branch. M-NCPPC staff believes that MTA, DEP, and M-NCPPC should cooperate in achieving this important goal.

- *While MTA is only required to meet minimum MDE standards for stormwater management ('SWM') on this project, there appear to be significant opportunities to retrofit existing untreated impervious areas that drain through the project area to help mitigate some of the existing water quality issues along this urban corridor. M-NCPPC requests that MTA view this as an opportunity to provide additional SWM treatment to these areas and continue to work with DEP and the Department of Parks to determine stormwater management opportunities within the impacted watershed.*
- *It is imperative that the design team identify ways to maximize on-site treatment, ensure impervious runoff is actually intercepted, and balance the treatment facility capacity with the impervious areas draining to them.*

Originally the Department of Parks was contacted by MTA for approval of a stream restoration and wetland mitigation site close to the headwaters of Rock Creek. Parks would prefer that MTA pursue mitigation opportunities as close to the point of project impact as possible. For example, Parks staff has identified two potential wetland creation projects, one in Rock Creek SVU 1 and one at Ken-Gar Palisades Local Park. Therefore, MTA should:

- *Continue to work with the Department of Parks and DEP to identify specific areas for compensatory wetland mitigation down-county and as close to the affected wetlands as possible.*
- *Continue to work with the Parks Department and DEP to identify specific areas for stream mitigation down-county and as close to the affected stream reach as possible.*
- *Provide occupancy sensors on all platforms to dim lighting to 50% when platform is vacant. This will reduce energy costs and lower glare to drivers and the neighborhood. (MTA)*
- *Plant grass as an ESD measure between and along the tracks where the line is parallel to the Capital Crescent Trail and where the tracks are in dedicated lanes and not on a bridge or in a tunnel.*

MTA has an opportunity to provide a unique identity for each station, both architecturally and historically, that will emphasize the unique characteristics of their respective community and are developing an Arts in Transit program.

- *A consistent approach to the architectural style of each station can be maintained for all of the Montgomery County stations; however, MTA could incorporate art as part of an Art in Transit program, interpretive signage and wayfinding, lighting and landscaping, and pavers and building materials that represent the historical context unique to that station.*
- *The aesthetic design of this project, including stations, materials, and finishes, should be consistent with the quality typical of major statewide and highly visible projects.*

The Purple Line project will introduce ancillary light rail structures, such as traction power substations and catenary poles and wire into neighborhoods along the corridor. These structures can have visual and noise impacts. Therefore, MTA should:

- *Continue to investigate visual and noise mitigation for three traction power substations located in residential areas in Lyttonsville (TPSS #4), Wayne Avenue (TPSS #6), and Long Branch (TPSS #7). Relocation and undergrounding should be considered for these substations. If these residential substations cannot be relocated or put underground, and for all other substations, MTA should consider additional mitigation for visual and noise impacts that are consistent with the setting, including landscaping, screening, designs that resemble single story homes and materials that resemble existing homes in the area.*
- *The catenary system used should minimize the visual impact. Other ancillary gear such as constant tension weights and electrical transmission cables should be covered or concealed within the pole structure.*

#### **Bethesda Station Area**

At this time there is no plan to construct the “alternative” Bethesda Station recommended in the Bethesda Purple Line Station Minor Master Plan Amendment, so the “default” station is the subject of this mandatory referral. MTA has indicated that it needs to know whether the Apex Building will be demolished by mid April 2014 to be able to construct the “alternative” station.

- *Should an agreement be made to demolish the Apex Building to allow an improved Bethesda station design to be built, MTA must submit the “alternative” station design to the Planning Board as a mandatory referral. The Planning Board commits to an expedited review of a Bethesda Station area mandatory referral.*

The Town of Chevy Chase continues to have concerns regarding impacts to Elm Street Urban Park and adjacent residences, noise impacts, and an access point to the Capital Crescent Trail. Therefore, MTA and MCDOT should:

- *Continue to work with the Town of Chevy Chase to address design refinements to the Purple Line and the Capital Crescent Trail to provide an additional grade-separated crossing of the trail and to reduce noise impacts and impacts to Elm Street Urban Park and residences adjacent to the park.*

#### **Connecticut Avenue Station Area**

The abutments on both sides of Connecticut Avenue are perpendicular to the Purple Line tracks, but create leftover trapezoidal sidewalk spaces under the bridge. Ideally, the abutments would parallel Connecticut Avenue, improving pedestrian security, avoiding areas for trash to collect, and framing the view along the avenue. While the abutments on the east side of Connecticut Avenue may be difficult to

shift, due to the location of the elevators and the platform, it appears more feasible to redesign the abutments on the west side of Connecticut Avenue. Therefore, MTA should:

- *If feasible, redesign the geometry of the abutments to be parallel to Connecticut Avenue, without narrowing pedestrian walkways.*
- *Provide wall-wash lighting along the abutment walls to enhance pedestrian safety.*

A 100-foot-wide underpass for Street B-1 beneath the tracks and the trail, with the additional width specifically for pedestrians and bicyclists using an enhanced linear open space, would be beneficial for the following reasons:

- It provides more light and air for people passing through it – pedestrians and bicyclists in particular. The passage will be more pleasant and comfortable to use.
- It allows more opportunity to create a stronger visual and physical connection between the proposed central open space on the north side and the proposed neighborhood park on the south side – contributing to a better network of open space
- It reduces the impact of the Purple Line as a barrier separating north and south – and creates a more welcoming passage for flow between the sides.
- It allows for higher visibility through the passage from either end consistent with Crime Prevention through Environmental Design (CPTED) principles.

Therefore, MTA should:

- *Construct a 100-foot-wide underpass for Street B-1 in the Chevy Chase Lake Sector Plan.*

A traction power substation will be located largely within the Georgetown Branch right-of-way, adjacent to the south side of the Purple Line tracks, about 200 feet west of Connecticut Avenue. There will be an access road that runs alongside the tracks with a driveway on Connecticut Avenue. To reduce the visual impact of the substation, MTA should:

- *Consider whether it is feasible to integrate the traction power substation at Connecticut Avenue into the elevated fill for the tracks and trail, with service doors along the retaining wall, to reduce visual impacts.*

As one of the original arterials leaving and entering Washington DC, MTA must make every effort to preserve the viewshed along Connecticut Avenue. Therefore, MTA should:

- *If feasible, redesign the Connecticut Avenue bridge structure to reduce visual obstructions both below and above the rail/trail bed. Staff suggests a shallow arch structure (or steel girder of similar profile if required) as the basis for design. This comment is consistent and more in keeping with the design intent indicated in the Chevy Chase Lake Master Plan. A similar design should also be considered for the proposed bridge over "New Street" just east of Connecticut Avenue.*

Direct access is needed to the Capital Crescent Trail from the east side of Street B-1 so that trail users can access the proposed "central park" without having to cross the street. Therefore, MTA should:

- *Design the trail to accommodate a stair on the north side of the trail and the east side of Street B-1, to be provided by developers at a future date.*

- *Given the adjacency to residential and public spaces, the fill retaining walls should be designed with visual articulation. One suggestion is to provide concrete arch niches with appropriate depth to incorporate future community art. Pilasters between the niches can incorporate masonry veneer or stamped concrete forms to resemble local brick or stone materials.*

### **Lyttonsville Station Area**

The Lyttonsville and Woodside Stations are part of the Greater Lyttonsville Sector Plan, now underway. Analysis for the sector plan area has identified potential issues that could affect redevelopment opportunities along Brookville Road and access for the Forest Glen Annex. Therefore, MTA should:

- *Create a mechanism during final design of the Purple Line to accommodate reasonable refinements at the Lyttonsville and Woodside stations that are identified during the preparation of the Greater Lyttonsville Sector Plan.*
- *Continue to work with the Planning Department during the Greater Lyttonsville sector planning process to accommodate the potential for improved access and community development.*

The Purple Line Functional Plan (page 19) recommends an elevator, stairs, and a ramp from Lyttonsville Place to the platform; however, the 30% engineering plans only show stairs and a ramp with an 8% grade. This elevator is important because it will assist people who are unable to use stairs or a steep ramp to access the station. Therefore, MTA should:

- *Provide an elevator on the east side of the Lyttonsville Lane Bridge leading down to the platform centerline, consistent with the Purple Line Functional Plan.*

The redesign of the Lyttonsville maintenance yard improves the redevelopment opportunities along Brookville Road. However, two issues remain that continue to limit redevelopment potential. First, there remains a small access driveway to the maintenance facility located just east of Lyttonsville Place Bridge, at the corner with Brookville Road. This driveway is located in perhaps the most likely area for redevelopment due to its proximity to the Lyttonsville Station and because it has the greatest depth of any parcel on the south side of Brookville Road. Second, the current design does not take advantage of the significant workforce (approximately 2,400 employees and an unknown number of visitors) located at the Forest Glen Annex of Fort Detrick, located just a few blocks away. Current designs envision access to the station from the Forest Glen Annex via Stewart Avenue and the Capital Crescent Trail, completely bypassing Brookville Road.

Consultants to MTA developed three concepts for providing pedestrian access to Lyttonsville Station from Brookville Road. Once the feasibility of these concepts has been evaluated by MTA, and in consultation with Planning Department staff, MTA should revise the 30% engineering plans to permit the pedestrian connection to be added with minimal disruption to the Purple Line. Therefore, MTA should:

- *Adjust the overhead catenary system poles and downguy locations at the Lyttonsville Station to accommodate the three identified alternatives for station access from Brookville Road. Locate the track crossovers just to the east of the Lyttonsville station platform to not preclude a future access point from Brookville Road.*
- *Conduct final design for station access from Brookville Road to the Lyttonsville Station platform based on feedback from the Planning Department.*

Additionally, to enhance redevelopment opportunities:

- *Include criteria in the Purple Line RFP that incentivizes a further reduction in the size of the Lyttonsville maintenance yard and shop, to avoid impacts to the northeast of the Lyttonsville Place Bridge.*

A traction power substation (TPSS #3) will be located in the Georgetown Branch right-of-way, in an industrial area between Rock Creek Park and Ride On bus depot. To fit this substation into the context of the area:

- *TPSS #3 should be screened in accordance with the wooded surroundings. At a minimum, a masonry exterior, screening of all exterior roof systems, and a board-on-board fence rather than a chain link fence surrounding the structure must be provided to properly blend with the wooded surroundings.*

A traction power substation (TPSS #4) will be located on land owned by CSX Transportation, at the end of Kansas Avenue adjacent to a residential neighborhood. While MTA plans to screen the substation, its location in a residential area is undesirable. There is industrial land on the other side of the Purple Line tracks that is more suitable for the substation. Therefore, MTA should:

- *Continue to investigate shifting the location of TPSS #4 just to the north in the area bounded by the Georgetown Branch, the Metropolitan Branch, and the industrial property. If the substation cannot be relocated, MTA should design a substation that resembles a single story home with materials that resemble the existing homes in the area.*

Additional Lyttonsville station area comments include:

- *The Lyttonsville Station and associated trail, stair, and ramp access should be designed to reflect their status as community landmarks, incorporating public art that depicts the cultural and historic features of the community. Particular emphasis should be placed on Lyttonsville's African American heritage. Staff recommends that Art in Transit funds be utilized for the entry canopy at the top of the Lyttonsville Place Bridge to the pedestrian ramp in order to provide a memorial, historical marker, and community information boards. This area could also contain directional maps of the Lyttonsville area. Furthermore, the retaining walls can be made available for public art to call attention to the natural and social history of Greater Lyttonsville.*
- *Utilize all opportunities for spot landscaping along the retaining wall and sound barriers along the Capital Crescent Trail to reduce their apparent size and intrusiveness on the neighborhood.*
- *The glazing shown on the staircase from Lyttonsville Place to the Purple Line platform (see Volume 7, Plan Sheets 167 and 169) must be designed to allow maximum light infiltration and to be transparent from the platform to ensure "eyes on the street" or in this case, "eyes on the stairs" for essential safety precautions, in conformance with Crime Prevention through Environmental Design (CPTED) guidelines.*
- *The maintenance and operations building must meet or exceed LEED Silver ratings as required for all commercial structures in Montgomery County.*

#### **Silver Spring Transit Center Station Area**

The Purple Line Functional Plan (page 27) recommends a direct connection between the Red Line and the Purple Line. MTA has made design provisions for a future direct connection between the Purple Line and Red Line, but this connection is estimated by WMATA to cost about \$27.9 million and is unfunded. The marginal cost to add the direct connection may be less than \$27.9 million, if its provision would



reduce the need for some of the vertical circulation planned between the Silver Spring Transit Center and the Purple Line and the CSX/Red Line/MARC tracks. Therefore, MTA should:

- *Assess whether any of the vertical circulation between the Silver Spring Transit Center and the CSX/Red Line/MARC could be reduced if a direct connection between the Red Line and Purple Line were constructed as part of the Purple Line, and therefore what the marginal cost would be to add the direct connection.*

Ease of transfers between transit lines plays an important role in encouraging people to use public transportation. Under existing plans, passengers transferring between the Purple Line and the Red Line will have to descend 80 feet to street level and then ascend about 25 feet to the Red Line tracks. This will increase travel time for passengers and create additional pedestrian congestion in the vertical circulation for the Red Line and Purple Line. With the future direct connection passengers will avoid using the vertical circulation column between the Red Line and the Purple Line. Therefore, MTA should:

- *Design and construct a convenient direct connection between the Red Line and the Purple Line at the Silver Spring Transit Center station.*

Purple Line passengers with disabilities accessing the station from street level must take two elevators to get to the platform, transferring at the mezzanine level. This increases their travel time. Therefore:

- *At the Silver Spring Transit Center provide a more direct connection from street level to the Purple Line platform for passengers needing elevator access.*

Users of the Capital Crescent Trail have to travel to the east end of the station to access the mezzanine, but it appears that direct access from the trail to the mezzanine could be provided from the trail. Therefore, in coordination with MCDOT, MTA should:

- *Evaluate whether it is possible to provide direct access to the Purple Line mezzanine from the Capital Crescent Trail to the east of the escalator.*

In addition, as a major transfer station for the Red Line, Purple Line, and buses, Silver Spring will require a substantial number of bicycle parking spaces. A recent study conducted by Toole Design Group evaluated several locations for a full service bicycle parking station in the vicinity of the Silver Spring Transit Center. One of the more promising locations is at 1110 Bonifant Street, an office building that MTA will demolish to construct the Purple Line. A remnant of the parcel is planned to be used for stormwater management, but MTA has indicated that it could easily be relocated offsite. Therefore, MTA should:

- *Relocate the stormwater management facility proposed on the remnant of 1110 Bonifant Street to an offsite location. After completion of the Purple Line, the County should be given first right of refusal to use of the remnants of this parcel for the Silver Spring Bicycle Parking Facility.*

A traction power substation (TPSS #5) will be located in the existing Metro Plaza commercial area, located off East-West Highway. It will be adjacent to a WMATA substation, in the location of the existing FedEx store. There will be a driveway off of East-West Highway.

- *The design of TPSS #5 should allow air rights over the substation so that future development can fully utilize the CBD-3 density allowed at this location.*

The existing Silver Spring Metrorail station will be at a considerably lower elevation than the Purple Line platform and mezzanine, but experiences high winds and driving rains under current conditions. The greater height of the Purple Line may exacerbate these conditions. Therefore, MTA should:

- *Determine whether the addition of the Purple Line above the Red Line station will exacerbate the high winds and driving rains at the Metrorail station. If this is likely to occur, MTA should modify its station design to reduce the effect.*

#### **Silver Spring Transit Center Plaza Easement**

The Purple Line and Capital Crescent Trail projects cross over a park easement at the Silver Spring Transit Center (SSTC). This was anticipated as part of the MOU between M-NCPPC and WMATA that governs the park easement exchange required to construct the SSTC. Parks recognizes the two projects are important, but we ask that MTA minimize disruptions to the park easement and entrance to the Metro station.

- *MTA and the Department of Parks agree to work collaboratively to ensure a high quality design is achieved, utilizing materials previously approved for use within the Transit Plaza Easement Area, (as identified in Exhibit E of the MOU), for this important, heavily used civic space. Special consideration shall be given to locating features associated with the Purple Line construction so as not to render the Transit Plaza Easement Area ineffectual as open space, or limit its intended use for ingress and egress from the Transit Center, or as an attractive portal to downtown Silver Spring.*

#### **Silver Spring Library Station Area**

It appears that the proposed utility modules will constrict pedestrian circulation on the platforms and handicap ramps. In the worst location, the distance between the face of the pole and the edge of the platform would be six feet; the distance between the pole and the edge of the tactile paving would be less than four feet. In addition to being an annoyance to transit patrons, requiring them to squeeze through tight spaces may cause a safety problem given the drop-off at the platform edge. Therefore:

- *At the Silver Spring Library Station: 1) Confirm that the proposed utility modules will not create an unacceptable conflict and safety problem with pedestrian access, 2) Continue to coordinate with the library on the issue of lighting and investigate whether attaching fixtures to the building overhang at the station is a feasible option, and 3) Eliminate the utility modules/poles on the platform where pedestrian circulation is most constrained and relocate their operable features to other poles wherever possible.*

#### **Wayne Avenue**

Wayne Avenue is a prominent residential street and a gateway to Silver Spring. To mitigate the impacts resulting from the Purple Line, MTA should develop a package of improvements for Wayne Avenue, including:

- *Underground existing utilities on Wayne Avenue. Street lights should be affixed to the catenary line overhead. Pedestrian lighting on either side of Wayne Avenue should use Washington Globe street lights required by the Silver Spring Streetscape Standards. This same detail should be used for any other specified pedestrian scale lighting along the Purple Line in Silver Spring, including*

*the bridge over Sligo Creek. All specified fixtures, fastenings, and finishes should be submitted to M-NCPPC for review.*

- *At the school property the retaining wall ranges from 10 feet to 15 feet high. Consider terracing the wall as two 5-foot to 7-foot high walls, where space permits, in order to reduce the visual impact of one large wall adjacent to sidewalk. Also consider using metal square-tube guardrail instead to lessen the impact of the retaining wall on pedestrians.*
- *On Wayne Avenue, where a solid extension of the retaining wall is used as a vehicular guardrail, use metal square-tube guardrail instead to lessen the impact of the retaining wall for pedestrians.*

#### **Dale Drive Station Area**

While the pedestrian space is at almost the bare minimum on the south side at Wayne Avenue, the intersection at Wayne Avenue and Dale Drive is proposed to add a turn lane in each direction. Therefore, in coordination with MCDOT:

- *The intersection of Wayne Avenue and Dale Drive should be changed to eliminate these turn lanes in favor of providing a dedicated transit lane in the eastbound direction, shifting the platform one lane to the north and creating a pedestrian refuge on the west leg of the intersection.*

At the Dale Drive Station make the following changes:

- *Provide bollards along the edge of the pedestrian refuge located between the crosswalk and the tracks to deter cars from deliberately or accidentally driving up onto the platform ramp. They will also serve as a physical caution before entering the track or street.*

MTA proposes a directional pylon at the northeast corner of Wayne Avenue and Dale Drive to inform passengers of the location of the Purple Line Station, but not at the southeast corner.

- *At the Dale Drive Station, provide a pylon at the southeast corner of the intersection of Wayne Avenue and Dale Drive.*

#### **Sligo Creek Stream Valley Park**

The ultimate right-of-way for Wayne Avenue to accommodate both the Purple Line and the Silver Spring Green Trail impacts the Sligo Cabin parking lot.

- *The Purple Line and Silver Spring Green Trail construction will require the reconstruction of the existing Sligo Cabin parking lot to safely reestablish the maximum number of parking spaces practicable and interconnections with the playground, hiker/biker trail, and track area. All reconstructed areas shall meet SWM regulations and be ADA-compliant. Contrary to MTA's language in the de minimis letters, and in the interest of improving existing water quality in the project area, Parks will allow underground SWM below the reconstructed parking lot to help MTA provide better SWM treatment for the upstream drainage area.*
- *MTA will work with Parks to develop the full design of the Sligo Creek Trail along and across Wayne Avenue including signage, safe road crossing, and functional interconnections at each end. The current design shows a path width of 8'9" over the bridge, while M-NCPPC has expressed a goal of providing a width of up to 14-feet. The Interagency Work Group will review*

*design options with the goal of achieving a wider trail section along the Wayne Avenue bridge structure up to a maximum width of 14-feet.*

- *The extent of construction required to functionally restore the parking lot at Sligo Cabin Park is unclear based on the drawings submitted with the Mandatory Referrak. The drawings do indicate storm drain construction in close proximity to the existing track and associated features, and MTA will be required to functionally restore affected facilities to a condition Parks and MCPS consider acceptable.*
- *Design the retaining walls, bridge barriers, handrails, fences and guardrails at the Sligo Creek Stream Valley Park with aesthetic consideration for park and trail users, in consultation with M-NCPPC, Montgomery County Department of Parks.*
- *Increase the amount of proposed landscaping for the Sligo Creek Stream Valley Park, in consultation with M-NCPPC, Montgomery County Department of Parks.*

### **Manchester Place Station Area**

It is dangerous for cyclists to cross embedded tracks at less than a 45 degree angle because their wheels can get caught in the tracks. Since the angle of the tracks is less than 45 degrees as the Purple Line tracks leave Wayne Avenue and enters the Manchester Place Station, MTA plans to provide a road sign for on-road bicycles traveling north on Wayne Ave to dismount their bikes. However, all roads should be bikeable. Therefore, MTA should:

- *Continue to explore ways for cyclists traveling on Wayne Avenue to cross the Purple Line tracks at a 60 to 90 degree angle.*

### **Long Branch Station Area**

The Long Branch Sector Plan recommended a full-movement intersection on Arliss Street just north of the Long Branch Station platform, to facilitate access into the Town Center site. Therefore, in coordination with MCDOT and the Washington Real Estate Investment Trust (WRIT):

- *Provide for a future northbound left turn lane into the Long Branch Town Center by either: 1) repurposing the northern portion of the proposed southbound left turn lane from Arliss Street to Piney Branch Road, or 2) adding a northbound left turn lane from Piney Branch Road to the Town Center.*

Additionally, there is a portal to the Plymouth Avenue tunnel located on Arliss Street. MTA is not planning to install physical barriers that prevent people from walking into the tunnel, but mentioned the possibility of alarms that would sound if someone enters the portal. MTA should:

- *Continue to evaluate ways to reduce the likelihood that people will enter the Arliss Street portal.*

### **Piney Branch Road**

While the Purple Line Functional Plan (page 37) recommends implementing sidewalks that are at least 6 feet wide on Piney Branch Road as part of the Purple Line project and the Long Branch Sector Plan recommends implementing a combined sidewalk and buffer area that is 15 feet wide as part of redevelopment, MTA is proposing to provide only 5-foot sidewalks with no buffers from the road and is reluctant to acquire additional right-of-way to widen the sidewalks. Five-foot-wide sidewalks adjacent to the curb are unacceptable in a station area, failing to meet not only the above master plan recommendations, but also AASHTO recommendations, ADA Best Practices, and even SHA's own guidelines. Opportunities for improving the sidewalks where there is publicly owned land, such as the Long Branch Community Center, the Miles Glass property, Long Branch Local Park, and Long Branch Stream Valley Park should be explored. In addition, while the sidewalks as proposed are close to existing buildings, there appears to be additional space where the sidewalks could be widened, though this would require property acquisition. Therefore, SHA and MTA should work together to:

- *Construct the sidewalks on Piney Branch Road to be a minimum of 6 feet wide with a three-foot-wide landscaped offset, or ten feet where adjacent to the curb, but evaluate where the sidewalks can be further widened.*
- *Along the frontage of publicly owned property, construct the sidewalks to be 15 feet wide per the Long Branch Sector Plan Design Guidelines.*

In addition, MTA should:

- *Extend the Piney Branch Road culvert at Long Branch to permit future construction of a 10-foot-wide sidewalk.*

The sidewalks on Piney Branch Road to the west of Arliss Street are obstructed with street lights, bus shelters, and utility poles. The proposed five-foot-wide sidewalks that are immediately adjacent to the curb in the Long Branch commercial area are inadequate. AASHTO recommends ten-foot-wide-sidewalks along arterials in business districts where the sidewalk is adjacent to the curb. The large parking lot on the north side of the road appears to have wide drive aisles that could be reduced in width to achieve additional space for sidewalks. Therefore, MTA should coordinate with SHA to:

- *Increase the width of the sidewalks on the north side of Piney Branch Road, between the Flower Theater and Arliss Street, to 10 feet by reconfiguring the parking lot.*

### **Long Branch Stream Valley Park**

It is our understanding that MTA has agreed to establish the Interagency Working Group (IWG) to address complex issues affecting SWM, trail infrastructure, stream crossings, environmental mitigation and various master plan issues. M-NCPPC staff envisions that the IWG will be comprised of, but not limited to, representatives from the following departments/agencies: MCDEP, MCDOT, M-NCPPC Parks, M-NCPPC Planning, MDE, MDDNR, USACOE, USFWS and NCPC.

- *The Interagency Work Group will further study and recommend appropriate designs for modification of the existing stream crossing under Piney Branch Road, with the goal of creating an environmentally sensitive stream crossing and providing upstream and downstream channel improvements to establish long-term stream stability and fish passage.*
- *MTA will need to provide a non-native invasive (NNI) management plan for long-term eradication.*

### **Long Branch Local Park**

- *MTA will close the old parking lot entrance along Piney Branch Road and construct a new park entrance to align with the Barron Street intersection and functionally interconnect to the existing parking lot, including entrance sign relocation, pavement removal, and appropriate landscape planting. Stormwater treatment will be provided for the new park entrance and Long Branch Trail extension.*
- *MTA will reestablish the Long Branch Trail to cross Piney Branch Road at Barron Street and parallel the new park entrance road into the Long Branch site, including signage, safe road crossing, and functional interconnections at each end of trail.*
- *One issue that is going to require interagency cooperation to resolve involves the left turn into the park. While the new driveway entrance into the park permits left turns out of the park, there are no provisions at this time to permit left turns in. To accommodate left turns in, one of two things will need to happen: 1) MTA and SHA will provide a dedicated left-turn lane from east-bound Piney Branch Road; or 2) MTA and SHA will allow left turns into the park from the left travel lane. Solution #1 is unlikely due to space constraints along Piney Branch Road; other roadway/pedestrian/park trail improvements will need any new space gained along this road as part of redevelopment. Solution #2 continues to be studied by MTA. It is possible that left turns into the park could be permitted during specific peak-periods (such as swim meets, community events, etc.).*

### **Piney Branch Road Station Area**

The Long Branch Sector Plan recommends a new traffic signal, a future shared use path (SP-79) along Gilbert Street and Gilbert Street Extended, and access to the southern end of the Piney Branch Station at the intersection of Gilbert Street and University Boulevard. At this time the State Highway Administration has not agreed to provide a traffic signal at this location, but that should not forestall planning for a future where a traffic signal is permitted. Therefore, MTA should:

- *Include design allowances in the RFP to enable access to the station from Gilbert Street, via a walkway up the middle of University Boulevard, once the intersection is signalized.*
- *Embed the Purple Line tracks at the intersection of University Boulevard and Gilbert Street.*

### **University Boulevard**

Per its policy, SHA is requiring that the Purple Line project include bike lanes on University Boulevard, however bike lanes do not provide sufficient protection to attract cyclists with a wide range of abilities on a busy state highway with a posted speed limit of 40 mph. Buffered bike lanes and cycle tracks are widely regarded as superior facilities to bike lanes in this environment. At a minimum SHA should require MTA to provide a striped buffer between the bike lanes and traffic (buffered bike lanes), though a physical separation from traffic is preferable (cycle tracks).

We understand that SHA is reconsidering its policy on bicycle lanes, as evidenced by the Maryland Twenty-Year Pedestrian and Bicycle Plan finalized in January 2014. An objective of the plan (page 32) is to “Encourage the use of existing processes to implement pilot projects on State roadways to test innovative design treatments such as cycle tracks, colored bike lanes, and new pedestrian crossing treatments, following a context sensitive design approach.” The Purple Line project provides a rare opportunity to prioritize bicycling on a major urban thoroughfare. While bike lanes are an improvement over existing conditions, a treatment with greater protection for cyclists is needed. SHA should consider conducting a pilot project on University Boulevard as part of the Purple Line to implement cycle tracks or buffered bike lanes where there is sufficient right-of-way. Therefore, in coordination with SHA, MTA should:

- *Construct cycle tracks or buffered bike lanes on University Boulevard where right-of-way is available, and transition from the cycle tracks or buffered bike lanes to regular bicycle lanes where the right-of-way is constrained.*

If the state is not willing to construct cycle tracks or buffered bike lanes as part of the Purple Line, then the typical section should include the off-road shared use path per the Long Branch Sector Plan and Takoma/Langley Crossroads Sector Plan. Therefore:

- *If there is not agreement to construct cycle tracks (or buffered bike lanes) in place of standard on-road bike lanes, provide 8-foot-shared use paths along both sides of University Boulevard where right-of-way is available. Where sufficient space is not available, the shared use path should transition into a sidewalk.*

MTA will also be installing several structures along University Boulevard, including traction power substations, signal boxes, and parking lots. These structures should not be constructed within the area designated for bikeway and streetscape improvements.

- *On both sides of University Boulevard grade and keep clear of structures a 23-foot-wide area adjacent to the curb, where right-of-way is available or property acquisitions occur, to accommodate the 8-foot-wide cycle track and a 15-foot sidewalk area. If SHA agrees to permit the construction of cycle tracks, the clear width can be reduced to 18 feet.*

The Countywide Transit Corridors Functional Master Plan (page 55) recommends providing two dedicated lanes for bus rapid transit (BRT) on University Boulevard, without adding lanes to the road. Though not explicitly stated, the recommendation is for BRT to share the Purple Line transitway. One impediment to sharing the transitway is that the Purple Line as currently planned will run on “ballast” tracks that are raised above the surface of the street. For this to be a shared transitway, the tracks will have to be “embedded” in the transitway. MTA recently prepared a draft white paper evaluating the constraints with embedding the tracks on University Boulevard. Planning staff appreciates MTA’s concerns but believe that this issue should be explored further. The benefits of sharing the transitway would have to outweigh the impacts to the Purple Line to support this recommendation, but since a definitive case has not yet been made that the Purple Line should have sole use of the track area, MTA should:

- *Embed the Purple Line tracks in the pavement on University Boulevard so that the Purple Line transitway can be shared with a future bus rapid transit service.*

The intersection of the Carroll Avenue and University Boulevard within the Long Branch Sector Plan area is heavily traveled by vehicles and pedestrians. It is within walking distance of three elementary/middle schools. At present, the planned Purple Line is accommodating pedestrian crossings at only three of the four legs of this intersection. Staff is concerned that the proposed crossings create a circuitous route for pedestrians making east/west movements through the intersection. This community has a large number of children and transit dependent residents so any proposed improvements should take into account the need for efficient pedestrian connections. Additionally, Long Branch has experienced a number of pedestrian and vehicular incidents in the past and the Long Branch Sector Plan has proposed that it be improved with a variety of pedestrian safety measures. The current plan submitted by MTA does not allow for full crossing movements at this intersection and may encourage residents to make unsafe choices rather than use the proposed marked pedestrian crossings. Therefore, MTA should:

- *Provide an analysis of pedestrian circulation between the existing New Hampshire Estates, Rolling Terrace and Takoma Academy schools and the surrounding community to ensure that safe, adequate and efficient pedestrian connections are provided in each direction at the intersection of Carroll Avenue and University Boulevard.*

#### **New Hampshire Estates Neighborhood Park**

The Planning Board/Parks Commission will discuss parkland replacement during a closed session (not public) at its meeting on April 3rd. MTA should expect additional comments from the Board immediately following. In addition:

- *Access to all park facilities will be maintained throughout construction. Temporary parking facilities to replace the existing parking lot shall be provided off Piney Branch Road prior to the closure of the existing lot. The temporary parking lot shall be ADA-compliant and functionally interconnected with existing park facilities.*
- *MTA will replace long-term on-site parking consistent with existing facilities based on concept plans to be provided by the Department of Parks, which demonstrates full restoration of all park*



*amenities impacted by the Purple Line construction, including the removal of all abandoned infrastructure due to reconstruction.*

- *Protect existing trees in the park.*
- *Reestablish the park pedestrian entrance from University Boulevard.*

#### **Takoma Langley Transit Center Station Area**

The Takoma Langley Crossroads Sector Plan was approved in June 2012 by the Montgomery County Council. A Takoma Langley Crossroads Sector Plan was also approved by Prince George's County. The sector plans in both counties recommend evaluating a future realignment of Lebanon Street in Prince George's County with Anne Street in Montgomery County as part of the redevelopment of the block bounded by Lebanon Street, New Hampshire Avenue, and University Boulevard.

The Takoma Langley Crossroads Sector Plan (page 35) recommends a new signalized intersection for Street B-2 at one of two places: 1) the intersection of University Boulevard/Edwards Place is preferred by Planning Department staff for through traffic movements, and 2) the intersection of University Boulevard/just west of Edwards Place is preferred by a property owner for access and is currently proposed by MTA.

- *If the decision is made not to embed the tracks for the whole length of University Boulevard, then they should be embedded at all intersections for vehicular, pedestrian, and bicycle access.*

In particular,

- *Embed the Purple Line tracks at the intersection of: 1) University Boulevard and Anne Street and 2) University Boulevard and Edwards Place.*

**CAPITAL CRESCENT TRAIL MANDATORY REFERRAL**

The Purple Line is expected to begin construction in 2015 and to begin service in 2020. This will mean that the Capital Crescent Trail could be out of service for as much as 5 years. The County T&E Committee asked MCDOT to develop a detour plan during their work session on February 24, 2014. Staff supports this request, and furthermore requests that MTA include incentives to minimize disruption to the trail.

- *The Purple Line RFP should provide a strong incentive to keeping the trail closure to a minimum and phase trail closures in a logical sequence, consistent with construction phasing/schedules.*