

NPS-16

Transmittal of Updated Draft Construction Work Plan for the PATH Project by PATH Allegheny Transmission Company, LLC; PATH West Virginia Transmission Company, PATH Allegheny Virginia Transmission Corporation; PATH Allegheny Maryland Transmission Company, LLC and The Potomac Edison Company

Date: May 27, 2010

NPS-16: Attached to this transmittal is a revised Draft Construction Work Plan and complete set of supporting attachments for the PATH Project crossing of NPS properties. This transmittal reflects the completion of the PATH Companies work on three outstanding matters, development of a draft landscape plan, explanation of planned erosion and sediment control procedures and drafting of right-of-way clearing and maintenance specifications. In NPS-3, the PATH Companies provided an earlier version of the Draft Construction Work Plan and certain attachments. Further, other attachments such as the project map, easement agreements and visual simulations have been transmitted to the NPS as part of the right-of-way application as well as under other prior submissions. In order to facilitate NPS review, we are providing a complete and updated set of all of the draft materials. Accordingly, NPS-16 is comprised of the documents noted below.

Draft Construction Work Plan (*Revised 5/26/10*)

Attachment A – Project Map

Attachment B – Transmission Line Construction Work Area and Access Maps

Attachment C – Easement Agreements

Attachment D – Plan and Profile Drawings

Attachment E – Structure Diagrams and Visual Simulations

Attachment F – Erosion and Sediment Control Specifications

Attachment G – Warning Signage

Attachment H – Landscape Plan

**Attachment I – PATH Project Right-of-Way Clearing and Maintenance
Specifications**

Consistent with the discussions of the parties, the PATH Companies wish to work with the NPS on development and refinement of the Construction Work Plan and would greatly appreciate your review and comment on this version.

PATH PROJECT CONSTRUCTION PLAN

for the

**APPALACHIAN NATIONAL SCENIC TRAIL,
CHESAPEAKE & OHIO CANAL NATIONAL HISTORICAL PARK
AND HARPERS FERRY NATIONAL HISTORICAL PARK**

**Jefferson County, West Virginia,
Loudoun County, Virginia and
Frederick County, Maryland**

Revision 2: May 26, 2010

Prepared on behalf of

**PATH Allegheny Transmission Company, LLC,
PATH West Virginia Transmission Company,
PATH Allegheny Virginia Transmission Corporation,
PATH Allegheny Maryland Transmission Company, LLC and
The Potomac Edison Company
800 Cabin Hill Drive
Greensburg, PA 15601**

TABLE OF CONTENTS

1. INTRODUCTION AND OVERVIEW 2

2. CONSTRUCTION PLAN SCOPE OF WORK..... 2

3. GUIDELINES FOR CONSTRUCTION PLAN DEVELOPMENT 4

4. PROPOSED RIGHT-OF-WAY AND STRUCTURE LOCATIONS 4

5. CONSTRUCTION PROCEDURES FOR NPS PROPERTIES 6

6. NOTIFICATIONS AND COORDINATION WITH THE NPS 7

 6.1. Pre-Construction Notice and Conference..... 7

 6.2. Notification Required Prior to Entry onto NPS Properties 7

 6.3. Coordination with NPS Representatives, Inspection, and Issue Resolution 8

7. GENERAL CONSTRUCTION PROCEDURES 9

 7.1. Construction Method and General Schedule..... 9

 7.2. Line and Right-of-Way Maintenance..... 11

 7.3. Watercourse and Wetland Crossings 11

 7.4. Wild Fire Prevention Measures..... 11

 7.5. Storage and Disposal of Waste and Construction Materials / Equipment 12

 7.6. Cultural Resource Protection 12

 7.7. Stormwater Pollution Prevention Plan..... 12

 7.8. Erosion and Sedimentation Control Plan 13

8. APPALACHIAN TRAIL AND C&O CANAL CROSSING SAFETY AND PUBLIC ACCESS PROCEDURES 13

9. RESTORATION, RECLAMATION, LANDSCAPING AND VEHICULAR ACCESS CONTROL..... 15

 9.1. Restoration and Reclamation of the Right-of-Way 15

 9.2. Landscape Plan 15

 9.3. ATV Deterrent Plan 15

ATTACHMENTS

- A. PROJECT MAP
- B. PROPOSED CROSSING OF THE APPALACHIAN TRAIL AND HARPERS FERRY NHP
- C. EASEMENT AGREEMENTS
- D. PLAN AND PROFILE DRAWINGS
- E. STRUCTURE DIAGRAMS AND VISUAL SIMULATIONS
- F. EROSION AND SEDIMENT CONTROL SPECIFICATIONS
- G. WARNING SIGNAGE
- H. LANDSCAPE PLAN
- I. PATH PROJECT RIGHT-OF-WAY CLEARING AND MAINTENANCE SPECIFICATIONS

1. INTRODUCTION AND OVERVIEW

PATH Allegheny Transmission Company, LLC (PATH-Allegheny), PATH West Virginia Transmission Company, LLC, PATH Allegheny Virginia Transmission Corporation (PATH-VA), PATH Allegheny Maryland Transmission Company, LLC (PATH-MD) and The Potomac Edison Company (Potomac Edison)¹ propose to construct a new, approximately 276-mile, 765 kilovolt (kV) transmission line (the PATH Project) across West Virginia, Virginia and Maryland (see Project Map, Attachment A). With regard to the project, PATH-Allegheny, PATH-VA and Potomac Edison have filed an “Application for Transportation and Utility System and Facilities on Federal Lands” with the National Park Service (NPS) to cross the Appalachian National Scenic Trail (Appalachian Trail) and Harpers Ferry National Historical Park (Harpers Ferry NHP) and PATH-Allegheny has filed such application with the NPS to cross the Chesapeake & Ohio Canal National Historical Park (C&O Canal). (PATH-Allegheny, PATH-VA and Potomac Edison will be referred to herein collectively as the “Applicants.”)

In addition, construction permits and/or authorizations for road, stream, and railroad crossings will be requested from all authorizing entities. Among the governmental and private entities that may issue permits or otherwise authorize construction activities associated with the PATH Project are: Virginia Department of Transportation, Virginia Marine Resources Commission, Virginia Department of Environmental Quality, Virginia Department of Conservation and Recreation, Virginia Dept of Game and Inland Fisheries, Virginia Outdoors Foundation, Virginia Dept of Agriculture and Consumer Services, the Maryland Department of Transportation, Maryland Department of Natural Resources, Maryland Division of Environmental Management, Maryland Historical Trust, Maryland Department of Transportation, Maryland Department of Agriculture, West Virginia Department of Environmental Protection, West Virginia Public Land Corporation, West Virginia Department of Transportation, West Virginia Historical and Museum Commission, West Virginia Division of Natural Resources, the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Federal Aviation Administration, U.S. Environmental Protection Agency, Norfolk Southern Railroad, county and municipal agencies as required.

2. CONSTRUCTION PLAN SCOPE OF WORK

This Construction Plan addresses work related to the construction of the PATH Project that will take place on NPS property at the C&O Canal, Appalachian Trail and Harpers Ferry NHP. In particular, the parcels covered by this Construction Plan are:

- Harpers Ferry NHP and Appalachian Trail crossing – consisting of approximately 1,820 feet or 0.34 mile traversing in the eastern portion of Jefferson County, West Virginia and the northwest portion of Loudon County, Virginia;

¹ PATH-VA and PATH-MD are wholly-owned subsidiaries of PATH-Allegheny. The portion of the PATH Project to be constructed in Jefferson County, West Virginia will be constructed, owned and operated by PATH-Allegheny. The portion of the project to be constructed in Virginia will be constructed, owned and operated by PATH-VA. The portion of the project to be constructed in Maryland will be constructed and operated by Potomac Edison and owned by PATH-MD. Potomac Edison owns and operates existing transmission lines across the Harpers Ferry NHP and the Appalachian Trail.

- C&O Canal crossing – consisting of an aerial crossing of 400 feet or 0.07 mile of NPS property containing the C&O Canal² in the southwest portion of Frederick County, Maryland.

The current corridor for both crossings already contains one 500-kV transmission line and one 138-kV transmission line. Each of these lines has existing right-of-way agreements associated with their crossings of the NPS properties. The 500 kV transmission line at the Appalachian Trail and Harpers Ferry NHP crossing is owned by Dominion Virginia Power. The 500 kV transmission line at the C&O Canal crossing is owned by Potomac Edison. The 138-kV transmission line at both crossings is owned by Potomac Edison.

At the crossing of the Appalachian Trail and Harpers Ferry NHP, Applicants propose leaving the existing 500-kV line in place, removing the existing 138-kV line, adding a new 765-kV transmission line to the north side of the right-of-way and under building the existing 138-kV line on the new 765-kV structures. There are currently 4 support structures within the Appalachian Trail property and 3 within the Harpers Ferry NHP. Two structures will be removed in each location, and replaced with a single new structure. This will result in a net decrease of one structure each on both the Harpers Ferry NHP property and Appalachian Trail property. The right-of-way will be expanded slightly in this area by approximately 105 feet to accommodate the space needed to operate the 765-kV line. The existing crossing of the Appalachian Trail by the 500 kV and 138 kV lines occurs between structures 12-99 and 12-101 (see Attachment B). The crossing of the Harpers Ferry NHP by the existing 500 kV and 138 kV line occurs between structures 12-98 and 12-100 (see Attachment B).

Access to the right-of-way at the Appalachian Trail and Harpers Ferry NHP is proposed to be through the existing Wildlife Road, which is located primarily to the north and west of the right-of-way (see Attachment B). Applicants expect that this road will require some upgrading in order to be used for construction and maintenance of this project.

At the crossing of the C&O Canal³ Applicants propose leaving the existing transmission lines in place, expanding the right-of-way by approximately 200 feet to the north and constructing the new PATH 765-kV transmission line. This is being done to minimize the required structure height. The existing lines cross the C&O Canal between structures 14-3 and 14-4 (see Attachment B). Since the PATH Project only requires an aerial crossing of the C&O Canal and since no structures will be located on NPS property at this crossing, it is expected that limited access to the C&O Canal property will only be required, primarily for possible selective tree trimming and for access by safety personnel and inspectors during wire pulling operations. Any required access to the C&O Canal property will occur from the gate at Lock 29 and be limited to passage along the C&O Canal footpath.

² Applicants have been advised by NPS representatives that they believe the Proposed Route of the PATH Project passes through the Potomac Heritage Scenic Trail (PHST). Applicants have not yet made this determination. However, to the extent the route crosses the PHST, the crossing would occur as a part of this aerial crossing.

³ See footnote 2.

3. GUIDELINES FOR CONSTRUCTION PLAN DEVELOPMENT

This Construction Plan for the PATH Project across the properties of the C&O Canal, Appalachian Trail and Harpers Ferry NHP was developed based on several overarching goals and guidelines that are designed specifically to:

- Maintain the unobstructed and safe passage for visitors across these properties during construction of the project;
- Minimize environmental impacts during and after construction of the project;
- Where feasible, rebuild existing lines on the new structures of the new transmission line within the existing and/or expanded right-of-way;
- Restore any disturbed portions of these properties after the completion of line installation.

All construction activities on these properties will be in accordance with this Construction Plan.

4. PROPOSED RIGHT-OF-WAY AND STRUCTURE LOCATIONS

Where the PATH Project crosses the C&O Canal, the new line will be installed on a new 200-foot-wide right-of-way adjacent to and north of the existing transmission lines. Where it crosses the Appalachian Trail and the Harpers Ferry NHP, the new line will be installed in a 200 foot-wide right-of-way, which will require a 105-foot-wide expansion to the permanent easement adjacent to and north of the existing transmission lines. The new line will take advantage of approximately 95 feet of existing Potomac Edison right-of-way. This utilization of existing right-of-way will minimize the amount of new right-of-way acquired to safely operate the PATH Project.

The proposed plan and profile for the new transmission lines (138-kV, 500-kV and 765-kV) is provided as Attachment D. “Before” and “After” visual simulations of the proposed structures in these areas are shown in Attachment E. The relative dimensions of the structures are summarized in the tables below.

Appalachian Trail

	Total Number of Structures in NPS Boundaries	Type of Structure	Approximate Height Range of Structures (feet)	Number of Foundations per Structure	Approximate Area Per Foundation (feet ²)
Existing Structures	4	Lattice Steel (2)	74 to 99	1 center foundation + 4 guy anchors	N/A
		Wooden H-frame (2)	60	2 direct embedded poles	0
Proposed Structures (to be removed)	2	Wooden H-frame	60	2 direct embedded poles	0
Proposed Structures (to be added)	1	Tubular Steel H-frame	147	2	33.18

Harpers Ferry NHP

	Total Number of Structures in NPS Boundaries	Type of Structure	Approximate Height Range of Structures (feet)	Number of Foundations per Structure	Approximate Area Per Foundation (feet ²)
Existing Structures	3	Lattice Steel (1)	91	4	N/A
		Wooden H-frame (2)	60	2 direct embedded poles	0
Proposed Structures (to be removed)	2	Wooden H-frame	60	2 direct embedded poles	0
Proposed Structures (to be added)	1	Tubular Steel H-frame	162	2	33.18

C&O Canal

	Total Number of Structures in NPS Boundaries	Type of Structure	Approximate Height Range of Structures (feet)	Number of Foundations per Structure	Approximate Area Per Foundation (feet²)
Existing Structures	0	N/A	N/A	N/A	N/A
Proposed Structures (to be added)	0	N/A	N/A	N/A	N/A

5. CONSTRUCTION PROCEDURES FOR NPS PROPERTIES

Applicants will adhere to all terms and conditions set forth in the applicable siting certificates issued by the Virginia State Corporation Commission, the Public Service Commission of West Virginia, and the Maryland Public Service Commission. In addition, for the crossing of the NPS properties, the Applicants have developed additional PATH Project construction specifications, including those pertaining to safety, environmental inspection, storm water pollution prevention, and erosion and sediment control for the crossing of the Appalachian Trail, C&O Canal and Harpers Ferry NHP. The Applicant will follow the erosion and sediment control requirements set forth in the *Virginia Erosion and Sediment Control Handbook*, the *Maryland Standards and Specifications for Soil Erosion and Sediment Control* and the *West Virginia Erosion and Sediment Control Best Management Practice Manual*. In addition, per commonwealth of Virginia requirements, Erosion and Sediment Control Specifications will be developed and submitted for approval by December 31 of the year preceding the start of construction and will be included as Attachment F.

In addition to applicable state siting requirements the Applicants will implement special procedures for construction activities on NPS properties set forth below. In addition all of Applicants construction activities on NPS property will conform to the requirements set forth in the NPS Easement/Special Use Permit, and will be designed to maintain safe visitor access across the Appalachian Trail, Harpers Ferry National Historic Park and C&O Canal, limit direct impacts to NPS property, mitigate visual effects, and minimize the potential for inconvenience to visitors to the Appalachian Trail, the Harpers Ferry NHP and C&O Canal. The specific procedures that will apply to the crossing of the Appalachian Trail, Harpers Ferry NHP and C&O Canal will be developed based on consultations with NPS representatives and will be included in this Construction Plan where necessary. The special construction procedures that will be implemented when crossing NPS properties are detailed in Section 7.

The construction work area (CWA) across the Appalachian Trail, the Harpers Ferry NHP, and the C&O Canal is illustrated on the Access Maps (Attachment B) and Plan and Profile Sheets

(Attachment D). Applicants will use only the CWA and designated access roads as shown on these attachments.

6. NOTIFICATIONS AND COORDINATION WITH THE NPS

6.1. Pre-Construction Notice and Conference

At least 30 days prior to the anticipated start date, Applicants will notify the Park Managers to arrange pre-construction conferences. Unless directed otherwise, Applicants will use the following Park Managers contact information:

Sarah Bransom
Appalachian National Scenic Trail
P.O. Box 50 Cook Hall,
252 McDowell Street
Harpers Ferry, WV 25425
Telephone: 304.535.4003

Bill Spinrad
Natural Resource Program Manager
National Park Service
Chesapeake and Ohio Canal NHP
1850 Dual Highway Suite 100
Hagerstown, Maryland 21740-6620
Telephone: 301.714.2221

Andrew Lee
Harpers Ferry National Historical Park
P.O. Box 65
Harpers Ferry, WV 25425
Telephone: 304.535.6038

The Park Managers (or designated representative) will be invited to a pre-construction conference with Applicants to review the terms and conditions of the easement across NPS properties, verify locations of sensitive resources in the field (e.g. the Appalachian Trail footpath), and confirm the construction procedures, including all measures necessary to minimize adverse effects on NPS resources. Applicants' field construction personnel (e.g., personnel from the construction staff and permitting/environmental staff) and representatives of the Applicants' construction contractor will attend the pre-construction conference.

6.2. Notification Required Prior to Entry onto NPS Properties

Applicants will provide each Park Manager with notification of construction work that will require access to the NPS property over which he or she has responsibility. Notification will be provided at least 24 hours prior to entry onto the NPS property. Immediate notice will be provided to the Park Manager for any emergency entry onto NPS properties.

Entry on to NPS property after completion of construction will be undertaken consistent with the terms of the easement/special use permit.

6.3. Coordination with NPS Representatives, Inspection, and Issue Resolution

During construction on NPS properties, Applicants will coordinate with NPS representatives who will be assigned to monitor the conformance of the construction on NPS property, to the terms and conditions of the Easement/Special Use Permit. Applicants will provide NPS representatives with relevant contact information for Applicants and contractor representatives involved in work activities on NPS properties.

Representative of the Applicants are:

Vern Estel
Allegheny Energy
237 Hartman Run Road
Morgantown, WV 26505
(304) 284-1207

Mike Hosier
Allegheny Energy
800 Cabin Hill Road
Greensburg, PA 15601
(724) 838-6807

Ron Poff
American Electric Power
P.O. Box 2021
Roanoke, VA 24022-2121
(540) 562-7038

Archie Pugh
American Electric Power
P.O. Box 2021
Roanoke, VA 24022-2121
(540) 562-7055

Applicants' construction coordinator/inspector will be available and on duty during active construction activities affecting NPS lands and will be the primary point of contact with the NPS representatives. In the event an issue arises on NPS property, the Park Manager or designated representative should consult, if possible, with the construction coordinator/inspector to resolve the issue prior to issuing any stop work (task) directive. If the issue cannot be resolved, a stop work (task) directive may be issued, pending the resolution of the situation. The construction coordinator/inspector's contact information will be provided to the Park Manager at the pre-construction conference with all stakeholders. A back-up construction coordinator/inspector will also be identified.

7. GENERAL CONSTRUCTION PROCEDURES

The following procedures will apply to construction activities on NPS properties:

1. Applicants will mark the NPS property line as they are crossed by the project right-of-way. The property line will be marked with flagged stakes that will be removed upon completion of construction. Any monuments within the right-of-way will also be marked in a similar manner, i.e., with flagged stakes or a circle of flagging.
2. Applicants will mark the NPS property line so that construction contractors only enter NPS property through authorized access points. This will prevent painted boundary trees or boundary monuments from being damaged during construction.
3. Any boundary markers damaged by Applicants or their contractors will be repaired or replaced (at Applicants' expense) in accordance with NPS specifications.
4. Limited limb removal may be necessary to accommodate the height and size of construction equipment. This will be communicated to Park representatives ahead of time. No trees will be removed without NPS authorization.
5. Brush and trees will be cleared from the designated CWA in accordance with Applicants' right-of-way clearing specifications to meet the boundaries of the easement width. In addition, some "danger trees" (trees that could fall within 28 feet of the conductor) in the vicinity of the CWA will have to be removed prior to construction, during the initial clearing process, to allow the safe operation of the electric transmission line. Vegetative materials removed will be windrowed or removed from the site. At the direction of the Park Manager, large-diameter, merchantable trees may be: (a) cut and windrowed if topographic conditions allow and adequate space is available within the CWA; or (b) cut and removed from the CWA.

7.1. Construction Method and General Schedule

Construction access to the right-of-way and NPS property will be through authorized access points to be determined. Applicants will keep all gates closed and locked when not in use and at the end of each work day.

Attachment B depicts the proposed general location of access roads to structures on the NPS property. Access while on NPS property will use the existing access roads that are identified on the Attachment B. These roads may need to be enhanced and possibly widened in order to ensure an average of 16 feet wide to accommodate large machinery and necessary construction equipment. Such widening may include the clearing of vegetation on either side of the road. However, gravel will not be added to access roads unless such measures are required for erosion and sediment control. In the event additional widening of these access roads, beyond the 16 feet, is required in any location, a road construction plan will be developed and provided to Park representatives for review and comment.

A survey will be performed to stake the new structure locations, and is tentatively expected to occur in late 2011. The NPS property lines will be marked to ensure they are well defined during construction.

After trimming and danger tree removal has occurred, the following activities will take place during construction activities, with some activities overlapping. To build the new transmission lines, the primary activities that will occur on the right-of-way within the CWA are as follows:

1. Construction pads (cleared, level areas used for safe equipment operation) will be developed immediately adjacent to each of the existing and proposed structures. The pads will have dimensions of approximately 100-foot by 150-foot. These pads will serve as a level surface for construction equipment to sit and operate during construction. After construction, the original contours will be restored as close as practical and the area rehabilitated. In the immediate vicinity of the new structures, a level area will remain for future use, should cranes or other large equipment be needed for repairs and other maintenance; however, these areas will be re-seeded.
2. Install foundations for all new structures on NPS property (two foundations per structure based on a tubular H-frame design). Approximately two months is required to excavate (or auger), prepare the hole and place the concrete for the new foundations. Foundation crews will access the right-of-way via authorized access points with auger trucks and concrete trucks. Construction pads will be prepared adjacent to each foundation.
3. Foundation holes will be excavated and filled with concrete at all new structure locations.
4. Transportation of new tower material to the site and erection of the new steel structures will take approximately two to three weeks (for a tubular pole design). Material will be brought in utilizing tractor trailers or aerial lifts with helicopters and cranes. Material will then be placed on the right-of-way adjacent to the new foundations and assembled into structures. Structures will then be erected onto their relative foundation using cranes.
5. Conductor and fiber optic shield wire stringing will take approximately two to three months depending on overall access in a contiguous area. Construction crews will bring in wire pulling equipment including a wire tensioner, a wire puller trailer, trailers with spools of wire, and necessary equipment such as bull dozers to complete the work. Helicopters will be used to pull the lead lines for the wire stringing process. Stringing blocks will be suspended from towers that allow the conductor to pull freely through the structure. Once the conductor is pulled into place, the wire is sagged, lifted off the stringing block and clamped to the tower hardware. To perform this operation, all stringing equipment will be set up on adjacent properties and off the NPS property. Conductors will not lie across NPS property during the installation of the lines. Guard structures will be used where necessary as a safety precaution to prevent the wire from sagging to the ground. These guard structures consist of wooden poles resembling goal posts. These guard structures are in place to ensure the wire will not reach the ground if there is a problem during the pulling operation. Energization of the new 765-kV line will not take place until the entire 276 miles of transmission line is ready for service.
6. Rehabilitation of the right-of-way (Discussed in Section 9) will take approximately 1.5 months depending on time of year and ability to access a contiguous area. Crews will monitor rehabilitation on a regular basis.

Minor variations to the above construction sequence may be required due to weather, site conditions, scheduling, or outage schedules for adjacent transmission lines. Any such variations

will be reported to the Park Manager as soon as they are identified and prior to implementation. No change will be made to the CWA or access conditions previously described.



This photo is an example of the guard structures for stringing conductors during construction.

7.2. Line and Right-of-Way Maintenance

PATH Project Right-of-Way Clearing and Maintenance Specifications are shown in Attachment I. The Applicants will develop a Right-of-Way Maintenance Program based on consultation with the NPS. Where feasible, such program will be based on the specifications set forth in Attachment I.

7.3. Watercourse and Wetland Crossings

Applicants will work with the NPS to conduct field surveys along the proposed right-of-way to determine if there are any watercourses or wetlands on NPS property. The results of these surveys will determine what measures are required to avoid or mitigate these wetlands.

7.4. Wild Fire Prevention Measures

No activities that could create a fire danger are anticipated. However, should the need arise to use equipment such as welding, grinding, and other activities that would create sparks, fire control equipment will be stationed on site.

7.5. Storage and Disposal of Waste and Construction Materials / Equipment

Construction areas will be maintained in a sanitary condition at all times. Waste materials (including but not limited to human waste, trash, garbage, refuse, oil and petroleum products and ashes) will be disposed of promptly at a state-approved off-site waste disposal facility.

Applicants' construction contractor will store equipment on the CWA. This will occur during regular work hours, as well as in the evenings and potential non-working periods only. During the construction activity across NPS properties, no equipment or materials shall block the Appalachian Trail or C&O Canal footpath. Once construction is complete across the NPS properties and restoration of the sites is finalized, all equipment and materials will be removed.

7.6. Cultural Resource Protection

As part of pre-construction project planning, Applicants will conduct cultural resource surveys of the CWA, including the CWA on NPS properties. A cultural resource survey of the proposed 765-kV transmission line in Maryland (including the C&O Canal area) will be conducted in the summer of 2010 by GAI Consultants, Inc. A cultural resource survey of the proposed 765-kV transmission line in West Virginia and Virginia (including the Appalachian Trail and Harpers Ferry NHP area) will be conducted by The Louis Berger Group.

A report will be submitted to the appropriate State Historic Preservation (SHPOs) upon completion of the cultural field work. Field work will consist of a pedestrian survey and subsurface testing in the area of potential effect (APE), which includes the existing right-of-way on NPS properties. The pedestrian survey will consist of a walk-over inspection to identify portions of the APE that will not require subsurface testing due to standing water, a high degree of slope, and prior disturbance. Subsurface testing will generally consist of the excavation of shovel tests at 50-foot intervals along two transects. Subsurface testing for the existing right-of-way will be limited to the immediate area around the new pole foundation locations.

All personnel working on this project will receive environmental and cultural training prior to engaging in any work on NPS properties. In addition, Applicants will develop procedures to deal with unanticipated cultural discoveries.

7.7. Stormwater Pollution Prevention Plan

Applicants will prepare and file a Stormwater Management Plan as required in the appropriate states, and will comply with all conditions of the related permit(s). Potential pollution sources onsite include equipment fueling, sanitary waste facilities, limited chemical usage, construction debris, litter, and concrete wash down. The following measures will be taken:

- Care will be taken to avoid spills onto the construction site. Any accidental spill will be cleaned up immediately to avoid potential discharge. Oil spill clean-up materials will be kept on-site in the event that limited quantities of petroleum products are spilled, such as in the event of a hydraulic line break or fuel spill. No matter how minor, these spills will be remediated immediately and an event description report will be formally issued to the project records.
- Portable sanitary facilities will be available onsite at all times and serviced as appropriate.

- No chemicals other than fuels and oils will be used during excavation or construction other than concrete-curing compounds commonly used for foundation construction.
- Construction debris will be loaded into a container and removed periodically as required.
- Litter will be loaded into a container as it occurs and removed periodically as required.
- A proposed concrete wash down area will receive rinse water used to clean concrete trucks after foundations are poured and will be located on private property near the access points to the Appalachian Trail, Harpers Ferry NHP or C&O Canal. The wash down will be constructed of filter cloth and straw bales. At the conclusion of foundation construction, the wash down and all collected material will be hauled offsite, and the wash down location on private property will be rehabilitated using the seed mix described in Section 9 of this plan.
- Construction debris, including broken concrete, litter, and all other debris will be disposed of in mobile containers and removed from the site for disposal in licensed facilities.

Applicants will use a full-time, on-site contractor to monitor and maintain stormwater and erosion controls. The contractor will ensure compliance with erosion, sedimentation, and stormwater requirements.

7.8. Erosion and Sedimentation Control Plan

An Erosion and Sedimentation Control Plan will be developed. It will establish goals for the control of erosion and sedimentation as a result of land-disturbing activities performed during the construction and maintenance of electric transmission lines. Specific provisions are made for work related to temporary access roads, construction adjacent to streams for overhead lines, construction associated with structure foundation and structure erection, and erosion control device maintenance. The attached plan also discusses in detail site rehabilitation related to soil preparation and site stabilization.

The Applicant will follow the erosion and sediment control requirements set forth in the *Virginia Erosion and Sediment Control Handbook*, the *Maryland Standards and Specifications for Soil Erosion and Sediment Control* and the *West Virginia Erosion and Sediment Control Best Management Practice Manual*. In addition, per commonwealth of Virginia requirements, Erosion and Sediment Control Specifications will be developed and submitted for approval by December 31 of the year preceding the start of construction and will be included as Attachment F.

8. APPALACHIAN TRAIL AND C&O CANAL CROSSING SAFETY AND PUBLIC ACCESS PROCEDURES

Applicants recognize that visitors may use the Appalachian Trail or the C&O Canal footpath at all times of the year and any time during the day. The Applicants intend to maintain public access to the largest extent possible during construction. As a result, continuous access along these trails will be maintained outside of those brief instances referred to below for maintaining

user safety. Trail crossing safety and public access procedures will be in place during all construction activities on NPS properties. Specific crossing safety and public access procedures for the Appalachian Trail and C&O Canal are:

- Appropriate barriers, safety fencing, and/or signs will be installed at or along the Appalachian Trail or C&O Canal crossing, as appropriate, prior to the initiation of construction activities on NPS properties. The objective of these measures will be to protect hikers and allow safe passage across or around the CWA.
- Safety measures will be maintained throughout the construction process on NPS properties. Applicants' construction contractor will post personnel along the Appalachian Trail or C&O Canal at appropriate distances from the CWA during clearing and other active construction activities to inform hikers of the construction and to regulate pedestrian traffic along the Appalachian Trail or C&O Canal to avoid conflicts with construction work.

Specific safety measures include:

1. "Work Area" warning signs will be posted on each side of the Appalachian Trail and C&O Canal crossing, as well as in several locations further from the actual crossing. Two large signs (approximately 12 by 18 inches) with large cautionary lettering and supplemental information will be posted 1,000 feet from the construction site, northbound and southbound on either side of the Appalachian Trail and C&O Canal. In addition, smaller signs (approximately 12 by 12 inches) will also be posted at other locations as required.
2. Language for these two signs is provided in Attachment G. Signs will be made of sturdy plastic with distinctive lettering on a bright background color, and will be mounted on appropriate structures (in appropriate locations clearly visible to public visitors and construction workers). Posting of the signs will be the responsibility of Applicants, but could be done in conjunction with the Potomac Appalachian Trail Club and the C&O Canal management.
3. Flag persons will be used on both sides of a work area when needed. They will direct Appalachian Trail user traffic when vehicles such as equipment/crane/concrete trucks are moving near the Trail. Flag persons will also direct Appalachian Trail or C&O Canal traffic when a conductor is being installed or removed above the Appalachian Trail or C&O Canal.
4. Tire ruts resulting from heavy equipment use will be avoided to the extent possible, however, in the event they do occur on or near the Appalachian Trail or C&O Canal and could pose a hazard to hikers, Applicants will work to repair any problems such as these as soon as possible.
5. Across the Appalachian Trail and C&O Canal, the installation of the PATH Project will be performed as expeditiously as possible to minimize the disturbance time of the construction period.
6. All construction materials and construction equipment in the vicinity of the Appalachian Trail or C&O Canal will be appropriately secured prior to cessation of work at the end of

each work day. Construction equipment will not be placed on or near the Appalachian Trail or C&O Canal footpath in such a way that would obscure the route or markings of the Appalachian Trail or C&O Canal.

9. RESTORATION, RECLAMATION, LANDSCAPING AND VEHICULAR ACCESS CONTROL

9.1. Restoration and Reclamation of the Right-of-Way

After construction is complete, the PATH Companies will restore the right-of-way. CWA restoration includes regrading any contours that may have been disturbed or changed, as close as practical to the original contours. This will be accomplished through spreading topsoil, dispersing rock, installing permanent erosion and sediment control devices as appropriate, and liming, fertilizing, seeding, and mulching. These standard techniques are detailed in the Erosion and Sedimentation Specifications. NPS properties will be re-seeded with standard PATH Project seed mix unless the NPS chooses to specify a different seed mix. This seed mix will include only non-genetically modified seeds.

9.2. Landscape Plan

The PATH Companies' Arborist, in consultation with a representative of the NPS, will develop a proposed landscaping plan for the full width of the 200-foot-wide corridor (minus the vehicle access area) along the section crossed by the Appalachian Trail and Harpers Ferry NHP. This plan will be based on a Forest Stand Delineation of the trees removed. A species list for plantings will be developed based on acceptable species agreed to by the PATH Companies' Arborist and the NPS.

Undesirable vegetation, including invasive species, will be targeted when the line is maintained. Herbicides may be used to reduce the invasive species for an interim period to allow the new plant groupings to prosper. Invasive plant species on the right-of-way will be treated at the start of construction and one year post-construction. Treatments will also be reapplied during the PATH Companies' routine maintenance of the right-of-way. Continuing maintenance will include treatment of invasive species where they are recognized.

The right-of-way access roads are areas that remain free of landscaping to allow the PATH Companies access to maintain the structures within the right-of-way. These are dirt roads with some grass and other herbaceous ground cover.

9.3 ATV Deterrent Plan

No work will be performed at the C&O Canal that will open the area to all-terrain vehicle (ATV) intrusion. Therefore, an ATV deterrent plan will not be required.

At the Appalachian Trail and Harpers Ferry NHP, Potomac Edison has already taken some steps to deter illegal ATV use of its right-of-way by means of a road gate installed on the access road at the end of Wildlife Drive. This gate will be inspected and upgraded if necessary. Due to the steepness of the terrain on both sides of the NPS property additional ATV deterrent measures are not required.

Applicants will keep the gates locked at all times; if Applicants or their contractors cause damage to any of the locks/gates, Applicants will repair the locks/gates to ensure the ATV barriers are kept securely shut. If there is an issue with any of the locks/gates, the Park Manager or his/her designee may contact the construction representative to be determined at the pre-construction conference.

Gate access will be unauthorized to any party with exception of the Park Managers and his/or designees and the Applicants. Any requests for access by outside parties will be forwarded to the Park Manager.

Draft - Preliminary Work in Progress