Transcontinental Gas Pipe Line Company, LLC

Section 1-4 – Project Description

Regional Energy Access Expansion Project

April 2021

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LIST OF ACRONYMS AND ABBREVIATIONS

API	American Petroleum Institute
ATWS	additional temporary workspace
BMP	best management practice
CEII	Critical Energy Infrastructure Information
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
Dth/d	dekatherms per day
ECP	Environmental Construction Plan
EI	Environmental Inspector
ER	Environmental Report
FERC or Commission	Federal Energy Regulatory Commission
HDD	horizontal directional drill(ing)
HP	horsepower
INGAA	Interstate Natural Gas Association of America
ISO	International Organization of Standardization
MAOP	maximum allowable operating pressure
MD	Maryland
MLV	mainline valves
M&R	meter & regulating
NJ	New Jersey
NJDEP	New Jersey Department of Environmental Protection
OSHA	Occupational Health and Safety Administration
PA	Pennsylvania
PADCNR	Pennsylvania Department of Conservation and Natural Resources
PADEP	Pennsylvania Department of Environmental Protection
PGC	Pennsylvania Game Commission
Project	Regional Energy Access Expansion
psig	pounds per square inch gauge
RCP	Residential Construction Plans
ROW	right-of-way
RR	resource report
Tcf	trillion cubic feet
Transco	Transcontinental Gas Pipe Line Company, LLC

Transco Plan	Project-specific Upland Erosion Control, Revegetation, and Maintenance Plan
Transco Procedures	Project-specific Wetland and Waterbody Construction and Mitigation Procedures
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
Williams	The Williams Companies, Inc.

1 GENERAL PROJECT DESCRIPTION

This narrative provides information regarding the proposed Regional Energy Access Expansion (Project), including Project mapping, descriptions of the pipeline and aboveground facilities, construction methodologies, applicable permits, and anticipated construction schedule.

Transcontinental Gas Pipe Line Company, LLC (Transco), indirectly owned by The Williams Companies, Inc. (Williams), is seeking authorization from the Federal Energy Regulatory Commission (FERC or Commission) under Section 7(c) of the Natural Gas Act and Part 157 of the Commission's regulations, to construct, own, operate, and maintain the proposed Project facilities.

The Project is an expansion of Transco's existing natural gas transmission system that will enable Transco to provide an incremental 829,400 dekatherms per day (Dth/d) of year-round firm transportation capacity from the Marcellus Shale production area in northeastern Pennsylvania (PA) to multiple delivery points along Transco's Leidy Line in PA, Transco's mainline at the Station 210 Zone 6 Pooling Point[1] in Mercer County, New Jersey (NJ) and multiple delivery points in Transco's Zone 6 in NJ, PA, and Maryland (MD). The Project will consist of the following components:

- Approximately 22.3 miles of 30-inch-diameter pipeline partially collocated with Transco's Leidy Line A from milepost (MP) 0.00 to MP 22.32 in Luzerne County, PA (Regional Energy Lateral);
- Approximately 13.8 miles of 42-inch-diameter pipeline collocated with Transco's Leidy Line System from MP 43.72 to MP 57.50 in Monroe County, PA (Effort Loop);
- New gas-fired turbine driven compressor station identified as Compressor Station 201 with 11,107 nominal horsepower (HP) at International Organization of Standardization (ISO) conditions in Gloucester County, NJ;
- Addition of two gas-fired turbine driven compressor units with 31,800 nominal HP at ISO conditions at existing Compressor Station 505 in Somerset County, NJ, to accommodate the abandonment and replacement of approximately 16,000 HP

[1] A pooling point defines the aggregation of gas from multiple physical and/or virtual receipt points to a single physical or virtual point, and the disaggregation of gas from a single physical or virtual point to multiple physical and/or virtual delivery points.

from eight existing internal combustion engine-driven compressor units and increase the certificated station compression by 15,800 HP;

- Addition of two gas-fired turbine driven compressor units with 63,742 nominal HP at ISO conditions and modification of three existing compressors at existing Compressor Station 515 in Luzerne County, PA to support the Project and to accommodate the abandonment and replacement of approximately 17,000 HP from five existing gas-fired reciprocating engine driven compressors and increase the certificated station compression by 46,742 HP;
- Uprate and rewheel two existing electric motor-driven compressor units at existing Compressor Station 195 in York County, PA to increase the certificated station compression by 5,000 HP and accommodate the abandonment of two existing gas-fired reciprocating engine driven compressors, which total approximately 8,000 HP;
- Modifications at existing Compressor Station 200 in Chester County, PA;
- Uprate one existing electric motor-driven compressor unit at Compressor Station 207 in Middlesex County, NJ to increase the certificated station compression by 4,100 HP;
- Modifications to three (3) existing pipeline tie-ins in PA (Hildebrandt Tie-in, Lower Demunds REL Tie-in, and Carverton Tie-in);
- Addition of regulation controls at an existing valve setting on Transco's Mainline "A" in Bucks County, PA (Mainline A Regulator);
- Modifications at the existing Delaware River Regulator in Northampton County, PA;
- Modifications at the existing Centerville Regulator in Somerset County, NJ;
- Modifications to the existing valves and piping at the Princeton Junction (Station 210 Pooling Point) in Mercer County, NJ;
- Modifications to three (3) existing delivery meter stations in NJ (Camden M&R Station, Lawnside M&R Station, and Mt. Laurel M&R Station);

- Modifications to one (1) existing delivery meter station in MD (Beaver Dam M&R Station);
- Contractual changes (no modifications) at ten (10) existing delivery meter stations in PA and NJ (Algonquin-Centerville Meter Station, Post Road Meter Station, New Village Meter Station, Spruce Run Meter Station, Marcus Hook Meter Station, Ivyland Meter Station, Repaupo Meter Station, Morgan Meter Station, Lower Mud Run Meter Station, and Chesterfield Meter Station);
- Additional ancillary facilities, such as mainline valves (MLVs), cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers in PA; and
- Existing, improved, and new access roads and contractor yards/staging areas in PA, NJ, and MD.

In an ongoing effort to reduce its air emissions footprint, Transco is assessing the replacement of vintage gas-fired reciprocating engine driven compressors with more efficient state-of-the-art gas-fired turbine driven compressors. The proposed compression abandonment and replacement scopes at Transco's existing Compressor Station 505 and Compressor Station 515 are part of this effort and have been adopted into the Project scope. Additionally, the uprate and optimization of existing electric motor-driven compression to accommodate abandonment of gas-fired reciprocating engine driven compression at Compressor Station 195 has also been adopted into the Project scope.

Subject to FERC's certification of the Project and receipt of the necessary permits and authorizations, Transco anticipates construction of the Project would commence in third quarter 2022 to meet a proposed in-service date of December 1, 2023.

The Post Road, Marcus Hook, and Lower Mud Run can accommodate the contractual changes proposed as part of this Project; therefore, no modifications are proposed at these facilities and they are not discussed further.

1.1 PROPOSED FACILITIES

1.1.1 Purpose and Need

Transco proposes to construct and operate the Project facilities to provide an incremental 829,400 Dth/d of year-round firm transportation capacity from the Marcellus Shale production areas in northeastern PA to Transco's mainline at the Station 210 Zone 6 Pooling Point in Mercer

County, NJ, and multiple delivery points along Transco's mainline and Marcus Hook and Trenton Woodbury Laterals in NJ, PA, and MD. To subscribe the proposed firm transportation capacity under the Project, Transco conducted an open season for the Project capacity from March 8, 2019 through May 8, 2019, a supplemental open season from April 28, 2020 to May 28, 2020, and a reverse open season from April 24, 2020 to May 25, 2020. Another supplemental open season is expected in May 2021 for new capacity not previously offered, consistent with FERC policy to solicit bids that became available under the Project. However, Project volumes, paths and facilities for this Project will remain unchanged as the shipper has agreed to reallocate volumes if other parties bid via the open season. As a result of those offerings, Transco is proposing to construct facilities to provide 829,400 Dth/d of firm transportation capacity by December 1, 2023. Transco has executed long-term, binding precedent agreements for all of the capacity with eight shippers, which together combine for a commitment of firm capacity of 829,400 Dth/d. These agreements are included in the Certificate Application (see Exhibit I). Placing the Project facilities in service by December 1, 2023 is required to meet the firm transportation service requirements of the Project shippers. As detailed in the Certificate Application, the Project does not rely on subsidization from existing customers.

The Project will provide Transco's customers and the markets they serve with greatly enhanced access to Marcellus Shale supply, therefore, further diversifying fuel supply access. Currently, access to the Marcellus Shale production area is constrained on peak days by limited pipeline take-away capacity. By increasing gas supply access along Transco's existing Leidy Line, the Project will support overall reliability and diversification of energy infrastructure in the Northeast. Moreover, the Project will benefit the public by promoting competitive markets and enhancing the security of natural gas supplies to major delivery points serving the Northeast. As detailed in the Certificate Application, the Project will not adversely affect service to Transco's existing customers, or other pipelines and their captive customers, and supports diversification of supply in the Northeast.

A review of the Annual Energy Outlook 2021 (Energy Information Administration 2021) reference case indicates that natural gas consumption will rise from 33.43 trillion cubic feet (Tcf) in 2020 to 39.75 Tcf in 2040 and will continue to grow to 42.79 Tcf in 2050. Therefore, Transco's proposal is consistent with expected market demand and the needs expressed in Transco's binding precedent agreements that have been executed for this additional capacity. As such, the Project is also fully consistent with the Commission's Statement of Policy on the Certification of New Interstate Natural Gas Pipeline Facilities.

As detailed in the Certificate Application, Transco is taking the necessary steps to minimize adverse impacts on landowners and surrounding communities. Transco has minimized potential environmental impacts by collocating the proposed pipelines with existing ROWs to the extent practicable; in total, approximately 78% of the proposed pipelines will be collocated with existing and/or certificated ROWs. Transco already has obtained one hundred percent of the survey permissions needed for the proposed Project and will work diligently with landowners to enter into agreements for acquisition of rights of way.

Table 1.1-1
Transco's Customers and Transportation Capacity Subscribed to the Project

Shipper	Transportation Contract Quantity
PECO Energy Company	100,000 Dth/d
Elizabethtown Gas Company	30,000 Dth/d
Baltimore Gas and Electric Company	40,000 Dth/d
South Jersey Gas Company	25,000 Dth/d
PSEG Power, LLC	60,000 Dth/d
South Jersey Resources Group, LLC	71,400 Dth/d
New Jersey Natural Gas Company	353,000 Dth/d
Williams Energy Resources	150,000 Dth/d
Key: Dth/d = dekatherms per day	

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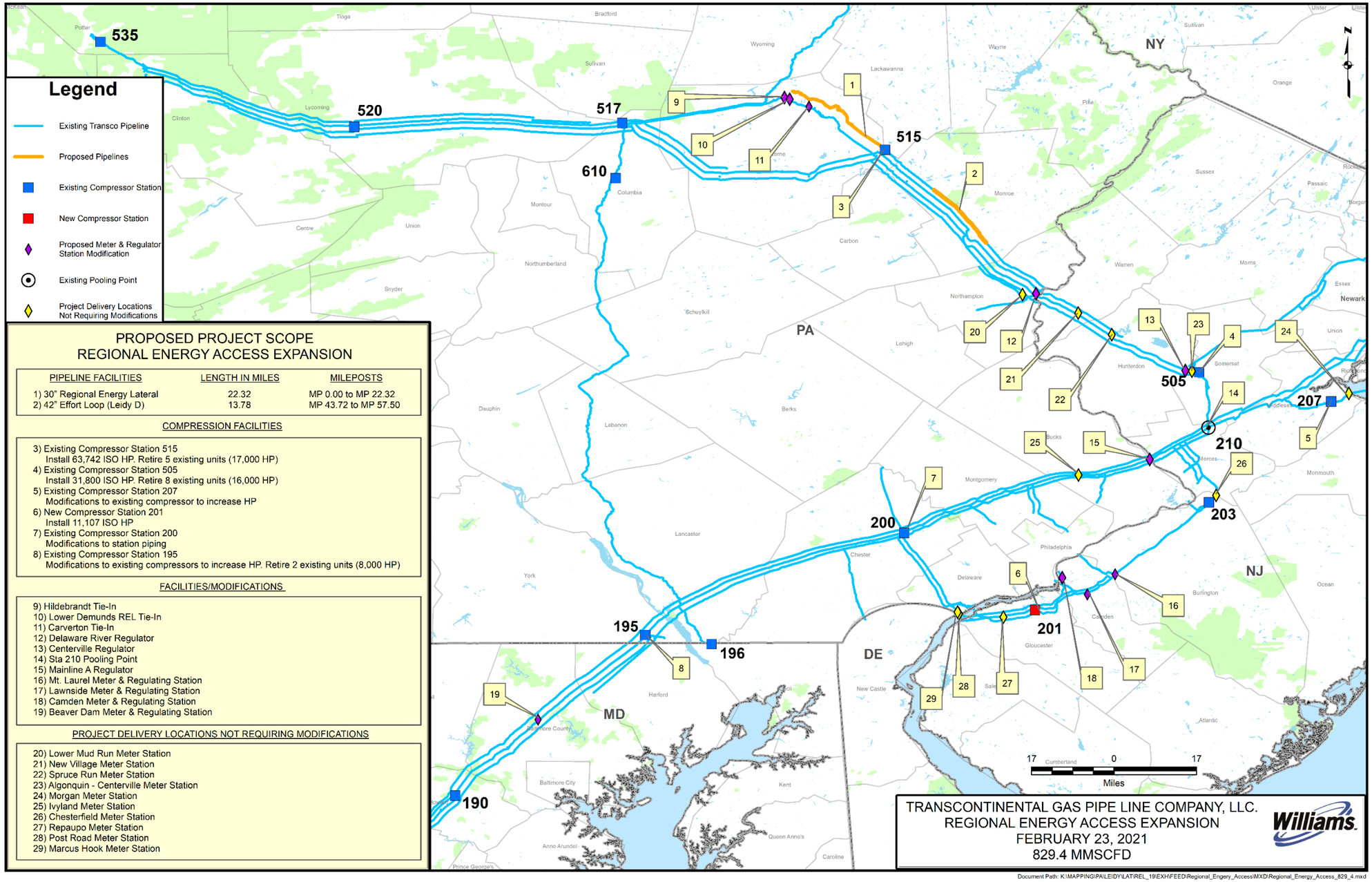

Figure 1.1-1 Regional Energy Access Expansion Overview Map

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1.1.2 Location and Description of Facilities

Figure 1.1-1 is a regional location map of the Project facilities. Summaries of the proposed facilities in Pennsylvania for the Project are provided in the following sections.

1.1.2.1 Pipeline Facilities

The Project will include one pipeline lateral and one pipeline loop. Table 1.1-2 includes a summary of the proposed pipeline facilities within each township and county (see Figure 1.1-1).

Table 1.1-2
Summary of Project Pipeline Facilities

Facility	County	Municipality	Length (miles)
Regional Energy Lateral	Luzerne	Buck Township	1.5
		Bear Creek Township	6.2
		Plains Township	2.2
		Jenkins Township	2.6
		Laflin Borough	1.1
		Wyoming Borough	1.8
		West Wyoming Borough	2.0
		Kingston Township	3.5
		Dallas Township	1.5
Regional Energy Lateral Total[a]			**22.3**
Effort Loop	Monroe	Ross Township	0.9
		Chestnuthill Township	8.0
		Tunkhannock Township	4.9
Effort Loop Total[a]			**13.8**
Project Total[a]			**36.1**

[a] Totals may not sum exactly due to rounding.

Regional Energy Lateral

Transco proposes to install approximately 22.3 miles of new 30-inch-diameter lateral pipeline in Luzerne County, PA, with a maximum allowable operating pressure (MAOP) of 1,480 pounds per square inch gauge (psig). Transco will refer to the pipeline as the Regional Energy Lateral. Transco developed the proposed alignment of the Regional Energy Lateral to collocate with Transco's existing Leidy system to the extent practicable in an attempt to minimize overall impacts. Where feasible, the Regional Energy Lateral will be collocated with the existing Transco Leidy Line A between MPs 0.00 and 22.32, with a nominal offset of 25 feet from the existing pipeline. Locations where the Regional Energy Lateral is collocated and where it varies from this typical offset are included in the Joint Permit Application alternatives analysis for Luzerne

County. In areas where collocation with Leidy Line A was not feasible, Transco also sought to maximize collocation with other existing utility corridors.

Effort Loop

The Effort Loop will consist of approximately 13.8 miles of new 42-inch-diameter loop pipeline in Monroe County, PA, with a MAOP of 1,200 psig. The Effort Loop will be collocated with the existing Transco Leidy Line System between MPs 43.72 and 57.50, offset from the existing pipeline by approximately 25 feet, and would tie-in to Transco's Existing Leidy Line D at each end of the loop. Once placed into operation, Transco will refer to the Effort Loop as Leidy Line D.

1.1.2.2 Aboveground Facilities

New aboveground facilities and modifications to existing aboveground facilities along the Project in Pennsylvania include:

- Additional compression and related modifications to three existing compressor stations;
- Modifications to existing meter and regulating (M&R) stations, interconnects, and regulator facilities; and
- Ancillary facilities such as MLVs, communication facilities, and pig launchers and receivers.

Tables 1.1-3 and 1.1-4, and Figure 1.1-1 provide a summary, by location, of the new and modified aboveground facilities.

Table 1.1-3
Summary of New Aboveground Facilities

Facility	Township	County	State
Other Aboveground Facilities			
Regional Energy Lateral Mainline Valves[a]			
MLV-515RA20	Bear Creek Township	Luzerne	PA
MLV-515RA30	West Wyoming Borough	Luzerne	PA
Effort Loop Mainline Valves			
MLV -505LD86	Chestnuthill Township	Monroe	PA

[a] Two additional MLV (MLV-515RA10 and MLV-505RA40) will be installed at the start and end of Regional Energy Lateral; however, as these will be located within existing facilities (Compressor Station 515, and Hildebrandt Tie-In), they are included in the modifications description in Table 1.1-4.

Key:
MLV = mainline valve

Table 1.1-4
Summary of Proposed Modifications to Aboveground Facilities

Facility	Facility Type	Modifications	Municipality	County	State
Compressor Stations					
Compressor Station 515	Compressor Station	Addition of two (2) gas-fired turbine driven compressors with approximately 63,742 nominal HP at ISO condition and modifications of three (3) existing compressors to support new project flow, and abandon approximately 17,000 HP from five (5) existing gas-fired reciprocating engine driven compressors. Adding MLV-515RA10 and associated pig trap	Buck Township	Luzerne	PA
Compressor Station 195	Compressor Station	Uprate and re-wheel of the two (2) existing EMDs to increase certificated station HP limit from 26,000 HP to 31,000 HP and accommodate the abandonment of two (2) existing gas-fired reciprocating engine driven compressors with approximately 8,000 HP of compression.	Peach Bottom Township	York	PA
Compressor Station 200	Compressor Station	Connect existing Transco Mainline A to station suction header to support south flow.	East Whiteland Township	Chester	PA
Other Aboveground Facilities					
MLV-505LD81	Existing Mainline Valve	Remove existing pig trap and tie-in to existing MLV.	Ross Township	Monroe	PA
MLV-505LD90	Existing Mainline Valve	Remove existing pig trap and tie-in to existing MLV.	Tunkhannock Township	Monroe	PA
Hildebrandt Tie-In	Receipt Interconnect	Install new tie-in piping, valves, and aboveground piping for annubar meter. Adding MLV-515RA40 and associated pig trap	Dallas Township	Luzerne	PA
Lower Demunds REL Tie-In	Receipt Interconnect	Install approximately 400 feet of new 20-inch tie-in piping from the existing Leidy A tie-in site to the new REL tie-in site, valves, and aboveground piping for annubar meter.	Dallas Township	Luzerne	PA
Carverton Tie-In	Receipt Interconnect	Install new tie-in piping, valves, and aboveground piping for annubar meter.	West Wyoming Borough	Luzerne	PA
Lower Mud Run Meter Station	Delivery M&R Station	No modifications proposed to facilitate contractual changes	Lower Mt Bethel Township	Northampton	PA
Post Road Meter Station	Delivery M&R Station	No modifications proposed to facilitate contractual changes.	Marcus Hook Borough	Delaware	PA

Table 1.1-4
Summary of Proposed Modifications to Aboveground Facilities

Facility	Facility Type	Modifications	Municipality	County	State
Marcus Hook Meter Station	Delivery Station	No modifications proposed to facilitate contractual changes.	Marcus Hook Borough	Delaware	PA
Delaware River Regulator	Regulator Station	Upsize existing control valves.	Lower Mt Bethel Township	Northampton	PA
Mainline A Regulator	Regulator Station	Add pressure regulation controls to existing valve actuators.	Lower Makefield Township	Bucks	PA
Ivyland Meter Station	Delivery M&R Station	No modifications proposed to facilitate contractual changes.	Ivyland Borough	Bucks	PA

Key:
EMD= electric motor-driven compressor
HP = horsepower
MLV = mainline valve

Modifications to Existing Compressor Stations

Transco proposes to install additional HP/compression and other related modifications at the following existing compressor stations:

- Compressor Station 515 in Luzerne County, PA – install two new gas-fired turbine driven compressor units with 63,742 nominal HP at ISO conditions and modify three existing compressors to support new Project flow and the abandonment and replacement of approximately 17,000 HP from five existing gas-fired reciprocating engine driven compressors to increase the certificated station compression by 46,742 HP. Add mainline valve MLV-515RA10 and associated pig trap.
- Compressor Station 195 in York County, PA – uprate and rewheel two existing electric-driven compressor units to increase the existing certificated station HP from 26,000 HP to 31,000 HP and accommodate the abandonment of two existing gas-fired reciprocating engine driven compressors with approximately 8,000 HP of compression.
- Compressor Station 200 in Chester County, PA – connect existing Transco Mainline A to station suction header to support south flow.

The modifications at Compressor Station 515 will require additional operational facility footprint. Compressor Station 200 modifications will require additional impervious surfaces within Transco's existing fenced facility. The modifications for Compressor Station 195 will not require additional operational facility footprint and no ground disturbance is proposed.

Modifications to Existing M&R Facilities

Transco proposes modifications or increased flow at the following existing M&R facilities to support the Project:

- MLV-505LD81 in Monroe County, PA – remove existing pig trap and tie-in the proposed 42-inch Effort Loop to an existing MLV;
- MLV-505LD90 in Monroe County, PA – remove existing pig trap and tie-in the proposed 42-inch Effort Loop to an existing MLV;
- Hildebrandt Tie-In in Luzerne County, PA – install new aboveground tie-in piping, valves, and aboveground piping for an annubar meter, and install mainline block valve MLV-515RA40 and associated pig trap;
- Lower Demunds REL Tie-In in Luzerne County, PA – install approximately 400-feet of new 20-inch-diameter tie-in piping from Transco's existing Leidy Line A tie-in site to the new proposed Regional Energy Lateral tie-in site, valves, and new aboveground tie-in piping for an annubar meter;
- Carverton Tie-In in Luzerne County, PA – install new tie-in piping into the proposed Regional Energy Lateral, valves, and aboveground tie-in piping for an annubar meter;
- Delaware River Regulator in Northampton County, PA – upsize existing control valves;
- Mainline A Regulator in Bucks County, PA – add pressure regulation controls to existing valve actuators;

The Post Road, Marcus Hook, and Lower Mud Run Meter Stations can accommodate the contractual changes proposed as part of this Project; therefore, no modifications and no workspaces are proposed at these facilities and they are not discussed further.

Mainline Valve Facilities

MLVs are installed along natural gas pipelines as a means to isolate gas flows along sections of a pipeline. Proposed MLVs are introduced in Table 1.1-3, and further information is provided in Table 1.1-5. As described in Table 1.1-4, MLV-515RA10 will be located within the existing Compressor Station 515, and MLV-515RA40 will be located within the existing Hildebrandt Tie-In. New MLV facilities will have remote-control functionality. Installation of MLV facilities will primarily occur within the proposed pipeline construction areas and permanent rights -of way (ROWs). Pig launchers/receivers and communication equipment may be located

at the MLV facilities. Effort Loop will also tie-in to two (2) existing MLV, as described in Table 1.1-4.

Table 1.1-5
Summary of Proposed Mainline Valves

Facility ID	Milepost	Township	County	Design Pressure (PSIG)	Design Factor
Regional Energy Lateral					
MLV-515RA10	0.00	Buck	Luzerne	1480	0.5
MLV-515RA20	7.54	Bear Creek	Luzerne	1480	0.5
MLV-515RA30	14.82	Wyoming	Luzerne	1480	0.5
MLV-515RA40	22.32	Dallas	Luzerne	1480	0.5
Effort Loop					
MLV -505LD86	49.63	Chestnuthill	Monroe	1200	0.5

Communication Facilities

New aboveground facilities for the Project will include means for communication. Transco will remove and replace the existing communication tower at Compressor Station 515 during facility modifications.

1.1.3 Location Maps, Detailed Site Maps, and Plot/Site Maps

Figure 1.1-1 shows the regional location of the Project facilities. Project location maps for the facilities located in Pennsylvania requiring earth disturbance are included in Section 1-5 of the ESCGP-3 Permit application. Erosion and Sediment Control Plans and Post Construction stormwater management plans for the Project are located in Section 2 and 3 of the ESCGP-3 application.

1.2 LAND REQUIREMENTS

The workspaces for the Project will include construction ROWs (temporary and permanent ROWs), additional temporary workspace (ATWS), temporary access roads, permanent access roads, and contractor yards and contractor staging areas. For the pipelines, the permanent ROWs, permanent access roads, cathodic protection, and mainline valves will continue to be maintained after construction of the Project. Temporary ROWs, ATWS, temporary access roads, and contractor yards and contractor staging areas (collectively referred to as "temporary workspaces") will be allowed to revert to pre-existing uses, and restored as discussed below. For the aboveground facilities, the new permanent facility footprints, permanent access roads, and existing permanent facility areas will continue to be maintained after construction of the Project. Temporary workspaces, temporary access roads, and contractor staging areas that are located outside the existing permanent facility areas will be allowed to revert to pre-existing uses and restored as discussed below.

Construction of the Project will result in both temporary and permanent land disturbances. Following construction, Transco will restore and stabilize the disturbed land to approximate original contours, with the exception of previously mined/mine spoil areas. Recontouring of these areas will be required to provide a stable surface post construction and to facilitate maintenance of the ROW. Disturbed areas of the Project that were previously vegetated and are not converted to impervious surface will be restored following the completion of construction activities as required by applicable agency requirements, including conditions or provisions consistent with applicable agency requirements in landowner agreements. Permanently affected areas will include those needed for operation of the proposed new and modified facilities and new permanent access roads. Table 1.2-1 provides a summary of the preliminary total land requirements for the Project facilities.

Table 1.2-1
Summary of Land Requirements for Project Facilities in Pennsylvania

Facility	Land Affected during Construction (acres)
Pipeline Facilities	
Regional Energy Lateral	384.53
Effort Loop	262.18
Pipeline Facilities Total [a]	**656.71**
Aboveground Facilities	
Existing Compressor Station 515	24.83
Existing Compressor Station 195	0

Table 1.2-1
Summary of Land Requirements for Project Facilities in Pennsylvania

Facility	Land Affected during Construction (acres)
Existing Compressor Station 200	3.16
Hildebrandt Tie-In	0.31
Lower Demunds REL Tie-In	0.17
Carverton Tie-In	0.83
Delaware River Regulator	3.25
Mainline A Regulator	0.53
Aboveground Facilities Total[a]	**33.08**
Project Total[a]	**689.79**

[a] Totals may not sum exactly due to rounding.

1.2.1 Pipeline Facilities

Land requirements for the proposed pipeline facilities are summarized in Table 1.2-1. Construction of the pipeline facilities will require the acquisition of construction ROWs (temporary and permanent ROWs), and ATWS along the entire length of each pipeline route, as well as temporary access roads, permanent access roads, and contractor yards and contractor staging areas.

1.2.1.1 Pipeline Rights-of-Way

Transco proposes to utilize the following ROWs during construction of the pipeline facilities:

- A 90-foot-wide construction ROW, consisting of a 50-foot-wide permanent ROW (or generally an additional 25 feet in width of permanent ROW where collocated with and adjacent to Transco's existing Leidy Line A), together with 40 feet of TWS, for installation of the 30-inch Regional Energy Lateral; and
- A 100-foot-wide construction ROW, consisting of generally an additional 25 feet in width of permanent ROW where collocated with and adjacent to Transco's existing ROW, and 75 feet of TWS, for installation of the 42-inch Effort Loop.

The Effort Loop is entirely collocated with the existing Transco Leidy Line System. The Regional Energy Lateral is collocated with the existing Transco Leidy Line System to the extent practicable. Table 1.2-2 summarizes collocation of pipeline facilities.

Table 1.2-2
Summary of Collocation of Pipeline Facilities

Collocated Utility	Total Collocated Miles	Percent Collocated Miles
Regional Energy Lateral		
Leidy Line A	10.5	47%
Leidy Line C	0.2	1%
Certificated PennEast Pipeline (approximate)	1.1	5%
PPL Transmission Line	2.5	11%
Sanitary Utility Line	0.1	<1%
Regional Energy Lateral Total[a]	**14.4**	**64%**
Effort Loop		
Leidy Line A	8.9	65%
Leidy Lines A and B	2.3	16%
Leidy Line C	2.6	19%
Effort Loop Total[a]	**13.8**	**100%**
Project Total[a]	**28.2**	**78%**

[a] Totals may not sum exactly due to rounding.

Transco proposes the construction ROW widths to provide for safe and efficient construction of large diameter pipeline facilities in accordance with OSHA regulations (29 CFR 1926.650-1926.652, Subpart P) and Interstate Natural Gas Association of America's (INGAA) workspace guidelines (INGAA 1999). Reductions or "neck-downs" of the construction ROW may be necessary at various locations to address specific environmental or residential issues along the proposed pipeline.

Transco will maintain additional permanent ROWs adjacent to the existing ROWs where necessary along the Effort Loop and locations where the Regional Energy Lateral is collocated with Leidy Line A to accommodate a 25-foot offset between pipe centerlines. Locations where Transco would need to acquire greater than 25 feet of additional permanent ROW adjacent to its existing ROW are provided in Table 1.2-3.

Table 1.2-3
Locations Where Transco would need to Acquire Greater than 25 feet of Additional Permanent ROW Adjacent to Existing ROW

Begin MP	End MP	Total Length (feet)	Explanation
Regional Energy Lateral			
2.25	2.86	3,221	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW

Table 1.2-3
Locations Where Transco would need to Acquire Greater than 25 feet of Additional Permanent ROW Adjacent to Existing ROW

Begin MP	End MP	Total Length (feet)	Explanation
2.87	4.71	9,715	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
9.39	9.56	900	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
9.56	10.18	3,275	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
10.18	10.29	580	Proposed line located further away from existing pipeline to avoid steep slope. Required greater than 25 ft permanent ROW to avoid ROW gap
10.41	10.71	1,585	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
11.43	11.52	475	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.14	15.33	1,005	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.34	15.35	55	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.36	15.50	740	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.52	15.71	1,005	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.72	15.79	370	Existing Leidy Line A has only 30 ft of maintained ROW. Required greater than 25 ft permanent ROW
15.80	15.84	210	Area of open & undefined ROW. Assumed Leidy Line A has maintained ROW 30 ft. Required greater than 25 ft permanent ROW
15.91	15.92	55	Area of open & undefined ROW. Assumed Leidy Line A has maintained ROW 30 ft. Required greater than 25 ft permanent ROW
16.06	16.55	2,590	Narrow existing ROW between existing Leidy Line A and proposed pipeline. Required greater than 25 ft permanent ROW to avoid environmental feature.
19.77	19.87	530	Only 15 ft of existing ROW between existing Leidy Line A and proposed pipeline. Required greater than 25 ft permanent ROW
22.19	22.25	315	Proposed of dual pipelines requiring greater than 25ft permanent ROW.
22.28	22.32	210	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
Regional Energy Lateral Total		**26,836**	-
Effort Loop			
43.74	43.77	160	Only 15 ft of existing ROW between existing Leidy Line A and proposed pipeline. Required greater than 25 ft permanent ROW
48.10	48.91	4,277	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
48.93	48.95	106	Existing Leidy Line C has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
49.14	49.30	845	Existing Leidy Line C has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW

Table 1.2-3
Locations Where Transco would need to Acquire Greater than 25 feet of Additional Permanent ROW Adjacent to Existing ROW

Begin MP	End MP	Total Length (feet)	Explanation
50.53	50.71	950	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
52.60	52.73	686	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
52.75	52.84	475	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
52.85	52.97	634	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
52.99	53.34	1,848	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
53.35	53.42	370	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
53.43	53.94	2,693	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
53.95	55.42	7762	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
55.69	57.38	8,923	Existing Leidy Line A has less than 50 ft existing ROW. Required greater than 25 ft permanent ROW
Effort Loop Total		**29,728**	-

Key:
MP = milepost
ROW = right-of-way

Areas disturbed by construction that are not part of the permanent ROWs will be restored following the completion of construction activities as required by applicable agency requirements, including conditions or provisions consistent with applicable agency requirements in landowner agreements. Permanent ROWs will be restored to approximate original contours; however, ROWs will be maintained in an herbaceous state for the operational life of the pipelines. Transco requires the necessary permanent easement widths to maintain the pipeline in accordance with the United States Department of Transportation (USDOT) regulations in Title 49 Code of Federal Regulations (CFR) Part 192, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, potential for structures to be placed near the pipelines, and the potential for trees and other large vegetation to grow too close to the pipelines.

1.2.1.2 Contractor Yards and Contractor Staging Areas

During construction of the pipeline facilities, areas off of or adjacent to, the construction ROWs will be required for contractor yards and contractor staging areas. Table 1.2-4 identifies the locations of preliminary contractor yards and contractor staging areas for the Project. Transco will use contractor yards and contractor staging areas for temporary contractor field offices, parking, equipment/pipe/material storage, equipment turn-arounds, and pipe preparation/field assembly areas. The contractor yards and contractor staging areas will be located at various points in the vicinity of the Project, and in locations with convenient and safe access to the Project components.

Upon Project completion, Transco will restore areas used for contractor yards and contractor staging areas in accordance with applicable agency requirements, including provisions or conditions in landowner agreements consistent with applicable agency requirements.

Table 1.2-4
Contractor Yards and Contractor Staging Areas

Facility/County	Type	Contractor Yard ID	Nearest Milepost	Total Acres[a]
Regional Energy Lateral				
Luzerne	Contractor Yard	CY-LU-001	15.3	16.3
Luzerne	Contractor Yard	CY-LU-002	10.5	11.4
			Regional Energy Lateral Total[a]	**27.7**
Effort Loop				
Monroe	Contractor Yard	CY-MO-001	43.72	50.1
			Effort Loop Total[a]	**50.1**
			Pipeline Yards Total[a]	**77.8**

[a] Totals may not sum exactly due to rounding.

1.2.1.3 Access Roads

Transco will utilize existing and new roads to access Project workspaces. Temporary access roads and permanent access roads will be needed to construct and operate the Project facilities. Temporary access roads will be used during the construction phase of the Project and will be restored following the completion of construction activities as required by applicable agency requirements, including conditions or provisions consistent with applicable agency requirements in landowner agreements. Transco will maintain permanent access roads for the life of the respective facility. Table 1.2-5 summarizes the requirements for access roads. New temporary and permanent access roads will have a typical width of up to 30 feet, with additional width as needed to support site-specific requirements, as noted on the Erosion and Sediment

Control and Post Construction Stormwater Management Plans and the table below.

Table 1.2-5
Temporary and Permanent Access Roads for the Project

Facility/ Approximate Milepost	Access Road ID	Road Type	Modifications Required	Use (Permanent or Temporary)	Existing Land Use	Existing Width (feet)	Length (feet)	Construction Width (feet)	Land Affected During Construction (acres)	Land Affected During Operation (acres)	Road Justification
Regional Energy Lateral, Luzerne, PA											
0.1	AR-LU-032	New	-	Temporary	Open Land, Upland Forest/Woodland, Wetlands	-	1,043	12	0.6	0.0	Access to the pipeline corridor
0.6	AR-LU-031	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Residential Land, Upland Forest/Woodland	11	1,886	12	1.3	0.0	Access to the pipeline corridor
1.0	AR-LU-030	Existing Asphalt/Gravel Road	No	Temporary	Developed Land, Open Water, Residential Land, Upland Forest/Woodland	18	2,606	18	1.8	0.0	Access to the pipeline corridor
1.5	AR-LU-043	New	-	Temporary	Open Land	-	76	12	0.1	0.0	Access to the pipeline corridor
2.0	AR-LU-030.1	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Open Water, Wetlands	7	5,399	12	3.0	0.0	Access to the pipeline corridor
2.3	AR-LU-030.1	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Open Water, Wetlands	7	5,399	12	2.2	0.0	Access to the pipeline corridor
3.1	AR-LU-035	New	-	Temporary	Open Land	-	84	12	0.1	0.0	Access to the pipeline corridor
4.0	AR-LU-029	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Open Water, Upland Forest/Woodland, Wetlands	10	10,743	12	7.0	0.0	Access to the pipeline corridor
4.3	AR-LU-036	New	-	Temporary	Open Land	-	84	12	0.1	0.0	Access to the pipeline corridor
6.2	AR-LU-028	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Residential Land, Upland Forest/Woodland	30	11,153	20	7.7	0.0	Access to the pipeline corridor
7.6	AR-LU-053	Existing Dirt Road	No	Temporary	Developed Land, Open Land	30	36	30	<0.1	0.0	Access to Staging Area
7.6	AR-LU-025	New	-	Permanent	Developed Land, Upland Forest/Woodland	-	108	12	0.1	0.1	Access to the Valve Site (MLV-515RA20)
8.1	AR-LU-027	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Open Water, Upland Forest/Woodland, Wetlands	8	2,429	8	1.6	0.0	Access to the pipeline corridor
8.3	AR-LU-023	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Upland Forest/Woodland	12	3,434	12	2.3	0.0	Access to the pipeline corridor
8.5	AR-LU-024	Existing Dirt Road	Yes	Temporary	Developed Land, Upland Forest/Woodland	11	77	12	0.1	0.0	Access to the pipeline corridor
8.9	AR-LU-048	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Upland Forest/Woodland, Wetlands	8	2,583	12	1.7	0.0	Access to the pipeline corridor
9.2	AR-LU-038	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Open Water, Upland Forest/Woodland, Wetlands	15	744	15	0.5	0.0	Access to the pipeline corridor
9.6	AR-LU-021	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Upland Forest/Woodland	8	1,804	12	0.8	0.0	Access to the pipeline corridor
10.3	AR-LU-020.1	Existing Dirt Road	Yes	Temporary	Open Land, Upland Forest/Woodland	8	274	12	0.1	0.0	Access to the pipeline corridor
10.3	AR-LU-020	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Upland Forest/Woodland	8	760	12	0.4	0.0	Access to the pipeline corridor
10.4	AR-LU-019	Existing Gravel Road	Yes	Temporary	Developed Land	6	826	12	0.6	0.0	Access to the pipeline corridor
10.5	AR-LU-044	Existing Gravel Road	No	Temporary	Developed Land, Upland Forest/Woodland	30	634	30	0.4	0.0	Access to the pipeline corridor
10.7	AR-LU-018	Existing Gravel Road	Yes	Permanent	Developed Land, Open Land, Upland Forest/Woodland	16	182	16	0.1	0.1	Access to the pipeline corridor
11.1	AR-LU-039	Existing Gravel Road	No	Temporary	Open Land, Residential Land, Upland Forest/Woodland	10	327	10	0.2	0.0	Access to the pipeline corridor
11.2	AR-LU-016	New	-	Permanent	Open Land, Upland Forest/Woodland	-	19	12	<0.1	<0.1	Access to the pipeline corridor

Table 1.2-5
Temporary and Permanent Access Roads for the Project

Facility/ Approximate Milepost	Access Road ID	Road Type	Modifications Required	Use (Permanent or Temporary)	Existing Land Use	Existing Width (feet)	Length (feet)	Construction Width (feet)	Land Affected During Construction (acres)	Land Affected During Operation (acres)	Road Justification
11.5	AR-LU-015.3	Existing Gravel Road	No	Temporary	Developed Land	12	577	12	0.4	0.0	Access to the pipeline corridor
11.6	AR-LU-046	Existing Gravel Road	No	Temporary	Developed Land	23	651	23	0.5	0.0	Access to the pipeline corridor
11.7	AR-LU-050	Existing Asphalt Road	No	Temporary	Developed Land, Upland Forest/Woodland	24	298	24	0.3	0.0	Access to the pipeline corridor
11.8	AR-LU-015.1	Existing Asphalt Road	No	Temporary	Developed Land, Upland Forest/Woodland	15	16	15	<0.1	0.0	Access to the pipeline corridor
12.5	AR-LU-040	Existing Asphalt/Gravel/Dirt Road	Yes	Temporary	Developed Land, Residential Land, Upland Forest/Woodland	10	421	12	0.2	0.0	Access to the pipeline corridor
12.7	AR-LU-015	New	-	Temporary	Developed Land, Upland Forest/Woodland	-	14	12	<0.1	0.0	Access to the pipeline corridor
12.9	AR-LU-015.2	Existing Gravel Road	Yes	Temporary	Developed Land, Upland Forest/Woodland	12	155	12	0.1	0.0	Access to the pipeline corridor
13.4	AR-LU-049	Existing Dirt/Gravel Road	Yes	Temporary	Developed Land, Open Land	11	1,273	12	0.6	0.0	Access to the pipeline corridor
13.8	AR-LU-052	Existing Dirt/Gravel Road	Yes	Temporary	Residential Land, Upland Forest/Woodland	11	689	12	0.5	0.0	Access to the pipeline corridor
14.1	AR-LU-013.1	New	-	Temporary	Residential Land, Upland Forest/Woodland	-	274	12	0.2	0.0	Access to the pipeline corridor
14.8	AR-LU-037.1	Existing Asphalt/Dirt Road	Yes	Temporary	Developed Land, Upland Forest/Woodland, Wetlands	8	276	12	0.2	0.0	Access to the pipeline corridor
14.8	AR-LU-037	New	-	Permanent	Developed Land, Upland Forest/Woodland	-	172	12	0.1	0.1	Access to the Valve Site (MLV-515RA30)
14.9	AR-LU-041	Existing Asphalt Road	No	Temporary	Developed Land, Open Land	19	448	19	0.2	0.0	Access to the pipeline corridor
15.1	AR-LU-013	Existing Asphalt Road	No	Temporary	Residential Land	19	144	19	0.1	0.0	Access to the pipeline corridor
15.3	AR-LU-012.1	Existing Gravel Road	No	Temporary	Developed Land, Upland Forest/Woodland	10	94	10	<0.1	0.0	Access to Contractor Yard (CY-LU-001)
15.4	AR-LU-012	Existing Gravel Road	No	Temporary	Developed Land, Upland Forest/Woodland	10	801	10	0.3	0.0	Access to the pipeline corridor
16.0	AR-LU-011	Existing Asphalt/Dirt Road	Yes	Temporary	Open Land, Residential Land, Upland Forest/Woodland	10	776	12	0.6	0.0	Access to the pipeline corridor
16.2	AR-LU-051	Existing Dirt Road	Yes	Temporary	Upland Forest/Woodland	7	189	12	0.1	0.0	Access to the pipeline corridor
16.8	AR-LU-010	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Open Water, Upland Forest/Woodland	12	2,047	12	1.3	0.0	Access to the pipeline corridor
17.3	AR-LU-009	Existing Gravel Road	No	Temporary	Agricultural Land, Developed Land, Open Water, Upland Forest/Woodland	12	606	12	0.4	0.0	Access to the pipeline corridor
17.4	AR-LU-045	Existing Asphalt Road	No	Temporary	Developed Land, Upland Forest/Woodland	16	1,502	16	0.7	0.0	Access to the pipeline corridor
19.6	AR-LU-005	New	-	Temporary	Developed Land, Open Land	-	30	12	<0.1	0.0	Access to the pipeline corridor
21.1	AR-LU-003	Existing Gravel Road	Yes	Temporary	Developed Land, Upland Forest/Woodland	15	311	15	0.2	0.0	Access to the pipeline corridor
21.8	AR-LU-006	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Open Water, Upland Forest/Woodland	12	291	12	0.2	0.0	Access to the pipeline corridor
22.0	AR-LU-002	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land	14	3,095	14	2.1	0.0	Access to the pipeline corridor
22.3	AR-LU-001	Existing Gravel Road	Yes	Permanent	Developed Land, Open Land, Open Water[b], Residential Land, Upland Forest/Woodland	10	1,068	10	0.6	0.6	Access to the Valve Site (MLV-515RA40)
Effort Loop, Monroe, PA											
44.0	AR-MO-018	Existing Gravel Road	No	Temporary	Agricultural Land, Developed Land, Residential Land	54	9	54	<0.1	0.0	Access to Contractor Yard (CY-MO-001)

Table 1.2-5
Temporary and Permanent Access Roads for the Project

Facility/ Approximate Milepost	Access Road ID	Road Type	Modifications Required	Use (Permanent or Temporary)	Existing Land Use	Existing Width (feet)	Length (feet)	Construction Width (feet)	Land Affected During Construction (acres)	Land Affected During Operation (acres)	Road Justification
45.4	AR-MO-006	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Open Water, Residential Land, Upland Forest/Woodland	28	571	28	0.4	0.0	Access to the pipeline corridor
45.9	AR-MO-005	Existing Gravel Road	No	Temporary	Developed Land, Open Land	20	114	20	0.1	0.0	Access to the pipeline corridor
46.2	AR-MO-012	Existing Asphalt Road	No	Temporary	Developed Land, Residential Land, Upland Forest/Woodland	14	421	14	0.3	0.0	Access to the pipeline corridor
46.3	AR-MO-011	New	-	Temporary	Agricultural Land, Developed Land, Upland Forest/Woodland	-	480	12	0.3	0.0	Access to the pipeline corridor
47.5	AR-MO-010	Existing Gravel Road	No	Temporary	Agricultural Land, Developed Land, Residential Land	10	475	10	0.2	0.0	Access to the pipeline corridor
48.0	AR-MO-009	Existing Asphalt Road	No	Temporary	Developed Land, Open Land	22	56	22	<0.1	0.0	Access to the pipeline corridor
48.9	AR-MO-013	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Residential Land, Upland Forest/Woodland	11	1,904	11	0.9	0.0	Access to the pipeline corridor
49.6	AR-MO-008	Existing Gravel Road	No	Permanent	Open Land, Developed Land, Upland Forest/Woodland	12	886	12	0.2	0.2	Access to the Valve Site (MLV-505LD86)
49.6	AR-MO-007	New	-	Permanent	Open Land, Residential, Developed Land	-	94	12	<0.1	<0.1	Access for landowner
55.5	AR-MO-004	Existing Gravel Road	No	Temporary	Developed Land, Open Land, Upland Forest/Woodland	25	580	25	0.5	0.0	Access to the pipeline corridor
56.7	AR-MO-003	Existing Gravel Road	Yes	Temporary	Developed Land, Open Land, Upland Forest/Woodland	8	308	12	0.2	0.0	Access to the pipeline corridor
57.1	AR-MO-002	Existing Asphalt Road	No	Temporary	Developed Land, Wetlands	26	581	26	0.8	0.0	Access to the pipeline corridor
57.5	AR-MO-014	Existing Gravel Road	No	Temporary	Developed Land, Open Land	Width Varies	134	12	0.1	0.0	Access to the valve site
57.5	AR-MO-001	New	-	Permanent	Developed Land, Open Land	-	311	12	0.1	0.1	Access to the pipeline corridor
Compressor Station 515, Luzerne, PA											
N/A	AR-CS515-001	Existing Asphalt Road	No	Temporary	Developed Land/ Open Land	20	228	20	0.1	0.0	Access to the Station Staging Area
N/A	AR-CS515-002	Existing Asphalt Road	No	Temporary	Developed Land/ Open Land	20	99	20	0.1	0.0	Access to the Station Staging Area
N/A	AR-HWY115-001	Existing Dirt/Gravel Road	Yes	Temporary	Agricultural/ Developed Land/ Open Land/ Upland Forest/Woodland	12	563	20	0.3	0.0	Access to the Station Laydown Yard
Compressor Station 200, Chester, PA											
N/A	AR-CS200-001	Existing Dirt/Gravel Road	No	Temporary	Developed Land, Residential Land, Upland Forest/Woodland	20	115	20	0.1	0.0	Access to the Station Staging Area
N/A	AR-CS200-002	Existing Asphalt Road	No	Temporary	Developed Land, Residential Land, Upland Forest/Woodland	20	346	20	0.2	0.0	Access to the Station
N/A	AR-CS200-003	Existing Gravel Road	Yes	Temporary	Developed Land	10	269	20	0.1	0.0	Access to the Station
Lower Demunds REL Tie In, Luzerne, PA											
22.1	AR-L_DEMUNDS-001	Existing Gravel Road	No	Permanent	Developed Land, Open Land, Open Water[b]	20	678	20	0.4	0.4	Access to the Station

Table 1.2-5
Temporary and Permanent Access Roads for the Project

Facility/ Approximate Milepost	Access Road ID	Road Type	Modifications Required	Use (Permanent or Temporary)	Existing Land Use	Existing Width (feet)	Length (feet)	Construction Width (feet)	Land Affected During Construction (acres)	Land Affected During Operation (acres)	Road Justification
22.3	AR-L_DEMUNDS-002	Existing Gravel Road	No	Temporary	Open Land	20	442	20	0.2	0.0	Access to the Station
Carverton Tie-In, Luzerne, PA											
16.8	AR-CARVERTON-001	Existing Gravel Road	No	Temporary	Developed Land, Open Land	20	552	20	0.3	0.0	Access to the Station
Delaware River Regulator, Northampton, PA											
N/A	AR-DELAWARE-001	Existing Asphalt Road	No	Temporary	Developed Land, Residential Land, Upland Forest/Woodland	20	11	20	<0.1	0.0	Access to the Station
N/A	AR-DELAWARE-002	Existing Asphalt Road	No	Temporary	Developed Land, Residential Land, Open Land, Open Water[b], Upland Forest/Woodland	45	1,756	20	1.1	0.0	Access to the Station Staging Area
N/A	AR-DELAWARE-003	Existing Asphalt Road	No	Temporary	Developed Land, Open Land	20	964	20	0.4	0.0	Access to the Station Staging Area
N/A	AR-DELAWARE-005	Existing Asphalt Road	No	Temporary	Developed Land	28	11	20	<0.1	0.0	Access to the Station
Mainline A Regulator, Bucks, PA											
N/A	AR-MLA-001	Existing Gravel Road	No	Temporary	Developed Land	20	36	20	<0.1	0.0	Access to Station

[b] Access will utilize existing culvert to cross open water-waterbody, with no modifications proposed.

Key:
AR = Access Road
CY = Contractor Yard
N/A = Not applicable

1.2.1.4 Additional Temporary Workspace

Typically, pipeline construction requires ATWS at road crossings, wetlands, waterbodies, agricultural land locations, and in areas where specialized construction techniques are required, such as on steep slopes and bedrock that needs blasting. The configurations and sizes of ATWS are site-specific and vary in accordance with the construction method, crossing type, and other construction needs. Section 1.3.3 provides descriptions of the construction techniques typically requiring ATWS. ATWS will be used during the construction phase of the Project and will be restored following the completion of construction activities as required by applicable agency requirements, including conditions or provisions consistent with applicable agency requirements in landowner agreements

1.2.1.5 Cathodic Protection

A cathodic protection system is installed adjacent to a pipeline to control corrosion of the pipeline due to electrical currents that result from the movement of natural gas through the pipeline. Transco will install a cathodic protection system for the new pipeline facilities, as well as tie-in to existing groundbeds where possible. One remote groundbed will be installed on the Regional Energy Lateral at approximate MP 15.4, and two deep anode groundbeds at MP 19.8 and at MVL-515RA20 near MP 7.5. One groundbed will be installed on Effort Loop at approximate MP 43.7.

1.2.2 Aboveground Facilities

Table 1.2-1 summarizes the land requirements for the new aboveground facilities and modifications to existing aboveground facilities associated with the Project.

Land requirements for new aboveground facilities include the total land required for construction. Land requirements for existing aboveground facilities include the total land required for construction that is within the existing facility fence line, additional new footprint required for facility modifications where applicable, and temporary workspaces to support construction.

1.2.2.1 Contractor Yards and Contractor Staging Areas

During construction of the aboveground facilities, areas off, or adjacent to, the facility workspaces will be required for contractor yards and contractor staging areas. Table 1.2-6 identifies the locations of preliminary contractor yards and contractor staging areas for the Project. Transco will use contractor yards and contractor staging areas for temporary contractor field offices, parking, equipment/pipe/material storage, equipment turn-arounds, and field assembly

areas. The contractor yards and contractor staging areas will be located at various points in the vicinity of the Project, and in locations with convenient and safe access to the Project components.

Table 1.2-6
Contractor Yards and Contractor Staging Areas for Aboveground Facilities

Facility/County	Type	Contractor Yard or Contractor Staging Area ID	Nearest Milepost	Total Acres
Luzerne, PA	Contractor Yard/Staging Area	CS 515 Laydown Yard	0.0	3.6
Chester, PA	Contractor Yard/Staging Area	CS 200 Yard	N/A	1.7 [b]
			Aboveground Facilities Yards Total[a]	**5.3**

[a] Totals may not sum exactly due to rounding.
[b] Acreage include within workspace for CS200
Key:
N/A = Not applicable

1.3 CONSTRUCTION SCHEDULE AND PROCEDURES

Transco will design, construct, test, operate, and maintain all Project facilities to conform with applicable regulations, including USDOT regulations in 49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and Commission regulations in 18 CFR Section 380.15: *Siting and Maintenance Requirements*. In addition, unless otherwise authorized through a modification granted by FERC, Transco will comply with the FERC Plan and FERC Procedures as well as other applicable local, state and federal regulations, including the PADEP Chapter 102 and 105 permit requirements.

1.3.1 Construction Schedule

If certificated by FERC and upon receipt of all necessary authorizations and permits, Transco anticipates mobilization and construction of the Project facilities in third quarter 2022. Construction of the proposed facilities is anticipated to be completed to meet a target in-service of fourth quarter 2023. A preliminary construction schedule by Project facility is included in Table 1.3-1.

Table 1.3-1
Construction Schedule

Facility	Start Date	Completion Date
PENNSYLVANIA		
Regional Energy Lateral		
Pipeline Section	Q4 2022	Q4 2023
Trenchless Crossing (Direct Pipe®) Section	Q3 2022	Q3 2023
Effort Loop		
Pipeline Section	Q4 2022	Q4 2023
Compressor Stations		
Compressor Station 515	Q1 2023	Q4 2023
Compressor Station 195	Q1 2023	Q3 2023
Compressor Station 200	Q1 2023	Q3 2023
Other Aboveground Facility Modifications		
Hildebrandt Tie-In	Q1 2023	Q3 2023
Lower Demunds REL Tie-In	Q1 2023	Q3 2023
Carverton Tie-In	Q1 2023	Q3 2023
Delaware River Regulator	Q1 2023	Q3 2023
Mainline A Regulator	Q1 2023	Q3 2023
Key: Q = Quarter		

Transco will notify landowners via letters, phone, or in person of planned construction activities at least seven days prior to scheduled construction unless more advance notice is required by the landowner agreement. In general, construction activities will occur from 7:00 a.m. to 7:00 p.m. or daylight hours, Monday through Saturday. This standard daily schedule allows optimal use of daytime hours and offers safer construction conditions during the peak construction season. However, the following construction activities, once in progress, cannot be stopped at a precise time for safety, practical, or logistical reasons:

- HDD pipe pullback activities;
- Direct Pipe® tunneling activities;
- Preparing for and the actual performance of strength and leak testing of pipeline segments (including blowing down, dewatering, and drying activities);
- Tie-in welds and X-ray of same welds;
- Trench dewatering;
- Running pumps for stream crossings;

- Electrical conductor installation into conduit runs and wiring raceways (compressor stations);
- Terminations and verifications of conductors (compressor stations); and
- Pre-commissioning and commissioning activities.

Transco will make every effort to schedule these activities to be completed during normal working hours; however, there will be circumstances where Transco will be unable to halt these construction activities at a precise time, and work will extend into night-time and/or Sunday hours. In that event, Transco would cease construction as soon as it could do so in a safe and responsible manner. Prior to construction, Transco will notify affected landowners that night-time work for specific activities may occur during the course of the Project. Transco will maintain a Project hotline to afford landowners the opportunity to report any issues or complaints.

Hydrostatic testing for strength and leak testing of the pipeline requires around-the-clock activities until it is complete, including welding on temporary traps and valves, cleaning runs, cutting of temporary traps/valves and welding on test manifolds, filling the pipeline, conducting the hydrostatic test, blowdown from test pressure, dewatering, cutting off manifolds, drying runs, and caliper pig runs.

Additionally, there are other circumstances that necessitate unplanned construction activity outside of typical work hours, including:

- Completion of wetland or waterbody crossing associated with unforeseen circumstances (i.e., in anticipation of heavy precipitation upstream, unexpected constructability issues, etc.);
- Major road crossings;
- Maintenance work on construction equipment needed to be operational for the following day;
- Heating of concrete when mean temperature is below 40 degrees;
- Idling of equipment overnight in extreme cold weather; and
- Pipeline recompression and blowdown for line outages for the purposes of system tie-ins.

Transco values the opportunity to observe most federal holidays. However, all decisions are based on the progress of the Project and could possibly necessitate work continuance through a federal, state, or local holiday period.

1.3.2 General Pipeline Construction Procedures

The general procedures for pipeline construction are described in this section. Transco will use conventional techniques for buried pipeline construction to support safe, stable, and reliable transmission facilities, consistent with Commission and USDOT specifications. Construction of the proposed pipelines will follow a set of sequential operations, unique to the pipeline industry. Transco anticipates that the Project will require multiple construction spreads (one per pipeline) that will proceed along the pipeline ROWs in one continuous operation. MLV construction will be completed by a special crew which is accounted for in the pipeline crews. Separate crews will be required for each compressor station and aboveground facilities will be grouped into geographic spreads. The entire process will be coordinated in such a manner as to minimize the total time a tract of land is disturbed and, therefore, susceptible to erosion and/or temporarily precluded from its normal use.

Areas requiring special construction plans and techniques may include road or utility crossings, waterbodies and wetlands, unusual topographies associated with unstable soils and trench conditions, residential or urban areas, agricultural areas, and areas requiring rock removal, among others. Construction procedures associated with these areas are discussed in Section 1.3.3. In addition, Transco will install cathodic protection in accordance with applicable requirements and permits.

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Pipeline Construction

How Williams Builds Pipelines

1. Pre-construction survey

Before construction begins, Williams surveys environmental features along proposed pipeline segments. Utility lines and agricultural drainages are located and marked to prevent accidental damage during pipeline construction. The pipeline's centerline and the exterior right-of-way and workspace is staked.

2. Clearing and grading

The pipeline right-of-way is cleared of vegetation. Temporary erosion control measures are installed prior to any earth-moving activities. Topsoil is removed from the work area and stockpiled in agricultural areas.

3. Pipe stringing and bending

Individual joints of pipe are strung along the right-of-way adjacent to the excavated ditch and arranged so they are accessible to construction personnel. A mechanical pipe-bending machine bends individual joints of pipe to the desired angle at locations where there are significant changes in the natural ground contours or where the pipeline route changes direction.

4. Welding, pipe coating and x-ray inspection

After the stringing and bending are complete, the pipe sections are aligned, welded together, and placed on temporary supports along the edge of the trench. All welds are then x-rayed. Line pipe requires a coating at the welded joints. The entire pipe coating is then electronically inspected.

5. Trenching

Williams then uses backhoes and trenching machines to excavate the trench. The soil that is excavated during ditching operations is temporarily stockpiled on the right-of-way.

6. Lowering pipe in and backfilling

The pipe assembly is lowered into the trench by sideboom tractors. The trench is backfilled. No foreign materials are allowed in the trench.

7. Testing

After backfilling, the pipe is filled with water and pressure tested. Tested water is obtained and disposed of in accordance with applicable regulations.

8. Restoration

Williams' policy is to clean up and restore the work area as soon as possible. Disturbed areas are restored, as nearly as possible, to their original contours. Temporary environmental control measures are maintained until the area is restored, as closely as possible, to its original condition.

Figure 1.3-1 Typical Pipeline Construction Sequence

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1.3.2.1 Surveying and Staking

Transco will notify affected landowners prior to performing pre-construction surveys and staking. Following these notifications, a land survey crew will survey and stake the outside limits of the proposed construction ROWs and ATWS areas, the centerline of the pipeline and access roads, as well as drainages and highway and railroad crossings. Crews will locate existing utility lines (e.g., cables, conduits, and pipelines) and mark them with flags, stakes, or other devices to prevent accidental damage during pipeline construction.

Civil survey crews will follow environmental crews and mark or record delineated resource areas, including wetland boundaries, waterbodies, cultural resource sites, and rare species habitat, as applicable, with appropriate fencing, signage, and/or flagging. The identification of these areas will be based on environmental and cultural surveys and environmental permit conditions.

1.3.2.2 Erosion and Sediment Control

Following the establishment and clearing of workspace, Transco will install temporary soil erosion and sediment control measures along the construction ROW, ATWS areas, access roads, and other work areas, as applicable, in accordance with the Transco Plan and Transco Procedures. Use of best management practices (BMPs) presented in the Transco Plan and Transco Procedures as well as state permit applications will minimize erosion of disturbed soils and prevent the transportation of sediment outside of the construction ROWs and into environmentally sensitive areas such as wetlands and waterbodies.

To confirm that appropriate erosion and sediment control measures are maintained until the construction workspace is fully stabilized, the Environmental Inspector (EI) will inspect all disturbed areas of the construction spread(s) (e.g., construction ROW and contractor yards) that have not been permanently stabilized. Inspections will occur in accordance with the following schedule: 1) on a daily basis in areas of active construction; 2) on a weekly basis in areas with no construction or equipment operation; or 3) within 24 hours of a storm event that is 0.5-inch or greater.

1.3.2.3 Clearing, Grading, and Fencing

The construction corridor will be cleared and graded to remove vegetation, brush, trees, roots, and other obstructions, such as large rocks and stumps. The ROW will be graded, where necessary, to create a level workspace to allow for safe construction conditions. Grading will be

limited in wetland areas where possible. Temporary fences and gates will be installed, as needed. No cleared material will be placed within wetland areas.

Activity related to the storage of materials adjacent to wetland and waterbody locations will be limited to the temporary placement of cleared vegetation, permitted construction equipment and materials, as well as spoils generated from trenching operations. The placement of these materials in these locations will be temporary and all materials (excluding installed erosion control devices) will be removed prior to restoration.

Transco will clear the ROW of vegetation using mechanical means to the extent practicable, which may include feller-bunchers, hydro-axes, forwarders, skidders, and other appropriate equipment. Clearing by hand with chainsaws may be implemented where specific safety or environmental concerns warrant.

Disposal of trees cleared from the ROW may be accomplished using several different methods. Trees, if suitable, may be taken off-site by the clearing contractor and used for timber. Trees may be chipped on-site and removed. Chipped material not removed may be spread across the ROW within upland areas in a manner that does not inhibit revegetation. Wood chips will not be left within agricultural lands or wetlands. Also, wood chips will not be stockpiled in a manner that could result in transport into a wetland or waterbody.

Timber will be disposed of by Transco's contractor at an appropriate receiving facility (e.g., landfills, transfer stations, composting centers, and wood product processors or purveyors). Timber will not be stacked in waterways or left within wetlands.

To the extent practicable, access to the construction ROW will be obtained via public roads that intersect the ROW; however, use of temporary roads (i.e., existing private roads) and construction of new access roads will also be required. Transco will obtain permission from landowners for the use/improvement of access roads across their property to the construction ROW.

Transco will grade the construction ROW to allow for the movement of heavy equipment and the safe passage of work crews. Grading will include removing rock outcrops, tree stumps, ridges and topographic irregularities. Generally, machinery will operate on one side of the trench (working side), and excavated materials will be stockpiled on the other (spoil side).

As appropriate, clearing and grading operations will incorporate special construction procedures, as discussed in Section 1.3.3, to minimize the amount of vegetation removed from

stream banks and slopes, prevent undue disturbance of the soil profile, restore the approximate original contours of the natural ground, and prevent topsoil erosion.

1.3.2.4 Pipe Stringing

Steel pipe will be procured in nominal 40-foot lengths or joints and protected with a fusion -bonded epoxy coating applied at the factory (the beveled ends will be left uncoated for welding). Stringing operations involve moving pipe sections into position along the prepared ROW. Pipe will be delivered to the Project's contractor yards by truck. It will then be trucked to approved construction workspaces. Individual joints of pipe will be strung along the ROW parallel to the centerline and arranged so they are easily accessible to construction personnel. The amount of pipe necessary for waterbody or road crossings will typically be stockpiled in the approved ATWS near each crossing.

1.3.2.5 Pipe Bending

Bending of the pipe will be required to allow the pipeline to follow natural topographic grade changes and direction changes of the ROW. For this purpose, prior to line-up and welding, selected joints will be field-bent by track-mounted hydraulic bending machines. For larger horizontal changes of direction, manufactured bends may be used.

Pipe bending in the field will be utilized for turns involving slight deflections and/or large radii. For turns involving larger deflections and/or small radii, often related to spatial limitations due to easement and topographic constraints, prefabricated elbow fitting (ells) will be utilized, rather than pipe bending on-site.

1.3.2.6 Pipe Assembly and Welding

Following stringing and bending, the joints of pipe will be placed on temporary supports adjacent to the travel lane. The ends will be carefully aligned and welded together using multiple passes for a full penetration weld. Only welders qualified according to applicable American National Standards Institute, American Society of Mechanical Engineers, and American Petroleum Institute (API) Standards will be permitted to perform the welding. A Transco-approved welding inspector will conduct the welder qualification testing and document all test results. A welder failing to meet acceptance criteria of the Williams Company Standard Welder Qualification Test will be disqualified. Bending, welding, and coating in the field will comply with USDOT regulations (49 CFR Part 192).

1.3.2.7 X-Ray and Weld Repair

To confirm that the assembled pipe meets or exceeds the design strength requirements and to confirm weld quality and integrity, the welds will be inspected visually and tested non-destructively using radiographic (X-ray) or another approved test method, in accordance with API Standards. Welds displaying inclusions (void spaces) or other defects will be repaired, or cut out (removed) and new welds will be installed and retested.

1.3.2.8 Coating Field Welds, Inspection, and Repair

Following welding, the previously uncoated ends of the pipe at the joints will be field-coated with a Transco- and industry-approved anti-corrosion coating. Prior to lowering the pipe into the trench, the coating on the entire pipe section will be inspected and damaged areas repaired.

1.3.2.9 Trenching

Track-mounted excavators will excavate the trench for the pipeline. Generally, the trench will be approximately 14 to 24 inches wider than the depth of the pipe, depending upon the nature of the substrate, with sufficient depth to allow for the minimum cover requirements to the top of the pipeline, in accordance with USDOT regulations pursuant to the Natural Gas Pipeline Safety Act of 1968.

Except as depicted on site-specific plans or as required by permit conditions, the depth of cover for the pipeline will meet or exceed the USDOT's minimum specifications in accordance with federal and/or state regulations, as applicable, as set forth in Table 1.3-2. Transco will install the pipeline with a minimum of 36 inches of cover.

Table 1.3-2
Project Minimum Specifications for Pipeline Depth of Cover (inches)

Location[a]	Soil	Consolidated Rock
USDOT PHMSA Class 1	36	36
USDOT PHMSA Class 2, 3, and 4	36	36
Land in Agriculture	36 - 48[b]	N/A
USDOT Public Roads	60	N/A
Drainage ditches of public roads	36	N/A
USACE Navigable river, stream, or harbor	48	N/A

Notes:
[a] As defined by USDOT PHMSA at 49 CFR 192.5.
Class 1: offshore areas and areas within 220 yards of a pipeline with ≤10 buildings intended for human occupancy.
Class 2: areas within 220 yards of a pipeline with >10 but <46 buildings intended for human occupancy.

Table 1.3-2
Project Minimum Specifications for Pipeline Depth of Cover (inches)

Location[a]	Soil	Consolidated Rock
Class 3: areas within 220 yards of a pipeline with ≥46 buildings intended for human occupancy and areas within 100 yards of either a building or a small, well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least five days per week for 10 weeks in any 12-month period.		
Class 4: areas within 220 yards of a pipeline where buildings with four or more stories are prevalent.		
[b] Depending on landowner agreements		

Key:
CFR = Code of Federal Regulations
N/A = not applicable
PHMSA= Pipeline and Hazardous Materials Safety Administration
USACE= U.S. Army Corps of Engineers
USDOT= U.S. Department of Transportation

1.3.2.10 Pipe Preparation and Lowering-In

Once the pipeline has been welded together, coated, and inspected, the pipe will be lowered into the trench. If the bottom of the trench is rocky, methods to protect the pipe will be used, including sandbags or support pillows at designated intervals along the trench. Trench dewatering may be required in certain locations to prevent the pipe from floating and to allow certain limited activities to be performed in the trench. Trench dewatering will be performed in accordance with best management practices.

1.3.2.11 Tie-Ins

At select locations, such as waterbody crossings, road crossings, constrained working areas and terrain changes along the pipeline, the pipe will be lowered into the trench in segments. The segments will then be welded together in the trench or tied-in prior to backfilling. A crew will be assigned to make these tie-ins at designated locations ahead of the backfill operations.

1.3.2.12 Padding, Backfilling, and Grade Restoration

After the pipe is lowered into the trench, the trench will be backfilled. Backfill usually consists of the material originally excavated from the trench; however, in some cases, additional backfill from other sources may be required. Transco will utilize a padding machine prior to conventional backfilling operations. Use of this equipment will prevent rock material mixed with subsoil from making direct contact with the pipeline. Padding operations are anticipated to provide at least six inches of screened subsoil cover below and along the sides of the pipe, as well as 12 inches of screened subsoil cover above the pipe. Once the pipeline is adequately protected with screened subsoil, conventional backfilling operations will occur. Excess excavated

materials or materials unsuitable for backfill will be handled as approved by the landowner or applicable agency or disposed of in accordance with applicable regulations. In areas where topsoil has been segregated, the subsoil will be placed in the trench second, and then the topsoil will be placed over the subsoil. Backfilling will occur to approximate grade; however, a soil crown may be placed above the trench to accommodate future soil settlement.

1.3.2.13 Clean-up and Restoration

After the completion of backfilling, disturbed areas will be graded to the approximate original grade where feasible, and remaining trash and debris will be properly disposed of in compliance with applicable regulations. The construction corridor will be protected by the implementation of permanent erosion control measures, including site-specific contouring, slope breakers, mulching, and reseeding to establish soil-holding vegetation. Contouring will be accomplished using acceptable excess soils from construction. If sufficient soils are not available, additional soil will be imported by Transco in accordance with applicable requirements.

Transco will restore the construction workspace in accordance with Transco's Plan and Procedures. Disturbed areas of the Project that were previously vegetated and are not converted to impervious surface will be restored following the completion of construction activities as required by applicable agency requirements, including conditions or provisions consistent with applicable agency requirements in landowner agreements. Appropriate seed mixes are described in the erosion and sediment control plans. Consultations regarding wetland- and waterbody-specific restoration activities are ongoing with the state regulatory agencies and USACE, as appropriate.

In accordance with the Transco Plan, cleanup operations will begin immediately following backfill operations. Final grading, topsoil replacement, and installation of permanent erosion control structures will be completed within 20 days of backfilling the trench, and within 10 days in residential areas. If seasonal or other weather conditions or other construction conditions prevent compliance with these timeframes, Transco will maintain temporary erosion control measures until the cleanup is completed. Wet weather conditions could result in a delay in cleanup operations if spoil piles become saturated to the point where they liquify when being handled.

Transco is consulting with the PA Game Commission (PGC), and other applicable agencies regarding post-construction restoration requirements on state-owned or state-managed lands. Transco is working with these agencies to minimize Project--related impacts on state-owned or state--managed lands.

1.3.2.14 Hydrostatic Testing

The pipeline will be hydrostatically tested in accordance with USDOT regulations, 49 CFR Part 192. The pipeline will be filled with water and maintained at a test pressure for a duration of eight hours in compliance with Transco's engineering standards and applicable federal regulations. After the completion of a satisfactory test, the water will be discharged to the ground through a containment structure to an approved vegetated upland area, directly discharged to the withdrawal source via weir tank and diffuser, or hauled off-site to an approved disposal facility in compliance with state regulations. Where hydrostatic test water is discharged on site, the discharge rate would be controlled by first discharging from the pipeline into temporary holding tanks, and subsequently controlling the rate of discharge from the holding tank to hay-bale discharge structures for upland discharge, or with a diffuser for discharge to the Susquehanna River.

1.3.3 Specialized Construction Procedures

In addition to conventional pipeline construction techniques, specialized construction techniques will be utilized in sensitive resource areas, including waterbody and wetland crossings or in areas with construction constraints, such as residential areas, road crossings, utility crossings, areas with side slopes, and rocky areas. Specialized construction procedures are described below.

1.3.3.1 Trenchless Construction Methods

Transco evaluated several methods of trenchless construction: conventional horizontal bore, HDD, and Direct Pipe®. These techniques may be used in an attempt to reduce impacts associated with construction in comparison with using conventional (trenching) construction techniques. Transco evaluated the benefits, risks, and feasibility of trenchless construction methods. A brief description of each method to be utilized is provided in the following paragraphs.

Conventional Horizontal Bore

To complete a conventional horizontal bore, a pit on either side of the road, railroad, or stream will be excavated to provide a working area for the equipment. A boring machine will be lowered into one pit, and a horizontal hole will be bored to a diameter slightly greater than the diameter of the pipe (or casing, if required) at the depth of pipeline installation. The pipeline section will then be pushed through the bore to the opposite pit. If additional pipeline sections are required to span the length of the bore, they will be welded to the first section of the pipeline in the bore pit prior to being pushed through.

Horizontal Directional Drill

At this time, no HDDs are proposed for this Project.

Direct Pipe®

The Direct Pipe® method provides trenchless installation using tunneling techniques in one single, continuous working operation combining a pipe thruster and microtunneling machine, allowing a hole to be created and a pre-fabricated pipe inserted concurrently. For the Direct Pipe® method, the pipeline is welded and tested then stored on the launch side. A microtunneling machine is attached to the front of the pipeline, and the pipe thruster unit then pushes the pipeline and the microtunneling machine into the ground, as the microtunneling machine excavates the tunnel. During this process, fluid consisting of primarily bentonite clay and water is supplied to the machine face, where it mixes with the excavated ground to become a drilling slurry. This drilling slurry is pumped through a dedicated discharge line through the inside of the pipeline to the separation plant at the ground surface. The microtunneling machine can be fitted with different cutting tools depending on geologic conditions to allow for the machine to cut through different subsurface conditions. Direct Pipe® construction may be shorter and shallower than HDD installations because fluid pressures in the annular space and at the cutting head are typically lower than fluid pressures associated with HDD, reducing risks associated with inadvertent returns. Additionally, during a Direct Pipe® installation, the excavated tunnel is continuously cased, which can reduce the risk of hole collapse and subsequent settlement. Due to its feasibility in some geological conditions, the Direct Pipe® method may be utilized in locations where an HDD may not be feasible.

Transco proposes to install the Regional Energy Lateral crossing of the Susquehanna River via Direct Pipe®. Information for the trenchless crossing of the Susquehanna River is included in Table 1.3-3.

Table 1.3-3
Summary of Direct Pipe® Crossing

Project Component/ Trenchless Crossing	Hole Diameter (inches)	Pipe Length (feet)	Entry Milepost	Exit Milepost	Estimated Duration (Months)	Expected Start Date	Primary Purpose
Regional Energy Lateral							
Susquehanna River	42	1,306	13.5	13.7	Approx. 2-3[a]	Q3 2022	Major river and highway
[a] Estimated duration is inclusive of site preparation, launch pit preparation, setup of equipment, tunneling activities, pipe installation, and equipment removal. Tunneling activities which may require 24-hour operations anticipated to be approximately 2 to 3 weeks.							

1.3.3.2 Waterbody Crossing Procedures

Crossing of waterbodies will be conducted in accordance with applicable state and federal permits, and Transco Procedures. Transco will utilize various methods for installation of the pipeline across waterbodies, depending on waterbody classifications and flow conditions at the time of crossing. In accordance with FERC Procedures, waterbodies will be classified as "minor," "intermediate," or "major," as follows:

- Minor waterbodies include all waterbodies less than or equal to 10 feet wide at the water's edge at the time of crossing;
- Intermediate waterbodies include all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water's edge at the time of crossing; and
- Major waterbodies include all waterbodies greater than 100 feet wide at the water's edge at the time of crossing.

Conventional Open-Cut Method

If a waterbody proposed to be crossed by a dry-ditch crossing method is dry or has no discernable flow at the time of construction, the conventional open-cut method will be used. Transco will be prepared to suspend conventional open-cut construction at the crossing and switch to one of the dry-crossing methods described below if there is discernible flow. Temporary diversion structures and necessary construction equipment will be on-site at proposed open-cut crossings in case it is necessary to switch to a dry-ditch crossing method. Transco will monitor weather conditions to anticipate the need for using a dry-ditch crossing method.

Dam and Pump Crossing Method

The dam and pump crossing method consists of diversion structures used to temporarily dam the waterbody, which can consist of one or more of the following: imported concrete jersey barriers, water bladder, port-a-dams, steel plates, and/or sand bags. The selection of the dam type or material depends on the stream or waterbody depth, flow velocity, channel width, and flow type.

This method for crossing streams and waterbodies temporarily diverts stream flow around construction area activities while maintaining downstream flow at all times. Damming structures will be installed upstream and downstream of the proposed trench. Pumps and hoses will be used to convey flow around the in-stream work area, discharging the water downstream of the construction site and creating a dry work area. Multiple discharge pumps may be required to keep the area dry and maintain adequate flow to avoid flooding of the waterbody upstream.

Pumps and hoses will be sized to accommodate flow in accordance with the applicable regulations. The trench then will be excavated, and the pipe will be installed in the dry ditch.

While the upstream and downstream dams are being installed, the pumps will be used to divert water around the pipeline crossing and associated workspaces. The water will be discharged to the downstream area through an energy dissipating (or similar) device to prevent erosion and scouring and minimize turbidity. Once the pipe is installed, the trench will be backfilled to pre-construction contours, and stream banks will be restored prior to restoring water flow.

The following additional stipulations will apply to all dam-and-pump waterbody crossings:

- Sufficient pumps, including on-site backup pumps, will be used to maintain downstream flows;
- Dams will be constructed with materials that prevent sediment and other pollutants from entering the waterbody;
- Pump intakes will be screened to minimize entrainment of fish;
- Pump discharge location will be monitored to prevent streambed scour; and
- Dams and pumps will be continuously monitored to confirm proper operation throughout the waterbody crossing.

Flume-Crossing Method

Flume pipe(s) will be installed over the trench prior to trenching (or during trenching if a rain event creates flow in a dry stream channel). Flume pipes will remain in place and be maintained until restoration of the waterbody is complete, and downstream flow will be maintained at all times. The size and number of flumes will be determined prior to installation based on engineering calculations and will be adequate to handle the maximum anticipated flow during the time of the crossing. Excavation equipment located on the stream banks will work around the flume pipe during excavation. The pipe will be threaded under the flume pipe, and the ditch will be backfilled while flows are maintained through the flume pipe(s) and downstream. If topographic conditions do not permit the pipe to be threaded under the flume, the flow may be temporarily pumped around the work area while the flume is temporarily moved to allow the pipe to be lowered into the ditch. Flume pipes will be permanently removed as part of restoration.

The following additional stipulations will apply to all flume waterbody crossings:

- Sand bags or sand bag and plastic sheeting diversion structures or equivalent will be used to develop an effective seal and to divert stream flow through the flume pipe;
- Flume pipes will be properly aligned to prevent bank erosion and streambed scour;
- Flume pipes will not be removed during trenching, pipe laying, or initial streambed restoration activities; and
- All flume pipes and dams that are not part of the equipment bridge will be removed as soon as final cleanup of the streambed and bank is complete.

Temporary Diversion Channel Method (Cofferdam)

At this time, no cofferdam crossings are proposed for the Project.

The temporary diversion channel method is another dry alternative to the conventional open-cut method in which water flow is temporarily diverted to a designated portion of the stream channel to allow construction activities to take place in the stream, along the banks, or beneath the active channel. Using a temporary diversion channel involves installing the pipe using a phased approach as presented below:

- Phase 1: install diversion dam across one half of the stream channel;
- Phase 2: install pipeline thorough dry portion of the streambed;
- Phase 3: stabilize and restore dry portion of streambed;
- Phase 4: remove diversion;
- Phase 5: install diversion dam across the other half of the stream channel;
- Phase 6: install pipeline through dry portion of the streambed;
- Phase 7: complete tie-in to previously installed pipe section;
- Phase 8: stabilize and restore dry portion of streambed; and
- Phase 9: remove diversion.

1.3.3.3 Wetland Crossing Procedures

In accordance with construction methods outlined in the Transco Procedures, the width of the construction ROW will be limited to 75 feet in wetlands, where practicable.

Operation of construction equipment through wetlands will be limited to only that necessary for each stage of pipeline installation (e.g., clearing, trenching). Topsoil segregation techniques will be utilized in unsaturated wetlands to preserve the seed bank and allow for

successful restoration. Wetland crossing methods will be determined based on site-specific conditions. Wetlands with soils that can support construction equipment may be crossed using the conventional open-cut method, as described below, with the use of timber mats to prevent soil rutting. In forested wetlands, Transco will minimize tree clearing to the extent practicable while maintaining safe construction conditions. Transco will utilize one of the following methods for installing the pipeline within wetlands during construction:

- Standard Pipeline Construction (non-saturated wetland);
- Conventional Wetland Construction (saturated wetland);
- Push-Pull Technique (inundated wetland); and/or
- Trenchless methods (conventional bore, Direct Pipe®, or HDD).

Inundated wetlands may require installation via the push/pull method in which the pipe is floated to the open trench. When using this method, the welded pipe is pushed along the water-filled trench until it is in place. Once in place over the trench, the floats attached to the pipe are cut and the pipe is allowed to sink into place.

1.3.3.4 Rugged Topography

Steep Slopes

Rugged topography with steep slopes is present along portions of the pipeline routes and is summarized in Table 1.3-4.

Table 1.3-4
Steep Slopes Crossed by the Project Pipelines

Project Component	Slope 15 to less than 30 Percent (miles)	Slopes 30 Percent or Greater (miles)	Total Distance (miles)
Regional Energy Lateral	3.86	1.84	5.70
Effort Loop	1.07	0.64	1.71
Project Total	**4.93**	**2.48**	**7.41**

Steep slopes require special construction procedures. In the areas where slope exceeds 30 percent (and on lesser slopes where dictated by soils, geologic hazards, and other conditions), the construction equipment must be stabilized for safety prior to operation. The preferred method will be “winching” the equipment. This process consists of placing and anchoring a piece of equipment at the top of the slope and using a winch to manipulate the construction equipment up and down the slope. Based on site conditions, the contractor may decide to implement winching and anchoring of equipment on slopes less than 30 percent. Permanent trench breakers consisting of sandbags or foam will be installed in the ditch over and around the pipe in areas of

slope with high erosion potential. Trench breakers also will be used to isolate wet areas and to minimize channeling of groundwater along the ditch line.

Side Slopes

Rugged topography with steep side slopes is present along portions of the pipeline routes and is summarized in Table 1.3-5. The typical workspace requirements for steep side slopes are presented in typical drawings.

Table 1.3-5
Steep Side Slopes Crossed by the Project Pipelines

Project Component	Side Slope 15 to less than 30 Percent (miles)	Side Slopes 30 Percent or Greater (miles)	Total Distance (miles)
Regional Energy Lateral	1.85	1.51	3.36
Effort Loop	0.26	0.19	0.45
Project Total	**2.11**	**1.70**	**3.81**

In areas of side slopes, the upslope side of the pipeline ROW will require the "two-tone" construction technique to provide safe working conditions. In the two-tone construction technique, the uphill side of the construction ROW is cut during grading. The material removed from the cut is used to fill the downhill side of the construction ROW to provide a safe, level surface for operating heavy equipment. The pipeline trench is then excavated along the newly graded ROW. The two-tone construction technique will require ATWS for staging of additional fill material that will be needed to create a level working surface, as well as ATWS upslope to accommodate the cut into the hillside. Following pipeline installation and backfilling of the trench, excavated material is placed back in the cut and compacted to restore the approximate original surface contours. The two-tone construction technique is typically utilized on side slopes greater than 30 percent. Based on site conditions, the contractor may decide to implement tone-two construction on slopes less than 30 percent.

To maintain the integrity of existing adjacent pipelines on steep and side slopes, Transco will implement safety measures that may include installation of safety fencing, sheet piles, and padding/matting. In addition, all personnel on site will have stop-work authority.

1.3.3.5 Agricultural Lands

To preserve soil productivity in agricultural lands, up to 12 inches of topsoil will be segregated and stockpiled separately from subsoil during construction. Transco will utilize full ROW topsoil segregation within agricultural lands. In agricultural lands, rock larger than 4 inches

will be removed from the top 12 inches (topsoil layer) during initial cleanup such that revegetation efforts are not impacted by rock material and the conditions of the construction ROWs are similar in soil composition to surrounding areas. During the backfilling and restoration phases, topsoil will be replaced. Drain tiles or irrigation systems damaged during construction will be repaired or replaced.

1.3.3.6 Residential Areas

Residential areas are crossed by the Project. Pursuant to FERC requirements, Transco has developed Project-specific Residential Construction Plans (RCPs) for residences within 50 feet of construction workspace on the Project. These drawings identify measures to minimize disruption and maintain access to the residences. Transco will implement the following construction measures to minimize construction-related effects on residences and other structures located within 50 feet of the construction ROW:

- Attempting to maintain, where feasible, a minimum distance of 25 feet between a residence and the edge of the construction work area;
- Installing a safety fence at the edge of the construction ROW for a distance of 100 feet on either side of the residence;
- Attempting to leave mature trees and landscaping intact within the construction work area, unless the trees and landscaping interfere with the installation techniques or present unsafe working conditions; and
- Completing final cleanup, grading, and installation of permanent erosion control measures within 10 days after backfilling the trench, weather permitting.

Temporary construction impacts on residential areas could include inconvenience caused by noise and dust generated by construction equipment, construction personnel vehicles, and trenching of roads or driveways; ground disturbance of lawns; removal of trees, landscaped shrubs, or other vegetative screening between residences; damage to existing septic systems or wells; and removal of aboveground structures, such as fences, sheds, or trailers from the ROWs.

Construction through or near residential areas will be done in a manner to minimize adverse impacts on private residences and complete cleanup promptly and thoroughly. Affected landowners will be notified at least seven days before construction is to start on their properties, unless more advance notice is required by the landowner agreement. Access to homes will be maintained. Transco will implement construction measures in the Transco Plan to minimize construction-related impacts on residential areas.

Topsoil in landscaped lawns will be segregated and replaced, or topsoil will be imported. Immediately after backfilling, residential areas will be restored where practicable, and all construction debris will be removed. Compaction testing will be performed, and soil compaction mitigation will be performed in severely compacted areas. Lawns will be graded and seeded. Compensation for ornamental shrubs will be negotiated in individual landowner agreements. Private property, such as mailboxes, fences, gates, and other structures, that have been damaged or removed, will be restored or compensation will be negotiated in individual landowner agreements. The portion of sidewalks, driveways, and roads disturbed by pipeline construction will be restored as close as possible to pre-construction conditions upon completion of construction activities.

If the construction ROW crosses a private road or private driveway, Transco will maintain existing access or provide alternative access so residents have ingress/egress to their homes. In the case of a public road crossing where the road will be open cut, one lane will remain open during construction. Traffic will be controlled with approved devices, such as flaggers and steel plates, in accordance with the applicable or state DOT regulations to accommodate emergency vehicles and school buses (when in session). Traffic will be detoured around the work area only through the use of adjacent public roadways in the event of an approved roadway closure. Traffic safety personnel will be present during construction periods, and signage and safety devices will be implemented and maintained in accordance with applicable roadway utility crossing permits. Notice of potential roadway disturbances related to construction of the Project will be made available to the public by way of the following:

- Publication in newspapers of local circulation;
- Notice provided to affected regional school districts;
- Posted on the affected town bulletins; and/or
- Posted along the affected route via electronic construction signage.

Driveways and access roads will be maintained in accordance with the applicable permits to minimize and/or eliminate the tracking of mud and water onto public roads. Vegetation will be maintained during the use of the driveway and access road in order to maintain a safe and unobstructed sight distance for vehicles entering and exiting the driveways.

Landowners whose access to their property would be affected by roadway construction will receive pre-construction notification either via letter, in-person, or via phone communications from Transco's land agents. Transco will make an effort to provide individual notification to immediately affected landowners at least seven days before construction is to start and provide general public notifications as early as possible or as required under permit conditions.

1.3.3.7 Stove-pipe or Drag-Section

Transco will use specialized stove-pipe or drag-section construction in areas that may require restricted workspaces.

The stove-pipe construction method typically is used when the pipeline is to be installed in proximity to an existing structure and an open trench would have an adverse impact. The technique involves installing one joint of pipe at a time, in which the welding, weld inspection, and coating activities are all performed in the open trench, thereby reducing the width of the construction ROW. Stove-pipe construction is not currently proposed.

The drag-section construction method is another method that is used for construction in areas that may require restricted workspaces. This technique involves trenching, installing a prefabricated length of pipe containing several segments, and backfilling, all in one to two days. Locations where drag-section construction is proposed are included in Table 1.3-6. In these locations, Transco will typically limit the construction workspaces to a minimum on the working side of the ROW, and store spoil in an adjacent upland area.

Table 1.3-6
Proposed Drag-Section Pipeline Construction

Facility/Milepost	Description
Regional Energy Lateral	
9.30 to 9.34	Reduced workspace and install drag section past house
11.10 to 11.13	Reduced workspace and install drag section along toe of slope below house.
15.46 to 15.50	Reduced workspace and install drag section past pond.
16.23 to 16.26	Reduced workspace and install drag section past sensitive area.
19.62 to 19.68	Reduced workspace and install drag section past stormwater detention pond.
22.05 to 22.08	Reduced workspace and install drag section through facility.
Effort Loop	
44.76 to 44.79	Reduced workspace and install drag section past garage and shed.
45.61 to 45.63	Reduced workspace and install drag section past garage and buildings.
45.86 to 45.89	Reduced workspace and install drag section past business.
47.17 to 47.23	Reduced workspace and install drag sections past driveways.
47.51 to 47.53	Reduced workspace and install drag section past septic system.

Table 1.3-6
Proposed Drag-Section Pipeline Construction

Facility/Milepost	Description
49.27 to 49.30	Reduced workspace and install drag section past house and shed.
50.40 to 50.48	Install drag sections past driveways.
52.20 to 52.33	Install drag sections past driveways.
52.48 to 52.56	Install drag sections past driveways.
52.77 to 52.79	Reduced workspace and install drag section past house.
53.01 to 53.03	Reduced workspace and install drag section past house.

Both stove-pipe and drag-section methods result in the trench being backfilled and/or covered with steel plates or equipment mats or protected by fencing, as necessary, to confirm safety at the end of each day though the length of excavation performed each day typically will not exceed the amount of pipe installed.

1.3.3.8 Utility Crossings

The Project will encounter buried utilities throughout the construction ROW. The location of buried utilities will be confirmed through potholing or other methods prior to construction of the pipeline, and, when possible, the depth and orientation of the buried utility will be determined. The Project will be designed and constructed to avoid or minimize impacts on existing utility lines; however, in some instances, utility relocation (temporary or permanent) may be required for installation of the new pipeline. Transco will coordinate necessary relocation with the affected utility.

Crossing of foreign pipelines generally requires the pipeline to be buried at greater depths, depending upon the depth of the foreign pipeline. Transco will maintain a minimum of 24 inches of clearance when crossing foreign pipelines, utilities, or other structures. Pipeline burial depths in areas requiring special construction techniques through rock will comply with USDOT requirements (49 CFR Part 192). Prior to the commencement of construction activities, Transco will contact the appropriate state's "Call Before You Dig" system as well as the national "811" call system, to identify and mark underground utilities and foreign pipelines. Trenching in the vicinity of these foreign utilities will begin only after appropriate notification procedures are complete.

1.3.3.9 Road and Railroad Crossings

Prior to road crossing construction, Transco will locate all existing underground utilities and make provisions for traffic management in work areas, as necessary. The majority of road crossings will be completed using standard open cut or trenchless methods, such as conventional bore methods as discussed in Section 1.3.3.1. Paved roads encountered along the Project route may be crossed via the use of open-cut or subsurface bores. Safe and accessible conditions will be maintained during construction at road crossings per the Transco Plan.

The pipeline will be buried to a depth of at least five feet below the road surface through the road ROW and will be designed to withstand anticipated external loadings. Where the ROW or access roads intersect public roads, a construction entrance will be installed for access at ROW entrances and as needed at additional access road locations. To prevent sediment from being washed from the construction ROW onto roads during a rain event, sediment barriers will be installed adjacent to paved roads.

Railroad crossings will typically be completed using conventional boring depending on site conditions as discussed in Section 1.3.3.1.

1.3.3.10 Rock Removal

Rock encountered during trenching will be removed using one of the following techniques:

- Conventional excavating with a backhoe;
- Ripping with a bulldozer, followed by backhoe excavation;
- Hammering with a pointed, hydraulic hammer backhoe attachment or a pneumatic rock hammer, followed by backhoe excavation; or
- Blasting, followed by backhoe excavation.

The technique selected will depend on rock properties, such as relative hardness, fracture susceptibility, expected volume, and location.

Transco anticipates that blasting may be necessary during construction of the Project. If blasting is required, it will be performed according to strict guidelines designed to control energy release. Transco is developing a Project-specific Blasting Plan that establishes procedures and safety measures to which Transco's contractor will be required to adhere while conducting blasting activities along the pipeline ROWs during the Project. Prior to blasting activities, Transco's contractor will be required to submit a detailed Blasting Specification Plan to Transco that is consistent with the provisions of the Blasting Plan.

Proper safeguards will be taken to protect people and property in the area. Transco assumes that rock removal may be required at certain locations with shallow depth to bedrock. Mats made of heavy steel mesh or other materials will be used, as necessary, to prevent scattering of rock and debris. Sand and/or gravel from off-site will be utilized for packing of blast charges in all areas requiring blasting, including wetlands and waterbodies. While performing blasting activities, Transco will adhere to regulations applicable to controlled-blasting and blast vibration limits with regard to structures and underground utilities. Special care will be taken to monitor and assess blasting within 150 feet of dwellings and private or public water supply wells.

Excess rock is defined as all rock that cannot be returned to the existing rock profile in the trench or graded cuts or is not needed to restore the ROW surface to a condition comparable to that found adjacent to the ROWs. Excess rock will be beneficially reused or recycled if possible. If approved for use as slope stabilization, windrowing, habitat creation or for some other use on the construction work areas approved by FERC, the landowner, and/or applicable regulatory agencies, the material will remain on-site. As a last resort, the rock will be hauled off the ROWs and disposed of at an approved landfill or recycling facility.

1.3.3.11 Trench Dewatering

Trench dewatering is required for the removal of stormwater or infiltrated water in areas of shallow groundwater or saturated wetlands. The water will be pumped from the trench to a location downgradient of the trench and in a manner that does not cause erosion and does not result in heavily silt-laden water flowing into a waterbody or wetland. The water will be discharged to an energy dissipation dewatering device, such as a hay bale structure or a filter bag. Heavily silt-laden water must first pass through a filter bag. The dewatering structure will be removed as soon as possible after completion of the dewatering activities. Trench plugs will be used where necessary to separate the upland trench from adjacent wetlands or waterbodies to prevent the inadvertent draining of the wetland or diversion of water from the waterbody into the pipe trench. Pumps will be placed in secondary containment structures.

1.3.3.12 Winter Construction

Winter construction techniques are required in some parts of the country that experience extended periods of freezing conditions or heavy snowfall events. Winter construction techniques typically include managing snow, working with frozen soils, and managing hydrostatic discharge water under freezing conditions. Winter construction techniques also include the application of temporary erosion and sediment control measures to protect against accelerated erosion during spring snowmelt and heavy spring rains. Temporary BMPs may include installation of sediment barriers, application of mulch or installation of erosion control matting, temporary seeding, and/or installation of other BMPs. These temporary controls are maintained during Project construction and reinstalled as necessary until permanent BMPs are constructed and/or permanent stabilization has occurred.

1.3.4 Aboveground Facilities

The aboveground facilities will be constructed in accordance with Transco's specifications and USDOT requirements. The duration of construction for the aboveground facilities will vary based on the scope of the work required to construct each proposed facility.

1.3.4.1 Clearing and Grading

Aboveground facility sites will be cleared of vegetation, graded, and compacted, as necessary, to create level surfaces for the movement of construction vehicles on the sites and to prepare the areas for construction. Transco will install appropriate erosion and sediment controls around disturbed areas prior to the start of facility construction to minimize the potential for erosion and the potential for impacts on off-site wetlands and waterbodies.

1.3.4.2 Foundations

Building foundations will be constructed of reinforced concrete. Buildings and associated equipment will be placed on the foundations. Topsoil, if present, will be stripped from the area where foundations are to be constructed. Such soil may be used on-site, either for landscaping or for final site restoration. Additional soil or subsurface materials may be imported from approved sources to achieve the desired site/foundation grade.

1.3.4.3 Building Design and Construction

The building type (e.g., steel structure, concrete module) and necessity would be evaluated based on climate, operating conditions, permit conditions, and compliance with land use regulations or noise mitigation purposes. The design of the building(s) shall comply with applicable building codes, to the extent practicable. Buildings shall be adequately ventilated,

equipped with lighting and insulation if required, and have a sufficient number of doorways to provide unobstructed access for personnel. Steel building structures will be painted with a durable coating system to protect them from the outside elements. During a typical building construction sequence, the pre-fabricated structural members, steel plate, steel roof decking, gutters and all associated hardware are off loaded from the transport trailer and then are installed and erected in place on the constructed foundation and/or pad. All of the building components will be appropriately connected and tied into each other according to the manufacturer's installation specifications and appropriately waterproofed.

Selection of module structures will require an appropriately sized mobile crane to lift the building module(s) off of the transport trailer and set them in place on the previously constructed foundation wall and/or pad. All of the modules will be appropriately connected and tied into each other according to the manufacturer's installation specifications and appropriately waterproofed. In addition, whether the selection is a steel structure or a concrete module, the design will include cutouts for protrusions through the structure (e.g., electrical and communications conduits and other piping) and will be flashed to confirm that the buildings will be weather-tight. Noise abatement equipment may also be installed during this phase of construction.

1.3.4.4 Pressure Testing

Prior to placing the aboveground facilities into service, Transco proposes to conduct pressure testing of the piping system. Transco will conduct this testing in accordance with applicable federal and state codes or regulatory requirements.

1.3.4.5 Infrastructure Facilities

The installation of the infrastructure facilities includes the various components of auxiliary equipment, piping, and other electrical and mechanical systems. Permanent access roads and parking areas will be constructed during construction of the aboveground facilities.

1.3.4.6 Final Grading and Landscaping

Prior to construction, Transco will develop plans for the final grading and landscaping of the areas that will be disturbed during construction. These final grading and landscaping plans will be consistent with the Transco Plan for the restoration of uplands. Once construction is complete, disturbed areas of aboveground facilities that are not covered with impervious surface or gravel will be finish-graded and seeded to stabilize soils. A security fence then will be constructed around the facility.

1.3.5 Environmental Compliance, Training, and Inspection

For purposes of quality assurance and compliance with mitigation measures and other applicable regulatory requirements, Transco will be represented on each construction spread by a Chief Inspector. The Chief Inspector will be assisted by one or more craft inspectors and an environmental compliance manager. Additionally, a lead EI will oversee several other EIs. The EIs will have stop work authority. The EIs' duties are consistent with those contained in paragraph III.B, *Responsibilities of the Environmental Inspector*, of the Transco Plan and will include ensuring Project compliance with environmental conditions associated with the FERC Certificate, Transco's environmental designs and specifications, and environmental conditions attached to other permits or authorizations. Prior to construction, Project EIs and the contractor's supervisory personnel will receive copies of the Project permits, compliance documents and the construction drawings.

Transco's engineering and construction departments are responsible for designing and constructing certificated facilities in compliance with regulatory and non-regulatory requirements and agreements. Issues of non-compliance with mitigation measures or other regulatory requirements that cannot be solved in the field will be addressed by Transco's Construction Manager. If technical or management assistance is required, construction headquarters staff will request assistance from the appropriate Transco department or division. Transco's operations department will be responsible for long-term Project maintenance and regulatory compliance.

Routine reporting or specific communication with FERC staff regarding design, installation, and maintenance of the facilities will be the responsibility of Transco's Permits Department. FERC staff inquiries regarding these proposed facilities should be addressed to Transco's Permits Department.

1.3.6 Training

Transco will conduct safety and specialized training for its EIs and general environmental awareness training for other company construction personnel and contractors regarding proper field implementation of the Transco Plan and Transco Procedures, regulatory conditions, and other mitigation measures. Transco's Operation and Maintenance Plan will include copies of pertinent permits, with particular reference to long-term permit conditions that require training.

1.4 OPERATION AND MAINTENANCE PROCEDURES

Transco will operate and maintain the proposed facilities in compliance with USDOT regulations provided in 49 CFR Part 192, the FERC guidance in 18 CFR 380.15, maintenance

provisions of the Transco Plan and Transco Procedures, and applicable laws and regulations. The facilities will be operated and maintained in a manner such that pipeline integrity is protected to confirm that a safe, continuous supply of natural gas reaches its ultimate destination. Maintenance activities will include regularly scheduled gas-leak surveys and measures necessary to repair potential leaks. The latter may include repair or replacement of pipe segments. All fence posts, signs, marker posts, aerial markers, and decals will be painted or replaced to verify that the pipeline locations will be visible from the air and ground. The pipeline and aboveground facilities will be patrolled on a routine basis, and personnel well qualified to perform both emergency and routine maintenance on interstate pipeline facilities will handle maintenance.

1.4.1 Pipeline Facilities

Operational activity on the pipeline will be limited primarily to maintenance of the permanent ROW and inspection, repair, and cleaning of the pipeline itself. Regular pipeline patrols will provide information on possible leaks, construction activities, erosion, exposed pipe, population density, possible encroachment, and other potential problems that may affect the safety and operation of the pipeline. In addition, Transco will be a participant in the “Dig Safe” system for utility companies in the states where the Project will occur, as well as the national “Call Before You Dig” system. Under either system, anyone planning excavation activities must call a dedicated telephone number to alert all utility companies. Representatives of the utility companies that may be affected then visit the site and mark their facilities so that the excavation can proceed with relative certainty as to the location of all underground lines. The pipeline cathodic protection system also will be monitored and inspected periodically to verify proper and adequate corrosion protection. Appropriate responses to conditions observed during inspection will be taken.

Other maintenance functions will include: 1) periodic seasonal mowing of the ROWs in accordance with the timing restrictions outlined in the Transco Plan; 2) terrace repair, backfill replacement, and drain tile repair, as necessary; 3) periodic inspection of water crossings; and 4) maintenance of a supply of emergency pipe, leak repair clamps, sleeves, and other equipment needed for repair activities. Transco will not use herbicides or pesticides within 100 feet of a wetland or waterbody unless approved by applicable regulatory agencies.

1.4.1.1 Cleared Areas

New, permanent ROW will be required for operation of the Effort Loop and Regional Energy Lateral. The existing Leidy ROW will be widened an additional 25 feet on average for the proposed Effort Loop. For portions of the Regional Energy Lateral that are collocated with the existing Leidy System, on average an additional 25 feet of permanent ROW may be cleared and maintained; the width of new ROW will vary in some areas. In portions of the Regional Energy Lateral where new ROW is required, 50 feet of permanent ROW will be cleared. Maintaining a cleared ROW is necessary for the following reasons:

- Access for routine pipeline patrols and corrosion surveys;
- Access in the event that emergency repairs of the pipeline are needed;
- Visibility during aerial patrols; and
- To serve as a visual indicator to the public of an underground pipeline utility and easement.

In accordance with the Transco Plan and Transco Procedures, annual vegetation maintenance within both upland and wetland portions along Transco's permanent ROW will be conducted but only within the 10-foot corridor centered over the pipelines to facilitate route patrols and emergency access. Operational vegetation maintenance within upland portions of Transco's permanent ROW outside this corridor will be conducted with a frequency of approximately once every three years to maintain an herbaceous cover state. Transco will not conduct routine vegetation maintenance over the full width of its permanent ROW within wetlands. However, Transco reserves the right to selectively cut and remove trees within wetlands that are larger than 15 feet in height that are located within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating.

Following construction of the pipeline facilities, temporary construction workspaces and ATWS will be regraded, reseeded, and allowed to revert to pre-construction land use/land cover, with no further vegetation maintenance by Transco. Additionally, crop production will be allowed to continue in agricultural areas immediately following construction or during the following growing season.

1.4.1.2 Erosion Control

Erosion concerns on the pipeline ROW will be reported to the local operations supervisor. These reports may originate from landowners or Transco's routine patrol of the ROW. Corrective measures will be conducted, as needed.

1.4.1.3 Periodic Pipeline and ROW Patrols

Transco's permanent pipeline ROW will be patrolled periodically. The frequency of the patrol of the pipeline by either aerial or ground surveys will be determined in accordance with Pipeline and Hazardous Materials Safety Administration requirements by the pipeline size, operating pressure, class, terrain, weather, and other relevant factors. The interval between patrols may not be longer than prescribed in Table 1.4-1.

Table 1.4-1
Maximum Interval between Patrols

Class Location of Pipeline [a]	At Highway and Railroad Crossings	At All Other Places
1 and 2	7-1/2 months, but at least twice each calendar year	15 months, but at least once each calendar year
3	4-1/2 months, but at least four times each calendar year	7-1/2 months, but at least twice each calendar year
4	4-1/2 months, but at least four times each calendar year	4-1/2 months, but at least four times each calendar year

Note:

[a] As defined by USDOT PHMSA at 49 CFR 192.5:

Class 1: offshore areas and areas within 220 yards of a pipeline with ≤10 buildings intended for human occupancy.

Class 2: areas within 220 yards of a pipeline with >10 but <46 buildings intended for human occupancy.

Class 3: areas within 220 yards of a pipeline with ≥46 buildings intended for human occupancy; and areas within 100 yards of either a building or a small, well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least five days per week for 10 weeks in any 12-month period.

Class 4: areas within 220 yards of a pipeline where buildings with four or more stories are prevalent.

Additional ground surveys will be conducted on an as-needed basis to respond to issues such as landowner concerns and third-party encroachments. During ROW patrols, all permanent erosion control devices that are installed during construction will be inspected to confirm that they function properly.

Additionally, attention will be given to:

- Existing stormwater outfalls along the alignment;
- Erosion and washouts along the ROW;
- Soil movement in steep slope areas;
- Water control devices, such as diversions;
- Condition of banks at drainage ditch crossings;
- Fallen timber or other threats to the pipeline;
- Shrubs and other vegetation planted during construction;

- Other conditions that could endanger the pipeline; and
- The local operations supervisor will be notified of conditions that need attention. Corrective measures will be performed, as needed.

1.4.2 Aboveground Facilities

Transco will operate and maintain the proposed aboveground facilities in accordance with standard procedures designed to verify the integrity of the facilities and to provide its customers and the general public with a safe and dependable natural gas supply. The facilities will be designed, constructed, and operated in accordance with requirements of the Commission, USDOT, and other regulatory requirements, as applicable.

In accordance with USDOT regulations (49 CFR Part 192), the facilities will be inspected regularly for leakage as part of scheduled operations and maintenance. Standard operations at aboveground facilities include activities, such as the calibration, maintenance, and inspection of equipment; the monitoring of pressure, temperature, and vibration data; and traditional landscape maintenance, such as mowing and application of fertilizer. Standard operations also include the periodic checking of safety and emergency equipment and cathodic protection systems.

Project facilities will be marked and identified in accordance with applicable regulations. Liaison will be maintained with the public and government agencies. Overall, maintenance activities will be in compliance with requirements of the Transco Plan, as well as other applicable regulatory requirements. The aboveground facilities will be linked to Transco's information and data software networks and infrastructure that monitor the pipeline system on a 24-hour-per-day basis.

1.5 FUTURE PLANS AND ABANDONMENT

Transco currently has no plans for future expansion or abandonment of the new Project facilities described in this Application. At the end of the useful life of the pipeline and aboveground facilities, Transco would obtain the necessary authorizations to abandon its facilities. Abandonment of the Transco facilities would require prior authorization from FERC. Transco would submit to FERC the appropriate application under the Commission's regulation at 18 CFR 157.18 seeking abandonment authorization, and would comply with applicable FERC regulations existing at the time of abandonment.

As an open access pipeline, Transco's FERC Gas Tariff, consistent with Commission policy, provides a process by which shippers may request additional interconnections with Transco's pipeline system. Additional requests for interconnections on the Transco system will

be processed separately from the Project facilities, according to applicable Commission regulations and policies governing interconnections. If requests are made, Transco will design facilities needed for a future expansion (which may consist of pipeline looping, compression, and/or cooling facilities) to be compatible with Transco's existing facilities, including the Project facilities, and will undergo the applicable regulatory review (including the necessary approvals from the Commission) for any such future expansion.

1.6 PERMITS AND APPROVALS

The Project will comply with the Certificate requirements, if issued by FERC, and federal permits and approvals. The permits and approvals that have been identified to date and are anticipated to be required as a condition of FERC's Certificate are identified in Table 1.6-1. Transco and its representatives have and will continue to consult federal, state, and local regulatory officials and government agencies regarding this Project.

FERC is the designated lead agency for the Project for purposes of coordinating all applicable federal approvals and authorizations and for the purposes of complying with the National Environmental Policy Act, 15 U.S.C. § 717n(b)(1). The Natural Gas Act requires each federal and state agency considering an aspect of an application for a federal authorization to cooperate with FERC and comply with the deadlines established by FERC, 15 U.S.C. § 717n(b)(2). The purpose of this is to "ensure expeditious completion" of the review of all federal authorization applications, 15 U.S.C. § 717n(c)(1). In accordance with FERC's regulations, each federal or state agency responsible for a federal authorization, including agencies presented in Table 1.6-1, must file with FERC within 30 days of the date of receipt of a request for a federal authorization notice of, among other things, whether the application is ready for processing, and if not, what additional information or materials will be necessary to assess the merits of the request, 18 CFR §385.2013. Each federal or state agency must also provide, within 30 days of the date of receipt of a request for a federal authorization, notice to FERC of the anticipated date of the agency's final decision, 18 CFR §385.2013.

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Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Pennsylvania Portion of the Project

Permit/Approval	Administering Agency	Project Component(s)	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Federal					
Certificate of Public Convenience and Necessity	FERC	All	March 2021	(*January 2022*)	Pre-filing June 2020 - March 2021; Certificate application included herein
CWA Section 404 Permit/ Section 10 River and Harbor Act	USACE Baltimore District and Philadelphia District	Effort Loop REL CS 515	(*April 2021*)	(*2nd Quarter 2022*)	
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	United States Fish and Wildlife Service (USFWS) PA Field Office	All PA Components	February 2020 September 2020	(1st *Quarter 2022*)	Consultation initiated, and updates provided as applicable
Interstate Agencies					
Water Withdrawal Permit Consumptive Use Authorization	Susquehanna River Basin Commission	REL	(*April 2021*)	(*4th Quarter 2021*)	
Pennsylvania					
CWA 401 Water Quality Certification	PA Department of Environmental Protection (PADEP) Regional Permit Coordination Office	All PA Components	March 2021	(1st *Quarter 2022*)	
Chapter 105 Application, and Submerged Land License Agreement		REL/CS 515/Effort Loop	April 2021	(*2nd Quarter 2022*)	
Chapter 102 ESCGP-3 Individual Permit		All PA Components	April 2021	(*2nd Quarter 2022*)	
CWA Section 402 NPDES – Hydrostatic Test Water Discharge Permit/Approval	PADEP Bureau of Clean Water	REL	(*3rd Quarter 2021*)	(*2nd Quarter 2022*)	
Consultation for: Rare Aquatic and Amphibian Species	PFBC	All PA Components	January 2020 September 2020	(3rd *Quarter 2021*)	Consultation initiated, and updates provided as applicable
Aid to Navigation Plan		REL	(*April 2021*)	(3rd *Quarter 2021*)	

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Pennsylvania Portion of the Project

Permit/Approval	Administering Agency	Project Component(s)	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Stream Blasting Permit		Effort Loop REL	(*3rd Quarter 2021*)	(*1st Quarter 2022*)	
Consultation for: Rare Plant Species	PADCNR	All PA Components	January 2020 September 2020	(3rd *Quarter 2021*)	Consultation initiated, and updates provided as applicable
Consultation for: Rare Mammalian and Avian Species	PGC	All PA Components	January 2020 September 2020	(1st *Quarter 2022*)	Consultation initiated, and updates provided as applicable
Section 106, National Historic Preservation Act Consultation	PA Historical and Museum Commission PA State Historic Preservation Office	All PA Components	June 2020 December 2020	(*3rd Quarter 2021*)	Consultation initiated; Survey reports submitted and included herein.
Air Quality Plan Approval (Minor Modification)	PADEP Bureau of Air Quality	CS 515	March 9, 2021	(*3rd Quarter 2021*)	

Key:
CWA = Clean Water Act
NPDES = National Pollutant Discharge Elimination System
N/A = Not Applicable
PADCNR = PA Department of Conservation and Natural Resources
PADEP = PA Department of Environmental Protection
PGC = PA Game Commission
PFBC = PA Fish and Boat Commission
USACE = U.S. Army Corps of Engineers
USFWS = U.S. Fish and Wildlife Service

1.6.1 Federal Energy Regulatory Commission Pre-Filing

Pursuant to Section 7(c) of the Natural Gas Act, the Commission will determine whether the Project is in the public convenience and necessity. On June 8, 2020, Transco submitted its request to participate in the Commission's pre-filing review process, pursuant to the Commission's regulations at 18 CFR 157.21. The purpose of the pre-filing process is to involve interested stakeholders early in the Project planning process and to identify and resolve issues prior to filing the Certificate application as discussed in Section 1.7.

1.7 PROJECT OUTREACH

Transco began efforts to inform the public, including governmental officials, about the Project in November 2019. The objective in implementing a comprehensive stakeholder outreach strategy is to educate and build relationships with interested stakeholders and communities. Transco began its outreach efforts by contacting state legislative officials and subsequently contacted other interested stakeholders, including landowners; local, state, and federal agencies; and state, county, and municipal governmental officials within the Project. Transco has attempted to identify and resolve issues raised by stakeholders. Outreach efforts are ongoing.

Transco's outreach strategy seeks to:

- Personalize the company. In order to carry out public outreach activities in the pre-siting stage, Transco works with stakeholders including potentially impacted communities and local officials to communicate with them on a personal level.
- Build relationships. Transco researches a variety of different sources to develop a list of stakeholder contacts. An essential key to managing the flow of information to the public, communities, emergency responders and other stakeholders is to first develop and maintain a stakeholder database.
- Conduct early meetings with key stakeholders. Listen to the stakeholders' thoughts, questions or concerns and proactively work with them to reach solutions.
- Educate stakeholders. It is critical that stakeholders understand: (1) the FERC process; and (2) the company's plans and timelines related to the execution and construction of the Project and the economic benefits that could accrue to the local communities as a result of the Project.
- Maintain openness. By making stakeholders aware of new developments and providing them with timely information, they will begin to perceive Transco as an

important information source. The absence of information from the company could lead to speculation and misinformation.

- Build trusted third-party endorsement. Earning endorsements from trusted persons and groups lends credibility to the pipeline company and its intentions to develop and construct the Project.
- Support local communities. Transco is committed to being a good neighbor by putting safety, environmental stewardship, and community support at the heart of its operations.

For the Project, Transco has proposed facilities that seek to balance landowner and community concerns, environmental resource issues, and Project requirements. In accordance with the guidelines adopted by the Commission, Transco encourages landowners; federal, state, county, and municipal, government officials; environmental groups; and other stakeholders to discuss their concerns with Transco, as well as the Commission, and to provide input on the most appropriate location for the pipelines and related facilities associated with the Project.

1.7.1 Public Participation

Beginning in November 2019, Transco has been contacting (a) federal, state, inter-state, county, and municipal government officials; (b) state legislators in the communities located along the Project facilities; (c) state executive offices, state administration officials, state legislative leadership; and (d) U.S. Congressional delegations and their staffs regarding the Project. Several in-person outreach meetings were held between January 2020 and March 2020. Due to the COVID-19 restrictions, Transco halted in-person meetings and contact in March 2020, and continued stakeholder outreach through telecommunication. During in-person and virtual meetings and telephone conversations, Transco provided these governmental officials with information regarding the proposed facilities, the status of the requests to landowners for survey permission, the timing and permitting process for the Project, and the Commission's pre-filing process. In addition, periodic updates will be provided to governmental officials and other stakeholders until construction of the Project is complete. Land agents will continue to be available to address issues through construction and until the Project is in service.

In summary, Transco's community outreach program includes the following elements:

- Open house schedule mailed to affected parties;
- Newspaper advertisements of open houses placed in newspapers of general circulation in the Project area;

- Open houses (a mixture of virtual and in-person) held in the county of each major project scope item;
- Newspaper advertisements prior to commencement of construction, which will be placed in those same publications;
- Notification to businesses potentially affected by construction;
- Designation of a point of contact for stakeholder communication;
- A Project toll free telephone number for public inquiries; and
- A Project website with periodic updates of relevant information.

1.7.1.1 Public Open Houses

As part of the public outreach process, Transco provided information regarding the Project as well as the Commission's regulatory process. Transco is committed to the health and safety of the public and company staff and therefore adjusted the traditional public open house process in light of the COVID-19 situation. The enhanced open house process included:

- In-person open houses; and
- Virtual open houses, held online.

In-Person Open Houses

In-person open houses were held in accordance with state mandates and guidance related to COVID-19. Transco held meetings along the pipeline routes (in Luzerne and Monroe Counties in PA) and also held an open house meeting in the county (Gloucester County, NJ) where the new compressor station is proposed. The dates when the open house meetings occurred are identified in Table 1.7-1.

Table 1.7-1
In-Person Open Houses

Project Component	County/State	Date	Location	Time
Regional Energy Lateral; other aboveground facilities	Luzerne County, PA	Monday, June 29, 2020	Irem Pavilion 70 Ridgeway Drive Dallas, PA 18612	Noon – 4:00PM
Effort Loop; other aboveground facilities	Monroe County, PA	Tuesday, June 30, 2020	Chestnuthill Park Building 221 Route 715 Brodheadsville, PA 18322	Noon – 4:00PM

Virtual Open Houses

In addition to the in-person open house sessions, Transco held a series of virtual open houses, namely to accommodate landowners, stakeholders and members of the public who were

unable, or not inclined to attend an in-person event due to COVID-19. This is an important step to support public participation while also safeguarding the health and safety of the public, Transco staff, and FERC representatives.

The virtual open houses were held via an online platform, allowing participants to access information about the Project during the designated sessions listed in Table 1.7-2 below. During the virtual sessions, information was shared including:

- An overview of the Project;
- Information regarding the FERC process and how to participate;
- A review of maps associated with the Project in each county; and
- The ability for participants to ask questions, which were responded to via a Frequently Asked Questions document added to the Project web site on August 20, 2020.

The Virtual open houses were hosted via an enterprise level online webinar platform with the ability to accommodate participants via a browser-based attendee experience. Approximately 59 individuals attended in-person open houses and approximately 73 individuals attended virtual open houses.

Table 1.7-2
Virtual Open Houses

Project Component	County/State	Date	Location	Time
Regional Energy Lateral; other aboveground facilities	Luzerne County, PA	Monday, June 29, 2020	Online Virtual Session	6:00 – 7:00PM
Effort Loop; other aboveground facilities	Monroe County, PA	Tuesday, June 30, 2020	Online Virtual Session	6:00 – 7:00PM

1.7.1.2 FERC Scoping

As part of the FERC pre-filing process, FERC conducted a 30-day scoping period, and hosted public scoping meetings August 18, 19, and 20, 2020. These scoping meetings were held as virtual conference calls due to the COVID-19 pandemic. Comments submitted to FERC during the scoping meetings and via the docket were provided to Transco. At the conclusion of the FERC scoping period, Transco provided responses to the public comments, which were filed on the FERC docket (PF20-3) on September 23, 2020.

1.7.1.3 Landowner Consultations

Potentially affected landowners were contacted beginning in December 2019 to request

access for civil and environmental surveys (wetland/waterbody delineation, habitat evaluations, cultural resources) for the pipeline route, access roads, contractor yards, contractor staging areas, and aboveground facility sites. Surveys were initiated in March 2020 for properties along the Project area where access permission had been granted. To date, environmental stream and wetland and cultural resource surveys have been completed for 100% of the Regional Energy Lateral and 100% of the Effort Loop by mileage, and 100% of aboveground facilities by sites. Certain surveys for threatened and endangered species are ongoing in accordance with approved survey windows.

In accordance with Section 157.6(d) of the Commission's regulations (18 CFR 157.6(d) (2010)), Transco will provide notification of the Project to affected and abutting landowners within three business days following the date that the Commission issues a notice of the Certificate Proceeding for the Project. In addition, within three business days of the date that the Commission assigns a docket number to the Certificate application, a copy of the Certificate application will be placed in public libraries across the Project area. Transco also will have a public notice of the filing of the Certificate application published twice in a daily or weekly newspaper of general circulation across the Project area no later than 14 days after the Commission assigns a docket number to the Certificate application.

Transco's land representatives follow the guidelines listed in the INGAA publication entitled *American's Natural Gas Transporters' Commitment to Landowners* (INGAA 2008). Transco will implement a Landowner Complaint Resolution Procedure for construction-related landowner complaints.

1.7.2 Agency Consultation

In addition to public outreach efforts with landowners and governmental officials described in Section 1.7.1, Transco is conducting an extensive planning and consultation process with federal and state regulatory agencies, resource agencies, Native American Tribes, and other groups with a stake in the Project. The consultation process has involved briefings, meetings, letter requests for resource information, telephone discussions, and email correspondence. This section provides a brief description of the more significant agency and stakeholder consultations that have occurred.

1.7.2.1 Interagency and Other Review/Resource Agency Meetings

Since November 2019, Transco has contacted federal and state regulatory agencies with respect to the relevant permitting requirements for the Project. Transco initially provided

preliminary information regarding the Project, including a Project overview map, and advised these agencies of Transco's use of the Commission's pre-filing process. Transco regularly communicates with agencies as the Project is refined and for permitting and clearance authorizations.

1.7.2.2 Local Government Agency Meetings

Transco initiated outreach to local, county, and state government agencies beginning in November 2019. This outreach included contacting county, municipality, and government agencies in PA, NJ, and MD to introduce the Project, provide details on the proposed facilities and routing, explain the Commission's regulatory process, and solicit feedback. Local officials contacted are included on Transco's stakeholder list. Local officials in these areas received the notification of Transco's acceptance into pre-filing as required by FERC regulations, including a letter describing the Project and the FERC process, as well as an overview map.

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