

US Army Corps  
of Engineers Baltimore  
and New York District

# PUBLIC NOTICE

In Reply to Application Number CENAB-OP-RPA(LEIDY TO LONG ISLAND EXPANSION PROJECT)06-02008-12

**PN – 06-33**

**Comment Period: June 12, 2006 to July 12, 2006**

---

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

The Baltimore and New York Districts have received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbor Act as described below

**APPLICANT:**

TRANSCO -Transcontinental Gas Pipe Line  
2800 Post Oak Boulevard  
Houston, TX 77056

**INTRODUCTION:** The Transcontinental Gas Pipe Line Corporation (Transco) has submitted a Department of the Army permit request. Transco's project, referred to as the Leidy to Long Island Expansion Project would consist of the following: 1) Installation of approximately 3.4 miles of new 42-inch diameter pipe in Lycoming County, Pennsylvania (Hughesville Loop). 2) Installation of approximately 5.23 miles of new 42-inch-diameter pipe in Luzerne County, Pennsylvania (Berwick Loop). 3) Installation of approximately 3.5 miles of new 42-inch diameter pipe in Somerset County, New Jersey (Neshanic Loop). 4) Upgrade and pipe replacement of approximately 2.45 miles of existing 42-inch diameter pipe in Middlesex County, New Jersey (Morgan Replacement). 5) Construction of a new electric compressor station in Middlesex County, New Jersey (Compressor Station 207). 6) Upgrades within the existing Long Beach Meter Station located in New York and the Delaware River Regulator Station in Northampton County, Pennsylvania. 7) Upgrade the existing 42-inch Lower New York Bay Mainline C and the 26-inch Lower New York Bay Extension from a maximum allowable operating pressure (MAOP) of 800 pounds per square inch gauge (psig) to 960 psig.

This Public Notice will describe impacts only associated with Waters of the United States, including jurisdictional wetlands, under the jurisdiction of the U.S. Army Corps of Engineers. In the State of New Jersey the Corps Section 404 Permit Program has been assumed by the State of New Jersey.

The applicants stated purpose is to provide 100 million cubic feet per day of primary firm capacity through the addition of looping and compression along Transco's existing system. The project would help meet the growing demand for natural gas in Nassau and Suffolk Counties, New York, and the New York City Boroughs of Brooklyn and Queens.

**GENERAL PROJECT INFORMATION:**

Installation of the new 42-inch-diameter pipeline loops would generally require the use of an 85-foot-wide construction right-of-way (ROW), which typically would comprise 50 feet on the working side of the ROW and 35 feet on the soil storage side of the ROW.

Where the proposed pipeline loop is located adjacent to existing Transco pipelines, a variety of additional space would be added to the existing permanent ROW. On the Hughesville loop, an additional 40 feet of new permanent ROW would be added to the existing ROW. On the Berwick Loop, an additional 15 feet of new permanent ROW would be added to the existing ROW. In areas where the Neshanic Loop parallels the existing

Transco Mainline B, an additional 35 feet would be added to the existing ROW. Along the Neshanic Loop, where the new pipeline does not parallel the existing pipeline, the permanent ROW would be 50 feet wide. Along the Morgan Replacement where the new pipe would be installed in the same location as the existing pipe, no additional permanent easement will be needed. Where the new replacement sections would be installed adjacent to the existing pipeline, new permanent easements ranging between 20 and 50 feet in width would be required.

To cross the waterways Transco proposes to use the Open Cut (wet crossing) or a dry crossing method. The open cut method involves the use of a backhoe or dragline to excavate the trench across the waterbody. This method is sometimes referred to the wet method because water can flow through the construction area during trenching activities. The equipment used to dig the trench would work from the stream banks, or by straddling the trenchline where the width of the waterbody prohibits excavations solely from the banks. With the dry crossing construction method, stream flow may be channeled into one or multiple flume pipes to convey water across the trench and maintain downstream flow, or a dam and pump arrangement may be utilized to convey the stream water around the construction area. The trench would be excavated from under the flume pipe, the pipeline would be threaded under the flume, and the trench would be backfilled. Transco would complete streambed and bank stabilization before removing the flume pipe to restore natural downstream flow.

### *PROJECT LOCATIONS AND IMPACTS*

Hughesville Loop -The proposed 3.41 mile long Hughesville Loop begins at milepost (MP) 131.19 and is a continuation of Transco's existing 42-inch diameter Leidy Line D in Lycoming County, Pennsylvania. The proposed loop parallels the north side of the existing Leidy Line A for its entire length, and terminates at MP 134.60 of Transco's Leidy Line D. The existing launcher/receiver assembly currently at MP 134.57 would be relocated to MP 131.19 at the eastern terminus of the new loop. A single hot-tap interconnection would be made at the eastern terminus of the loop. The new piping facilities would also include foundations and piping supports, as well as fencing and crushed stone ground cover. The existing single hot-tap at MP 134.60 would be capped and abandoned in place, along with the existing manual operator. The fenced area and crushed stone ground cover at the abandoned hot tap location would remain in place to protect the aboveground equipment.

The construction and operation of the proposed Hughesville loop of temporary impact to emergent wetlands and 0.27 acres of temporary impact to forested wetlands. Permanent wetland impacts include 0.076 acre of forested wetland. Temporary impacts are a result will result in 0.62 acres of wetland impacts (See Attachment #2). Of these impacts the following are temporary, 0.28 acres of construction right-of-way (ROW), staging area, and extra workspace, while permanent impacts are a result of the operation of a new permanent ROW (calculations based on a 30-foot maintained ROW). Permanent forest impacts consist of the clearing of wetland forest, which will be maintained as emergent and scrub-shrub wetland for the life of the project. This project will not result in any net-loss of wetlands from fill, only the net loss of habitat types, i.e. forested to scrub-shrub. The Hughesville Loop will temporarily impact 157 linear feet of stream (0.41 acre). Of the 12 surface water bodies traversed by the Hughesville Loop, Transco is proposing to use the dry cut method for nine of the crossings while two will be wet crossings and the remaining consists of an equipment crossing. Transco proposes to mitigate for the permanent conversion of 0.076 acres of forested wetlands to emergent through the use of preservation. Transco has identified suitable sites where the landowner is willing to accept monetary value for property with a forested wetland component in exchange for allowing a conservation easement on the property in order to protect and preserve the wetland.

Berwick Loop -The proposed 5.25 mile long Berwick Loop begins at MP 28.02 and is continuation of Transco's existing 42-inch diameter Leidy Line D in Luzerne County, Pennsylvania. The proposed loop parallels the north side of the existing Leidy Line C for its entire length and terminates at MP 33.27 of the existing Leidy Line D. The existing launcher/receiver currently at MP 33.25 would be relocated to MP 28.02 at the eastern terminus of the loop. A single hot-tap interconnection would be made at the terminus of the loop. New piping facilities would also include foundations and pipe supports, as well as fencing and crushed stone cover. The existing single hot-tap at MP 33.25 would be capped and abandoned in place along with the existing manual operator. The fenced area and crushed stone ground cover would be reduced to the minimum area required to protect the aboveground equipment (about 0.005 acre). The area formerly within the fence-line of the existing launcher/receiver assembly site would be revegetated.

The construction and operation of the proposed Berwick Loop will result in 8.41 acres of wetland impacts. Of these impacts the following are temporary, 6.16 acres of temporary impact to emergent wetlands, 1.92 acres of temporary impact to scrub-shrub wetlands, and 0.32 acres of temporary impact to forested wetlands. Permanent wetland impacts include 0.01 acres of forested wetland. Temporary impacts are a result of

construction right-of-way (ROW), staging, and extra workspace, while permanent impacts are a result of the operation of a new permanent ROW calculations based on a 30-foot maintained ROW). Permanent forest impacts consist of the clearing of wetland forest, which will be maintained as emergent and scrub-shrub wetland for the life of the project. This project will not result in any net-loss of wetlands from fill, only the net loss of habitat types, ie. forested to scrub-shrub. This section of pipeline will temporarily impact 819 linear feet (0.66 acre) of stream channel. Of the twelve surface water bodies traversed by the proposed Berwick loop, Transco is proposing the use of the dry cut method for all of them. Transco proposes to mitigate for all permanent conversion of 0.01 acres of forested wetlands to emergent through the use of preservation. Transco has identified suitable sites where the landowner is willing to accept monetary value for property with a forested wetland component in exchange for allowing a conservation easement on the property in order to protect and preserve the wetland.

**Neshanic Loop** -The proposed 3.23 mile long Neshanic Loop begins at MP 1786.55 of Transco's existing 36 inch diameter Princeton Junction Lateral in Somerset County, New Jersey. The proposed loop would terminate at MP 1789.78 of the existing Mainline B.

The construction and operation of the proposed Neshanic Loop will not impact any U.S. Army Corps of Engineers jurisdictional wetlands. The South Branch of Raritan River is the only Corps regulated waterway in this loop. The width of the river at the point of the crossing is approximately 180 feet. The proposed construction method for the crossing is a dry crossing using an open cut by dam and pump. All other impacts to waters and wetlands will be evaluated and permitted by the State of New Jersey.

**Morgan Replacement** -The replacement entails replacement/relocation of five sections of Transco's existing 42-inch diameter Lower New York Bay Mainline C, downstream of the proposed compressor station.

The construction and operation of the proposed Morgan Replacement project will temporarily impact 1.18 acre of Corps regulated wetlands; one Estuarine Emergent wetland (0.51 acre), one palustrine Emergent wetland (0.4 acre), and one Estuarine/Palustrine Emergent wetland (0.27 acre). There are two Corps regulated water bodies (a Tributary to Crossway Creek is 30 foot wide at the point of the crossing and the mainstem which is 15 foot wide at the point of the crossing). The tributary will be crossed using a dry crossing method of open cut dam & pump. The mainstem will be crossed using an open cut wet trench. All other impacts to waters and wetlands will be evaluated and permitted by the State of New Jersey.

**Compressor Station 207** -The proposed project includes construction of a new 10,000 horsepower (hp) electric motor driven, unmanned compressor station (Compressor Station 207) on Block 5001, Lot 13.13, Old Bridge Township, Middlesex County, New Jersey.

The construction and operation of the Compressor Station will not impact any Corps regulated waters or wetlands.

Modifications at the existing Delaware River regulator Station, in Northampton County, Pennsylvania, the existing Long Beach Meter Station in Nassau County, New York and uprating the existing 42inch diameter Lower New York Bay mainline C and the 26 inch diameter Lower New York Bay Extension from 800 psig to 960 psig will not impact any Corps regulated waters or wetlands.

All work will be completed in accordance with the enclosed/or submitted plan(s). If you have any general questions or questions pertaining to impacts in Pennsylvania please contact Mr. Michael Dombroskie at (814) 235-0571, or by E-mail at: [mike.dombroskie@usace.army.mil](mailto:mike.dombroskie@usace.army.mil). If you have any questions concerning impacts to Corps regulated areas in New Jersey or New York please contact Mr. Michael Vissichelli at (917)790-8520, or by e-mail at: [Michael.g.vissichelli@usace.army.mil](mailto:Michael.g.vissichelli@usace.army.mil).

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation economics aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials. Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of

the proposed activity. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, State College, Pennsylvania Field Office, 1631 South Atherton Street, State College Pennsylvania 16801, within the comment period specified above.

The evaluation of the impact of this project on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act. Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, U.S. Army Corps of Engineers, State College Field office, 1631 South Atherton Street, State College, Pa 16801, within the comment period as specified above to receive consideration. Also it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C.1531), the District Engineer is consulting with the appropriate federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and management Act, as amended by the Sustainable Fisheries Act of 1996 (16 U.S.C. 1855(b)), requires all federal agencies to consult with the NOAA Fisheries service (NFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect essential Fish habitat (EFH). Consultation with NFS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to the final decision.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Pennsylvania Department of Environmental Protection through the issuance of a Section 105 permit or through direct application to the Regional Office in the area of the proposed project. The Section 401 certifying agency has a statutory limit of one year in which to make its decision.

Pursuant to Section 307 © of the Coastal Zone management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occur. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

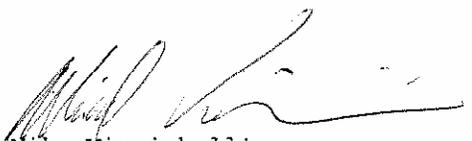
The applicant must obtain any State or local government permits which may be required.

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.

FOR THE DISTRICT ENGINEER

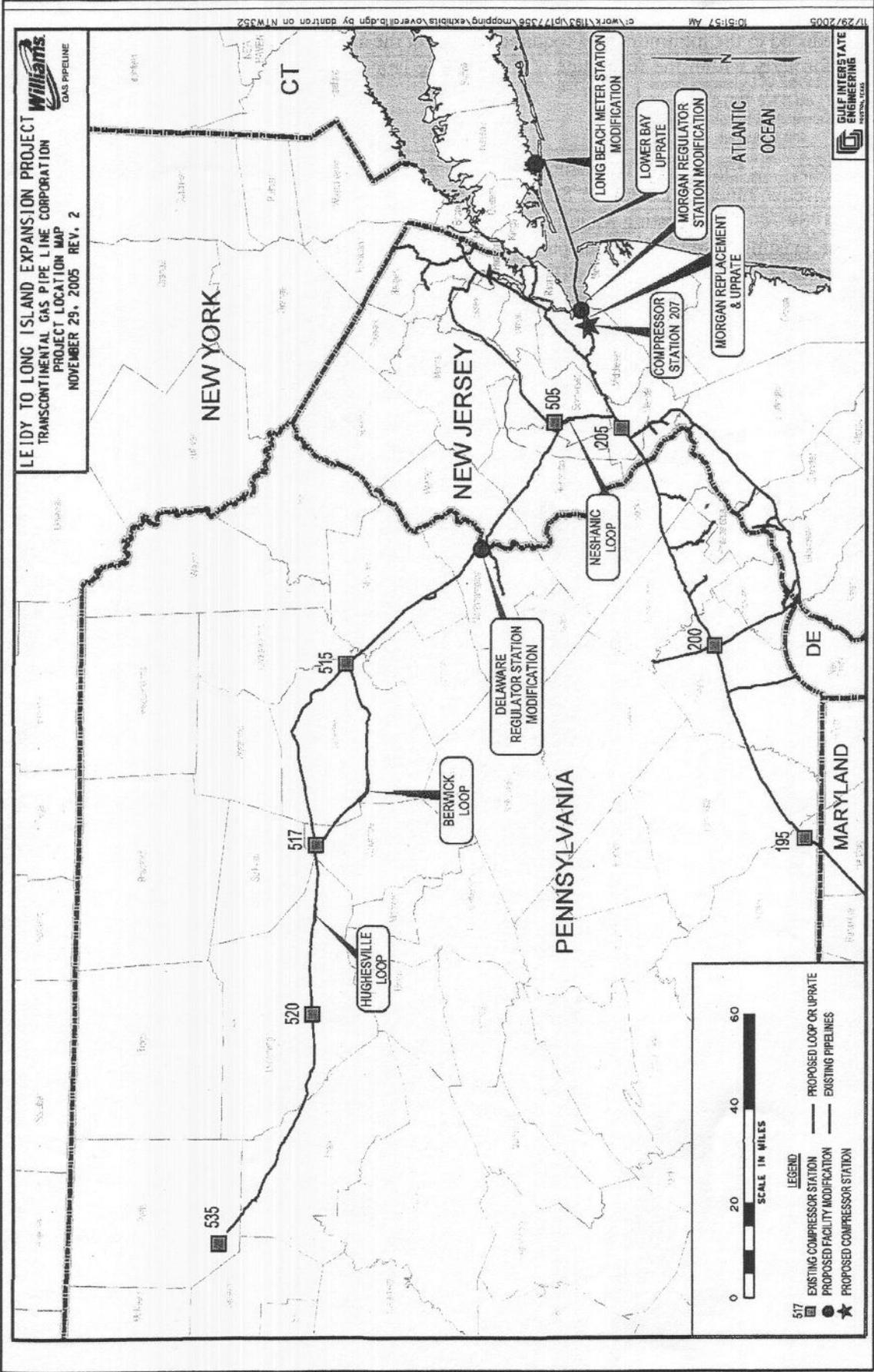


Irwin Garskof  
Chief, Pennsylvania Section



Mike Vissichelli  
Chief, Eastern Permits Section

Enclosure



**Figure 1**  
**Leidy to Long Island Expansion Project**  
**General Project Location Map**

ITEM 13 WATERBODIES CROSSED BY THE MORGAN REPLACEMENT & NESHANIC LOOP						
Project Component	MP of Waterbody (centerline)	Name of Waterbody	Type <sup>a/</sup>	Crossing Width (ft)	State Water Quality Classification <sup>b/</sup>	Remarks
Morgan Replacement	11.38	Crossway Creek Tributary (S-MR-106)	P	30	FW2-NT/SE1	Dry Crossing (Open Cut Dam & Pump)
Morgan Replacement	11.60	Crossway Creek	T	15	SE1	Open Cut (wet trench)
Neshanic Loop	1788.42	South Branch of Raritan River (S-NL-109)	P	180	FW2-NT	Dry Crossing (Open Cut by Dam & Pump)

**Notes:**

- a/ - Water Type
- b/ - State Water Quality Classifications
- T - Tidal
- P - Perennial
- FW2 - Non FW1 or Pinelands Waters
- SE - Saline Estuarine
- NT - Non Trout

ITEM 22 WETLANDS WITHIN USACE JURISDICTION CROSSED BY THE PROPOSED TRANSCO MORGAN REPLACEMENT AND NESHANIC LOOP <sup>a/</sup>				
Milepost (enter - exit)	Location	Wetland I.D.	Wetland Classification <sup>b/</sup>	Temporary Non- Forested Wetland Impacts <sup>c/</sup>
11.29-11.32	Middlesex County, NJ	W-MR-109	PEM	0.4
11.57-11.63	Middlesex County, NJ	W-MR-110	EEM	0.51
11.88-11.90	Middlesex County, NJ	W-MR-111	EEM/PEM	0.27
<b>Morgan Replacement Total Impacts</b>				<b>1.18</b>

**Notes:**

a/ - There are no wetlands within USACE Jurisdiction crossed by the Neshanic Loop

b/ - Per Cowardin et al, 1979; PEM = Palustrine Emergent Wetland; EEM = Estuarine Emergent Wetland

c/ - All impacts are in acres

STREAMS CROSSED BY THE PROPOSED LEIDY TO LONG ISLAND PROJECT - BERWICK LOOP						
Project Component	Milepost	Location	Stream Identification	Stream Classification	Crossing Length (feet) <sup>a</sup>	Area Disturbed During Construction (acres)
Pipeline						
Pipeline	28.24	Luzerne - PA	S-BL-101	Intermittent	27	0.05
Pipeline	28.54	Luzerne - PA	S-BL-102	Intermittent	378	0.02
Pipeline	29.09	Luzerne - PA	S-BL-103	Perennial	15	0.03
Pipeline	N/A	Luzerne - PA	S-BL-104	Intermittent	N/A	N/A
Pipeline	N/A	Luzerne - PA	S-BL-105	Intermittent	N/A	N/A
Pipeline	N/A	Luzerne - PA	S-BL-106	Intermittent	N/A	N/A
Pipeline	30.32	Luzerne - PA	S-BL-107	Perennial	84	0.09
Pipeline	32.07	Luzerne - PA	S-BL-108	Perennial	38	0.07
Pipeline	32.10	Luzerne - PA	S-BL-109	Perennial	88	0.17
Pipeline	32.24	Luzerne - PA	S-BL-110	Intermittent	37	0.06
Pipeline	N/A	Luzerne - PA	S-BL-111	Intermittent	N/A	N/A
Pipeline	32.92	Luzerne - PA	S-BL-112	Intermittent	8	0.02
Access Roads						
Access road	29.83	Luzerne - PA	S-AC-BL-100	Intermittent	124	0.13
Access road	N/A	Luzerne - PA	S-AC-BL-101	Intermittent	N/A	N/A
Access road	30.32	Luzerne - PA	S-AC-BL-107	Perennial	20	0.02
<b>Pennsylvania Stream Totals</b>					<b>819</b>	<b>0.66</b>

**Footnotes:**

- <sup>a</sup> Crossing distances are calculated based on the widest portion of the permanent ROW that is traversed by the proposed route.
- <sup>b</sup> Acres Affected During Construction includes proposed permanent ROW, temporary ROW, extra workspace, and staging areas.
- N/A = Not Applicable (Not Impacted)

WETLANDS CROSSED BY THE PROPOSED LEIDY TO LONG ISLAND PROJECT - BERWICK LOOP											
Project Component	Milepost	Location	Wetland Identification	Wetland Classification	Crossing Length (feet) <sup>a</sup>	Wetland (PEM) Disturbance (acres)	Scrub-shrub Wetland Disturbance		Forested Wetland Disturbance		Total Wetland Disturbance
							Temporary Impact <sup>c</sup>	Permanent Impact <sup>c</sup>	Temporary Impact <sup>c</sup>	Permanent Impact <sup>d</sup>	
Pipeline											
Pipeline	28.20	Luzerne - PA	W-BL-102	PEM/PFO	290	0.37	---	---	0.06	0.00	0.43
Pipeline	28.48	Luzerne - PA	W-BL-103	PEM	63	0.09	---	---	---	---	0.09
Pipeline	N/A	Luzerne - PA	W-BL-104	PFO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pipeline	28.66	Luzerne - PA	W-BL-105	PEM/PFO	270	0.05	---	---	0.00	0.00	0.05
Pipeline	N/A	Luzerne - PA	W-BL-106	PEM/PSS/PFO	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pipeline	28.76	Luzerne - PA	W-BL-107	PEM	82	0.12	---	---	---	---	0.12
Pipeline	28.80	Luzerne - PA	W-BL-119	PEM	55	0.07	---	---	---	---	0.07
Pipeline	29.09	Luzerne - PA	W-BL-108	PEM/PFO	82	0.15	---	---	0.00	0.00	0.15
Pipeline	29.80	Luzerne - PA	W-BL-109	PEM/PSS/PFO	420	0.59	0.39	0.00	0.00	0.00	0.98
Pipeline	29.90	Luzerne - PA	W-BL-110	PEM	38	0.01	---	---	---	---	0.01
Pipeline	30.05	Luzerne - PA	W-BL-111	PEM/PSS	1874	2.81	1.28	0.00	---	---	4.09
Pipeline	30.51	Luzerne - PA	W-BL-112	PEM/PSS/PFO	200	0.35	0.10	0.00	0.08	0.00	0.53
Pipeline	31.92	Luzerne - PA	W-BL-113	PEM/PFO	370	0.10	---	---	0.05	0.01	0.16
Pipeline	32.02	Luzerne - PA	W-BL-114	PEM	294	0.58	---	---	---	---	0.58
Pipeline	32.16	Luzerne - PA	W-BL-115	PEM/PFO	105	0.00	---	---	0.04	0.00	0.04
Pipeline	32.29	Luzerne - PA	W-BL-116	PEM/PSS	289	0.47	0.12	0.00	---	---	0.59
Pipeline	32.52	Luzerne - PA	W-BL-117	PEM/PFO	220	0.38	---	---	0.08	0.00	0.46
Pipeline	N/A	Luzerne - PA	W-BL-118	PEM	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Access Roads											
Access road	29.46	Luzerne - PA	W-AC-BL-100	PFO/PEM	5	0.0002	---	---	0.00	0.00	0.0002
Access road	29.46	Luzerne - PA	W-AC-BL-101	PEM	30	0.011	---	---	---	---	0.011
Access road	N/A	Luzerne - PA	W-AC-BL-102	PEM/PSS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Access road	N/A	Luzerne - PA	W-AC-BL-103	PFO/PSS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Access road	29.46	Luzerne - PA	W-AC-BL-104	PFO/PSS	30	---	0.00	0.00	0.002	0.00	0.002
Access road	30.18	Luzerne - PA	W-AC-BL-105	PFO/PSS	75	0.00	0.00	0.00	0.01	0.00	0.01
Access road	30.57	Luzerne - PA	W-AC-BL-106	PEM/PSS	580	N/A	N/A	N/A	N/A	N/A	N/A
Access road	30.33	Luzerne - PA	W-AC-BL-107	PEM/PSS	120	0.009	0.034	0.00	---	---	0.043
Access road	32.31	Luzerne - PA	W-AC-BL-108	PSS/PFO	0	---	0.00	0.00	0.00	0.00	0.00
Access road	32.31	Luzerne - PA	W-AC-BL-109	PSS/PFO	0	---	0.00	0.00	0.00	0.00	0.00
Pennsylvania Wetland Totals						5,492	1.92	0.00	0.32	0.01	8.416

**Legend:**  
 Per Cowardin, 1979 PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland; POW = Palustrine Open Water; NA = Not Applicable/No Impact  
**Footnotes:**  
<sup>a</sup> Crossing distances are calculated based on the widest portion of the permanent ROW that is traversed by the proposed route. <sup>b</sup> PEM wetland disturbance consists of temporary impacts as a result of construction and operation of the pipeline.  
<sup>c</sup> Temporary scrub-shrub and forested wetland impacts are a result of the new 30-ft permanent ROW that will be maintained for the life of the pipeline.  
<sup>d</sup> Permanent scrub-shrub and forested wetland impacts are a result of the new 30-ft permanent ROW that will be maintained for the life of the pipeline.

Transcontinental Gas Pipe Line Corporation - Transco  
Leidy to Long Island Project - Hughesville Loop  
PADEP Joint Permit Application

WETLANDS CROSSED BY THE PROPOSED LEIDY TO LONG ISLAND PROJECT - HUGHESVILLE LOOP									
Project Component	Milepost	Location	Wetland Identification	Wetland Classification	Crossing Length (feet) <sup>a</sup>	Wetland (PEM) Disturbance (acres) <sup>b</sup>	Forested Wetland Disturbance (acres)		Total Wetland Disturbance
							Temporary Impact <sup>c</sup>	Permanent Impact <sup>d</sup>	
Pipeline	134.42	Lycoming - PA	W-HL-101	PFO/PEM	96	0.11	0.04	0.01	0.16
Pipeline	134.45	Lycoming - PA	W-HL-102	PFO	30	0.00	0.01	0.00	0.01
Pipeline	N/A	Lycoming - PA	W-HL-103	PEM	N/A	N/A	N/A	N/A	N/A
Pipeline	133.64	Lycoming - PA	W-HL-104	PEM	10	0.02	0.00	0.00	0.02
Pipeline	133.21	Lycoming - PA	W-HL-105	PEM	20	0.02	0.02	0.004	0.044
Pipeline	132.70	Lycoming - PA	W-HL-106	PFO/PEM	35	0.02	0.09	0.01	0.12
Pipeline	132.70	Lycoming - PA	W-HL-106A	PEM	50	0.05	0.00	0.00	0.05
Pipeline	132.44	Lycoming - PA	W-HL-107	PEM	46	0.05	0.00	0.00	0.05
Pipeline	132.21	Lycoming - PA	W-HL-108	PFO	45	0.00	0.05	0.01	0.06
Pipeline	N/A	Lycoming - PA	W-HL-109	PFO	N/A	N/A	N/A	N/A	N/A
Pipeline	131.78	Lycoming - PA	W-HL-110	PFO	72	0.01	0.06	0.04	0.11
Pipeline	N/A	Lycoming - PA	W-HL-100	PFO/PEM	N/A	N/A	N/A	N/A	N/A
Pipeline	N/A	Lycoming - PA	W-HL-113	PFO/PEM	N/A	N/A	N/A	N/A	N/A
<b>Pennsylvania Wetland Totals</b>					<b>404</b>	<b>0.28</b>	<b>0.27</b>	<b>0.076</b>	<b>0.626</b>

Legend:

**Footnotes:**

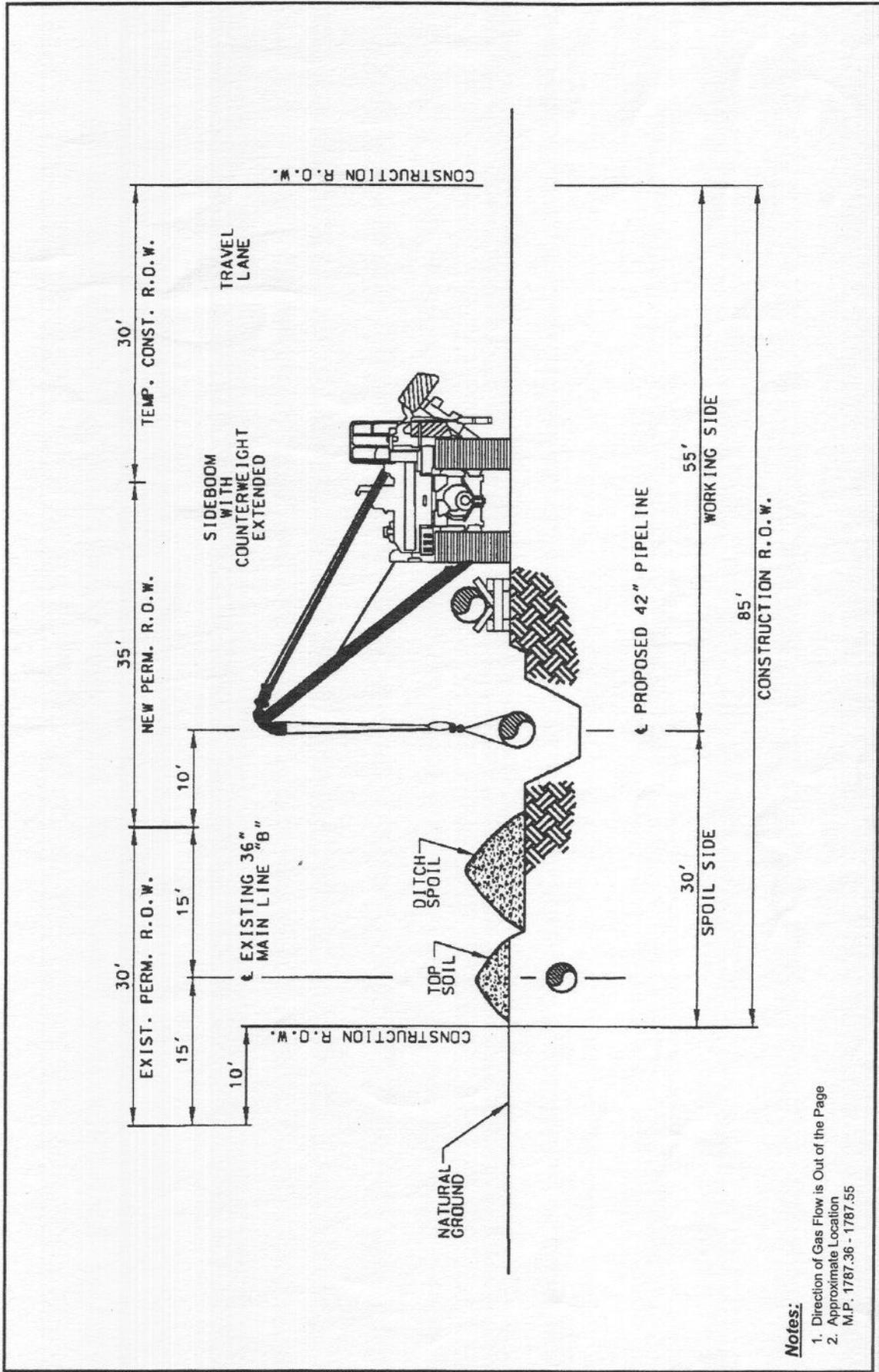
- <sup>a</sup> Crossing distances are calculated based on the widest portion of the permanent ROW that is traversed by the proposed route.
- <sup>b</sup> PEM wetland disturbance consists of temporary impacts as a result of construction and operation of the pipeline.
- <sup>c</sup> Temporary forested wetland impacts are a result of the construction ROW and temporary workspace. These areas will be allowed to revegetate and will not be maintained.
- <sup>d</sup> Permanent forested wetland impacts are a result of the new 30-foot permanent ROW that will be maintained for the life of the pipeline.

STREAMS CROSSED BY THE PROPOSED LEIDY TO LONG ISLAND PROJECT – HUGHESVILLE LOOP						
Project Component	Milepost (enter/exit)	Location	Stream Identification	Stream Classification	Crossing Length (feet) <sup>a</sup>	Area Disturbed During Construction (acres)
Pipeline	134.46	Lycoming – PA	S-HL-101	Perennial	19	0.06
Pipeline	134.41	Lycoming – PA	S-HL-102	Intermittent	12	0.01
Pipeline	134.62	Lycoming – PA	S-HL-103	Intermittent	8	0.11
Pipeline	133.65	Lycoming – PA	S-HL-104	Intermittent	14	0.03
Pipeline	133.19	Lycoming – PA	S-HL-105	Perennial	11	0.03
Pipeline	N/A	Lycoming – PA	S-HL-106	Perennial	N/A	N/A
Pipeline	132.69	Lycoming – PA	S-HL-107	Perennial	18	0.04
Pipeline	132.21	Lycoming – PA	S-HL-108	Intermittent	10	0.02
Pipeline	132.04	Lycoming – PA	S-HL-109	Intermittent	12	0.02
Pipeline	131.85	Lycoming – PA	S-HL-110	Intermittent	20	0.03
Pipeline	131.78	Lycoming – PA	S-HL-111	Perennial	21	0.04
Pipeline	131.79	Lycoming – PA	S-HL-112	Intermittent	12	0.02
Pipeline	N/A	Lycoming – PA	S-HL-100	Perennial	N/A	N/A
Pipeline	N/A	Lycoming – PA	S-HL-114	Perennial	N/A	N/A
Pipeline	N/A	Lycoming – PA	S-HL-115	Intermittent	N/A	N/A
Pipeline	N/A	Lycoming – PA	S-HL-117	Intermittent	N/A	N/A
<b>Pennsylvania Stream Totals</b>					<b>157</b>	<b>0.41</b>

**Footnotes:**

<sup>a</sup> Crossing distances are calculated based on the widest portion of the permanent ROW that is traversed by the proposed route.

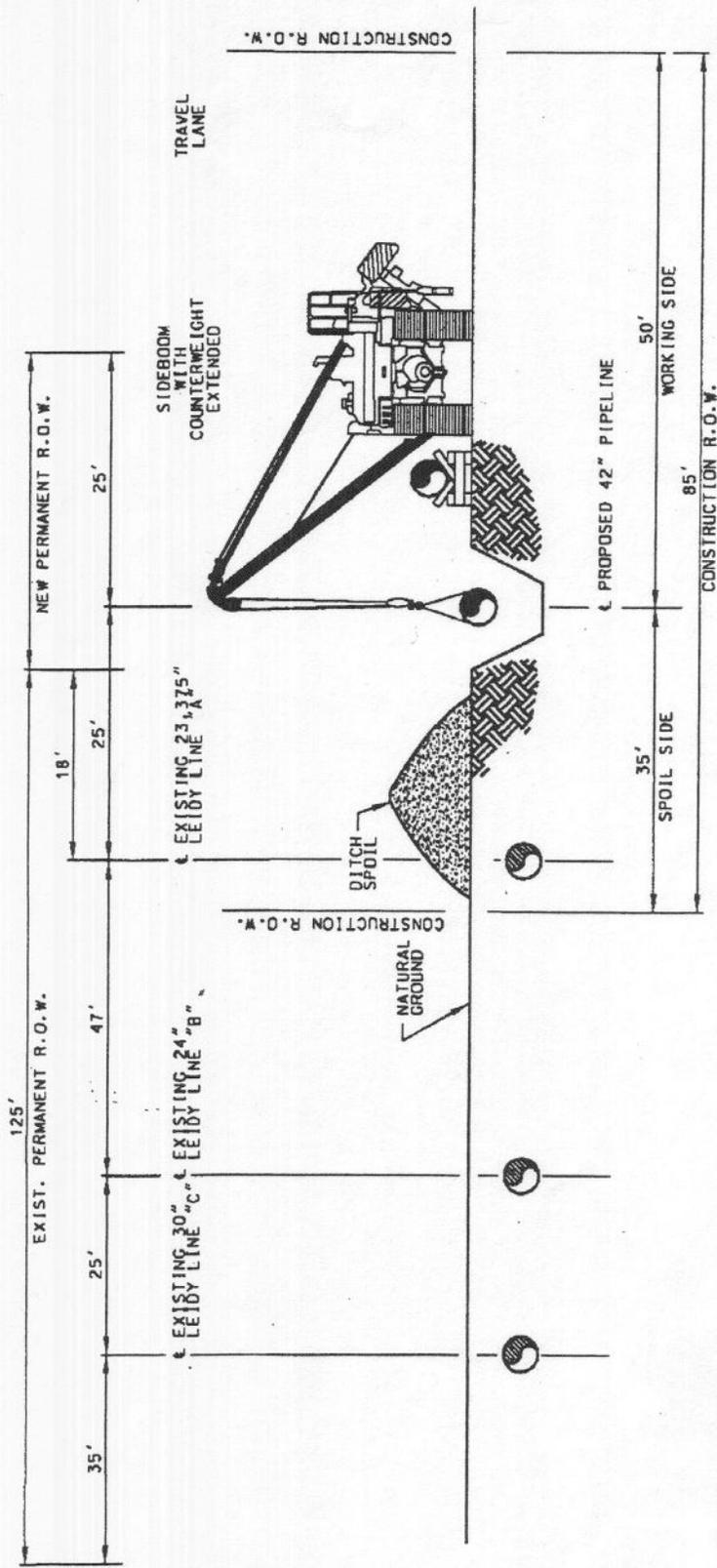
<sup>b</sup> Acreage Affected During Construction includes proposed permanent ROW, temporary ROW, extra workspace, and staging areas.  
 NA= Not Applicable/Not Impacted



**Notes:**

1. Direction of Gas Flow is Out of the Page
2. Approximate Location  
M.P. 1787.36 - 1787.55

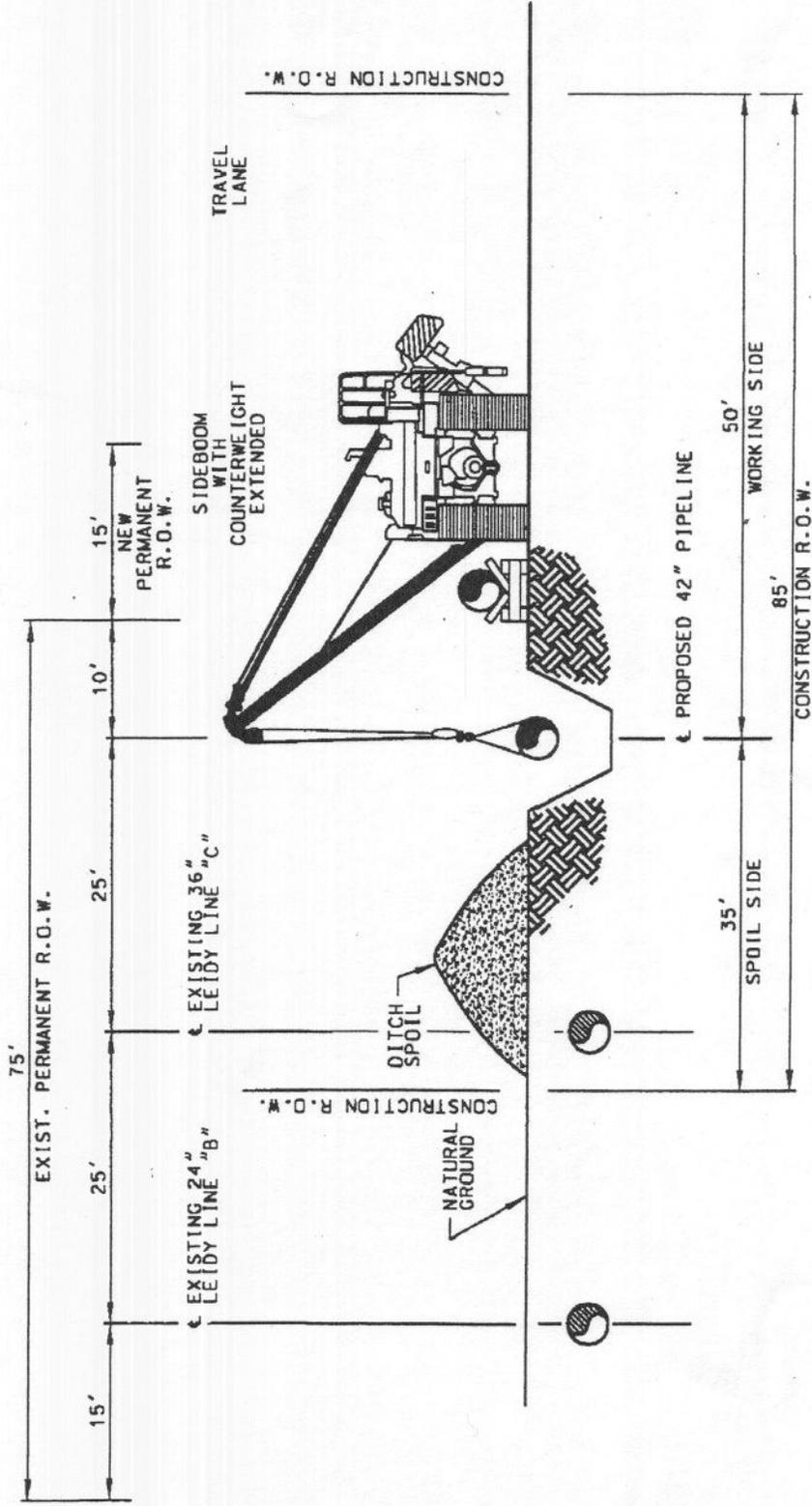
**Leidy to Long Island Expansion Project**  
**42" Neshanic Loop**  
 Typical Right-of-Way Cross-Section Parallel to Mainline B  
 with Topsoil Segregation



**Notes:**

1. Direction of Gas Flow is Bi-Directional
2. R.O.W. as shown from M.P. 133.0 to 134.1
3. All Other Locations R.O.W. is Open and Undefined

**Leidy to Long Island Expansion Project**  
**42" Hughesville Loop**  
 Typical Right-of-Way Cross-Section Parallel to Leidy Line A



**Notes:**

1. Direction of Gas Flow is Bi-Directional

## Leidy to Long Island Expansion Project 42" Berwick Loop

Typical Right-of-Way Cross-Section Parallel to Leidy Line C