

**ATTACHMENT O -1**  
**FLOODPLAIN ANALYSIS AND CONSISTENCY**



*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application  
Transcontinental Gas Pipeline Company, LLC  
Lancaster County  
Attachment O - Floodplain Analysis and Consistency*

Please refer to Attachment C of this application for copies of the letters and consistency requests which have been sent to each County and Municipality. Floodplain management analysis letters that have been provided to the County / Municipality, as well as any concurrence letters received at the time of the application submittal, have been included in this section. Additional concurrence letters will be provided upon receipt; however, because this Project is subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act, FERC has exclusive jurisdiction over siting. Therefore, local zoning is preempted.





October 28, 2016

Conestoga Township  
Floodplain Administrator  
3959 Main Street  
Conestoga, PA 17516

Re: Atlantic Sunrise Project  
Central Penn Line South  
Conestoga Township, Lancaster County  
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
  - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
  - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Conestoga Township is provided below for your review and comment.



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
CONESTOGA TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-RS-120006	Floodway to UNT to Pequea Creek	FEMA Detailed	N/A	0.0228	0.0031 <sup>1</sup>	39.92482	-76.33121
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T20-1001	Floodway to Conestoga River	FEMA Detailed	N/A	0.2137	0.0543 <sup>1</sup>	39.94399	-76.38196
Temporary Water Withdrawal	Equipment Access and E&S Controls	WW-RS-99105	Floodway to Conestoga River	FEMA Detailed	N/A	0.5178	0.000	39.96269	-76.36478
Temporary Water Withdrawal	Equipment Access and E&S Controls	WW-RS-99107	Floodway to Conestoga River	FEMA Detailed	N/A	0.5178	0.000	39.92576	-76.38419

**Notes:**

<sup>1</sup> Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossings listed above are depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Conestoga Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo  
TRC Environmental Corporation  
2200 Liberty Avenue, Suite 100  
Pittsburgh, PA 15222

**Please do not send comments directly to the PADEP,** as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

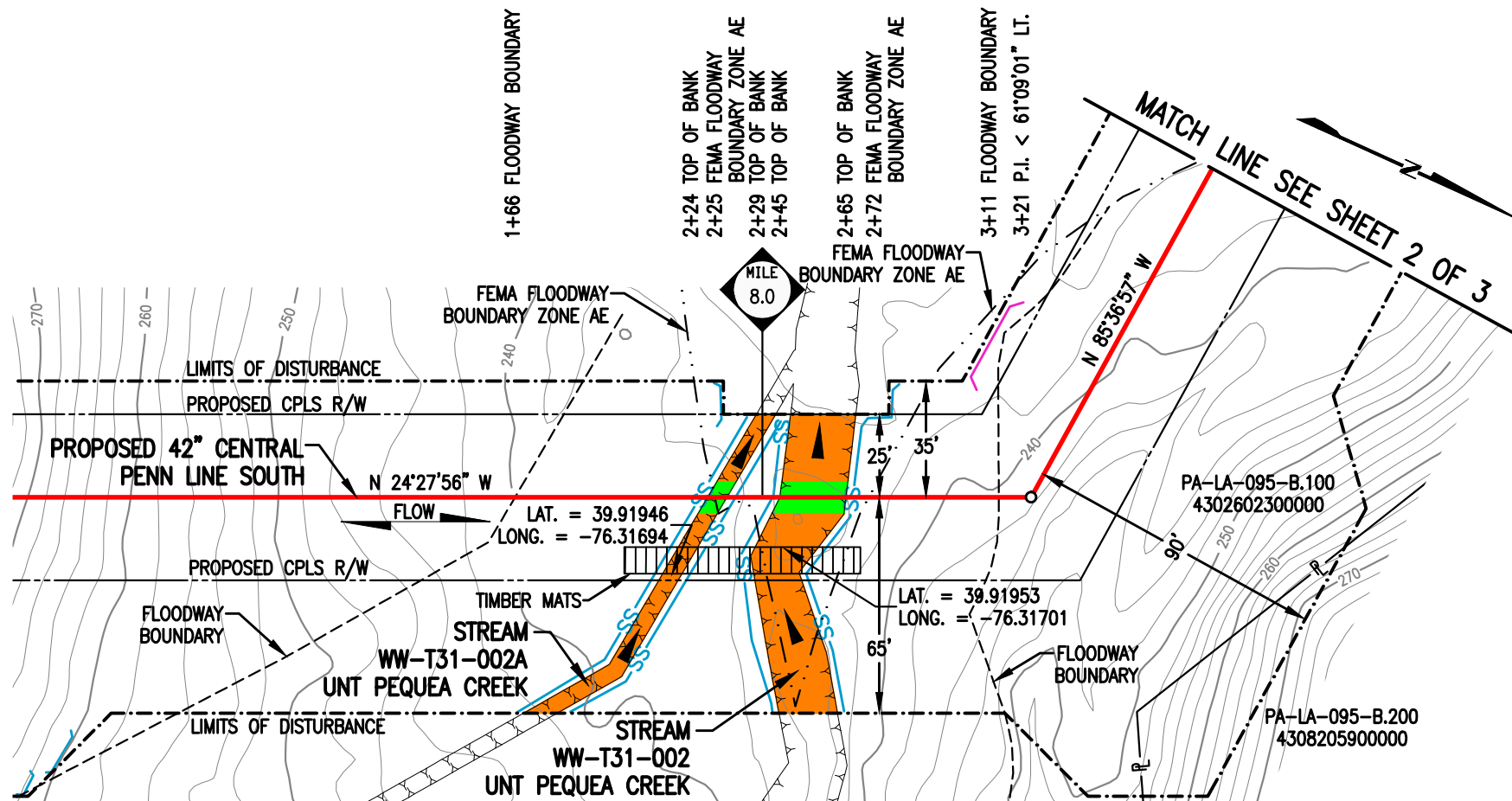
Sincerely,



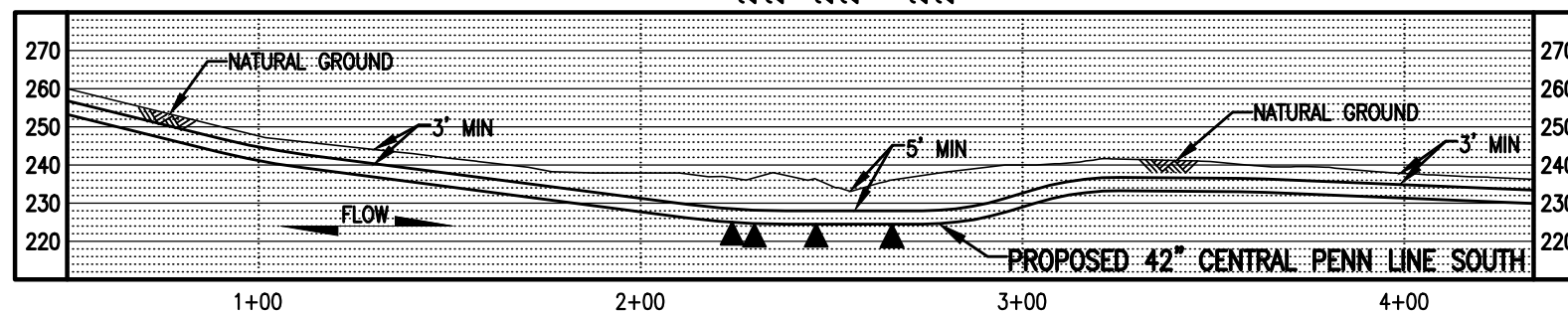
Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps





PLAN  
SCALE: 1" = 50'



PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

LEGEND

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT



DRAWING NO.

REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH
2	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

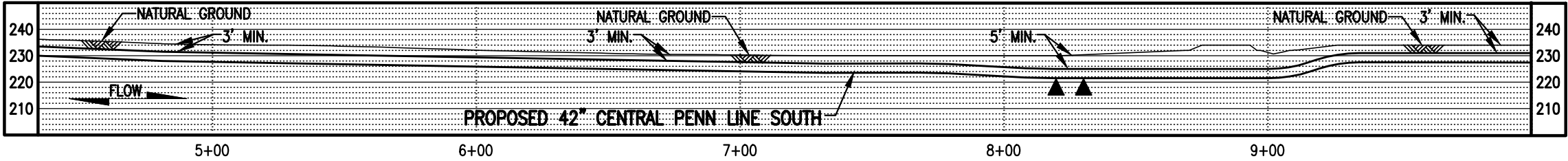
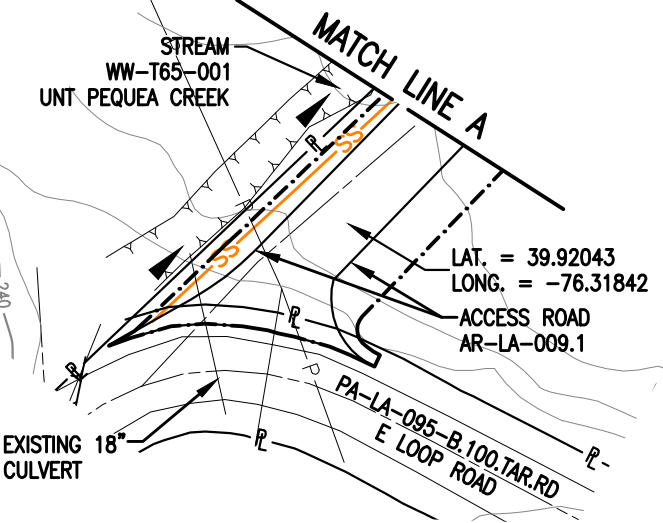
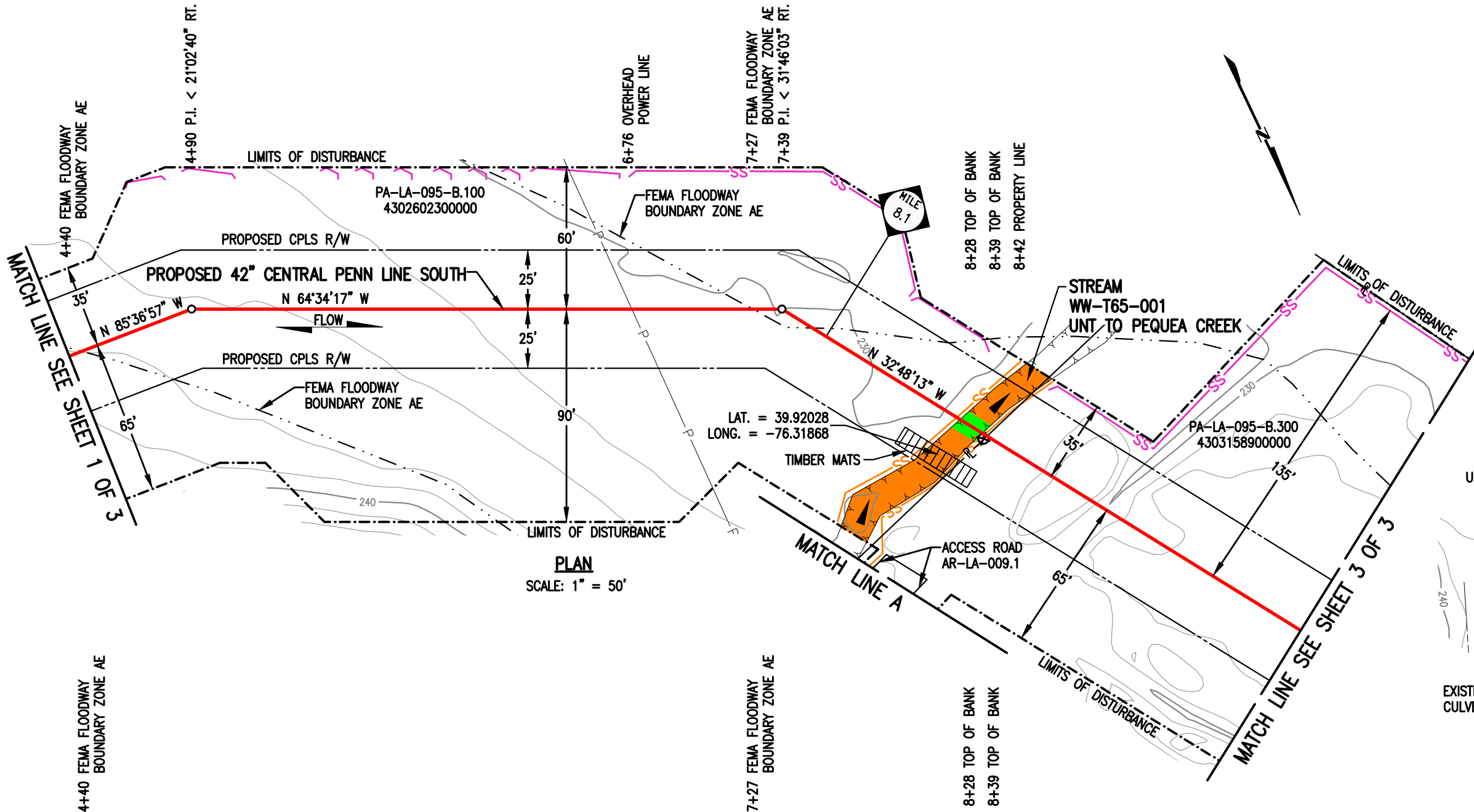
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11, WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2 MARTIC & CONESTOGA TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA				DRAWN BY: VT CHECKED BY: ML APPROVED BY: MJH WO: 1161503		DATE: 10/15/14 DATE: 03/07/15 DATE: 06/05/15	ISSUED FOR BID: ISSUED FOR CONSTRUCTION: DRAWING NUMBER: 1:23pm K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised 105\24-1600-70-09-A_8.00-01.dwg	SCALE: 1" = 50' REVISION: 2	SHEET 1 OF 3
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STREAM DISTURBANCE FOR ACCESS ROAD AR-LA-009.1:  
SEE TABLE FOR STREAM WW-T65-001 ON SHEET 1 OF 3

STREAM WW-T31-003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0718
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0718

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00



PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL



**LEGEND**

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

**WOOD GROUP MUSTANG, INC.**

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO.

REFERENCE TITLE

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCRoACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 42" CENTRAL PENN LINE SOUTH**  
**STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11,**  
**WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2**  
**MARTIC & CONESTOGA TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA**

NO.

DATE

BY

REVISION DESCRIPTION

W.O. NO.

CHK.

APP.

0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

DRAWN BY: CR

CHECKED BY: ML

APPROVED BY: MJH

WC: 1161503

DATE: 10/15/14

DATE: 03/07/15

DATE: 06/05/15

ISSUED FOR BID:

ISSUED FOR CONSTRUCTION:

DRAWING NUMBER: 24-1600-70-09-A/8.00-01

SCALE: 1" = 50'

REVISION: 1

10/17/2016

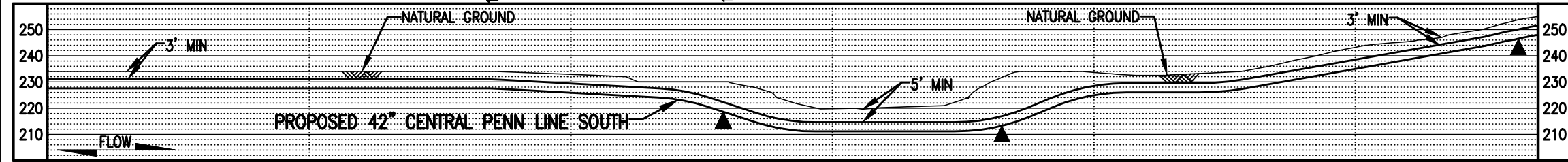
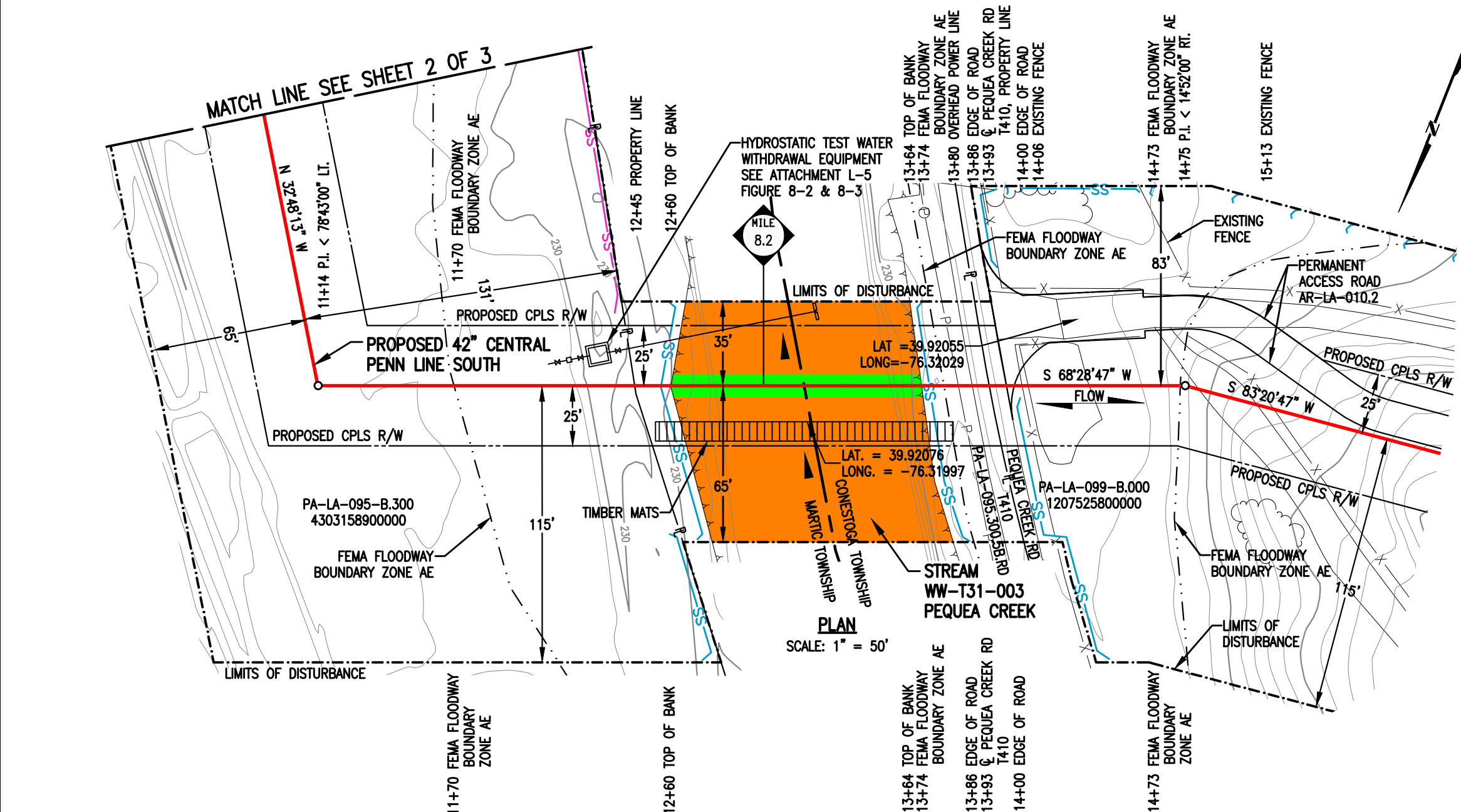
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SHEET 2

OF 3





LEGEND		WOOD GROUP MUSTANG, INC.	
PROPOSED 42" CENTRAL PENN LINE SOUTH	WETLAND FLAGS	SS	12" SEDIMENT BARRIER
EXISTING PIPELINES	PHOTO DATA POINT	SS	18" SEDIMENT BARRIER
EXISTING TGPL R/W	WETLAND DATA POINT	SS	24" SEDIMENT BARRIER
LIMITS OF DISTURBANCE	UPLAND DATA POINT	SS	32" SEDIMENT BARRIER
PROPOSED CPLS R/W	WELL POINT	SS	TOP OF BANK
PROPERTY LINE	TRENCH PLUG		PERMANENT STREAM IMPACT
FOREIGN PIPELINE	WATERBODY		TEMPORARY STREAM IMPACT
WETLAND AREA	TREE LINE		
STREAM FLOW	FLOODWAY BOUNDARY		
EXISTING POWER LINE	FEMA FLOODWAY BOUNDARY		
EXISTING FENCE			

DRAWING NO.		REFERENCE TITLE				TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11, WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2 MARTIC & CONESTOGA TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	THL	DATE:	10/15/14	ISSUED FOR BID:	SCALE:	1" = 50'	
0	11/05/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY:	ML	DATE:	03/07/15	ISSUED FOR CONSTRUCTION:	REVISION:	0	
							APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/8.00-01	SHEET 3	
							WO:	1161503					OF	3

# STREAM DISTURBANCE:

STREAM WW-T31-003	ACRE
TEMPORARY STREAM DISTURBANCE	0.2059
PERMANENT STREAM DISTURBANCE	0.0238
TOTAL STREAM DISTURBANCE	0.2297
TEMPORARY FLOODWAY DISTURBANCE	2.9977
PERMANENT FLOODWAY DISTURBANCE	0.2151
TOTAL FLOODWAY DISTURBANCE	3.2128

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	104.03
STREAM LENGTH	101.97

# STREAM DISTURBANCE FOR ACCESS ROAD AR-LA-010.2:

STREAM WW-T31-003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0419
TOTAL FLOODWAY DISTURBANCE	0.0419

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00

# GENERAL NOTES:

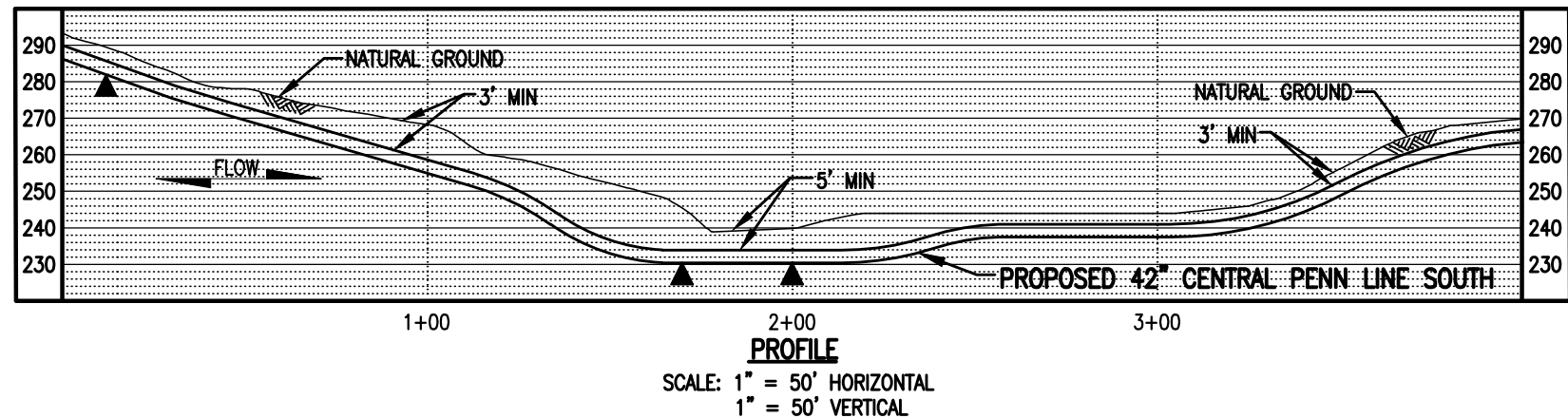
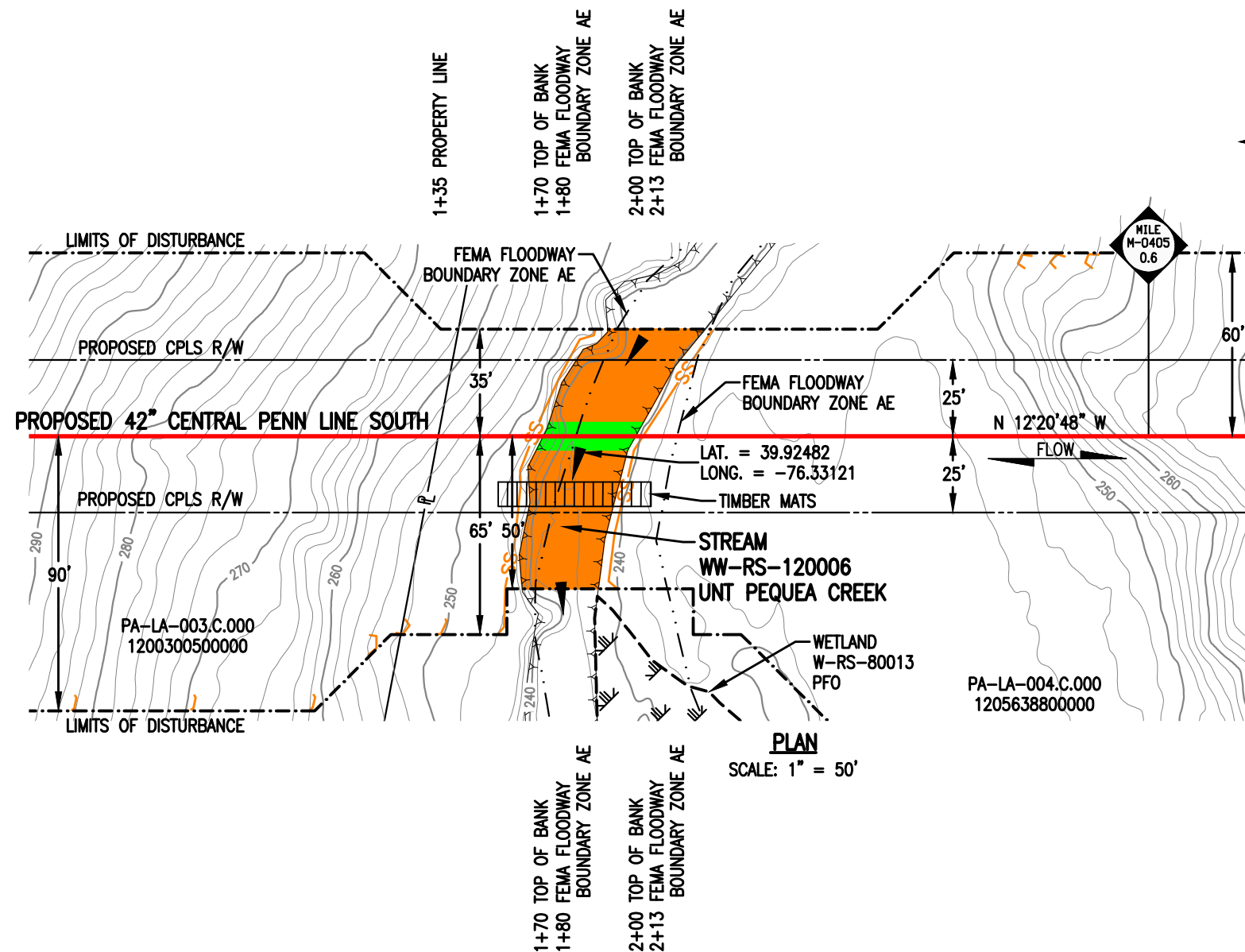
- STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
- THIS SITE IS LOCATED WITHIN 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
- STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

# SURVEY NOTES:

- T.B.M. SURVEY CONTROL POINT - 53.12' LT. OF M.P. 8.22, ELEV. = 233.62' (NAVD88).







STREAM DISTURBANCE:

STREAM WW-RS-120006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0515
PERMANENT STREAM DISTURBANCE	0.0070
TOTAL STREAM DISTURBANCE	0.0585
TEMPORARY FLOODWAY DISTURBANCE	0.0228
PERMANENT FLOODWAY DISTURBANCE	0.0031
TOTAL FLOODWAY DISTURBANCE	0.0259
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	30.20
STREAM LENGTH	94.53

GENERAL NOTES:

- STREAM CROSSING METHOD FOR WW-RS-120006 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
- THIS SITE IS WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
- STATION 1+00 SHOWN IS EQUAL TO M-0405 STATION 29+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

- T.B.M. I.R. POINT - 307.48' RT. OF M-0405 M.P. 0.4, ELEV. = 294.70' (NAVD88).



LEGEND

PROPOSED 42" CENTRAL PENN LINE SOUTH  
EXISTING PIPELINES  
EXISTING TGPL R/W  
LIMITS OF DISTURBANCE  
PROPOSED CPLS R/W  
PROPERTY LINE  
FOREIGN PIPELINE  
WETLAND AREA  
STREAM FLOW  
EXISTING POWER LINE  
EXISTING FENCE

WETLAND FLAGS  
PHOTO DATA POINT  
WETLAND DATA POINT  
UPLAND DATA POINT  
WELL POINT  
TRENCH PLUG  
WATERBODY  
TREE LINE  
FLOODWAY BOUNDARY  
FEMA FLOODWAY BOUNDARY

12" SEDIMENT BARRIER  
18" SEDIMENT BARRIER  
24" SEDIMENT BARRIER  
32" SEDIMENT BARRIER  
TOP OF BANK  
PERMANENT STREAM IMPACT  
TEMPORARY STREAM IMPACT

WOOD GROUP  
MUSTANG, INC.

DRAWING NO.

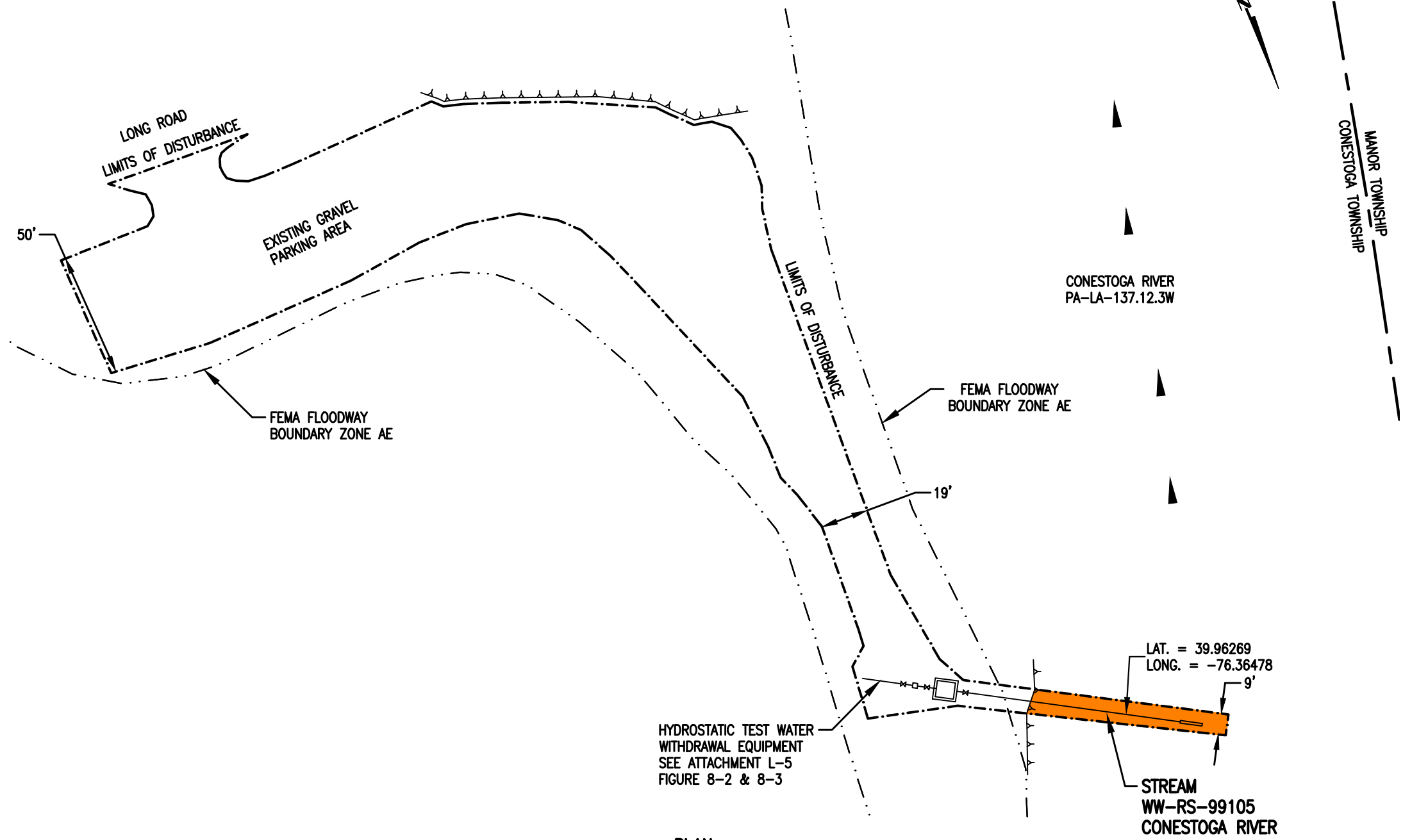
REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSING WW-RS-120006  
M-0405 @ M.P. 0.57  
CONESTOGA TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	VT	DATE:	06/28/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	11/05/16	VT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY:	CLR	DATE:	08/01/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY:	MJH	DATE:	08/01/16	DRAWING NUMBER: 24-1600-70-09-A/M-0405-0.57-01	SHEET 1
							WO:	1161503			10/17/2016 nlabell	OF 1

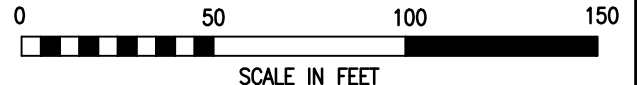




**PLAN**  
SCALE: 1" = 50'

STREAM DISTURBANCE:	
STREAM WW-RS-99105	ACRE
TEMPORARY STREAM DISTURBANCE	0.0172
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0172
TEMPORARY FLOODWAY DISTURBANCE	0.5178
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.5178
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.06
STREAM LENGTH	81.51

- GENERAL NOTES:**
- NO IN-STREAM DISTURBANCE WILL OCCUR AS HYDROSTATIC EQUIPMENT WILL BE PLACED ON STREAM BED.
  - THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
- SURVEY NOTES:**
- T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 12.34, ELEV. = 185.17' (NAVD88).



**LEGEND**

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

**WOOD GROUP MUSTANG, INC.**

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

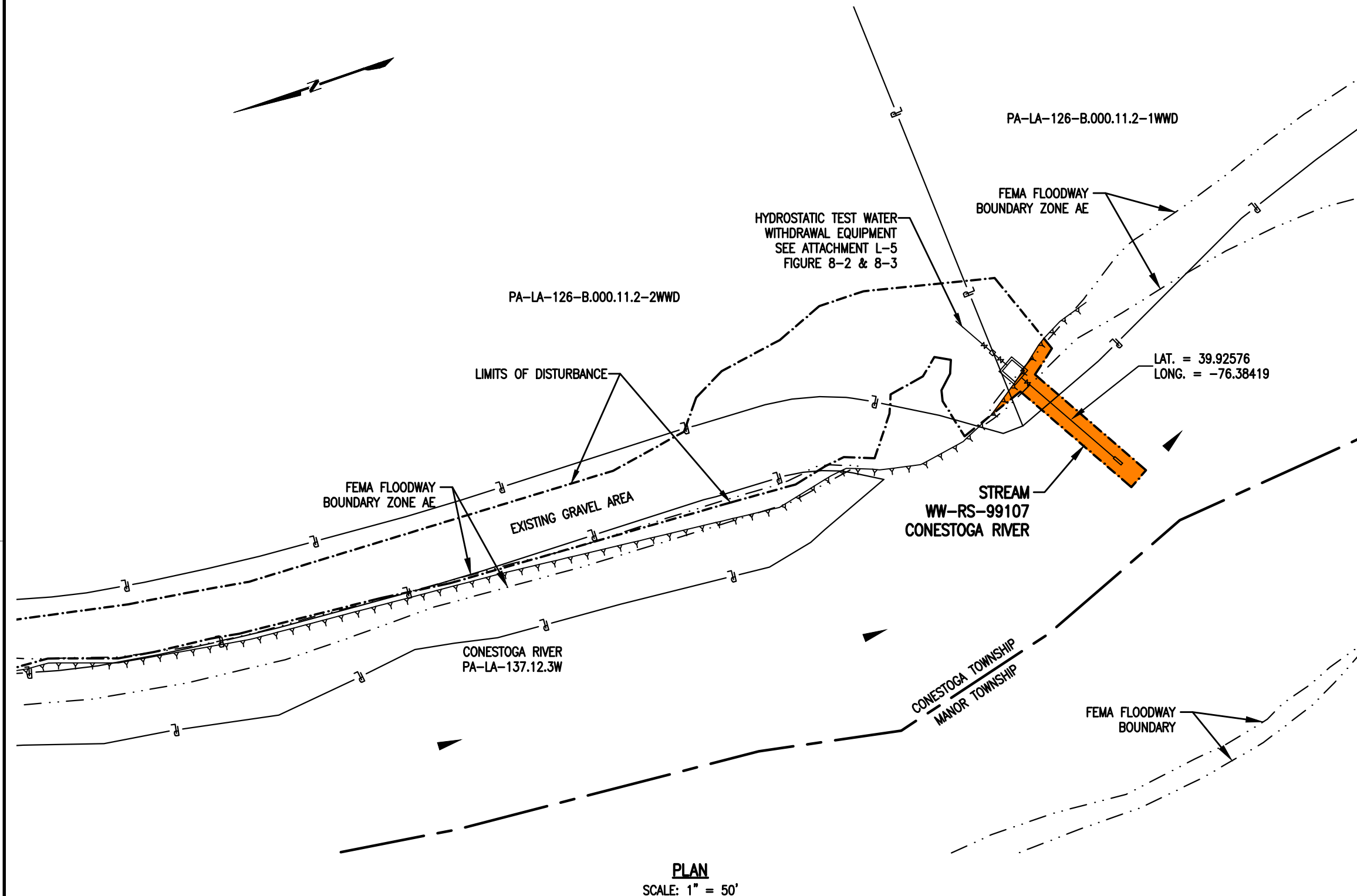
DRAWING NO.

REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSING WW-RS-99105 & WW-RS-99106  
© M.P. 11.69  
CONESTOGA & MANOR TOWNSHIPS , LANCASTER COUNTY, PENNSYLVANIA

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: EE	DATE: 09/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
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							APPROVED BY: MJH	DATE: 09/16/16	DRAWING NUMBER: 24-1600-70-09-A/11.69-01	SHEET 1
							WO: 1161503		10/14/2016 t3le	OF 1





STREAM DISTURBANCE:	
STREAM WW-RS-99107	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0189
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0189
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00

- GENERAL NOTES:**
- NO IN-STREAM DISTURBANCE WILL OCCUR AS HYDROSTATIC EQUIPMENT WILL BE PLACED ON STREAM BED.
  - THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
- SURVEY NOTES:**
- T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 12.34, ELEV. = 185.17' (NAVD88).

LEGEND

PROPOSED 42" CENTRAL PENN LINE SOUTH

EXISTING PIPELINES

EXISTING TGPL R/W

LIMITS OF DISTURBANCE

PROPOSED CPLS R/W

PROPERTY LINE

FOREIGN PIPELINE

WETLAND AREA

STREAM FLOW

EXISTING POWER LINE

EXISTING FENCE

WETLAND FLAGS

PHOTO DATA POINT

WETLAND DATA POINT

UPLAND DATA POINT

WELL POINT

TRENCH PLUG

WATERBODY

TREE LINE

FLOODWAY BOUNDARY

FEMA FLOODWAY BOUNDARY

12" SEDIMENT BARRIER

18" SEDIMENT BARRIER

24" SEDIMENT BARRIER

32" SEDIMENT BARRIER

TOP OF BANK

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

WOOD GROUP  
MUSTANG, INC.

DRAWING NO.

REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	11/05/16	DJG	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC

WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS

ATLANTIC SUNRISE PROJECT

PROPOSED 42" CENTRAL PENN LINE SOUTH

STREAM CROSSING WW-RS-99107

© M.P. 11.98

CONESTOGA & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

DRAWN BY: DJG

CHECKED BY: CLR

APPROVED BY: MJH

WO: 1161503

DATE: 09/16/16

DATE: 09/16/16

DATE: 09/16/16

ISSUED FOR BID:

ISSUED FOR CONSTRUCTION:

DRAWING NUMBER: 24-1600-70-09-A/11.98-01

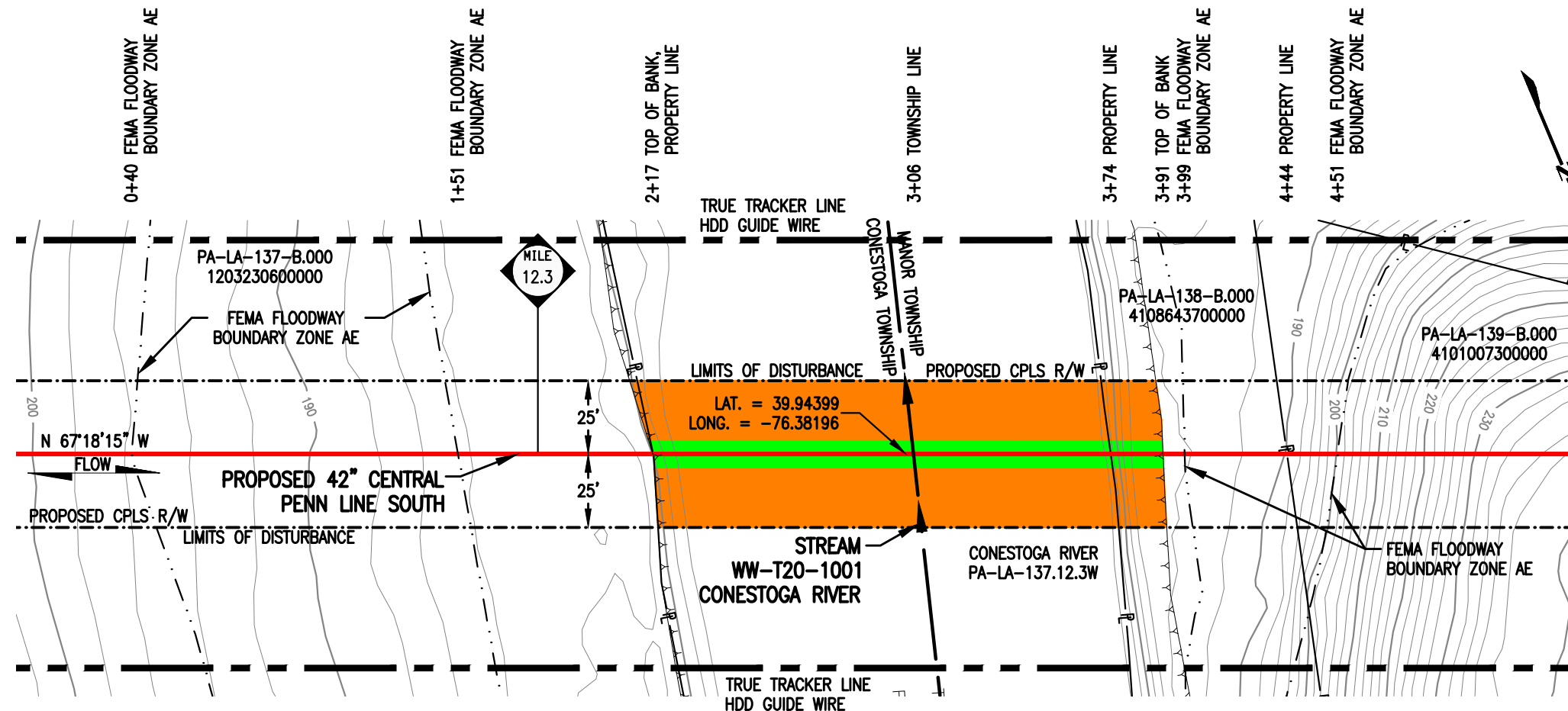
10/12/2016 o16loui

SCALE: 1" = 50'

REVISION: 0

SHEET 1 OF 1





PLAN  
SCALE: 1" = 50'

#### STREAM DISTURBANCE:

STREAM WW-T20-1001	ACRE
TEMPORARY STREAM DISTURBANCE	0.1613
PERMANENT STREAM DISTURBANCE	0.0400
TOTAL STREAM DISTURBANCE	0.2013
TEMPORARY FLOODWAY DISTURBANCE	0.2137
PERMANENT FLOODWAY DISTURBANCE	0.0543
TOTAL FLOODWAY DISTURBANCE	0.2680
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	174.02
STREAM LENGTH	50.04

#### GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE HDD.
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
3. STATION 0+00 SHOWN IS EQUAL TO STATION 647+65 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. THE HDD GUIDE WIRES WILL BE PLACED ON STREAM BED AND WEIGHTED TO AVOID HAZARDS TO RIVER USERS.

#### SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 12.34, ELEV. = 185.17' (NAVD88).



#### LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		

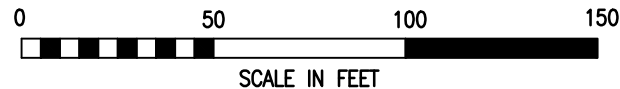
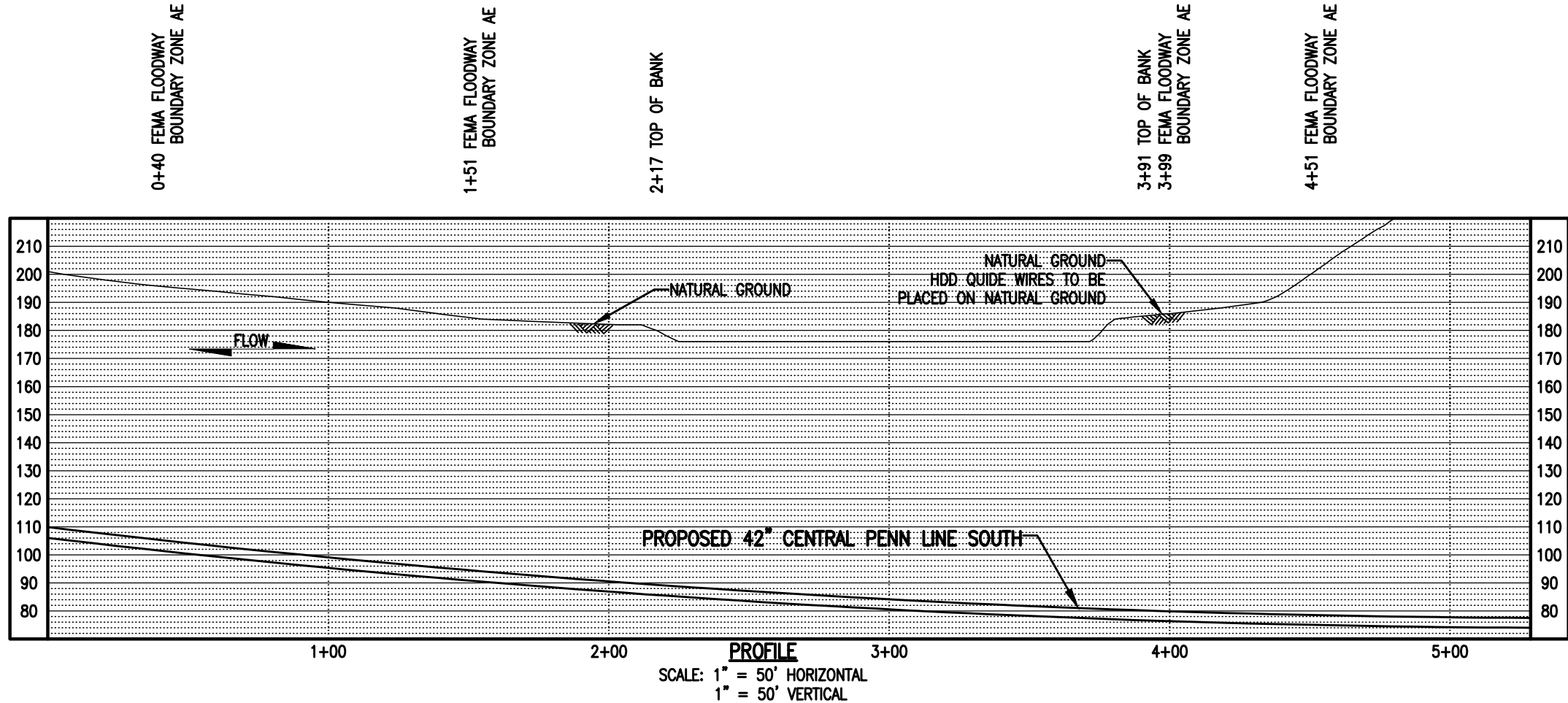
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT



WOOD GROUP  
MUSTANG, INC.

DRAWING NO.			REFERENCE TITLE										
			<div>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T20-1001 ● M.P. 12.32 CONESTOGA &amp; MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA</div> <div>Williams</div>										
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	LL	DATE:	10/15/14	ISSUED FOR BID:	SCALE:	1" = 50'
0	07/31/15	CR	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	CLR	DATE:	03/07/15	ISSUED FOR CONSTRUCTION:	REVISION:	1
1	11/05/16	VC	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/12.32-01	SHEET 1
								WO:	1161503			10/13/2016	OF 2
								K:\103643-CPLS\Mapping\Waterboodies\CPLS_PAS\Revised 105\24-1600-70-09-A_12.32-01.dwg					





**LEGEND**

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		

**WOOD GROUP MUSTANG, INC.**

	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

DRAWING NO.			REFERENCE TITLE			





October 28, 2016

Manor Township  
Floodplain Administrator  
950 West Fairway Drive  
Lancaster, PA 17603

Re: Atlantic Sunrise Project  
Central Penn Line South  
Manor Township, Lancaster County  
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
  - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
  - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Manor Township is provided below for your review and comment.

Manor Township  
October 28, 2016  
BL Project No. 14C4909  
Page 1 of 3



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
MANOR TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T20-1001	Floodway to Conestoga River	FEMA Detailed	N/A	0.2137	0.0543 <sup>1</sup>	39.94399	-76.38196

<sup>1</sup> Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossing listed above is depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Manor Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo  
TRC Environmental Corporation  
2200 Liberty Avenue, Suite 100  
Pittsburgh, PA 15222

**Please do not send comments directly to the PADEP,** as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

Sincerely,



Alaric J. Busher, PE  
Senior Engineer

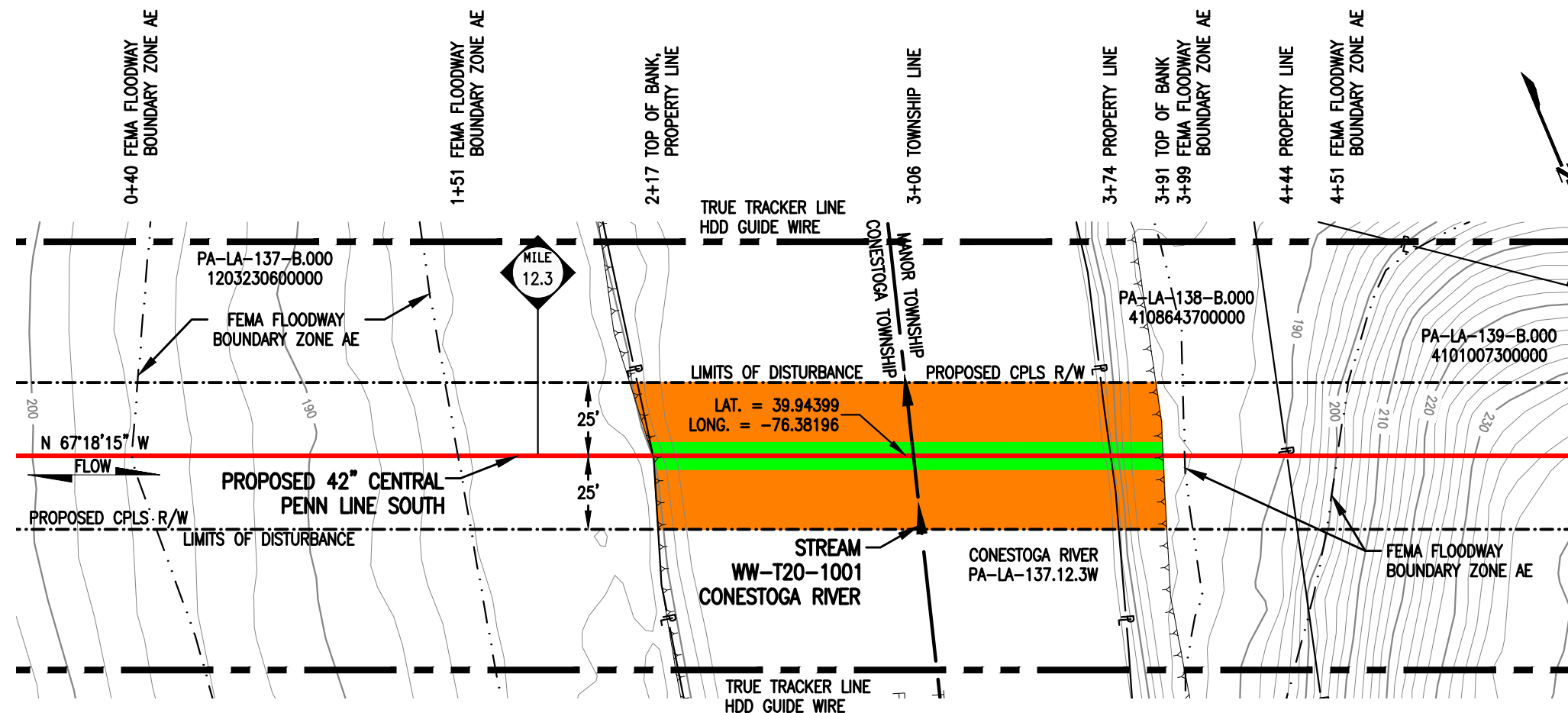
Enclosures: Water Obstruction and Encroachment Permit Impact Maps

Manor Township  
October 28, 2016  
BL Project No. 14C4909  
Page 2 of 3









PLAN  
SCALE: 1" = 50'

STREAM DISTURBANCE:

STREAM WW-T20-1001	ACRE
TEMPORARY STREAM DISTURBANCE	0.1613
PERMANENT STREAM DISTURBANCE	0.0400
TOTAL STREAM DISTURBANCE	0.2013
TEMPORARY FLOODWAY DISTURBANCE	0.2137
PERMANENT FLOODWAY DISTURBANCE	0.0543
TOTAL FLOODWAY DISTURBANCE	0.2680
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	174.02
STREAM LENGTH	50.04

GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE HDD.
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
3. STATION 0+00 SHOWN IS EQUAL TO STATION 647+65 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. THE HDD GUIDE WIRES WILL BE PLACED ON STREAM BED AND WEIGHTED TO AVOID HAZARDS TO RIVER USERS.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 12.34, ELEV. = 185.17' (NAVD88).

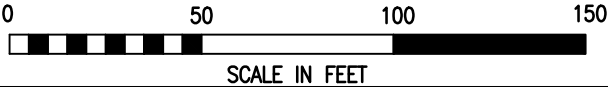
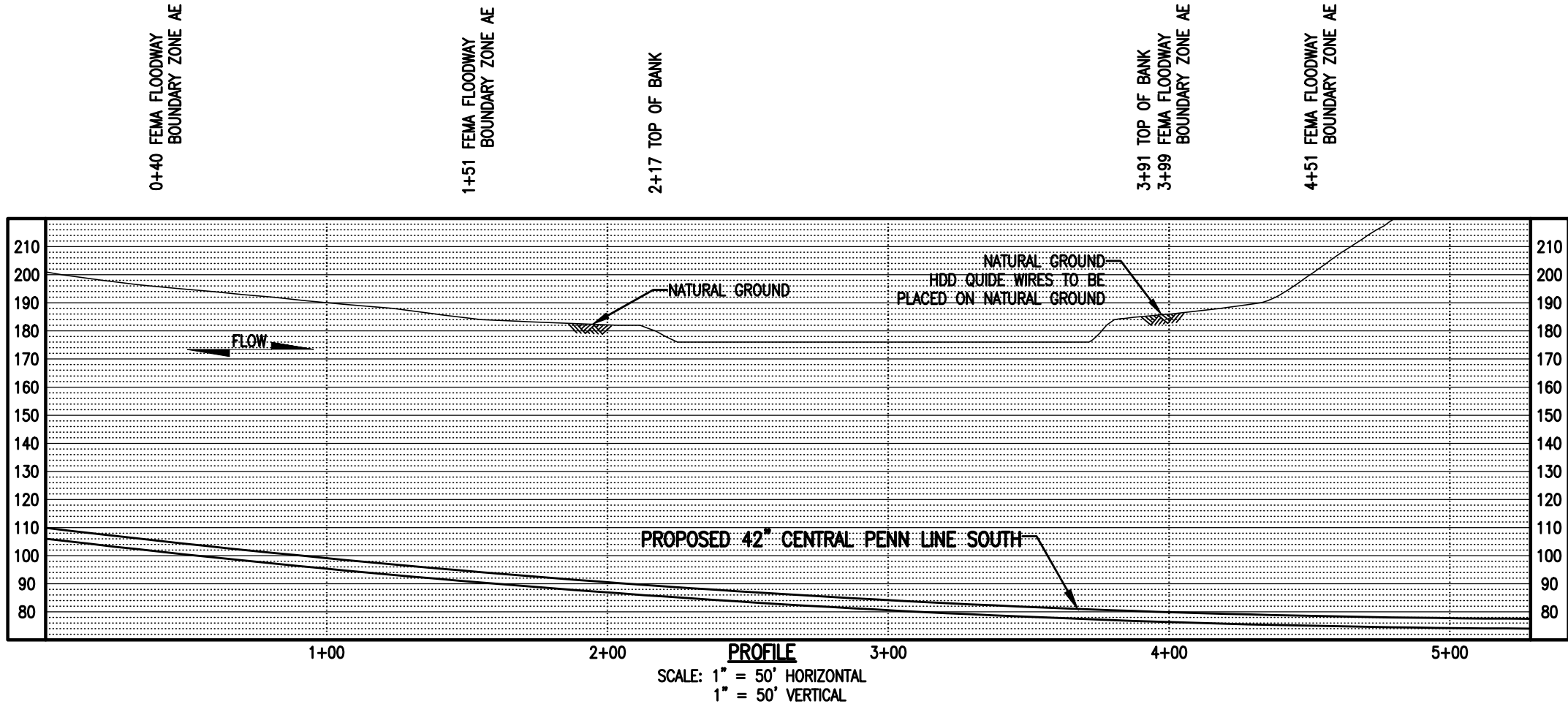


LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		12" SEDIMENT BARRIER
	EXISTING PIPELINES		PHOTO DATA POINT		18" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		24" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		32" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		TOP OF BANK
	PROPERTY LINE		TRENCH PLUG		PERMANENT STREAM IMPACT
	FOREIGN PIPELINE		WATERBODY		TEMPORARY STREAM IMPACT
	WETLAND AREA		TREE LINE		
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.			REFERENCE TITLE			





**LEGEND**

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		

**WOOD GROUP  
MUSTANG, INC.**

	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

DRAWING NO.			REFERENCE TITLE			





October 28, 2016

Martie Township  
Floodplain Administrator  
370 Steinman Farm Road  
Pequea, PA 17565

Re: Atlantic Sunrise Project  
Central Penn Line South  
Martie Township, Lancaster County  
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
  - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
  - 2.5 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Martie Township is provided below for your review and comment.

Martie Township  
October 28, 2016  
BL Project No. 14C4909  
Page 1 of 3



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
MARTIC TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T20-002	Floodway to Climbers Run	FEMA Detailed <sup>1</sup>	N/A	3.6354	0.3279 <sup>3</sup>	39.91624	-76.31068
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-002	Floodway to UNT to Pequea Creek	FEMA Detailed <sup>1, 2</sup>	N/A	0.2814	0.0228 <sup>3</sup>	39.91953	-76.31701
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-003	Floodway to Pequea Creek	FEMA Detailed	N/A	2.9977	0.2151 <sup>3</sup>	39.92076	-76.31997
Road Crossing	Equipment Access and E&S Controls	WW-T31-10003	Floodway to Pequea Creek	FEMA Detailed	0.00 <sup>4</sup>	0.0718	0.0419	40.74156	-76.47665

Notes:

<sup>1</sup> Multiple streams are included in these calculations as the floodways overlap.

<sup>2</sup> Includes both FEMA Detailed and Assumed 50 Foot buffers.

<sup>3</sup> Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

<sup>4</sup> Floodway fill is associated with a permanent access road. No net change in floodplain storage volume will result from the proposed grading.

The floodway crossings listed above are depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation and access road grading only, and do not represent a permanent loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no permanent fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Martic Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo  
TRC Environmental Corporation  
2200 Liberty Avenue, Suite 100  
Pittsburgh, PA 15222

**Please do not send comments directly to the PADEP.** as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

Sincerely,




Martic Township  
October 28, 2016  
BL Project No. 14C4909  
Page 2 of 3



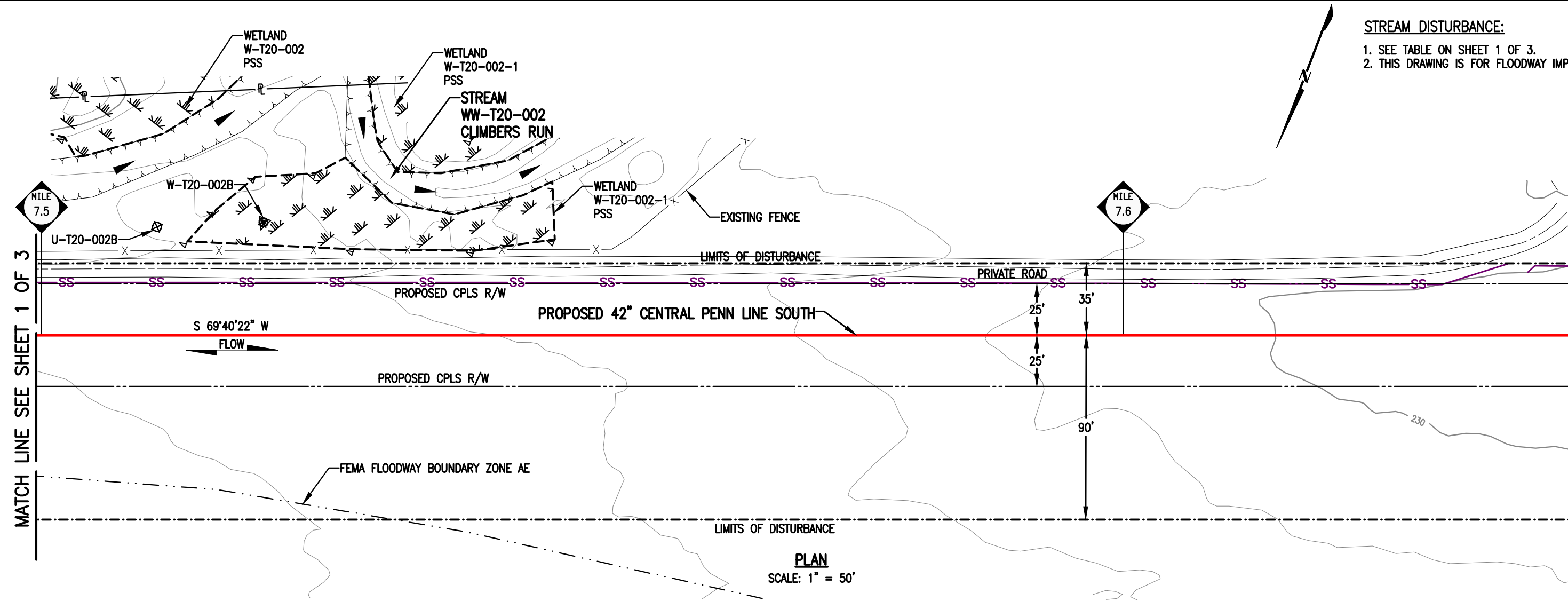
Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



DRAWING NO.			REFERENCE TITLE			TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T20-002 @ M.P. 7.47 MARTIC TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA							
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	VT	DATE:	10/15/14	ISSUED FOR BID:	SCALE:	1" = 50'
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	ML	DATE:	03/07/15	ISSUED FOR CONSTRUCTION:	REVISION:	2
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/7.47-01	
2	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	WO:	1161503			10/35m 10/13/2016 K:\103643-CPLS\Mapping\Waterboodies\CPLS_PAS\Revised 105\24-1600-70-09-A_7.47-01.dwg albloul	SHEET	1
											OF	3	

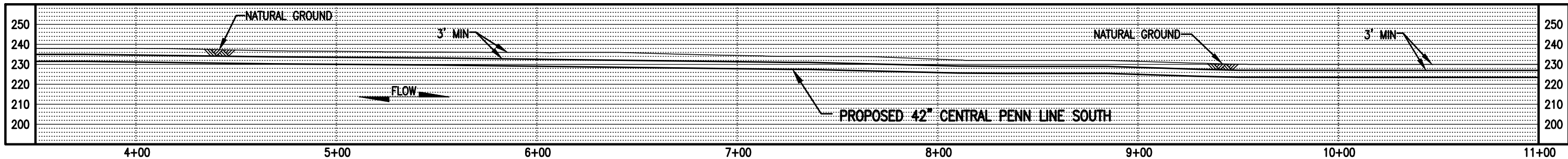




**STREAM DISTURBANCE:**

1. SEE TABLE ON SHEET 1 OF 3.

2. THIS DRAWING IS FOR FLOODWAY IMPACT ONLY.



**LEGEND**

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		

**WOOD GROUP MUSTANG, INC.**

	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

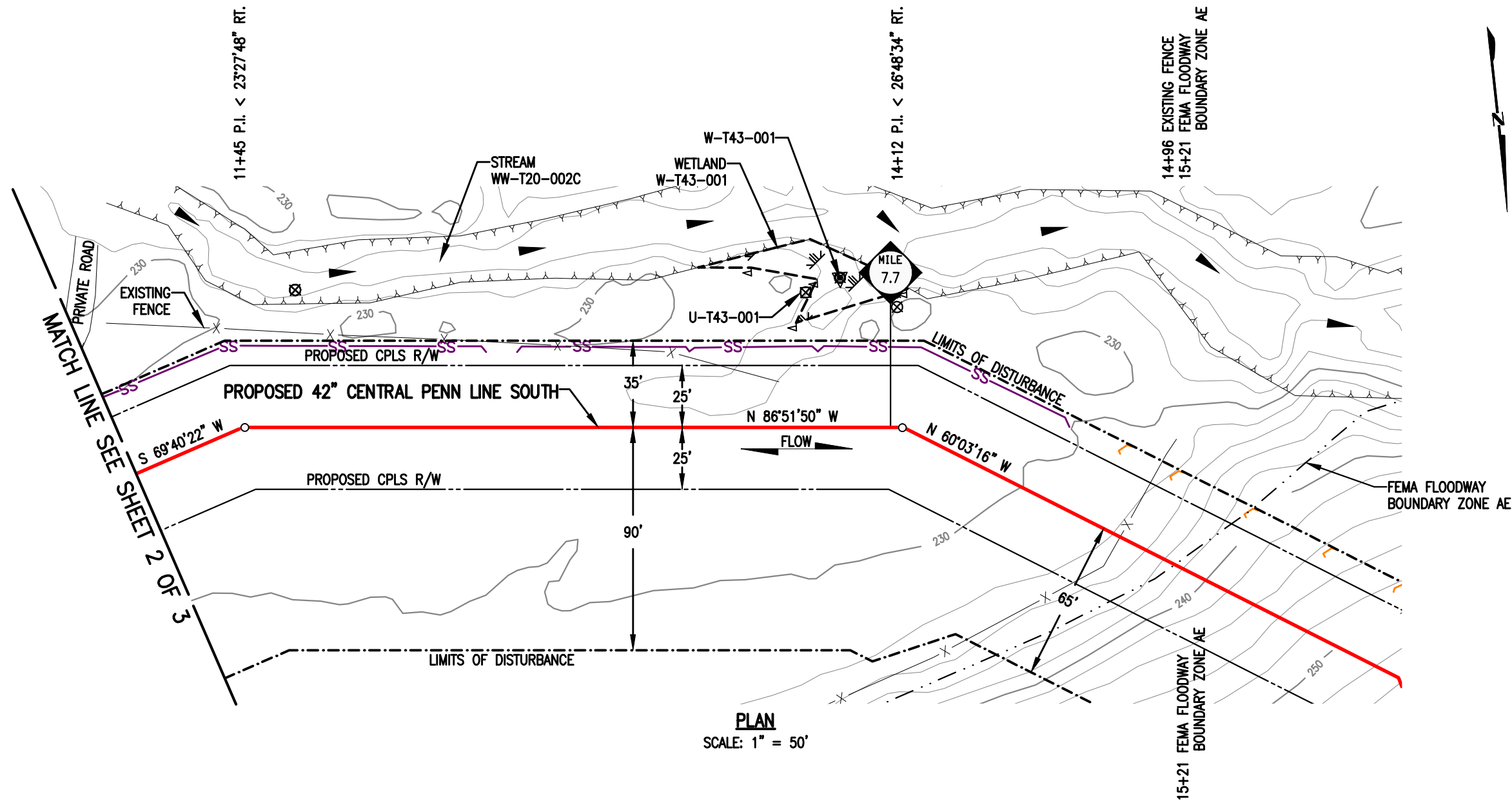
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	
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1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC				WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS			
ATLANTIC SUNRISE PROJECT				PROPOSED 42" CENTRAL PENN LINE SOUTH			
STREAM CROSSING WW-T20-002				M.P. 7.47			
MARTIC TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA							

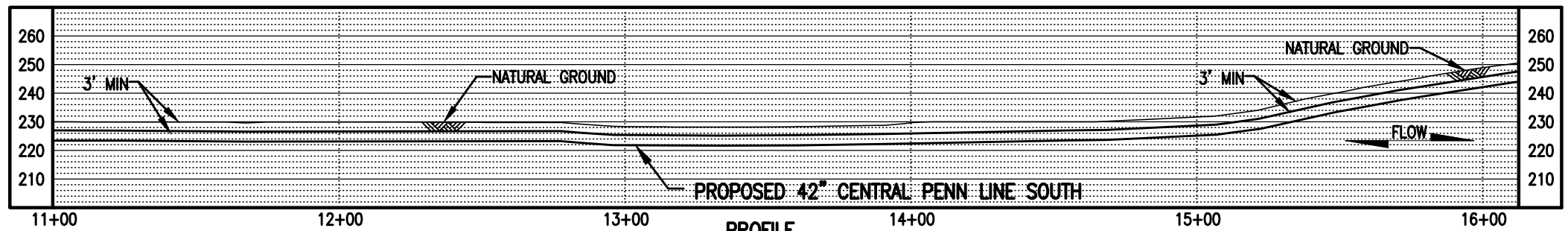
DRAWN BY: VT	DATE: 10/15/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/7.47-01	SHEET 2
WO: 1161503		8/56am 10/13/2016 o1bloui K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised 105\24-1600-70-09-A_7.47-01.dwg	OF 3



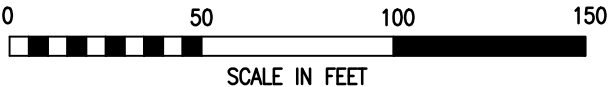
STREAM DISTURBANCE:  
1. SEE SHEET ON PAGE 1 OF 3.  
2. THIS DRAWING IS FOR FLOODWAY IMPACT ONLY.



PLAN  
SCALE: 1" = 50'



PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL




**LEGEND**

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

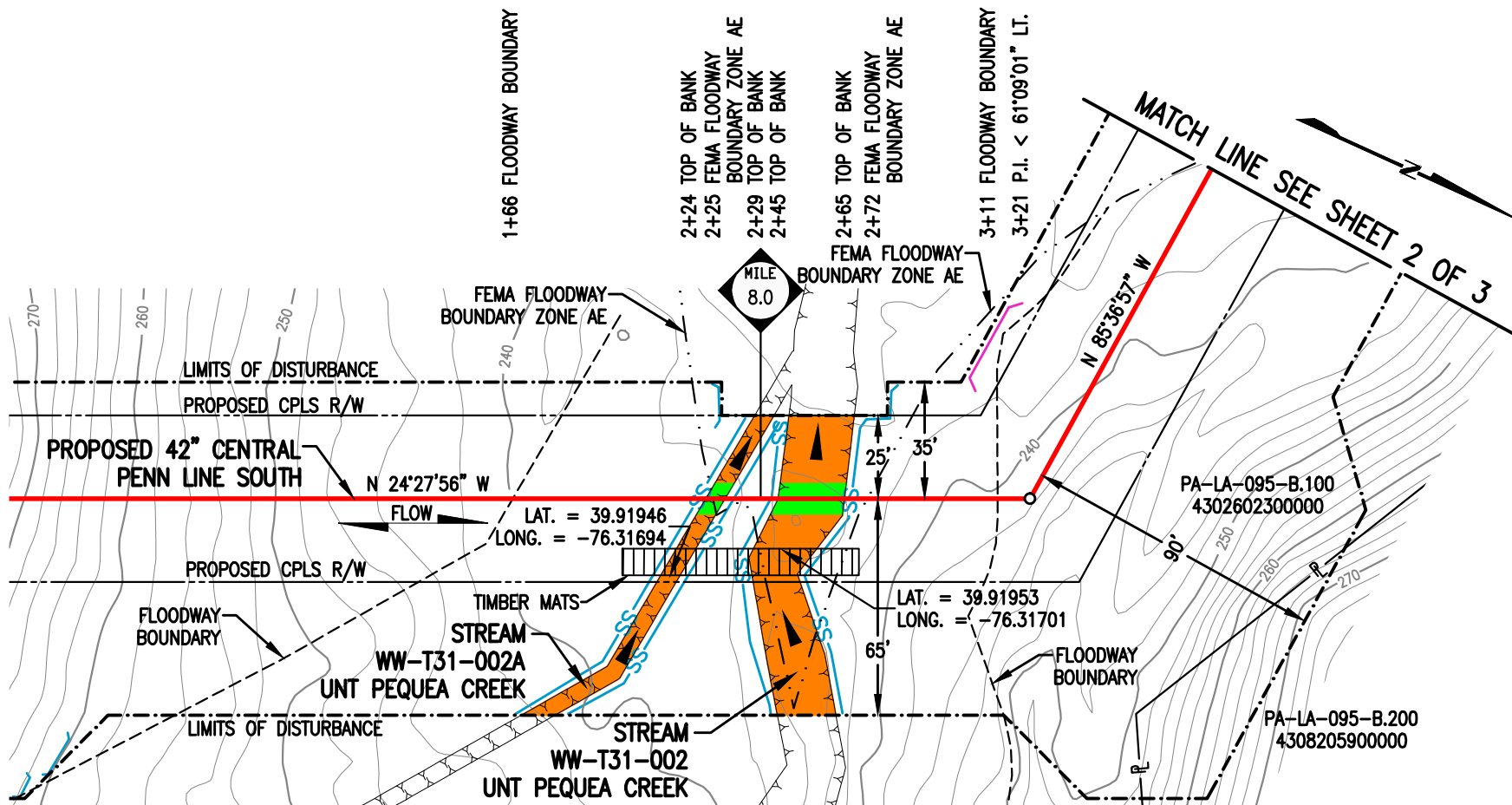
- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

**WOOD GROUP MUSTANG, INC.**

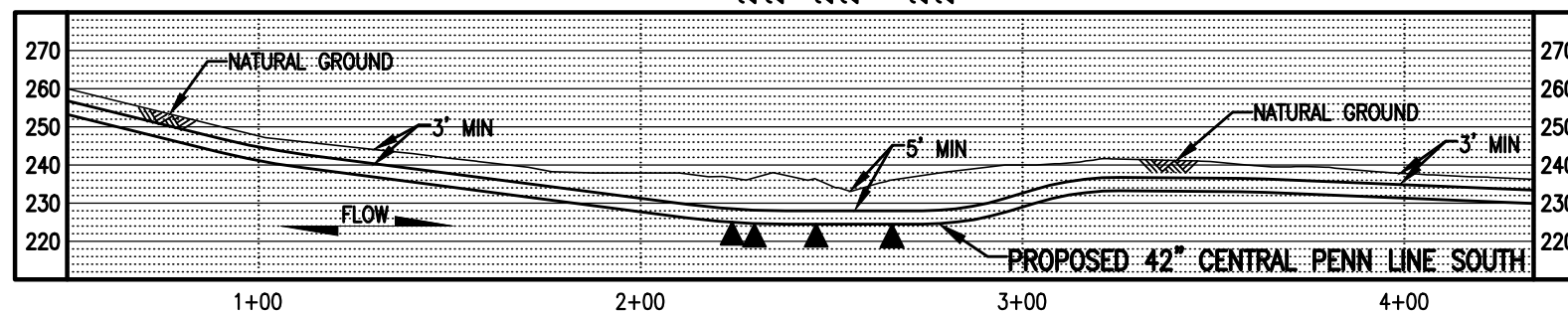
- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO.				REFERENCE TITLE		
				<div>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</div> <div>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</div> <div>ATLANTIC SUNRISE PROJECT</div> <div>PROPOSED 42" CENTRAL PENN LINE SOUTH</div> <div>STREAM CROSSINGS WW-T20-002</div> <div>● M.P. 7.47</div> <div>MARTIC TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA</div> <div></div>		
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH
<div>DRAWN BY: VT    DATE: 10/15/14    ISSUED FOR BID:    SCALE: 1" = 50'</div> <div>CHECKED BY: ML    DATE: 03/07/15    ISSUED FOR CONSTRUCTION:    REVISION: 1</div> <div>APPROVED BY: MJH    DATE: 06/05/15    DRAWING NUMBER: 24-1600-70-09-A/7.47-01    SHEET 3</div> <div>WO: 1161503    8:52am 10/13/2016 albloul    OF 3</div> <div><small>K:\103643-CPLS\Mapping\Vo tier bodies\CPLS_PAS\Revised: 105\24-1600-70-09-A_7.47-01.dwg</small></div>						





PLAN  
SCALE: 1" = 50'



PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

LEGEND

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT



DRAWING NO.

REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE: 1" = 50'
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	VT	10/15/14		
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	ML	03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
2	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	MJH	06/05/15	DRAWING NUMBER: 24-1600-70-09-A/8.00-01	SHEET 1 OF 3

STREAM DISTURBANCE:

STREAM WW-T31-002	ACRE
TEMPORARY STREAM DISTURBANCE	0.0328
PERMANENT STREAM DISTURBANCE	0.0047
TOTAL STREAM DISTURBANCE	0.0375
TEMPORARY FLOODWAY DISTURBANCE	0.2814
PERMANENT FLOODWAY DISTURBANCE	0.0228
TOTAL FLOODWAY DISTURBANCE	0.3042

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	19.87
STREAM LENGTH	94.13

STREAM WW-T31-002A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0119
PERMANENT STREAM DISTURBANCE	0.0013
TOTAL STREAM DISTURBANCE	0.0132
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.78
STREAM LENGTH	115.49

STREAM WW-T65-001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0264
PERMANENT STREAM DISTURBANCE	0.0025
TOTAL STREAM DISTURBANCE	0.0289
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	11.00
STREAM LENGTH	111.79

GENERAL NOTES:

- STREAM CROSSING METHODS FOR EACH STREAM SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
- THIS SITE IS LOCATED WITHIN 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
- WATERBODIES WITHOUT A FEMA-ESTABLISHED FLOODPLAIN, THE FLOODWAY IS COINCIDENT WITH A 50-FOOT OFFSET MEASURED Laterally FROM THE PHYSICAL TOP OF BANK OF THE WATERBODY.
- STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

- T.B.M. SURVEY CONTROL POINT - 237.52' LT. OF M.P. 8.02, ELEV. = 236.72' (NAVD88).



TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT

PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11,  
WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2  
MARTIC & CONESTOGA TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA



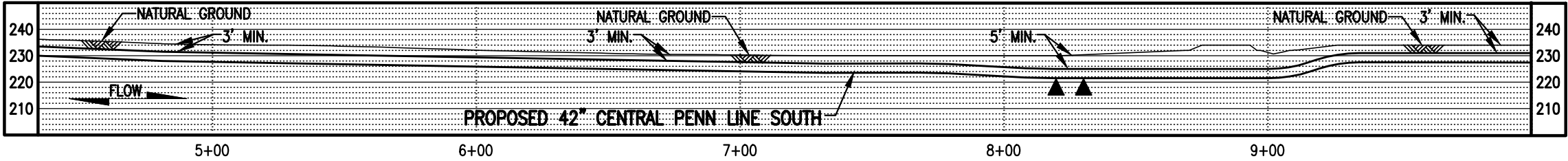
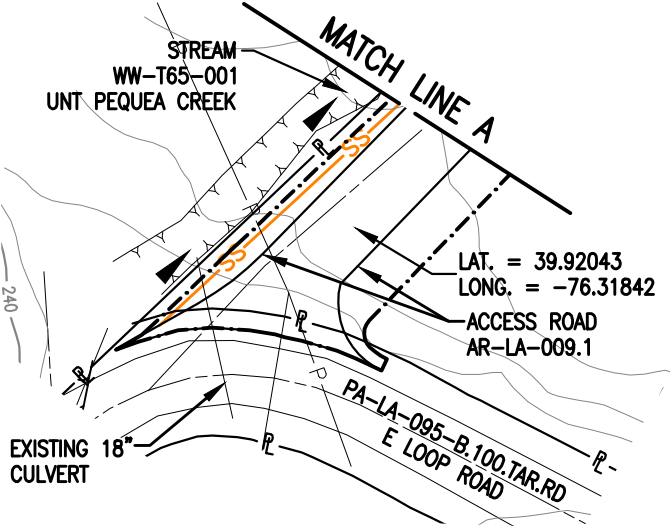
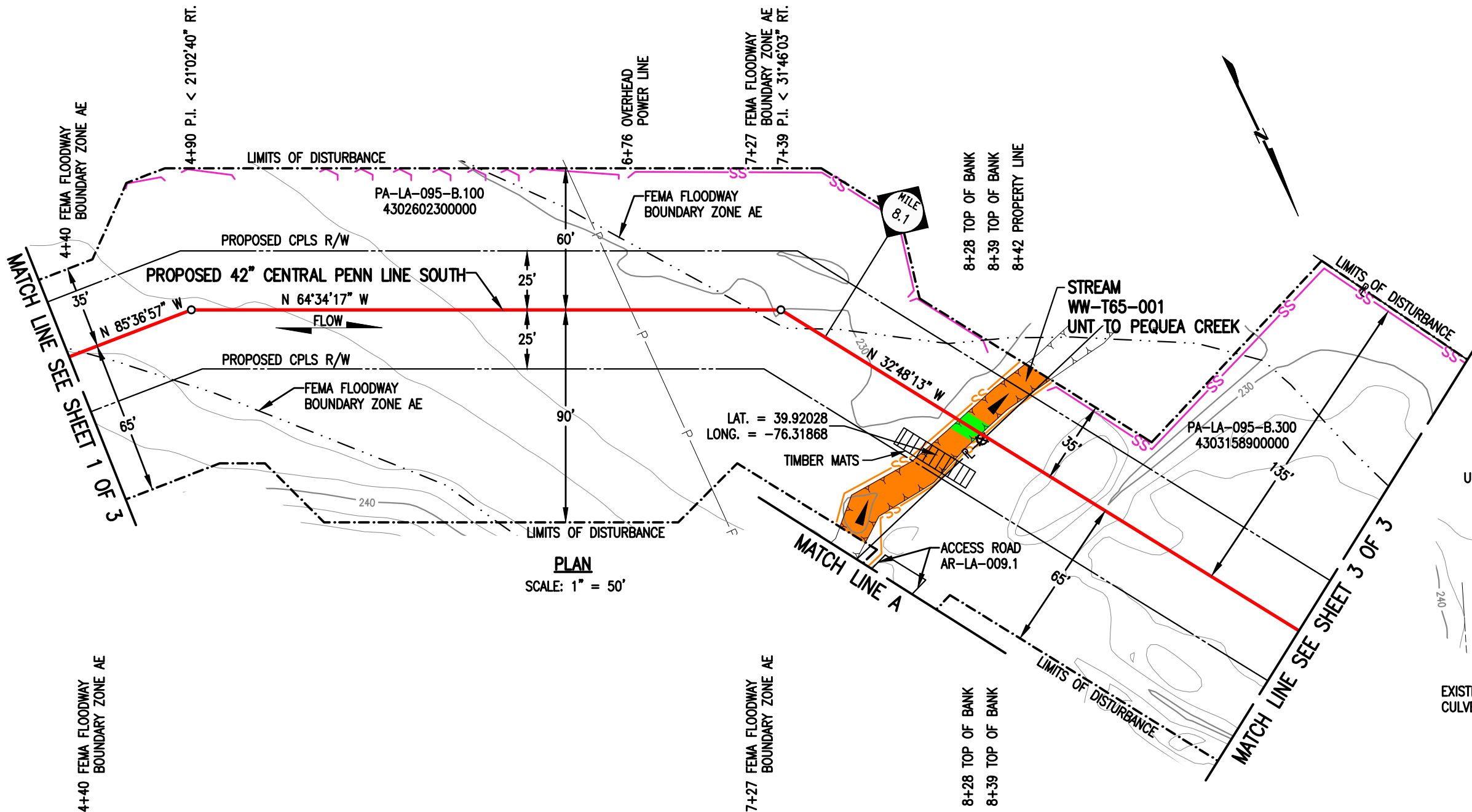
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APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/8.00-01	SHEET 1 OF 3
WO: 1161503			



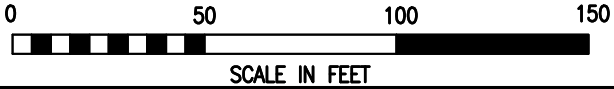
STREAM DISTURBANCE FOR ACCESS ROAD AR-LA-009.1:  
SEE TABLE FOR STREAM WW-T65-001 ON SHEET 1 OF 3

STREAM WW-T31-003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0718
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0718

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00



PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL



**LEGEND**

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

**WOOD GROUP MUSTANG, INC.**

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO.

REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11,  
WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2  
MARTIC & CONESTOGA TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

NO. DATE BY REVISION DESCRIPTION W.O. NO. CHK. APP.

0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

DRAWN BY: CR DATE: 10/15/14 ISSUED FOR BID: SCALE: 1" = 50'

CHECKED BY: ML DATE: 03/07/15 ISSUED FOR CONSTRUCTION: REVISION: 1

APPROVED BY: MJH DATE: 06/05/15

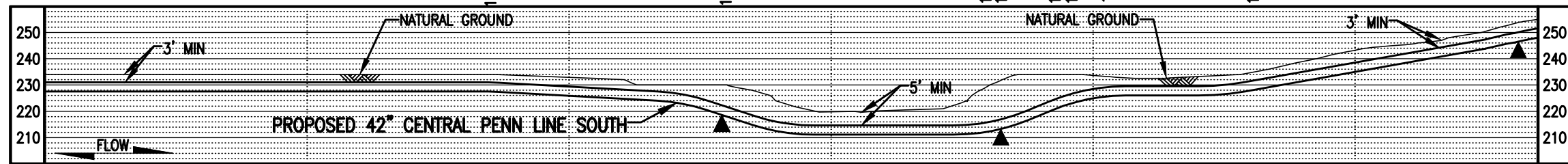
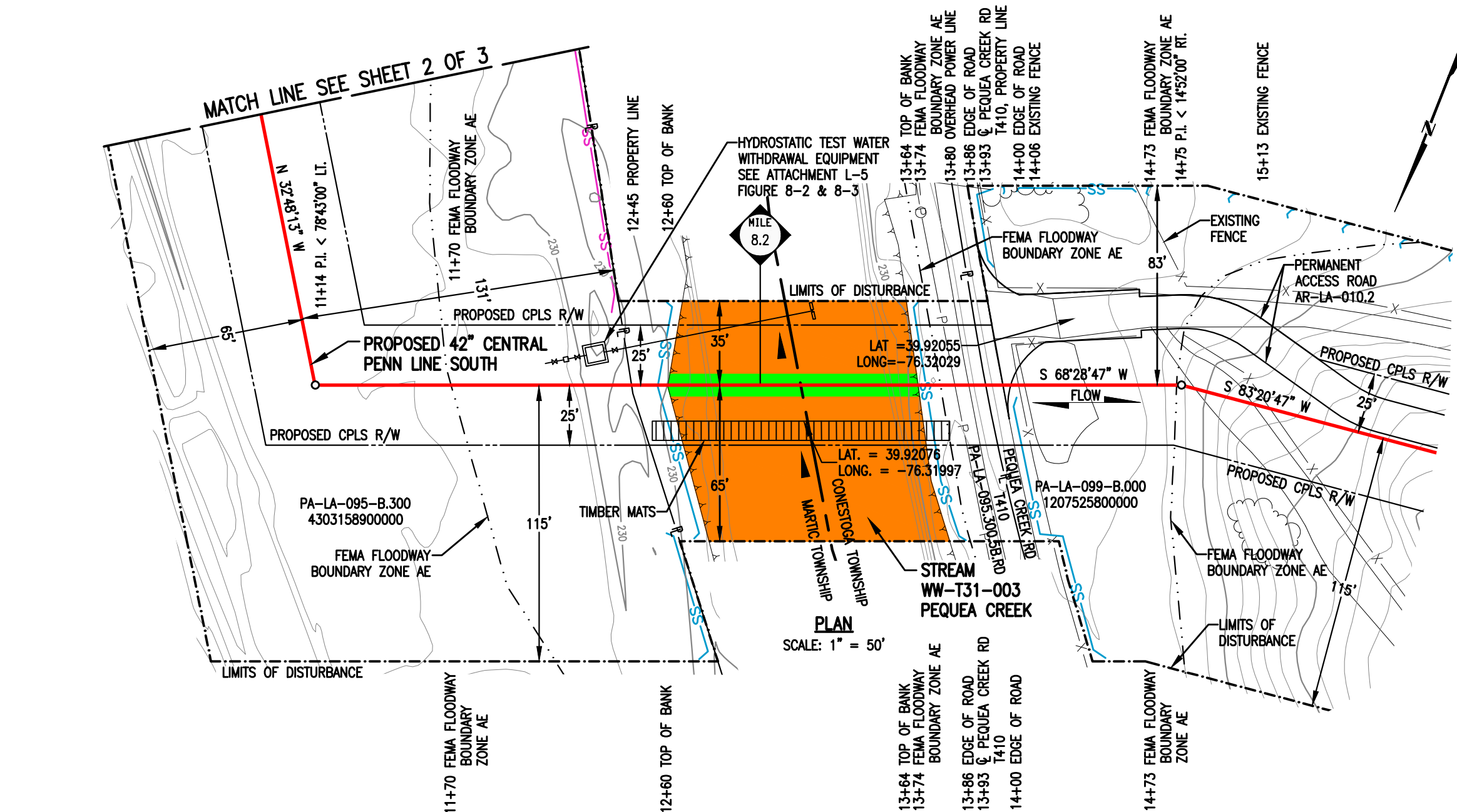
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WC: 1161503

10/17/2016 nlabell

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LEGEND	
	PROPOSED 42" CENTRAL PENN LINE SOUTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLS R/W
	PROPERTY LINE
	FOREIGN PIPELINE
	WETLAND AREA
	STREAM FLOW
	EXISTING POWER LINE
	EXISTING FENCE
	WETLAND FLAGS
	PHOTO DATA POINT
	WETLAND DATA POINT
	UPLAND DATA POINT
	WELL POINT
	TRENCH PLUG
	WATERBODY
	TREE LINE
	FLOODWAY BOUNDARY
	FEMA FLOODWAY BOUNDARY
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE	





October 28, 2016

Rapho Township  
Floodplain Administrator  
971 North Colebrook Road  
Manheim, PA 17545

Re: Atlantic Sunrise Project  
Central Penn Line South  
Rapho Township, Lancaster County  
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
  - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
  - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for Rapho Township is provided below for your review and comment.



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-3004	Floodway to Back Run	FEMA Detailed	N/A	0.0908	0.0115 <sup>2</sup>	40.14477	-76.46731
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-3008	Floodway to UNT to Back Run	FEMA Detailed	N/A	0.4056	0.0381 <sup>2</sup>	40.15315	-76.47603
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-3005	Floodway to Brubaker Run	FEMA Detailed	N/A	0.4760	0.0545 <sup>2</sup>	40.17062	-76.49677
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T24-3001	Floodway to Little Chiques Creek	FEMA Detailed <sup>1</sup>	N/A	0.3912	0.0381 <sup>2</sup>	40.18316	-76.51801

Notes:

<sup>1</sup> Multiple streams are included in these calculations as the floodways overlap.

<sup>2</sup> Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossings listed above are depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that Rapho Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo  
TRC Environmental Corporation  
2200 Liberty Avenue, Suite 100  
Pittsburgh, PA 15222

**Please do not send comments directly to the PADEP**, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at [abusher@blcompanies.com](mailto:abusher@blcompanies.com).

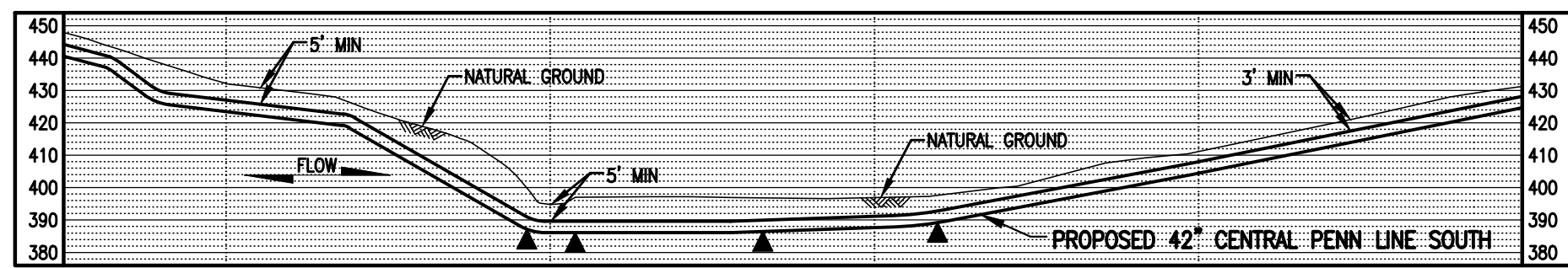
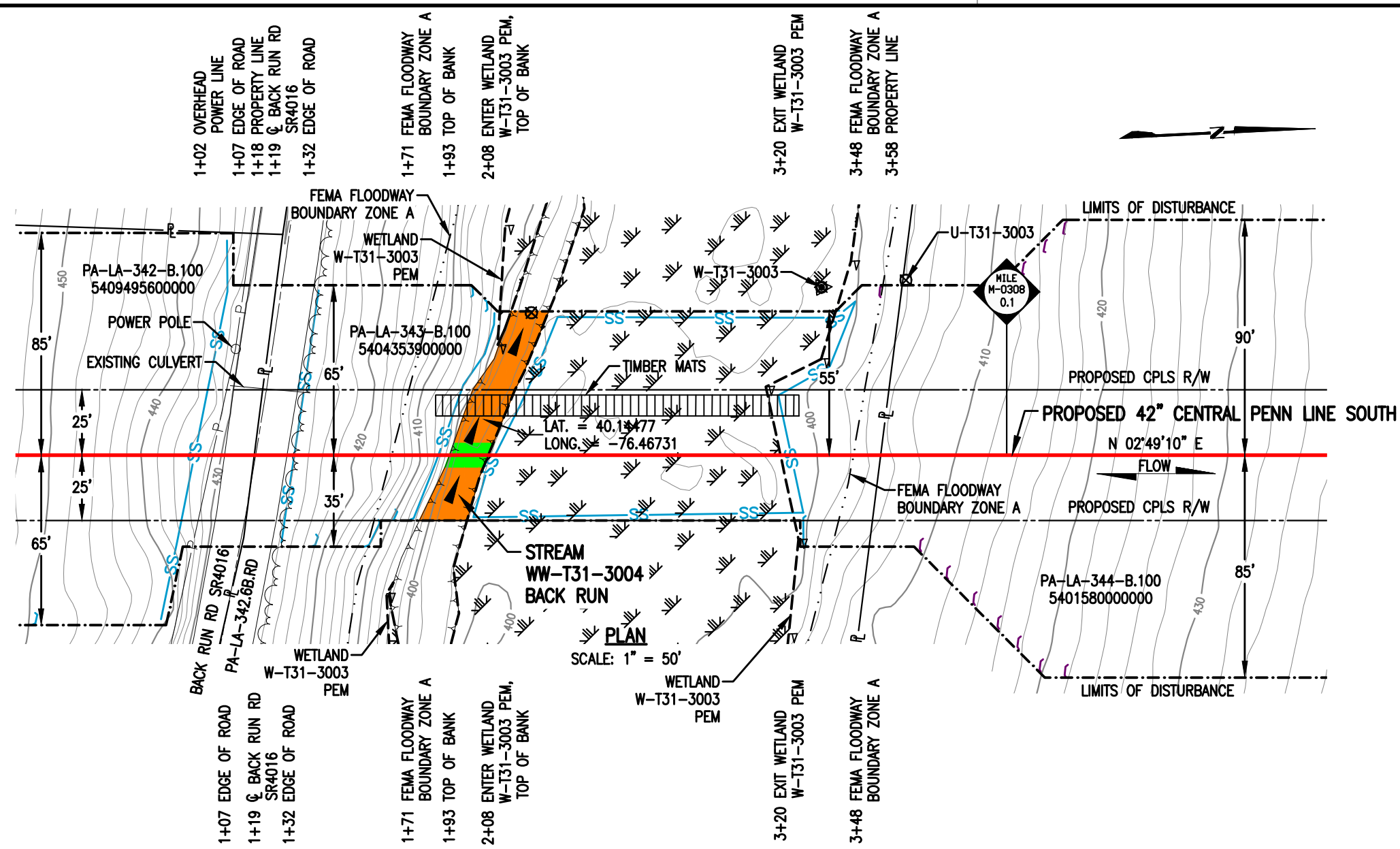
Sincerely,



Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps





STREAM DISTURBANCE:	
STREAM WW-T31-3004	ACRE
TEMPORARY STREAM DISTURBANCE	0.0246
PERMANENT STREAM DISTURBANCE	0.0034
TOTAL STREAM DISTURBANCE	0.0280
TEMPORARY FLOODWAY DISTURBANCE	0.0908
PERMANENT FLOODWAY DISTURBANCE	0.0115
TOTAL FLOODWAY DISTURBANCE	0.1023

STREAM DIMENSION		FT.
STREAM WIDTH (TOB TO TOB)		14.91
STREAM LENGTH		87.56

- GENERAL NOTES:
1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
  2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
  3. STATION 0+00 SHOWN IS EQUAL TO M-0308 STATION 2+22 ON THE EROSION AND SEDIMENT CONTROL PLAN.

- SURVEY NOTES:
1. T.B.M. IRON ROD - 828' RT. OF M-0308 M.P. 0.07, ELEV. = 414.82' (NAVD88).

LEGEND

PROPOSED 42" CENTRAL PENN LINE SOUTH

EXISTING PIPELINES

EXISTING TGPL R/W

LIMITS OF DISTURBANCE

PROPOSED CPLS R/W

PROPERTY LINE

FOREIGN PIPELINE

WETLAND AREA

STREAM FLOW

EXISTING POWER LINE

EXISTING FENCE

WETLAND FLAGS

PHOTO DATA POINT

WETLAND DATA POINT

UPLAND DATA POINT

WELL POINT

TRENCH PLUG

WATERBODY

TREE LINE

FLOODWAY BOUNDARY

FEMA FLOODWAY BOUNDARY

12" SEDIMENT BARRIER

18" SEDIMENT BARRIER

24" SEDIMENT BARRIER

32" SEDIMENT BARRIER

TOP OF BANK

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

WOOD GROUP  
MUSTANG, INC.

DRAWING NO.

REFERENCE TITLE

NO.

DATE

BY

REVISION DESCRIPTION

W.O. NO.

CHK.

APP.

0

02/03/16

MF

ISSUED FOR INTERNAL USE

1161503

CLR

MJH

1

11/05/16

KB

ISSUED FOR PADEP SUBMITTAL #2

1161503

CLR

MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC

WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS

ATLANTIC SUNRISE PROJECT

PROPOSED 42" CENTRAL PENN LINE SOUTH

STREAM CROSSING WW-T31-3004

M-0308 M.P. 0.06

RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA

Williams

DRAWN BY: TL

DATE: 05/20/15

ISSUED FOR BID:

SCALE: 1" = 50'

CHECKED BY: ML

DATE: 05/25/15

ISSUED FOR CONSTRUCTION:

REVISION: 1

APPROVED BY: MJH

DATE: 06/05/15

DRAWING NUMBER: 24-1600-70-09-A/M-0308-0.06-01

WO: 1161503

9/30/2016

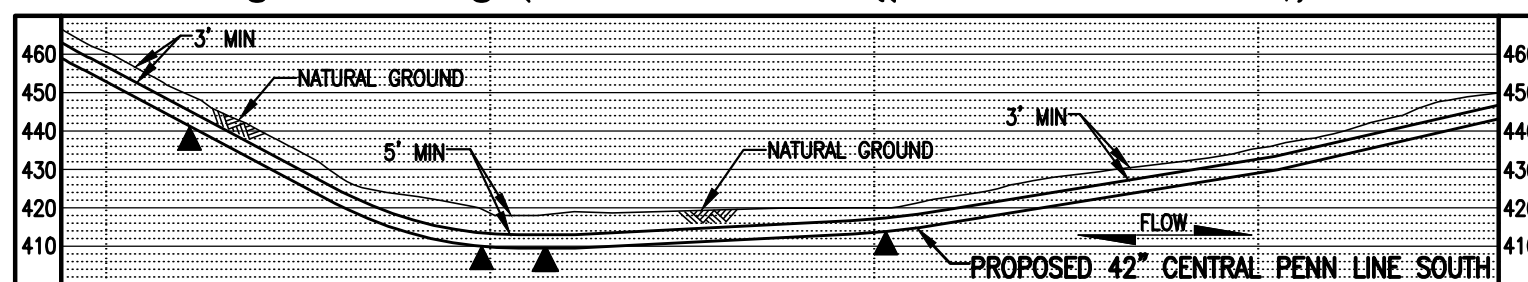
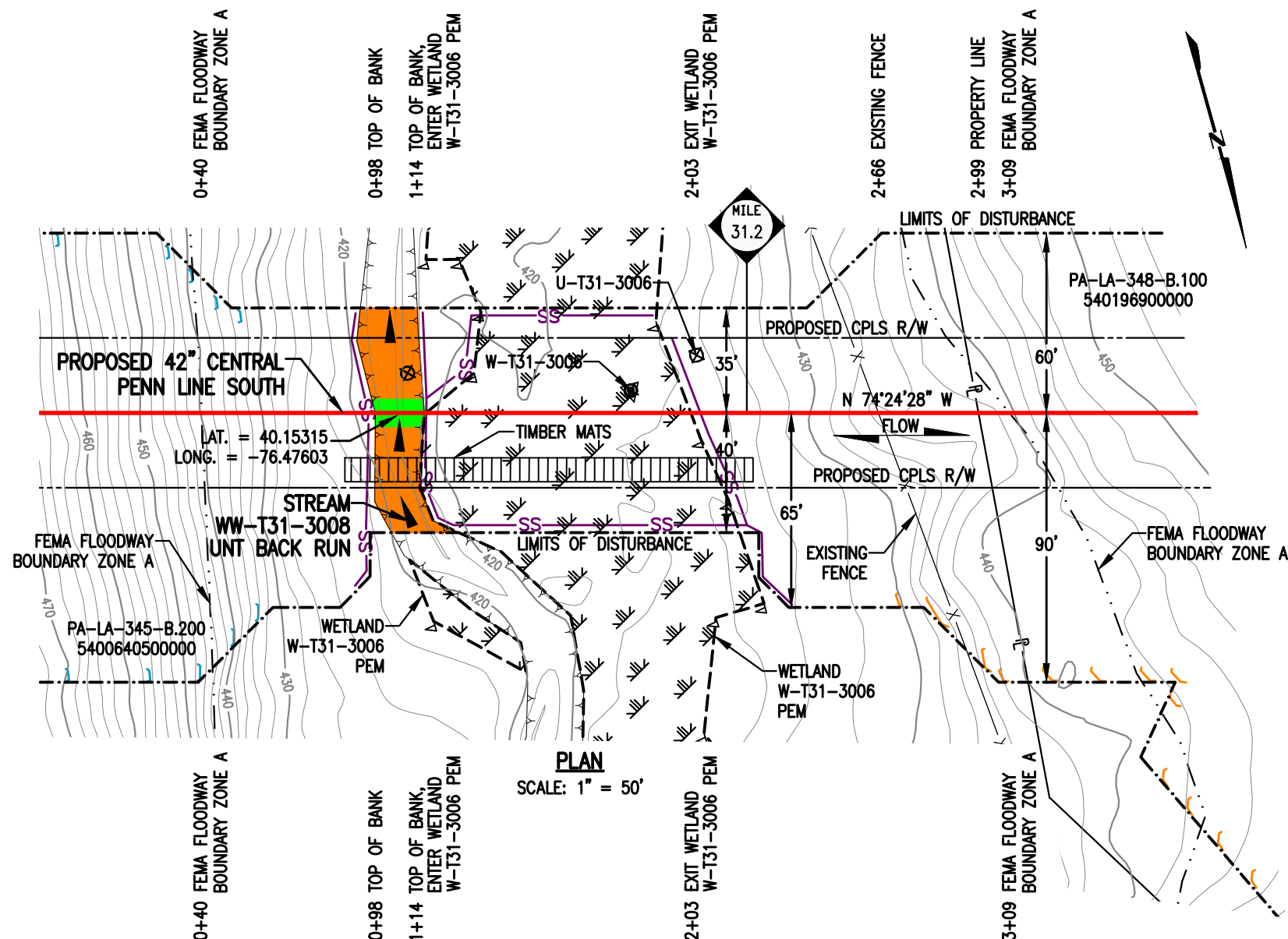
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SHEET 1

OF 1





**PROFILE**  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

#### STREAM DISTURBANCE:

STREAM WW-T31-3008	ACRE
TEMPORARY STREAM DISTURBANCE	0.0263
PERMANENT STREAM DISTURBANCE	0.0038
TOTAL STREAM DISTURBANCE	0.0301
TEMPORARY FLOODWAY DISTURBANCE	0.4056
PERMANENT FLOODWAY DISTURBANCE	0.0381
TOTAL FLOODWAY DISTURBANCE	0.4437

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	16.29
STREAM LENGTH	77.68

#### GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 1646+14 ON THE EROSION AND SEDIMENT CONTROL PLAN.


#### SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 114' LT. OF M.P. 31.60, ELEV. = 417.2' (NAVD88).



#### LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		TOP OF BANK
	FOREIGN PIPELINE		WATERBODY		PERMANENT STREAM IMPACT
	WETLAND AREA		TREE LINE		TEMPORARY STREAM IMPACT
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE					<div>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</div> <div>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</div> <div>ATLANTIC SUNRISE PROJECT</div> <div>PROPOSED 42" CENTRAL PENN LINE SOUTH</div> <div>STREAM CROSSING WW-T31-3008</div> <div>Ⓢ M.P. 31.18</div> <div>RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA</div> <div></div>					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.						DRAWN BY:
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	ML	DATE:	05/25/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/31.18-01
2	11/05/16	KB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	WO:	1161503			10/12/2016 nllu K:\102643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised\105\24-1600-70-09-A_31.18-01.dwg	SHEET 1 OF 1



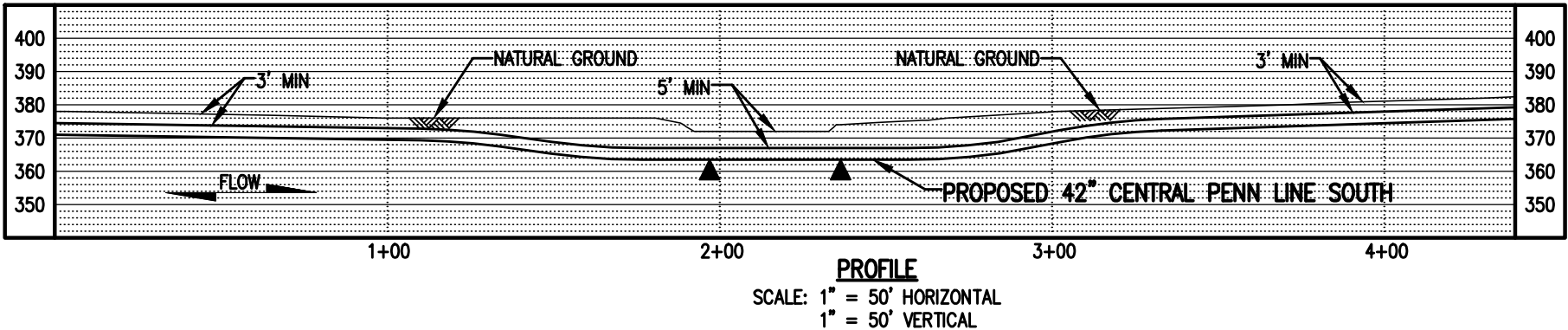
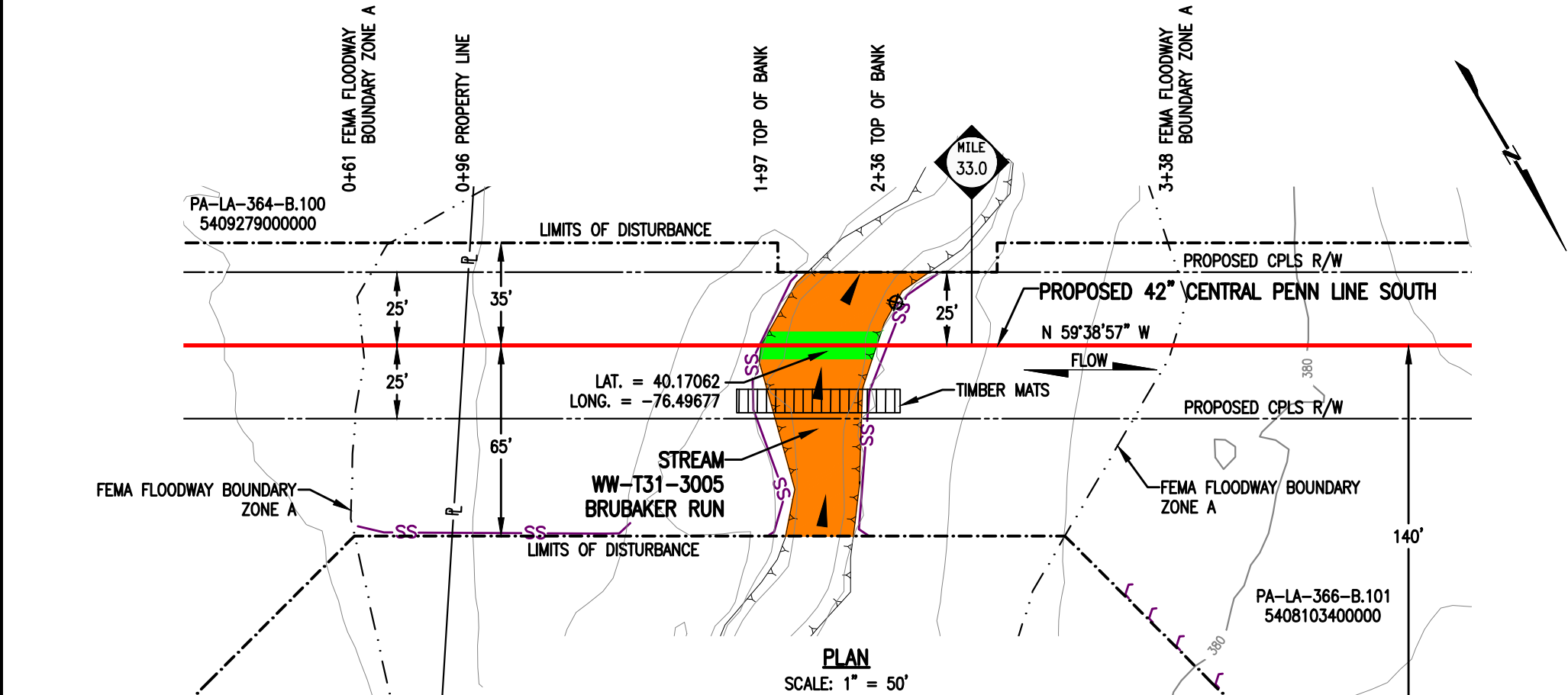
STREAM DISTURBANCE:

STREAM WW-T31-3005	ACRE
TEMPORARY STREAM DISTURBANCE	0.0553
PERMANENT STREAM DISTURBANCE	0.0089
TOTAL STREAM DISTURBANCE	0.0642
TEMPORARY FLOODWAY DISTURBANCE	0.4760
PERMANENT FLOODWAY DISTURBANCE	0.0545
TOTAL FLOODWAY DISTURBANCE	0.5305

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	39.40
STREAM LENGTH	93.83

- GENERAL NOTES:
- STREAM CROSSING METHOD SHALL BE FLUME (FX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
  - THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
  - STATION 1+00 SHOWN IS EQUAL TO STATION 1740+71 ON THE EROSION AND SEDIMENT CONTROL PLAN.

- SURVEY NOTES:
- T.B.M. IRON ROD - 111' LT. OF M.P. 32.97, ELEV. = 377.06' (NAVD88).



**LEGEND**

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

**WOOD GROUP MUSTANG, INC.**

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

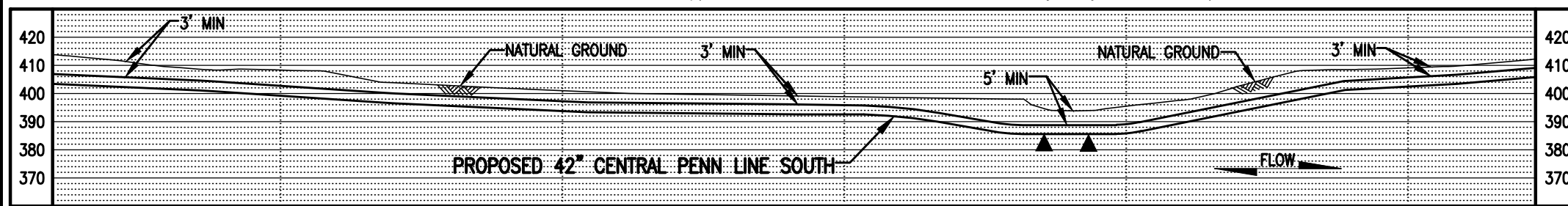
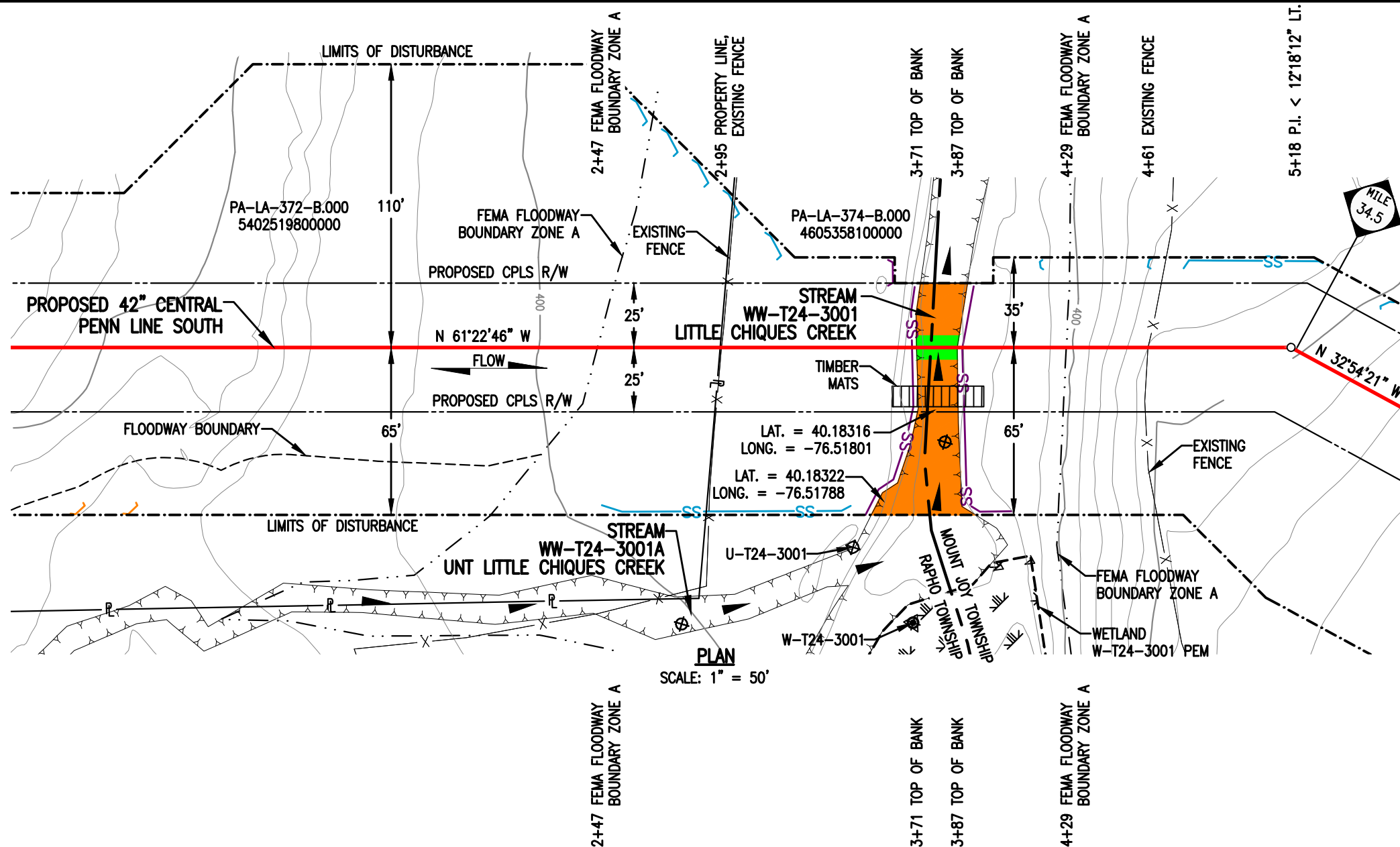
DRAWING NO.

REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSING WW-T31-3005  
M.P. 32.99  
RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	THL	DATE:	10/16/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	ML	DATE:	06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/33.00-01 SHEET 1
2	11/05/16	KB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	WO:	1161503			3/28pm K:\103643-CPLS\Mapping\Water-bodies\CPLS_PAS\Revised 105\24-1600-70-09-A_33.00-01.dwg	OF 1





#### STREAM DISTURBANCE:

STREAM WW-T24-3001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0359
PERMANENT STREAM DISTURBANCE	0.0037
TOTAL STREAM DISTURBANCE	0.0396
TEMPORARY FLOODWAY DISTURBANCE	0.3912
PERMANENT FLOODWAY DISTURBANCE	0.0381
TOTAL FLOODWAY DISTURBANCE	0.4293

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	15.78
STREAM LENGTH	90.95

STREAM WW-T24-3001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0010
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0100
TEMPORARY FLOODWAY DISTURBANCE	0.0836
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0836

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	3.77
STREAM LENGTH	15.74

#### GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. STREAM WW-T24-3001A DOES NOT CROSS PROPOSED PIPELINE.
3. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA. A PORTION OF WW-T24-3001A ASSUME 50 FEET.
4. STATION 4+00 SHOWN IS EQUAL TO 34.46 STATION 1816+41 ON THE EROSION AND SEDIMENT CONTROL PLAN.

#### SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 132' RT. OF M.P. 34.46, ELEV. = 398.50' (NAVD88).



#### LEGEND

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE

- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT



DRAWING NO.

REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
0	07/31/15	CR	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	THL	10/16/15		1" = 50'
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	CLR	06/01/15		REVISION: 2
2	11/05/16	KB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	MJH	06/05/15		

DRAWING NUMBER: 24-1600-70-09-A/34.47-01  
3:35pm 10/12/2016 nllu  
K:\103643-CPLS\Mapping\Waterbodies\CPLS\_PAS\Revised 105\24-1600-70-09-A\_34.47-01.dwg

WO: 1161503

SHEET 1 OF 1

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT  
PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSINGS WW-T24-3001 @ M.P. 34.47  
& WW-T24-3001A @ M.P. 34.40  
RAPHO & MOUNT JOY TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA







October 28, 2016

West Hempfield Township  
Floodplain Administrator  
3401 Marietta Avenue  
Lancaster, PA 17601

Re: Atlantic Sunrise Project  
Central Penn Line South  
West Hempfield Township, Lancaster County  
Floodplain Management Analysis

Dear Sir or Madam:

Transcontinental Gas Pipeline Company, LLC (Transco) proposes to construct and operate the Atlantic Sunrise Project (Project) to provide 1.7 million dekatherms per day of incremental firm transportation of natural gas from the Marcellus Shale production areas in northern Pennsylvania (PA) to its existing market areas, extending to as far south as the Station 85 Pooling Point in Choctaw County, Alabama. The Project includes modifications to the existing Transco Mainline System to reverse the direction of flow, enabling new north-to-south capabilities (bi-directional flow) to transport this new source of natural gas to existing markets. The Project consists of the following primary components within PA:

- Installing greenfield pipeline facilities of approximately 58.6 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 127.3 miles of 42-inch-diameter pipe from Columbia County, PA to Lancaster County, PA.;
- Installing two pipeline loops (pipeline laid parallel to existing facilities):
  - 8.56 miles of 42-inch pipeline loop located in Lycoming County, PA known as the Unity Loop;
  - 2.50 miles of 36-inch pipeline in Clinton County, PA, known as the Chapman Loop;
- Constructing two new compressor stations, one in Wyoming County and one in Columbia County, PA;
- Additional ancillary facilities, such as mainline valves, cathodic protection, communication facilities, and internal inspection device (e.g., pig) launchers and receivers;
- Two new meter stations and three new regulator stations with interconnecting piping;
- Additional compression and related modifications to one existing compressor station; and,
- Modification to an existing meter station for use of shared facilities with a new meter station.

Transco's consultants, BL Companies and TRC Solutions (TRC), have completed an analysis of potential impacts on FEMA delineated floodways from the Project in accordance with 25 Pa. Code § 105.13. The analysis for West Hempfield Township is provided below for your review and comment.

West Hempfield Township  
October 28, 2016  
BL Project No. 14C4909  
Page 1 of 2



**ATLANTIC SUNRISE PROJECT  
FEMA FLOODPLAIN CROSSINGS  
WEST HEMPFIELD TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA**

Description of Impact	Structure Type and Dimensions	Resource ID	Resource Name	Chapter 93 Classification, Wetland Classification (EV or Other), or Floodway Type	Floodway Fill (cu. yds.)	Impact area (acres)		Latitude	Longitude
						Temporary	Permanent		
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T24-2001	Floodway to Strickler Run	FEMA Detailed	N/A	0.3328	0.0244 <sup>1</sup>	40.02600	-76.45894
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T42-2003	Floodway to Chiques Creek	FEMA Detailed	N/A	1.6261	0.1301 <sup>1</sup>	40.06610	-76.49043
Temporary Water Withdrawal	Equipment Access and E&S Controls	WW-T42-2003	Floodway to Chiques Creek	FEMA Detailed	N/A	0.0038	0.000	40.06623	-76.49063

<sup>1</sup> Permanent impacts associated with utility pipeline crossings are based on the permanent pipe footprint within the floodplain (pipe trench width x pipe crossing length). No permanent alternation to the floodway contours and elevation is associated with these permanent impacts.

The floodway crossings listed above are depicted on the enclosed plans from the Project's PADEP Chapter 105 Permit Application.

Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management and underground pipe installation only, and do not represent a permanent modification of ground elevation or loss of flood storage capacity or hydraulic capacity. No structures are proposed within the FEMA 100-year floodplain, no fill will be placed in the floodways, and no increase in 100-year flood elevation is anticipated as a result of the proposed Project.

On behalf of Transco, BL and TRC respectfully request that West Hempfield Township review this analysis and, if applicable, provide comments to:

Steve Crescenzo  
TRC Environmental Corporation  
2200 Liberty Avenue, Suite 100  
Pittsburgh, PA 15222

**Please do not send comments directly to the PADEP,** as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,

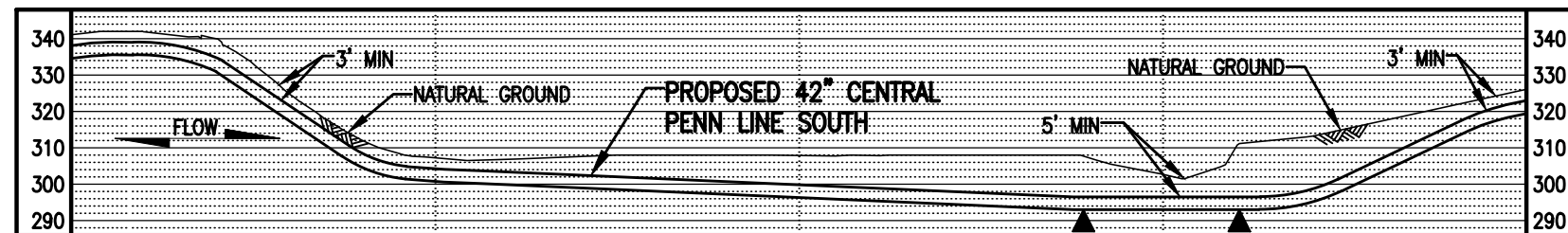
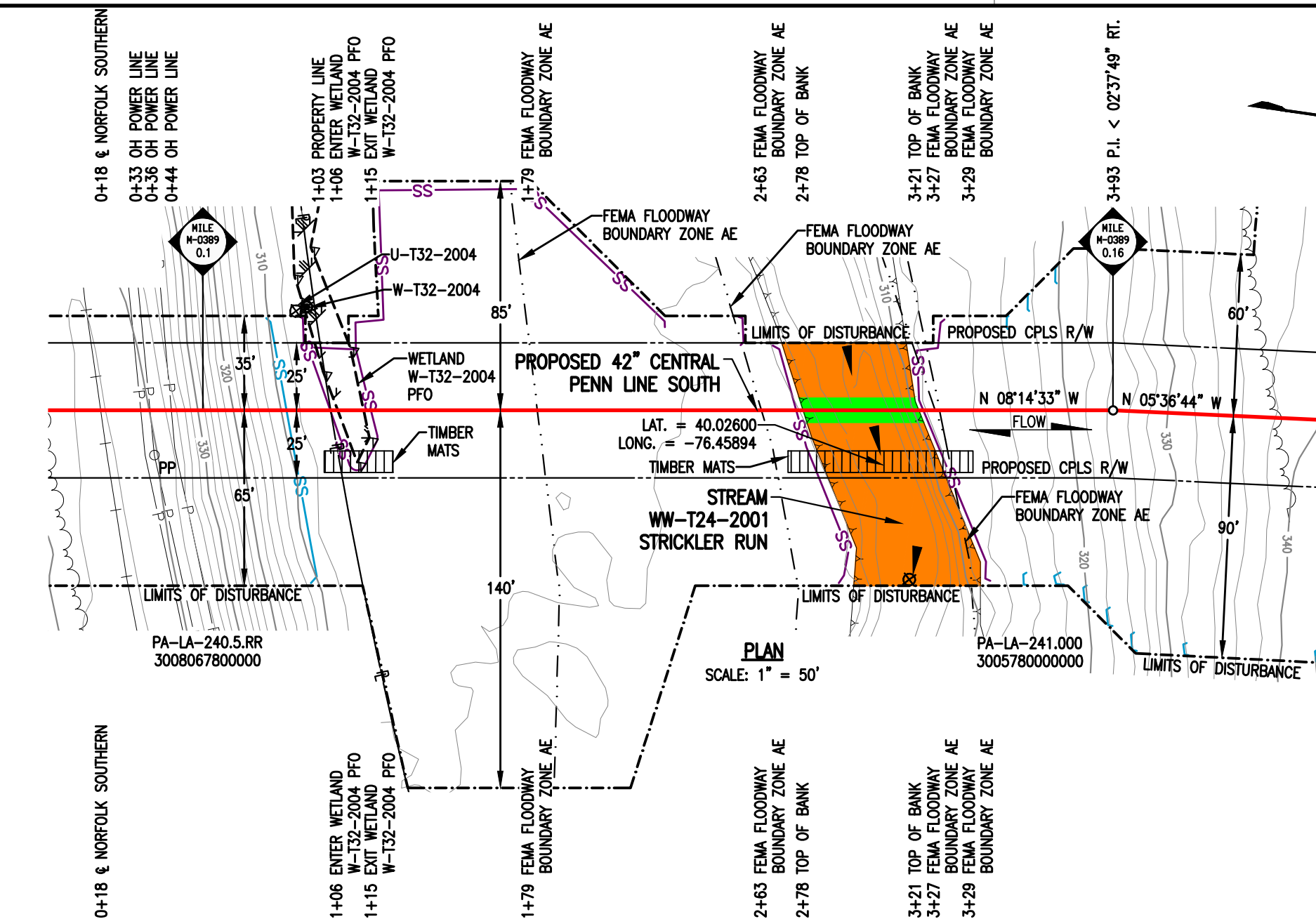


Alaric J. Busher, PE  
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps

West Hempfield Township  
October 28, 2016  
BL Project No. 14C4909  
Page 2 of 2





PROFILE  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

#### STREAM DISTURBANCE:

STREAM WW-T24-2001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0814
PERMANENT STREAM DISTURBANCE	0.0098
TOTAL STREAM DISTURBANCE	0.0912
TEMPORARY FLOODWAY DISTURBANCE	0.3174
PERMANENT FLOODWAY DISTURBANCE	0.0244
TOTAL FLOODWAY DISTURBANCE	0.3418

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	42.87
STREAM LENGTH	92.47

#### GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO M-0389 STATION 5+75 ON THE EROSION AND SEDIMENT CONTROL PLAN.

#### SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 38' LT. OF M-0389 M.P. 0.14, ELEV. = 303.57' (NAVD88).

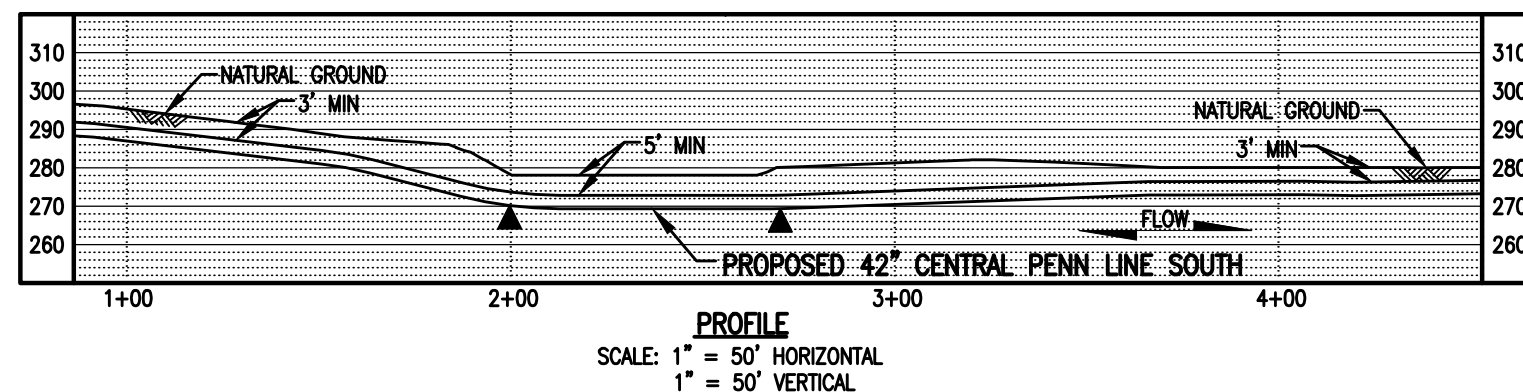
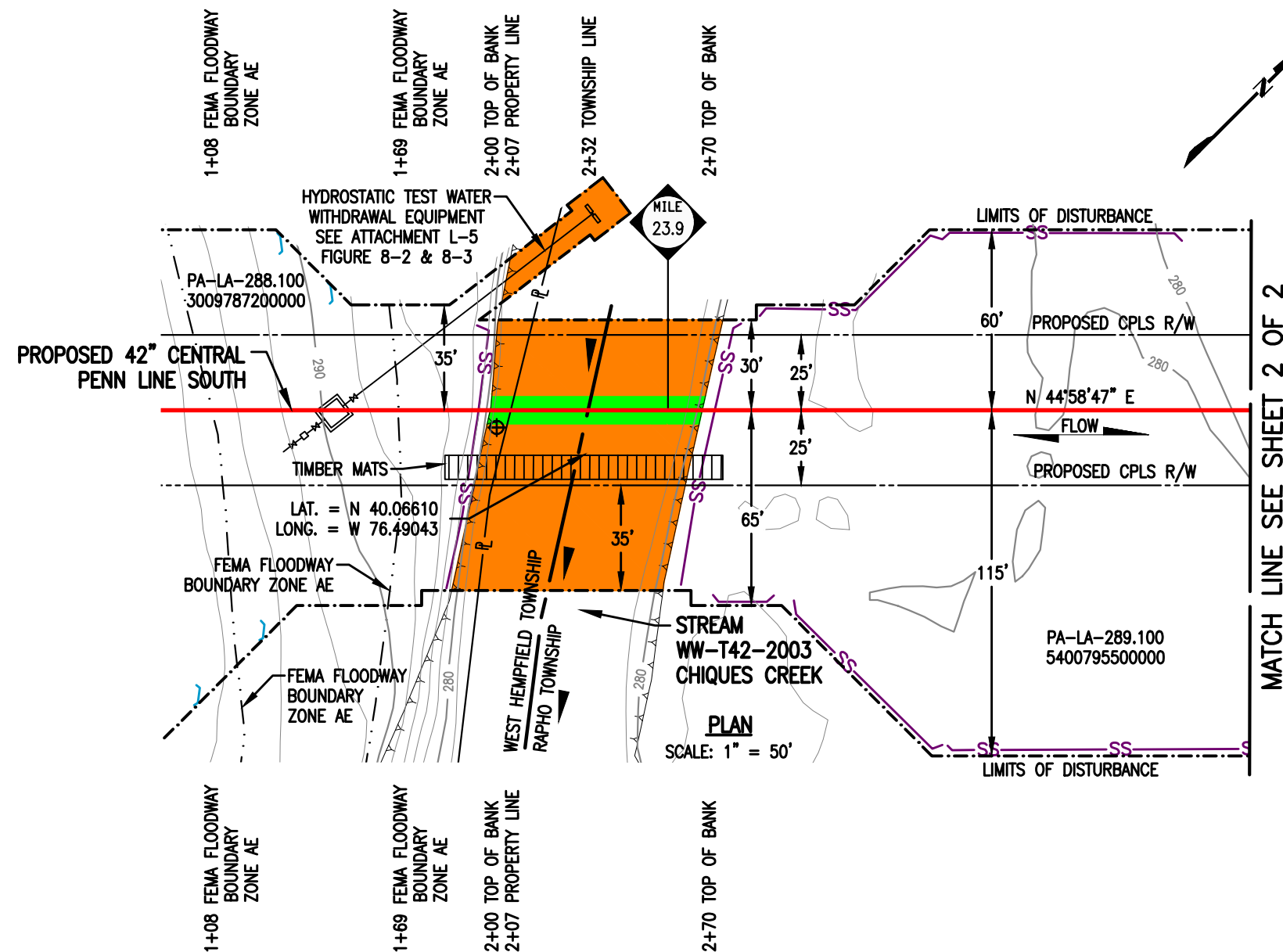


#### LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		12" SEDIMENT BARRIER
	EXISTING PIPELINES		PHOTO DATA POINT		18" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		24" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		32" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		TOP OF BANK
	PROPERTY LINE		TRENCH PLUG		PERMANENT STREAM IMPACT
	FOREIGN PIPELINE		WATERBODY		TEMPORARY STREAM IMPACT
	WETLAND AREA		TREE LINE		
	STREAM FLOW		FLOODWAY BOUNDARY		
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY		
	EXISTING FENCE				

DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSING WW-T24-2001 M-0389 M.P. 0.14 WEST HEMPFIELD TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA									
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:	1" = 50'		
0	11/05/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY:	06/29/15	06/30/16	ISSUED FOR CONSTRUCTION:	REVISION:	0	
							APPROVED BY:	07/06/16		DRAWING NUMBER:			
							WO:	1161503		24-1600-70-09-A/M-0389-0.14-01			1
										10/12/2016			OF 1





LEGEND

PROPOSED 42" CENTRAL PENN LINE SOUTH

EXISTING PIPELINES

EXISTING TGPL R/W

LIMITS OF DISTURBANCE

PROPOSED CPLS R/W

PROPERTY LINE

FOREIGN PIPELINE

WETLAND AREA

STREAM FLOW

EXISTING POWER LINE

EXISTING FENCE

WETLAND FLAGS

PHOTO DATA POINT

WETLAND DATA POINT

UPLAND DATA POINT

WELL POINT

TRENCH PLUG

WATERBODY

TREE LINE

FLOODWAY BOUNDARY

FEMA FLOODWAY BOUNDARY

12" SEDIMENT BARRIER

18" SEDIMENT BARRIER

24" SEDIMENT BARRIER

32" SEDIMENT BARRIER

TOP OF BANK

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

WOOD GROUP  
MUSTANG, INC.

12" SEDIMENT BARRIER

18" SEDIMENT BARRIER

24" SEDIMENT BARRIER

32" SEDIMENT BARRIER

TOP OF BANK

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

DRAWING NO.

REFERENCE TITLE

NO.

DATE

BY

REVISION DESCRIPTION

W.O. NO.

CHK.

APP.

0

07/31/15

CR

ISSUED FOR PADEP 105 PERMIT

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CLR

MJH

1

02/03/16

MF

ISSUED FOR INTERNAL USE

1161503

CLR

MJH

2

11/05/16

BB

ISSUED FOR PADEP SUBMITTAL #2

1161503

CLR

MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC

WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS

ATLANTIC SUNRISE PROJECT

PROPOSED 42" CENTRAL PENN LINE SOUTH

STREAM CROSSING WW-T42-2003

● M.P. 23.89

WEST HEMPFIELD & RAPHO TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

William's

DRAWN BY: THL

CHECKED BY: JM

APPROVED BY: MJH

W.O. NO. 1161503

DATE: 06/27/15

DATE: 06/27/15

DATE: 06/05/15

ISSUED FOR BID:

ISSUED FOR CONSTRUCTION:

DRAWING NUMBER: 24-1600-70-09-A/23.90-01

SCALE: 1" = 50'












REVISION: 2











SHEET 1 OF 2



SEE TABLE ON SHEET 1 OF 2



 PROPOSED 42" CENTRAL PENN LINE SOUTH  
 EXISTING PIPELINES  
 EXISTING TGPL R/W  
 LIMITS OF DISTURBANCE  
 PROPOSED CPLS R/W  
 PROPERTY LINE  
 FOREIGN PIPELINE  
 WETLAND AREA  
 STREAM FLOW  
 EXISTING POWER LINE  
 EXISTING FENCE

 WETLAND FLAGS  
 PHOTO DATA POINT  
 WETLAND DATA POINT  
 UPLAND DATA POINT  
 WELL POINT  
 TRENCH PLUG  
 WATERBODY  
 TREE LINE  
 FLOODWAY BOUNDARY  
 FEMA FLOODWAY BOUNDARY

The diagram illustrates a stream cross-section with the following components from top to bottom:

- 12" SEDIMENT BARRIER**: Indicated by a purple line with "SS" (sand and silt) labels.
- 18" SEDIMENT BARRIER**: Indicated by an orange line with "SS" labels.
- 24" SEDIMENT BARRIER**: Indicated by a blue line with "SS" labels.
- 32" SEDIMENT BARRIER**: Indicated by a pink line with "SS" labels.
- TOP OF BANK**: Indicated by a horizontal line with vertical tick marks.
- PERMANENT STREAM IMPACT**: Indicated by a solid green rectangular area below the top of bank.
- TEMPORARY STREAM IMPACT**: Indicated by a solid orange rectangular area below the permanent impact zone.



**WOOD GROUP  
MUSTANG, INC.**

DRAWING NO.

REFERENCE TITLE

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC  
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS  
ATLANTIC SUNRISE PROJECT**

PROPOSED 42" CENTRAL PENN LINE SOUTH  
STREAM CROSSING WW-T42-2003  
© M.P. 23.89



WEST HEMPFIELD & RAPHO TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	THL	DATE:	06/27/15	ISSUED FOR BID:	SCALE:	1" = 50'
0	07/31/15	CR	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	JM	DATE:	06/27/15	ISSUED FOR CONSTRUCTION:	REVISION:	2
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/05/15	DRAWING NUMBER:	24-1600-70-09-A/23.90-01 SHEET 2	
2	11/05/16	BB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	WO:	1161503			10/13/2016	ntlu	OF 2



## FedEx® Tracking

777593616912

Ship date:

Mon 10/31/2016

B L COMPANIES

Suzan Lacey  
Suite 220  
19500 State Hwy 249  
Houston, TX US 77070  
281 671-5139

Delivered

On FedEx vehicle for delivery  
Signed for by: R.SUMMERS



Actual delivery:

Tue 11/01/2016 1:47 pm

Conestoga Township

Floodplain Administrator  
3959 Main Street  
CONESTOGA, PA US 17516  
717 943-1686

## Travel History

Date/Time	Activity	Location
11/01/2016 - Tuesday		
1:47 pm	Delivered	CONESTOGA, PA
8:51 am	On FedEx vehicle for delivery	LANCASTER, PA
8:25 am	At local FedEx facility	LANCASTER, PA
6:59 am	At destination sort facility	MIDDLETOWN, PA
4:14 am	Departed FedEx location	MEMPHIS, TN
10/31/2016 - Monday		
11:37 pm	Arrived at FedEx location	MEMPHIS, TN
8:37 pm	Left FedEx origin facility	HOUSTON, TX
6:39 pm	Picked up	HOUSTON, TX
5:43 pm	Picked up	KINGWOOD, TX
9:14 am	Tendered at FedEx Office	
	Shipment information sent to FedEx	

## Shipment Facts

Tracking number	777593616912	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Receptionist/Front Desk	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday
Standard transit	11/01/2016 by 3:00 pm		



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777593767581

Ship date:

Mon 10/31/2016

Actual delivery:

Tue 11/01/2016 12:26 pm

**B L COMPANIES**

Suzan Lacey  
Suite 220  
19500 State Hwy 249  
Houston, TX US 77070  
281 671-5139

**Delivered**

On FedEx vehicle for delivery  
Signed for by: T.STRUBEL

**Manor Township**

Floodplain Administrator  
950 West Fairway Drive  
LANCASTER, PA US 17603  
717 943-1686

## Travel History

Date/Time	Activity	Location
11/01/2016 - Tuesday		
12:26 pm	Delivered	LANCASTER, PA
8:56 am	On FedEx vehicle for delivery	LANCASTER, PA
8:24 am	At local FedEx facility	LANCASTER, PA
6:59 am	At destination sort facility	MIDDLETOWN, PA
4:14 am	Departed FedEx location	MEMPHIS, TN
10/31/2016 - Monday		
11:37 pm	Arrived at FedEx location	MEMPHIS, TN
8:37 pm	Left FedEx origin facility	HOUSTON, TX
6:39 pm	Picked up	HOUSTON, TX
5:43 pm	Picked up	KINGWOOD, TX
9:26 am	Tendered at FedEx Office	
	Shipment information sent to FedEx	

## Shipment Facts

Tracking number	777593767581	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Receptionist/Front Desk	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday
Standard transit	11/01/2016 by 3:00 pm		



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**777593853923**

Ship date:

**Mon 10/31/2016****B L COMPANIES**

Suzan Lacey  
Suite 220  
19500 State Hwy 249  
Houston, TX US 77070  
281 671-5139

**Delivered**

On FedEx vehicle for delivery  
Signed for by: K.SELLERS



Actual delivery:

**Tue 11/01/2016 1:04 pm****Martie Township**

Floodplain Administrator  
370 Steinman Farm Road  
PEQUEA, PA US 17565  
717 943-1686

## Travel History

Date/Time	Activity	Location
11/01/2016 - Tuesday		
1:04 pm	Delivered	PEQUEA, PA
8:51 am	On FedEx vehicle for delivery	LANCASTER, PA
8:25 am	At local FedEx facility	LANCASTER, PA
6:59 am	At destination sort facility	MIDLETOWN, PA
4:14 am	Departed FedEx location	MEMPHIS, TN
10/31/2016 - Monday		
11:37 pm	Arrived at FedEx location	MEMPHIS, TN
8:37 pm	Left FedEx origin facility	HOUSTON, TX
6:39 pm	Picked up	HOUSTON, TX
5:43 pm	Picked up	KINGWOOD, TX
9:35 am	Tendered at FedEx Office	
	Shipment information sent to FedEx	

## Shipment Facts

Tracking number	777593853923	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Receptionist/Front Desk	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday
Standard transit	11/01/2016 by 4:30 pm		



Search or tracking number

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FedEx Office  
FedEx Freight  
FedEx Custom Critical  
FedEx Trade Networks  
FedEx Cross Border  
FedEx SupplyChain

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Ask FedEx



## FedEx® Tracking

**777594324106**

Ship date:

**Mon 10/31/2016****B L COMPANIES**

Suzan Lacey  
Suite 220  
19500 State Hwy 249  
Houston, TX US 77070  
281 671-5139

**Delivered**

Signed for by: E BANKS



Actual delivery:

**Tue 11/01/2016 11:50 am****Rapho Township**

Floodplain Administrator  
971 North Colebrook Road  
MANHEIM, PA US 17545  
717 943-1686

## Travel History

Date/Time	Activity	Location
- 11/01/2016 - Tuesday		
11:50 am	Delivered	MANHEIM, PA
8:55 am	On FedEx vehicle for delivery	LANCASTER, PA
8:24 am	At local FedEx facility	LANCASTER, PA
6:59 am	At destination sort facility	MIDDLETOWN, PA
4:14 am	Departed FedEx location	MEMPHIS, TN
- 10/31/2016 - Monday		
11:37 pm	Arrived at FedEx location	MEMPHIS, TN
8:37 pm	Left FedEx origin facility	HOUSTON, TX
6:39 pm	Picked up	HOUSTON, TX
5:43 pm	Picked up	KINGWOOD, TX
	Tendered at FedEx Office	
10:07 am	Shipment information sent to FedEx	

## Shipment Facts

Tracking number	777594324106	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Receptionist/Front Desk	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday
Standard transit	11/01/2016 by 3:00 pm		



Search or tracking number

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FedEx Home Delivery  
FedEx TechConnect  
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Packaging Services  
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Developer Resource Center  
FedEx Ship Manager Software  
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FedEx Custom Critical  
FedEx Trade Networks  
FedEx Cross Border  
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## FedEx® Tracking

777595429195

Ship date:

Mon 10/31/2016

Actual delivery:

Tue 11/01/2016 11:04 am

## B L COMPANIES

Suzan Lacey  
Suite 220  
19500 State Hwy 249  
Houston, TX US 77070  
281 671-5139

Delivered

Signed for by: H BEMENDORFER



West Hempfield Township  
Floodplain Administrator  
3401 Marietta Avenue  
LANCASTER, PA US 17601  
717 943-1686

## Travel History

Date/Time	Activity	Location
- 11/01/2016 - Tuesday		
11:04 am	Delivered	LANCASTER, PA
8:45 am	On FedEx vehicle for delivery	LANCASTER, PA
8:24 am	At local FedEx facility	LANCASTER, PA
6:59 am	At destination sort facility	MIDDLETOWN, PA
4:14 am	Departed FedEx location	MEMPHIS, TN
- 10/31/2016 - Monday		
11:37 pm	Arrived at FedEx location	MEMPHIS, TN
8:37 pm	Left FedEx origin facility	HOUSTON, TX
6:39 pm	Picked up	HOUSTON, TX
5:43 pm	Picked up	KINGWOOD, TX
	Tendered at FedEx Office	
11:10 am	Shipment information sent to FedEx	

## Shipment Facts

Tracking number	777595429195	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Receptionist/Front Desk	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday
Standard transit	11/01/2016 by 3:00 pm		



Search or tracking number

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