



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.

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

**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 ¹	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 ¹	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:
¹ 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

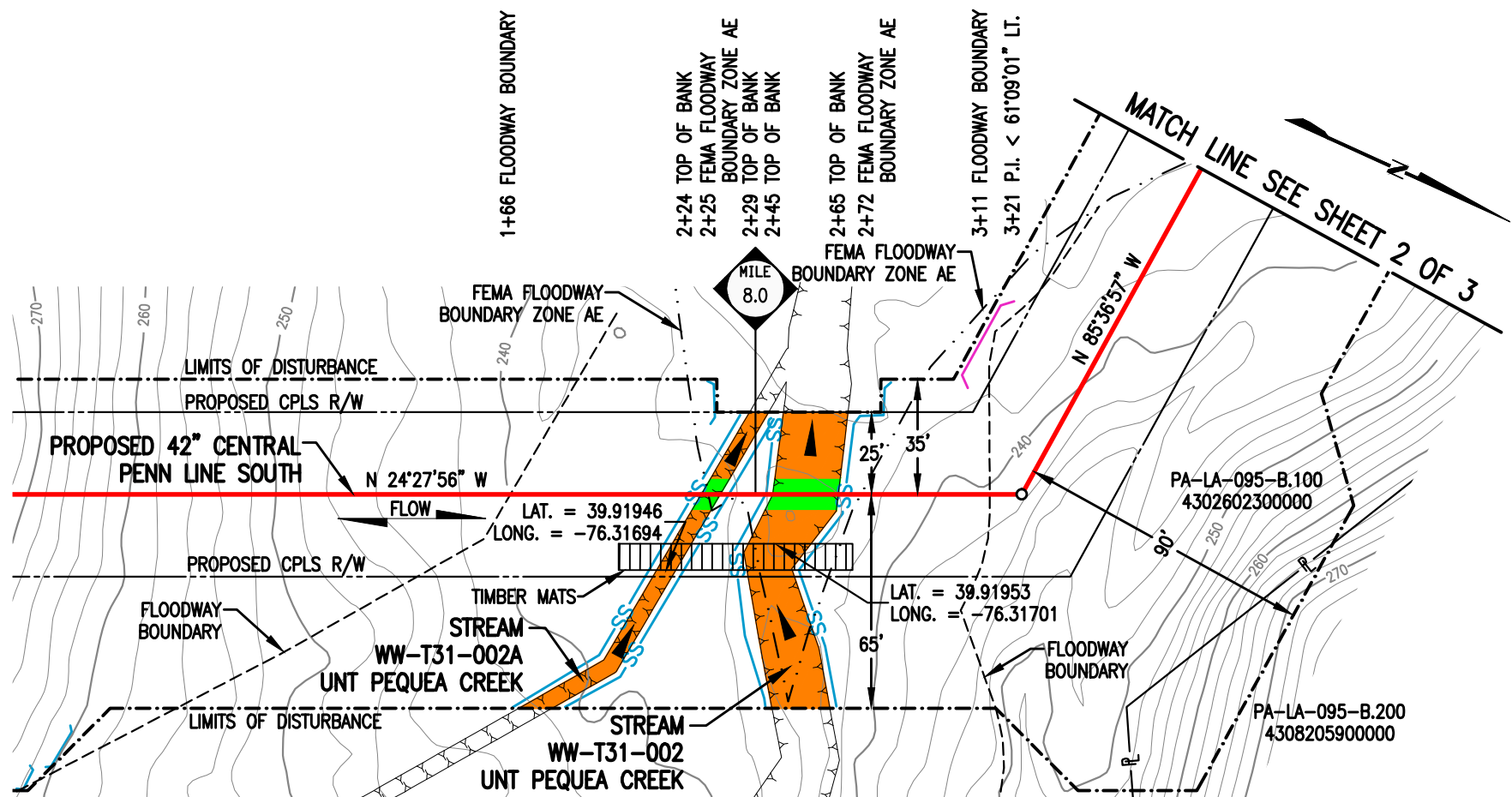
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,

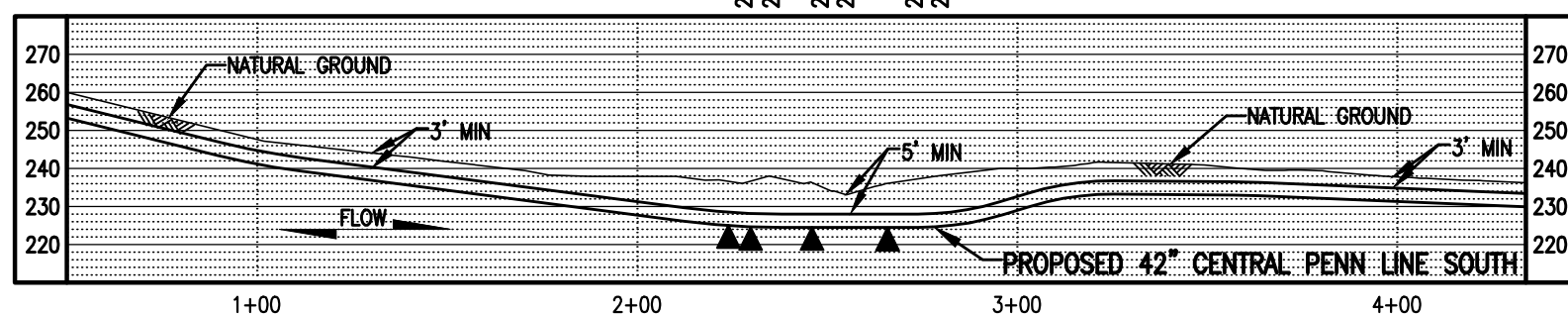


Alaric J. Busher, PE
 Senior Engineer

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		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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				

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 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)	19.87
STREAM LENGTH	94.13

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

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

GENERAL NOTES:

1. STREAM CROSSING METHODS FOR EACH STREAM SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
3. 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.
4. STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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

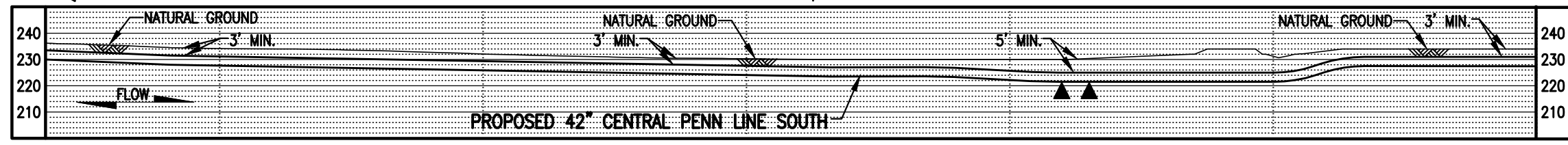
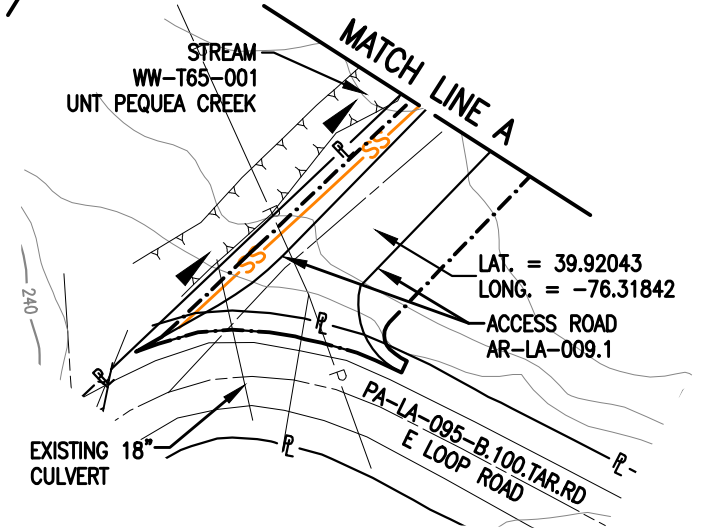
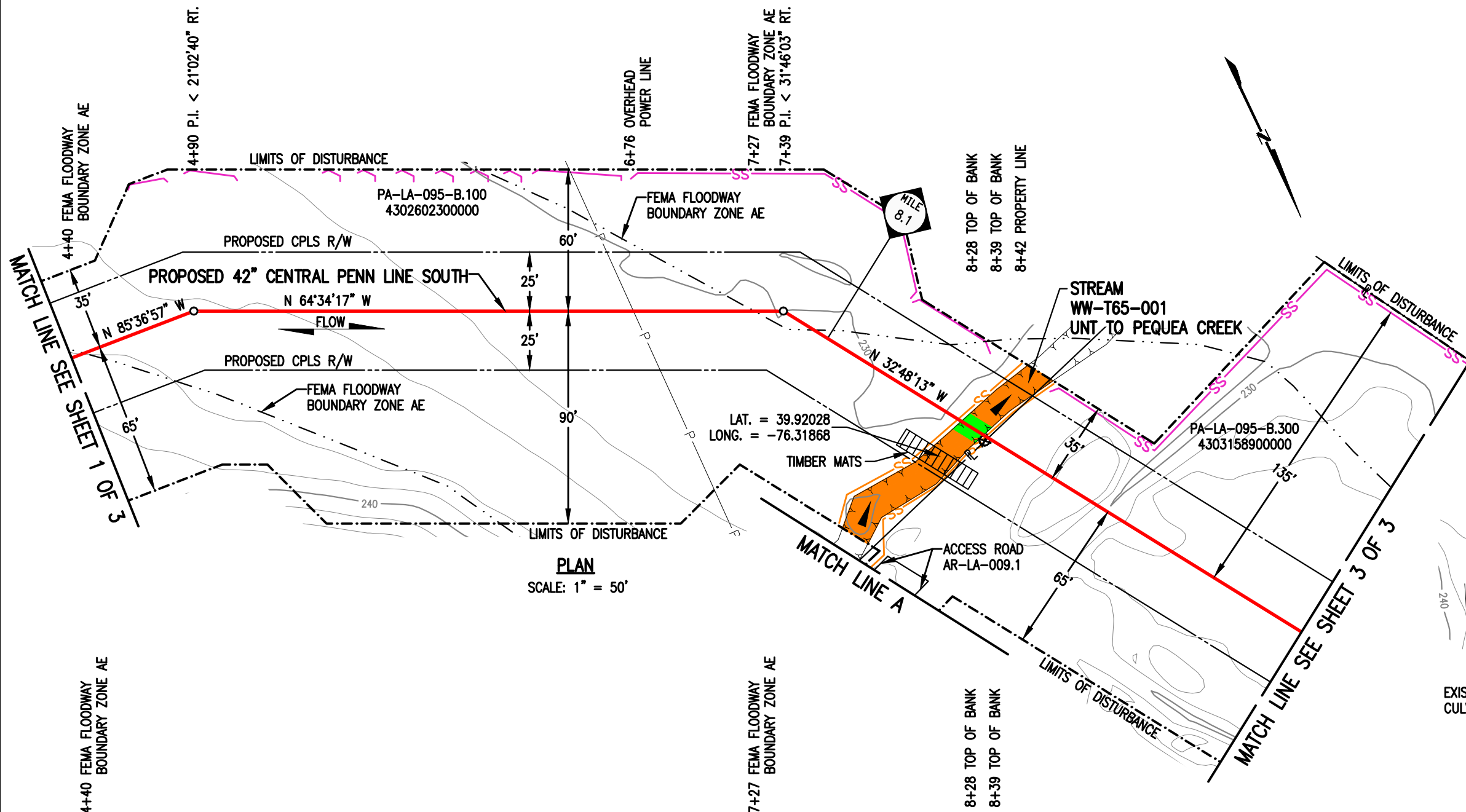


DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11, WW-T31-003 @ M.P. 8.20, WW-T31-003 @ 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: 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/8.00-01	SHEET 1
2		11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	W.O. NO.: 1161503	DATE: 10/17/2016	1:23pm	OF 3

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

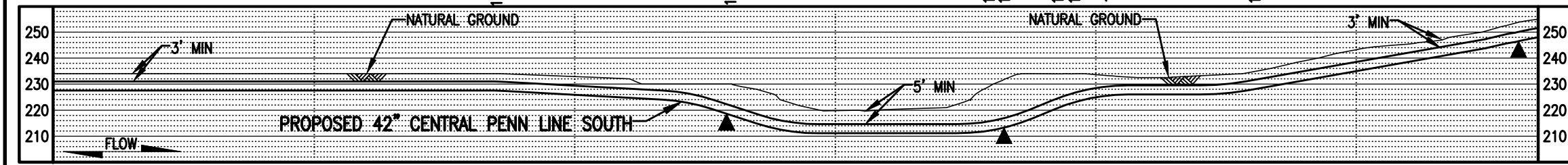
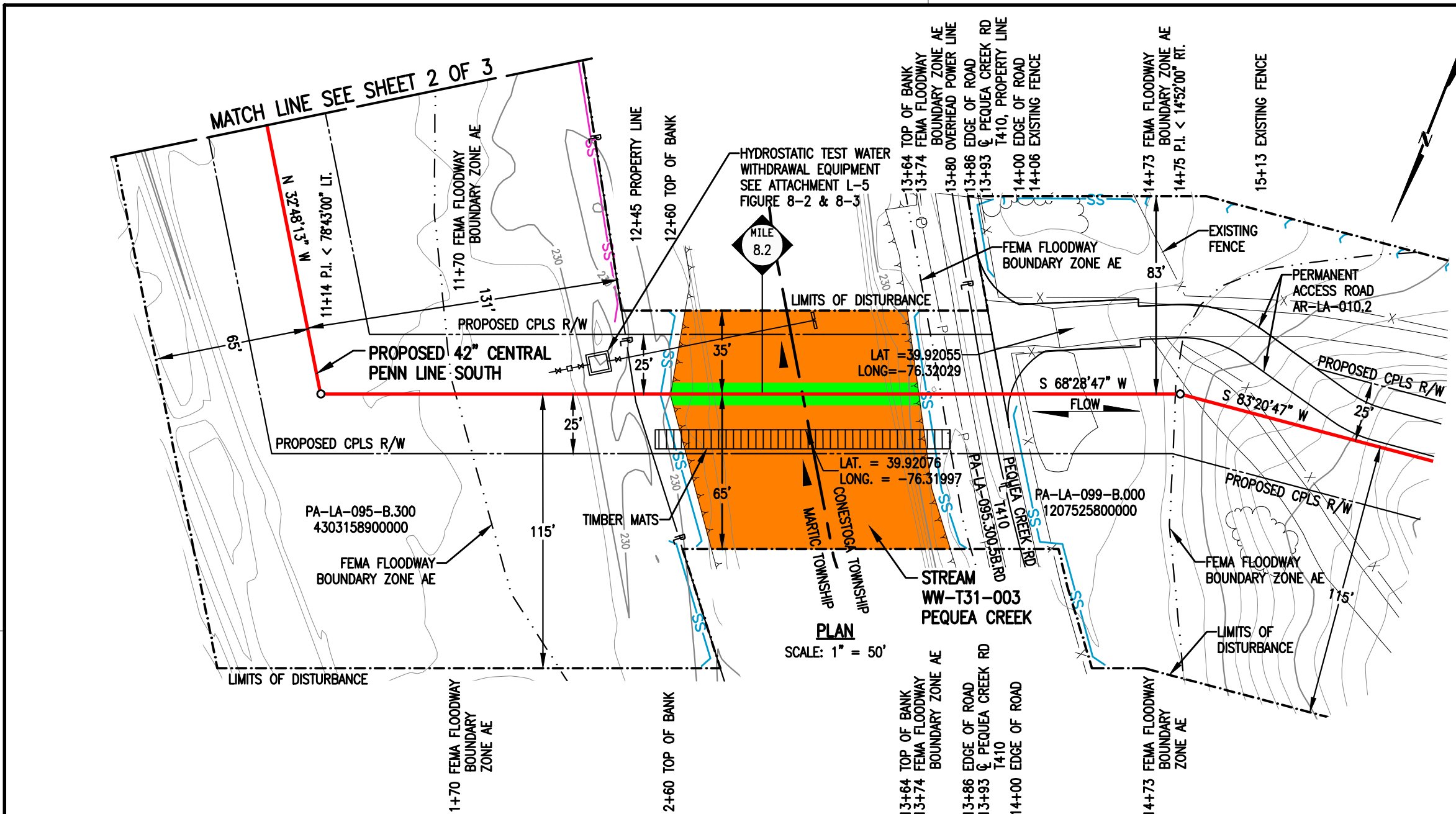
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11,
WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2
MARTIC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

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CR	10/15/14		1" = 50'
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	ML	03/07/15		

APPROVED BY: MJH DATE: 06/05/15
DRAWING NUMBER: 24-1600-70-09-A/8.00-01
WC: 1161503

ISSUED FOR CONSTRUCTION: 24-1600-70-09-A/8.00-01
REVISION: 1
SHEET 2 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

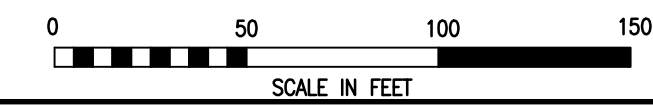
STREAM DISTURBANCE FOR ACCESS ROAD AR-LA-010.2:

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:**
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 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
 3. STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

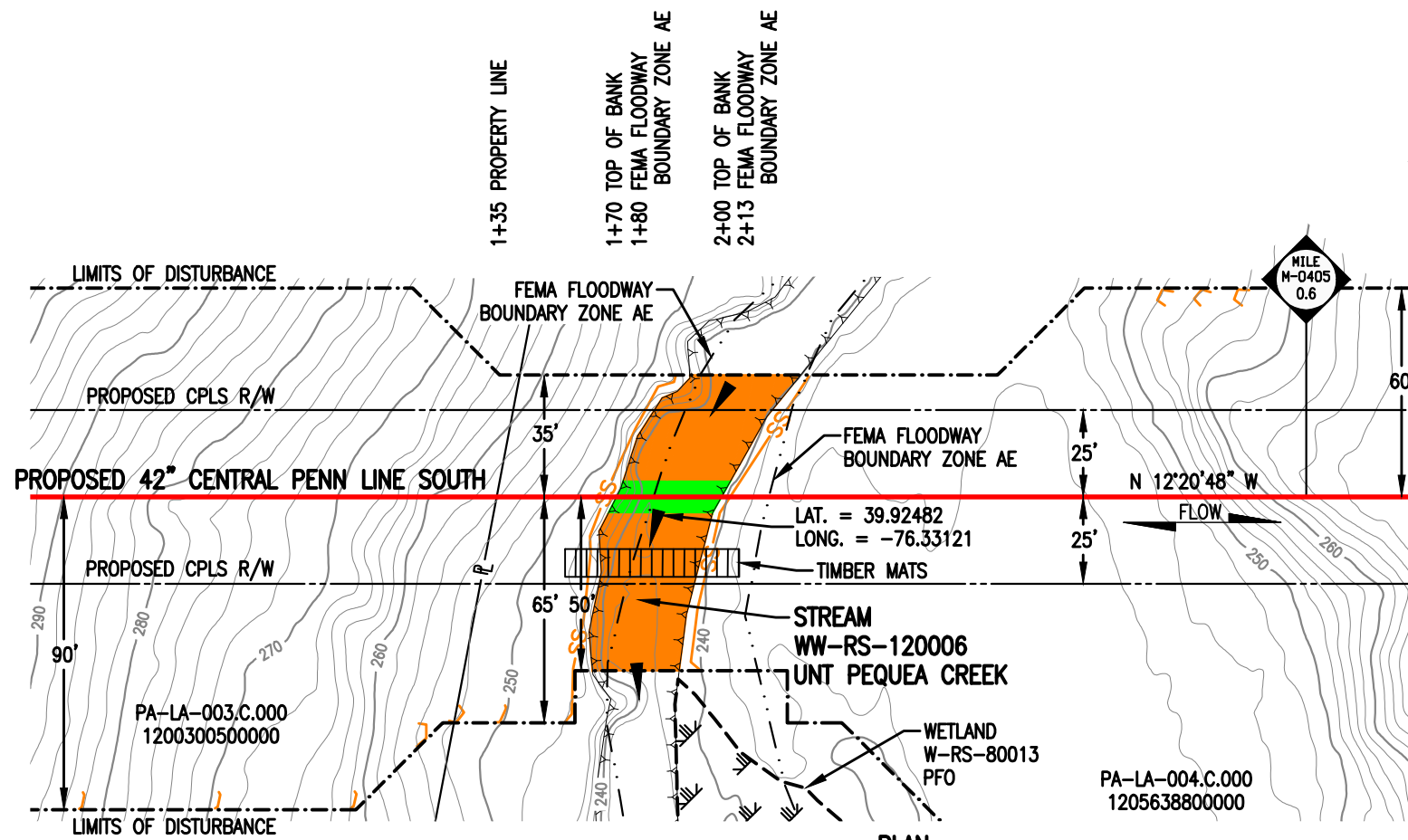
- SURVEY NOTES:**
1. T.B.M. SURVEY CONTROL POINT - 53.12' LT. OF M.P. 8.22, ELEV. = 233.62' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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		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		OF 3		
W.O. NO.: 1161503		DATE: 10/17/2016		DRAWN BY: nlabell		SCALE: 1" = 50'				



PLAN
SCALE: 1" = 50'

STREAM DISTURBANCE:

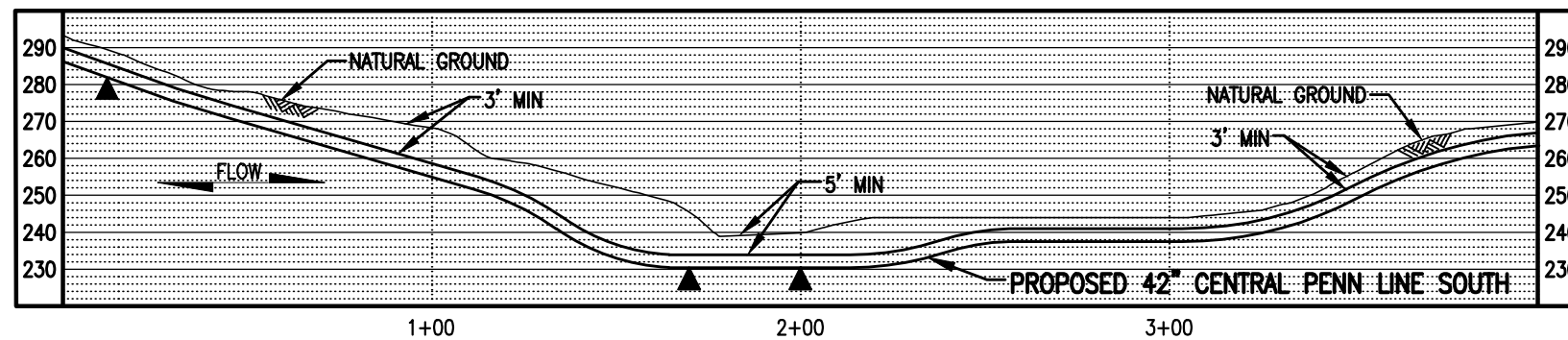
STREAM WW-RS-120006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0515
PERMANENT STREAM DISTURBANCE	0.0070
TOTAL STREAM DISTURBANCE	0.0585
TEMPORARY FLOODWAY DISTURBANCE	0.0228
PERMANENT FLOODWAY DISTURBANCE	0.0031
TOTAL FLOODWAY DISTURBANCE	0.0259
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	30.20
STREAM LENGTH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

GENERAL NOTES:

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

SURVEY NOTES:

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

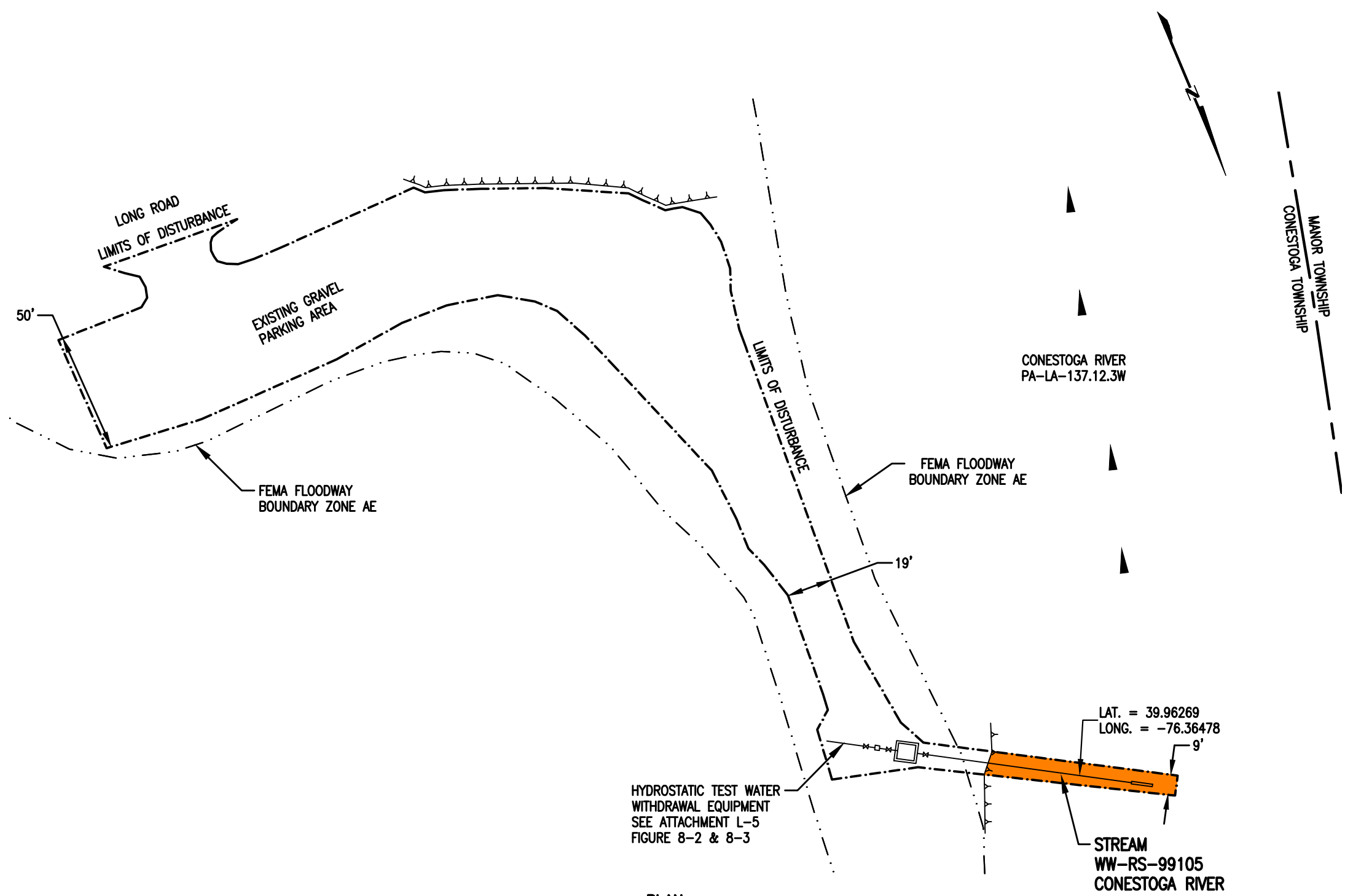


PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



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	— TOP OF BANK	
— PROPERTY LINE	▲ TRENCH PLUG	■ PERMANENT STREAM IMPACT	
— FOREIGN PIPELINE	▲ WATERBODY	■ TEMPORARY STREAM IMPACT	
— WETLAND AREA	— TREE LINE		
▲ STREAM FLOW	- - - FLOODWAY BOUNDARY		
— P EXISTING POWER LINE	- - - FEMA FLOODWAY BOUNDARY		
— X 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-RS-120006 M-0405 @ M.P. 0.57 CONESTOGA TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APPR.
0	11/05/16	VT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR MJH
DRAWN BY: VT		DATE: 06/28/16	ISSUED FOR BID:	SCALE: 1" = 50'	
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	

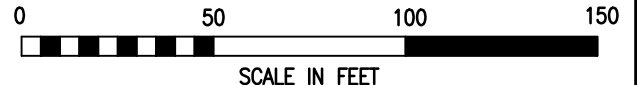


STREAM DISTURBANCE:

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

PLAN
SCALE: 1" = 50'

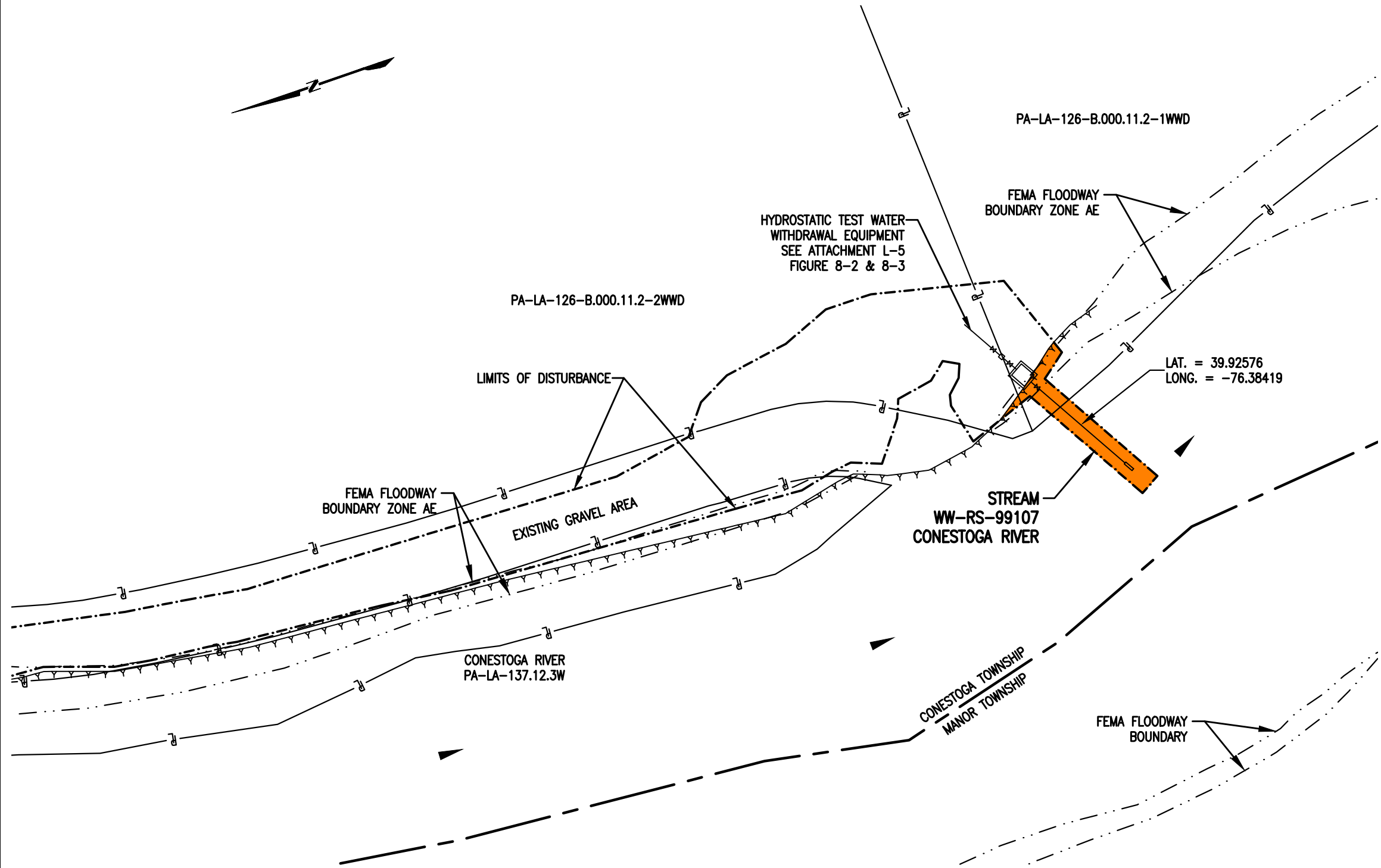
- GENERAL NOTES:**
- NO IN-STREAM DISTURBANCE WILL OCCUR AS HYDROSTATIC EQUIPMENT WILL BE PLACED ON STREAM BED.
 - THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.
- SURVEY NOTES:**
- T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 12.34, ELEV. = 185.17' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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		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-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 CHECKED BY: CLR DATE: 09/16/16 APPROVED BY: MJH DATE: 09/16/16 W.O.: 1161503
0	11/05/16	EE	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	ISSUED FOR BID: SCALE: 1" = 50' ISSUED FOR CONSTRUCTION: REVISION: 0 DRAWING NUMBER: 24-1600-70-09-A/11.69-01 SHEET 1 <small>10/25am 10/14/2016 t3le</small> <small>K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised 105\24-1600-70-09-A_11.69-01.dwg</small> 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).

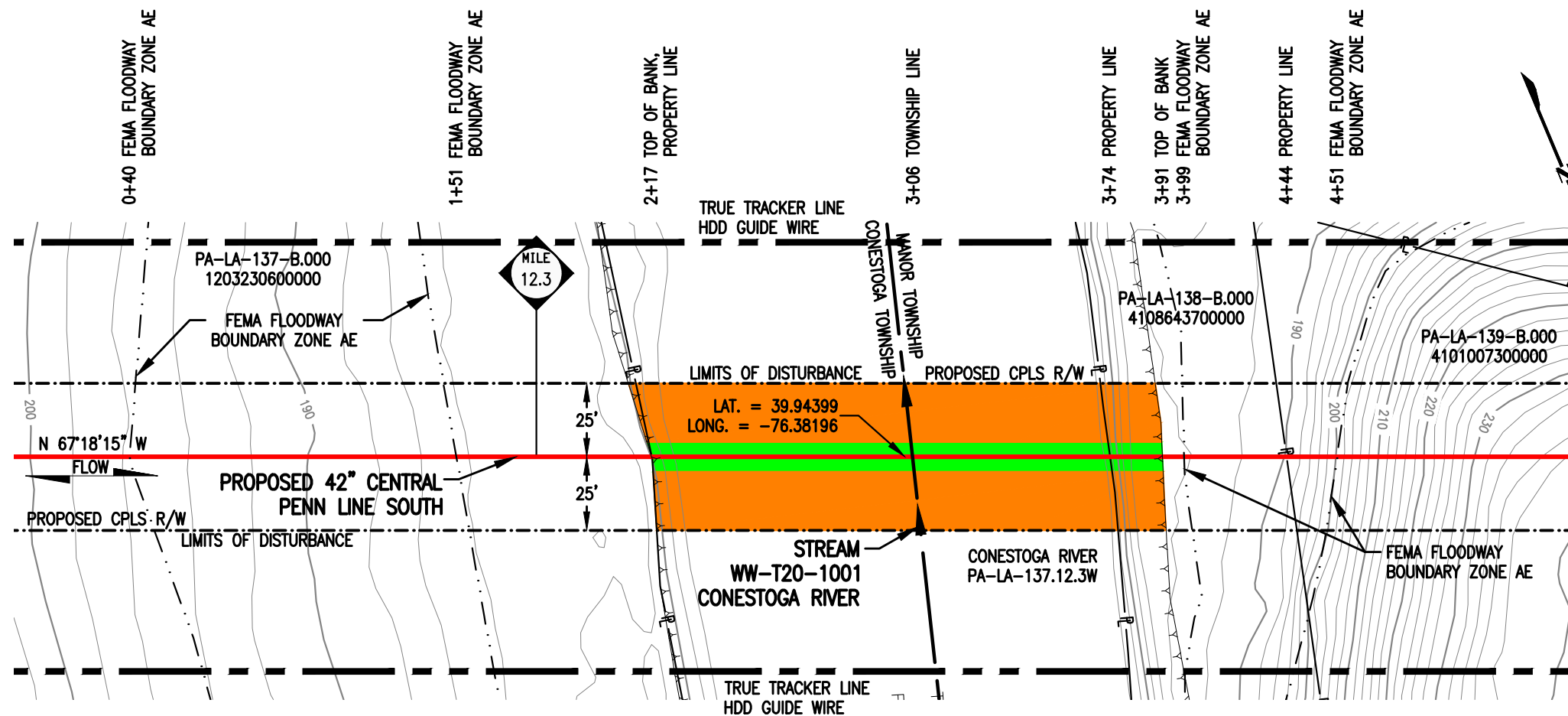
PLAN
SCALE: 1" = 50'



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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		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-RS-99107 © M.P. 11.98 CONESTOGA & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA			
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: DJG CHECKED BY: CLR APPROVED BY: MJH WO: 1161503
0	11/05/16	DJG	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	DATE: 09/16/16 DATE: 09/16/16 DATE: 09/16/16 DRAWING NUMBER: 24-1600-70-09-A/11.98-01 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		

**WOOD GROUP
MUSTANG, INC.**

SS 12" SEDIMENT BARRIER

SS 18" SEDIMENT BARRIER

SS 24" SEDIMENT BARRIER

SS 32" SEDIMENT BARRIER

TOP OF BANK

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE		<p>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 & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA</p>						
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
				W.O. NO.:	1161503		W.O.:	1161503	10/13/2016	OF 2

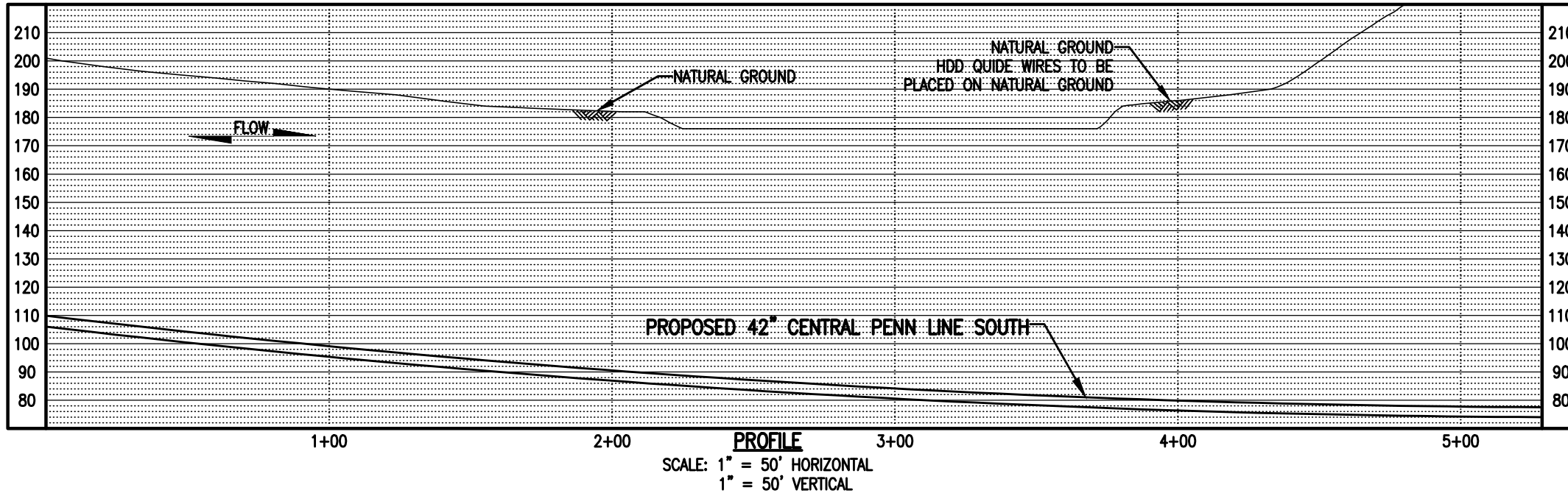
0+40 FEMA FLOODWAY BOUNDARY ZONE AE

1+51 FEMA FLOODWAY BOUNDARY ZONE AE

2+17 TOP OF BANK

3+91 TOP OF BANK
3+99 FEMA FLOODWAY BOUNDARY ZONE AE

4+51 FEMA FLOODWAY BOUNDARY ZONE AE



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
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

WOOD GROUP MUSTANG, INC.

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	11/05/16	AB	ISSUED FOR PADEP SUBMITTAL #2

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 & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

Williams

DRAWN BY: LL	DATE: 10/15/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/12.32-01	SHEET 2
WO: 1161503		10/13/2016 o1bloul	OF 2



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 ¹	39.94399	-76.38196

¹ 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.

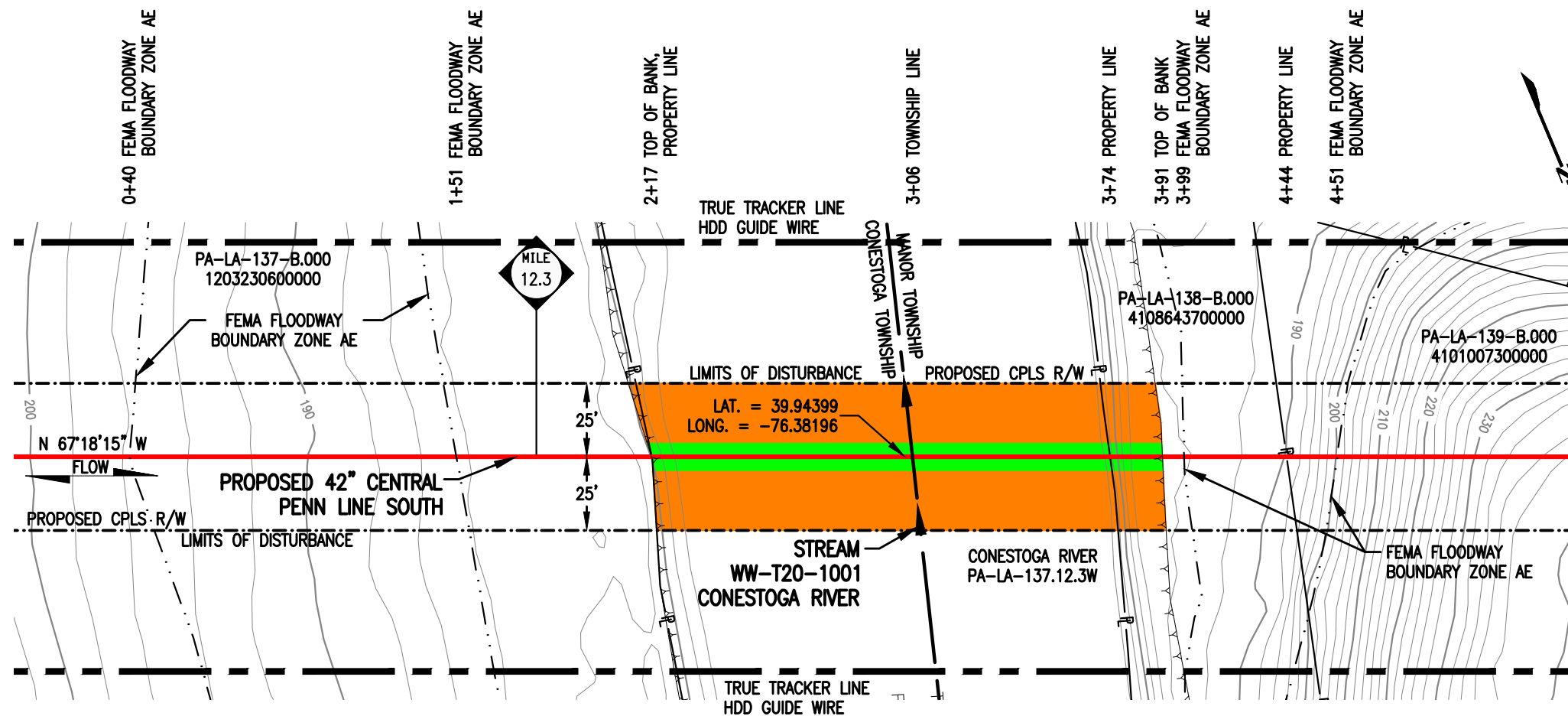
Sincerely,



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

<p>— PROPOSED 42" CENTRAL PENN LINE SOUTH</p> <p>— EXISTING PIPELINES</p> <p>— EXISTING TGPL R/W</p> <p>--- LIMITS OF DISTURBANCE</p> <p>--- PROPOSED CPLS R/W</p> <p>— PROPERTY LINE</p> <p>— FOREIGN PIPELINE</p> <p>WETLAND AREA</p> <p>▲ STREAM FLOW</p> <p>— P — EXISTING POWER LINE</p> <p>— X — EXISTING FENCE</p>	<p>▽ WETLAND FLAGS</p> <p>⊗ PHOTO DATA POINT</p> <p>⊠ WETLAND DATA POINT</p> <p>⊡ UPLAND DATA POINT</p> <p>☀ WELL POINT</p> <p>▲ TRENCH PLUG</p> <p>WATERBODY</p> <p>— TREE LINE</p> <p>--- FLOODWAY BOUNDARY</p> <p>--- FEMA FLOODWAY BOUNDARY</p>	<p>SS 12" SEDIMENT BARRIER</p> <p>SS 18" SEDIMENT BARRIER</p> <p>SS 24" SEDIMENT BARRIER</p> <p>SS 32" SEDIMENT BARRIER</p> <p>TOP OF BANK</p> <p>PERMANENT STREAM IMPACT</p> <p>TEMPORARY STREAM IMPACT</p>
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DRAWING NO.		REFERENCE TITLE		<p>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 & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA</p>						
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
				W.O. NO.:	1161503		DATE: 10/13/2016	FILED: o1bloul	OF 2	

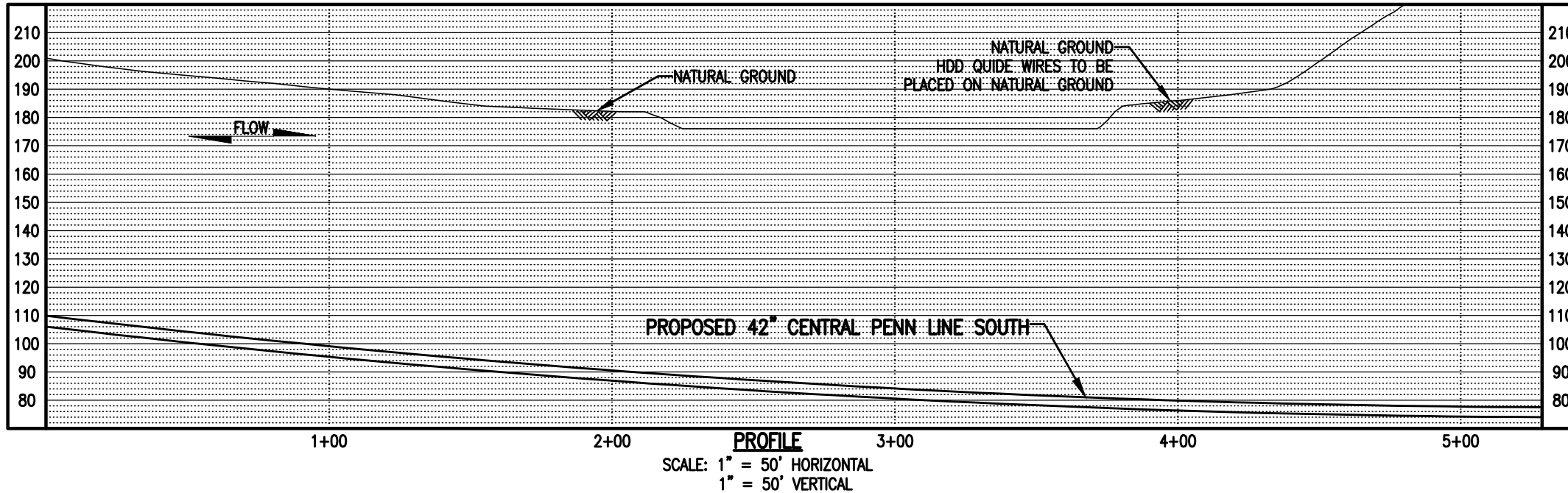
0+40 FEMA FLOODWAY BOUNDARY ZONE AE

1+51 FEMA FLOODWAY BOUNDARY ZONE AE

2+17 TOP OF BANK

3+91 TOP OF BANK
3+99 FEMA FLOODWAY BOUNDARY ZONE AE

4+51 FEMA FLOODWAY BOUNDARY ZONE AE



LEGEND

- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLS R/W
- P — PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- ▲ STREAM FLOW
- P — EXISTING POWER LINE
- X — 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
- SS 12" SEDIMENT BARRIER
- SS 18" SEDIMENT BARRIER
- SS 24" SEDIMENT BARRIER
- SS 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	11/05/16	AB	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-T20-1001
© M.P. 12.32
CONESTOGA & MANOR TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

Williams

DRAWN BY: LL	DATE: 10/15/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/12.32-01	SHEET 2
WO: 1161503		10/13/2016 o1bloul	OF 2



October 28, 2016

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

Re: Atlantic Sunrise Project
Central Penn Line South
Martic 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 Martic Township is provided below for your review and comment.

Martic 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 ¹	N/A	3.6354	0.3279 ³	39.91624	-76.31068
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T31-002	Floodway to UNT to Pequea Creek	FEMA Detailed ^{1,2}	N/A	0.2814	0.0228 ³	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 ³	39.92076	-76.31997
Road Crossing	Equipment Access and E&S Controls	WW-T31-10003	Floodway to Pequea Creek	FEMA Detailed	0.00 ⁴	0.0718	0.0419	40.74156	-76.47665

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Includes both FEMA Detailed and Assumed 50 Foot buffers.
³ 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.
⁴ 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.

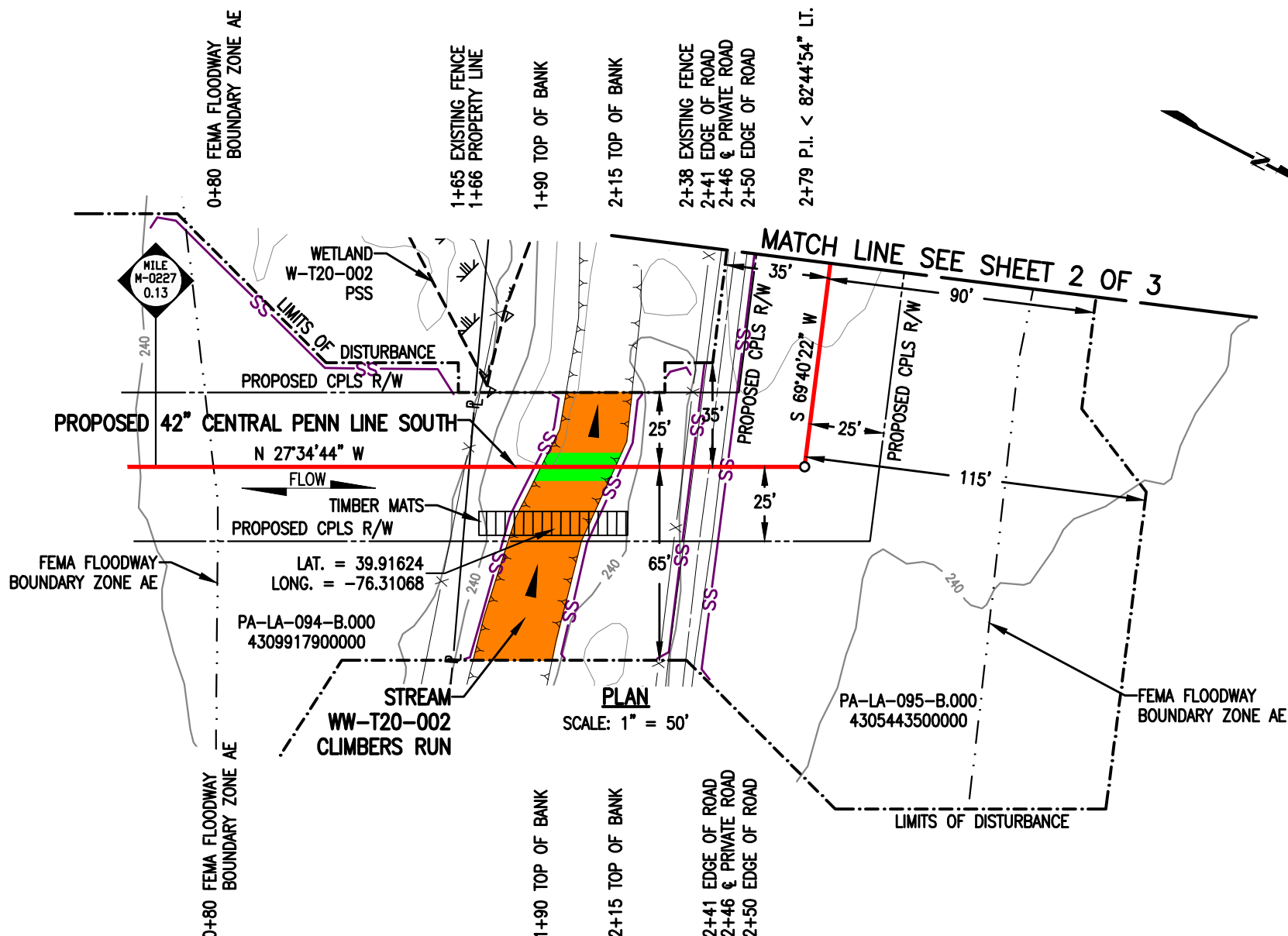
Sincerely,



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

Alaric J. Busher, PE
Senior Engineer

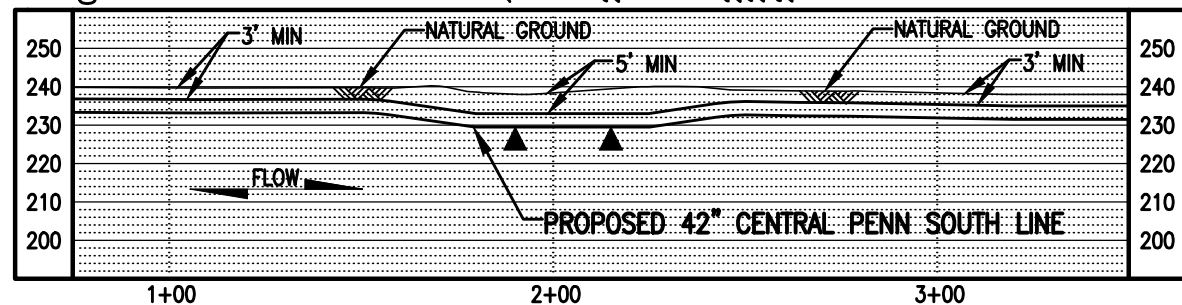
Enclosures: Water Obstruction and Encroachment Permit Impact Maps



STREAM DISTURBANCE:

STREAM WW-T20-002	ACRE
TEMPORARY STREAM DISTURBANCE	0.0458
PERMANENT STREAM DISTURBANCE	0.0057
TOTAL STREAM DISTURBANCE	0.0515
TEMPORARY FLOODWAY DISTURBANCE	3.6354
PERMANENT FLOODWAY DISTURBANCE	0.3279
TOTAL FLOODWAY DISTURBANCE	3.9633

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	24.86
STREAM LENGTH	94.12



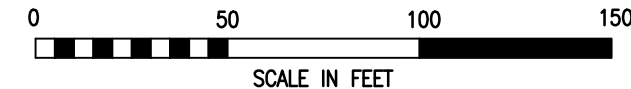
PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL

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 STATION 393+50 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 90' RT. OF M.P. 7.41, ELEV. = 567.51' (NAVD88).

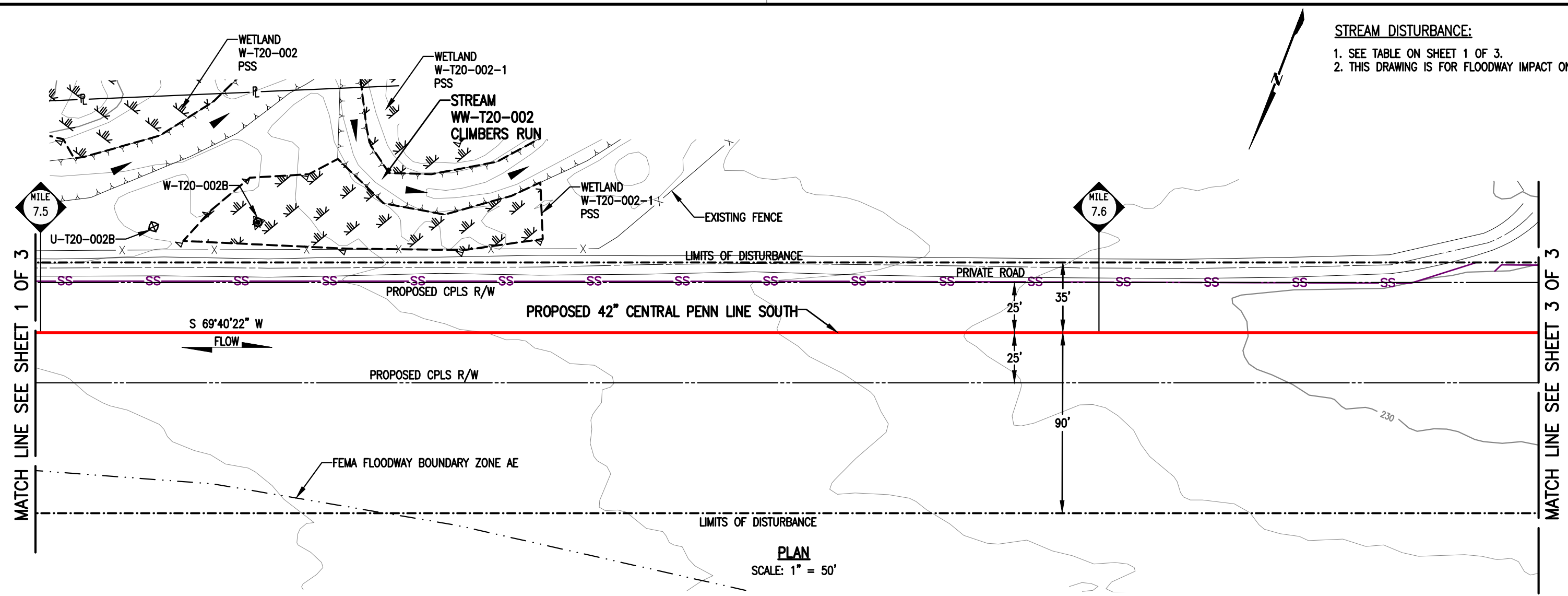


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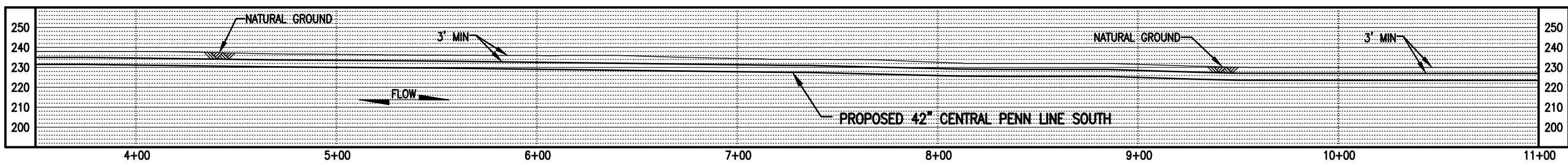
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT 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	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	SHEET 1
2	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO: 1161503		10/13/2016	OF 3

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



PLAN
 SCALE: 1" = 50'



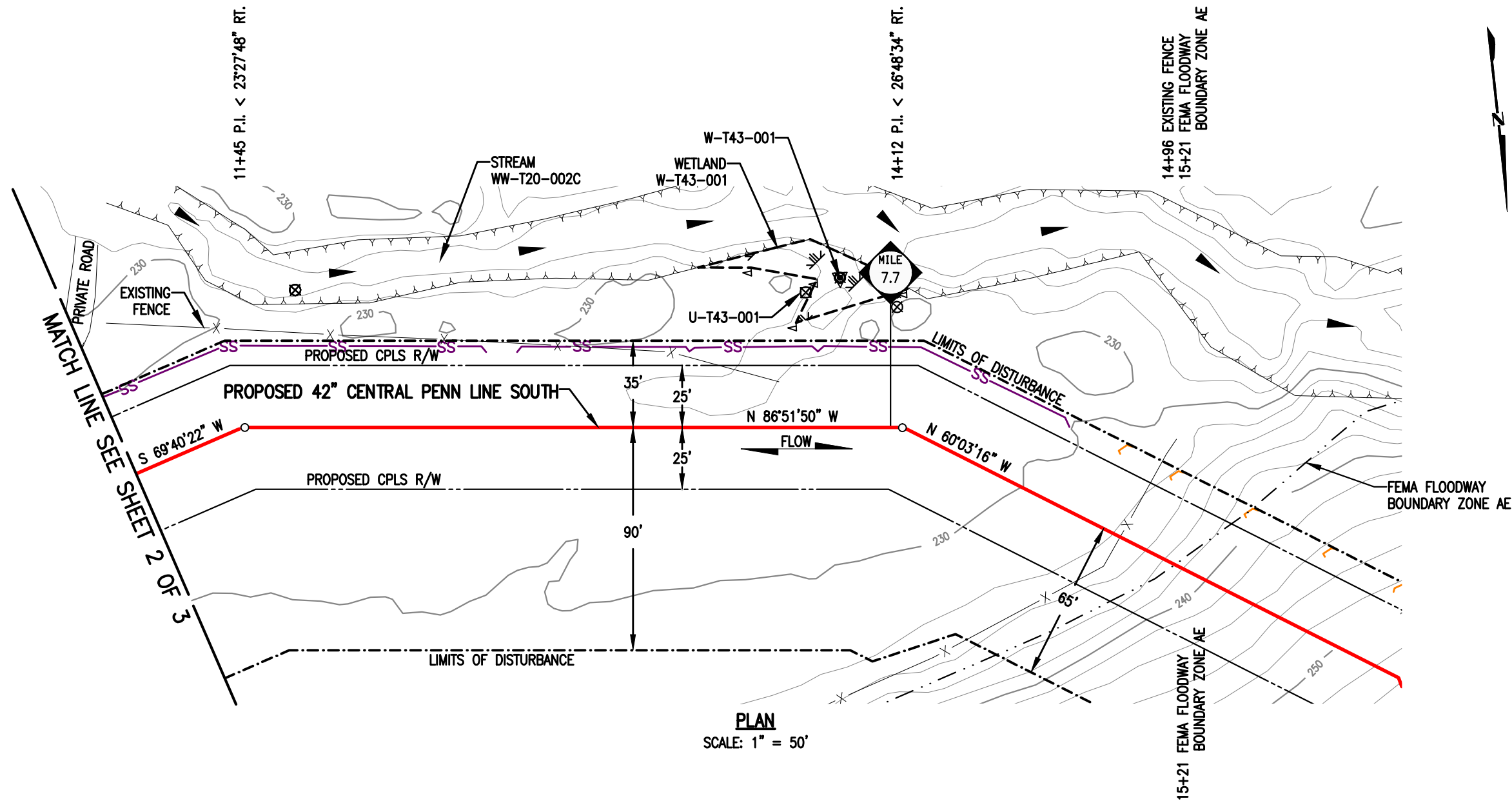
PROFILE
 SCALE: 1" = 50' HORIZONTAL
 1" = 50' VERTICAL



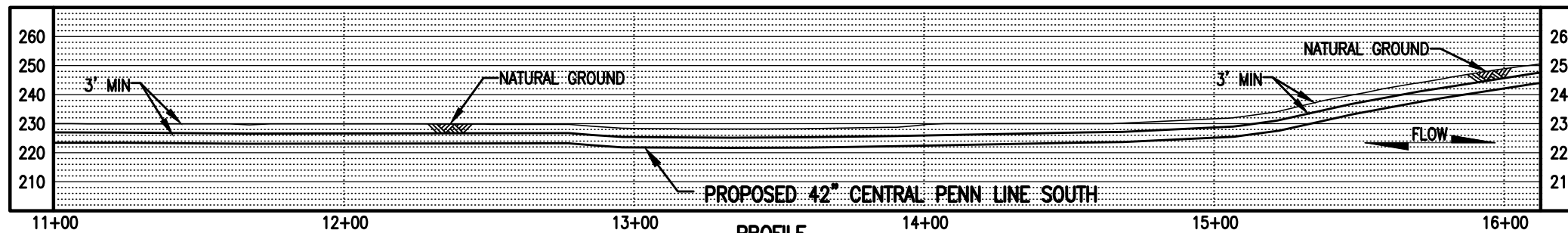
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND 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

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: 1
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/7.47-01	SHEET 2
				DRAWING NUMBER: 24-1600-70-09-A/7.47-01		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



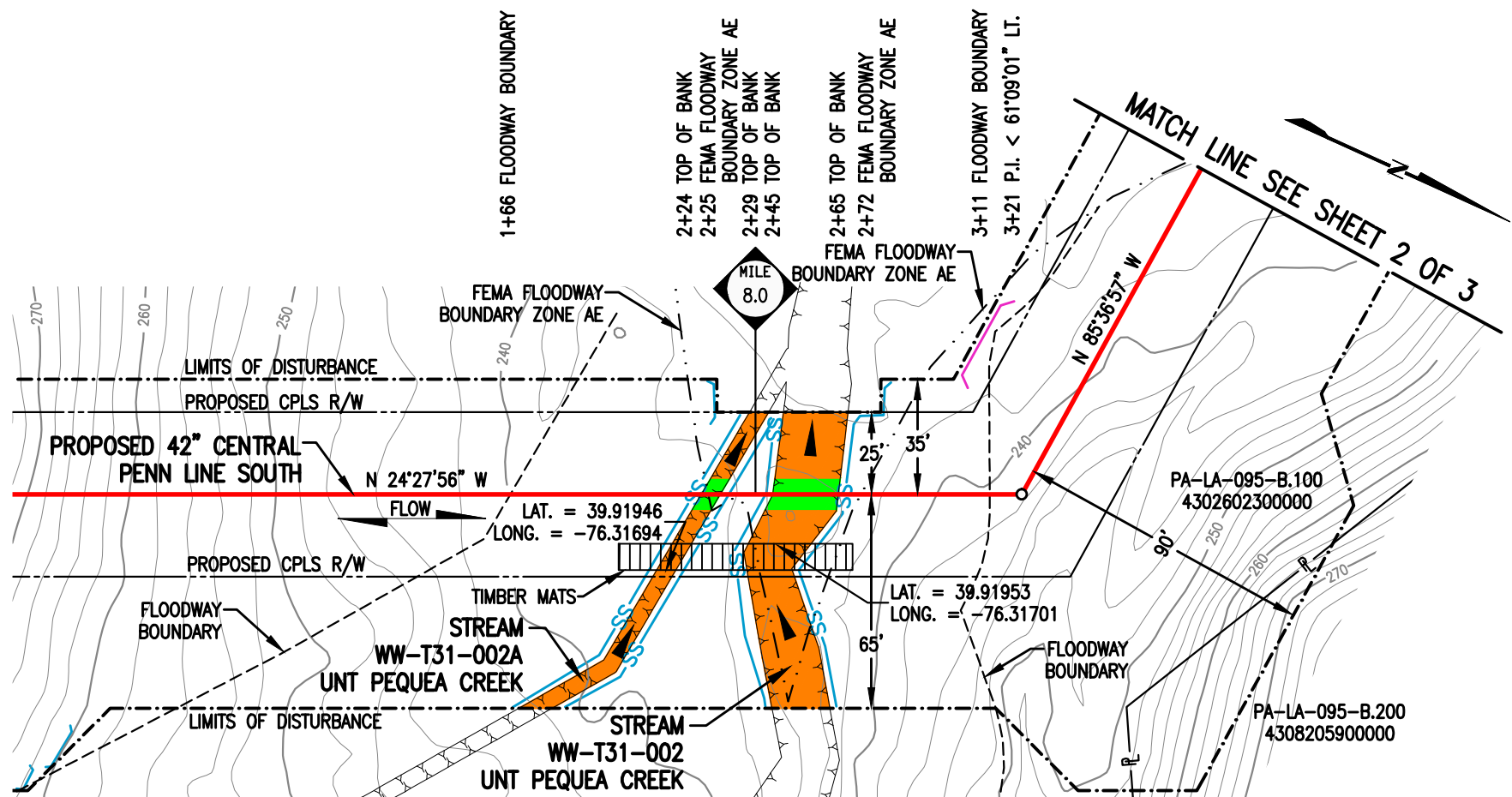
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.	REFERENCE TITLE

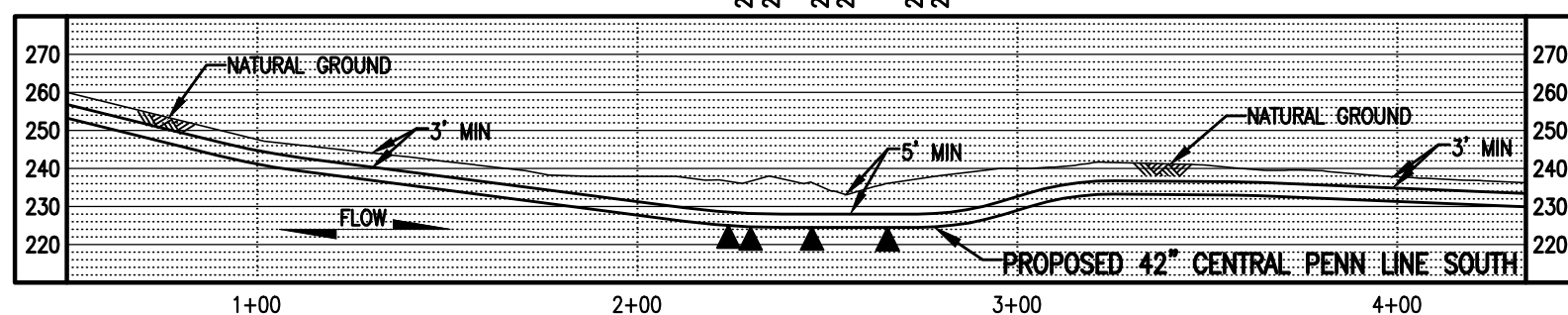
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

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-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 3
WO: 1161503		8:52am 10/13/2016 o:\blou\k\103643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised 105\24-1600-70-09-A_7.47-01.dwg	OF 3



PLAN
SCALE: 1" = 50'



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

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

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 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)	19.87
STREAM LENGTH	94.13

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

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

GENERAL NOTES:

1. STREAM CROSSING METHODS FOR EACH STREAM SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
3. 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.
4. STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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

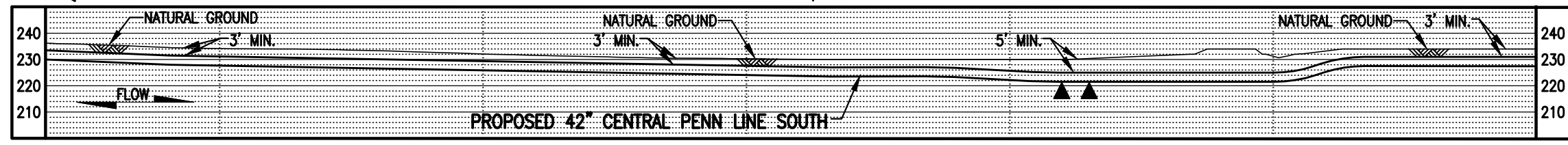
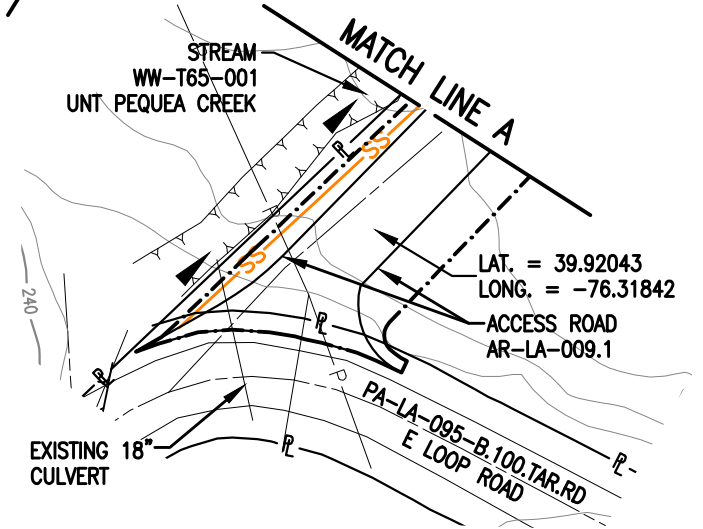
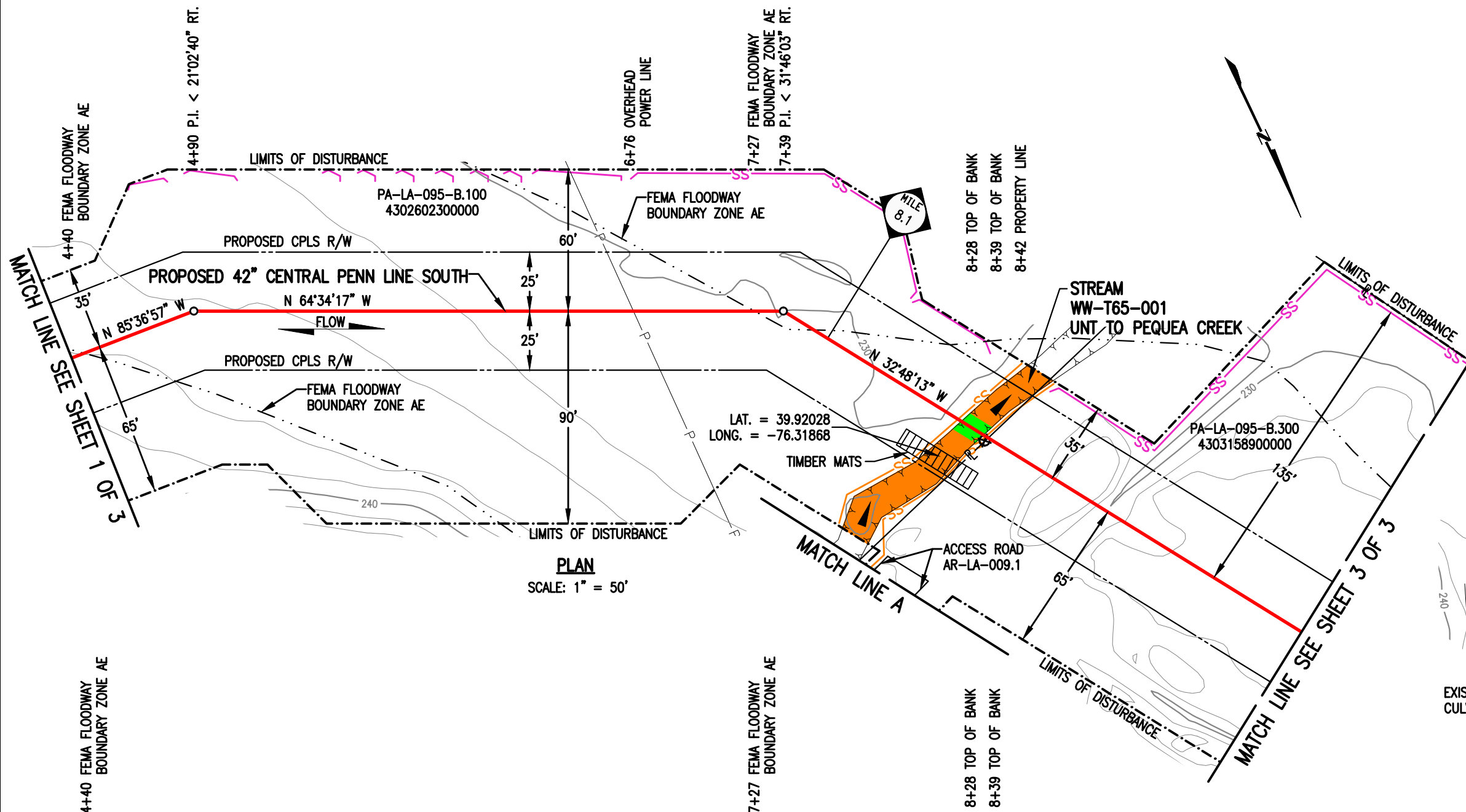


DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11, WW-T31-003 @ M.P. 8.20, WW-T31-003 @ 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: 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/8.00-01	SHEET 1
2		11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	W.O. NO.: 1161503	DATE: 10/17/2016	1:23pm	OF 3

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



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.

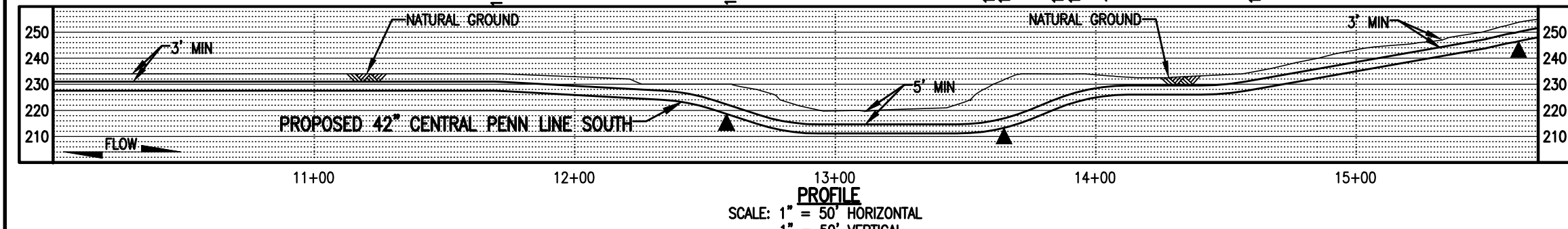
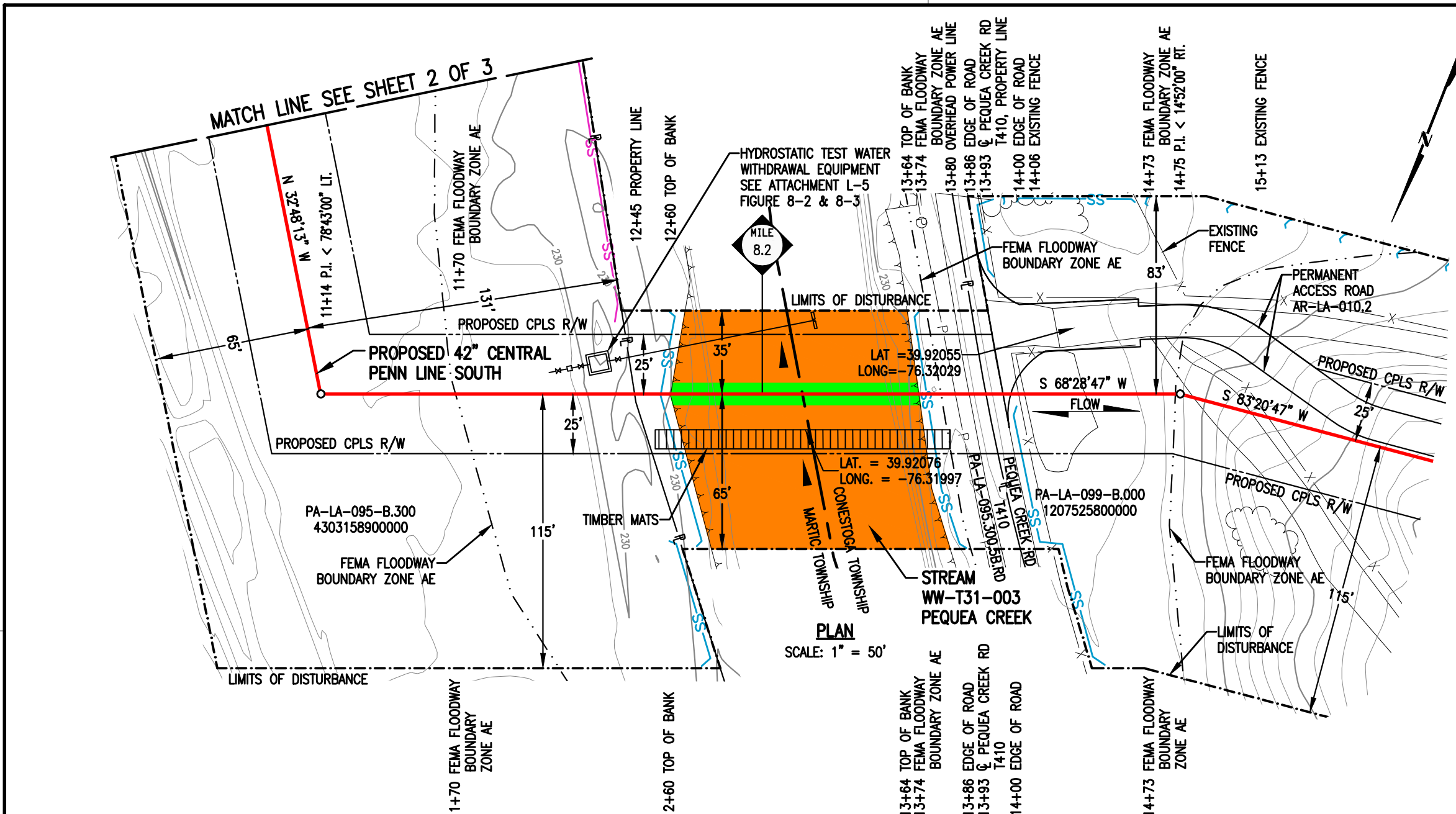
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T31-002, WW-T31-002A @ M.P. 8.00, WW-T65-001 @ M.P. 8.11,
WW-T31-003 @ M.P. 8.20, WW-T31-003 @ AR-LA-009.1 & AR-LA-010.2
MARTIC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

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
0	07/31/15	MH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CR	10/15/14		1" = 50'
1	11/05/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	ML	03/07/15		

APPROVED BY: MJH DATE: 06/05/15
 DRAWING NUMBER: 24-1600-70-09-A/8.00-01
 W.C. NUMBER: 1161503

ISSUED FOR CONSTRUCTION: 24-1600-70-09-A/8.00-01
 REVISION: 1
 SHEET 2 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

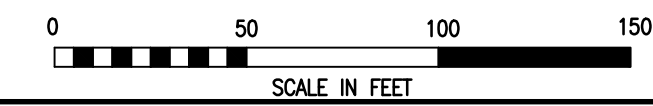
STREAM DISTURBANCE FOR ACCESS ROAD AR-LA-010.2:

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:**
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 100 YEAR FLOODPLAIN PER FEMA FLOODPLAIN MAP DATA.
 3. STATION 0+00 SHOWN IS EQUAL TO STATION 419+99 ON THE EROSION AND SEDIMENT CONTROL PLAN.

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



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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		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
							WC:	1161503			DRAWING NUMBER:	24-1600-70-09-A/8.00-01
											SCALE:	1" = 50'
											DATE:	10/17/2016
											TIME:	2:47pm
											FILE:	K:\03643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised\105\24-1600-70-09-A_8.00-01.dwg
											SHEET	3
											OF	3



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 ²	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 ²	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 ²	40.17062	-76.49677
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T24-3001	Floodway to Little Chiques Creek	FEMA Detailed ¹	N/A	0.3912	0.0381 ²	40.18316	-76.51801

Notes:

¹ Multiple streams are included in these calculations as the floodways overlap.

² 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

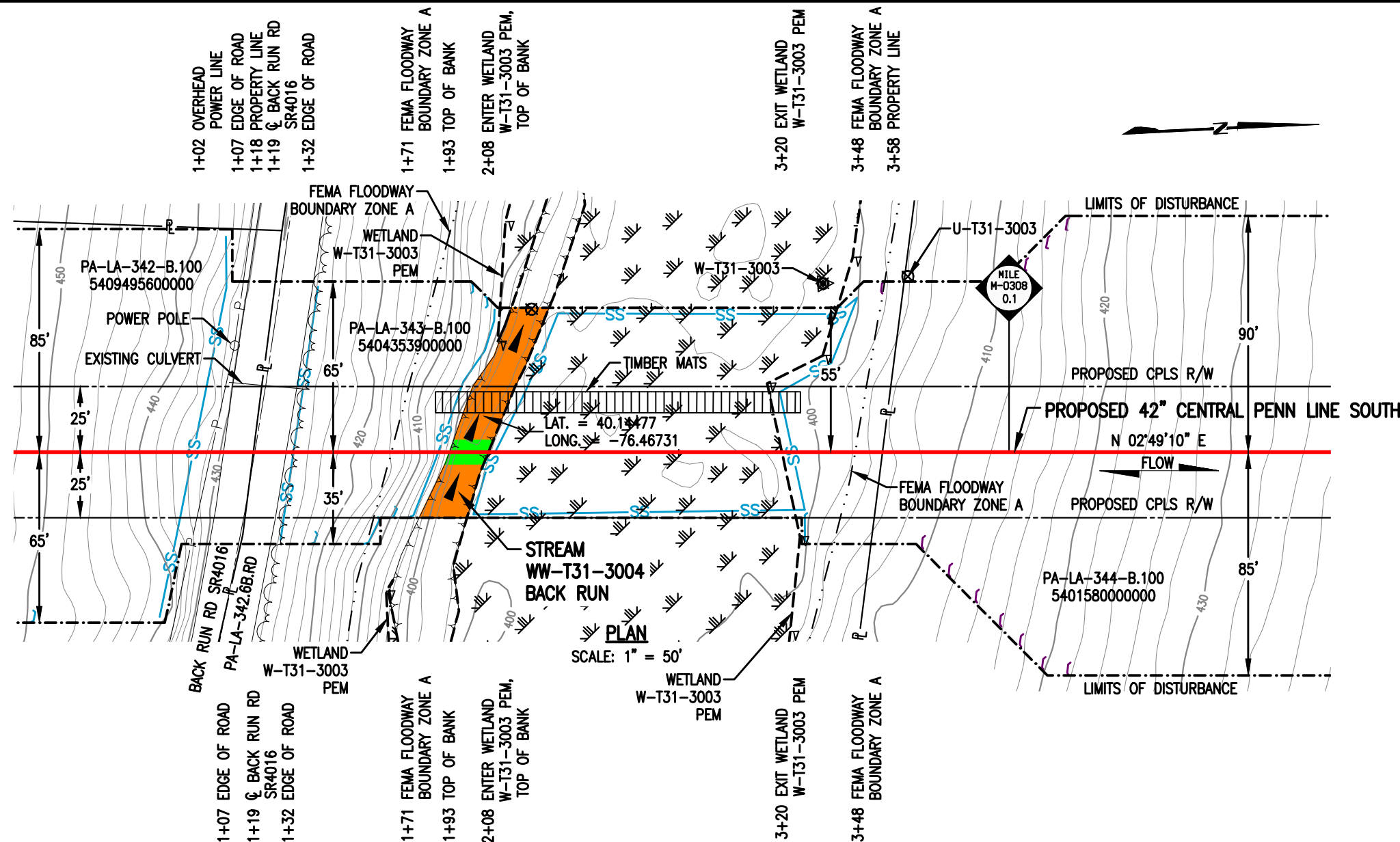
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
Senior Engineer

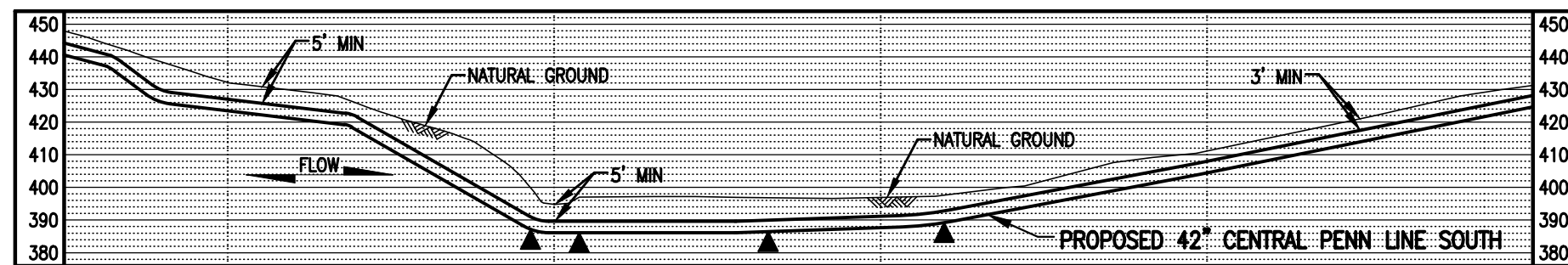
Enclosures: Water Obstruction and Encroachment Permit Impact Maps



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:

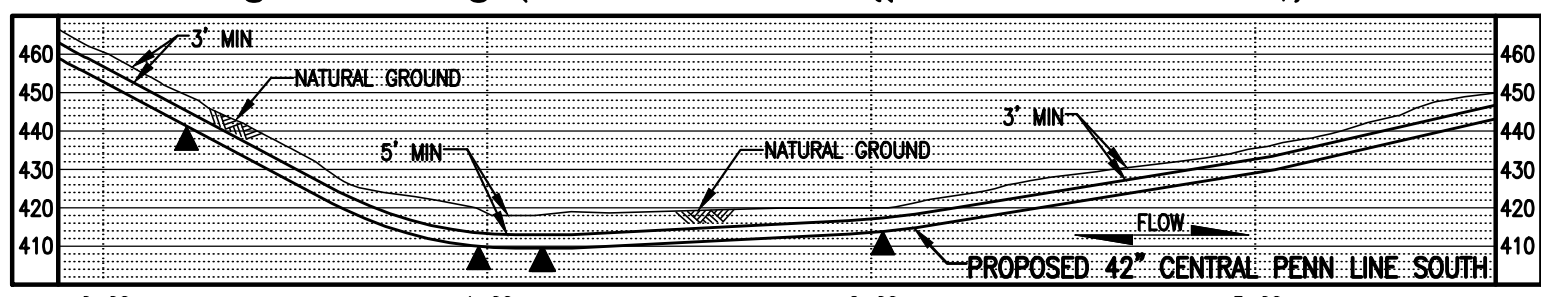
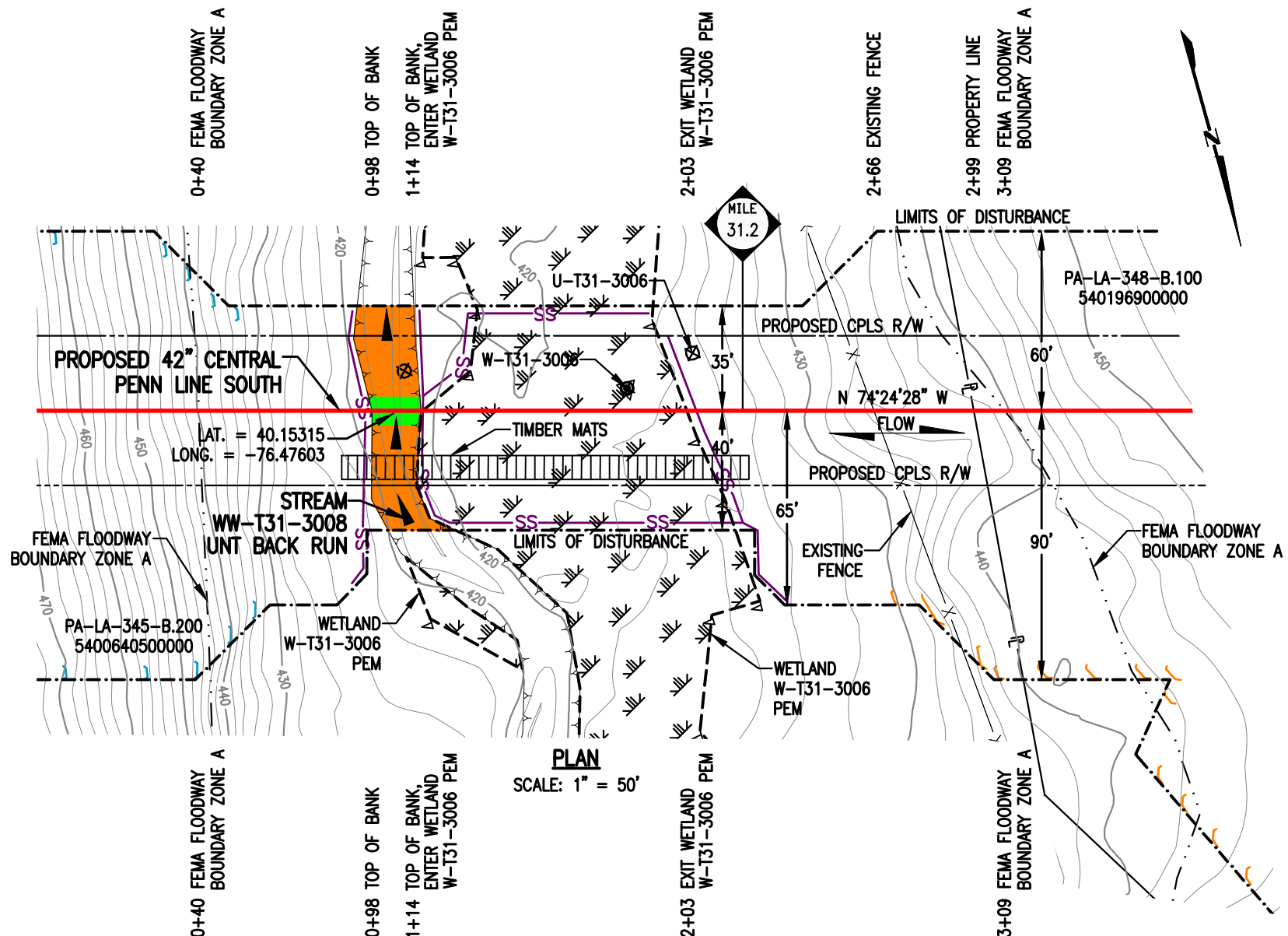
1. T.B.M. IRON ROD - 828' RT. OF M-0308 M.P. 0.07, ELEV. = 414.82' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		WETLAND DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT		UPLAND DATA POINT
	LIMITS OF DISTURBANCE		WELL POINT		TRENCH PLUG
	PROPOSED CPLS R/W		WATERBODY		12" SEDIMENT BARRIER
	PROPERTY LINE		TREE LINE		18" SEDIMENT BARRIER
	FOREIGN PIPELINE		FLOODWAY BOUNDARY		24" SEDIMENT BARRIER
	WETLAND AREA		FEMA FLOODWAY BOUNDARY		32" SEDIMENT BARRIER
	WETLAND AREA		TOP OF BANK		PERMANENT STREAM IMPACT
	STREAM FLOW		PERMANENT STREAM IMPACT		TEMPORARY STREAM IMPACT
	EXISTING POWER LINE				
	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-T31-3004 M-0308 M.P. 0.06 RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA	
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
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	SHEET 1	
W.O. NUMBER: 1161503		DATE: 9/30/2016	W.O. NO. nlu	OF 1	



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
	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		

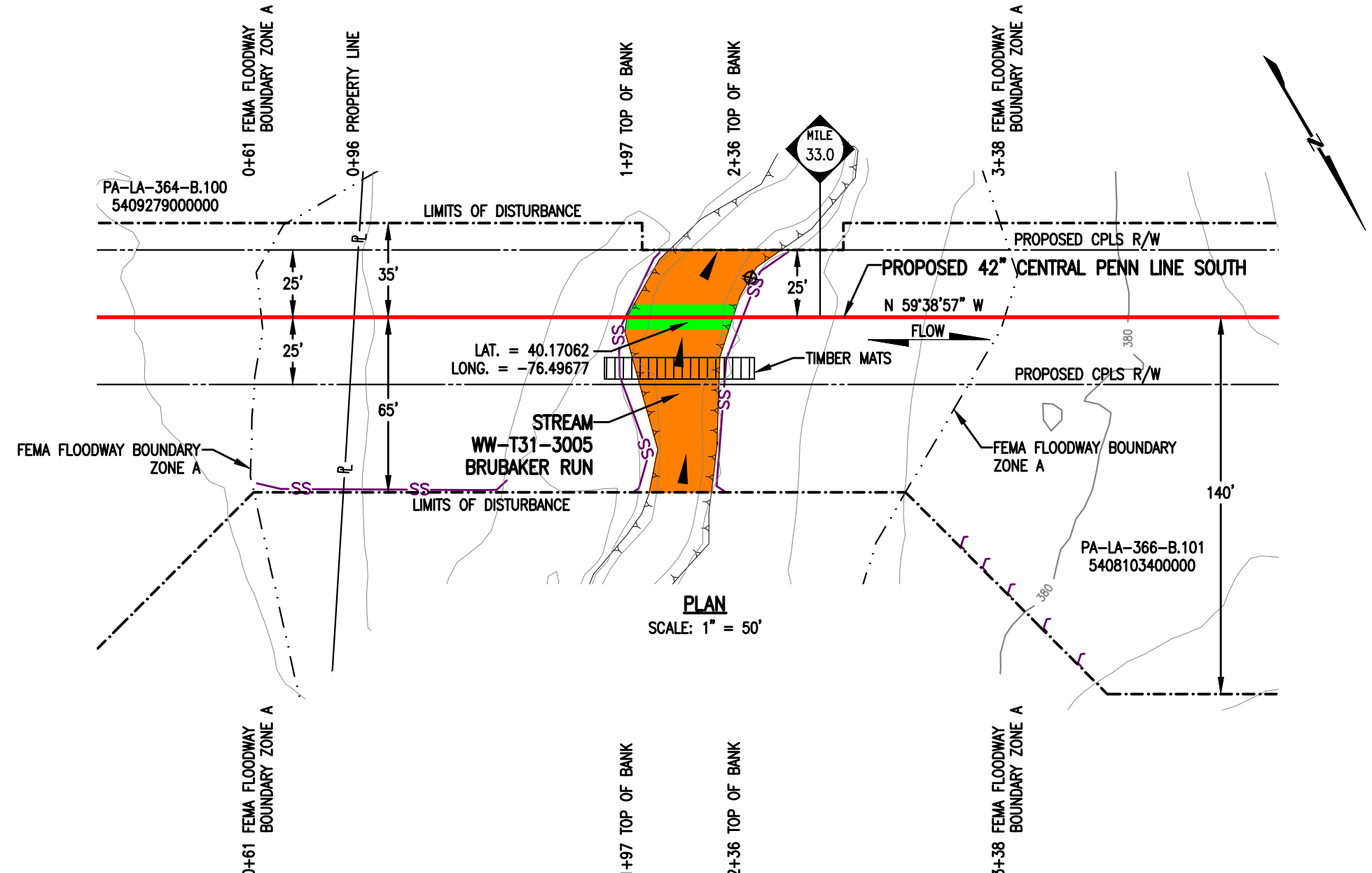
WOOD GROUP MUSTANG, INC.

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

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	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-T31-3008
© M.P. 31.18
RAPHO TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA

DRAWN BY: ET	DATE: 05/20/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 05/25/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/31.18-01	SHEET 1
IWO: 1161503		10/12/2016 nlu	OF 1

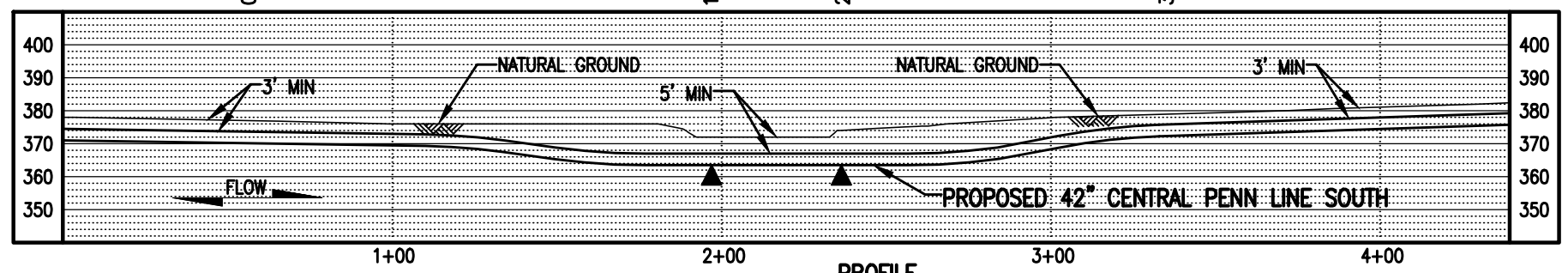


PLAN
SCALE: 1" = 50'

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



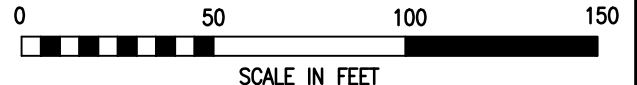
PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL

GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE FLUME (FX). 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 1740+71 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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



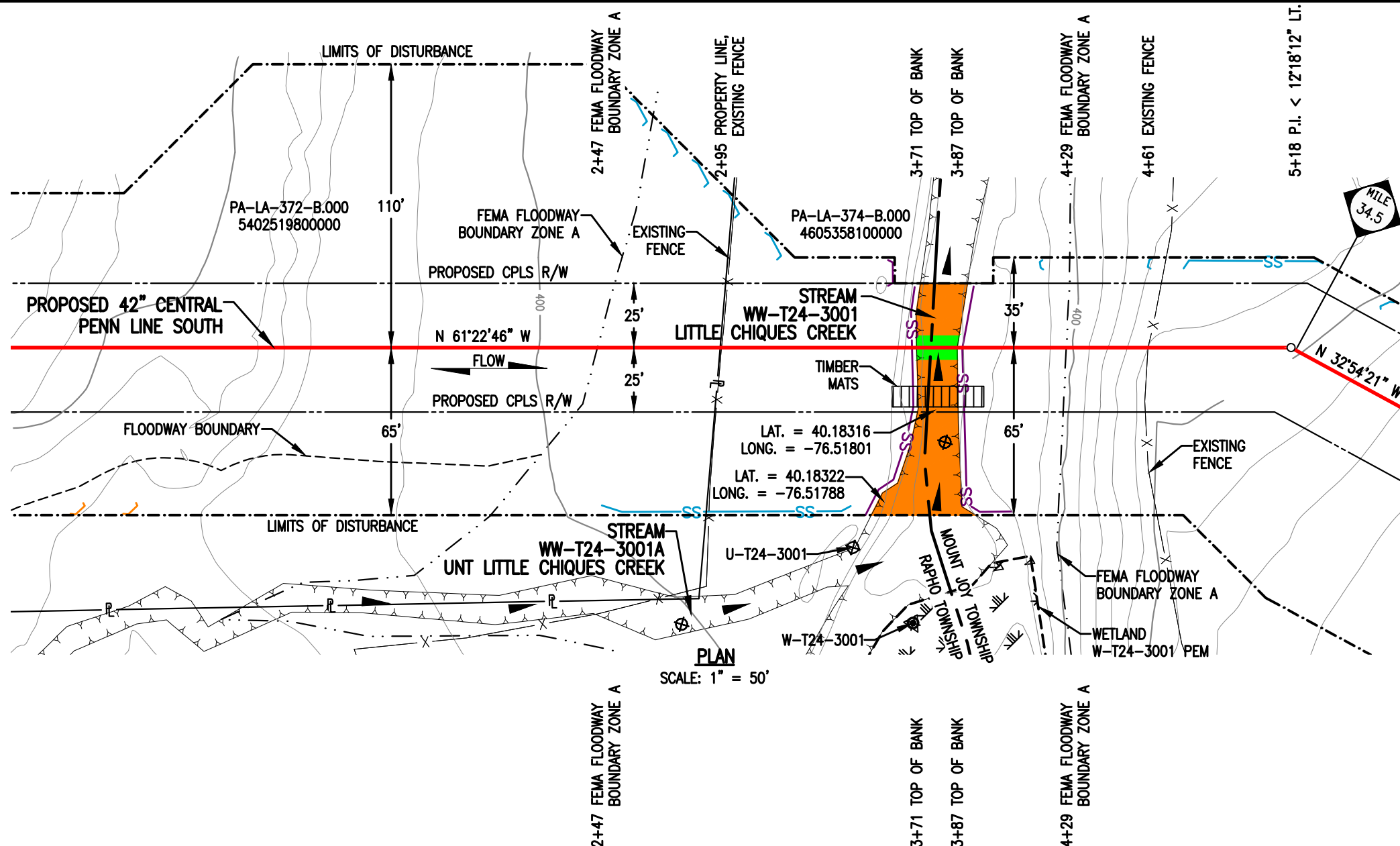
LEGEND

	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		

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	IWO: 1161503		3/28pm 9/30/2016 nlu	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

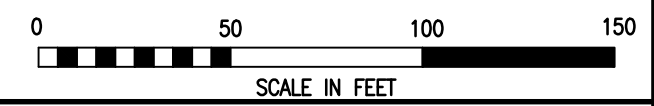
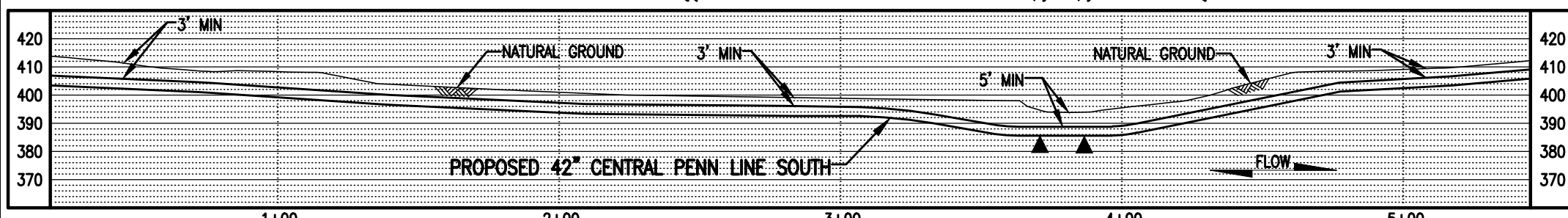
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	3.77
STREAM LENGTH	15.74

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		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 _____

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

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 10/16/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	07/31/15	CR	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: CLR	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/34.47-01	SHEET 1
2	11/05/16	KB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO: 1161503	DATE: 10/12/2016	3-35pm	OF 1



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 ¹	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 ¹	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

¹ 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

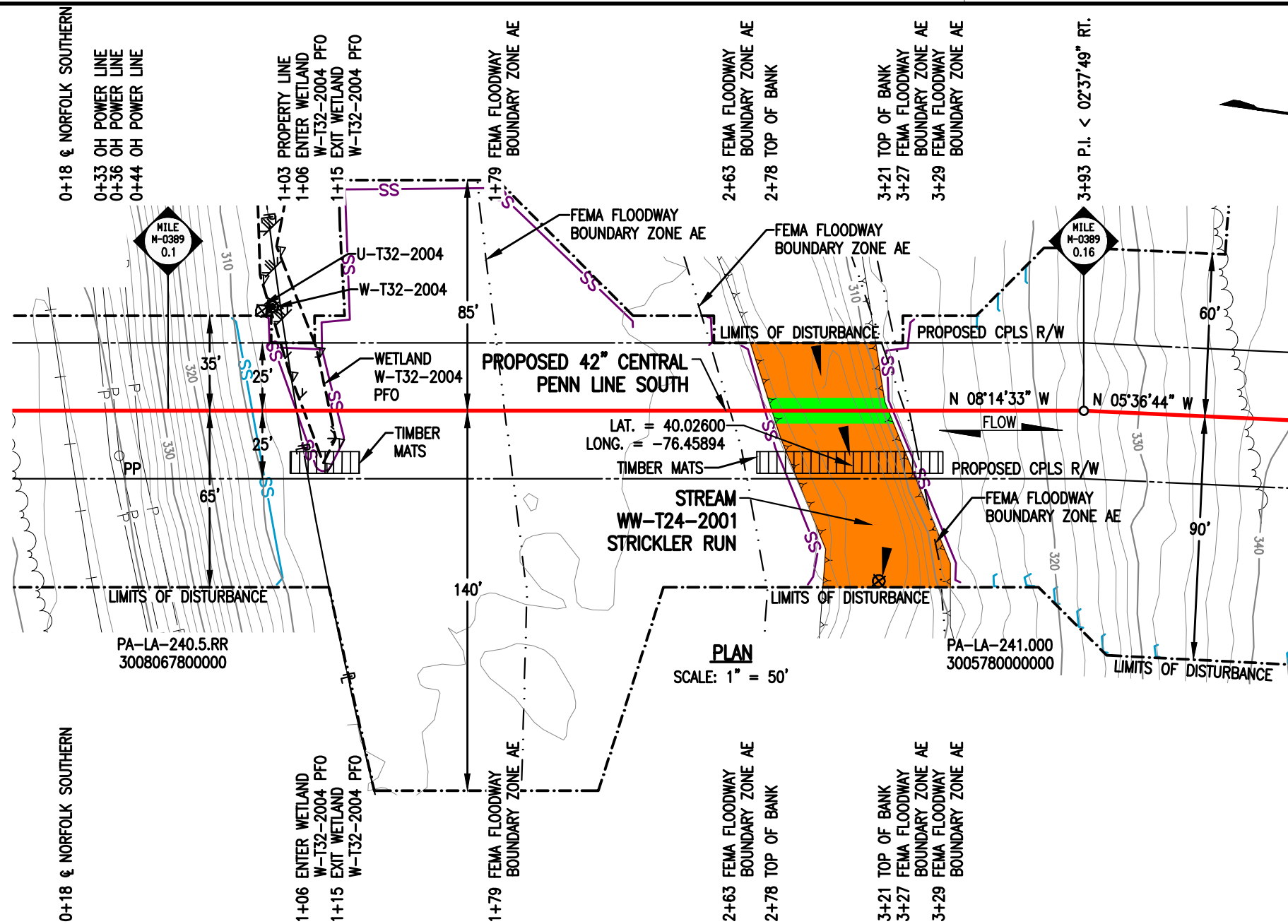
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



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

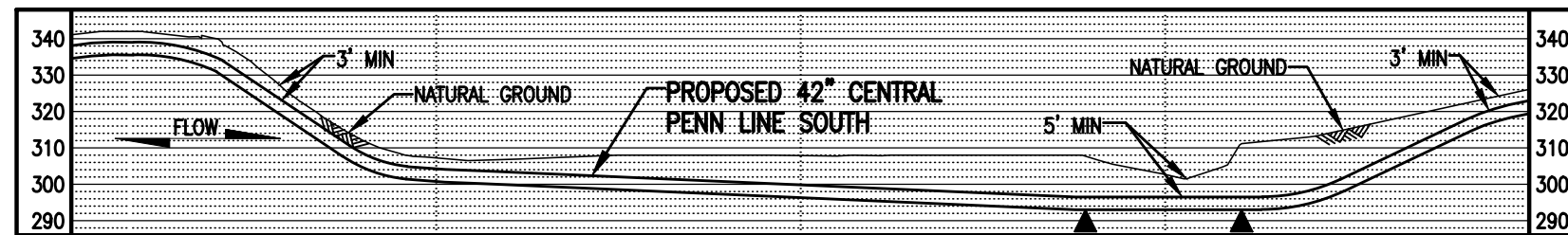
PLAN
SCALE: 1" = 50'

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).



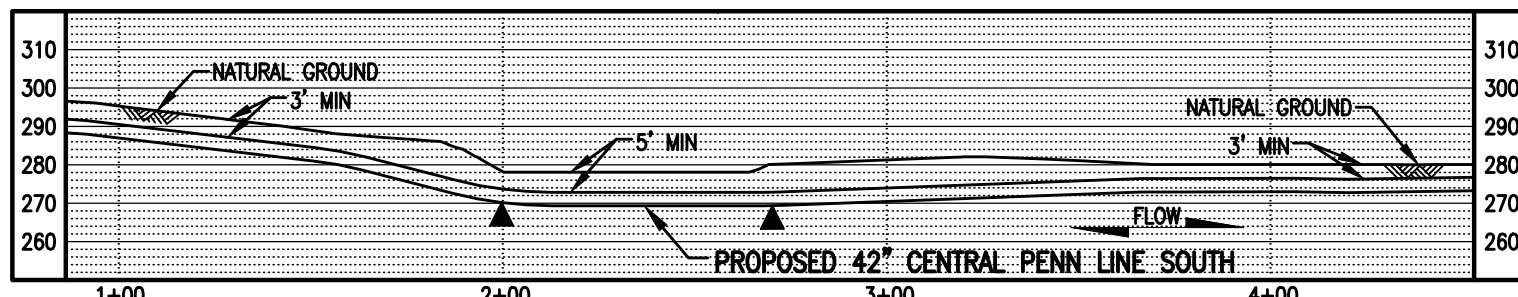
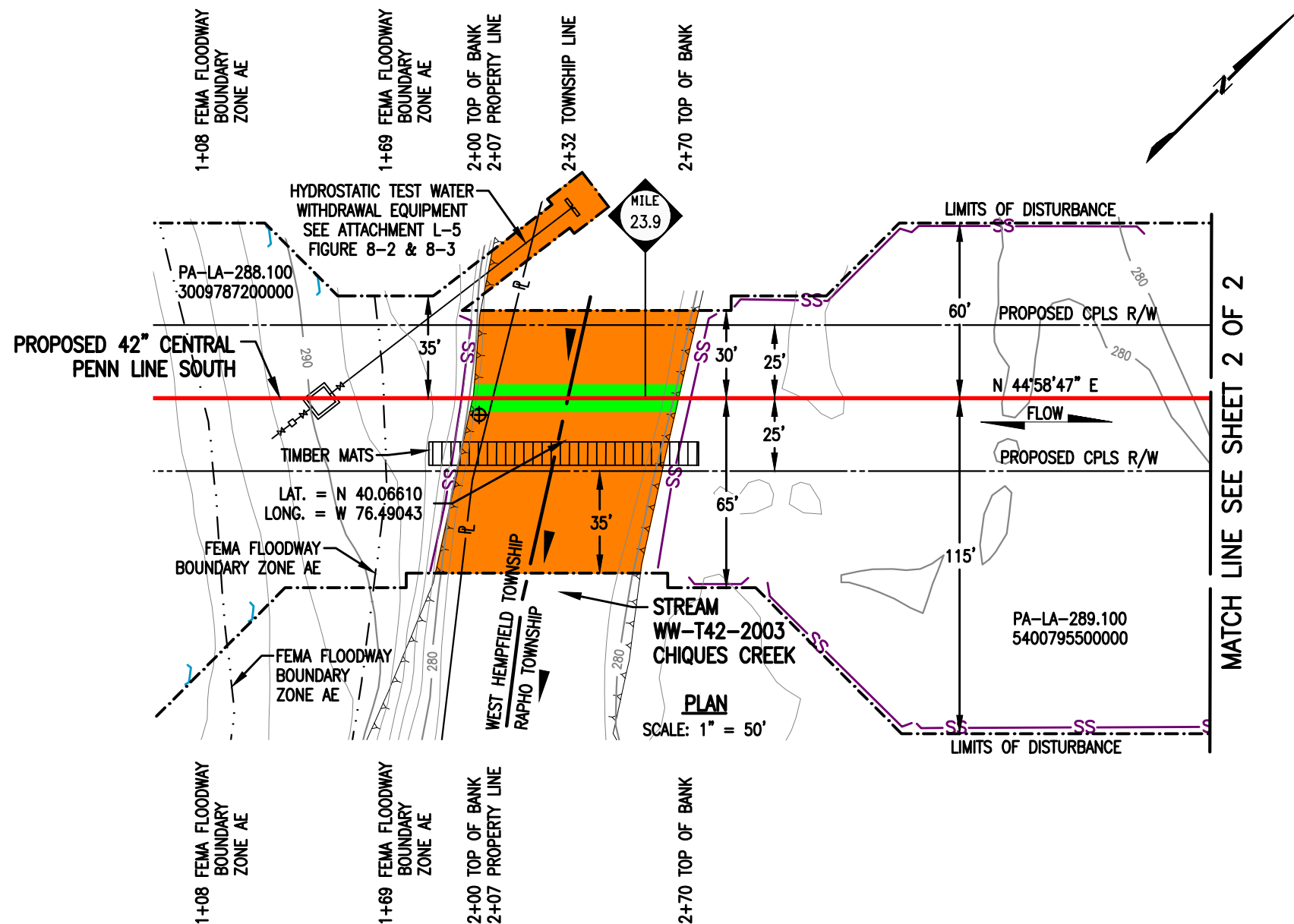
PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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		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: MH DATE: 06/29/15 ISSUED FOR BID:	SCALE: 1" = 50'
0	11/05/16	DLK	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR DATE: 06/30/16 ISSUED FOR CONSTRUCTION:	REVISION: 0
				APPROVED BY: MJH DATE: 07/06/16		DRAWING NUMBER: 24-1600-70-09-A/M-0389-0.14-01 SHEET 1 1:04pm nlu K:\03643-CPLS\Mapping\Waterbodies\CPLS_PAS\Revised 105\24-1600-70-09-A_M-0389-0.14-01.dwg OF 1		



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

STREAM DISTURBANCE:

STREAM WW-T42-2003	ACRE
TEMPORARY STREAM DISTURBANCE	0.1305
PERMANENT STREAM DISTURBANCE	0.0162
TOTAL STREAM DISTURBANCE	0.1467
TEMPORARY FLOODWAY DISTURBANCE	1.6261
PERMANENT FLOODWAY DISTURBANCE	0.1301
TOTAL FLOODWAY DISTURBANCE	1.7562

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	70.53
STREAM LENGTH	91.69

STREAM DISTURBANCE FOR HYDROSTATIC TEST WATER WITHDRAWAL EQUIPMENT:

STREAM WW-T42-2003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0124
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0124
TEMPORARY FLOODWAY DISTURBANCE	0.0038
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0038

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	70.53
STREAM LENGTH	52.09

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 2+00 SHOWN IS EQUAL TO STATION 1261+33 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. NO IN-STREAM DISTURBANCE WILL OCCUR AS HYDROSTATIC EQUIPMENT WILL BE PLACED ON STREAM BED.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 90' LT. OF M.P. 23.91, ELEV. = 280.88' (NAVD88).



LEGEND

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

DRAWING NO.		REFERENCE TITLE	

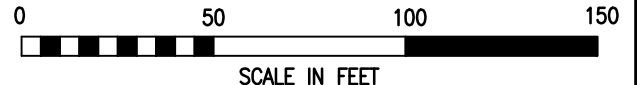
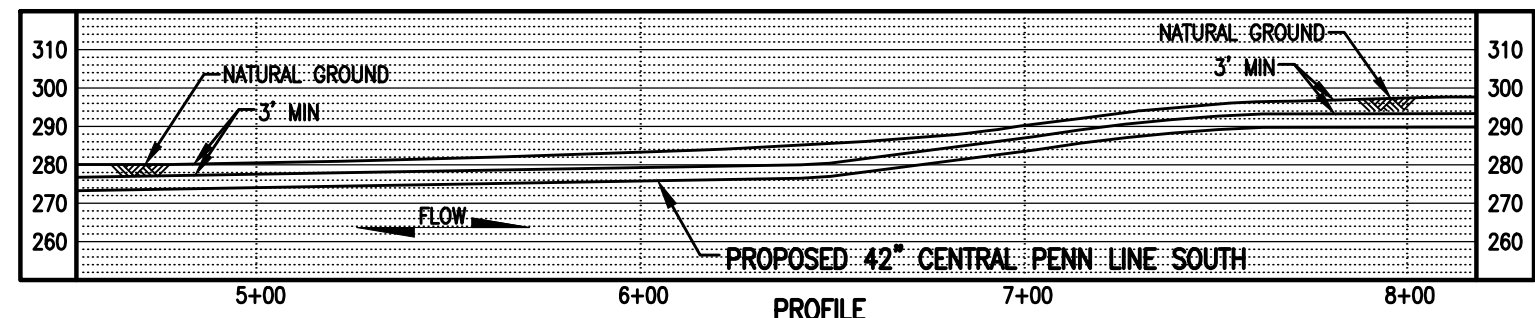
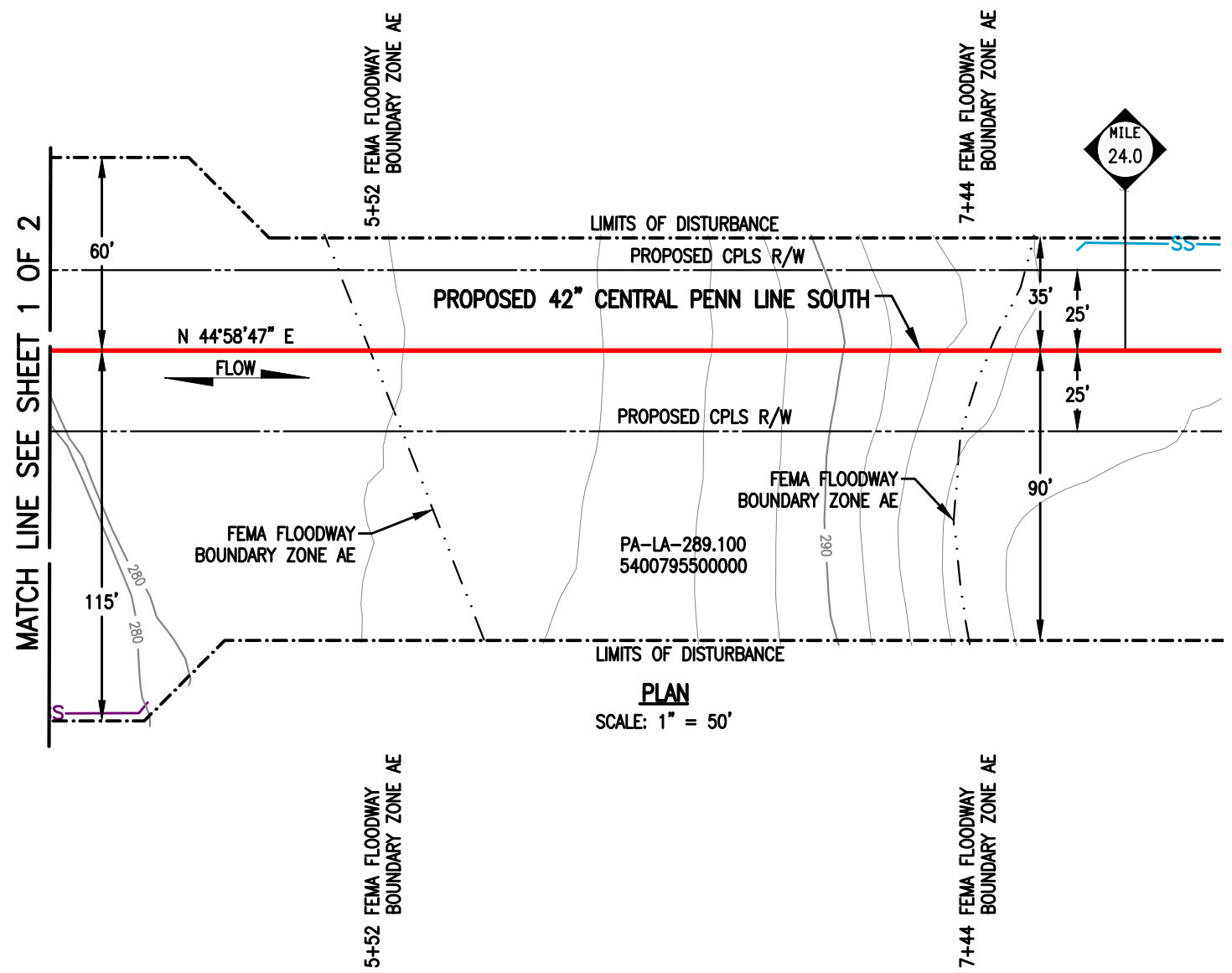
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T42-2003
© M.P. 23.89
WEST HEMPFIELD & RAPHO TOWNSHIPS, LANCASTER COUNTY, PENNSYLVANIA

Williams

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	06/27/15		1" = 50'
1	02/03/16	MF	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	JM	06/27/15		
2	11/05/16	BB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	MJH	06/05/15		

DRAWING NUMBER: **24-1600-70-09-A/23.90-01** SHEET 1 OF 2
 IWO: 1161503

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 2



LEGEND		WOOD GROUP MUSTANG, INC.	
	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

DRAWING NO.	REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	07/31/15	CR	ISSUED FOR PADEP 105 PERMIT	1161503	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

DRAWN BY: THL	DATE: 06/27/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: JM	DATE: 06/27/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/05/15	DRAWING NUMBER: 24-1600-70-09-A/23.90-01	SHEET 2 OF 2
IWO: 1161503		8:49am 10/13/2016 nlu	

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