

*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application
Transcontinental Gas Pipe Line Company, LLC
Columbia County*

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

*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application
Transcontinental Gas Pipe Line Company, LLC
Columbia County*

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.

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

*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application
Transcontinental Gas Pipe Line Company, LLC
Columbia 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 27, 2016

Cleveland Township
Floodplain Administrator
46 Jefferson Road
Elysburg, PA 17824

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

Cleveland Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
CLEVELAND TOWNSHIP, COLUMBIA 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-T45-11001	Floodway to South Branch Roaring Creek	FEMA Detailed	N/A	0.593	0.0073 ²	40.83992	-76.50717
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T47-11001	Floodway to UNT to South Branch Roaring Creek	FEMA Detailed ¹	N/A	0.2658	0.0262 ²	40.84917	-76.50304
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T44-11001	Floodway to South Branch Roaring Creek	FEMA Detailed ¹	N/A	0.5611	0.0492 ²	40.85479	-76.49852
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T04-11001	Floodway to Mugser Run	FEMA Detailed ¹	N/A	2.2649	0.1666 ²	40.87835	-76.48641

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.

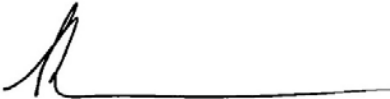
Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management, underground pipe installation, and temporary contractor staging area use 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 Cleveland Township review this analysis and, if applicable, provide comments to:

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

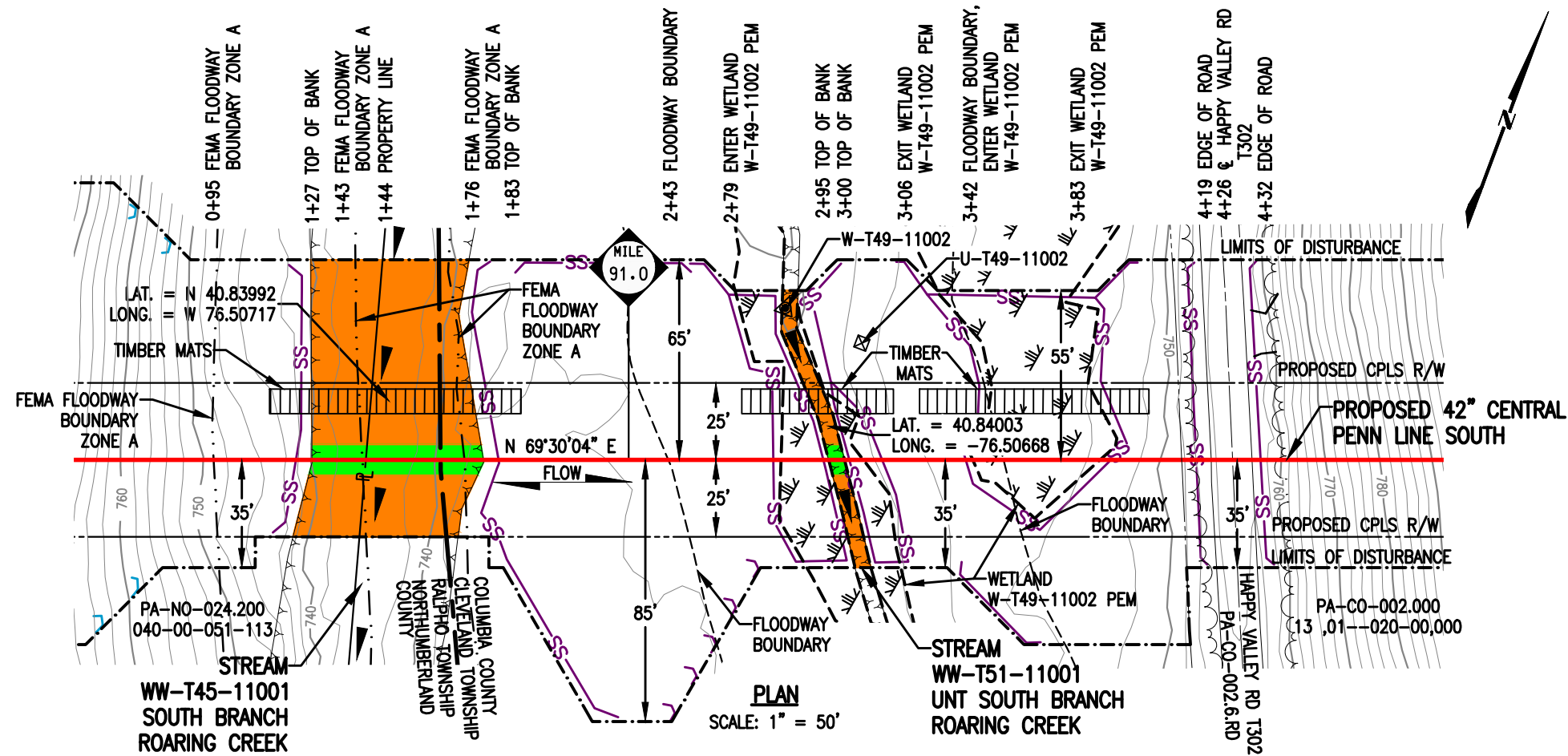
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,

A handwritten signature in black ink, appearing to be 'Alaric J. Busher', followed by a long horizontal line extending to the right.

Alaric J. Busher, PE
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



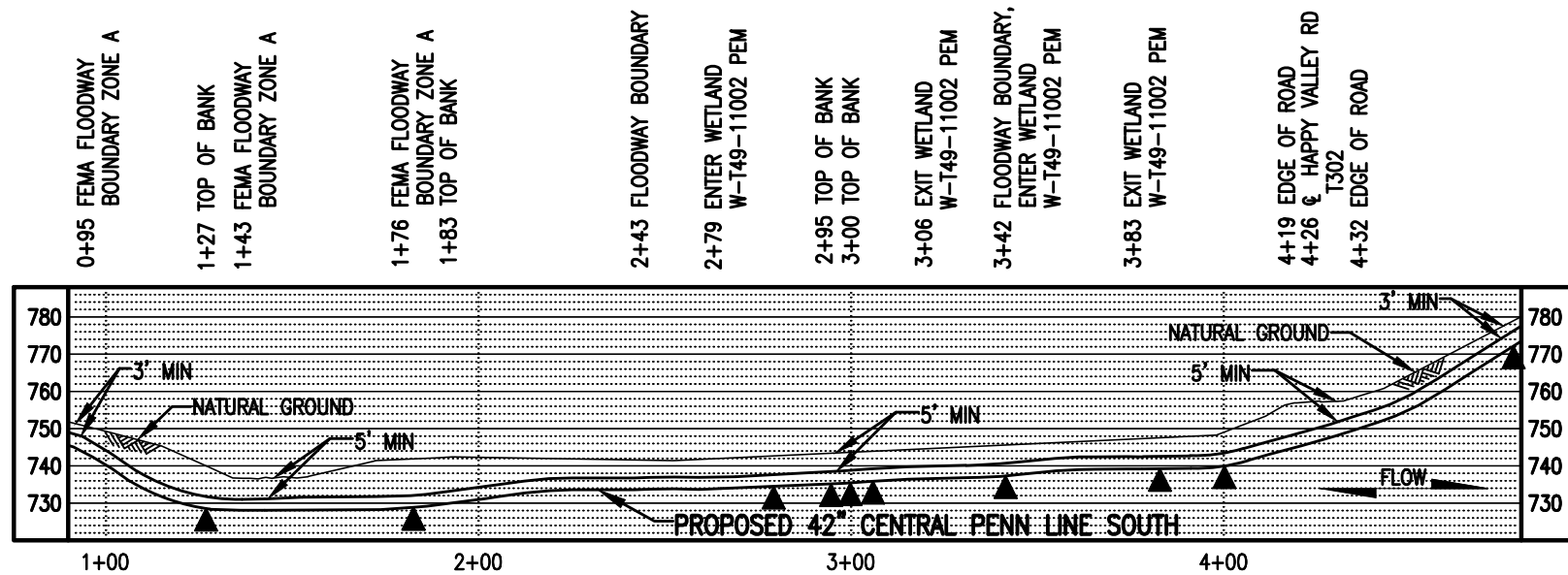
STREAM DISTURBANCE:

STREAM WW-T45-11001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0946
PERMANENT STREAM DISTURBANCE	0.0127
TOTAL STREAM DISTURBANCE	0.1073
TEMPORARY FLOODWAY DISTURBANCE	0.0593
PERMANENT FLOODWAY DISTURBANCE	0.0073
TOTAL FLOODWAY DISTURBANCE	0.0666

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	55.71
STREAM LENGTH	90.49

STREAM WW-T51-11001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0096
PERMANENT STREAM DISTURBANCE	0.0012
TOTAL STREAM DISTURBANCE	0.0108
TEMPORARY FLOODWAY DISTURBANCE	0.1860
PERMANENT FLOODWAY DISTURBANCE	0.0168
TOTAL FLOODWAY DISTURBANCE	0.2028

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.16
STREAM LENGTH	93.88

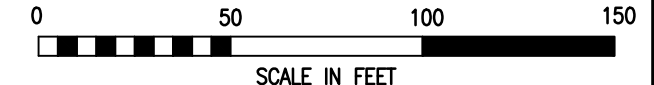


GENERAL NOTES:

1. STREAM CROSSING METHOD SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. 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. (PERTAINS TO STREAM WW-T51-11001)
3. THIS STREAM WW-T45-1101 IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 1+00 SHOWN IS EQUAL TO STATION 4803+50 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 79' RT. OF M.P. 90.98, ELEV. = 750.51' (NAVD88).



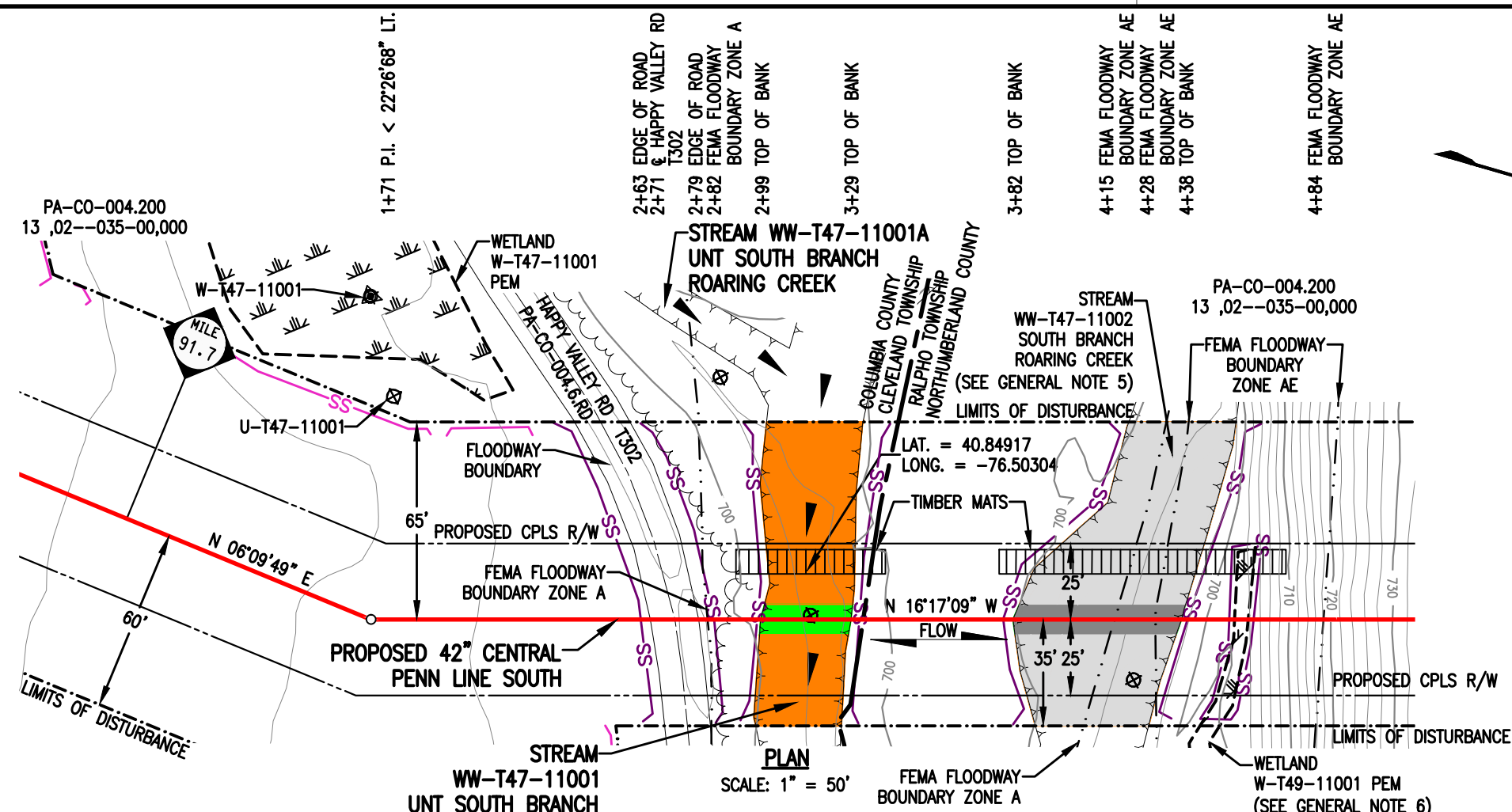
LEGEND

	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		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

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-T45-11001 @ M.P. 90.99 & WW-T51-11001 @ M.P. 91.01 CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA										
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	THL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: JM	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	03/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/90.99-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO: 1161503	DATE: 10/5/2016	11beosl	OF 1



STREAM DISTURBANCE:

STREAM WW-T47-11001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0614
PERMANENT STREAM DISTURBANCE	0.0068
TOTAL STREAM DISTURBANCE	0.0682
TEMPORARY FLOODWAY DISTURBANCE	0.2658
PERMANENT FLOODWAY DISTURBANCE	0.0262
TOTAL FLOODWAY DISTURBANCE	0.2920

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	29.75
STREAM LENGTH	100.52

STREAM WW-T47-11001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0220
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0220

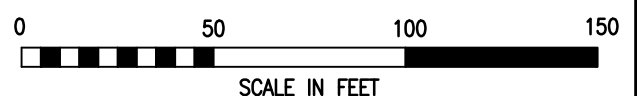
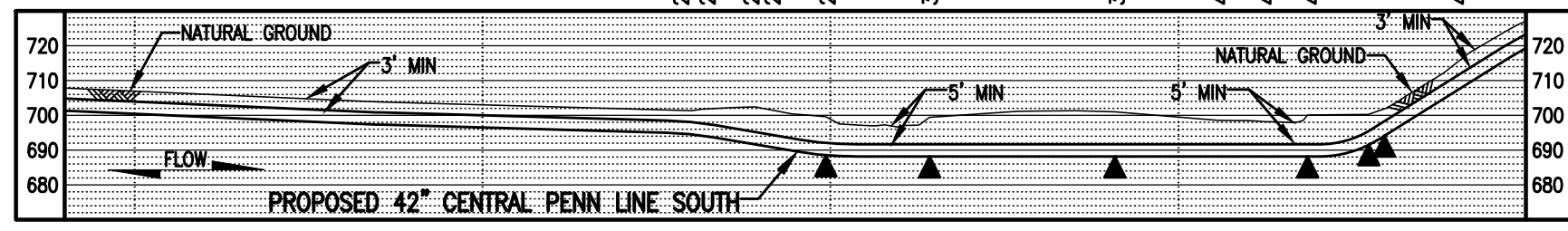
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T47-11001 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. STREAM WW-T47-11001A DOES NOT CROSS PROPOSED PIPELINE.
3. THIS SITE IS WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 2+00 SHOWN IS EQUAL TO STATION 4842+92 ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. IMPACT FOR STREAM WW-T47-11002 IS SHOWN ON DRAWING 24-1600-70-09-A/91.74-01 IN NORTHUMBERLAND PACKAGE.
6. IMPACT FOR WETLAND W-T49-11001 IS SHOWN ON DRAWING 24-1600-70-20-A/91.77 IN NORTHUMBERLAND PACKAGE.

SURVEY NOTES:

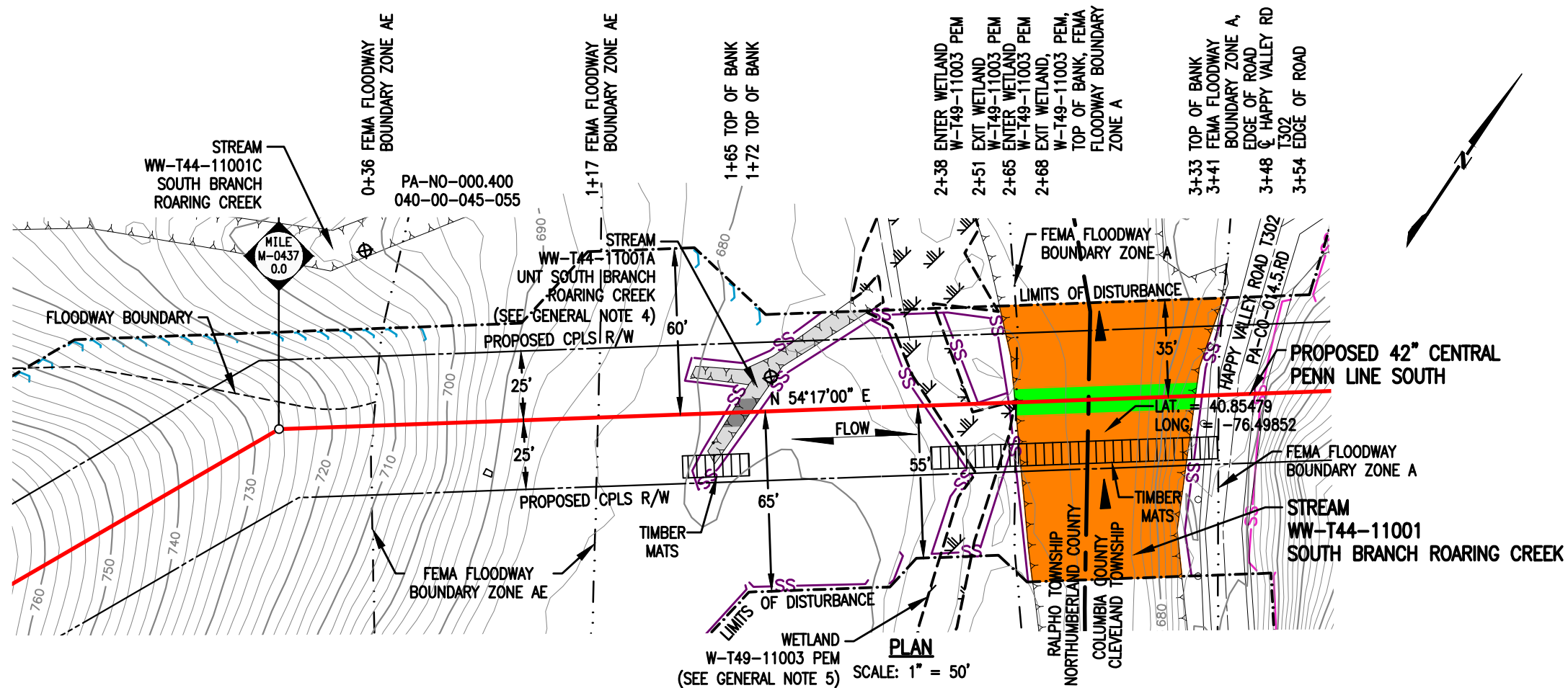
1. T.B.M. SURVEY CONTROL POINT - 21' LT. OF M.P. 91.77, ELEV. = 700.28' (NAVD88).



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				

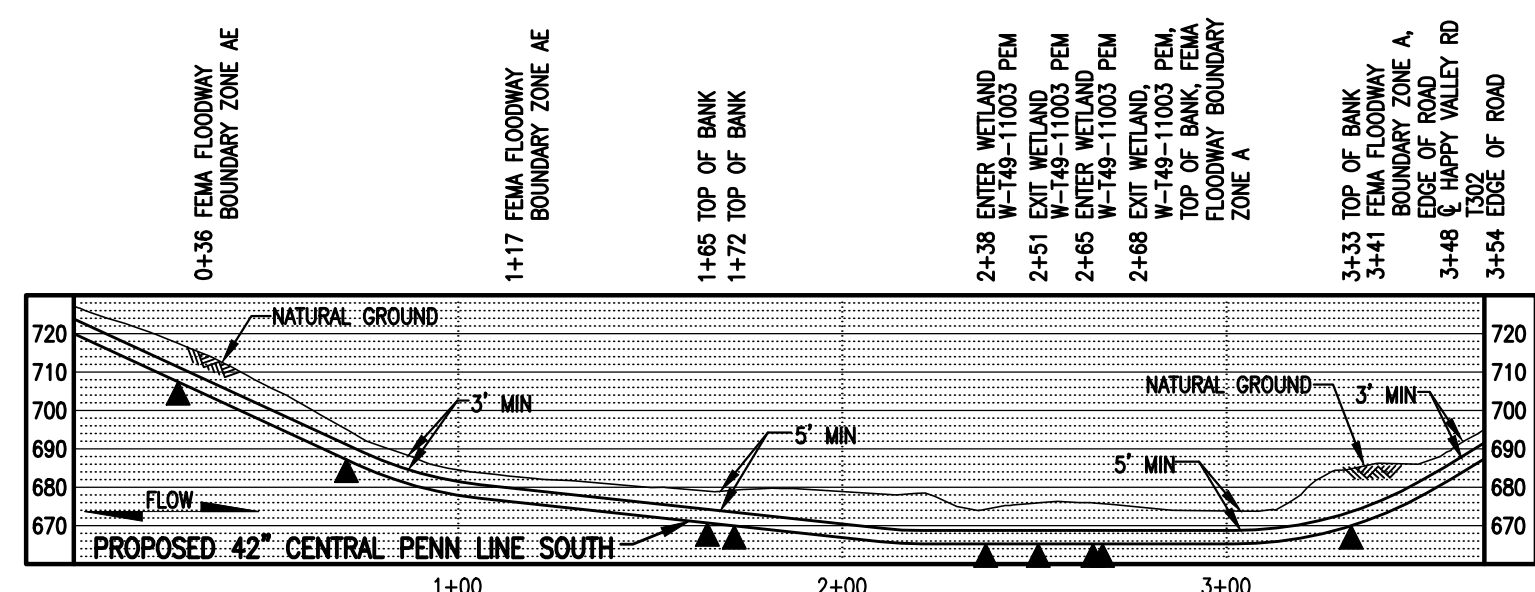
DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T47-11001A @ M.P. 91.73 & WW-T47-11001 @ M.P. 91.74 CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APPR.
0	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR MJH
DRAWN BY: PJM		DATE: 06/23/16	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: JM		DATE: 06/23/16	ISSUED FOR CONSTRUCTION:	REVISION: 0	
APPROVED BY: MJH		DATE: 06/23/16	DRAWING NUMBER: 24-1600-70-09-A/91.73-01	SHEET 1	
IWO: 1161503		9/30/2016 jlibeast		OF 1	



STREAM DISTURBANCE:

STREAM WW-T44-11001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.1294
PERMANENT STREAM DISTURBANCE	0.0150
TOTAL STREAM DISTURBANCE	0.1444
TEMPORARY FLOODWAY DISTURBANCE	0.5611
PERMANENT FLOODWAY DISTURBANCE	0.0492
TOTAL FLOODWAY DISTURBANCE	0.6103

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	65.13
STREAM LENGTH	100.10



GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T44-11001 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 M-0437 STATION 0+98 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. IMPACT FOR STREAM WW-T44-11001A IS SHOWN ON DRAWING NUMBER 24-1600-70-09-A/M-0437-0.03-01 IN NORTHUMBERLAND PACKAGE.
5. IMPACT FOR WETLAND W-T49-11003 IS SHOWN ON DRAWING 24-1600-70-20-A/M-0437-0.05-01 IN NORTHUMBERLAND PACKAGE.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 176' RT. OF M-0437 M.P. 0.00, ELEV. = 679.48' (NAVD88).



LEGEND

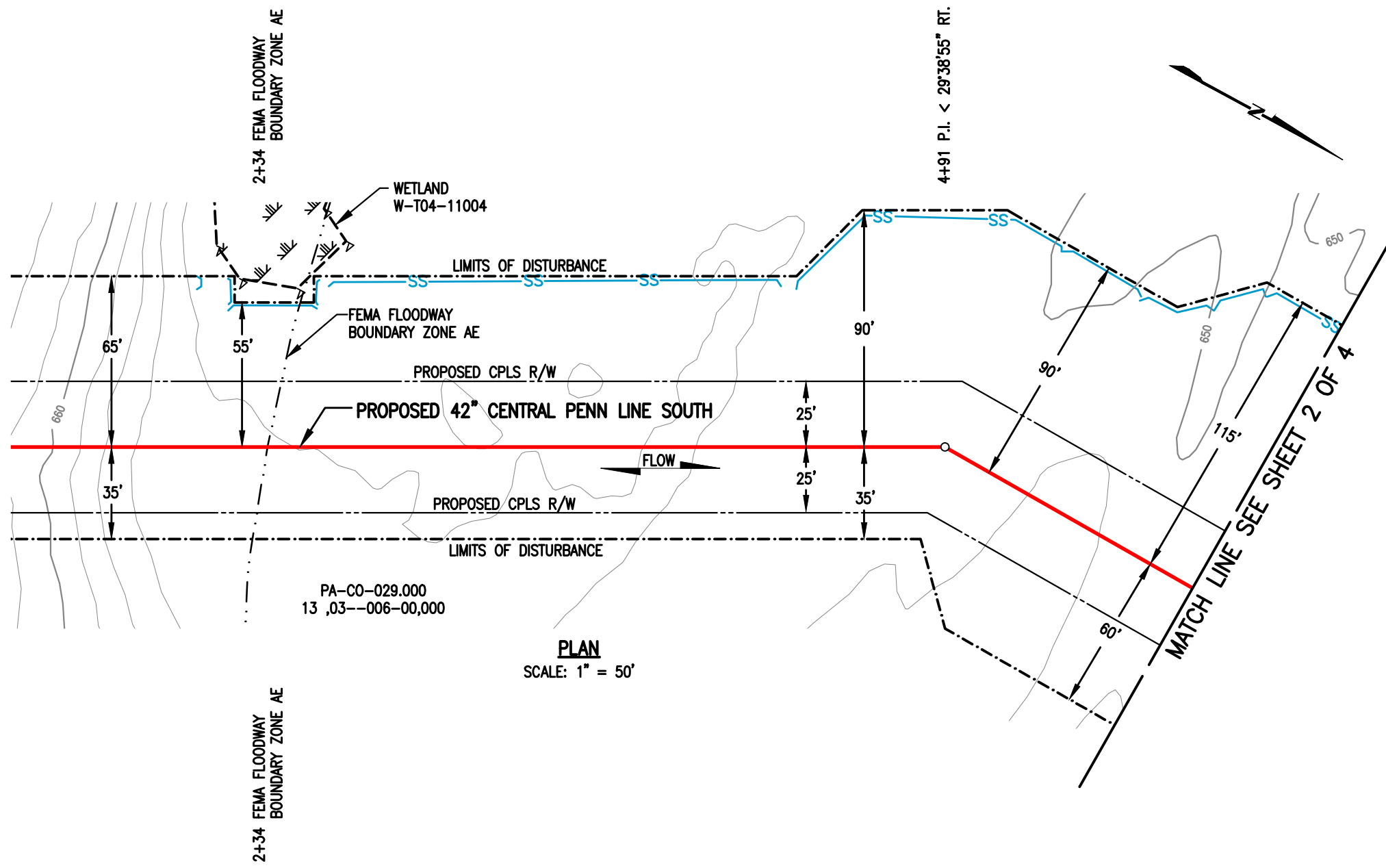
- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLS R/W
- P — PROPERTY LINE
- F — FOREIGN PIPELINE
- W — WETLAND AREA
- ▲ STREAM FLOW
- P — EXISTING POWER LINE
- X — EXISTING FENCE

WOOD GROUP MUSTANG, INC.

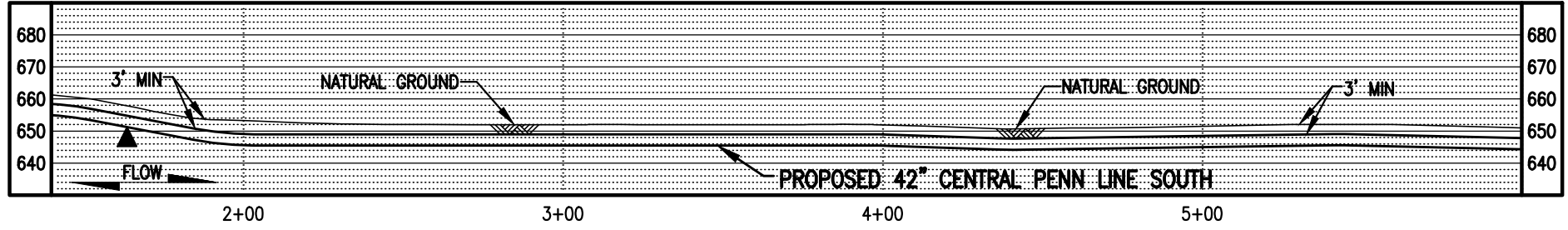
- SS 12" SEDIMENT BARRIER
- SS 18" SEDIMENT BARRIER
- SS 24" SEDIMENT BARRIER
- SS 32" SEDIMENT BARRIER
- Y — TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

- ▽ WETLAND FLAGS
- ⊗ PHOTO DATA POINT
- ⊠ WETLAND DATA POINT
- ⊡ UPLAND DATA POINT
- ☀ WELL POINT
- ▲ TRENCH PLUG
- W — WATERBODY
- T — TREE LINE
- - - FLOODWAY BOUNDARY
- - - FEMA FLOODWAY BOUNDARY

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-T44-11001 © M-0437 M.P. 0.06 CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 01/28/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 01/30/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 02/03/16	DRAWING NUMBER: 24-1600-70-09-A/M-0437-0.06-01 SHEET 1	
							W.O. NO.: 1161503	DRAWING NUMBER: 24-1600-70-09-A/M-0437-0.06-01		OF 1



PLAN
SCALE: 1" = 50'



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

STREAM DISTURBANCE:

STREAM WW-T04-11001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0455
PERMANENT STREAM DISTURBANCE	0.0065
TOTAL STREAM DISTURBANCE	0.0520
TEMPORARY FLOODWAY DISTURBANCE	2.2043
PERMANENT FLOODWAY DISTURBANCE	0.1666
TOTAL FLOODWAY DISTURBANCE	2.3709

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	28.07
STREAM LENGTH	95.65

STREAM WW-T04-11001A (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0070
PERMANENT STREAM DISTURBANCE	0.0030
TOTAL STREAM DISTURBANCE	0.0100
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

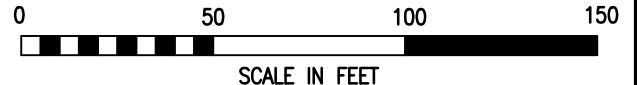
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	13.94
STREAM LENGTH	44.79

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T04-11001 & WW-T04-11001A 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 4979+84 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 27' RT. OF M.P. 94.42, ELEV. = 650.74' (NAVD88).

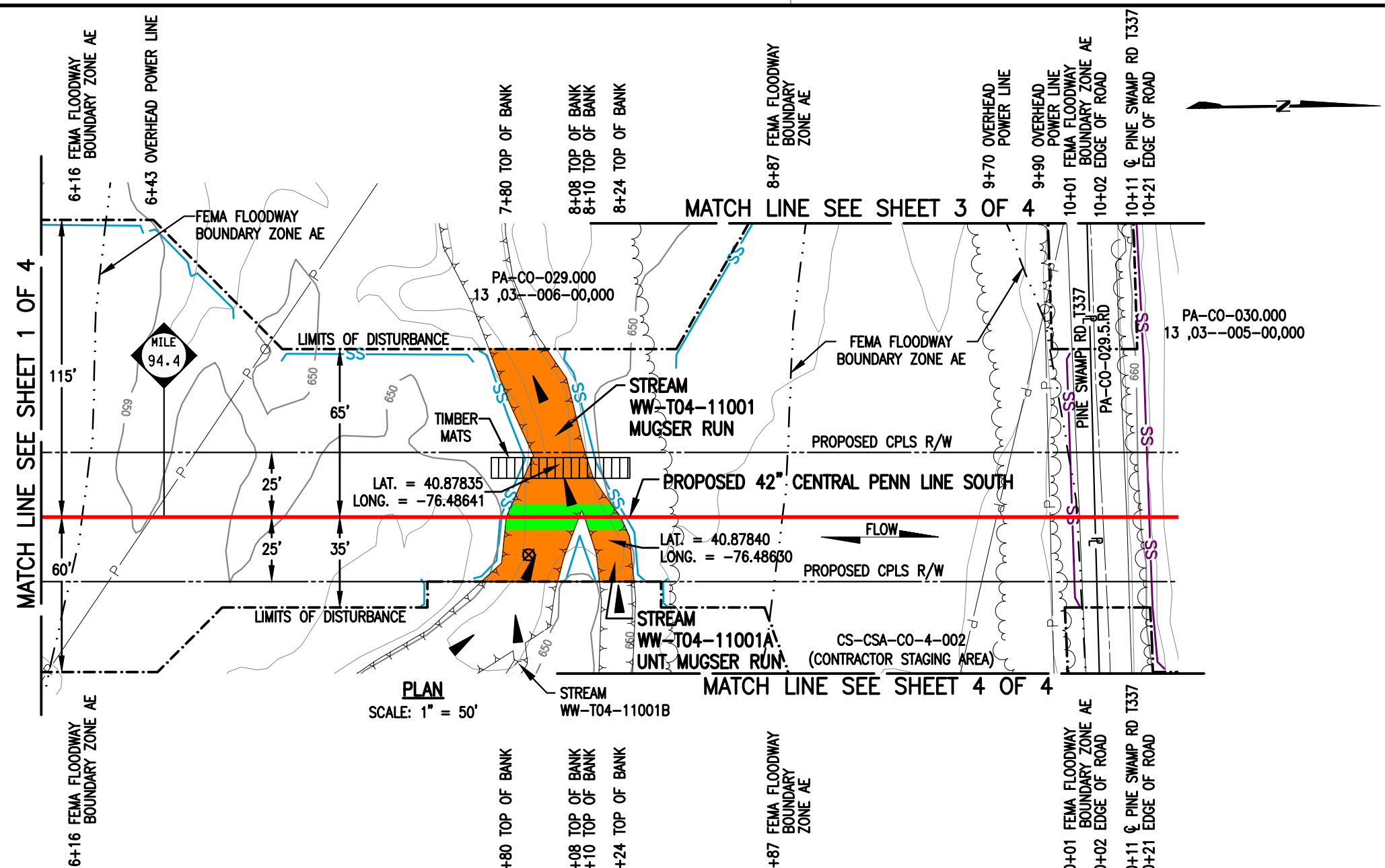


LEGEND

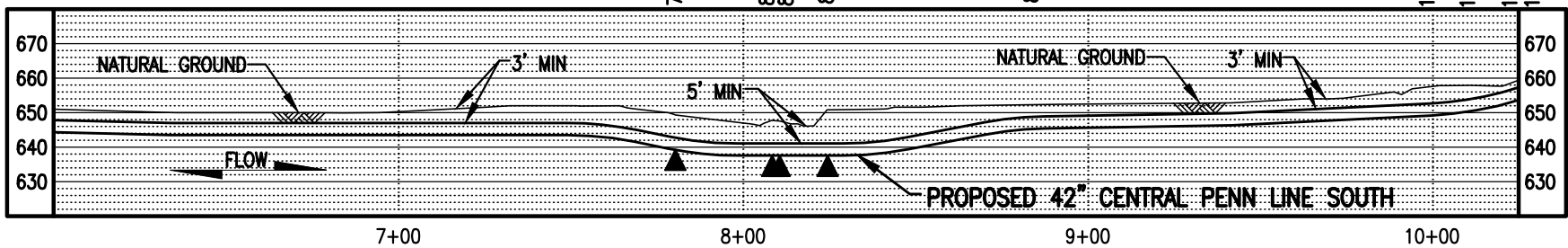
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT 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-T04-11001, WW-T04-11001A © M.P. 94.43 CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APP.
0	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR MJH
DRAWN BY: MH		DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: CLR		DATE: 05/20/15	ISSUED FOR CONSTRUCTION:	REVISION: 0	
APPROVED BY: MJH		DATE: 08/04/15	DRAWING NUMBER: 24-1600-70-09-A/94.43-01	SHEET 1	
IWO: 1161503			9/30/2016 jlibeast	OF 4	

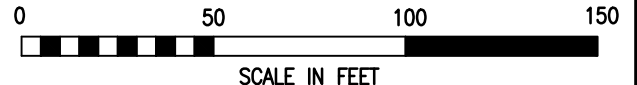
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 4



PLAN
SCALE: 1" = 50'



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



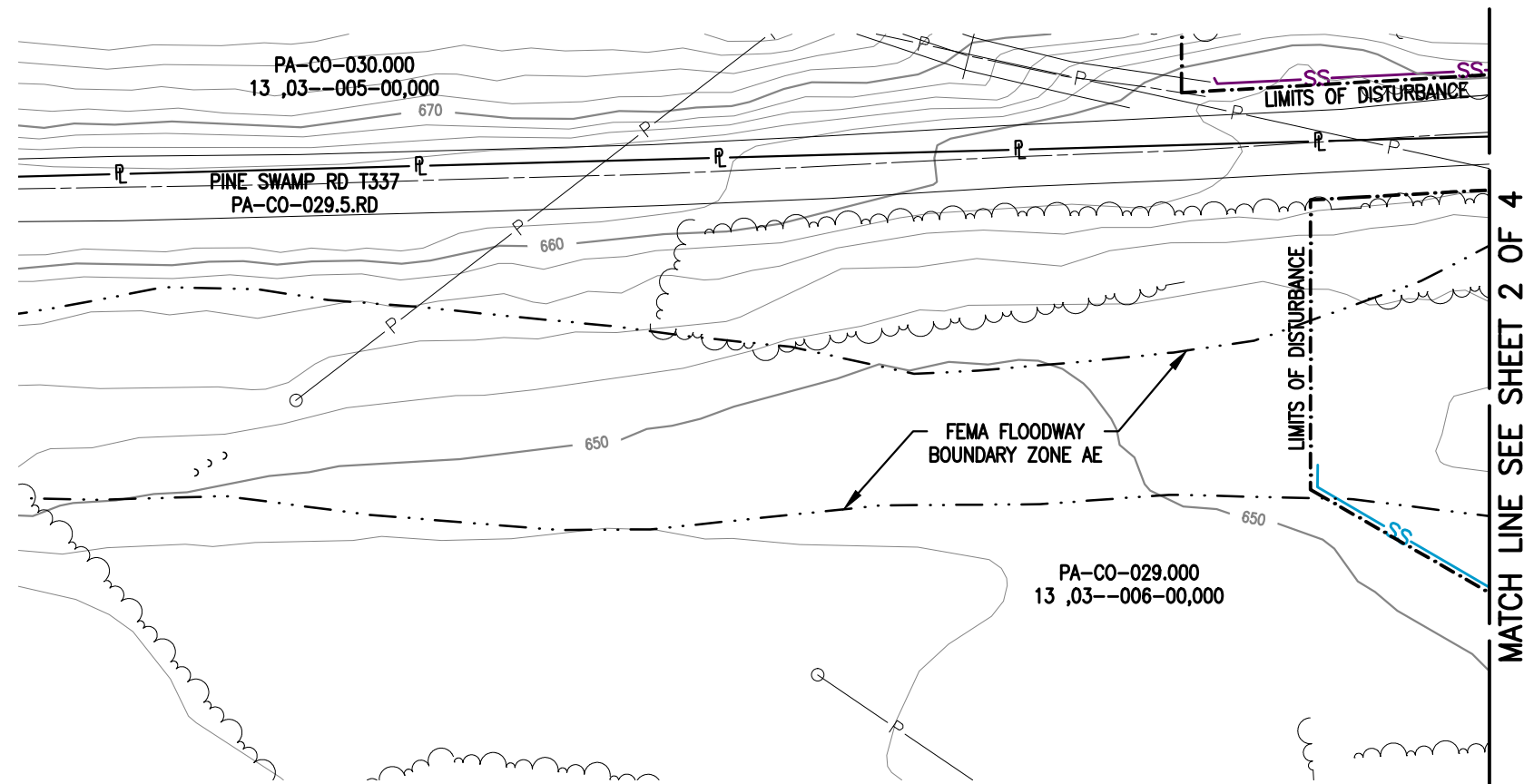
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	LN	ISSUED FOR INTERNAL USE
2	10/25/16	AT	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 CROSSINGS WW-T04-11001, WW-T04-11001A
© M.P. 94.43
CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: MH	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 05/20/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 08/04/15	DRAWING NUMBER: 24-1600-70-09-A/94.43-01	SHEET 2
WO: 1161503		10/5/2016 jlibeast	OF 4

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 4



MATCH LINE SEE SHEET 2 OF 4



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

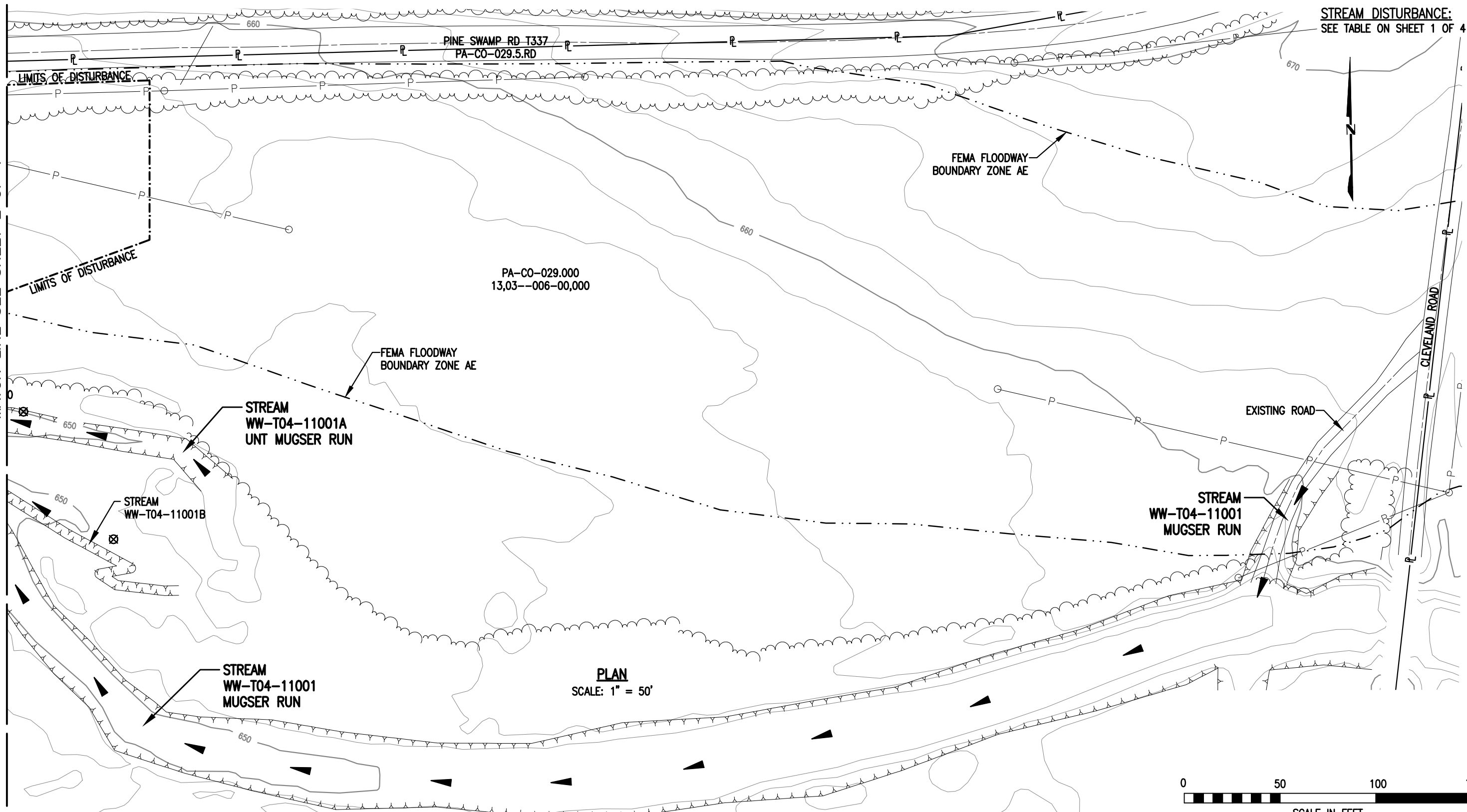
DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

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-T04-11001, WW-T04-11001A
M.P. 94.43
CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

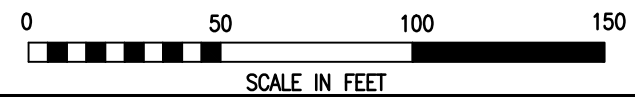
DRAWN BY: MH	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 05/20/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 08/04/15	DRAWING NUMBER: 24-1600-70-09-A/94.43-01	SHEET 3
IWO: 1161503		10/5/2016 jlibeasl	OF 4

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 4

MATCH LINE SEE SHEET 2 OF 4



PLAN
SCALE: 1" = 50'



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
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT
1	10/25/16	AT	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 CROSSINGS WW-T04-11001, WW-T04-11001A
 M.P. 94.43
 CLEVELAND TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: MH	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 05/20/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 08/04/15	DRAWING NUMBER: 24-1600-70-09-A/94.43-01	SHEET 4
WO: 1161503		10/5/2016 jlibeasl	OF 4



October 27, 2016

Franklin Township
Floodplain Administrator
313 Mt. Zion Road
Catawissa, PA 17820

Re: Atlantic Sunrise Project
Central Penn Line South
Franklin Township, Luzerne 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 57.3 miles of new 30-inch-diameter pipe from Susquehanna County, PA to Columbia County, PA.
- Installing greenfield pipeline facilities of approximately 125.2 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;
 - 2.92 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 Franklin Township is provided below for your review and comment.

Franklin Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
FRANKLIN TOWNSHIP, COLUMBIA 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-T35-11001	Floodway to Roaring Creek	FEMA Detailed ¹	N/A	1.4601	0.1372 ²	40.89862	-76.48735
Temporary Water Withdrawal	Equipment Access and E&S Controls	WW-RS-99108	Floodway to Susquehanna Riverk	FEMA Detailed	N/A	0.2046	0.00	40.95352	-76.46625

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 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 Franklin 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.

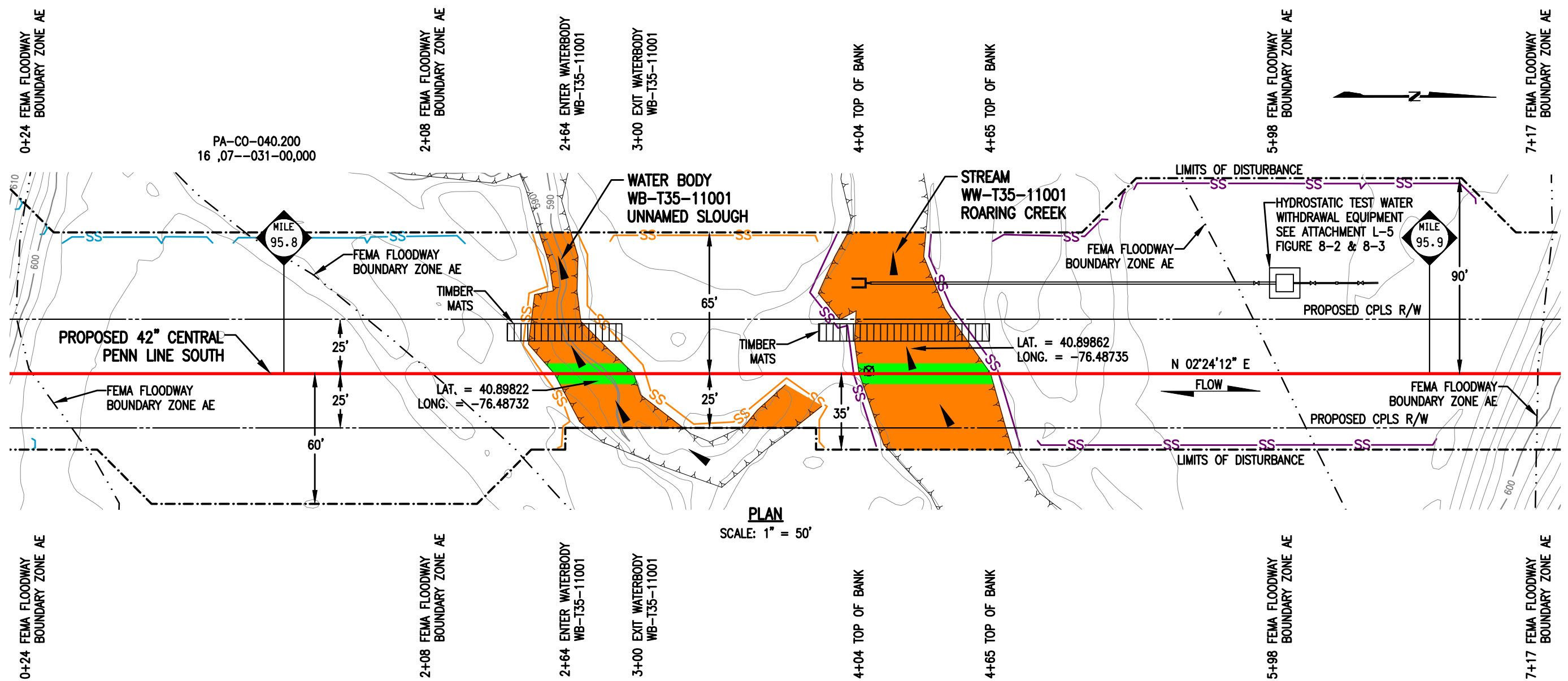
Sincerely,



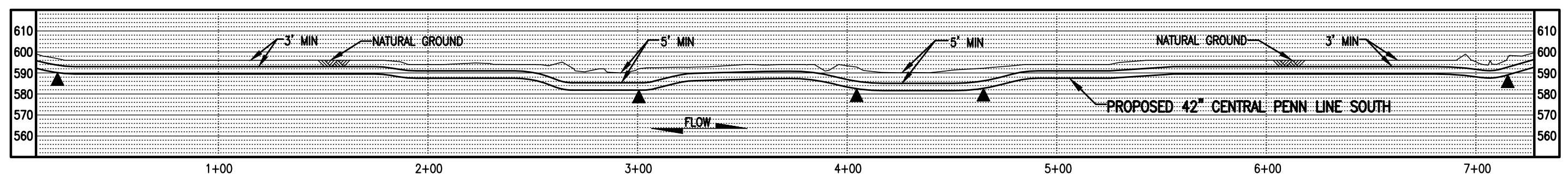
Alaric J. Busher, PE
Senior Engineer

Franklin Township
October 27, 2016
BL Project No. 14C4909
Page 2 of 3

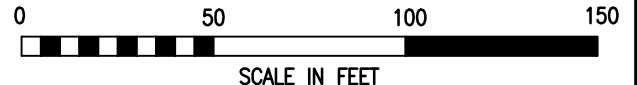
Enclosures: Water Obstruction and Encroachment Permit Impact Maps



PLAN
SCALE: 1" = 50'



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



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	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	08/20/15	AKB	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	10/25/16	AT	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 WB-T35-11001 @ M.P. 95.83
WW-T35-11001 @ M.P. 95.85
FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: LL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/95.85-01	SHEET 1
WO: 1161503			OF 2

STREAM DISTURBANCE:

POND WB-T35-11001	ACRE
TEMPORARY POND DISTURBANCE	0.0554
PERMANENT POND DISTURBANCE	0.0083
TOTAL POND DISTURBANCE	0.0637
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

POND DIMENSION	FT.
POND WIDTH (TOB TO TOB)	36.56
POND LENGTH	195.14

STREAM WW-T35-11001	ACRE
TEMPORARY STREAM DISTURBANCE	0.1072
PERMANENT STREAM DISTURBANCE	0.0137
TOTAL STREAM DISTURBANCE	0.1209
TEMPORARY FLOODWAY DISTURBANCE	1.4504
PERMANENT FLOODWAY DISTURBANCE	0.1372
TOTAL FLOODWAY DISTURBANCE	1.5876

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	60.50
STREAM LENGTH	107.41

GENERAL NOTES:

- CROSSING METHOD FOR POND WB-T35-11001 SHALL BE DAM AND PUMP (DPX) AND FOR STREAM WW-T35-11001 SHALL BE DAM AND PUMP (DPX). 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 2+00 SHOWN IS EQUAL TO STATION 5058+85 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

- T.B.M. SURVEY CONTROL POINT - 19' RT. OF M.P. 95.83, ELEV. = 593.61' (NAVD88).



LEGEND

	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	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 FENCE		FEMA FLOODWAY BOUNDARY		

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

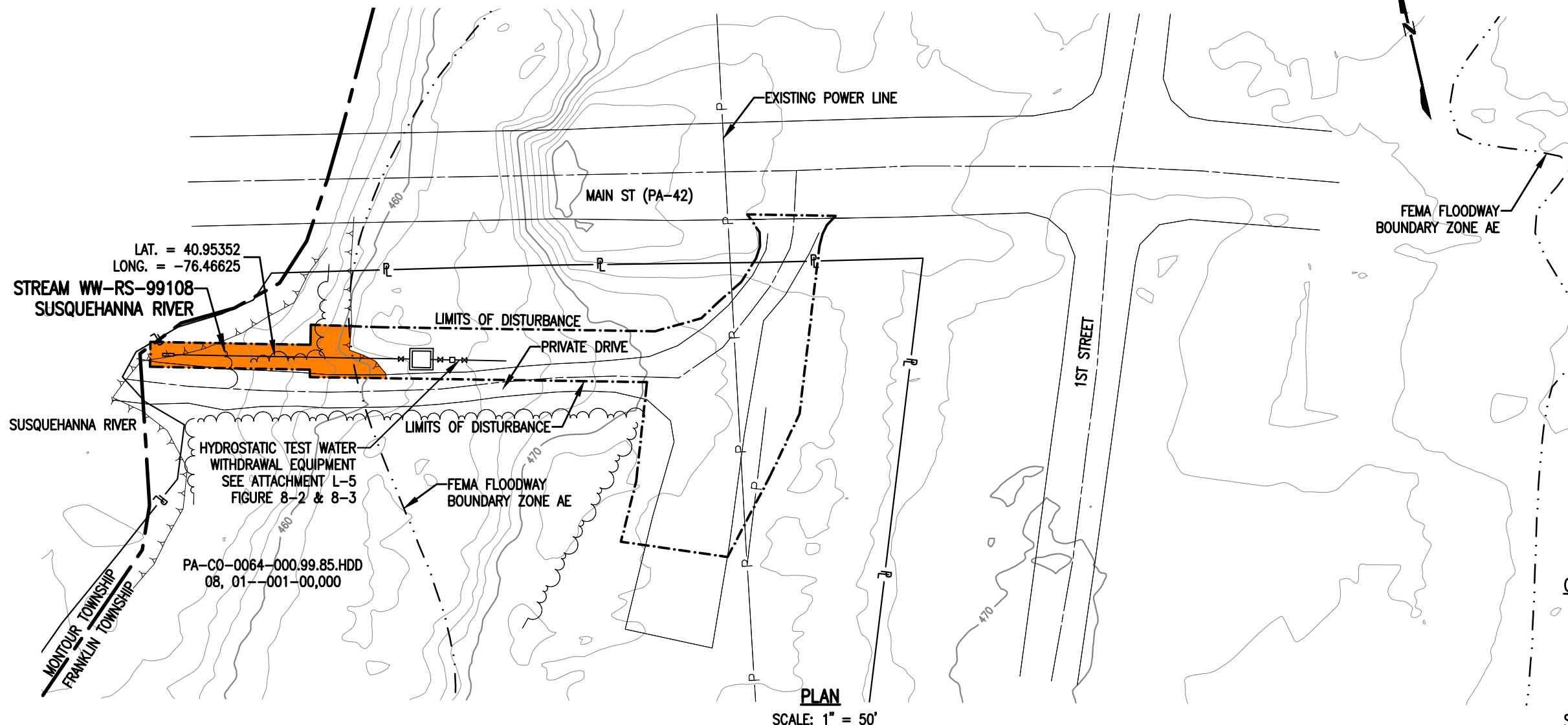
DRAWING NO.		REFERENCE TITLE	

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC			
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS			
ATLANTIC SUNRISE PROJECT			
PROPOSED 42" CENTRAL PENN LINE SOUTH			
STREAM CROSSINGS WB-T35-11001 @ M.P. 95.83			
WW-T35-11001 @ M.P. 95.85			
FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: LL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: NONE
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: ML	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/95.85-01	SHEET 2
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	W.O. NO.: 1161503	DATE: 9/30/2016	12:17pm	OF 2

STREAM DISTURBANCE FOR HYDROSTATIC TEST WATER WITHDRAWAL EQUIPMENT:

STREAM WW-RS-99108	ACRE
TEMPORARY STREAM DISTURBANCE	0.0250
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0250
TEMPORARY FLOODWAY DISTURBANCE	0.2046
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.2046
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	21.07
STREAM LENGTH	95.01

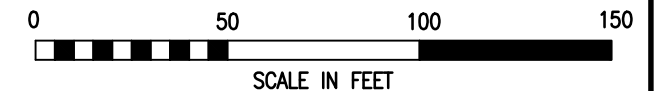


GENERAL NOTES:

1. THIS STREAM DOES NOT CROSS PIPELINE.
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 26' LT. OF M.P. 99.84, ELEV. = 466.22' (NAVD88).



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
			12" SEDIMENT BARRIER
			18" SEDIMENT BARRIER
			24" SEDIMENT BARRIER
			32" SEDIMENT BARRIER
			TOP OF BANK

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-99108 M.P. 99.63 FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2
W.O. NO.	CHK.	APP.	DRAWN BY: JB
1161503	CLR	MJH	DATE: 09/23/16
			ISSUED FOR CONSTRUCTION:
			SCALE: 1" = 50'
			REVISION: 0
			DRAWING NUMBER: 24-1600-70-09-A/99.63-01 SHEET 1
			OF 1
			W.O. NUMBER: 1161503



October 27, 2016

Greenwood Township
Floodplain Administrator
90 Shed Road
Millville, PA 17846

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

Greenwood Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
GREENWOOD TOWNSHIP, COLUMBIA 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-T21-13001	Floodway to Mud Run	FEMA Detailed	N/A	0.6618	0.0670 ¹	41.11986	-76.45089
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T21-13001A	Floodway to UNT to Mud Run	FEMA Detailed	N/A	1.2988	0.1036 ¹	41.12093	-76.44939
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T16-14003	Floodway to Little Green Creek	FEMA Detailed	N/A	0.5509	0.0644 ¹	41.14459	-76.43671

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.

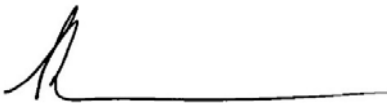
Please note that construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity, as all pre-construction surface elevations will be re-established during restoration. The temporary and permanent impacts noted above are associated with vegetation management 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 Greenwood 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.

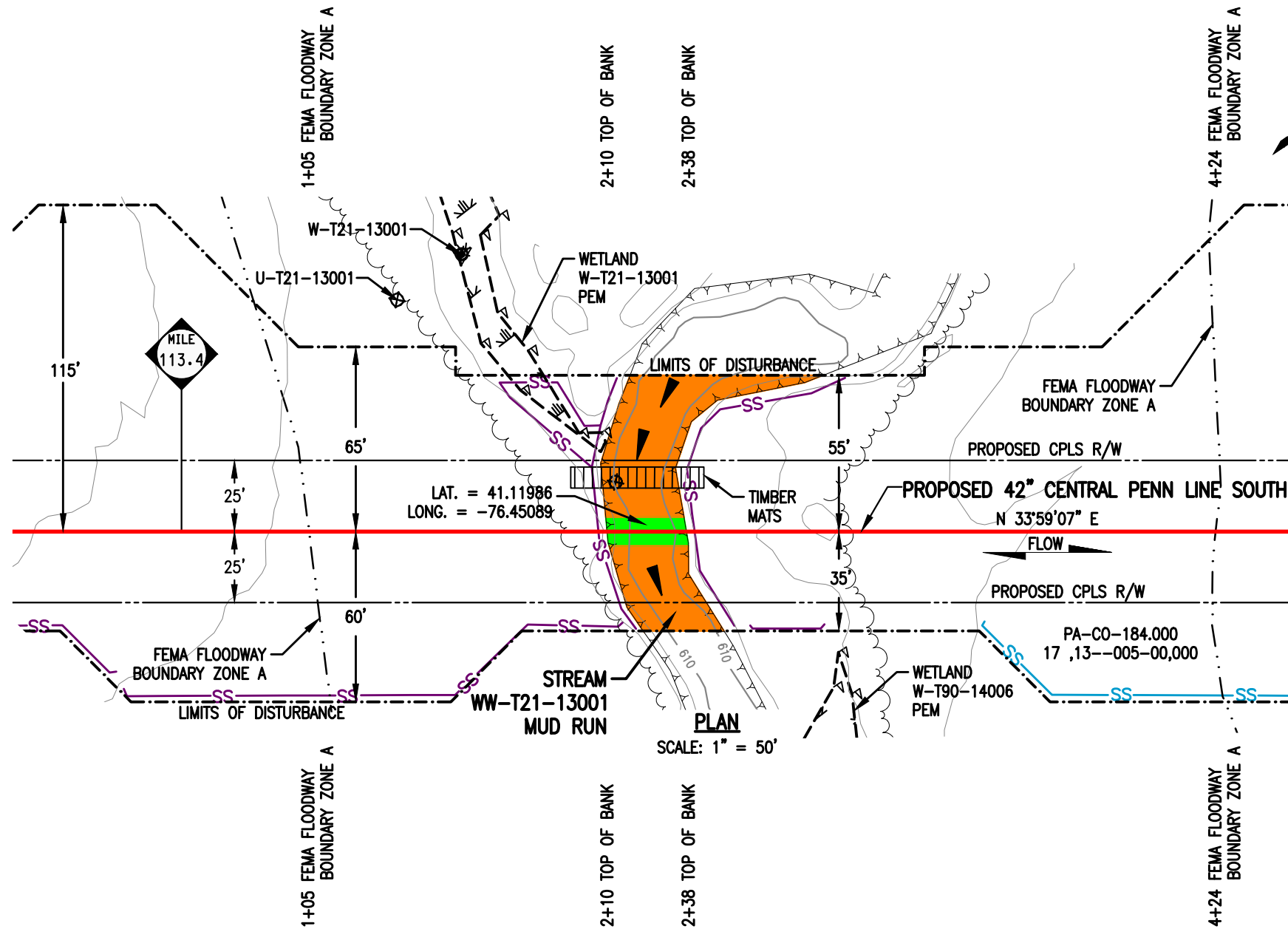
Sincerely,



Alaric J. Busher, PE
 Senior Engineer

Greenwood Township
 October 27, 2016
 BL Project No. 14C4909
 Page 2 of 3

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



STREAM DISTURBANCE:

STREAM WW-T21-13001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0557
PERMANENT STREAM DISTURBANCE	0.0064
TOTAL STREAM DISTURBANCE	0.0621
TEMPORARY FLOODWAY DISTURBANCE	0.6618
PERMANENT FLOODWAY DISTURBANCE	0.0670
TOTAL FLOODWAY DISTURBANCE	0.7288

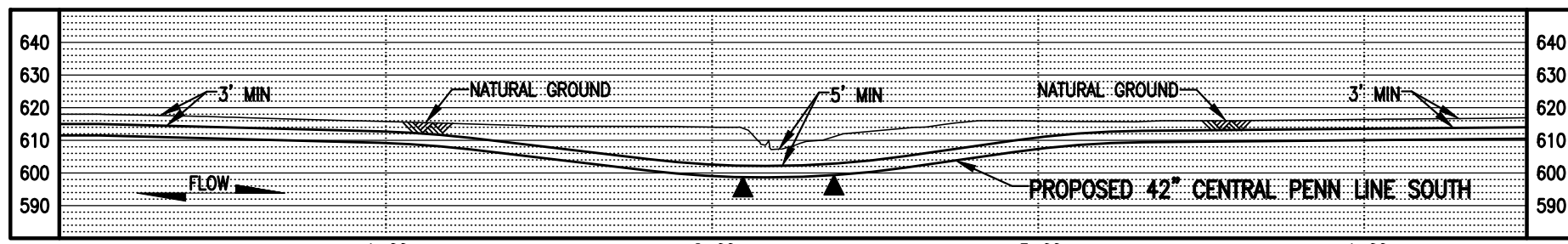
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	27.92
STREAM LENGTH	94.25

GENERAL NOTES:

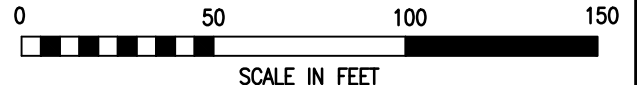
1. STREAM CROSSING METHOD WW-T21-13001 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 5987+92 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 77' LT. OF M.P. 113.45, ELEV. = 616.77' (NAVD88).



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



LEGEND

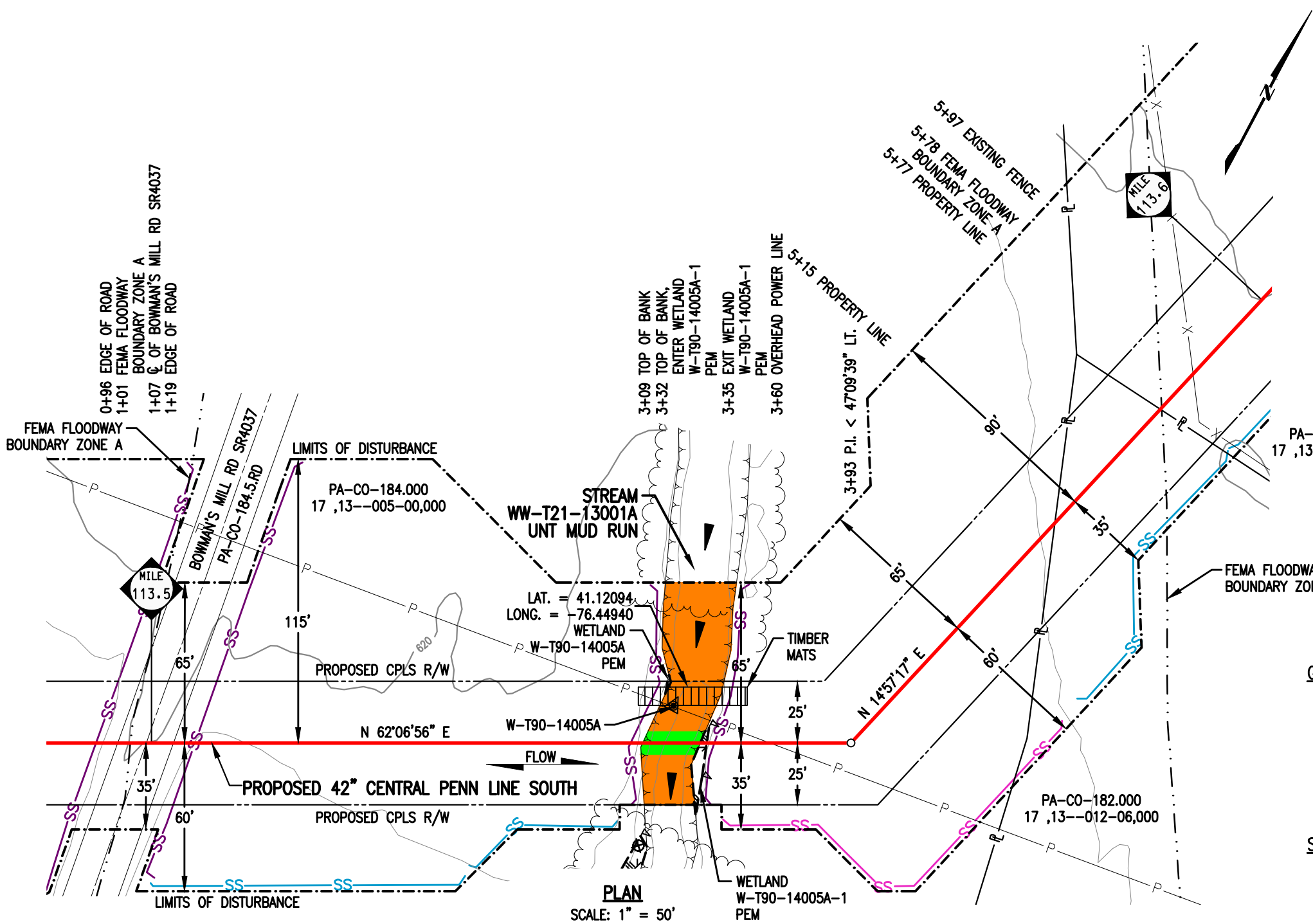
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY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



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	AT	ISSUED FOR PAPEP 105 PERMIT
1	02/03/16	LN	ISSUED FOR INTERNAL USE
2	10/25/16	AD	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-T21-13001
M.P. 113.43
GREENWOOD TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

W.O. NO.	CHK.	APP.	DRAWN BY: FH	DATE: 03/31/15	ISSUED FOR BID:	SCALE: 1" = 50'
1161503	CLR	MJH	CHECKED BY: JM	DATE: 06/08/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1161503	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/113.43-01	SHEET 1
1161503	CLR	MJH	IWO: 1161503		6-01am 10/7/2016 jibeast	OF 1



STREAM DISTURBANCE:

STREAM WW-T21-13001A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0445
PERMANENT STREAM DISTURBANCE	0.0053
TOTAL STREAM DISTURBANCE	0.0498
TEMPORARY FLOODWAY DISTURBANCE	1.2988
PERMANENT FLOODWAY DISTURBANCE	0.1036
TOTAL FLOODWAY DISTURBANCE	1.4024

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	23.30
STREAM LENGTH	90.45

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T21-13001A 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 5992+70 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 77' LT. OF M.P. 113.45, ELEV. = 616.77' (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		

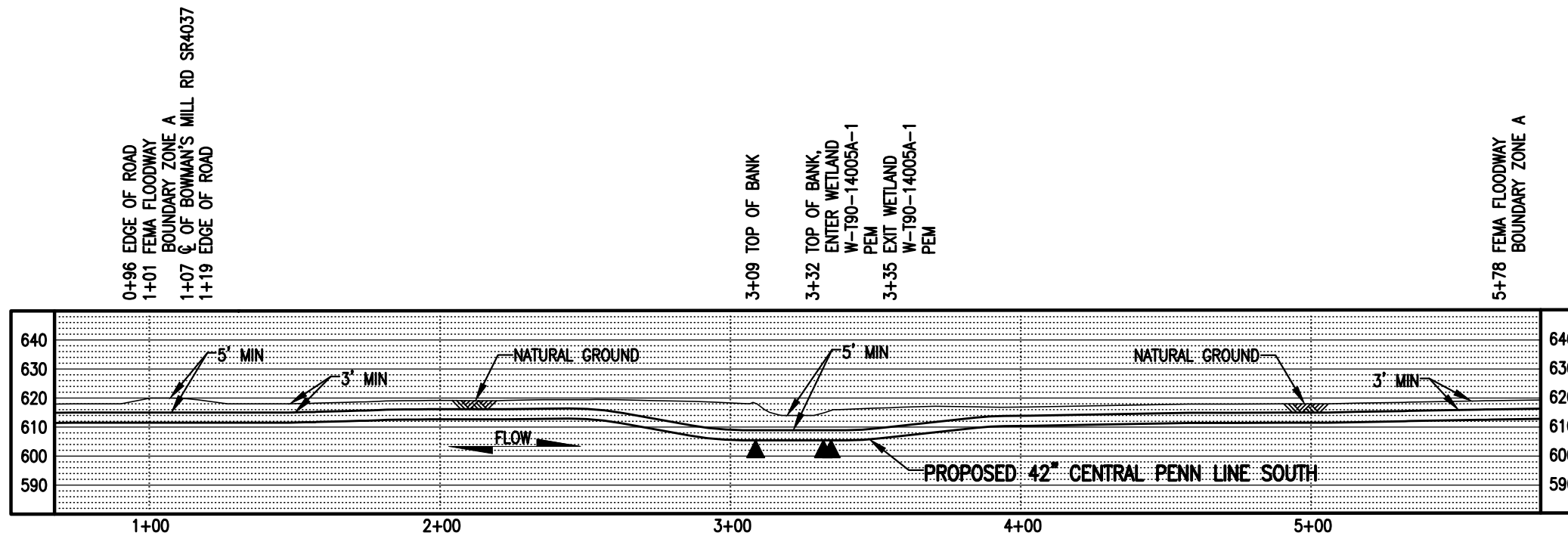
WOOD GROUP MUSTANG, INC.

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

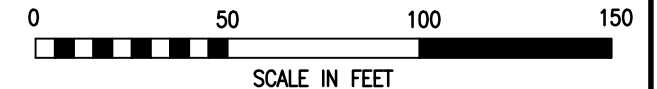
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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1	02/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

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-T21-13001A
M.P. 113.54
GREENWOOD TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: FH	DATE: 03/31/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: JM	DATE: 06/08/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/113.54-01	SHEET 1
WO: 1161503			OF 2



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



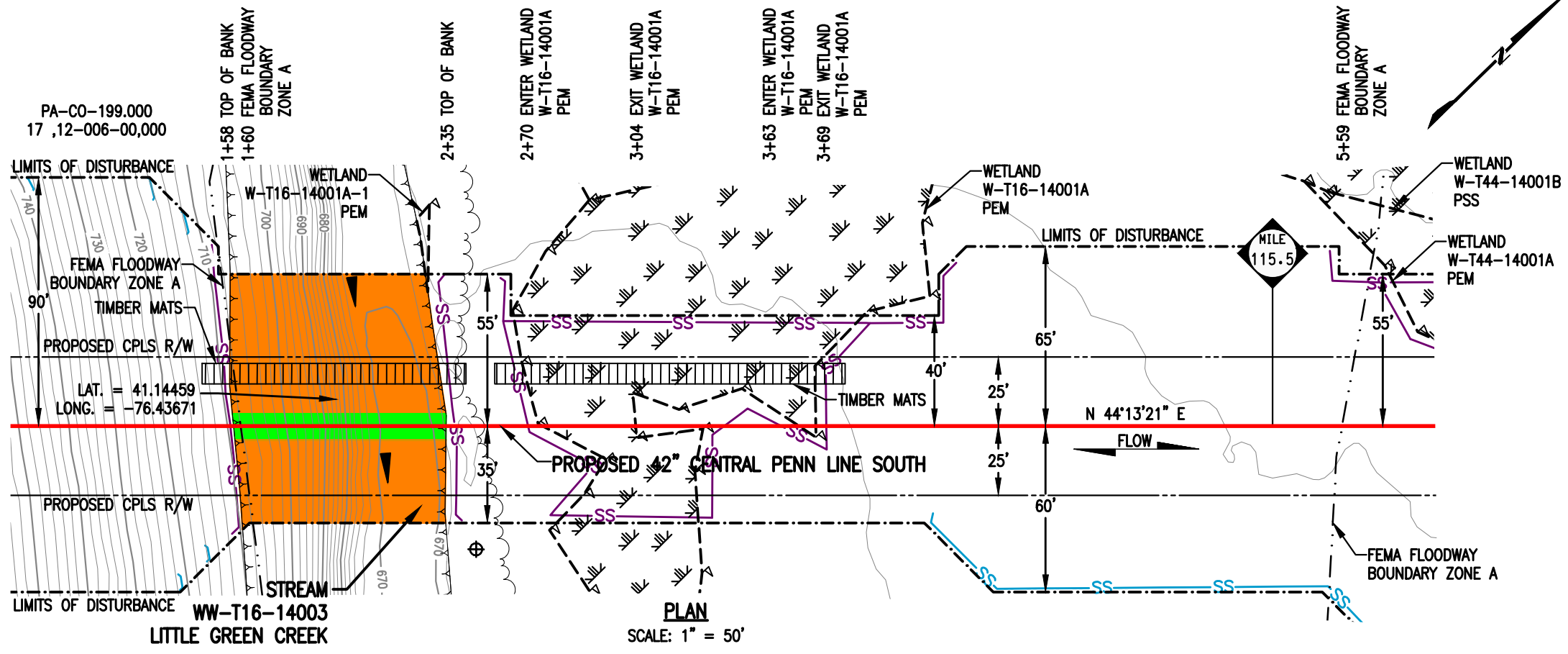
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	MP	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-T21-13001A
M.P. 113.54
GREENWOOD TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

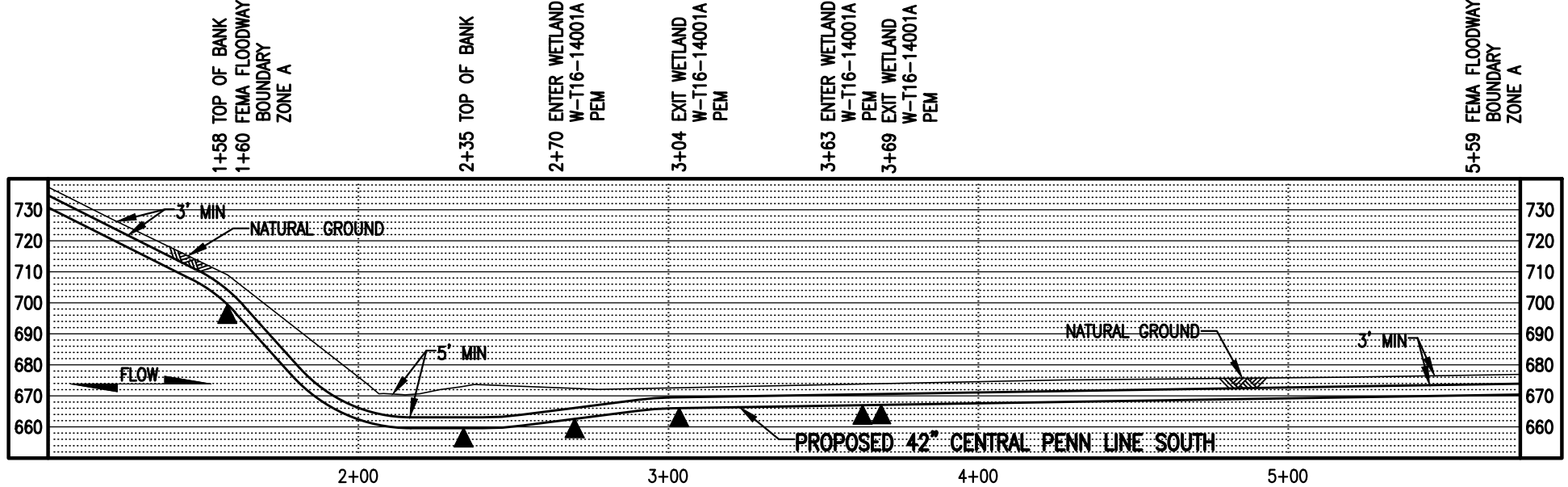
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CHECKED BY: CLR	DATE: 07/06/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/06/16	DRAWING NUMBER: 24-1600-70-09-A/113.54-01	SHEET 2
WO: 1161503		10/4/2016 jlibeast	OF 2



STREAM DISTURBANCE:

STREAM WW-T16-14003	ACRE
TEMPORARY STREAM DISTURBANCE	0.1369
PERMANENT STREAM DISTURBANCE	0.0177
TOTAL STREAM DISTURBANCE	0.1546
TEMPORARY FLOODWAY DISTURBANCE	0.5509
PERMANENT FLOODWAY DISTURBANCE	0.0644
TOTAL FLOODWAY DISTURBANCE	0.6153

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	76.95
STREAM LENGTH	91.24



GENERAL NOTES:

1. STREAM CROSSING METHOD FOR WW-T16-14003 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 2+00 SHOWN IS EQUAL TO STATION 6095+06 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 7' LT. OF M.P. 115.43, ELEV. = 670.85' (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	

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-T16-14003
© M.P. 115.44
GREENWOOD TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	FH	04/22/15		1" = 50'
1	02/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	ELR	04/22/15		
2	10/25/16	KB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	MJH	06/08/15		

DRAWING NUMBER:	ISSUED FOR CONSTRUCTION:	REVISION:
24-1600-70-09-A/115.44-01		2

W.O. NUMBER: 1161503
 DATE: 10/4/2016
 DRAWN BY: jibeast
 SCALE: 1" = 50'



October 27, 2016

Hemlock Township
Floodplain Administrator
26 Firehall Road
Bloomsburg, PA 17815

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

Hemlock Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
HEMLOCK TOWNSHIP, COLUMBIA 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-T70-12003	Floodway to Hemlock Creek	FEMA Detailed ¹	N/A	0.3256	0.0389 ³	41.00323	-76.49387
Temporary Road Crossing	Equipment Access and E&S Controls	WW-T70-12003	Floodway to Hemlock Creek	FEMA Detailed	1599.81	0.3256	0.00	41.00471	-76.49468
Temporary Road Crossing	Equipment Access and E&S Controls	WW-T70-12006	Floodway to Fishing Creek	FEMA Detailed	2005.81	0.6912	0.00	41.01555	-76.47570
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T01-12006	Floodway to Fishing Creek	FEMA Detailed ¹	N/A	10.6305	0.5135 ³	41.02241	-76.47834
Temporary Water Withdrawal	Equipment Access and E&S Controls	WW-T01-12006	Floodway to Fishing Creek	FEMA Detailed	N/A	0.0290	0.00	41.01647	-76.47557
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T70-12010-1	Floodway to Little Fishing Creek	FEMA Detailed	N/A	0.0079	0.000	41.04721	-76.48758
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-RS-T70-12002	Floodway to Little Fishing Creek	FEMA Detailed	N/A	8.1447	0.7028	41.04131	-76.48522

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Floodway fill is associated with a temporary access road. Pre development contours will be restored prior to permit termination.
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.

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 temporary access road grading 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 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 Hemlock 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

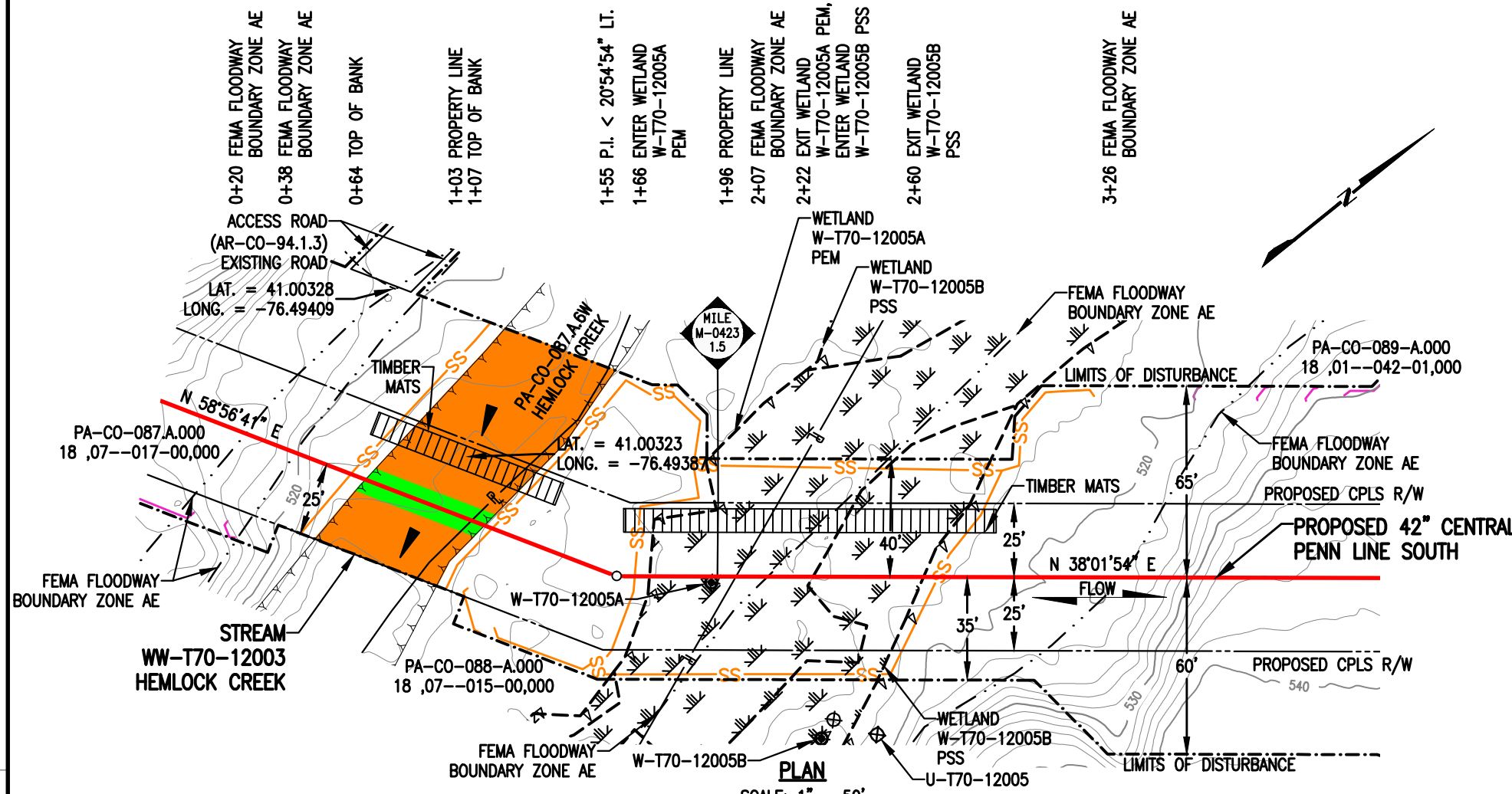
have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'A' followed by a long horizontal line extending to the right.

Alaric J. Busher, PE
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



STREAM DISTURBANCE:

STREAM WW-T70-12003A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0001
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0001

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

STREAM WW-T70-12003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0788
PERMANENT STREAM DISTURBANCE	0.0099
TOTAL STREAM DISTURBANCE	0.0887
TEMPORARY FLOODWAY DISTURBANCE	0.3256
PERMANENT FLOODWAY DISTURBANCE	0.0389
TOTAL FLOODWAY DISTURBANCE	0.3645

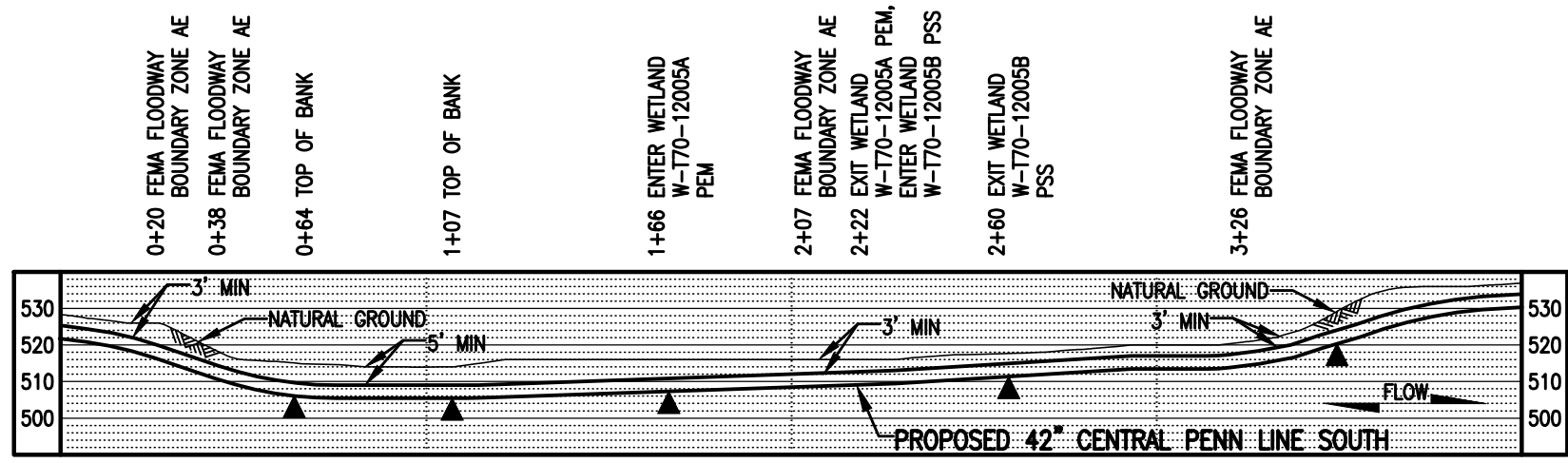
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	43.28
STREAM LENGTH	93.85

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 1+00 SHOWN IS EQUAL TO M-0423 STATION 78+31 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 37' RT. OF M-0423 M.P. 1.48, ELEV. = 512.14' (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		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-T70-12003A & WW-T70-12003 @ M-0423 M.P. 1.47 HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 07/15/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/15/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 07/15/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-1.47-01	SHEET 1
							W.O. NO: 1161503		10/5/2016	OF 1

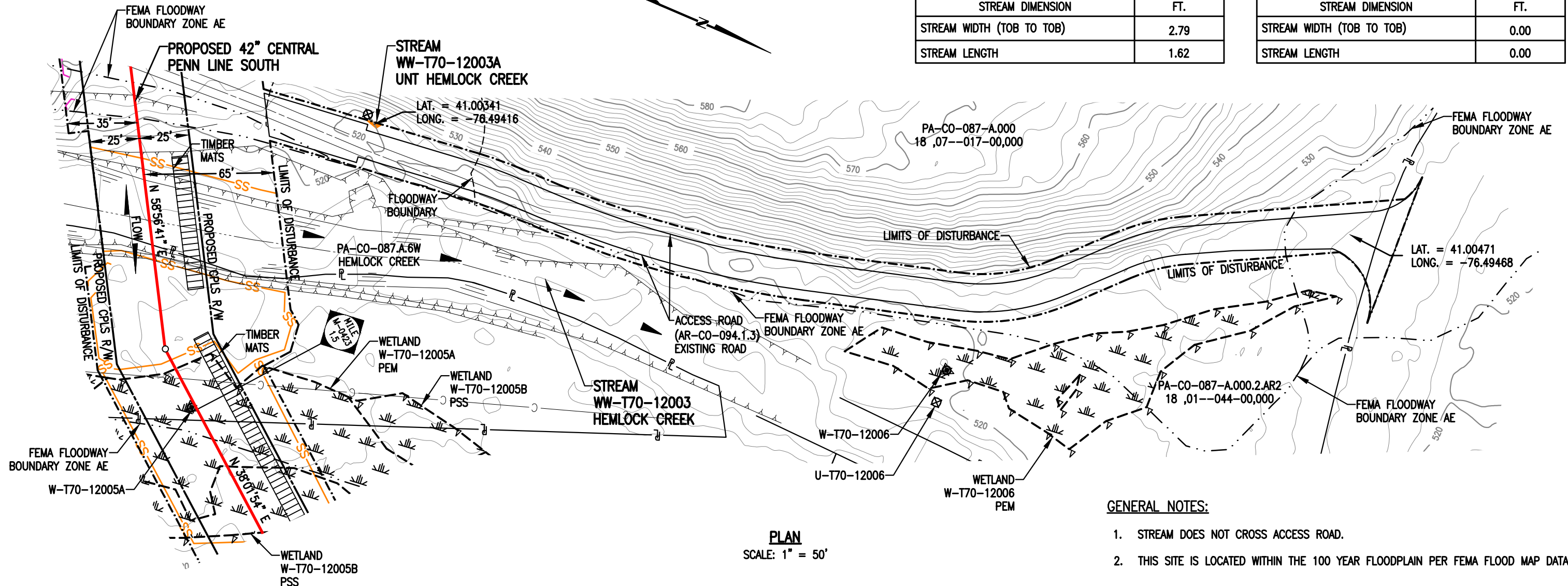
STREAM DISTURBANCE:

STREAM WW-T70-12003A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0003
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0003
TEMPORARY FLOODWAY DISTURBANCE	0.0570
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0570

STREAM WW-T70-12003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0471
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0471

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	2.79
STREAM LENGTH	1.62

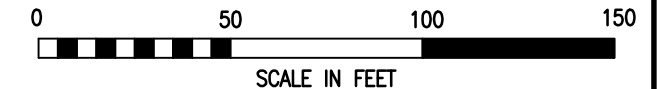
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00



PLAN
SCALE: 1" = 50'

GENERAL NOTES:

1. STREAM DOES NOT CROSS ACCESS ROAD.
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOODPLAIN PER FEMA FLOOD MAP DATA.



LEGEND

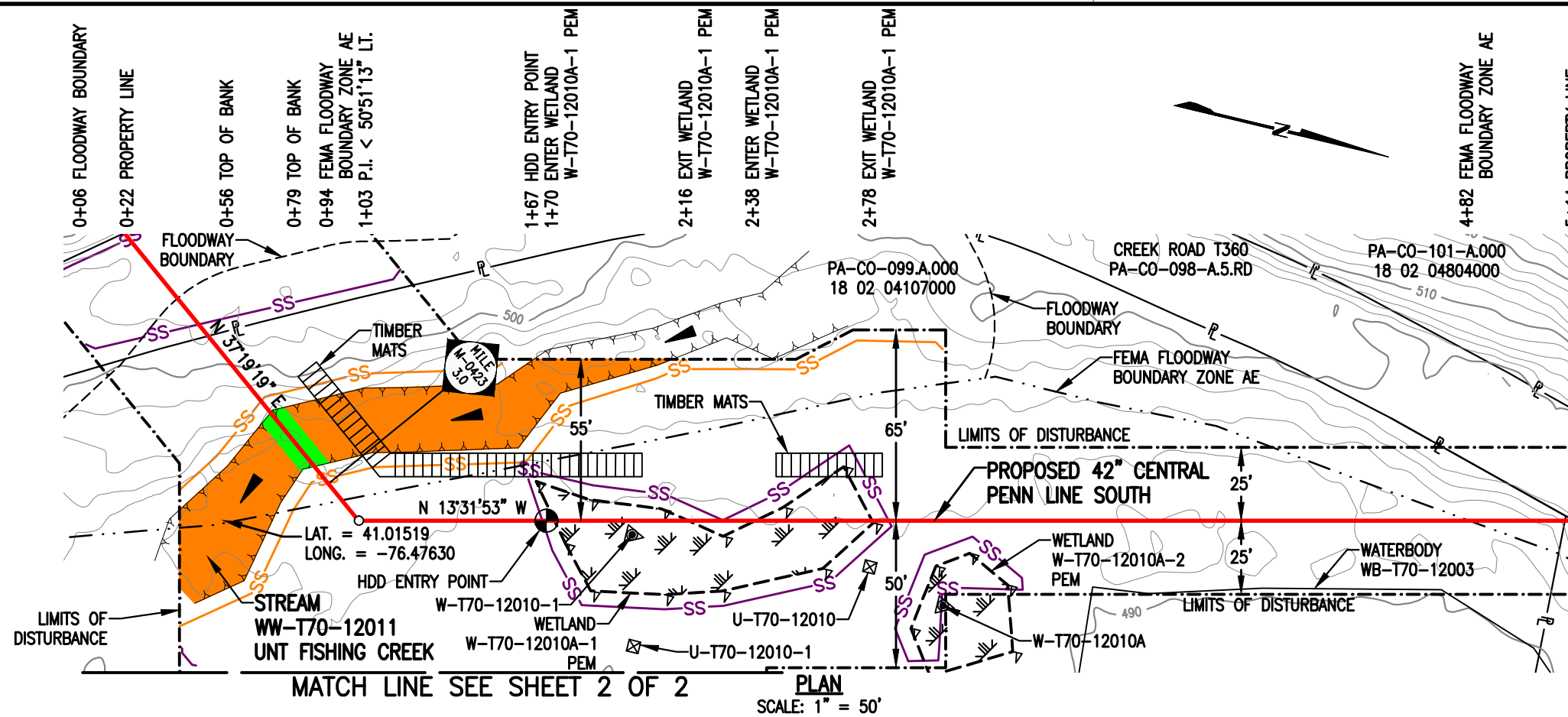
- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- PROPOSED CPLS R/W
- P — PROPERTY LINE
- F — FOREIGN PIPELINE
- W — WETLAND AREA
- S — STREAM FLOW
- P — EXISTING POWER LINE
- X — EXISTING FENCE

WOOD GROUP MUSTANG, INC.

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

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

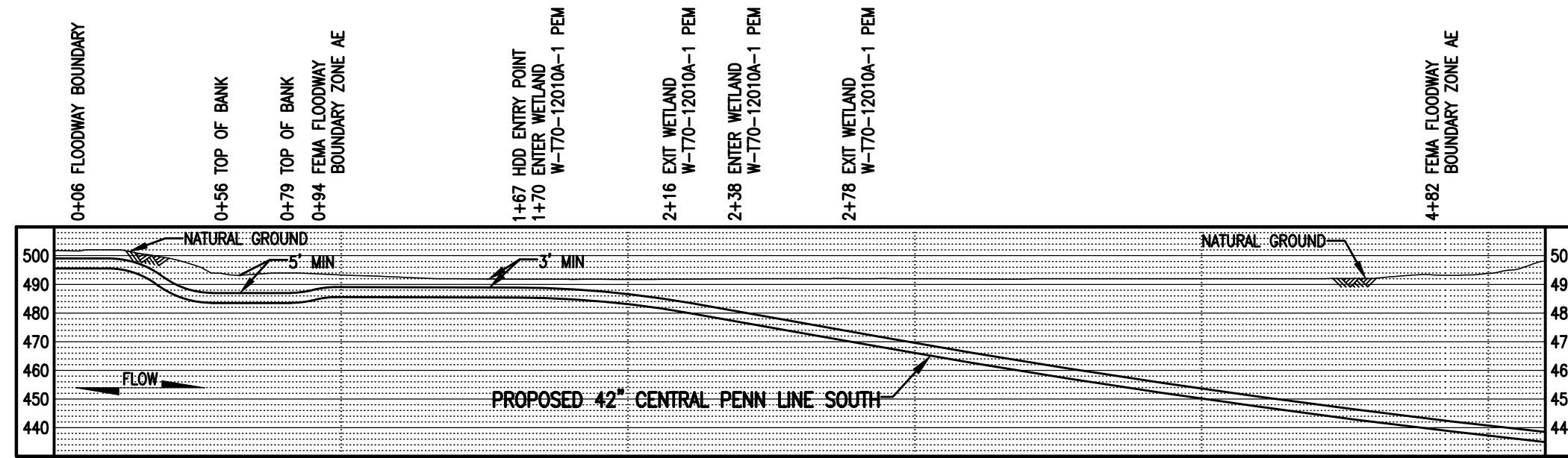
DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T70-12003A & M-0423 & WW-T70-12003 & M-0423 M.P. 1.47 HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 07/19/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/19/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 07/20/16	DRAWING NUMBER: 24-1600-70-09-A/AR-CO-094.1.3-01 SHEET 1	
							W.O. NO.: 1161503	10/11/2016		OF 1



STREAM DISTURBANCE:

STREAM WW-T70-12011	ACRE
TEMPORARY STREAM DISTURBANCE	0.0799
PERMANENT STREAM DISTURBANCE	0.0053
TOTAL STREAM DISTURBANCE	0.0852
TEMPORARY FLOODWAY DISTURBANCE	0.2063
PERMANENT FLOODWAY DISTURBANCE	0.0150
TOTAL FLOODWAY DISTURBANCE	0.2213

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	23.60
STREAM LENGTH	165.14



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 M-0423 STATION 158+53 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 12' RT. OF M-0423 M.P. 3.01, ELEV. = 491.36' (NAVD88).



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

WOOD GROUP MUSTANG, INC.

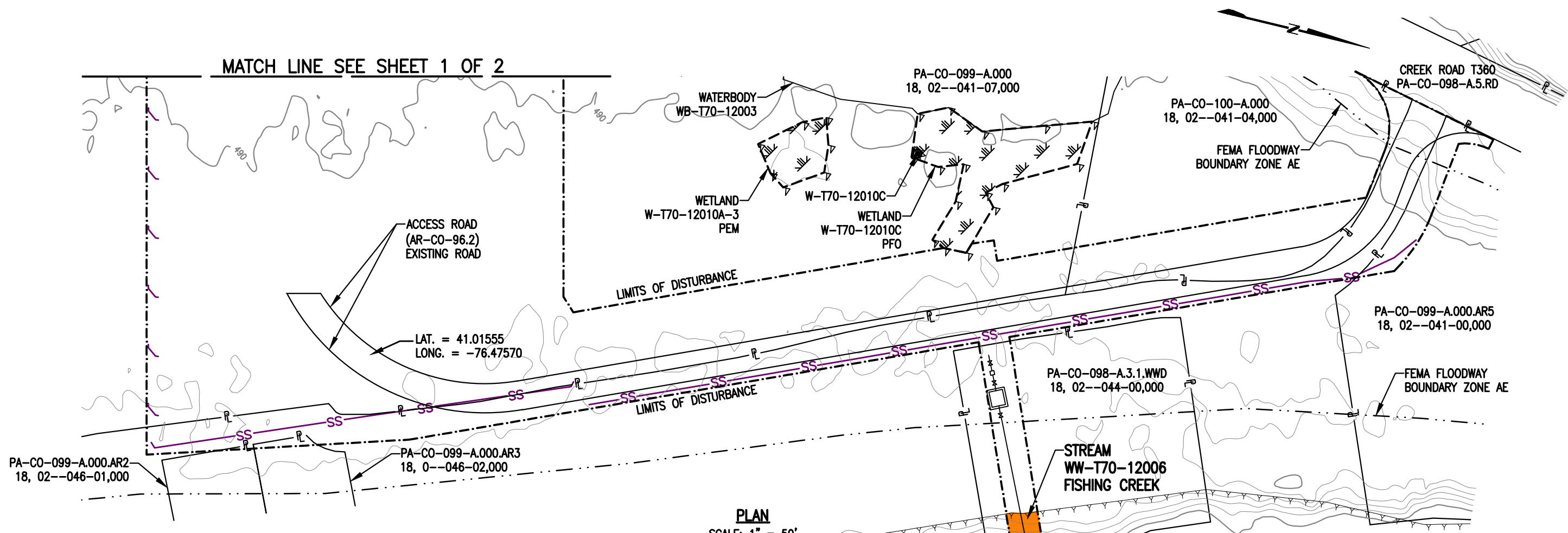
- SS — 12" SEDIMENT BARRIER
- SS — 18" SEDIMENT BARRIER
- SS — 24" SEDIMENT BARRIER
- SS — 32" SEDIMENT BARRIER
- Y — TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	CM	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-T70-12011 @ M-0423 M.P. 3.00
& WW-T70-12006 @ M-0423 M.P. 3.07
HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: CM	DATE: 07/25/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/26/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/06/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.00-01	SHEET 1
WO: 1161503			OF 2



PLAN
SCALE: 1" = 50'

STREAM DISTURBANCE FOR HYDROSTATIC TEST WATER WITHDRAWAL EQUIPMENT:

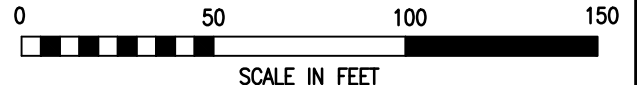
STREAM WW-T70-12006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0258
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0258
TEMPORARY FLOODWAY DISTURBANCE	0.0290
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0290

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	24.96
STREAM LENGTH	76.83

STREAM DISTURBANCE FOR ACCESS ROAD:

STREAM WW-T70-12006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.6912
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.6912

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



LEGEND

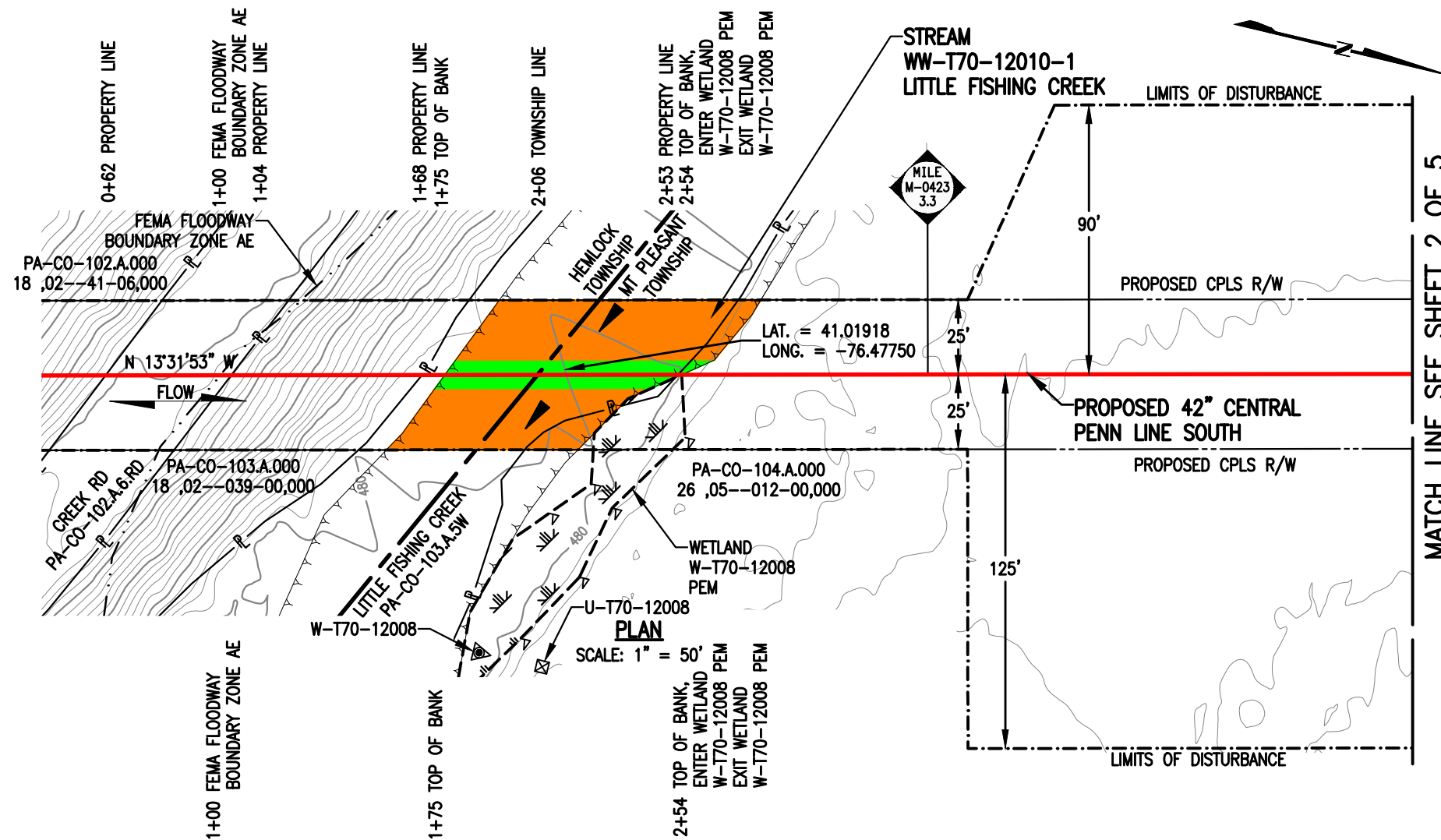
- PROPOSED 42" CENTRAL PENN LINE SOUTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- - - LIMITS OF DISTURBANCE
- - - PROPOSED CPLS R/W
- P — PROPERTY LINE
- X — FOREIGN PIPELINE
- WETLAND AREA
- ▶ STREAM FLOW
- P — EXISTING POWER LINE
- X — EXISTING FENCE

WOOD GROUP MUSTANG, INC.

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

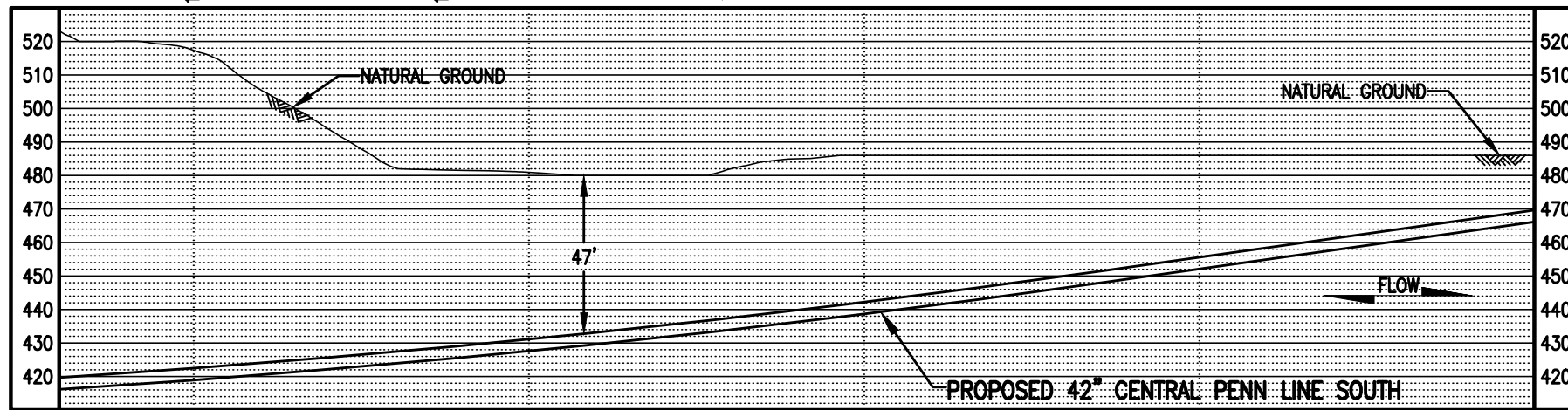
- ▲ WETLAND FLAGS
- ⊗ PHOTO DATA POINT
- ⊠ WETLAND DATA POINT
- ⊡ UPLAND DATA POINT
- ☀ WELL POINT
- ▲ TRENCH PLUG
- WATERBODY
- TREE LINE
- - - FLOODWAY BOUNDARY
- - - FEMA FLOODWAY BOUNDARY

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-T70-12011 @ M-0423 M.P. 3.00 & WW-T70-12006 @ M-0423 M.P. 3.07 HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.		DATE			
0		10/25/16			
BY		CM			
NO.		DATE		ISSUED FOR BID:	
0		10/25/16		DATE: 07/25/16	
BY		CM		ISSUED FOR CONSTRUCTION:	
NO.		DATE		DATE: 07/26/16	
0		10/25/16		DATE: 07/06/16	
BY		CM		DRAWING NUMBER:	
NO.		DATE		24-1600-70-09-A/M-0423-3.00-01	
0		10/25/16		2:33pm	
BY		CM		10/12/2016	
NO.		DATE		1161503	
0		10/25/16		t2le	
BY		CM		OF 2	
NO.		DATE		OF 2	
0		10/25/16		OF 2	



STREAM DISTURBANCE:

STREAM WW-T70-12010-1	ACRE
TEMPORARY STREAM DISTURBANCE	0.0703
PERMANENT STREAM DISTURBANCE	0.0182
TOTAL STREAM DISTURBANCE	0.0885
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	79.09
STREAM LENGTH	65.22

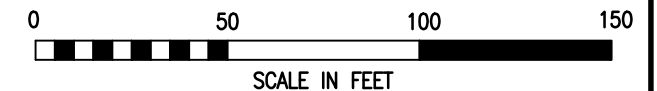


GENERAL NOTES:

1. STREAM CROSSING METHOD FOR STREAM WW-T70-12010-1 SHALL BE HDD. STREAM CROSSING METHOD FOR STREAM WW-T70-12010 SHALL BE DAM AND PUMP (DPX).
2. NO PHYSICAL SURFACE IMPACT ARE PROPOSED TO STREAM WW-T70-12010-1 DUE TO HDD CROSSING METHOD.
3. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 1+00 SHOWN IS EQUAL TO M-0423 STATION 171+87 ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. FLOODWAY IMPACTS FOR STREAM WW-T70-12010-1 ARE INCLUDED IN FLOODWAY IMPACT OF STREAMS WW-T70-12006 ON DWG. 24-1600-70-09-A/M-0423-3.00-01.

SURVEY NOTES:

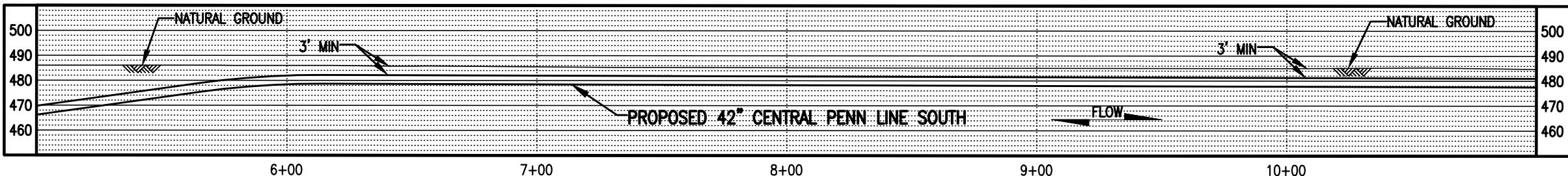
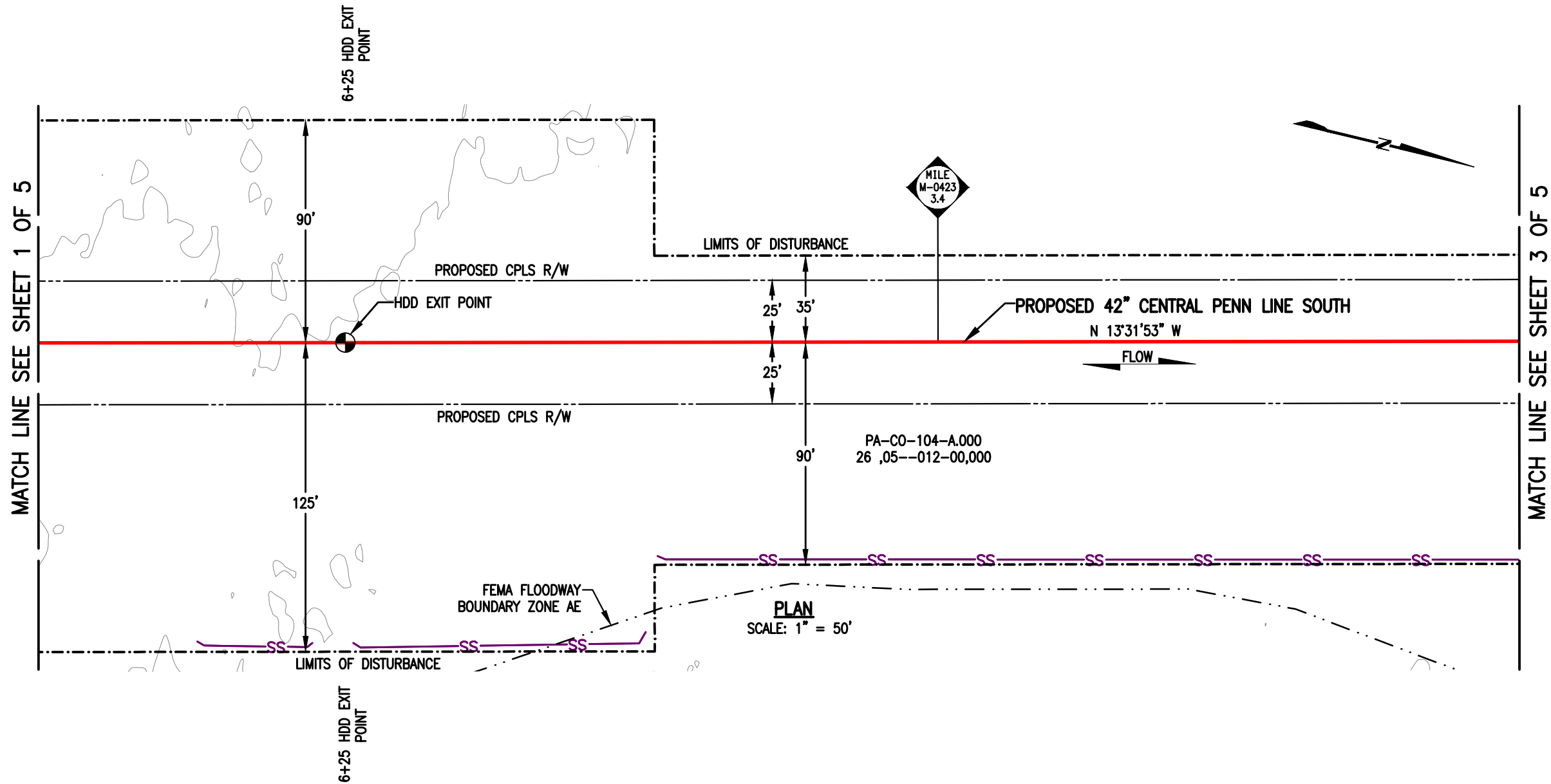
1. T.B.M. IRON ROD - 96' RT. OF M-0423 M.P. 3.16, ELEV. = 513.13' (NAVD88).



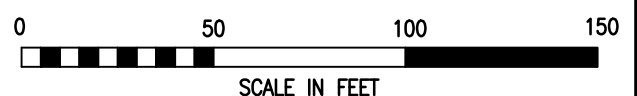
LEGEND

	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-T70-12010-1 @ M-0423 M.P. 3.28						
				& WW-T70-12010 @ M-0423 M.P. 3.58						
				HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01 SHEET 1	
							WC: 1161503	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01		OF 5



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
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT



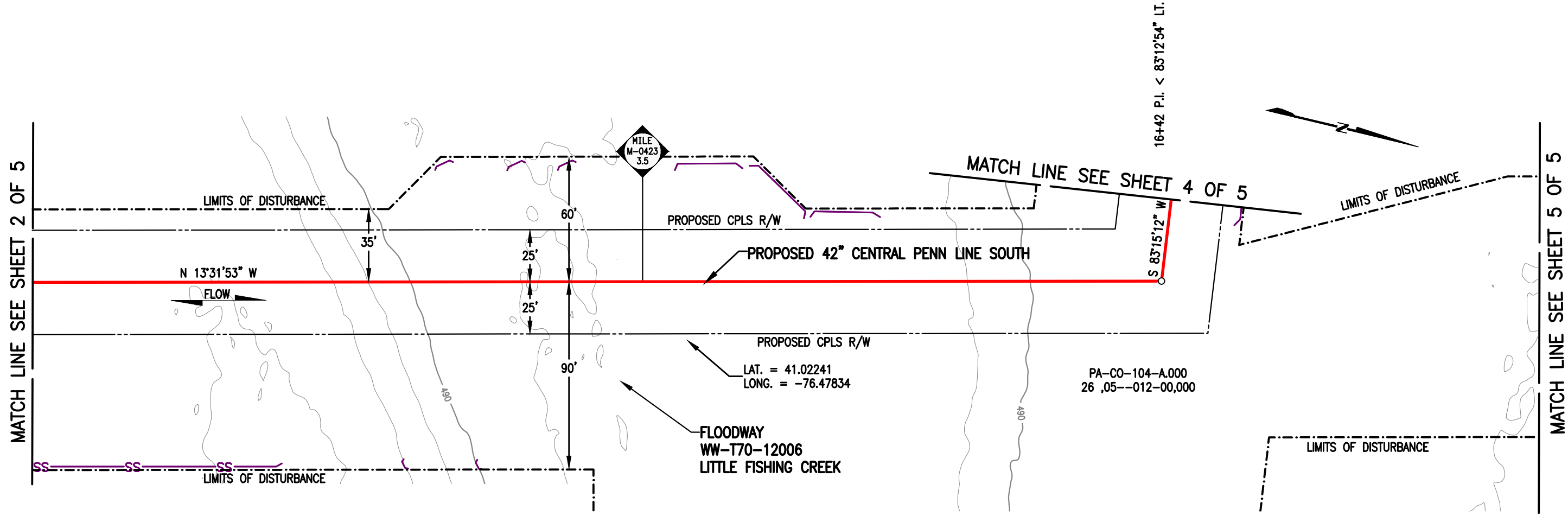
DRAWING NO.	REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

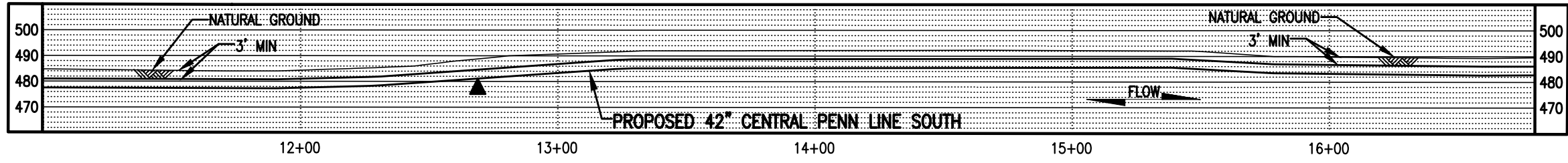
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

Williams

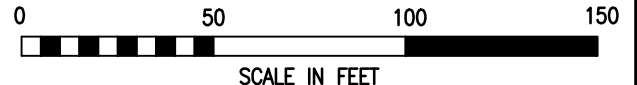
DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 2
WO: 1161503	10/20/2016	t3le	OF 5



PLAN
SCALE: 1" = 50'

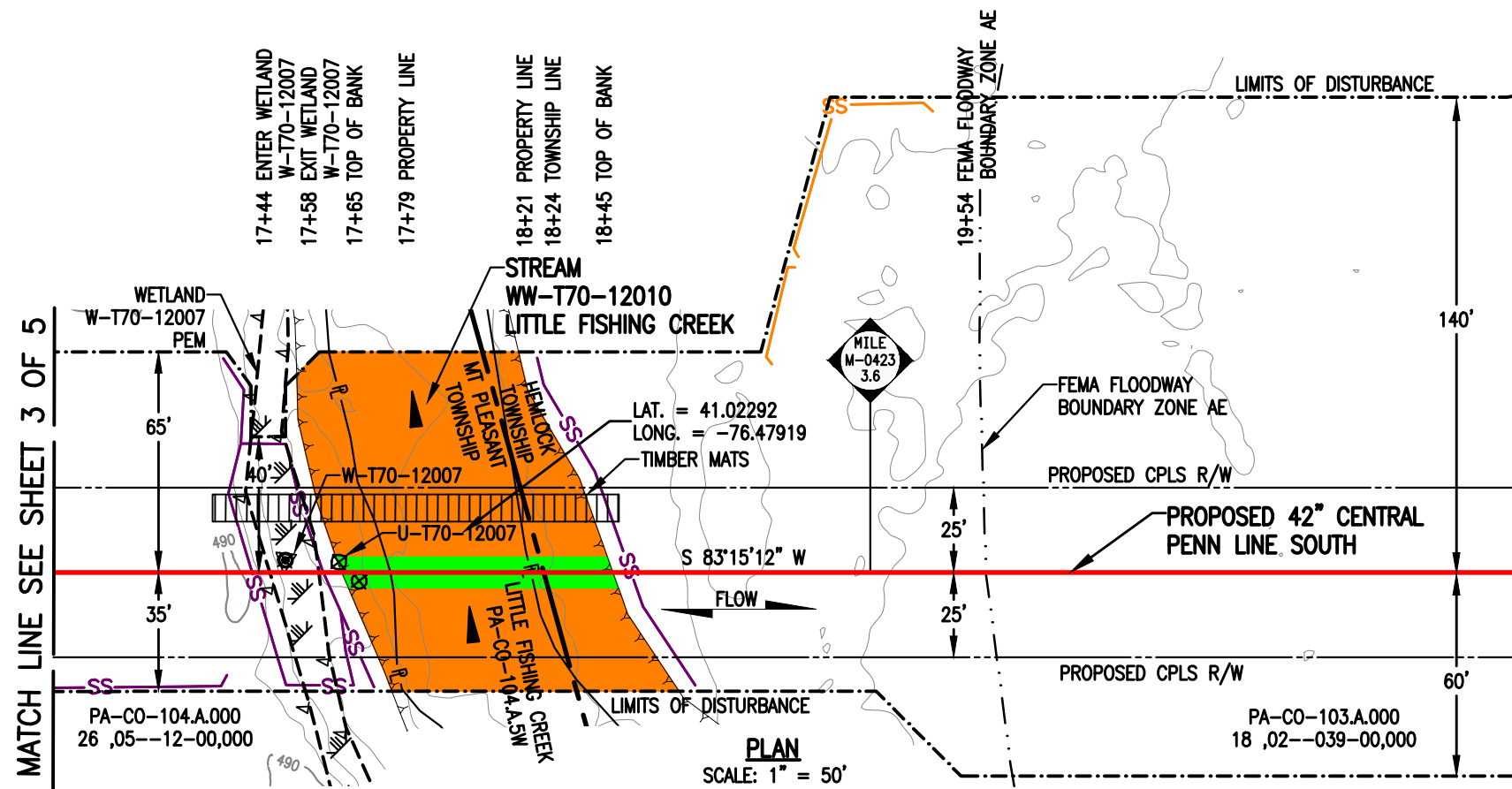


PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



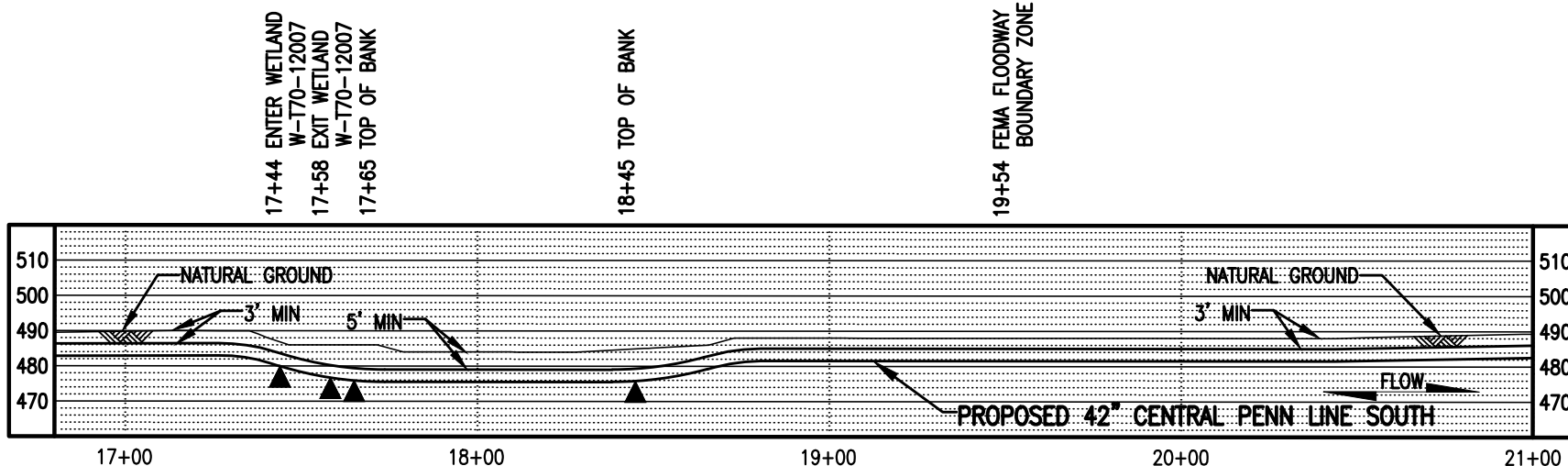
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND 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		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-T70-12010-1 @ M-0423 M.P. 3.28, WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58 HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 07/26/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/26/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 07/27/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01 SHEET 3	
							WO: 1161503	7:56am 10/11/2016 jibeast		OF 5



STREAM DISTURBANCE:

STREAM WW-T70-12010	ACRE
TEMPORARY STREAM DISTURBANCE	0.1583
PERMANENT STREAM DISTURBANCE	0.0183
TOTAL STREAM DISTURBANCE	0.1766
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	79.85
STREAM LENGTH	107.36



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

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-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

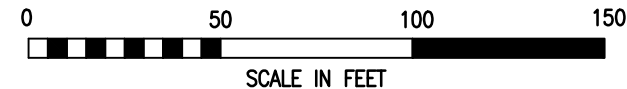
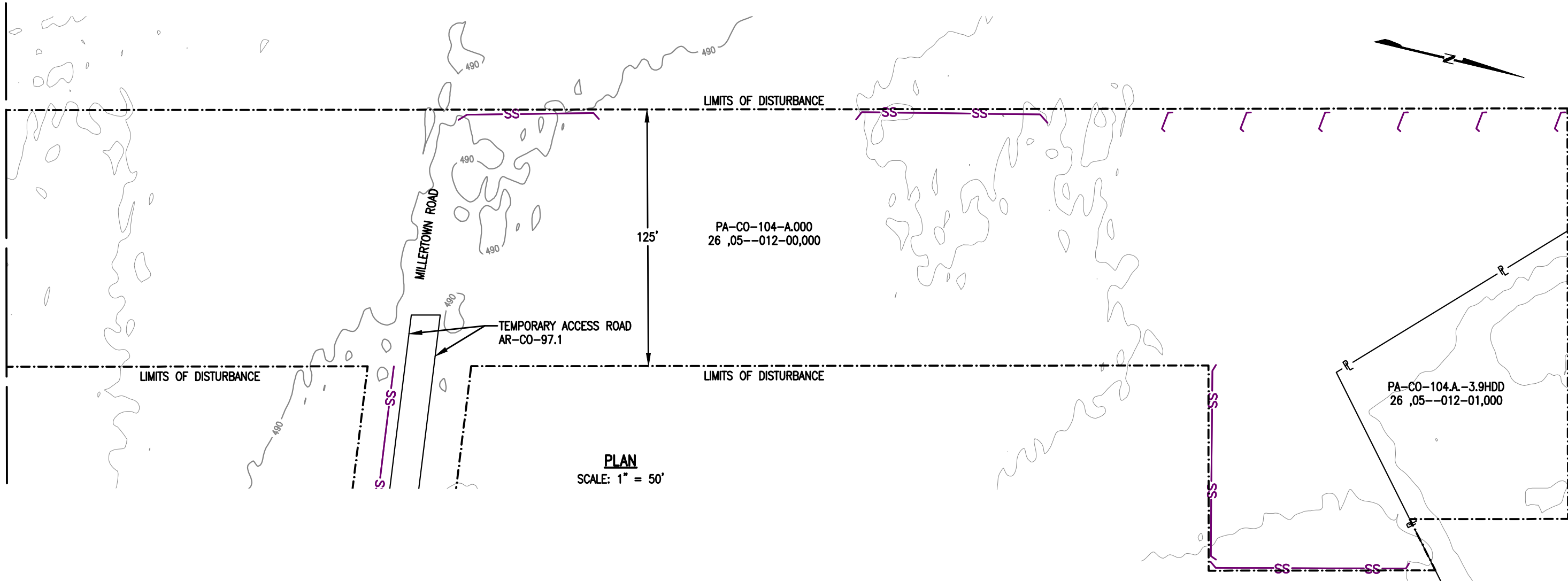
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	JB	07/22/16		1" = 50'

CHECKED BY:	DATE:	ISSUED FOR CONSTRUCTION:	REVISION:
CLR	07/22/16		0

APPROVED BY: MJH
DATE: 07/22/16

DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01 SHEET 4
7:59am 10/11/2016 jibeast
K:\103643-CPLS\Maping\Waterbodies\CPLS_PAN\Revised 105\24-1600-70-09-A_M-0423-3.28-01.dwg OF 5

MATCH LINE SEE SHEET 3 OF 5



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
			PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	JB	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 CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

Williams

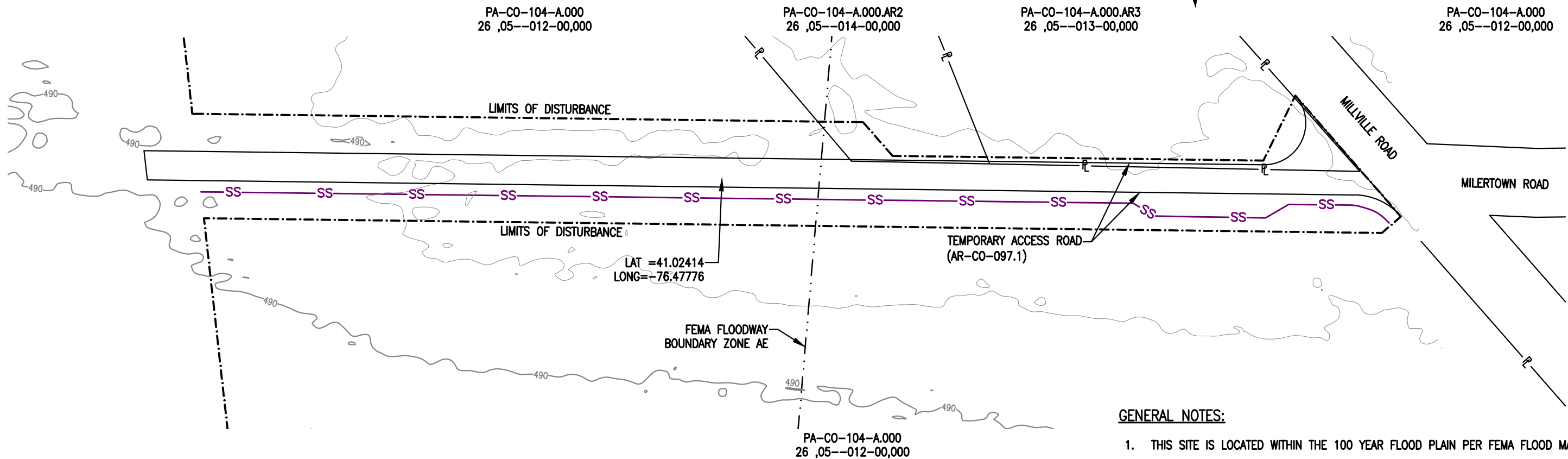
DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 5
WO: 1161503			OF 5

10/11/2016 jlibeast
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STREAM DISTURBANCE:

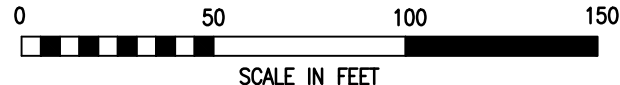
STREAM WW-T70-12006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.6069
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.6069

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



GENERAL NOTES:

1. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.



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

WOOD GROUP MUSTANG, INC.

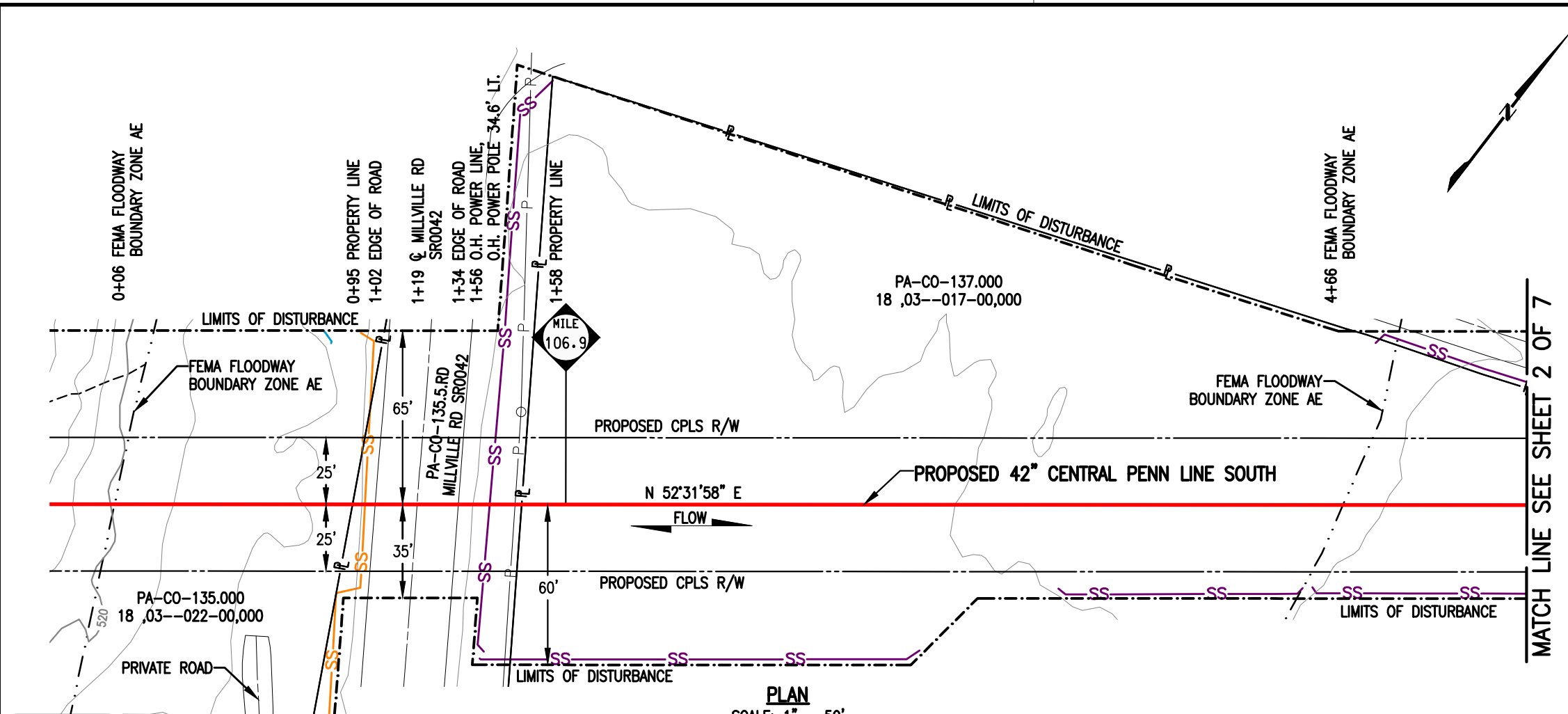
- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
- UPLAND DATA POINT
- WELL POINT
- TRENCH PLUG
- WATERBODY
- TREE LINE
- FLOODWAY BOUNDARY
- FEMA FLOODWAY BOUNDARY

- 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: JB	DATE: 07/06/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	LR	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/06/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 07/06/16	DRAWING NUMBER: 24-1600-70-09-A/AR-CO-097.1-01	SHEET 1
							WO: 1161503	11/5/2016	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 CROSSING WW-T70-12006
M-0423 M.P. 3.07
HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA





MATCH LINE SEE SHEET 7 OF 7

MATCH LINE SEE SHEET 2 OF 7

PLAN
SCALE: 1" = 50'

FLOODWAY DISTURBANCE:

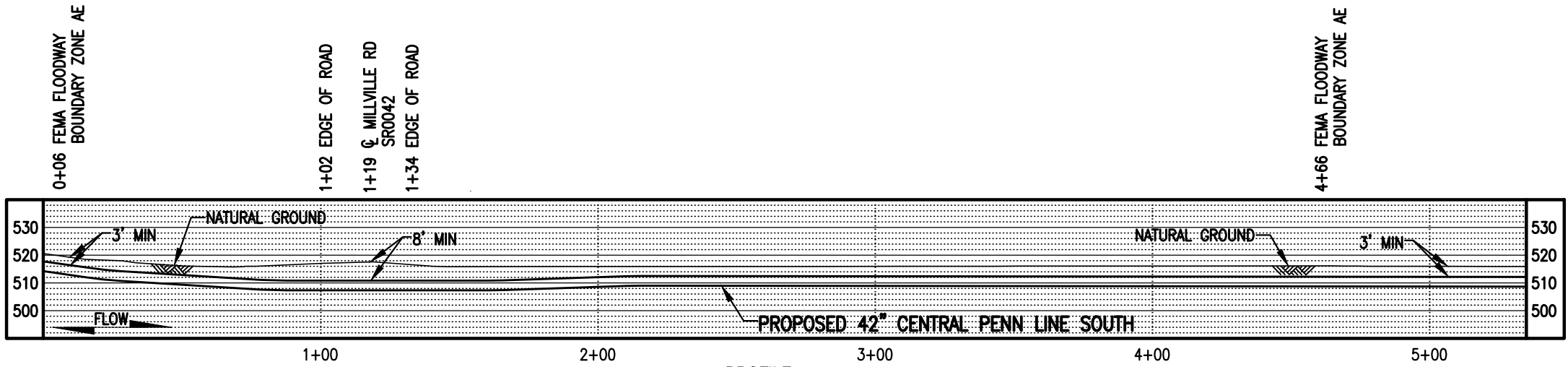
STREAM WW-RS-12002	ACRE
TEMPORARY STREAM DISTURBANCE	0.1506
PERMANENT STREAM DISTURBANCE	0.0166
TOTAL STREAM DISTURBANCE	0.1672
TEMPORARY FLOODWAY DISTURBANCE	8.1447
PERMANENT FLOODWAY DISTURBANCE	0.7028
TOTAL FLOODWAY DISTURBANCE	8.8475
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	72.19
STREAM LENGTH	102.35

GENERAL NOTES:

1. STREAM CROSSING METHODS FOR WW-RS-12002, WW-RS-99103, WW-T52-13001 AND WW-T52-13001C SHALL BE DAM AND PUMP (DPX). STREAM CROSSING METHOD FOR WW-RS-99108 SHALL BE FLUME (FX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 5643+57 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. IMPACTS FOR STREAM WW-T52-13001, STREAM WW-T52-13001C, STREAM WW-RS-99103 AND STREAM WW-RS-99104 ARE SHOWN ON SHEET 6 OF 7.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 24' RT. OF M.P. 106.99, ELEV. = 514.99' (NAVD88).



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



LEGEND

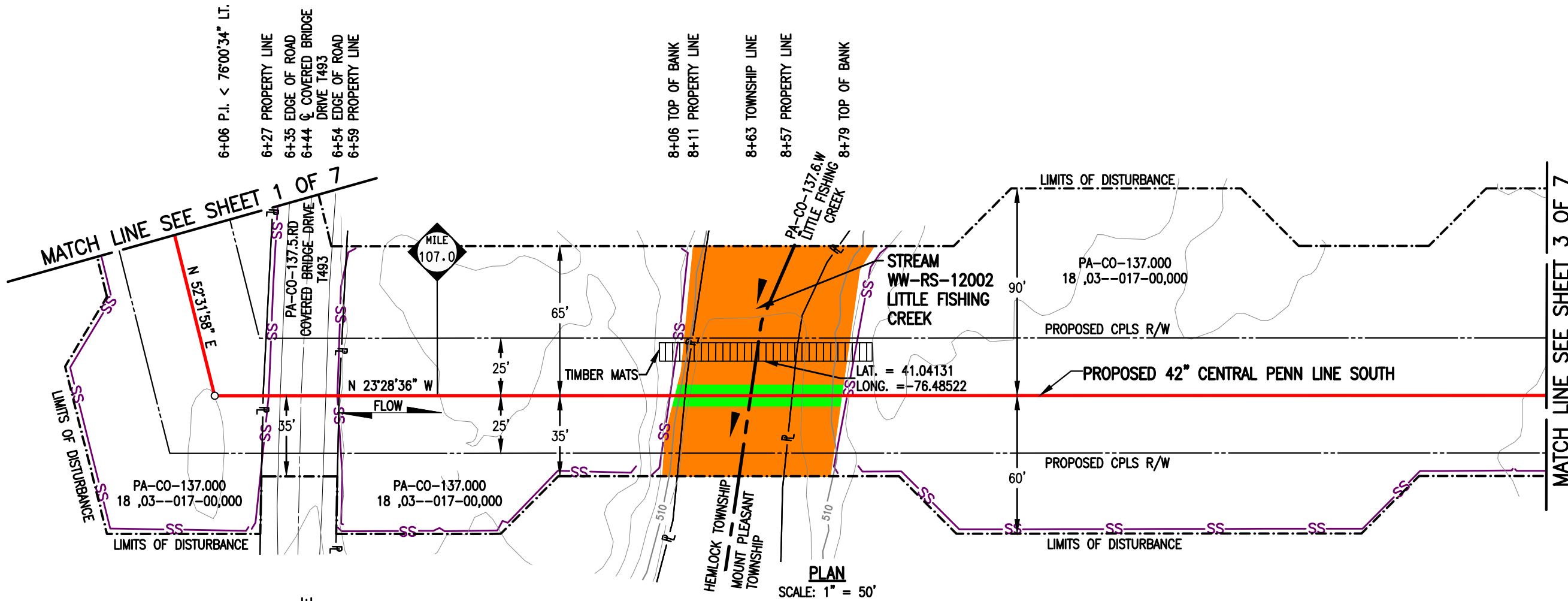
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17 HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL CHECKED BY: CLR APPROVED BY: MJH WO: 1161503
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	DATE: 08/06/16 DATE: 08/06/16 DATE: 08/06/16 DRAWING NUMBER: 24-1600-70-09-A/107.02-01 SCALE: 1" = 50' REVISION: 0 SHEET 1 OF 7

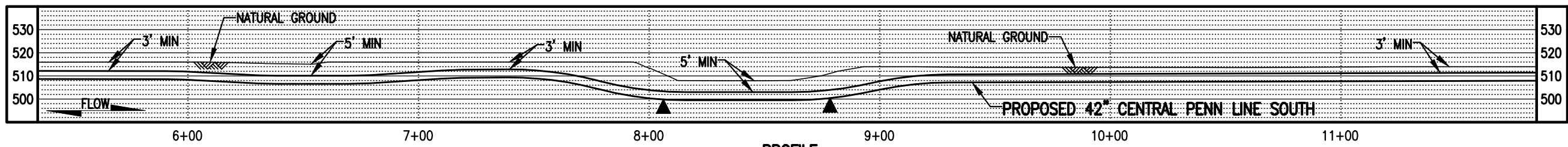
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

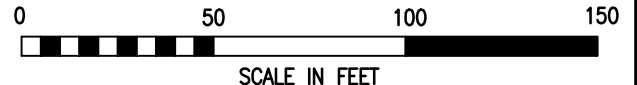
SURVEY NOTES:
SEE SHEET 1 OF 7



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

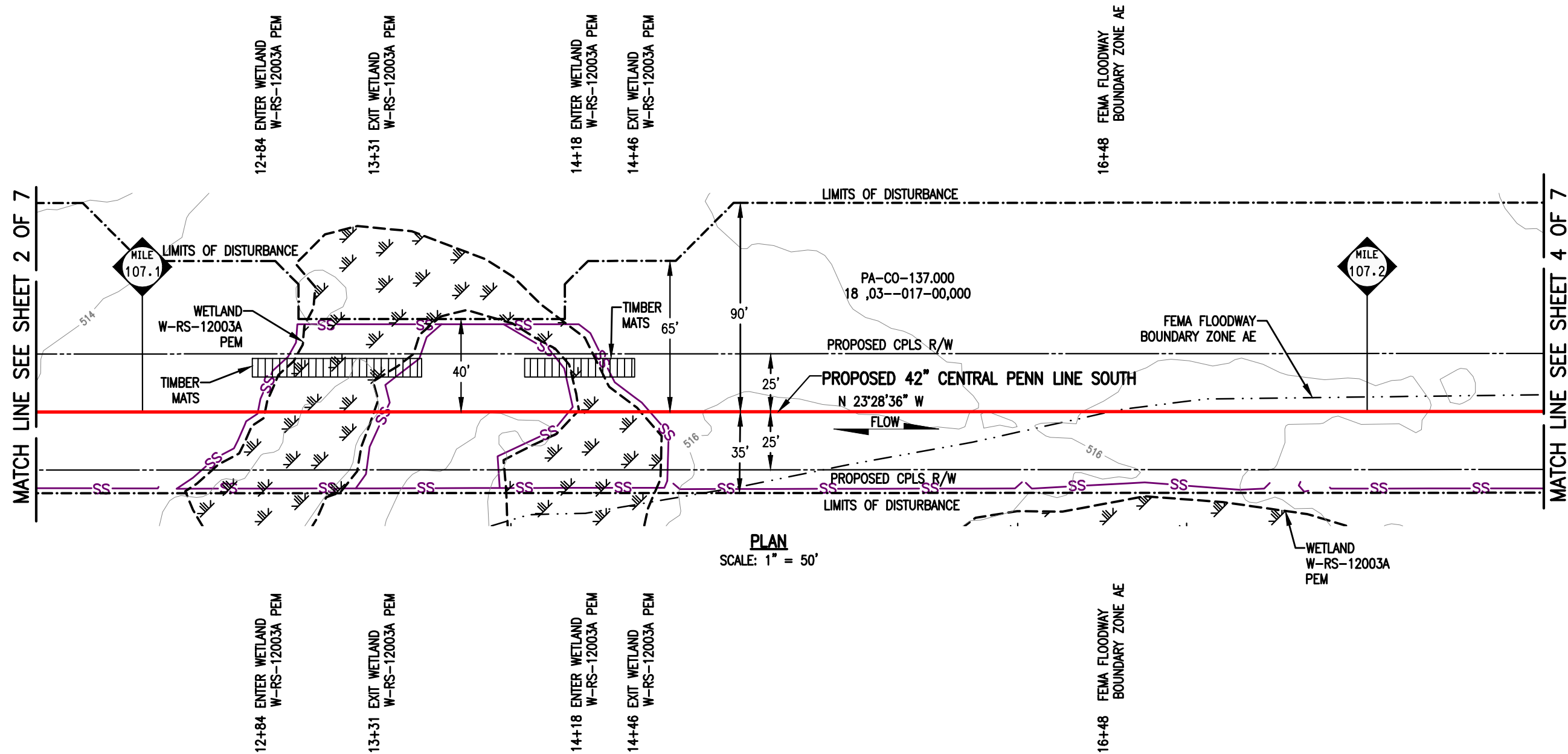
WOOD GROUP MUSTANG, INC.

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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17 HEMLOCK & MOUNT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 08/05/16	ISSUED FOR BID:	SCALE: 1" = 50'
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							APPROVED BY: MJH	DATE: 08/05/16	DRAWING NUMBER: 24-1600-70-09-A/107.02-01	SHEET 2
							WO: 1161503		10/6/2016	OF 7

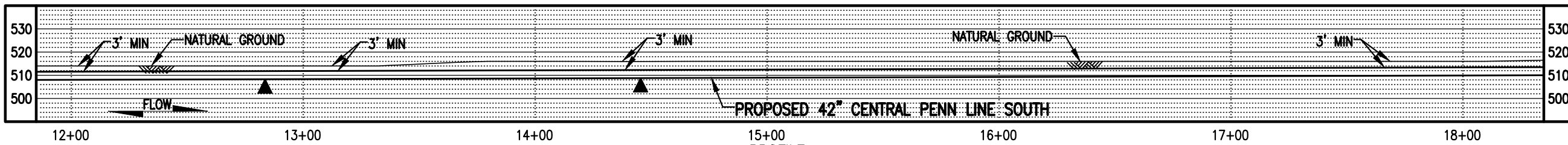
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	JB	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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16,
WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17
MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

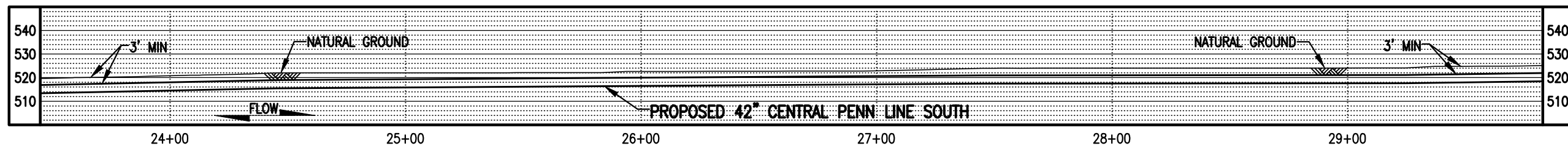
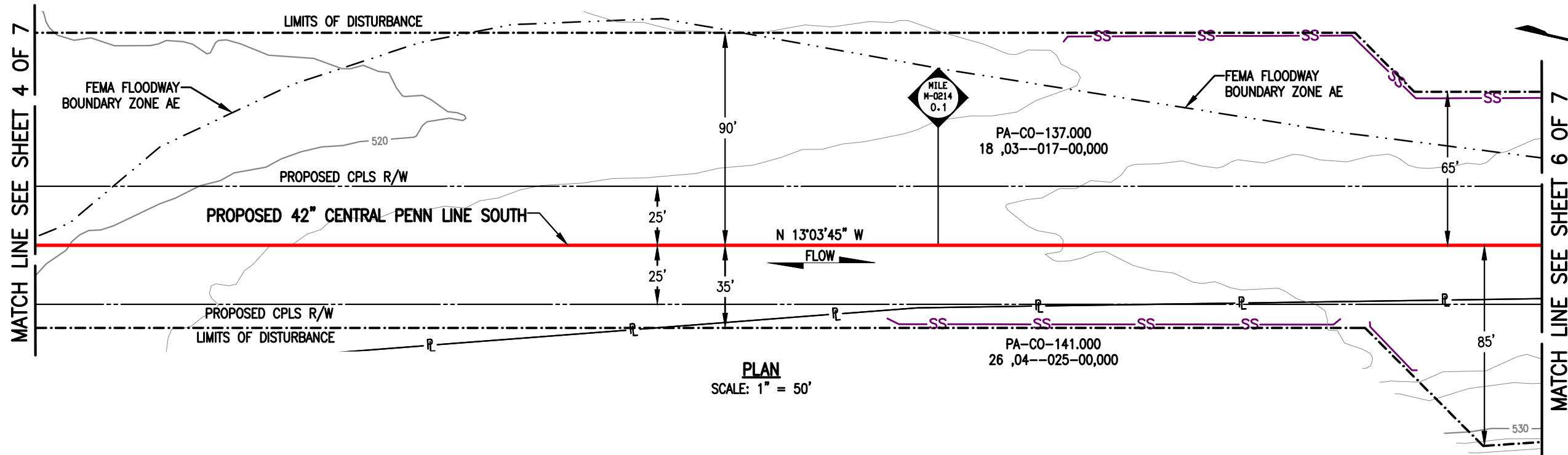
Williams

DRAWN BY: JB	DATE: 08/05/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 08/05/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 08/05/16	DRAWING NUMBER:	24-1600-70-09-A/107.02-01
WO: 1161503		DRAWING NUMBER:	3
		WO: 1161503	OF 7

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

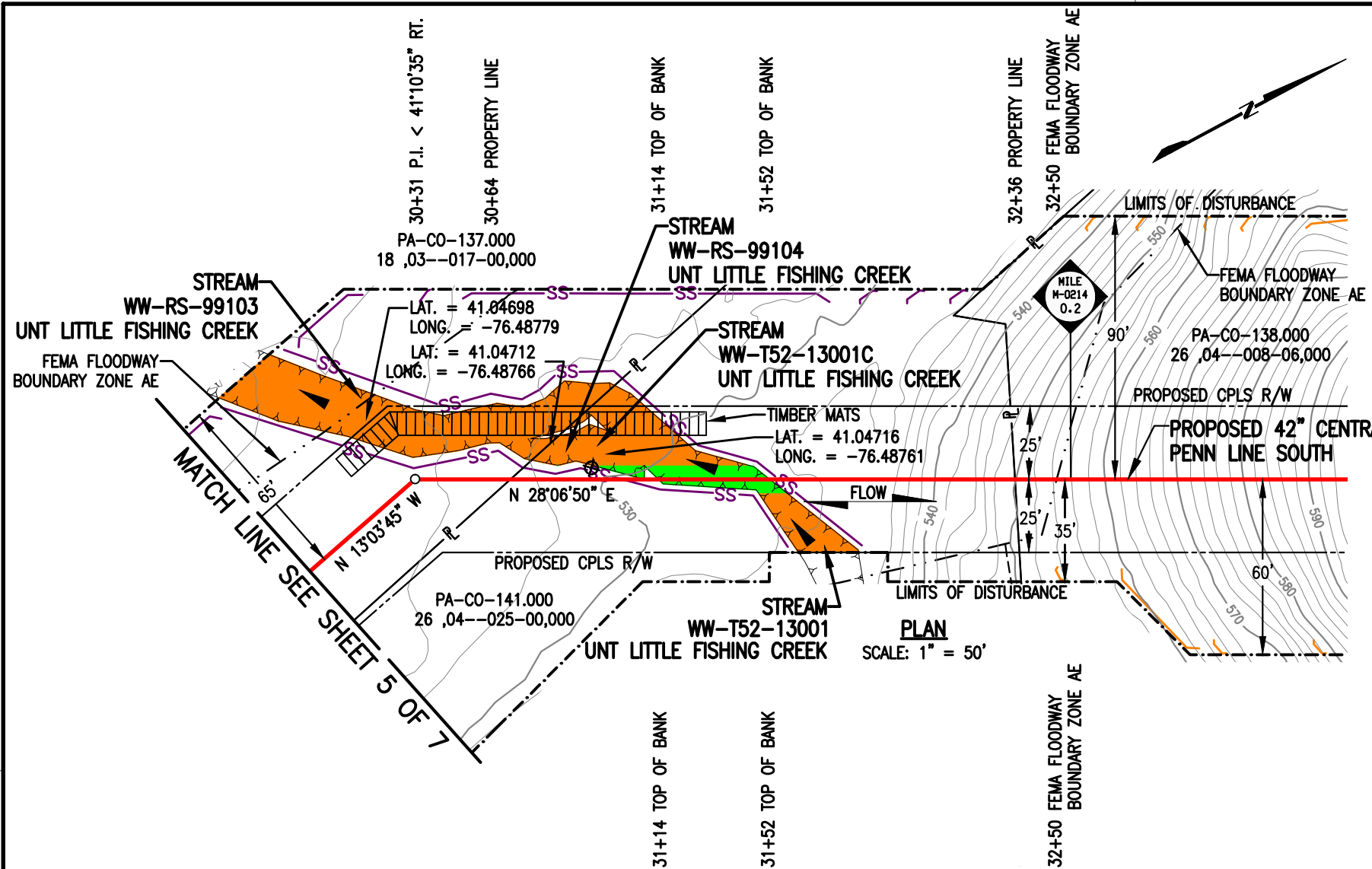
GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17 MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	DATE:	ISSUED FOR BID:	SCALE:
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							CHECKED BY:	DATE:	ISSUED FOR CONSTRUCTION:	REVISION:
							MJH	08/05/16		0
							APPROVED BY:	DATE:	DRAWING NUMBER:	
								08/05/16	24-1600-70-09-A/107.02-01	SHEET 5
							WO:	1161503	5:55am K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAN\Revised 105\RS\24-1600-70-09-A_107.02-01.dwg	OF 7



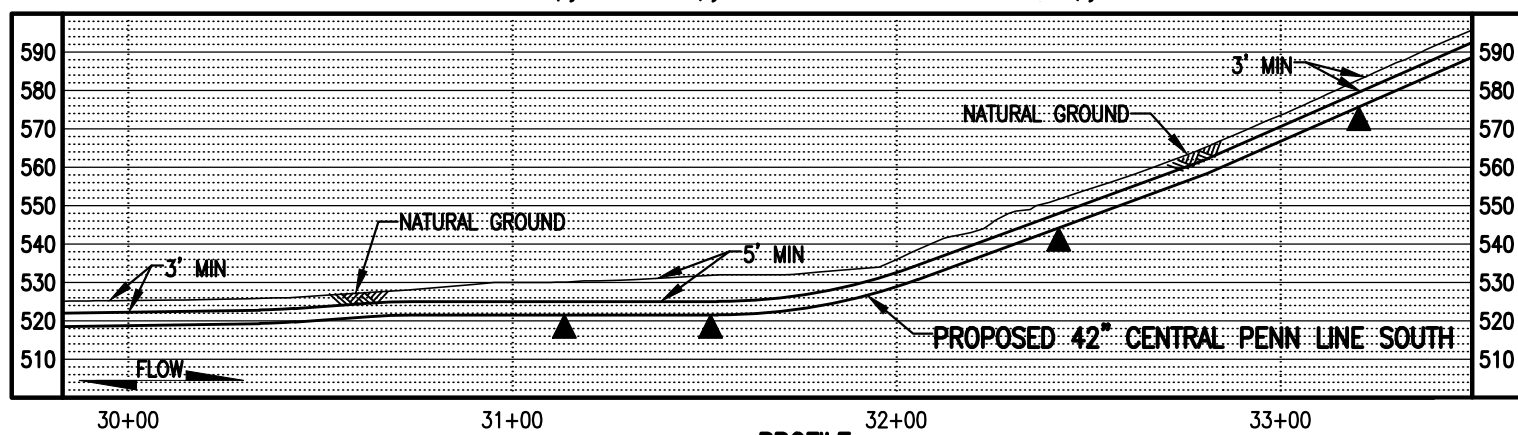
STREAM DISTURBANCE:

STREAM WW-T52-13001C	ACRE
TEMPORARY STREAM DISTURBANCE	0.0042
PERMANENT STREAM DISTURBANCE	0.0011
TOTAL STREAM DISTURBANCE	0.0053
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	13.29
STREAM LENGTH	48.49

STREAM WW-T52-13001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0184
PERMANENT STREAM DISTURBANCE	0.0071
TOTAL STREAM DISTURBANCE	0.0255
TEMPORARY FLOODWAY DISTURBANCE	0.2999
PERMANENT FLOODWAY DISTURBANCE	0.0354
TOTAL FLOODWAY DISTURBANCE	0.3353
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	38.04
STREAM LENGTH	92.83

STREAM WW-RS-99103	ACRE
TEMPORARY STREAM DISTURBANCE	0.0459
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0459
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	30.98
STREAM LENGTH	132.99

STREAM WW-RS-99104	ACRE
TEMPORARY STREAM DISTURBANCE	0.0046
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0046
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	11.56
STREAM LENGTH	38.36



GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16,
WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17
MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

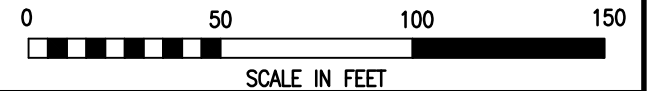
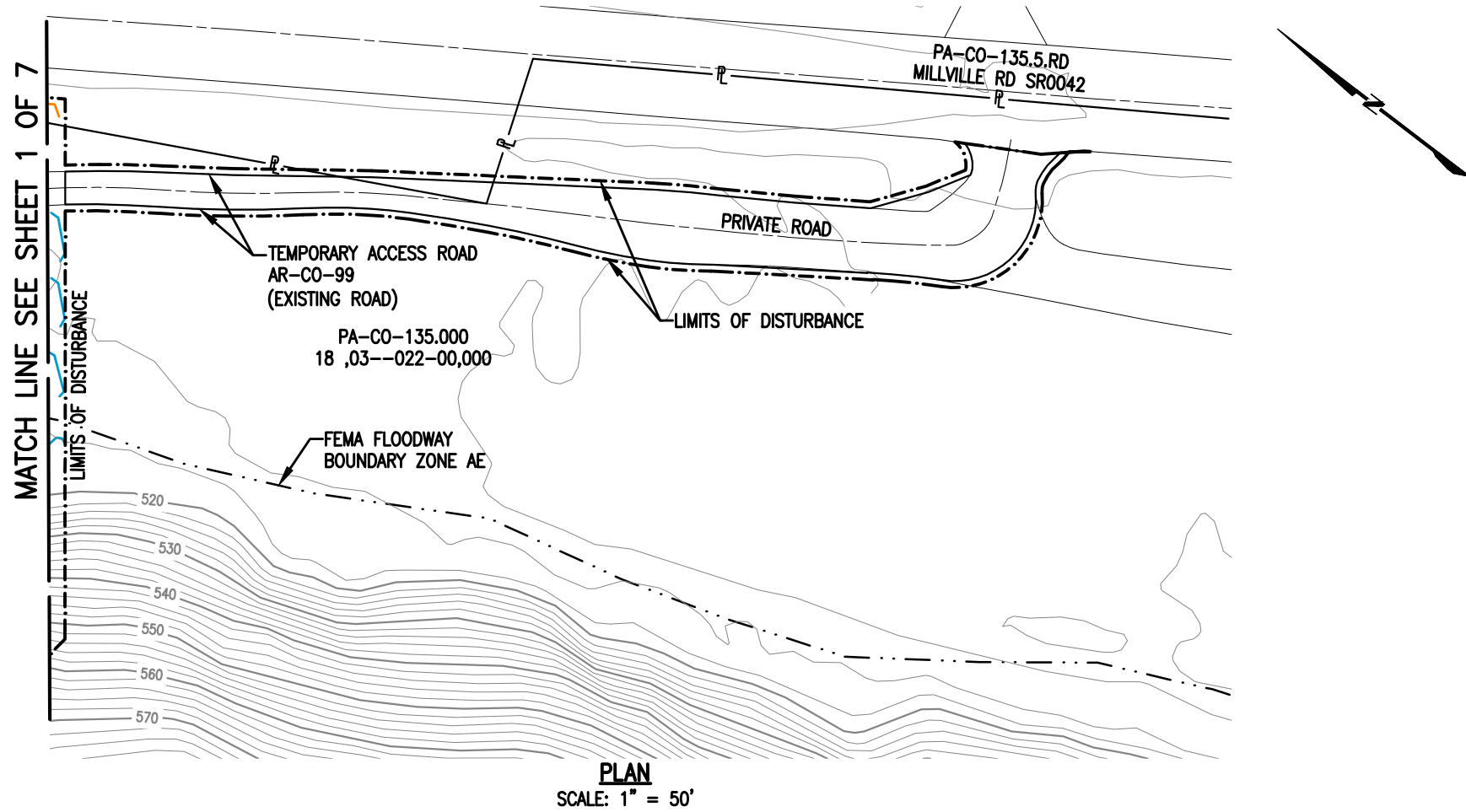
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CHECKED BY: CLR DATE: 08/05/16 ISSUED FOR CONSTRUCTION: REVISION: 0
 APPROVED BY: MJH DATE: 08/05/16
 DRAWING NUMBER: **24-1600-70-09-A/107.02-01** SHEET 6
 W.O. NUMBER: 1161503
10/6/2016 jlibeast
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STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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
0	10/25/16	JB	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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001, WW-T52-13001C, WW-RS-99104 M-0214 M.P. 0.17			
HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
DRAWN BY:	JB	DATE:	08/05/16
CHECKED BY:	CLR	DATE:	08/05/16
APPROVED BY:	MJH	DATE:	08/05/16
ISSUED FOR BID:		SCALE:	1" = 50'
ISSUED FOR CONSTRUCTION:		REVISION:	0
DRAWING NUMBER:	24-1600-70-09-A/107.02-01 SHEET 7		
W.O. NO.:	1161503	CHK.:	CLR
APP.:	MJH	APPROVED BY:	MJH





October 27, 2016

Jackson Township
Floodplain Administrator
862 Waller Divide Road
Benton, PA 17814

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

Jackson Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 2

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
JACKSON TOWNSHIP, COLUMBIA 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-T06-14001	Floodway to West Creek	FEMA Detailed ¹	N/A	1.2574	0.1110 ²	41.26719	-76.41055

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 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 Jackson Township review this analysis and, if applicable, provide comments to:

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

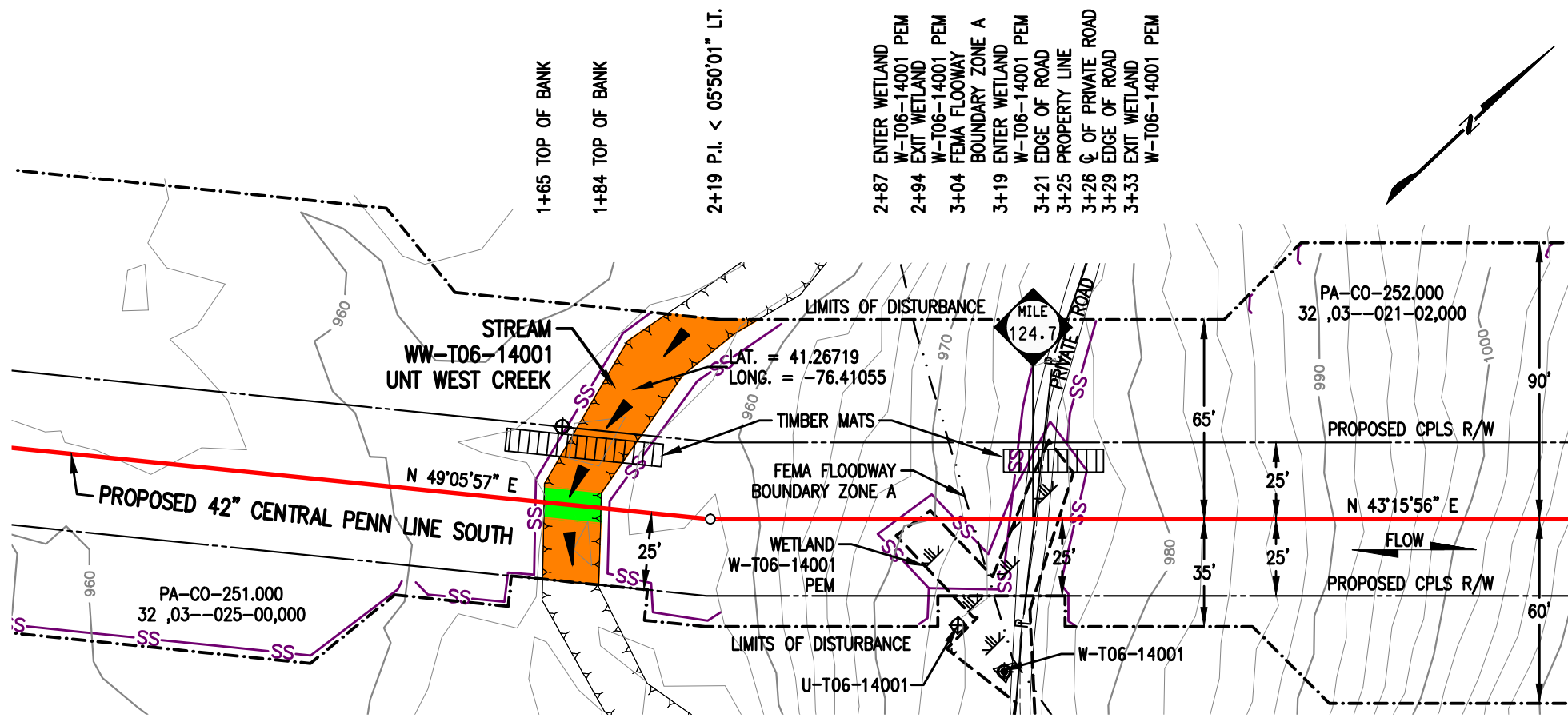
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,

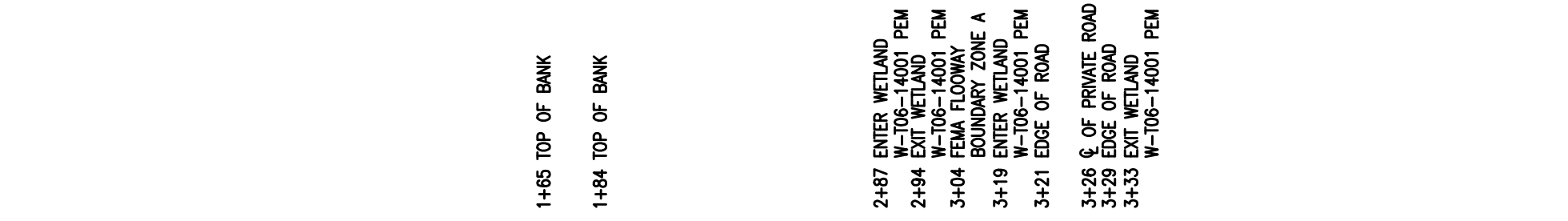


Alaric J. Busher, PE
 Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



PLAN
SCALE: 1" = 50'



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

STREAM DISTURBANCE:

STREAM WW-T06-14001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0403
PERMANENT STREAM DISTURBANCE	0.0043
TOTAL STREAM DISTURBANCE	0.0446
TEMPORARY FLOODWAY DISTURBANCE	1.2574
PERMANENT FLOODWAY DISTURBANCE	0.1110
TOTAL FLOODWAY DISTURBANCE	1.3684

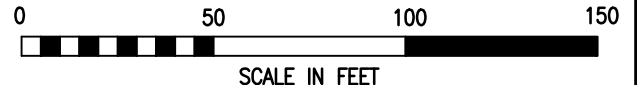
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	18.60
STREAM LENGTH	99.81

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 6581+92 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 45' RT. OF M.P. 124.70, ELEV. = 974.50' (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		

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		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-T06-14001						
				M.P. 124.67						
				JACKSON TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: FH	DATE: 03/31/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	FH	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY: ELR	DATE: 03/31/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/124.67-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO: 1161503		6-S4am	OF 1



October 27, 2016

Montour Township
195 Rupert Drive
Bloomsburg, PA 17815

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

Montour Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
MONTOUR TOWNSHIP, COLUMBIA 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-T04-12001	Floodway to Susquehanna River	FEMA Detailed	N/A	0.7714	0.1920 ²	40.95028	-76.48468
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T04-12005	Floodway to Montour Run	FEMA Detailed ³	N/A	0.1677	0.0259 ²	40.97699	-76.49838

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 Montour Township review this analysis and, if applicable, provide comments to:

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

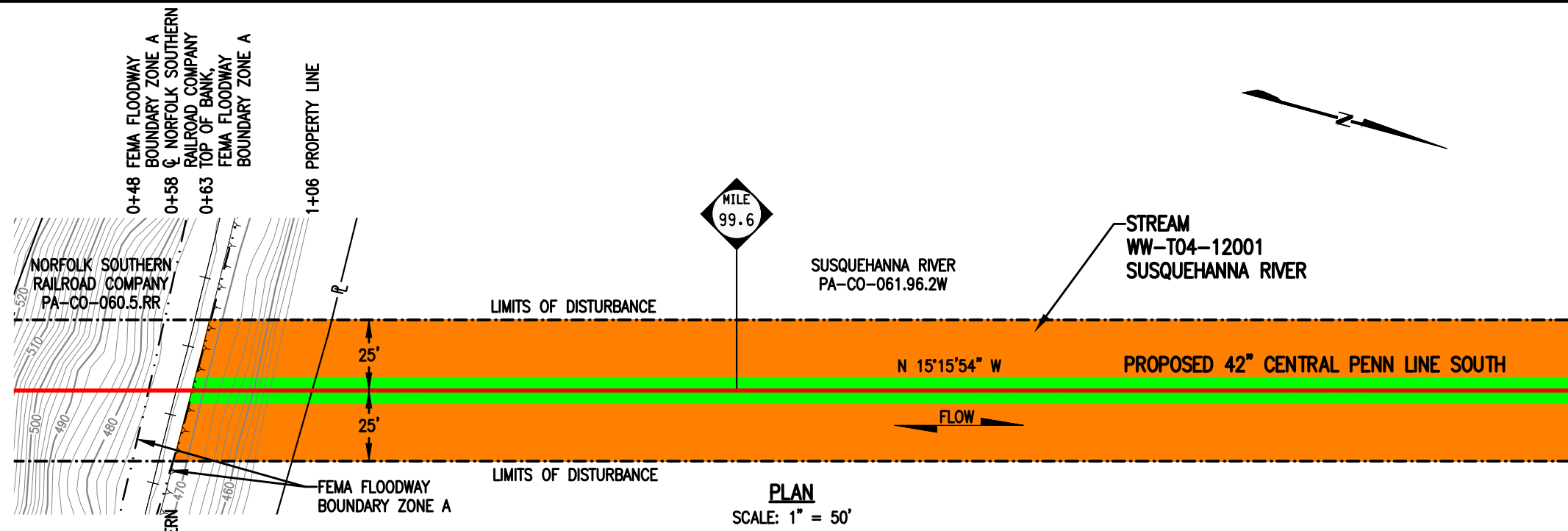
Please do not send comments directly to the PADEP, as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



Alaric J. Busher, PE
 Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



MATCH LINE SEE SHEET 2 OF 4

STREAM DISTURBANCE:

STREAM WW-T04-12001	ACRE
TEMPORARY STREAM DISTURBANCE	0.9213
PERMANENT STREAM DISTURBANCE	0.2303
TOTAL STREAM DISTURBANCE	1.1516
TEMPORARY FLOODWAY DISTURBANCE	0.7714
PERMANENT FLOODWAY DISTURBANCE	0.1920
TOTAL FLOODWAY DISTURBANCE	0.9634

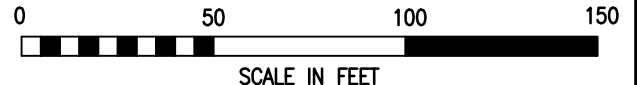
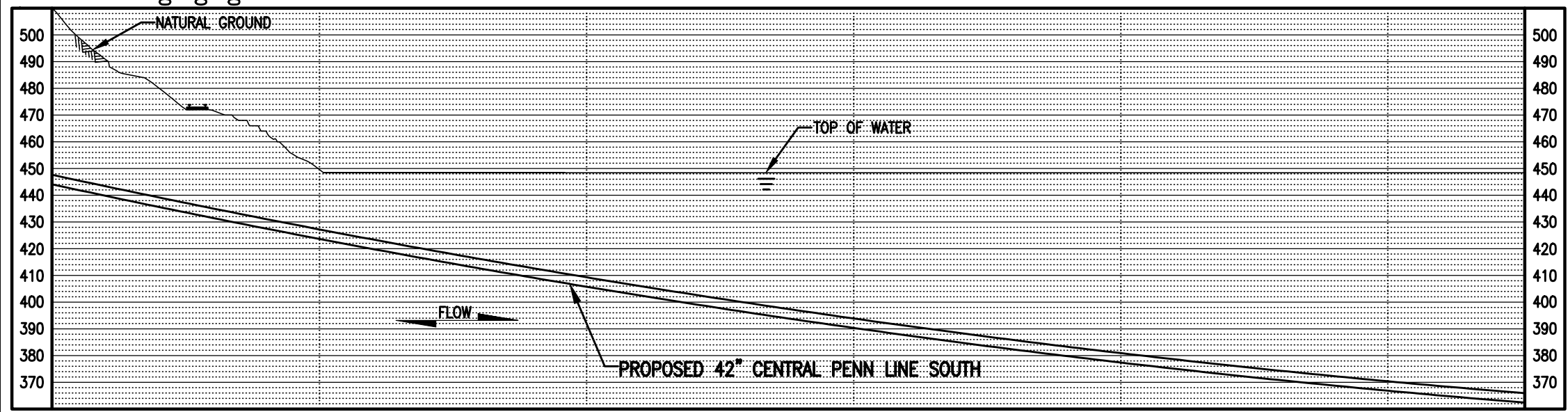
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	1003.29
STREAM LENGTH	54.73

GENERAL NOTES:

1. STREAM WW-T04-12001 CROSSING METHOD SHALL BE HDD. NO PHYSICAL SURFACE IMPACTS ARE PROPOSED TO THIS FEATURE DUE TO HDD CROSSING METHOD.
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 5257+32 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 57' RT. OF M.P. 99.56, ELEV. = 467.94' (NAVD88).

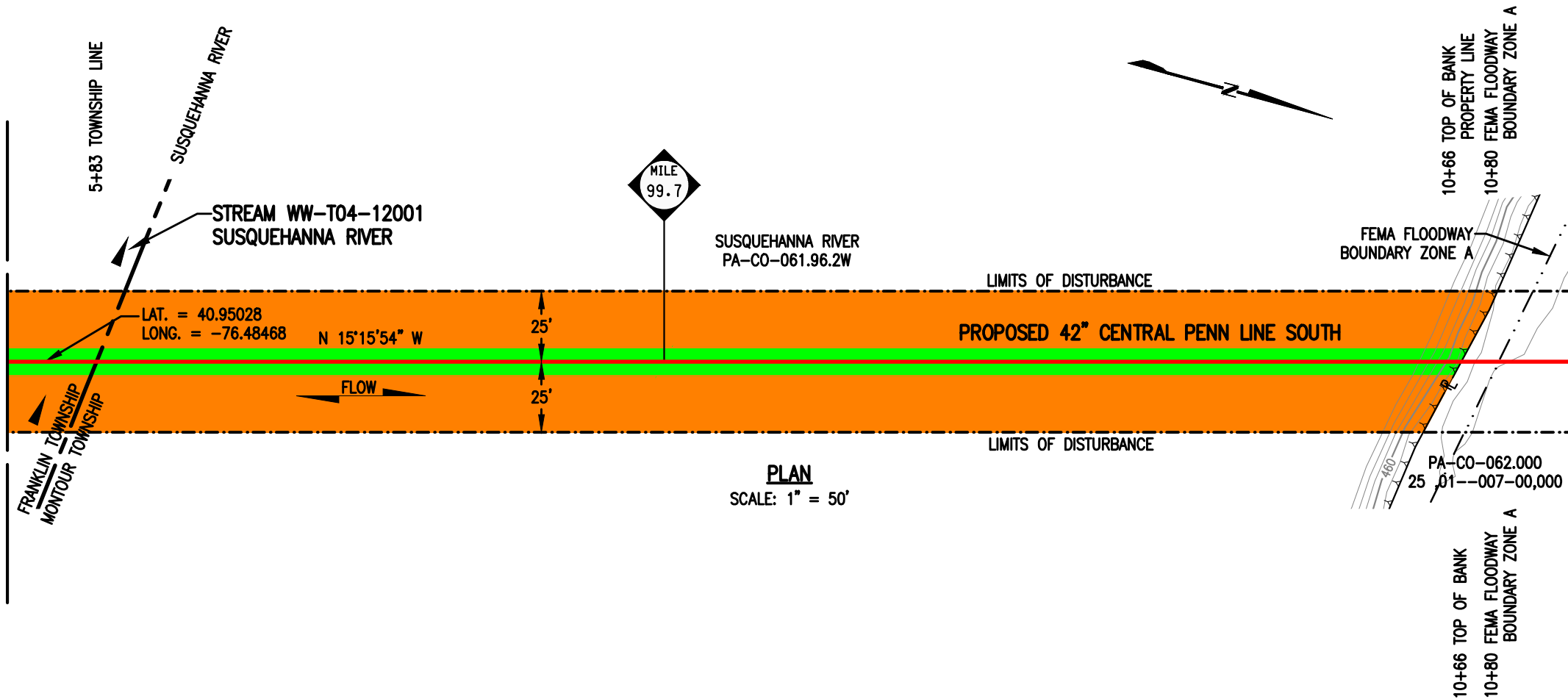


LEGEND

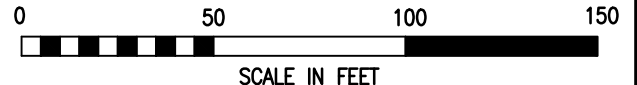
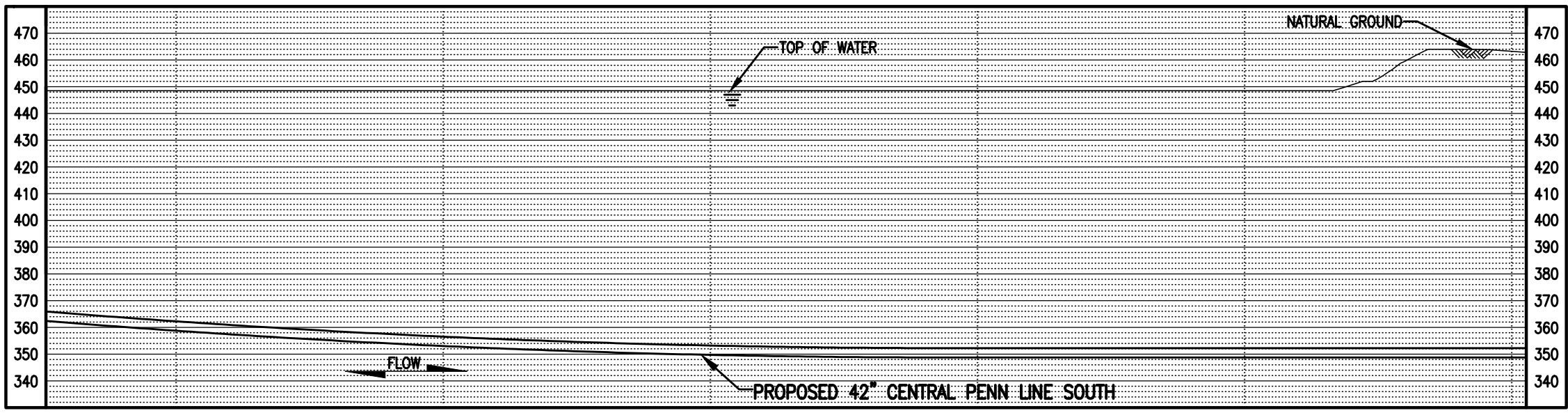
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT 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 CROSSING WW-T04-12001 M.P. 99.66 FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APP.
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR MJH
1	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR MJH
DRAWN BY: LL		DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: ML		DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1	
APPROVED BY: MJH		DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/99.66-01	SHEET 1	
IW: 1161503			7:54am K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAN\Revised 105\24-1600-70-09-A_99.66-01.dwg	OF 4	

MATCH LINE SEE SHEET 1 OF 4



MATCH LINE SEE SHEET 3 OF 4



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
			12" SEDIMENT BARRIER
			18" SEDIMENT BARRIER
			24" SEDIMENT BARRIER
			32" SEDIMENT BARRIER
			TOP OF BANK

DRAWING NO.	REFERENCE TITLE

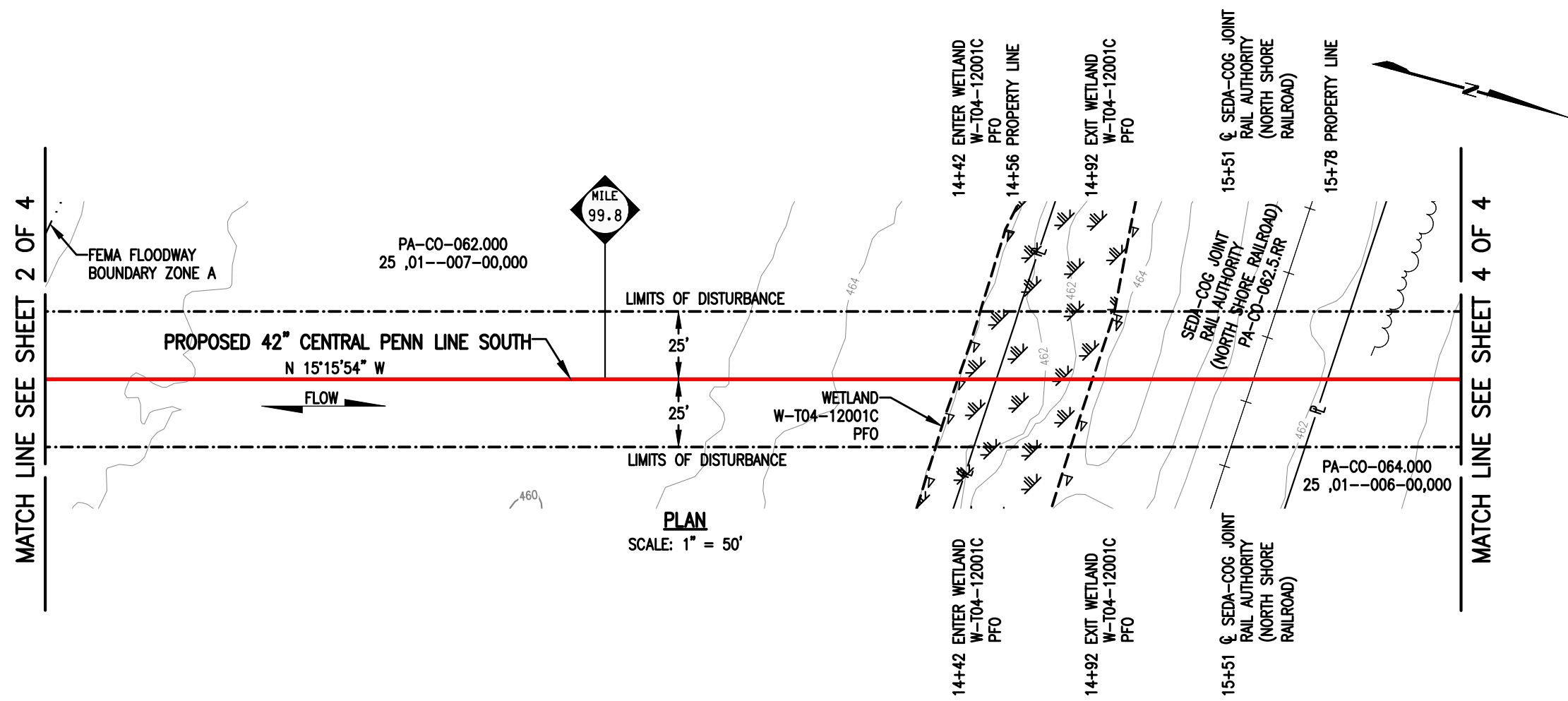
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1	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

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-T04-12001
M.P. 99.66
FRANKLIN & MONTOUR TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: LL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/99.66-01	SHEET 2
W.O. NO.: 1161503			OF 4

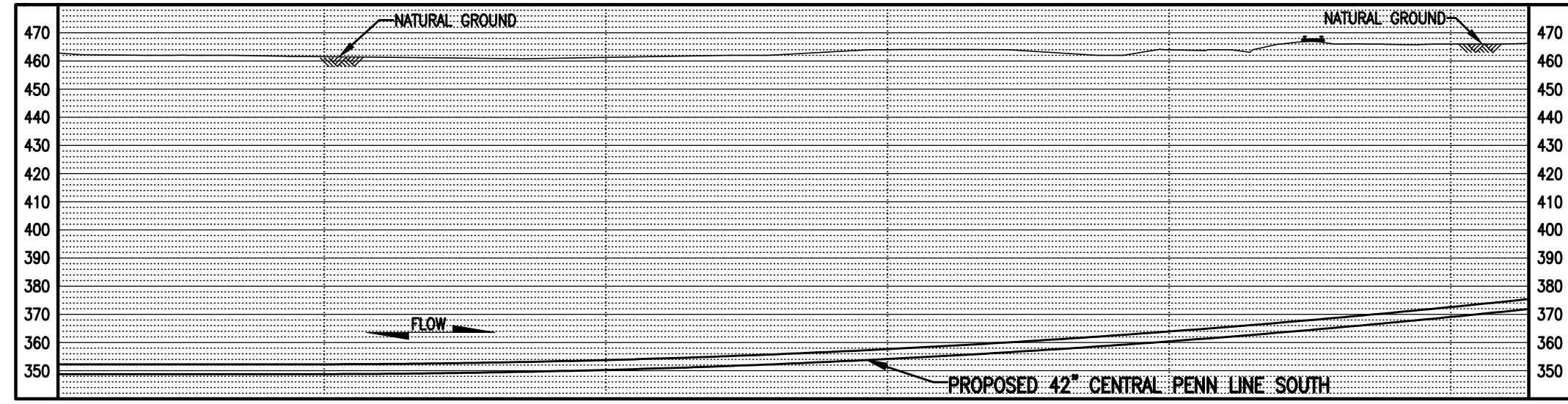
12:25pm 9/30/2016 jlibeast

MATCH LINE SEE SHEET 2 OF 4



MATCH LINE SEE SHEET 4 OF 4

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
			12" SEDIMENT BARRIER
			18" SEDIMENT BARRIER
			24" SEDIMENT BARRIER
			32" SEDIMENT BARRIER
			TOP OF BANK

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT
1	10/25/16	AT	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-T04-12001
© M.P. 99.66
MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: LL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/99.66-01	SHEET 3
WO: 1161503			OF 4

MATCH LINE SEE SHEET 3 OF 4

LIMITS OF DISTURBANCE

PROPOSED 42" CENTRAL PENN LINE SOUTH

N 15°15'54" W

FLOW

LIMITS OF DISTURBANCE

PA-CO-064.000
25,01--00-600,000

PLAN

SCALE: 1" = 50'

18+45 FEMA FLOODWAY BOUNDARY ZONE A

19+03 FEMA FLOODWAY BOUNDARY ZONE A

20+10 FEMA FLOODWAY BOUNDARY ZONE A

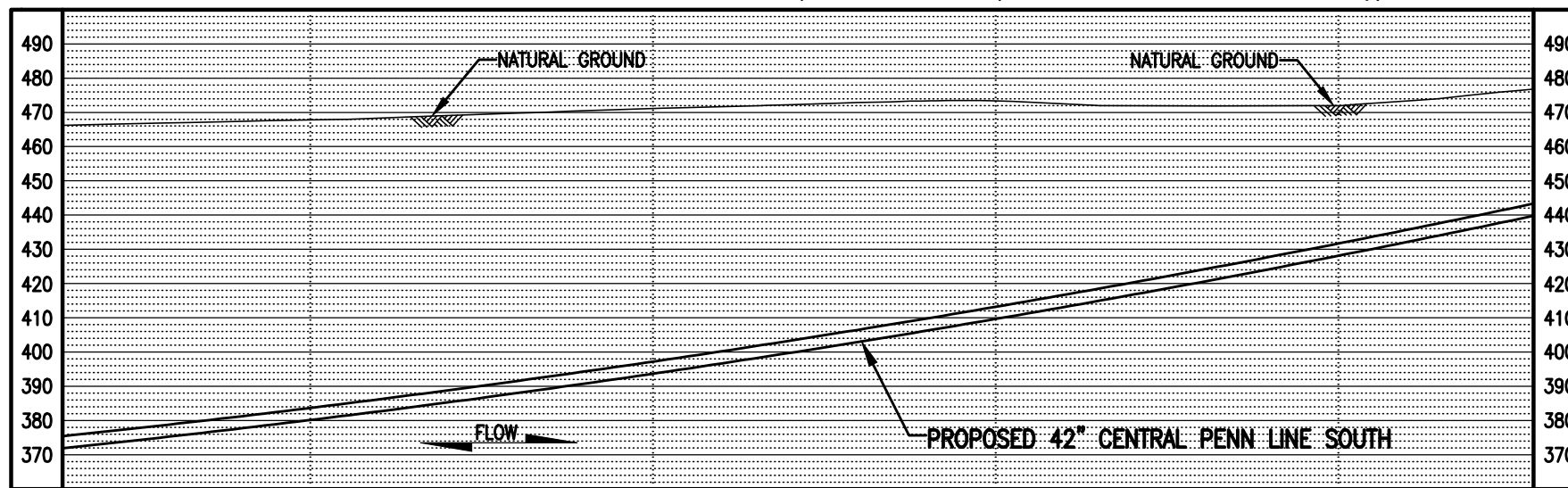
MILE 99.9

FEMA FLOODWAY BOUNDARY ZONE A

18+45 FEMA FLOODWAY BOUNDARY ZONE A

19+03 FEMA FLOODWAY BOUNDARY ZONE A

20+10 FEMA FLOODWAY BOUNDARY ZONE A



PROFILE

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



SCALE IN FEET

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

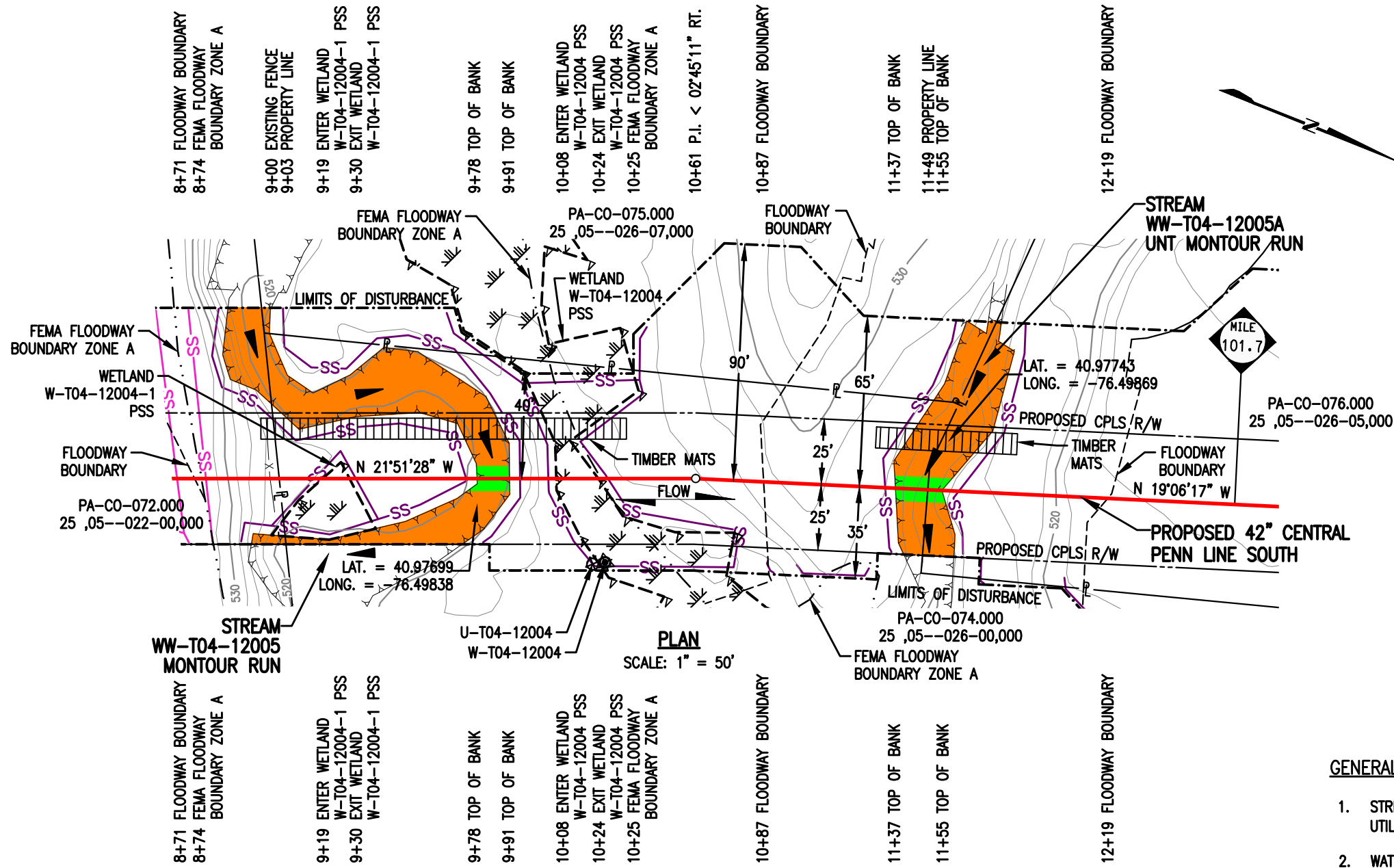
WOOD GROUP MUSTANG, INC.

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	LL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH
1	10/25/16	AT	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-T04-12001
© M.P. 99.66
MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: LL	DATE: 05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1600-70-09-A/99.66-01	SHEET 4
WO: 1161503		9/30/2016 jibeast	OF 4



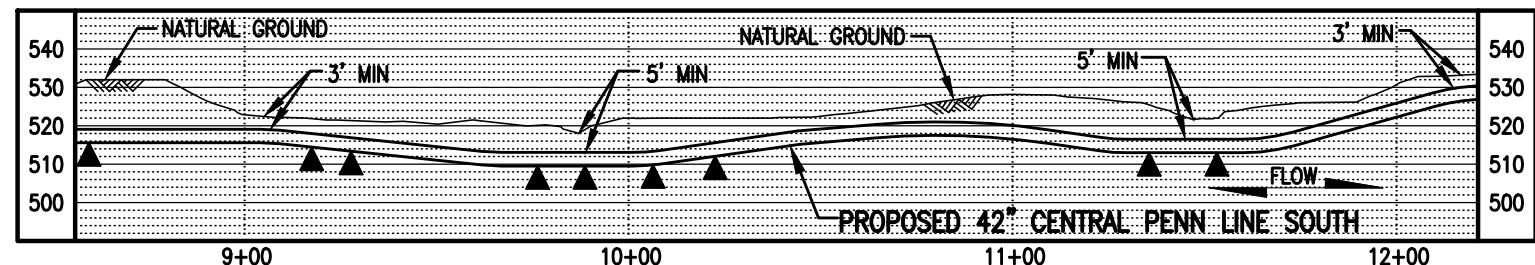
STREAM DISTURBANCE:

STREAM WW-T04-12005	ACRE
TEMPORARY STREAM DISTURBANCE	0.0700
PERMANENT STREAM DISTURBANCE	0.0030
TOTAL STREAM DISTURBANCE	0.0730
TEMPORARY FLOODWAY DISTURBANCE	0.1677
PERMANENT FLOODWAY DISTURBANCE	0.0259
TOTAL FLOODWAY DISTURBANCE	0.1936

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	12.33
STREAM LENGTH	160.38

STREAM WW-T04-12005A	ACRE
TEMPORARY STREAM DISTURBANCE	0.0414
PERMANENT STREAM DISTURBANCE	0.0044
TOTAL STREAM DISTURBANCE	0.0458
TEMPORARY FLOODWAY DISTURBANCE	0.2131
PERMANENT FLOODWAY DISTURBANCE	0.0257
TOTAL FLOODWAY DISTURBANCE	0.2388

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	17.67
STREAM LENGTH	95.87



GENERAL NOTES FOR STREAMS WW-T04-12005 & WW-T04-12005A:

1. STREAM CROSSING METHODS SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. 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.
3. STREAM WW-T04-12005 IS WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 9+00 SHOWN IS EQUAL TO STATION 5366+09 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 11' LT. OF M.P. 101.63, ELEV. = 522.16' (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		SEDIMENT BARRIER

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	

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-T04-12005 @ M.P. 101.65
& WW-T04-12005A @ M.P. 101.68
MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	LL	DATE:	05/18/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	TL	ISSUED FOR PADEP 105 PERMIT	1161503	CLR	MJH	CHECKED BY:	ML	DATE:	06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	LN	ISSUED FOR INTERNAL USE	1161503	CLR	MJH	APPROVED BY:	MJH	DATE:	06/08/15	DRAWING NUMBER:	24-1600-70-09-A/101.64-01 SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	IWO:	1161503			10/5/2016	OF 1



October 27, 2016

Mount Pleasant Township
Floodplain Administrator
558 Millertown Road
Bloomsburg, PA 17815

Re: Atlantic Sunrise Project
Central Penn Line South
Mount Pleasant Township, Columbia 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;
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- 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 Mount Pleasant Township is provided below for your review and comment.

Mount Pleasant Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 3

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
MOUNT PLEASANT TOWNSHIP, COLUMBIA 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-T52-13001	Floodway to UNT to Little Fishing Creek	FEMA Detailed ¹	N/A	0.0079	0.000	41.04721	-76.48758
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-RS-T70-12002	Floodway to Little Fishing Creek	FEMA Detailed	N/A	8.1447	0.7028	41.04131	-76.48522
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T70-12010-1	Floodway to Little Fishing Creek	FEMA Detailed	N/A	0.0079	0.000	41.04721	-76.48758
Temporary Road Crossing	Equipment Access and E&S Controls	WW-T70-12006	Floodway to Fishing Creek	FEMA Detailed	1465.55 ²	0.6069	0.00	41.02414	-76.47776

Notes:
¹ Multiple streams are included in these calculations as the floodways overlap.
² Floodway fill is associated with a temporary access road. Pre development contours will be restored prior to permit termination.

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 temporary access road grading 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 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 Hemlock Township review this analysis and, if applicable, provide comments to:

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

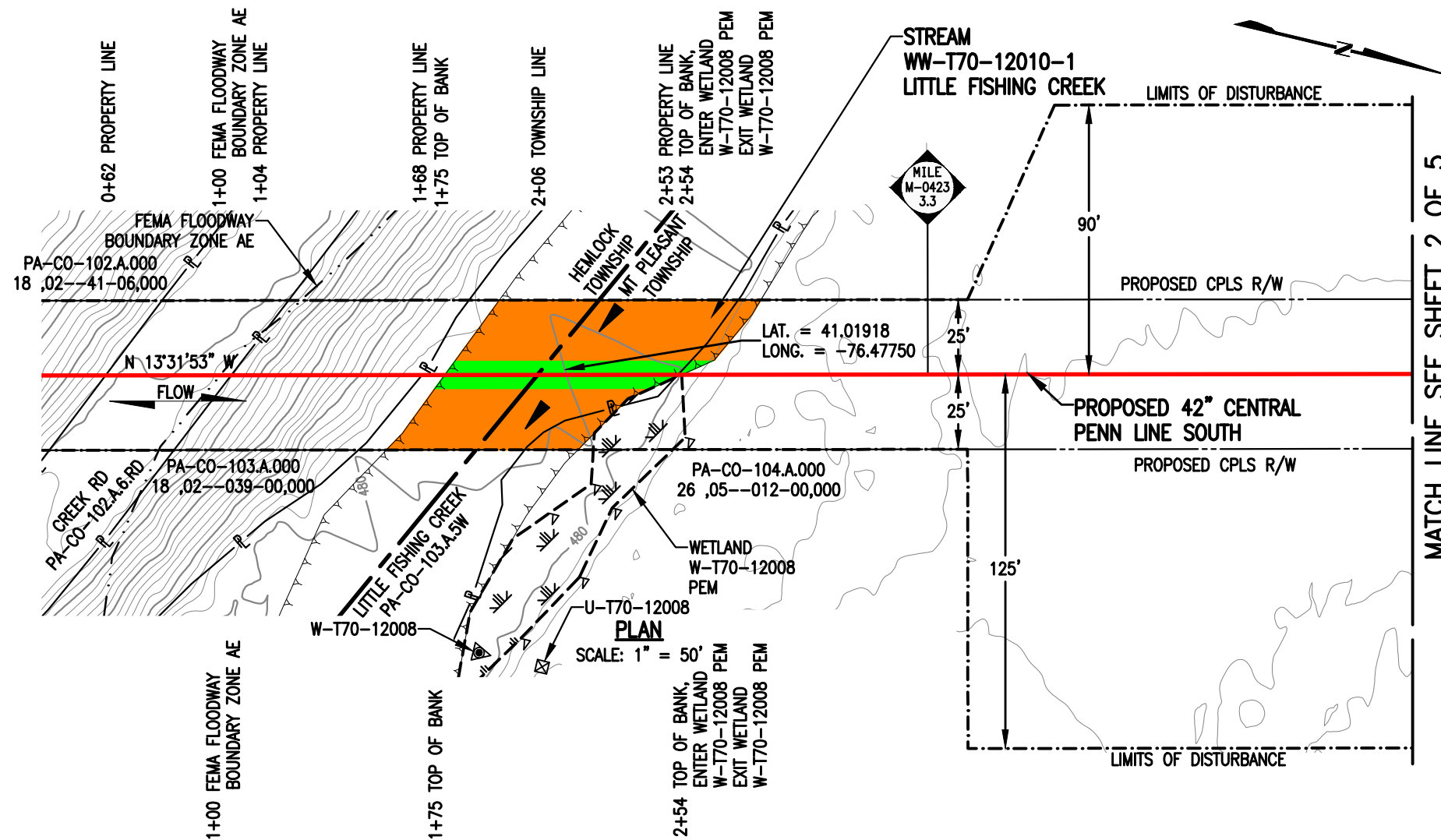
Please do not send comments directly to the PADEP. as we must include them with our permit application. Should you have any questions or concerns regarding this notification, please contact Al Busher at (717)-651-9850 or via email at abusher@blcompanies.com.

Sincerely,



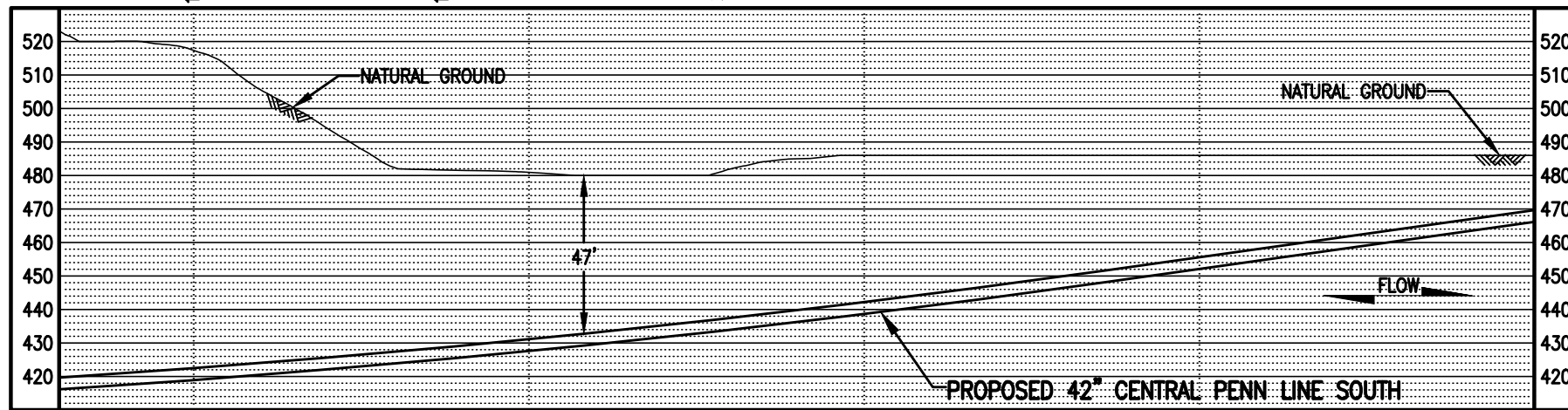
Alaric J. Busher, PE
Senior Engineer

Enclosures: Water Obstruction and Encroachment Permit Impact Maps



STREAM DISTURBANCE:

STREAM WW-T70-12010-1	ACRE
TEMPORARY STREAM DISTURBANCE	0.0703
PERMANENT STREAM DISTURBANCE	0.0182
TOTAL STREAM DISTURBANCE	0.0885
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	79.09
STREAM LENGTH	65.22



GENERAL NOTES:

1. STREAM CROSSING METHOD FOR STREAM WW-T70-12010-1 SHALL BE HDD. STREAM CROSSING METHOD FOR STREAM WW-T70-12010 SHALL BE DAM AND PUMP (DPX).
2. NO PHYSICAL SURFACE IMPACT ARE PROPOSED TO STREAM WW-T70-12010-1 DUE TO HDD CROSSING METHOD.
3. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 1+00 SHOWN IS EQUAL TO M-0423 STATION 171+87 ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. FLOODWAY IMPACTS FOR STREAM WW-T70-12010-1 ARE INCLUDED IN FLOODWAY IMPACT OF STREAMS WW-T70-12006 ON DWG. 24-1600-70-09-A/M-0423-3.00-01.

SURVEY NOTES:

1. T.B.M. IRON ROD - 96' RT. OF M-0423 M.P. 3.16, ELEV. = 513.13' (NAVD88).



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

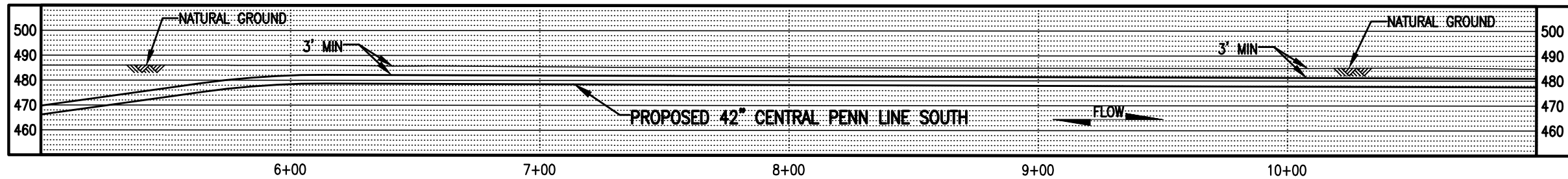
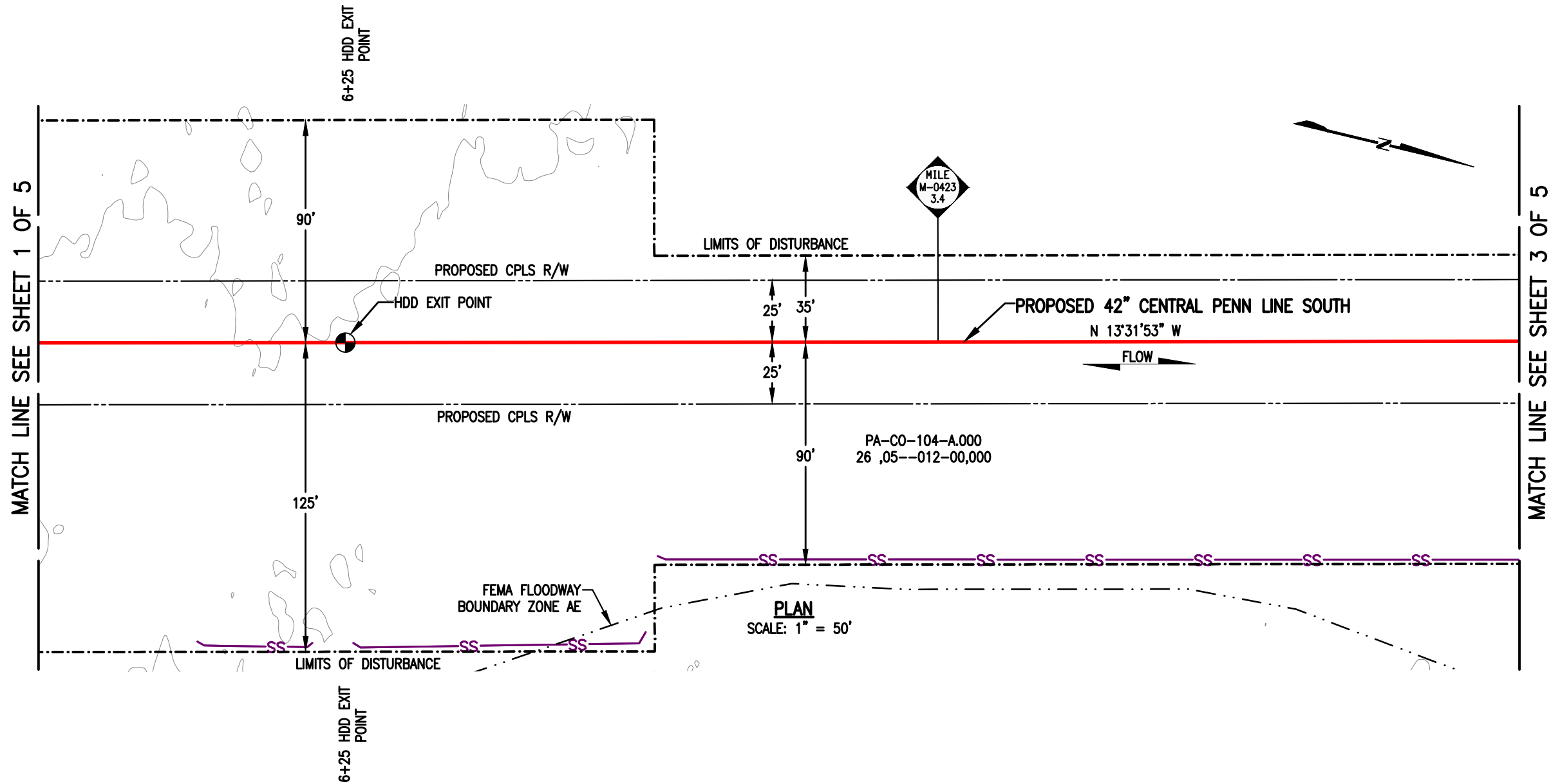
WOOD GROUP MUSTANG, INC.

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

DRAWING NO.		REFERENCE TITLE		NO.		DATE		BY		REVISION DESCRIPTION		W.O. NO.		CHK.		APP.	
				0		10/25/16		JB		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-T70-12010-1 @ M-0423 M.P. 3.28
& WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 1
WC: 1161503		10/12/2016	t2le



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

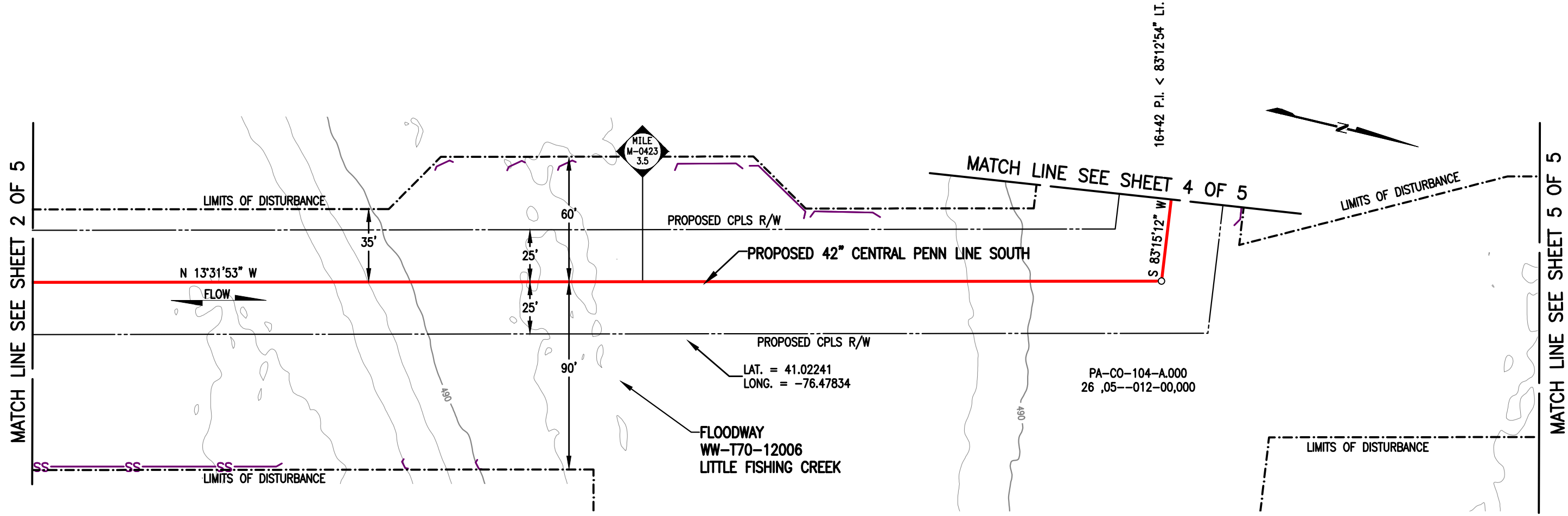


DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

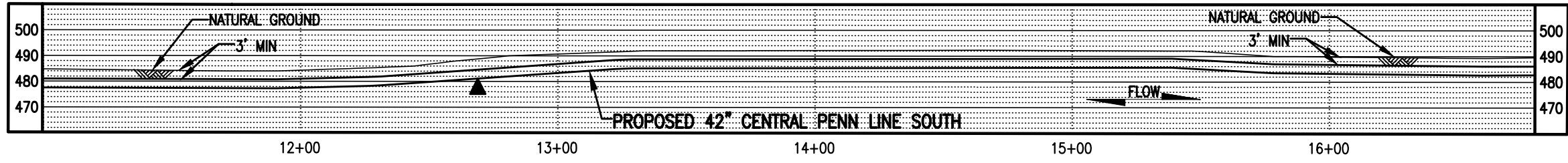
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

Williams

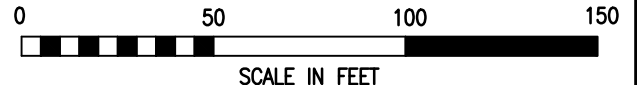
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CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 2
WO: 1161503		10/20/2016 t3le	OF 5



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
	WETLAND DATA POINT
	WELL POINT
	TRENCH PLUG
	WATERBODY
	TREE LINE
	FLOODWAY BOUNDARY
	FEMA FLOODWAY BOUNDARY
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK

WOOD GROUP MUSTANG, INC.

DRAWING NO.	REFERENCE TITLE

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

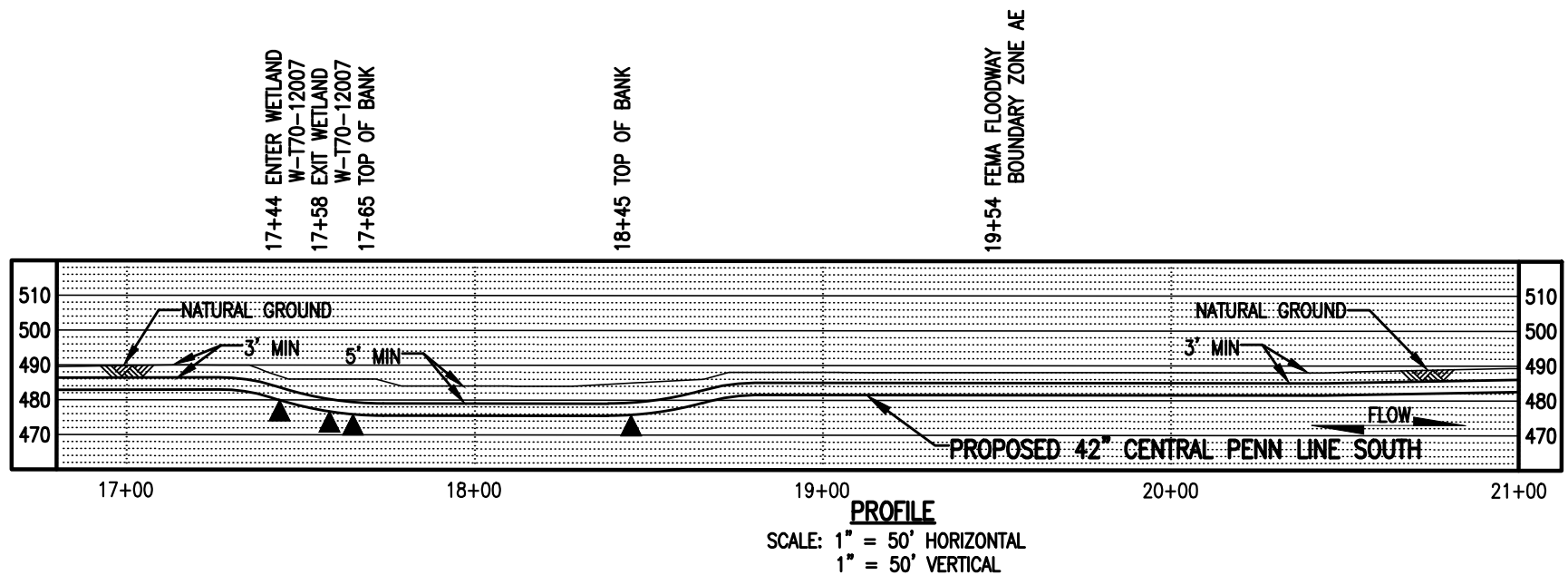
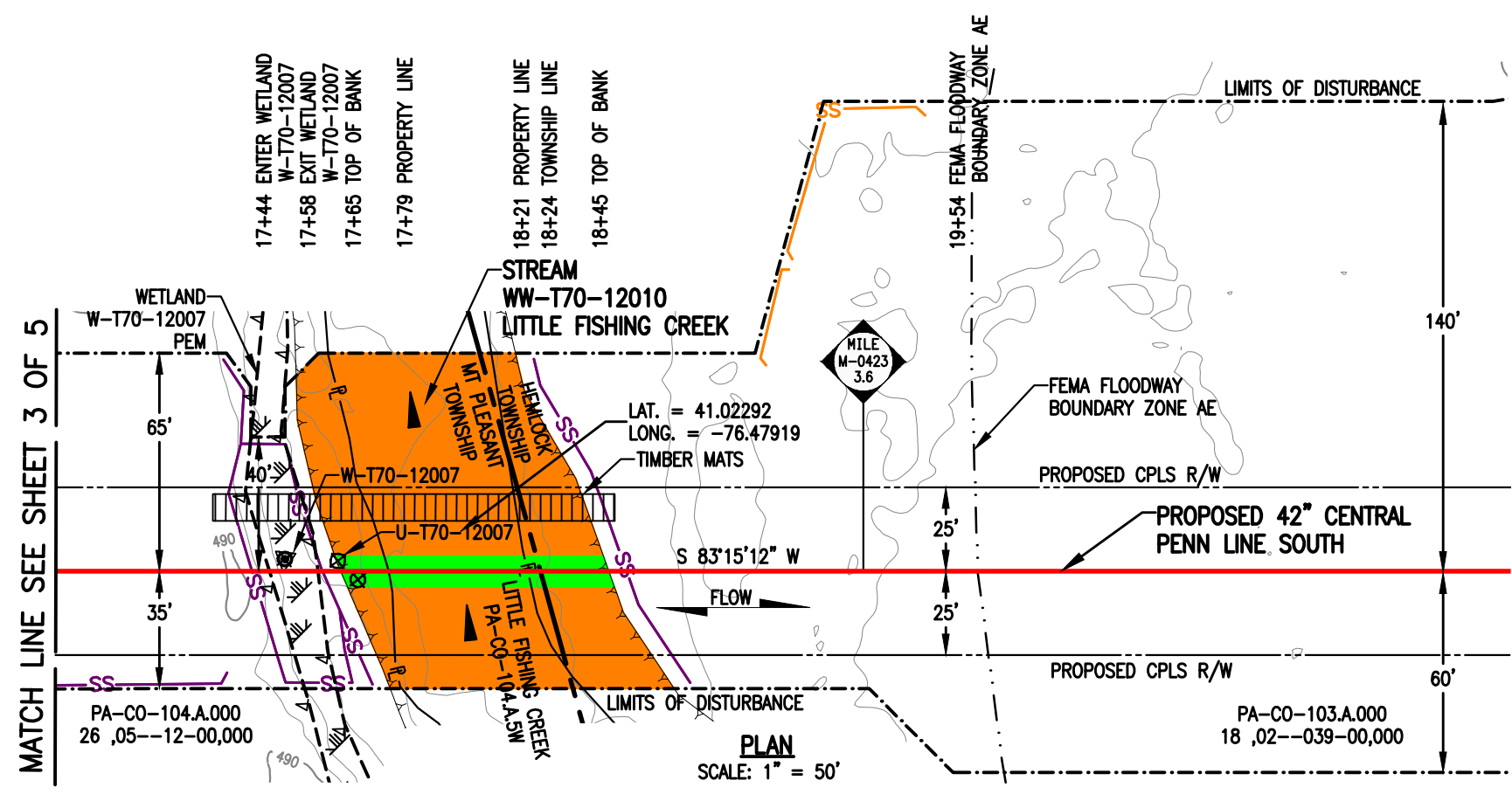
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: JB	DATE: 07/26/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/26/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/27/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 3
W.O. NO.: 1161503	10/11/2016	7:56am	OF 5

STREAM DISTURBANCE:

STREAM WW-T70-12010	ACRE
TEMPORARY STREAM DISTURBANCE	0.1583
PERMANENT STREAM DISTURBANCE	0.0183
TOTAL STREAM DISTURBANCE	0.1766
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	79.85
STREAM LENGTH	107.36

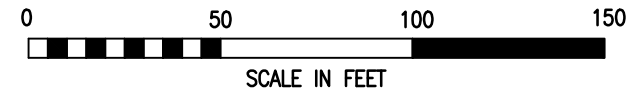
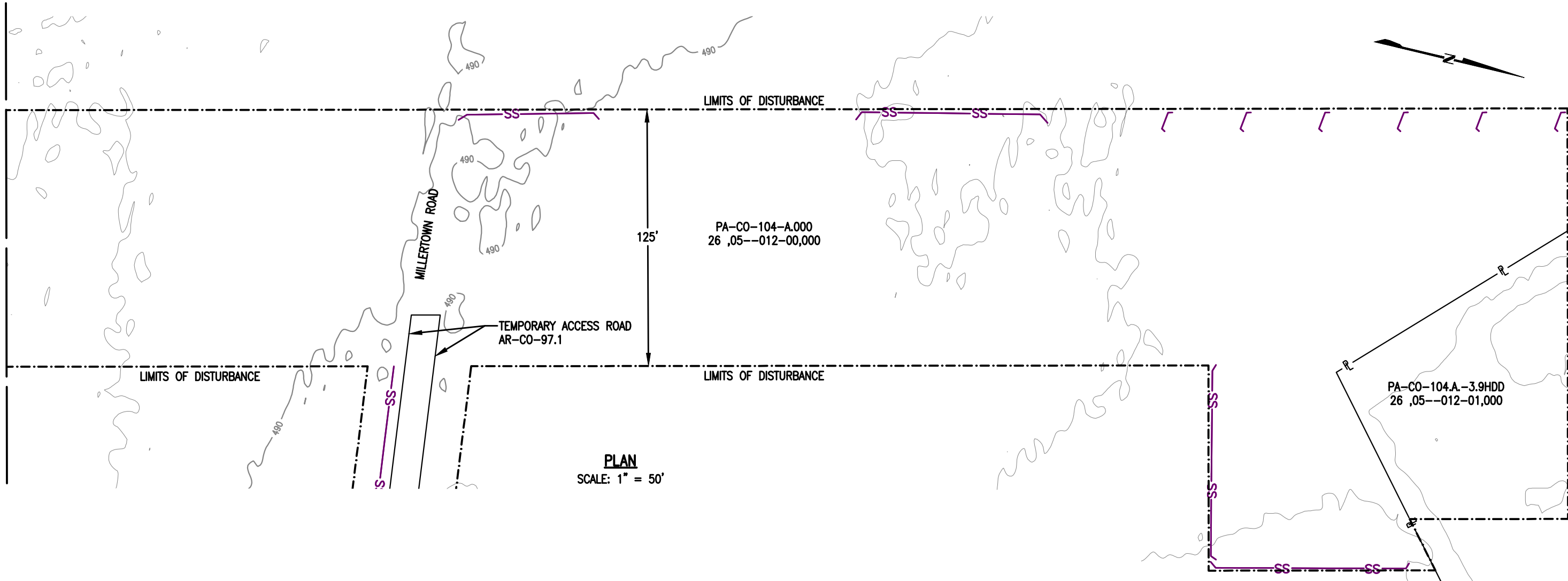


LEGEND

	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		<p>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-T70-12010-1 @ M-0423 M.P. 3.28, WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58 HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA</p>							
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'	
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0	
							APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 4	
							WO: 1161503	10/11/2016	7:59am	jlbeast	OF 5

MATCH LINE SEE SHEET 3 OF 5



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
			PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

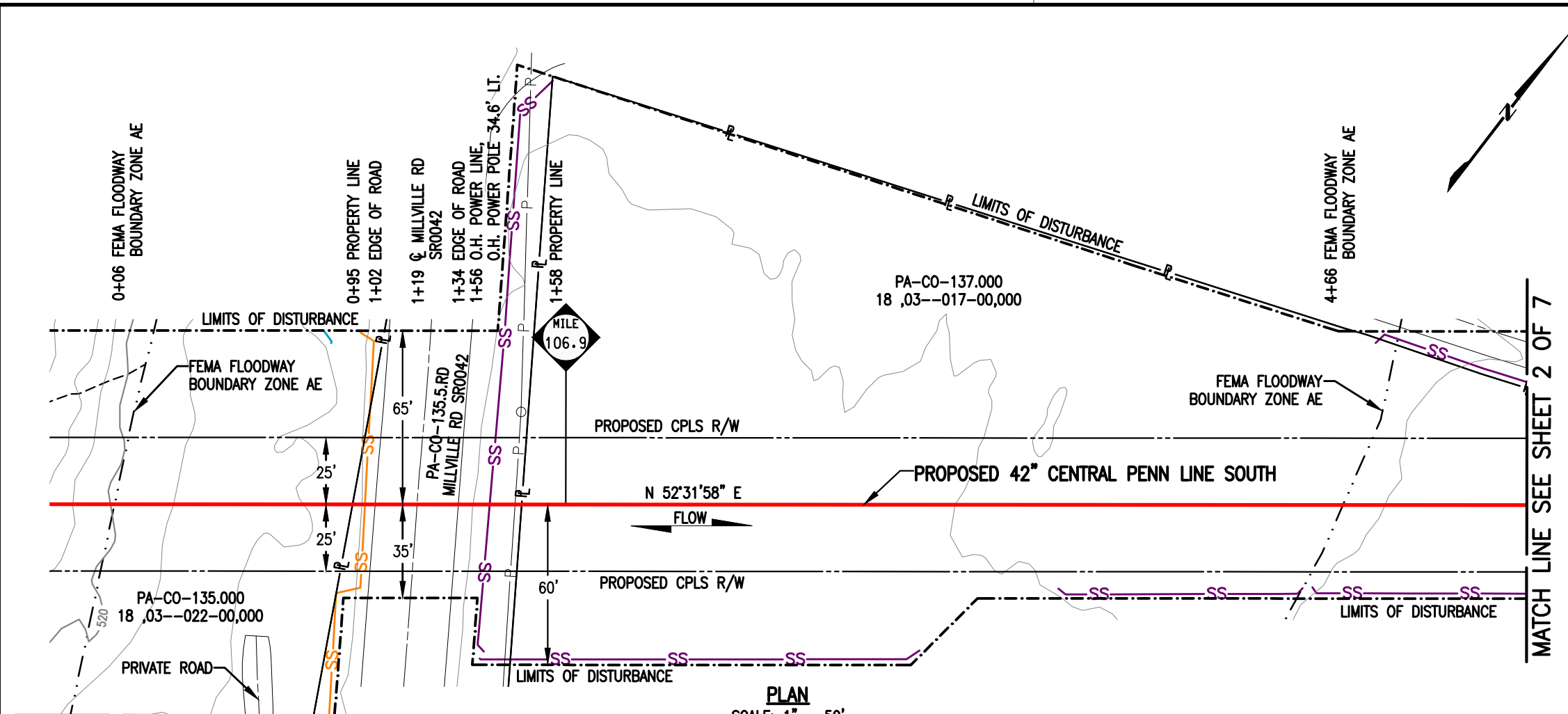
DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: JB	DATE: 07/22/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 07/22/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 07/22/16	DRAWING NUMBER: 24-1600-70-09-A/M-0423-3.28-01	SHEET 5
WO: 1161503			OF 5

10/11/2016 jlibeast
K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAN\Revised 105\24-1600-70-09-A_M-0423-3.28-01.dwg



FLOODWAY DISTURBANCE:

STREAM WW-RS-12002	ACRE
TEMPORARY STREAM DISTURBANCE	0.1506
PERMANENT STREAM DISTURBANCE	0.0166
TOTAL STREAM DISTURBANCE	0.1672
TEMPORARY FLOODWAY DISTURBANCE	8.1447
PERMANENT FLOODWAY DISTURBANCE	0.7028
TOTAL FLOODWAY DISTURBANCE	8.8475
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	72.19
STREAM LENGTH	102.35

MATCH LINE SEE SHEET 7 OF 7

MATCH LINE SEE SHEET 2 OF 7

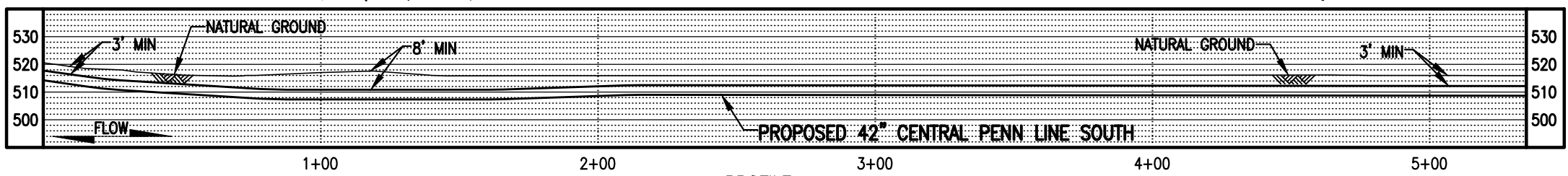
PLAN
SCALE: 1" = 50'

GENERAL NOTES:

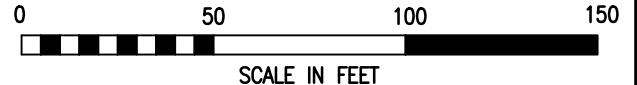
1. STREAM CROSSING METHODS FOR WW-RS-12002, WW-RS-99103, WW-T52-13001 AND WW-T52-13001C SHALL BE DAM AND PUMP (DPX). STREAM CROSSING METHOD FOR WW-RS-99108 SHALL BE FLUME (FX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 5643+57 ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. IMPACTS FOR STREAM WW-T52-13001, STREAM WW-T52-13001C, STREAM WW-RS-99103 AND STREAM WW-RS-99104 ARE SHOWN ON SHEET 6 OF 7.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 24' RT. OF M.P. 106.99, ELEV. = 514.99' (NAVD88).



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



LEGEND

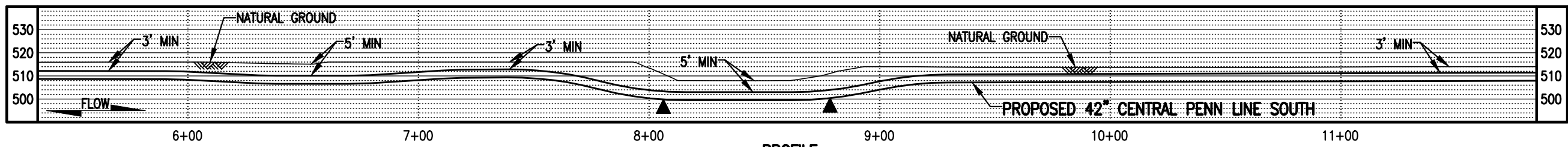
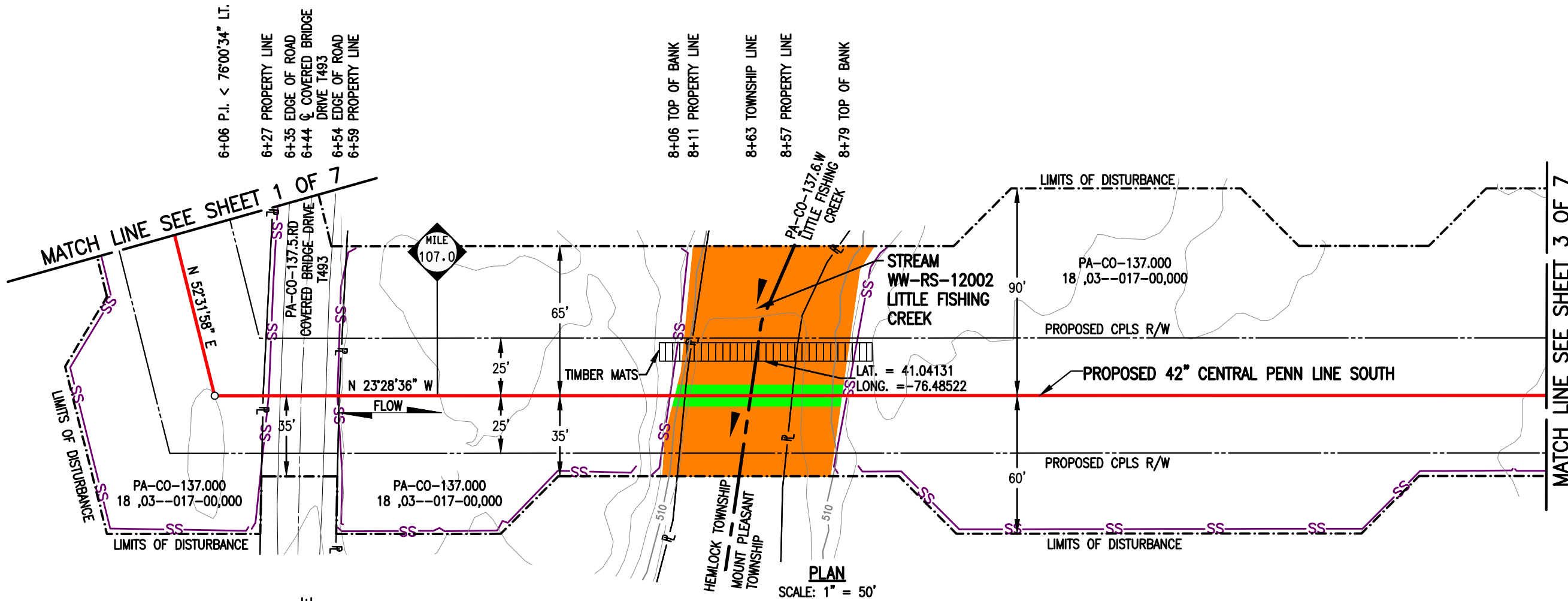
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS		WOOD GROUP MUSTANG, INC.
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLS R/W		WELL POINT		32" SEDIMENT BARRIER
	PROPERTY LINE		TRENCH PLUG		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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17 HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: THL	DATE: 08/06/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 08/06/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH		DATE: 08/06/16		DRAWING NUMBER: 24-1600-70-09-A/107.02-01		SHEET 1				
WO: 1161503		10/6/2016		jibeast		OF 7				

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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

DRAWING NO.		REFERENCE TITLE	
NO.		DATE	
0	10/25/16	JB	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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16,
WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17
HEMLOCK & MOUNT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

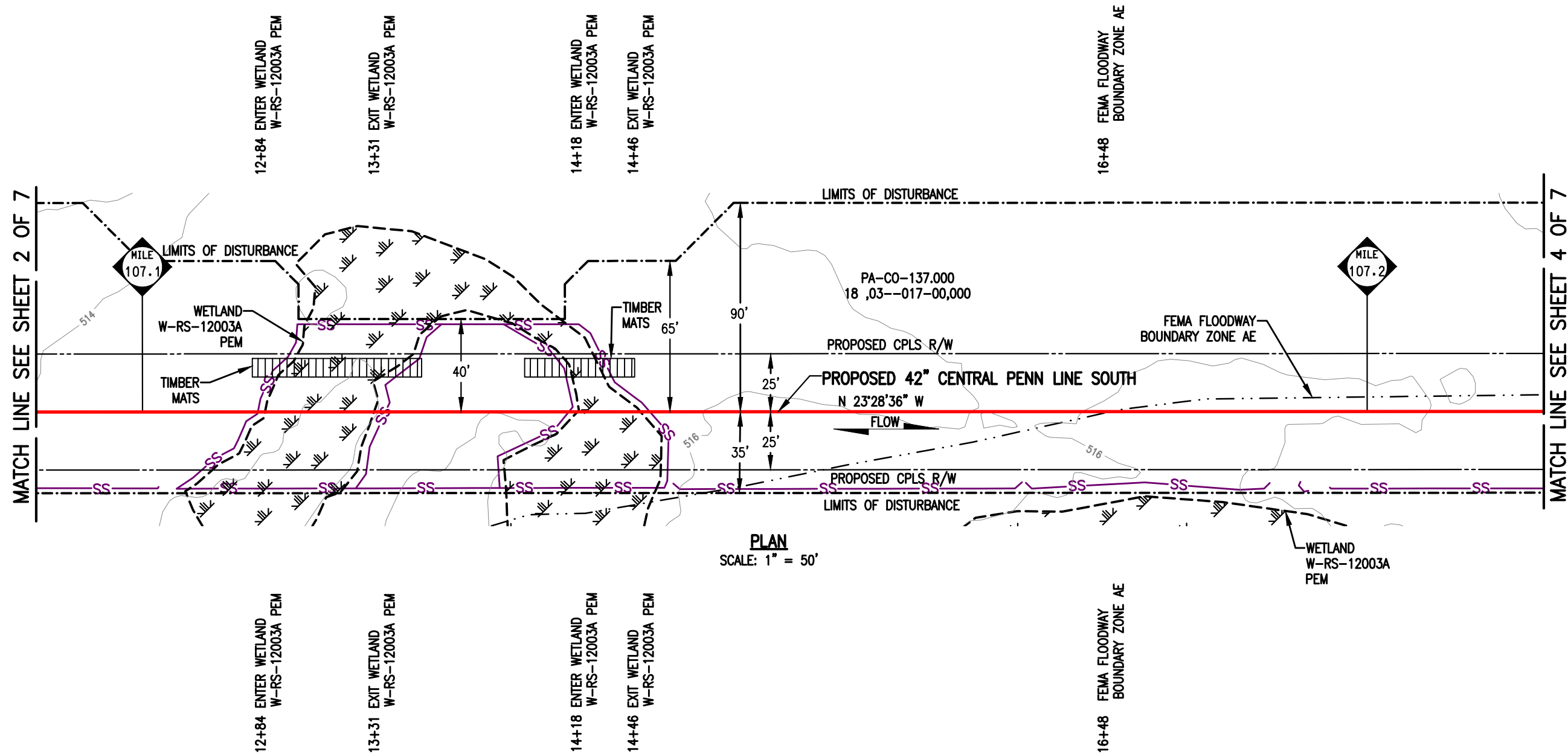
Williams

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CHECKED BY: CLR	DATE: 08/05/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 08/05/16	DRAWING NUMBER: 24-1600-70-09-A/107.02-01	SHEET 2
WO: 1161503		10/6/2016	OF 7

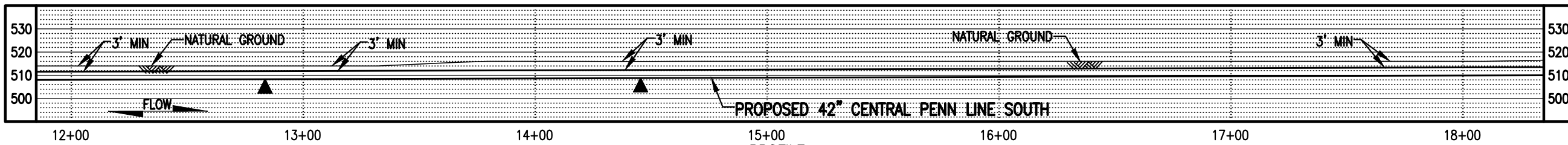
STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	JB	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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16,
WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17
MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

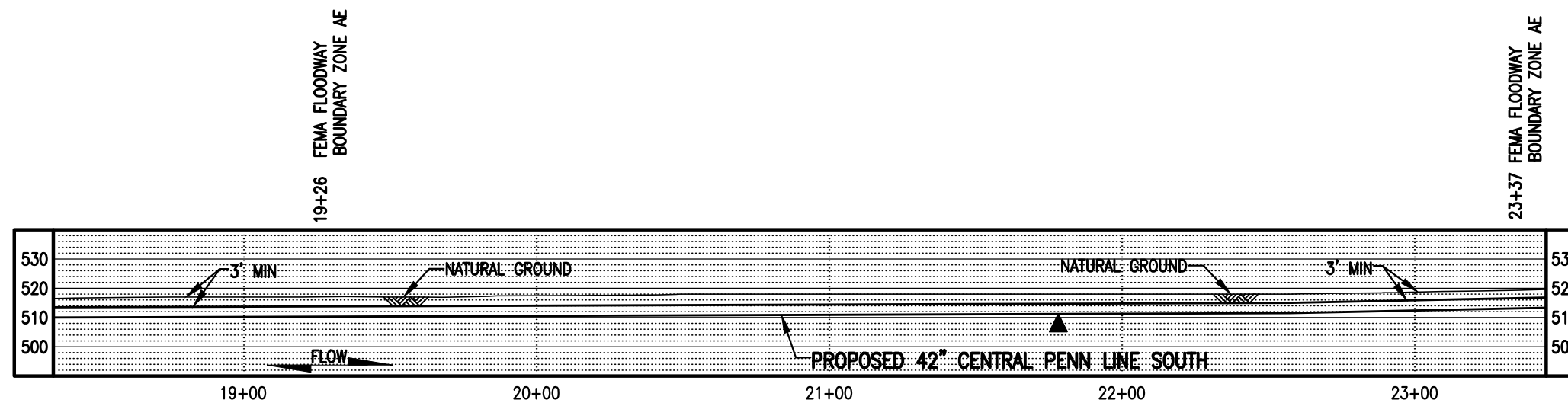
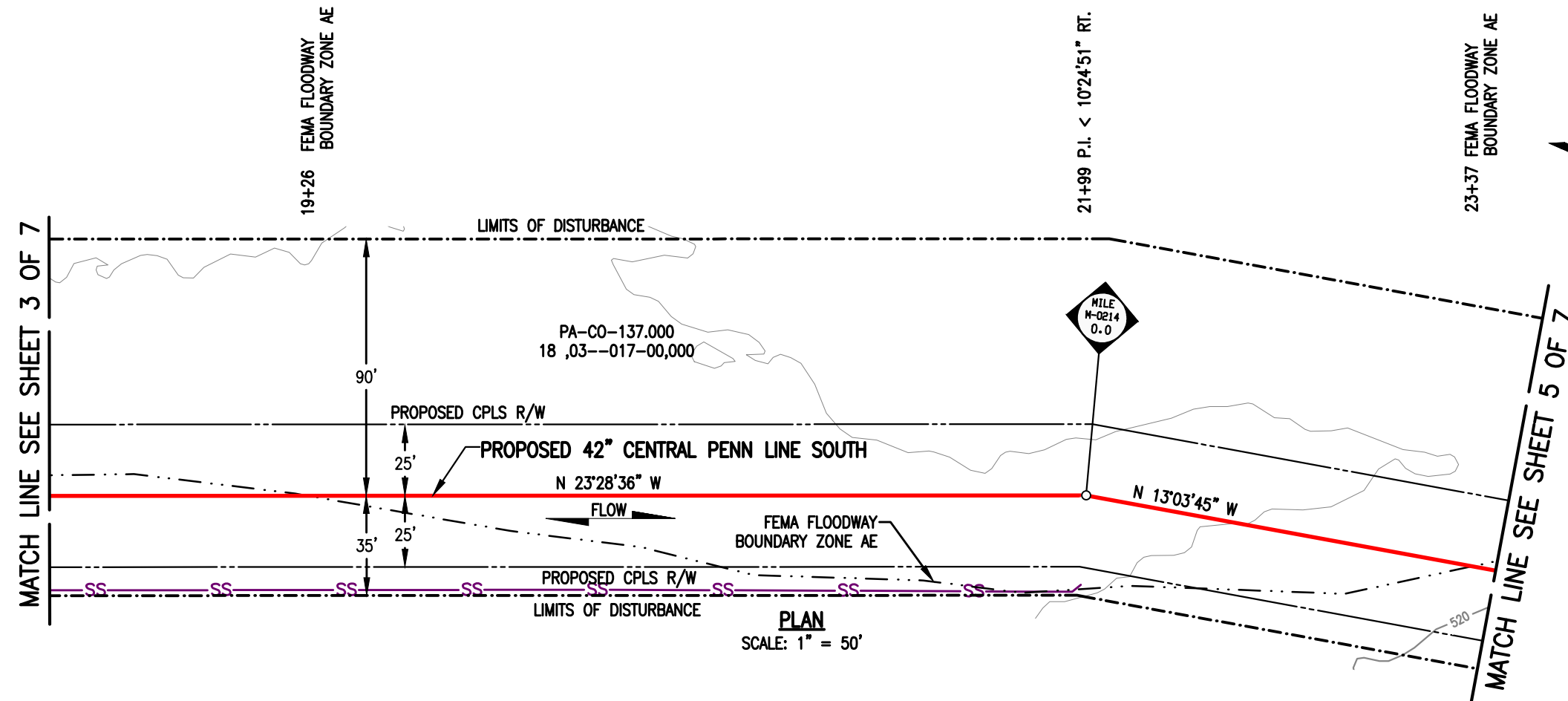
Williams

DRAWN BY: JB	DATE: 08/05/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 08/05/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 08/05/16	DRAWING NUMBER:	24-1600-70-09-A/107.02-01
WO: 1161503		DRAWING NUMBER:	3
		WO: 1161503	OF 7

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

WOOD GROUP MUSTANG, INC.

DRAWING NO.	REFERENCE TITLE
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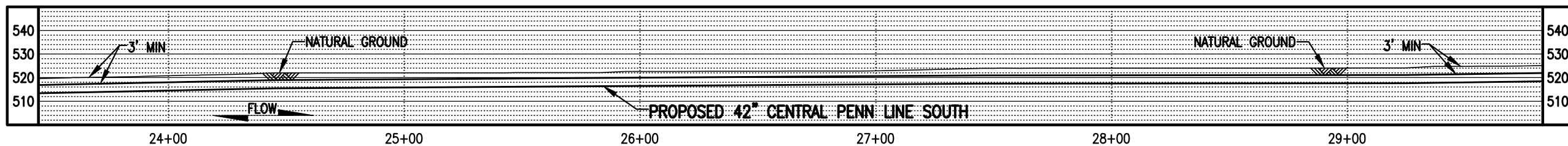
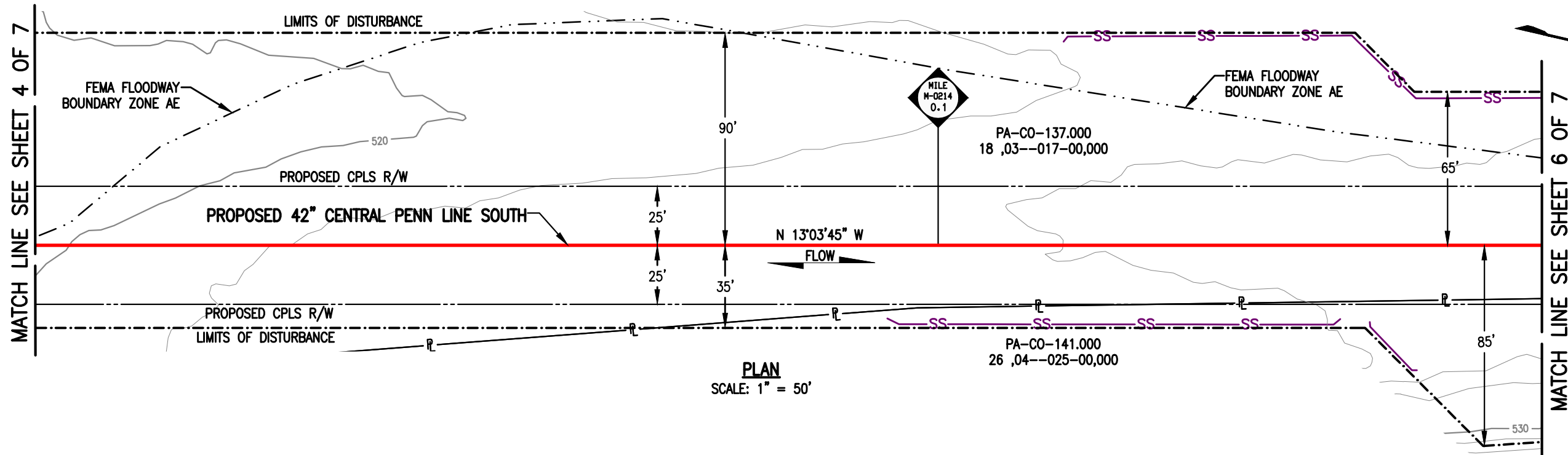
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH

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-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17			
MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
DRAWN BY:	JB	DATE:	08/05/16
CHECKED BY:	CLR	DATE:	08/05/16
APPROVED BY:	MJH	DATE:	08/05/16
W.O.:	1161503	ISSUED FOR CONSTRUCTION:	24-1600-70-09-A/107.02-01
SCALE: 1" = 50'		REVISION: 0	
DRAWING NUMBER: 24-1600-70-09-A/107.02-01		SHEET 4 OF 7	

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

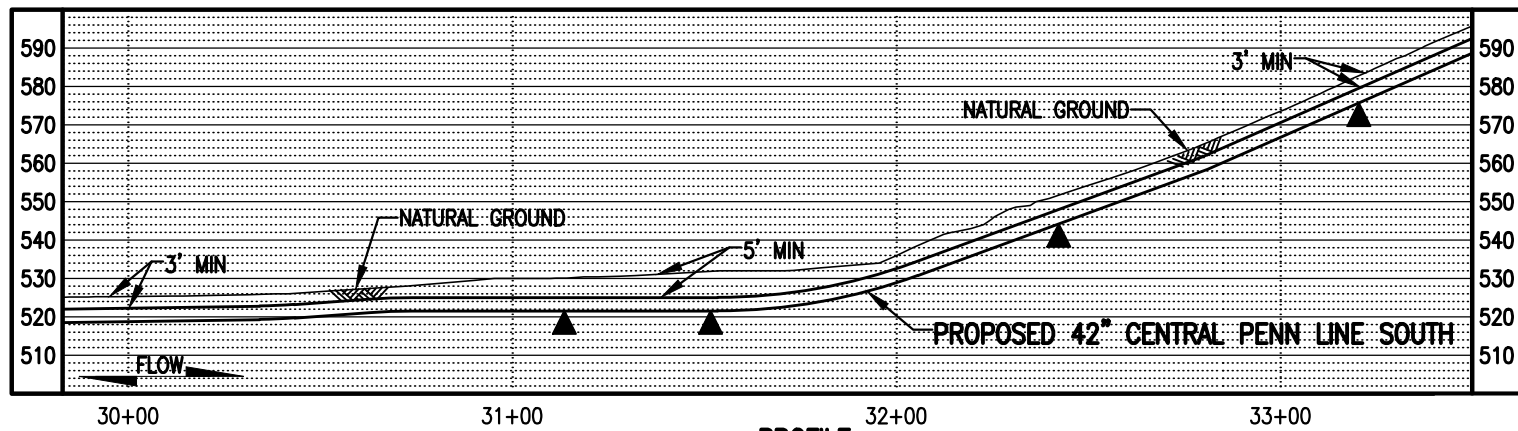
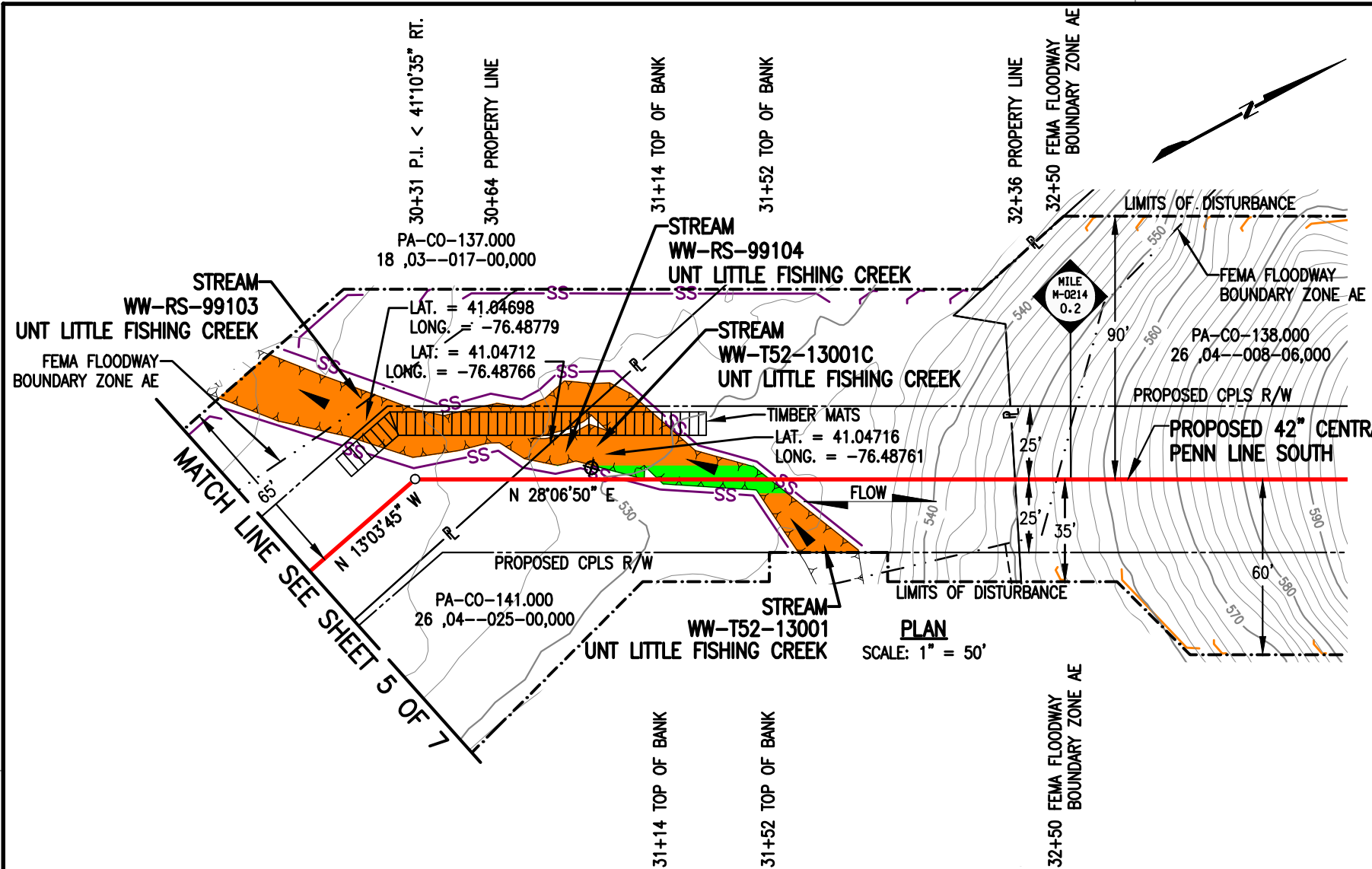
GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17 MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 08/05/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	CHECKED BY: CLR	DATE: 08/05/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 08/05/16	DRAWING NUMBER: 24-1600-70-09-A/107.02-01	SHEET 5
							WO: 1161503		10/6/2016	OF 7



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

STREAM DISTURBANCE:

STREAM WW-T52-13001C	ACRE
TEMPORARY STREAM DISTURBANCE	0.0042
PERMANENT STREAM DISTURBANCE	0.0011
TOTAL STREAM DISTURBANCE	0.0053
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	13.29
STREAM LENGTH	48.49

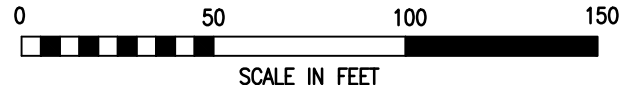
STREAM WW-T52-13001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0184
PERMANENT STREAM DISTURBANCE	0.0071
TOTAL STREAM DISTURBANCE	0.0255
TEMPORARY FLOODWAY DISTURBANCE	0.2999
PERMANENT FLOODWAY DISTURBANCE	0.0354
TOTAL FLOODWAY DISTURBANCE	0.3353
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	38.04
STREAM LENGTH	92.83

STREAM WW-RS-99103	ACRE
TEMPORARY STREAM DISTURBANCE	0.0459
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0459
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	30.98
STREAM LENGTH	132.99

STREAM WW-RS-99104	ACRE
TEMPORARY STREAM DISTURBANCE	0.0046
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0046
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	11.56
STREAM LENGTH	38.36

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16,
WW-T52-13001C, WW-T52-13001, WW-RS-99104 @ M-0214 M.P. 0.17
MOUNT PLEASANT TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

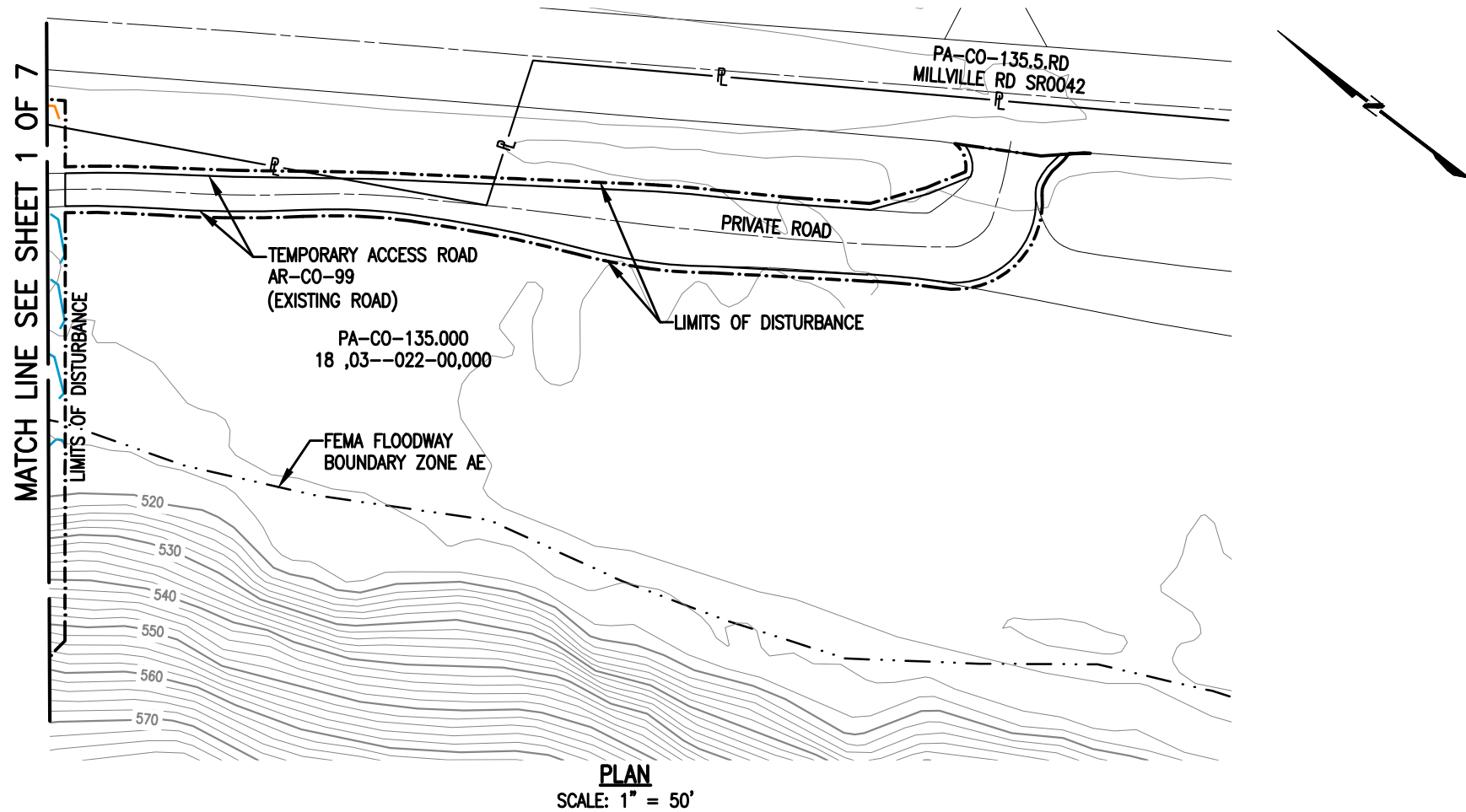
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0	10/25/16	JB	ISSUED FOR PADEP SUBMITTAL #2	1161503	CLR	MJH	JB	08/05/16		1" = 50'

APPROVED BY: MJH DATE: 08/05/16
 CHECKED BY: CLR DATE: 08/05/16
 DRAWING NUMBER: 24-1600-70-09-A/107.02-01 SHEET 6
 W.O. NUMBER: 1161503
 DATE: 10/6/2016
 FILE: jlibeast

STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 7

GENERAL NOTES:
SEE SHEET 1 OF 7

SURVEY NOTES:
SEE SHEET 1 OF 7



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
0	10/25/16	JB	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 CROSSINGS WW-RS-12002 M.P. 107.03, WW-RS-99103 M-0214 M.P. 0.16, WW-T52-13001, WW-T52-13001C, WW-RS-99104 M-0214 M.P. 0.17			
HEMLOCK TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
DRAWN BY:	JB	DATE:	08/05/16
CHECKED BY:	CLR	DATE:	08/05/16
APPROVED BY:	MJH	DATE:	08/05/16
ISSUED FOR BID:		ISSUED FOR CONSTRUCTION:	
SCALE:	1" = 50'	REVISION:	0
DRAWING NUMBER:	24-1600-70-09-A/107.02-01	SHEET	7
W.O. NO.:	1161503	CHK.:	CLR
APP.:	MJH	DATE:	10/6/2016
FILE:	K:\103643-CPLS\Mapping\Waterbodies\CPLS_PAN\Revised 105\RS\24-1600-70-09-A_107.02-01.dwg	PLT:	jlbeast



October 27, 2016

Sugarloaf Township
Floodplain Administrator
90 Schoolhouse Road
Benton, PA 17814

Re: Atlantic Sunrise Project
Central Penn Line North and Central Penn Line South
Sugarloaf Township, Columbia 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 Sugarloaf Township is provided below for your review and comment.

Sugarloaf Township
October 27, 2016
BL Project No. 14C4909
Page 1 of 2

**ATLANTIC SUNRISE PROJECT
FEMA FLOODPLAIN CROSSINGS
SUGARLOAF TOWNSHIP, COLUMBIA 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-T02-15007	Floodway to Fishing Creek	FEMA Detailed	N/A	3.1012	0.2497 ²	41.27291	-76.38197
Utility Pipeline Crossing	Equipment Access and E&S Controls	WW-T02-15012	Floodway to Coles Creek	FEMA Detailed ¹	N/A	0.3885	0.0251 ²	41.28169	-76.32906

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, underground pipe installation, and temporary contractor staging area usage 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 Sugarloaf 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-T92-15001B	ACRE
TEMPORARY STREAM DISTURBANCE	0.0382
PERMANENT STREAM DISTURBANCE	0.0012
TOTAL STREAM DISTURBANCE	0.0394
TEMPORARY FLOODWAY DISTURBANCE	0.0913
PERMANENT FLOODWAY DISTURBANCE	0.0066
TOTAL FLOODWAY DISTURBANCE	0.0979

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.45
STREAM LENGTH	80.46

STREAM WW-T02-15007	ACRE
TEMPORARY STREAM DISTURBANCE	0.2352
PERMANENT STREAM DISTURBANCE	0.0137
TOTAL STREAM DISTURBANCE	0.2489
TEMPORARY FLOODWAY DISTURBANCE	4.3982
PERMANENT FLOODWAY DISTURBANCE	0.1254
TOTAL FLOODWAY DISTURBANCE	4.5236

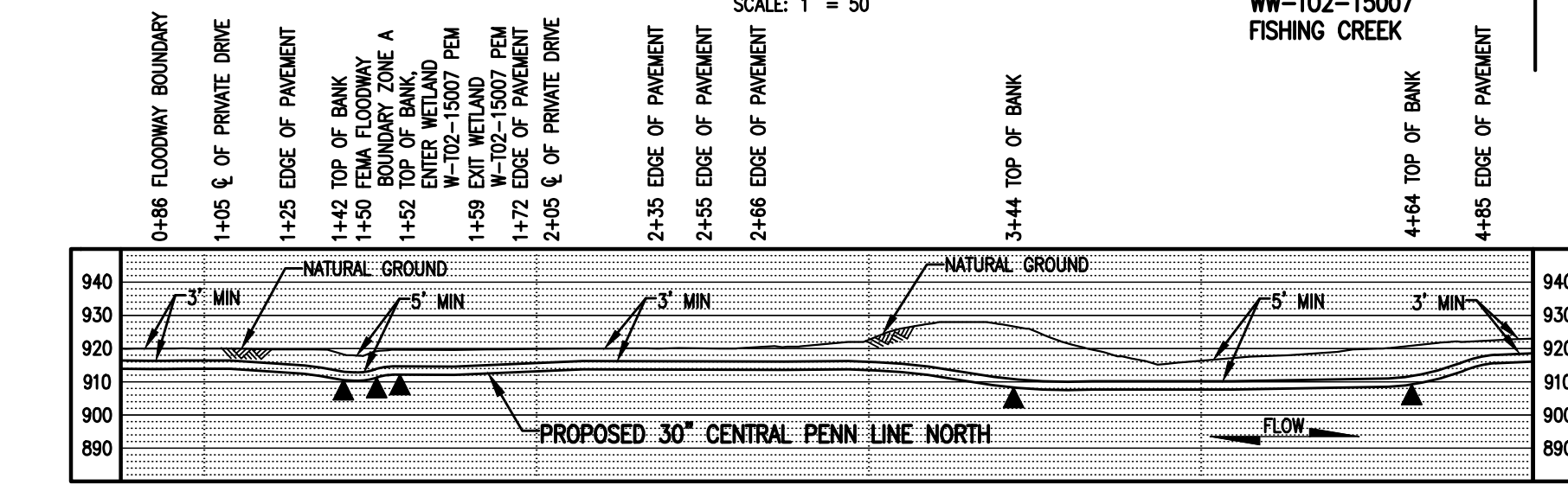
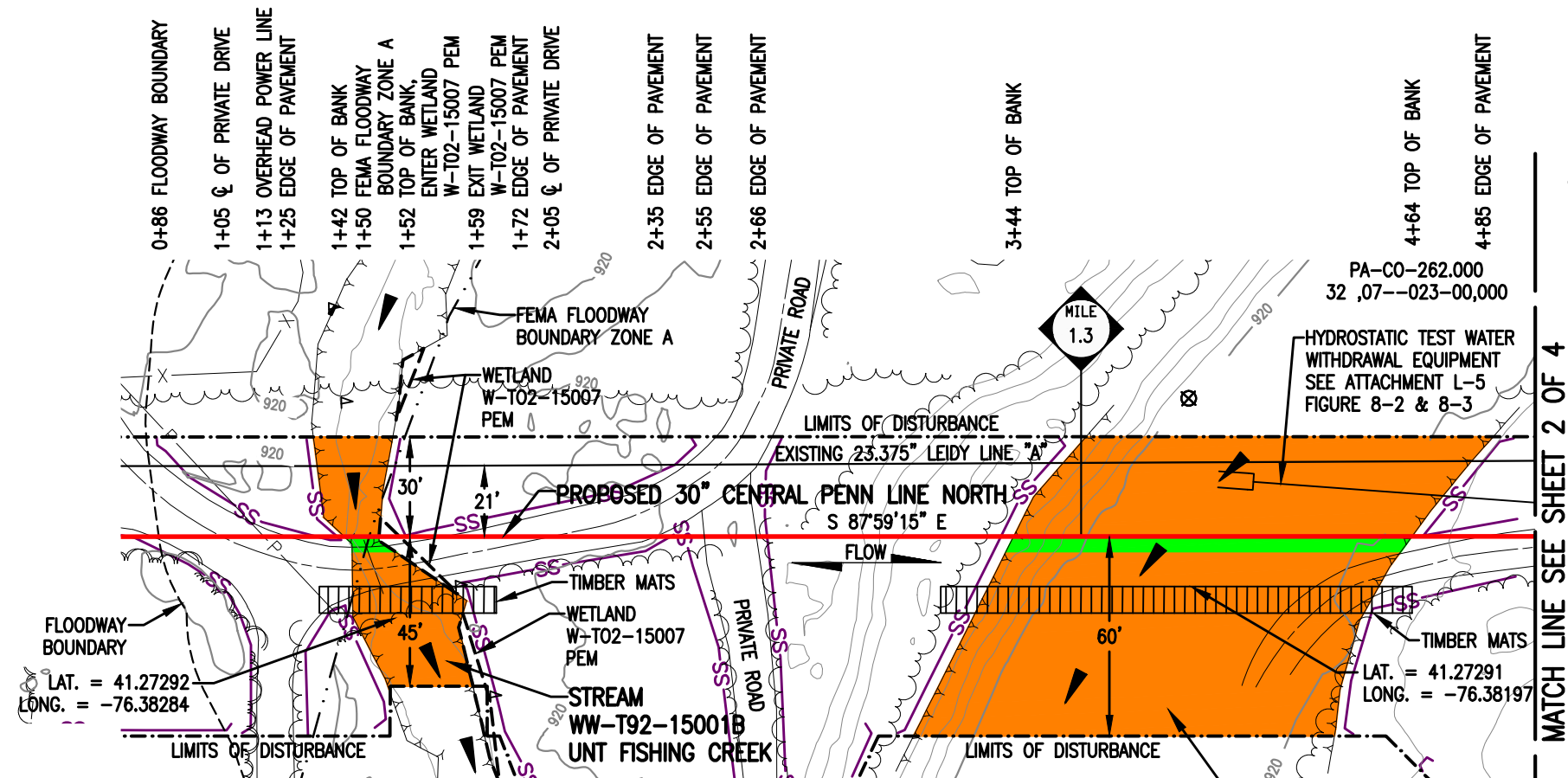
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	119.84
STREAM LENGTH	111.91

GENERAL NOTES:

1. STREAM CROSSING METHOD FOR STREAMS WW-T92-15001B & WW-T02-15007 SHALL BE DAM AND PUMP (DPX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. 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.
3. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. STATION 1+00 SHOWN IS EQUAL TO STATION 67+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 12.6' LT. OF M.P. 1.31, ELEV. = 918' (NAVD88).



LEGEND

- PROPOSED 30" CENTRAL PENN LINE NORTH
- EXISTING PIPELINES
- EXISTING TGPL R/W
- LIMITS OF DISTURBANCE
- PROPOSED CPLN R/W
- PROPERTY LINE
- FOREIGN PIPELINE
- WETLAND AREA
- STREAM FLOW
- EXISTING POWER LINE
- EXISTING FENCE
- WETLAND FLAGS
- PHOTO DATA POINT
- WETLAND DATA POINT
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- WELL POINT
- TRENCH PLUG
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- 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

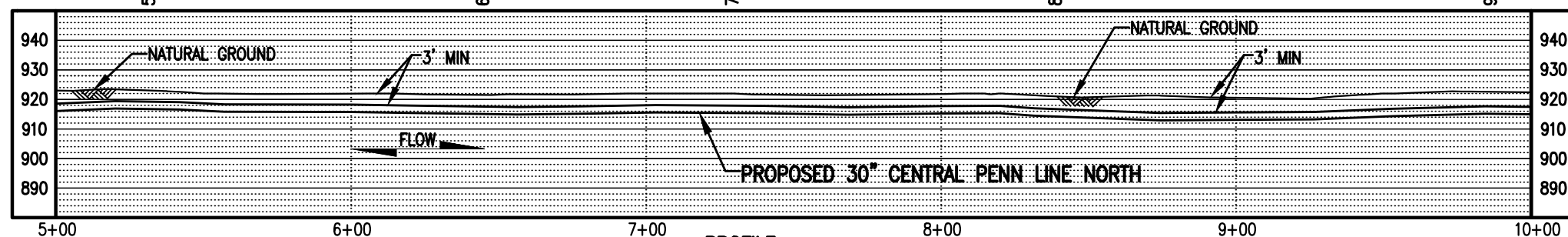
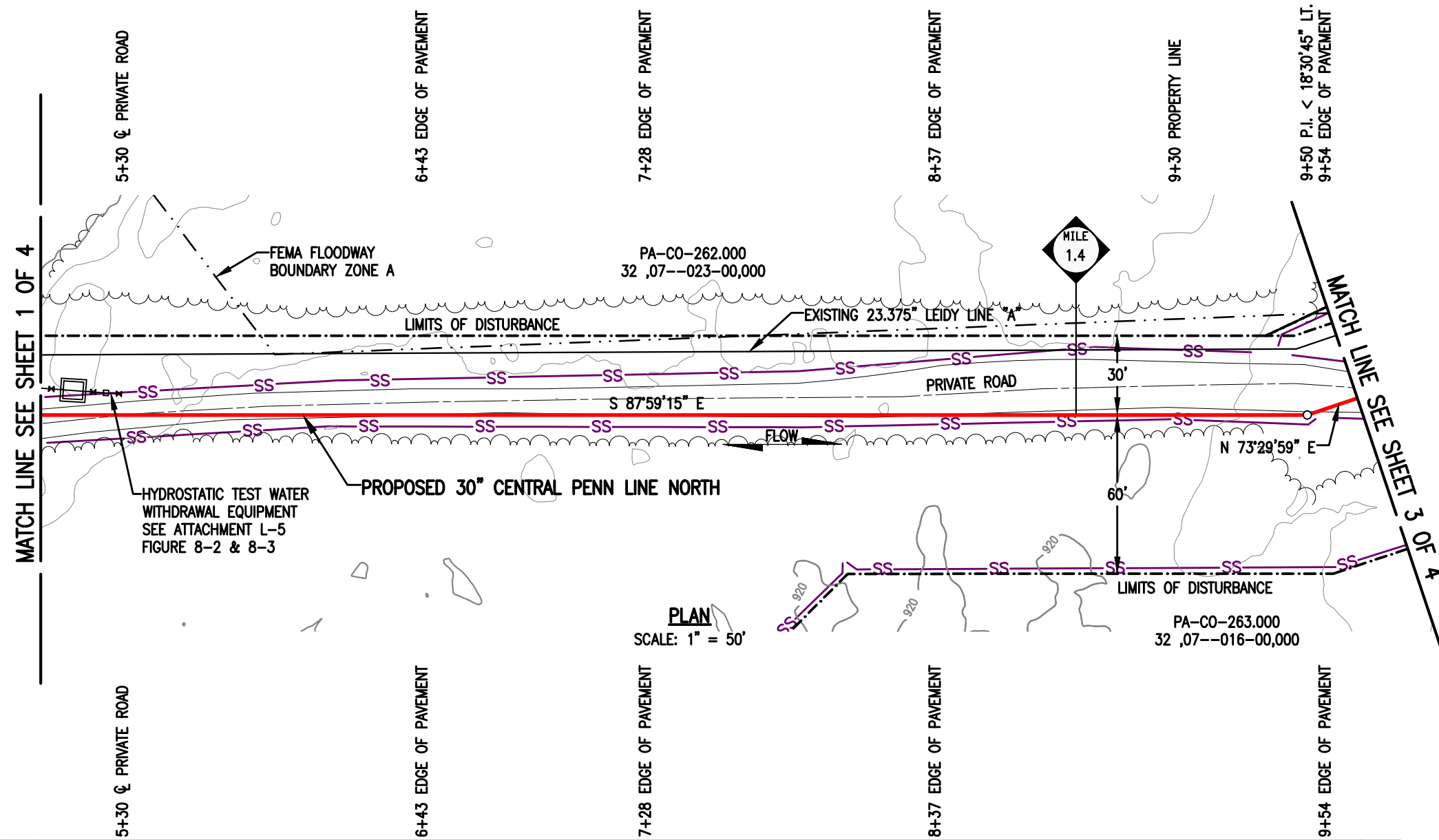
WOOD GROUP MUSTANG, INC.

DRAWING NO. REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 30" CENTRAL PENN LINE NORTH
STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26
WW-T02-15007 @ M.P. 1.31
SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
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1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-09-A/1.31-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	W.O. NO.: 1161481	DATE: 06/08/15	9/28/2016	OF 4



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



LEGEND	
	PROPOSED 30" CENTRAL PENN LINE NORTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLN R/W
	PROPERTY LINE
	FOREIGN PIPELINE
	WETLAND AREA
	STREAM FLOW
	EXISTING POWER LINE
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	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

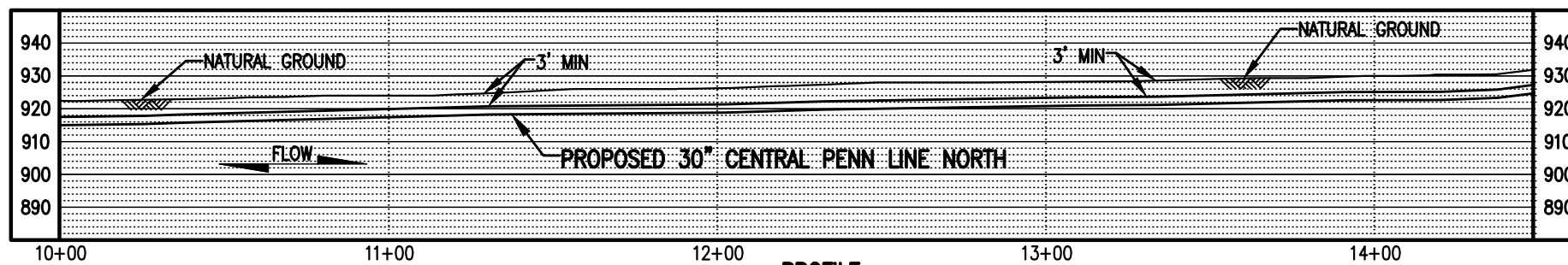
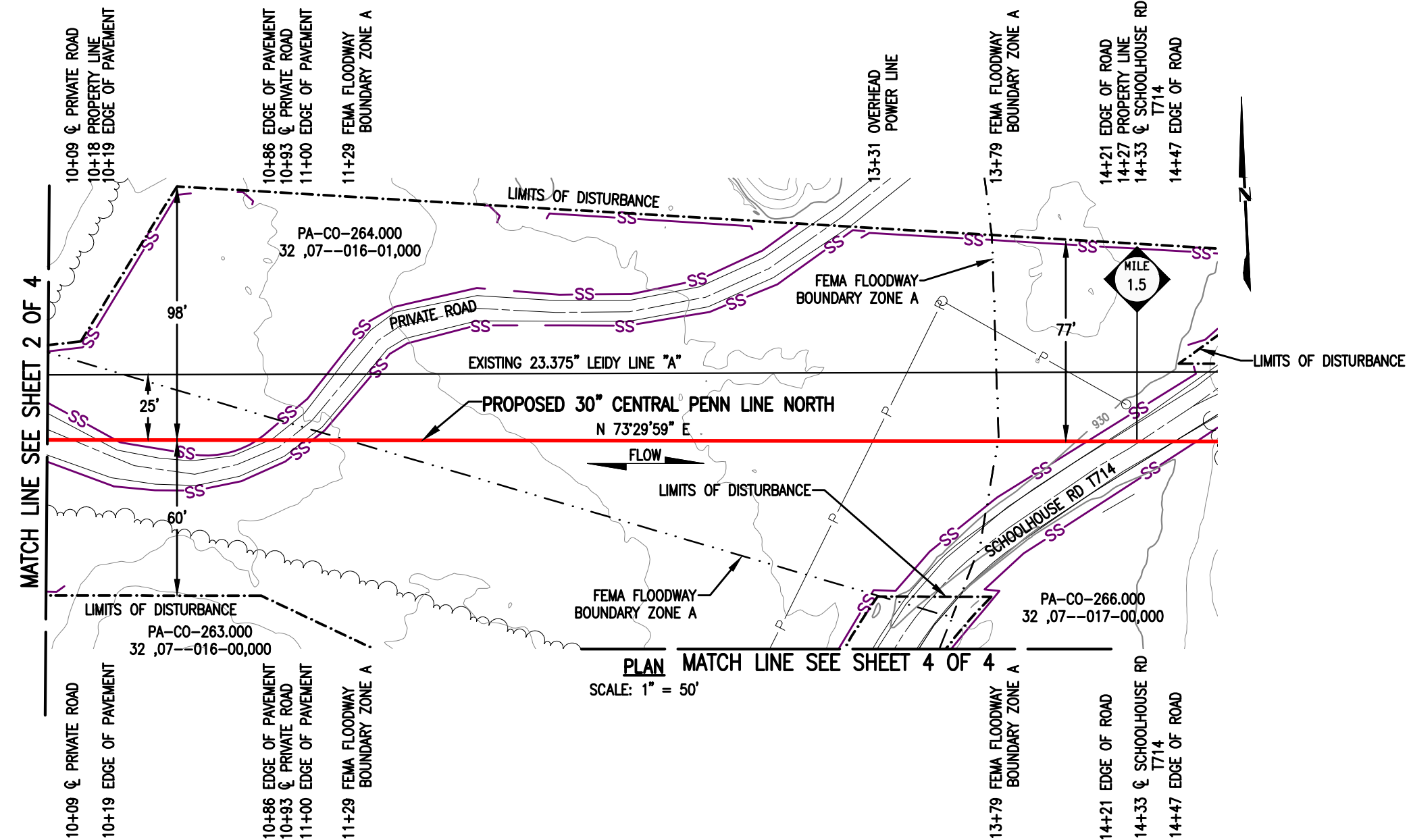


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2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 30" CENTRAL PENN LINE NORTH
STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26
WW-T02-15007 @ M.P. 1.31
SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-09-A/1.31-01	SHEET 2 OF 4
IWO: 1161481		3/04pm K:\103646-CPLN\Mapping\Waterbodies\Revised 105\24-1601-70-09-A_1.31-01.dwg	



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

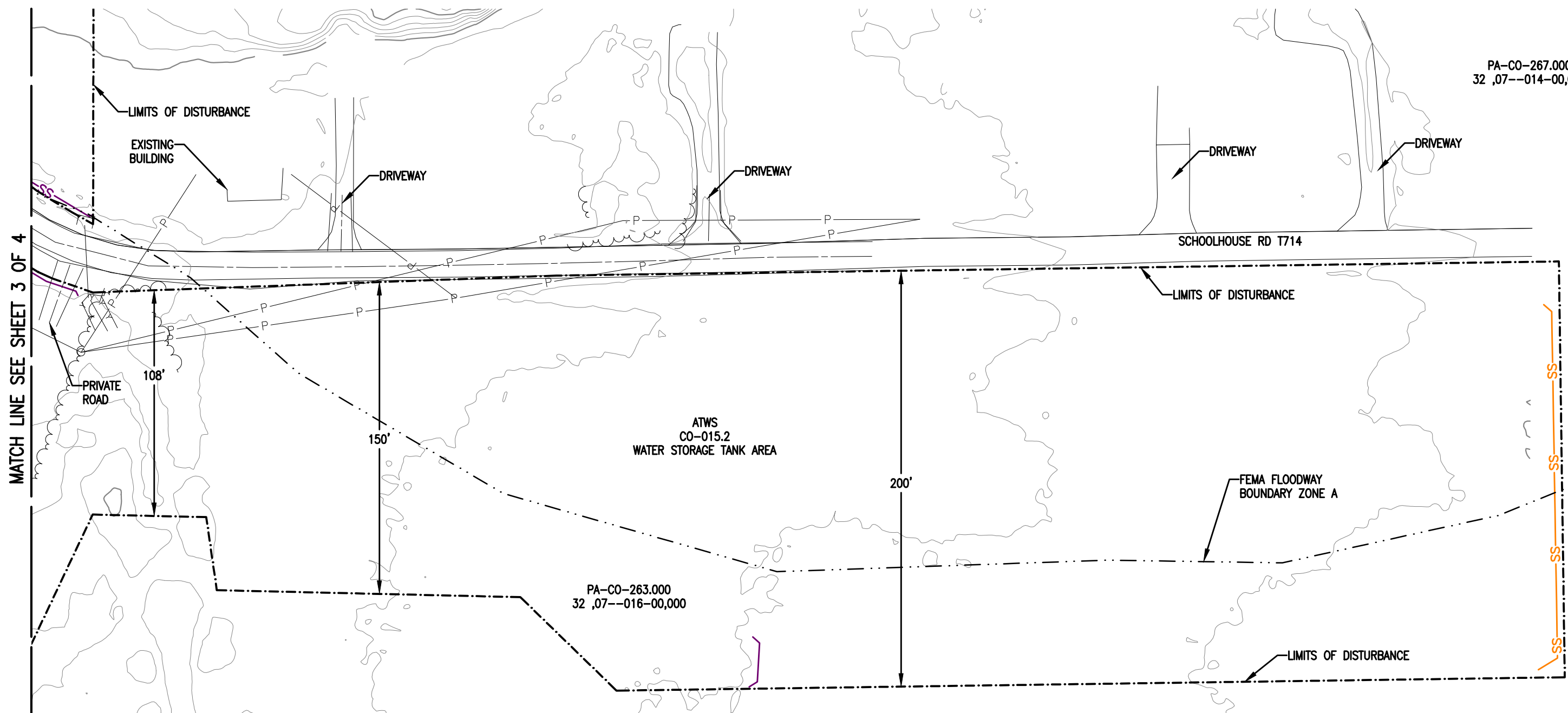


LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		12" SEDIMENT BARRIER
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			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 30" CENTRAL PENN LINE NORTH STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26 WW-T02-15007 @ M.P. 1.31 SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	MH	ISSUED FOR INTERNAL USE
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2
W.O. NO.	CHK.	APP.	DRAWN BY: TL
1161481	CLR	MJH	DATE: 12/13/14
1161481	CLR	MJH	ISSUED FOR BID:
1161481	CLR	MJH	SCALE: 1" = 50'
			REVISION: 2
			DRAWING NUMBER: 24-1601-70-09-A/1.31-01
			DATE: 06/01/15
			ISSUED FOR CONSTRUCTION:
			DATE: 06/08/15
			3405pm 9/28/2016 a1traha
			W.O. NO. 1161481
			DATE: 06/08/15
			ISSUED FOR CONSTRUCTION:
			DATE: 06/08/15
			3405pm 9/28/2016 a1traha
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			W.O. NO. 1161481
			DATE: 06/08/15
			ISSUED FOR CONSTRUCTION:
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STREAM DISTURBANCE:
SEE TABLE ON SHEET 1 OF 4

PA-CO-267.000
32 ,07--014-00,000



MATCH LINE SEE SHEET 3 OF 4

PLAN
SCALE: 1" = 50'



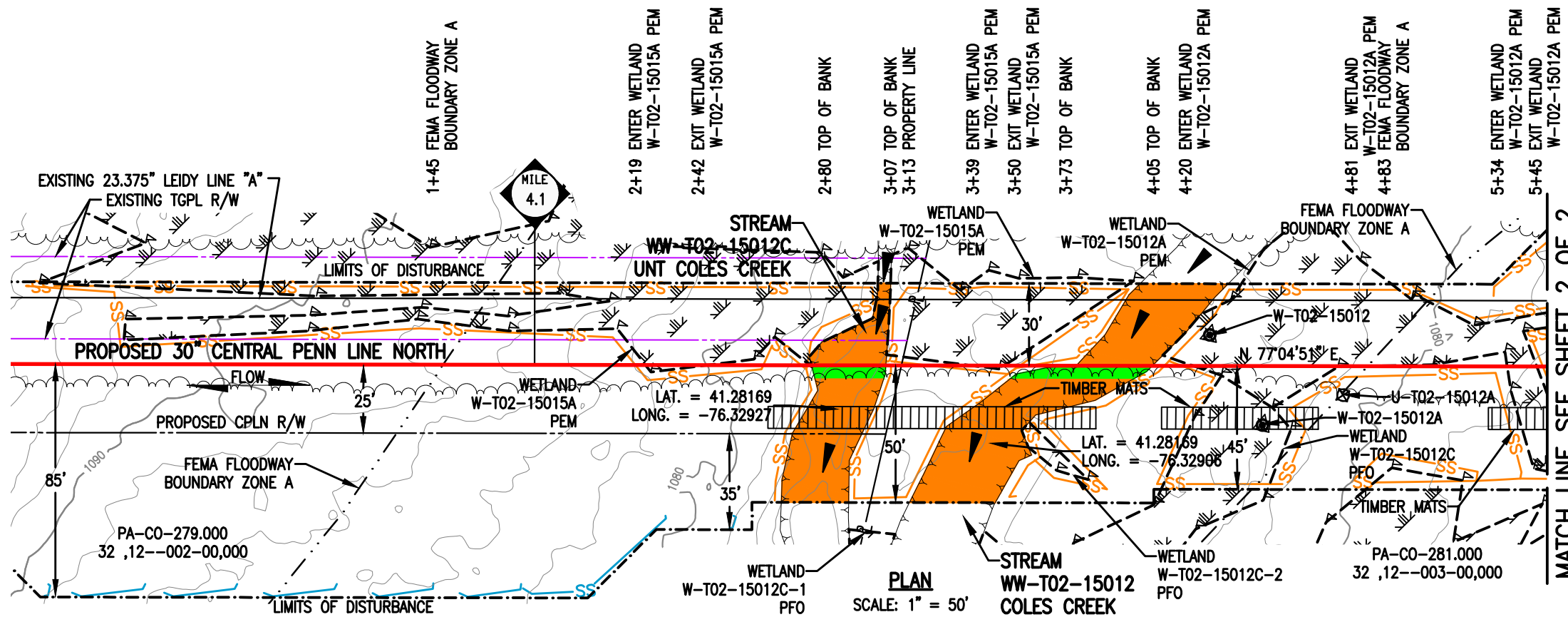
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT
			12" SEDIMENT BARRIER
			18" SEDIMENT BARRIER
			24" SEDIMENT BARRIER
			32" SEDIMENT BARRIER
			TOP OF BANK

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	DJG	ISSUED FOR PADEP SUBMITTAL #2

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 30" CENTRAL PENN LINE NORTH
STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26
WW-T02-15007 @ M.P. 1.31
SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

W.O. NO.	CHK.	APP.	DRAWN BY:	TL	DATE:	09/23/16	ISSUED FOR BID:	SCALE:	1" = 50'
1161481	CLR	MJH	CHECKED BY:	CLR	DATE:	09/23/16	ISSUED FOR CONSTRUCTION:	REVISION:	0
			APPROVED BY:	MJH	DATE:	09/28/16	DRAWING NUMBER:	24-1601-70-09-A/1.31-01	SHEET 4
			WC:	1161481			10/7/2016	jibeast	OF 4



STREAM DISTURBANCE:

STREAM WW-T02-15012C (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0347
PERMANENT STREAM DISTURBANCE	0.0030
TOTAL STREAM DISTURBANCE	0.0377
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	27.09
STREAM LENGTH	88.22

STREAM WW-T02-15012 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0552
PERMANENT STREAM DISTURBANCE	0.0048
TOTAL STREAM DISTURBANCE	0.0600
TEMPORARY FLOODWAY DISTURBANCE	0.3885
PERMANENT FLOODWAY DISTURBANCE	0.0251
TOTAL FLOODWAY DISTURBANCE	0.4136

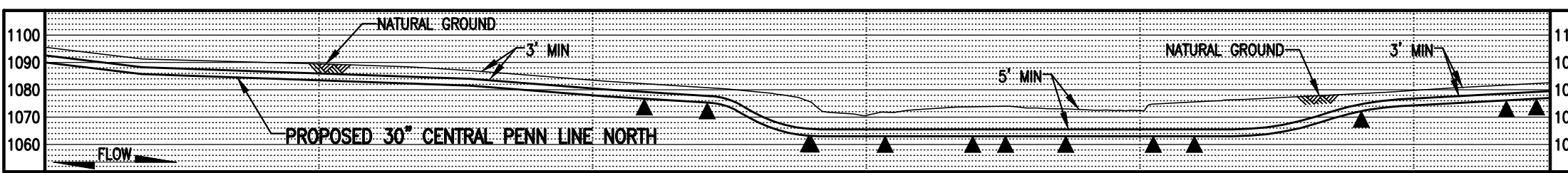
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	31.10
STREAM LENGTH	120.35

GENERAL NOTES:

1. STREAMS CROSSING METHOD SHALL BE DAM AND PUMP (DPX) EQUIPMENT TO CROSS STREAMS UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC).
2. THESE SITES ARE LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 215+70 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

1. T.B.M. SURVEY CONTROL POINT - 4.67' LT. OF STATION 4.14, ELEV. = 1137.51' (NAVD88).



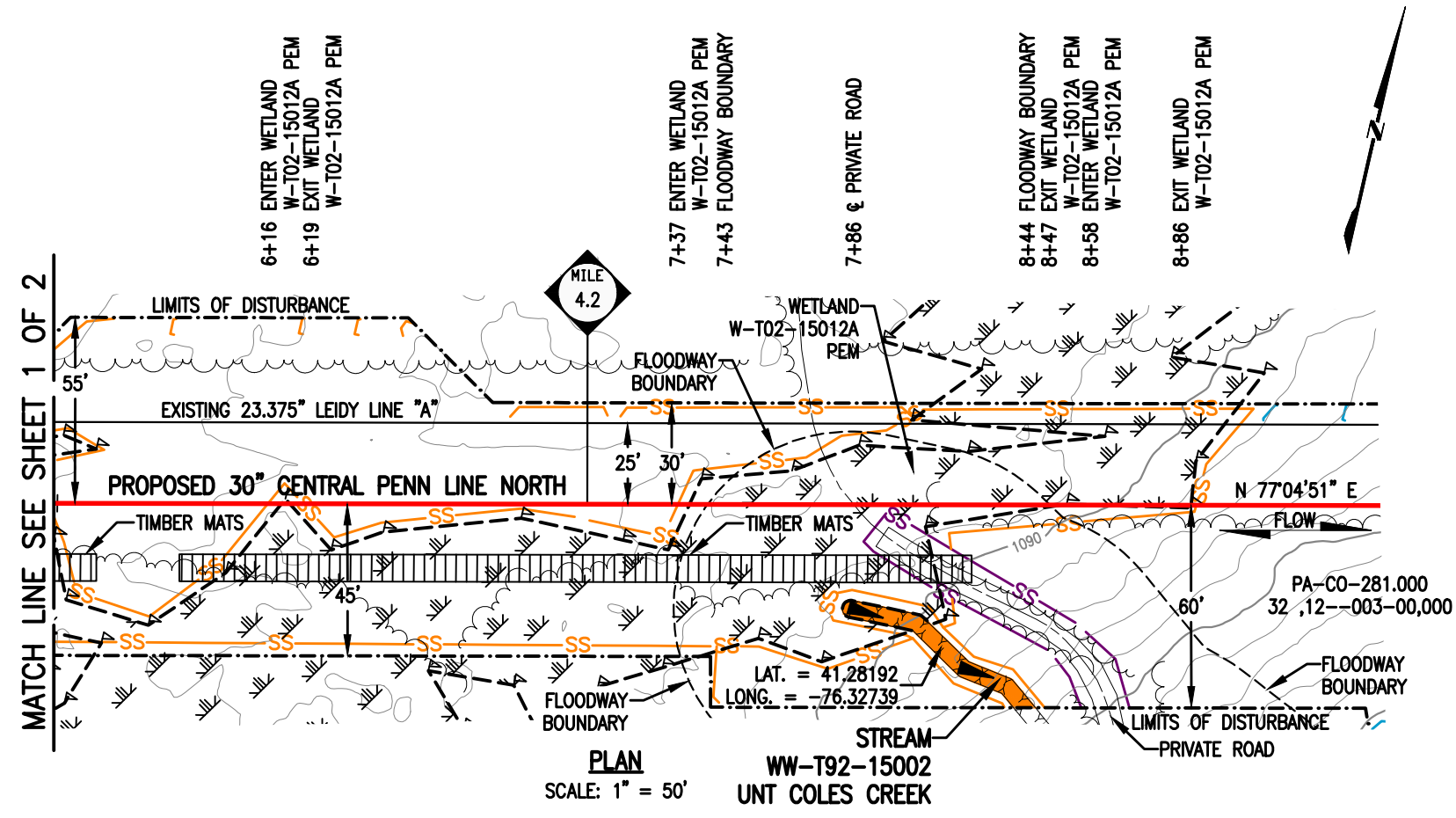
PROFILE
SCALE: 1" = 50' HORIZONTAL
1" = 50' VERTICAL



LEGEND

	PROPOSED 30" CENTRAL PENN LINE NORTH		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 CPLN 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 30" CENTRAL PENN LINE NORTH STREAM CROSSINGS WW-T02-15012 @ M.P. 4.12 & WW-T02-15012 @ M.P. 4.13 SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APP.
0	08/20/15	ET	ISSUED FOR PADEP 105 PERMIT	1161481	CLR MJH
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR MJH
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR MJH
DRAWN BY: TL		DATE: 08/11/14	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: ML		DATE: 06/05/14	ISSUED FOR CONSTRUCTION:	REVISION: 2	
APPROVED BY: MJH		DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-09-A/4.12-01	SHEET 1	
IWC: 1161481			3x26pm 10/20/2016 mll	OF 2	



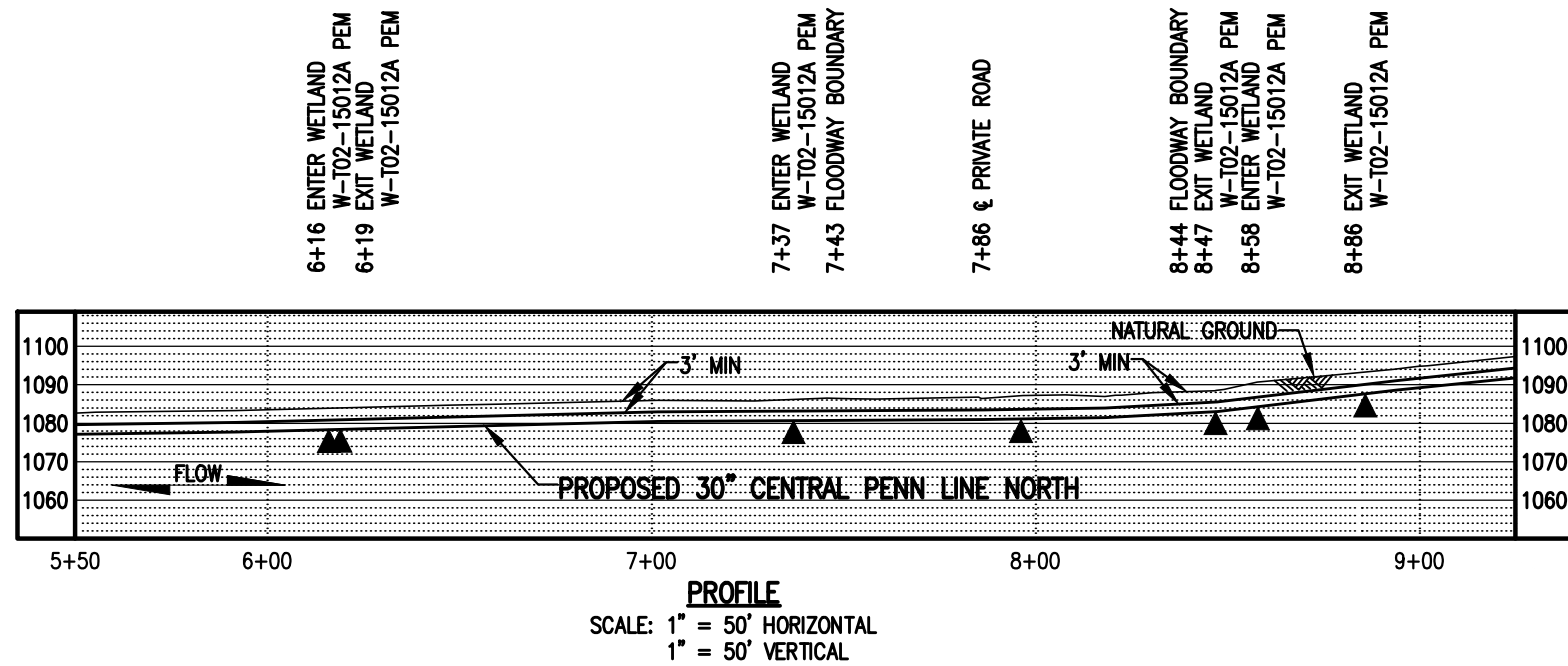
STREAM DISTURBANCE:

STREAM WW-T92-15002 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0073
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0073
TEMPORARY FLOODWAY DISTURBANCE	0.1405
PERMANENT FLOODWAY DISTURBANCE	0.0017
TOTAL FLOODWAY DISTURBANCE	0.1422

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.76
STREAM LENGTH	61.38

GENERAL NOTES:

1. STREAM WW-T92-15002 DOES NOT CROSS PROPOSED PIPELINE. STREAM WILL BE CROSSED USING BRIDGE EQUIPMENT CROSSING (BEC).
2. 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.



LEGEND

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN 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		SEDIMENT BARRIER

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	
0	10/25/16	MP	ISSUED FOR PADEP SUBMITTAL #2
W.O. NO.	CHK.	APP.	DRAWN BY:
1161481	CLR	MJH	TL
DATE	DATE	DATE	DATE
08/11/16	06/23/16	06/24/16	06/24/16
ISSUED FOR BID:	ISSUED FOR CONSTRUCTION:	DRAWING NUMBER:	SCALE:
		24-1601-70-09-A/4.12-01	1" = 50'
REVISION:			
0			
NO.	DATE	BY	REVISION DESCRIPTION
0	10/25/16	MP	ISSUED FOR PADEP SUBMITTAL #2
W.O. NO.	CHK.	APP.	DRAWN BY:
1161481	CLR	MJH	TL
DATE	DATE	DATE	DATE
08/11/16	06/23/16	06/24/16	06/24/16
ISSUED FOR BID:	ISSUED FOR CONSTRUCTION:	DRAWING NUMBER:	SCALE:
		24-1601-70-09-A/4.12-01	1" = 50'
REVISION:			
0			

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 30" CENTRAL PENN LINE NORTH
STREAM CROSSING WW-T92-15002
M.P. 4.22
SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

Williams

10-47am
 K:\103646-CPLN\Mapping\Waterbodies\Revised 105\24-1601-70-09-A_4.12-01.dwg



777578323607

Ship date:
Thu 10/27/2016

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

Delivered
Signature release on file

Actual delivery:
Fri 10/28/2016 12:53 pm

Cleveland Township
Floodplain Administrator
46 Jefferson Road
ELYSBURG, PA US 17824
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
12:53 pm	Delivered	ELYSBURG, PA
9:45 am	Left at side door Package delivered to recipient address - release authorized	
9:10 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MONTOURSVILLE, PA
4:11 am	At destination sort facility	MIDDLETOWN, PA
	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:14 pm	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578323607	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
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	10/28/2016 by 4:30 pm



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FedEx Custom Critical
FedEx Trade Networks
FedEx Cross Border
FedEx SupplyChain

Follow FedEx

United States

Ask FedEx

777578506194

Ship date:
Thu 10/27/2016

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

Delivered
Signature not required

Actual delivery:
Fri 10/28/2016 11:42 am

Franklin Township
Floodplain Administrator
313 Mt. Zion Road
CATAWISSA, PA US 17820
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
11:42 am	Delivered	CATAWISSA, PA
9:46 am	Left at front door. Package delivered to recipient address - release authorized	MONTOURSVILLE, PA
9:09 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MIDDLETOWN, PA
4:11 am	At destination sort facility	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Departed FedEx location	MEMPHIS, TN
8:36 pm	Arrived at FedEx location	HOUSTON, TX
7:10 pm	Left FedEx origin facility	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:26 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578506194	Service	FedEx Priority Overnight
Delivery attempts	1	Delivered To	Residence
Total pieces	1	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



Customer Focus
New Customer Center
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FedEx Home Delivery
FedEx TechConnect
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Online Retail Solutions
Packaging Services
Ancillary Clearance Services

Other Resources
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Developer Resource Center
FedEx Ship Manager Software
FedEx Mobile

Companies
FedEx Express
FedEx Ground
FedEx Office
FedEx Freight
FedEx Custom Critical
FedEx Trade Networks
FedEx Cross Border
FedEx SupplyChain

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United States

Ask FedEx



777578688289

Ship date:
Thu 10/27/2016

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

Delivered
Signature not required

Actual delivery:
Fri 10/28/2016 1:26 pm

Greenwood Township
Floodplain Administrator
90 Shed Road
MILLVILLE, PA US 17846
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
1:26 pm	Delivered	MILLVILLE, PA
9:50 am	Left at front door. Package delivered to recipient address - release authorized	MONTOURSVILLE, PA
9:10 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MIDDLETOWN, PA
4:11 am	At destination sort facility	MEMPHIS, TN
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:36 pm	Tendered at FedEx Office	HOUSTON, TX
4:36 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578688289	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777578771562

Ship date:
Thu 10/27/2016

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

Delivered
Signed for by: **H.MATHEWS**

Actual delivery:
Fri 10/28/2016 2:46 pm

Hemlock Township
Floodplain Administrator
26 Firehall Road
BLOOMSBURG, PA US 17815
717 943-1680

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
2:46 pm	Delivered	BLOOMSBURG, PA
9:35 am	On FedEx vehicle for delivery	MCNTOURSVILLE, PA
9:10 am	At local FedEx facility	MCNTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	HOUSTON, TX
4:48 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578771562	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	10/28/2016 by 4:30 pm		



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777578922088

Ship date:
Thu 10/27/2016

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

Delivered

Signature not required

Actual delivery:
Fri 10/28/2016 12:21 pm

Jackson Township
Floodplain Administrator
862 Waller Divide Road
BENTON, PA US 17814
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
12:21 pm	Delivered	BENTON, PA
9:50 am	Left at front door. Package delivered to recipient address - release authorized	
9:09 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MONTOURSVILLE, PA
4:11 am	At destination sort facility	MIDDLETOWN, PA
	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:57 pm	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578922088	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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FedEx® Tracking

777579064752

Ship date:

Thu 10/27/2016

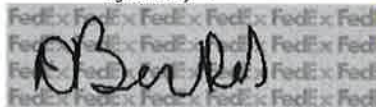
Actual delivery:

Mon 10/31/2016 12:44 pm

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

Delivered

Signed for by: D.BERKES



Montour Township
 Floodplain Administrator
 195 Rupert Drive
 BLOOMSBURG, PA US 17815
 717 943-1686

Travel History

Date/Time	Activity	Location
10/31/2016 - Monday		
12:44 pm	Delivered	BLOOMSBURG, PA
8:32 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
8:29 am	At local FedEx facility	MONTOURSVILLE, PA
10/29/2016 - Saturday		
12:43 pm	At local FedEx facility	MONTOURSVILLE, PA
10/28/2016 - Friday		
6:17 pm	At local FedEx facility	MONTOURSVILLE, PA
3:03 pm	Delivery exception	MONTOURSVILLE, PA
	Customer not available or business closed	
12:59 pm	Delivery exception	MONTOURSVILLE, PA
	Customer not available or business closed	
9:35 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:10 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	
5:07 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579064752	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	2
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	10/28/2016 by 4:30 pm		

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777579314539

Ship date:

Thu 10/27/2016

Actual delivery:

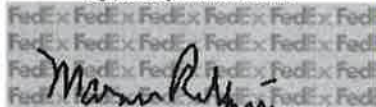
Fri 10/28/2016 3:35 pm

B L COMPANIES

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

Delivered

Signed for by: **M.RICHADSON**



Mount Pleasant Township
Floodplain Administrator
558 Millertown
BLOOMSBURG, PA US 17815
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
3:35 pm	Delivered	BLOOMSBURG, PA
9:50 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:08 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	
5:28 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579314539	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777579397281

Ship date:
Thu 10/27/2016

Actual delivery:
Fri 10/28/2016 2:28 pm

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

Delivered
Signature not required

Sugarloaf Township
Floodplain Administrator
90 Schoolhouse Road
BENTON, PA US 17814
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
2:28 pm	Delivered	BENTON, PA
	Left at front door. Package delivered to recipient address - release authorized	
9:43 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:08 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
5:38 pm	Tendered at FedEx Office Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579397281	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777578323607

Ship date:
Thu 10/27/2016

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

Delivered
Signature release on file

Actual delivery:
Fri 10/28/2016 12:53 pm

Cleveland Township
Floodplain Administrator
46 Jefferson Road
ELYSBURG, PA US 17824
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
12:53 pm	Delivered	ELYSBURG, PA
9:45 am	Left at side door Package delivered to recipient address - release authorized	
9:10 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MONTOURSVILLE, PA
4:11 am	At destination sort facility	MIDDLETOWN, PA
	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:14 pm	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578323607	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
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	10/28/2016 by 4:30 pm



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777578506194

Ship date:
Thu 10/27/2016

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

Delivered
Signature not required

Actual delivery:
Fri 10/28/2016 11:42 am

Franklin Township
Floodplain Administrator
313 Mt. Zion Road
CATAWISSA, PA US 17820
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
11:42 am	Delivered	CATAWISSA, PA
9:46 am	Left at front door. Package delivered to recipient address - release authorized	MONTOURSVILLE, PA
9:09 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MIDDLETOWN, PA
4:11 am	At destination sort facility	MEMPHIS, TN
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:26 pm	Tendered at FedEx Office	HOUSTON, TX
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578506194	Service	FedEx Priority Overnight
Delivery attempts	1	Delivered To	Residence
Total pieces	1	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777578688289

Ship date:
Thu 10/27/2016

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

Delivered
Signature not required

Actual delivery:
Fri 10/28/2016 1:26 pm

Greenwood Township
Floodplain Administrator
90 Shed Road
MILLVILLE, PA US 17846
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
1:26 pm	Delivered	MILLVILLE, PA
9:50 am	Left at front door. Package delivered to recipient address - release authorized	MONTOURSVILLE, PA
9:10 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MIDDLETOWN, PA
4:11 am	At destination sort facility	MEMPHIS, TN
4:11 am	Departed FedEx location	
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:36 pm	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578688289	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777578771562

Ship date:
Thu 10/27/2016

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

Delivered
Signed for by: **H.MATHEWS**

Actual delivery:
Fri 10/28/2016 2:46 pm

Hemlock Township
Floodplain Administrator
26 Firehall Road
BLOOMSBURG, PA US 17815
717 943-1680

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
2:46 pm	Delivered	BLOOMSBURG, PA
9:35 am	On FedEx vehicle for delivery	MCNTOURSVILLE, PA
9:10 am	At local FedEx facility	MCNTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	HOUSTON, TX
4:48 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578771562	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	10/28/2016 by 4:30 pm		



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777578922088

Ship date:
Thu 10/27/2016

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

Delivered

Signature not required

Actual delivery:
Fri 10/28/2016 12:21 pm

Jackson Township
Floodplain Administrator
862 Waller Divide Road
BENTON, PA US 17814
717 943-1686

Travel History

Date/Time	Activity	Location
10/28/2016 - Friday		
12:21 pm	Delivered	BENTON, PA
9:50 am	Left at front door. Package delivered to recipient address - release authorized	
9:09 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
7:04 am	At local FedEx facility	MONTOURSVILLE, PA
4:11 am	At destination sort facility	MIDDLETOWN, PA
	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
4:57 pm	Tendered at FedEx Office	
	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777578922088	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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Ship date:

Thu 10/27/2016

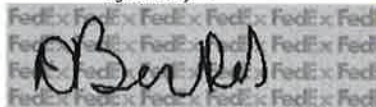
Actual delivery:

Mon 10/31/2016 12:44 pm

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

Delivered

Signed for by: D.BERKES



Montour Township
 Floodplain Administrator
 195 Rupert Drive
 BLOOMSBURG, PA US 17815
 717 943-1686

Travel History

Date/Time	Activity	Location
10/31/2016 - Monday		
12:44 pm	Delivered	BLOOMSBURG, PA
8:32 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
8:29 am	At local FedEx facility	MONTOURSVILLE, PA
10/29/2016 - Saturday		
12:43 pm	At local FedEx facility	MONTOURSVILLE, PA
10/28/2016 - Friday		
6:17 pm	At local FedEx facility	MONTOURSVILLE, PA
3:03 pm	Delivery exception	MONTOURSVILLE, PA
	Customer not available or business closed	
12:59 pm	Delivery exception	MONTOURSVILLE, PA
	Customer not available or business closed	
9:35 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:10 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	
5:07 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579064752	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	2
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	10/28/2016 by 4:30 pm		

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Kathy Cash

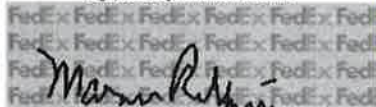
FedEx® Tracking

777579314539

Ship date:

Thu 10/27/2016**B L COMPANIES**

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

DeliveredSigned for by: **M.RICHADSON**

Actual delivery:

Fri 10/28/2016 3:35 pm**Mount Pleasant Township**

Floodplain Administrator
558 Millertown
BLOOMSBURG, PA US 17815
717 943-1686

Travel History

Date/Time	Activity	Location
- 10/28/2016 - Friday		
3:35 pm	Delivered	BLOOMSBURG, PA
9:50 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:08 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
- 10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
	Tendered at FedEx Office	
5:28 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579314539	Service	FedEx Standard Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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777579397281

Ship date:

Thu 10/27/2016

B L COMPANIESSuzan Lacey
Suite 220
19500 State Hwy 249
Houston, TX US 77070
281 671-5139**Delivered**

Signature not required

Actual delivery:

Fri 10/28/2016 2:28 pm

Sugarloaf Township
Floodplain Administrator
90 Schoolhouse Road
BENTON, PA US 17814
717 943-1686

Travel History

Date/Time	Activity	Location
- 10/28/2016 - Friday		
2:28 pm	Delivered	BENTON, PA
	Left at front door. Package delivered to recipient address - release authorized	
9:43 am	On FedEx vehicle for delivery	MONTOURSVILLE, PA
9:08 am	At local FedEx facility	MONTOURSVILLE, PA
7:04 am	At destination sort facility	MIDDLETOWN, PA
4:11 am	Departed FedEx location	MEMPHIS, TN
- 10/27/2016 - Thursday		
11:30 pm	Arrived at FedEx location	MEMPHIS, TN
8:36 pm	Left FedEx origin facility	HOUSTON, TX
7:10 pm	Picked up	HOUSTON, TX
6:23 pm	Picked up	HOUSTON, TX
5:38 pm	Tendered at FedEx Office Shipment information sent to FedEx	

Shipment Facts

Tracking number	777579397281	Service	FedEx Priority Overnight
Weight	0.5 lbs / 0.23 kgs	Delivery attempts	1
Delivered To	Residence	Total pieces	1
Total shipment weight	0.5 lbs / 0.23 kgs	Terms	Not Available
Packaging	FedEx Envelope	Special handling section	Deliver Weekday, Residential Delivery
Standard transit	10/28/2016 by 4:30 pm		



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