



Transcontinental Gas Pipe Line Company LLC  
ATLANTIC SUNRISE PROJECT  
PROPOSED 30" CENTRAL PENN LINE NORTH  
WATER OBSTRUCTION AND  
ENCROACHMENT PERMIT IMPACT MAPS

M.P. 0.00 TO M.P. 4.97

COLUMBIA COUNTY, PENNSYLVANIA

24-1601-70-09-A-01\_Columbia-PKG  
Issued for PADEP Submittal #2  
Rev. 3  
11-18-2016

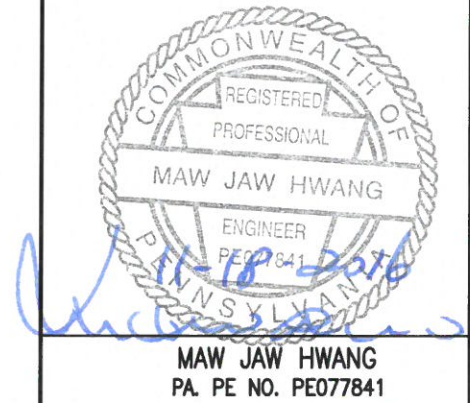
ISSUED DATE: NOVEMBER 18, 2016



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COLUMBIA COUNTY, PENNSYLVANIA

WOOD GROUP MUSTANG INC.  
17325 PARK ROW  
HOUSTON TX, 77084  
(832) 809-8000



MAW JAW HWANG  
PA. PE NO. PE077841

ISSUED FOR PADEP SUBMITTAL #2  
ISSUED DATE: NOVEMBER 18, 2016

DRAWING NUMBER	DESCRIPTION	SHEET	REVISION
24-1601-70-26-A/0.00-01	INDEX SHEET	1 OF 3	3
24-1601-70-20-A/0.00-01	NOTES SHEET	2 OF 3	1
24-1601-70-14-A/0.00-01	PROJECT LOCATION KEY MAP	3 OF 3	3
24-1601-70-09-A/0.20-01	WW-T91-15001	1 OF 1	2
24-1601-70-20-A/0.20-01	W-T02-15001A & W-T02-15001C	1 OF 1	2
24-1601-70-20-A/0.59-01	<del>W-T02-15002</del> / W-T02-15003A & W-T02-15003C	1 OF 1	2
24-1601-70-09-A/0.59-01	WW-T02-15002	1 OF 1	2
24-1601-70-20-A/0.92-01	W-T02-15004A & W-T02-15004C	1 OF 1	2
24-1601-70-09-A/0.92-01	WW-T02-15003 & WW-T02-15004	1 OF 1	2
24-1601-70-20-A/1.11-01	W-T02-15005	1 OF 2	2
24-1601-70-20-A/1.11-01	W-T02-15005	2 OF 2	0
24-1601-70-09-A/1.11-01	WW-T02-15005	1 OF 2	1
24-1601-70-09-A/1.11-01	WW-T02-15005	2 OF 2	0
24-1601-70-09-A/1.16-01	WW-T02-15006 & WW-T91-15003	1 OF 1	2
24-1601-70-20-A/1.17-01	W-T02-15006A & W-T02-15006A-1	1 OF 1	2
24-1601-70-20-A/1.26-01	W-T02-15007	1 OF 1	2
24-1601-70-09-A/1.31-01	WW-T92-15001B & WW-T02-15007	1 OF 4	2
24-1601-70-09-A/1.31-01	WW-T92-15001B & WW-T02-15007	2 OF 4	2
24-1601-70-09-A/1.31-01	WW-T92-15001B & WW-T02-15007	3 OF 4	2
24-1601-70-09-A/1.31-01	WW-T92-15001B & WW-T02-15007	4 OF 4	0
24-1601-70-09-A/1.99-01	WW-T02-15008	1 OF 1	2
24-1601-70-20-A/2.10-01	<del>W-T02-15008A/ W-T02-15008B &amp; W-T02-15008C</del>	1 OF 1	0
24-1601-70-09-A/M-0086-0.21-01	WW-T91-15004	1 OF 1	0
24-1601-70-20-A/M-0086-0.21-01	W-T02-15009A & W-T02-15009C	1 OF 2	0
24-1601-70-20-A/M-0086-0.21-01	W-T02-15009A & W-T02-15009C	2 OF 2	0

DRAWING NUMBER	DESCRIPTION	SHEET	REVISION
<del>24-1601-70-09-A/2.22-01</del>	<del>WW-T91-15004</del>	<del>1 OF 1</del>	<del>0</del>
<del>24-1601-70-20-A/2.28-01</del>	<del>W-T02-15009A &amp; W-T02-15009C</del>	<del>1 OF 1</del>	<del>1</del>
24-1601-70-09-A/2.30-01	WW-T02-15009	1 OF 1	2
24-1601-70-20-A/2.85-01	W-T02-15010A/W-T02-15010A-1 & W-T02-15010C/W-T02-15010C-1/W-T02-15010C-2	1 OF 1	2
24-1601-70-09-A/2.87-01	WW-T02-15010 & WW-T92-15001	1 OF 1	2
24-1601-70-09-A/2.92-01	WW-T02-15011	1 OF 1	2
24-1601-70-20-A/3.31-01	W-T02-15013A	1 OF 1	2
24-1601-70-09-A/3.35-01	WW-T02-15013	1 OF 1	2
24-1601-70-20-A/3.72-01	W-T02-15014A/W-T02-15014A-1/W-T02-15014A-2 & W-T02-15014C-2	1 OF 2	2
24-1601-70-20-A/3.72-01	W-T02-15014A/W-T02-15014A-1/W-T02-15014A-2 & W-T02-15014C-2	2 OF 2	2
24-1601-70-09-A/3.82-01	WW-T02-15014	1 OF 1	2
24-1601-70-20-A/3.96-01	W-T02-15015A & W-T02-15015C	1 OF 1	2
24-1601-70-09-A/4.12-01	WW-T02-15012 & WW-T02-15012C	1 OF 2	2
24-1601-70-09-A/4.12-01	WW-T92-15002	2 OF 2	0
24-1601-70-20-A/4.12-01	W-T02-15012A/ W-T02-15012C & W-T02-15012C-2	1 OF 2	2
24-1601-70-20-A/4.12-01	W-T02-15012A/ W-T02-15012C & W-T02-15012C-2	2 OF 2	1
24-1601-70-20-A/4.64-01	W-T02-15016A /W-T02-15016A-1 & W-T02-15016C	1 OF 2	2
24-1601-70-20-A/4.64-01	W-T02-15016A /W-T02-15016A-1 & W-T02-15016C	2 OF 2	2
24-1601-70-09-A/4.66-01	WW-T02-15015	1 OF 1	2
24-1601-70-09-A/4.80-01	WW-T93-15001	1 OF 1	2
<del>24-1601-70-26-A/BEC-02</del>	<del>TYPICAL BRIDGE EQUIPMENT CROSSING DETAIL - BEC</del>	<del>1 OF 1</del>	<del>1</del>



DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>INDEX SHEET</b> <b>M.P. 0.00 TO M.P. 4.97</b> <b>COLUMBIA COUNTY, PENNSYLVANIA</b>						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: MBS	DATE: 05/08/15	ISSUED FOR BID:	SCALE:
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: JM	DATE: 05/08/15	ISSUED FOR CONSTRUCTION:	REVISION: 3
1	11/20/15	AT	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	APPROVED BY: MJH	DATE: 05/08/15	DRAWING NUMBER: <b>24-1601-70-26-A/0.00-01</b>	SHEET 1
2	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	WC: 1161481		10/24/2016	OF 3
3	10/25/16	THL	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH			K:\103646-CPLN\Mapping\Waterbodies\COLUMBIA_CD\01-CPLN_PDEP_INDEX_COLUMBIA.dwg	

**GENERAL NOTES:**

1. WETLAND DELINEATION AND RESOURCE IMPACT CALCULATIONS COMPLETED BY ECOLOGY AND ENVIRONMENT, INC.
2. TRENCH PLUG, SEDIMENT BARRIER SIZE & PLACEMENT COMPLETED BY BL COMPANIES. THE LOD PROVIDED WITHIN THESE DRAWINGS ARE REPRESENTATIVE OF THE FERC CONSTRUCTION ROW AND ESCGP-2 LOD.
3. AFTER INSTALLATION OF THE PIPELINE, TRENCHES OUTSIDE THE CHANNEL SHALL BE RESTORED TO PRE-CONSTRUCTION ELEVATION AND STABILIZED WITH NATIVE VEGETATION. TRENCHES INSIDE THE CHANNEL SHALL BE BACKFILLED WITH NATIVE MATERIAL TO PRE-CONSTRUCTION ELEVATION.
4. A MINIMUM CLEARANCE OF 24 INCHES BETWEEN THE PIPELINE AND ANY EXISTING FACILITIES WILL BE MAINTAINED.
5. THERE WILL BE NO NET FILL WITHIN THE WATERBODY.
6. BUOYANCY CONTROL MAY BE REQUIRED ACROSS WATERBODY. CONTRACTOR TO REFER TO CONSTRUCTION ALIGNMENTS FOR SIZE, NUMBER OF WEIGHTS AND/OR CONCRETE COATING THICKNESS.
7. TRENCH PLUGS WILL BE INSTALLED WHEN ENTERING & EXITING ALL WATERBODIES AND WETLANDS.
8. BEST MANAGEMENT PRACTICES (BMPs) FIGURES AND TYPICAL CROSS-SECTION DRAWINGS ARE PROVIDED IN ATTACHMENT 2 OF THE ENVIRONMENTAL CONSTRUCTION PLAN (ECP), AS WELL AS THE DETAILS PROVIDED IN THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN SET. REFER TO TABLE 1 FOR INFORMATION ON THE LOCATION OF THE CROSSING TYPICAL DETAILS WITHIN THE BEST MANAGEMENT PRACTICES AND QUANTITIES PLAN SET. TIMBER MAT LOCATIONS ARE SHOWN FOR REPRESENTATION PURPOSES ONLY. AT A MINIMUM, ALL TIMBER MATTING AND PERIMETER BMPs WILL BE INSTALLED AS INDICATED WITHIN THE STREAM AND WETLAND CROSSING TYPICAL DETAILS.
9. MILE POSTS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE; THAT OTHER IDENTIFIERS OF WETLANDS AND WATERBODIES ARE FIXED.
10. ALL STREAM CROSSINGS WILL BE PERFORMED DURING LOW FLOW CONDITIONS WITH OVERSIGHT FROM AN ENVIRONMENTAL INSPECTOR. STORM EVENT WEATHER FORECASTS WILL BE MONITORED PRIOR TO AND DURING THE STREAM CROSSING.
11. DURING THE CONSTRUCTION PHASE, IF SHALLOW BEDROCK IS PRESENT, THEN THE PIPE LINE WILL BE INSTALLED THROUGH THE WATERBODY WITH A MINIMUM OF 2 FOOT OF COVER, AS THE REQUIRED 5 FOOT OF MINIMUM COVER WILL NOT BE FEASIBLE.

**SURVEY NOTES:**

1. BEARINGS SHOWN ARE GRID BEARINGS REFERENCED TO THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM NORTH ZONE, NAD83.
2. ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD88.
3. GEOGRAPHICAL COORDINATES REPRESENTED IN THE DRAWINGS ARE SHOWN IN WGS 1984, LATITUDE AND LONGITUDE, DECIMAL DEGREES.

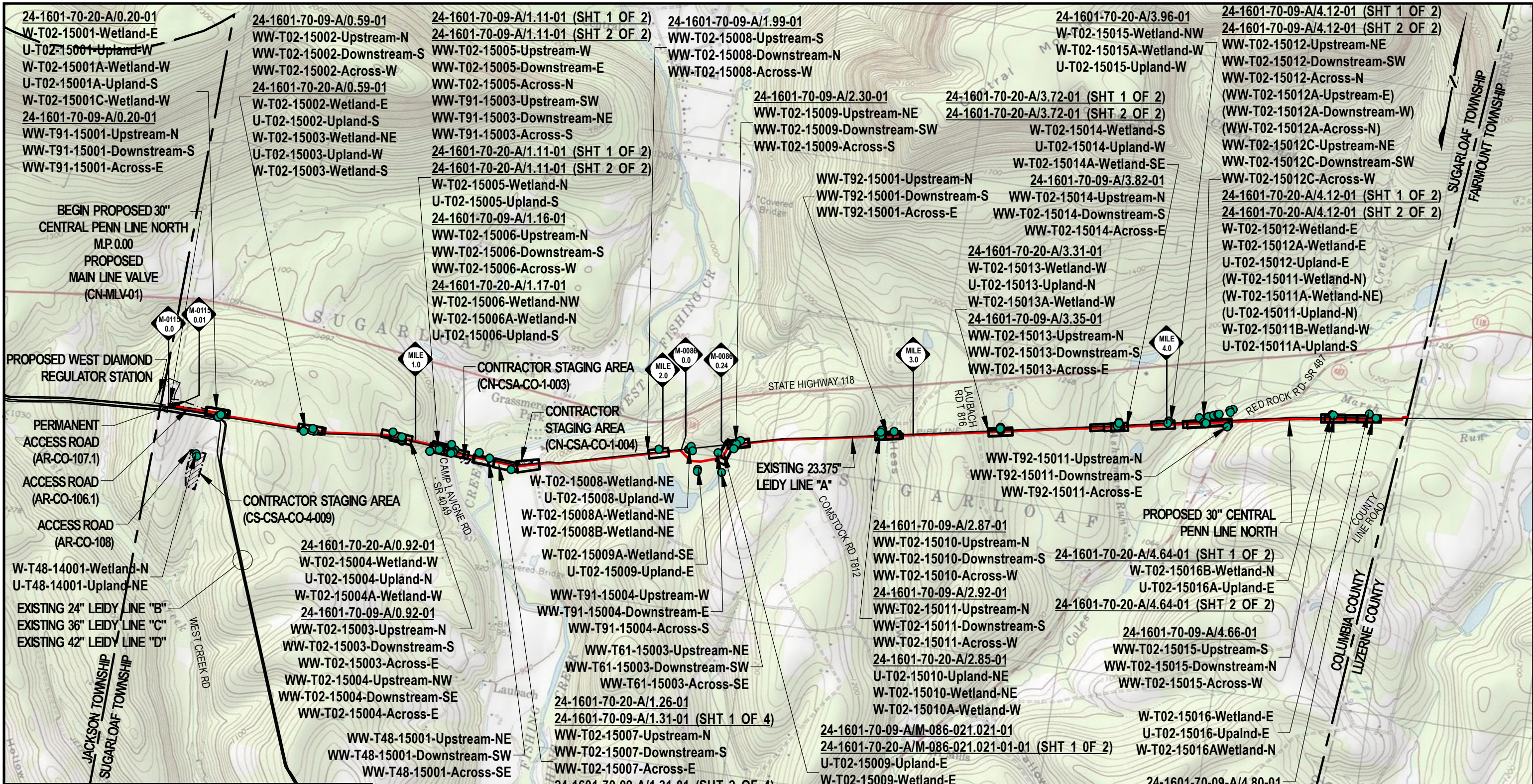
Table 1 Stream and Wetland Crossing Typical References			
Typical Detail Name	Detail	Drawing Number	Sheet Number
<b>Stream Crossing Typical</b>			
Bridge Equipment Crossing	BEC	ASR-BMP	1 of 13
Cofferdam Stream Crossing	CD	ASR-BMP	1 of 13
Dam and Pump Stream Crossing	DPX	ASR-BMP	3 of 13
Flume Stream Crossing	FX	ASR-BMP	4 of 13
Wet Intermediate Waterbody Crossing	IWC	ASR-BMP	5 of 13
Wet Minor Waterbody Crossing	MWC	ASR-BMP	6 of 13
Temporary Stream Crossing Multiple Pipes	TSC.2	ASR-BMP	10 of 13
Bored Waterbody Crossing	WBX.1	ASR-BMP	12 of 13
<b>Wetland Crossing Typical</b>			
Timber Matting in Wetlands or at Low Points	MAT.1	ASR-BMP	5 of 13
Wetland Equipment Crossing	WEC	ASR-BMP	12 of 13
"Unsaturated Wetland" Installation Procedure	WCC.1	ASR-BMP	12 of 13
"Saturated Wetland" Installation Procedure	WCC.2	ASR-BMP	12 of 13
"Inundated Wetland" Installation Procedure	WCC.3	ASR-BMP	12 of 13



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	AT	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 30" CENTRAL PENN LINE NORTH**  
**NOTES SHEET**  
**M.P. 0.00 TO M.P. 4.97**  
**COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: MBS	DATE: 05/14/15	ISSUED FOR BID:	SCALE: NA
CHECKED BY: JM	DATE: 05/14/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/03/15	DRAWING NUMBER: <b>24-1601-70-20-A/0.00-01</b>	SHEET 2
W.O. NO.: 1161481	CHK: CLR	APP: MJH	10/25/2016 m11 K:\103646-CPLN\Mapping\Waterbodies\COLUMBIA_CD\01-CPLN_PDEP_NOTES_COLUMBIA.dwg OF 3



NOTE: PHOTO POINTS NOT ENCOMPASSED BY THE SITE SPECIFIC DRAWING INDEX SHEET ARE FIELD DELINEATED FEATURES THAT ARE NOT IMPACTED BY THE PROJECT WORKSPACE AND DEPICTED IN PARENTHESIS (RESOURCE).

**LEGEND**

- PHOTO POINT
- PROPOSED 30" CENTRAL PENN LINE NORTH
- EXISTING PIPELINE
- X FENCE LINE
- - - ACCESS ROADS
- - - COUNTY/TOWNSHIP BOUNDARY
- CONTRACTOR STAGING AREA
- CONTRACTOR YARD/PIPE YARD
- SITE SPECIFIC INDEX SHEET

DRG 7.5 MIN. QUAD MAP:  
41076-C4 (ELK GROVE, PA)  
41076-C3 (RED ROCK, PA)

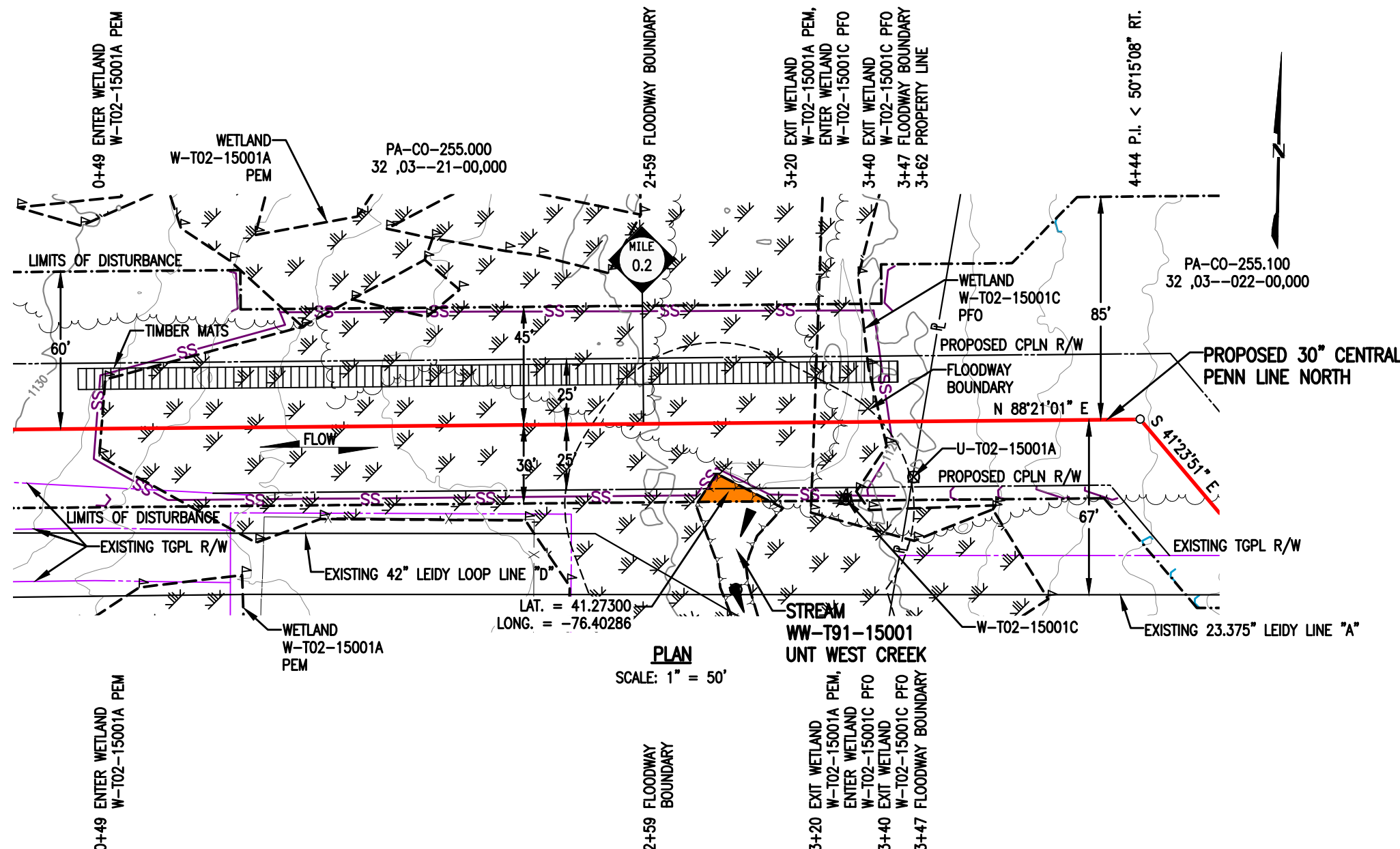
**WOOD GROUP MUSTANG**

0      2,000      4,000      6,000  
SCALE IN FEET

DRAWING NO.		REFERENCE TITLE																			
NO.		DATE		BY		REVISION DESCRIPTION		W.O. NO.		CHK.		APP.		DRAWN BY: JHD		DATE: 6/8/15		ISSUED FOR BID:		SCALE: 1"=2,000'	
0		8/20/15		CRW		ISSUED FOR PADEP 105 PERMIT		1161481		CLR		MJH		CHECKED BY: CLR		DATE: 6/8/15		ISSUED FOR CONSTRUCTION:		REVISION: 3	
1		11/20/15		CRW		ISSUED FOR INTERNAL USE		1161481		DP		MJH		APPROVED BY: MJH		DATE: 6/8/15		DRAWING NUMBER: 24-1601-70-14-A/0.00-01		SHEET 3	
2		02/03/16		JTN		ISSUED FOR INTERNAL USE		1161481		DP		MJH		DATE: 6/8/15		DRAWING NUMBER: 24-1601-70-14-A/0.00-01		SHEET 3		OF 3	
3		10/25/16		JTN		ISSUED FOR PADEP SUBMITTAL #2		1161481		DP		MJH		DATE: 6/8/15		DRAWING NUMBER: 24-1601-70-14-A/0.00-01		SHEET 3		OF 3	

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**TOPOGRAPHICAL PROJECT LOCATION KEY MAP**  
**M.P. 0.00 TO M.P. 4.97**  
**COLUMBIA COUNTY, PENNSYLVANIA**

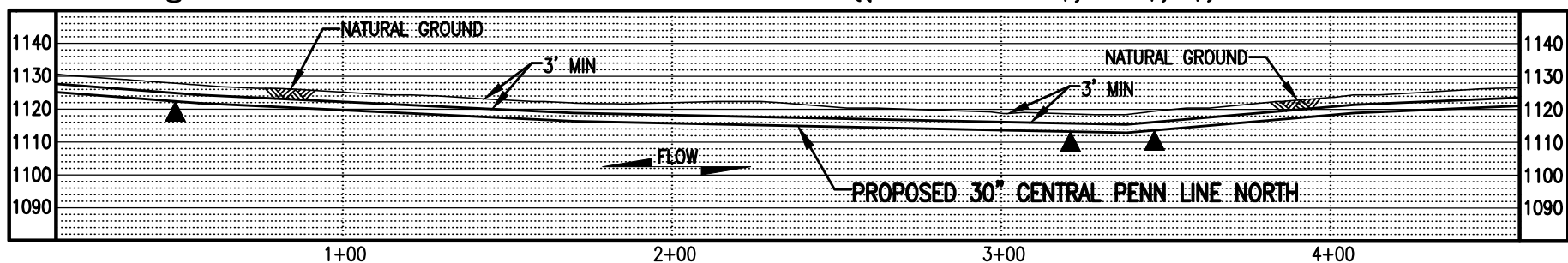
**Williams**



**STREAM DISTURBANCE:**

STREAM WW-T91-15001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0034
PERMANENT STREAM DISTURBANCE	0.0000
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.0034</b>
TEMPORARY FLOODWAY DISTURBANCE	0.0074
PERMANENT FLOODWAY DISTURBANCE	0.0002
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>0.0076</b>

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	10.73
STREAM LENGTH	27.46



- GENERAL NOTES:**
1. THE PROPOSED PIPELINE DOES NOT CROSS STREAM. STREAM WILL BE MATTED DURING CONSTRUCTION.
  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. STATION 1+00 IS SHOWN EQUAL TO STATION 9+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

- SURVEY NOTES:**
1. T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 0.26, ELEV. = 1134.21' (NAVD88).

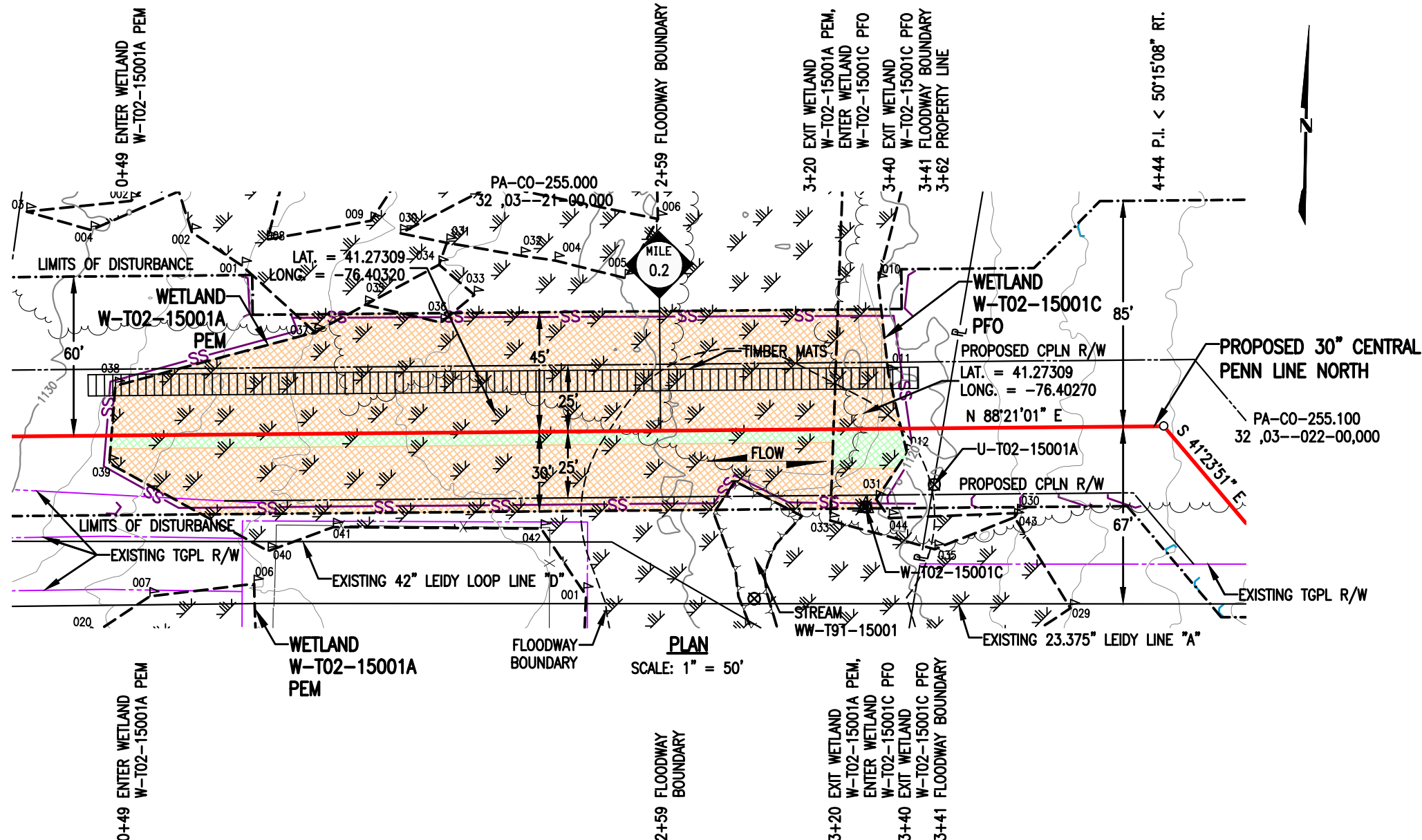


**LEGEND**

	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		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

**WOOD GROUP MUSTANG, INC.**

DRAWING NO.		REFERENCE TITLE												
<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T91-15001</b> <b>M.P. 0.21</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>														
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY:	PGM	DATE:	05/20/15	ISSUED FOR BID:	SCALE:	1" = 50'	
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY:	ML	DATE:	05/25/15	ISSUED FOR CONSTRUCTION:	REVISION:	2	
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/0.20-01	SHEET	1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO:	1161481	DATE:	10/20/2016	12:45pm	10/20/2016	OF	1

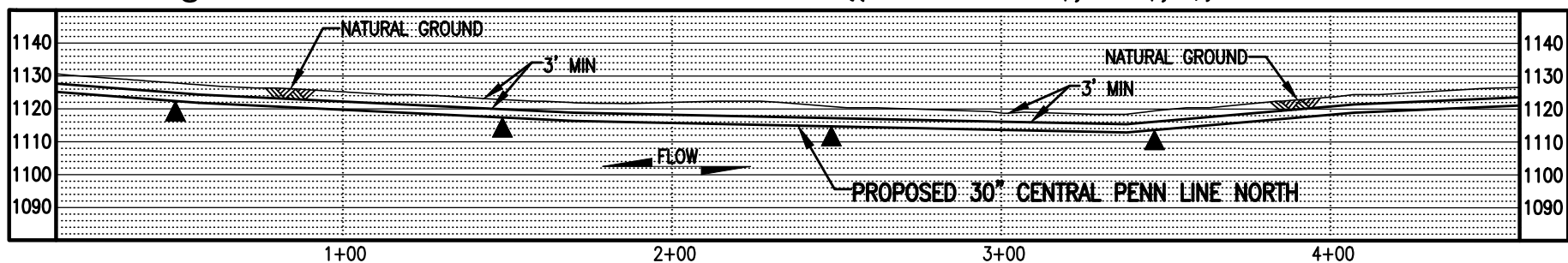


**WETLAND DISTURBANCE:**

WETLAND W-T02-15001A (EV)	ACRE
TEMPORARY DISTURBANCE	0.3953
PERMANENT DISTURBANCE	0.0312
<b>TOTAL DISTURBANCE</b>	<b>0.4265</b>

WETLAND W-T02-15001C (EV)	ACRE
TEMPORARY DISTURBANCE	0.0294
PERMANENT DISTURBANCE	0.0091
<b>TOTAL DISTURBANCE</b>	<b>0.0385</b>



**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 1+00 SHOWN IS EQUAL TO STATION 9+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 35' RT. OF M.P. 0.26, ELEV. = 1134.21' (NAVD88).



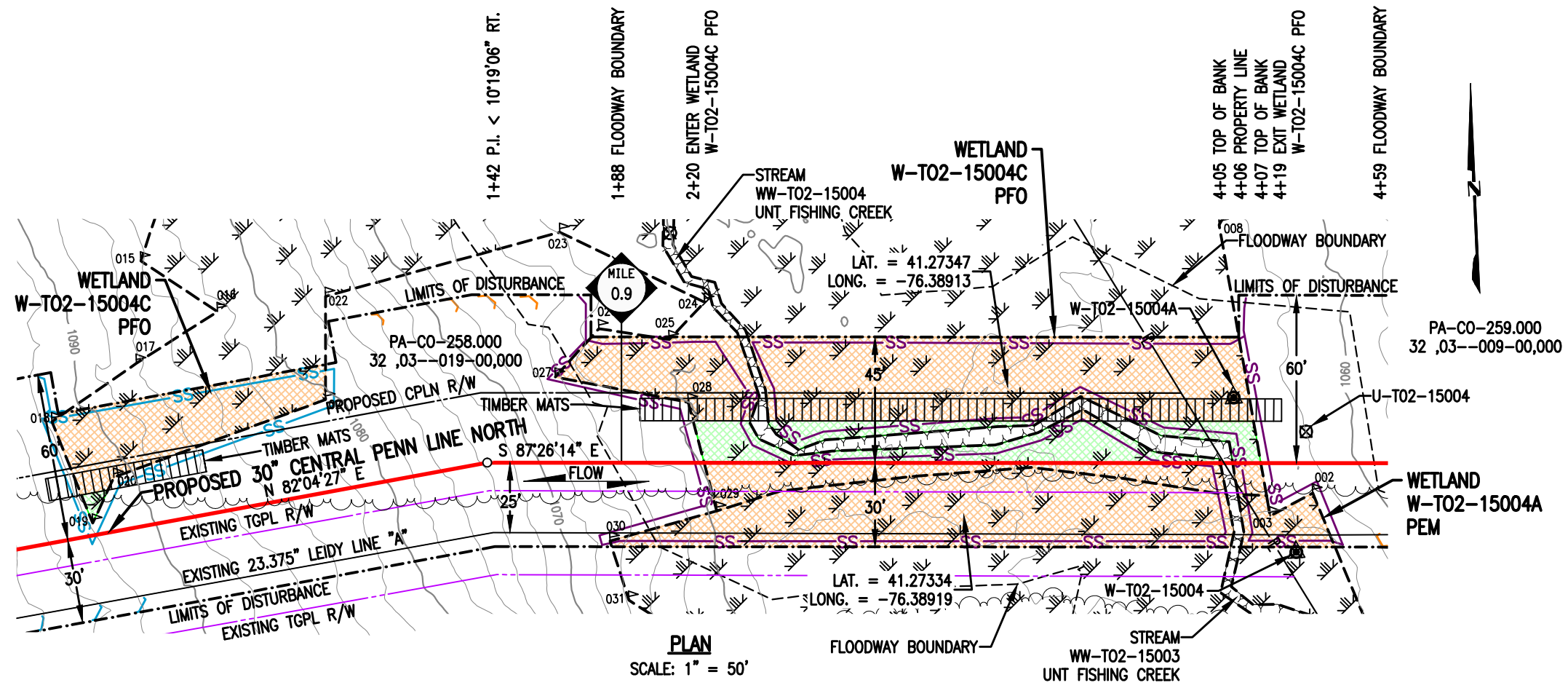
**LEGEND**

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

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 WETLAND CROSSING W-T02-15001A @ M.P. 0.20 & W-T02-15001C @ M.P. 0.21 SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: PGM	DATE: 05/20/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	CR	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: ML	DATE: 05/25/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-20-A/0.20-01	SHEET 1
2	10/25/16	COM	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	W.O. NUMBER: 1161481	DATE: 10/20/2016	12:43pm	OF 1







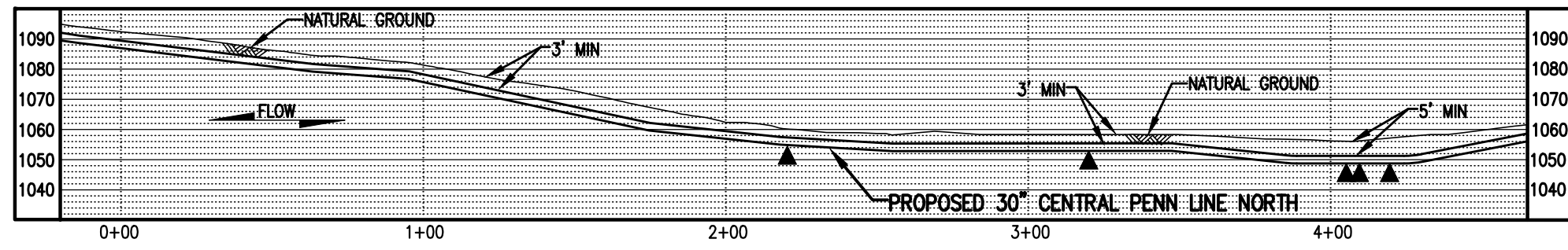
**WETLAND DISTURBANCE:**

WETLAND W-T02-15004A (EV)	ACRE
TEMPORARY DISTURBANCE	0.1161
PERMANENT DISTURBANCE	0.0000
<b>TOTAL DISTURBANCE</b>	<b>0.1161</b>

WETLAND W-T02-15004C (EV)	ACRE
TEMPORARY DISTURBANCE	0.2280
PERMANENT DISTURBANCE	0.0520
<b>TOTAL DISTURBANCE</b>	<b>0.2800</b>

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



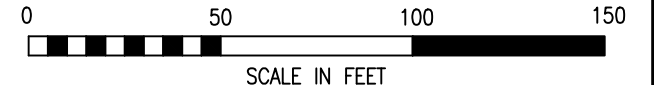
**PROFILE**  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 2+00 SHOWN IS EQUAL TO STATION 47+61 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 0.25' RT. OF M.P. 0.91, ELEV. = 1059.14' (NAVD88).



**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	
	EXISTING POWER LINE		FLOODWAY BOUNDARY	
	EXISTING FENCE		FEMA FLOODWAY BOUNDARY	

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

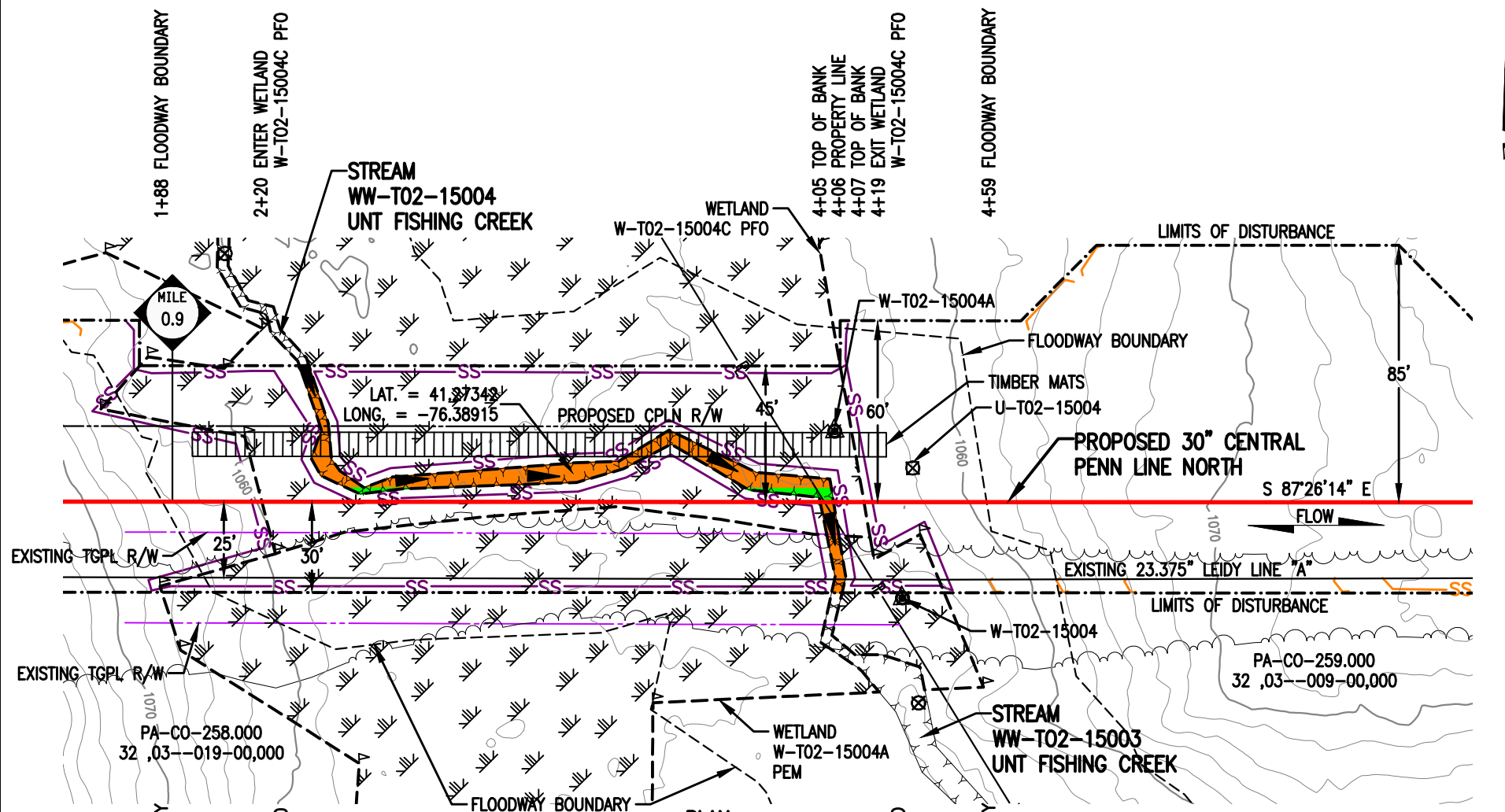
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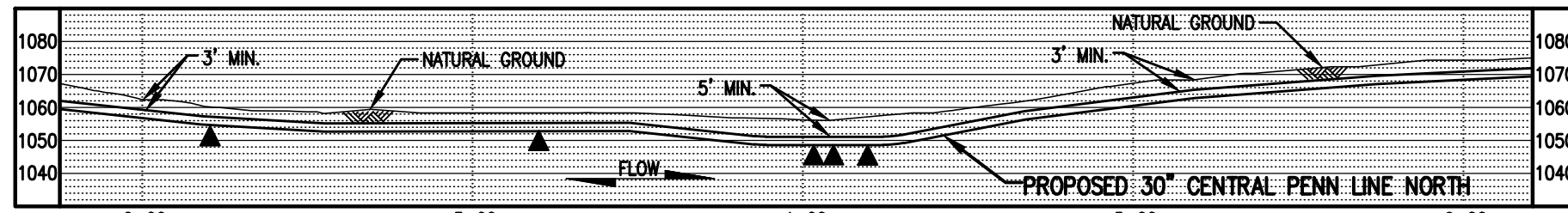
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH
2	10/25/16	VT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSING W-T02-15004A @ M.P. 0.92 &**  
**W-T02-15004C @ M.P. 0.93**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: PGM	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: <b>24-1601-70-20-A/0.92-01</b>	SHEET 1
IWO: 1161481		9/26/2016	OF 1



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



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

**STREAM DISTURBANCE:**

STREAM WW-T02-15003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.1149
PERMANENT FLOODWAY DISTURBANCE	0.0085
TOTAL FLOODWAY DISTURBANCE	0.1234

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

STREAM WW-T02-15004	ACRE
TEMPORARY STREAM DISTURBANCE	0.0231
PERMANENT STREAM DISTURBANCE	0.0025
TOTAL STREAM DISTURBANCE	0.0256
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	4.42
STREAM LENGTH	178.32

**GENERAL NOTES:**

1. STREAM CROSSING METHOD FOR STREAM WW-T02-15004 SHALL BE FLUME (FX). EQUIPMENT TO CROSS STREAM UTILIZING A BRIDGE EQUIPMENT CROSSING (BEC). PROPOSED PIPELINE DOES NOT CROSS STREAM WW-T02-15003.
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. STATION 2+00 SHOWN IS EQUAL TO STATION 47+61 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 0.25' RT. OF M.P. 0.91, ELEV. = 1059.14' (NAVD88).



**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		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	AT	ISSUED FOR INTERNAL USE
2	10/25/16	MGJ	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-T02-15003 @ M.P. 0.95,**  
**WW-T02-15004 @ M.P. 0.93**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

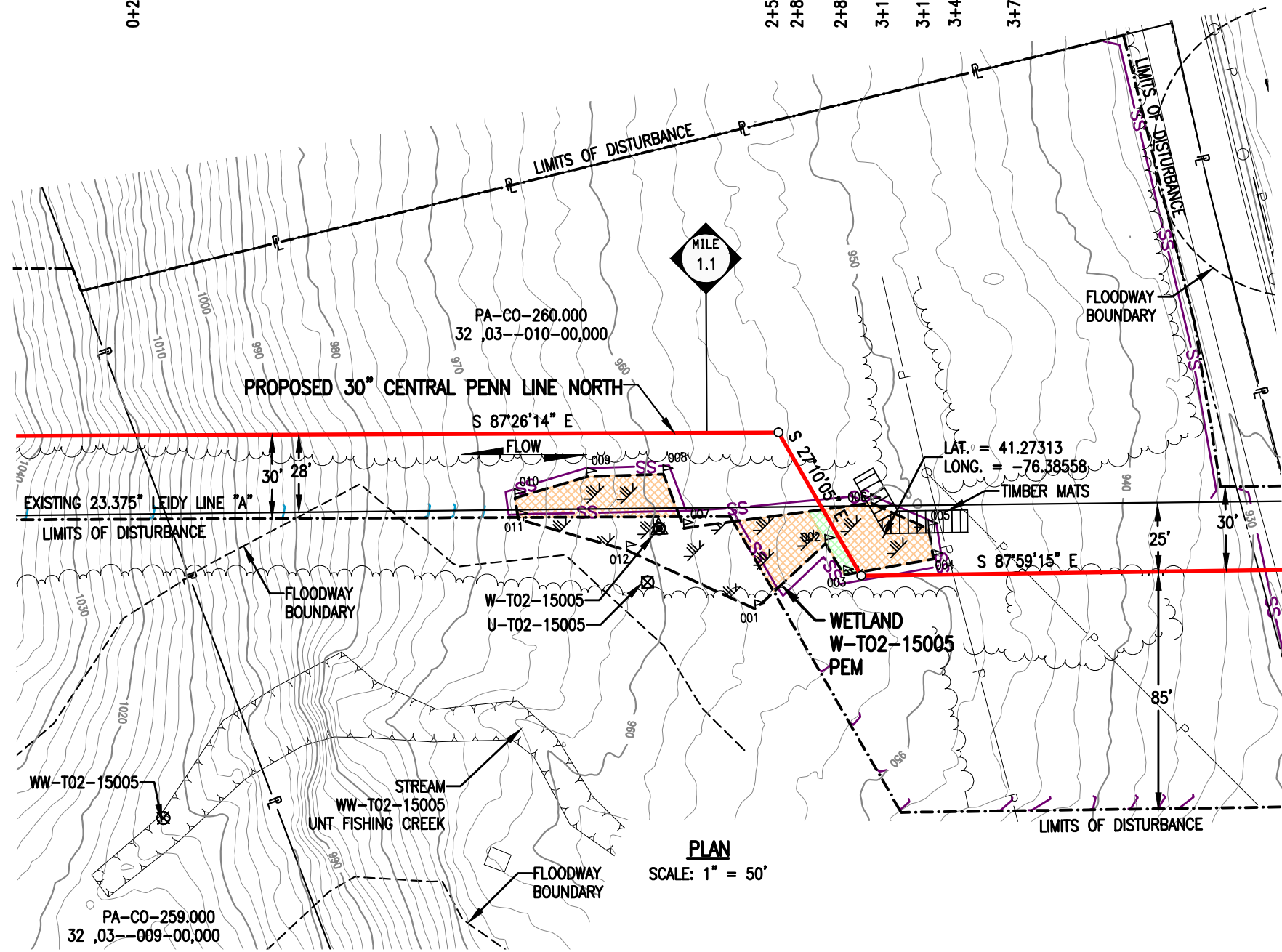
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1161481	CLR	MJH	CHECKED BY: ML	DATE: 08/10/14	ISSUED FOR CONSTRUCTION:	REVISION: 2
1161481	CLR	MJH	APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-09-A/0.92-01	SHEET 1
1161481	CLR	MJH	W.O. NO. 1161481		12:22pm 9/27/2016 d:\grego	OF 1

0+21 PROPERTY LINE

2+52 P.I. < 60°16'09" RT.  
 2+83 EXISTING 23.375" LEIDY LINE "A"  
 2+84 ENTER WETLAND W-T02-15005 PEM  
 3+10 EXIT WETLAND W-T02-15005 PEM  
 3+11 P.I. < 60°49'11" LT.  
 3+44 OVERHEAD POWER LINE  
 3+70 OVERHEAD POWER LINE

**WETLAND DISTURBANCE:**

WETLAND W-T02-15005	ACRE
TEMPORARY DISTURBANCE	0.0433
PERMANENT DISTURBANCE	0.0030
<b>TOTAL DISTURBANCE</b>	<b>0.0463</b>



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

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 1+00 SHOWN IS EQUAL TO STATION 56+82 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 22' RT. OF M.P. 1.13, ELEV. = 944.92' (NAVD88).

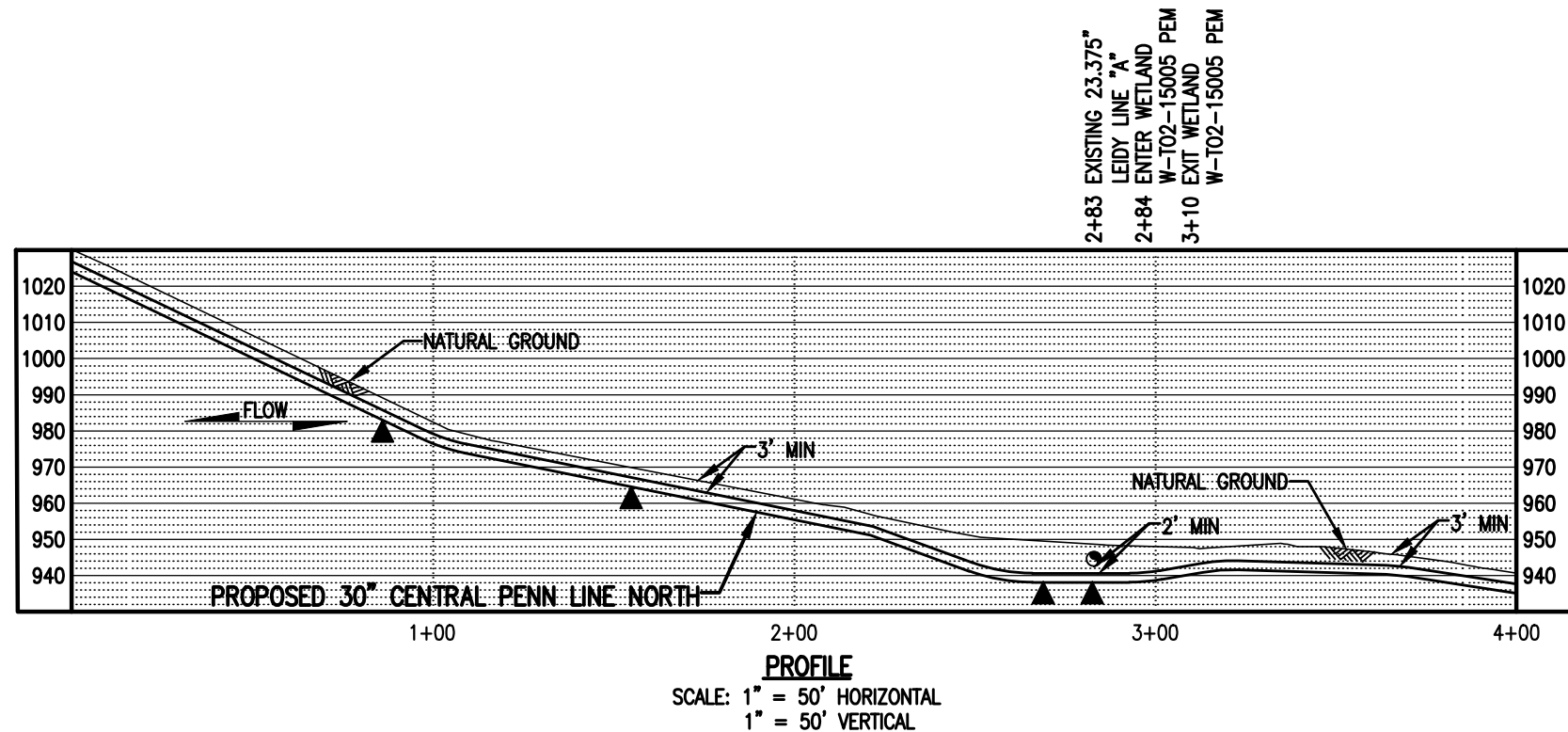


LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.		REFERENCE TITLE	
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	VT	ISSUED FOR PADEP SUBMITTAL #2

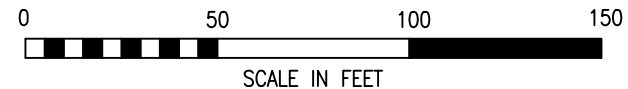
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSING W-T02-15005**  
**M.P. 1.12**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: PGM	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-20-A/1.11-01	SHEET 1
WO: 1161481	12:52pm 9/27/2016 digregio	K:\103646-CPLN\Maping\Wetlands\Revised 105\24-1601-70-20-A_1.11-01.dwg	OF 2



2+83 EXISTING 23.375"  
LEIDY LINE "A"  
2+84 ENTER WETLAND  
W-T02-15005 PEM  
3+10 EXIT WETLAND  
W-T02-15005 PEM

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



**LEGEND**

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

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	AB	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**  
**WETLAND CROSSING W-T02-15005**  
**© M.P. 1.12**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: PGM	DATE: 09/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-20-A/1.11-01	SHEET 2
W/O: 1161481		1:00pm 9/27/2016 digrego	OF 2

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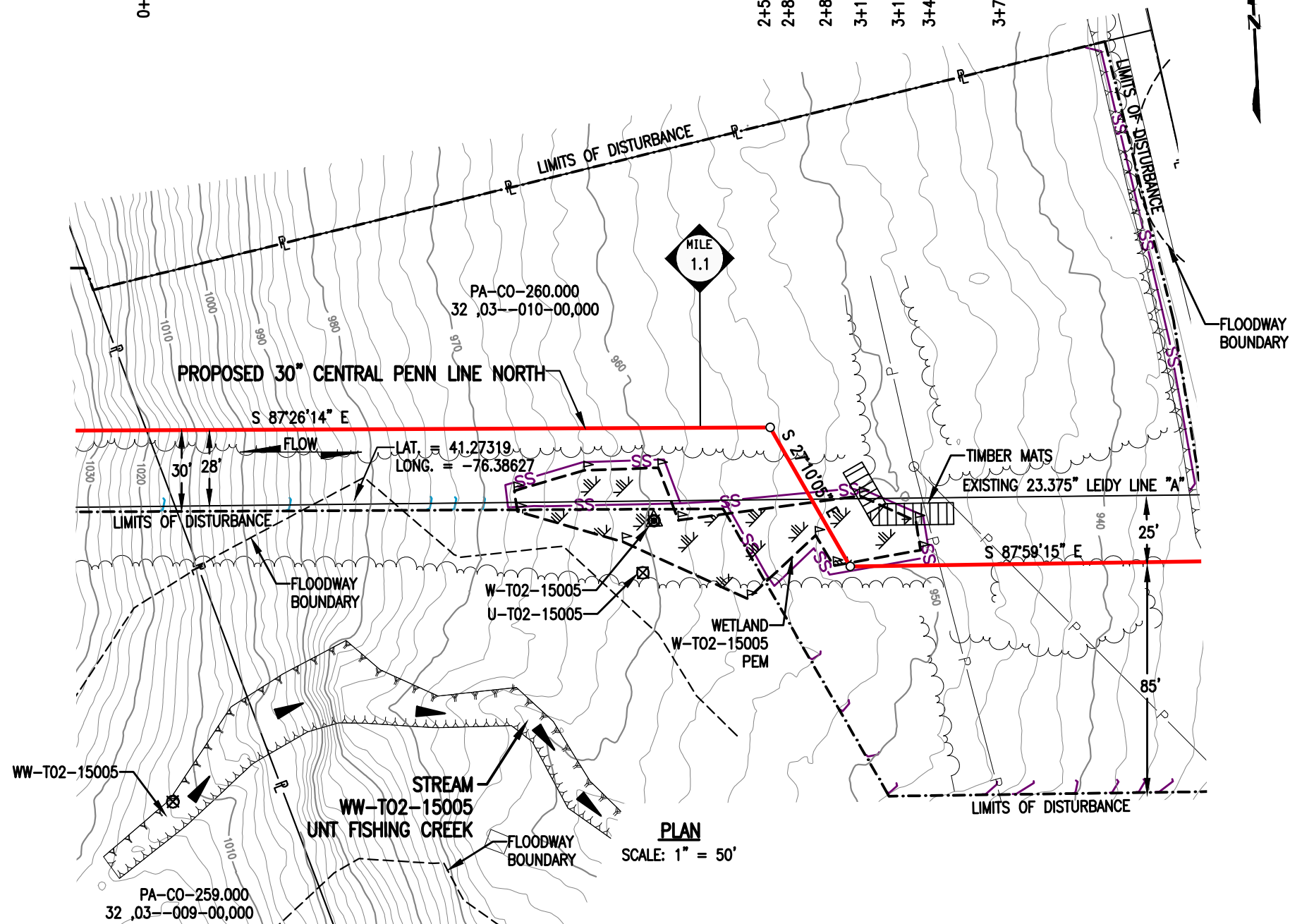
0+21 PROPERTY LINE

2+52 P.I. < 60°16'09" RT.  
 2+83 EXISTING 23.375" LEIDY LINE "A"  
 2+84 ENTER WETLAND W-T02-15005 PEM  
 3+10 EXIT WETLAND W-T02-15005 PEM  
 3+11 P.I. < 60°49'11" LT.  
 3+44 OVERHEAD POWER LINE  
 3+70 OVERHEAD POWER LINE

**STREAM DISTURBANCE:**

STREAM WW-T02-15005	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0052
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0052

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



**GENERAL NOTES:**

1. STREAM DOES NOT CROSS PROPOSED PIPELINE.
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. STATION 1+00 SHOWN IS EQUAL TO STATION 56+82 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 22' RT. OF M.P. 1.13, ELEV. = 944.92' (NAVD88).



**LEGEND**

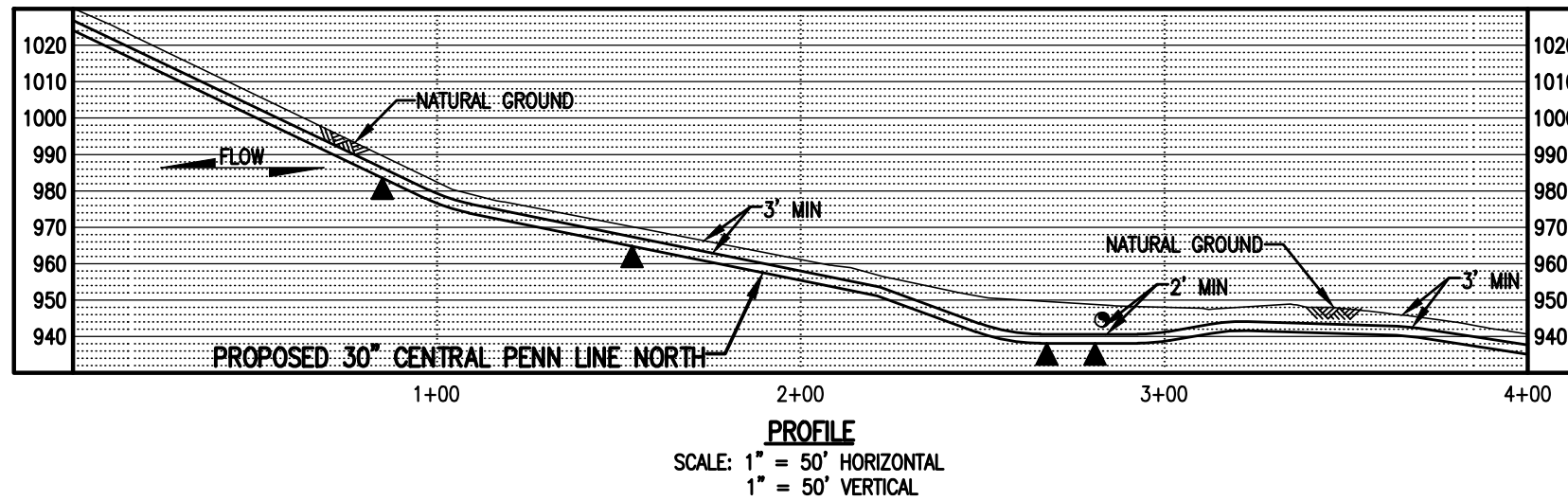
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		
	EXISTING TGPL R/W		WETLAND DATA POINT		
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		
	PROPOSED CPLN R/W		WELL POINT		
	PROPERTY LINE		TRENCH PLUG		
	FOREIGN PIPELINE		WATERBODY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

DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	JB	REVISED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	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 CROSSING WW-T02-15005**  
**© M.P. 1.08**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: AT	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 08/14/15	DRAWING NUMBER: 24-1601-70-09-A/1.11-01	SHEET 1
W.O. NO.: 1161481		1:18pm 9/27/2016 olgrego	OF 2

2+83 EXISTING 23.375"  
LEIDY LINE "A"  
2+84 ENTER WETLAND  
W-T02-15005 PEM  
3+10 EXIT WETLAND  
W-T02-15005 PEM



**LEGEND**

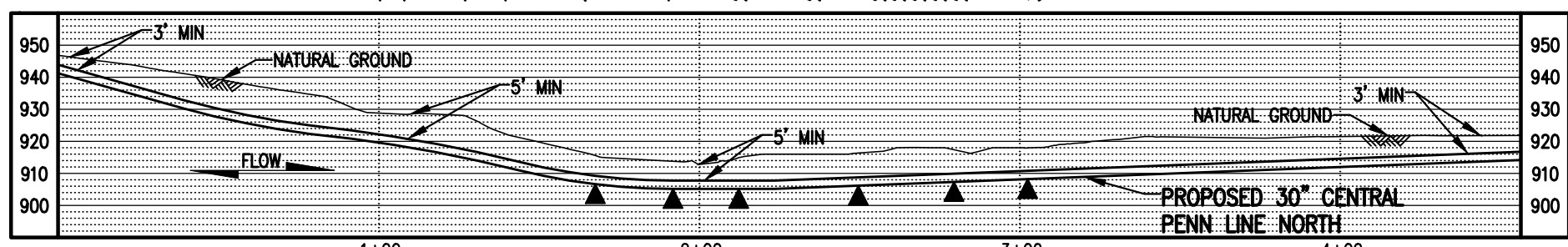
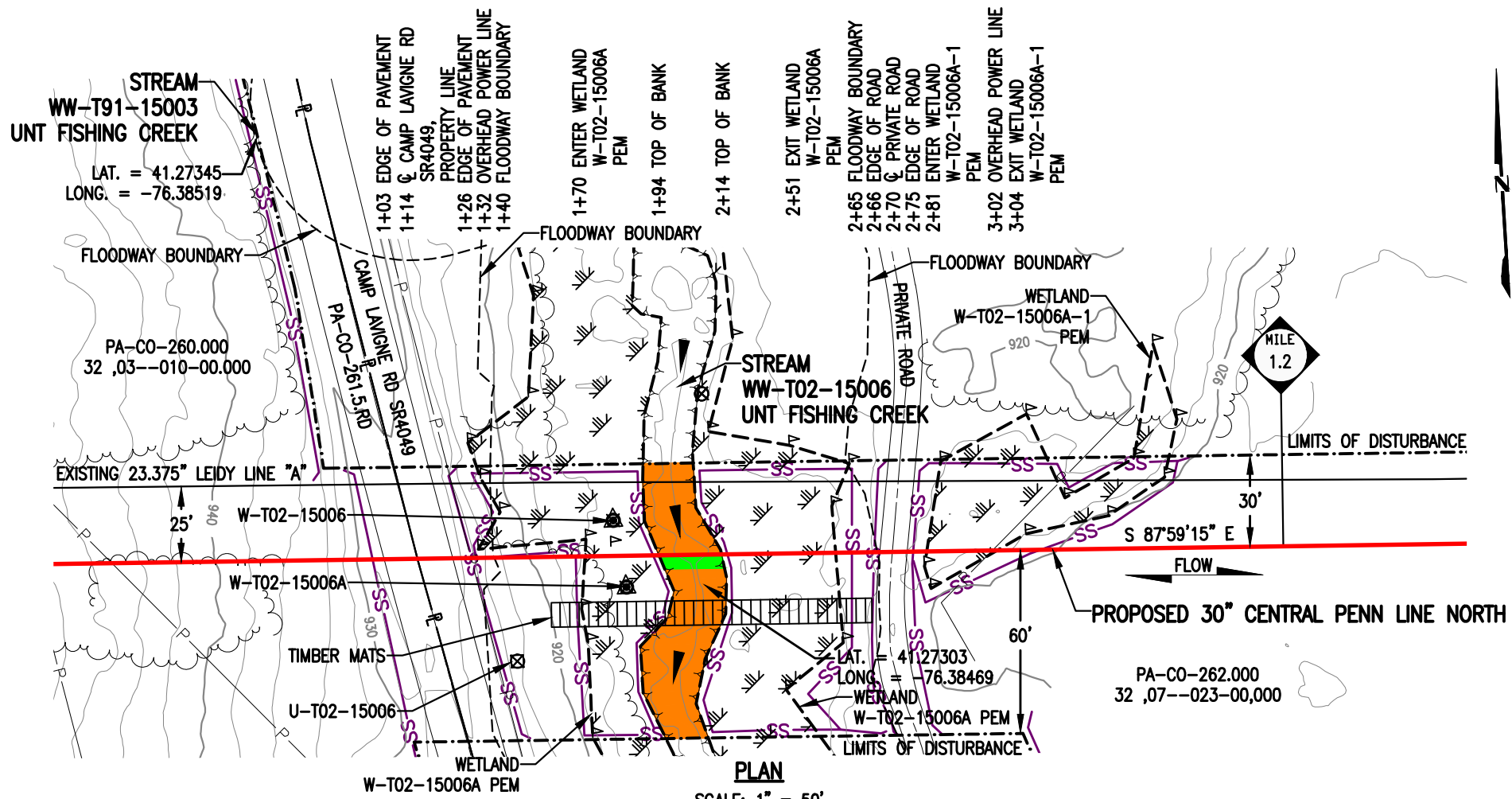
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLN R/W		WELL POINT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

DRAWING NO.		REFERENCE TITLE				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	AB	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 CROSSING WW-T02-15005**  
**© M.P. 1.08**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

DRAWN BY: AT	DATE: 09/16/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 08/14/15	DRAWING NUMBER: 24-1601-70-09-A/1.11-01	SHEET 2
IWO: 1161481		9/27/2016	OF 2



**STREAM DISTURBANCE:**

STREAM WW-T02-15006	ACRE
TEMPORARY STREAM DISTURBANCE	0.0358
PERMANENT STREAM DISTURBANCE	0.0023
TOTAL STREAM DISTURBANCE	0.0381
TEMPORARY FLOODWAY DISTURBANCE	0.0744
PERMANENT FLOODWAY DISTURBANCE	0.0049
TOTAL FLOODWAY DISTURBANCE	0.0793

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	20.51
STREAM LENGTH	91.81

STREAM WW-T91-15003	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0002
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0002

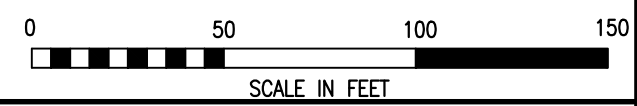
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM LENGTH	0.00

**GENERAL NOTES:**

1. STREAM CROSSING METHOD FOR WW-T02-15006 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-T91-15003 IS LOCATED APPROXIMATE 151' NORTH OF PROPOSED PIPELINE.
4. STATION 1+00 SHOWN IS EQUAL TO STATION 60+38 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 15' LT. OF M.P. 1.18, ELEV. = 918.38' (NAVD88).



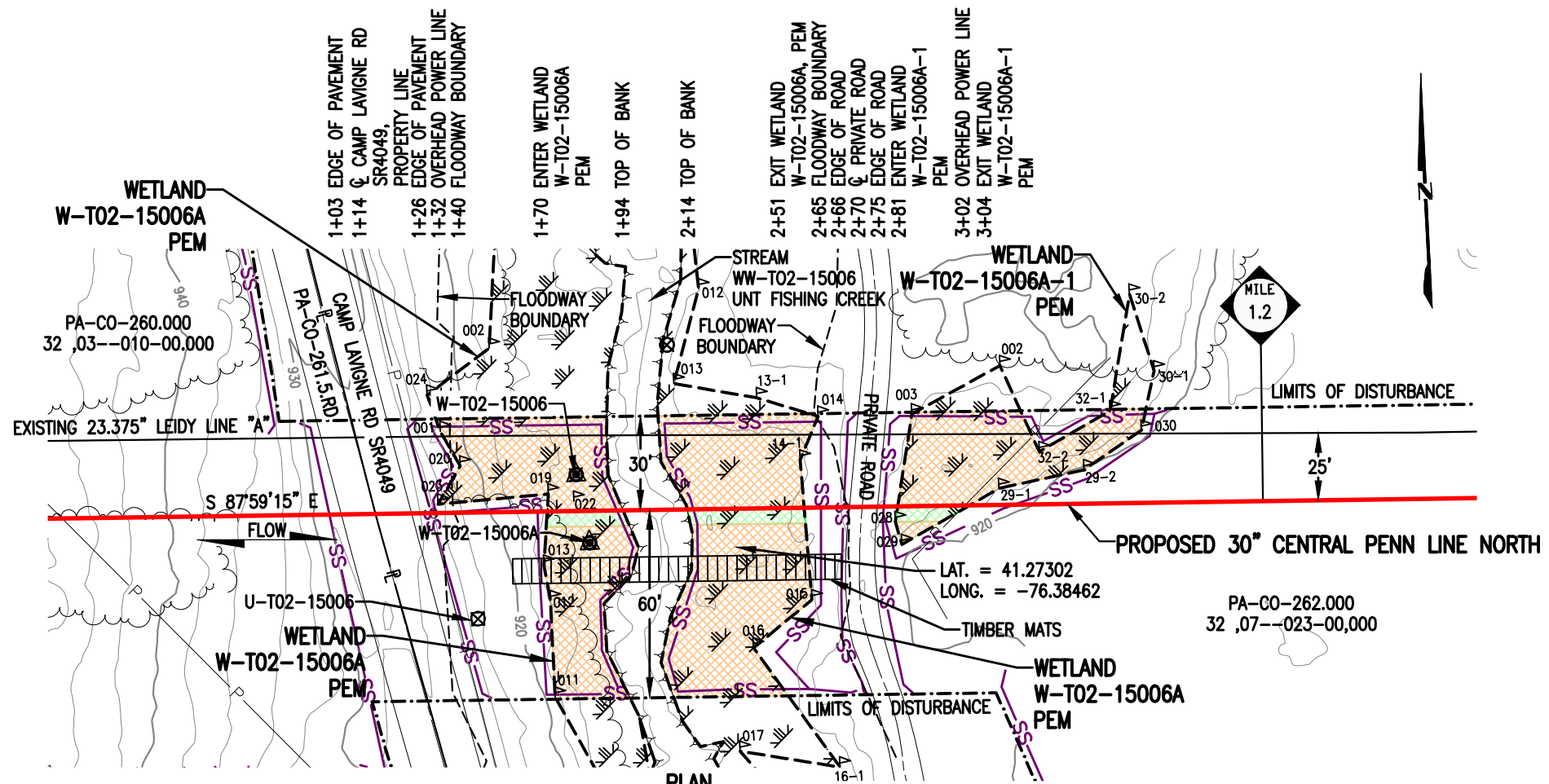
**LEGEND**

	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		

**WOOD GROUP MUSTANG, INC.**

	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

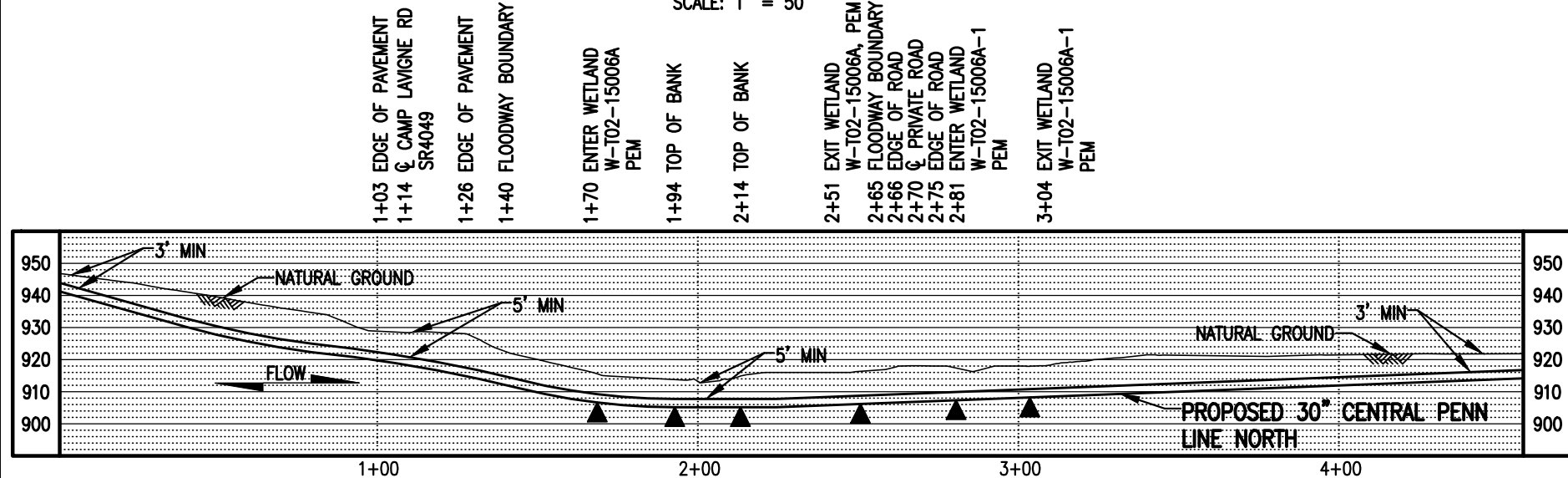
DRAWING NO.		REFERENCE TITLE								
<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSINGS WW-T91-15003 @ M.P. 1.14 &amp;</b> <b>WW-T02-15006 @ M.P. 1.16</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>										
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	THL	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/1.16-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481	DATE: 9/27/2016	1:27pm	OF 1



**WETLAND DISTURBANCE:**

WETLAND W-T02-15006A / W-T02-15006A-1 (EV)	ACRE
TEMPORARY DISTURBANCE	0.1731
PERMANENT DISTURBANCE	0.0093
<b>TOTAL DISTURBANCE</b>	<b>0.1824</b>

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



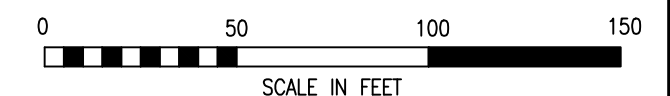
**PROFILE**  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 1+00 SHOWN IS EQUAL TO STATION 60+38 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 15' LT. OF M.P. 1.18, ELEV. = 918.38' (NAVD88).



**LEGEND**

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

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						
				WETLAND CROSSINGS W-T02-15006A / W-T02-15006A-1						
				M.P. 1.17						
				SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: PGM	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	APPROVED BY: MJH	DATE: 08/14/15	DRAWING NUMBER: 24-1601-70-20-A/1.17-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481		1:40pm 9/27/2016 dIgrego K:\103646-CPLN\Mapping\Wetlands\Revised 105\24-1601-70-20-A_1.17-01.dwg	OF 1



**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

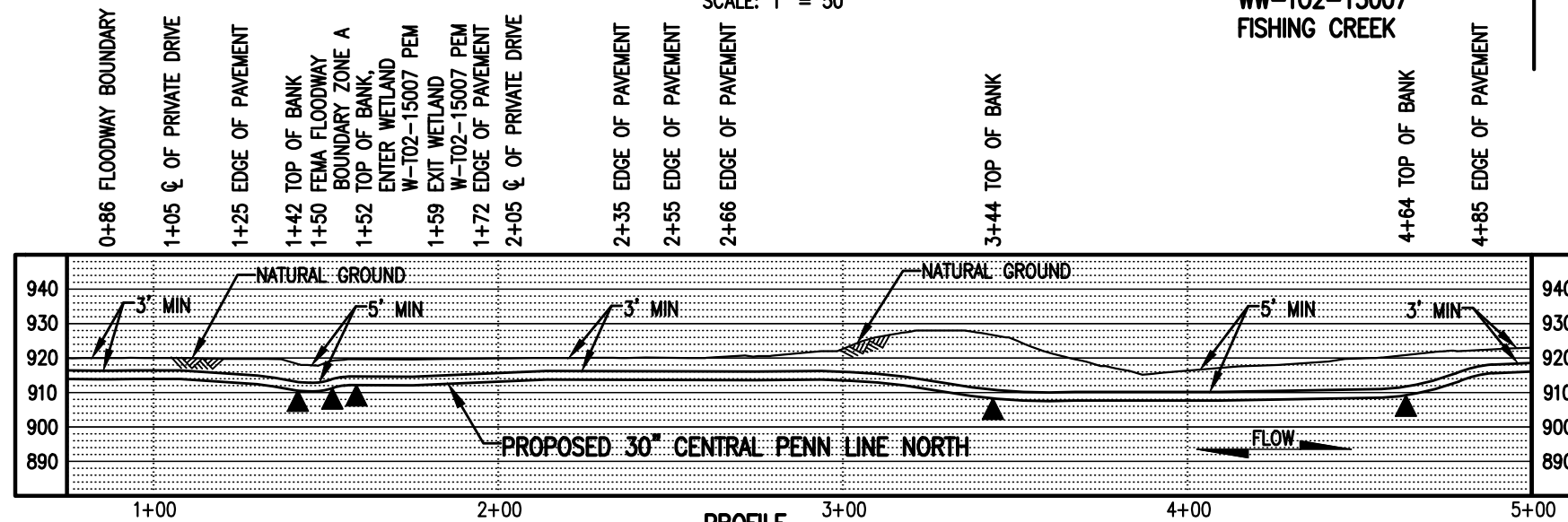
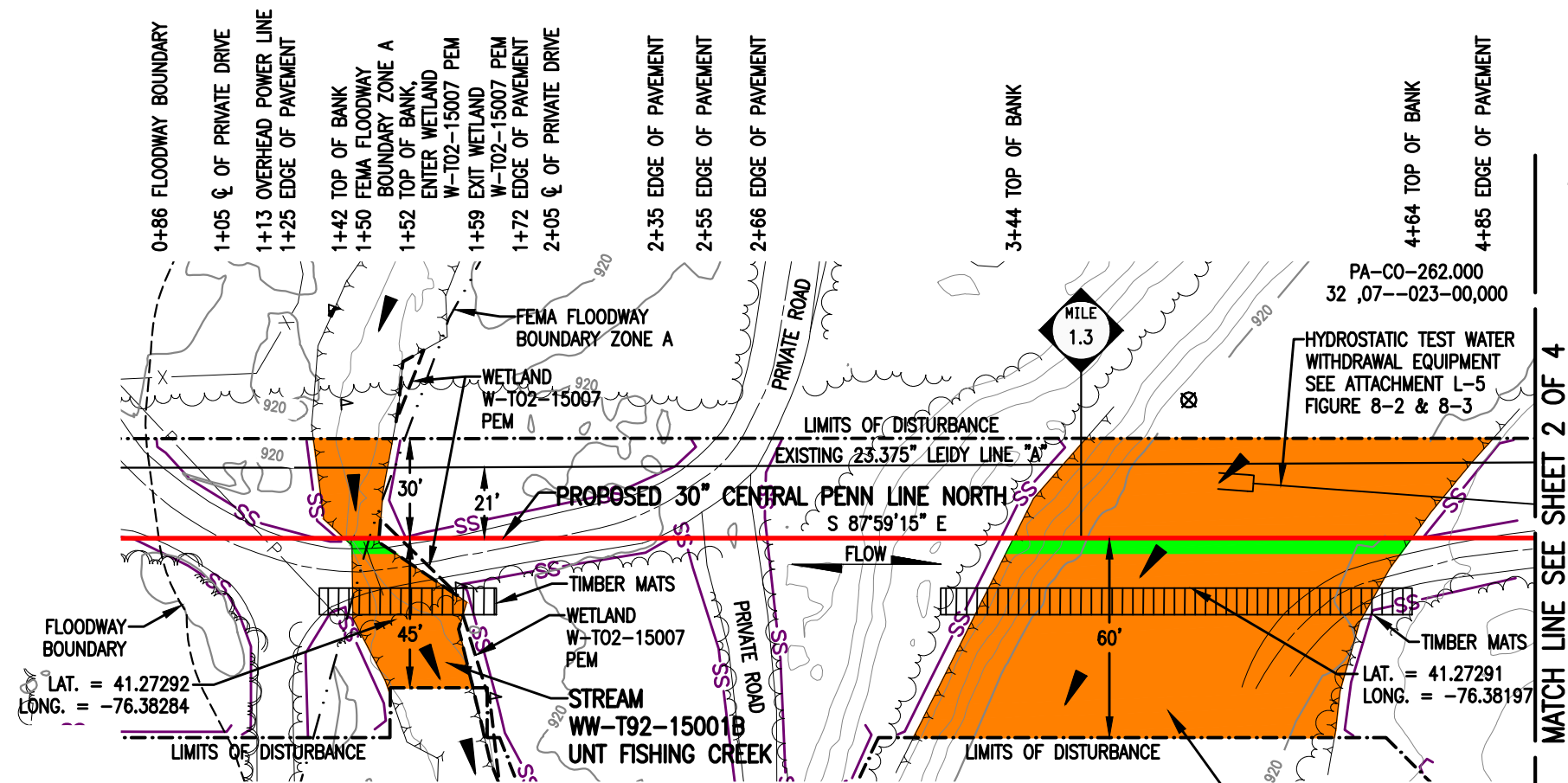
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	119.84
STREAM LENGTH	111.91

**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
- 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.**

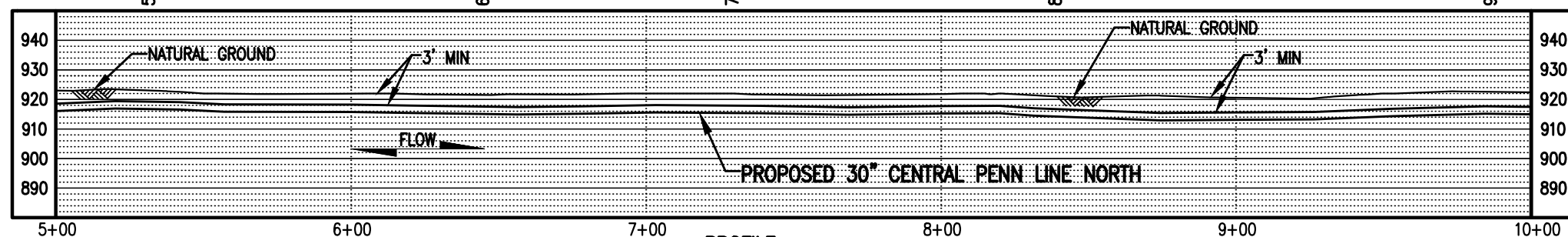
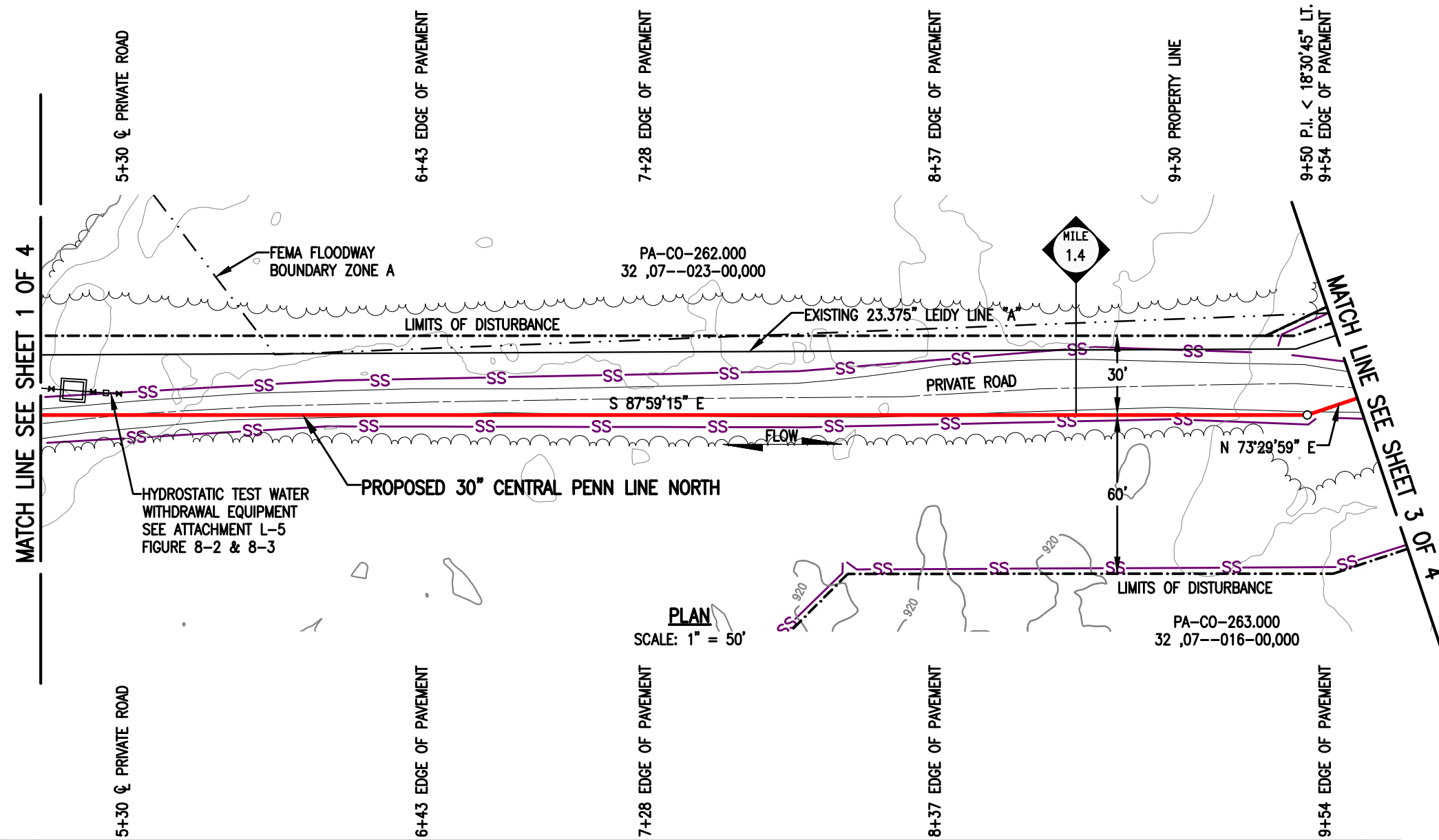
DRAWING NO. REFERENCE TITLE

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 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'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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

W.C. 1161481



**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
	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

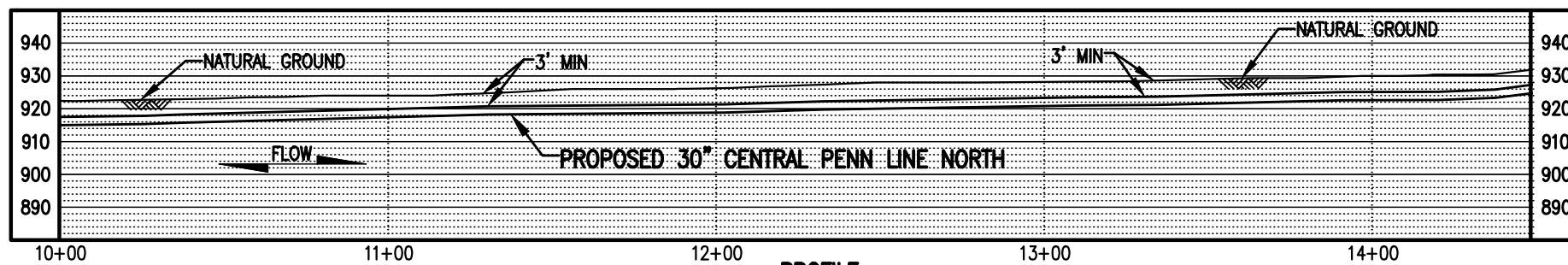
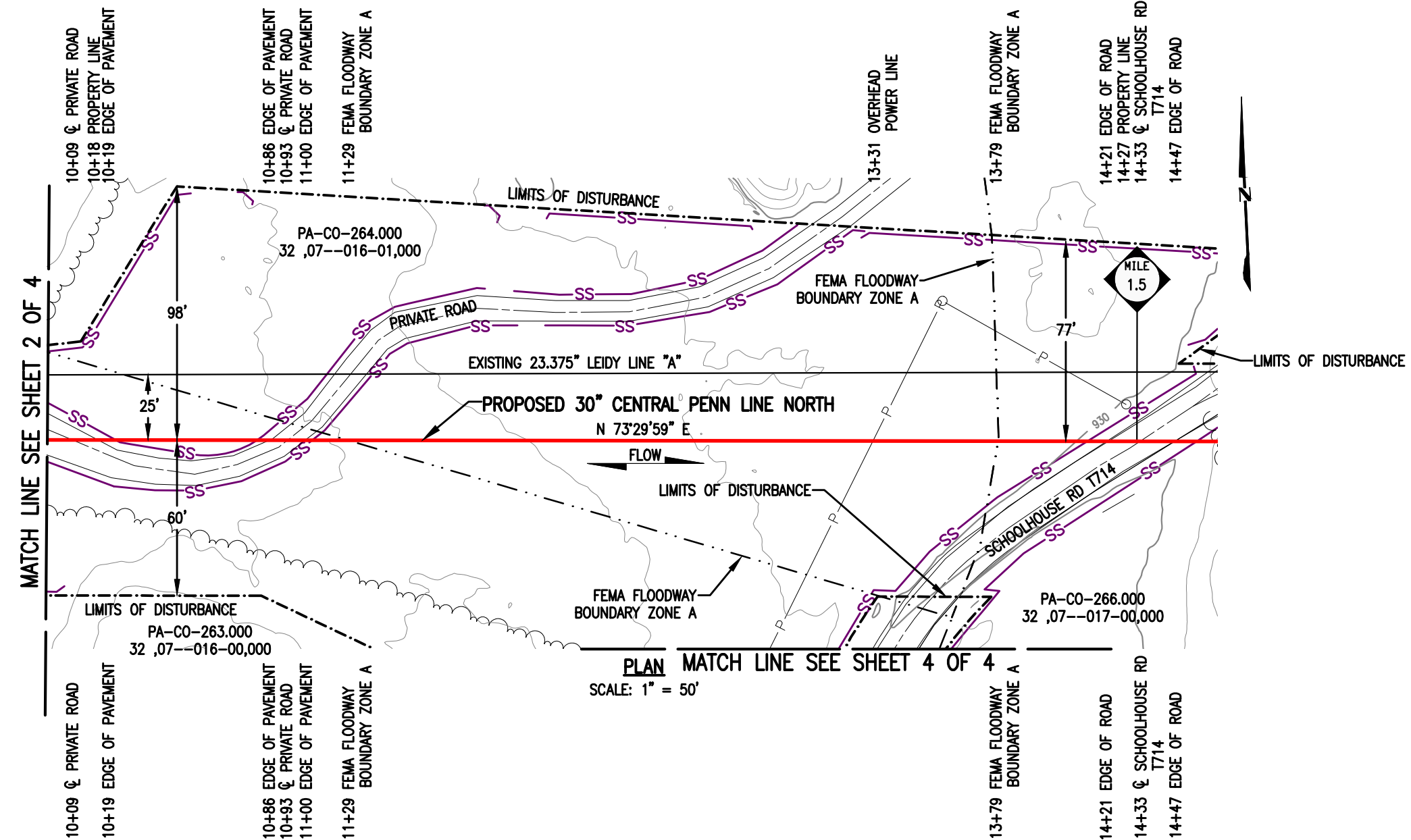


DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

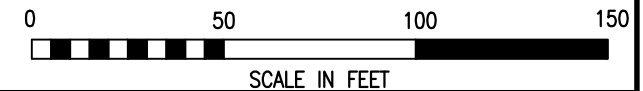
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26**  
**WW-T02-15007 @ M.P. 1.31**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, 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: <b>24-1601-70-09-A/1.31-01</b>	SHEET 2 OF 4
W.O. NO.: 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	
	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
	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
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

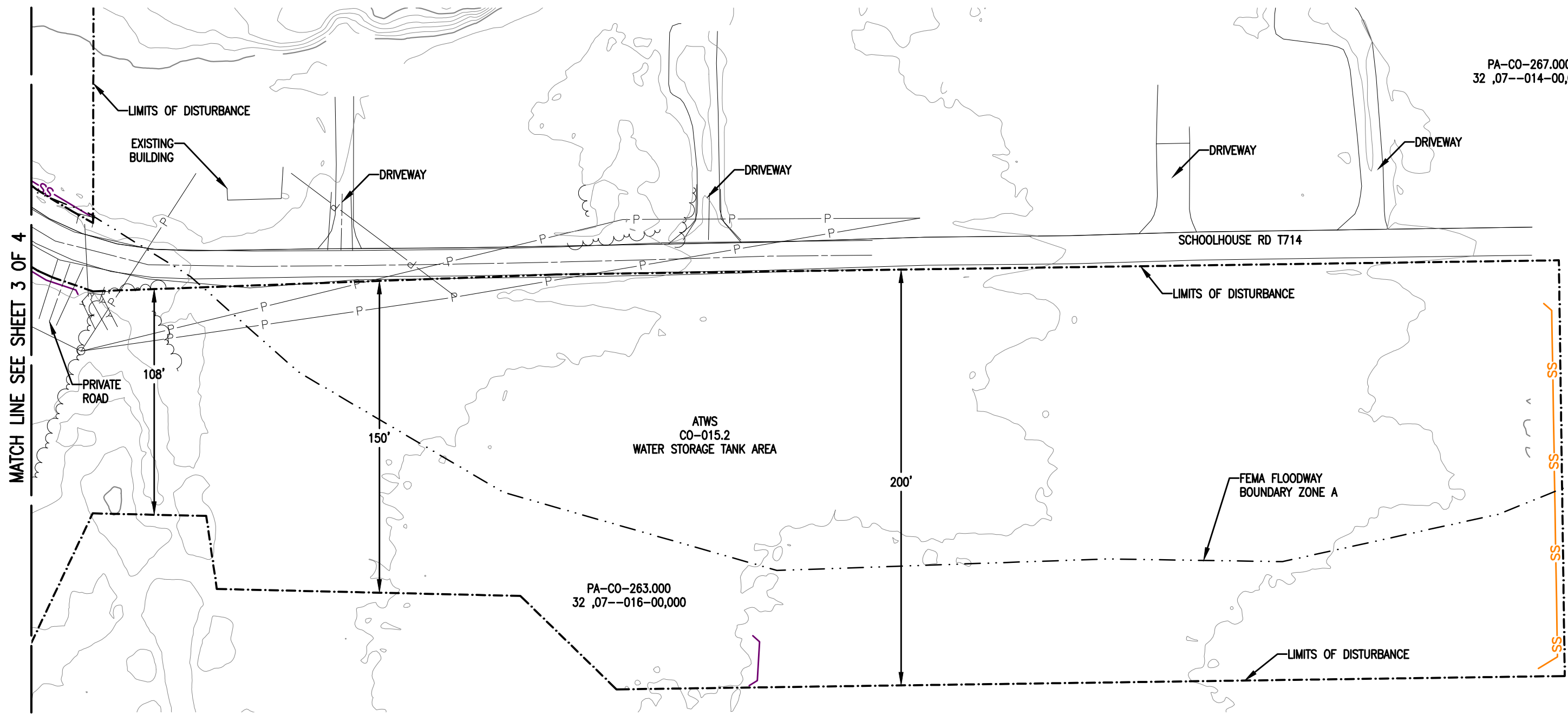
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**STREAM CROSSINGS WW-T92-15001B @ M.P. 1.26**  
**WW-T02-15007 @ M.P. 1.31**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY,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

**Williams**

W.O. NO.	CHK.	APP.	DRAWN BY:	TL	DATE:	12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
1161481	CLR	MJH	CHECKED BY:	CLR	DATE:	06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
1161481	CLR	MJH	APPROVED BY:	MJH	DATE:	06/08/15	DRAWING NUMBER:	24-1601-70-09-A/1.31-01
1161481	CLR	MJH	W.O. NO.:	1161481	DATE:	9/28/2016	3405pm	SHEET 3
							K:\103646-CPLN\Mapping\Waterbodies\Revised 105\24-1601-70-09-A_1.31-01.dwg	OF 4

STREAM DISTURBANCE:  
SEE TABLE ON SHEET 1 OF 4

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



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



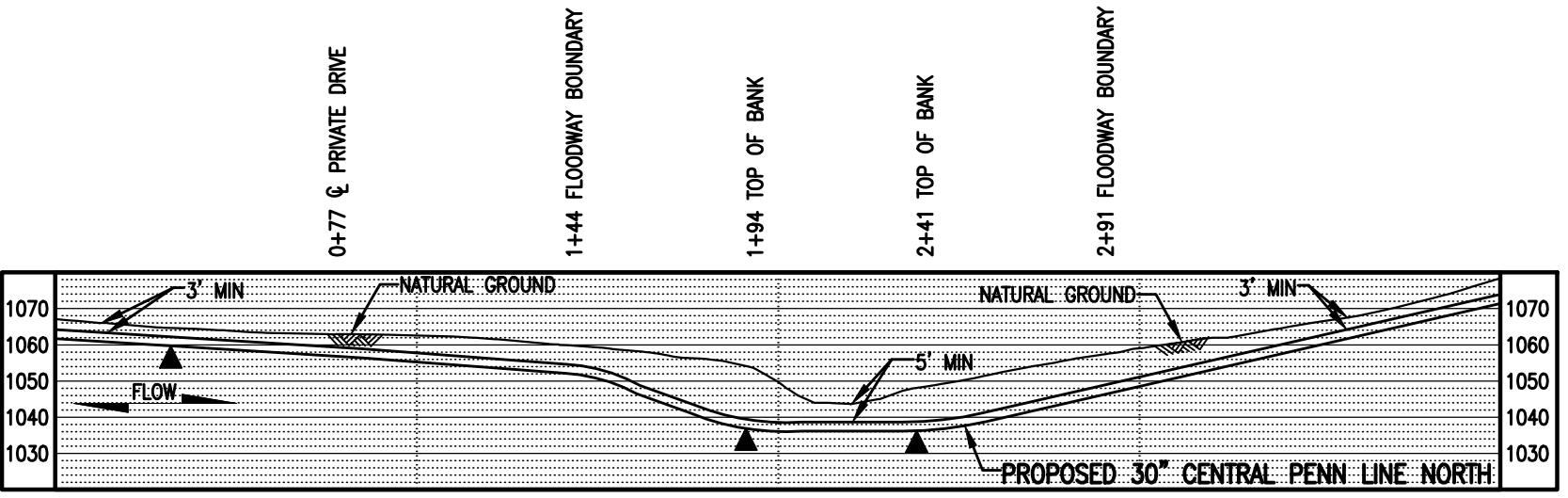
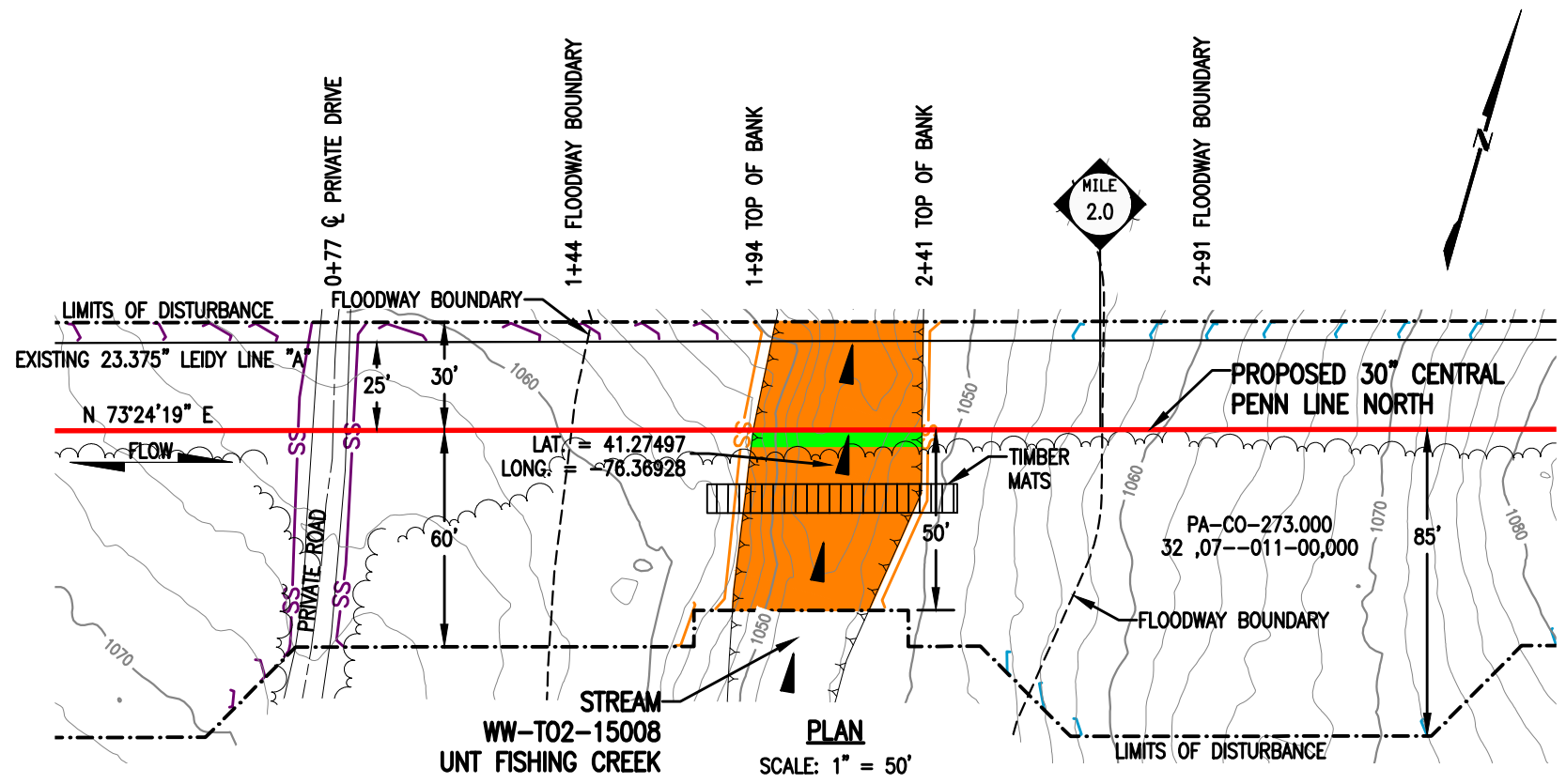
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		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	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**

DRAWN BY: TL	DATE: 09/23/16	ISSUED FOR BID:	SCALE: 1" = 50'
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-T02-15008	ACRE
TEMPORARY STREAM DISTURBANCE	0.0763
PERMANENT STREAM DISTURBANCE	0.0054
TOTAL STREAM DISTURBANCE	0.0817
TEMPORARY FLOODWAY DISTURBANCE	0.1976
PERMANENT FLOODWAY DISTURBANCE	0.0115
TOTAL FLOODWAY DISTURBANCE	0.2091

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	46.72
STREAM LENGTH	81.10

**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.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 103+69 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

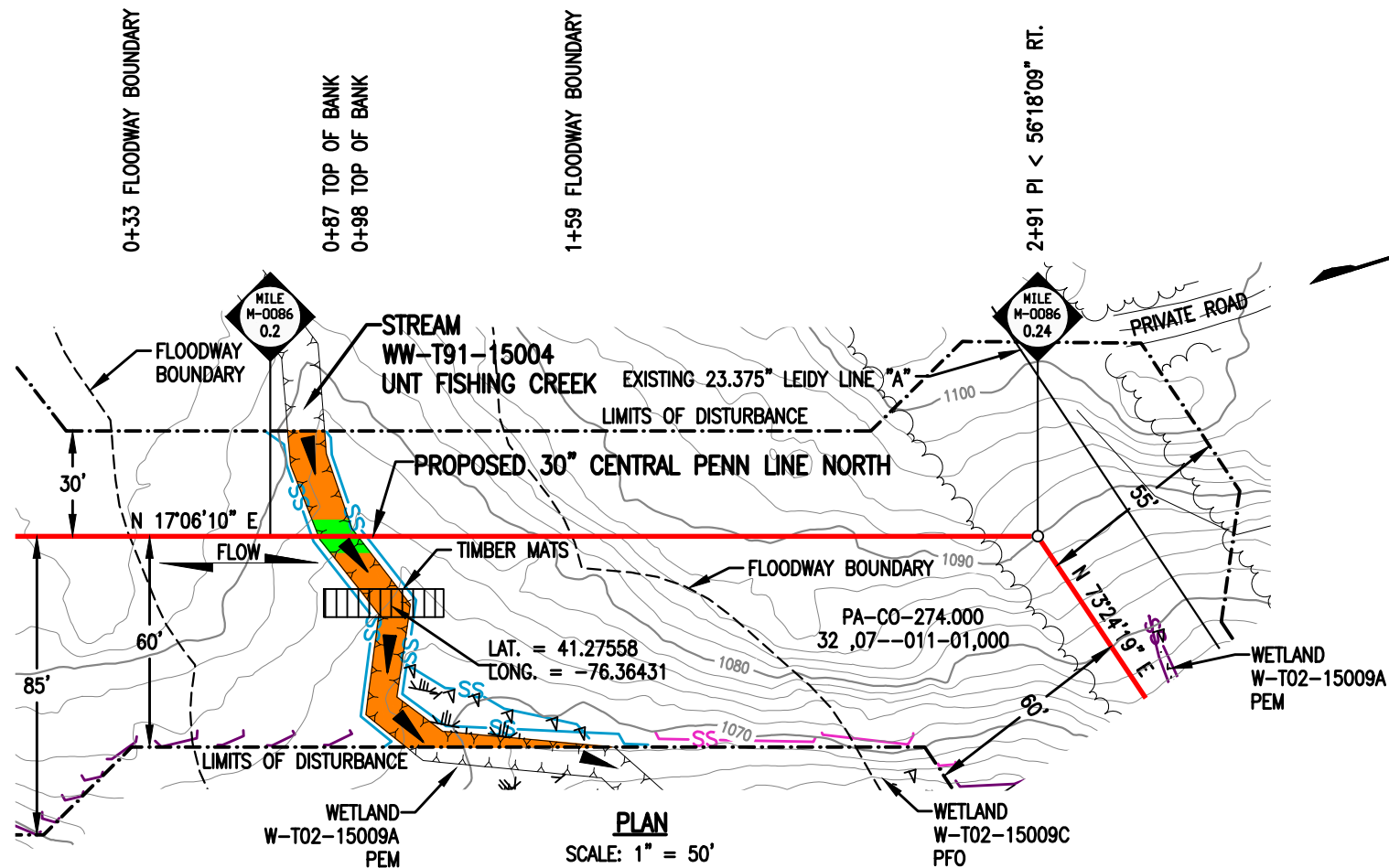
1. T.B.M. SURVEY CONTROL POINT - 14' LT. OF M.P. 2.17, ELEV. = 1062.36' (NAVD88).



**LEGEND**

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED 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				

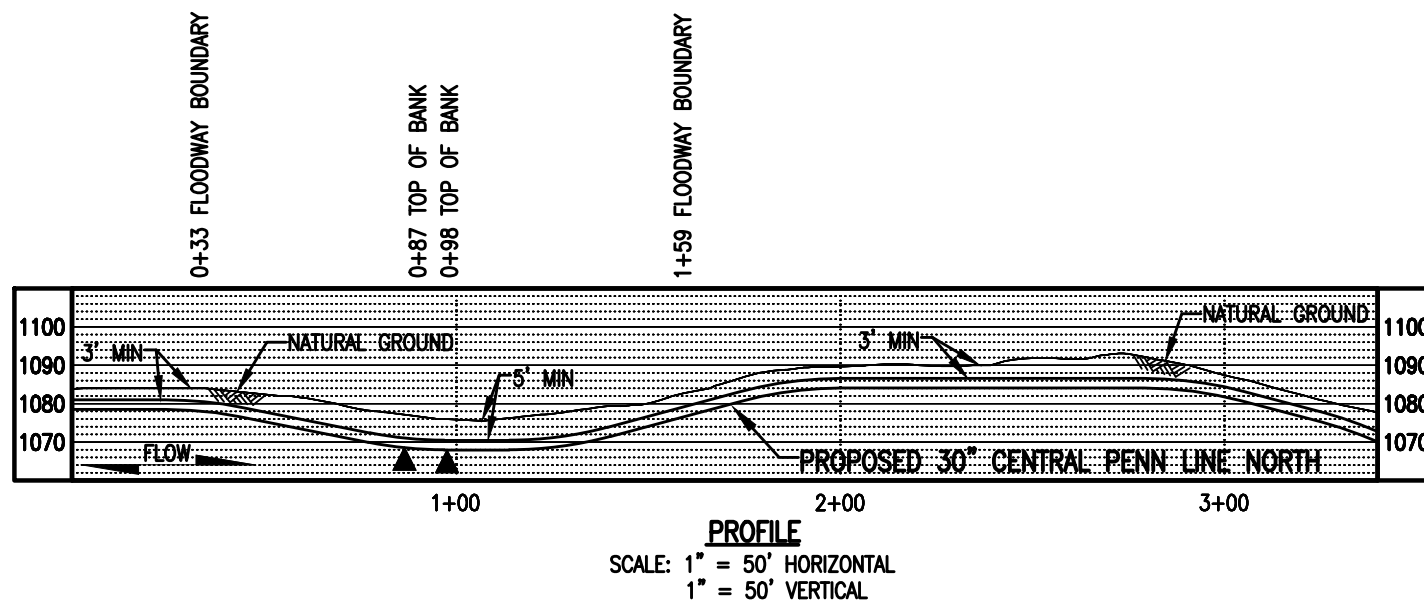
DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T02-15008</b> <b>M.P. 1.99</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/1.99-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481	9/27/2016	3-32pm	OF 1



**STREAM DISTURBANCE:**

STREAM WW-T91-15004	ACRE
TEMPORARY STREAM DISTURBANCE	0.0219
PERMANENT STREAM DISTURBANCE	0.0025
TOTAL STREAM DISTURBANCE	0.0244
TEMPORARY FLOODWAY DISTURBANCE	0.2461
PERMANENT FLOODWAY DISTURBANCE	0.0263
TOTAL FLOODWAY DISTURBANCE	0.2724

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	11.09
STREAM LENGTH	109.22

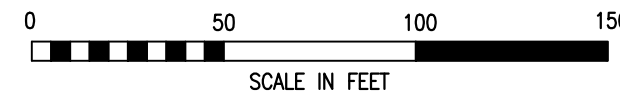


**GENERAL NOTES:**

1. STREAM CROSSING METHOD FOR STREAM WW-T91-15004 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. STATION 1+00 SHOWN IS EQUAL TO STATION 117+56 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

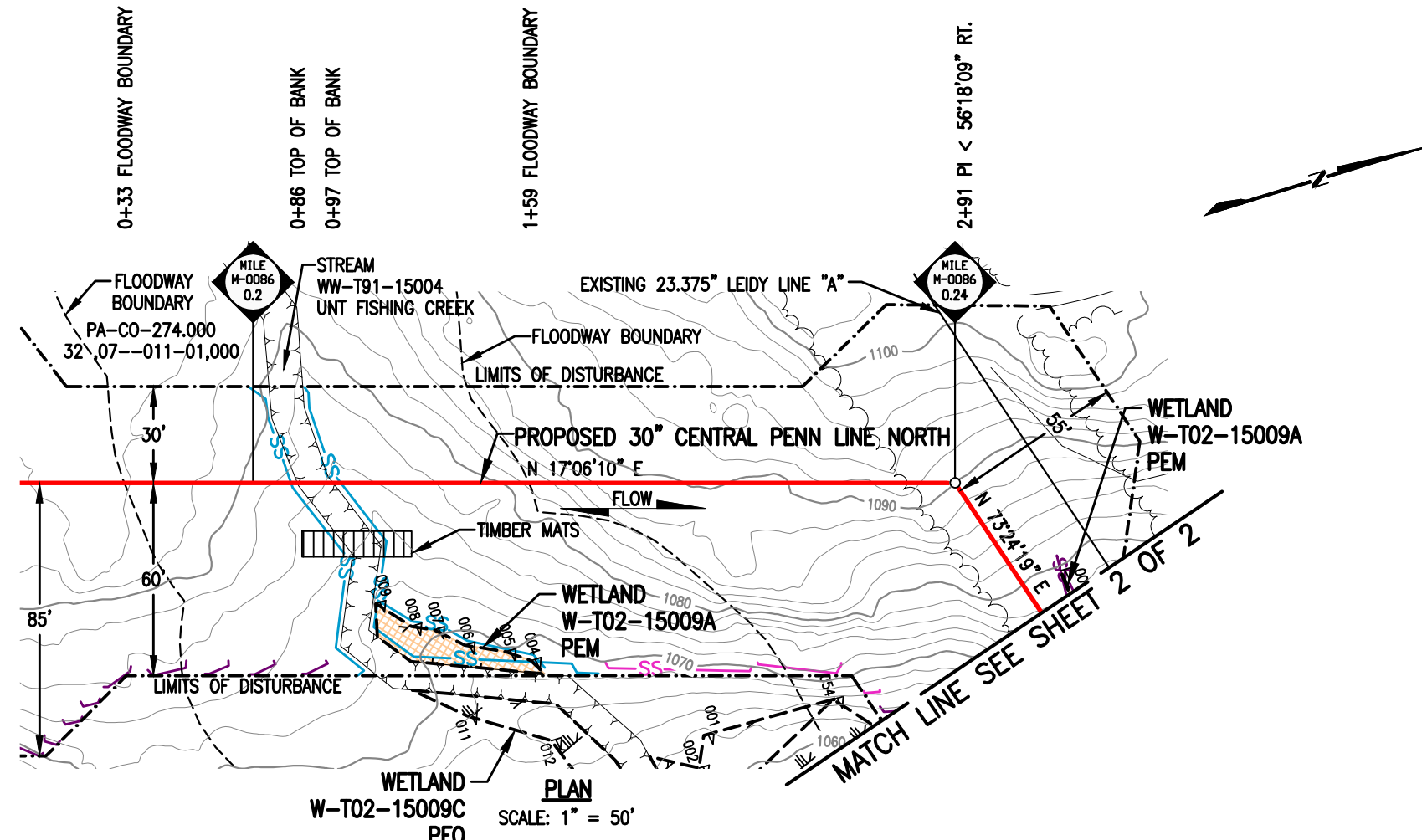
1. T.B.M. SURVEY CONTROL POINT - 60' LT. OF M-0086 M.P. 0.23, ELEV. = 1103.29' (NAVD88).



**LEGEND**

	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED 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		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T91-15004</b> <b>© M-0086 M.P. 0.21</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 06/20/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	MP	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/24/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 06/24/16	DRAWING NUMBER: 24-1601-70-09-A/M-0086-0.21-01	SHEET 1
							WC: 1161481	9/28/2016	1:14pm	OF 1

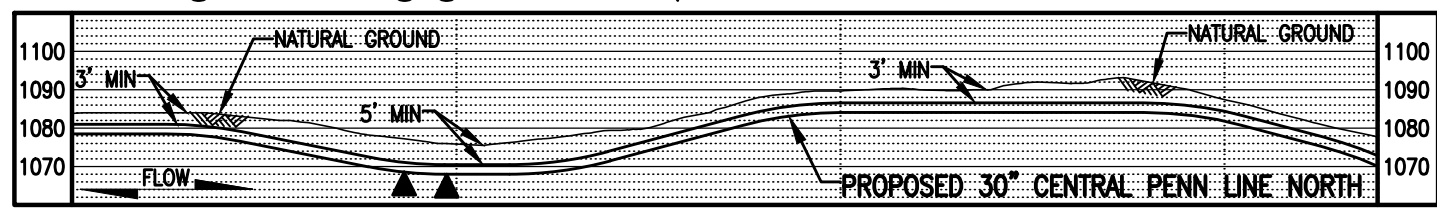


**WETLAND DISTURBANCE:**

WETLAND W-T02-15009A (EV)	ACRE
TEMPORARY DISTURBANCE	0.1919
PERMANENT DISTURBANCE	0.0250
TOTAL DISTURBANCE	0.2169

WETLAND W-T02-15009C (EV)	ACRE
TEMPORARY DISTURBANCE	0.0286
PERMANENT DISTURBANCE	0.0033
TOTAL DISTURBANCE	0.0319

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



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

**NOTES:**

1. UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
2. STATION 1+00 SHOWN IS EQUAL TO STATION 117+56 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

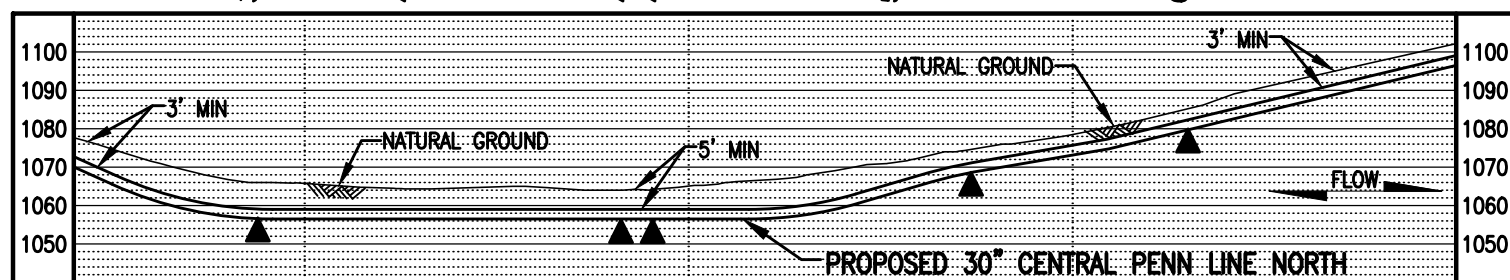
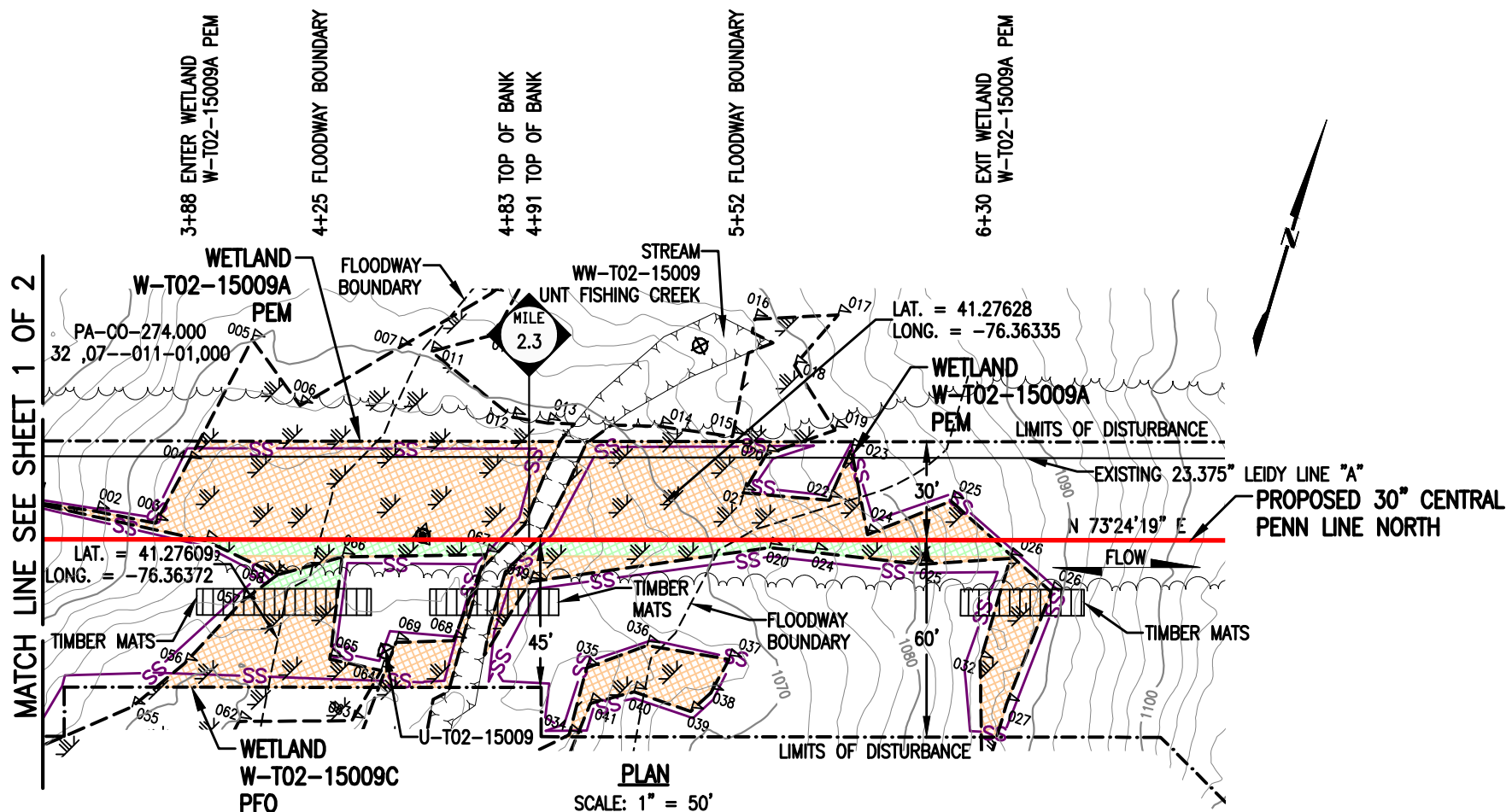
1. T.B.M. SURVEY CONTROL POINT - 60' LT. OF M-0086 M.P. 0.23, ELEV. = 1103.29' (NAVD88).



**LEGEND**

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

DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>WETLAND CROSSING W-T02-15009A, M-0086 M.P. 0.21</b> <b>AND W-T02-15009C @ M.P. 2.30</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: JB	DATE: 06/20/16	ISSUED FOR BID:	SCALE: 1" = 50'
0	10/25/16	CM	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/30/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
							APPROVED BY: MJH	DATE: 06/30/16	DRAWING NUMBER: 24-1601-70-20-A/M-0086-0.21-01 SHEET 1	
							WC: 1161481	9/28/2016	OF 2	



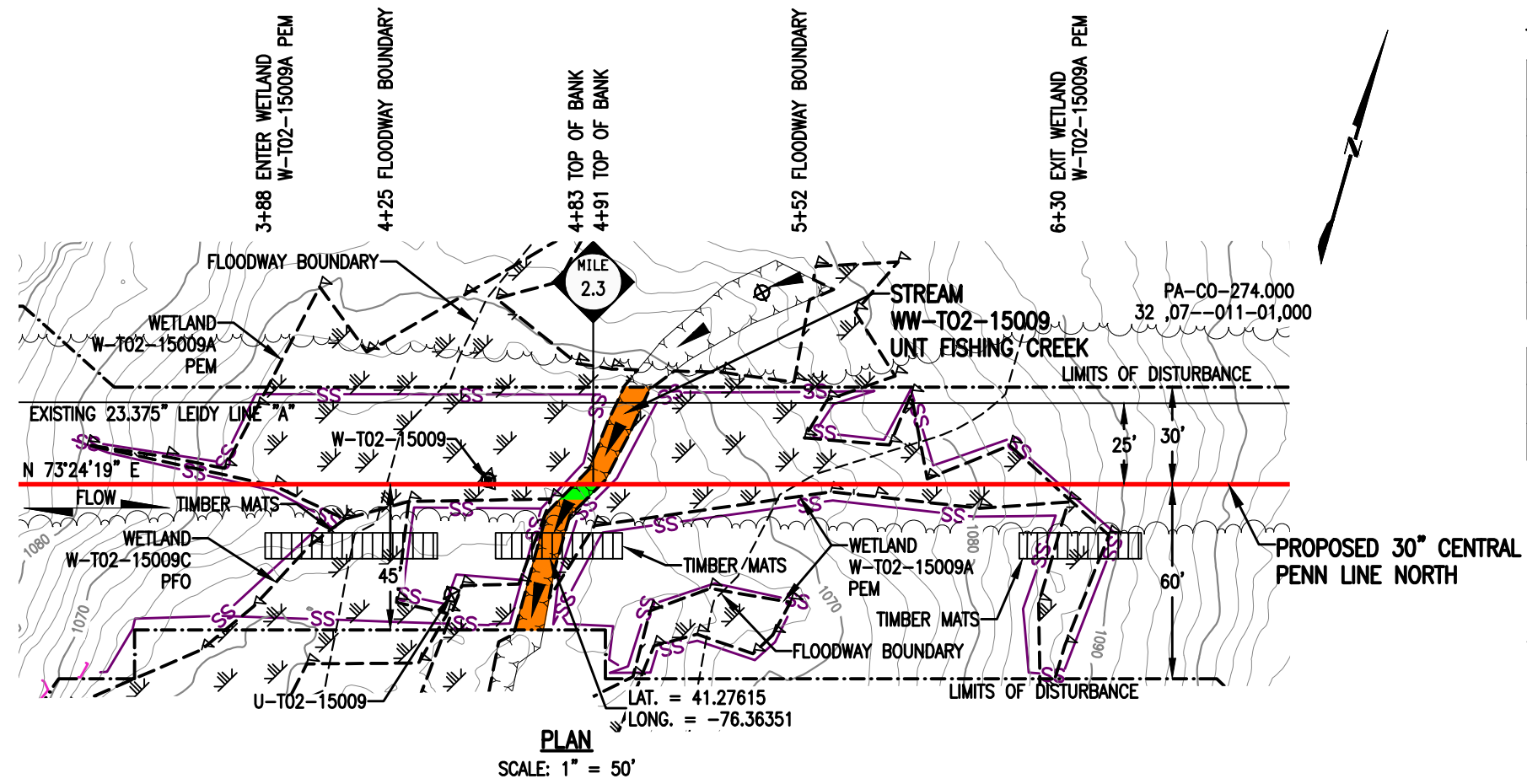
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	10/25/16	CM	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**  
**WETLAND CROSSING W-T02-15009A, M-0086 M.P. 0.21**  
**AND W-T02-15009C M.P. 2.30**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

DRAWN BY: JB	DATE: 06/20/16	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/30/16	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 06/30/16	DRAWING NUMBER: 24-1601-70-20-A/M-0086-0.21-01	SHEET 2
WC: 1161481		10/21/2016 mli	OF 2



**STREAM DISTURBANCE:**

STREAM WW-T02-15009	ACRE
TEMPORARY STREAM DISTURBANCE	0.0125
PERMANENT STREAM DISTURBANCE	0.0009
TOTAL STREAM DISTURBANCE	0.0134
TEMPORARY FLOODWAY DISTURBANCE	0.0918
PERMANENT FLOODWAY DISTURBANCE	0.0002
TOTAL FLOODWAY DISTURBANCE	0.0920

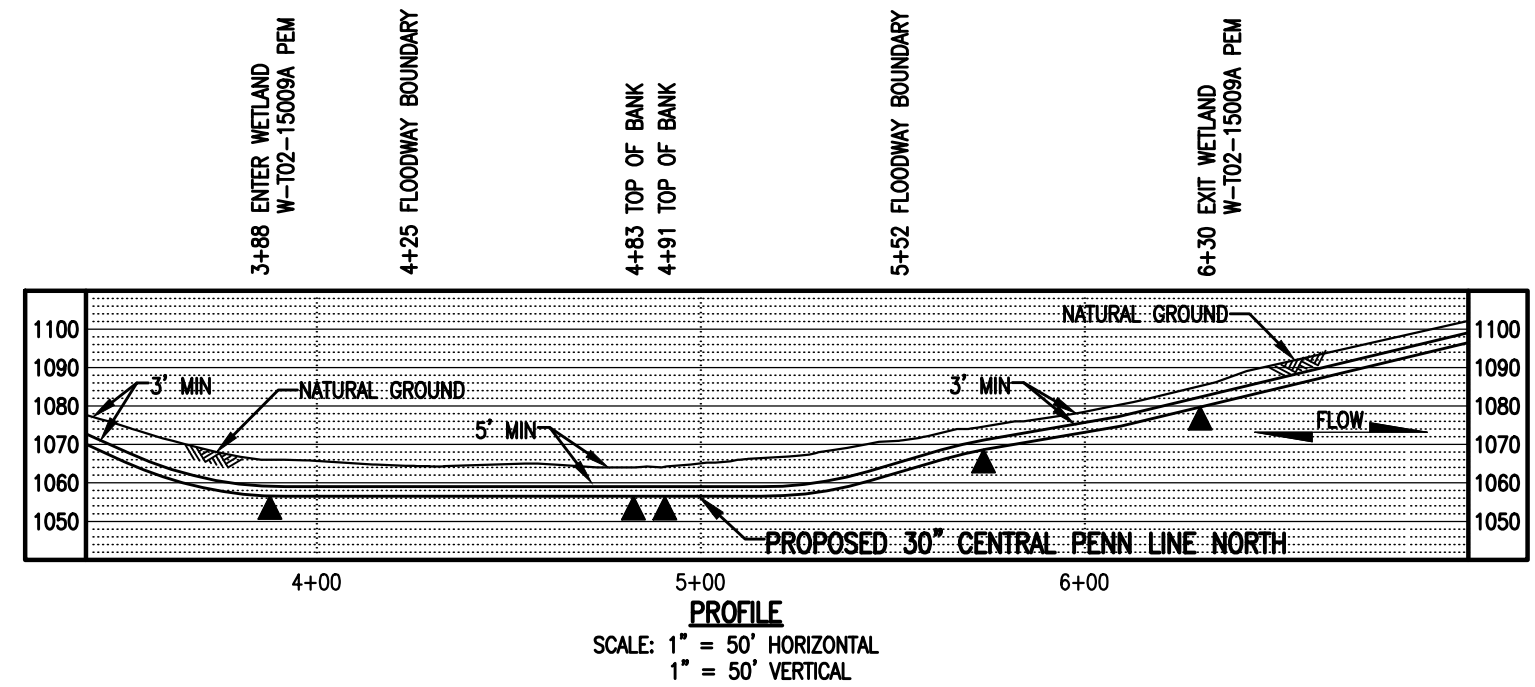
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	8.21
STREAM LENGTH	86.40

**GENERAL NOTES:**

1. THE 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.
3. STATION 4+00 SHOWN IS EQUAL TO STATION 120+56 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 2.3' RT. OF M.P. 2.3, ELEV. = 1066' (NAVD88).

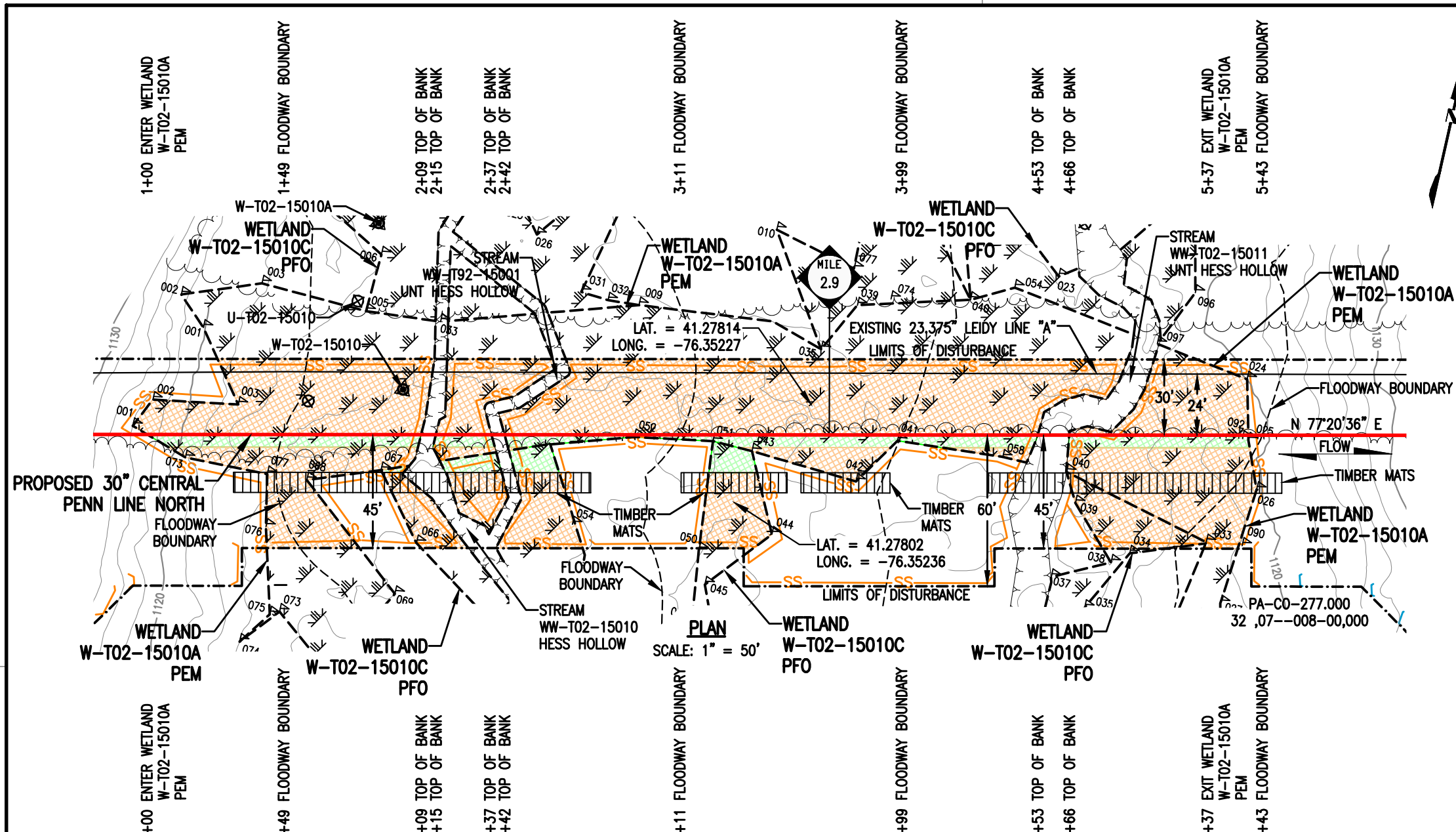


**LEGEND**

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

TOP OF BANK

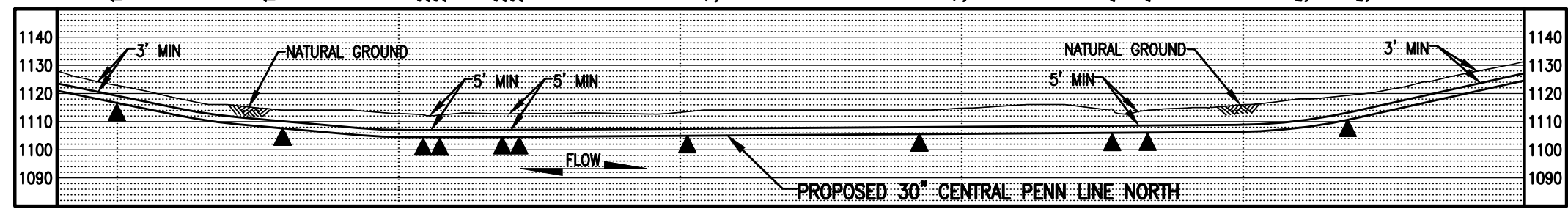
DRAWING NO.		REFERENCE TITLE		TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC						
				WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS						
				ATLANTIC SUNRISE PROJECT						
				PROPOSED 30" CENTRAL PENN LINE NORTH						
				STREAM CROSSING WW-T02-15009						
				M.P. 2.30						
				SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/2.30-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	W.O. NUMBER: 1161481	DATE: 10/20/2016	24-1601-70-09-A-2.30-01.dwg	OF 1



**WETLAND DISTURBANCE:**

WETLAND W-T02-15010A / W-T02-15010A-1 (EV)	ACRE
TEMPORARY DISTURBANCE	0.3599
PERMANENT DISTURBANCE	0.0415
<b>TOTAL DISTURBANCE</b>	<b>0.4014</b>

WETLAND W-T02-15010C / W-T02-15010C-1 / W-T02-15010C-2 (EV)	ACRE
TEMPORARY DISTURBANCE	0.0686
PERMANENT DISTURBANCE	0.0119
<b>TOTAL DISTURBANCE</b>	<b>0.0805</b>

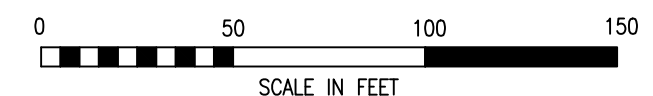


**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 2+00 SHOWN IS EQUAL TO STATION 151+41 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 25.6' LT. OF M.P. 2.89, ELEV. = 1115.43' (NAVD88).



**LEGEND**

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

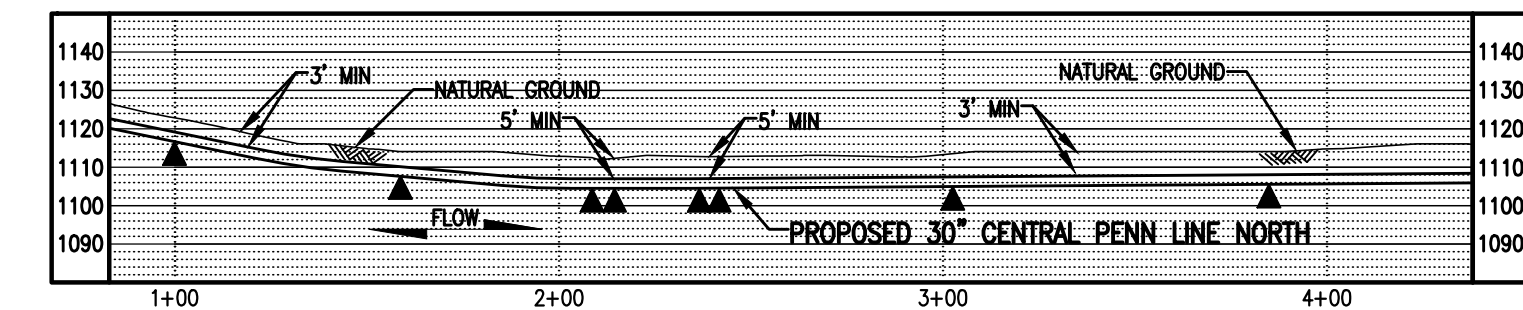
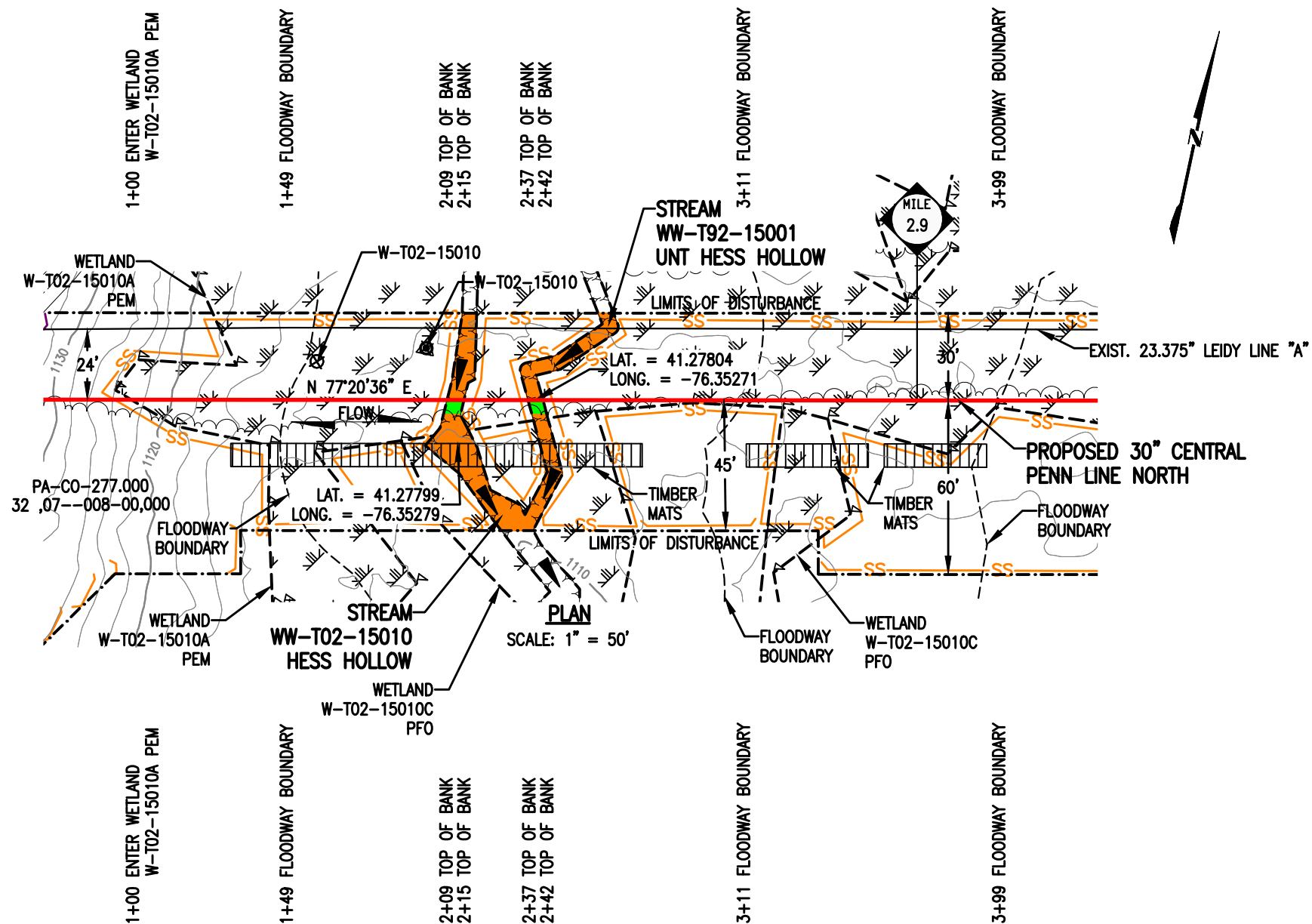
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	07/06/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH
2	10/25/16	VT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

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

**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSINGS W-T02-15010A / W-T02-15010A-1, @ M.P. 2.90**  
**& W-T02-15010C / W-T02-15010C-1 / W-T02-15010C-2 @ M.P. 2.89**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

DRAWN BY: MH	DATE: 05/15/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 05/20/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-20-A/2.85-01	SHEET 1
WO: 1161481		7:24am 9/28/2016 digrego	OF 1



**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
	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
	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	W.O. NO.	CHK.	APP.
0	08/20/15	AT	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

**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-T02-15010 @ M.P. 2.87**  
**WW-T92-15001 @ M.P. 2.88**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

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/2.87-01	SHEET 1
IWO: 1161481	10/7/2016	9:17am	OF 1

**STREAM DISTURBANCE:**

STREAM WW-T02-15010 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0146
PERMANENT STREAM DISTURBANCE	0.0007
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.0153</b>
TEMPORARY FLOODWAY DISTURBANCE	0.0488
PERMANENT FLOODWAY DISTURBANCE	0.0034
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>0.0522</b>

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.87
STREAM LENGTH	87.30

STREAM WW-T92-15001 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0101
PERMANENT STREAM DISTURBANCE	0.0006
<b>TOTAL STREAM DISTURBANCE</b>	<b>0.0107</b>
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
<b>TOTAL FLOODWAY DISTURBANCE</b>	<b>0.0000</b>

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	5.16
STREAM LENGTH	96.02

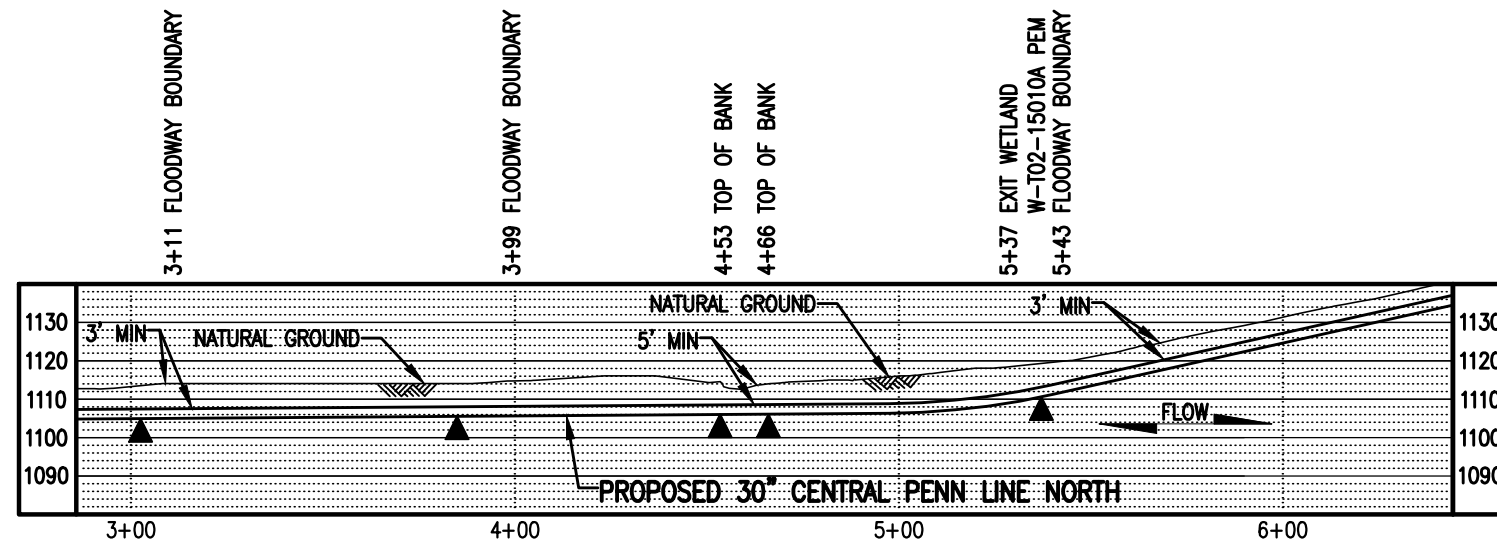
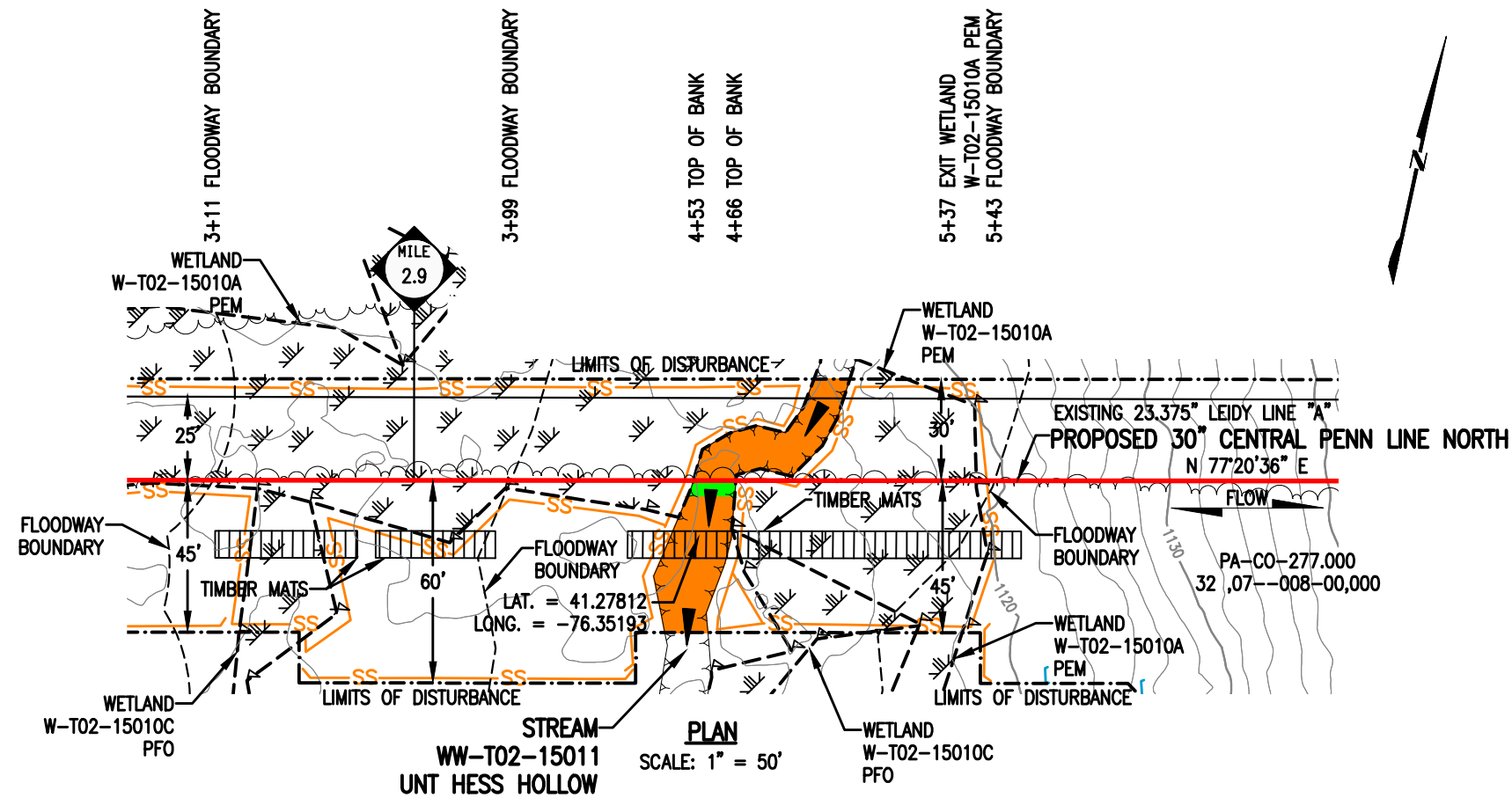
**GENERAL NOTES:**

1. STREAM CROSSING METHOD FOR WW-T92-15010 AND WW-T92-15001 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. STATION 2+00 SHOWN IS EQUAL TO STATION 151+41 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 25.6' LT. OF M.P. 2.89, ELEV. = 1115.43' (NAVD88).





**STREAM DISTURBANCE:**

STREAM WW-T02-15011 (HQ)	ACRE
TEMPORARY STREAM DISTURBANCE	0.0291
PERMANENT STREAM DISTURBANCE	0.0015
TOTAL STREAM DISTURBANCE	0.0306
TEMPORARY FLOODWAY DISTURBANCE	0.0769
PERMANENT FLOODWAY DISTURBANCE	0.0010
TOTAL FLOODWAY DISTURBANCE	0.0779

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	12.56
STREAM LENGTH	97.36

**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.
3. STATION 3+00 SHOWN IS EQUAL TO STATION 152+42 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 25.6' LT. OF M.P. 2.89, ELEV. = 1115.43' (NAVD88).



**LEGEND**

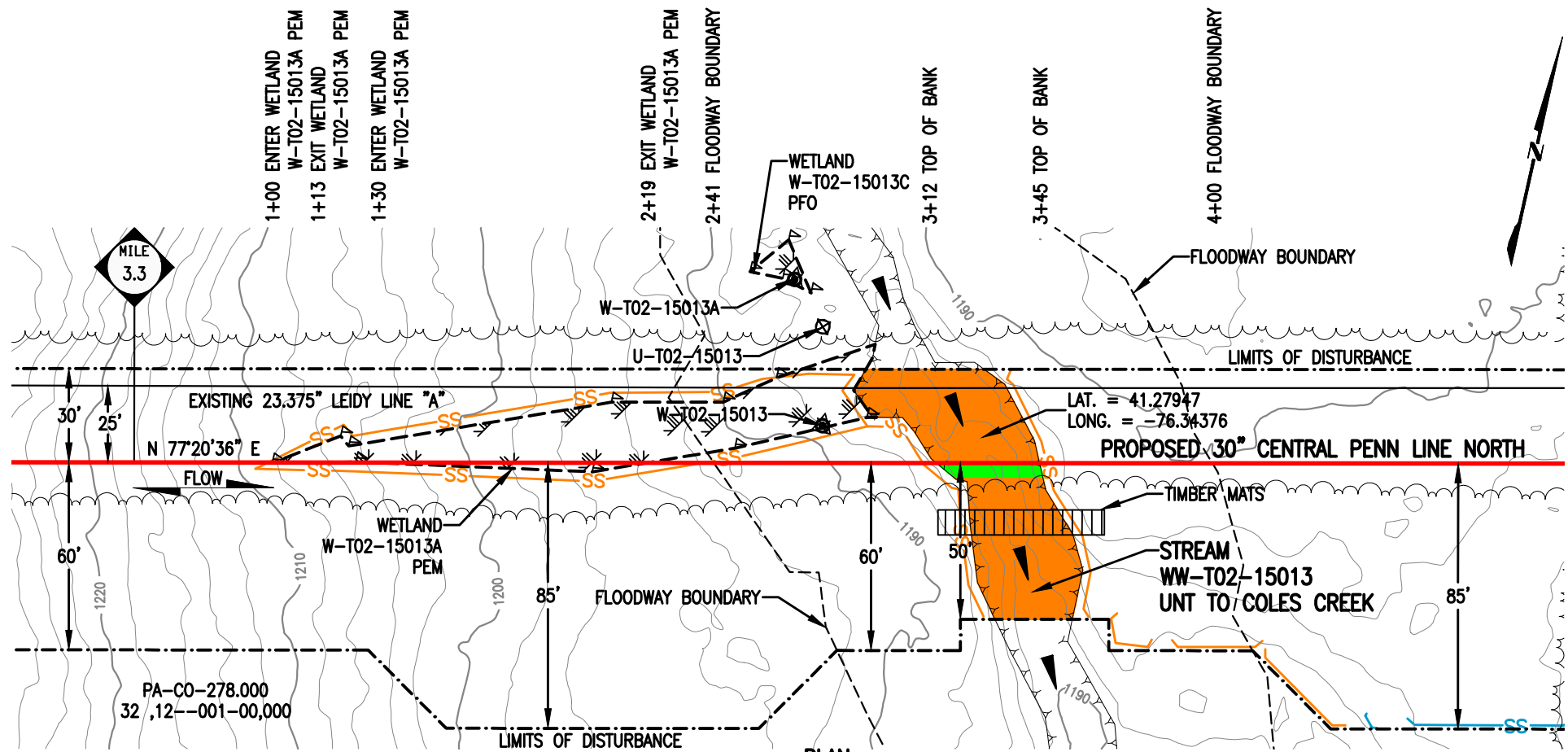
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

**WOOD GROUP MUSTANG, INC.**

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

DRAWING NO.	REFERENCE TITLE	<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSINGS WW-T02-15011 @ M.P. 2.92</b> <b>SUGARLOAF TOWNSHIP</b> <b>COLUMBIA COUNTY, PENNSYLVANIA</b>								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/13/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: ML	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/2.92-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481	9/28/2016	7:47am	OF 1





**STREAM DISTURBANCE:**

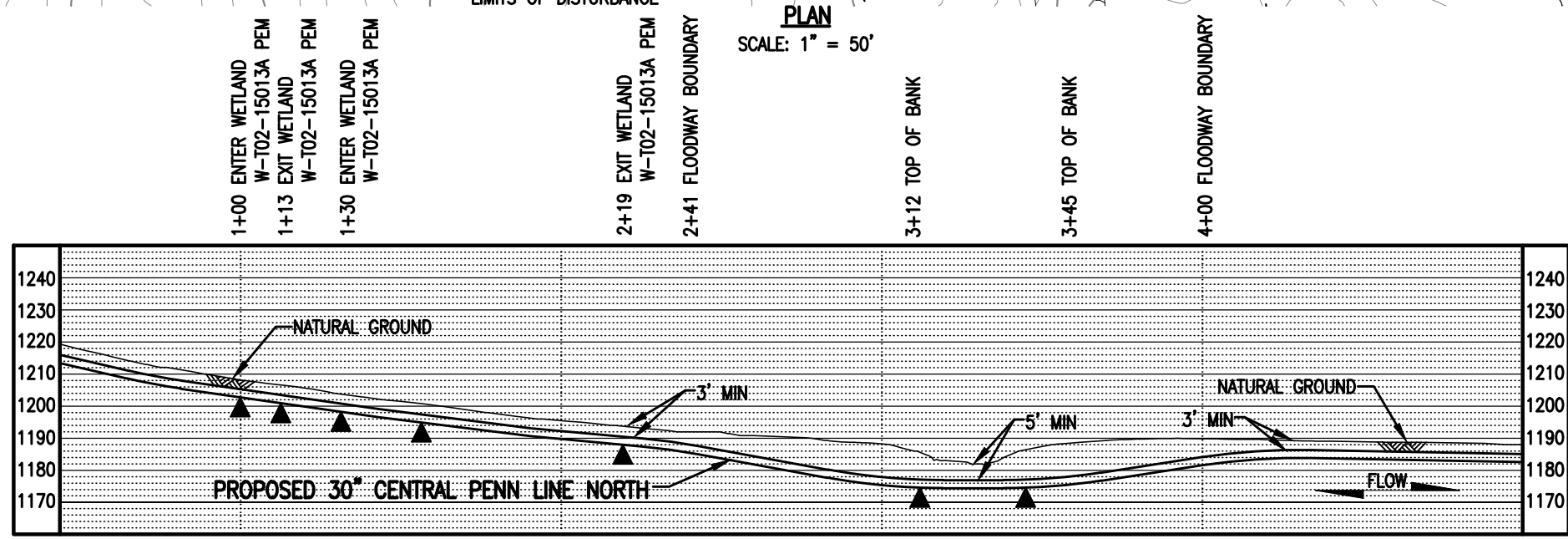
STREAM WW-T02-15013	ACRE
TEMPORARY STREAM DISTURBANCE	0.0597
PERMANENT STREAM DISTURBANCE	0.0035
TOTAL STREAM DISTURBANCE	0.0632
TEMPORARY FLOODWAY DISTURBANCE	0.1989
PERMANENT FLOODWAY DISTURBANCE	0.0148
TOTAL FLOODWAY DISTURBANCE	0.2137
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	32.98
STREAM LENGTH	95.32

**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.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 174+69 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 17' LT. OF M.P. 3.35, ELEV. = 1188.24' (NAVD88).



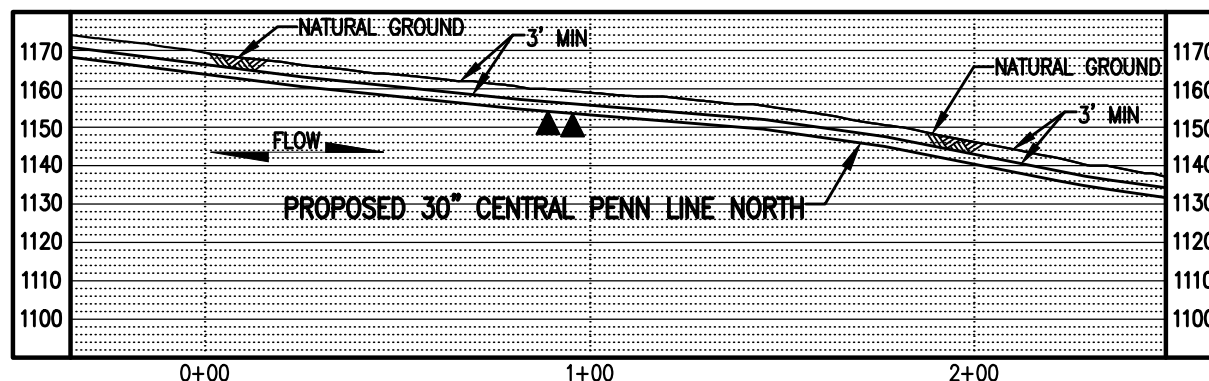
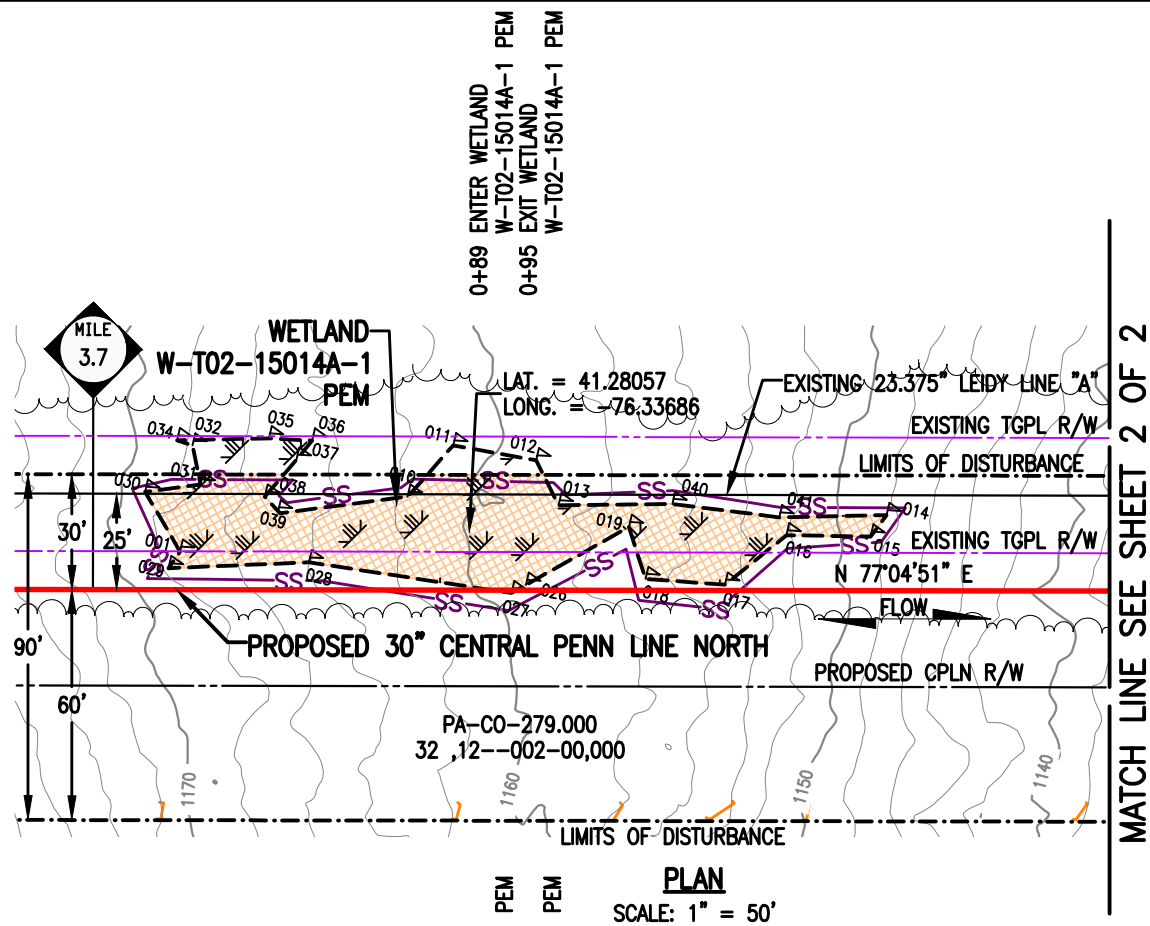
**LEGEND**

	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		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	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

**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-T02-15013**  
**M.P. 3.35**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: LL	DATE: 01/10/15	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: <b>24-1601-70-09-A/3.35-01</b>	SHEET 1
IWO: 1161481		10:04am 9/28/2016 d\grego	OF 1



WETLAND DISTURBANCE:

WETLAND W-T02-15014A / W-T02-15014A-1 / W-T02-15014A-2 (EV)	ACRE
TEMPORARY DISTURBANCE	0.2244
PERMANENT DISTURBANCE	0.0080
TOTAL DISTURBANCE	0.2324

WETLAND W-T02-15014C-2 (EV)	ACRE
TEMPORARY DISTURBANCE	0.0232
PERMANENT DISTURBANCE	0.0167
TOTAL DISTURBANCE	0.0399

NOTES:

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 0+00 SHOWN IS EQUAL TO STATION 195+51 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

- T.B.M. SURVEY CONTROL POINT - 2' LT. OF M.P. 3.82, ELEV. = 1121.40' (NAVD88).

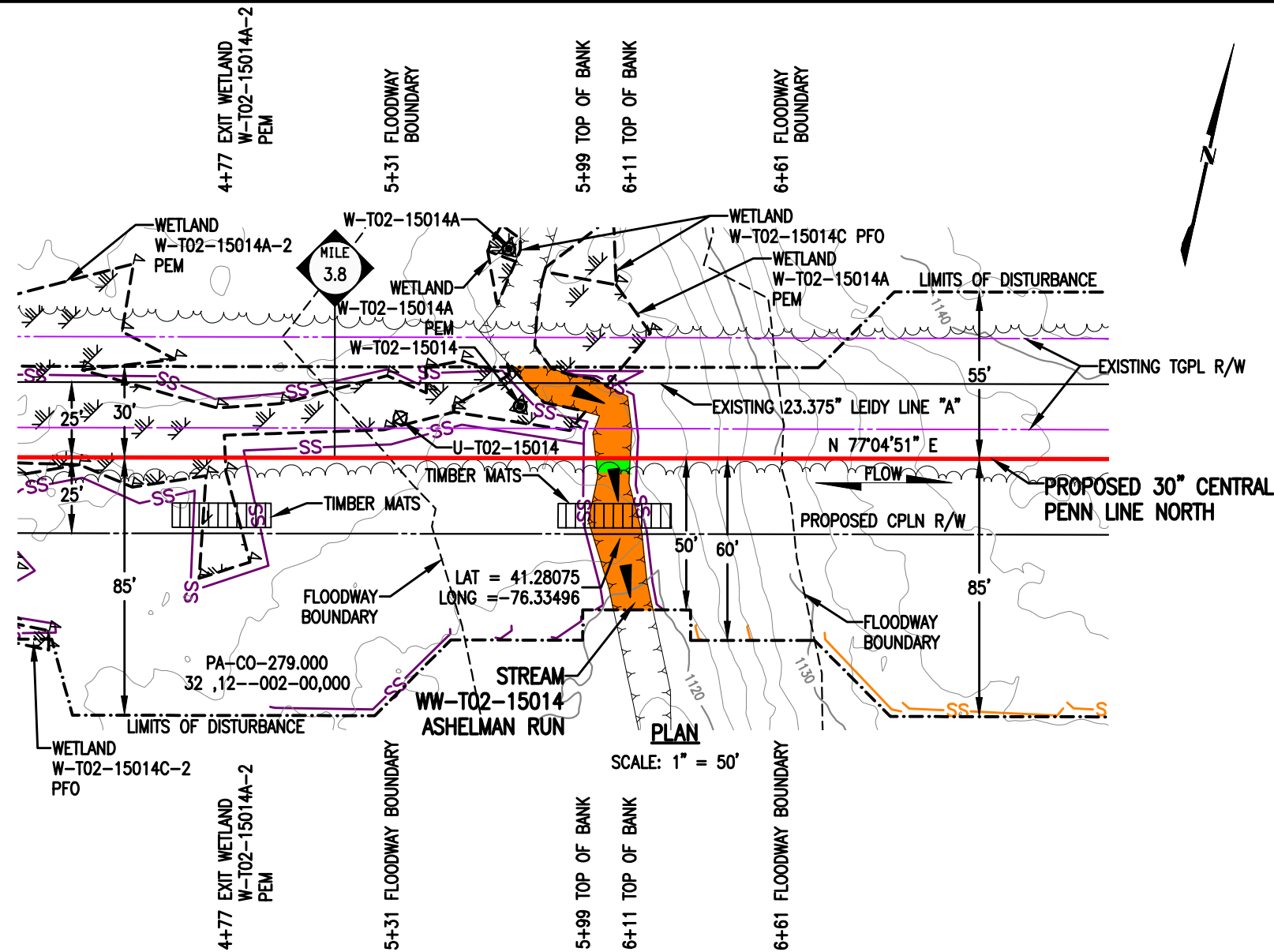


LEGEND

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

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 WETLAND CROSSING W-T02-15014A / W-T02-15014A-1/ W-T02-15014A-2 & W-T02-15014C-2 @ M.P. 3.81 SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	DATE: 06/01/15
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH	DATE: 06/04/15
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	DATE: 06/08/15
				ISSUED FOR BID:		SCALE: 1" = 50'	
				ISSUED FOR CONSTRUCTION:		REVISION: 2	
				DRAWING NUMBER: 24-1601-70-20-A/3.72-01		SHEET 1	
				9/28/2016 01grego		OF 2	
				W.O. NUMBER: 1161481			





**STREAM DISTURBANCE:**

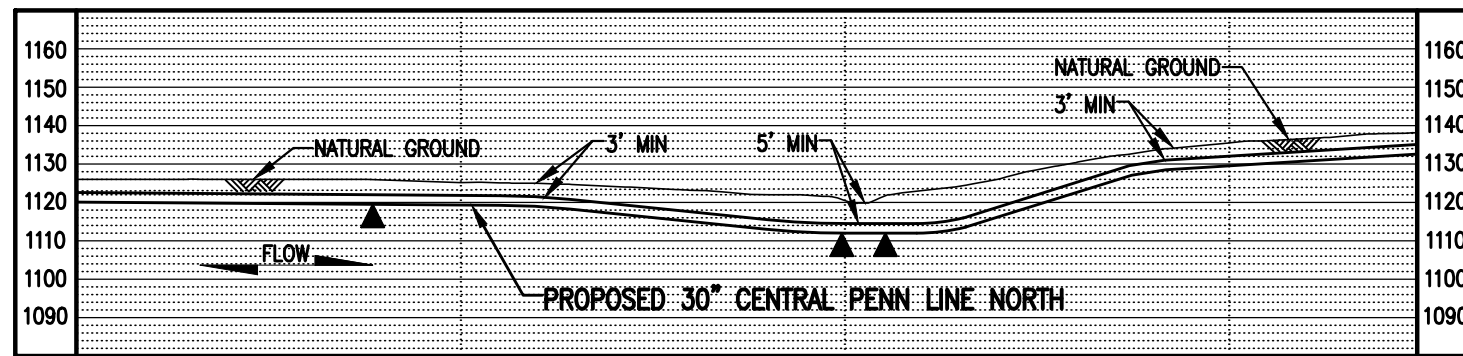
STREAM WW-T02-15014	ACRE
TEMPORARY STREAM DISTURBANCE	0.0263
PERMANENT STREAM DISTURBANCE	0.0012
TOTAL STREAM DISTURBANCE	0.0275
TEMPORARY FLOODWAY DISTURBANCE	0.1869
PERMANENT FLOODWAY DISTURBANCE	0.0134
TOTAL FLOODWAY DISTURBANCE	0.2003
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	11.30
STREAM LENGTH	92.32

**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.
3. STATION 5+00 SHOWN IS EQUAL TO STATION 200+51 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 2' LT. OF M.P. 3.82, ELEV. = 1121.40' (NAVD88).



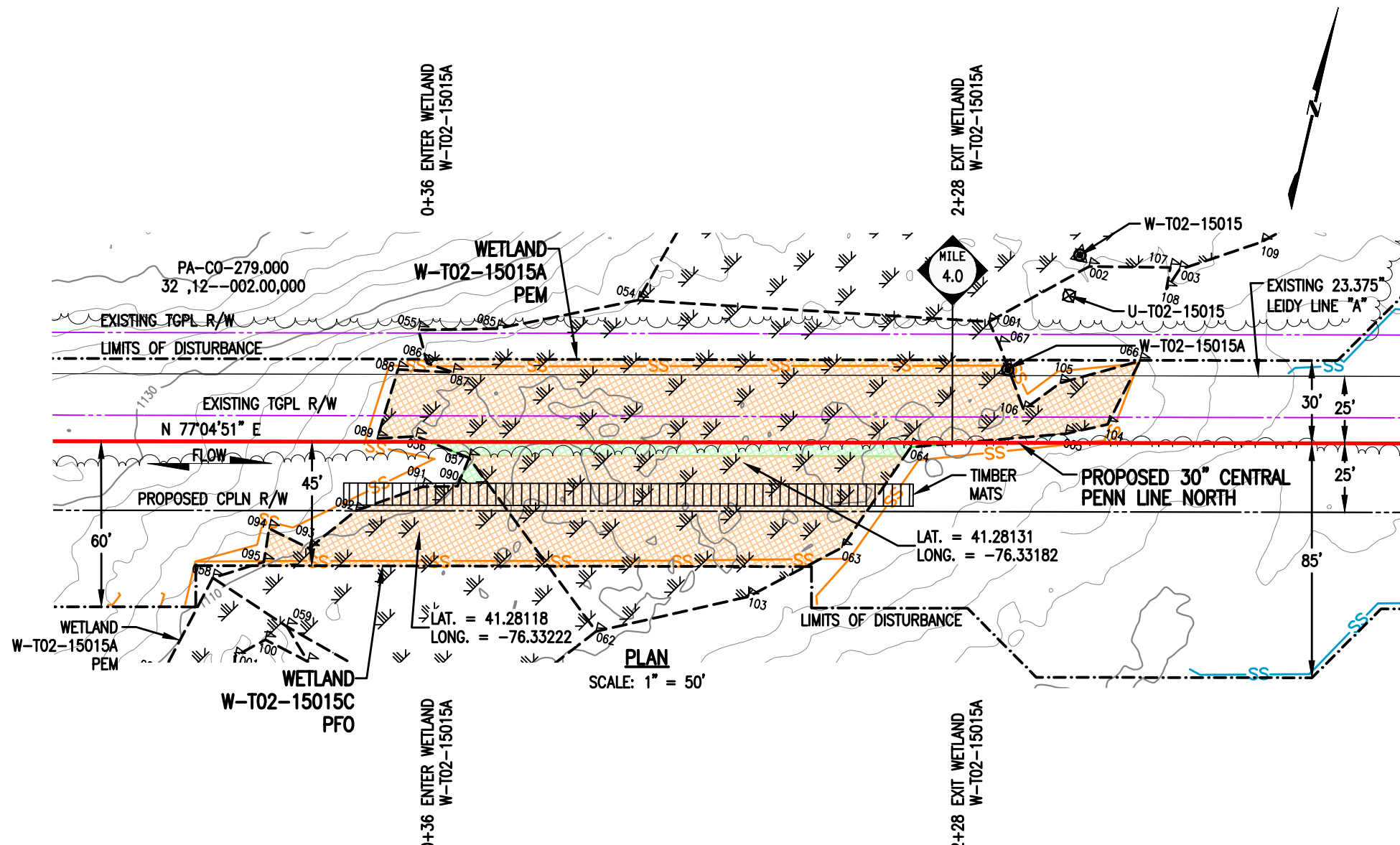
**PROFILE**  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL



**LEGEND**

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

DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T02-15014</b> <b>M.P. 3.82</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>						
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: TL	DATE: 12/14/14	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	ET	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/01/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/3.82-01	SHEET 1
2	10/25/16	AT	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481	9/28/2016	10:17am	OF 1

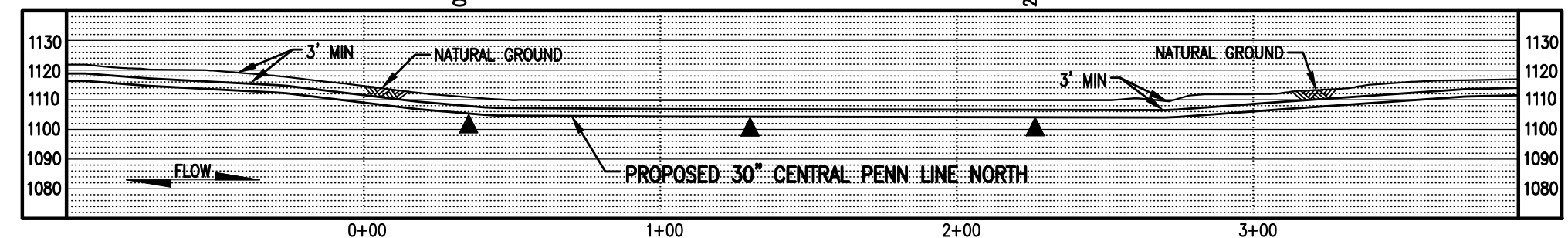


**WETLAND DISTURBANCE:**

WETLAND W-T02-15015A (EV)	ACRE
TEMPORARY DISTURBANCE	0.4292
PERMANENT DISTURBANCE	0.0204
<b>TOTAL DISTURBANCE</b>	<b>0.4496</b>

WETLAND W-T02-15015C (EV)	ACRE
TEMPORARY DISTURBANCE	0.0458
PERMANENT DISTURBANCE	0.0011
<b>TOTAL DISTURBANCE</b>	<b>0.0469</b>

SEE DRAWING 24-1601-70-20-A/4.12-01 FOR CONTINUATION OF W-T02-15015A



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

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 2+00 SHOWN IS EQUAL TO STATION 210+95 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

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



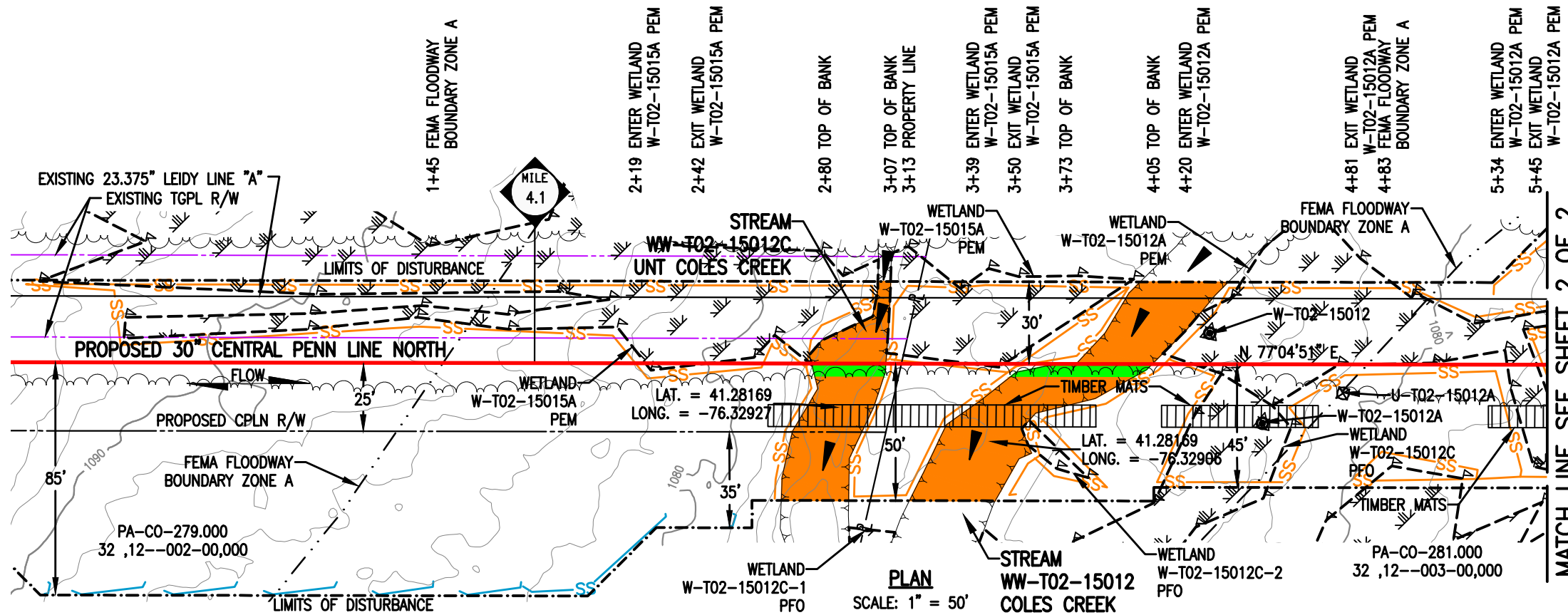
**LEGEND**

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

DRAWING NO.	REFERENCE TITLE					
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	TL	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

**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSING W-T02-15015A @ M.P. 3.99 &**  
**W-T02-15015C @ M.P. 3.96**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

DRAWN BY: TL	DATE: 03/06/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 03/07/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: <b>24-1601-70-20-A/3.96-01</b>	SHEET 1
IWO: 1161481		1:45pm 9/26/2016 olgrego	OF 1



**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

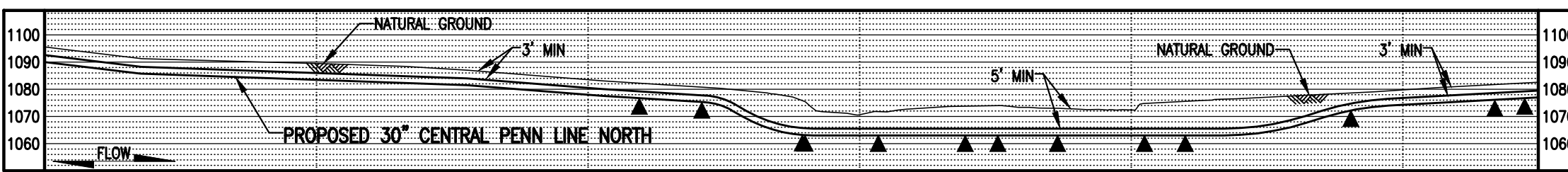
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	31.10
STREAM LENGTH	120.35

**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

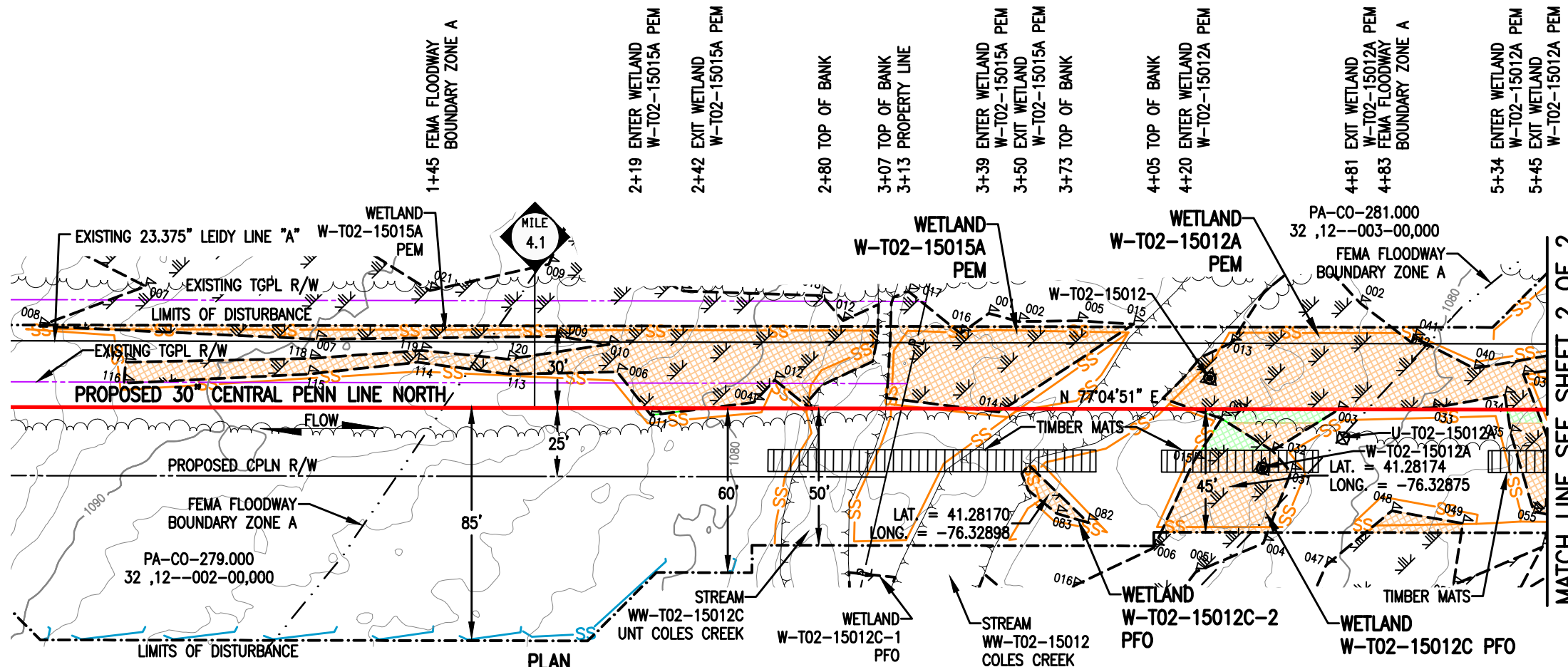


**LEGEND**

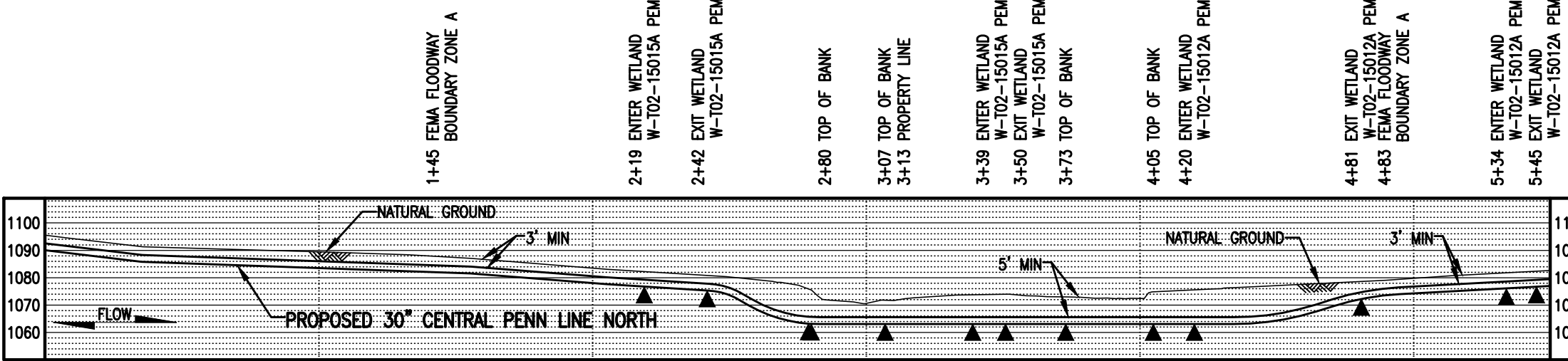
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		12" SEDIMENT BARRIER
	EXISTING TGPL R/W		WETLAND DATA POINT		18" SEDIMENT BARRIER
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		24" SEDIMENT BARRIER
	PROPOSED CPLN R/W		WELL POINT		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		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSINGS WW-T02-15012 @ M.P. 4.12 &amp;</b> <b>WW-T02-15012 @ M.P. 4.13</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>	
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:	
CHECKED BY: ML		DATE: 06/05/14		ISSUED FOR CONSTRUCTION:	
APPROVED BY: MJH		DATE: 06/08/15		DRAWING NUMBER: 24-1601-70-09-A/4.12-01	
SCALE: 1" = 50'		REVISION: 2		SHEET 1 OF 2	





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



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

**WETLAND DISTURBANCE:**

WETLAND W-T02-15012A (EV)	ACRE
TEMPORARY DISTURBANCE	0.3492
PERMANENT DISTURBANCE	0.0183
<b>TOTAL DISTURBANCE</b>	<b>0.3675</b>

WETLAND W-T02-15012C / W-T02-15012C-2 (EV)	ACRE
TEMPORARY DISTURBANCE	0.0284
PERMANENT DISTURBANCE	0.0034
<b>TOTAL DISTURBANCE</b>	<b>0.0318</b>

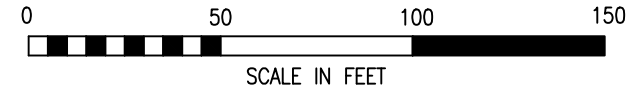
SEE DRAWING 24-1601-70-20-A/3.96-01 FOR WETLAND DISTURBANCE TABLE ON W-T02-15015A.

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 1+00 SHOWN IS EQUAL TO STATION 215+70 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

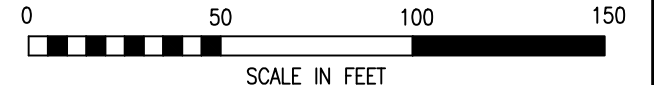
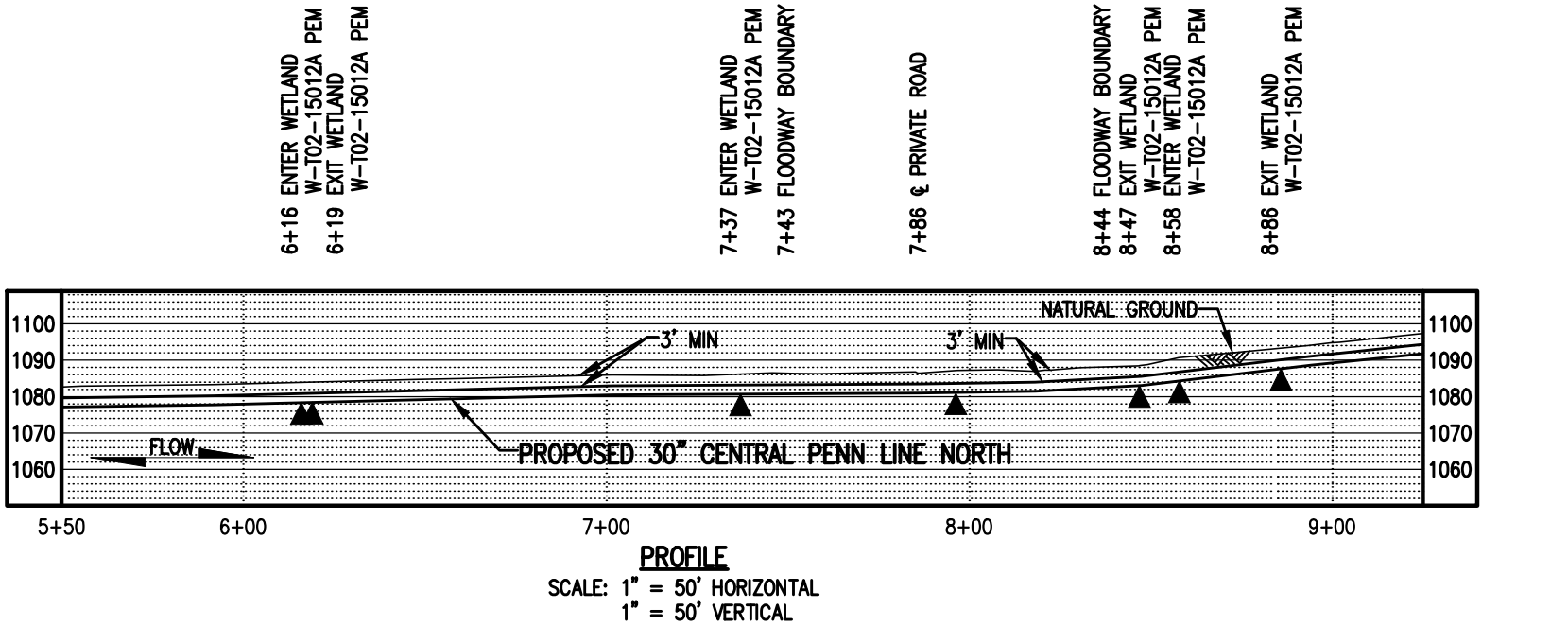
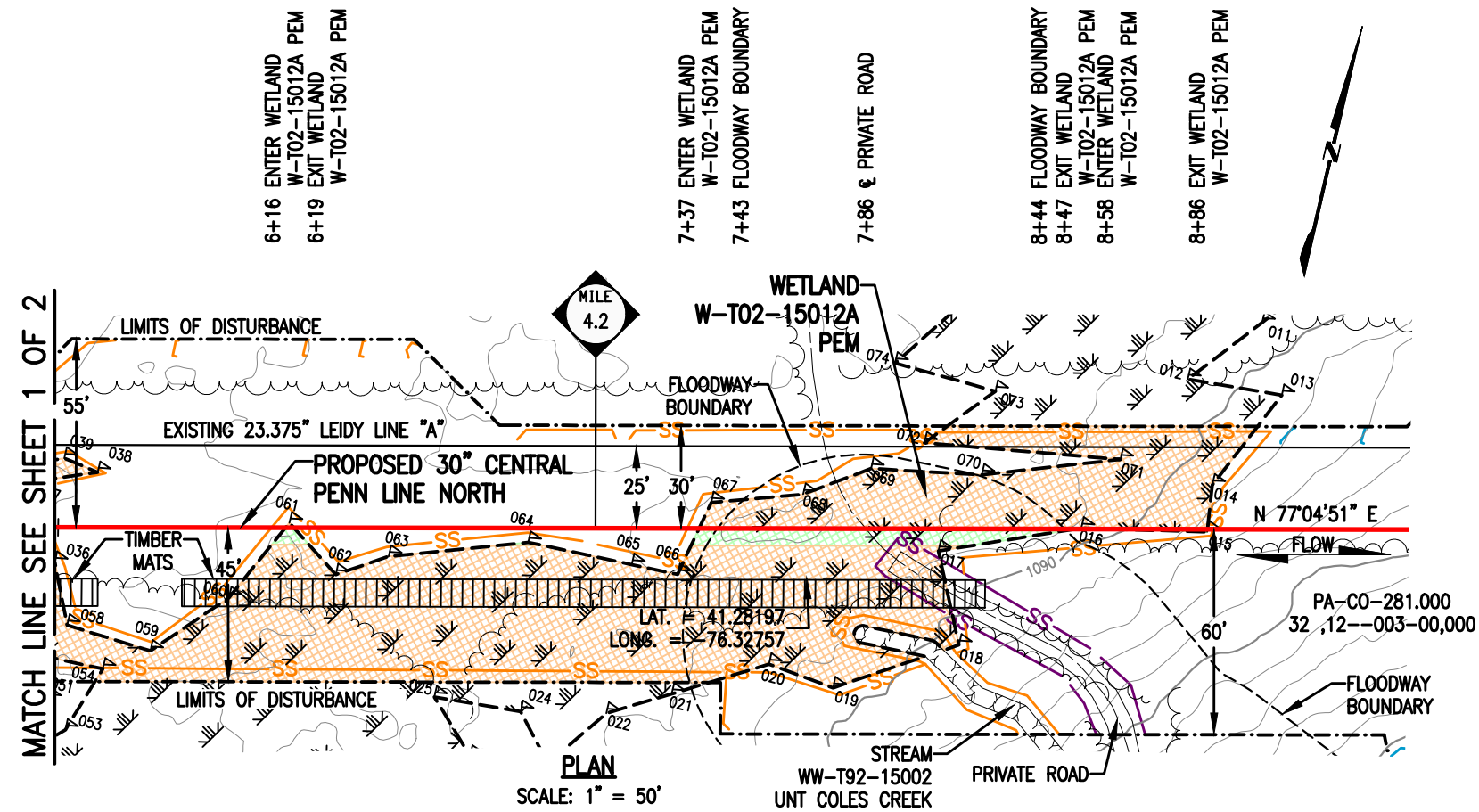
- T.B.M. SURVEY CONTROL POINT - 1.83' LT. OF M.P. 4.13, ELEV. = 1074.05' (NAVD88).



**LEGEND**

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

DRAWING NO.		REFERENCE TITLE		<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>WETLAND CROSSINGS W-T02-15012A @ M.P. 4.21 &amp;</b> <b>W-T02-15012C / W-T02-15012C-2 @ M.P. 4.15</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>	
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK. APP.
0	08/20/15	FH	ISSUED FOR PADEP 105 PERMIT	1161481	CLR MJH
1	02/03/16	AT	ISSUED FOR INTERNAL USE	1161481	CLR MJH
2	10/25/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR MJH
DRAWN BY: FH		DATE: 06/05/15	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: CLR		DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2	
APPROVED BY: MJH		DATE: 06/08/15	DRAWING NUMBER: 24-1601-70-20-A/4.12-01	SHEET 1	
W.O. NUMBER: 1161481		DATE: 9/29/2016	PROJECT: a1traha	OF 2	



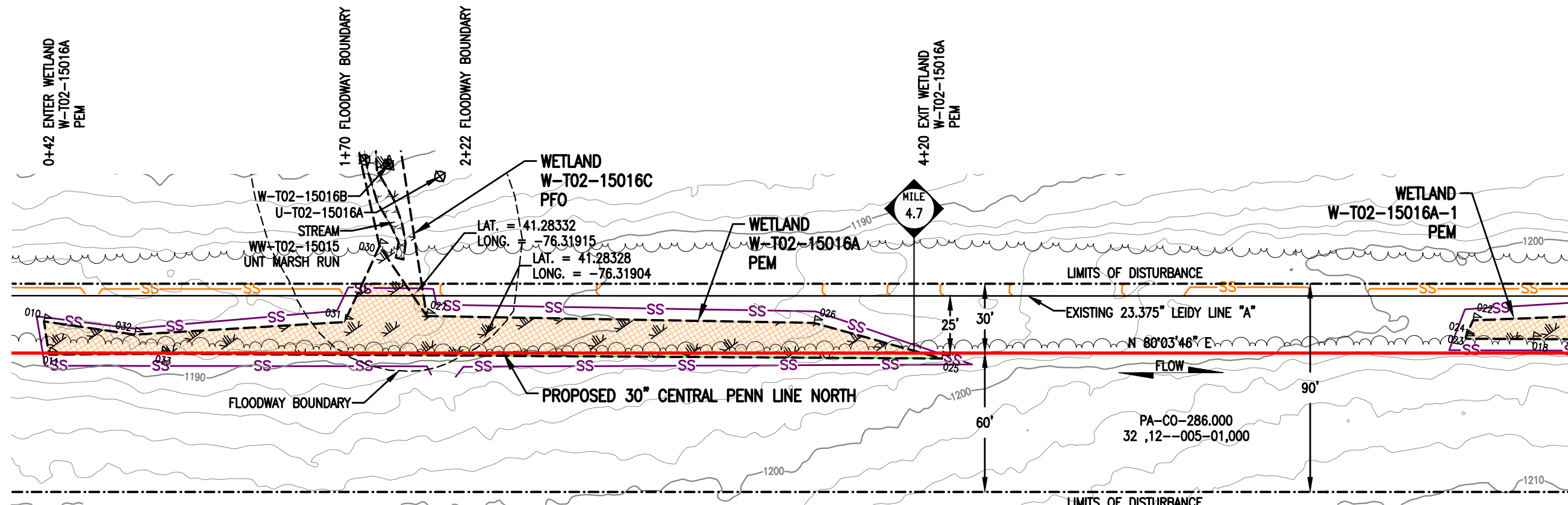
LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLN R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND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

DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	02/03/16	AT	ISSUED FOR INTERNAL USE
1	10/25/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2

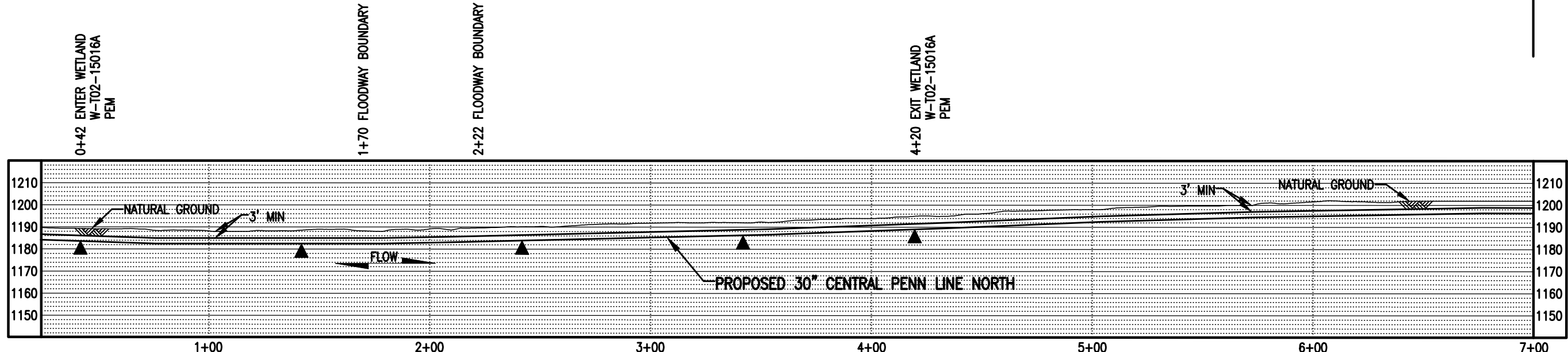
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSINGS W-T02-15012A @ M.P. 4.21/**  
**W-T02-15012C/W-T02-15012C-2 @ M.P. 4.15**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

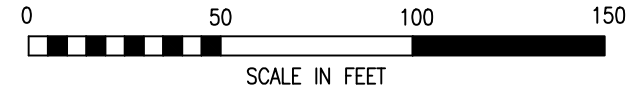
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CHECKED BY: CLR	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 1
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: <b>24-1601-70-20-A/4.12-01</b>	SHEET 2
WC: 1161481		9:58am 10/21/2016 mll	OF 2



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



**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
	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 WETLAND IMPACT
	TEMPORARY WETLAND IMPACT



DRAWING NO.		REFERENCE TITLE	
NO.	DATE	BY	REVISION DESCRIPTION
0	08/20/15	AO	ISSUED FOR PADEP 105 PERMIT
1	02/03/16	MH	ISSUED FOR INTERNAL USE
2	10/25/16	KB	ISSUED FOR PADEP SUBMITTAL #2

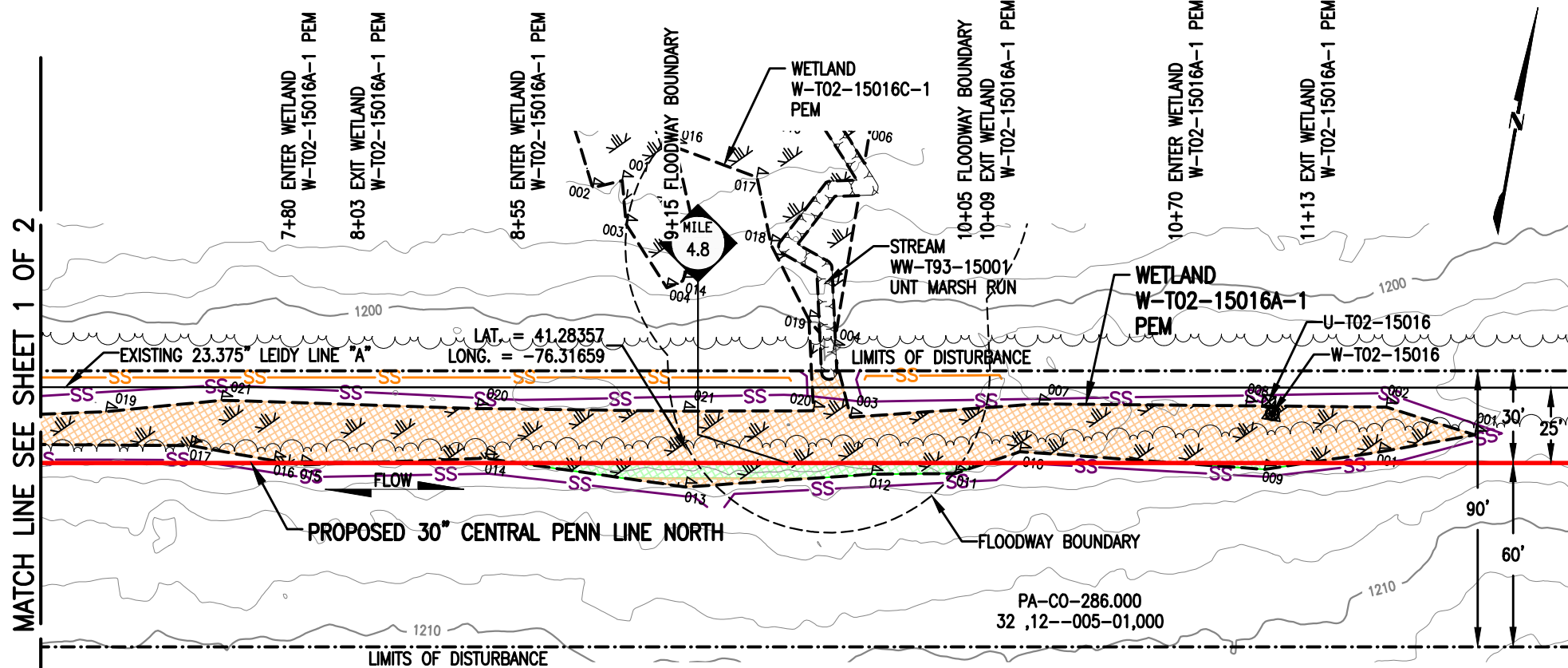
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSINGS W-T02-15016A/W-T02-15016A-1**  
**● M.P. 4.66 & W-T02-15016C ● M.P. 4.72**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

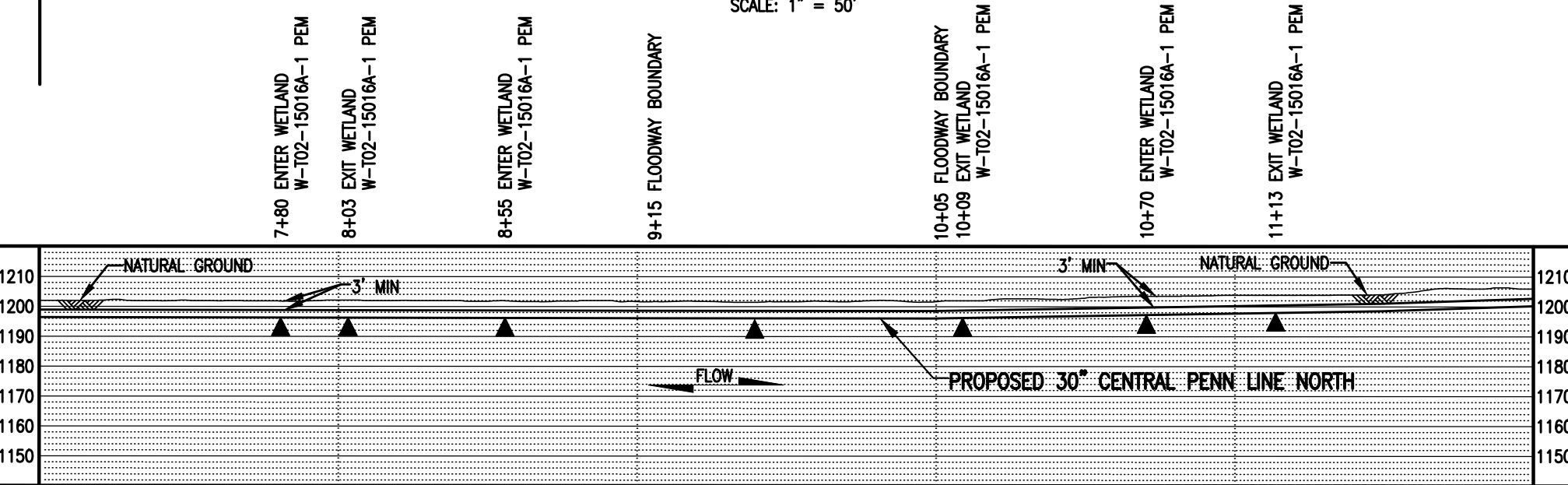
DRAWN BY: AO	DATE: 06/05/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: <b>24-1601-70-20-A/4.64-01</b>	SHEET 1
IWO: 1161481			OF 2

MATCH LINE SEE SHEET 2 OF 2

MATCH LINE SEE SHEET 1 OF 2



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



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

**WETLAND DISTURBANCE:**

WETLAND W-T02-15016A / W-T02-15016A-1 (EV)	ACRE
TEMPORARY DISTURBANCE	0.3033
PERMANENT DISTURBANCE	0.0250
<b>TOTAL DISTURBANCE</b>	<b>0.3283</b>

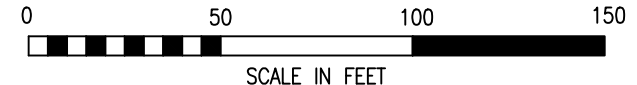
WETLAND W-T02-15016C (EV)	ACRE
TEMPORARY DISTURBANCE	0.0012
PERMANENT DISTURBANCE	0.0000
<b>TOTAL DISTURBANCE</b>	<b>0.0012</b>

**NOTES:**

- UTILIZE A WETLAND EQUIPMENT CROSSING (WEC).
- STATION 1+00 SHOWN IS EQUAL TO STATION 245+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

- T.B.M. SURVEY CONTROL POINT - 30' LT. OF M.P. 4.83, ELEV. = 1188.17' (NAVD88).



**LEGEND**

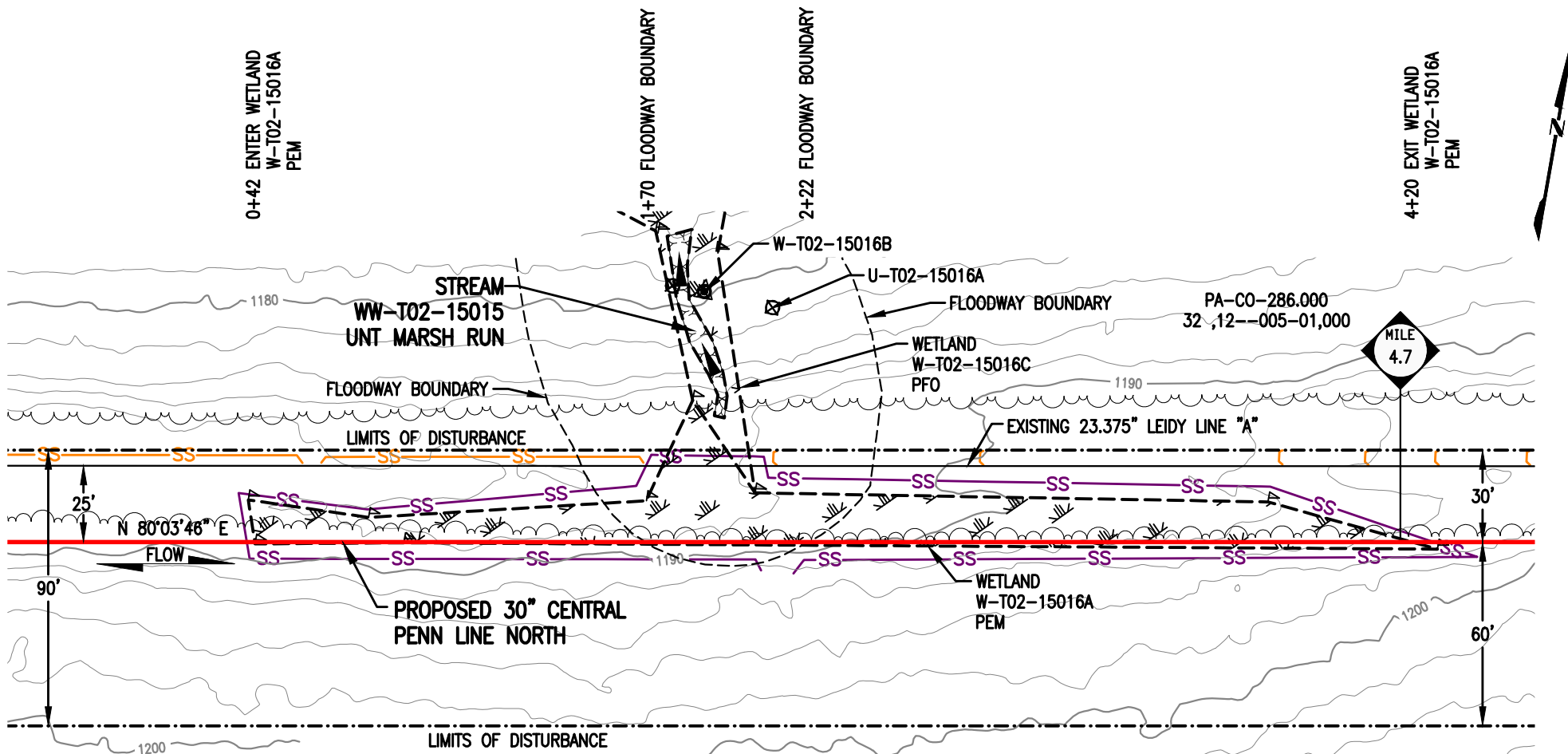
	PROPOSED 30" CENTRAL PENN LINE NORTH		WETLAND FLAGS		<b>WOOD GROUP MUSTANG, INC.</b>
	EXISTING PIPELINES		PHOTO DATA POINT		PERMANENT WETLAND IMPACT
	EXISTING TGPL R/W		WETLAND DATA POINT		TEMPORARY WETLAND IMPACT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT		12" SEDIMENT BARRIER
	PROPOSED CPLN R/W		WELL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

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	AO	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	02/03/16	MH	ISSUED FOR INTERNAL USE	1161481	CLR	MJH
2	10/25/16	MGJ	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH

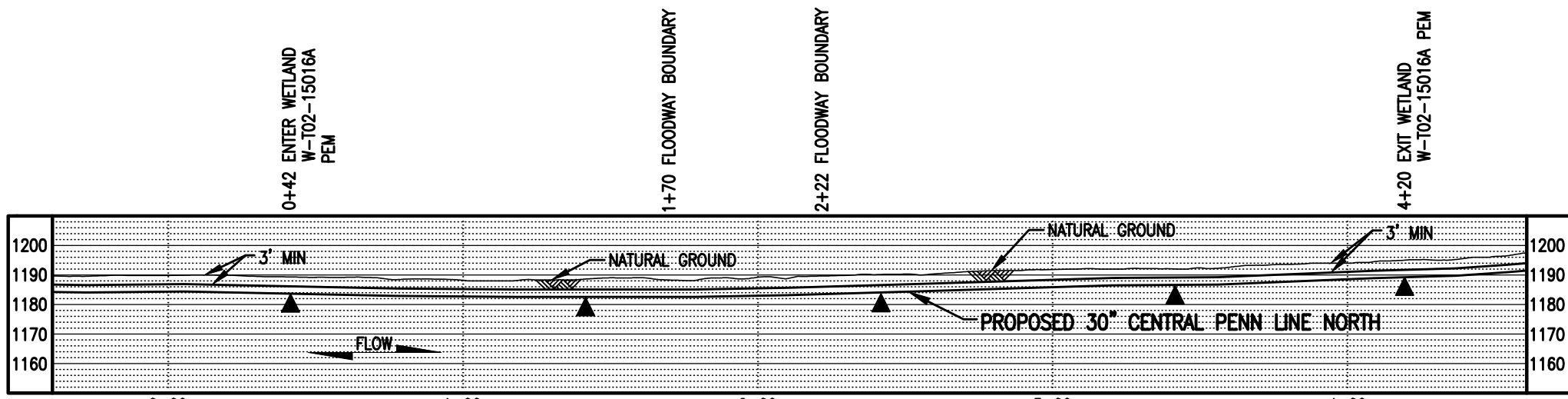
**TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC**  
**WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS**  
**ATLANTIC SUNRISE PROJECT**  
**PROPOSED 30" CENTRAL PENN LINE NORTH**  
**WETLAND CROSSINGS W-T02-15016A/W-T02-15016A-1**  
**● M.P. 4.66 & W-T02-15016C ● M.P. 4.72**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

DRAWN BY: AO	DATE: 06/05/15	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: CLR	DATE: 06/05/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
APPROVED BY: MJH	DATE: 06/08/15	DRAWING NUMBER: <b>24-1601-70-20-A/4.64-01</b>	SHEET 2
IWO: 1161481		9/26/2016	OF 2



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



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

**STREAM DISTURBANCE:**

STREAM WW-T02-15015	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.0232
PERMANENT FLOODWAY DISTURBANCE	0.0040
TOTAL FLOODWAY DISTURBANCE	0.0272

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

**GENERAL NOTES:**

1. THE PROPOSED PIPELINE DOES NOT CROSS THIS STREAM.
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. STATION 1+00 SHOWN IS EQUAL TO STATION 245+00 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 30' LT. OF M.P. 4.83, ELEV. = 1188.17' (NAVD88).



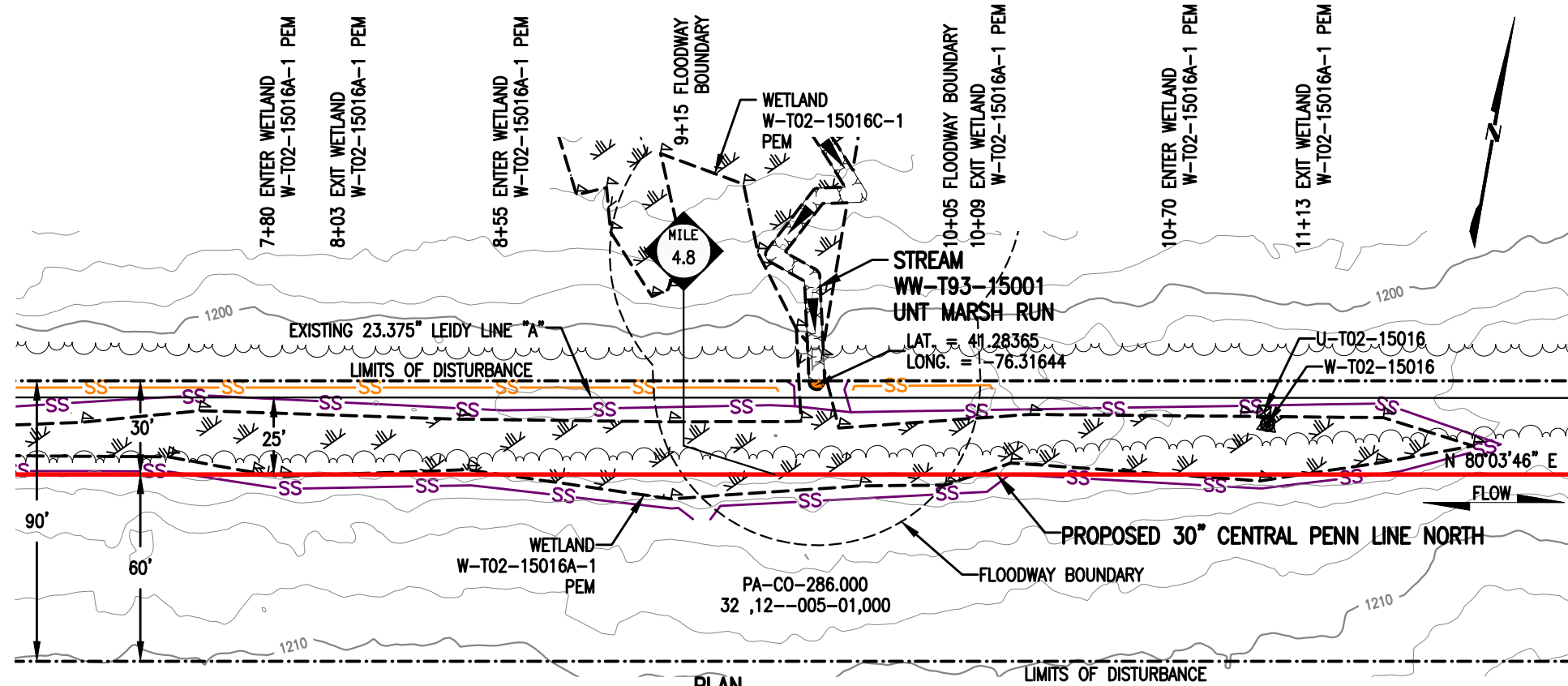
**LEGEND**

	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	<b>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC</b> <b>WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS</b> <b>ATLANTIC SUNRISE PROJECT</b> <b>PROPOSED 30" CENTRAL PENN LINE NORTH</b> <b>STREAM CROSSING WW-T02-15015</b> <b>M.P. 4.66</b> <b>SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA</b>								
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.	DRAWN BY: AT	DATE: 06/01/15	ISSUED FOR BID:	SCALE: 1" = 50'
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH	CHECKED BY: CLR	DATE: 06/04/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
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/4.66-01	SHEET 1
2	10/25/16	CM	ISSUED FOR PADEP SUBMITTAL #2	1161481	CLR	MJH	IWO: 1161481		9/26/2016	OF 1

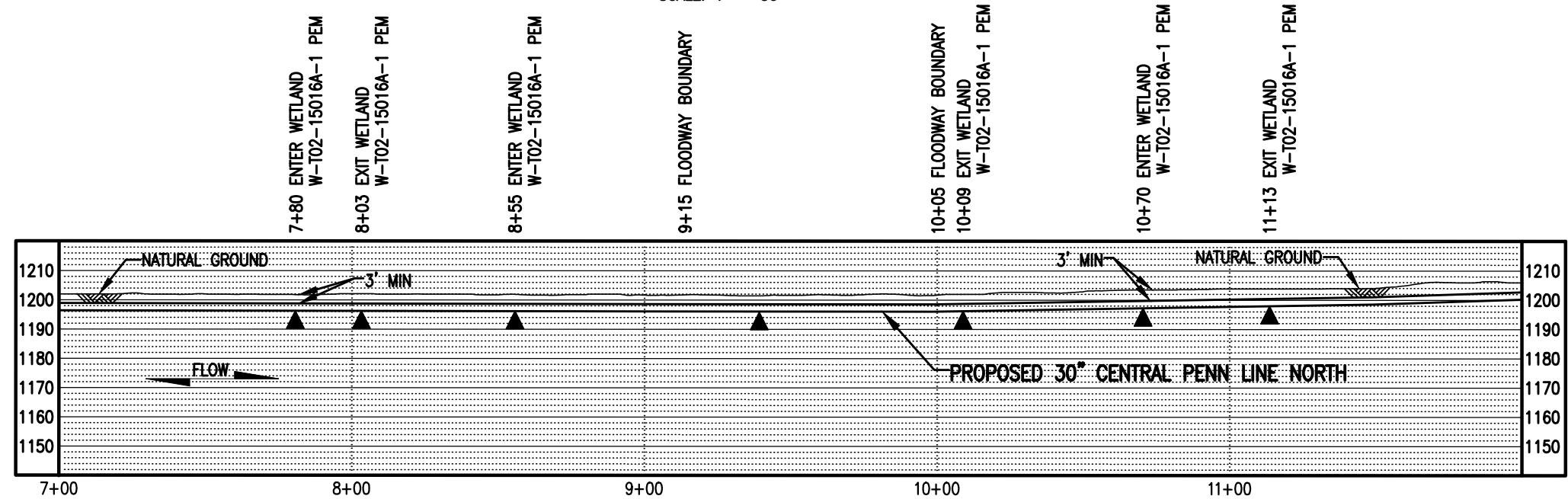


**PLAN**  
SCALE: 1" = 50'

**STREAM DISTURBANCE:**

STREAM WW-T93-15001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0003
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0003
TEMPORARY FLOODWAY DISTURBANCE	0.0499
PERMANENT FLOODWAY DISTURBANCE	0.0011
TOTAL FLOODWAY DISTURBANCE	0.0510

STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	2.77
STREAM LENGTH	0.27



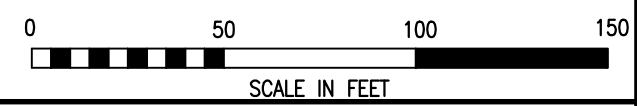
**PROFILE**  
SCALE: 1" = 50' HORIZONTAL  
1" = 50' VERTICAL

**GENERAL NOTES:**

1. STREAM WW-T93-15001 DOES NOT CROSS PROPOSED PIPELINE. STREAM SHALL BE MATTED DURING CONSTRUCTION.
2. WATERBODIES WITHOUT A FEMA-ESTABLISHED FLOODPLAIN, THE FLOODWAY IS COINCIDENT WITH A 50-FEET OFFSET MEASURED Laterally FROM THE PHYSICAL TOP OF BANK OF THE WATERBODY.
3. STATION 8+00 SHOWN IS EQUAL TO STATION 252+01 ON THE EROSION AND SEDIMENT CONTROL PLAN.

**SURVEY NOTES:**

1. T.B.M. SURVEY CONTROL POINT - 30' LT. OF M.P. 4.83, ELEV. = 1188.17' (NAVD88).



**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		

**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		

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	08/20/15	AT	ISSUED FOR PADEP 105 PERMIT	1161481	CLR	MJH
1	02/03/16	AT	ISSUED FOR INTERNAL USE	1161481	CLR	MJH
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**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-T93-15001**  
**© M.P. 4.80**  
**SUGARLOAF TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA**

**Williams**

DRAWING NO.	REFERENCE TITLE	DRAWN BY: AT	DATE: 08/17/15	ISSUED FOR BID:	SCALE: 1" = 50'
		CHECKED BY: CLR	DATE: 08/17/15	ISSUED FOR CONSTRUCTION:	REVISION: 2
		APPROVED BY: MJH	DATE: 08/17/15	DRAWING NUMBER: 24-1601-70-09-A/4.80-01	SHEET 1
		W.O. NUMBER: 1161481		10/10/2016	OF 1