

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

ATTACHMENT H-3
HDD AND CONVENTIONAL BORE CONTINGENCIES
IMPACT MAPPING
(UNDER SEPARATE COVER)

Revised April 2017

ATTACHMENT H-3
CONTINGENCY PLAN SET
COLUMBIA COUNTY



Transcontinental Gas Pipe Line Company LLC
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
CONTINGENCY PLAN IMPACT MAPS

M.P. 90.99 TO M.P. 91.75 AND
M.P. 92.28 TO M-0353 M.P. 0.11
COLUMBIA COUNTY, PENNSYLVANIA

DRAWING NUMBER	DESCRIPTION	SHEET	REVISION
24-1600-70-09A-A/99.66-01	WW-T04-12001	1 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	2 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	3 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	4 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	5 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	6 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	7 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	8 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	9 OF 9	0

DRAWING NUMBER	DESCRIPTION	SHEET	REVISION
24-1600-70-20A-A/99.82-01	W-T04-12001C	1 OF 2	0
24-1600-70-20A-A/99.82-01	W-T04-12001C	2 OF 2	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	1 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	2 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	3 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	4 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	5 OF 5	0
24-1600-70-20A-A/M-0423-3.28-01	W-T70-12008	1 OF 1	0

24-1600-70-09A-A-02_Columbia-PKG
 Issued for PADEP Submittal #3
 Rev. 0
 04-12-2017

ISSUED DATE: APRIL 12, 2017



Transcontinental Gas Pipe Line Company LLC
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
CONTINGENCY PLAN IMPACT MAPS

M.P. 90.99 TO M.P. 91.75 AND
M.P. 92.28 TO M-0353 M.P. 0.11
COLUMBIA COUNTY, PENNSYLVANIA

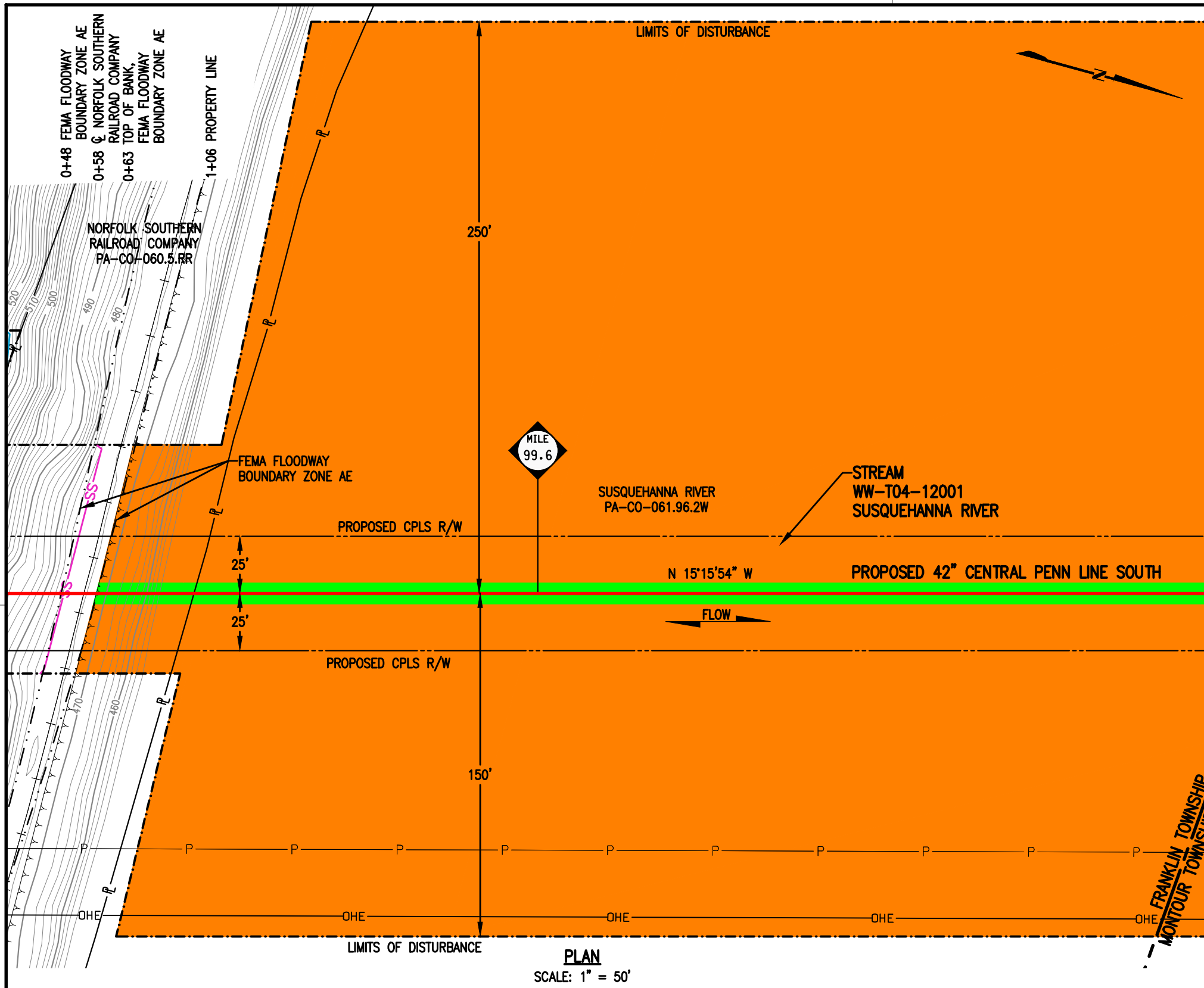
DRAWING NUMBER	DESCRIPTION	SHEET	REVISION
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24-1600-70-09A-A/99.66-01	WW-T04-12001	2 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	3 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	4 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	5 OF 9	0
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24-1600-70-09A-A/99.66-01	WW-T04-12001	8 OF 9	0
24-1600-70-09A-A/99.66-01	WW-T04-12001	9 OF 9	0

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24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	2 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	3 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	4 OF 5	0
24-1600-70-09A-A/M-0423-3.28-01	WW-T70-12010-1, WW-T70-12006 & WW-T70-12010	5 OF 5	0
24-1600-70-20A-A/M-0423-3.28-01	W-T70-12008	1 OF 1	0

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

MAW JAW HWANG
 REGISTERED PROFESSIONAL ENGINEER
 PENNSYLVANIA
 LICENSE NO. PE077841

ISSUED FOR PADEP SUBMITTAL #3
 ISSUED DATE: APRIL 12, 2017



MATCH LINE SEE SHEET 2 OF 9

STREAM DISTURBANCE: * SEE SHEET 5 OF 9 FOR PROFILE

STREAM WW-T04-12001	ACRE
TEMPORARY STREAM DISTURBANCE	8.8319
PERMANENT STREAM DISTURBANCE	0.2303
TOTAL STREAM DISTURBANCE	9.0622
TEMPORARY FLOODWAY DISTURBANCE	3.1729
PERMANENT FLOODWAY DISTURBANCE	0.0840
TOTAL FLOODWAY DISTURBANCE	3.2569
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	1003.29
STREAM TEMPORARY IMPACT LENGTH	426.89
STREAM PERMANENT IMPACT LENGTH	10.95
STREAM TOTAL IMPACT LENGTH	437.84

TEMPORARY ACCESS ROAD STREAM DISTURBANCE:

STREAM WW-T04-12001	ACRE
TEMPORARY STREAM DISTURBANCE	0.0000
PERMANENT STREAM DISTURBANCE	0.0000
TOTAL STREAM DISTURBANCE	0.0000
TEMPORARY FLOODWAY DISTURBANCE	0.9823
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.9823
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	0.00
STREAM TEMPORARY IMPACT LENGTH	0.00
STREAM PERMANENT IMPACT LENGTH	0.00
STREAM TOTAL IMPACT LENGTH	0.00

GENERAL NOTES:

1. STREAM WW-T04-12001 CROSSING METHOD SHALL BE COFFER DAM.
2. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
3. STATION 1+00 SHOWN IS EQUAL TO STATION 5257+32 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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



LEGEND

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

WOOD GROUP MUSTANG, INC.

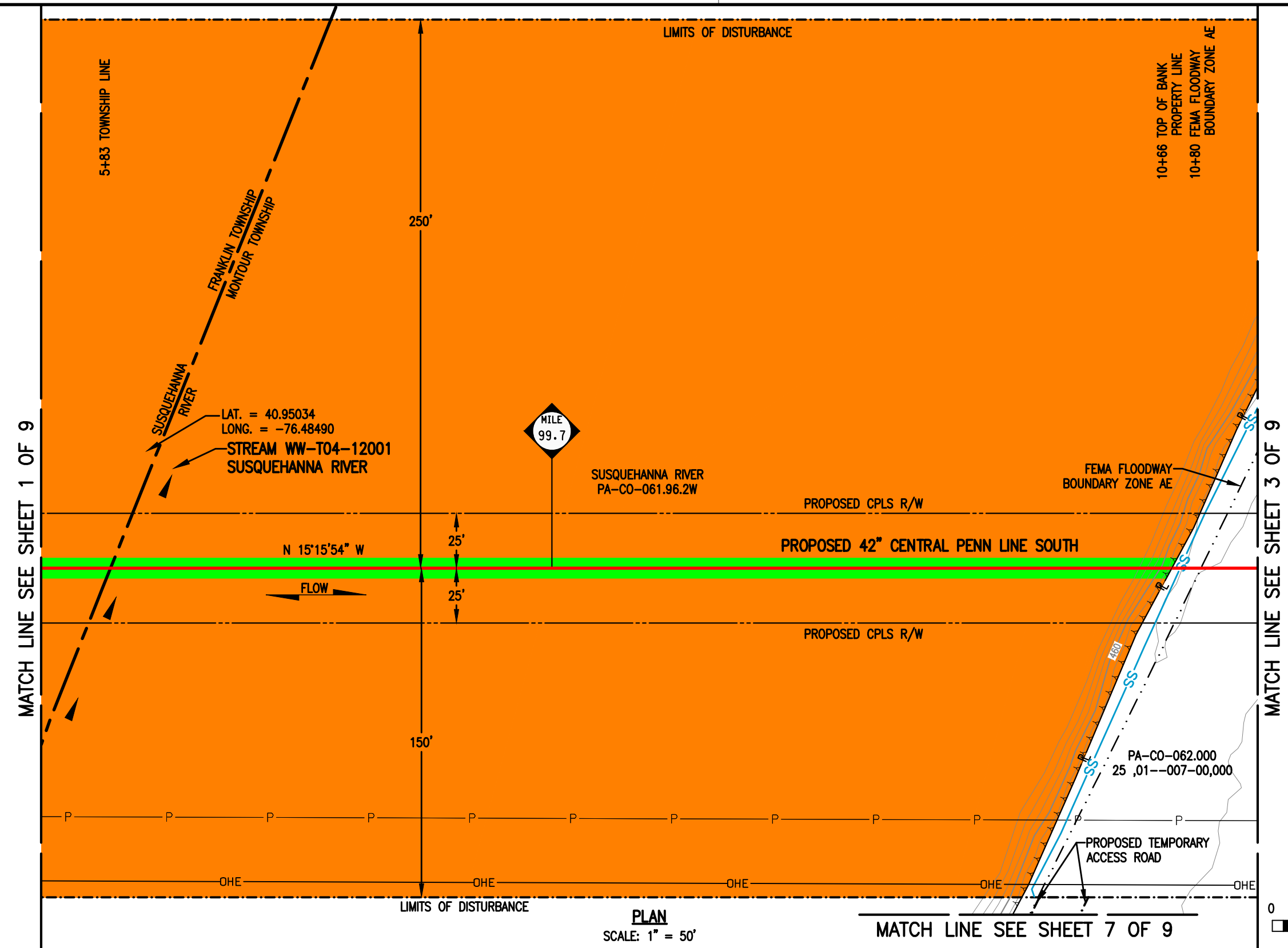
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24-1600-70-09-A/99.66-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
CONTINGENCY PLAN IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T04-12001
 M.P. 99.66
FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: THL	DATE: 04/03/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 04/03/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 04/03/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 1
WC: 1161503		4/28/2017 t2le	9

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ALL TABLES:
SEE SHEET 1 OF 9
SEE SHEET 5 OF 9 FOR PROFILE



PLAN
SCALE: 1" = 50'

0 50 100 150
SCALE IN FEET

LEGEND

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

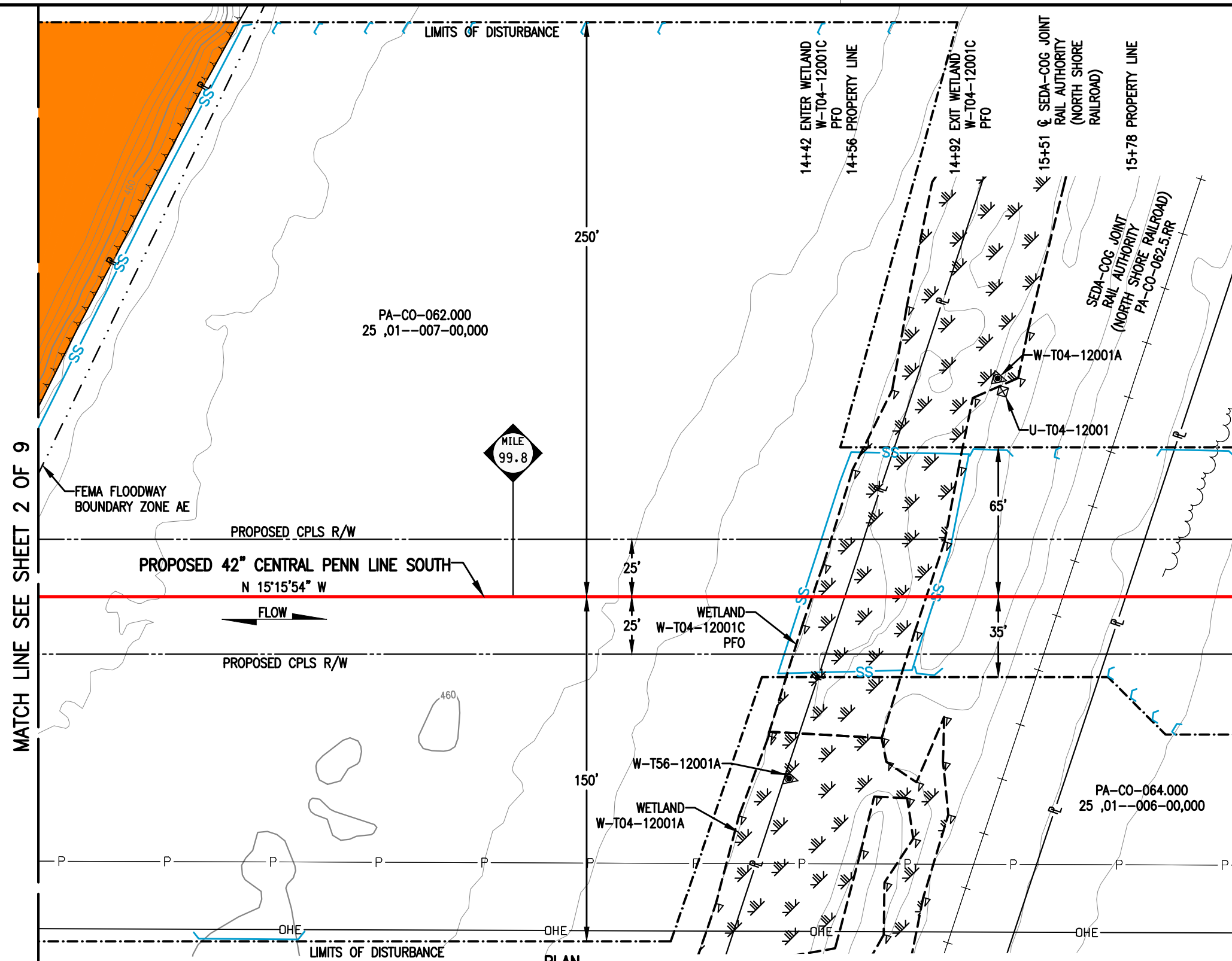


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ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T04-12001
M.P. 99.66
FRANKLIN & MONTOUR TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

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APPROVED BY: MJH	DATE: 04/03/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 2
WC: 1161503		4/26/2017 t3le	9

ALL TABLES:
 SEE SHEET 1 OF 9
 SEE SHEET 6 OF 9 FOR PROFILE



MATCH LINE SEE SHEET 2 OF 9

MATCH LINE SEE SHEET 4 OF 9



PLAN
 SCALE: 1" = 50'

LEGEND

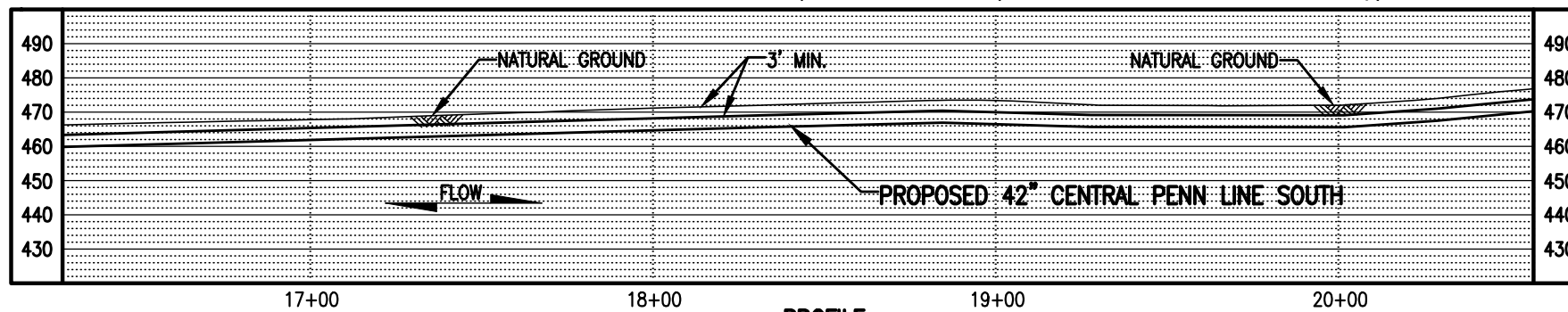
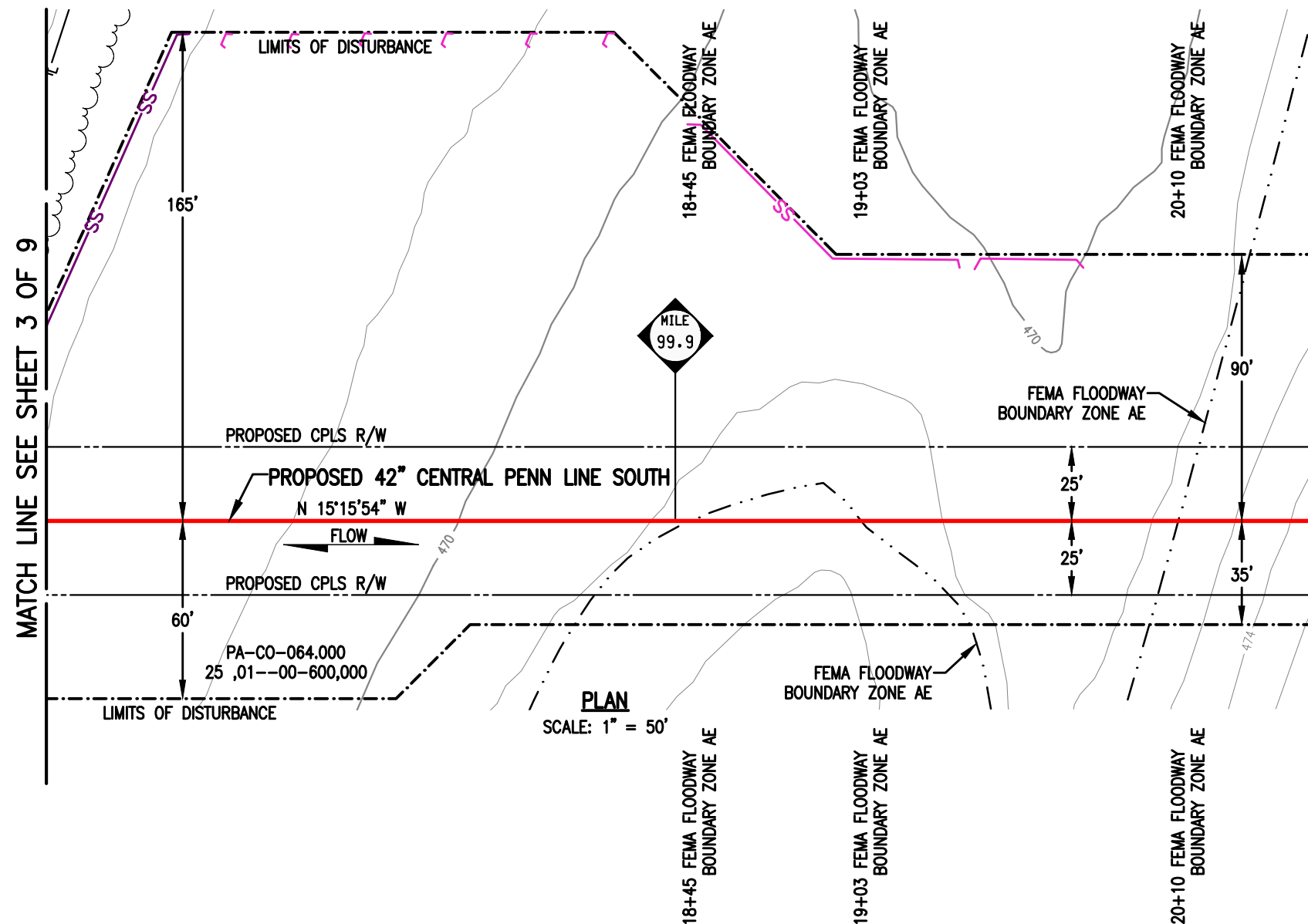
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	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
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	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		PERMANENT STREAM IMPACT
			TEMPORARY STREAM IMPACT

**WOOD GROUP
 MUSTANG, INC.**

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 STREAM CROSSING WW-T04-12001
 M.P. 99.66
 MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

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CHECKED BY: AT	DATE: 04/03/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 04/03/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 3
WC: 1161503		8/27/17	4/28/2017



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

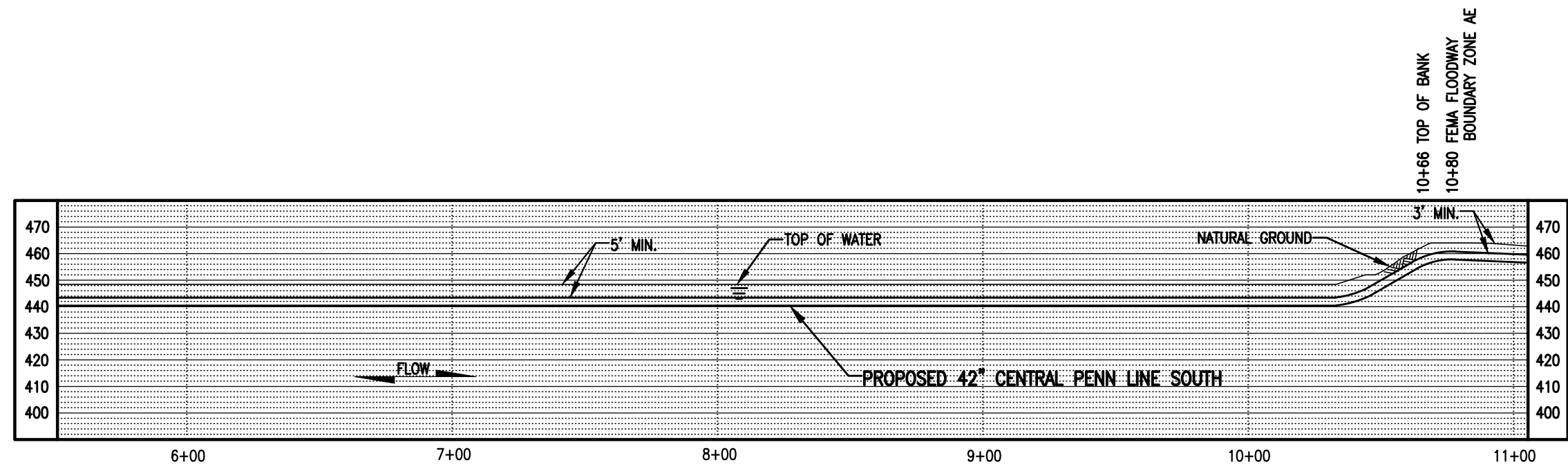
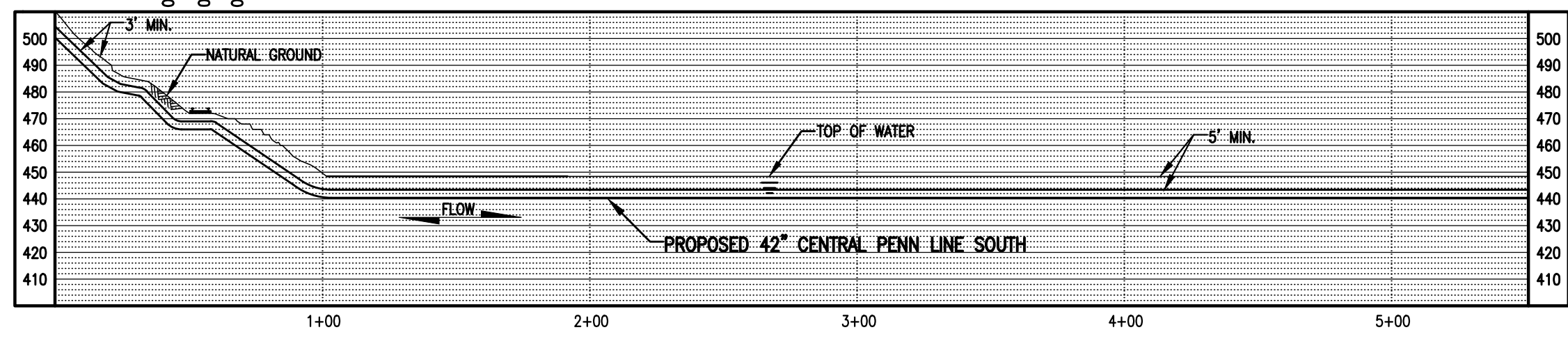
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CONTINGENCY PLAN IMPACT MAPS			
ATLANTIC SUNRISE PROJECT			
PROPOSED 42" CENTRAL PENN LINE SOUTH			
STREAM CROSSING WW-T04-12001			
M.P. 99.66			
MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA			
DRAWN BY:	THL	DATE:	04/03/17
CHECKED BY:	AT	DATE:	04/03/17
APPROVED BY:	MJH	DATE:	04/03/17
IWO:	1161503	ISSUED FOR CONSTRUCTION:	
DRAWING NUMBER:	24-1600-70-09A-A/99.66-01	SHEET	4
		OF	9
		SCALE:	1" = 50'
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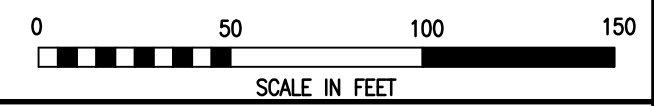


ALL TABLES:
 SEE SHEET 1 OF 9
 SEE SHEET 1 & 2 OF 9 FOR PLAN VIEWS

0+48 FEMA FLOODWAY
 BOUNDARY ZONE AE
 0+58 ☉ NORFOLK SOUTHERN
 RAILROAD COMPANY
 TOP OF BANK
 0+63 FEMA FLOODWAY
 BOUNDARY ZONE AE



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



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

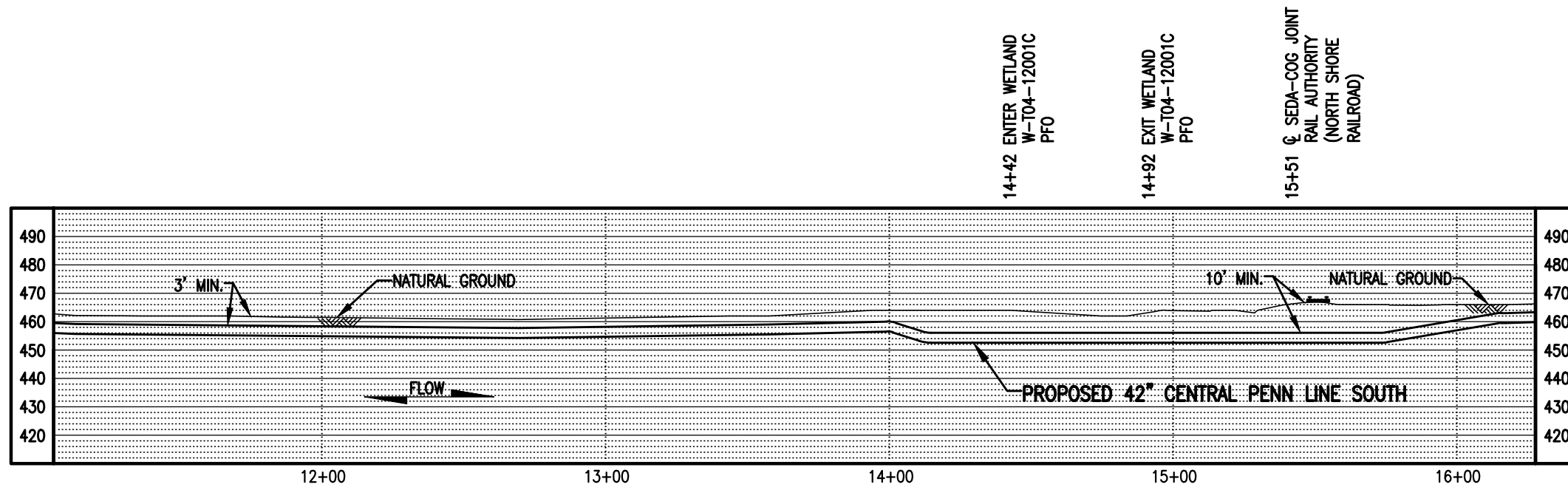
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NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
 CONTINGENCY PLAN IMPACT MAPS
 ATLANTIC SUNRISE PROJECT
 PROPOSED 42" CENTRAL PENN LINE SOUTH
 STREAM CROSSING WW-T04-12001
 M.P. 99.66
 FRANKLIN TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

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CHECKED BY: AT	DATE: 04/03/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 04/03/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 5
WO: 1161503		8:25am 4/26/2017 t3le	9

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ALL TABLES:
 SEE SHEET 1 OF 9
 SEE SHEET 3 OF 9 FOR PLAN VIEW



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



LEGEND

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

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

WOOD GROUP MUSTANG, INC.

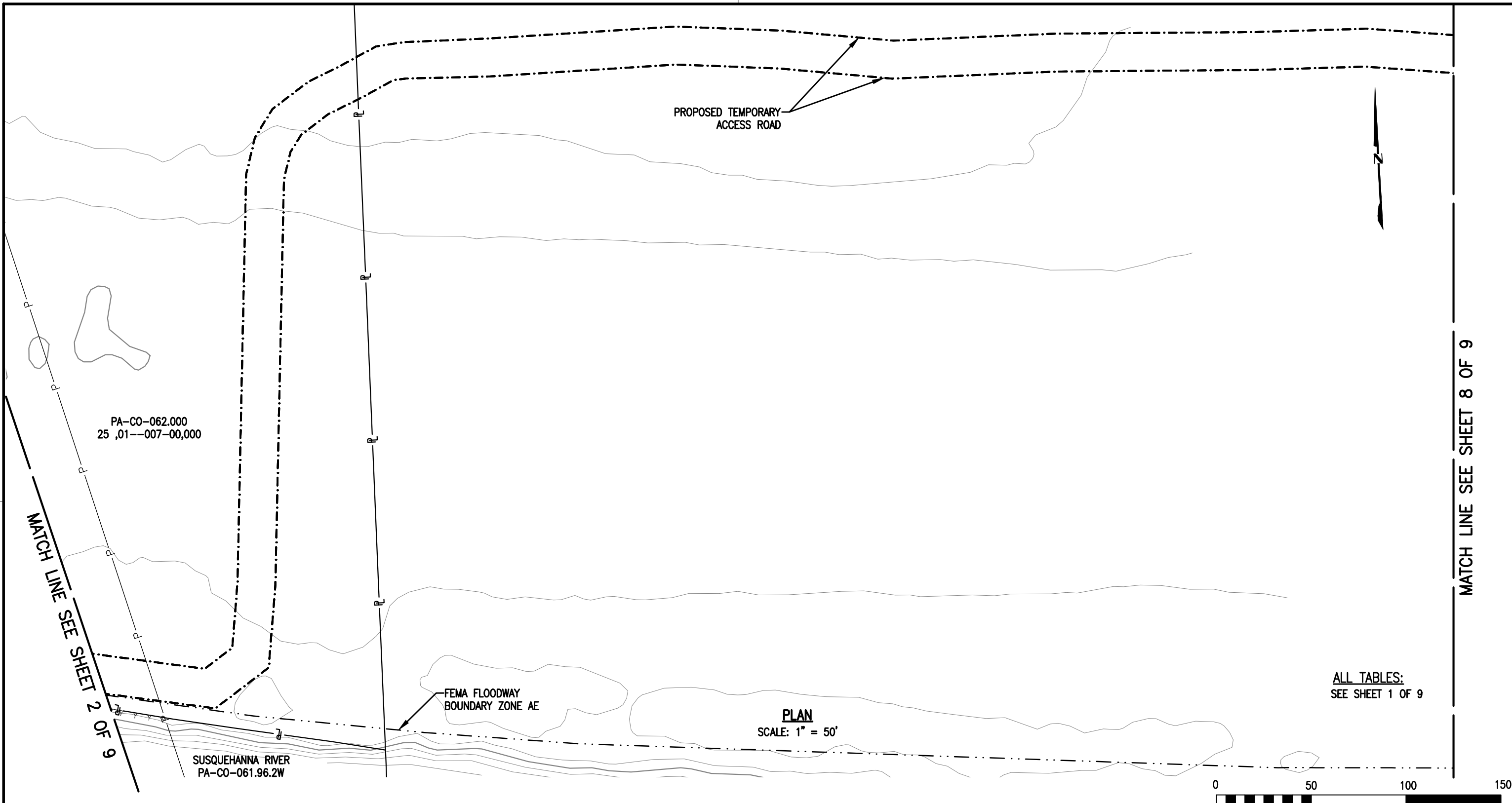
	12" SEDIMENT BARRIER
	18" SEDIMENT BARRIER
	24" SEDIMENT BARRIER
	32" SEDIMENT BARRIER
	TOP OF BANK
	PERMANENT STREAM IMPACT
	TEMPORARY STREAM IMPACT

DRAWING NO.		REFERENCE TITLE				
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 M.P. 99.66
 MONTOUR TOWNSHIP, COLUMBIA COUNTY, PENNSYLVANIA

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APPROVED BY: MJH	DATE: 04/03/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 6
WO: 1161503		4/28/2017 t2le	OF 9

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

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TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC			
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ATLANTIC SUNRISE PROJECT			
PROPOSED 42" CENTRAL PENN LINE SOUTH			
STREAM CROSSING WW-T04-12001			
M.P. 99.66			
FRANKLIN & MONTOUR TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA			
NO.	DATE	BY	REVISION DESCRIPTION
0	04/19/17	THL	ISSUED FOR BID
0	04/19/17	AT	ISSUED FOR CONSTRUCTION
0	04/19/17	MJH	ISSUED FOR CONSTRUCTION



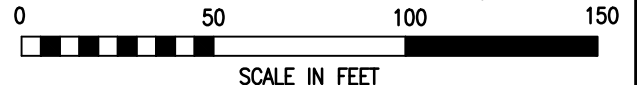
MATCH LINE SEE SHEET 7 OF 9

MATCH LINE SEE SHEET 9 OF 9

FEMA FLOODWAY
BOUNDARY ZONE AE

LAT. = 40.95229
LONG. = -76.48139

PROPOSED TEMPORARY
ACCESS ROAD



LEGEND

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

DRAWING NO.		REFERENCE TITLE				
24-1600-70-09-A/99.66-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

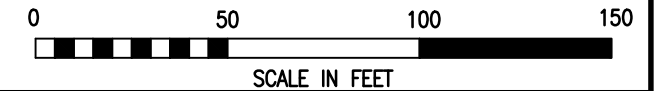
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
CONTINGENCY PLAN IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T04-12001
M.P. 99.66
FRANKLIN & MONTOUR TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: THL	DATE: 04/19/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 04/19/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 04/19/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 8
WO: 1161503		8:34am 4/26/2017 t3le	9

MATCH LINE SEE SHEET 8 OF 9

PROPOSED TEMPORARY ACCESS ROAD

PLAN
SCALE: 1" = 50'



LEGEND

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

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

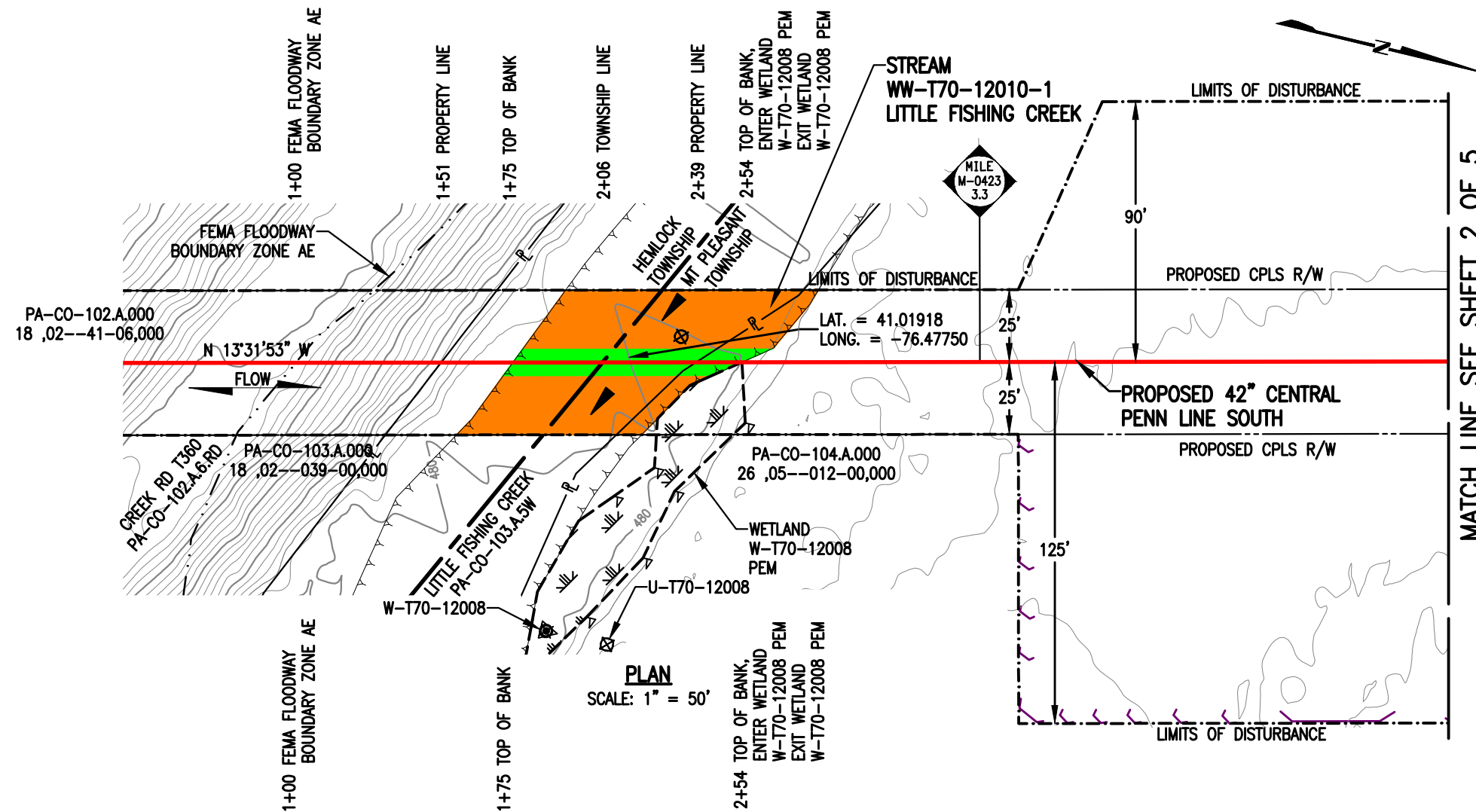
- 12" SEDIMENT BARRIER
- 18" SEDIMENT BARRIER
- 24" SEDIMENT BARRIER
- 32" SEDIMENT BARRIER
- TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT



DRAWING NO.		REFERENCE TITLE				
24-1600-70-09-A/99.66-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
CONTINGENCY PLAN IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSING WW-T04-12001
● M.P. 99.66
FRANKLIN & MONTOUR TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: THL	DATE: 04/19/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 04/19/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 04/19/17	DRAWING NUMBER: 24-1600-70-09A-A/99.66-01	SHEET 9
WO: 1161503		<small>4/26/2017 t3le</small> <small>K:\LP10471\Maping\Waterbodies\CPLS_PAN\PADEP_IP_04-24-2017\Cont. Drawings\24-1600-70-09A-A_99.66-01.dwg</small>	



MATCH LINE SEE SHEET 2 OF 5

STREAM DISTURBANCE:

STREAM WW-T70-12010-1	ACRE
TEMPORARY STREAM DISTURBANCE	0.0703
PERMANENT STREAM DISTURBANCE	0.0182
TOTAL STREAM DISTURBANCE	0.0885
TEMPORARY FLOODWAY DISTURBANCE	0.0000
PERMANENT FLOODWAY DISTURBANCE	0.0000
TOTAL FLOODWAY DISTURBANCE	0.0000

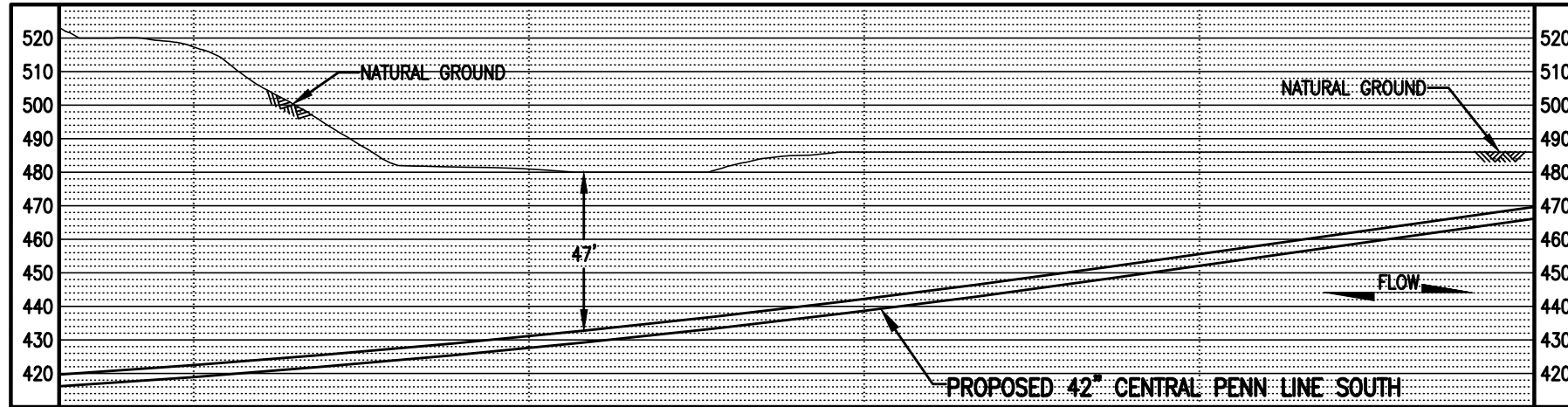
STREAM DIMENSION	FT.
STREAM WIDTH (TOB TO TOB)	79.09
STREAM LENGTH	65.22

GENERAL NOTES:

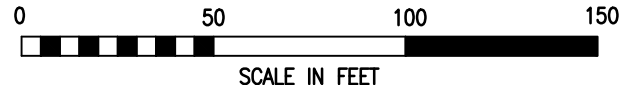
1. STREAM CROSSING METHOD FOR STREAM WW-T70-12010-1 SHALL BE DIRECT PIPE.
2. NO PHYSICAL SURFACE IMPACT ARE PROPOSED TO STREAM WW-T70-12010-1 DUE TO DIRECT PIPE CROSSING METHOD.
3. THIS SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD MAP DATA.
4. FLOODWAY IMPACTS FOR STREAM WW-T70-12010-1 ARE INCLUDED IN FLOODWAY IMPACT OF STREAMS WW-T70-12006 ON DWG. 24-1600-70-09-A/M-0423-3.00-01.
5. FLOODWAY IMPACTS FOR STREAM WW-T70-12006, FOR THE PIPELINE, ARE DEPICTED ON DRAWINGS 24-1600-70-09-A/M-0423-3.00-01 & 24-1600-70-09-A/M-0423-3.28-01.
6. TRANSCO WILL REPLANT THE RIPARIAN FOREST BUFFER OF STREAM WW-T70-12010-1 WITHIN THE LIMITS OF THE FEMA FLOODWAY BOUNDARY.
7. TRANSCO WILL REPLANT THE RIPARIAN FOREST BUFFER OF STREAM WW-T70-12010 (ON SHEET 4 OF 5) WITHIN THE LIMITS OF THE FEMA FLOODWAY BOUNDARY.
8. STATION 1+00 SHOWN IS EQUAL TO M-0423 STATION 171+87 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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



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



LEGEND

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

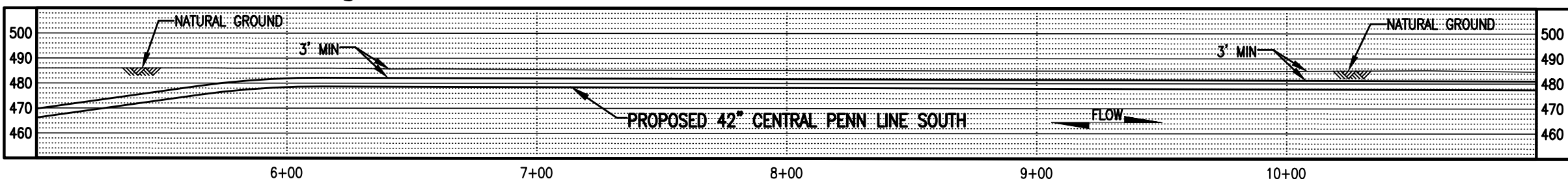
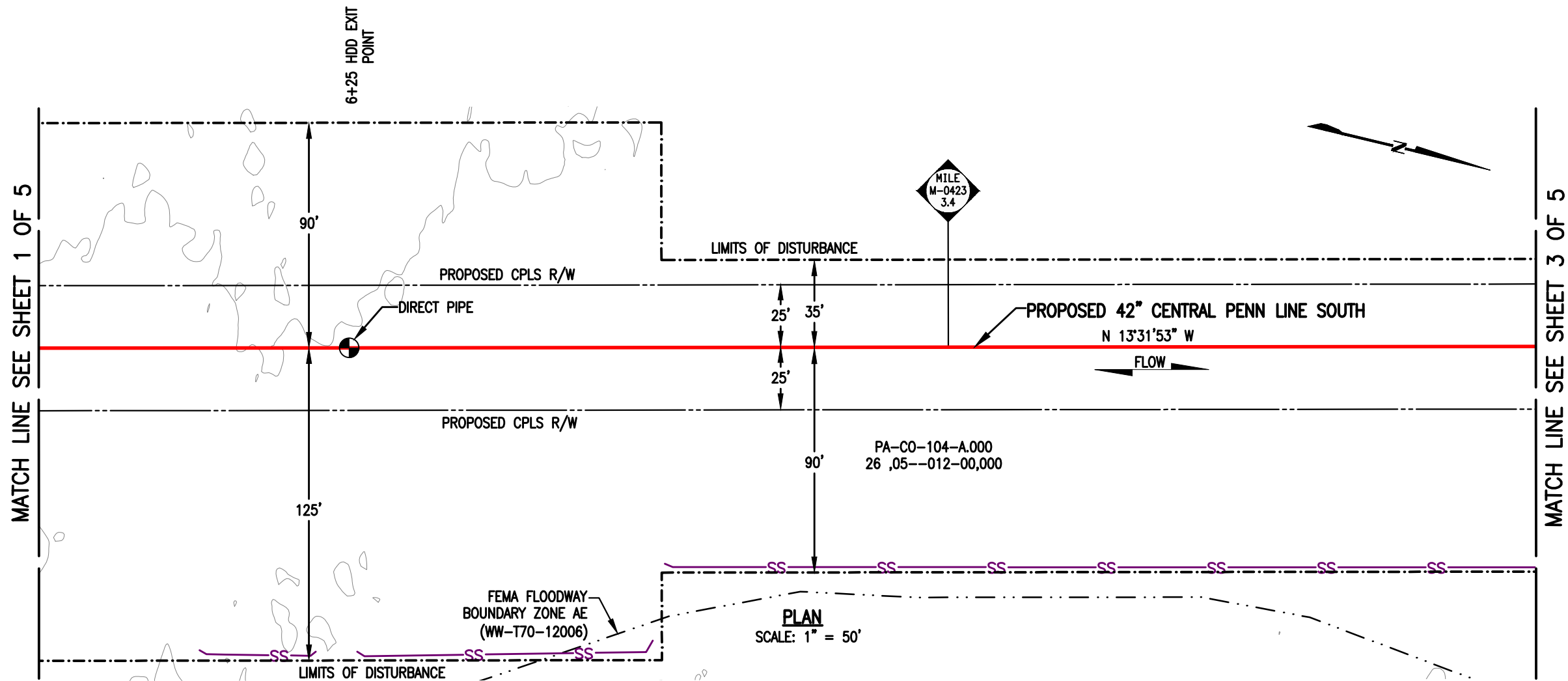
- ▽ WETLAND FLAGS
- ⊗ PHOTO DATA POINT
- ⊠ WETLAND DATA POINT
- ⊡ UPLAND DATA POINT
- ☼ WELL POINT
- ▲ TRENCH PLUG
- WATERBODY
- TREE LINE
- - - - - FLOODWAY BOUNDARY
- - - - - FEMA FLOODWAY BOUNDARY

WOOD GROUP MUSTANG, INC.

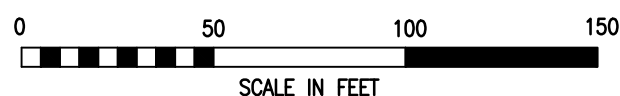
- SS — 12" SEDIMENT BARRIER
- SS — 18" SEDIMENT BARRIER
- SS — 24" SEDIMENT BARRIER
- SS — 32" SEDIMENT BARRIER
- Y — Y — TOP OF BANK
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

DRAWING NO. 24-1600-70-09-A/M-0423-3.28-01		REFERENCE TITLE WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS		<p>TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC CONTINGENCY PLAN IMPACT MAPS ATLANTIC SUNRISE PROJECT PROPOSED 42" CENTRAL PENN LINE SOUTH STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28, WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58 HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA</p>		
NO.	DATE	BY	REVISION DESCRIPTION			W.O. NO.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

DRAWN BY: THL	DATE: 03/31/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 03/31/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 03/31/17	DRAWING NUMBER: 24-1600-70-09A-A/M-0423-3.28-01	SHEET 1
WO: 1161503	5/1/2017	o1bloul	CE 5



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

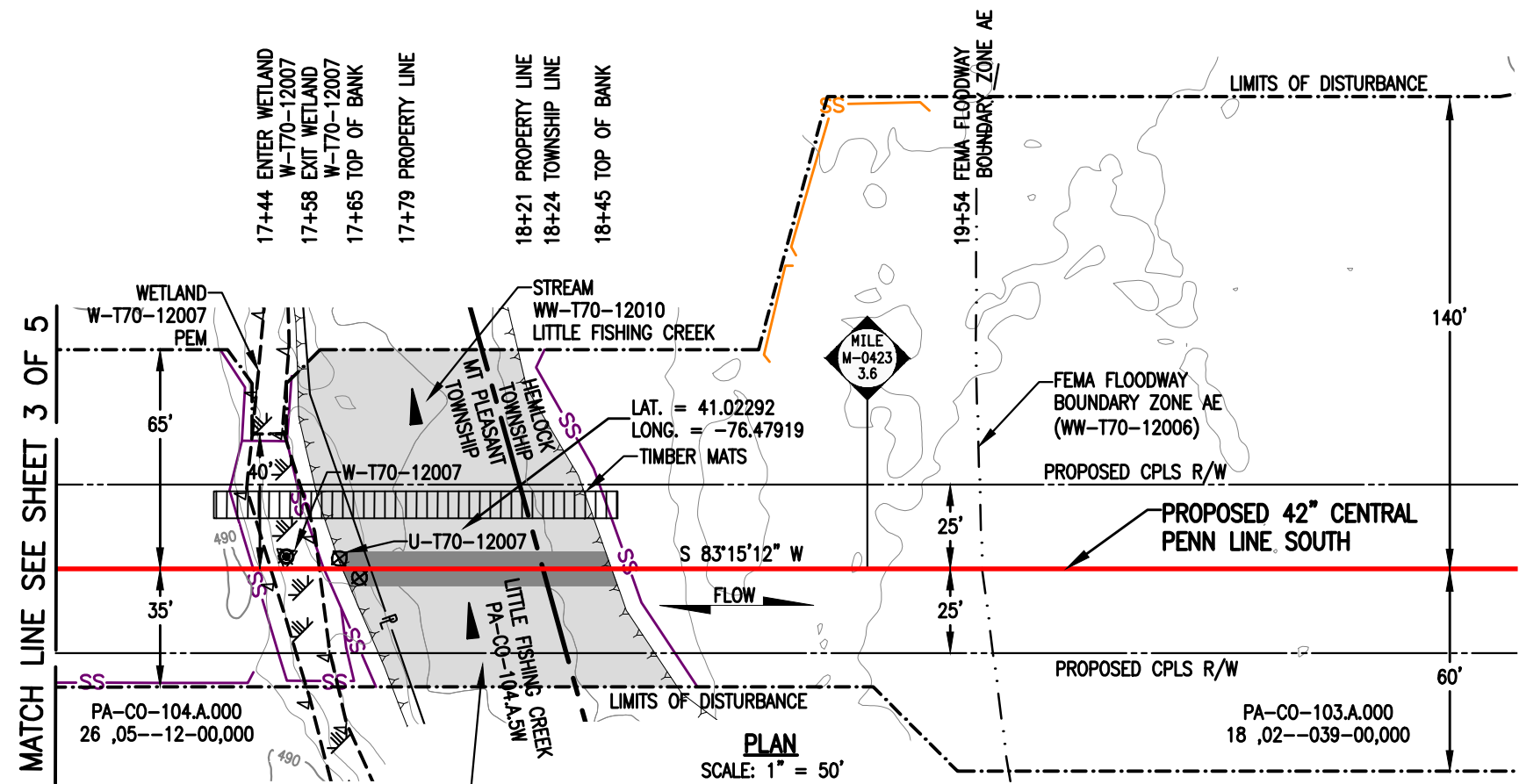


LEGEND	
	PROPOSED 42" CENTRAL PENN LINE SOUTH
	EXISTING PIPELINES
	EXISTING TGPL R/W
	LIMITS OF DISTURBANCE
	PROPOSED CPLS R/W
	PROPERTY LINE
	FOREIGN PIPELINE
	WETLAND AREA
	STREAM FLOW
	EXISTING POWER LINE
	EXISTING FENCE
	WETLAND FLAGS
	PHOTO DATA POINT
	WETLAND DATA POINT
	UPLAND DATA POINT
	WELL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

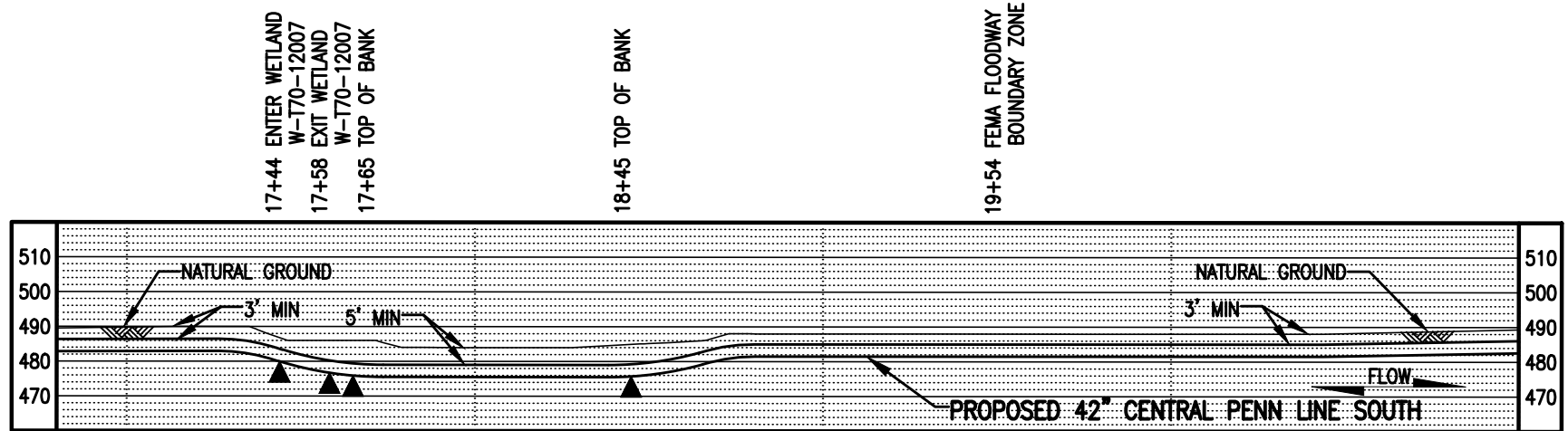
DRAWING NO.		REFERENCE TITLE	
24-1600-70-09-A/M-0423-3.28-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS	
NO.	DATE	BY	REVISION DESCRIPTION
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3

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

DRAWN BY: THL	DATE: 03/31/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 03/31/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 03/31/17	DRAWING NUMBER: 24-1600-70-09A-A/M-0423-3.28-01	SHEET 2
IWO: 1161503	4/22/2017	12:28pm	5



THIS STREAM IMPACT IS SHOWN IN ATTACHMENT H-2
COUNTY SPECIFIC IMPACT MAPPING COLUMBIA COUNTY
DRAWING 24-1600-70-09-A/M-0423-3.28-01
SHEET 4 OF 5



LEGEND		WOOD GROUP MUSTANG, INC.	
	PROPOSED 42" CENTRAL PENN LINE SOUTH		WETLAND FLAGS
	EXISTING PIPELINES		PHOTO DATA POINT
	EXISTING TGPL R/W		WETLAND DATA POINT
	LIMITS OF DISTURBANCE		UPLAND DATA POINT
	PROPOSED CPLS R/W		WELL POINT
	PROPERTY LINE		TRENCH PLUG
	FOREIGN PIPELINE		WATERBODY
	WETLAND AREA		TREE LINE
	STREAM FLOW		FLOODWAY BOUNDARY
	EXISTING POWER LINE		FEMA FLOODWAY BOUNDARY
	EXISTING FENCE		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	
24-1600-70-09-A/M-0423-3.28-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS	
NO.	DATE	BY	REVISION DESCRIPTION
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC			
CONTINGENCY PLAN IMPACT MAPS			
ATLANTIC SUNRISE PROJECT			
PROPOSED 42" CENTRAL PENN LINE SOUTH			
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,			
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58			
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA			
DRAWN BY:	THL	DATE:	03/31/17
CHECKED BY:	AT	DATE:	03/31/17
APPROVED BY:	MJH	DATE:	03/31/17
ISSUED FOR BID:		SCALE:	1" = 50'
ISSUED FOR CONSTRUCTION:		REVISION:	0
DRAWING NUMBER:	24-1600-70-09A-A/M-0423-3.28-01		
NO.:	4	SHEET:	4
DATE:	4/28/2017	SCALE:	1" = 50'
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MATCH LINE SEE SHEET 3 OF 5

LIMITS OF DISTURBANCE

PA-CO-104-A.000
26,05--012-00,000

ALL TABLES:
SEE SHEET 1 OF 5



MILLERTOWN ROAD

125'

TEMPORARY ACCESS ROAD
AR-CO-97.1

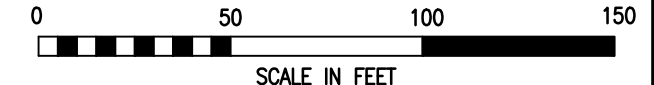
LIMITS OF DISTURBANCE

LIMITS OF DISTURBANCE

PA-CO-104.A.-3.9HDD
26,05--012-01,000

FEMA FLOODWAY
BOUNDARY ZONE AE
(WW-T70-12006)

PLAN
SCALE: 1" = 50'



LEGEND

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

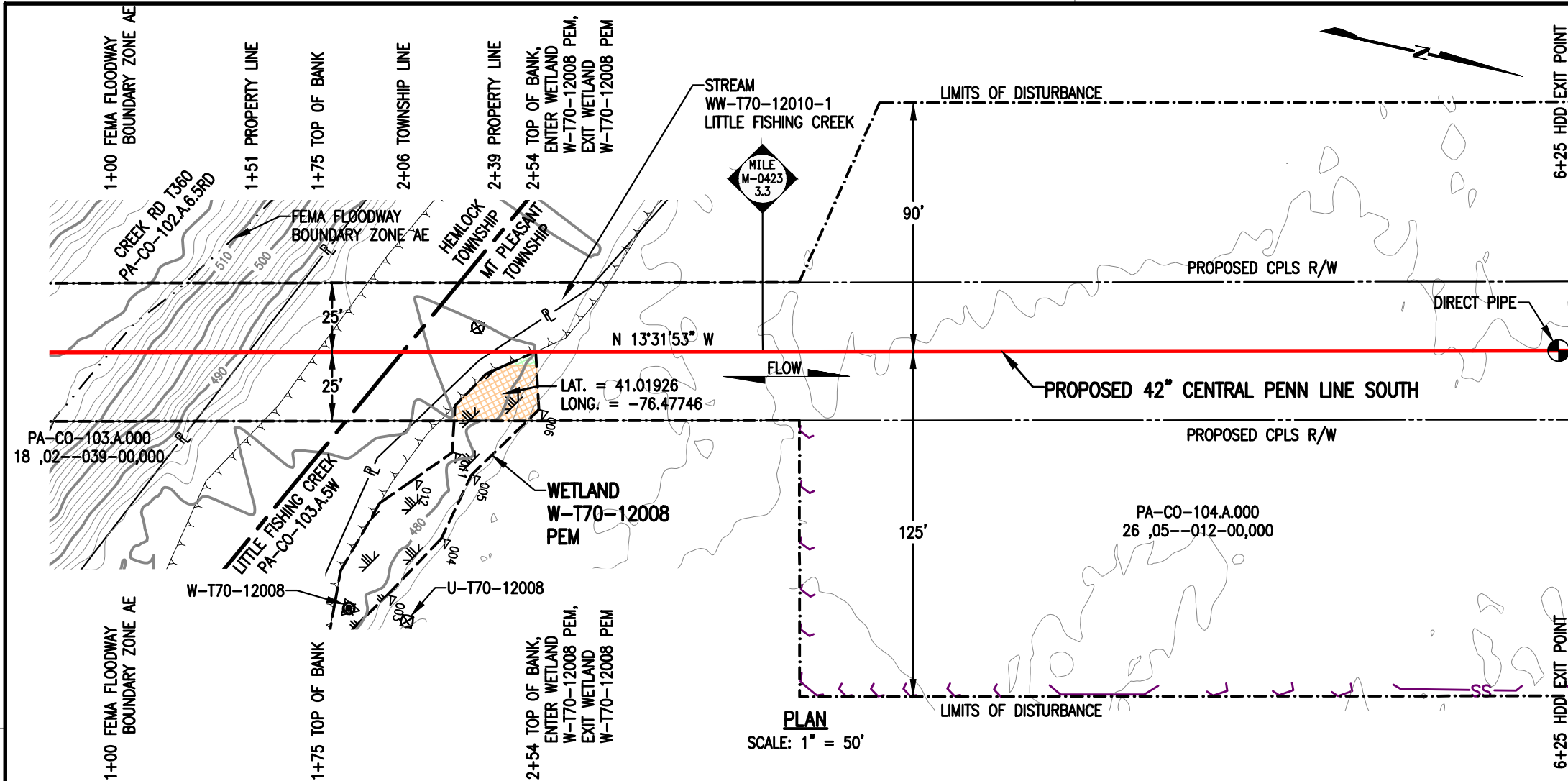
**WOOD GROUP
MUSTANG, INC.**

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

DRAWING NO.		REFERENCE TITLE				
24-1600-70-09-A/M-0423-3.28-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

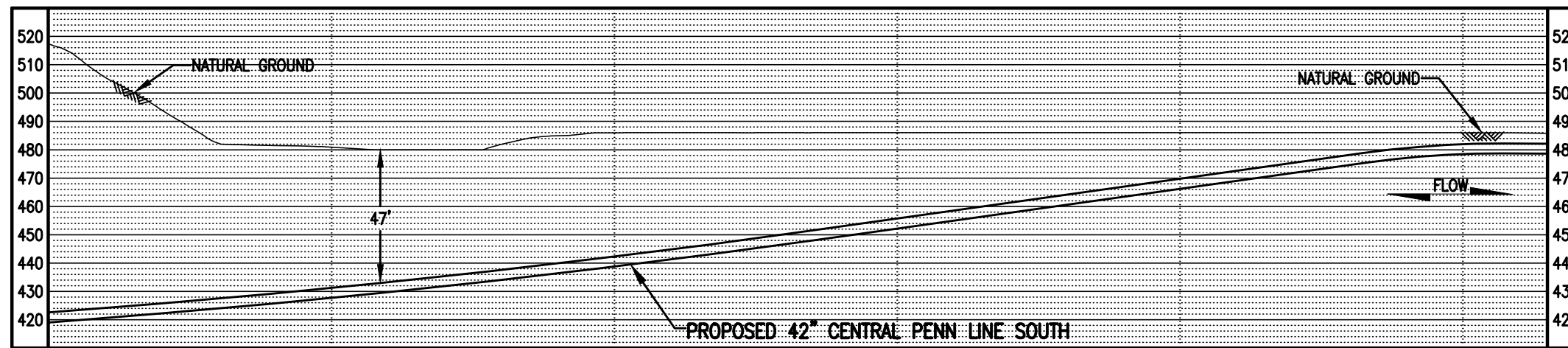
TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
CONTINGENCY PLAN IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
STREAM CROSSINGS WW-T70-12010-1 @ M-0423 M.P. 3.28,
WW-T70-12006 @ M-0423 M.P. 3.50 & WW-T70-12010 @ M-0423 M.P. 3.58
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY,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

DRAWN BY: THL	DATE: 03/31/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 03/31/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 03/31/17	DRAWING NUMBER: 24-1600-70-09A-A/M-0423-3.28-01	SHEET 5
WO: 1161503			



WETLAND DISTURBANCE:

WETLAND W-770-12008	ACRE
TEMPORARY DISTURBANCE	0.0111
PERMANENT DISTURBANCE	0.0007
TOTAL DISTURBANCE	0.0118



GENERAL NOTES:

1. WETLAND CROSSING METHOD FOR W-770-12008 SHALL BE DIRECT PIPE. NO PHYSICAL SURFACE IMPACT ARE PROPOSED TO THIS FEATURE DUE TO DIRECT PIPE CROSSING METHOD.
2. STATION 1+00 SHOWN IS EQUAL TO M-0423 STATION 171+87 ON THE EROSION AND SEDIMENT CONTROL PLAN.

SURVEY NOTES:

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



LEGEND

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

DRAWING NO.		REFERENCE TITLE				
24-1600-70-20-A/M-0423-3.28-01		WATER OBSTRUCTION AND ENCROACHMENT PERMIT IMPACT MAPS				
NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
0	04/12/17	THL	ISSUED FOR PADEP SUBMITTAL #3	1161503	CLR	MJH

TRANSCONTINENTAL GAS PIPE LINE COMPANY LLC
CONTINGENCY PLAN IMPACT MAPS
ATLANTIC SUNRISE PROJECT
PROPOSED 42" CENTRAL PENN LINE SOUTH
WETLAND CROSSING W-770-12008
© M-0423 M.P. 3.28
HEMLOCK & MT PLEASANT TOWNSHIPS, COLUMBIA COUNTY, PENNSYLVANIA

DRAWN BY: THL	DATE: 03/31/17	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: AT	DATE: 03/31/17	ISSUED FOR CONSTRUCTION:	REVISION: 0
APPROVED BY: MJH	DATE: 03/31/17	DRAWING NUMBER: 24-1600-70-20A-A/M-0423-3.28-01	SHEET 1
IWO: 1161503	12:20pm 4/28/2017 t2le	1	