



Transcontinental Gas Pipe Line Company, LLC

Requirement H – Chapter 105 Impact Plans

Regional Energy Access Expansion Project – Effort Loop

**April 2021
(Revised March 2022)**



Transcontinental Gas Pipe Line Company, LLC.

REGIONAL ENERGY ACCESS EXPANSION PROJECT EFFORT LOOP CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT

PERMIT APPLICATION

MONROE COUNTY, PENNSYLVANIA

13.78 MILES OF 42 INCH PIPELINE

April 2021
(Revised MARCH 2022)

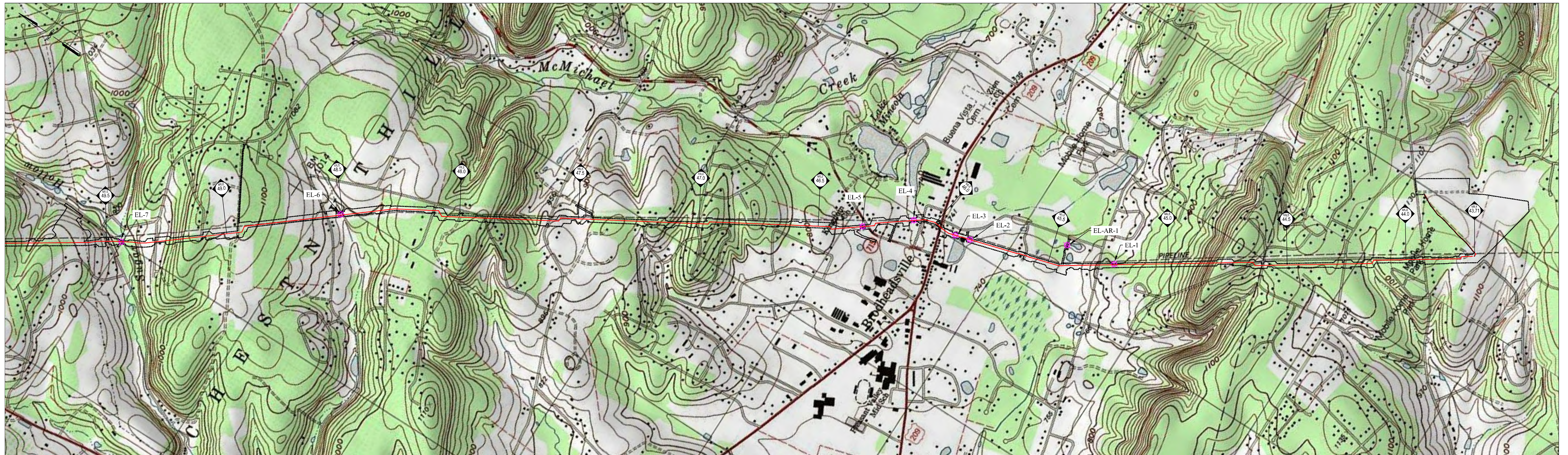


I, Patrick Wozinski, P.E., do hereby certify pursuant to the penalties of 18 Pa.C.S.A. Sec. 4904 to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection.



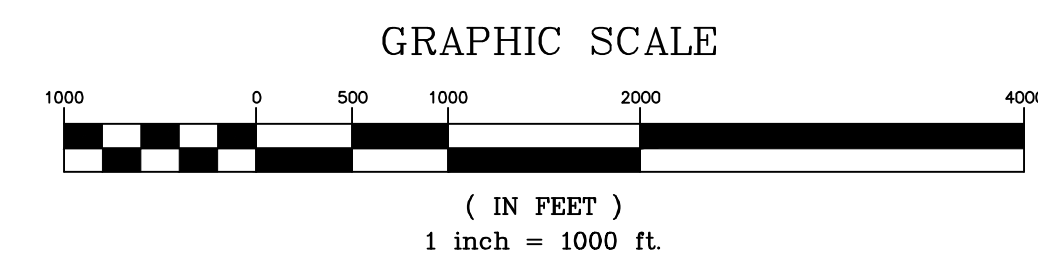
Transcontinental Gas Pipe Line Company, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT
EFFORT LOOP
CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT
PERMIT APPLICATION - RESOURCE CROSSING DRAWING SET

Crossing Number	Mile Post	Description	Sheet Number
N/A	-	Cover	1
N/A	-	Index	2
N/A	-	USGS Topo Location Map	3
N/A	-		4
N/A	-		5
EL-1	45.2	W1-T5	6
EL-AR-1	45.4	S2-T5	7
EL-2	45.8	W4-T6	8
EL-3	45.9	S3-T5	
EL-4	46.1	W1-T2	9
EL-5	46.3	W2-T2	10
EL-6	48.5	S1-T1	11
EL-7	49.4	W1-T1	12
		S1-T2	
EL-8	50.9	S4-T2	13
EL-9	52.7	W2-T1	14
		S2-T1	
EL-10	53.7	S5-T2	15
		W9-T2	
EL-11	55.2	W12-T2	16
		W14-T2	
EL-12	56.6	W4-T3	17
EL-13	57	S7-T2	18
		S8-T2	
		W3-T1	
		W15-T2	
EL-14	57.2	W3A-T1	19
		W4-T1	
EL-15	57.3	W4A-T1	19
EL-16	57.4	W6-T1	20
		S4-T1	
		W10-T1	
EL-AR-2	57.4	W8-T1	20
		S4-T1	



LEGEND

- LIMIT OF DISTURBANCE
- PROPOSED PIPELINE
- ⊗ CROSSING LOCATION



REVISIONS				W.O. NO.	CHK.	APP.
NO.	DATE	BY	DESCRIPTION			
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS TOPOGRAPHIC / AERIAL LOCATION MAPS MONROE COUNTY, PENNSYLVANIA				
DRAWN BY: BWH	DATE: 03/17/21	ISSUED FOR BID:	SCALE: 1" = 1000'	
CHECKED BY: RJN	DATE: 03/17/21	ISSUED FOR CONSTRUCTION:	REVISION:	
APPROVED BY: KCC	DATE: 03/17/21	DRAWING NUMBER: 26-1000-70-9-0	SHEET 3 OF 20	
WD: 1222637	RID: 108			



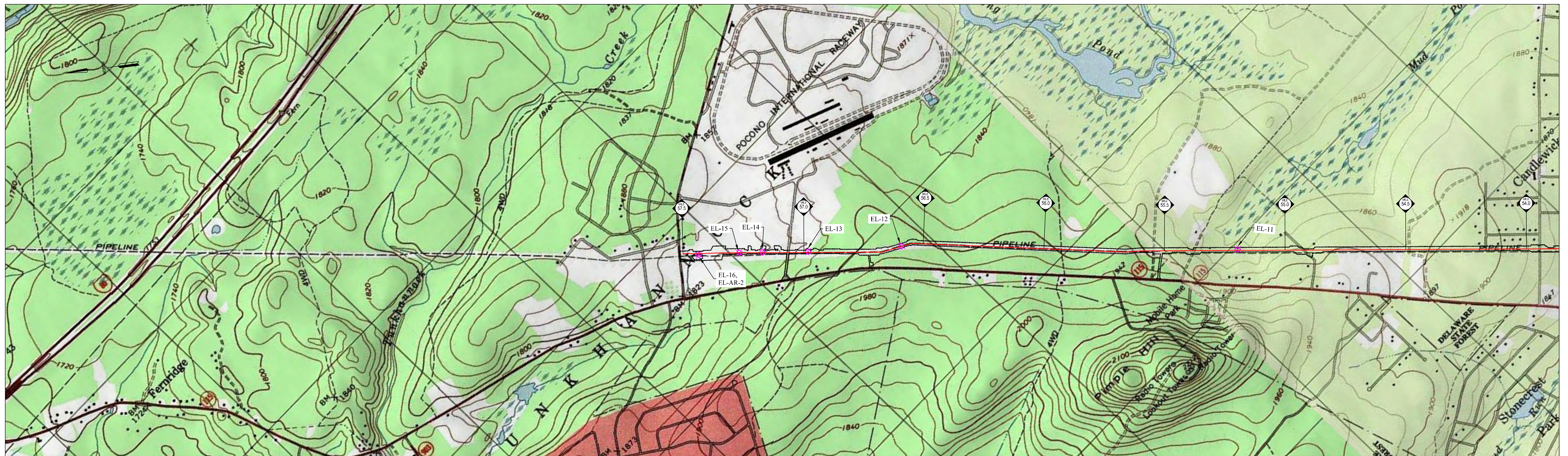
LEGEND

	LIMIT OF DISTURBANCE
	PROPOSED PIPELINE
	CROSSING LOCATION

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 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 TOPOGRAPHIC / AERIAL LOCATION MAPS
 MONROE COUNTY, PENNSYLVANIA

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WO: 1222637	RID: 108	DRAWING NUMBER: 26-1000-70-9-D	SHEET 4 OF 20



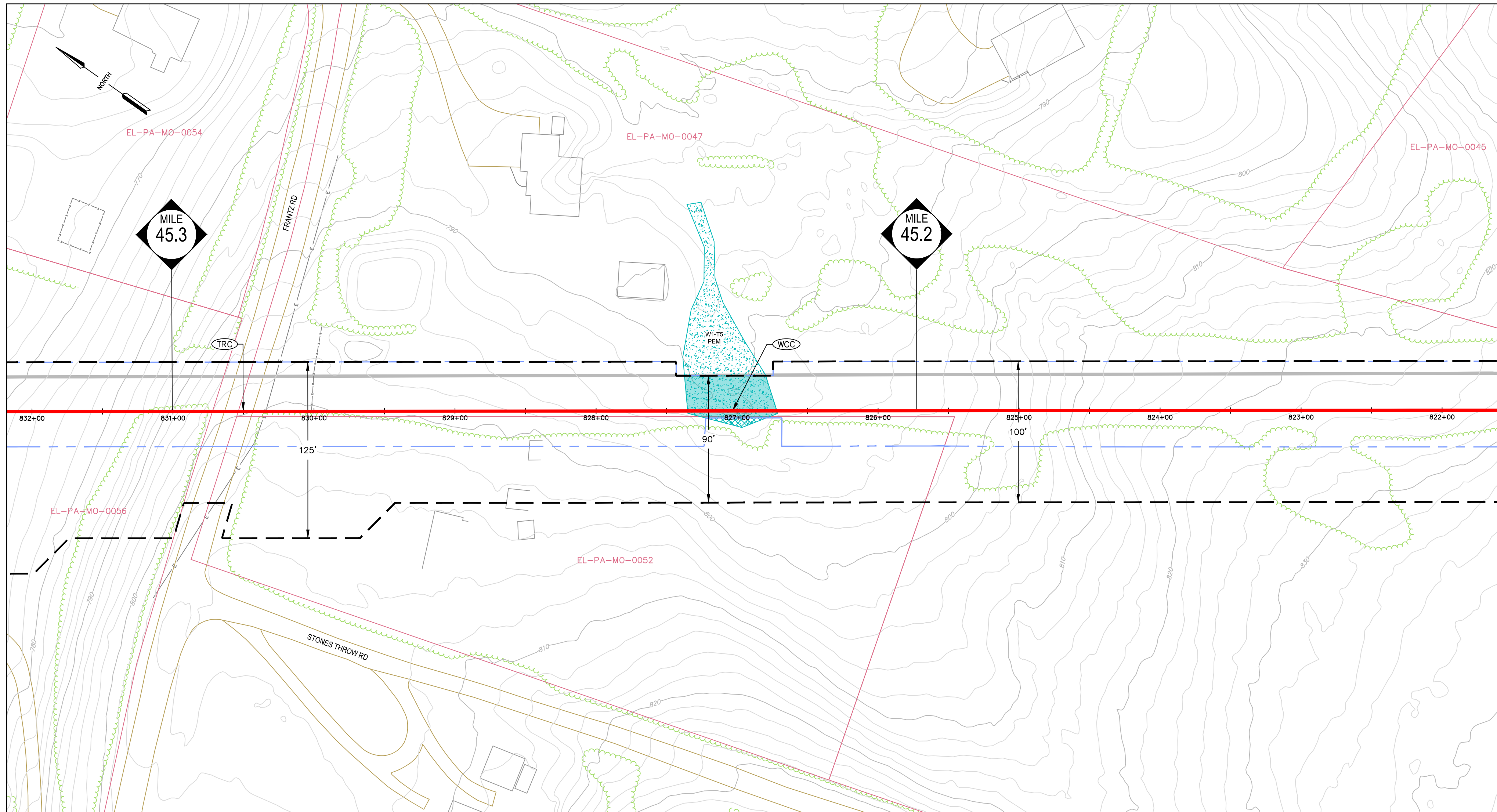
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 W.O. NUMBER: 1222637 RID: 108 DRAWING NUMBER: 26-1000-70-9-D SHEET 5 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-1	W1-T5	WETLAND	PEM	-	PERM	0.0412
	W1-T5	WETLAND	PEM	-	TEMP	0.0033

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

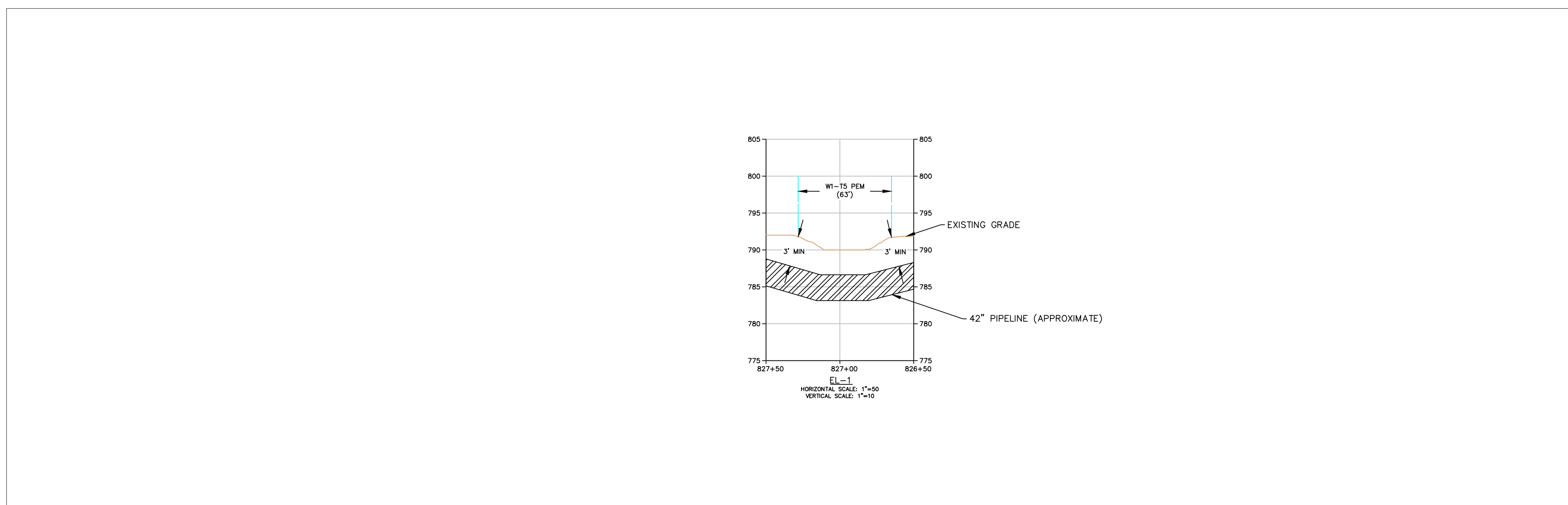
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

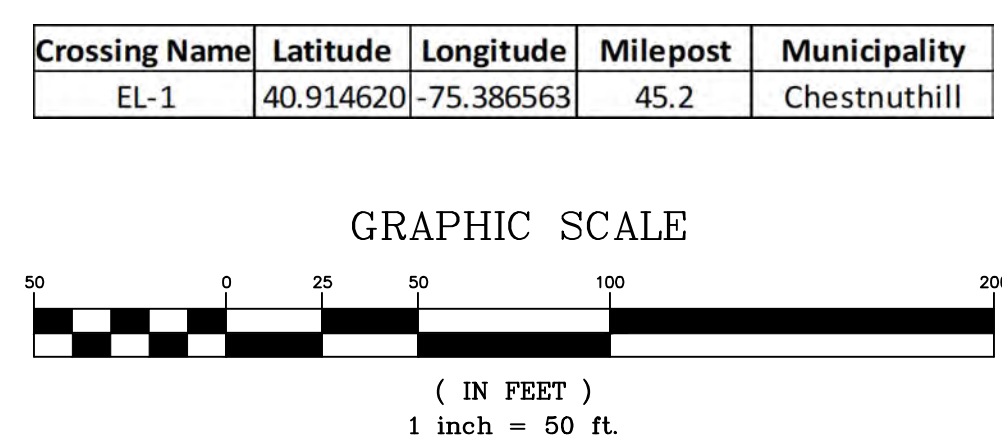
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GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE W&X CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FEET MINIMUM COVER THROUGH WETLANDS AND 4-FEET MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



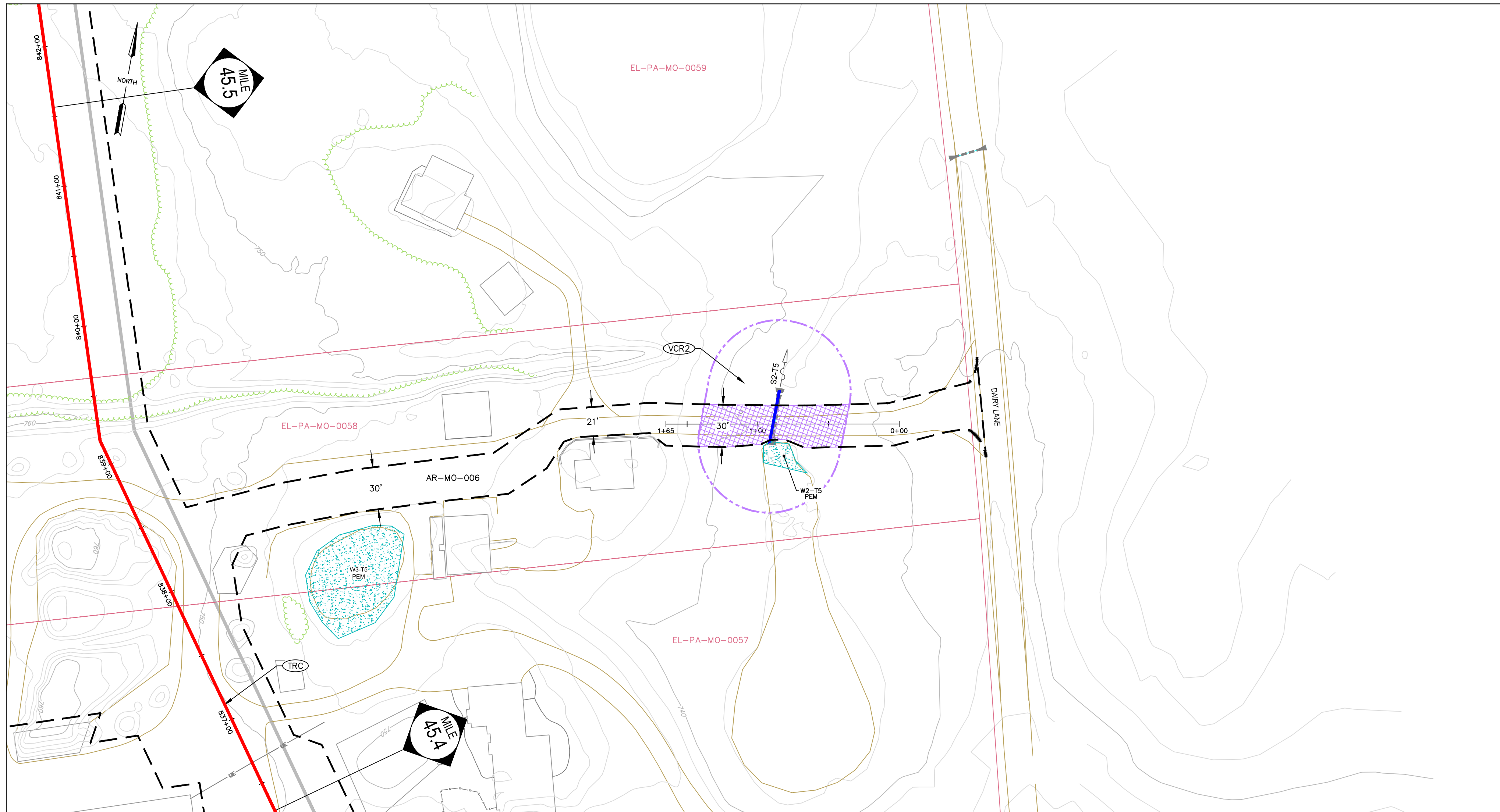
LEGEND	
	PROPOSED LIMITS OF DISTURBANCE (LOD)
	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
	EXISTING PIPELINES
	EXISTING EDGE OF ROADWAY
	PARCEL BOUNDARY
	EXISTING CONTOUR (10' C.L.)
	EXISTING CONTOUR (2' C.L.)
	CULVERT
	TREELINE / SHRUB LINE
	EXISTING FENCE
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND CABLE LINE
	EXISTING FENCE
	TIMBERMAT
	EXISTING STRUCTURE
	WETLANDS
	EMERGENT WETLAND (PEM)
	PROPOSED PEM PERMANENT IMPACTS
	PROPOSED PEM TEMPORARY IMPACTS
	SCRUB SHRUB WETLAND (PSS)
	PROPOSED PSS PERMANENT IMPACTS
	PROPOSED PSS TEMPORARY IMPACTS
	FORESTED WETLAND (PFO)
	PROPOSED PFO PERMANENT IMPACTS
	PROPOSED PFO TEMPORARY IMPACTS
	OPEN WATER WETLAND (PFW)
	PROPOSED PFW TEMPORARY IMPACTS
	STREAMS
	STREAM CHANNEL
	PROPOSED PERMANENT STREAM CHANNEL IMPACT
	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
	FLOODWAY
	PROPOSED PERMANENT FLOODWAY IMPACT
	PROPOSED TEMPORARY FLOODWAY IMPACT
	FEMA FLOODPLAIN



REVISIONS					
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TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-1
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 6 OF 20
W.O. 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-AR-1	S2-T5	STREAM	-	Ephemeral	TEMP	0.0005
	S2-T5	FLOODWAY	-	Ephemeral	TEMP	0.0665

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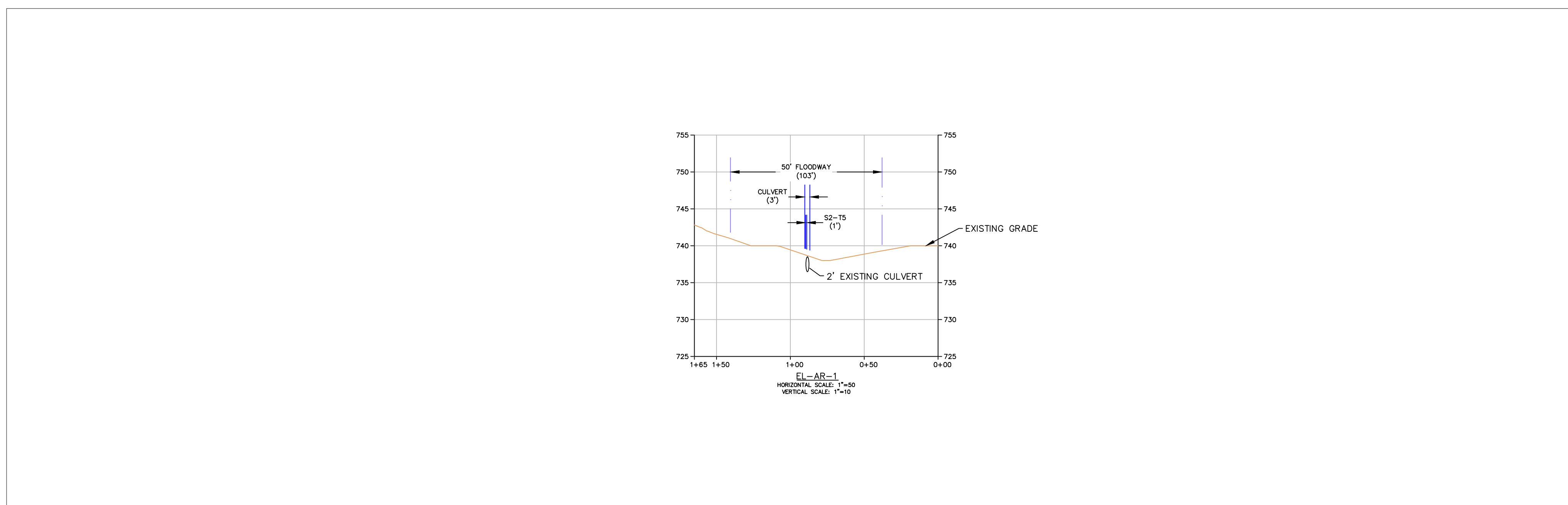
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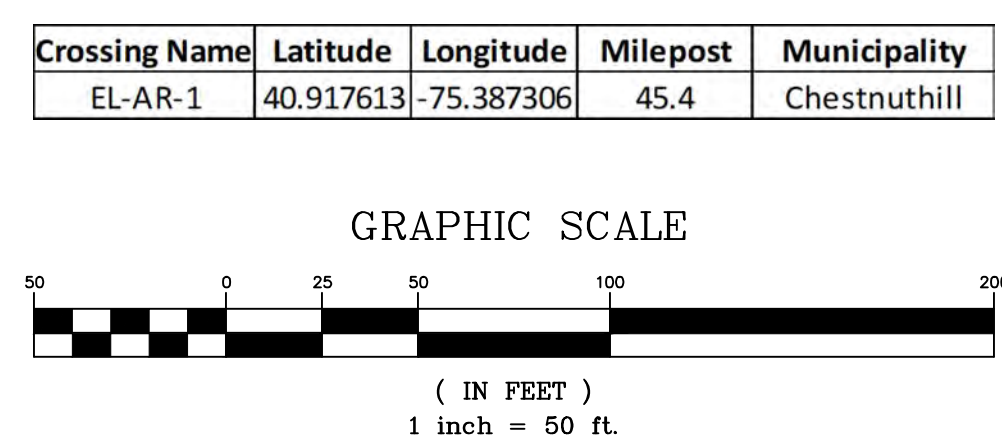
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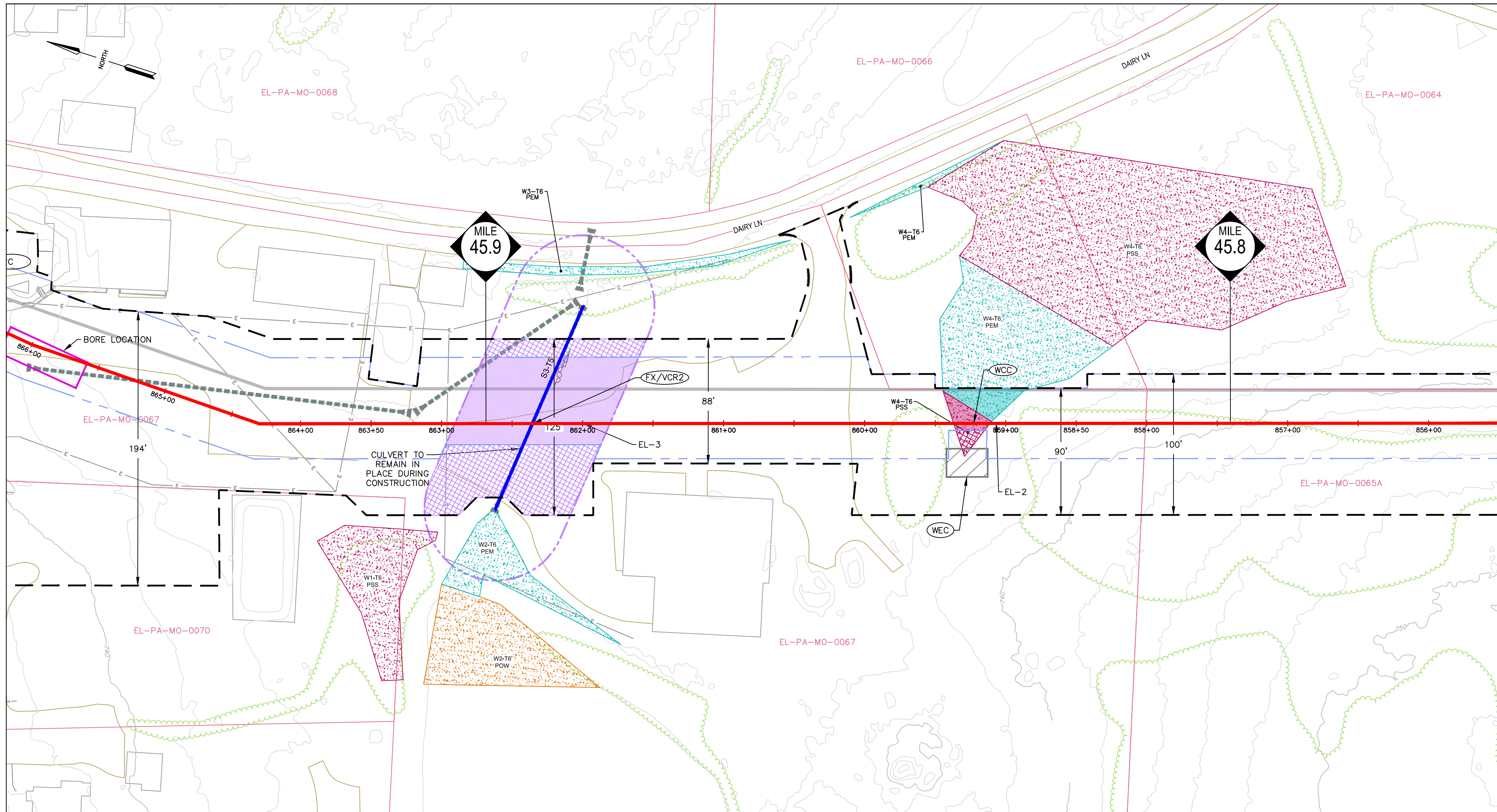
LEGEND		WETLANDS		STREAMS	
—	PROPOSED LIMITS OF DISTURBANCE (LOD)	EMERGENT WETLAND (PEM)	EMERGENT WETLAND (PEM)	STREAM CHANNEL	STREAM CHANNEL
---	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT STREAM CHANNEL IMPACT
---	EXISTING PIPELINES	PROPOSED PEM TEMPORARY IMPACTS	PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
---	PROPOSED 42" PIPELINE	SCRUB SHRUB WETLAND (PSS)	SCRUB SHRUB WETLAND (PSS)	FLOODWAY	FLOODWAY
---	EXISTING PIPELINES	PROPOSED PSS PERMANENT IMPACTS	PROPOSED PSS PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT
---	EXISTING EDGE OF ROADWAY	PROPOSED PSS TEMPORARY IMPACTS	PROPOSED PSS TEMPORARY IMPACTS	PROPOSED TEMPORARY FLOODWAY IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT
---	EXISTING UNDERGROUND ELECTRIC LINE	FORESTED WETLAND (PFO)	FORESTED WETLAND (PFO)	FEMA	FEMA FLOODPLAIN
---	EXISTING GAS LINE	PROPOSED PFO PERMANENT IMPACTS	PROPOSED PFO PERMANENT IMPACTS		
---	EXISTING WATER LINE	PROPOSED PFO TEMPORARY IMPACTS	PROPOSED PFO TEMPORARY IMPACTS		
---	EXISTING SANITARY LINE	OPEN WATER WETLAND (POW)	OPEN WATER WETLAND (POW)		
---	EXISTING STORM SEWER	PROPOSED POW PERMANENT IMPACTS	PROPOSED POW PERMANENT IMPACTS		
---	EXISTING TELEPHONE LINE	PROPOSED POW TEMPORARY IMPACTS	PROPOSED POW TEMPORARY IMPACTS		
---	EXISTING FIBER OPTIC LINE				
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---	EXISTING CONTOUR (2' C.L.)				
---	CULVERT				
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---	EXISTING UNDERGROUND CABLE LINE				
---	EXISTING FENCE				
---	EXISTING STRUCTURE				



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WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-2	W4-T6	WETLAND	PSS	-	PERM	0.0103
	W4-T6	WETLAND	PEM	-	PERM	0.0171
	W4-T6	WETLAND	PSS	-	TEMP	0.0043
EL-3	S3-T5	STREAM	-	Ephemeral	PERM	0.0015
	S3-T5	FLOODWAY	-	Ephemeral	PERM	0.1552
	S3-T5	FLOODWAY	-	Ephemeral	TEMP	0.0324
	S3-T5	STREAM	-	Ephemeral	TEMP	0.0003

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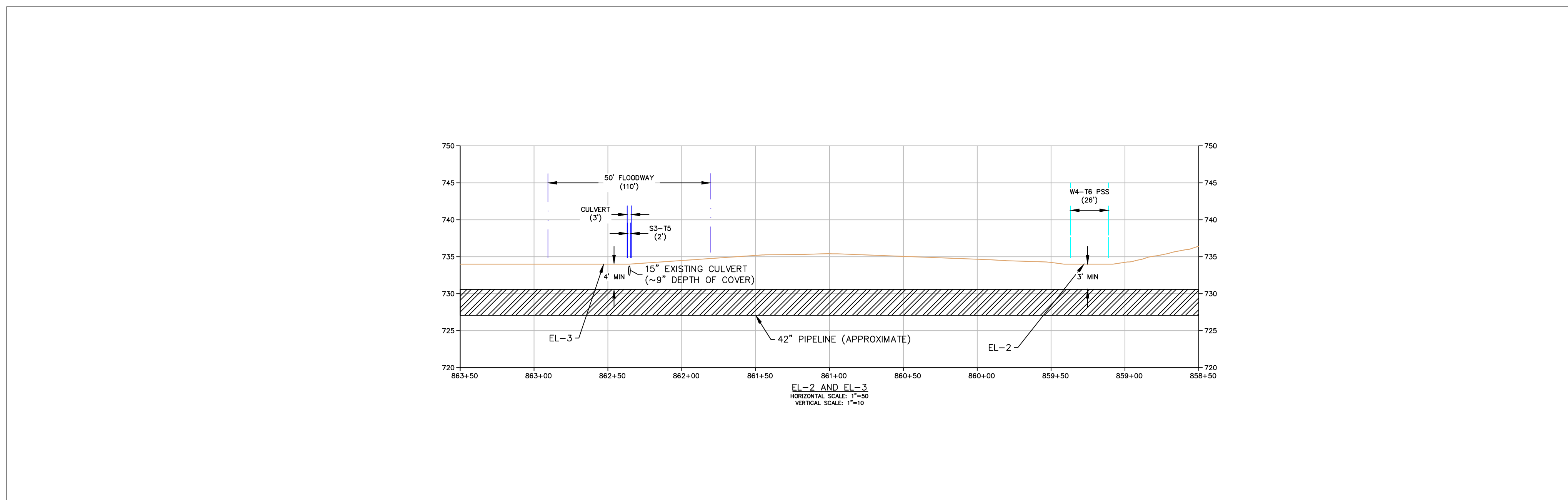
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- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
PROPOSED LIMITS OF DISTURBANCE (LOD)	EXISTING UNDERGROUND ELECTRIC LINE
EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	EXISTING GAS LINE
PROPOSED 42" PIPELINE	EXISTING WATER LINE
EXISTING PIPELINES	EXISTING SANITARY LINE
EXISTING EDGE OF ROADWAY	EXISTING STORM SEWER
PARCEL BOUNDARY	EXISTING TELEPHONE LINE
EXISTING CONTOUR (10' C.L.)	EXISTING FIBER OPTIC LINE
EXISTING CONTOUR (2' C.L.)	EXISTING UNDERGROUND CABLE LINE
CULVERT	EXISTING FENCE
TREELINE / SHRUB LINE	TIMBERMATS
EXISTING FENCE	EXISTING STRUCTURE
WETLANDS	STREAMS
EMERGENT WETLAND (PEM)	STREAM CHANNEL
PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT
PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
SCRUB SHRUB WETLAND (PSS)	FLOODWAY
PROPOSED PSS PERMANENT IMPACTS	FLOODWAY
PROPOSED PSS TEMPORARY IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT
FORESTED WETLAND (PFO)	PROPOSED TEMPORARY FLOODWAY IMPACT
PROPOSED PFO PERMANENT IMPACTS	FEMA
PROPOSED PFO TEMPORARY IMPACTS	FEMA FLOODPLAIN
OPEN WATER WETLAND (PWO)	
PROPOSED PWO TEMPORARY IMPACTS	

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-2	40.922655	-75.391061	45.8	Chestnut Hill
EL-3	40.923484	-75.391383	45.9	Chestnut Hill

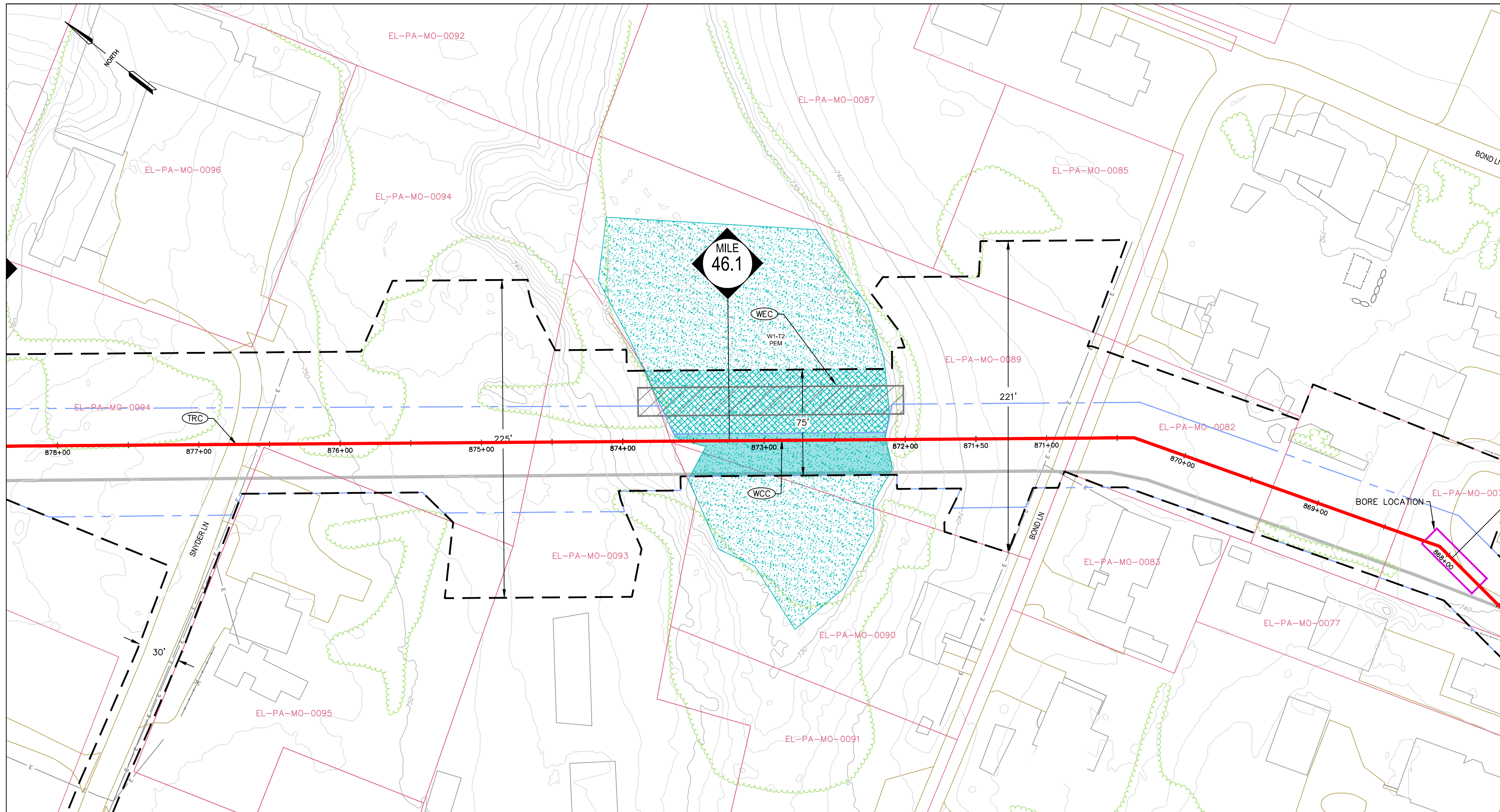
GRAPHIC SCALE

 (IN FEET)
 1 inch = 50 ft.

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-2 AND EL-3
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 8 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-4	W1-T2	WETLAND	PEM	-	TEMP	0.1670
	W1-T2	WETLAND	PEM	-	PERM	0.0948

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

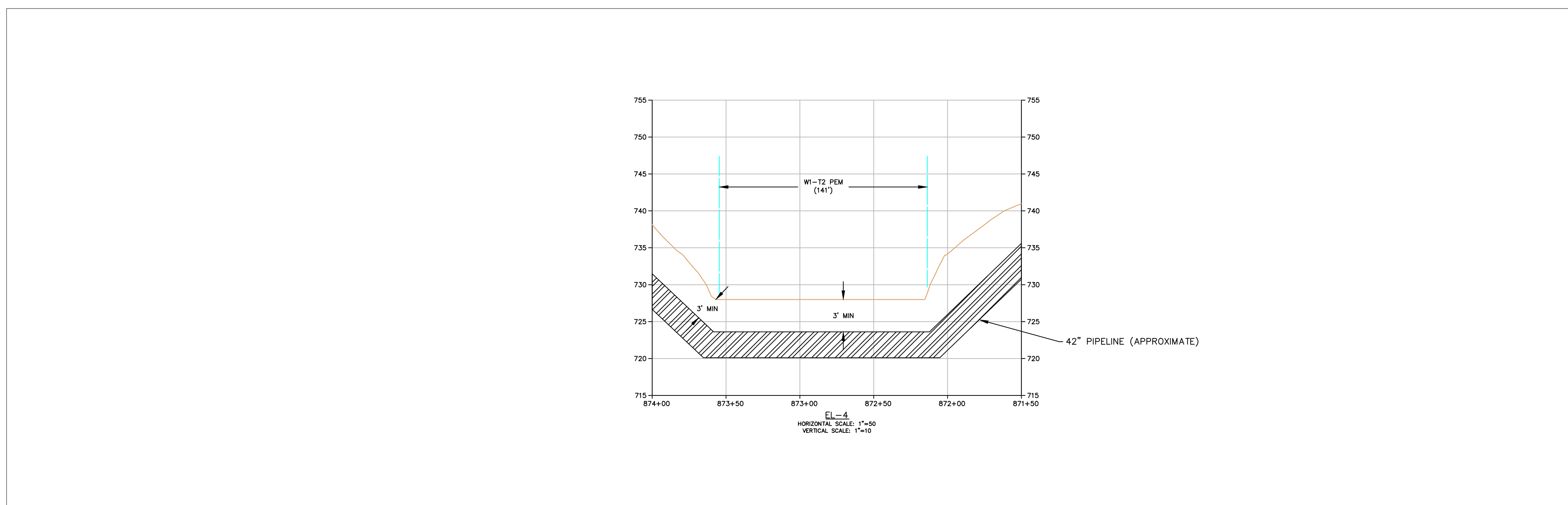
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ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

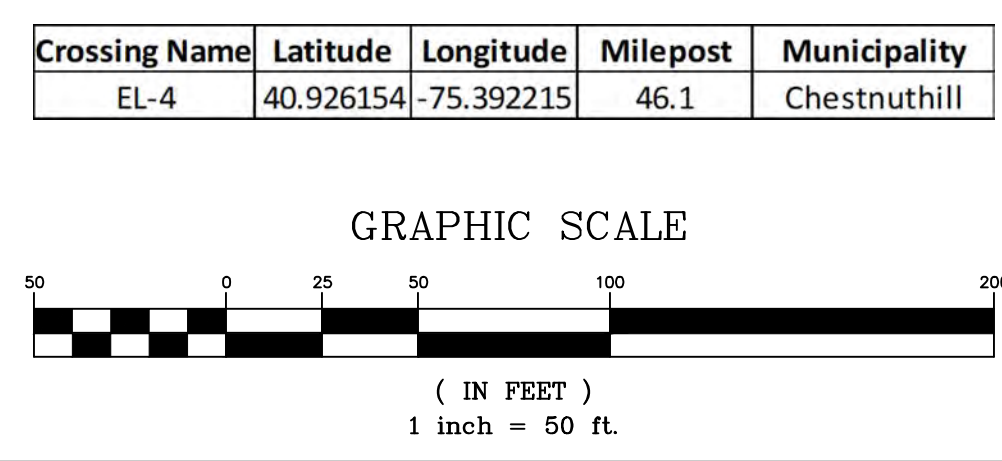
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GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC-1, WCC-2, WCC-3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
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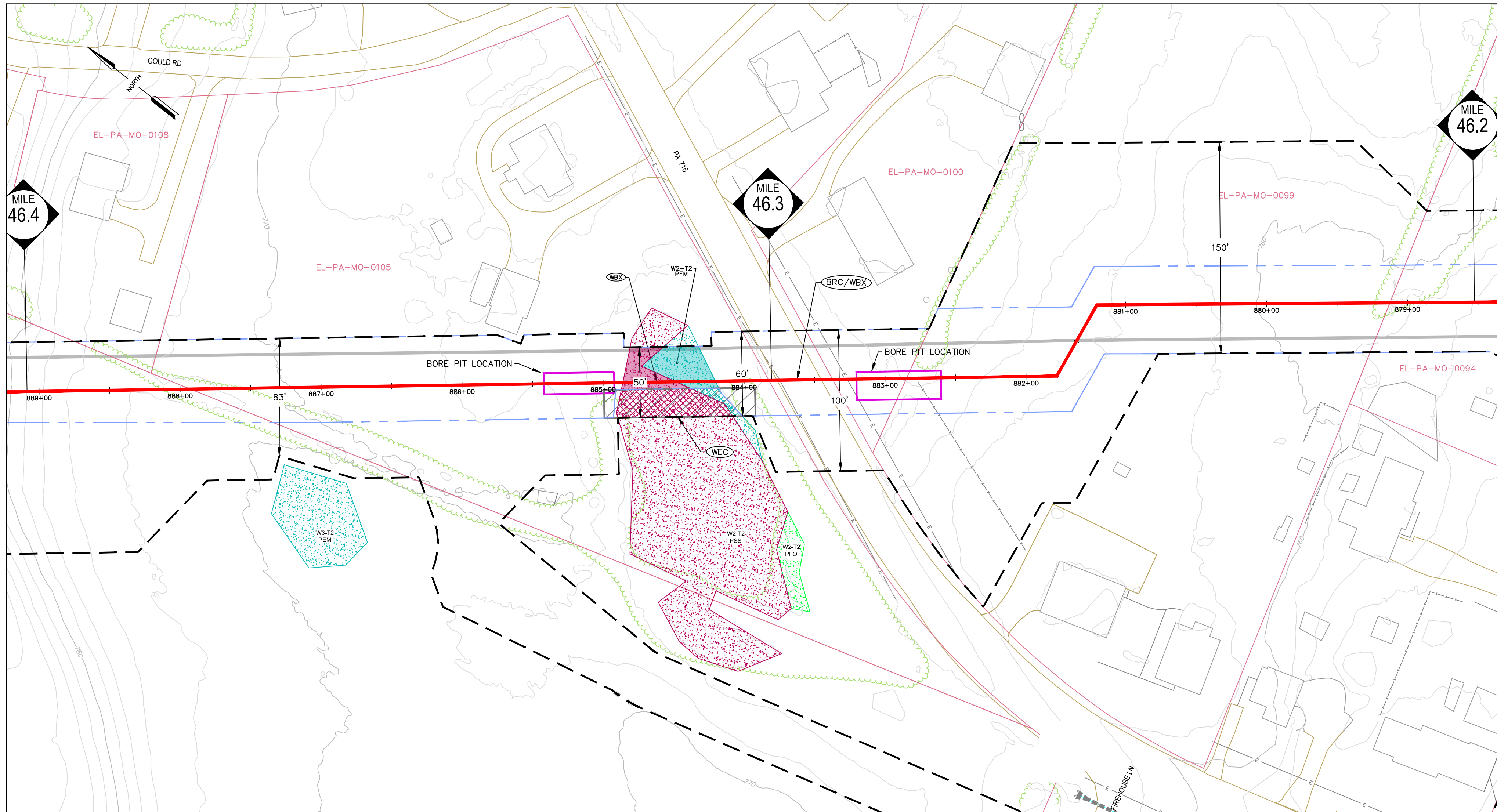
LEGEND	
	PROPOSED LIMITS OF DISTURBANCE (LOD)
	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
	PROPOSED 42" PIPELINE
	EXISTING PIPELINES
	EXISTING EDGE OF ROADWAY
	PARCEL BOUNDARY
	EXISTING CONTOUR (10' CL)
	EXISTING CONTOUR (2' CL)
	CULVERT
	TREELINE / SHRUB LINE
	EXISTING FENCE
	EXISTING ELECTRIC LINE/POLE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND CABLE LINE
	EXISTING FENCE
	TIMBERMAT
	EXISTING STRUCTURE
	EMERGENT WETLAND (PEM)
	PROPOSED PEM PERMANENT IMPACTS
	PROPOSED PEM TEMPORARY IMPACTS
	SCRUB SHRUB WETLAND (PSS)
	PROPOSED PSS PERMANENT IMPACTS
	PROPOSED PSS TEMPORARY IMPACTS
	FORESTED WETLAND (PFO)
	PROPOSED PFO PERMANENT IMPACTS
	PROPOSED PFO TEMPORARY IMPACTS
	OPEN WATER WETLAND (PWO)
	PROPOSED PWO TEMPORARY IMPACTS
	STREAM CHANNEL
	PROPOSED PERMANENT STREAM CHANNEL IMPACT
	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
	FLOODWAY
	PROPOSED PERMANENT FLOODWAY IMPACT
	PROPOSED TEMPORARY FLOODWAY IMPACT
	FEMA FLOODPLAIN



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-4
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 9 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-5	W2-T2	WETLAND	PEM	-	PERM	0.0237
	W2-T2	WETLAND	PSS	-	TEMP	0.0320
	W2-T2	WETLAND	PEM	-	TEMP	0.0041
	W2-T2	WETLAND	PSS	-	PERM	0.0167

TABLE NOTES:

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TEMPORARY IMPACTS

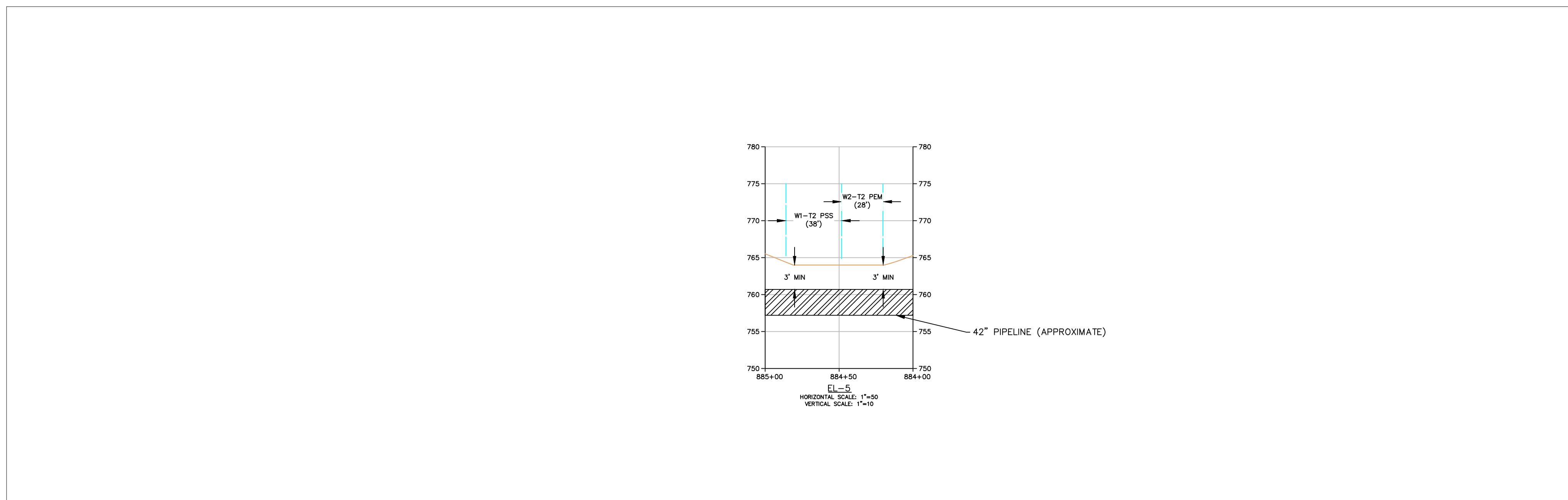
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PERMANENT IMPACTS

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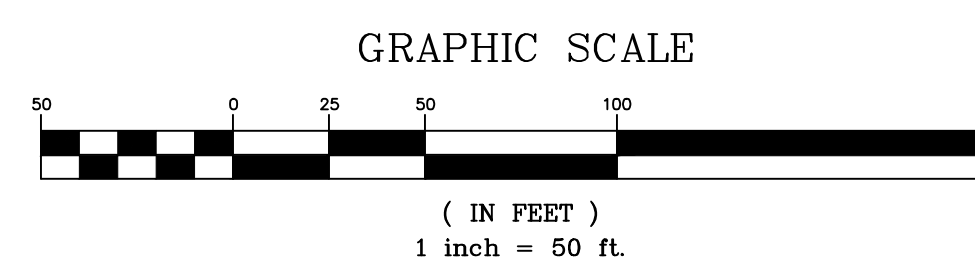
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LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— PARCEL BOUNDARY	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (10' C.I.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (2' C.I.)	— EXISTING UNDERGROUND CABLE LINE
— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMAT
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	EMERGENT WETLAND (PEM)
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PEM TEMPORARY IMPACTS
— SCRUB SHRUB WETLAND (PSS)	— PROPOSED PSS PERMANENT IMPACTS
— PROPOSED PSS PERMANENT IMPACTS	— PROPOSED PSS TEMPORARY IMPACTS
— FORESTED WETLAND (PFO)	— PROPOSED PFO PERMANENT IMPACTS
— PROPOSED PFO PERMANENT IMPACTS	— PROPOSED PFO TEMPORARY IMPACTS
— OPEN WATER WETLAND (POW)	— PROPOSED POW TEMPORARY IMPACTS
— FLOODWAY	— FLOODWAY
— PROPOSED PERMANENT FLOODWAY IMPACT	— PROPOSED TEMPORARY FLOODWAY IMPACT
— FEMA	— FEMA FLOODPLAIN

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-5	40.928571	-75.394861	46.3	Chestnuthill

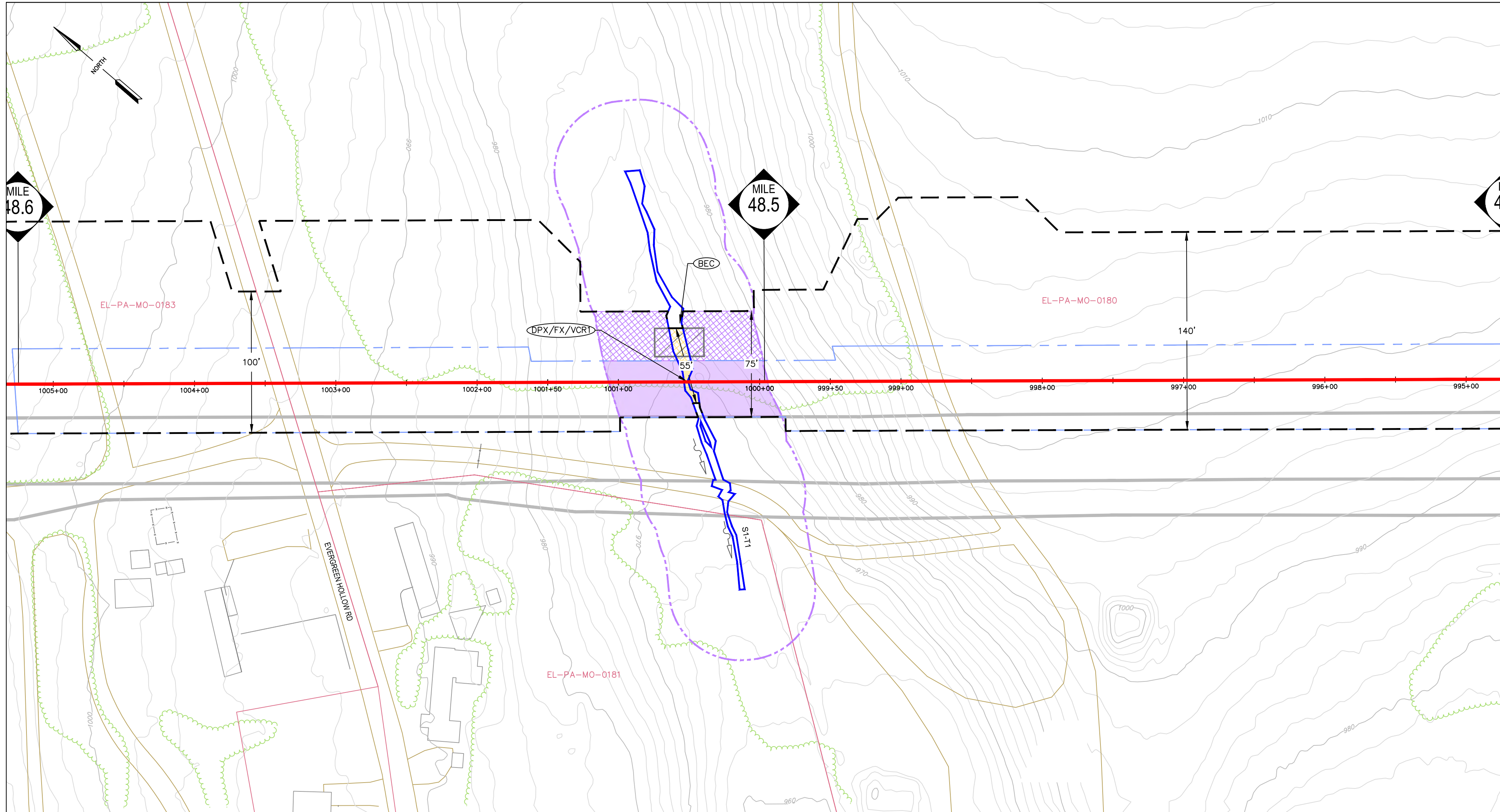


REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-5
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 10 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-6	S1-T1	STREAM	-	Intermittent	TEMP	0.0054
	S1-T1	FLOODWAY	-	Intermittent	PERM	0.0989
	S1-T1	FLOODWAY	-	Intermittent	TEMP	0.0822
	S1-T1	STREAM	-	Intermittent	PERM	0.0039

TABLE NOTES:

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TEMPORARY IMPACTS

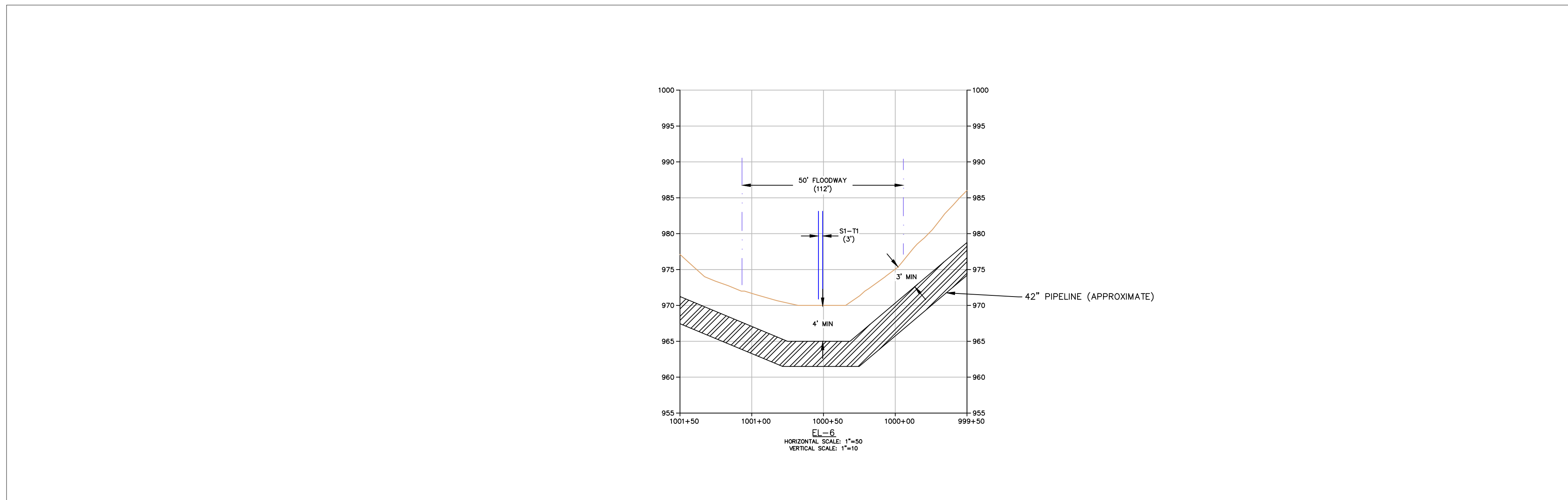
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PERMANENT IMPACTS

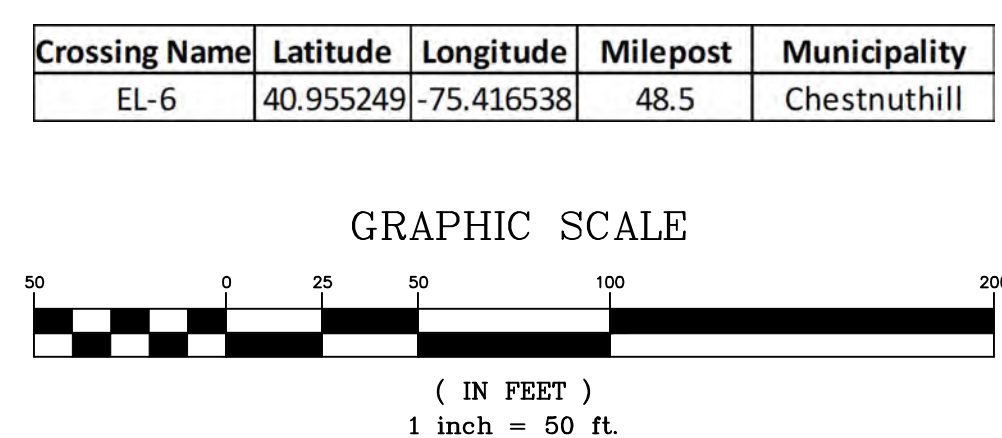
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GENERAL NOTES:

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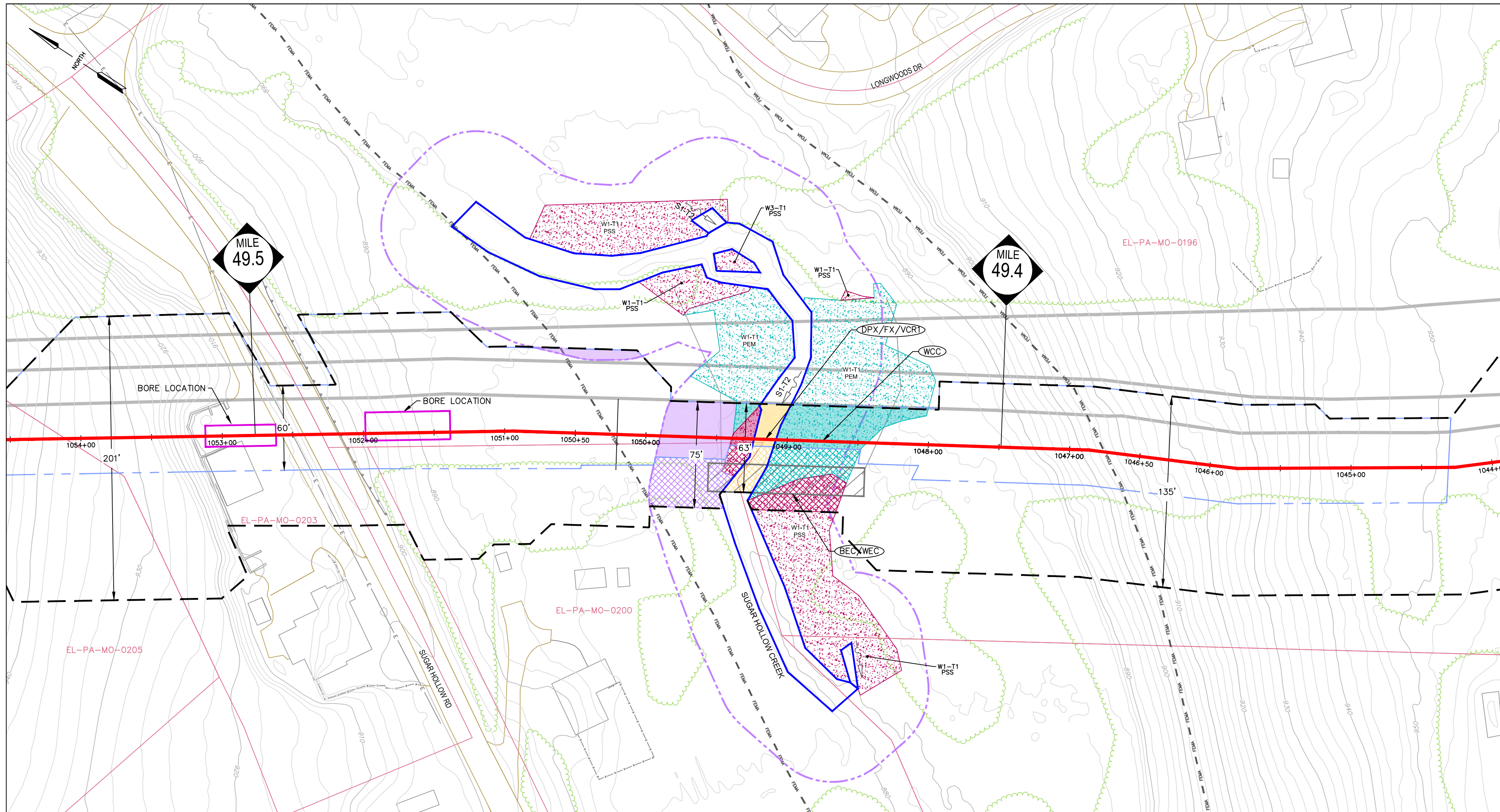


LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING UNDERGROUND GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
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— CULVERT	— EXISTING FENCE
— TREELINE / SHRUB LINE	— EXISTING STRUCTURE
— EXISTING FENCE	
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
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— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (PWO)	
— PROPOSED PWO TEMPORARY IMPACTS	



REVISIONS				
NO.	DATE	BY	DESCRIPTION	W.O. NO.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS CROSSING EL-6 MONROE COUNTY, PENNSYLVANIA				
DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'	
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:	
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 11 OF 20	
W.O. 1222637	RID: 108			



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-7	S1-T2	STREAM	-	Perennial	TEMP	0.0133
	S1-T2	FLOODWAY	-	Perennial	PERM	0.0457
	S1-T2	FLOODWAY	-	Perennial	TEMP	0.0419
	S1-T2	STREAM	-	Perennial	PERM	0.0118
	W1-T1	WETLAND	PSS	-	PERM	0.0070
	W1-T1	WETLAND	PEM	-	PERM	0.0527
	W1-T1	WETLAND	PSS	-	TEMP	0.0291
	W1-T1	WETLAND	PEM	-	TEMP	0.0349

TABLE NOTES:

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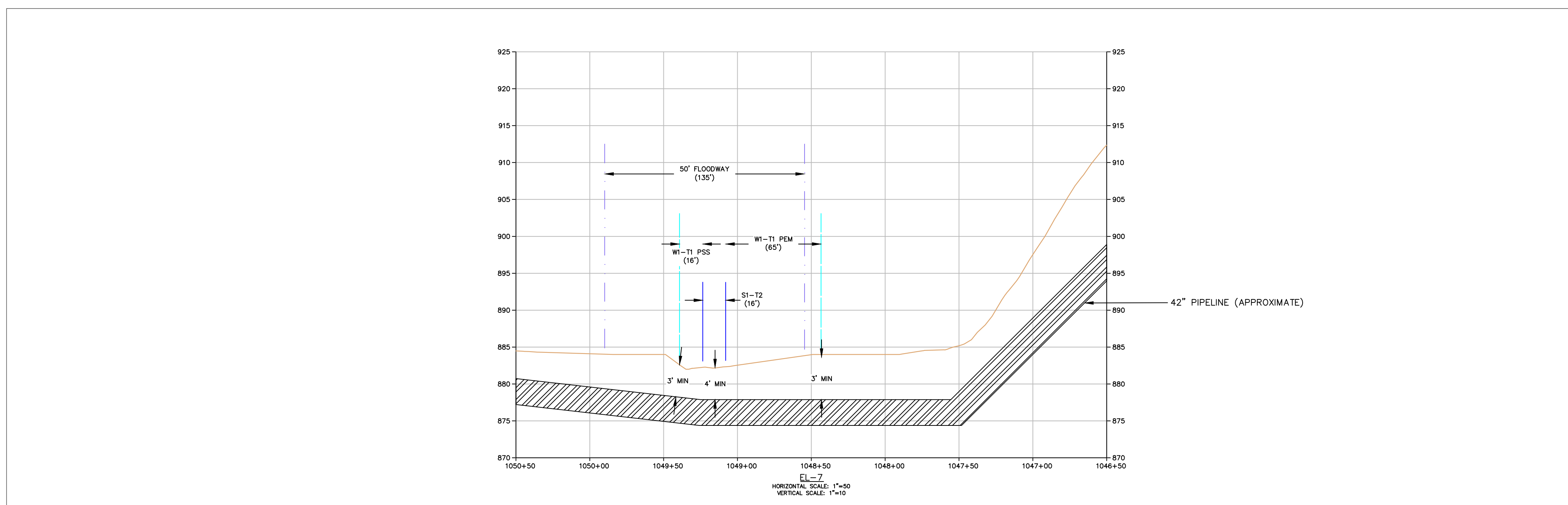
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PERMANENT IMPACTS

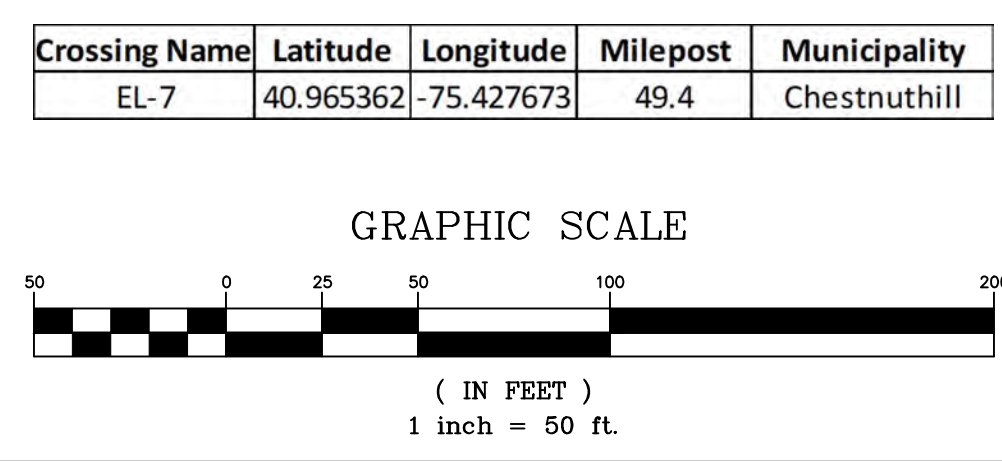
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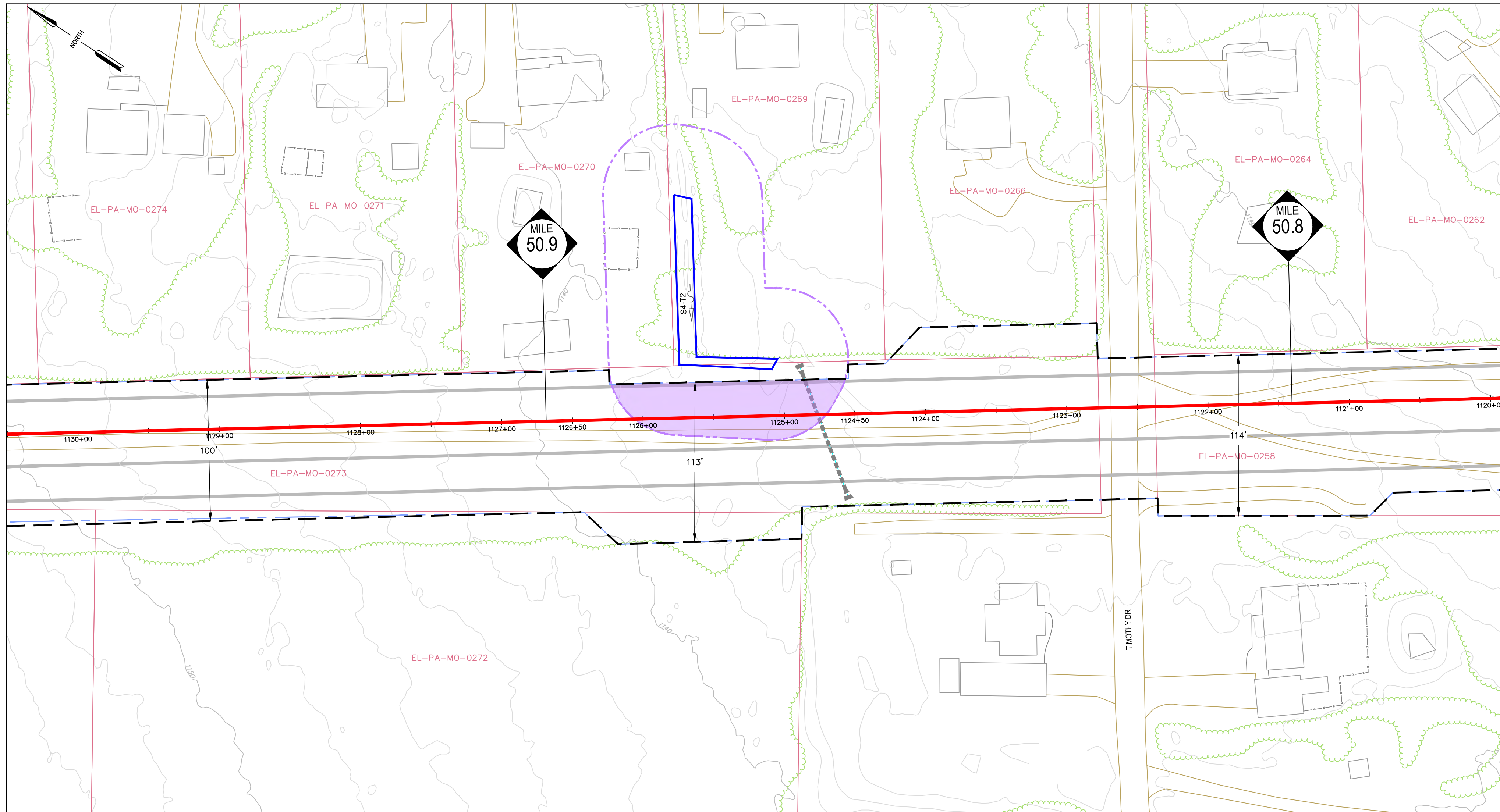
LEGEND		WETLANDS		STREAMS	
--- PROPOSED LIMITS OF DISTURBANCE (LOD)	--- EXISTING UNDERGROUND ELECTRIC LINE	EMERGENT WETLAND (PEM)	STREAM CHANNEL	STREAM CHANNEL	STREAM CHANNEL
--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT STREAM CHANNEL IMPACT
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE	PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
--- EXISTING PIPELINES	--- EXISTING SANITARY LINE	SCRUB SHRUB WETLAND (PSS)	FLOODWAY	FLOODWAY	FLOODWAY
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER	PROPOSED PSS PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE	PROPOSED PSS TEMPORARY IMPACTS	PROPOSED TEMPORARY FLOODWAY IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT
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--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE	PROPOSED PFO PERMANENT IMPACTS			
--- CULVERT	--- EXISTING FENCE	PROPOSED PFO TEMPORARY IMPACTS			
--- TREELINE / SHRUB LINE	--- TIMBERMAT	OPEN WATER WETLAND (PWO)			
--- EXISTING FENCE	--- EXISTING STRUCTURE	PROPOSED PWO TEMPORARY IMPACTS			



REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	03/08/22	BH	REVISED PER PADEP COMMENTS

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-7
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 12 OF 20
WD: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-8	S4-T2	FLOODWAY	-	Intermittent	PERM	0.1266

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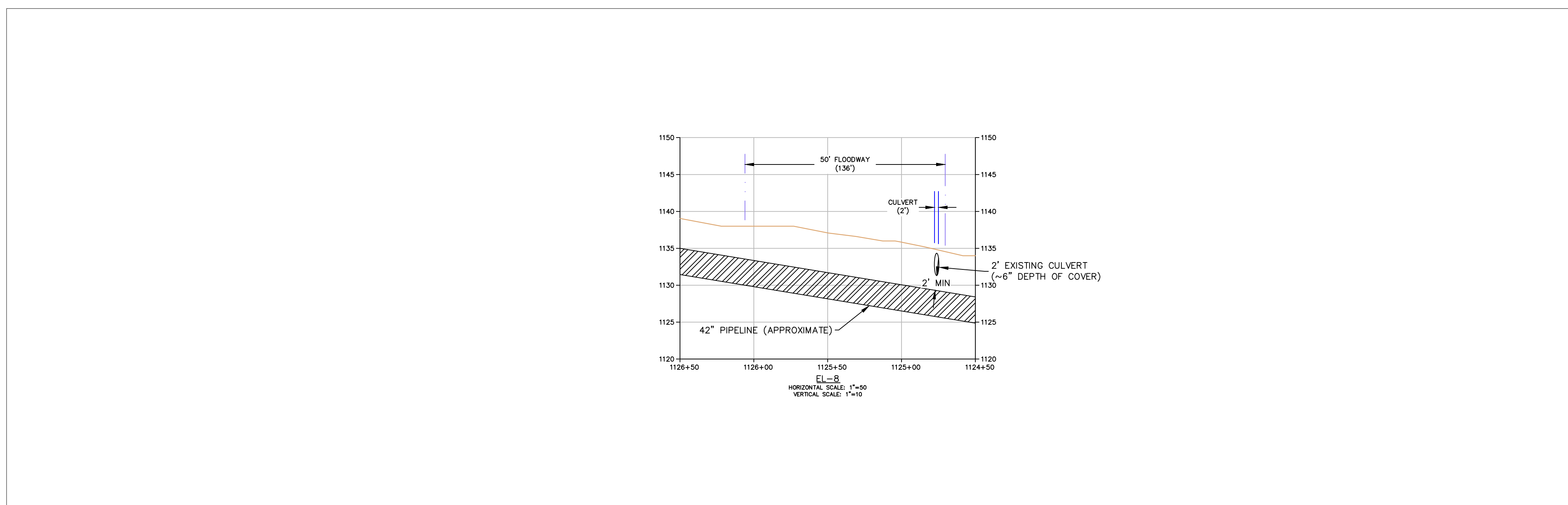
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PERMANENT IMPACTS

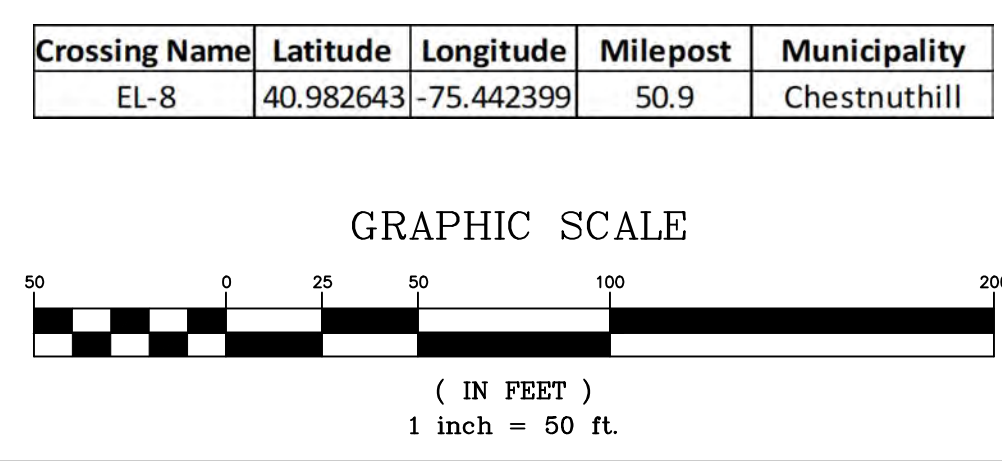
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LEGEND		WETLANDS		STREAMS	
--- PROPOSED LIMITS OF DISTURBANCE (LOD)	--- EXISTING UNDERGROUND ELECTRIC LINE	EMERGENT WETLAND (PEM)	STREAM CHANNEL	STREAM CHANNEL	STREAM CHANNEL
--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE	PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT STREAM CHANNEL IMPACT	PROPOSED PERMANENT STREAM CHANNEL IMPACT
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE	PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
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--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER	PROPOSED PSS PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT	PROPOSED PERMANENT FLOODWAY IMPACT
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE	PROPOSED PSS TEMPORARY IMPACTS	PROPOSED TEMPORARY FLOODWAY IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT	PROPOSED TEMPORARY FLOODWAY IMPACT
--- EXISTING CONTOUR (10' C.L.)	--- EXISTING FIBER OPTIC LINE	FORESTED WETLAND (PFO)	FEMA	FEMA	FEMA
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE	PROPOSED PFO PERMANENT IMPACTS	FEMA FLOODPLAIN	FEMA FLOODPLAIN	FEMA FLOODPLAIN
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING FENCE	PROPOSED PFO TEMPORARY IMPACTS			
--- CULVERT	--- TIMBERMAT	OPEN WATER WETLAND (PWW)			
--- TREELINE / SHRUB LINE	--- EXISTING STRUCTURE	PROPOSED PWW TEMPORARY IMPACTS			
--- EXISTING FENCE					



REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT - **Williams**
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-8
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 13 OF 20
WD: 1222637	RID: 108		

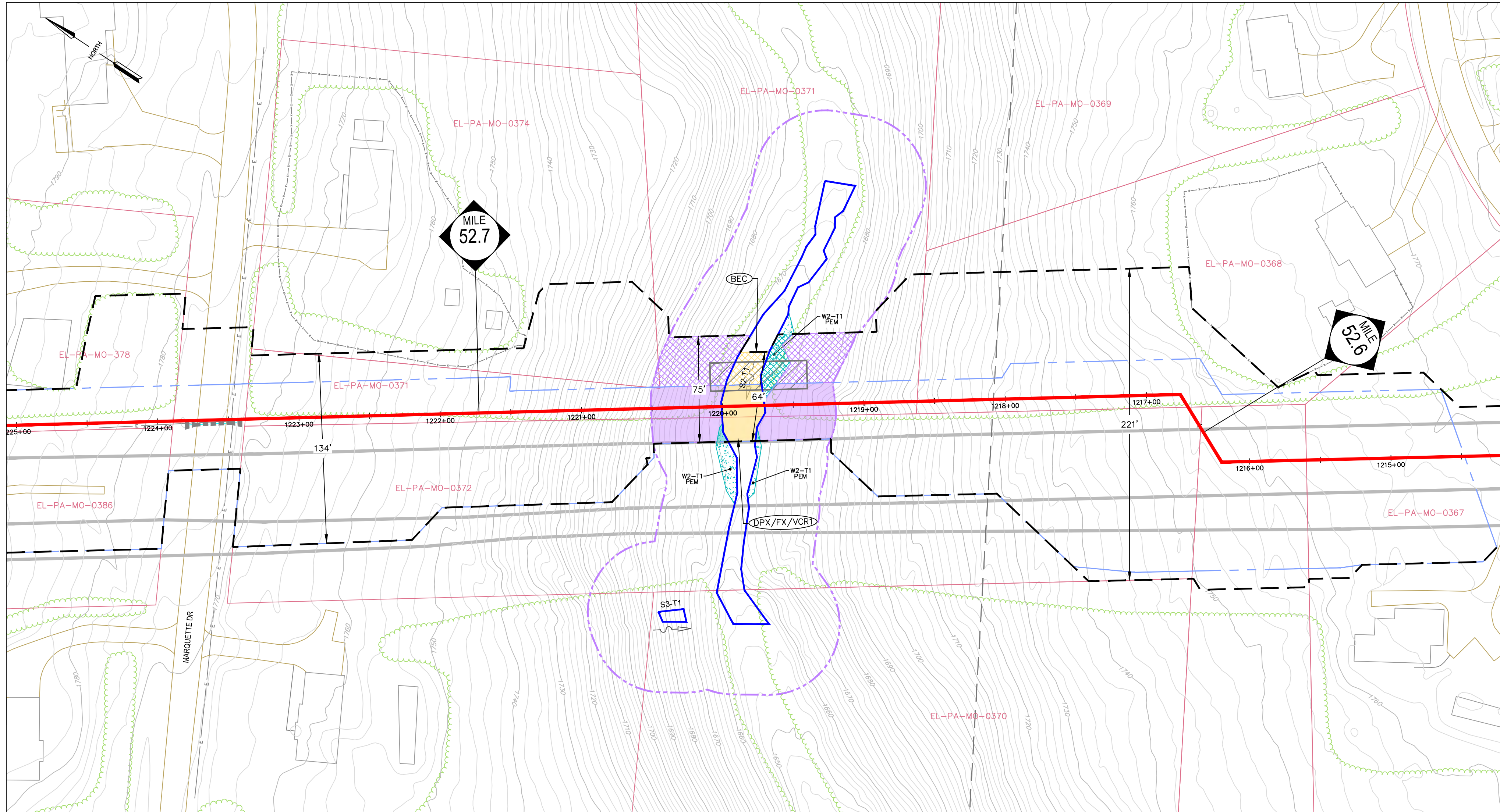


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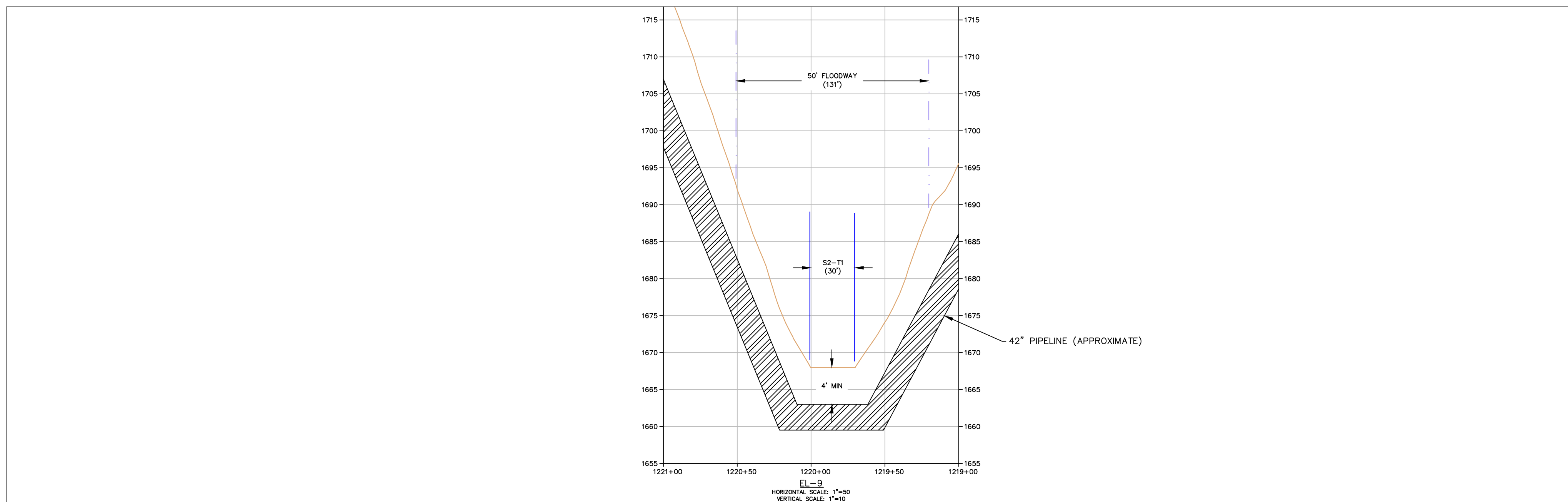
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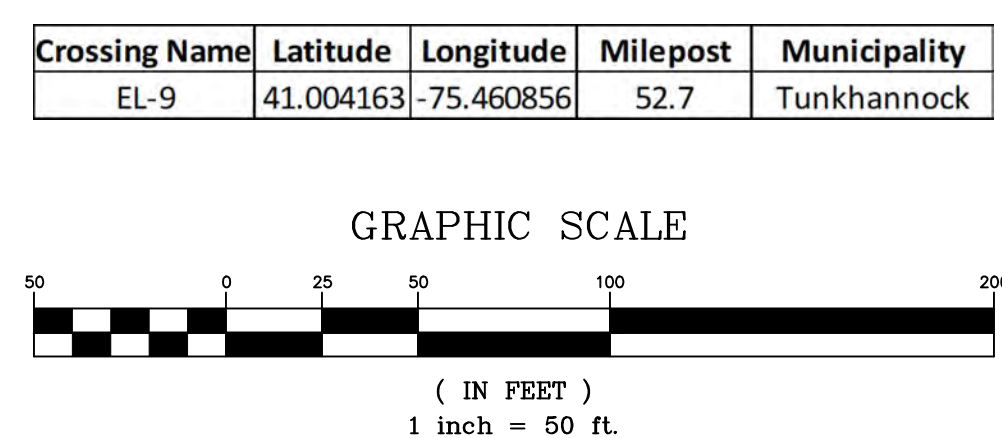
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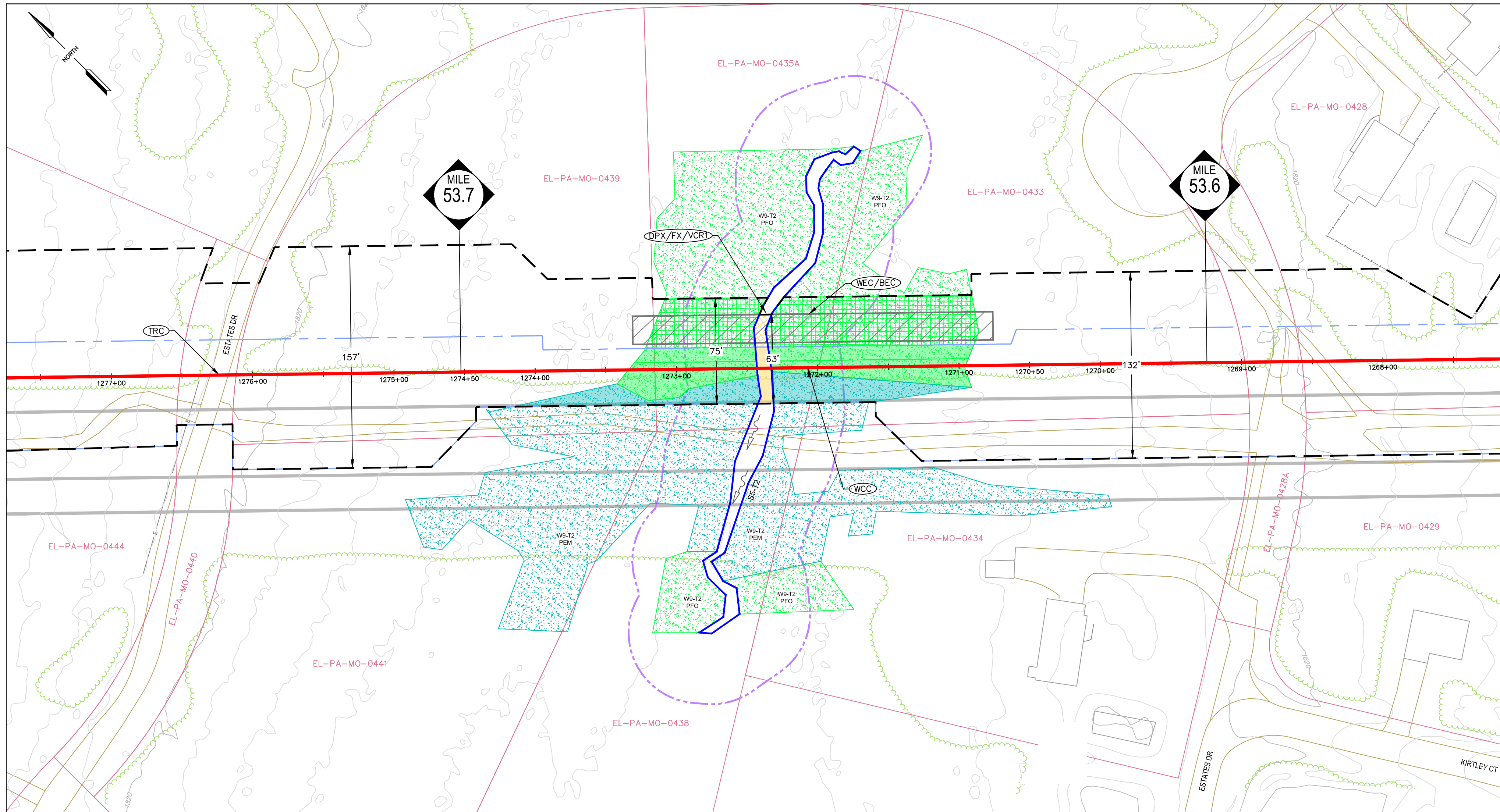
LEGEND		WETLANDS		STREAMS	
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--- EXISTING PIPELINES	--- EXISTING SANITARY LINE	[Symbol] SCRUB SHRUB WETLAND (PSS)	[Symbol] FLOODWAY	[Symbol] FLOODWAY	[Symbol] FLOODWAY
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER	[Symbol] PROPOSED PSS PERMANENT IMPACTS	[Symbol] FLOODWAY	[Symbol] FLOODWAY	[Symbol] FLOODWAY
--- PARCEL BOUNDARY	--- EXISTING FIBER OPTIC LINE	[Symbol] PROPOSED PSS TEMPORARY IMPACTS	[Symbol] FLOODWAY	[Symbol] FLOODWAY	[Symbol] FLOODWAY
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REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-9
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 14 OF 20
W.O. NO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Area (ac) ⁷
EL-10	S5-T2	STREAM	-	Perennial	PERM	0.0088
	S5-T2	STREAM	-	Perennial	TEMP	0.0046
	W9-T2	WETLAND	PEM	-	PERM	0.0440
	W9-T2	WETLAND	PFO	-	TEMP	0.1163
	W9-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0328
	W9-T2	WETLAND	PFO	-	PERM	0.0441

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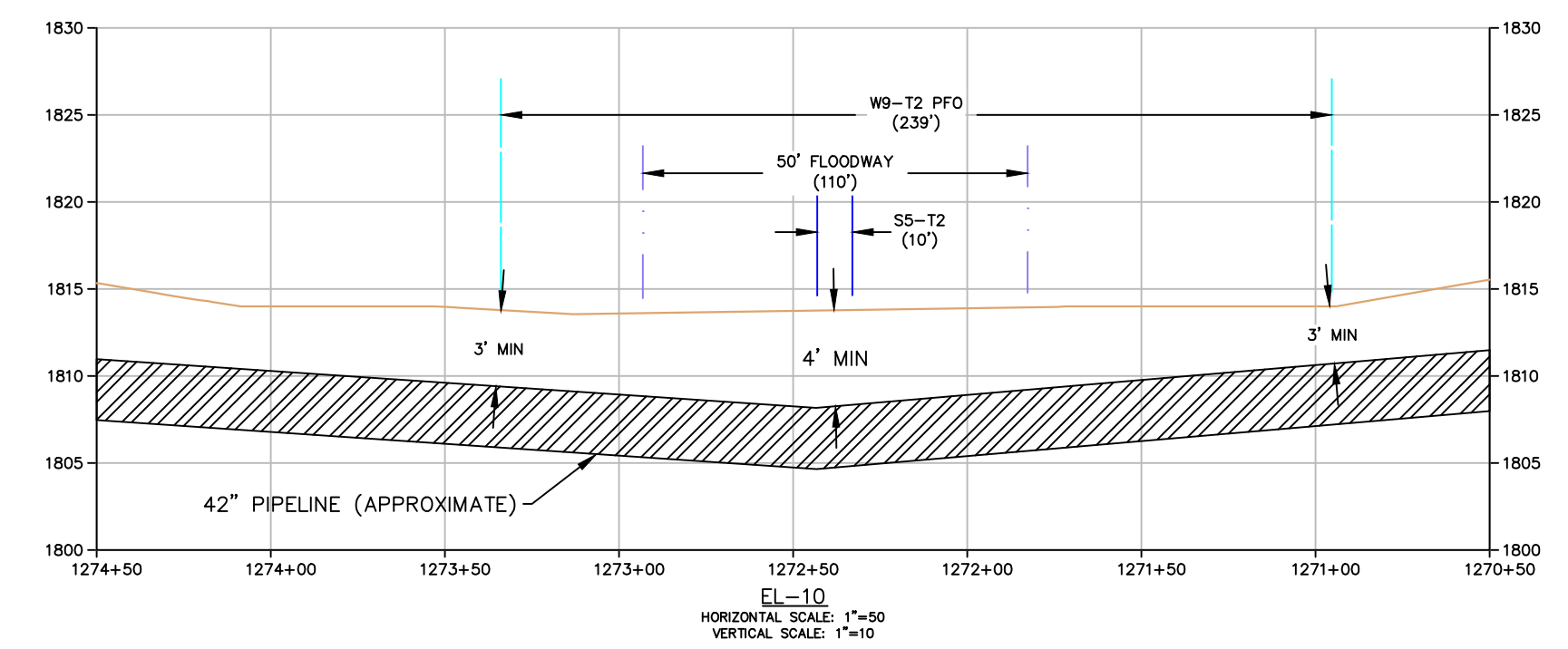
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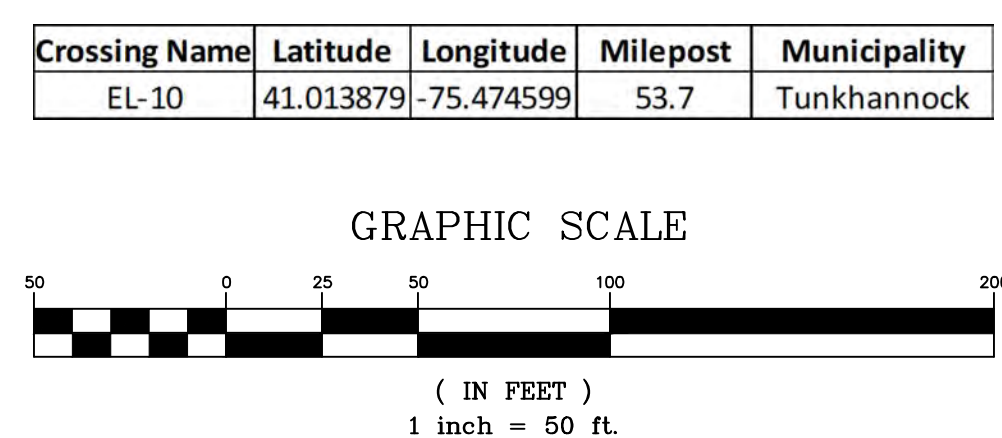
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LEGEND	
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--- EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	--- EXISTING GAS LINE
--- PROPOSED 42" PIPELINE	--- EXISTING WATER LINE
--- EXISTING PIPELINES	--- EXISTING SANITARY LINE
--- EXISTING EDGE OF ROADWAY	--- EXISTING STORM SEWER
--- PARCEL BOUNDARY	--- EXISTING TELEPHONE LINE
--- EXISTING CONTOUR (10' C.L.)	--- EXISTING FIBER OPTIC LINE
--- EXISTING CONTOUR (2' C.L.)	--- EXISTING UNDERGROUND CABLE LINE
--- CULVERT	--- EXISTING FENCE
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--- EXISTING FENCE	--- EXISTING STRUCTURE
WETLANDS	STREAMS
EMERGENT WETLAND (PEM)	STREAM CHANNEL
PROPOSED PEM PERMANENT IMPACTS	PROPOSED PERMANENT STREAM CHANNEL IMPACT
PROPOSED PEM TEMPORARY IMPACTS	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
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PROPOSED PSS PERMANENT IMPACTS	PROPOSED PERMANENT FLOODWAY IMPACT
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FORESTED WETLAND (PFO)	FEMA
PROPOSED PFO PERMANENT IMPACTS	FEMA FLOODPLAIN
PROPOSED PFO TEMPORARY IMPACTS	
OPEN WATER WETLAND (PWO)	
PROPOSED PWO TEMPORARY IMPACTS	

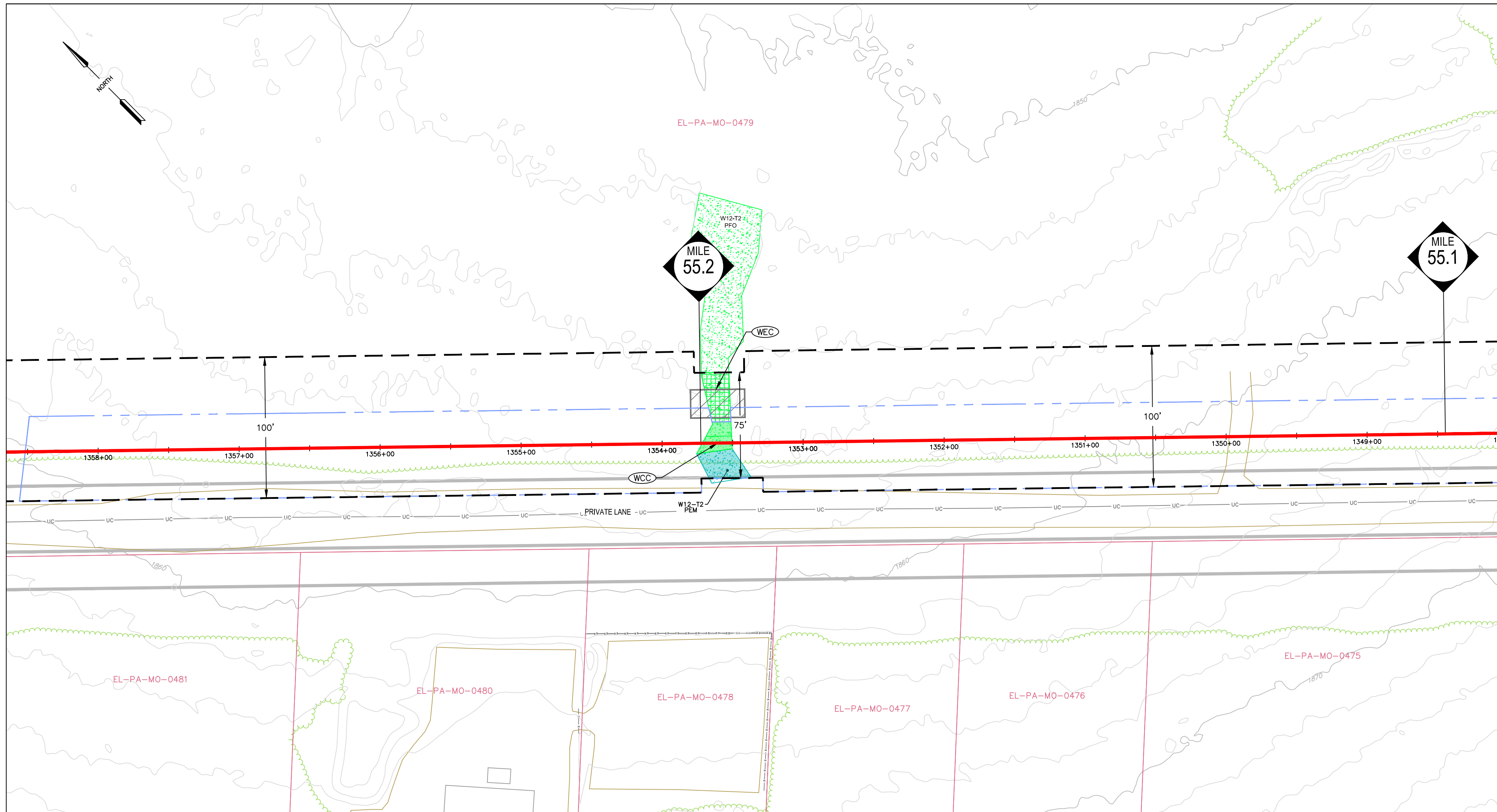


REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-10
 MONROE COUNTY, PENNSYLVANIA

Williams

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 15 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-11	W12-T2	WETLAND	PEM	-	PERM	0.0126
	W12-T2	WETLAND	PFO	-	TEMP	0.0134
	W12-T2	WETLAND	PFO	-	PERM	0.0053
	W12-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0035
	W14-T2	WETLAND	PEM	-	PERM	0.0238

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY.
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY.
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY.
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

PIPELINE IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS MEASURED OUTSIDE THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONTOURS. PSS AND PFO WETLANDS WILL BE REVEGETATED TO THEIR PRE-EXISTING COVER TYPE.

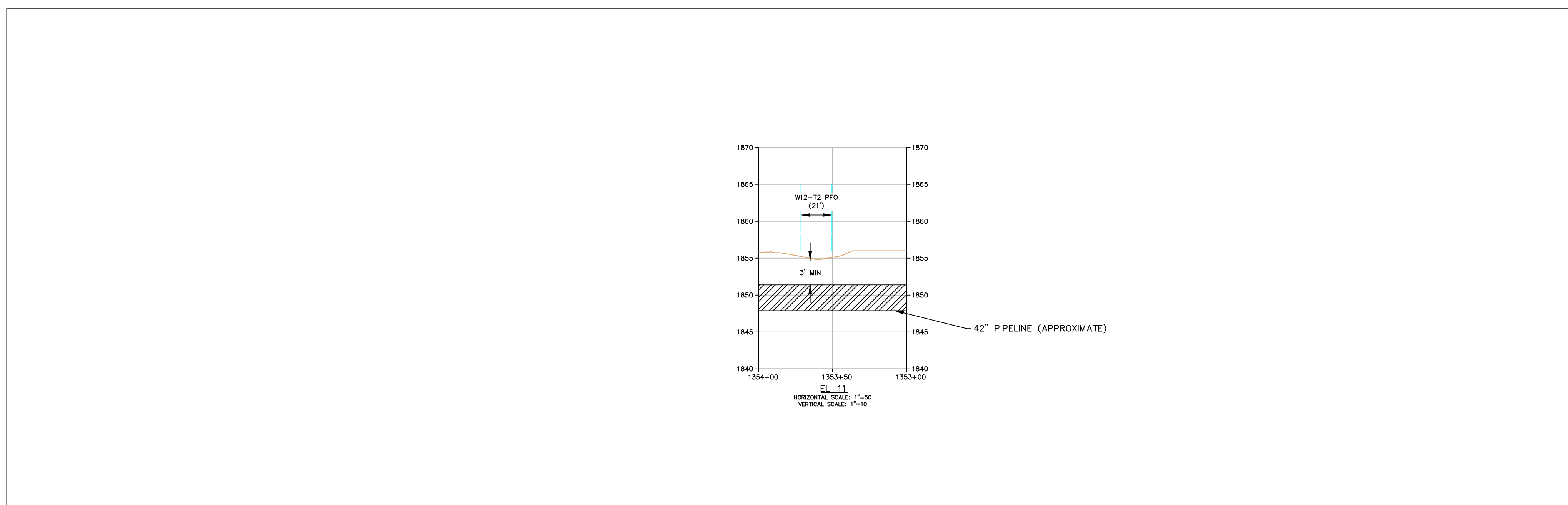
ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

PIPELINE IMPACTS - PERMANENT IMPACTS INCLUDE THE AREA MEASURED WITHIN THE PERMANENTLY MAINTAINED PIPELINE RIGHT-OF-WAY (PROW), WHICH INCLUDES EXISTING AND PROPOSED ADDITIONAL PROW. THERE IS NO PERMANENT LOSS OF RESOURCES IN THE PROW AND THESE AREAS WILL BE RESTORED TO PRE-EXISTING CONTOURS. FOR PSS AND PFO WETLANDS WITHIN THE PROW, THE PERMANENT IMPACT VALUE REPRESENTS THE FUNCTIONAL CONVERSION AREA OF THESE RESOURCES.

GENERAL NOTES:

- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE WBX CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
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- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



LEGEND	
—	PROPOSED LIMITS OF DISTURBANCE (LOD)
---	EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD
---	PROPOSED 42" PIPELINE
---	EXISTING PIPELINES
---	EXISTING EDGE OF ROADWAY
---	PARCEL BOUNDARY
---	EXISTING CONTOUR (10' C.L.)
---	EXISTING CONTOUR (2' C.L.)
---	CULVERT
---	TREELINE / SHRUB LINE
---	EXISTING FENCE
---	EXISTING ELECTRIC LINE/POLE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING GAS LINE
---	EXISTING WATER LINE
---	EXISTING SANITARY LINE
---	EXISTING STORM SEWER
---	EXISTING TELEPHONE LINE
---	EXISTING FIBER OPTIC LINE
---	EXISTING UNDERGROUND CABLE LINE
---	EXISTING FENCE
---	TIMBERMAT
---	EXISTING STRUCTURE
---	WETLANDS
---	EMERGENT WETLAND (PEM)
---	PROPOSED PEM PERMANENT IMPACTS
---	PROPOSED PEM TEMPORARY IMPACTS
---	SCRUB SHRUB WETLAND (PSS)
---	PROPOSED PSS PERMANENT IMPACTS
---	PROPOSED PSS TEMPORARY IMPACTS
---	FORESTED WETLAND (PFO)
---	PROPOSED PFO PERMANENT IMPACTS
---	PROPOSED PFO TEMPORARY IMPACTS
---	OPEN WATER WETLAND (PWO)
---	PROPOSED PWO TEMPORARY IMPACTS
---	STREAMS
---	STREAM CHANNEL
---	PROPOSED PERMANENT STREAM CHANNEL IMPACT
---	PROPOSED TEMPORARY STREAM CHANNEL IMPACT
---	FLOODWAY
---	PROPOSED PERMANENT FLOODWAY IMPACT
---	PROPOSED TEMPORARY FLOODWAY IMPACT
---	FEMA
---	FEMA FLOODPLAIN

Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-11	41.029763	-75.495269	55.2	Tunkhannock

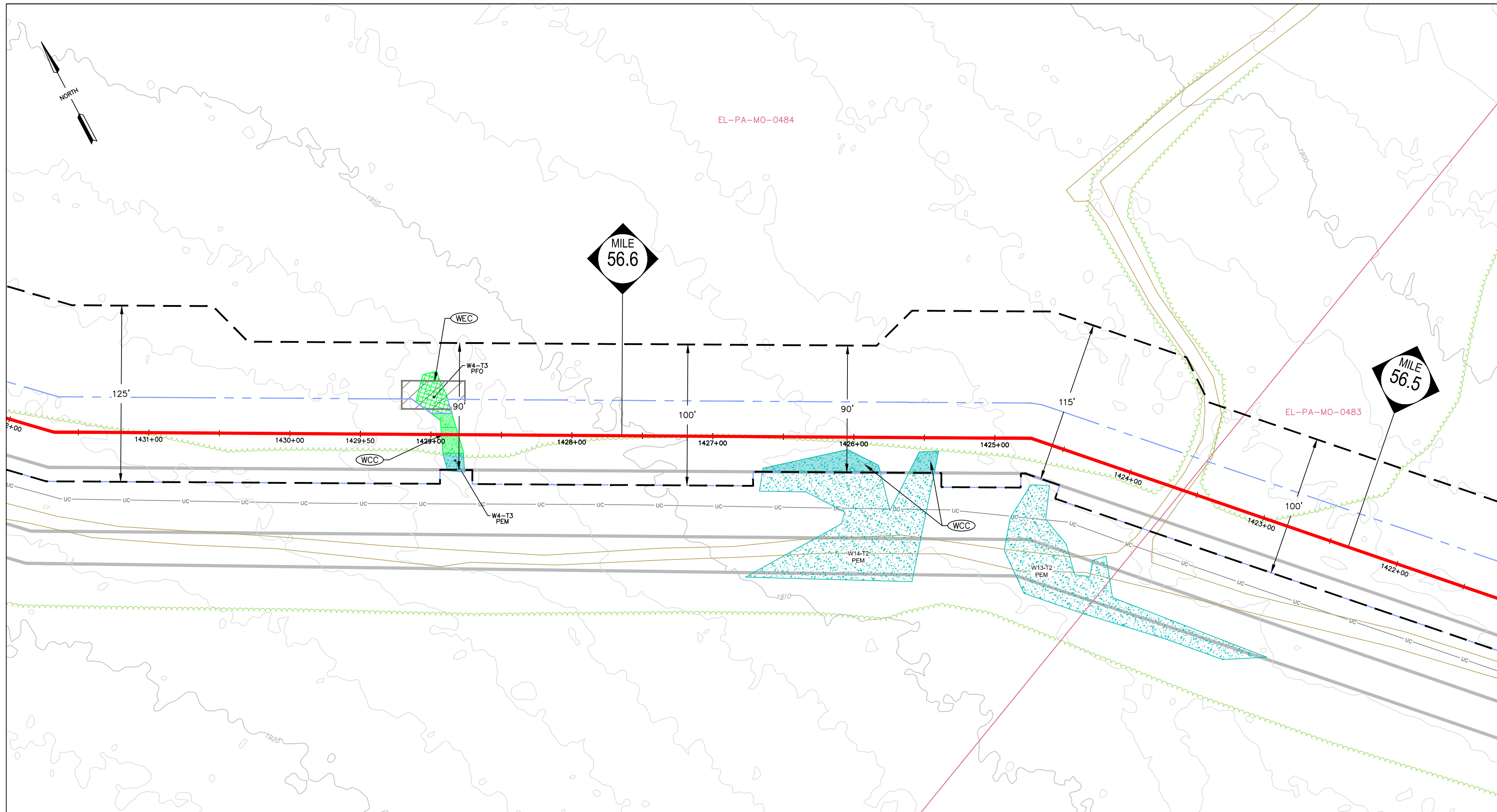
GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-11
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 16 OF 20
W.O. NUMBER: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-12	W4-T3	WETLAND	PFO	-	TEMP	0.0114
	W4-T3	WETLAND	PEM	-	PERM	0.0036
	W4-T3	WETLAND	PFO	-	PERM	0.0054
	W4-T3	WETLAND	PFO	-	PERM-PFO/PSS	0.0026
	W14-T2	WETLAND	PEM	-	TEMP	0.1485
	W14-T2	WETLAND	PEM	-	PERM	0.0237

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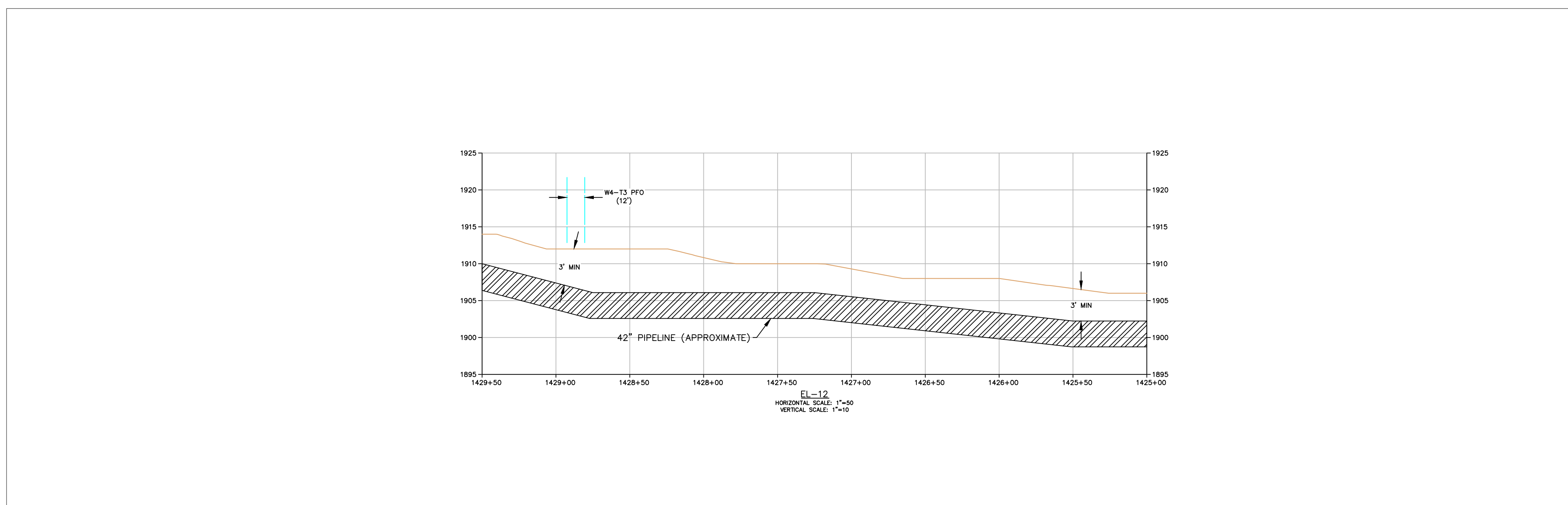
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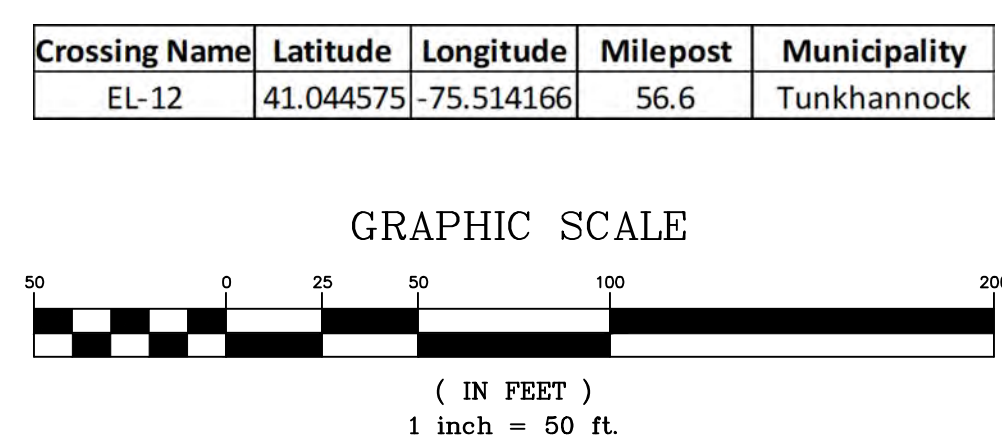
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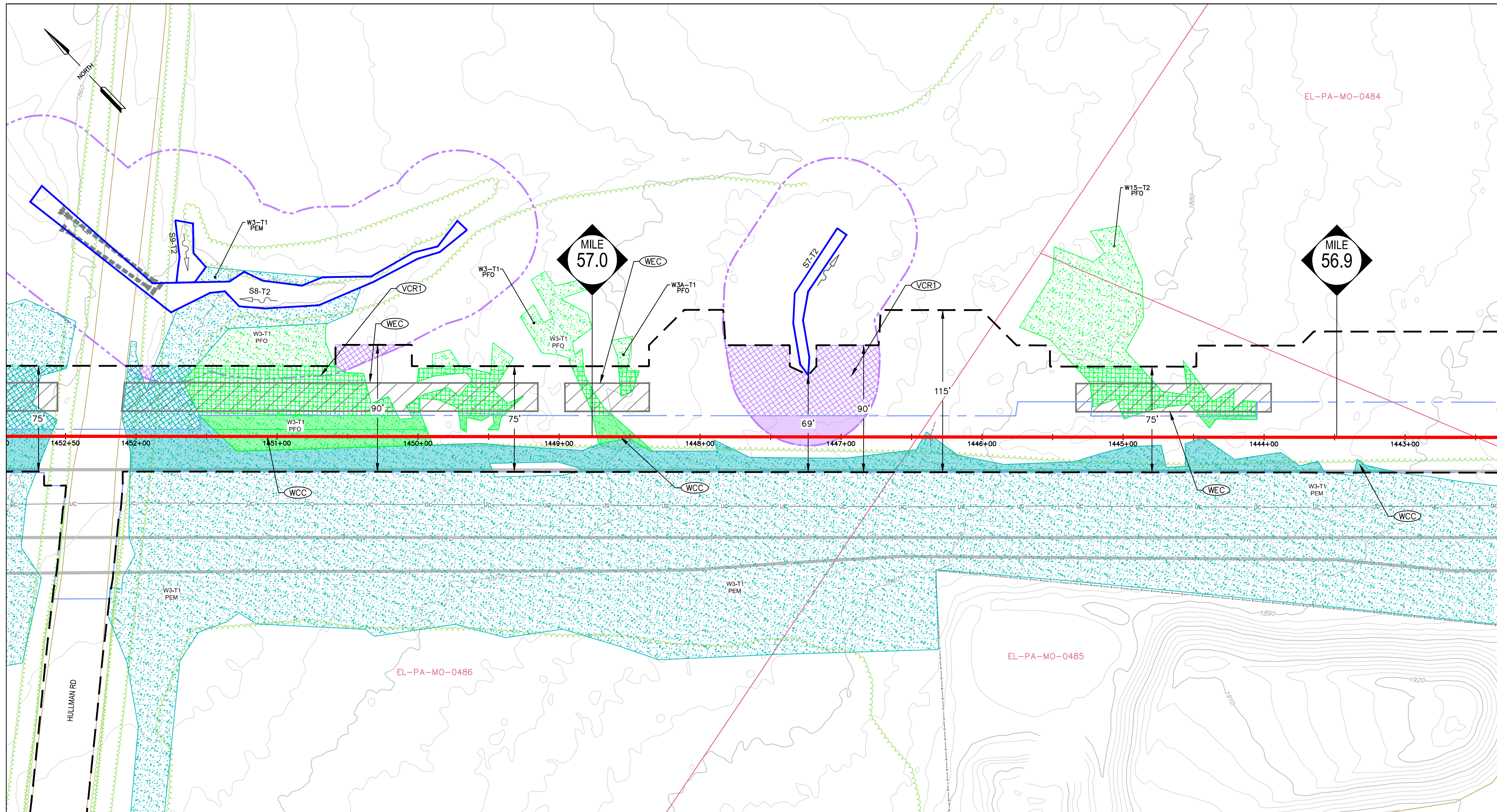
LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— EXISTING CONTOUR (10' C.I.)	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (2' C.I.)	— EXISTING FIBER OPTIC LINE
— CULVERT	— EXISTING UNDERGROUND CABLE LINE
— TREELINE / SHRUB LINE	— EXISTING FENCE
— EXISTING FENCE	— EXISTING STRUCTURE
WETLANDS	STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (PWO)	
— PROPOSED PWO TEMPORARY IMPACTS	



REVISIONS				
NO.	DATE	BY	DESCRIPTION	W.O. NO.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - Effort Loop
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-12
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 17 OF 20
WO: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-13	S7-T2	FLOODWAY	-	Intermittent	PERM	0.0278
	S7-T2	FLOODWAY	-	Intermittent	TEMP	0.1083
	S8-T2	FLOODWAY	-	Ephemeral	TEMP	0.0116
	W15-T2	WETLAND	PFO	-	TEMP	0.0542
	W15-T2	WETLAND	PFO	-	PERM-PFO/PSS	0.0029
	W3-T1	WETLAND	PFO	-	TEMP	0.0046
	W3-T1	WETLAND	PFO	-	TEMP	0.1031
	W3-T1	WETLAND	PEM	-	PERM	0.2990
	W3-T1	WETLAND	PFO	-	PERM	0.0445
	W3-T1	WETLAND	PEM	-	TEMP	0.0476
W3-T1	WETLAND	PFO	-	PERM-PFO/PSS	0.0349	

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TEMPORARY IMPACTS

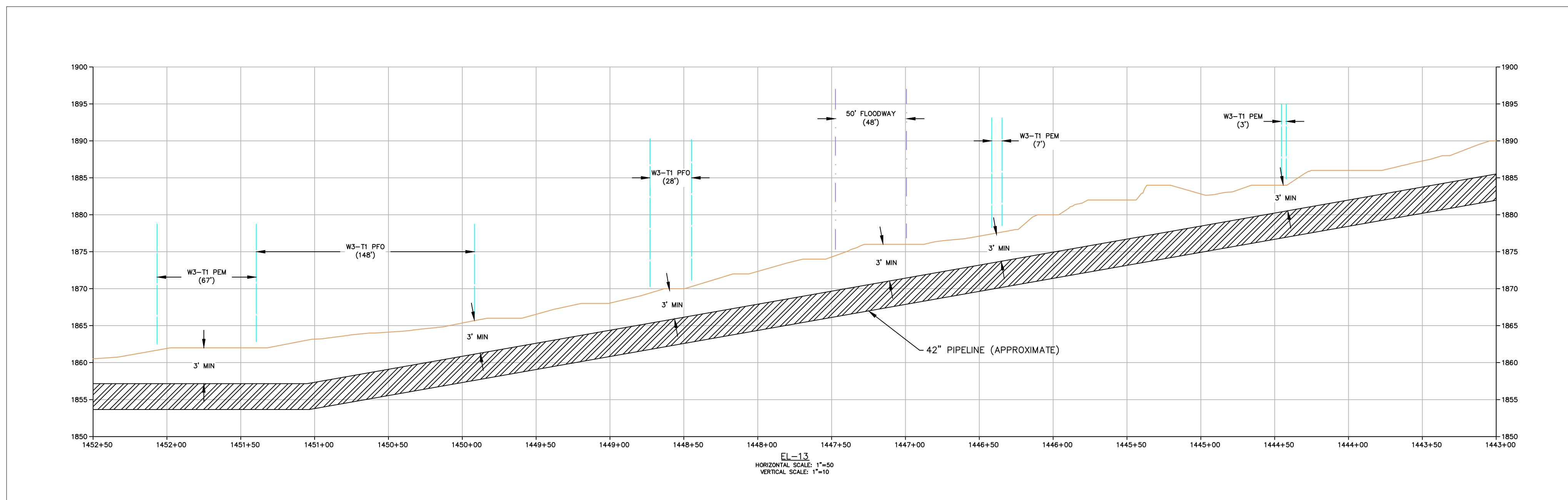
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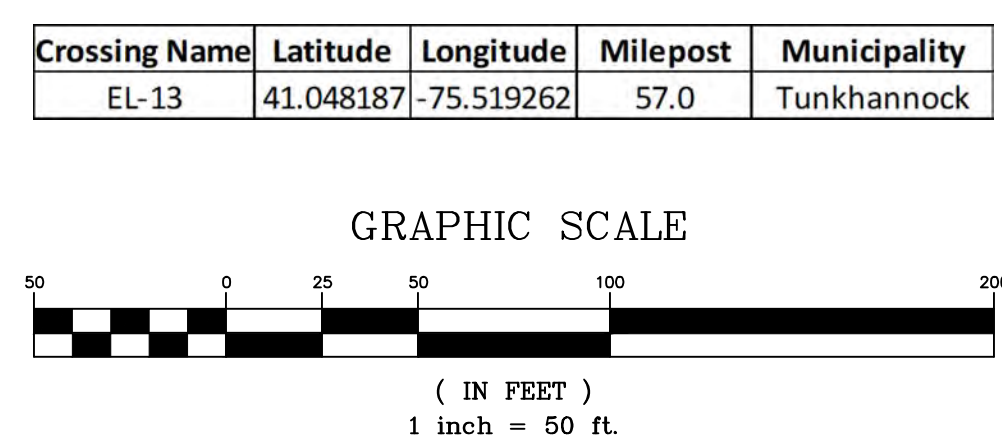
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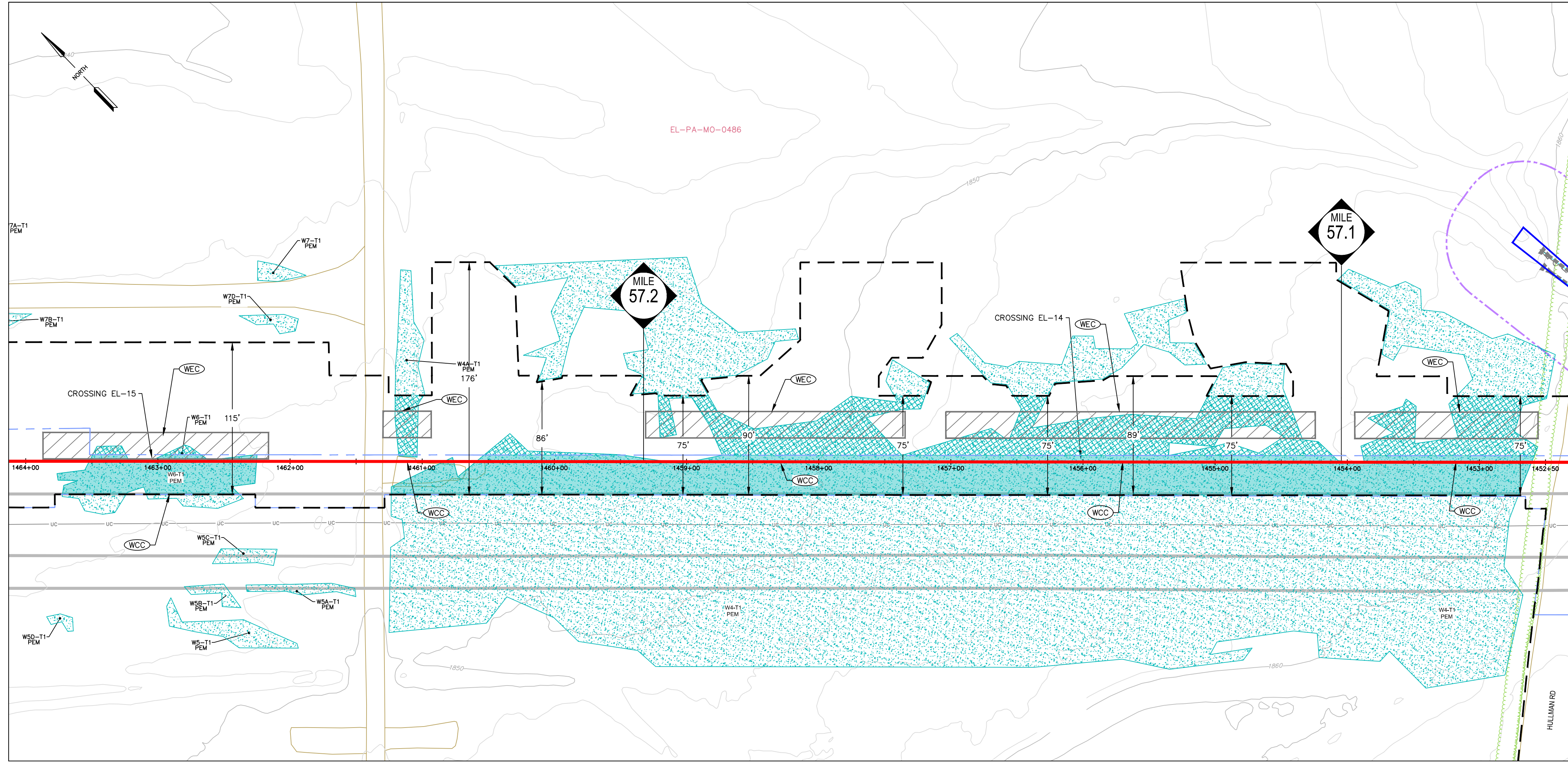
LEGEND	
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	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
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	EXISTING STORM SEWER
	EXISTING TELEPHONE LINE
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REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 REGIONAL ENERGY ACCESS EXPANSION PROJECT -
 EFFORT LOOP
 WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
 CROSSING EL-13
 MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC	DATE: 02/17/21	ISSUED FOR BID:	SCALE: 1" = 50'
CHECKED BY: RJN	DATE: 03/05/21	ISSUED FOR CONSTRUCTION:	REVISION:
APPROVED BY: PW	DATE: 03/05/21	DRAWING NUMBER: 26-1000-70-9-D	SHEET 18 OF 20
W.O. NUMBER: 1222637	RID: 108		



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-14	W4A-T1	WETLAND	PEM	-	TEMP	0.0172
	W4A-T1	WETLAND	PEM	-	PERM	0.0004
	W4-T1	WETLAND	PEM	-	PERM	0.5651
	W4-T1	WETLAND	PEM	-	TEMP	0.1787
EL-15	W6-T1	WETLAND	PEM	-	PERM	0.0870
	W6-T1	WETLAND	PEM	-	TEMP	0.0032

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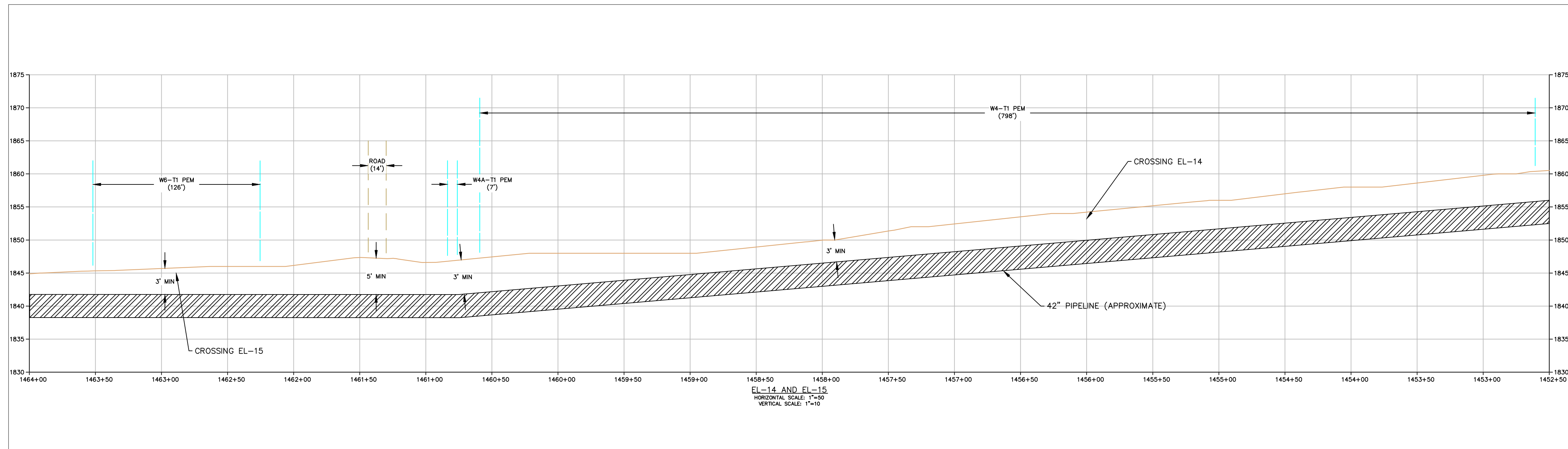
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- STREAM CROSSING METHODS WILL BE COMPLETED VIA OPEN CUT CONSTRUCTION METHODS. EITHER DAM AND PUMP (DPX) OR FLUMED (FX) DRY-CROSSING METHOD WILL BE UTILIZED BASED ON FIELD CONDITIONS DURING TIME OF CONSTRUCTION. A BRIDGE EQUIPMENT CROSSING (BEC), BRIDGE EQUIPMENT CROSSING WITH CENTERED OR MULTIPLE SUPPORTS (BCC) OR CULVERT EQUIPMENT CROSSING (CEC) WILL BE INSTALLED AT ALL STREAM CROSSINGS.
- WETLAND CROSSING METHODS WILL COMPLETED VIA OPEN CUT CONSTRUCTION METHODS AS OUTLINED IN WETLAND CROSSING CONFIGURATION (WCC.1, WCC.2, WCC.3), BASED ON FIELD CONDITIONS DURING THE TIME OF CONSTRUCTION. WETLANDS WILL BE CROSSED FOR ACCESS UTILIZING TIMBER MATS AS OUTLINED IN THE WETLAND EQUIPMENT CROSSING (WEC) CONSTRUCTION DETAIL. WETLAND CROSSINGS COMPLETED VIA CONVENTIONAL BORE WILL BE SPECIFICALLY NOTED ON THE PLAN VIEW AND THE W&X CONSTRUCTION DETAIL.
- TYPICAL VEGETATED CHANNEL & VEGETATION RESTORATION (VCR) DETAILS 1 AND 2 ARE IDENTIFIED FOR WATERBODY RESTORATION. VCR-1 WILL BE UTILIZED AT WATERBODIES WITH EXISTING FORESTED RIPARIAN BUFFERS. VCR-2 WILL BE UTILIZED AT WATERBODIES WITH NON-FORESTED RIPARIAN BUFFER.
- ALL TYPICAL CONSTRUCTION DETAILS FOR PROPOSED CROSSING METHODS ARE LOCATED WITHIN THE EROSION AND SEDIMENTATION CONTROL PLAN AND NARRATIVE.
- THE PROPOSED PIPELINE WILL BE INSTALLED WITH 3-FOOT MINIMUM COVER THROUGH WETLANDS AND 4-FOOT MINIMUM COVER THROUGH STREAM CHANNELS.
- EXISTING CULVERTS ARE NOT PROPOSED FOR MODIFICATION AND ARE TO BE USED AS-IS.



EL-14 AND EL-15
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=10'

LEGEND	
— PROPOSED LIMITS OF DISTURBANCE (LOD)	— EXISTING UNDERGROUND ELECTRIC LINE
— EXISTING / PROPOSED PERMANENT MAINTAINED RIGHT OF WAY WITHIN PROPOSED LOD	— EXISTING GAS LINE
— PROPOSED 42" PIPELINE	— EXISTING WATER LINE
— EXISTING PIPELINES	— EXISTING SANITARY LINE
— EXISTING EDGE OF ROADWAY	— EXISTING STORM SEWER
— EXISTING CONTOUR (10' C.L.)	— EXISTING TELEPHONE LINE
— EXISTING CONTOUR (2' C.L.)	— EXISTING FIBER OPTIC LINE
— EXISTING CONTOUR (10' C.L.)	— EXISTING UNDERGROUND CABLE LINE
— EXISTING CONTOUR (2' C.L.)	— EXISTING FENCE
— TREELINE / SHRUB LINE	— TIMBERMATS
— EXISTING FENCE	— EXISTING STRUCTURE
— WETLANDS	— STREAMS
— EMERGENT WETLAND (PEM)	— STREAM CHANNEL
— PROPOSED PEM PERMANENT IMPACTS	— PROPOSED PERMANENT STREAM CHANNEL IMPACT
— PROPOSED PEM TEMPORARY IMPACTS	— PROPOSED TEMPORARY STREAM CHANNEL IMPACT
— SCRUB SHRUB WETLAND (PSS)	— FLOODWAY
— PROPOSED PSS PERMANENT IMPACTS	— FLOODWAY
— PROPOSED PSS TEMPORARY IMPACTS	— PROPOSED PERMANENT FLOODWAY IMPACT
— FORESTED WETLAND (PFO)	— PROPOSED TEMPORARY FLOODWAY IMPACT
— PROPOSED PFO PERMANENT IMPACTS	— FEMA
— PROPOSED PFO TEMPORARY IMPACTS	— FEMA FLOODPLAIN
— OPEN WATER WETLAND (PWO)	
— PROPOSED PWO TEMPORARY IMPACTS	

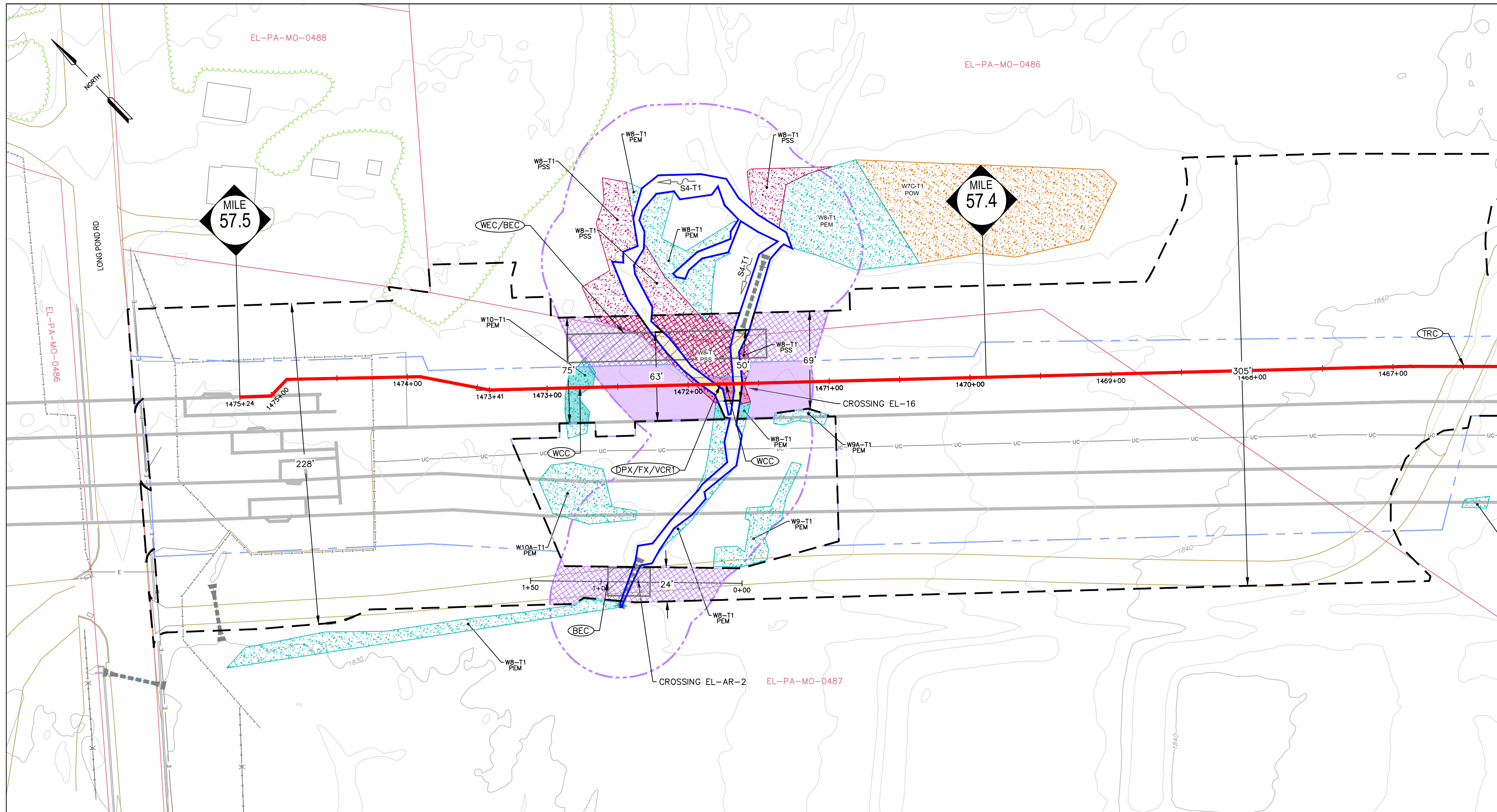
Crossing Name	Latitude	Longitude	Milepost	Municipality
EL-14	41.049796	-75.521358	57.2	Tunkhannock
EL-15	41.051076	-75.523026	57.3	Tunkhannock

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

REVISIONS						
NO.	DATE	BY	DESCRIPTION	W.O. NO.	CHK.	APP.
1	03/08/22	BH	REVISED PER PADEP COMMENTS	1222637	DW	RN

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
REGIONAL ENERGY ACCESS EXPANSION PROJECT - EFFORT LOOP
WATER OBSTRUCTION AND ENCROACHMENT IMPACT MAPS
CROSSING EL-14 AND EL-15
MONROE COUNTY, PENNSYLVANIA

DRAWN BY: CSC DATE: 02/17/21 ISSUED FOR BID: SCALE: 1" = 50'
CHECKED BY: RJN DATE: 03/05/21 ISSUED FOR CONSTRUCTION: REVISION:
APPROVED BY: PW DATE: 03/05/21
WO: 1222637 RID: 108 DRAWING NUMBER: 26-1000-70-9-D SHEET 19 OF 20



Crossing Name ¹	Resource Name ²	Resource Type ³	Cowardin Classification ⁴	Stream Type ⁵	Impact Type ⁶	Impact Areas (ac) ⁷
EL-16	S4-T1	STREAM	-	Perennial	TEMP	0.0072
	S4-T1	FLOODWAY	-	Perennial	PERM	0.0581
	S4-T1	FLOODWAY	-	Perennial	TEMP	0.0379
	S4-T1	STREAM	-	Perennial	PERM	0.0022
	W10-T1	WETLAND	PEM	-	PERM	0.0139
	W10-T1	WETLAND	PEM	-	TEMP	0.0007
	W8-T1	WETLAND	PSS	-	TEMP	0.0389
	W8-T1	WETLAND	PEM	-	PERM	0.0015
EL-AR-2	W8-T1	WETLAND	PEM	-	TEMP	0.0006
	W8-T1	WETLAND	PSS	-	PERM	0.0039
	S4-T1	FLOODWAY	-	Perennial	TEMP	0.0654
	S4-T1	STREAM	-	Perennial	TEMP	0.0019

TABLE NOTES:

- UNIQUE IDENTIFIER FOR THE SINGLE AND COMPLETE CROSSING
- UNIQUE NAME FOR IMPACTED RESOURCE
- TYPE OF IMPACTED RESOURCE (STREAM/WETLAND/FLOODWAY)
- COWARDIN CLASSIFICATION OF IMPACTED WETLAND, APPLIES TO WETLANDS ONLY
- FLOW REGIME OF THE IMPACTED STREAM APPLIES TO STREAMS ONLY
- IMPACT TYPE IS EITHER PERMANENT OR TEMPORARY
- THE AREA OF THE RESOURCE IMPACTED, IN ACRES. FOR AREAS WHERE THE WETLANDS AND FLOODWAY OVERLAP, FLOODWAY IMPACTS ARE INCLUDED WITHIN THE WETLAND IMPACT AREA (I.E. WETLAND AND FLOODWAY IMPACTS WERE NOT COUNTED IN DUPLICATE)

TEMPORARY IMPACTS

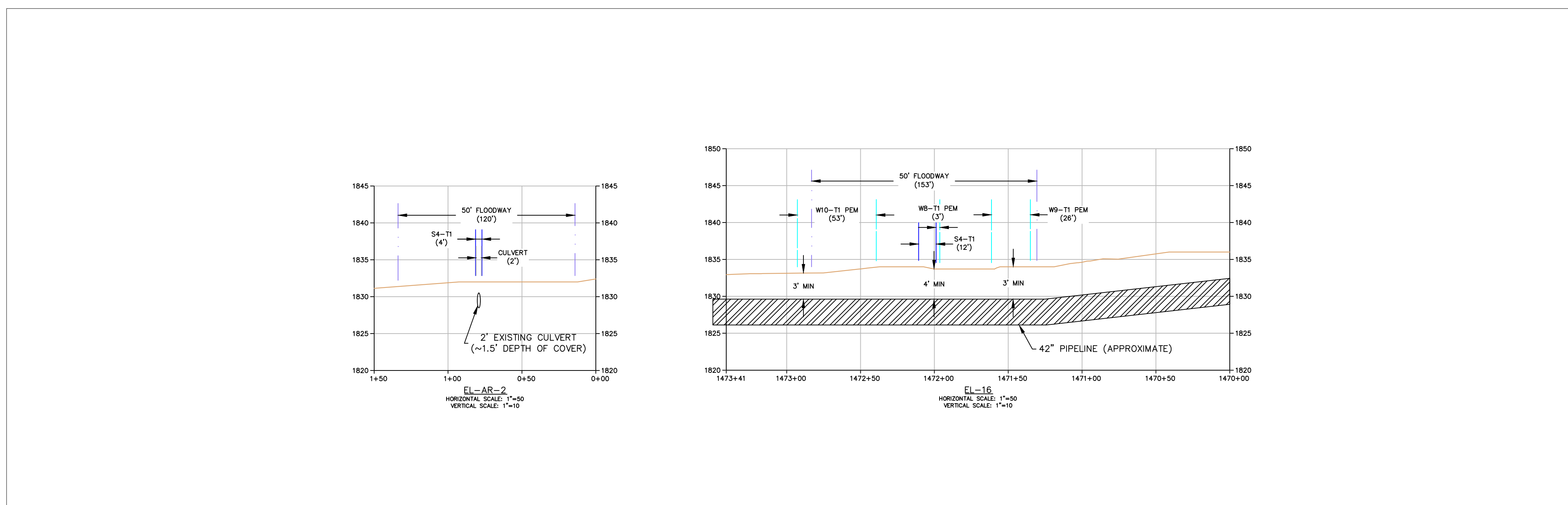
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ACCESS ROAD IMPACTS - TEMPORARY IMPACTS INCLUDE AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE ON THE ACCESS ROADS. THESE RESOURCES WILL BE RESTORED TO PRE-EXISTING CONDITION.

PERMANENT IMPACTS

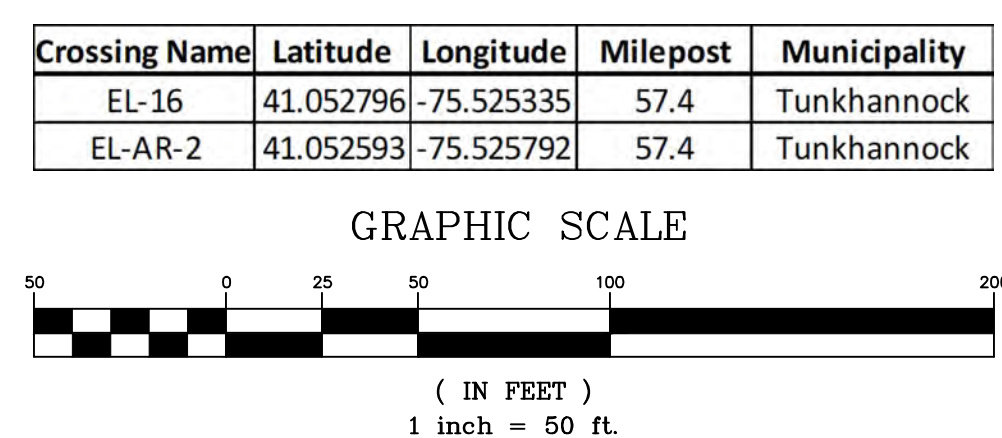
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— CULVERT	— EXISTING FENCE
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— EXISTING FENCE	



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