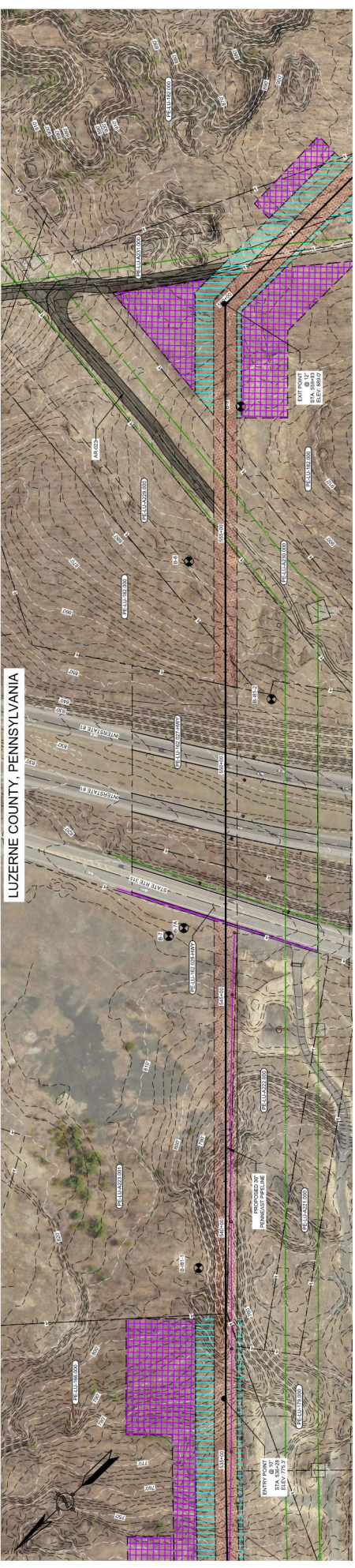


Appendix C

Cross Section Diagrams and Construction Techniques

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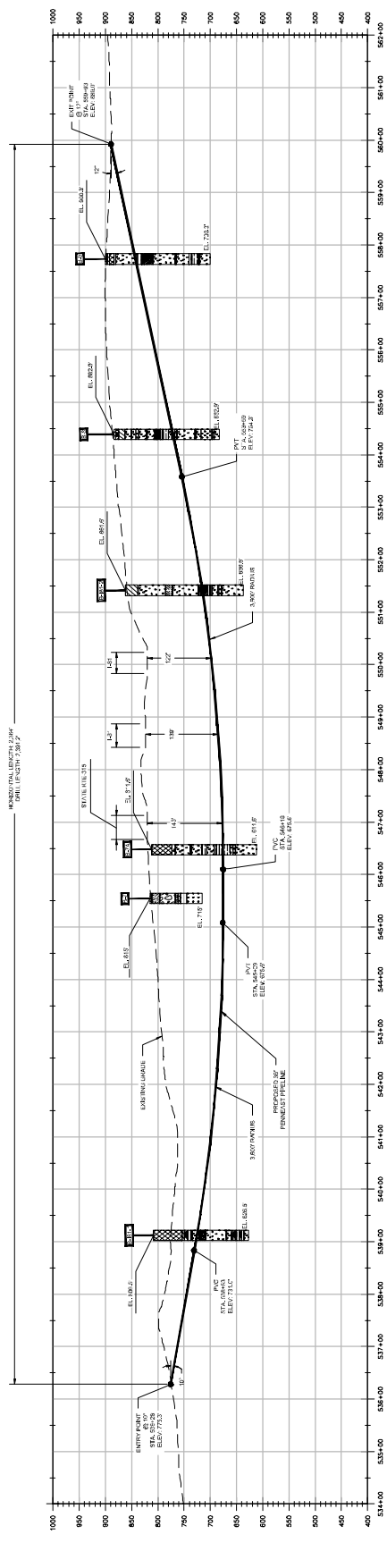
LUZERNE COUNTY, PENNSYLVANIA



- LEGEND**
- PROPERTY LINE
 - MAJOR CONTOUR
 - MINOR CONTOUR
 - EXISTING FOREIGN EASEMENT
 - EXISTING PIPELINE
 - EXISTING OVERHEAD LINE
 - RAILROAD CENTERLINE
 - Road CENTERLINE
 - TRAIL CENTERLINE
- PROPOSED BY PIPELINE**
- PROPOSED PERMANENT EASEMENT
 - TEMPORARY WORKSPACE
 - APPROXIMATE TEMPORARY WORKSPACE
 - HIGHWAY RIGHT-OF-WAY
 - PROPOSED STAGING AREA
 - ACCESS ROAD
- PROPOSED BY OTHERS**
- STREAM (PUBLIC)
 - STREAM (PRIVATE)
 - WETLAND (PUBLIC)
 - WETLAND (PRIVATE)
 - WATERBODY (PUBLIC)
 - WATERBODY (PRIVATE)

PA. ST. ROUTE 315 / INTERSTATE 81 HDD

- EXACT CONCEPTUAL HDD NOTES:**
1. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACE IS BY OTHERS.
 2. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
 3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACE IS BY OTHERS.
 4. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS BEFORE THE HDD BORE PATH IS TO BE DRILLED. THIS DRAWING IS SUBJECT TO CHANGE UPON RECEIVING THE PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 5. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
- GENERAL NOTES:**
1. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS BEFORE THE HDD BORE PATH IS TO BE DRILLED. THIS DRAWING IS SUBJECT TO CHANGE UPON RECEIVING THE PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 2. STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
 3. APPROXIMATE IN PROFILE SOIL BORINGS PERFORMED IN FEBRUARY 2015.



PA. ST. ROUTE 315 / INTERSTATE 81 HDD

HORIZ. SCALE: 1"=50'
VERT. SCALE: 1"=20'

PENNEAST PIPELINE PROJECT

PROPOSED 30" PIPELINE
HDD
PA. ST. ROUTE 315 / INTERSTATE 81 HDD
LUZERNE COUNTY, PENNSYLVANIA

PennEast PIPELINE

PREPARED FOR: [Client Name]

SCALE: [Scale]

DATE: [Date]

APPROVALS:

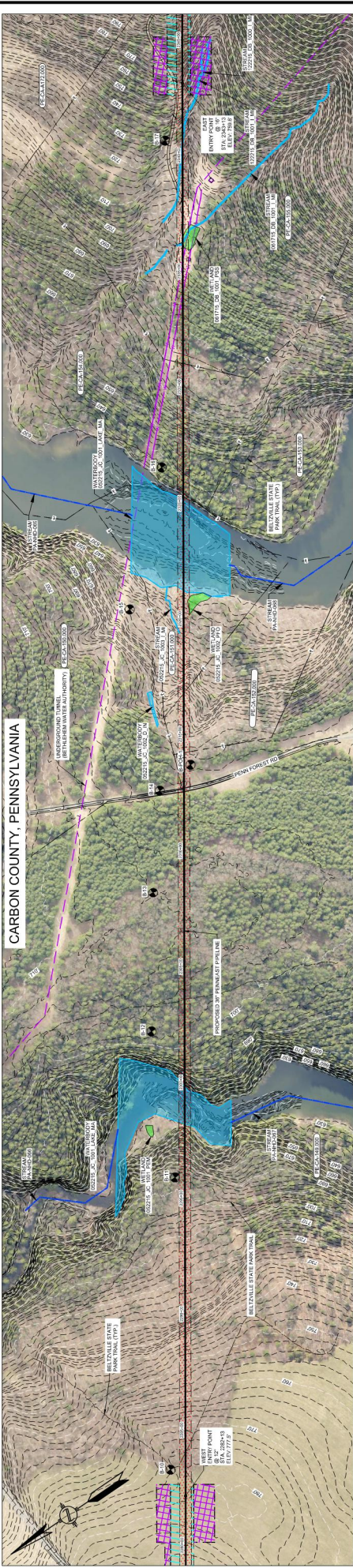
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7	05/12/2015	[Name]	APP	APP
8	05/12/2015	[Name]	DES	DES
9	05/12/2015	[Name]	CHK	CHK
10	05/12/2015	[Name]	APP	APP

REFERENCE DRAWINGS:

NO.	DATE	TITLE
1	05/12/2015	PROPOSED 30" PIPELINE
2	05/12/2015	PROPOSED PERMANENT EASEMENT
3	05/12/2015	PROPOSED TEMPORARY WORKSPACE
4	05/12/2015	PROPOSED STAGING AREA
5	05/12/2015	PROPOSED ACCESS ROAD

NOTES:

1. THESE CONTOURS AND MASSES SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASSES SUPPLEMENTED FROM PAST AND LOGS.
2. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
3. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
4. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
5. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
6. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
7. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
8. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
9. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.
10. APPROXIMATE AND SHALL BE VERIFIED FROM PICTOMETRY, 2015.



- ### LEGEND
- PROPOSED 36" PIPELINE
 - PROPOSED PERMANENT EASIMENT
 - TEMPORARY WORKSPACE
 - ADDITIONAL TEMPORARY WORKSPACE
 - PROPOSED RIGHT-OF-WAY
 - PROPOSED STAGING AREA
 - ACCESS ROAD
 - PRIORITY LINE
 - HINGE CONTOURS
 - EXISTING FORELINE EASIMENT
 - EXISTING PIPELINE
 - EXISTING OVERHEAD LINE
 - RAILROAD CENTERLINE
 - ROAD CENTERLINE
 - TRAIL CENTERLINE
 - STREAM (PUBLIC)
 - STREAM (DELIMITED)
 - WETLAND (PUBLIC)
 - WETLAND (DELIMITED)
 - WETLAND (AGRICULTURAL, WETLAND, WETLAND)
 - WETLAND (DELIMITED)
 - WATERBODY (DELIMITED)

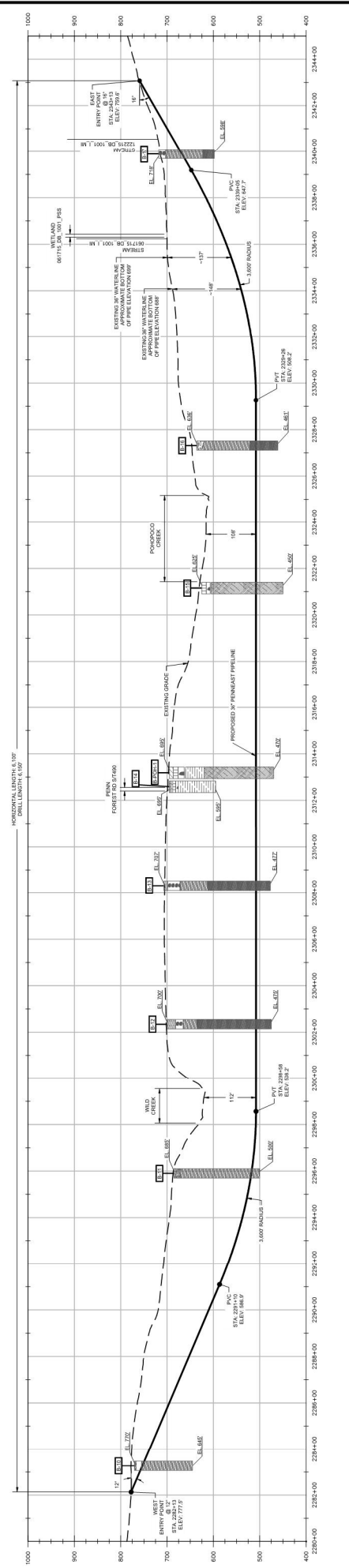
- ### NOTES
- THE CONTOURS AND IMAGERY SHOWN ON THIS DRAWING IS CONSIDERED "DRIFT" CONCEPTUAL AND IS SUBJECT TO CHANGE BASED ON ADDITIONAL IMAGERY DATA, TOPOGRAPHICAL BIOLOGICAL FEATURE DETERMINATIONS, THE HDD BORE PATH COLLECTION AND EVALUATION OF BOTH TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA AND AFTER GEOLOGICAL SURVEY TAKEN FROM PICTOMETRY, 2015.
 - EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
 - FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACE IS BY OTHERS.
 - REGIONS AND SECTORS CONTROL SHALL BE BASED ON THIS DRAWING. REFER TO RECON PLAN FOR GRIDION AND SEDIMENT CONTROL REQUIREMENTS.
 - ALL PERSONNEL AND EQUIPMENT SHALL BE WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
 - UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 60 DAYS NOTICE TO ADVANCE NOTICE FOR WORKING.
 - STATIONING ON THIS DRAWING REFLECTS UPTHEAM AND DOWNSTREAM.
 - SOLL BORING LOCATIONS OFF RIGHT-OF-WAY ARE APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2018.

REVISIONS

NO.	DATE	REVISIONS
A	08/16/2018	ISSUED FOR PERMITS (ELECTRICITY)
B	12/12/2018	PROPOSED 36" PIPELINE ISSUE
C	03/30/2019	FINAL 36" PIPELINE ISSUE
D	05/15/2019	ISSUED FOR PERMITS
E	03/18/2019	SUPPLEMENTAL PERMITS
F	05/15/2019	SUPPLEMENTAL PERMITS
G	08/16/2019	ISSUED FOR PERMITS
H	08/16/2019	ISSUED FOR PERMITS

APPROVALS

NO.	DATE	DESIGNED BY	CHECKED BY	DATE
1	08/16/2018	...	...	08/16/2018
2	12/12/2018	...	...	12/12/2018
3	03/30/2019	...	...	03/30/2019
4	05/15/2019	...	...	05/15/2019
5	03/18/2019	...	...	03/18/2019
6	05/15/2019	...	...	05/15/2019
7	08/16/2019	...	...	08/16/2019
8	08/16/2019	...	...	08/16/2019



PREPARED FOR

PENNEAST PIPELINE PROJECT

PROPOSED 36" PIPELINE
HDD CROSSING
POHOPECO CREEK (BELTZVILLE LAKE)
WILD CREEK HDD
CARBON COUNTY, PENNSYLVANIA

SCALE: AS SHOWN 0 50 100 200
VERT SCALE: 1" = 50'

NO.	DATE	REVISIONS
A	08/16/2018	ISSUED FOR PERMITS (ELECTRICITY)
B	12/12/2018	PROPOSED 36" PIPELINE ISSUE
C	03/30/2019	FINAL 36" PIPELINE ISSUE
D	05/15/2019	ISSUED FOR PERMITS
E	03/18/2019	SUPPLEMENTAL PERMITS
F	05/15/2019	SUPPLEMENTAL PERMITS
G	08/16/2019	ISSUED FOR PERMITS
H	08/16/2019	ISSUED FOR PERMITS

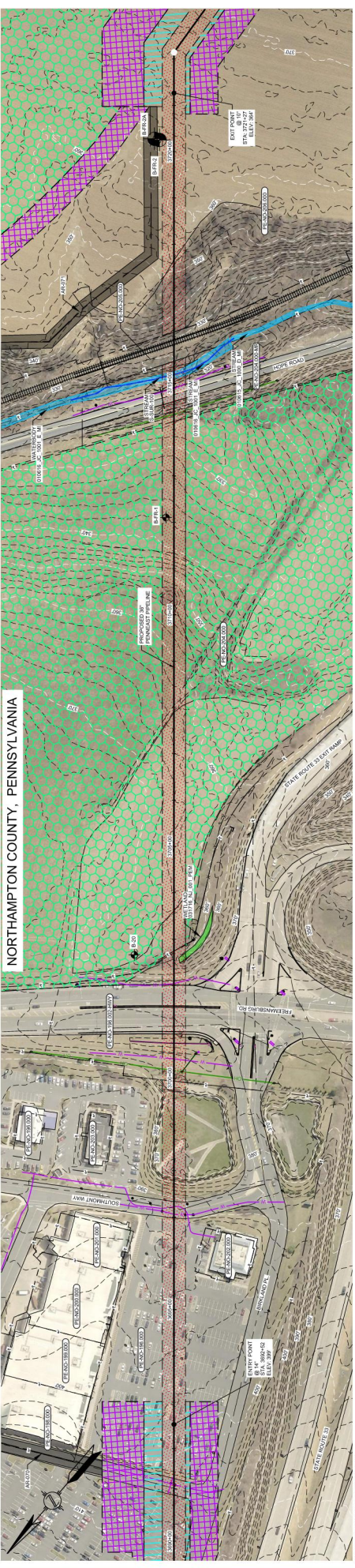
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3	03/30/2019	03/30/2019
4	05/15/2019	05/15/2019
5	03/18/2019	03/18/2019
6	05/15/2019	05/15/2019
7	08/16/2019	08/16/2019
8	08/16/2019	08/16/2019

POHOPECO CREEK (BELTZVILLE LAKE) WILD CREEK HDD

PROFILE

THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND LISRS.
APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
THIS PLAN IS BASED ON US TAX MAP DATA AND RECTIFIED PROPERTY LINES AND ARE NOT THE RESULT OF A BOUNDARY SURVEY.

NORTHAMPTON COUNTY, PENNSYLVANIA



ST LUKES (LOWES) HDD PROFILE



- 1. THESE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY. 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PASO AND LISERS.
- 2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
- 3. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
- 4. RESULTS OF AND MASONRY SURVEY.

- 5. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
- 6. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
- 7. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS PRIOR TO ANY UTILITY LOCATIONS.
- 8. STATIONING ON THIS DRAWING REFLECTS UPSTREAM AND SEDIMENT CONTROL REQUIREMENTS.
- 9. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.

- 10. PROPOSED PERMANENT EASEMENT
- 11. TEMPORARY WORKSPACE
- 12. ADJACENT TEMPORARY WORKSPACE
- 13. PROPOSED TRAILWAY
- 14. PROPOSED STAGING AREA
- 15. ACCESS ROAD
- 16. PROPERTY LINE
- 17. MOUND CONTOURS
- 18. EXISTING EROSION EASEMENT
- 19. EXISTING PIPELINE
- 20. EXISTING OVERHEADLINE
- 21. RAILROAD CENTERLINE
- 22. TRAIL CENTERLINE
- 23. STREAM (PUBLIC)
- 24. WETLAND (PUBLIC)
- 25. WETLAND (DEBEATED)
- 26. WETLAND (DEBEATED)
- 27. WETLAND (DEBEATED)
- 28. WETLAND (DEBEATED)
- 29. WATERBOD (CHILLED)

NO.	DATE	DESCRIPTION	BY	CHKD	APPROVALS
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18	08/20/2018	REVISED	MM	MM	
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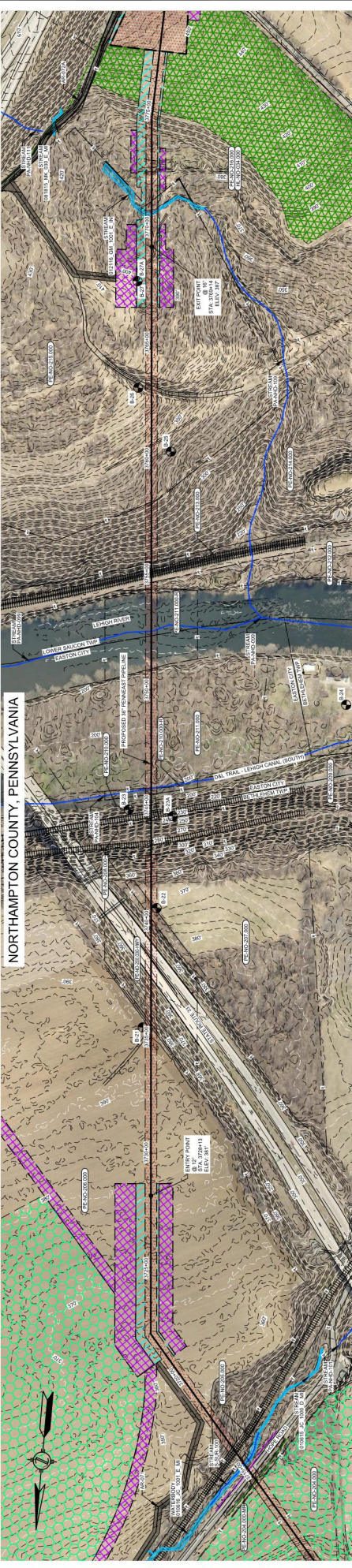
PREPARED FOR:
PennEast PIPELINE
 ST LUKES (LOWES) HDD PROJECT
 NORTHAMPTON COUNTY, PENNSYLVANIA

SCALE: AS SHOWN

SCALE: 1"=50'

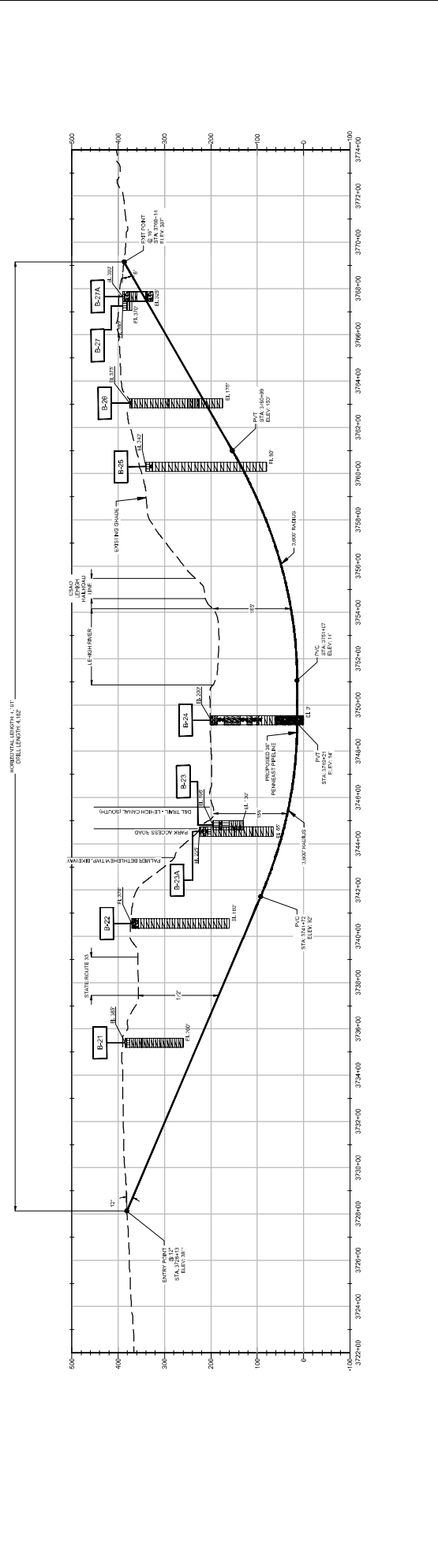
SCALE: 1"=50'

SCALE: 1"=50'



LEHIGH RIVER HDD PLAN VIEW

1. THESE CONTOURS AND MASSES SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASSES SUPPLEMENTED FROM PASADENA LOGS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR, FIELD DATA AND RECTIFIED PROPERTY LINES ARE NOT THE RESULT OF THIS DRAWING.
3. FINAL EQUIPMENT LAYOUT AND GRADINGS WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
4. PENNSYLVANIA'S 2008 EARTHQUAKE RESISTANCE DESIGN REQUIREMENTS AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE TO ALL UTILITY OWNERS.
7. STATIONING ON THIS DRAWING REFLECTS UPSTREAM AND DOWNSTREAM STATIONING.
8. APPROXIMATE IN PROFILE SOIL BORINGS PERFORMED IN FEBRUARY 2015.



LEHIGH RIVER HDD PROFILE

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 20'

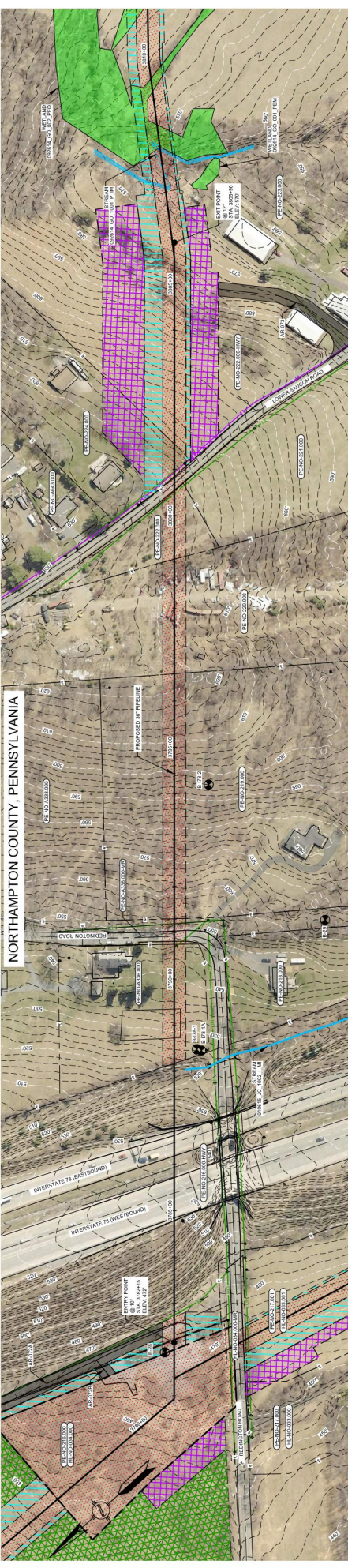
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4	REVISED DESIGN	11/23/2015	MM	MM	MM	
5	REVISED DESIGN	12/01/2015	MM	MM	MM	
6	REVISED DESIGN	12/15/2015	MM	MM	MM	
7	REVISED DESIGN	12/15/2015	MM	MM	MM	
8	REVISED DESIGN	01/05/2016	MM	MM	MM	
9	REVISED DESIGN	01/05/2016	MM	MM	MM	
10	REVISED DESIGN	01/05/2016	MM	MM	MM	

NO.	DESCRIPTION	DATE	BY	CHK'D	APP'D	APPROVALS
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4	CONCEPTUAL DESIGN	11/23/2015	MM	MM	MM	
5	CONCEPTUAL DESIGN	12/01/2015	MM	MM	MM	
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7	CONCEPTUAL DESIGN	12/15/2015	MM	MM	MM	
8	CONCEPTUAL DESIGN	01/05/2016	MM	MM	MM	
9	CONCEPTUAL DESIGN	01/05/2016	MM	MM	MM	
10	CONCEPTUAL DESIGN	01/05/2016	MM	MM	MM	

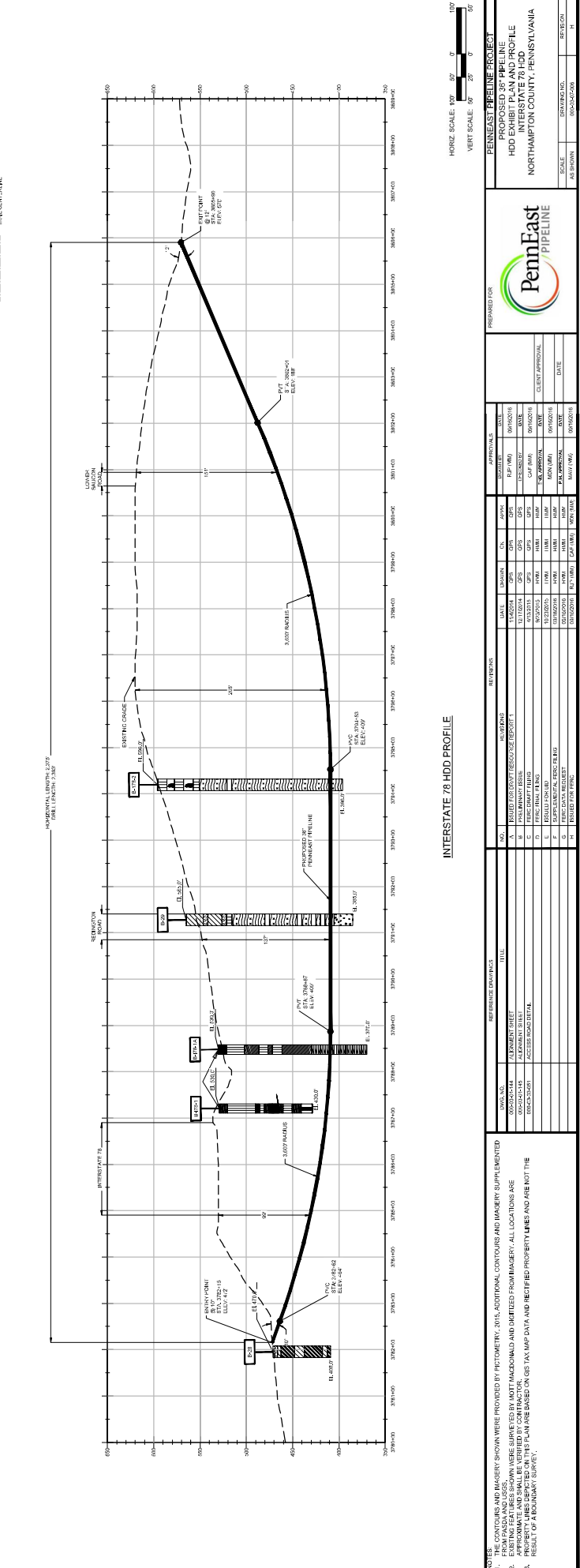


PREPARED FOR
PENNEAST PIPELINE PROJECT
HDD OF THE LEHIGH RIVER
NORTHAMPTON COUNTY, PENNSYLVANIA

SCALE: 1" = 100'
DATE: 05/20/2016
AS SHOWN



- LEGEND**
- PROPOSED BY PIPELINE: PROPOSED PERMANENT EASEMENT, TEMPORARY WORKSPACE, ADJUTANTIAL TEMPORARY WORKSPACE, PROPOSED PIPELAD, PROPOSED STAGING AREA, ACCESS ROAD
 - PROPERTY LINE, MAJOR CONTOURS, MINOR CONTOURS, EXISTING DESIGN EASEMENT, EXISTING PIPELINE, EXISTING UNDERGROUND UTILITY, RAILROAD CENTERLINE, RAILROAD CENTERLINE, RAILROAD CENTERLINE
 - STREAM (PUBLIC), STREAM (PRIVATE), WETLAND (PUBLIC), WETLAND (PRIVATE), WETLAND (AGRICULTURAL), WETLAND (WATERBODY/VEGETATED), WETLAND (WATERBODY/UNVEGETATED)
- INTERSTATE 78 HDD PLAN VIEW**
- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DESTRUCTION.
 - STATIONING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.
 - THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY CONCEPTUAL INFORMATION REGARDING THE CROSSING AT ITS POSSIBLE LOCATION, ADDITIONAL CONSULTANTS ASSOCIATED WITH THIS PROJECT WILL BE CONSIDERED ALIGNMENT AND OTHER DESIGN CHANGES. ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.
 - FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACE IS BY OTHERS.
 - PROVISIONS AND SEPARATE CONSTRUCTION SHALL BE BASED ON THIS DRAWING. REFER TO EXCCOP PLANS FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.
 - ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.



INTERSTATE 78 HDD PROFILE

HORIZ. SCALE: 1"=50' VERT. SCALE: 1"=5'

PENNEAST PIPELINE PROJECT
 PROPOSED 30" PIPELINE
 HDD INTERSTATE 78 HDD
 NORTHAMPTON COUNTY, PENNSYLVANIA

PREPARED FOR: **PennEast PIPELINE**

NO.	DESCRIPTION	DATE	BY	CHECKED	APPROVED
1	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
2	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
3	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
4	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
5	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
6	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
7	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
8	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
9	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN
10	ISSUED FOR PERMITTING	05/02/2016	AS/SHAWN	AS/SHAWN	AS/SHAWN

NO. USE CONTOURS AND MANSERY SHOWN WERE PROVIDED BY PICTOMETRY. 2015. ADDITIONAL CONTOURS AND MANSERY SUPPLEMENTED FROM PANDA AND LOGS.

1. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

3. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

4. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

5. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

6. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

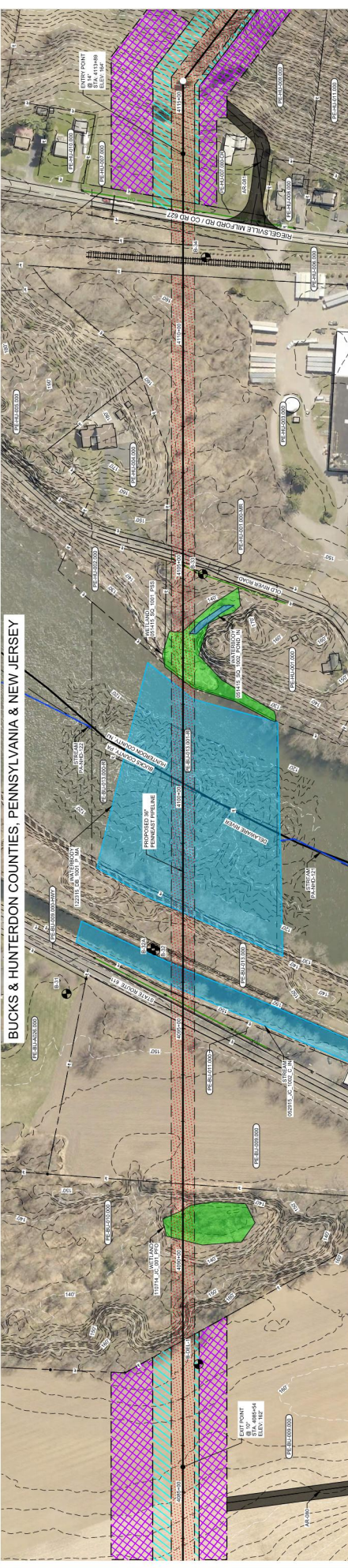
7. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

9. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

10. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

BUCKS & HUNTERDON COUNTIES, PENNSYLVANIA & NEW JERSEY



DELTAWATER RIVER HDD PROFILE

1. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACE IS BY OTHERS.
2. PROVISION AND SEPARATE ACCESSORIES, INCLUDING SIGNAGE, BIOLOGICAL FEATURE DEMONSTRATIONS, THE HDD BORE PATH AND SEDIMENT CONTROL REQUIREMENTS.
3. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
4. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACE IS BY OTHERS.
5. PENNSYLVANIA AND NEW JERSEY REQUIREMENTS FOR HDD PROJECTS ARE SUBJECT TO CHANGE.
6. APPROXIMATE WORKSPACE IS SUBJECT TO CHANGE.
7. APPROXIMATE WORKSPACE IS SUBJECT TO CHANGE.
8. APPROXIMATE WORKSPACE IS SUBJECT TO CHANGE.

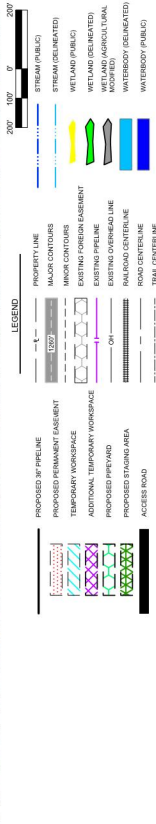
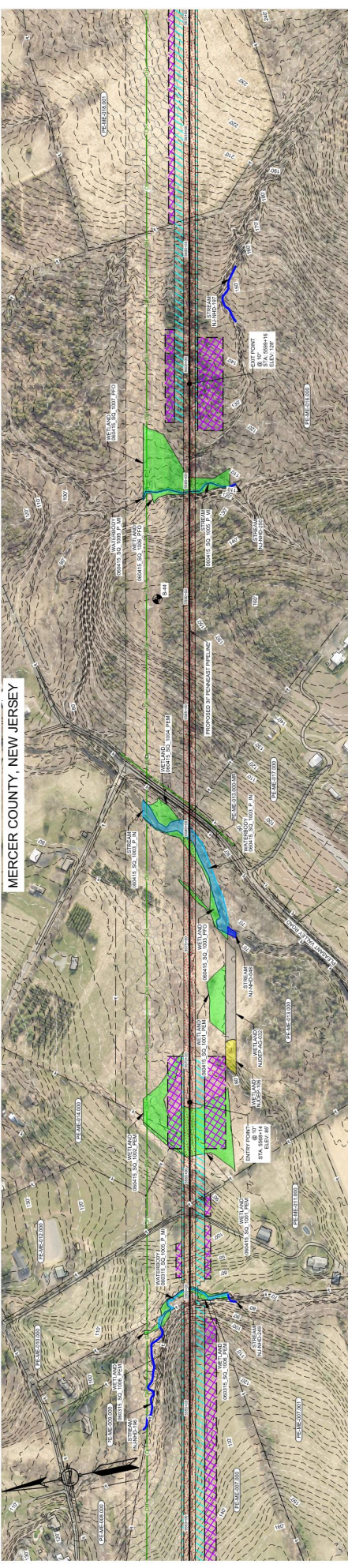
1. THESE CONTOURS AND BATTERY SHOWINGS PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND BATTERY SUPPLEMENTED FROM PAST DATA AND LOGS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. RESULT OF THIS ANALYSIS IS SUBJECT TO CHANGE.

REFERENCE DRAWINGS		REVISIONS		APPROVALS		PREPARED FOR	
NO.	DATE	BY	CHK	APP'D	DATE	FOR	DATE
1	09/20/2017	J. M. BROWN	J. M. BROWN	J. M. BROWN	09/20/2017	PROPOSED 30" PIPELINE	09/20/2017
2	10/10/2017	J. M. BROWN	J. M. BROWN	J. M. BROWN	10/10/2017	HDD DELAWARE RIVER	10/10/2017
3	11/15/2017	J. M. BROWN	J. M. BROWN	J. M. BROWN	11/15/2017	BUCKS & HUNTERDON COUNTIES	11/15/2017
4	12/20/2017	J. M. BROWN	J. M. BROWN	J. M. BROWN	12/20/2017	PENNSYLVANIA & NEW JERSEY	12/20/2017

CLIENT APPROVAL		DATE	
NAME	DATE	NAME	DATE
CLIENT APPROVAL	DATE	CLIENT APPROVAL	DATE
CLIENT APPROVAL	DATE	CLIENT APPROVAL	DATE
CLIENT APPROVAL	DATE	CLIENT APPROVAL	DATE

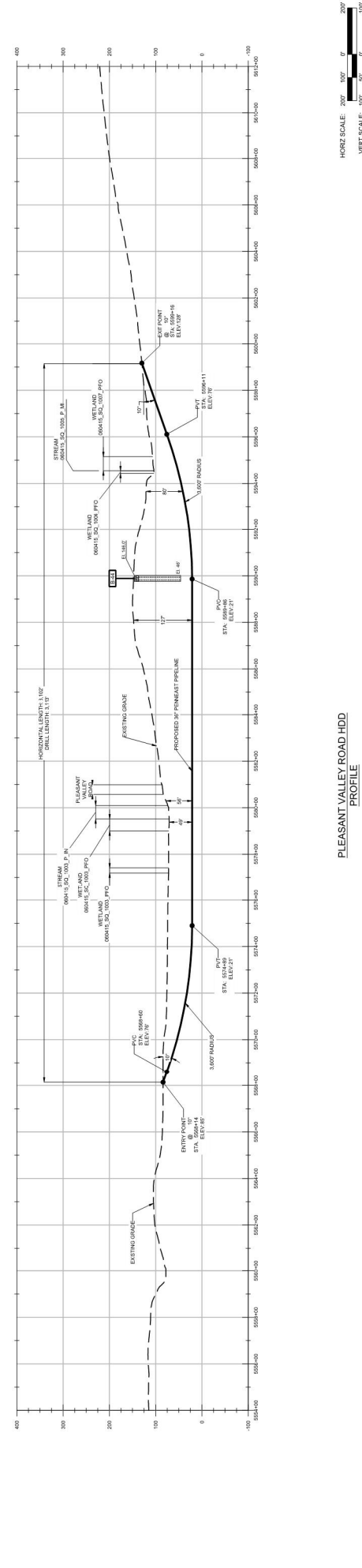
SCALE	SCALE	SCALE	SCALE
AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN

MERCER COUNTY, NEW JERSEY



PLEASANT VALLEY ROAD HDD
PLAN VIEW

1. THESE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. RESULT OF A LAND SURVEY SURVEY.
4. THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
5. ALL PERSONS, INTERESTS SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE TO BE GIVEN TO ALL UTILITY OWNERS AND AGENCY REPRESENTATIVES BEFORE ANY WORK BEGINS ON THIS DRAWING. REFER TO EDCO PLAN AND FOR EDCO AND SEDIMENT CONTROL REQUIREMENTS.
7. STATIONING ON THIS DRAWING IS SUBJECT TO CHANGE BASED ON UNPUBLISHED PROPOSALS OR AS MAY BE APPROVED IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.



PLEASANT VALLEY ROAD HDD
PROFILE

NOTE: CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS.

APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

RESULT OF A LAND SURVEY SURVEY.

NO.	DATE	BY	CHK	APPV	REVISIONS
1	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
2	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
3	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
4	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
5	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
6	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
7	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
8	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
9	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
10	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS

NO.	DATE	BY	CHK	APPV	REVISIONS
1	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
2	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
3	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
4	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
5	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
6	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
7	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
8	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
9	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
10	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS

PREPARED FOR
PennEast PIPELINE
PROPOSED 36" PIPELINE
HDD ALONG PLEASANT VALLEY ROAD
MERCER COUNTY, NEW JERSEY

SCALE: AS SHOWN
DATE: 09/12/2016
PROJECT NO: 0002341213

APPROVALS

NO.	DATE	BY	CHK	APPV	REVISIONS
1	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
2	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
3	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
4	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
5	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
6	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
7	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
8	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
9	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
10	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS

CLIENT APPROVAL

NO.	DATE	BY	CHK	APPV	REVISIONS
1	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
2	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
3	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
4	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
5	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
6	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
7	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
8	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
9	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS
10	09/12/2016	RFJ	MMK	MMK	ISSUED FOR PERMITS

DATE: 09/12/2016

SCALE: AS SHOWN

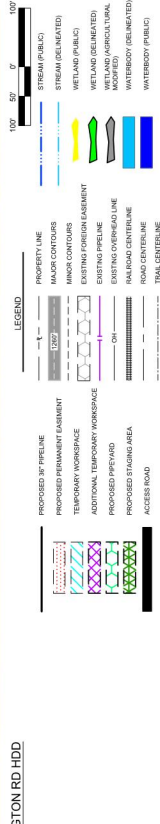
PROJECT NO: 0002341213

DATE: 09/12/2016

SCALE: AS SHOWN

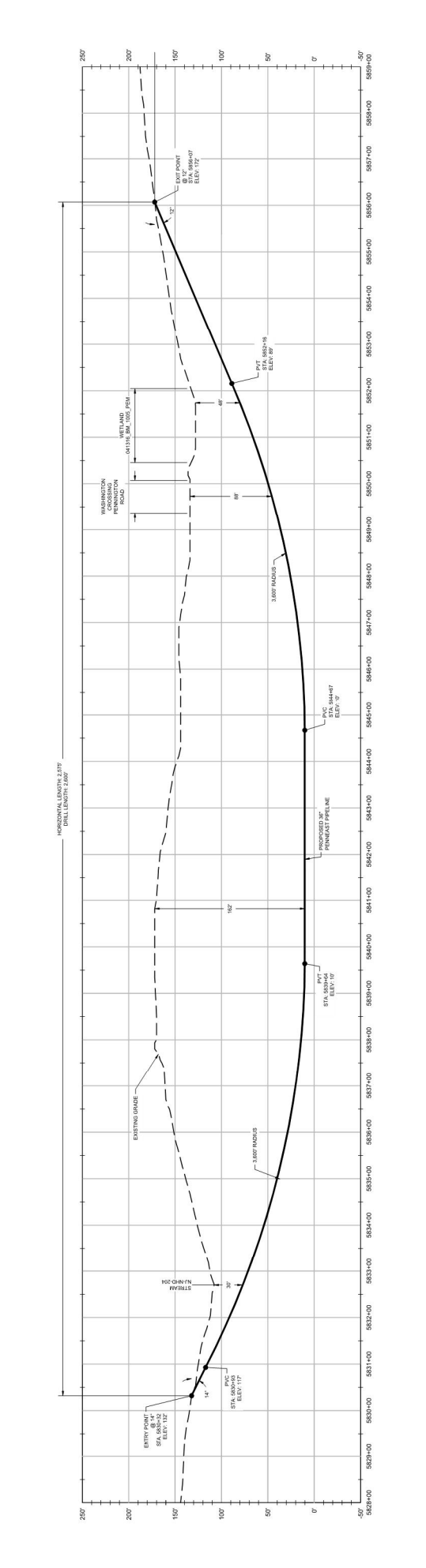
PROJECT NO: 0002341213

DATE: 09/12/2016



**WASHINGTON CROSSING PENNINGTON RD HDD
PLAN VIEW**

- SCHEMATIC CONCEPTUAL HDD NOTES:**
1. THE CONTOURS AND IMAGERY SHOWN ON THIS DRAWING IS CONSIDERED "DRIFT" CONCEPTUAL, AND IS SUBJECT TO CHANGE BASED ON ADDITIONAL IN-SITU TOPOGRAPHICAL BIOLOGICAL FEATURE IDENTIFICATIONS, THE HDD BORE PATH COLLECTION AND EVALUATION OF BOTH TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA AND AFTER BIOLOGICAL SURVEY AND OTHER DESIGN CHANGES. ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.
 2. EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
 3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
 4. EROSION AND SEDIMENT CONTROL IS NOT COVERED ON THIS DRAWING. REFER TO EROSION PLANS FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.
 5. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
 6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DEMOLITION.
 7. STATIONING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.
 8. THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY/CONCEPTUAL INFORMATION REGARDING THE CROSSING, IT IS POSSIBLE THAT ADDITIONAL INFORMATION AND DATA WILL BE OBTAINED AND REQUIRED AFTER A GEOTECHNICAL INVESTIGATION IS COMPLETED, RESULTING IN ALIGNMENT AND OTHER DESIGN CHANGES. ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.



**WASHINGTON CROSSING PENNINGTON RD HDD
PROFILE**

HORIZONTAL LENGTH: 2,070'
VERTICAL LENGTH: 2,000'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'

APPROVALS

NO.	DATE	BY	FOR	DATE	BY	FOR
A	08/12/2016	ELP/AMM	APPR	08/12/2016	ELP/AMM	APPR
B	12/12/2014	GPS	GPS	08/12/2016	ELP/AMM	APPR
C	01/30/2015	GPS	GPS	08/12/2016	ELP/AMM	APPR
D	10/22/2015	MMM	MMM	08/12/2016	ELP/AMM	APPR
E	10/22/2015	MMM	MMM	08/12/2016	ELP/AMM	APPR
F	01/19/2016	MMM	MMM	08/12/2016	ELP/AMM	APPR
G	01/19/2016	ELP/AMM	APPR	08/12/2016	ELP/AMM	APPR
H	08/12/2016	ELP/AMM	APPR	08/12/2016	ELP/AMM	APPR

REVISIONS

NO.	DATE	DESCRIPTION
A	08/12/2016	ISSUED FOR BIDDING (CURRENT EDITION)
B	12/12/2014	PRELIMINARY ISSUE
C	01/30/2015	PERC DRAFT FILING
D	10/22/2015	ISSUED FOR BIDDING
E	10/22/2015	ISSUED FOR BIDDING
F	01/19/2016	SUPPLEMENTAL PERC FILING
G	01/19/2016	ISSUED FOR BIDDING
H	08/12/2016	ISSUED FOR PERC

REFERENCE DRAWINGS

DRAWING NO.	DATE	TITLE
000-0-01-022	08/12/2016	ALIGNMENT SHEET
000-0-01-022	08/12/2016	ALIGNMENT SHEET

NOTES:

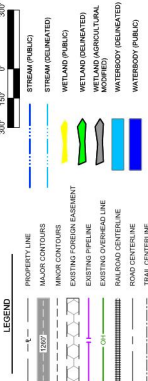
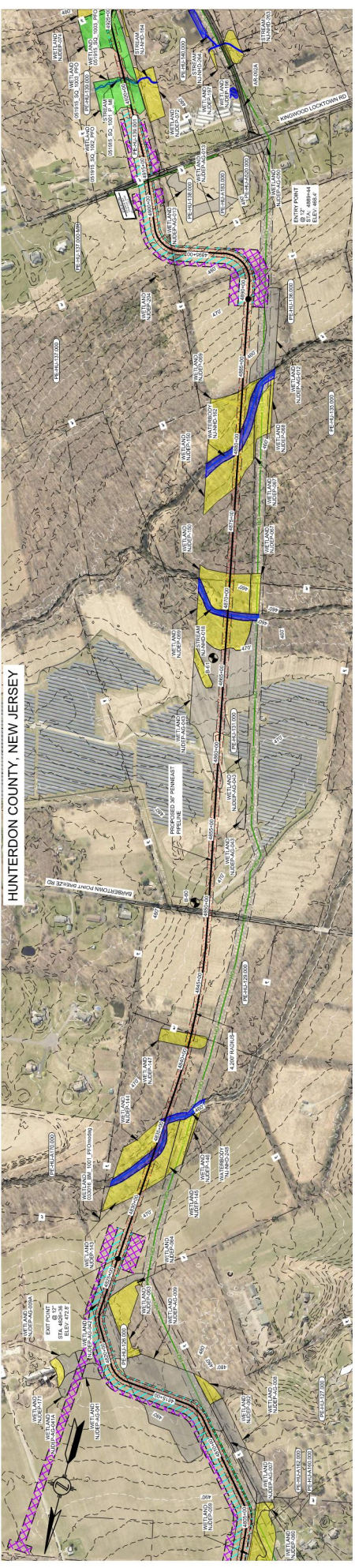
1. THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PANDA AND LISBS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. RESULT OF A BOUNDARY SURVEY.

PREPARED FOR

PennEast PIPELINE

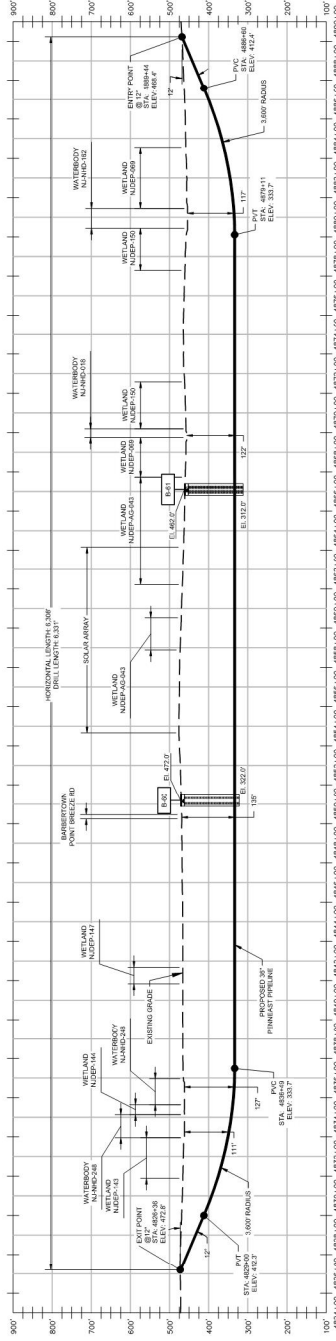
PROPOSED 30\"/>

HUNTERDON COUNTY, NEW JERSEY



LOCKATONG CREEK HDD
PLAN VIEW

1. EXISTING CONTOURS SHOWN ON THIS DRAWING IS CONSIDERED "DRAFT CONCEPTUAL" AND IS SUBJECT TO CHANGE BASED ON GEOTECHNICAL DATA, TOPOGRAPHICAL SURVEY AND BIOLOGICAL DATA. THE HDB BORE PATH IS BASED ON THE DATA PROVIDED BY THE CLIENT. THE HDB BORE PATH IS SUBJECT TO CHANGE BASED ON GEOTECHNICAL DATA, TOPOGRAPHICAL SURVEY AND BIOLOGICAL DATA. THE HDB BORE PATH IS SUBJECT TO CHANGE BASED ON GEOTECHNICAL DATA, TOPOGRAPHICAL SURVEY AND BIOLOGICAL DATA.
2. EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.
4. PROPERTY AND SETBACKS ARE SHOWN AS THEY APPEAR ON THIS DRAWING. REFER TO RECORD PLANS AND FOR EDITIONS AND SETBACK REQUIREMENTS.
5. ALL EROSIONS, LANDSCAPING SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS ADVANCE NOTICE TO BE GIVEN TO ALL UTILITIES.
7. STATIONING ON THIS DRAWING REFLECTS UPSTREAM AND SEDIMENT CONTROL REQUIREMENTS.
8. APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.



LOCKATONG CREEK HDD
PROFILE

NOTES: CONTOURS AND IMAGERY SHOWN PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS.

1. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. RESULT OF A MANDATORY SURVEY.

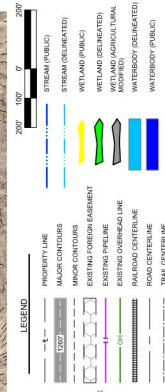
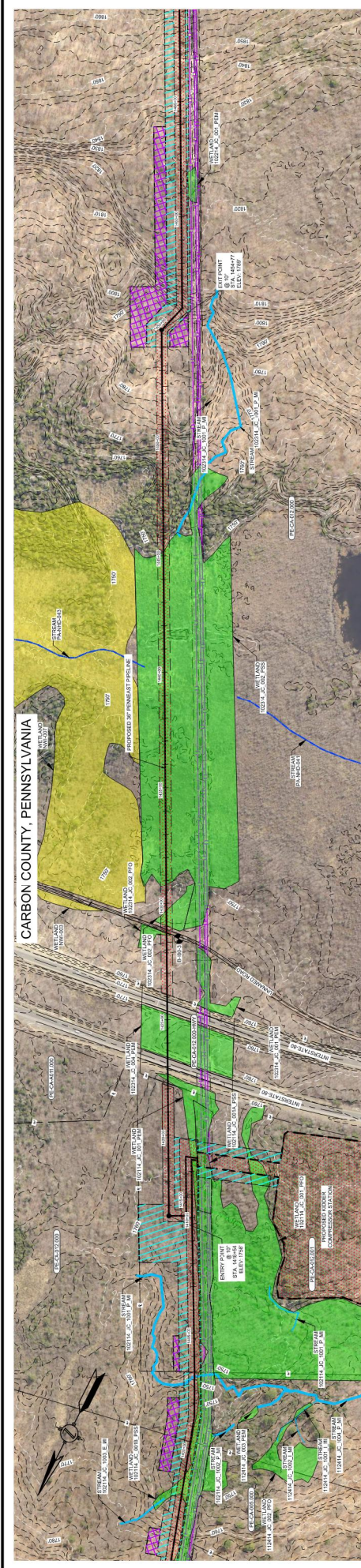
NO.	DATE	REVISIONS	BY	CHK	APPR	APPROVALS
A	09/18/2016	ISSUED FOR PERMITS	MM	MM	MM	MM
B	12/12/2016	PERMITS RECEIVED	MM	MM	MM	MM
C	01/20/2017	PERMITS RECEIVED	MM	MM	MM	MM
D	02/22/2017	PERMITS RECEIVED	MM	MM	MM	MM
E	03/15/2017	PERMITS RECEIVED	MM	MM	MM	MM
F	03/15/2017	PERMITS RECEIVED	MM	MM	MM	MM
G	03/15/2017	PERMITS RECEIVED	MM	MM	MM	MM
H	03/15/2017	PERMITS RECEIVED	MM	MM	MM	MM

PREPARED FOR: PENNEAST PIPELINE PROJECT
 PROPOSED 36" PIPELINE
 HUNTERDON COUNTY, NEW JERSEY
 LOCKATONG CREEK HDD

SCALE: AS SHOWN
 DATE: 09/18/2016
 REGION: NJ

Penneast PIPELINE

HORIZ SCALE: 1" = 100'
 VERT SCALE: 1" = 20'

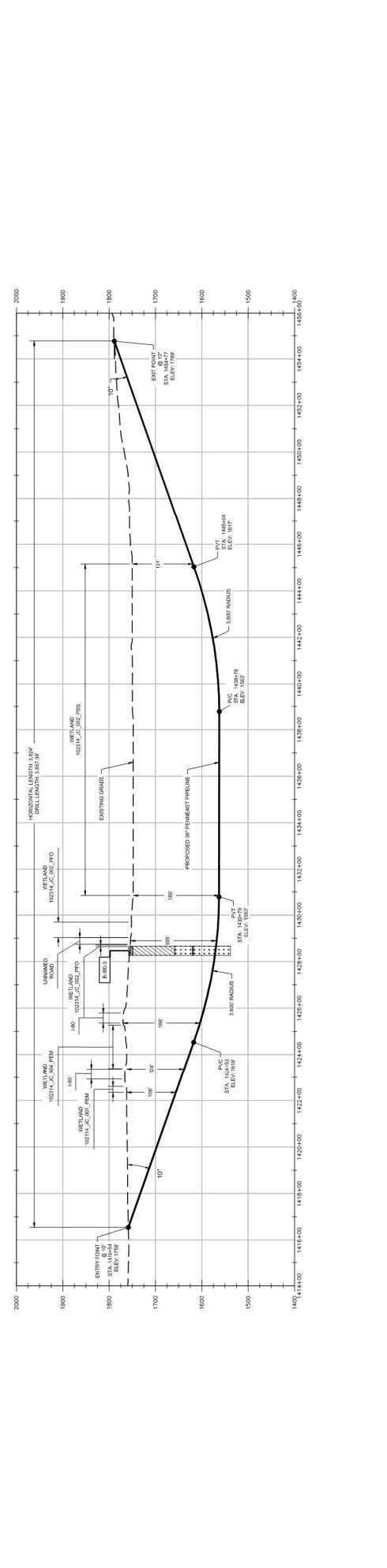


**INTERSTATE 80 HDD
PLAN VIEW**

- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS FOR FIELD VERIFICATION.
- STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
- STATIONING ON THIS DRAWING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESS AND AS NECESSARY.
- APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.

- FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.
- PROPOSED WORKSPACES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS FOR FIELD VERIFICATION.
- STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
- STATIONING ON THIS DRAWING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESS AND AS NECESSARY.
- APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.

- FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.
- PROPOSED WORKSPACES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS FOR FIELD VERIFICATION.
- STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
- STATIONING ON THIS DRAWING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESS AND AS NECESSARY.
- APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.



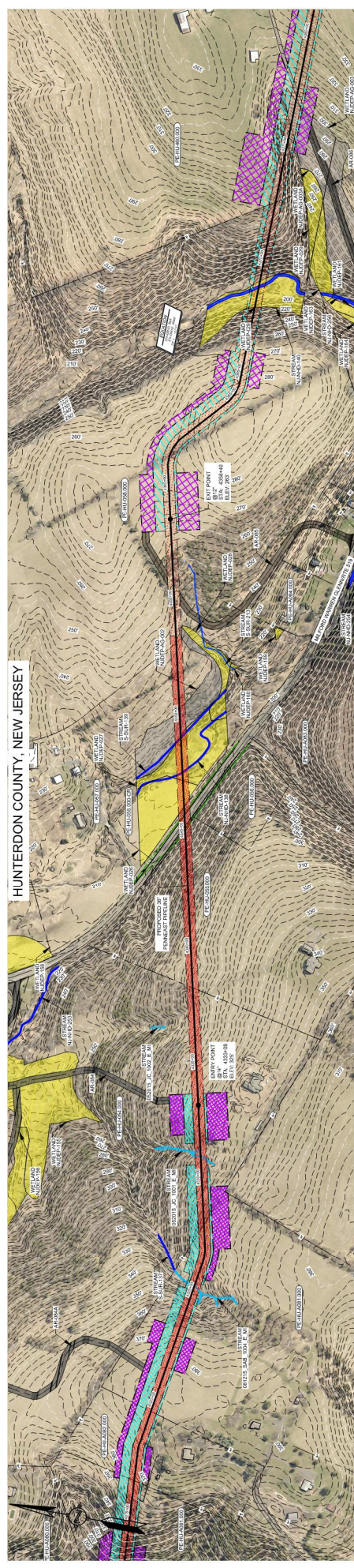
**INTERSTATE 80 HDD
PROFILE**

NOTES		REFERENCES		REVISIONS		APPROVALS	
1.	CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS.	NO.	DATE	BY	DATE	FOR	DATE
2.	APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.	A	12/12/2014	OPF	08/18/2016	OPF	08/18/2016
3.	RESULTS OF A BOUNDARY SURVEY.	B	4/13/2015	OPF	09/16/2016	OPF	09/16/2016
		C	10/22/2015	MM	09/16/2016	MM	09/16/2016
		D	10/22/2015	MM	09/16/2016	MM	09/16/2016
		E	01/18/2016	MM	09/16/2016	MM	09/16/2016
		F	01/18/2016	MM	09/16/2016	MM	09/16/2016
		G	01/18/2016	MM	09/16/2016	MM	09/16/2016
		H	01/18/2016	MM	09/16/2016	MM	09/16/2016

NO.	DATE	BY	DATE	FOR	DATE
1	12/12/2014	OPF	08/18/2016	OPF	08/18/2016
2	4/13/2015	OPF	09/16/2016	OPF	09/16/2016
3	10/22/2015	MM	09/16/2016	MM	09/16/2016
4	10/22/2015	MM	09/16/2016	MM	09/16/2016
5	01/18/2016	MM	09/16/2016	MM	09/16/2016
6	01/18/2016	MM	09/16/2016	MM	09/16/2016
7	01/18/2016	MM	09/16/2016	MM	09/16/2016
8	01/18/2016	MM	09/16/2016	MM	09/16/2016

NO.	DATE	BY	DATE	FOR	DATE
1	12/12/2014	OPF	08/18/2016	OPF	08/18/2016
2	4/13/2015	OPF	09/16/2016	OPF	09/16/2016
3	10/22/2015	MM	09/16/2016	MM	09/16/2016
4	10/22/2015	MM	09/16/2016	MM	09/16/2016
5	01/18/2016	MM	09/16/2016	MM	09/16/2016
6	01/18/2016	MM	09/16/2016	MM	09/16/2016
7	01/18/2016	MM	09/16/2016	MM	09/16/2016
8	01/18/2016	MM	09/16/2016	MM	09/16/2016

HUNTERDON COUNTY, NEW JERSEY



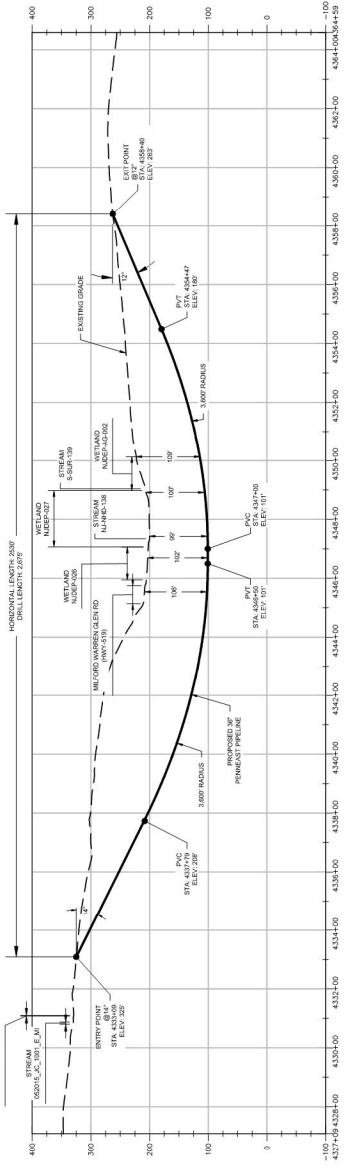
LEGEND

Symbol/Color	Description
[Blue hatched]	PROPOSED PERMANENT EASEMENT
[Green hatched]	PROPOSED TEMPORARY WORKSPACE
[Red hatched]	ADDITIONAL TEMPORARY WORKSPACE
[Purple hatched]	PROPOSED STAGING AREA
[Black line]	PROPERTY LINE
[Black outline]	BLACK CONTOURS
[Red line]	EXISTING OPEN EASEMENT
[Green line]	EXISTING OVERHEAD LINE
[Blue line]	RAILROAD CENTERLINE
[Black line]	ROAD CENTERLINE
[Black line]	TRAIL CENTERLINE
[Blue line]	STREAM (PUBLIC)
[Yellow line]	WETLAND (PUBLIC)
[Green line]	WETLAND (DEEPEATED)
[Orange line]	WETLAND (AGRICULTURAL)
[Blue line]	WATERBODY (P/ENL/ATD)
[Blue line]	WATERBODY (PUBLIC)

MILFORD WARREN GLENN RD HDD

PLAN VIEW

1. EXISTING CONTOURS SHOWN ON THIS DRAWING IS CONSIDERED DRAFT CONCEPTUAL AND IS SUBJECT TO CHANGE BASED ON GEOTECHNICAL DATA, TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA, TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA AND AFTER BIOLOGICAL COLLECTION AND EVALUATION OF BOTH TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA.
2. EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
4. PERSONS WHO SEEM TO BE INTERESTED IN ANY RIGHTS IN THIS DRAWING, REFER TO EDCOP PLAN AND FOR EDCOPLAN AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONS WHOSE INTERESTS SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DESTRUCTION.
7. THIS DRAWING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.
8. THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY/CONCEPTUAL INFORMATION REGARDING THE CROSSING, IT IS POSSIBLE THAT ADDITIONAL CONSIDERATIONS ASSOCIATED WITH THIS CROSSING WILL BE DISCOVERED AND OTHER DESIGN CHANGES ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.



MILFORD WARREN GLENN RD HDD

PROFILE

HORIZ SCALE: 200' = 1" VERT SCALE: 100' = 1" AS SHOWN

PennEast PIPELINE PROJECT
PROPOSED 36" PIPELINE
MILFORD WARREN GLENN RD HDD
HUNTERDON COUNTY, NEW JERSEY

NO.	DATE	REVISIONS
A	08/19/2018	PROPOSAL
B	12/17/2018	REVISED PER CLIENT FEEDBACK
C	4/10/2019	REVISED PER CLIENT FEEDBACK
D	10/12/2018	REVISED PER CLIENT FEEDBACK
E	10/12/2018	REVISED PER CLIENT FEEDBACK
F	09/18/2019	REVISED PER CLIENT FEEDBACK
G	09/18/2019	REVISED PER CLIENT FEEDBACK
H	09/18/2019	REVISED PER CLIENT FEEDBACK

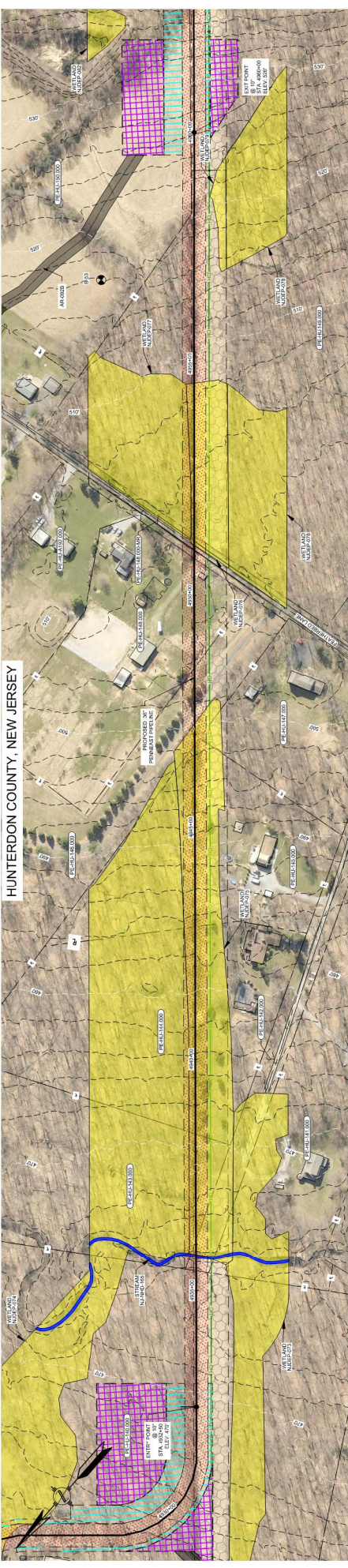
DATE	APPROVALS
08/19/2018	BY: [Signature]
12/17/2018	BY: [Signature]
4/10/2019	BY: [Signature]
10/12/2018	BY: [Signature]
10/12/2018	BY: [Signature]
09/18/2019	BY: [Signature]
09/18/2019	BY: [Signature]
09/18/2019	BY: [Signature]

NOTICE: CONTOURS AND BATTERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND BATTERY SUPPLEMENTED FROM PASDA AND USGS. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

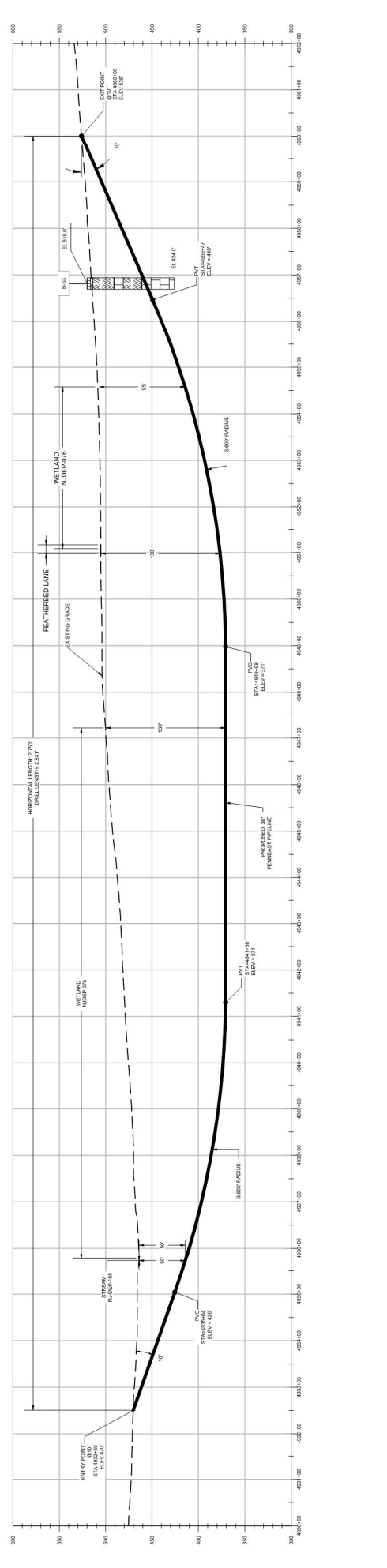
RESULT OF A BOUNDARY SURVEY.

HUNTERDON COUNTY, NEW JERSEY



FEATHERBED LANE HDD
PLAN VIEW

1. CONCEPTUAL HDD NOTES:
 1. CHANGE BASED ON GEOTECHNICAL DATA, TOPOGRAPHICAL CHANGE BASED ON GEOTECHNICAL DATA, AND IS SUBJECT TO CONSIDER "DRAFT CONCEPTUAL" AND IS SUBJECT TO BIOLOGICAL FEATURE DETERMINATIONS. THE HDD BORE PATH COLLECTION AND EVALUATION OF BOTH TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA AND AFTER BIOLOGICAL SURVEY.
 2. EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.
4. PROPOSED WORKSPACE COORDINATES AND DISTANCES ON THIS DRAWING REFER TO ELEVATION AND FOR EMISSION AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONNEL, AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS BEFORE ANY WORK BEGINS.
7. STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
8. APPROXIMATE IN PROFILE. SOIL BORINGS PERFORMED IN FEBRUARY 2016.



FEATHERBED LANE HDD
PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=20'

NOTICE: CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS. ANY CHANGES TO THESE ARE SUBJECT TO JOTT, MACDONALD AND DIGITIZED FROM IMAGERY. ALL LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR. PENNSYLVANIA AND NEW JERSEY TAX MAP DATA AND RECTIFIED PROPERTY LINES ARE BASED ON US TAX MAP DATA AND RECTIFIED PROPERTY LINES ARE NOT THE RESULT OF AN INDEPENDENT SURVEY.

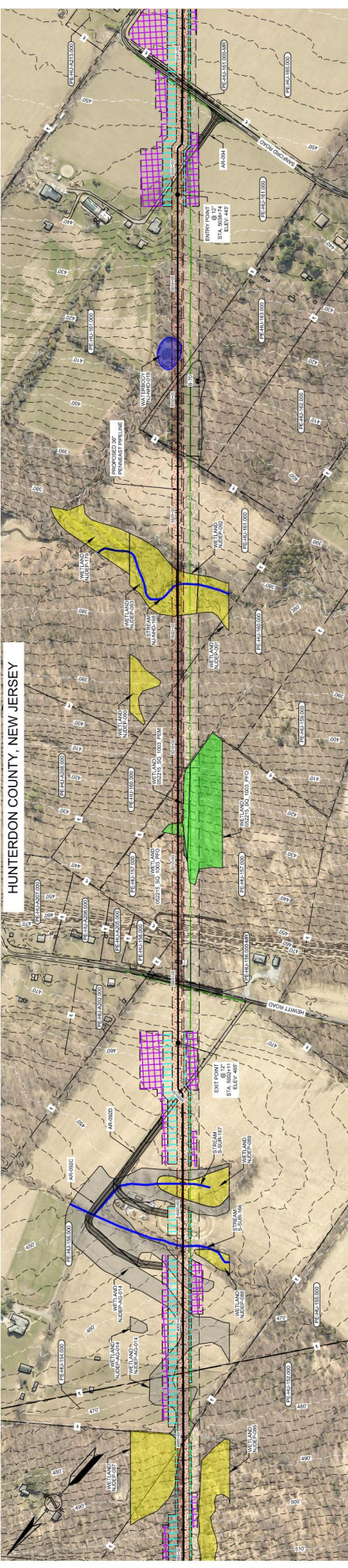
NO.	DATE	BY	CHKD.	APPR.	REVISIONS
A	08/12/2016	RFJ	MM	MM	ISSUED FOR PERMITS
B	12/12/2016	RFJ	MM	MM	ISSUED FOR PERMITS
C	01/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
D	02/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
E	03/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
F	04/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
G	05/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
H	06/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS

NO.	DATE	BY	CHKD.	APPR.	REVISIONS
A	08/12/2016	RFJ	MM	MM	ISSUED FOR PERMITS
B	12/12/2016	RFJ	MM	MM	ISSUED FOR PERMITS
C	01/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
D	02/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
E	03/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
F	04/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
G	05/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS
H	06/12/2017	RFJ	MM	MM	ISSUED FOR PERMITS

PREPARED FOR: PENN EAST PIPELINE PROJECT
HUNTERDON COUNTY, NEW JERSEY

SCALE: AS SHOWN
DATE: 06/12/2017
PROJECT NO: 09003-02-005

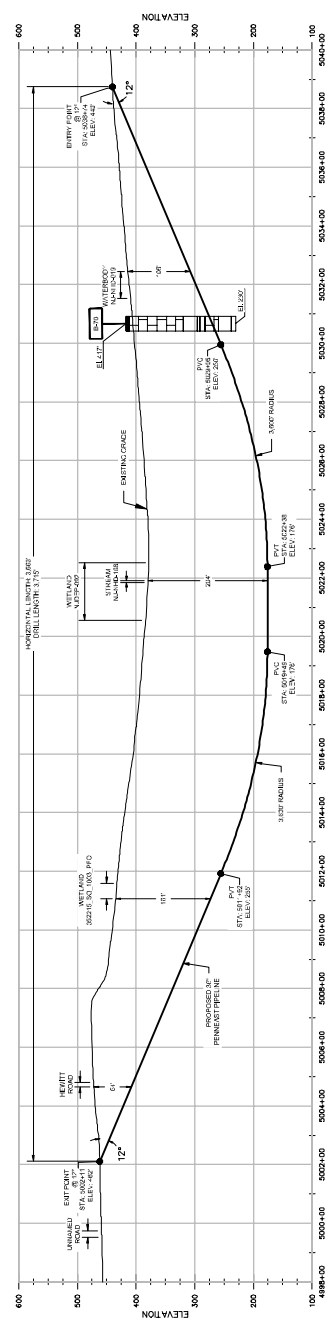




- EXACT CONCEPTUAL HDD NOTES:**
1. THE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PAST AND LOGS.
 2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 3. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 4. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 5. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 6. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 7. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
 8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
- LEGEND**
- PROPOSED BY PIPELINE
 - PROPOSED PERMANENT EASEMENT
 - PROPOSED TEMPORARY WORKSPACE
 - ADDITIONAL TEMPORARY WORKSPACE
 - PROPOSED PIPELAD
 - PROPOSED STAGING AREA
 - ACCESS ROAD
 - PROPERTY LINE
 - MAJOR CONTOURS
 - MINOR CONTOURS
 - EXISTING FOREAN EASEMENT
 - EXISTING PIPELINE
 - EXISTING OVERHEADLINE
 - RAILROAD CENTERLINE
 - RAILROAD CENTERLINE
 - TRAIL CENTERLINE
 - STREAM (PUBLIC)
 - STREAM (PRIVATE)
 - WETLAND (PUBLIC)
 - WETLAND (PRIVATE)
 - WETLAND (AGRICULTURAL)
 - WETLAND (WATERBODY)
 - WATERBODY (PUBLIC)
 - WATERBODY (PRIVATE)

**WICKECHOCHE CREEK TRIBUTARY HDD
PLAN VIEW**

3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
4. PROVISIONS AND SEPARATE CONSTRUCTION SHALL BE SHOWN ON THIS DRAWING. REFER TO RECORD PLANS FOR DESIGN AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONNEL, LANS AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING HOURS BEFORE CONSTRUCTION.
7. STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.



**WICKECHOCHE CREEK TRIBUTARY HDD
PROFILE**

NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
2	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
3	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
4	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
5	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
6	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
7	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
8	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
9	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
10	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL

PENNEAST PIPELINE PROJECT

PROPOSED 30" PIPELINE
WICKECHOCHE CREEK TRIBUTARY HDD
HUNTERDON COUNTY, NEW JERSEY

SCALE: 1"=50'
DATE: 05/05/2015
BY: JL
CHECKED: JL
APPROVED: JL



PREPARED FOR:

NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
2	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
3	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
4	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
5	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
6	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
7	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
8	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
9	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
10	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL

REFERENCE DRAWINGS:

NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
1	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
2	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
3	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
4	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
5	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
6	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
7	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
8	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
9	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL
10	05/05/2015	ISSUED FOR PERMITS	JL	JL	JL

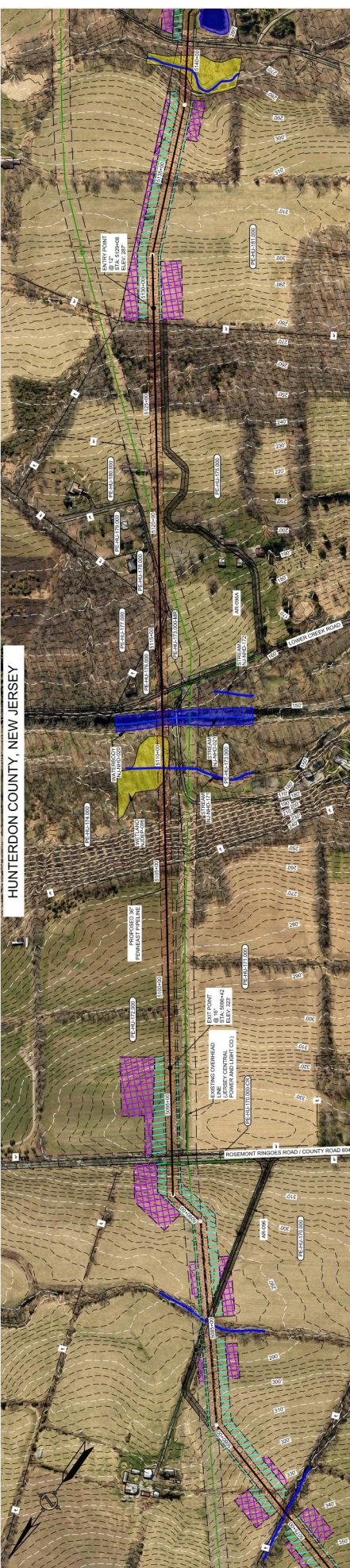
NOISE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PAST AND LOGS.

1. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
4. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
5. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
6. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
7. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
9. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
10. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

NOISE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PAST AND LOGS.

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4. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
5. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
6. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
7. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
9. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
10. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

HUNTERDON COUNTY, NEW JERSEY

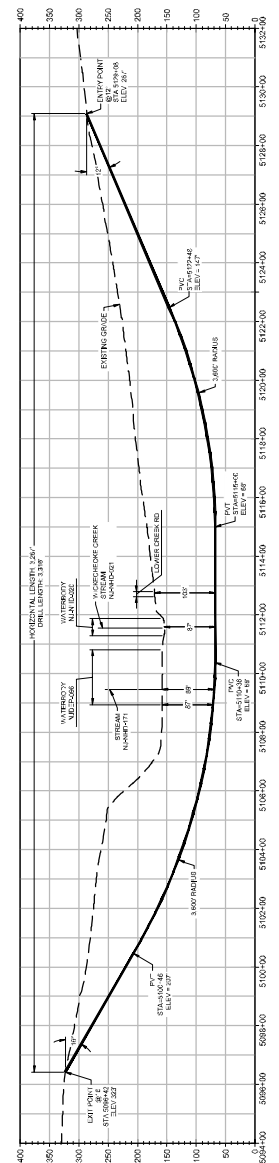


WICKECHEOKE CREEK HDD

PLAN VIEW

- NO USE CONTOURS AND BAGERY SHOWN WERE PROVIDED BY PICTOMETRY. 2015. ADDITIONAL CONTOURS AND BAGERY SUPPLEMENTED FROM PANDA AND LOGS.
- APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR. RESULT OF AERIAL PHOTOGRAPHY.
- FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.
- PROVISION AS SHOWN IS SUBJECT TO ANY CHANGES IN BIOLOGICAL FEATURE DESIGNATIONS. THE HDD BORE PATH AND SEDIMENT CONTROL REQUIREMENTS.
- ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
- UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DESTRUCTION. STATIONING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.
- THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY CONCEPTUAL INFORMATION REGARDING THE CROSSING IT IS POSSIBLE THAT ADDITIONAL CONSULTANTS ASSOCIATED WITH THIS PROJECT WILL BE CONSIDERED ALIGNMENT AND OTHER DESIGN CHANGES. ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.

- PROPOSED BY PIPELINE
- PROPOSED PERMANENT EASEMENT
- ADDITIONAL TEMPORARY WORKSPACE
- PROPOSED BORE PATH
- PROPOSED STAGING AREA
- ACCESS ROAD
- PROPERTY LINE
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING DESIGN EASEMENT
- EXISTING PIPELINE
- EXISTING OVERHEAD LINE
- RAILROAD CENTERLINE
- RAILROAD CENTERLINE
- PIPE CENTERLINE
- STREAM (PUBLIC)
- STREAM (DEVELOPED)
- WETLAND (PUBLIC)
- WETLAND (DEVELOPED)
- WETLAND (AGRICULTURAL)
- WETLAND (UNDEVELOPED)
- WATER BODY (DEVELOPED)
- WATER BODY (UNDEVELOPED)



WICKECHEOKE CREEK HDD

PROFILE

NO USE CONTOURS AND BAGERY SHOWN WERE PROVIDED BY PICTOMETRY. 2015. ADDITIONAL CONTOURS AND BAGERY SUPPLEMENTED FROM PANDA AND LOGS.

APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR. RESULT OF AERIAL PHOTOGRAPHY.

FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACES IS BY OTHERS.

PROVISION AS SHOWN IS SUBJECT TO ANY CHANGES IN BIOLOGICAL FEATURE DESIGNATIONS. THE HDD BORE PATH AND SEDIMENT CONTROL REQUIREMENTS.

ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.

NO.	DATE	BY	DESCRIPTION
1	05/20/2015	JL	ISSUED FOR PERMITTING
2	05/20/2015	JL	ISSUED FOR PERMITTING
3	05/20/2015	JL	ISSUED FOR PERMITTING
4	05/20/2015	JL	ISSUED FOR PERMITTING
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6	05/20/2015	JL	ISSUED FOR PERMITTING
7	05/20/2015	JL	ISSUED FOR PERMITTING
8	05/20/2015	JL	ISSUED FOR PERMITTING
9	05/20/2015	JL	ISSUED FOR PERMITTING
10	05/20/2015	JL	ISSUED FOR PERMITTING

NO.	DATE	BY	DESCRIPTION
1	05/20/2015	JL	ISSUED FOR PERMITTING
2	05/20/2015	JL	ISSUED FOR PERMITTING
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6	05/20/2015	JL	ISSUED FOR PERMITTING
7	05/20/2015	JL	ISSUED FOR PERMITTING
8	05/20/2015	JL	ISSUED FOR PERMITTING
9	05/20/2015	JL	ISSUED FOR PERMITTING
10	05/20/2015	JL	ISSUED FOR PERMITTING

NO.	DATE	BY	DESCRIPTION
1	05/20/2015	JL	ISSUED FOR PERMITTING
2	05/20/2015	JL	ISSUED FOR PERMITTING
3	05/20/2015	JL	ISSUED FOR PERMITTING
4	05/20/2015	JL	ISSUED FOR PERMITTING
5	05/20/2015	JL	ISSUED FOR PERMITTING
6	05/20/2015	JL	ISSUED FOR PERMITTING
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8	05/20/2015	JL	ISSUED FOR PERMITTING
9	05/20/2015	JL	ISSUED FOR PERMITTING
10	05/20/2015	JL	ISSUED FOR PERMITTING

NO.	DATE	BY	DESCRIPTION
1	05/20/2015	JL	ISSUED FOR PERMITTING
2	05/20/2015	JL	ISSUED FOR PERMITTING
3	05/20/2015	JL	ISSUED FOR PERMITTING
4	05/20/2015	JL	ISSUED FOR PERMITTING
5	05/20/2015	JL	ISSUED FOR PERMITTING
6	05/20/2015	JL	ISSUED FOR PERMITTING
7	05/20/2015	JL	ISSUED FOR PERMITTING
8	05/20/2015	JL	ISSUED FOR PERMITTING
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APPROVED FOR:

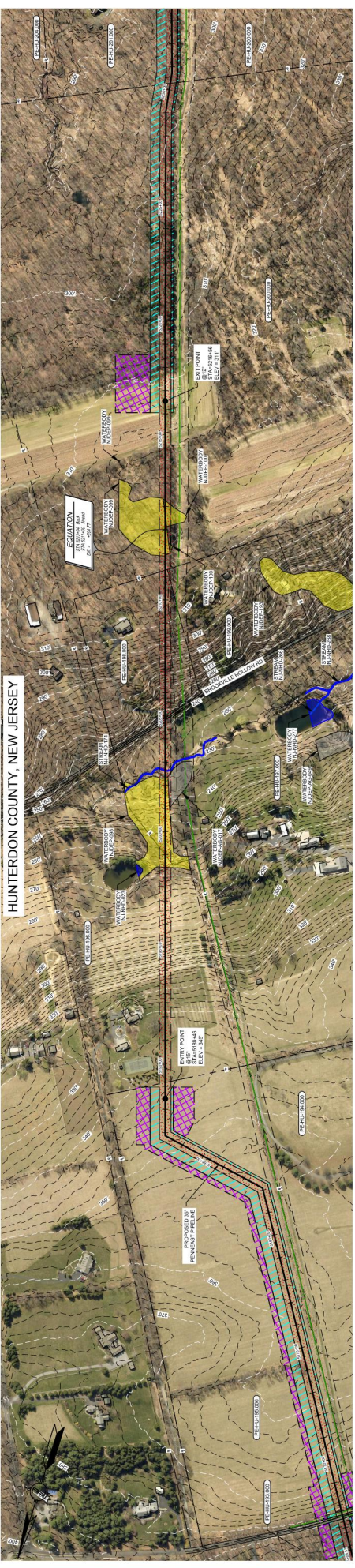
PennEast PIPELINE

PROPOSED 30" PIPELINE
HUNTERDON COUNTY, NEW JERSEY
WICKECHEOKE CREEK HDD

SCALE: AS SHOWN
DATE: 05/20/2015
SCALE: 1"=100'

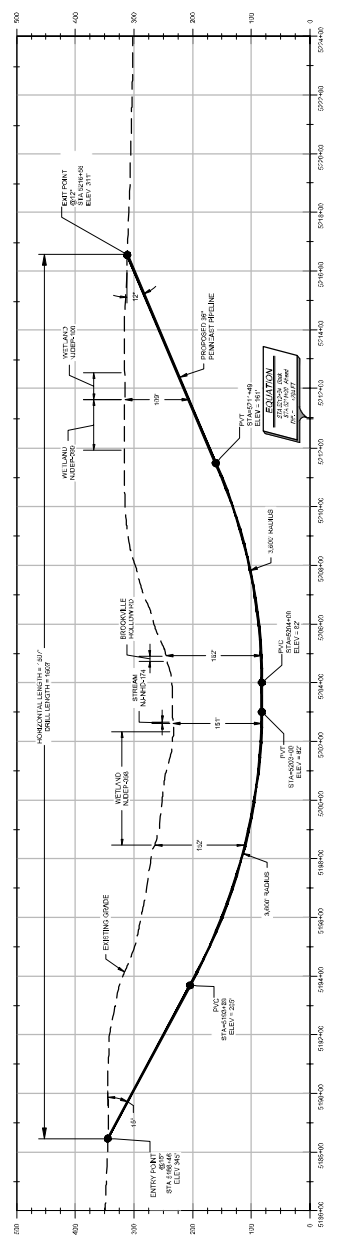
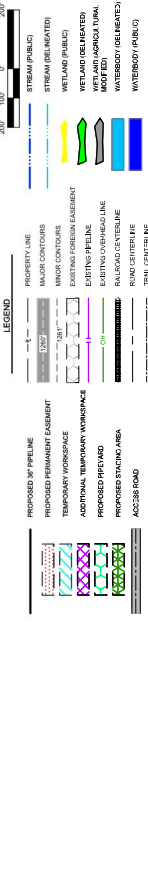
HORIZ. SCALE: 1"=100'
VERT. SCALE: 1"=50'

HUNTERDON COUNTY, NEW JERSEY



BROOKVILLE HOLLOW RD HDD
PLAN VIEW

1. THESE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PAST AND LOGS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR. RESULTS OF THIS ANALYSIS SHALL BE THE RESULT OF THIS ANALYSIS ONLY.
3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.
4. PROVISIONS AND SEWERAGE ASSUMPTIONS ARE NOT SHOWN ON THIS DRAWING. REFER TO RECORD PLANS FOR DESIGN AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DESTRUCTION.
7. STATIONING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.
8. THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY CONCEPTUAL INFORMATION REGARDING THE CROSSING IT IS POSSIBLE THAT ADDITIONAL CONSTRAINTS ASSOCIATED WITH THIS PROJECT WILL BE DISCOVERED. ALIGNMENT AND OTHER DESIGN CHANGES, ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.



BROOKVILLE HOLLOW RD HDD
PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5'

NO THESE CONTOURS AND MASONRY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND MASONRY SUPPLEMENTED FROM PAST AND LOGS.

APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR. RESULTS OF THIS ANALYSIS SHALL BE THE RESULT OF THIS ANALYSIS ONLY.

FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY OTHERS.

PROVISIONS AND SEWERAGE ASSUMPTIONS ARE NOT SHOWN ON THIS DRAWING. REFER TO RECORD PLANS FOR DESIGN AND SEDIMENT CONTROL REQUIREMENTS.

ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DERIVED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.

UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 48 HOURS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE BEFORE EXCAVATION OR DESTRUCTION.

STATIONING IS SUBJECT TO CHANGE BASED ON PROJECT PROGRESSION.

THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION PROGRAM. THE PRELIMINARY CONCEPTUAL INFORMATION REGARDING THE CROSSING IT IS POSSIBLE THAT ADDITIONAL CONSTRAINTS ASSOCIATED WITH THIS PROJECT WILL BE DISCOVERED. ALIGNMENT AND OTHER DESIGN CHANGES, ELEVATION DATA IS BASED ON PUBLICLY AVAILABLE DATASETS.

DATE: 05/02/2023
DRAWN BY: J. BROWN
CHECKED BY: J. BROWN
SCALE: AS SHOWN
PROJECT NO: 2023-001

APPROVALS:

NO.	DATE	BY	FOR
1	05/02/2023	J. BROWN	DESIGN
2	05/02/2023	J. BROWN	CHECK
3	05/02/2023	J. BROWN	APPROVE

CLIENT APPROVAL:

DATE	DATE
05/02/2023	05/02/2023

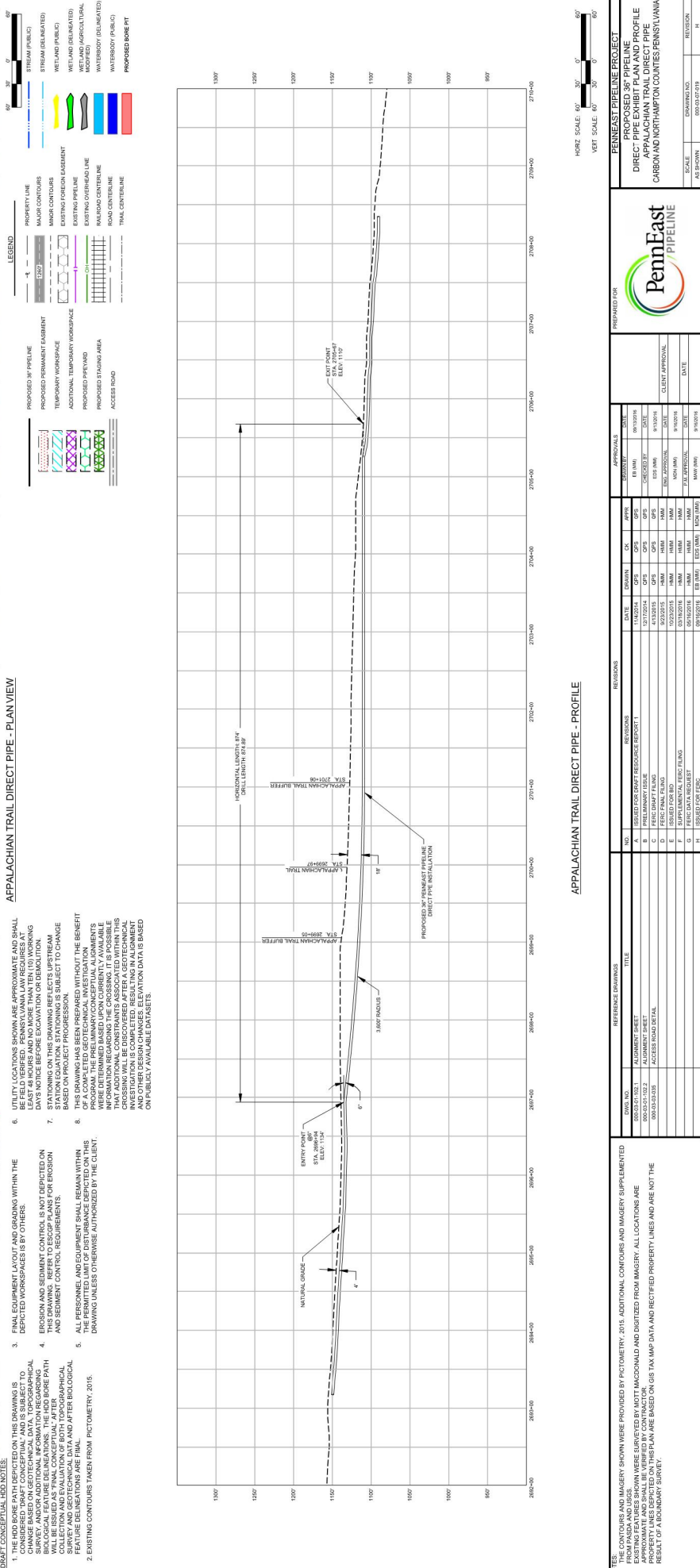
PREPARED FOR:
PENNEAST PIPELINE PROJECT
PROPOSED 30" PIPELINE
BROOKVILLE HOLLOW RD HDD
HUNTERDON COUNTY, NEW JERSEY



APPALACHIAN TRAIL DIRECT PIPE - PLAN VIEW



APPALACHIAN TRAIL DIRECT PIPE - PROFILE



1. THE HOB BORE PATH SHOWN ON THIS DRAWING IS CONSIDERED PART CONCEPTUAL AND IS SUBJECT TO SURVEY AND ADDITIONAL INFORMATION REGARDING BIOLOGICAL FEATURE DETERMINATIONS. THE HOB BORE PATH COLLECTION AND EVALUATION OF BOTH TOPOGRAPHICAL SURVEY AND GEOTECHNICAL DATA AND AFTER BIOLOGICAL DATA IS OBTAINED FROM PICTOMETRY, 2015.
2. EXISTING CONTOURS TAKEN FROM PICTOMETRY, 2015.
3. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICED WORKSPACE IS BY OTHERS.
4. EROSION AND SEDIMENT CONTROL IS NOT DEPICED ON THIS DRAWING. REFER TO ESCOP PLANS FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.
5. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE CLIENT.
6. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. PENNSYLVANIA LAW REQUIRES AT LEAST 30 DAYS NOTICE BEFORE EXCAVATION OR DEMOLITION.
7. STATIONING ON THIS DRAWING REFLECTS UPSTREAM TO DOWNSTREAM.
8. THIS DRAWING HAS BEEN PREPARED WITHOUT THE BENEFIT OF A COMPLETED GEOTECHNICAL INVESTIGATION. ANY CROSSINGS WILL BE DISCOVERED AFTER A GEOTECHNICAL INVESTIGATION IS COMPLETED. RESULTING ALIGNMENT CHANGES WILL BE DETERMINED BASED UPON CURRENTLY AVAILABLE DATA AND INFORMATION.

- LEGEND**
- PROPOSED 30' PIPELINE
 - PROPOSED PERMANENT EASEMENT
 - TEMPORARY WORKSPACE
 - ADDITIONAL TEMPORARY WORKSPACE
 - PROPOSED PAVED
 - PROPOSED PAVING AREA
 - ACCESS ROAD
 - PROPERTY LINE
 - MAJOR CONTOURS
 - EXISTING FOREIGN EASEMENT
 - EXISTING PIPELINE
 - EXISTING OVERHEAD LINE
 - RAILROAD CENTERLINE
 - ROAD CENTERLINE
 - TRAIL CENTERLINE
 - STREAM (PUBLIC)
 - STREAM (DELMARIED)
 - WETLAND (PUBLIC)
 - WETLAND (DELMARIED)
 - WETLAND (AGRICULTURAL)
 - WETLAND (DELMARIED)
 - WATERBODY (DELMARIED)
 - WATERBODY (PUBLIC)
 - PROPOSED BORE PIT

PennEast PIPELINE PROJECT
DIRECT PIPE DESIGN PLAN AND PROFILE
APPALACHIAN TRAIL DIRECT PIPE
CARBON AND NORTHAMPTON COUNTIES, PENNSYLVANIA

SCALE: AS SHOWN
 DATE: 06/03/2019
 REVISION: H

APPROVALS

NO.	DATE	BY	TITLE
A	06/03/2019	AS	AS SHOWN
B	06/03/2019	AS	AS SHOWN
C	06/03/2019	AS	AS SHOWN
D	06/03/2019	AS	AS SHOWN
E	06/03/2019	AS	AS SHOWN
F	06/03/2019	AS	AS SHOWN
G	06/03/2019	AS	AS SHOWN
H	06/03/2019	AS	AS SHOWN

REVISIONS

NO.	DATE	BY	TITLE
A	06/03/2019	AS	AS SHOWN
B	06/03/2019	AS	AS SHOWN
C	06/03/2019	AS	AS SHOWN
D	06/03/2019	AS	AS SHOWN
E	06/03/2019	AS	AS SHOWN
F	06/03/2019	AS	AS SHOWN
G	06/03/2019	AS	AS SHOWN
H	06/03/2019	AS	AS SHOWN

REFERENCE DRAWINGS

NO.	DATE	BY	TITLE
A	06/03/2019	AS	AS SHOWN
B	06/03/2019	AS	AS SHOWN
C	06/03/2019	AS	AS SHOWN
D	06/03/2019	AS	AS SHOWN
E	06/03/2019	AS	AS SHOWN
F	06/03/2019	AS	AS SHOWN
G	06/03/2019	AS	AS SHOWN
H	06/03/2019	AS	AS SHOWN

NOTES

1. THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PARSA AND LISBIS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
3. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
4. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
5. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
6. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
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8. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
9. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
10. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.

SCALE: AS SHOWN
 DATE: 06/03/2019
 REVISION: H

APPROVALS

NO.	DATE	BY	TITLE
A	06/03/2019	AS	AS SHOWN
B	06/03/2019	AS	AS SHOWN
C	06/03/2019	AS	AS SHOWN
D	06/03/2019	AS	AS SHOWN
E	06/03/2019	AS	AS SHOWN
F	06/03/2019	AS	AS SHOWN
G	06/03/2019	AS	AS SHOWN
H	06/03/2019	AS	AS SHOWN

REVISIONS

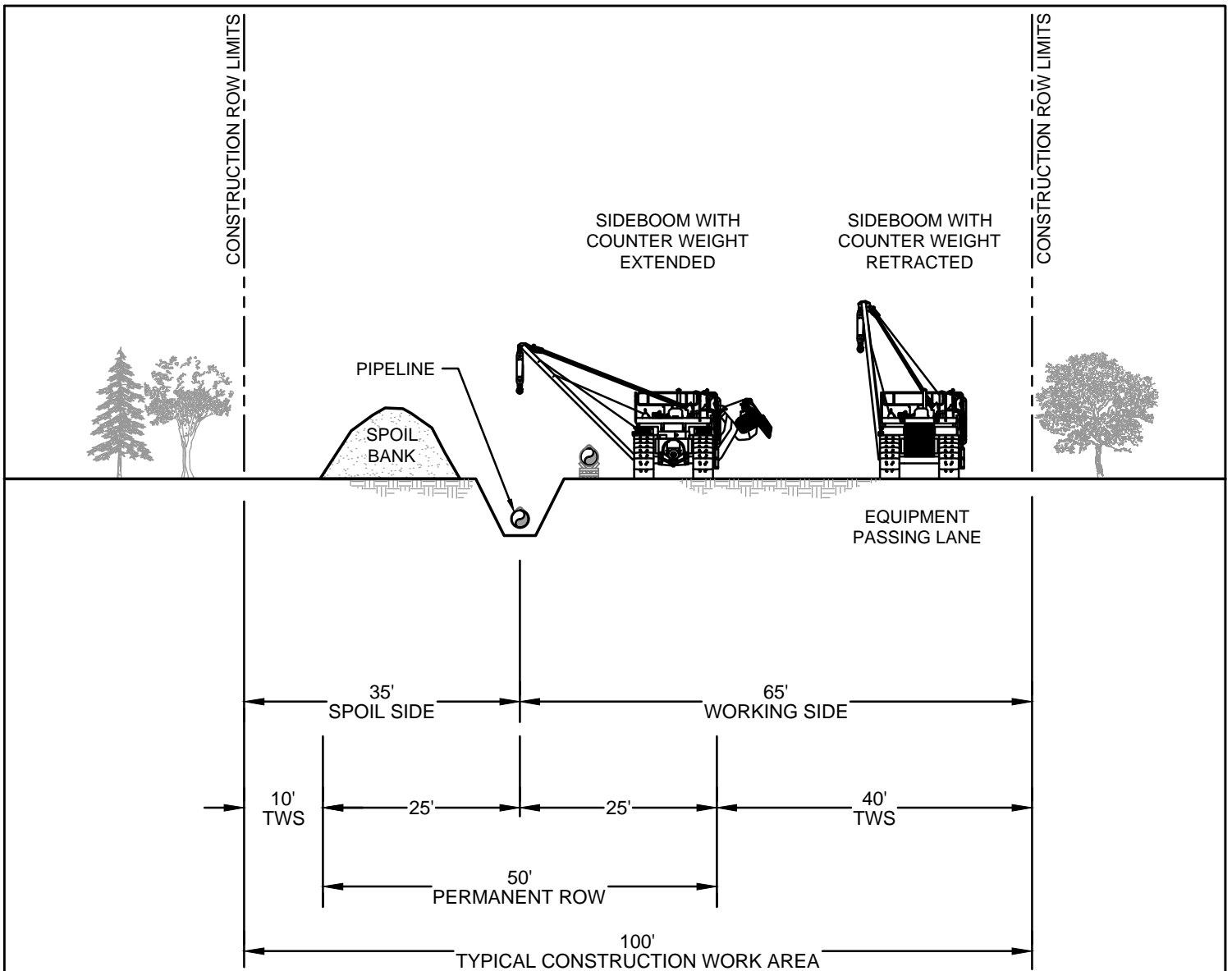
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C	06/03/2019	AS	AS SHOWN
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REFERENCE DRAWINGS

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G	06/03/2019	AS	AS SHOWN
H	06/03/2019	AS	AS SHOWN

NOTES

1. THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PARSA AND LISBIS.
2. APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
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NOTES:

1. INSTALL TEMPORARY SLOPE BREAKERS UP SLOPE AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR OR OTHER QUALIFIED PROFESSIONAL.
2. IN FORESTED AREAS, RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCH LINE.
3. PIPE SECTION MAY BE FABRICATED WITHIN FORESTED AREAS ADJACENT TO ALIGNMENT, OR IN A STAGING AREA OUTSIDE THE FOREST AND WALKED IN.
4. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL IF APPLICABLE AND INSTALL PERMANENT EROSION CONTROL.



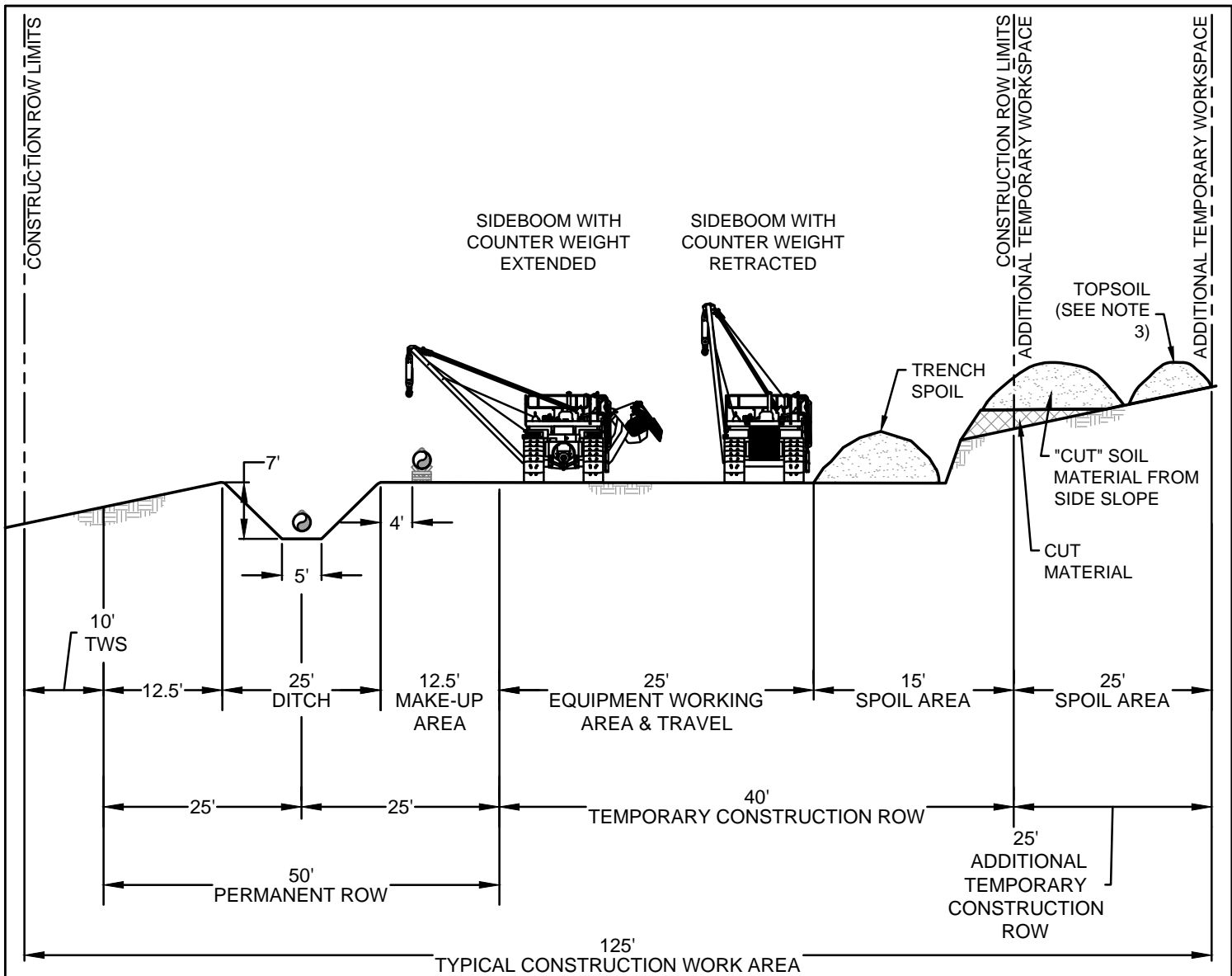
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G	FERC DATA REQUEST	05/16/2016	HMM	HMM	HMM
H	ISSUED FOR FERC	09/16/2016	DRG(MM)	DOW(MM)	MAW(MM)

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PENNEAST PIPELINE PROJECT

TYPICAL UPLAND WORKSPACE

FIGURE NUMBER: FIGURE 1A



* DIMENSIONS ARE TYPICAL, SEE ALIGNMENT SHEETS FOR ACTUAL RIGHT-OF-WAY CONFIGURATIONS AND CLEARING LIMITS

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 100 FEET WIDE CONSISTING OF 50 FEET OF PERMANENT EASEMENT, 50 FEET TEMPORARY WORKSPACE AND ADDITIONAL WORKSPACE THAT WILL BE NECESSARY AT ROAD, RAIL AND RIVER CROSSINGS AND OTHER SPECIAL CIRCUMSTANCES, AS REQUIRED. CERTAIN SITUATIONS MAY REQUIRE A NARROWER WIDTH.
2. LEAVE GAPS IN SPOIL PILES AT OBVIOUS DRAINAGES. DO NOT PUSH UPLAND SOILS INTO CANALS OR WETLANDS.
3. DITCH LINE TOPSOIL WHERE REQUIRED BY LAND OWNER.
4. CLEAR AND STAKE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR EXTRA SPOIL.
5. ENSURE SIDE BOOM TRACTORS ARE EQUIPPED WITH BOOM EXTENDERS AND COUNTER-WEIGHTS IF REQUIRED.
6. USE BACKHOE TO ASSIST BULLDOZERS WITH REPLACING CUTS.
7. EMPLOY EROSION CONTROL MEASURES SUCH AS BREAKERS, CROSS DITCHES, BERMS AND REVEGETATION.



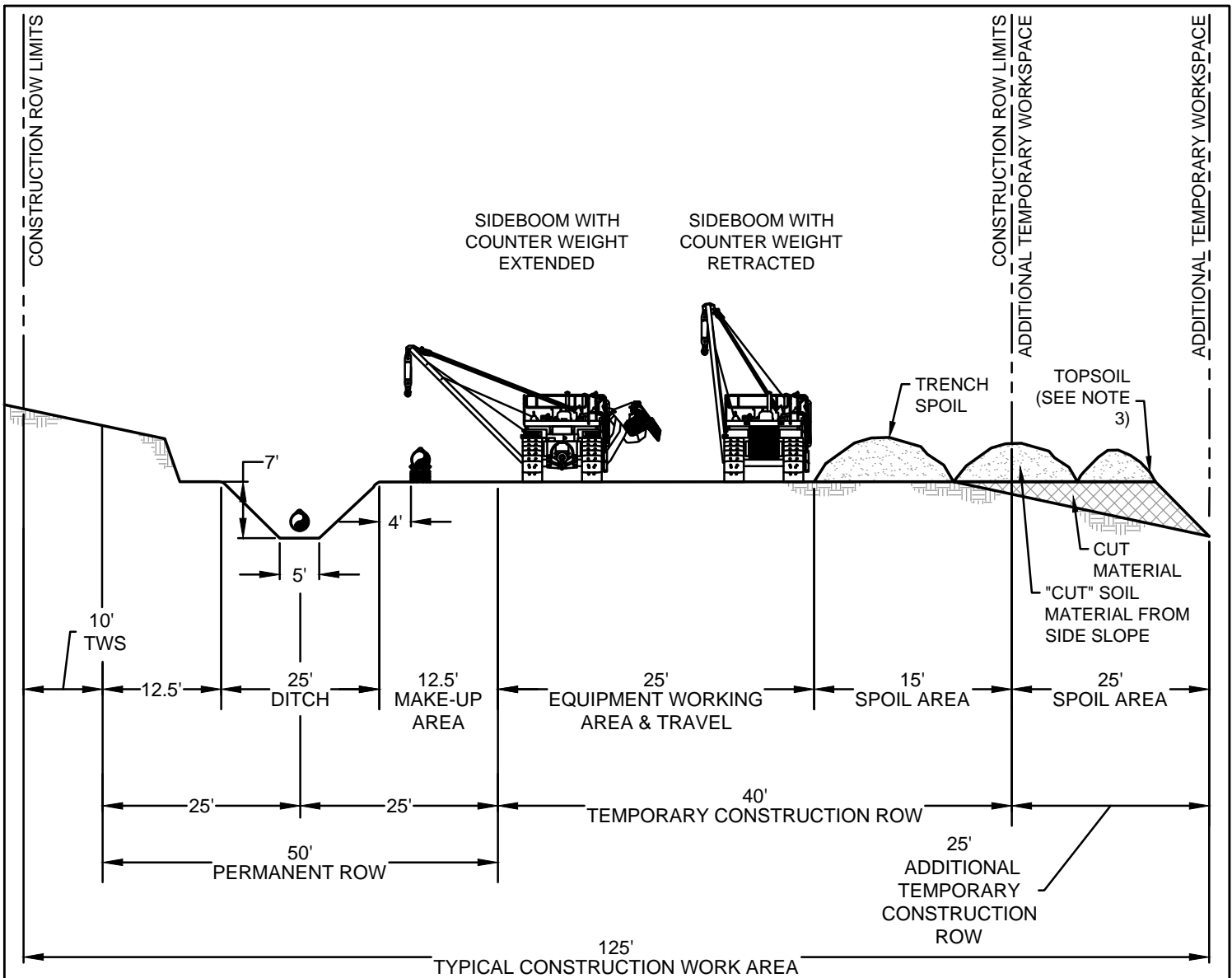
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H	ISSUED FOR FERC	09/16/2016	DRG(MM)	DOW(MM)	MAW(MM)

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**TYPICAL UPWARD SIDE SLOPE
WORKSPACE
CONSTRUCTION AREA**

FIGURE NUMBER: **FIGURE 1B**



* DIMENSIONS ARE TYPICAL, SEE ALIGNMENT SHEETS FOR ACTUAL RIGHT-OF-WAY CONFIGURATIONS AND CLEARING LIMITS

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 100 FEET WIDE CONSISTING OF 50 FEET OF PERMANENT EASEMENT, 50 FEET TEMPORARY WORKSPACE AND ADDITIONAL WORKSPACE THAT WILL BE NECESSARY AT ROAD, RAIL AND RIVER CROSSINGS AND OTHER SPECIAL CIRCUMSTANCES, AS REQUIRED. CERTAIN SITUATIONS MAY REQUIRE A NARROWER WIDTH.
2. LEAVE GAPS IN SPOIL PILES AT OBVIOUS DRAINAGES. DO NOT PUSH UPLAND SOILS INTO CANALS OR WETLANDS.
3. DITCH LINE TOPSOIL WHERE REQUIRED BY LAND OWNER.
4. CLEAR AND STAKE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR EXTRA SPOIL.
5. ENSURE SIDE BOOM TRACTORS ARE EQUIPPED WITH BOOM EXTENDERS AND COUNTER-WEIGHTS IF REQUIRED.
6. USE BACKHOE TO ASSIST BULLDOZERS WITH REPLACING CUTS.
7. EMPLOY EROSION CONTROL MEASURES SUCH AS BREAKERS, CROSS DITCHES, BERMS AND REVEGETATION.



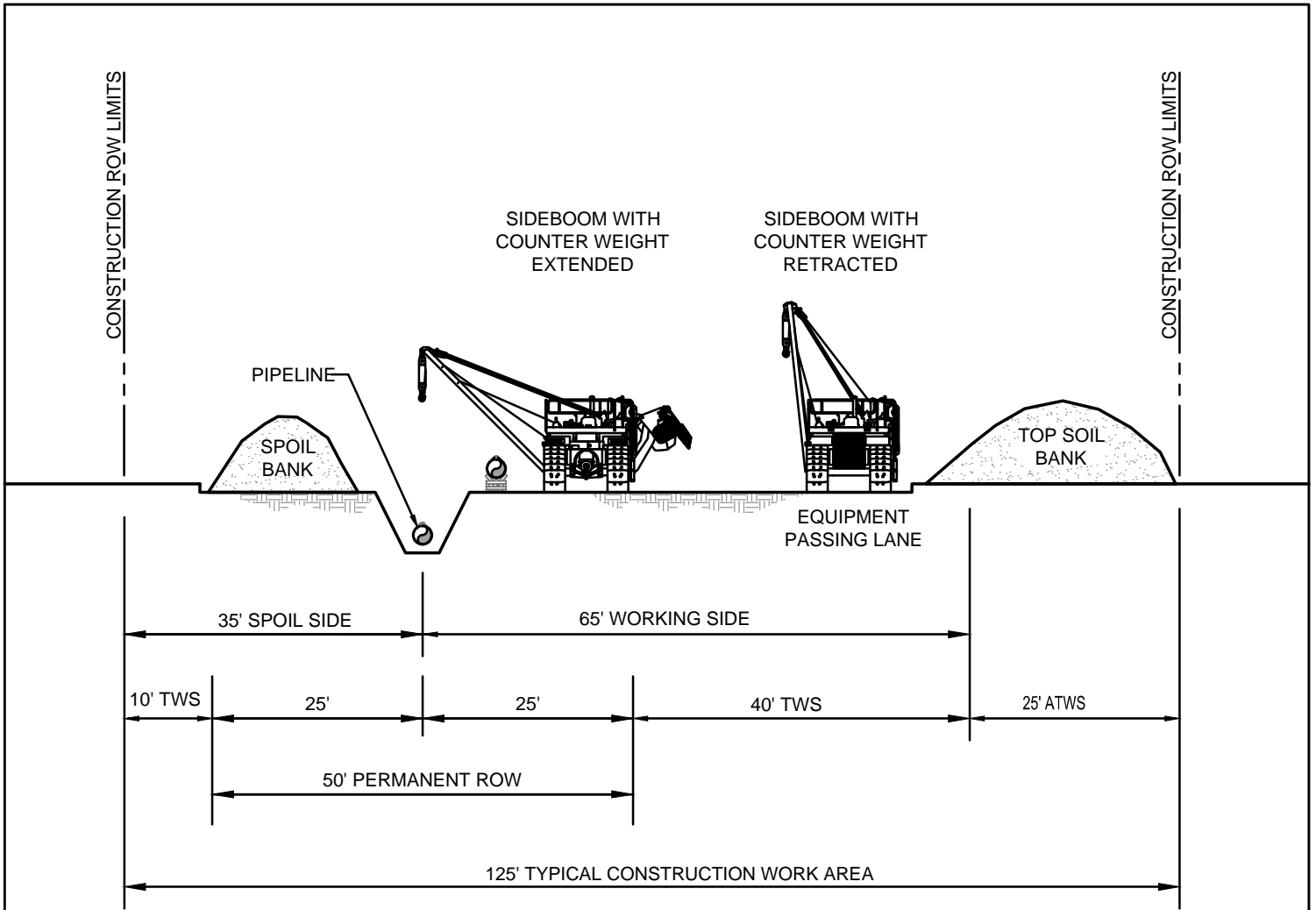
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H	ISSUED FOR FERC	09/16/2016	DRG(MM)	DOW(MM)	MAW(MM)

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PENNEAST PIPELINE PROJECT

TYPICAL DOWNWARD SIDE SLOPE WORKSPACE CONSTRUCTION AREA


FIGURE NUMBER: **FIGURE 1C**

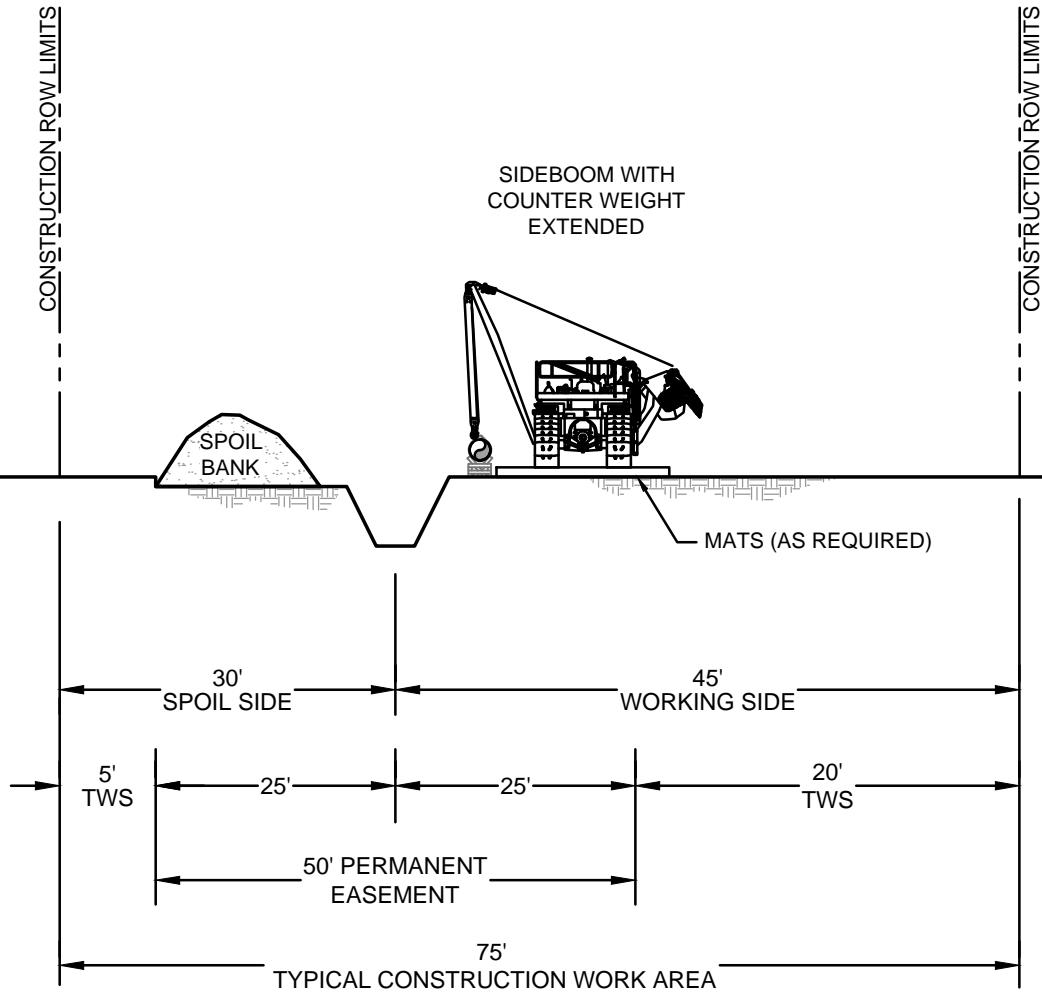


NOTES:

1. THE DIMENSIONS SHOWN ON THIS FIGURE ARE TYPICAL.
2. VARIATIONS FOR STAGING AREAS MAY BE NECESSARY DUE TO SITE-SPECIFIC TERRAIN FEATURES/CROSSINGS.
3. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPARATE.
4. UP TO 12 INCHES OF TOPSOIL REMOVED.
5. TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION.



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G	FERC DATA REQUEST	05/16/2016	HMM	HMM	HMM			
H	ISSUED FOR FERC	09/16/2016	DRG(MM)	DOW(MM)	MAW(MM)			



NOTES:

1. FLAG WETLAND BOUNDARIES PRIOR TO CLEARING.
2. CONSTRUCTION ROW NARROWED TO 75 FEET WIDTH MAXIMUM IN ALL WETLANDS.
3. REFUEL STATIONARY EQUIPMENT 100 FEET AWAY FROM WETLAND OR STREAM BOUNDARIES.
4. INSTALL TEMPORARY SLOPE BREAKER UP SLOPE AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR OR OTHER QUALIFIED PROFESSIONAL.
5. AVOID IMPACT AND/OR DISTURBANCE TO ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT EDGE OF ROW AND ALONG WETLAND EDGE AS REQUIRED.
6. RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCH LINE.
7. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
8. LEAVE FOAM TRENCH PLUGS AT THE EDGE OF SATURATED WETLANDS UNTIL JUST PRIOR TO TRENCHING.
9. INSTALL TIMBER MATS FOR EQUIPMENT CROSSINGS THROUGH ENTIRE WETLAND AREA.
10. WHILE TRENCHING THROUGH WETLANDS, PLACE SPOIL TO ALLOW FOR PROPER SURFACE DRAINAGE.
11. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN.
12. LOWER-IN PIPE, THEN INSTALL PERMANENT TRENCH PLUGS AT WETLAND EDGES AND BACKFILL IMMEDIATELY.
13. REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.
14. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL IF APPLICABLE AND INSTALL PERMANENT EROSION CONTROL.



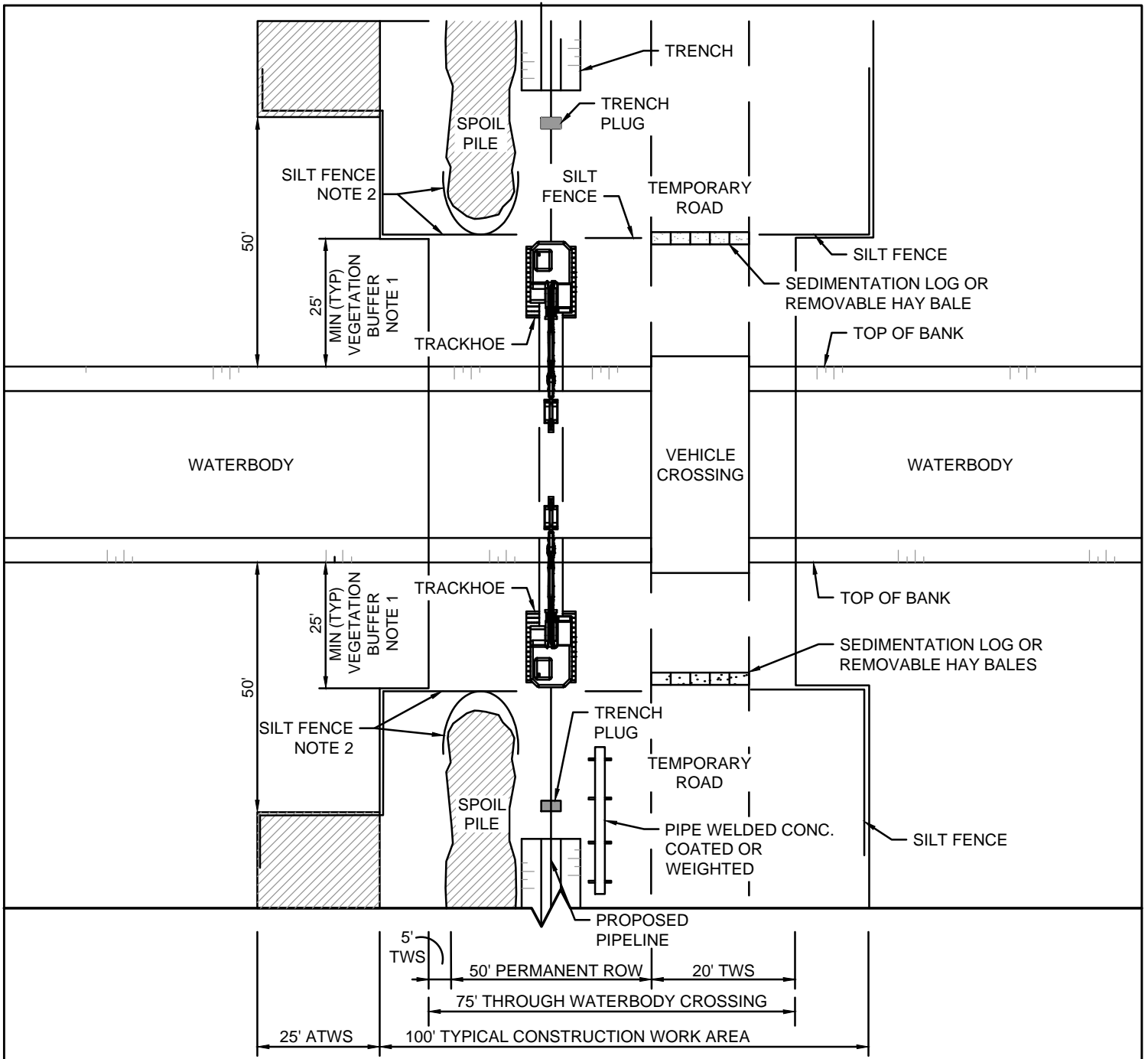
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PENNEAST PIPELINE PROJECT

TYPICAL WETLAND CROSSING

FIGURE NUMBER: **FIGURE 1E**



NOTES:

1. THE REQUIRED SET BACK FOR TWS IS 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. THE MINIMUM REQUIRED SET BACK FOR SPOIL PILE IS 25' FROM THE TOP OF BANK. THIS MATERIAL MUST BE CONTAINED AND SURROUNDED BY SILT FENCE PROTECTION TO PREVENT SATURATED SOIL FROM FLOWING BACK INTO THE WATERBODY.
3. STAKED STRAW BALES MAY BE USED IN LIEU OF SILT FENCE.
4. SCHEDULE CONSTRUCTION DURING LOW FLOW PERIOD TO THE MAXIMUM EXTENT PRACTICABLE.
5. EXCAVATE TRENCH THROUGH PLUGS. WORK IS TO BE COMPLETED AS QUICKLY AS PRACTICABLE.
 - A. LOWER IN PIPE AND BACKFILL IMMEDIATELY WITH SPOIL MATERIAL.
 - B. IF BLASTING IS REQUIRED, USE CONTROLLED BLASTING TECHNIQUES TO PREVENT DAMAGE TO THE FLOW CONVEYANCE SYSTEM. ALTERNATELY, BLASTING MAY BE ACCOMPLISHED PRIOR TO CONSTRUCTING THE CROSSING.



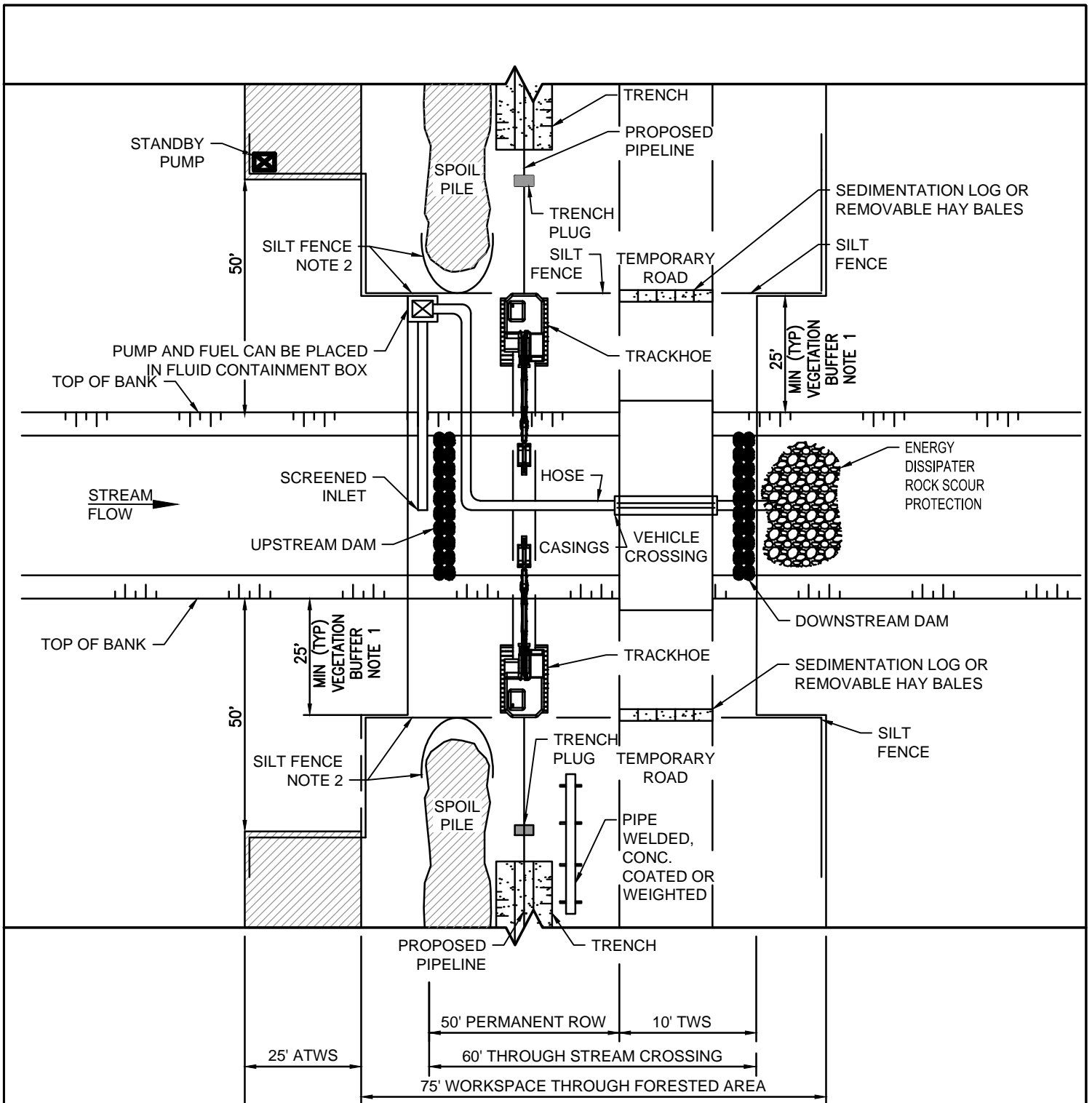
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PREPARED FOR

PENNEAST PIPELINE PROJECT

TYPICAL OPEN CUT WATERBODY CROSSING

FIGURE NUMBER: FIGURE 1F



NOTES:

1. THE REQUIRED SET BACK FOR TWS IS 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. THE MINIMUM REQUIRED SET BACK FOR SPOIL PILE IS 25' FROM THE TOP OF BANK. THIS MATERIAL MUST BE CONTAINED AND SURROUNDED BY SILT FENCE PROTECTION TO PREVENT SATURATED SOIL FROM FLOWING BACK INTO THE WATERBODY.
3. STAKED STRAW BALES MAY BE USED IN LIEU OF SILT FENCE.
4. SCHEDULE CONSTRUCTION DURING LOW FLOW PERIOD TO THE MAXIMUM EXTENT PRACTICABLE.
5. ATWS WILL BE LOCATED IN NON-FORESTED AREAS WHERE PRACTICABLE.
6. WORKSPACE SHALL BE 75' WIDE THROUGH FORESTED AREA ON BOTH SIDES OF CATEGORY ONE WETLAND.



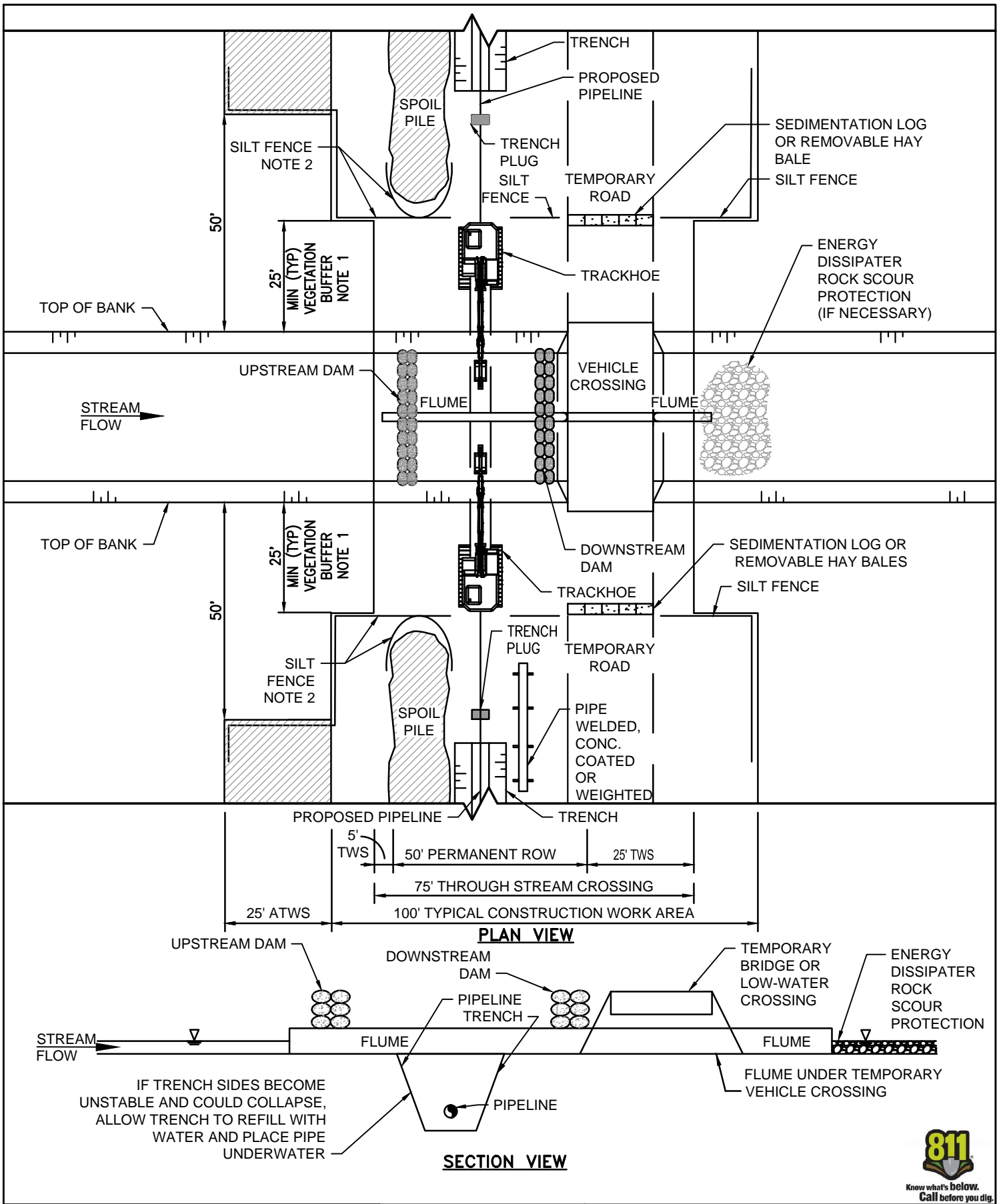
PLAN VIEW

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PREPARED FOR

PENNEAST PIPELINE PROJECT
TYPICAL DAM AND PUMP WATERBODY CROSSING

FIGURE NUMBER: **FIGURE 1G**



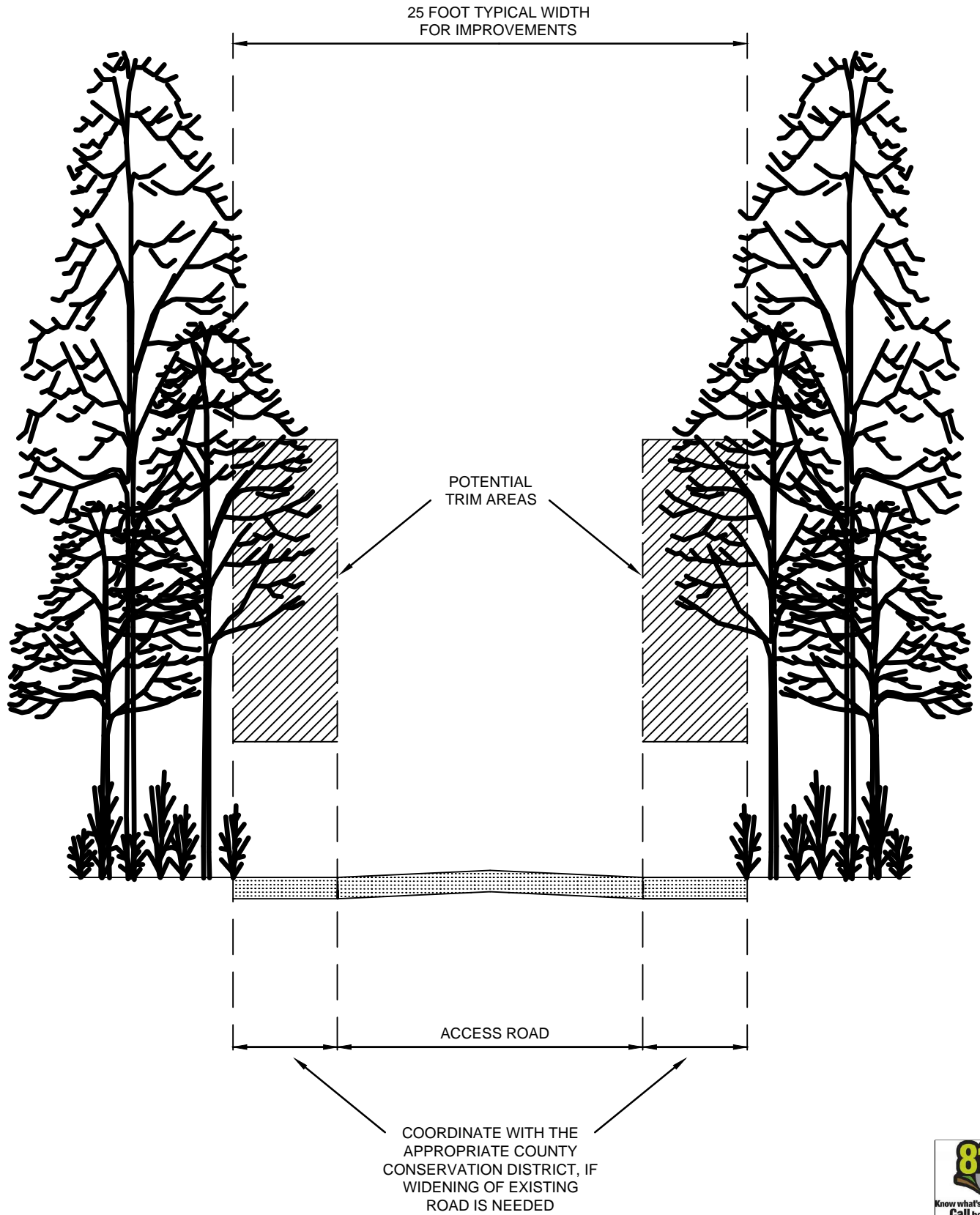
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PENNEAST PIPELINE PROJECT

TYPICAL FLUME WATERBODY CROSSING

FIGURE NUMBER: **FIGURE 1H**



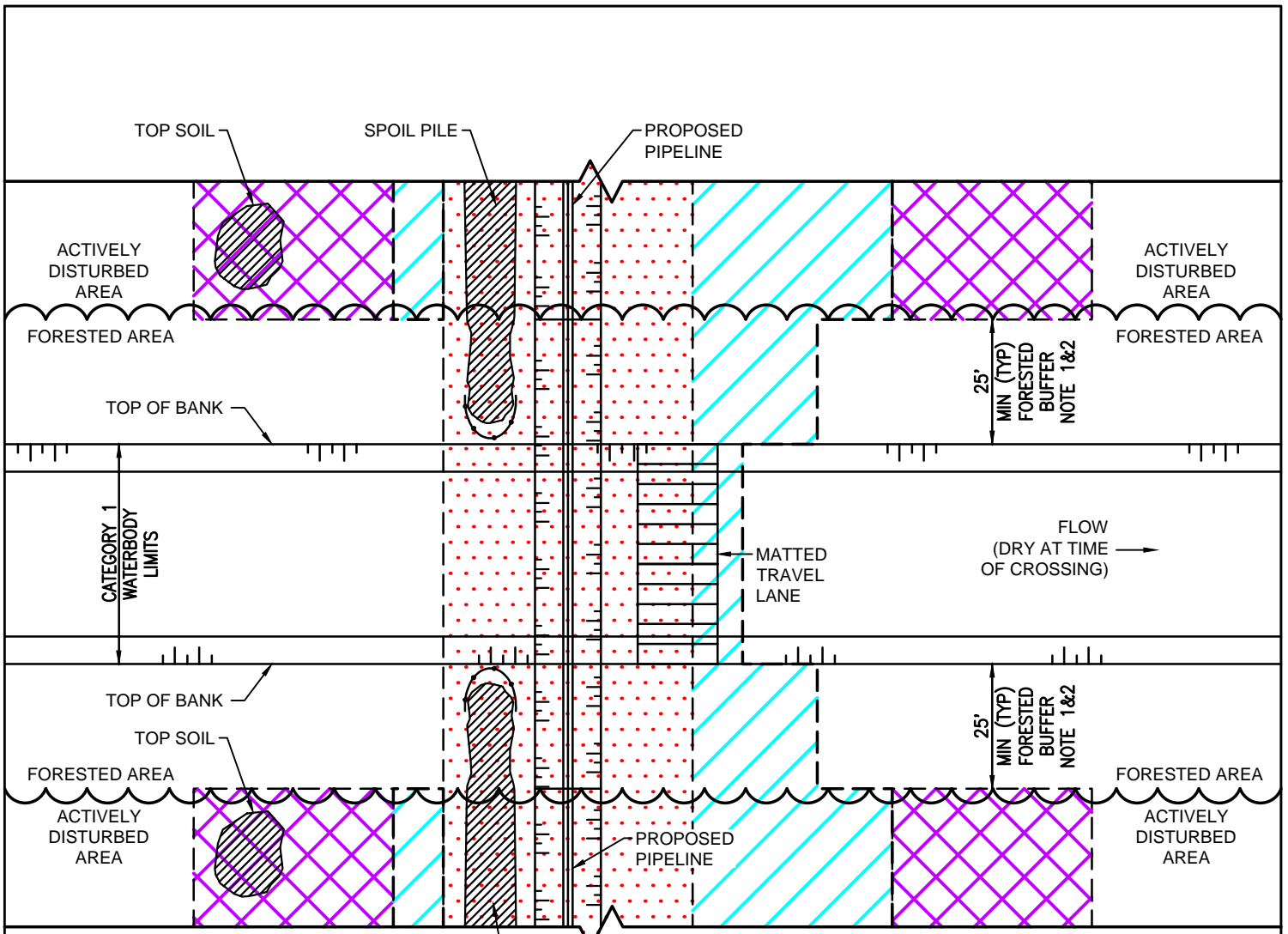
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PENNEAST PIPELINE PROJECT

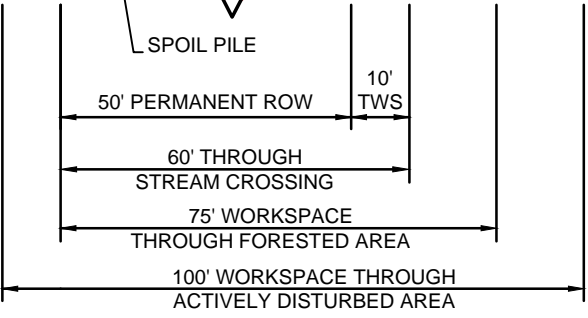
ACCESS ROAD CROSS SECTION

FIGURE NUMBER: FIGURE 11



LEGEND:

- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- FORESTED AREA LIMITS



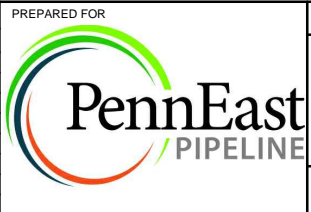
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
4. DRY CROSSING INCLUDES BOTH DAM/PUMP AND FLUME PIPE METHODS. SEE FIGURES 1G AND 1H FOR ADDITIONAL NOTES.
5. DIMENSIONS ON THIS FIGURE APPLY TO CATEGORY ONE DRY CROSSINGS ONLY.



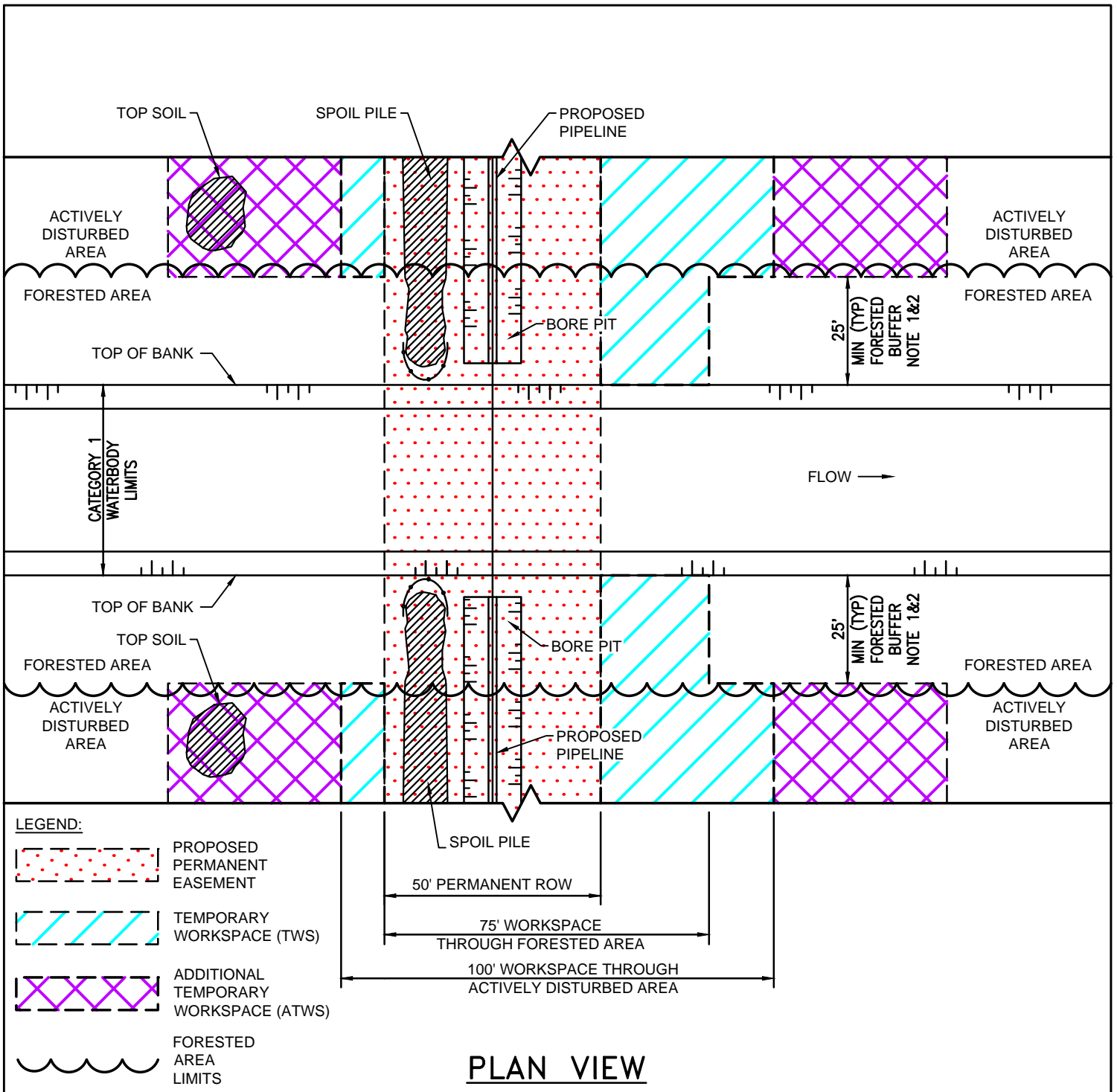
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PENNEAST PIPELINE PROJECT

WORKSPACE CONFIGURATION FOR CATEGORY ONE WATERBODY DRY CROSSING TYPICAL

FIGURE NUMBER: FIGURE 1M



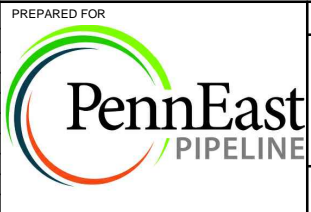
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
4. CONSTRUCTION CONTRACTOR SHALL NOT CROSS WATERBODY WITH TIMBER MAT BRIDGE.



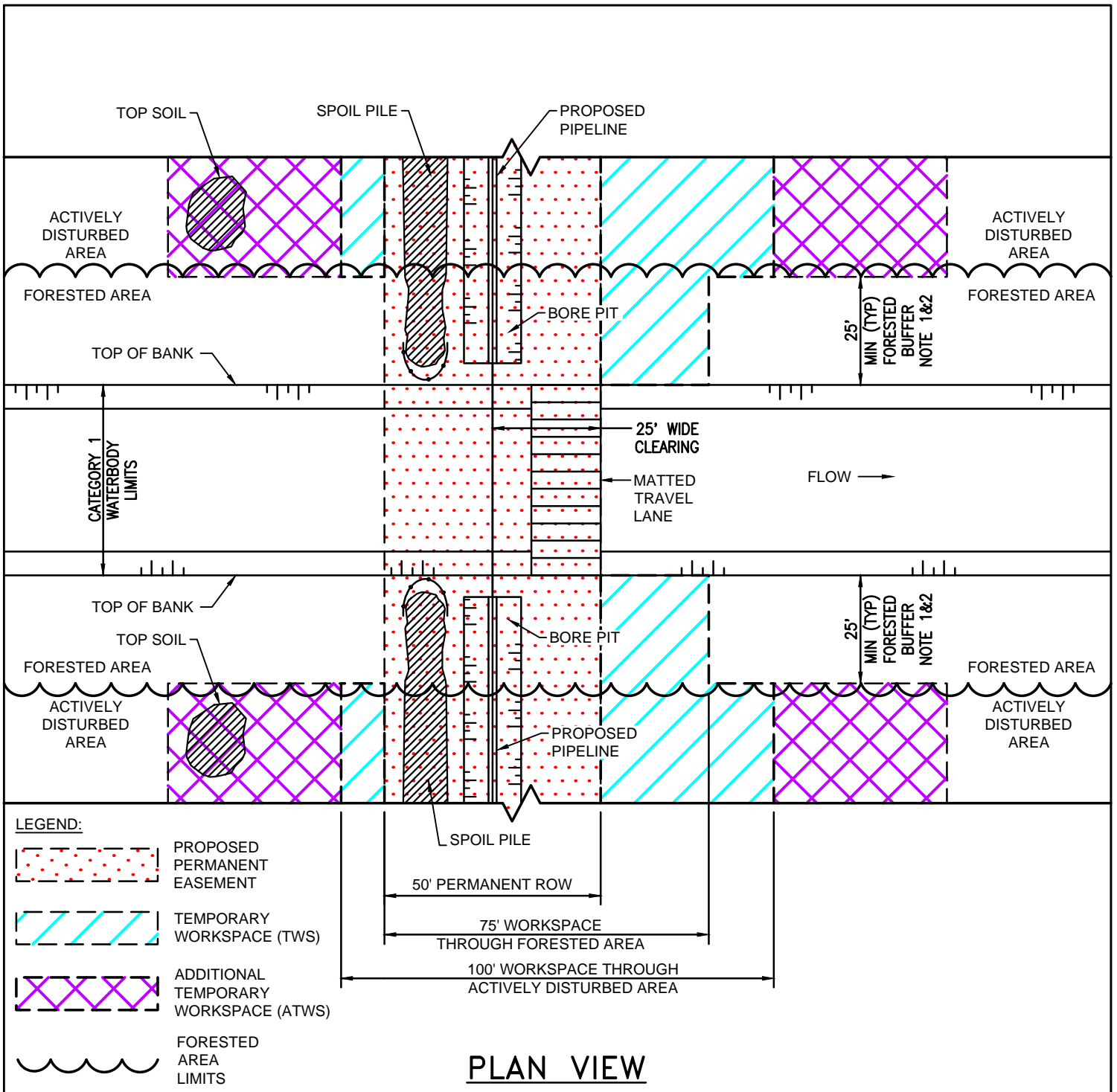
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PENNEAST PIPELINE PROJECT

WORKSPACE CONFIGURATION FOR CATEGORY ONE WATERBODY BORED CROSSING WITHOUT TIMBER MAT BRIDGE

FIGURE NUMBER: FIGURE 1N



PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
4. CONSTRUCTION WILL BE SEQUENCED SUCH THAT TIMBER MAT BRIDGE WILL NOT CONFLICT WITH BORING OPERATION.
5. CLEARED AREA FOR TIMBER MAT BRIDGE SHALL NOT EXCEED A WIDTH OF 25'.
6. LOCATION OF TIMBER MAT BRIDGE TO BE DETERMINED IN FIELD BY CONTRACTOR AND ENVIRONMENTAL INSPECTOR.



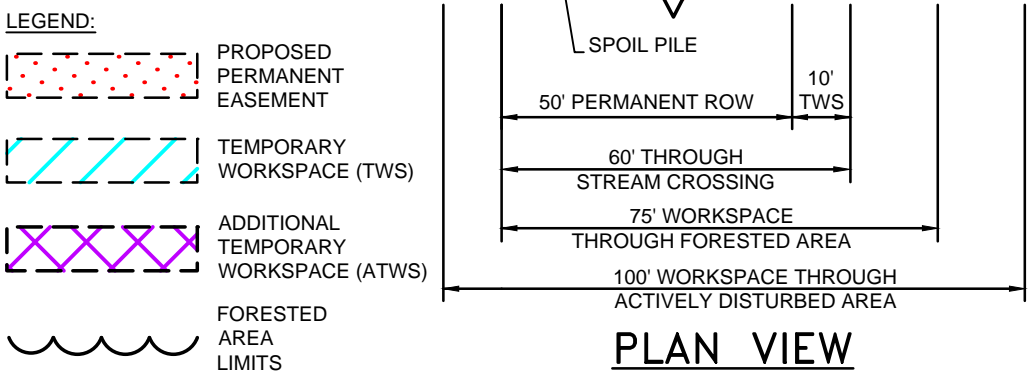
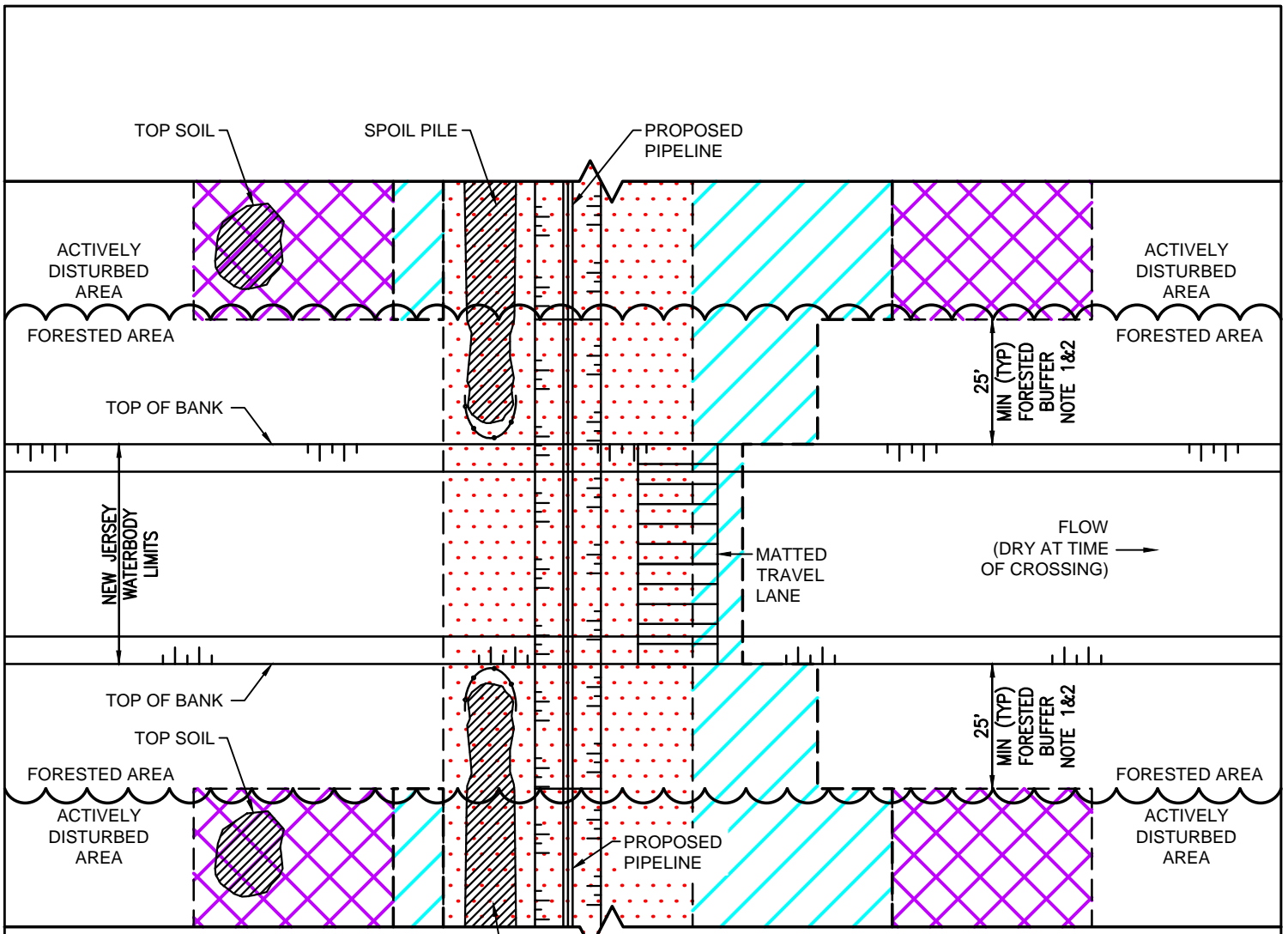
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H	ISSUED FOR FERC	09/16/2016	DRG(MM)	DOW(MM)	MAW(MM)

PREPARED FOR

PENNEAST PIPELINE PROJECT

WORKSPACE CONFIGURATION FOR CATEGORY ONE WATERBODY BORED CROSSING WITH TIMBER MAT BRIDGE

FIGURE NUMBER: **FIGURE 1P**



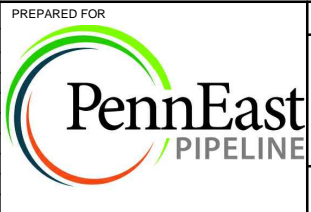
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
4. DRY CROSSING INCLUDES BOTH DAM/PUMP AND FLUME PIPE METHODS. SEE FIGURES 1G AND 1H FOR ADDITIONAL NOTES.
5. DIMENSIONS ON THIS FIGURE APPLY TO NEW JERSEY DRY CROSSINGS ONLY.



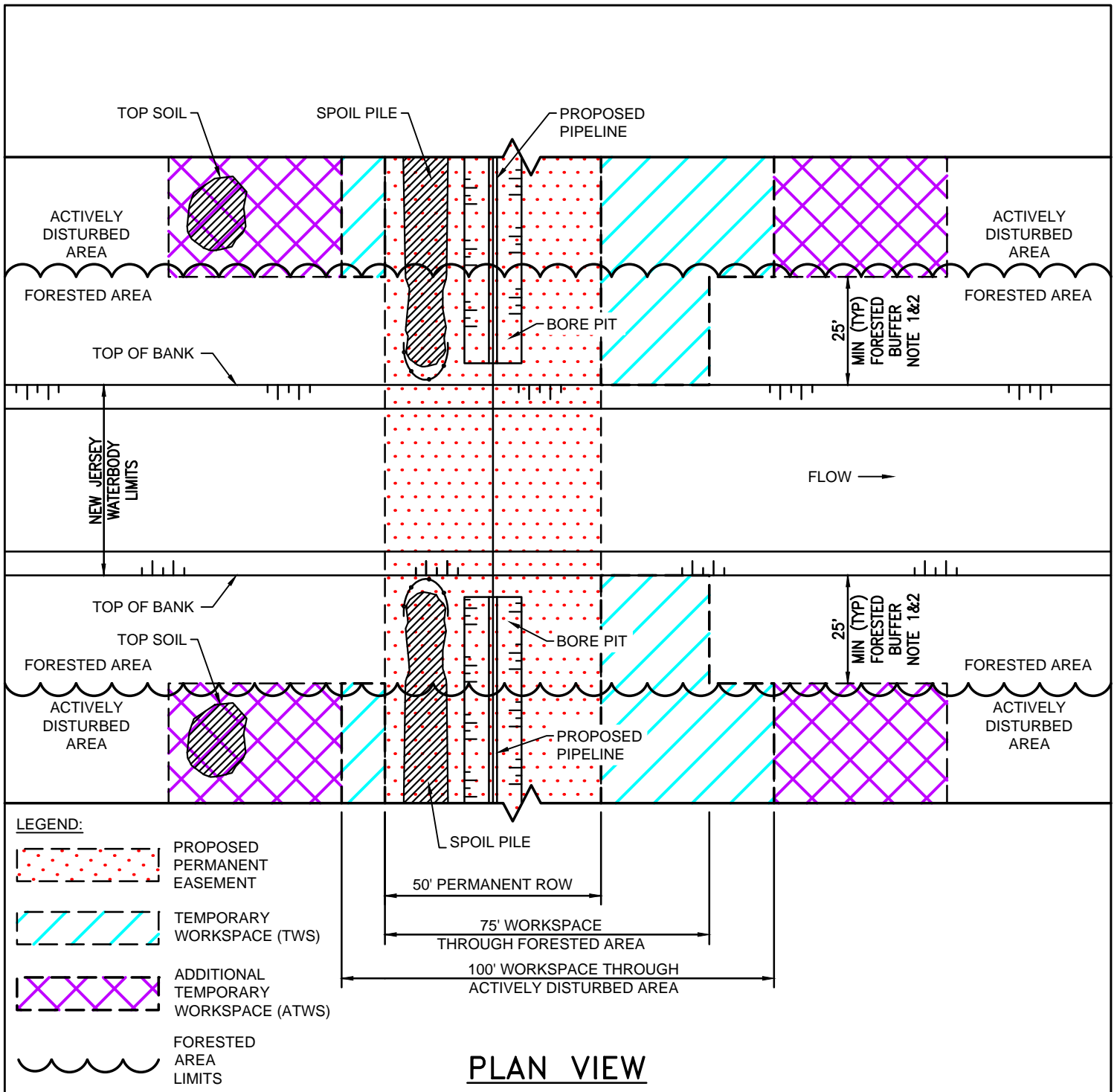
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PENNEAST PIPELINE PROJECT

**WORKSPACE CONFIGURATION FOR
NEW JERSEY WATERBODY
DRY CROSSING TYPICAL**

FIGURE NUMBER: FIGURE 1Q



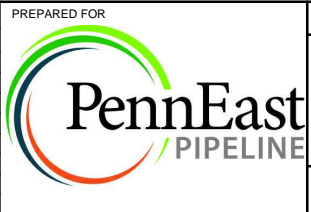
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
4. CONSTRUCTION CONTRACTOR SHALL NOT CROSS WATERBODY WITH TIMBER MAT BRIDGE.



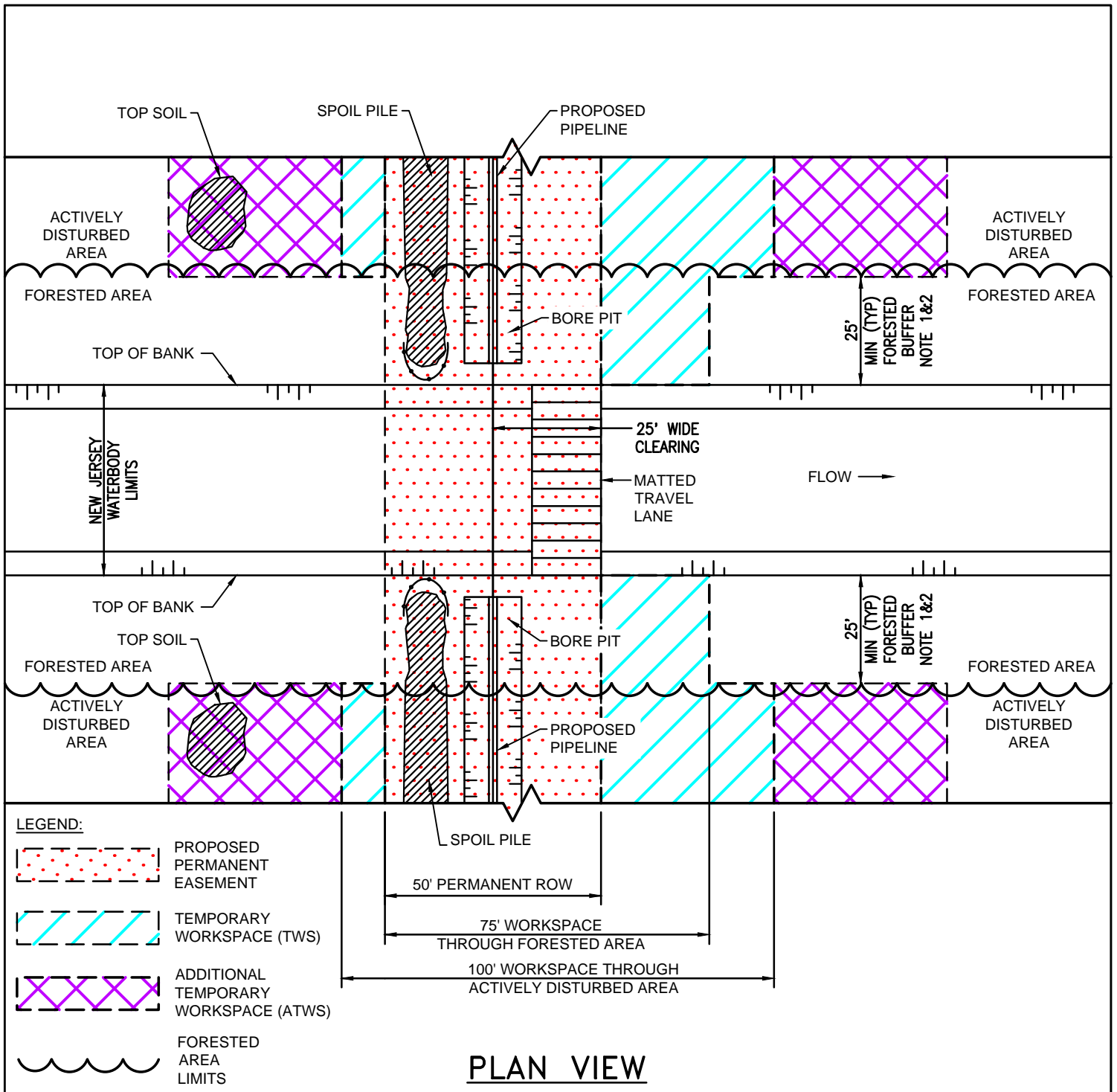
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PENNEAST PIPELINE PROJECT

WORKSPACE CONFIGURATION FOR NEW JERSEY WATERBODY BORED CROSSING WITHOUT TIMBER MAT BRIDGE

FIGURE NUMBER: **FIGURE 1R**



LEGEND:

- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- FORESTED AREA LIMITS

PLAN VIEW

- NOTES:**
1. TEMPORARY WORKSPACE IS SET BACK 25' FROM TOP OF BANK OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
 2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
 3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED RIPARIAN ZONE.
 4. CONSTRUCTION WILL BE SEQUENCED SUCH THAT TIMBER MAT BRIDGE WILL NOT CONFLICT WITH BORING OPERATION.
 5. CLEARED AREA FOR TIMBER MAT BRIDGE SHALL NOT EXCEED A WIDTH OF 25'.
 6. LOCATION OF TIMBER MAT BRIDGE TO BE DETERMINED IN FIELD BY CONTRACTOR AND ENVIRONMENTAL INSPECTOR.



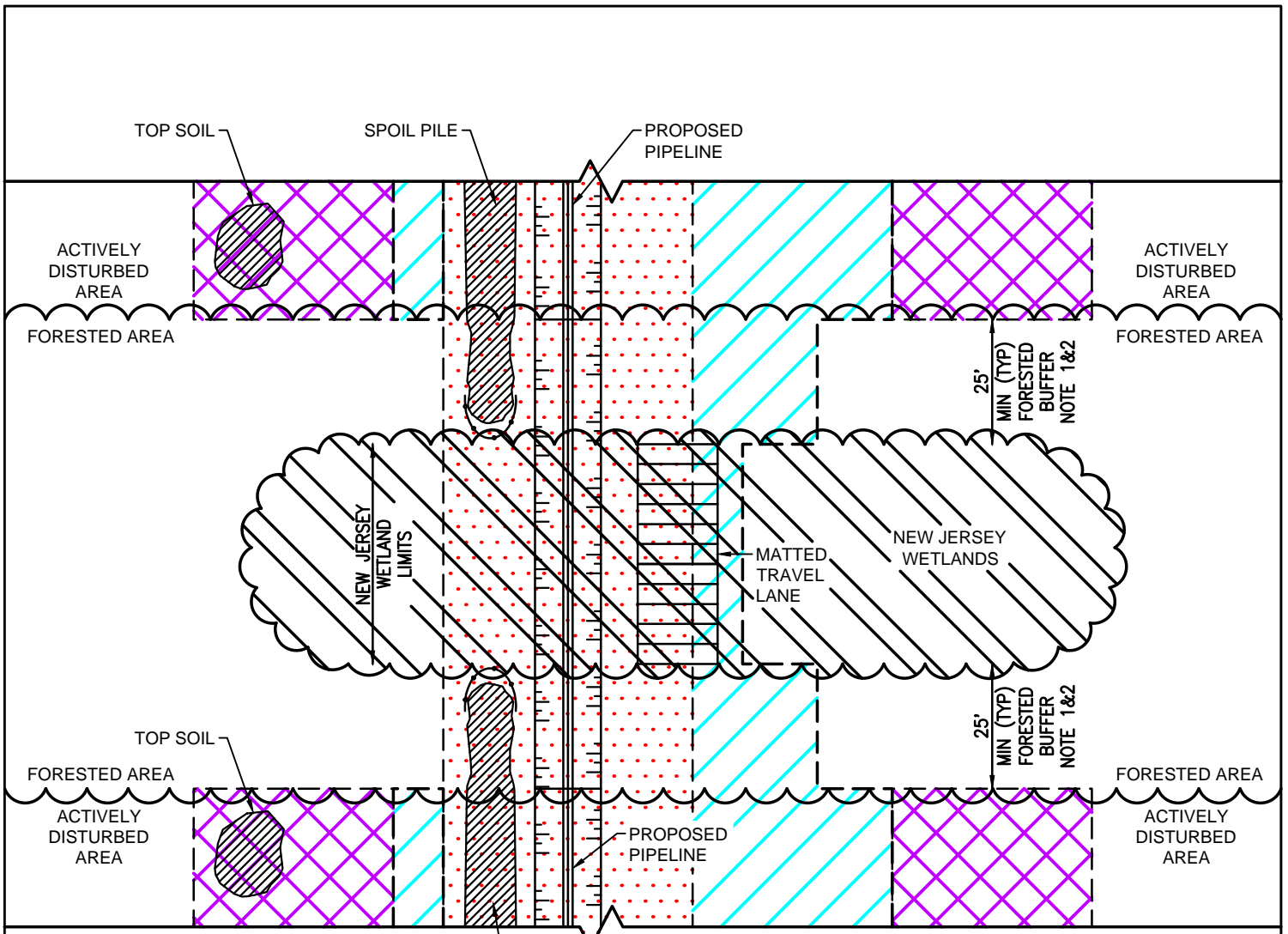
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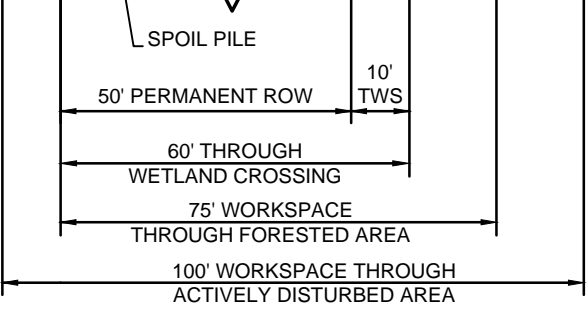
WORKSPACE CONFIGURATION FOR NEW JERSEY WATERBODY BORED CROSSING WITH TIMBER MAT BRIDGE

FIGURE NUMBER: **FIGURE 1S**



LEGEND:

- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- FORESTED AREA LIMITS



PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM EDGE OF WETLAND OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED TRANSITION AREA.
4. SEE FIGURES 1E FOR ADDITIONAL NOTES.
5. DIMENSIONS ON THIS FIGURE APPLY TO NEW JERSEY DRY CROSSINGS ONLY.



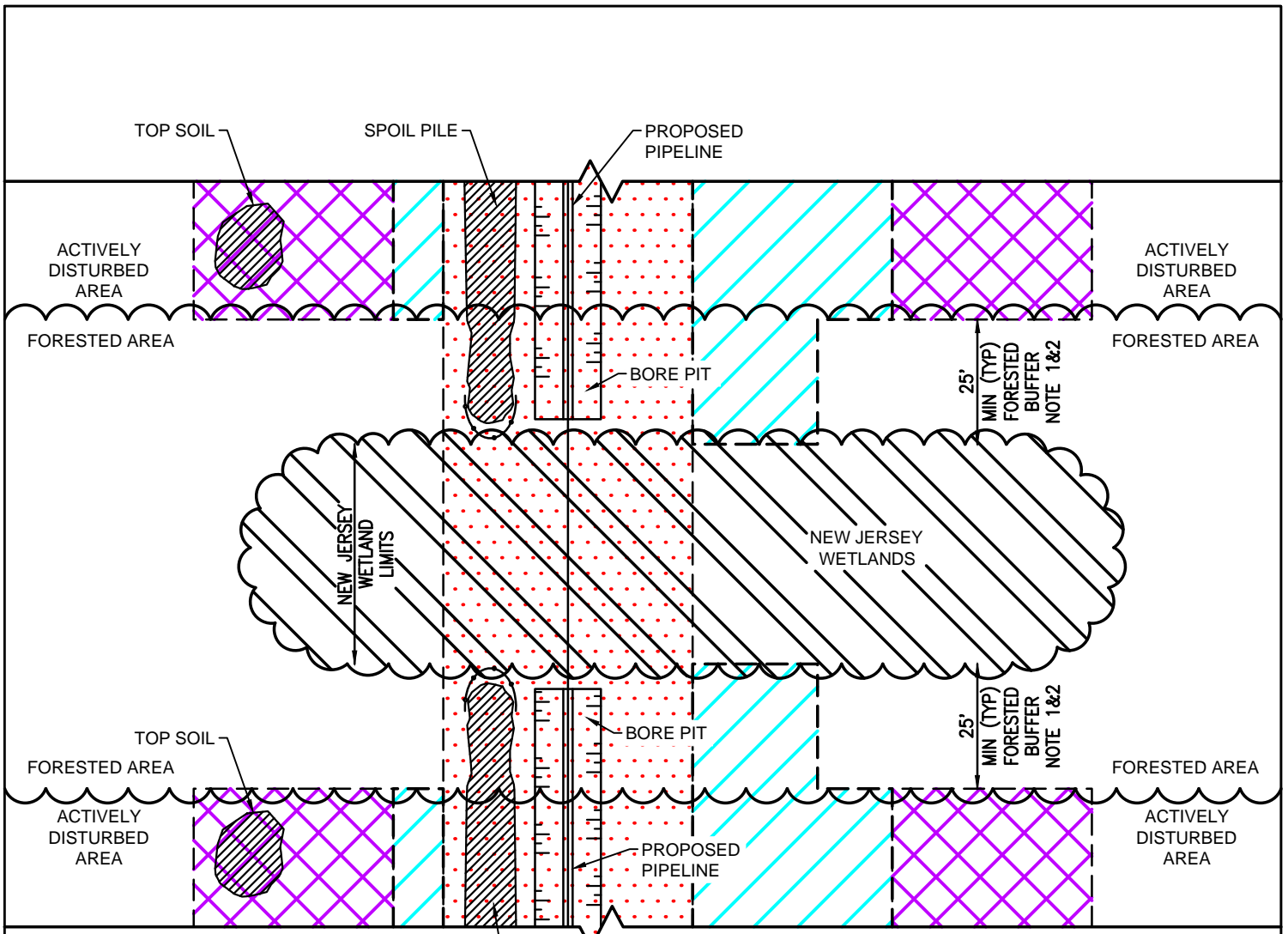
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PENNEAST PIPELINE PROJECT

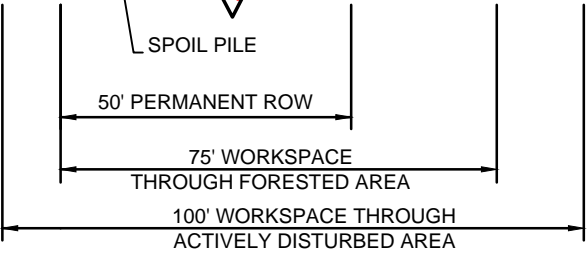
WORKSPACE CONFIGURATION FOR NEW JERSEY WETLAND OPEN CUT CROSSING TYPICAL

FIGURE NUMBER: **FIGURE 1T**



LEGEND:

- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- FORESTED AREA LIMITS



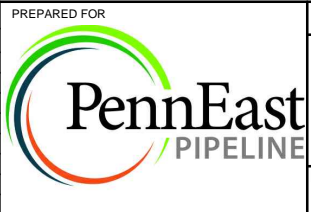
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM EDGE OF WETLAND OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED TRANSITION AREA.
4. CONSTRUCTION CONTRACTOR SHALL NOT CROSS WETLAND WITH TIMBER MAT BRIDGE.



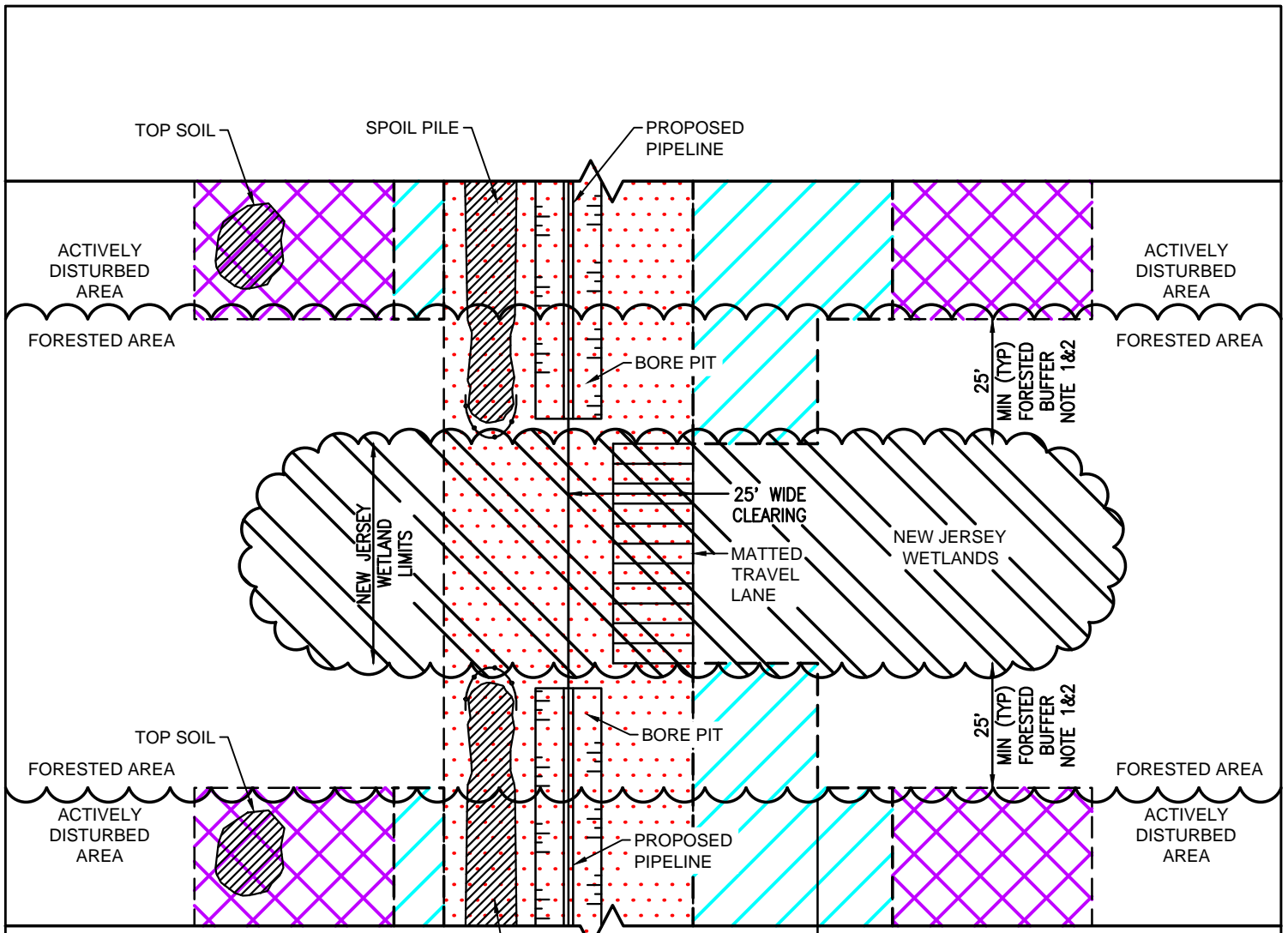
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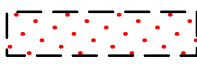



PENNEAST PIPELINE PROJECT

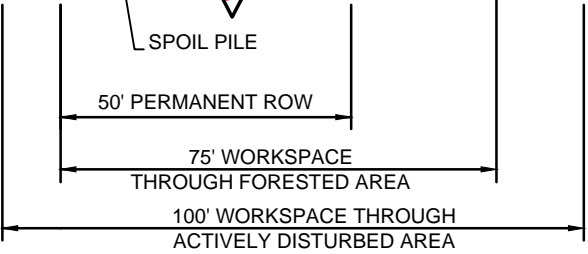
**WORKSPACE CONFIGURATION FOR
NEW JERSEY WATERBODY BORED
CROSSING WITHOUT TIMBER MAT BRIDGE**

FIGURE NUMBER: FIGURE 1U



LEGEND:

-  PROPOSED PERMANENT EASEMENT
-  TEMPORARY WORKSPACE (TWS)
-  ADDITIONAL TEMPORARY WORKSPACE (ATWS)
-  FORESTED AREA LIMITS



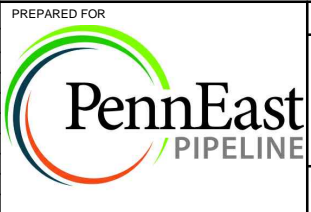
PLAN VIEW

NOTES:

1. TEMPORARY WORKSPACE IS SET BACK 25' FROM EDGE OF WETLAND OR AS SHOWN ON PLANS BASED ON PERMIT REQUIREMENTS.
2. ATWS WILL BE LOCATED IN NON-FORESTED AND OR ACTIVELY DISTURBED AREAS WHERE PRACTICABLE.
3. WORKSPACE WILL BE 75' WIDE THROUGH FORESTED TRANSITION AREA ZONE.
4. CONSTRUCTION WILL BE SEQUENCED SUCH THAT TIMBER MAT BRIDGE WILL NOT CONFLICT WITH BORING OPERATION.
5. CLEARED AREA FOR TIMBER MAT BRIDGE SHALL NOT EXCEED A WIDTH OF 25'.
6. LOCATION OF TIMBER MAT BRIDGE TO BE DETERMINED IN FIELD BY CONTRACTOR AND ENVIRONMENTAL INSPECTOR.



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PENNEAST PIPELINE PROJECT

**WORKSPACE CONFIGURATION FOR
NEW JERSEY WATERBODY BORED
CROSSING WITH TIMBER MAT BRIDGE**

FIGURE NUMBER: FIGURE 1V