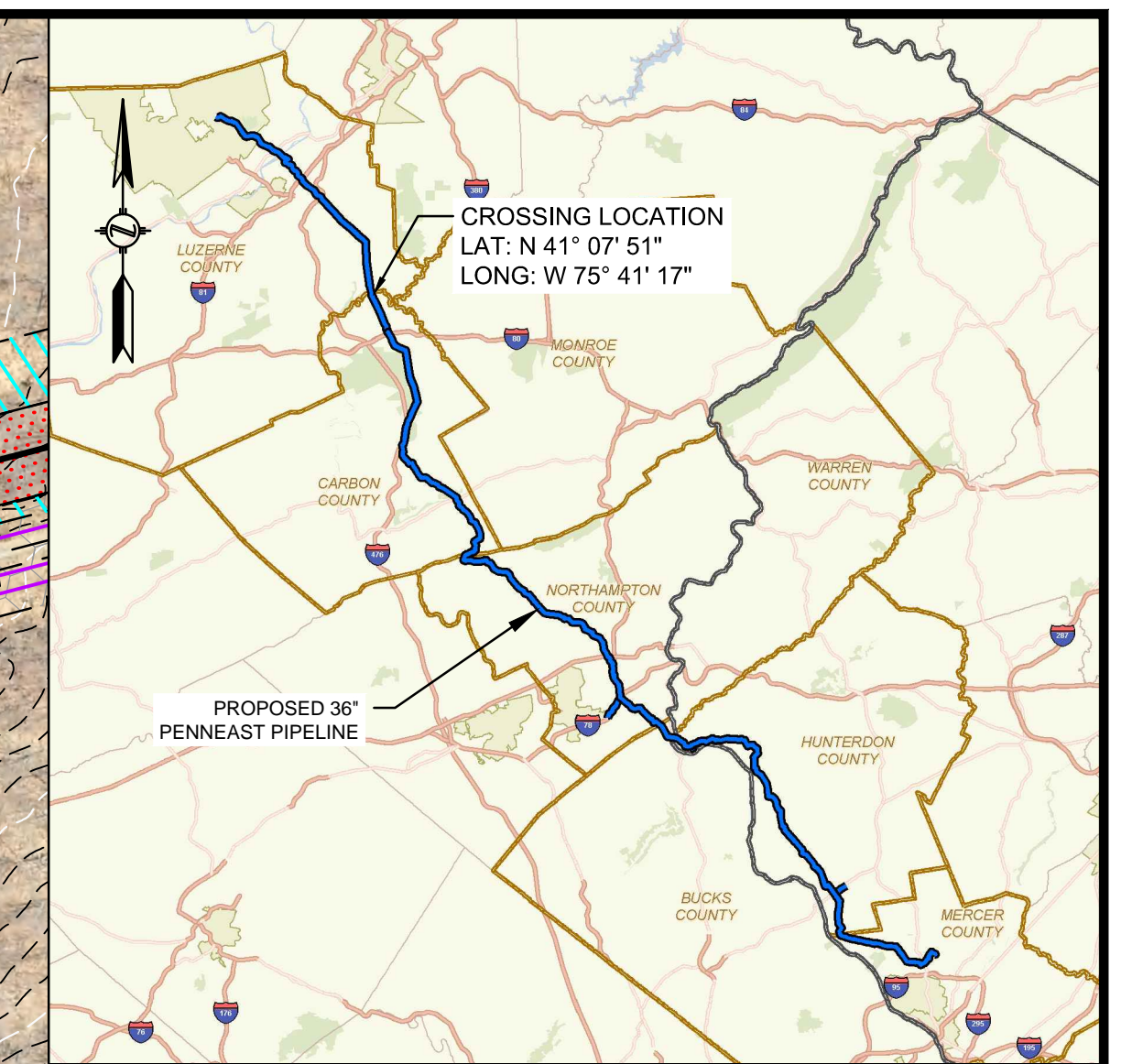
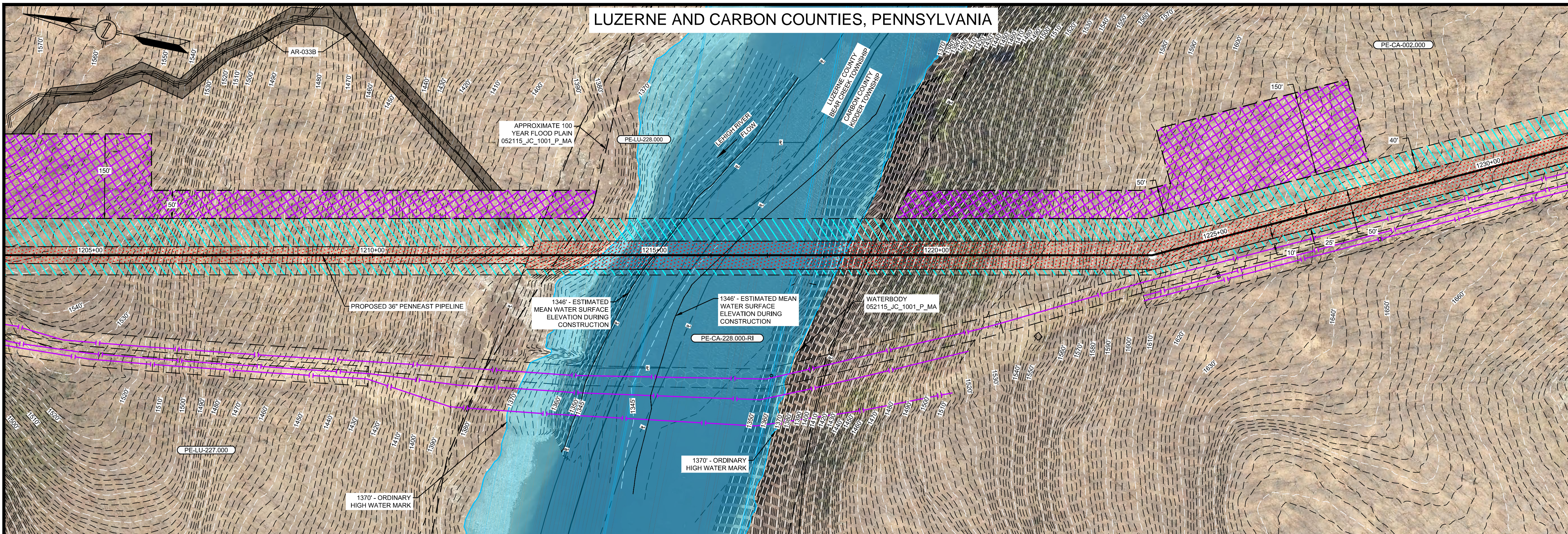


Appendix B - Stie-Specific Crossing Drawing

LUZERNE AND CARBON COUNTIES, PENNSYLVANIA



LOCATION MAP  
SCALE: 1" = 15 MILES

LEGENDS

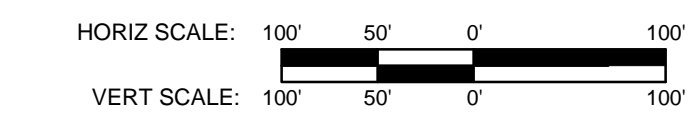
PROPOSED

- PROPOSED PIPELINE
- PROPOSED PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPOSED ABOVE GROUND FACILITY
- ROCK CONSTRUCTION ENTRANCE
- PROPOSED PIPEYARD
- PROPOSED STAGING AREA
- PROPOSED FENCE
- PROPOSED ACCESS ROAD

EXISTING

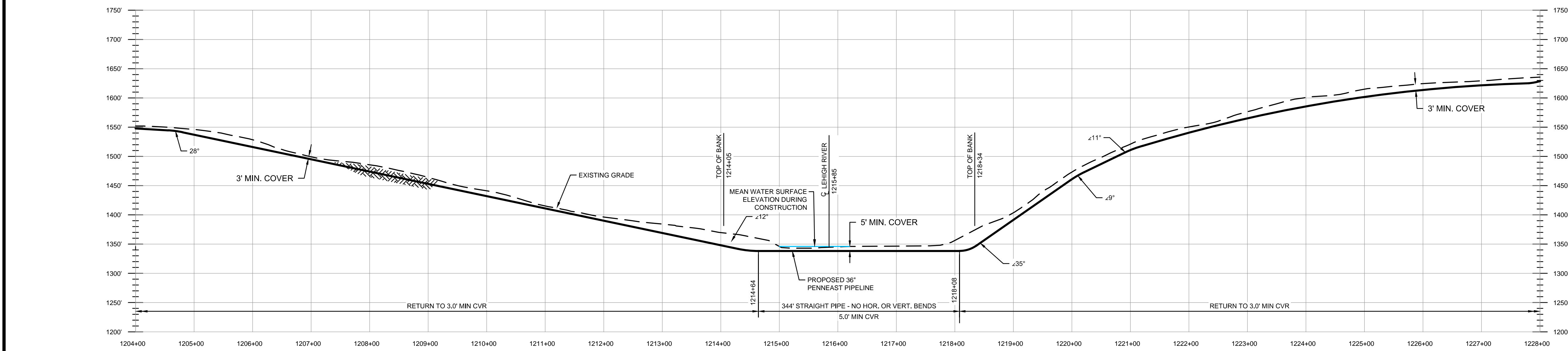
- PROPERTY LINE
- STREAM (PUBLIC)
- STREAM (DELINEATED)
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD LINE
- EXISTING FOREIGN EASEMENT
- WETLAND (PUBLIC)
- WETLAND (DELINEATED)
- WETLAND (AGRICULTURAL MODIFIED)
- EXISTING FENCE
- EXISTING HWY/ROAD
- LINE LIST NUMBER
- WATERBODY (DELINEATED)
- WATERBODY (PUBLIC)
- RAILROAD CENTERLINE

LEHIGH RIVER CROSSING  
PLAN VIEW



GENERAL NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN. ALL STATIONS ARE HORIZONTAL. ALL ELEVATIONS ARE GEODETIC.
2. DRAWING SCALES ARE ONLY CORRECT WHEN PLOTTED AT FULL SIZE (24"x36").
3. ALL WORK IN CLOSE PROXIMITY TO POWER LINES MAY BE SUBJECT TO ELECTROSTATIC AND ELECTROMAGNETIC INDUCED VOLTAGES. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND IMPLEMENTING MITIGATION PROCEDURES. CONTRACTOR SHALL IMPLEMENT THESE PRECAUTIONS AS WELL AS THOSE SPECIFIED BY MANAGER.
4. APPROXIMATE DEPTH AND LOCATION OF BURIED FACILITIES SHOWN ON RECORD INFORMATION. DEPTH AND LOCATION TO BE CONFIRMED BY CONTRACTOR AS PER THE CONTRACT DOCUMENTS. CONTRACTOR SHALL VERIFY DEPTH OF ANY FOREIGN LINE CROSSING PRIOR TO CONSTRUCTION.
5. THE MINIMUM DEPTH OF COVER SHOWN SHALL BE MAINTAINED FOR THE FULL DISTANCE SHOWN BETWEEN SPECIFIED STATIONS.
6. CONTRACTOR SHALL MAINTAIN THAT A COPY OF THE CROSSING AGREEMENT IS KEPT ON SITE FOR THE FULL DURATION OF THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE CROSSING AGREEMENT.
7. BACKFILLING SHALL IMMEDIATELY FOLLOW PIPE INSTALLATION USING NATIVE MATERIAL.
8. STREAM BEDS SHALL BE GRADED TO CONFORM AS NEAR AS PRACTICABLE TO ORIGINAL PROFILES. BANKS SHALL BE GRADED TO ORIGINAL OR STABLE CONTOURS. WORK SHALL BE PLANNED TO KEEP LENGTH OF TIME OF IN-STREAM ACTIVITY TO AN ABSOLUTE MINIMUM.
9. CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE AUTHORITIES HAVING JURISDICTION.
10. THE CROSSING SHALL BE CONSTRUCTED USING A DRY CROSSING METHOD.
11. 'MINIMUM COVER' REFERS TO DISTANCE BETWEEN LOWEST POINT ON WATERCOURSE 'THALWEG' TO TOP OF PIPE (T.O.P.) OF INSTALLED PIPELINE (INCLUSIVE OF LAGGING, CONCRETE COATING, WEIGHTS, ETC.).
12. REQUIREMENTS FOR BUOYANCY CONTROL AT CROSSING LOCATION ARE PROVIDED ON THE CONSTRUCTION ALIGNMENT SHEETS.
13. THE PREFERRED CROSSING METHOD IS A DAM AND FLUME CROSSING. DAM SIZING AND FLUME SIZING AND QUANTITY SHALL BE DETERMINED BASED ON THE WATER ELEVATION AND FLOW EXPERIENCED DURING TIME OF CONSTRUCTION. DAM AND FLUME SIZING SHALL MAINTAIN UNINTERRUPTED STREAM CHANNEL FLOW, AS PRACTICABLE.
14. A MINIMUM OF 5' COVER SHALL BE MAINTAINED HORIZONTALLY BENEATH THE WATERBODY. DEPTH OF COVER AT THE WATERBODY BANKS SHALL BE A MINIMUM OF 3'. ACTUAL COVER SHALL BE DETERMINED BASED ON SOIL CONDITIONS ENCOUNTERED IN TRENCHING OPERATIONS AT THE TIME OF CONSTRUCTION AT THE WATERBODY BANKS.
15. WATER ELEVATION ESTIMATED DURING TIME OF CONSTRUCTION IS BASED ON GAGE DATA BETWEEN THE YEARS 1960 AND 2016.
16. ORDINARY HIGH WATER MARK (OHWM) WAS DELINEATED DURING FIELD SURVEYS BASED ON OHWM FEATURES.



LEHIGH RIVER CROSSING  
PROFILE VIEW

- NOTES:
1. THE CONTOURS AND IMAGERY SHOWN WERE PROVIDED BY PICTOMETRY, 2015. ADDITIONAL CONTOURS AND IMAGERY SUPPLEMENTED FROM PASDA AND USGS.
  2. EXISTING FEATURES SHOWN WERE SURVEYED BY MOTT MACDONALD AND DIGITIZED FROM IMAGERY. ALL LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
  3. PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED ON GIS TAX MAP DATA AND RECTIFIED PROPERTY LINES AND ARE NOT THE RESULT OF A BOUNDARY SURVEY.
  4. CONTOURS FOR WATERBODY CROSSING PROVIDED BY BATHYMETRY SURVEYS CONDUCTED IN 2016.

REFERENCE DRAWINGS		REVISIONS						APPROVALS	
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN (MM)	CK (MM)	APPR (MM)	DRAWN BY	DATE
		1	ISSUED FOR USAGE REVIEW	03/31/2017	DOW (MM)	DH (MM)	MDN (MM)		
000-03-03-019.3	ACCESS ROAD DETAIL								
000-03-001-046	ALIGNMENT SHEET								
000-03-001-047	ALIGNMENT SHEET								

APPROVALS		CLIENT APPROVAL
DRAWN BY	DATE	
ACS (MM)	09/2016	
CHECKED BY	DATE	
DRG (MM)	09/2016	
ENG. APPROVAL	DATE	
MDN (MM)	09/2016	
P.M. APPROVAL	DATE	
MAW (MM)	09/2016	

PREPARED FOR

PENNEAST PIPELINE PROJECT		
WATERBODY SITE SPECIFIC		
LEHIGH RIVER CROSSING LUZERNE AND CARBON COUNTIES, PENNSYLVANIA		
SCALE	DRAWING NO.	REVISION
AS NOTED	000-03-06-003	1

G:\PENNEAST\030754 - PENNEAST\_PIPELINE\_EPC\MIDDATA\PROD\_LIFC\WORK\DRAWING\WATERBODY\_SITE\_SPEC\FCS\000-03-06-003.DWG WAT73657