



11/07/2025

Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120  
Attn: Dennis Moody, P.E.

Re: **Docket# A-2025-3054656** | DOT# 530 986 P

Dennis:

Please find enclosed revised plans per the comments received from Amtrak on August 11, 2025 and filed in their formal objection to the PUC. We returned revised plans to Amtrak on August 15<sup>th</sup>, 2025.

Per the email accompanying their objection, they require a 20-day review period from receipt of drawings.

It has been more than 20 days since revised plans were sent. We would like to request their objection removed from our application and for the PUC to continue their review.

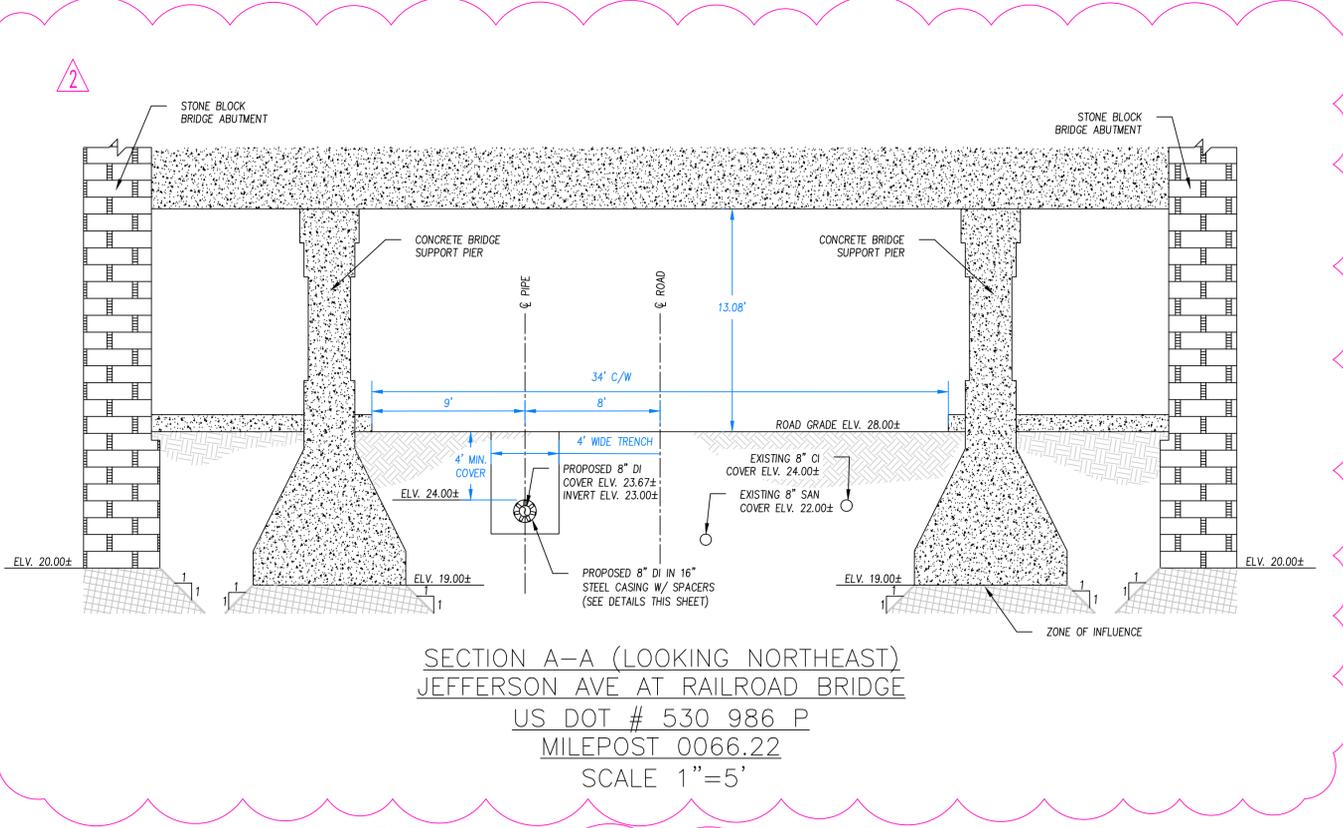
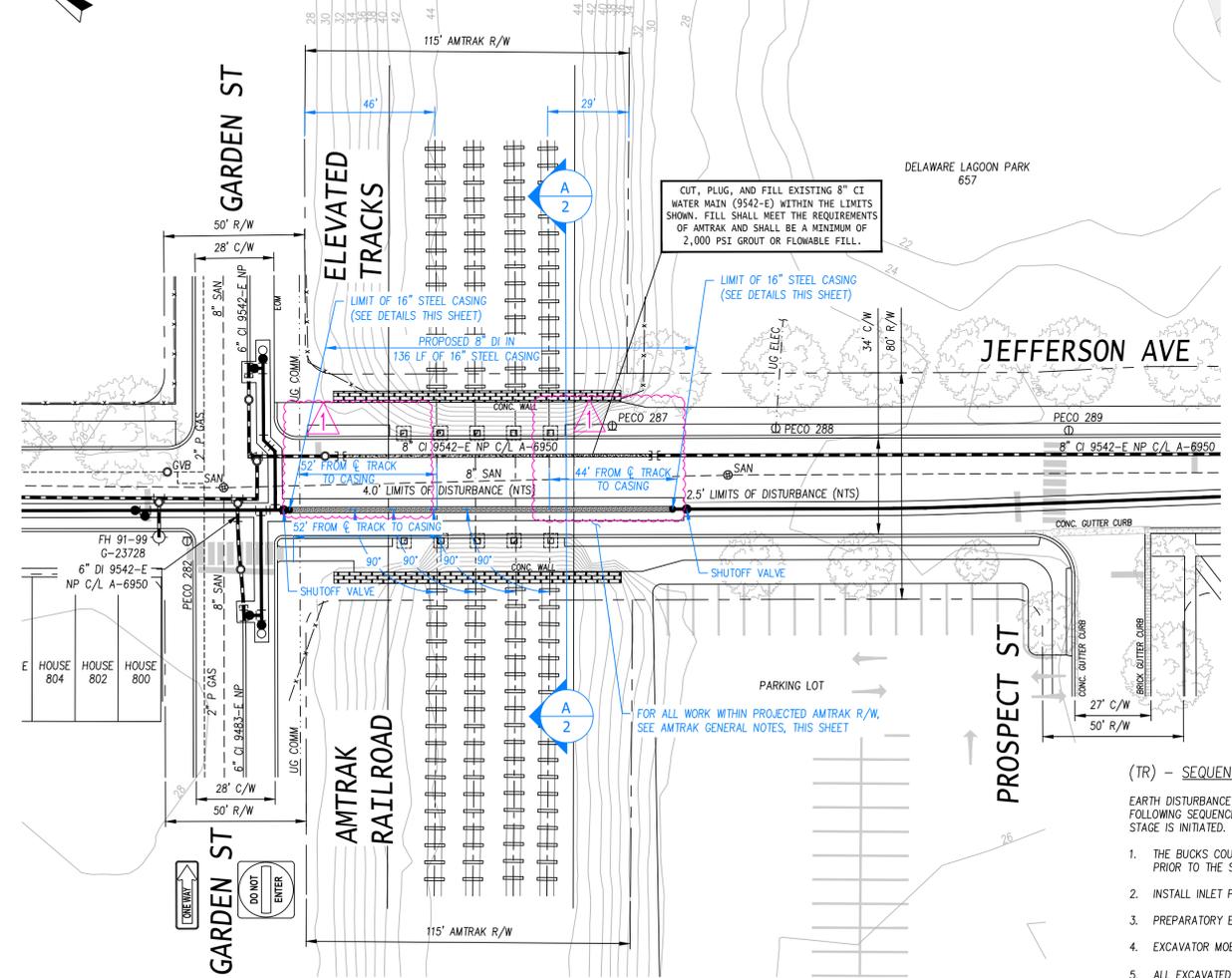
Best Regards,

Total Engineering and Consulting Services, LLC

A handwritten signature in black ink, appearing to read "Elizabeth Sobel". The signature is fluid and cursive.

**Elizabeth Sobel**  
Vice President

AMTRAK ELEVATED RAIL  
DOT AAR # 530 986 P  
RR MILEPOST #0066.22



SECTION A-A (LOOKING NORTHEAST)  
JEFFERSON AVE AT RAILROAD BRIDGE  
US DOT # 530 986 P  
MILEPOST 0066.22  
SCALE 1"=5'

(TR) - SEQUENCE OF CONSTRUCTION FOR TRENCH EXCAVATION:

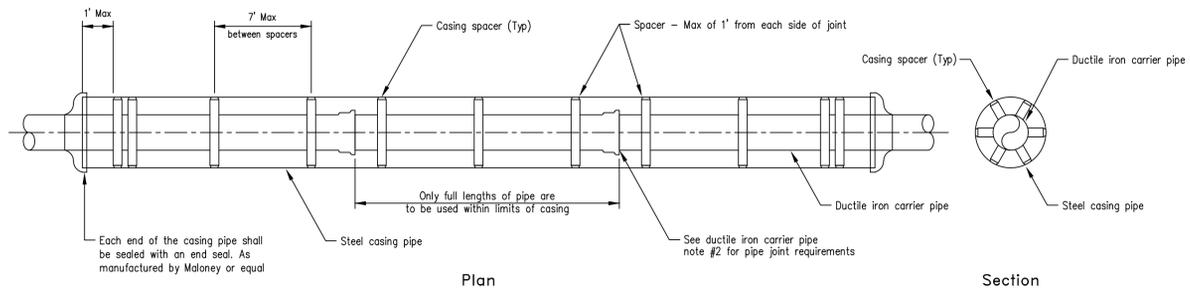
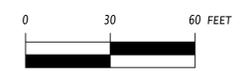
- EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED.
- THE BUCKS COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED 72 HOURS PRIOR TO THE START OF CONSTRUCTION BY THE CONTRACTOR.
- INSTALL INLET PROTECTION IN ALL INLETS PRIOR TO ANY EARTH DISTURBANCE.
- PREPARATORY EARTHWORK OPERATIONS.
- EXCAVATOR MOBILIZATION AND SET-UP.
- ALL EXCAVATED MATERIALS SHALL BE REMOVED VIA DUMP TRUCK (NO STOCKPILING OF ANY EXCAVATED MATERIALS).
- APPROVED ROAD PLATES ARE TO BE UTILIZED ONLY WHEN NECESSARY AND WITH THE APPROVAL OF THE AQUA INSPECTOR. THE TRENCH WILL BE SHORED TO PREVENT POSSIBLE TRENCH COLLAPSE. THE ROAD PLATE WILL THEN BE ANCHORED AND TEMPORARY PAVING (COLD PATCH) WILL BE PLACED AROUND THE PLATE'S EDGE. THE TEMPORARY PAVING WILL DIMINISH ANY WATER INFLOWING THE PLATED TRENCH OPENING DURING A POSSIBLE RAIN EVENT.
- EXCAVATE FOR WATER PIPE INSTALLATION. IF GROUNDWATER SEEPAGE INTO WATER MAIN TRENCH OCCURS, PUMP WATER INTO SEDIMENT FILTER BAG. (ALL SATURATED SOILS TO BE REMOVED SHALL BE HAULED IN A WATER TIGHT CONTAINER/DUMP TRUCK.)
- WATER PIPE INSTALLATION.
- BACKFILL OPERATIONS/TEMPORARY ROAD RESTORATION.
- PIPE TESTING OPERATIONS.
- RESTORATION AND DEMOBILIZATION.
- THE ENTIRE INSTALLATION PROCESS WILL BE DONE IN THE EXISTING CARTWAY.
- THE LIMITS OF DISTURBANCE WILL BE WITHIN THE EXISTING CARTWAY.

AMTRAK GENERAL NOTES

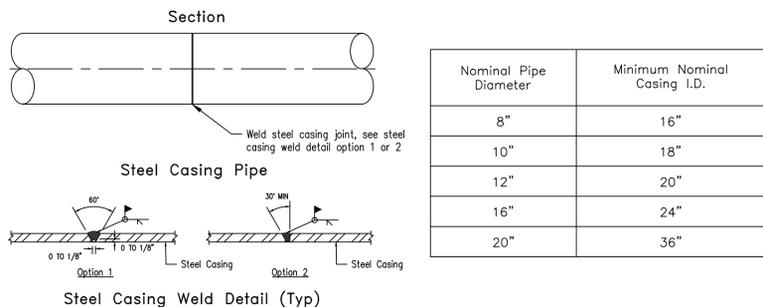
- ALL WORK ON OR ADJACENT TO RAILROAD PROPERTY MUST COMPLY WITH AMTRAK ENGINEERING PRACTICES EP3014 - MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC DURING CONTRACTOR OPERATIONS.
- DESIGN AND CONSTRUCTION MUST COMPLY WITH AMTRAK ENGINEERING PRACTICES EP3005 - PIPELINE OCCUPANCY. PRIOR TO CONSTRUCTION OPERATIONS, CONTRACTOR MUST SUBMIT, AT A MINIMUM, THE FOLLOWING TO AMTRAK FOR REVIEW AND APPROVAL: CONSTRUCTION PROCEDURE MEANS AND METHODS, SCHEDULE, DEWATERING SYSTEM (IF ANY), AND CALCULATIONS, AS APPLICABLE. ALL CALCULATIONS MUST BE SIGNED AND STAMPED/SEALED BY A LICENSED ENGINEER REGISTERED IN THE STATE.
- ALL UNDERGROUND UTILITIES, CABLE, AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY EXCAVATING, DRILLING, BORING/DIRECTIONAL DRILLING, GROUND PENETRATING ACTIVITIES, OR CONSTRUCTION TAKES PLACE. THIS INCLUDES RAILROAD AND COMMERCIAL UTILITIES, CABLES, DUCT LINES, AND FACILITIES. THESE ACTIVITIES WILL NOT BE PERFORMED IN CLOSE PROXIMITY TO THE RAILROAD DUCT LINES UNLESS MONITORED BY ON-SITE AMTRAK COMMUNICATIONS AND SIGNAL (C&S) DEPARTMENT PERSONNEL. HAND DIGGING MAY BE REQUIRED, AS DIRECTED BY AMTRAK THROUGH THE ON-SITE AMTRAK C&S SUPPORT PERSONNEL. AMTRAK MAINTAINS THE RIGHT TO ACCESS ALL EXISTING CABLES AND CONDUITS THROUGHOUT CONSTRUCTION. AMTRAK ALSO RESERVES THE RIGHT TO UPGRADE AND INSTALL NEW CABLES AND CONDUITS IN THE AFFECTED AREA. THE "ONE-CALL" PROCESS MUST BE FOLLOWED. BE AWARE THAT AMTRAK IS NOT PART OF THE ONE-CALL PROCESS. CONTACT AMTRAK ENGINEERING TO HAVE ALL RAILROAD UNDERGROUND UTILITIES AND ASSETS LOCATED. IF REQUESTED BY AMTRAK, EXISTING DEPTHS OF UTILITIES BEING CROSSED MUST BE VERIFIED THROUGH TEST PITS PERFORMED BY THE CONTRACTOR AS DIRECTED BY AND UNDER THE DIRECT SUPERVISION OF AMTRAK C&S SUPPORT PERSONNEL. PRECAUTIONS MUST BE TAKEN TO PREVENT ANY INTERRUPTION TO RAILROAD OPERATION.
- ANY WORK (OR EQUIPMENT BEING STAGED ONSITE DURING CONSTRUCTION) PERFORMED AT OR NEAR A RAILROAD CROSSING MUST NOT OBSTRUCT THE VIEW OF FLASHING LIGHT UNITS OR GATES TO ONCOMING TRAFFIC.
- PRIOR TO ENTERING AMTRAK'S PROPERTY FOR ANY WORK, THE CONTRACTOR MUST EXECUTE AMTRAK'S STANDARD TEMPORARY PERMIT TO ENTER UPON PROPERTY (PTE). THE FULLY EXECUTED PTE, WRITTEN NOTICE TO PROCEED FROM AMTRAK THAT ALL REQUIREMENTS OF THE PTE HAVE BEEN MET AND PROOF OF SAFETY TRAINING MUST, AT ALL TIMES, BE FURNISHED BY THE CONTRACTOR AT THE PROJECT SITE.
- ALL PERSONS THAT ARE ON OR ADJACENT TO THE RAILROAD PROPERTY MUST SUCCESSFULLY COMPLETE THE CONTRACTOR ORIENTATION TRAINING. ALL CONTRACTORS MUST CARRY THEIR "AMTRAK CONTRACTOR ROADWAY WORKER PROTECTION" CARD WITH THEM AT ALL TIMES WHILE ON OR ADJACENT TO RAILROAD PROPERTY.
- ANY DEBRIS OR DAMAGE RESULTING FROM WORK SHALL BE IMMEDIATELY REPORTED TO THE RAILROAD. RAILROAD SHALL BE REPAIRED BY RAILROAD FORCES AT PROJECT EXPENSE.

PIPE CROSSING DATA	CARRIER PIPE	CASING PIPE
CONTENTS TO BE HANDLED	WATER	NONE
OPERATING PRESSURE (PSI)	80	N/A
NOMINAL PIPE SIZE (")	8"	16"
O.S. DIAMETER (")	9.05"	16.00"
I.S. DIAMETER (")	8.39"	15.00"
WALL THICKNESS (")	0.33"	0.50"
WEIGHT PER FOOT (LBS)	29	83
MATERIAL	DUCTILE	STEEL
PROCESS OF MANUFACTURE	CENTRIFUGALLY CAST	WELDED ROUND PIPE
SPECIFICATION	AWWA C150/C151	ASTM A53 & AWWA C200
GRADE OR CLASS	THICKNESS CLASS 52	A53 GRADE B
WORKING PRESSURE (PSI)	150	N/A
TYPE OF JOINT	MECHANICAL	WELDED
TYPE OF COATING	BITUMASTIC	BITUMASTIC
DETAILS OF CATHODIC PROTECTION	COATING	WRAP OR COATING
DETAILS OF SEAL OR PROTECTION AT ENDS OF CASING	N/A	FLEXIBLE OIL/WATER RESISTANT RUBBER END SEALS
METHOD OF INSTALLATION	TRENCHING	TRENCHING
SPECIFIC MIN. YIELD STRENGTH	42,000 PSI	35,000 PSI
CHARACTER OF SUBSURFACE MATERIAL	UNKNOWN	UNKNOWN
APPROXIMATE GROUND WATER LEVEL	UNKNOWN	UNKNOWN
SOURCE OF INFORMATION ON SUBSURFACE CONDITIONS	N/A	N/A

SCALE



- STEEL CASING PIPE NOTES:**
- ALL CASING PIPE UP TO 24" DIAMETER SHALL BE ASTM A53 GRADE B, 0.50" WALL THICKNESS, STANDARD WEIGHT, MANUFACTURED IN ACCORDANCE WITH AWWA C200.
  - CASING PIPE SHALL BE REQUIRED FOR WATER MAINS CROSSING OVER AND UNDER HIGHWAYS, RAILROADS, OR ANY OTHER LOCATION WHERE A LEAKING PIPE CAN CREATE A HAZARDOUS CONDITION. IN GENERAL, CASING PIPE IS NOT REQUIRED FOR MAINS CROSSING BODIES OF WATER.
  - ALL EXPOSED CASING PIPE SHALL BE SHOP BLASTED AND COATED EXTERNALLY IN ACCORDANCE WITH THE STATE DOT PAINT SPECIFICATION FOR STRUCTURAL STEEL.
  - ALL STEEL PIPE BELOW GRADE SHALL BE WRAPPED WITH PROTECTO-WRAP 310, COLD APPLIED PIPE TAPE OR CARBOLINE COATING. IN CASES WHERE STEEL PIPE RUNS ABOVE GRADE, COATING SHALL EXTEND TO A MINIMUM OF 18" BEYOND FINISHED GRADE. IF APPLICABLE, REFER TO THE CATHODIC PROTECTION PLAN FOR ADDITIONAL CORROSION PROTECTION MEASURES.
  - IN CASES WHERE STEEL PIPE IS TO BE WELDED IN THE FIELD, PIPE SHALL BE ORDERED WITHOUT COATING 6" FROM EACH END TO ALLOW FOR BEVELING AND WELDING IN THE FIELD.
  - ALL WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH THE API 1104 CODE OR AN APPROVED EQUAL. CONTRACTOR SHALL PROVIDE OWNER WITH EVIDENCE OF CURRENT WELDER QUALIFICATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
  - ALL PRODUCTION WELDS SHALL BE PERFORMED, TESTED AND INSPECTED IN CONFORMANCE WITH THE CURRENT EDITION OF AWWA C206.
  - ANY WELDER WHO MAKES A PRODUCTION WELD THAT FAILS TO COMPLY WITH THE REQUIREMENTS OF AWWA C206 MAY BE IMMEDIATELY DISQUALIFIED FROM CURRENT AND/OR FUTURE WORK AT THE DISCRETION OF THE OWNER.
  - STEEL CASING SHALL BE SO CONSTRUCTED AS TO PREVENT LEAKAGE OF ANY SUBSTANCE FROM THE CASING THROUGHOUT ITS LENGTH EXCEPT AT ENDS. CASING SHALL BE SO INSTALLED AS TO PREVENT THE FORMATION OF A WATERWAY UNDER THE RAILROAD, WITH AN EVEN BEARING THROUGHOUT ITS LENGTH, AND SHALL SLOPE TO ONE END.
- DUCTILE IRON CARRIER PIPE NOTES:**
- ALL DUCTILE IRON PIPE SHALL BE CLASS 52 (MIN.), CEMENT LINED, INTERNALLY AND EXTERNALLY COATED AS PER AWWA C150 (LATEST SPECS).
  - WHEN USING TYTON (OR PUSH-ON) JOINT PIPE, THE USE OF FIELD-LOK (RESTRAINT TYPE) GASKETS ARE REQUIRED AT EACH JOINT WITHIN THE CASING PIPE AND (C) PIPE JOINTS PAST THE CASING END SEAL ON EACH END. PIPE IS TO BE PUSHED THROUGH CASING, NOT PULLED. CONSULT PROJECT CONSTRUCTION PLANS IF OTHER TYPE OF RESTRAINT PIPE IS BEING INSTALLED AND FOLLOW THOSE SPECIFICATIONS ACCORDINGLY.



Nominal Pipe Diameter	Minimum Nominal Casing I.D.
8"	16"
10"	18"
12"	20"
16"	24"
20"	36"

TYPICAL DUCTILE IRON WATER MAIN WITH STEEL CASING AND SPACERS



NO	DATE	REVISION	INTL.
2	08/15/2025	RESPONSE PER AMTRAK COMMENTS DATED 08/08/2025	JMM
1	06/02/2025	RESPONSE PER AMTRAK COMMENTS DATED 05/15/2025	JMM
0	03/11/2025	ISSUED FOR CONSTRUCTION	JMM
0	03/11/2025	DESIGN COMPLETION	JMM

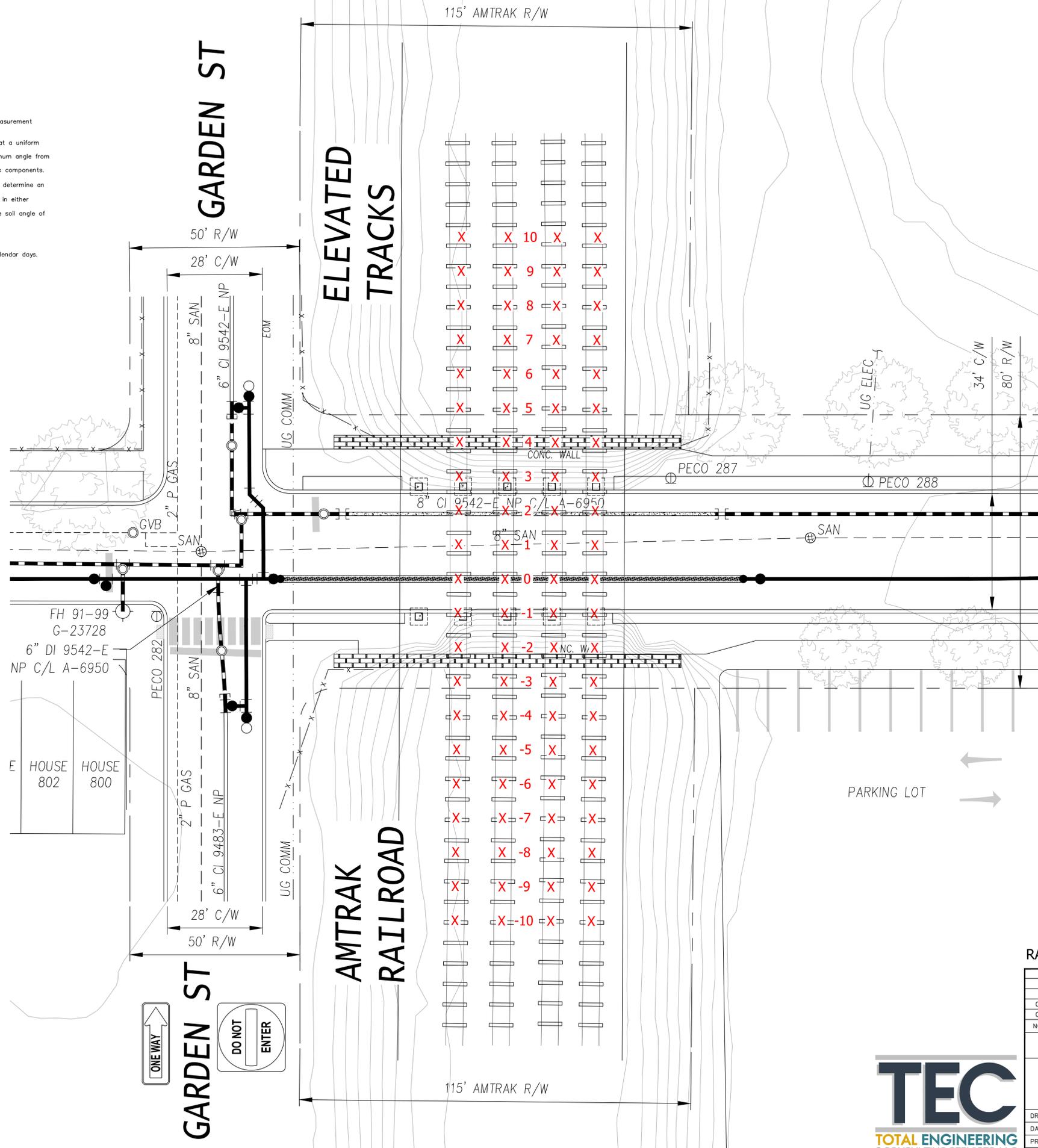
AQUA PENNSYLVANIA, INCORPORATED  
762 LANCASTER AVENUE, BRYN MAWR, PA., 19010

PROJECT PLAN FOR:  
**JEFFERSON AVE PROJECT**  
AMTRAK ROE PLAN  
BRISTOL BOROUGH, BUCKS COUNTY

DRAWN BY: JDB    CHK'D BY: JMM    EXT No: 20275-E  
DATE: 03/07/2024    SCALE: N.T.S.    PLATE: 1014, 1E14, 1E15  
PROJECT No: 554.17    CPA ID No: 4637385    **A - 63315**  
APPROVED: *Jeffrey M. Moore*    SHEET 6 OF 13

**GENERAL NOTES:**

- At a minimum, rail monitoring requirements are as follows:
1. Establish Remote Monitoring Points (RMPs) for collection of data.
  2. Preconstruction monitoring activities to begin at least 10 days prior to start of construction.
  3. Monitor using total station instrument having a minimum angular accuracy of 1-second and an electronic distance measurement accuracy of 1.0mm + 2ppm. Total station to locate RMPs on track to be monitored.
  4. Prisms shall be set up on both rails of the 10' stations.
  5. RMPs shall be either commercially available calibrated reflective targets or small prisms. All targets shall be mounted at a uniform elevation below the top of rail.
  6. Reflective targets shall be less than 3-inches square and mounted to the web of the rail by adhesive. Allowable minimum angle from instrument to target face is 30 degrees.
  7. Prisms mounted on rail brackets shall remain at least 1-inch below top of rail head and must not interfere with track components.
  8. Contractor shall include prisms on the track(s) the work passes beneath.
  9. If the prisms encounter special track work locations (crossings, turnouts, miter rails), Contractor shall notify SEPTA to determine an alternate arrangement.
  10. The total count along the track shall extend through the Zone of Influence and extend an additional five (5) stations, in either direction, outside of the Zone of Influence.
  11. Zone of Influence using the diameter or width of the underground work, extending to the surface of the ground at the soil angle of repose. Soil angle of repose should be taken from the depth of the underground work to ground level.
  12. Points shall be set up at least one week prior to the start of excavation activities.
  13. Initial readings must be taken at least two days prior to start of work.
  14. During active construction readings shall be taken every hour.
  15. During inactive construction, readings shall be taken every 12 hours.
  16. After jack and bore completed and pits backfilled reading shall be taken once daily at same time of day for seven calendar days.
  17. Pre and post construction survey to be provided.
  18. Readings to be hand delivered to Septa Engineer in charge onsite and emailed to Septa daily.
  19. Points shall be clearly marked in field on each rail both directions.



RAIL MONITORING STATION KEY	
TARGET LOCATION	RAIL STATION
10	
9	
8	
7	
6	
5	
4	
3	
2	
1	
0	
-1	
-2	
-3	
-4	
-5	
-6	
-7	
-8	
-9	
-10	

RAIL MONITORING STATION KEY	
TARGET LOCATION	RAIL STATION
10	
9	
8	
7	
6	
5	
4	
3	
2	
1	
0	
-1	
-2	
-3	
-4	
-5	
-6	
-7	
-8	
-9	
-10	

**RAIL MONITORING PLAN**

0	ISSUED FOR CONSTRUCTION		
0	DESIGN COMPLETION		
NO	DATE	REVISION	INTL
AQUA PENNSYLVANIA, INCORPORATED 762 LANCASTER AVENUE, BRYN MAWR, PA., 19010 <b>PROJECT PLAN FOR:</b> <b>JEFFERSON AVE PROJECT</b> SEPTA RAIL MONITORING PLAN BRISTOL BOROUGH, BUCKS COUNTY			
DRAWN BY:	JDB	CHK'D BY:	JMM
DATE:	03/07/2024	SCALE:	N.T.S.
PROJECT No:	554.17	CPA ID No:	4637385
EXT No:	20275-E	PLATE:	1014, 1E14, 1E15
APPROVED			
A - 63315			

