PLAN PREPARATION DESIGNER: A.D. MARBLE A.D. MARBLE

environmental·cultural·engineering 2200 RENAISSANCE BLVD. SUITE 260 KING OF PRUSSIA, PA 19406

TEL: (484) 533-2500 FAX: (484) 533-2599 WWW.ADMARBLE.COM

JENNI ERIN WOODWORTH \ ENGINEER

RADNOR TOWNSHIP TRAIL DRAWINGS

NPDES PERMIT AND RADNOR TOWNSHIP STORMWATER MANAGEMENT PERMIT EROSION AND SEDIMENT POLLUTION CONTROL PLAN RADNOR TOWNSHIP, DELAWARE COUNTY PA

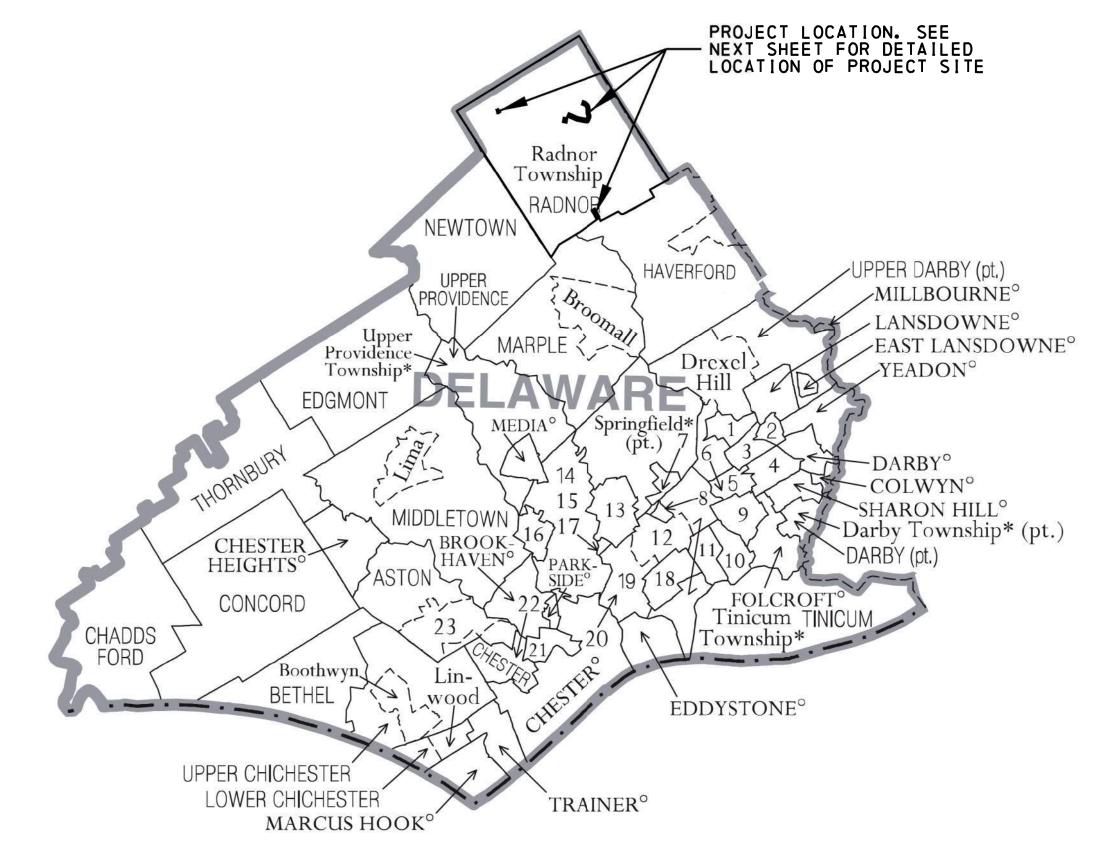
INDEX OF SHEETS

SHEET NO. SHEET NAME TITLE SHEET

> SHEET INDEX LOCATION MAP 3-15 EXISTING CONDITIONS PLANS

EROSION AND SEDIMENT POLLUTION CONTROL PLANS

35-47 TREE REMOVAL AND PLANTING PLAN

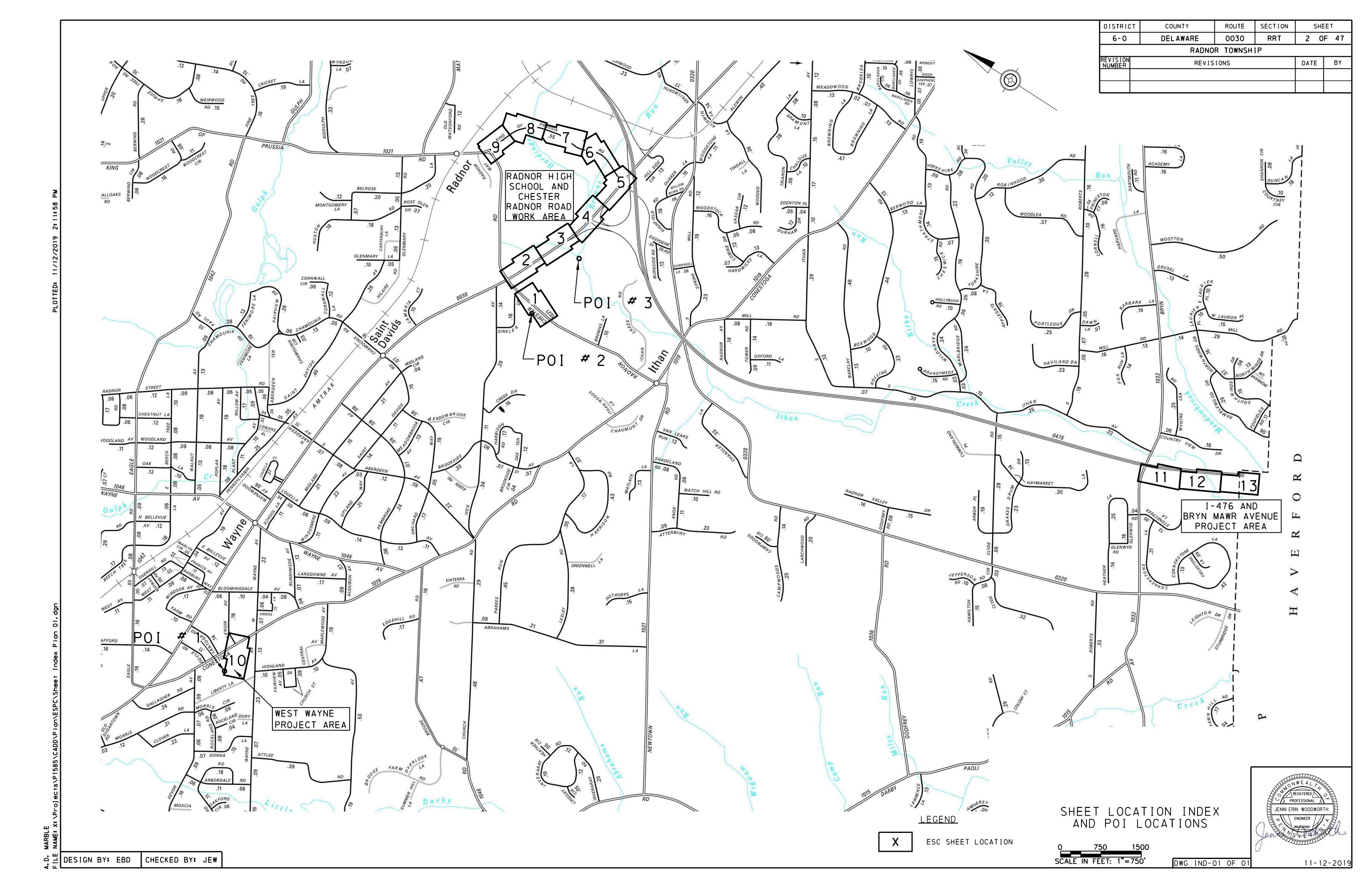


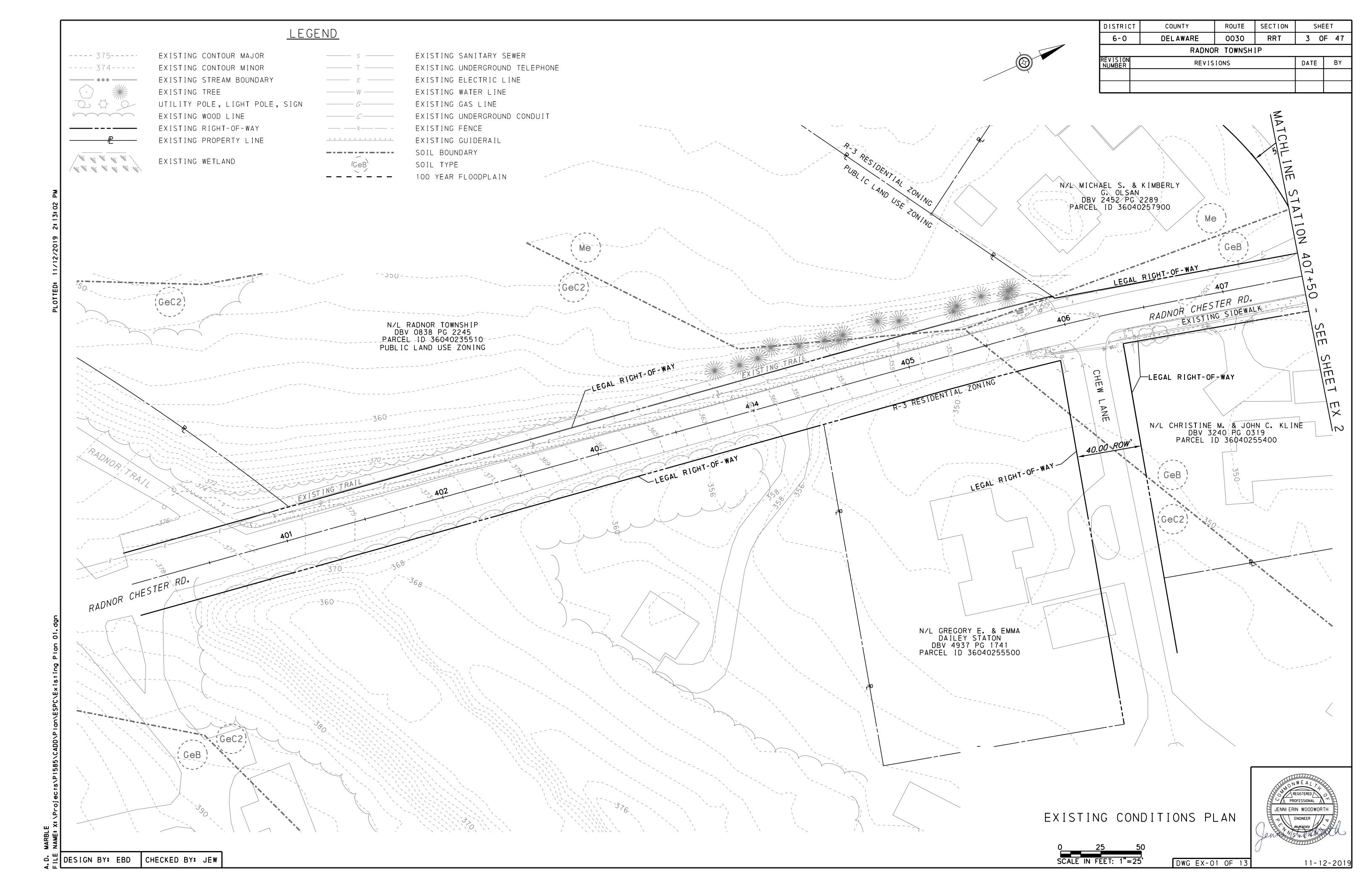
DELAWARE COUNTY TOWNSHIP MAP

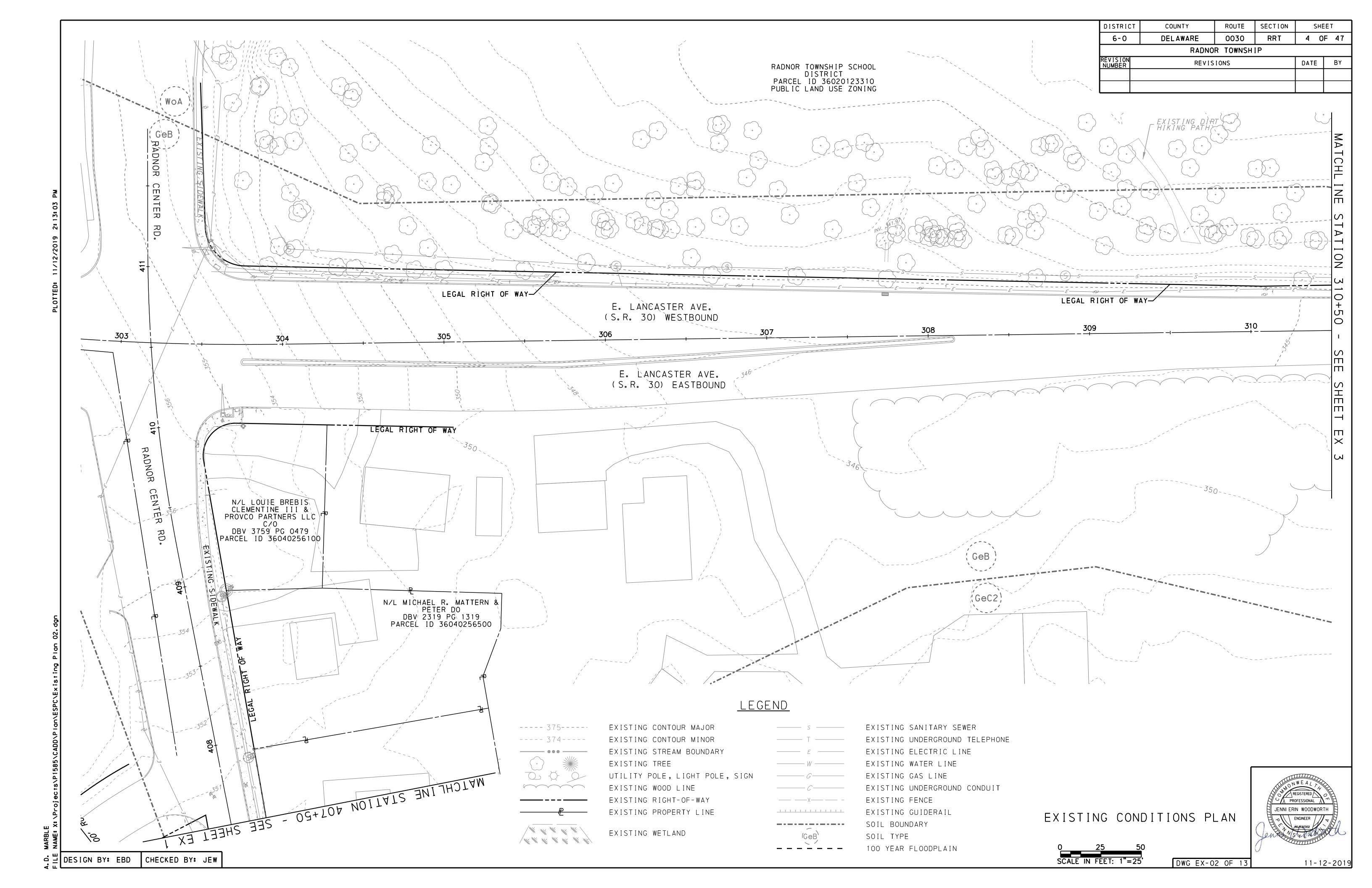
OWNER/APPLICANT:

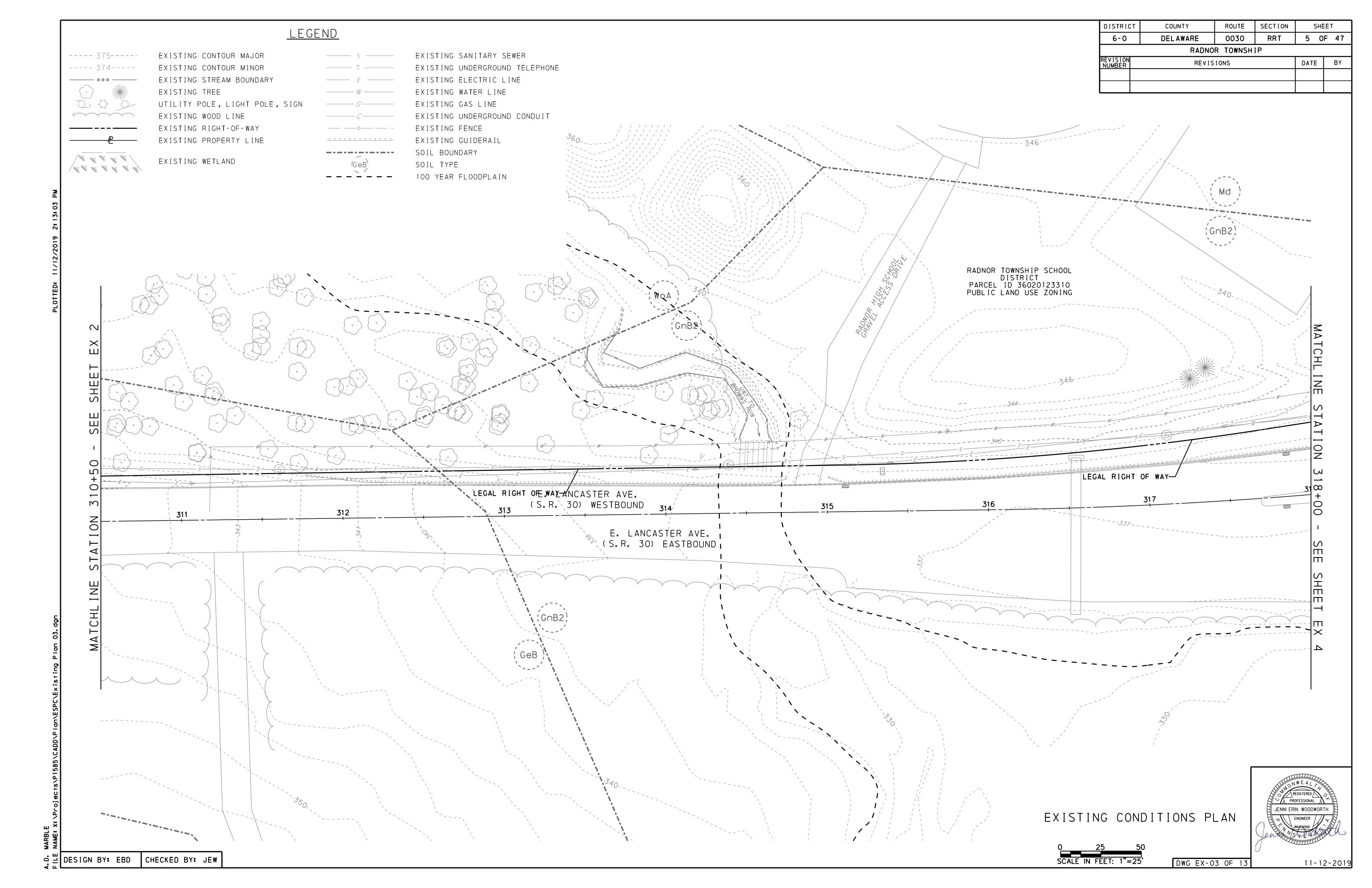
RADNOR TOWNSHIP 301 IVEN AVENUE
WAYNE, PA 19087
CONTACT: STEPHEN NORCINI, PE
TOWNSHIP ENGINEER
PH: 610-688-5600

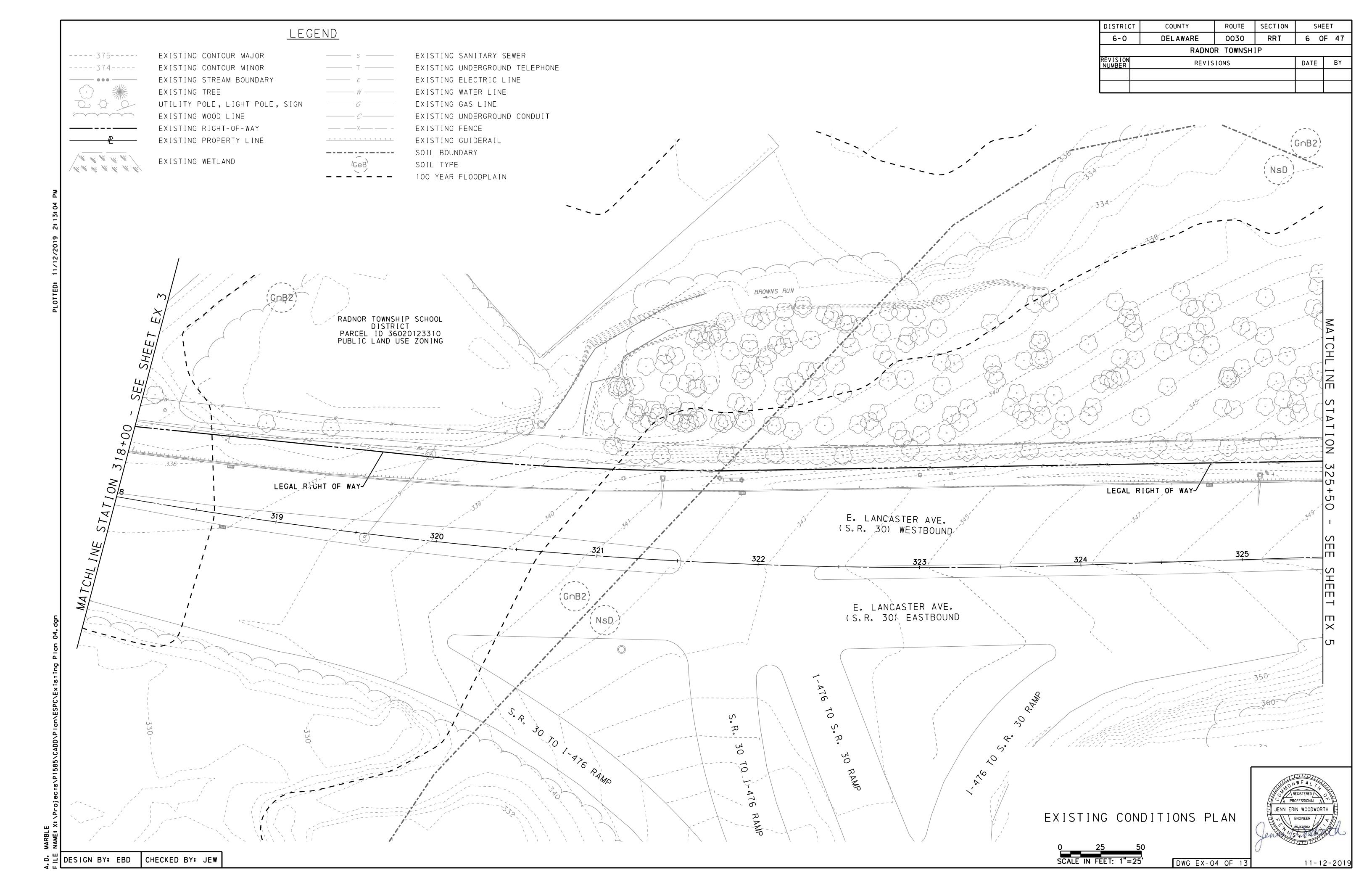
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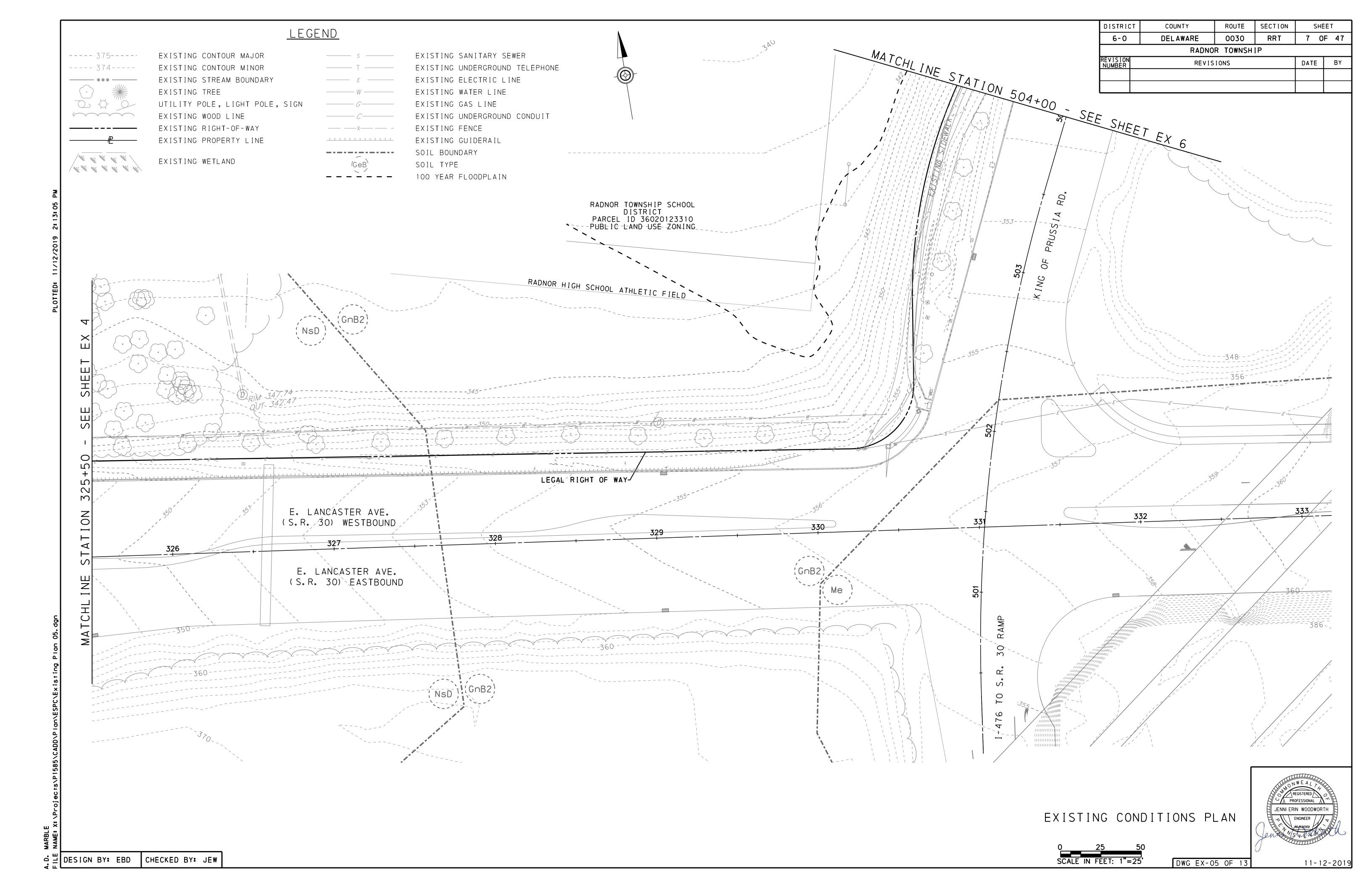


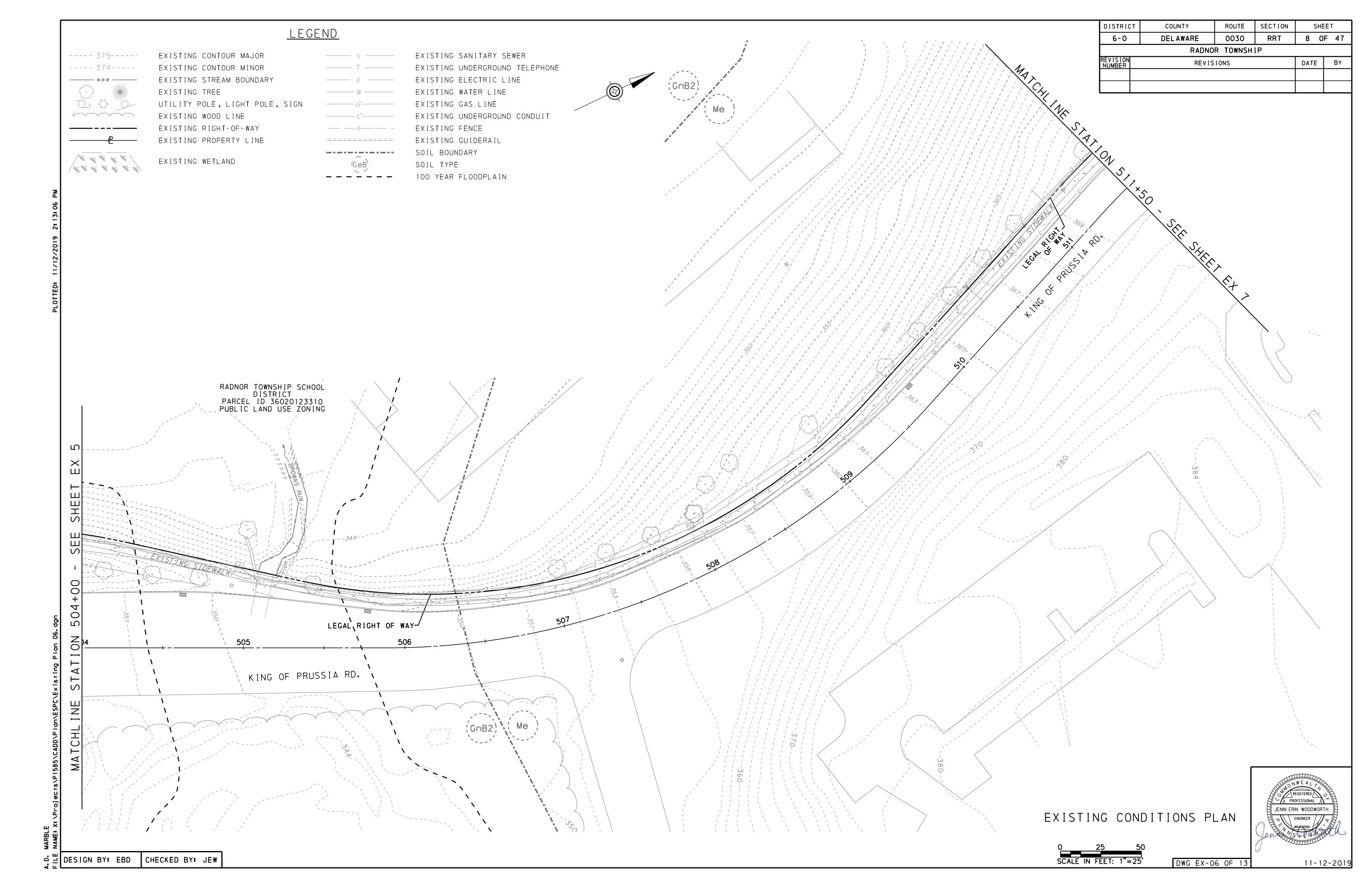


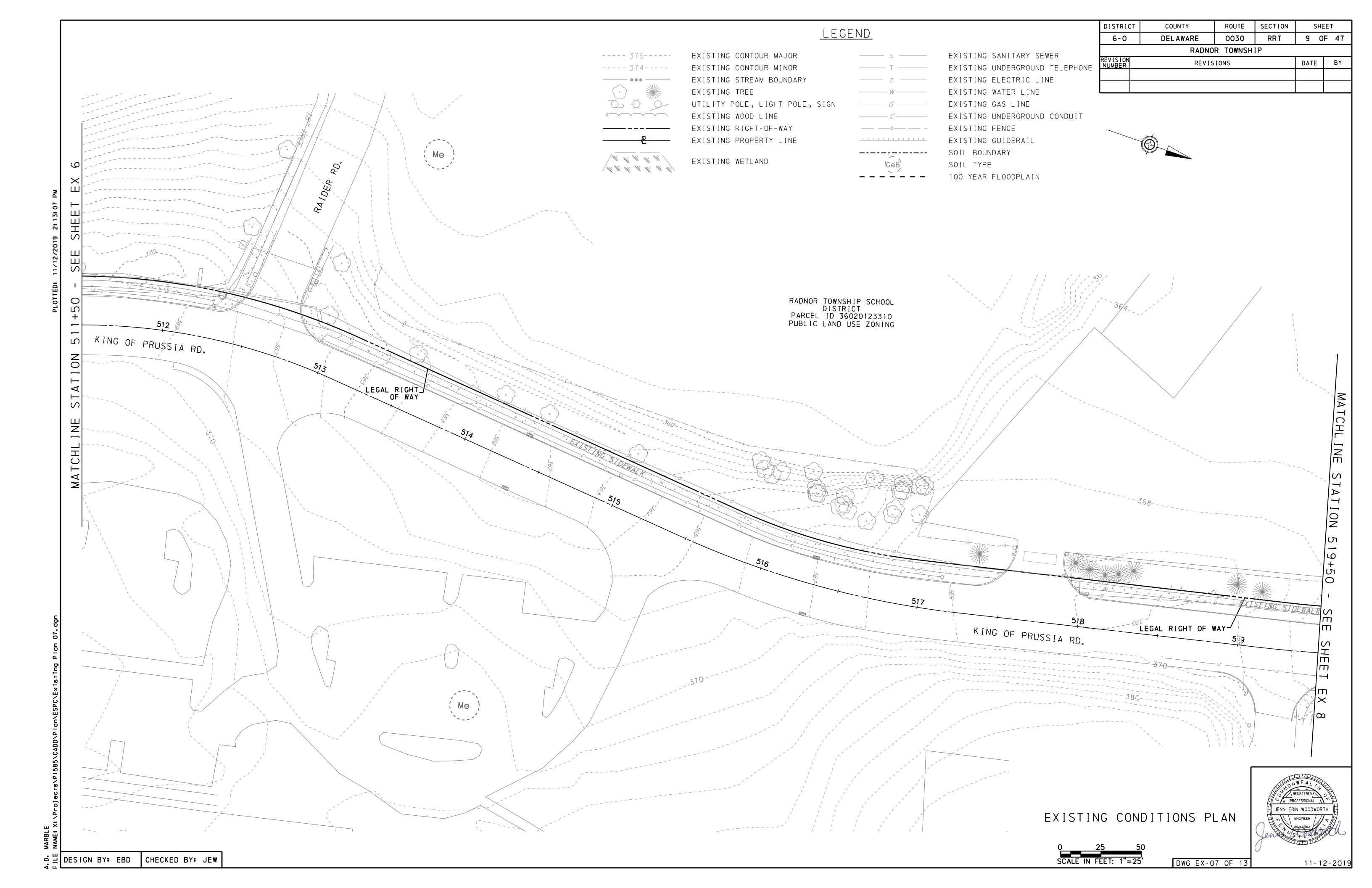


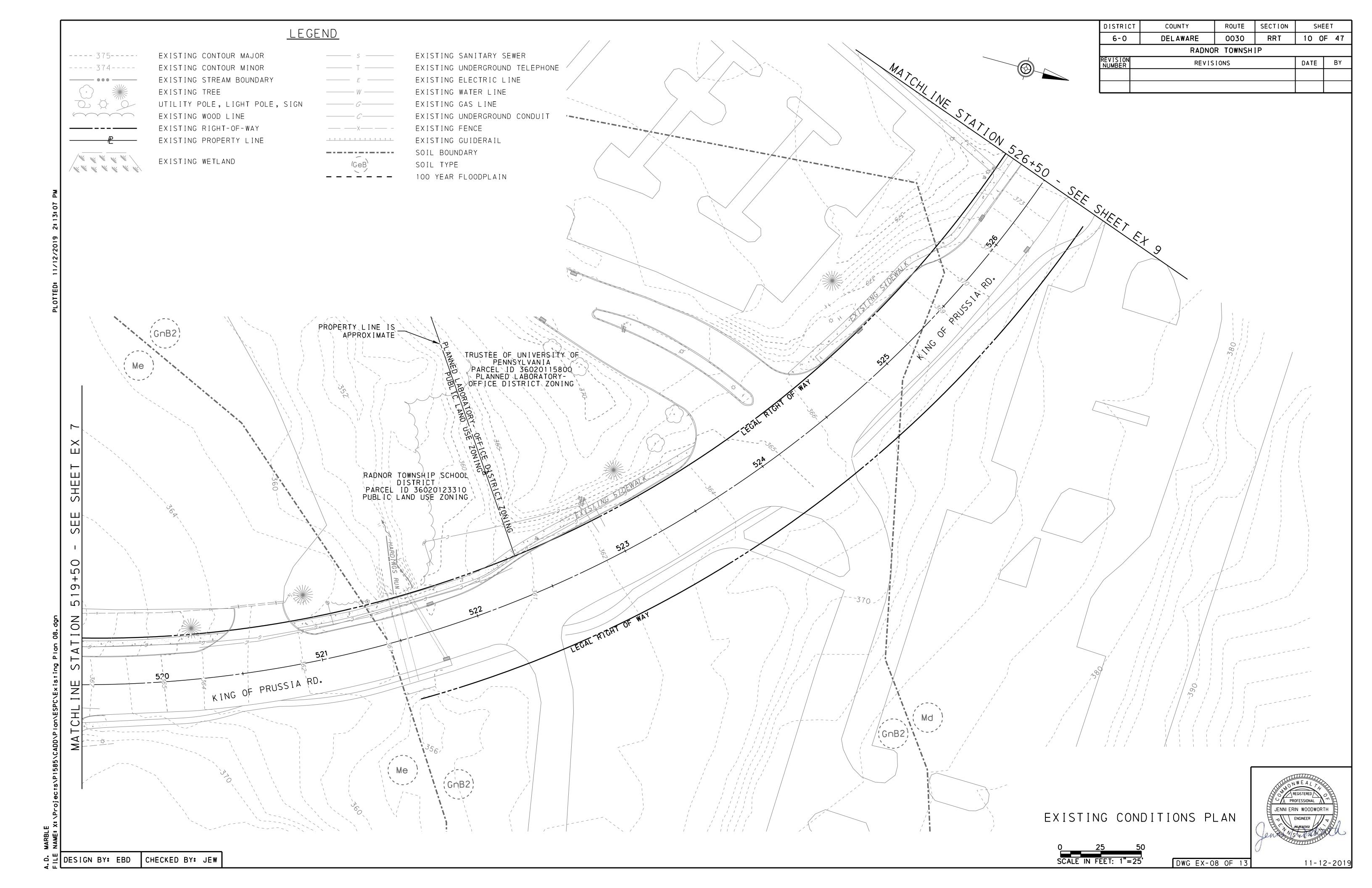


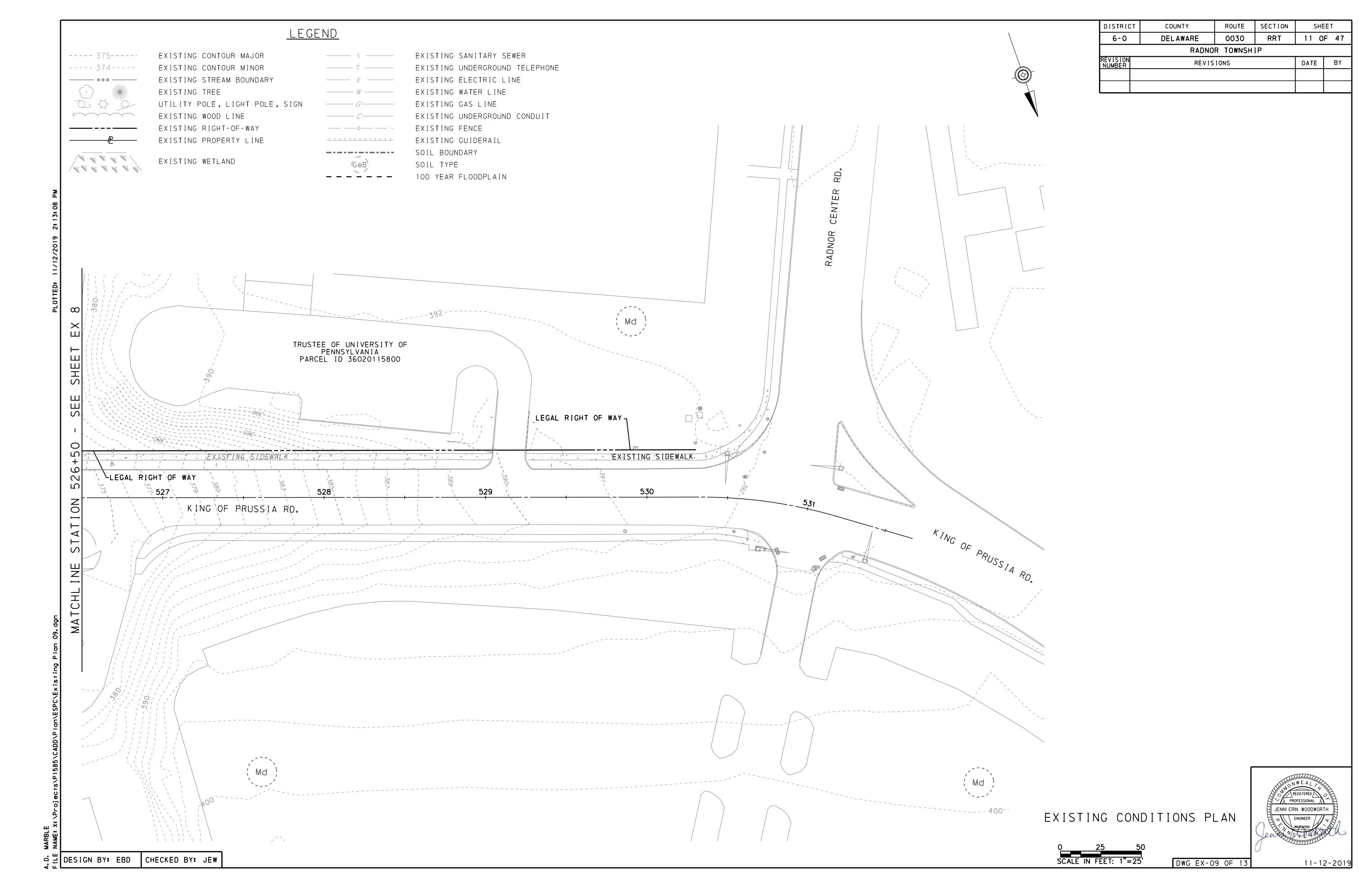


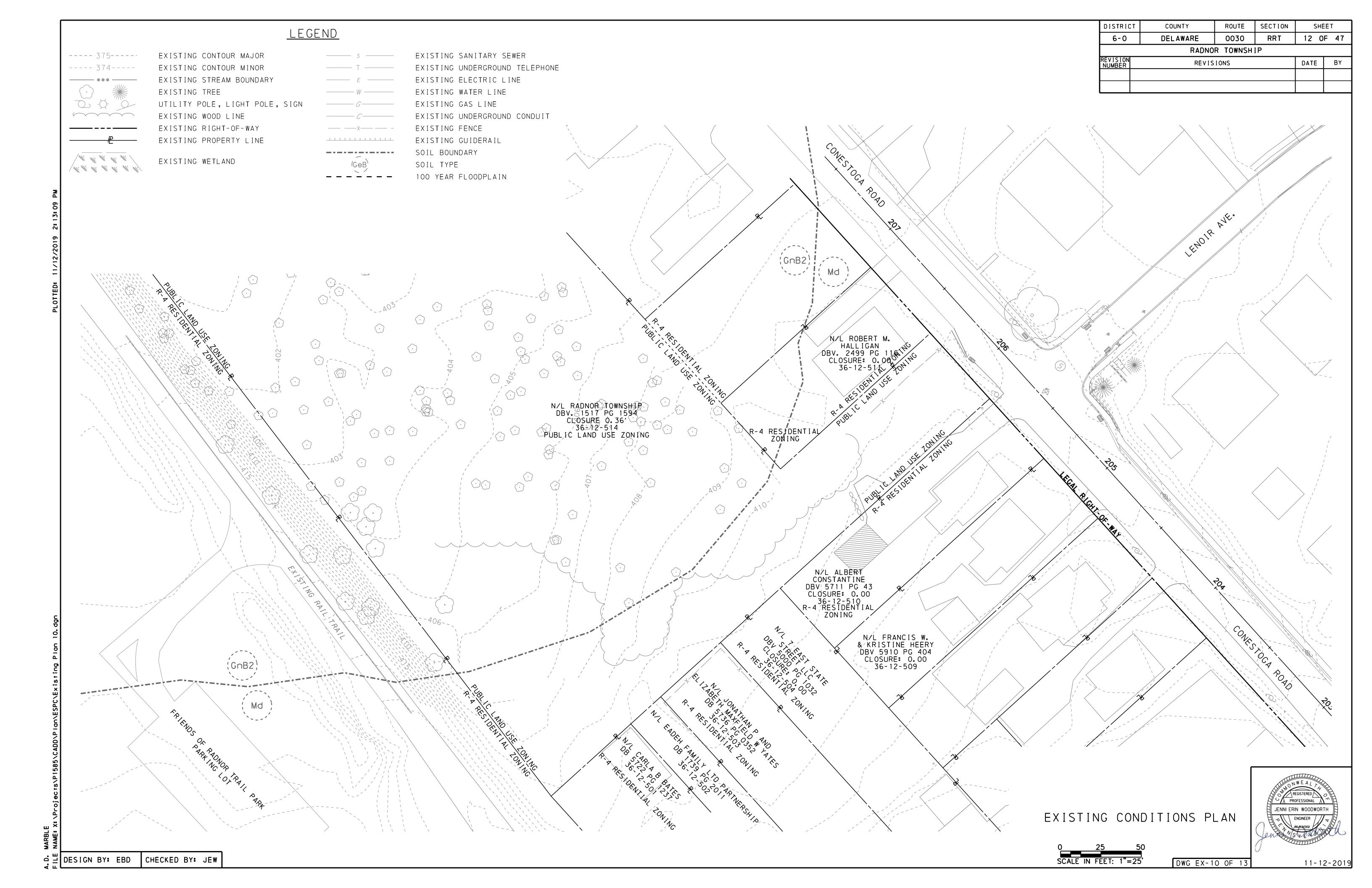


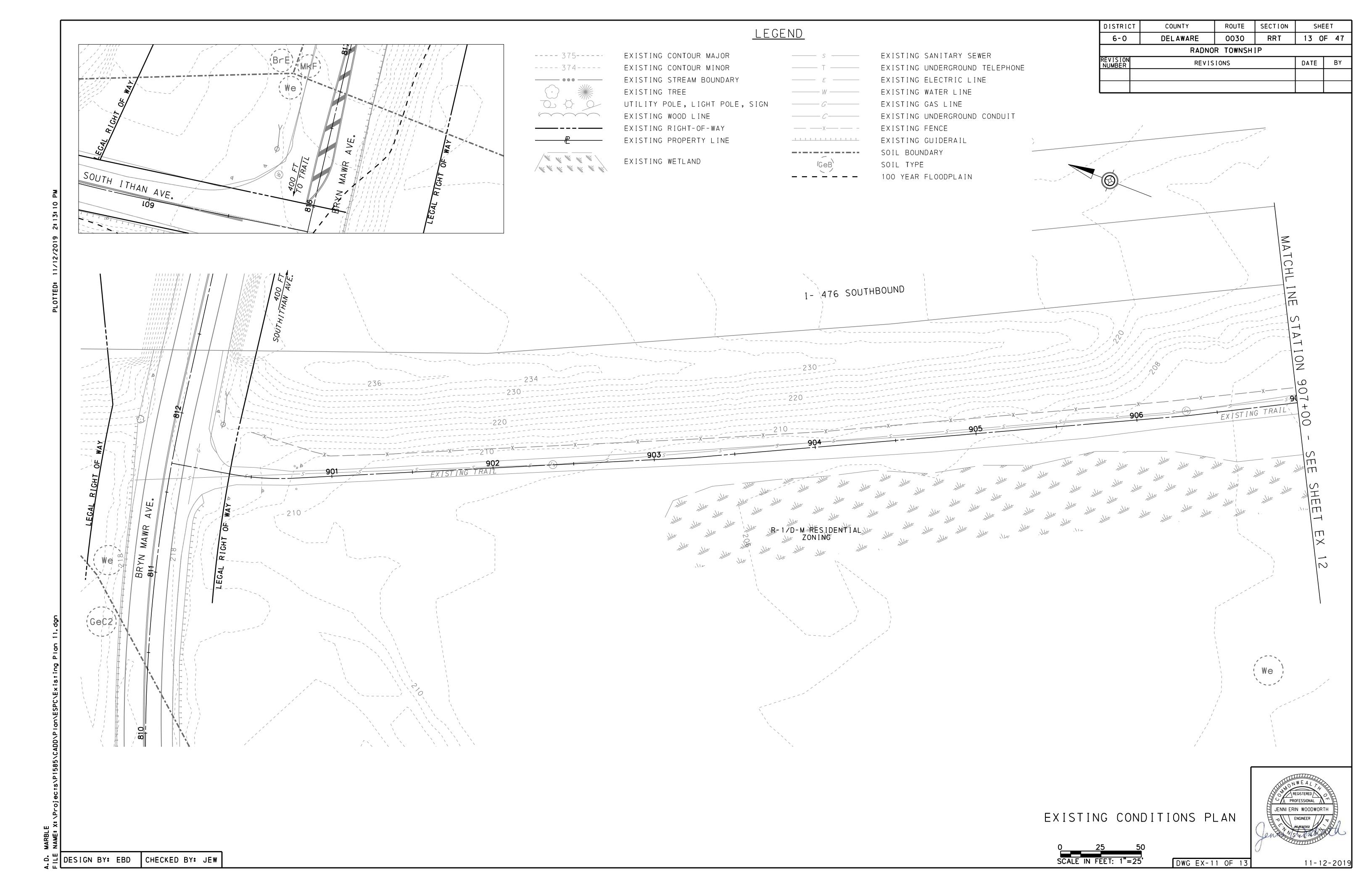


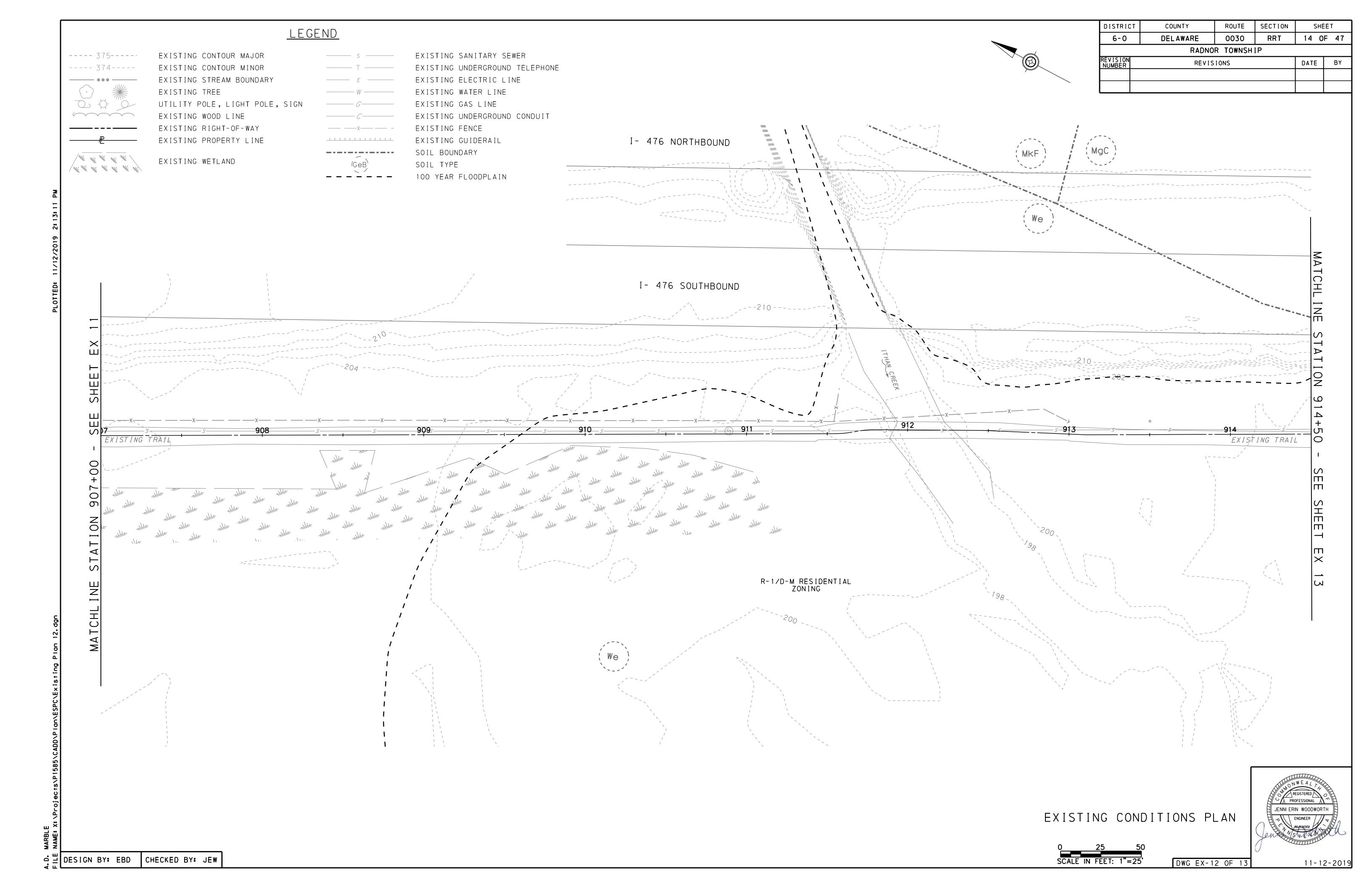


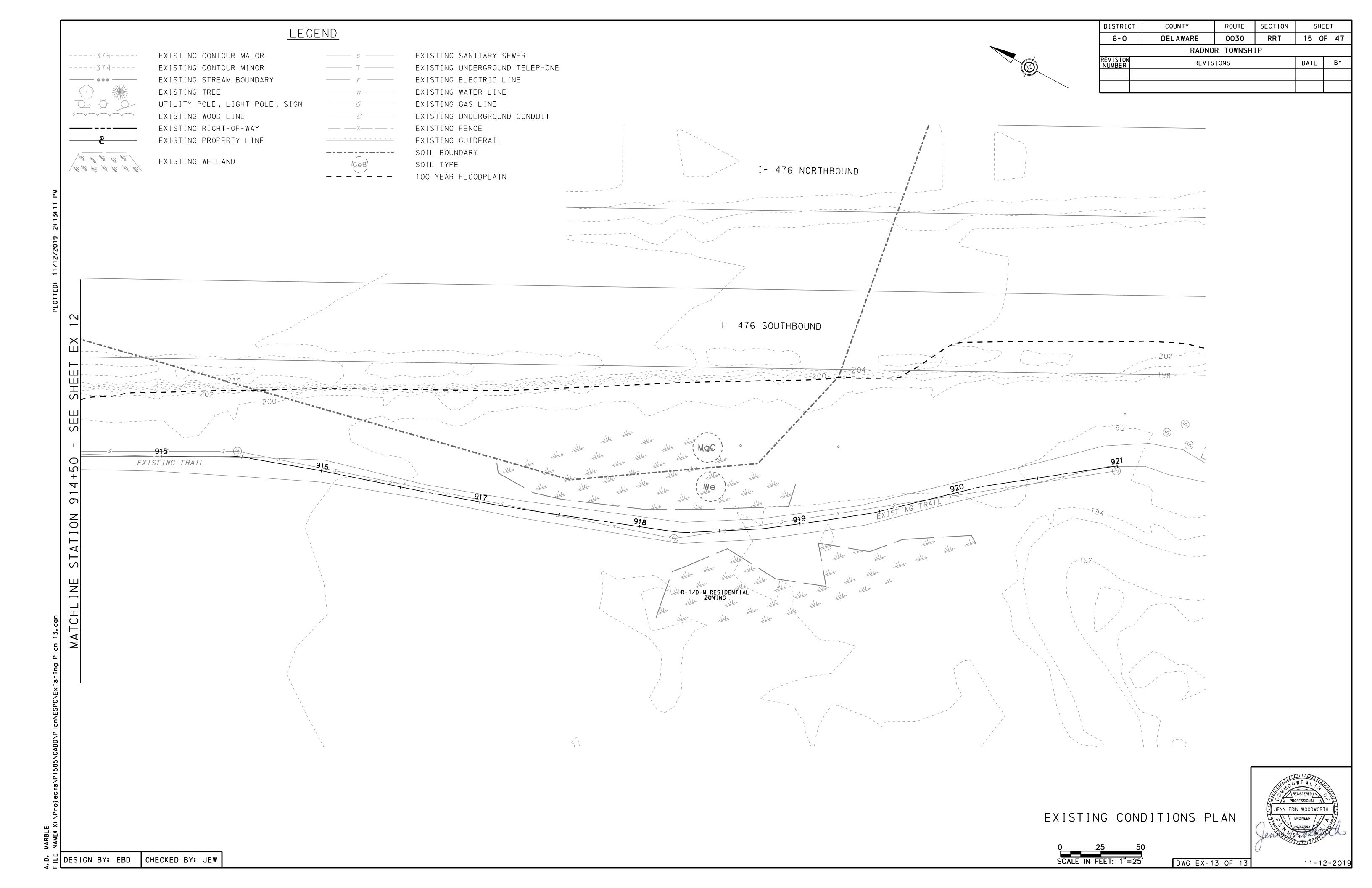


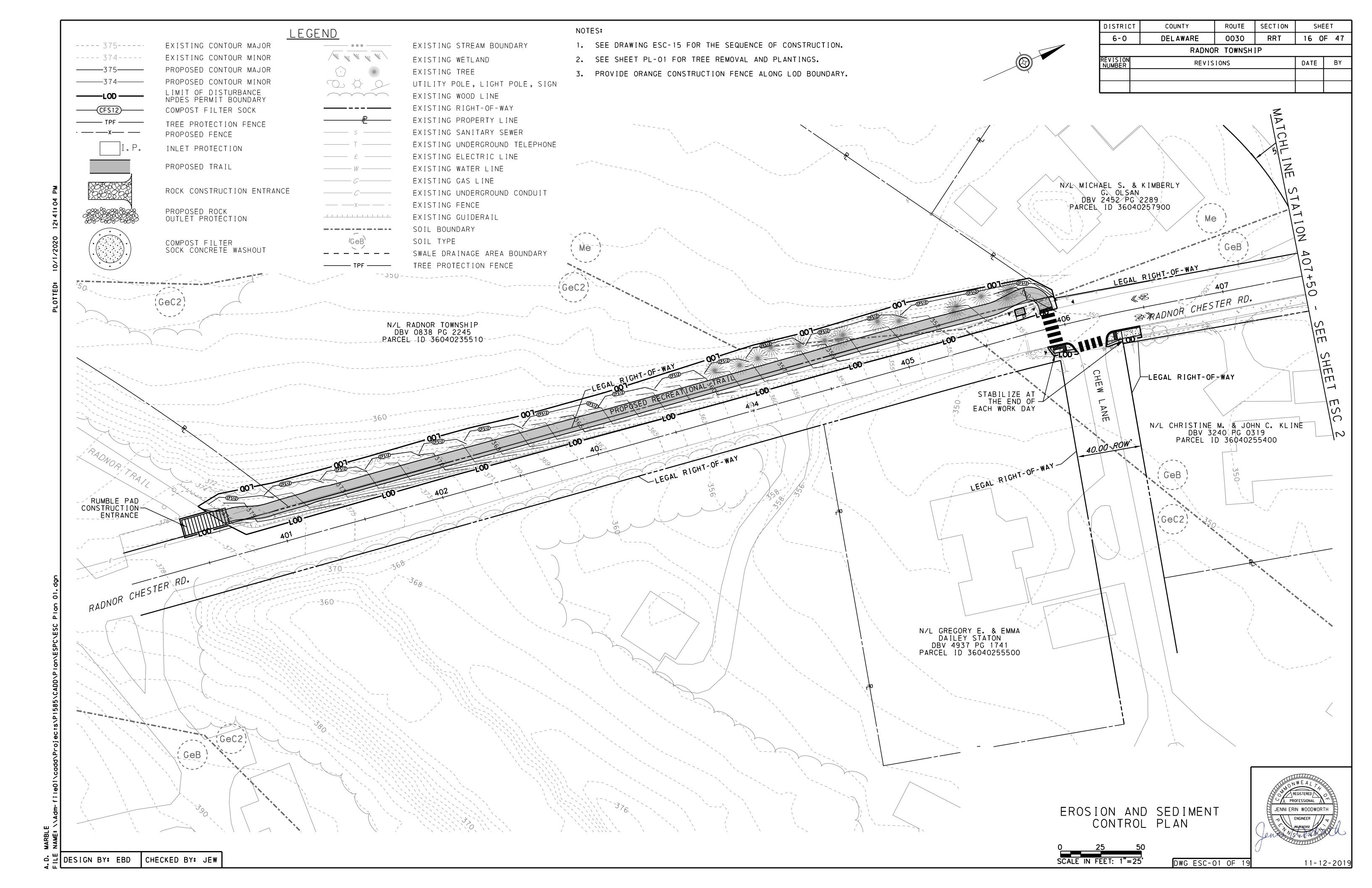


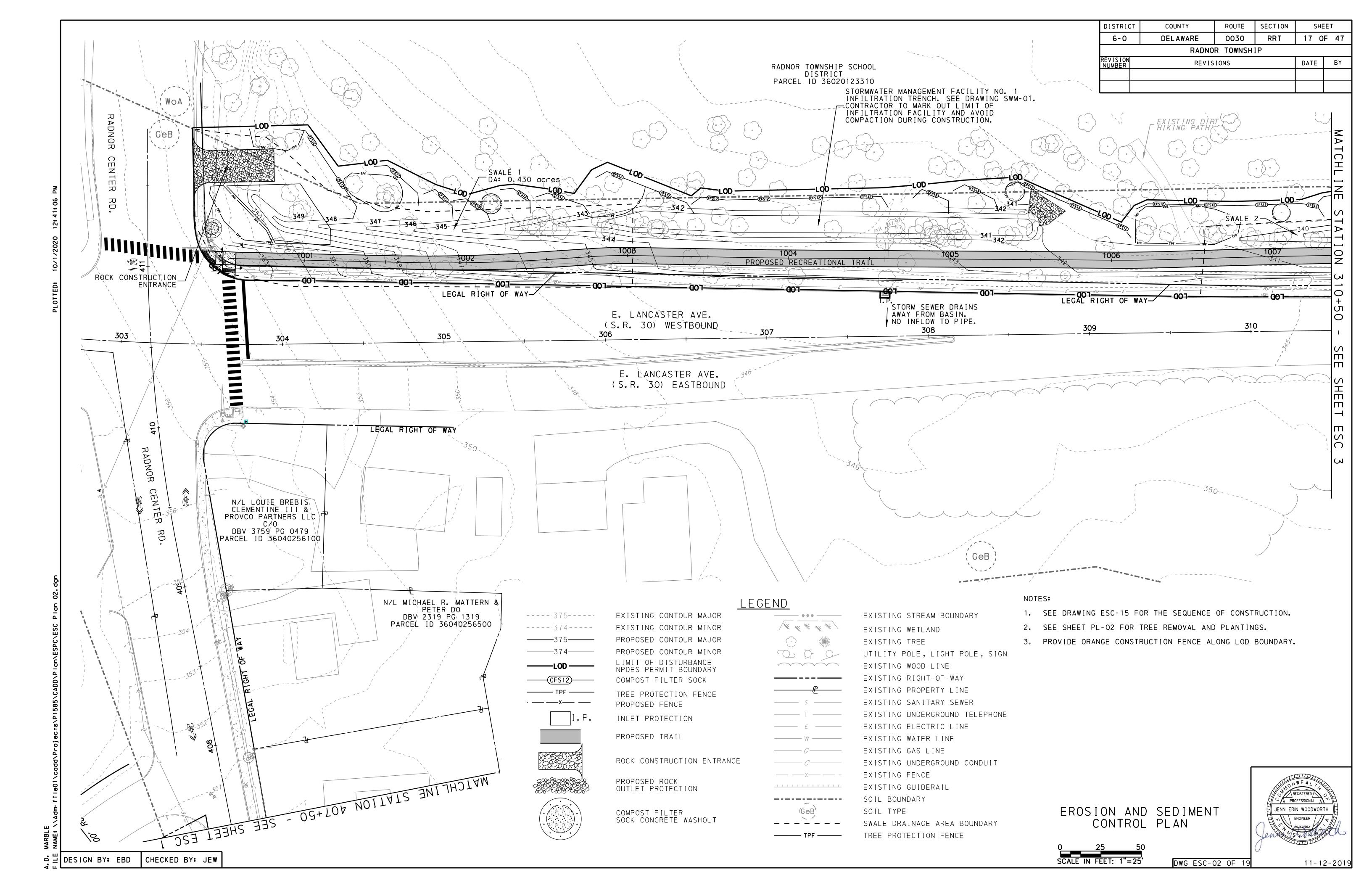


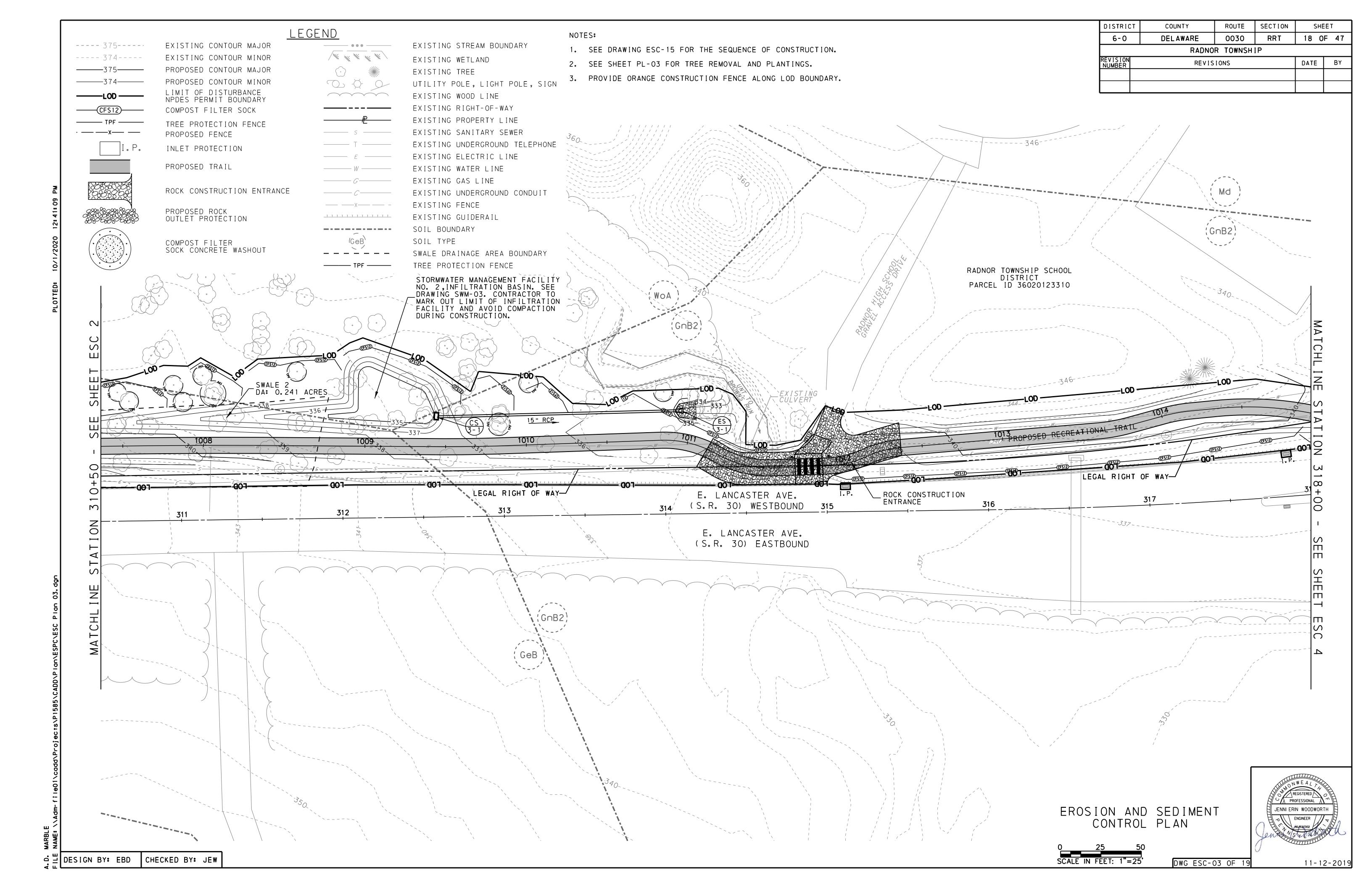


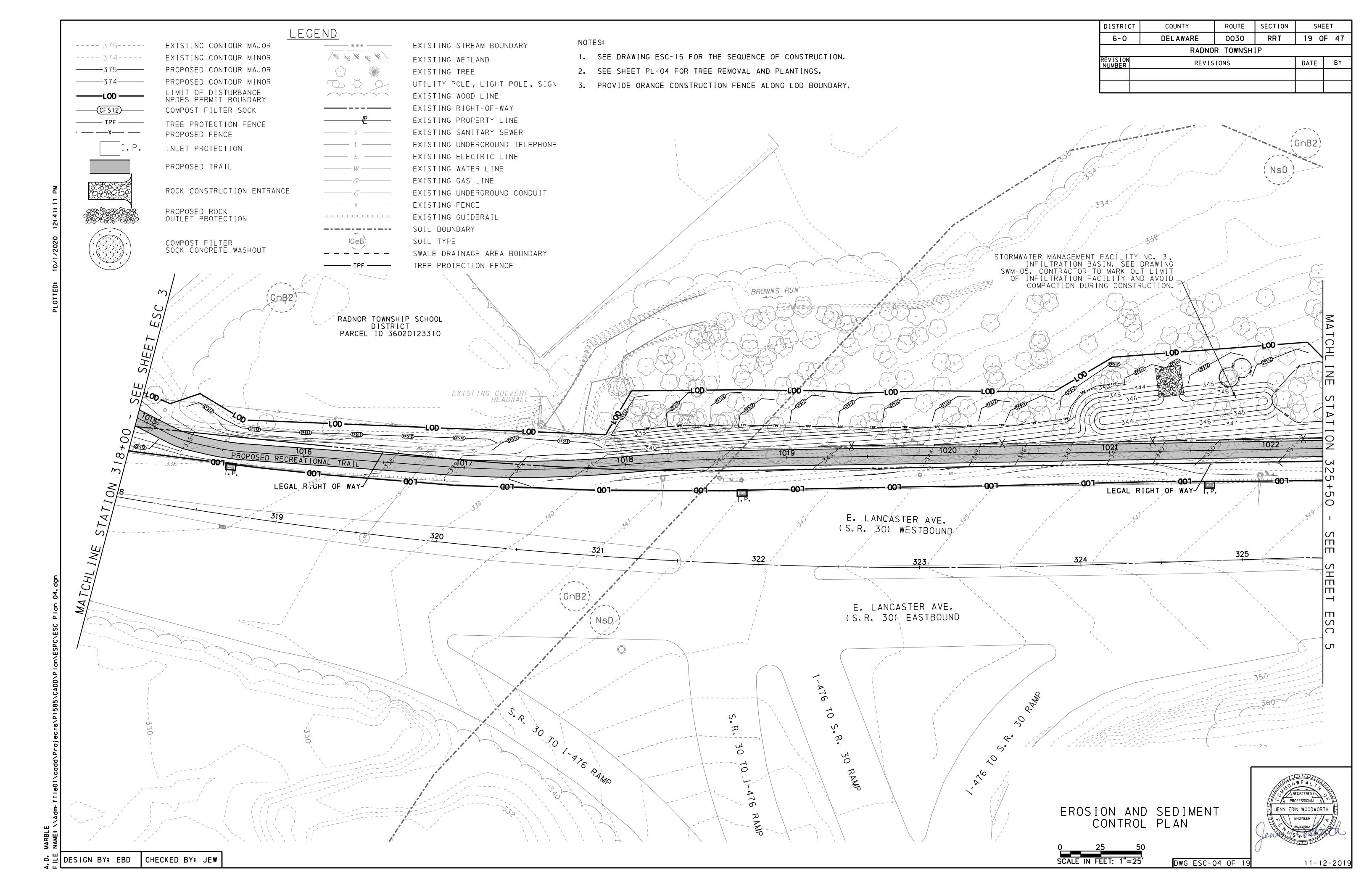


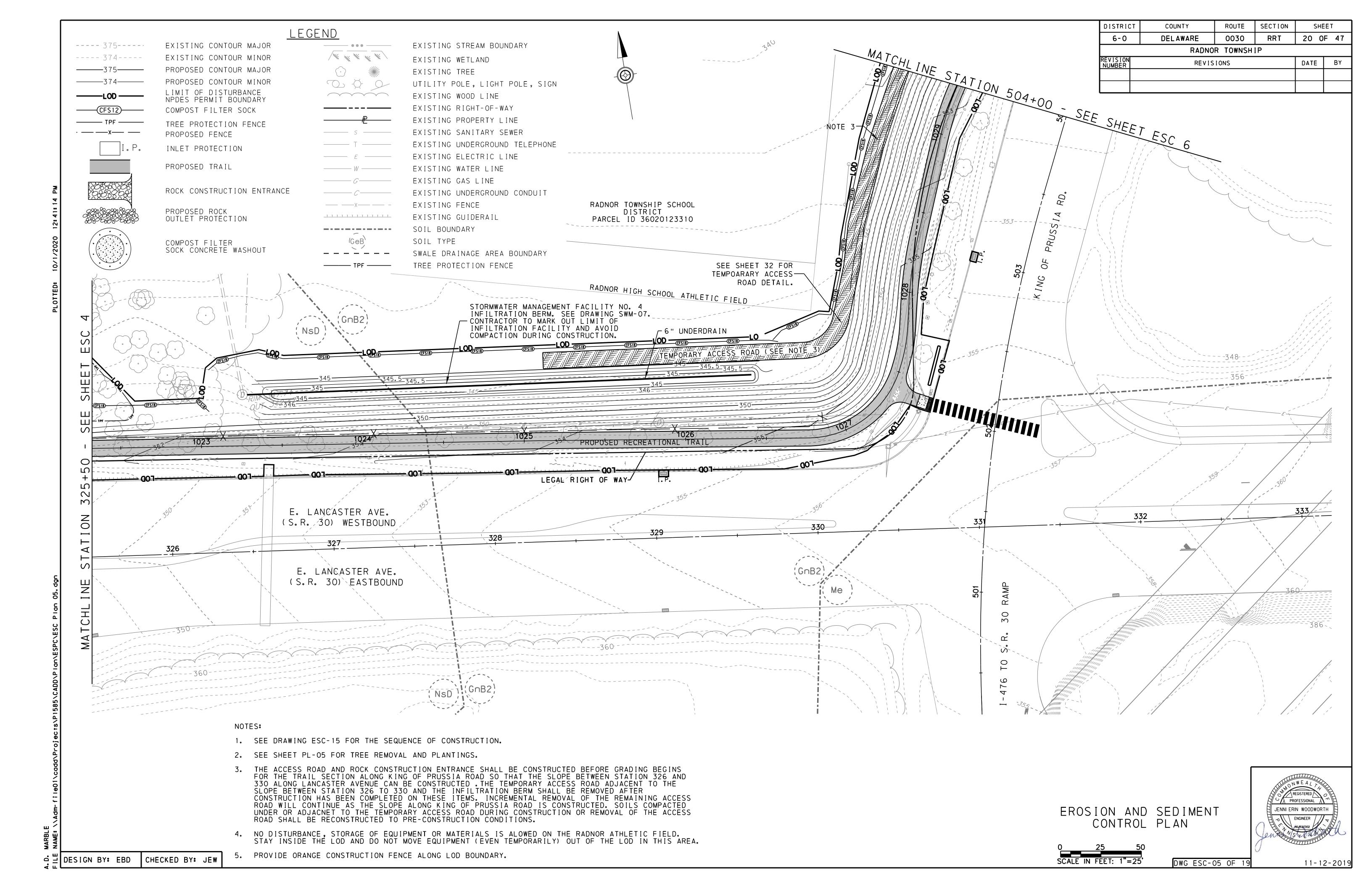


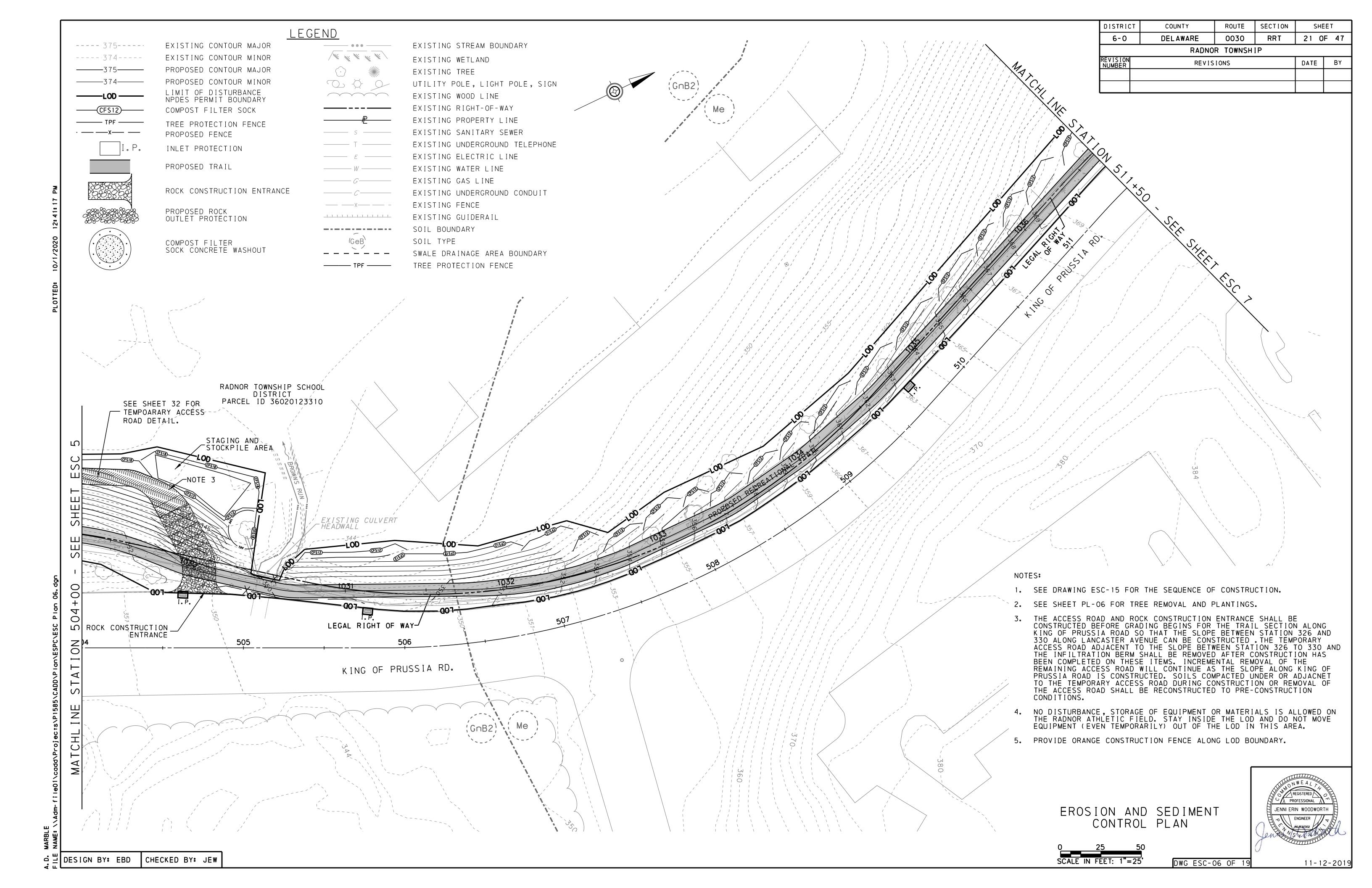


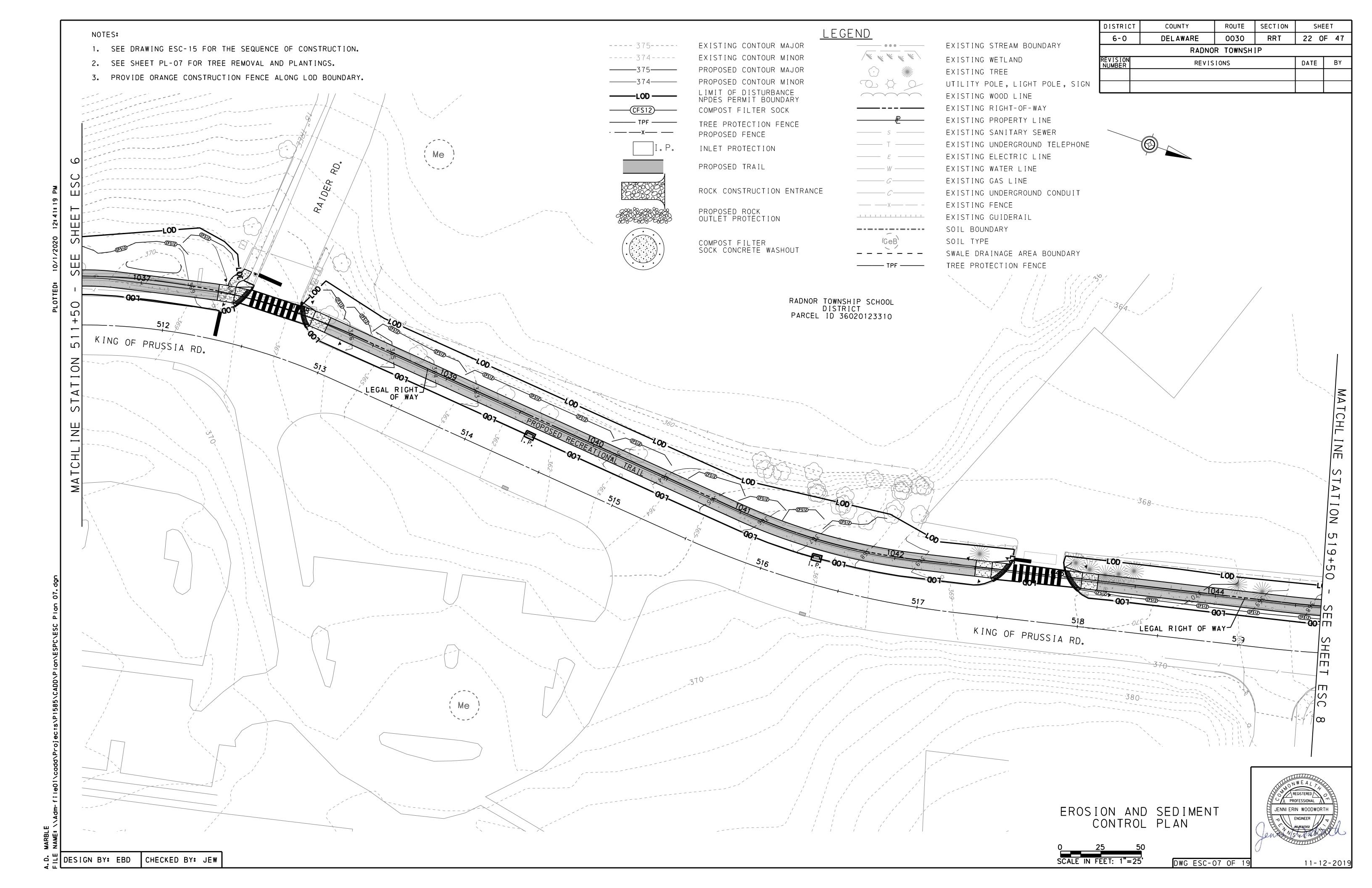


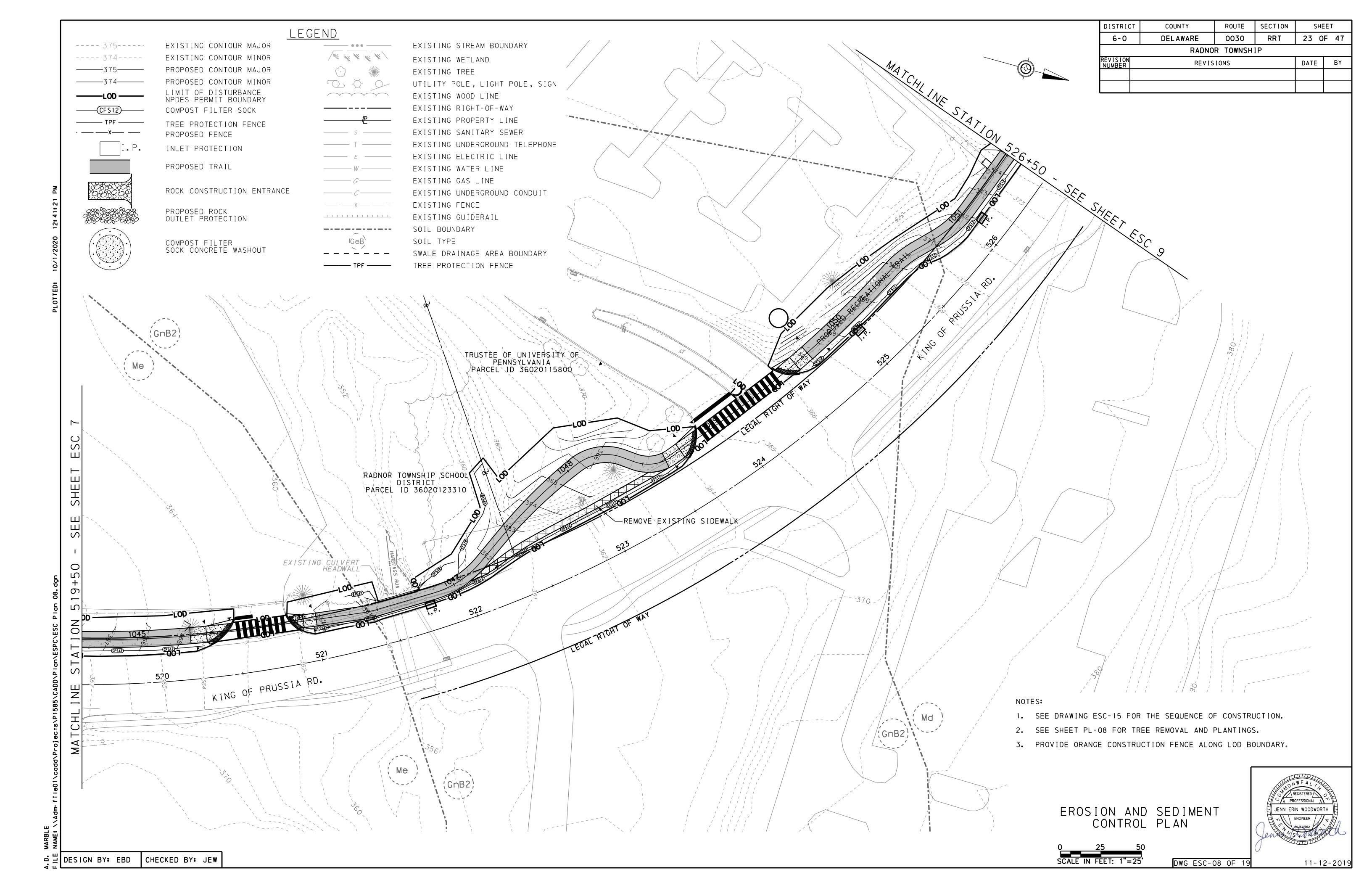


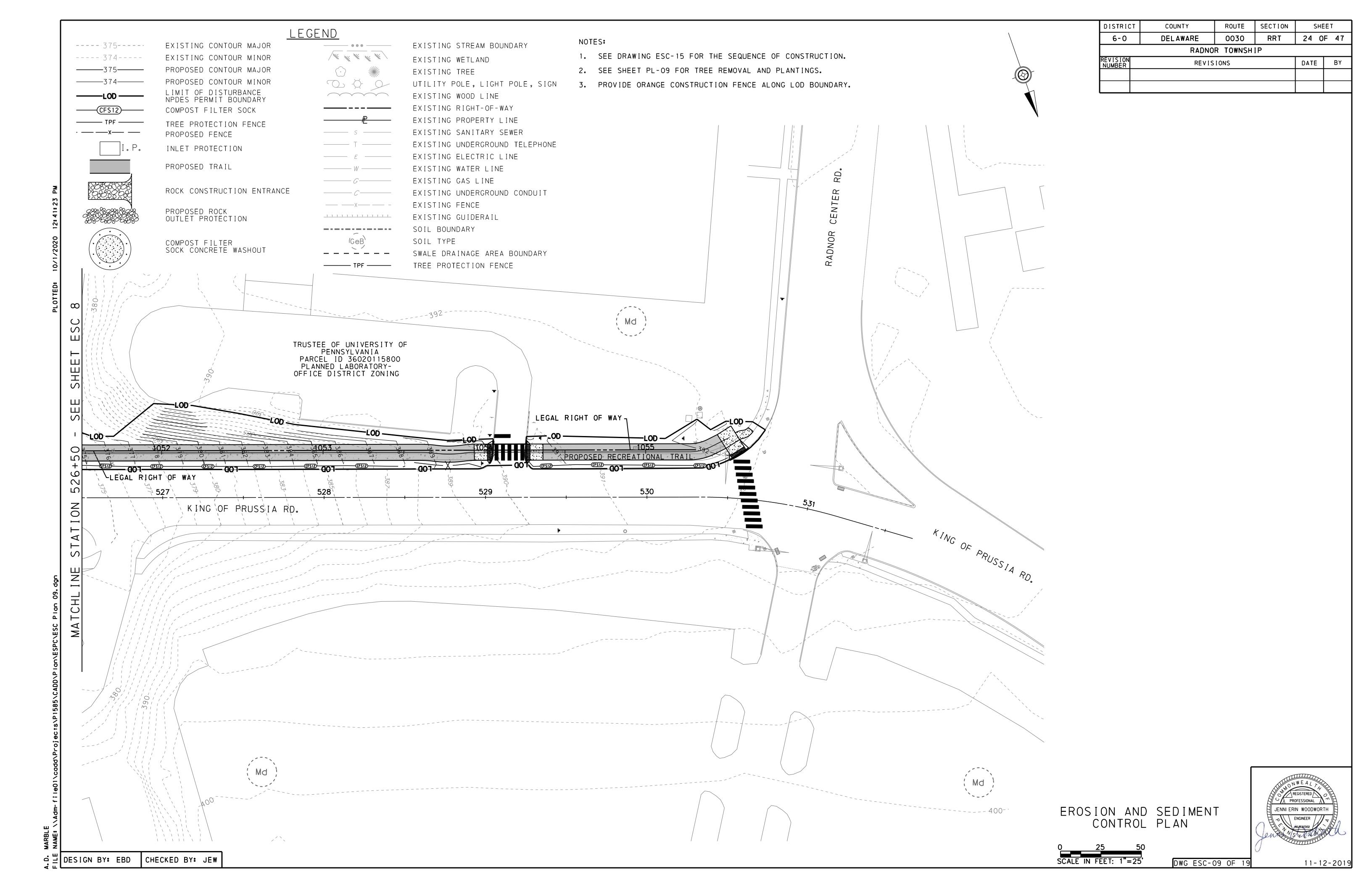


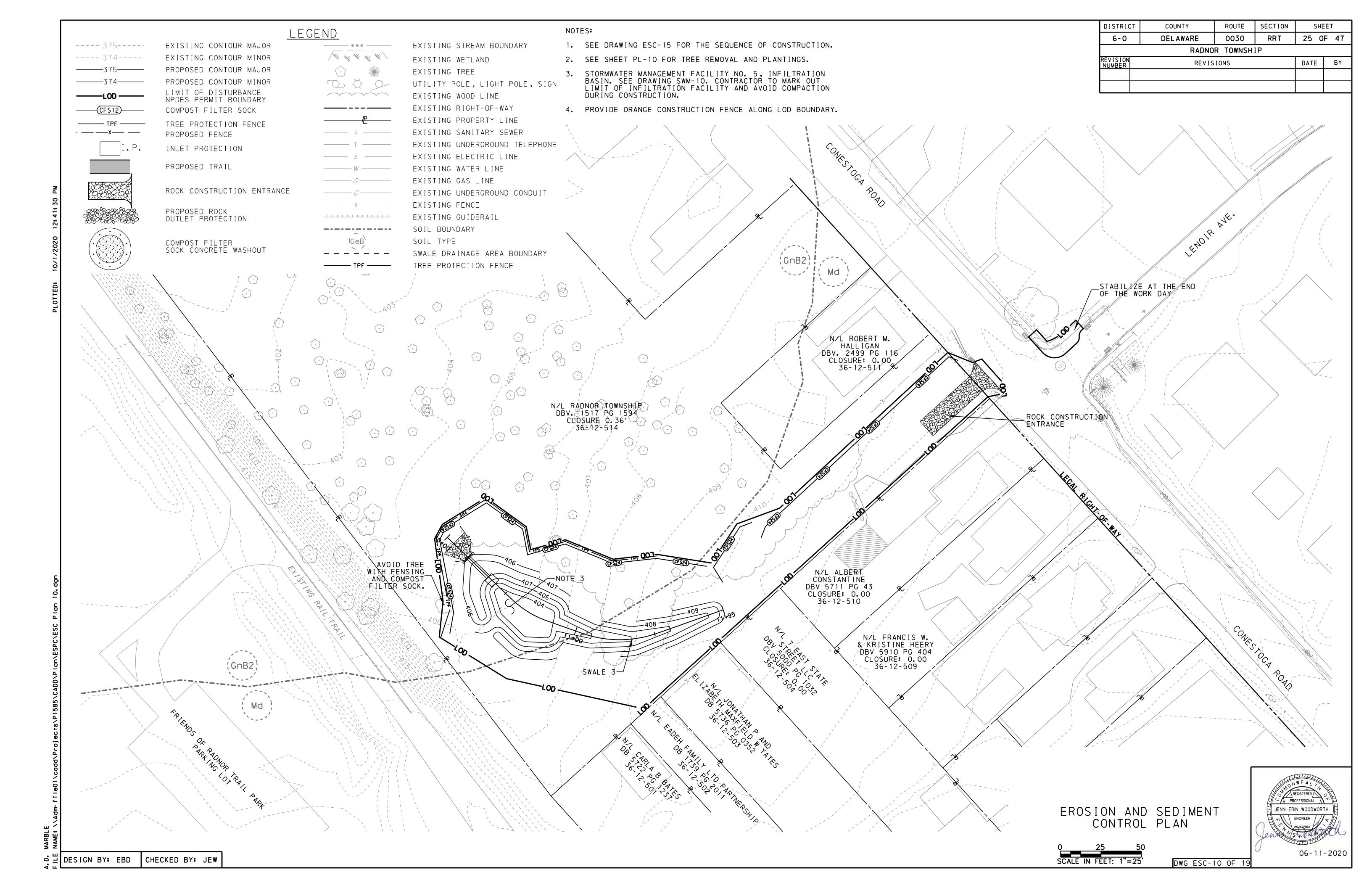


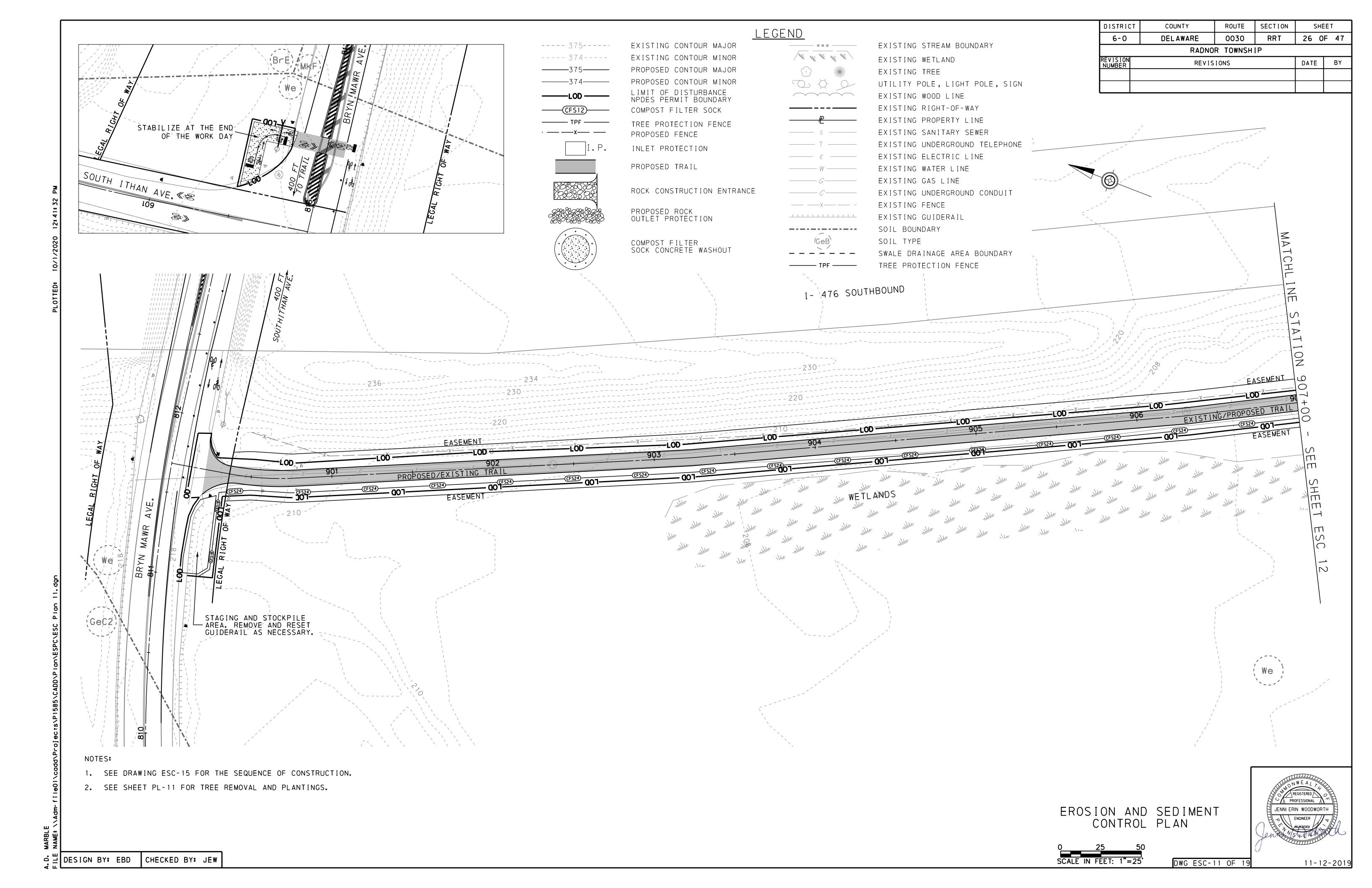


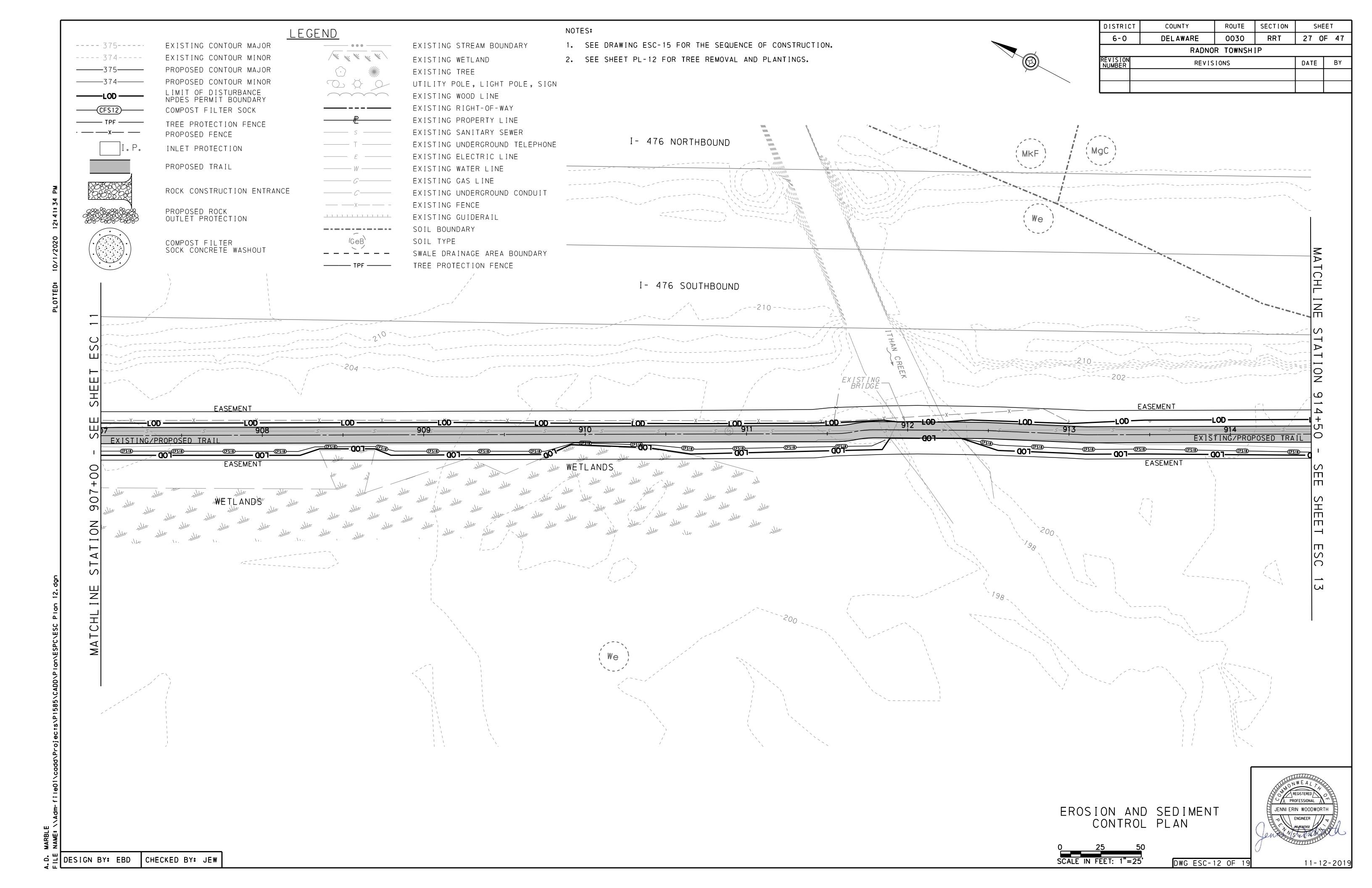


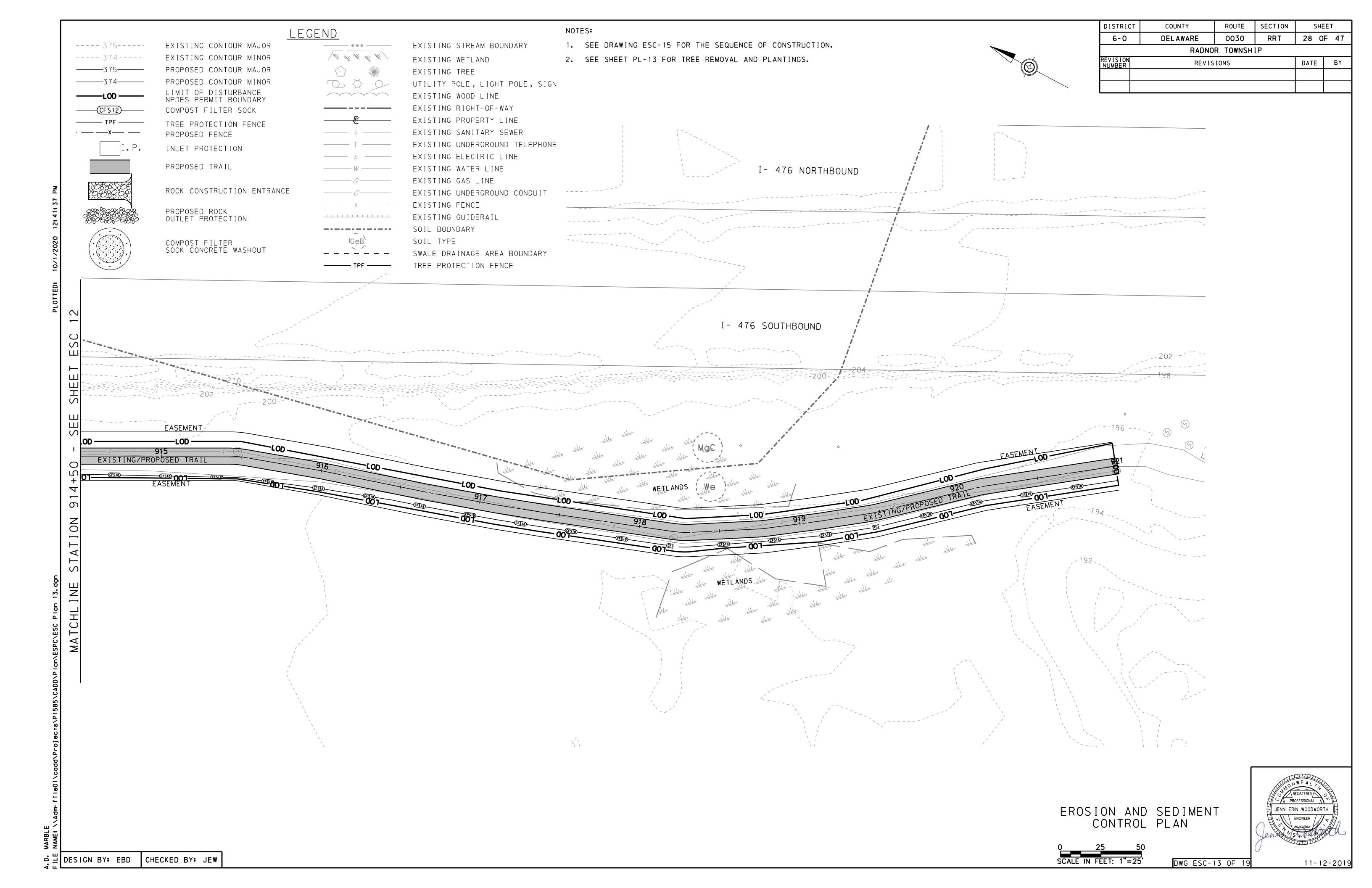












E&S GENERAL NOTES:

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE DELAWARE COUNTY CONSERVATION DISTRICT) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE DELAWARE COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE DELAWARE COUNTY CONSERVATION DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE DELAWARE COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE DELAWARE COUNTY CONSERVATION DISTRICT PRIOR TO IMPLEMENTATION.

5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H: 1V OR FLATTER.

9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE DELAWARE COUNTY CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE DELAWARE COUNTY CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.

13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS USING PUMPED SEDIMENT FILTER BAGS.

E&S GENERAL NOTES (CONTINUED):

14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE PROJECT SITE EXCEPT THROUGH A CONSTRUCTION ENTRANCE.

15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRÍBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE DELAWARE COUNTY CONSERVATION DISTRICT OR THE DEPARTMENT.

30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE DELAWARE COUNTY CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.

31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE DELAWARE COUNTY CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

E&S GENERAL NOTES (CONT'D):

33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

34. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

35. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACK FILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.

36. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.

37. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H: 1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

38. A SITE LOCATION MAP IS LOCATED ON SHEET 2.

39. THERMAL IMPACTS HAVE BEEN ADDRESSED THROUGH THE ADDITION OF INFILTRATION SWM FACILITIES WHICH WILL KEEP RUNOFF FROM DIRECTLY RUNNING INTO ADJACENT WATER BODIES.

40. SOIL COMPACTION WILL BE LIMITED BY LIMITING THE AREA CONSTRUCTION EQUIPMENT CAN BE USED. FOR EXAMPLE, THE BOTTOM AREA OF INFILTRATION FACILITIES WILL BE MARKED AS AREAS CONSTRUCTION AND COMPACTION EQUIPMENT ARE NOT ALLOWED.

41. EROSION AND SEDIMENT CONTROL PLAN MINIMIZES EXTENT AND DURATION OF EARTH DISTURBANCES.

42. EROSION AND SEDIMENT CONTROL PLAN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION.

43. EROSION AND SEDIMENT CONTROL PLAN UTILIZES OTHER MEASURES OR CONTROLS THAT PREVENT OR MINIMIZE GENERATION OF INCREASED STORMWATER RUNOFF.

DESIGNATED CHAPTER 93 CLASSIFICATIONS

NEAREST RECIEVING WATER: TRIBUTARIES TO DARBY CREEK CH. 93 DESIGNATED USE: CWF, MF WATERSHED: DARBY-CRUM CREEK WATERSHED

<u> IN-STREAM RESTRICTIONS</u>

NO IN-STREAM WORK SHALL TAKE PLACE BETWEEN OCTOBER 1 THROUGH DECEMBER 31

UTILITY NOTES

1. EXISTING UTILITIES ARE SHOWN ON THE PLANS IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CORRECTNESS AND COMPLETENESS OF THE INFORMATION IS NOT GUARANTEED.

2. THE CONTRACTOR SHALL VERIFY THE INFORMATION AND SHALL TAKE ALL PRECAUTIONS TO FULLY PROTECT THE UTILITY AND SERVICE.

3. AT LEAST THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION, POST DRIVING OR DEMOLITION WORK IN THE VICINITY OF UNDERGROUND UTILITIES, THE CONTRACTOR MUST CONTACT THE PA "ONE CALL SYSTEM" AND COMPLY WITH PROVISIONS OF ACT 287 OF 1974 AND SUBSEQUENT AMENDMENTS (ONE CALL NUMBER 1-800-242-1776).

4. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL OVERHEAD LINES AND NOTIFY THE UTILITY COMPANY AND COMPLY WITH THE COMPANY SAFETY CLEARANCE REQUIREMENTS WHEN WORKING IN THE AREA OF THEIR FACILITIES.

IMIT OF DISTURBANCE = 341,255 SF = 7.83 ACRES

NPDES PERMIT AREA

OWNER/APPLICANT: RADNOR TOWNSHIP 301 IVEN AVENUE WAYNE, PA 19087 CONTACT: STEPHEN NORCINI, PE TOWNSHIP ENGINEER

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE - STOP CALL



EROSION AND SEDIMENT POLLUTION CONTROL GENERAL NOTES

DISTRICT

REVISION NUMBER

6-0

COUNTY

DELAWARE

ROUTE

0030

RADNOR TOWNSHIP

STORMWATER MANAGEMENT GENERAL NOTES

AND CHEMICAL QUALITIES OF RÉCEIVING STRÉAMS

THE INTEGRITY OF STREAM CHANNELS IS

ARE MAINTAINED BY PRE PREVENTING AN

INCREASE IN THE RATE OR VOLUME OF

STORMWATER RUNOFF.

SIDEWALK ALREADY EXISTS.

PRESERVED AND THE PHYSICAL, BIOLOGICAL,

IMPERVIOUS AREAS ARE MINIMIZED BY SITING

THE TRAIL IN LOCATIONS WHERE AN EXISTING

ARE MINIMIZED BY MINIMIZING THE LIMIT OF

DISTURBANCE. IN SOME LOCATIONS, THE

EMBANKMENTS OF THE STORMWATER BMPS.

EMBANKMENTS OF THE TRAIL ALSO SERVE AS

REDUCING THE OVERALL PROJECT FOOTPRINT.

UTILIZED THAT PREVENT OR MINIMIZE ANY

CHANGES IN STORMWATER RUNOFF.

LAND CLEARING, GRADING, AND SOIL COMPACTION

OTHER STRUCTURAL AND NONSTRUCTURAL BMPS ARE

REVISIONS

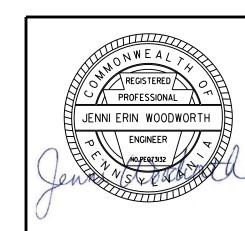
SECTION

RRT

SHEET

29 OF 47

DATE



= 342,153 SF

= 7.85 ACRES

DESIGN BY: EBD CHECKED BY: JEW

11-12-2019

DWG ESC-14 OF 19

PH: 610-688-5600

SEEDING AREA SCHEDULE

USE EACH SEED MIXT	URE IN THE AREAS DESIGNATED AS FOLLOWS OR AS DIRECTED
FORMULA B MIXTURE	FINAL CONDITION - LAWNS
FORMULA E MIXTURE	TEMPORARY SEEDING
ERNMX-140	SLOPES 4:1 AND GREATER
ERNMX-126	BASIN FLOOR

SEEDING MIXTURES

FORMULA AND SPECIES	% BY WEIGH
FORMULA B MIX: LAWN AREA MIX	
PERRENIAL RYEGRASS MIXTURE (LOLIUM PERENNE)	20.0
CREEPING RED FESCUE OR CHEWINGS FESCUE (FESTUCA RUBRA OR SSP COMMUTATE) KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS)	
FORMULA E MIX: TEMPORARY SEED MIX	50.0
ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	100.0
ERNMX-140: SLOPE MIX	
LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)	39.8
VIRGINIA WILDRYE (ELYMUS VIRGINICUS)	19.0
ROUND SEED PANICGRASS (PANICUM SPHAERONCARPON)	17.7
PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)	4.0
PURPLE CONEFLOWER (ECHINACEA PURPUREA)	3.5
BLACKEYED SUSAN (RUDBECKIA HIRTA)	3.0
OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES)	2.0
TALL WHITE BEARDTONGUE (PENSTEMON DIGITALIS)	2.0
BOTTLEBRUSH GRASS (ELYMUS HYSTRIX)	1.0
MARSH BLAZING STAR (LIATRIS SPICATA)	1.0
AUTUMN BENTGRASS (AGROSTIS PERENNANS)	0.5
BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA)	0.5
BIGLEAF ASTER (ASTER MACROPHYLLUS)	0.5
ZIGZAG ASTER (ASTER PRENANTHOIDES)	0.5
BLUE FALSE INDIGO (BAPTISIA AUSTRALIS)	0.5
WHITE AVENS (GEUM CANADENSE)	0.5
NARROWLEAF MOUNTAINMINT (PYCNANTHEMUM TENUIFOLIUM)	0.5
WHITE GOLDENROD (SOLIDAGO BICOLOR)	0.5
OHIO SPIDERWORT (TRADESCANTIA OHIENSIS)	0.5
GOLDEN ALEXANDERS (ZIZIA AUREA)	0.5
THIMBLEWEED (ANEMONE VIRGINIANA)	0.4
SMOOTH BLUE ASTER (ASTER LAEVIS)	0.4
WILD BERGAMOT (MONARDA FISTULOSA)	0.4
COMMON MILKWEED (ASCLEPIAS SYRIACA)	0.3
EARLY GOLDENROD (SOLIDAGO JUNCEA)	0.2
YELLOW FALSE INDIGO (BAPTISIA TINCTORIA)	0. 2
HAIRY BEARDTONGUE (PENSTEMON HIRSUTUS)	0.1
CULVER'S ROOT (VERONICASTRUM VIRGINICUM)	0.1
ERNMX-126: BASIN FLOOR MIX	0.1
ALKALIGRASS, 'FULTS' (PUCCINELLIA DISTANS)	20.0
DEERTONGUE, 'TIOGA' (PANICUM CLANDESTINUM)	19.0
CREEPING BENTGRASS (AGROSTIS STOLONIFERA)	18.0
VIRGINIA WILDRYE (ELYMUS VIRGINICUS)	18.0
FOWL BLUEGRASS (POA PALUSTRIS)	15.0
FOX SEDGE(CAREX VULPINOIDEA)	5.0
SOFT RUSH (JUNCUS EFFUSUS)	3.0
BLUNT BROOM SEDGE (CAREX SCOPARIA)	2.0

SEED AND FERTILIZER APPLICATION RATES

AGRICULTURAL LIMESTONE 2 TON/AC
FERTILIZER (10-20-20) 700 LB/AC
FORMULA B MIXTURE 42 LB/1000 SY
FORMULA E MIXTURE 10 LB/1000 SY
ERNMX-140 20 LB/AC
ERNMX-126 40 LB/AC
STRAW MULCH 3 TON/AC

SEQUENCE OF CONSTRUCTION

GENERAL NOTES:

- 1. PROCEED WITH ALL EARTH DISTURBANCE ACTIVITIES IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. COMPLETE IN COMPLIANCE WITH CHAPTER 102 REGULATIONS. LIMIT CLEARING, GRUBBING, AND TOPSOIL STRIPPING TO AREAS DESCRIBED. MANY TREES IN THE WORK AREA ARE NOT BEING REMOVED, ESPECIALLY OUTSIDE THE GRADING LIMITS BUT INSIDE THE AREA WHERE LINEAR EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED. CLEARING IN THESE AREAS IS TO BE LIMITED TO ONLY THE AREA REQUIRED TO INSTALL THESE PRACTICES, GENERALLY COMPOST FILTER SOCK. ROOT PRUNING WILL BE REQUIRED ON THE EDGES OF TRENCHING AND CUT SLOPES TO PROTECT THE TREES THAT ARE REMAINING.
- 2. AT LEAST 10 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, A REPRESENTATIVE FROM THE DELAWARE COUNTY CONSERVATION DISTRICT, AND A REPRESENTATIVE FROM THE PA DEP SOUTHEAST REGIONAL OFFICE TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING.
- 3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- IMMEDIATELY IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND SEDIMENT POLLUTION UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, AND NOTIFY THE DELAWARE COUNTY CONSERVATION DISTRICT AND/OR PA DEP.
- 5. IMMEDIATELY SEED, MULCH, OR OTHERWISE PROTECT THE SITE FROM ACCELERATED EROSION AND SEDIMENTATION UPON TEMPORARY CESSATION OF ANY EARTH DISTURBANCE OR ANY STAGE OR PHASE OF ANY ACTIVITIES WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES EXCEEDS 4 DAYS PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
- 6. THE SEQUENCE OF CONSTRUCTION HAS BEEN BROKEN DOWN BY PROJECT AREA. THE FIRST AREA IS THE WORK ADJACENT TO RADNOR HIGH SCHOOL (ESC SHEETS 1-9). THE SECOND IS THE WEST WAYNE PRESERVE WHICH IS ADJACENT TO THE FRIENDS OF RADNOR TRAIL PARK (ESC SHEET 10). THE FINAL AREA IS THE WORK AREA PARALLEL TO I-476 (SHEETS 11-13).
- 7. DETAILS FOR CONSTRUCTING AND MAINTAINING EROSION AND SEDIMENT CONTROL BMP'S ARE LOCATED ON SHEETS ESC 14-20 OF THE EROSION AND SEDIMENT CONTROL PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES.

RADNOR HIGH SCHOOL AND RADNOR CHESTER ROAD

- 1. CONDUCT ON-SITE PRE-CONSTRUCTION MEETING.
- 2. FIELD-MARK LIMITS OF DISTURBANCE. INTALL CONSTRUCTION FENCE ALONG LOD.
- 3. INSTALL ROCK CONSTRUCTION ENTRANCES FOLLOWED BY COMPOST FILTER SOCK AND INLET PROTECTION AS SHOWN ON THE PLANS. EROSION AND SEDIMENT CONTROL PRACTICES DO NOT NEED TO BE INSTALLED FOR THE ENTIRE PROJECT AREA AND MAY BE DONE INCREMENTALLY WITH THE APPROVAL OF THE CONSERVATION DISTRICT AS LONG AS ALL DISTURBED AREAS ARE PROTECTED WITH CONTROL MEASURES AS SHOWN ON THE PLANS.
- 4. PERFORM TREE CLEARING. TREE CLEARING SHOULD NOT INCLUDE GRUBBING; OR ANY EARTH DISTURBANCE.
- 5. CONSTRUCTION OF THE TRAIL SHALL BE DONE IN SEGMENTS WHICH LIMIT THE EXPOSURE OF SOIL TO THE MAXIMUM EXTENT POSSIBLE. THESE SEGMENTS CAN BE CONSTRUCTED IN ANY ORDER HOWEVER ONLY ONE SECTION SHALL HAVE DISTURBED SOIL AT THE SAME TIME. (1) LANCASTER AVE: RADNOR CHESTER ROAD TO CONSTRUCTION ENTRANCE (2) LANCASTER AVE: CONSTRUCTION ENTRANCE TO KING OF PRUSSIA ROAD: LANCASTER AVE TO HARDINGS RUN CROSSING (4) KING OF PRUSSIA ROAD: HARDINGS RUN CROSSING TO RADNOR CHESTER ROAD.
- 6. PERFORM CLEARING AND GRUBBING AND ROUGH GRADING. THIS SHOULD NOT INCLUDE AREAS OUTSIDE OF THE GRADING LIMITS. ROOT PRUNING SHALL BE PERFORMED ALONG THE EDGES OF ALL TRENCHING AND CUT AREAS TO PROTECT THE EXISTING TREES INSIDE AND OUTSIDE THE LOD THAT ARE TO REMAIN. EXCESS SOIL THAT CANNOT BE STORED ON SITE IS TO BE REMOVED. RUNOFF FROM DISTURBED AREAS SHALL BE TREATED WITH COMPOST FILTER SOCK.
- 7. EXCAVATE SOIL FOR TRAIL INSTALLATION; BACKFILL WITH STONE SUBBASE; COMPACT AND STABILIZE. THE TOTAL LENGTH OF EXCAVATED TRENCH OPEN AT ANY ONE TIME SHOULD NOT BE GREATER THAN THE TOTAL LENGTH OF TRAIL THAT CAN BE INSTALLED AND STABILIZED IN ONE WORKING DAY.
- 8. PAVE THE TRAIL AS SHOWN ON THE PAVING PLANS AND COMPLETE FINE GRADING.
- 9. CONSTRUCT DRAINAGE SWALES. GROUND DISTURBANCE SHALL BE LIMITED TO 2 DAYS FOR ANY SWALE.
- 10. CONSTRUCT INFILTRATION TRENCH, BASINS, AND BERM AS SHOWN ON SWM-1 THROUGH SWM-7. BE SURE NOT TO COMPACT THE AREA ALONG THE BOTTOM OF THE INFILTRATION FACILITIES. GROUND DISTURBANCE SHALL BE LIMITED TO 2 DAYS FOR ANY FACILITY.
- 11. ESTABLISH PERMANENT SEEDING IN ALL EARTH DISTURBED AREAS AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL DEVICES WHEN A UNIFORM 70% PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED THROUGHOUT. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.
- 12. IF ANY DISTURBED AREAS CANNOT BE PERMANENTLY STABILIZED IMMEDIATELY OR IF GRADING OPERATION ARE INTERRUPTED FOR MORE THAN 4 DAYS, INTERIM STABILIZATION MEASURES WILL BE IMPLEMENTED. INTERIM MEASURES CONSIST OF SEEDING WITH FORMULA E, ANNUAL RYE GRASS, AND MULCHING WITH HAY. ALTERNATIVE INTERIM MEASURES MAY BE USED ONLY IF APPROVED BY THE ENGINEER.

DISTRICT COUNTY		ROUTE	SECTION	SHEET	
6-0	DELAWARE	0030	RRT	30 0	F 47
REVISION REVISIONS				DATE	BY

SEQUENCE OF CONSTRUCTION (CONTINUED)

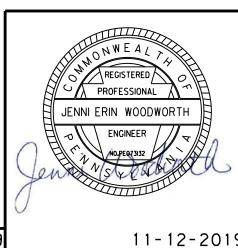
WEST WAYNE PRESERVE

- 1. CONDUCT ON-SITE PRE-CONSTRUCTION MEETING.
- 2. FIELD-MARK LIMITS OF DISTURBANCE. INSTALL CONSTRUCTION FENCE ALONG LOD THE AND WETLAND.
- 3. INSTALL ROCK CONSTRUCTION ENTRANCE FOLLOWED BY COMPOST FILTER SOCK AND INLET PROTECTION.
- 4. PERFORM TREE CLEARING. TREE CLEARING SHOULD NOT INCLUDE GRUBBING; OR ANY EARTH DISTURBANCE.
- 5. PERFORM CLEARING AND GRUBBING AND ROUGH GRADING. THIS SHOULD NOT INCLUDE AREAS OUTSIDE OF THE GRADING LIMITS. ROOT PRUNING SHALL BE PERFORMED ALONG THE EDGES OF ALL TRENCHING AND CUT AREAS TO PROTECT THE EXISTING TREES INSIDE AND OUTSIDE THE LOD THAT ARE TO REMAIN. EXCESS SOIL THAT CANNOT BE STORED ON SITE IS TO BE REMOVED. RUNOFF FROM DISTURBED AREAS SHALL BE TREATED WITH COMPOST FILTER SOCK.
- CONSTRUCT DRAINAGE SWALE. GROUND DISTURBANCE SHALL BE LIMITED TO 2 DAYS FOR ANY SWALE.
- 7. CONSTRUCT INFILTRATION BASIN BERM, CONTROL STRUCTURE, EMERGENCY SPILLWAY, THE BASIN CONTROL STRUCTURE, END WALL STORM DRAIN PIPE, AND OUTFALL PROTECTION. BE SURE NOT TO COMPACT THE AREA ALONG THE FILTRATION BASIN BOTTOM OR USE CONSTRUCTION EQUIPMENT ALONG THE BOTTOM OF THE BASIN. FINISH ANY REMAINING SITE GRADING. GROUND DISTURBANCE SHALL BE LIMITED TO 2 DAYS.
- 8. ESTABLISH PERMANENT SEEDING IN ALL EARTH DISTURBED AREAS AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL DEVICES WHEN A UNIFORM 70% PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED THROUGHOUT. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.
- IF ANY DISTURBED AREAS CANNOT BE PERMANENTLY STABILIZED IMMEDIATELY OR IF GRADING OPERATION ARE INTERRUPTED FOR MORE THAN 4 DAYS, INTERIM STABILIZATION MEASURES WILL BE IMPLEMENTED. INTERIM MEASURES CONSIST OF SEEDING WITH FORMULA E, ANNUAL RYE GRASS, AND MULCHING WITH HAY. ALTERNATIVE INTERIM MEASURES MAY BE USED ONLY IF APPROVED BY THE ENGINEER.

I-476 AND BRYN MAWR AVENUE

- 1. CONDUCT ON-SITE PRE-CONSTRUCTION MEETING.
- 2. FIELD-MARK LIMITS OF DISTURBANCE.
- 3. INSTALL COMPOST FILTER SOCK.
- 4. PERFORM TREE CLEARING. TREE CLEARING SHOULD NOT INCLUDE GRUBBING; OR ANY EARTH DISTURBANCE.
- 6. PERFORM CLEARING AND GRUBBING AND ROUGH GRADING. THIS SHOULD NOT INCLUDE AREAS OUTSIDE OF THE GRADING LIMITS. ROOT PRUNING SHALL BE PERFORMED ALONG THE EDGES OF ALL TRENCHING AND CUT AREAS TO PROTECT THE EXISTING TREES INSIDE AND OUTSIDE THE LOD THAT ARE TO REMAIN. EXCESS SOIL THAT CANNOT BE STORED ON SITE IS TO BE REMOVED. RUNOFF FROM DISTURBED AREAS SHALL BE TREATED WITH COMPOST FILTER SOCK.
- 7. EXCAVATE SOIL FOR TRAIL INSTALLATION; BACKFILL WITH STONE SUBBASE; COMPACT AND STABILIZE. THE TRAIL SHALL NOT BE EXCAVATED FOR A PERIOD LONGER THAN 2 DAYS.
- 8. PAVE THE TRAIL AS SHOWN ON THE PAVING PLANS AND COMPLETE FINE GRADING.
- 9. ESTABLISH PERMANENT SEEDING IN ALL EARTH DISTURBED AREAS AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL DEVICES WHEN A UNIFORM 70% PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED THROUGHOUT. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY.

EROSION AND SEDIMENT POLLUTION CONTROL GENERAL NOTES



SOIL NAMES, LABELS AND LIMITATIONS

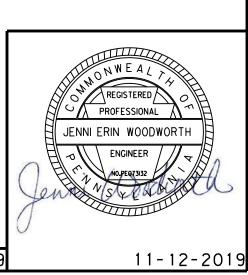
MAPPING UNIT	SOIL NAME	HYDRIC SOIL	SOIL LIMITATIONS	RECOMMENDED RESOLUTIONS TO LIMITATIONS
GeB	GLENELG CHANNERY LOAM, 3 TO 8 PERCENT SLOPES	NO	CUTBANKS CAVE, CORROSIVE TO CONCRETE, EASILY ERODIBLE, HIGH SATURATION ZONE, LOW STRENGTH/LANDSLIDE PRONE,	
GeC2	GLENELG CHANNERY SILT LOAM, 9 TO 15 PERCENT SLOPES, MODERATELY ERODED	NO	LOW PERCOLATION RATE, PIPING, POOR TOPSOIL SOURSE, FROST ACTION, WETNESS	CUTBANKS CAVE LIMITED APPLICABLE FOR THIS PROJECT.STEEP SLOPES, >3: 1 HAVE BEEN AVOIDED WHERE POSSIBLE. STEEL SLOPES TO BE PROVIDED WITH EROSION CONTROL MATTING.
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	NO	CUTBANKS CAVE, CORROSIVE TO CONCRETE/STEEL, HIGH SATURATION ZONE, LOW STRENGTH/LANDSLIDE PRONE, LOW PERCOLATION RATE, PIPING, POOR TOPSOIL SOURSE, FROST ACTION, WETNESS	STEEL/CONCRETE CORROSION NOT APPLICABLE FOR THIS PROJECT. EASILY ERODIBLE. EROSION AND SEDIMENT CONTROLS BMP INSPECTION, MAINTENANCE AND REPAIR SCHEDULE DEVELOPED TO DEAL WITH AREAS OF INCREASED EROSION. FLOODING PROPER PUMPING PRACTICES FROM EXCAVATIONS
NsD	NESHAMINY VERY STONY SILT LOAM, 8 TO 25 PERCENT SLOPES	NO	CUTBANKS CAVE, CORROSIVE TO CONCRETE/STEEL, HIGH SATURATION ZONE, LOW STRENGTH/LANDSLIDE PRONE, LOW PERCOLATION RATE, PIPING, POOR TOPSOIL SOURSE, FROST ACTION	AS NEEDED. HIGH SATURATED ZONE PROPER PUMPING PRACTICES FROM EXCAVATIONS AS NEEDED. LOW STRENGTH REMOVE LOW STRENGTH SOIL AND REPLACE IT WITH A MORE SUITABLE MATERIAL DEPENDING ON THE APPLICATION.
We	WEHADKEE SILT LOAM	NO	CUTBANKS CAVE, CORROSIVE TO CONCRETE/STEEL, FLOODING, HIGH SATURATION ZONE, LOW STRENGTH/LANDSLIDE PRONE, LOW PERCOLATION RATE, PIPING, FROST ACTION, WETNESS	LOW PERCOLATION RATE NOT APPLICABLE FOR THIS PROJECT. SOIL INFILTRATION TESTING PERFORMED AS NECASSARY. PIPING NOT APPLICABLE FOR THIS PROJECT. POOR TOPSOIL SOURCE TOPOSOIL WILL BE BROUGHT FROM OFF SITE.
WoA	WORSHAM SILT LOAM, O TO 3 PERCENT SLOPES	YES	CUTBANKS CAVE, CORROSIVE TO CONCRETE/STEEL, EASILY ERODIBLE, HIGH SATURATION ZONE, LOW STRENGTH/LANDSLIDE PRONE, LOW PERCOLATION RATE, PIPING, POOR TOPSOIL SOURCE FROST ACTION, SHRINK-SWELL	FROST ACTION REMOVING THE FROST-SUSCEPTIBLE SOIL AND REPLACING IT WITH A MORE SUITABLE MATERIAL AS NECASSARY. PERFORM BULK OF CONSTRUCTION ACTIVITIES DURING SEASON WHEN FROST ACTION DOESN'T OCCUR. WETNESS PROPER PUMPING PRACTICES FROM EXCAVATIONS AS NEEDED.
Md	MADE LAND, GABBRO AND DIABASE MATERIALS	NO	CORROSIVE TO CONCRETE, PIPING, POOR TOPSOIL SOURCE	DROUGHTY NOT APPLICABLE FOR THIS PROJECT.
Me	MADE LAND, SCHIST AND GNEISS MATERIALS	NO	CORROSIVE TO CONCRETE, EASILY ERODIBLE, LOW STRENGTH/LANDSLIDE PRONE, PIPING, FROST ACTION	

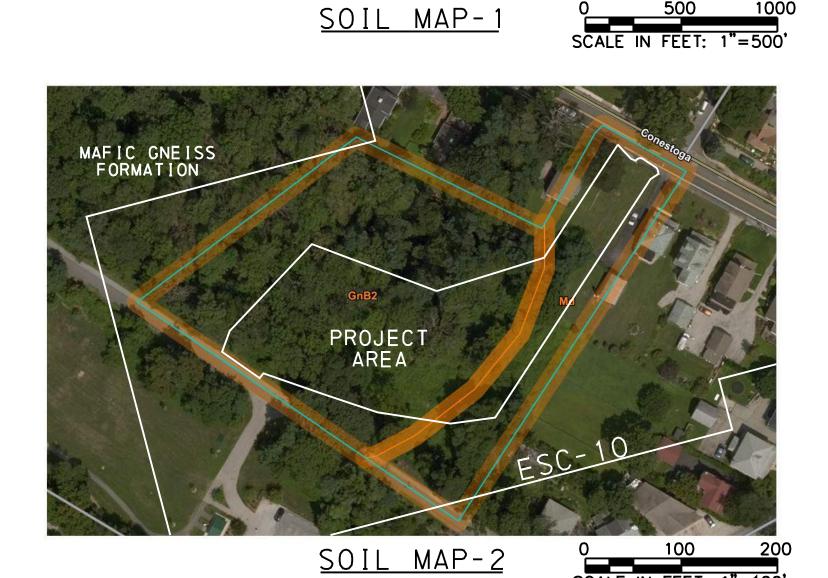
GEOLOGIC INFORMATION

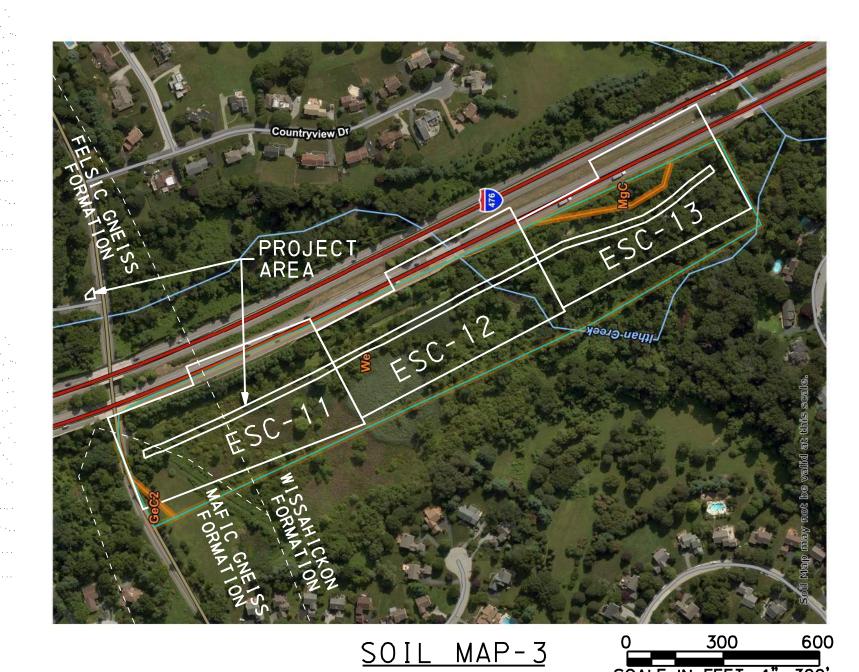
FORMATION NAME:	WISSAHICKON FORMATION	FELSIC GNEISS	MAFIC GNEISS
FORMATION AGE:	LOWER PALEOZIOC	PRECAMBRIAN	PRECAMBRIAN
DOMINANT LITHOLOGY:	OLIGOCLASE-MICA SCHIST	FELSIC GNEISS	MAFIC GNEISS
SECONDARY LITHOLOGY:	HORNBLENDE GNEISS	N/A	N/A
OTHER LITHOLOGY:	GNE I SS	N/A	N/A

THE GEOLOGIC INFORMATION PRESENTED BELOW IS IN ACCORDANCE WITH THE PENNSYLVANIA GEOLOGICAL SURVEY. DESCRIPTIVE INFORMATION DERIVED FROM THE PENNSYLVANIA DEPARTMENT OF NATURAL RESOURCES MAP APPLICATION (HTTP://www.GIS.DCNR.STATE.PA.US/GEOLOGY)

EROSION AND SEDIMENT POLLUTION CONTROL SOIL INFORMATION







o 빌 DESIGN BY: EBD CHECKED BY: JEW

DWG ESC-16 OF 19

NOTES:
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)	
MATERIAL	РНОТО-	РНОТО-	РНОТО-	PHOTO-	РНОТО-	
CHARACTERISTICS	DEGRADABLE	DEGRADABLE	DEGRADABLE	DEGRADABLE	DEGRADABLE	
		12 ''	12 "	12 "	12 "	
SOCK	12"	18"	18"	18 "	18 "	
DIAMETERS	18"	24"	24"	24"	24"	
		32 "	32 "	32 "	32 "	
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"	
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI	
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.	
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS	
TWO-PLY SYSTEMS						

	HDPE BIAXIAL NET
INNER CONTAINMENT NETTING	CONTINUOUSLY WOUND
	FUSION-WELDED JUNCTURES
	3/4" X 3/4" MAX. APERTURE SIZE
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/16" MAX. APERTURE SIZE

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.

TABLE 4.2						
	COMPOST STANDARDS					
ORGANIC MATTER CON	NTENT 80% - 100% (DRY WEIGHT BASIS)					
ORGANIC PORTIO	N FIBROUS AND ELONGATED					
рН	5.5-8.0					
MOISTURE CONTEN	NT 35% - 55%					
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN					
SOLUBLE SALT CONCENT	TRATION 5.0 dS/m (mmhos/cm) MAXIMUM					

ITEM NUMBER
FOR 12": 0867-0012
FOR 18": 0867-0018
FOR 24": 0867-0022

COMPOST FILTER SOCK

N.T.S.

DESIGN BY: EBD CHECKED BY: JEW

ORIGINAL GROUND

ORIGINAL GROUND

GEOTEXTILE, CLASS 4, TYPE A

NOTES:

SFCTION

ACCESS WITHIN THE SITE SHALL BE LIMITED TO THE TEMPORARY ACCESS ROAD.

REMOVE ONLY THE VEGETATION NECESSARY TO CONSTRUCT THE ACCESS ROAD. CUT VEGETATION FLUSH AT THE GROUND LEVEL AND DO NOT GRUB.

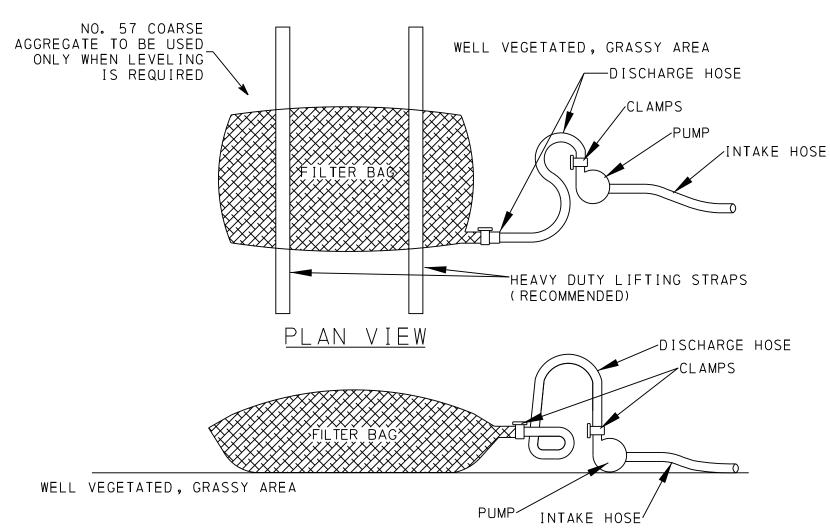
FILL SLOPES SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF ACCESS ROAD GRADING.

A TOP DRESSING COMPOSED OF HARD, DURABLE STONE SHALL BE PROVIDED FOR SOILS HAVING LOW STRENGTH.

ACCESS ROAD SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED ROADWAYS, DITCHES, OR CROSS DRAINS SHALL BE REPAIRED IMMEDIATELY.

WHEN REMOVING THE ACCESS ROAD ALSO REMOVE THE TOP 12 INCHES OF SOIL. REPLACE WITH TOPSOIL AND SEED ACCORDING TO THE LANDSCAPING PLANS.

TEMPORARY ACCESS ROAD



NOTES: ELEVATION VIEW

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

ITEM NUMBER: 0855-0003

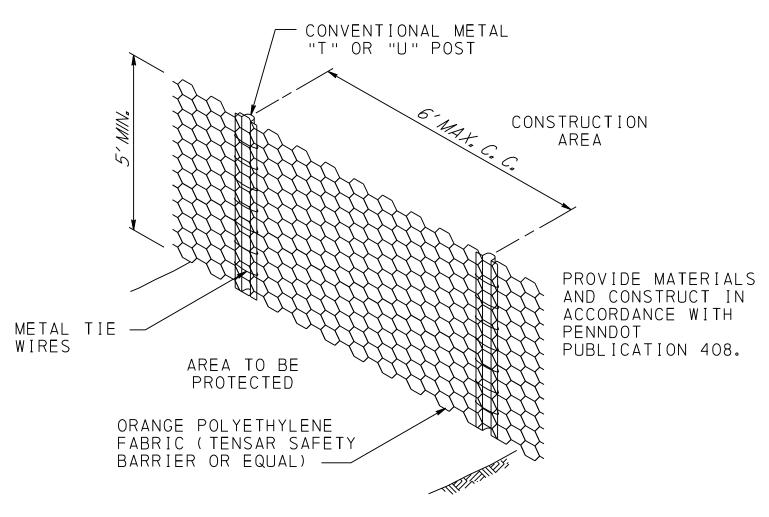
PUMPED WATER FILTER BAG

DISTRICT COUNTY ROUTE SECTION SHEET

6-0 DELAWARE 0030 RRT 32 OF 47

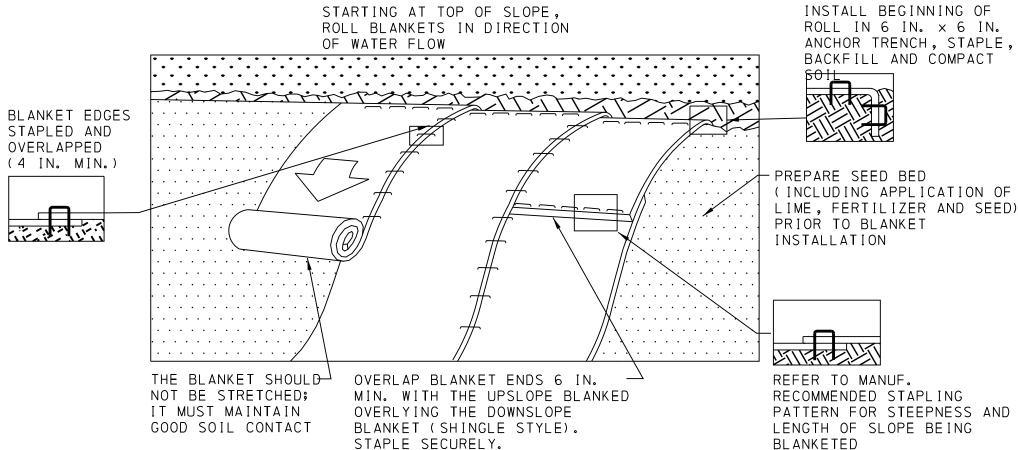
RADNOR TOWNSHIP

REVISION REVISIONS DATE BY



TEMPORARY PROTECTIVE FENCE

ITEM NUMBER: 0811-0003 NOT TO SCALE



NOTES:

NATURAL MATERIALS TO BE USED FOR EROSION CONTROL BLANKET. PLASTIC/POLYMER MATERIALS ARE NOT PERMITTED.

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

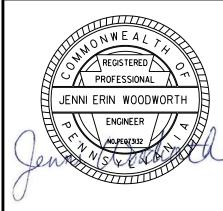
ITEM NUMBER: 0806-0013

TEMPORARY SHORT-TERM, ROLLED EROSION

CONTROL PRODUCT, TYPE 2C

NOT TO SCALE

EROSION AND
SEDIMENT POLLUTION
CONTROL DETAILS



DWG ESC-17 OF 19

11-12-201

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

ITEM NUMBER: 0860-0000

STANDARD CONSTRUCTION DETAIL #4-16 FILTER BAG INLET PROTECTION - TYPE M INLET

N. T. S.

1 IN. REBAR FOR SANDBAG, FILTER LOG, - BAG REMOVAL FROM COMPOST SOCK, OR INLET FILTER TUBE — EXPANSION RESTRAINT (IN. NYLON ROPE) – 2 IN X 2 IN. X 3/4 IN. RUBBER BLOCK INSTALLATION DETAIL EXTEND BERM OVER CURB IF RUNOFF IS BYPASSING INLET 2:1 MAX ON LANDWARD SIDE PLAN VIEW SECTION VIEW

INLET GRATE

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

OUTLET

NO.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

ITEM NUMBER: 0860-0002

STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET

N. T. S.

EW 10-1 19"X30" (24" EQUIVALENT) | R-4 | 18" | 12' | 6' | 18'

ORIGINAL GROUND-

→ 0.00% GRADE →

PIPE DIA Pd (IN)

SECTION A-A

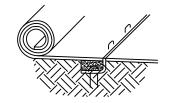
WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

NECESSARY TO MATCH RECEIVING CHANNELS.

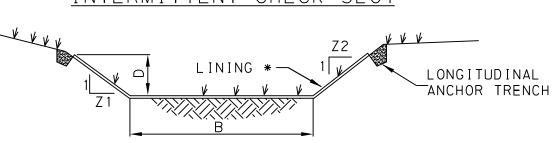
SCOUR AROUND THE PIPE.

LANDLOC 435 TRM PROPERTY TEST THICKNESS ASTM D-6525 0.35 IN. .IGHT PENETRATION | ASTM D-6567 40% TENSILE STRENGTH ASTM D-6818 225X175 LB/FT ELONGATION ASTM D-6818 50% RESILIENCY ASTM D-6524 80% FLEXIBILITY ASTM D-6575 0.015 IN-LB ASTM D-4355 | 80% RETAINED AT 1,000 HRS UV RESISTANCE MAX VELOCITY 12 FT/S MAX SHEAR STRESS 8 LB/SF MANNING'S N 0.025 SEEDING EMERGENCE | ASTM D-7322 273%

DISTRICT	ISTRICT COUNTY ROUTE SECTION		SHEET		
6-0	DELAWARE	E 0030 RRT		33 0	F 47
	RADNOR TOWNSHIP				
REVISION NUMBER REVISIONS		DATE	BY		



INTERMITTENT CHECK SLOT



(LOOKING DOWNSTREAM) CHANNEL CROSS-SECTION

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE OVERCUT CHANNEL 2 STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

HANNEL NO.	STATIONS (TRAIL STATIONING)	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
1	1000+67.7 TO 1002+87.5	1.5	VARIES	VARIES	3	3	TYPE 2C*
2	1006+79.8 TO 1008+77.2	2.0	VARIES	VARIES	3	3	TYPE 2C*
3	10+85 TO 11+92	3.0	VARIES	VARIES	3	3	TYPE 2C*

SEE SECTIONS AND PROFILES IN APPROPRIATE SWM PLAN FOR ADDITIONAL INFORMATION. SEE THIS SHEET FOR LANDLOK TRM REQUIREMENTS. *TEMPORARY SHORT-TERM, ROLLED EROSION CONTROL PRODUCT, TYPE 2C

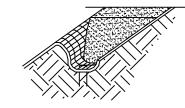
NOTES:

PLAN VIEW

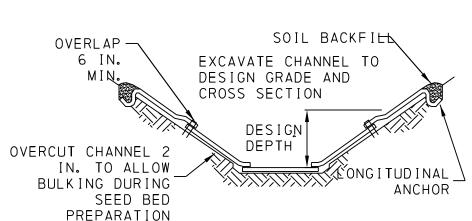
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

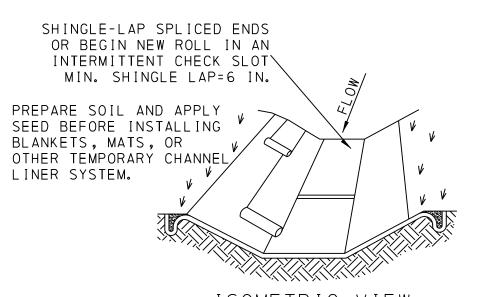
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.



LONGITUDINAL ANCHOR TRENCH





ISOMETRIC VIEW

ITEM NUMBER FOR CHANNEL LINING MATERIAL: 0806-0112

STANDARD CONSTRUCTION DETAIL #6-1 VEGETATED CHANNEL

NOT TO SCALE

SIZE Rt LENGTH WIDTH WIDTH OUTLET DIA Pd ^J | R-_ | (IN) | (FT) | Aiw (I N) (FT) (FT) ES 3-1 15" R-4 18" 8' 4' 0% SLOPE -GEOTEXTILE SECTION Y-Y -0% SLOPE Atw -GEOTEXTILE PLAN VIEW SECTION Z-Z NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

ITEM NUMBER: 0851-003

STANDARD CONSTRUCTION DETAIL #9-1 RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL NOT TO SCALE

ITEM NUMBER: 0212-0014 STANDARD CONSTRUCTION DETAIL #9-2 RIPRAP APRON AT PIPE OUTLET NO FLARED ENDWALL NOT TO SCALE

THICK. LENGTH INITIAL TERMINAL

ΑΙ

(FT)

(IN)

└GEOTEXTILE

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT

ITEM NUMBER: 0850-0032

WIDTH | WIDTH

Aiw Atw

(FT)

1/2 Pd

(FT)

EROSION AND SEDIMENT POLLUTION CONTROL DETAILS

JENNI ERIN WOODWORTI 11-12-2019

CHECKED BY: JEW DESIGN BY: EBD

DWG ESC-18 OF 19

THE CONTRACTOR SHALL PERFORM ROUTINE STANDARD DAILY OPERATIONS TO MINIMIZE EROSION AND PREVENT POLLUTION SUCH AS CULVERT CLEANING, DUST CONTROL AND ROADWAY CLEANING, AND LITTER CONTROL.

AT THE END OF EACH DAY, EQUIPMENT OPERATORS SHALL PERFORM TEMPORARY LAND GRADING OPERATIONS TO SAFELY CONDUCT SURFACE RUNOFF TO OTHER INSTALLED BMP'S (EXCEPT COMPOST FILTER SOCK) TO INSURE THAT POTENTIAL STORMWATER RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.

ALL EROSION AND SEDIMENT CONTROL ITEMS WILL REQUIRE MAINTENANCE TO ENSURE PERFORMANCE BOTH DURING AND AFTER CONSTRUCTION. THE APPROPRIATE MAINTENANCE FOR EACH ITEM IS SPECIFIED IN CHAPTERS 3, 4, 6 & 9 OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL MANUAL (2012). INSPECTIONS OF THE PERMANENT, TEMPORARY, AND NON-STRUCTURAL CONTROLS WILL BE PERFORMED AS FOLLOWS:

THE CONTRACTOR'S MONITORING PROGRAM SHALL INCLUDE WEEKLY INSPECTION OF EROSION CONTROL FEATURES AND WITHIN 24 HOURS AFTER ANY RUNOFF EVENT. ANY EROSION CONTROL FEATURES WHICH ARE DAMAGED OR IN NEED OF MAINTENANCE SHALL BE CLEANED, REPLACED, OR REPAIRED WITHIN 24 HOURS.

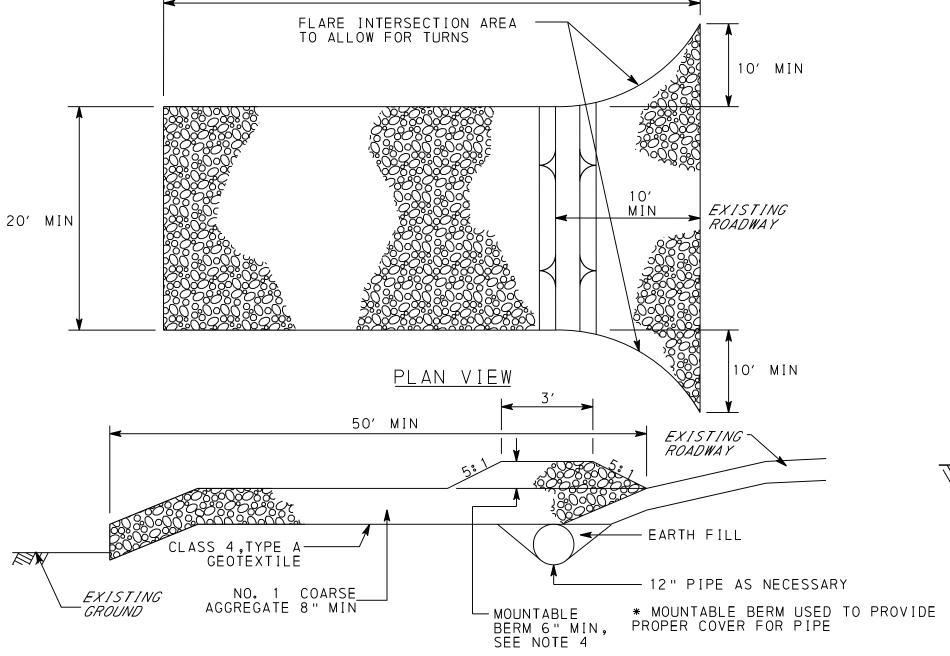
UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

ANY SEDIMENT REMOVED FROM BMPS DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING.

A LOG SHOWING THE DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THAT THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO THE PHILADELPHIA WATER DEPARTMENT OR OTHER REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

ESPC BMP INSPECTION, MAINTENANCE AND REPAIR SCHEDULE

ВМР	INSPECTION	MAINTENANCE	REPAIR
COMPOST FILTER SOCK	WEEKLY AND AFTER Every rainfall Event	PERFORM ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, AND REPLACEMENT IMMEDIATELY FOLLOWING INSPECTION. REPLACE BIODEGRADABLE SOCK AFTER 6 MONTHS; PHOTODEGRADABLE AFTER 12 MONTHS. REMOVE SEDIMENT WHEN ACCUMULATIONS REACH ONE HALF THE ABOVE GROUND HEIGHT OF THE SOCK. DISPOSE OF SEDIMENT IN STOCKPILE BEHIND SOCK, STABILIZING WITH SEED OR OTHER METHODS.	REPLACE DAMAGED SECTIONS WITH ADDITIONAL FILTER SOCK WITHIN 24-HOURS OF INSPECTION. REPAIR UNDERCUT AND OVERTOPPED SECTIONS WITH ADDITIONAL FILTER SOCK.
INLET FILTER BAG	WEEKLY AND AFTER EVERY RAINFALL EVENT	BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO THE CAUSE FLOODING OR BYPASSING OF THE INLET.	DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION.
RUMBLE PAD CONSTRUCTION ENTRANCE	DAILY	ACCUMULATED MATERIALS SHOULD BE REMOVED DAILY AND MORE OFTEN IF NECESSARY.	DAMAGED RUMBLE PAD ENTRANCE SHOULD BE REPLACED.
ROCK CONSTRUCTION ENTRANCES	AT THE END OF THE CONSTRUCTION DAY, UNLESS DIRECTED BY THE REPRESENTATIVE TO BE MORE FREQUENTLY	MAINTAIN THE SPECIFIED THICKNESS OF ALL ROCK CONSTRUCTION ENTRANCES BY THE ADDITION OF ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON THE PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY IS NOT PERMITTED.	ADD ADDITIONAL ROCK AS NECASSAY TO MAINTAIN THE SPECIFIED THICKNESS OF ALL ROCK CONSTRUCTION ENTRANCES.
PUMPED WATER FILTER BAG	DAILY, PRIOR TO THE START OF PUMPING, AND PERIODICALLY DURING PUMPING OPERATIONS (INSPECT AT LEAST ONE TIME EVERY TWO HOURS DURING OPERATION)	IF A PROBLEM IS DETECTED, CEASE PUMPING IMMEDIATELY UNTIL THE PROBLEM IS CORRECTED. REPLACE THE FILTER BAG WHEN IT IS HALF FULL OR WHEN THE CONTAINED SILT REDUCES THE FLOW TO APPROXIMATELY 50% OF THE RATE OF THE INITIAL DISCHARGE. KEEP A REPLACEMENT FILTER BAG. TAKE TO AN APPROVED DISPOSAL AREA AFTER USE. WHEN REMOVED, RESTORE DISTURBED AREA AND STABILIZE IMMEDIATELY.	REPLACE BAG AT HALF FULL OR WHEN FLOW RATE IS REDUCED OR IF BAG IS DAMAGED.
ROLLED EROSION CONTROL PRODUCT	WEEKLY AND AFTER EVERY RAINFALL EVENT	N/A	RESTORE OR REPLACE RECP WITHIN 4 CALENDAR DAYS IF DAMAGED OR DISPLACED
COMPOST SOCK CONCRETE WASHOUT	DAILY	REMOVE AND REPLACE FACILITY IF ACCUMULATED MATERIALS REACH 60% OF THE COMPOST FILTER SOCK HEIGHT. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.	IMMEDIATELY REPLACE OR REPAIR IF DAMAGED OR LEAKING
VEGETATION	WEEKLY AND AFTER EVERY RAINFALL EVENT	INSPECT SITE FOR GULLIES OR RILLS FORMING IN SLOPES AND UNVEGETATED AREAS	REGRADE AND TRACK THE SLOPES. APPLY SEED AND MULCH AT THE SPECIFIED RATE IF REPAIRING A VEGETATED AREA. IF DIFFICULTY IS ENCOUNTERED IN ESTABLISHING VEGETATION IN AN AREA, A SOIL TEST MAY BE REQUIRED TO DETERMINE ANY ADDITIONAL SOIL SUPPLEMENTS THAT MAY BE NEEDED.



50' MIN

<u>ES:</u>

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

PROFILE

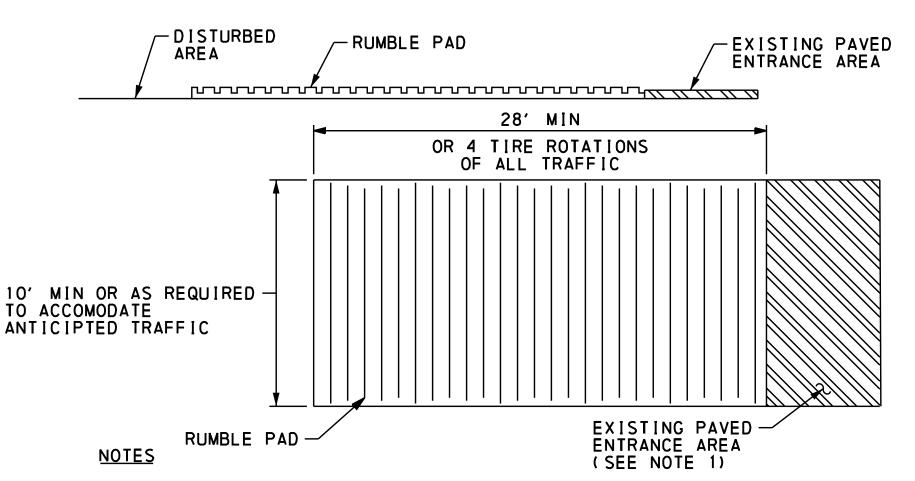
3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

4. CONSTRUCT A MOUNTABLE BERM ONLY WHEN 6" MIN COVER CANNOT BE PROVIDED OVER THE PIPE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ITEM NUMBER: 0849-0010

ROCK CONSTRUCTION ENTRANCE



1. IF ENTRANCE IS NOT PAVED, EITHER EXTEND THE RUMBLE PAD TO THE EDGE OF PAVEMENT OR PLACE NO. 1 COARSE AGGREGATE BETWEEN THE PAD AND THE EDGE OF PAVEMENT.

ITEM NUMBER: 9000-0001

NOT TO SCALE

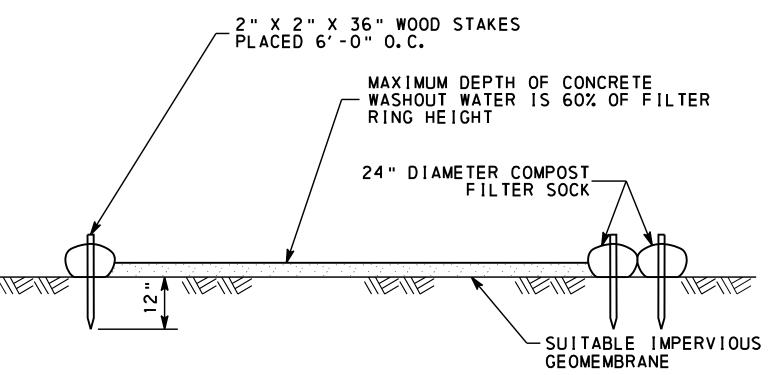
RUMBLE PAD CONSTRUCTION ENTRANCE

DISTRICT COUNTY ROUTE SECTION SHEET

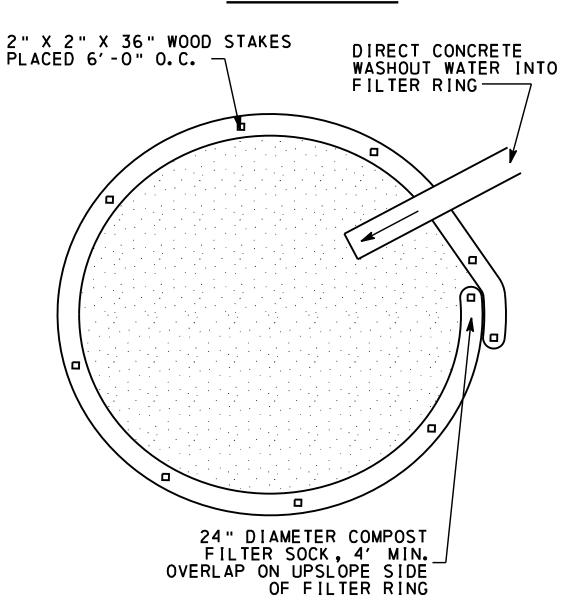
6-0 DELAWARE 0030 RRT 34 OF 47

RADNOR TOWNSHIP

REVISION REVISIONS DATE BY



SECTION VIEW



<u>Plan view</u>

COMPOST SOCK CONCRETE WASHOUT NOTES

- 1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
- 2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
- 3. IMPERVIOUS LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

ITEM NUMBER: 9000-0002

COMPOST SOCK CONCRETE WASHOUT
NOT TO SCALE

EROSION AND SEDIMENT POLLUTION CONTROL DETAILS

PROFESSIONAL

JENNI ERIN WOODWORTH

ENGINEER

NO.PEGY332

11-12-2019

DESIGN BY: EBD CHECKED BY: JEW

DWG ESC-19 OF 19

