

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF
GENERAL SERVICES

HARRISBURG, PENNSYLVANIA

JOSH SHAPIRO, GOVERNOR

PROJECT NO. D.G.S. 0251-0098 PHASE 001
PENNDOT MERCER WELCOME CENTER
UPGRADE FACILITY AND CONNECT TO MUNICIPAL WATER & SEWER
(FORMERLY KNOWN AS PENNDOT MERCER WELCOME CENTER - REPLACE SEWAGE TREATMENT PLANT)
SHENANGO TOWNSHIP, MERCER COUNTY, PENNSYLVANIA

PROFESSIONAL
CJL ENGINEERING
MECHANICAL, ELECTRICAL, CIVIL, FIRE SUPPRESSION ENGINEERS

232 HORNER STREET
JOHNSTOWN, PENNSYLVANIA 15902
PHONE NO (814)-536-1651

SHEET INDEX

DRAWINGS COMMON TO ALL CONTRACTS

CS-1 COVER SHEET
GS-1 OVERALL PLAN

GENERAL CONSTRUCTION
CONTRACT NO. DGS 0251-0098 PHASE 001.1

CIVIL DRAWINGS

- C-1 EXISTING CONDITIONS AND DEMOLITION PLAN
C-2 EXISTING CONDITIONS AND DEMOLITION PLAN
C-3 SITE AND UTILITY PLAN
C-4 SITE AND UTILITY PLAN
C-5 STORMWATER MANAGEMENT PLAN
C-6 GRADING PLAN
C-7 EROSION & SEDIMENTATION CONTROL PLAN
C-8 EROSION & SEDIMENTATION CONTROL PLAN
C-9 SANITARY SEWER PROFILES
C-10 SANITARY SEWER PROFILES
C-11 WATER LINE PROFILES
C-12 WATER LINE PROFILES
C-13 WATER LINE PROFILES
C-14 CONSTRUCTION DETAILS
C-15 CONSTRUCTION DETAILS
C-16 STORMWATER SECTION AND DETAILS
C-17 STORMWATER SECTION AND DETAILS

OWNER'S CERTIFICATION

STATE OF PENNSYLVANIA
COUNTY OF MERCER

I, _____, DO HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED
HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE
TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE
MERCER COUNTY SUBDIVISION AND LAND DEVELOPMENT
REGULATIONS AND WERE PREPARED BY ME OR UNDER MY
DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY.
DATE: _____, 20____.

SIGNATURE

I, _____, DO HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED
HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE
TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE
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DATE: _____, 20____.

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DATE: _____, 20____.

SIGNATURE

ENGINEER'S
CERTIFICATION

I, _____, DO HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED
HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE
TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE
MERCER COUNTY SUBDIVISION AND LAND DEVELOPMENT
REGULATIONS AND WERE PREPARED BY ME OR UNDER MY
DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY.
DATE: _____, 20____.

REGISTERED ENGINEER/SURVEYOR RESPONSIBLE FOR PLANS

BUILDING NUMBERS

- 012W0E1: RESTROOM & VENDING
012W0E2: WELCOME CENTER
012W0E3: STORAGE (TO BE REPLACED)
012W0E4: CHLORINE BUILDING (TO BE DEMOLISHED)
012W0E5: BROWN SHED
012W0E6: WATER TREATMENT (TO BE DEMOLISHED)
012W0E7: CONTROL BUILDING (TO BE DEMOLISHED)

CODE APPROVALS		
DESCRIPTION	PERMIT / ID NO.	DATE
STORMWATER MANAGEMENT APPROVAL	PAC430072	11-01-2022
SOIL EROSION AND SEDIMENTATION CONTROL	PAC430072	11-01-2022
L&I	2022010056, 57	11-09-2022
PNDI CLEARANCE	PNDI-732445	4-15-2021
PHMC	PHMC ER # 2020-0240-085-A	12-6-2019
NPDES APPROVAL	PAC430072	11-01-2022
PLANNING MODULE 3 - SEWAGE COLLECTION AND TREATMENT	AUTH. ID NO. 1392936	08-26-2022

PROJECT	LOCATION MAP

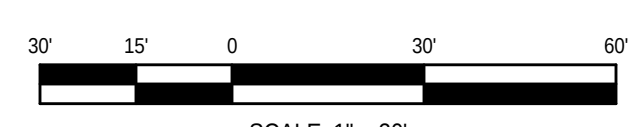
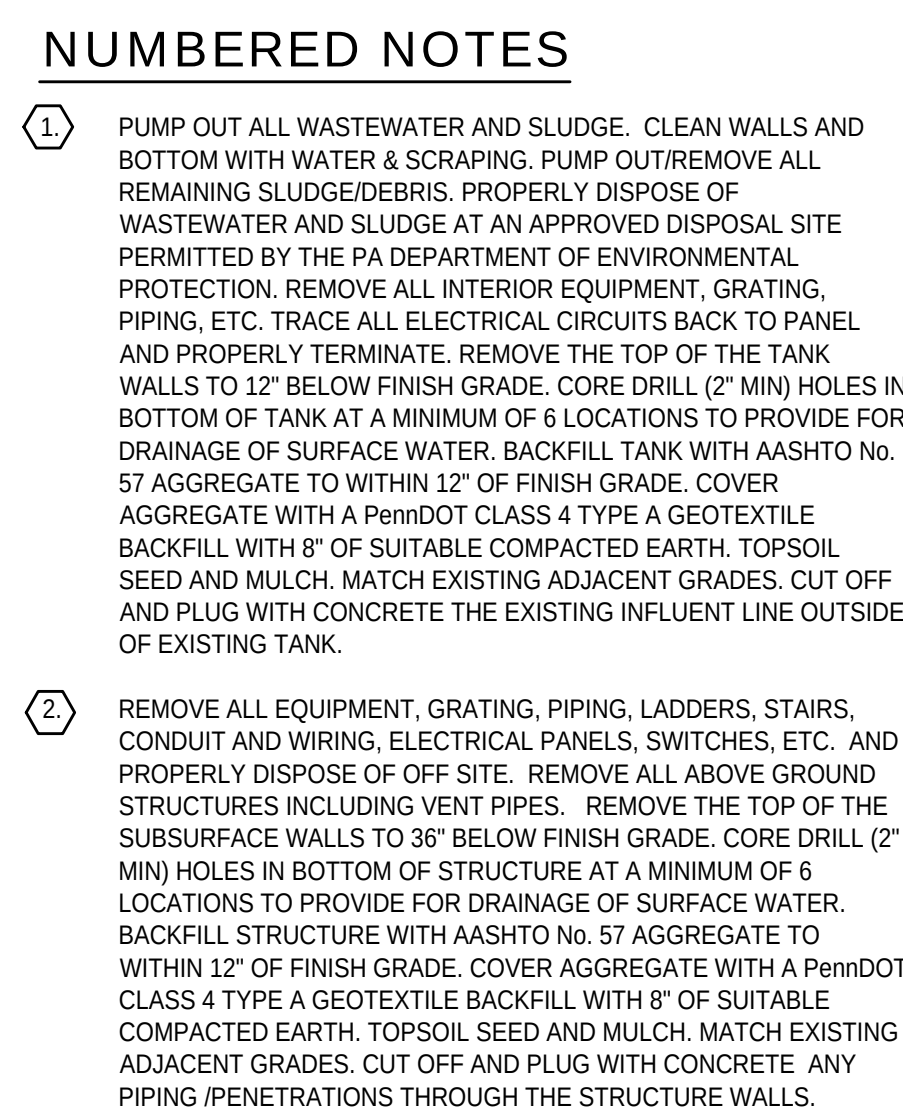
VICINITY MAP

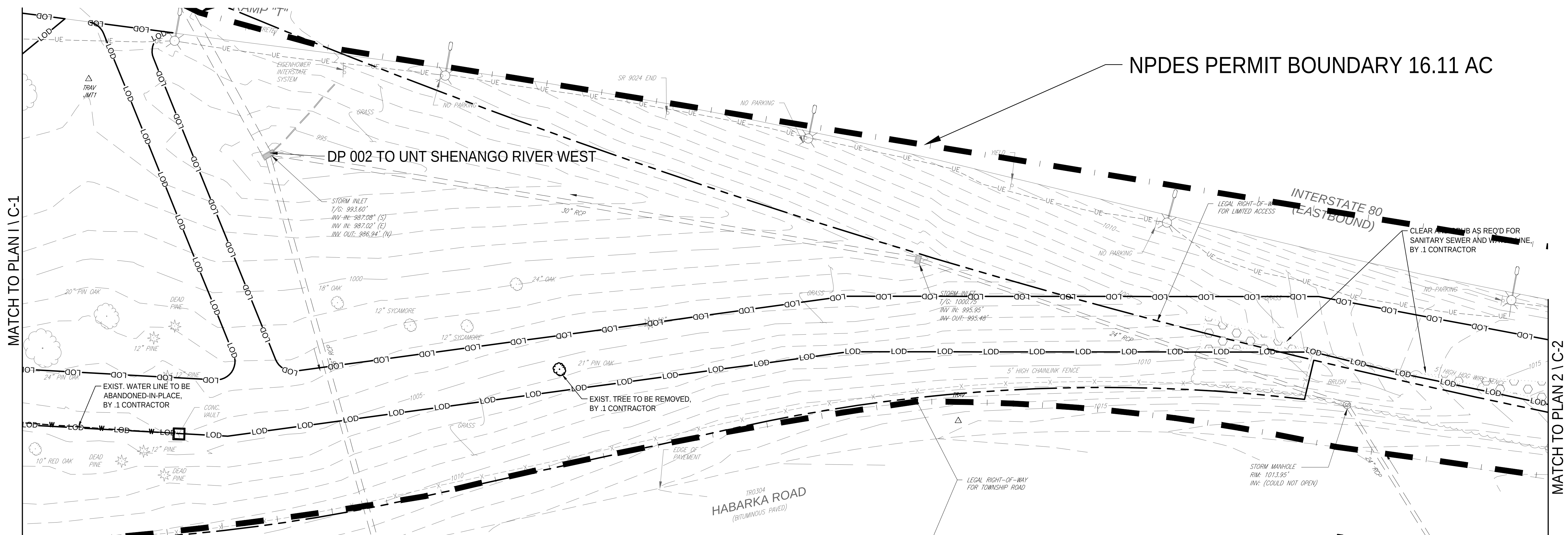
CAMPUS / KEY PLAN

DRAWINGS LISTED IN INDEX:
APPROVED _____ DATE _____
DESIGN MANAGER BUREAU OF PRE-CONSTRUCTION DEPARTMENT OF GENERAL SERVICES

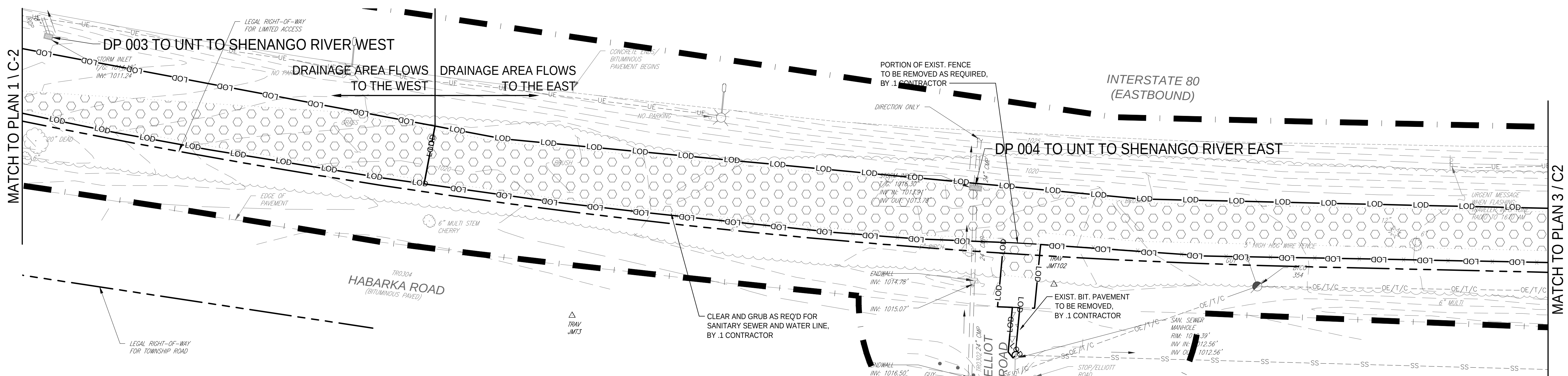
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA
 DAVID GEORGE DURAY ENGINEER 3378-E SIGNATURE: _____ DATE: _____

COVER SHEET		
DRAWN BY CP	DATE 1/4/23	SHEET No. CS-1
CHECKED BY JC	SCALE NO SCALE	

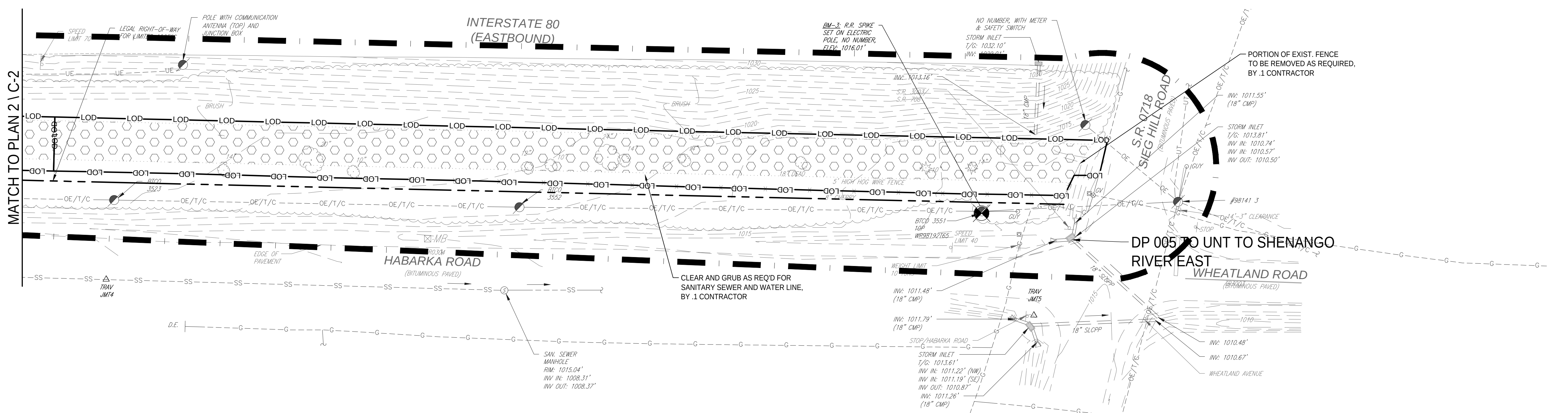




1 EXISTING CONDITIONS AND DEMOLITION SITE PLAN
C-2 1" = 30'



2 EXISTING CONDITIONS AND DEMOLITION PLAN
C-2 1" = 30'



3 EXISTING CONDITIONS AND DEMOLITION PLAN
C-2 1" = 30'

LEGEND

EXISTING

- ADA PARKING
- CLEANOUT
- 975 - CONTOUR - 5' INDEX
- CONTOUR - 1' INTERMEDIATE
- UE - ELECTRIC (UNDERGROUND)
- EM - ELECTRIC METER
- ELECTRIC UTILITY POLE
- FENCE
- FIRE HYDRANT
- FLARED END SECTION
- GAS LINE
- GAS VALVE
- GUY WIRE
- INLET
- LIGHT STANDARD
- LIGHT STANDARD WITH OVERHEAD LIGHT
- MISCELLANEOUS UTILITY
- SANITARY MANHOLE
- SANITARY SEWER
- SHRUB
- SIGN
- STORM SEWER
- SURVEY BENCHMARK
- SURVEY CONTROL
- TELEPHONE LINE (UNDERGROUND)
- TREES
- TREELINE
- UTILITY POLE
- WATER LINE
- WATER VALVE

DEMOLITION

- CONCRETE TO BE REMOVED
- ELECTRIC TO BE ABANDONED-IN-PLACE
- FENCE TO BE REMOVED
- PAVEMENT TO BE REMOVED
- SANITARY MANHOLE TO BE REMOVED
- SANITARY SEWER TO BE ABANDONED-IN-PLACE
- STORM SEWER TO BE REMOVED
- TREE TO BE REMOVED
- WATER LINE TO BE ABANDONED-IN-PLACE
- NPDES BOUNDARY

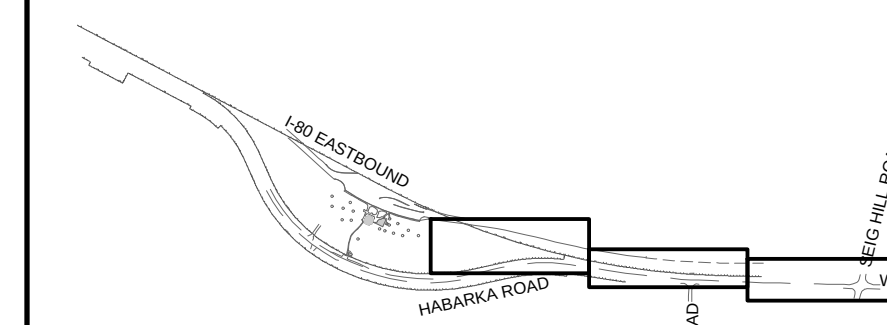
DEMOLITION NOTES

1. ALL MATERIALS REMOVED SHALL BE LEGALLY DISPOSED OF OFF SITE.
2. TREE REMOVAL INCLUDES REMOVAL AND DISPOSAL OF ROOT SYSTEM AS WELL.

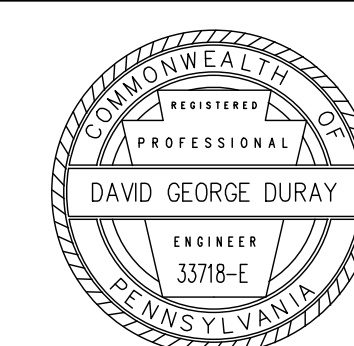
NUMBERED NOTES

1. PUMP OUT ALL WASTEWATER AND SLUDGE. CLEAN WALLS AND BOTTOM WITH WATER & SCRAPING. PUMP OUT/REMOVE ALL REMAINING SLUDGE/DEBRIS. PROPERLY DISPOSE OF WASTEWATER AND SLUDGE AT AN APPROVED DISPOSAL SITE PERMITTED BY THE PA DEPARTMENT OF ENVIRONMENTAL PROTECTION. REMOVE ALL INTERIOR EQUIPMENT, GRATING, PIPING, ETC. TRACE ALL ELECTRICAL CIRCUITS BACK TO PANEL AND PROPERLY TERMINATE. REMOVE THE TOP OF THE TANK WALLS TO 12" BELOW FINISH GRADE. CORE DRILL (2" MIN) HOLES IN BOTTOM OF TANK AT A MINIMUM OF 6 LOCATIONS TO PROVIDE DRAINAGE OF SURFACE WATER. BACKFILL TANK WITH AASHTO No. 57 AGGREGATE TO WITHIN 12" OF FINISH GRADE. COVER AGGREGATE WITH A PennDOT CLASS 4 TYPE A GEOTEXTILE BACKFILL WITH 8" OF SUITABLE COMPACTED EARTH. TOPSOIL, SEED AND MULCH. MATCH EXISTING ADJACENT GRADES. CUT OFF AND PLUG WITH CONCRETE THE EXISTING INFLUENT LINE OUTSIDE OF EXISTING TANK.

CAMPUS / KEY PLAN



RECORD REVISIONS



01-04-23
DATE

GL ENGINEERING
232 Homer Street
Johnstown, PA 15902
(412) 536-5353, Fax: (412) 536-5732
C.O. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS C-0251-0098 Phase 001

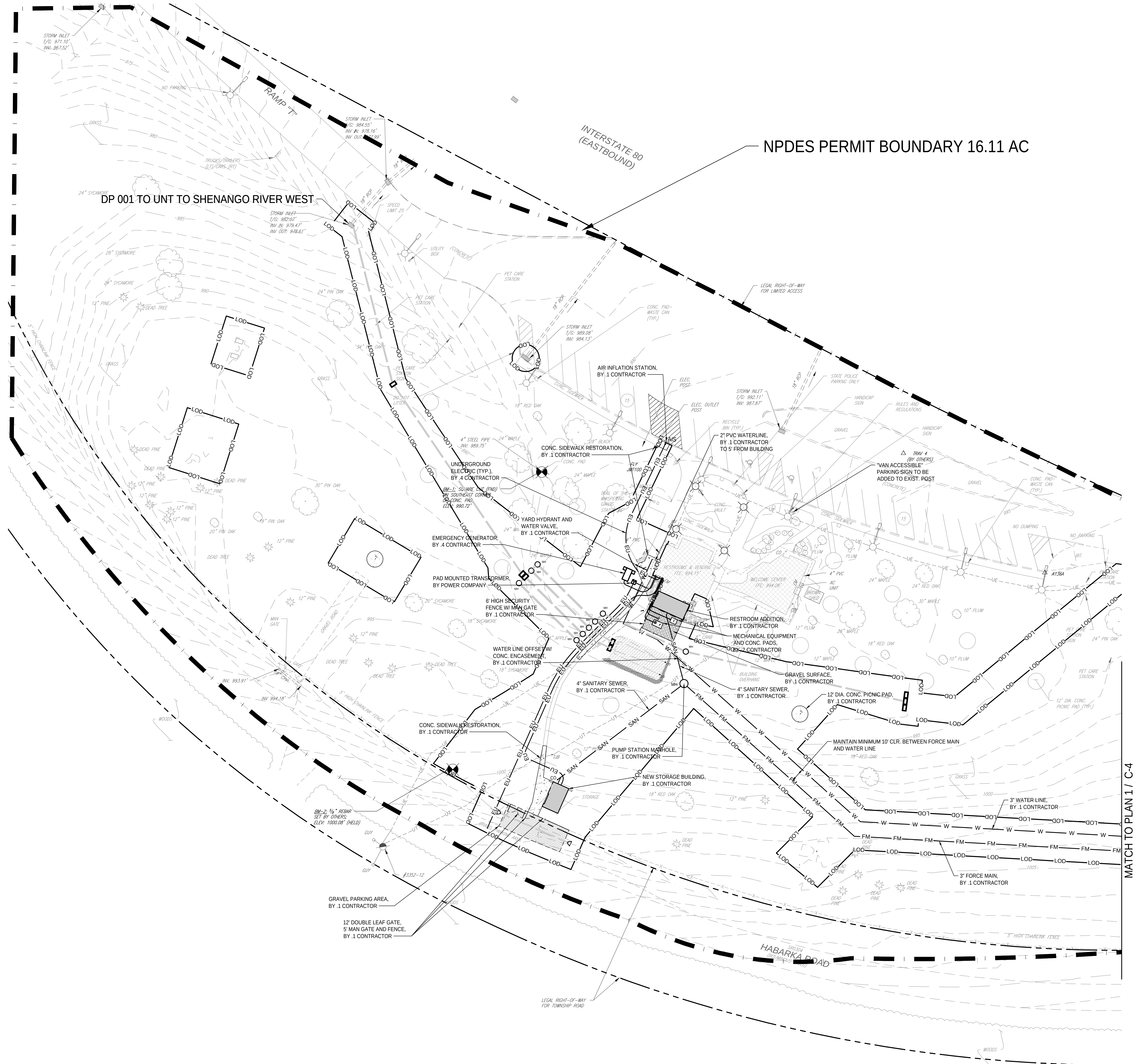
**PennDOT Mercer Welcome Center
Upgrade Facility and
Connect to Municipal Water & Sewer**
SHENANGO TOWNSHIP, MERCER COUNTY, PA

**EXISTING CONDITIONS AND
DEMOLITION PLAN - CIVIL**

VERIFY SCALE
BAR IS ONE (1) INCH LONG
ON ORIGINAL DRAWING:
0 1
IF BAR IS NOT ONE (1) INCH LONG
ADJUST SCALE ACCORDINGLY.
CONTRACTOR SHALL FIELD VERIFY
ALL DIMENSIONS.
VARIANCE FROM CONTRACT
DOCUMENTS NOT PERMITTED
WITHOUT PROFESSIONAL & BUREAU
OF CONSTRUCTION APPROVAL.

DRAWN BY
B. JOHNS
DATE
01/04/23
SHEET No.
C-2
CHECKED BY
D. DURAY
SCALE
1" = 30'

30' 15' 0' 30' 60'
SCALE: 1" = 30'



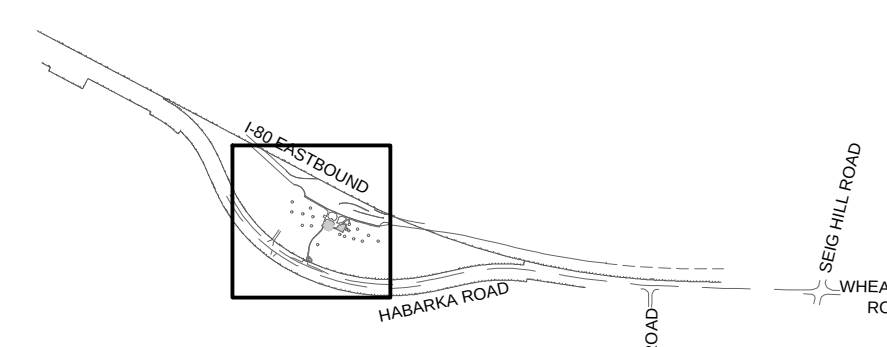
LEGEND

- EXISTING
- ADA PARKING
 - CLEANOUT
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - ELECTRIC (UNDERGROUND)
 - ELECTRIC METER
 - ELECTRIC UTILITY POLE
 - FENCE
 - FIRE HYDRANT
 - FLARED END SECTION
 - GAS LINE
 - GAS VALVE
 - GUY WIRE
 - INLET
 - LIGHT STANDARD
 - LIGHT STANDARD WITH OVERHEAD LIGHT
 - MISCELLANEOUS UTILITY
 - SANITARY MANHOLE
 - SANITARY SEWER
 - SHRUB
 - SIGN
 - STORM SEWER
 - SURVEY BENCHMARK
 - SURVEY CONTROL
 - TELEPHONE LINE (UNDERGROUND)
 - TREES
 - TREELINE
 - UTILITY POLE
 - WATER LINE
 - WATER VALVE
- NEW
- AIR INFLATION STATION
 - BITUMINOUS PAVEMENT
 - CLEANOUT
 - CONCRETE SIDEWALK / SLAB
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - CURB STOP
 - ELECTRIC (UNDERGROUND)
 - FENCE
 - FLARED END SECTION
 - FORCE MAIN
 - GRAVEL PARKING
 - GRAVEL SURFACE
 - INLET
 - LANDSCAPE AREA
 - MANHOLE
 - METER VAULT
 - RAIN GARDEN
 - SANITARY SEWER
 - STORM SEWER
 - TREELINE
 - WATER LINE
 - WATER VALVE
 - YARD HYDRANT
 - NPDES BOUNDARY

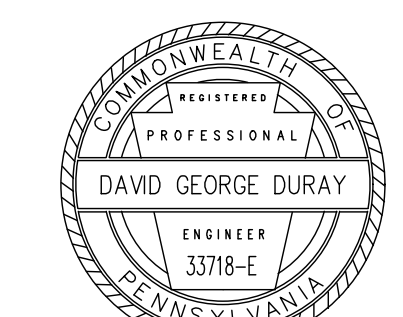
GENERAL NOTES

- ALL AREAS DISTURBED AND NOT SHOWN TO BE IMPROVED SHALL BE RESTORED WITH GRASS.
- TESTING OF BACKFLOW DEVICE AND SUBMISSION OF PAPERWORK TO AQUA BY 3 CONTRACTOR PRIOR TO METER SET AND ACTIVATION.

CAMPUS / KEY PLAN



RECORD REVISIONS



Signature of David George Duray, dated 01-04-23.

CJL ENGINEERING
2322 Harrier Street
Johnstown, PA 15902
PH: (814) 536-1851 FAX: (814) 536-5732
CJL Project #18-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

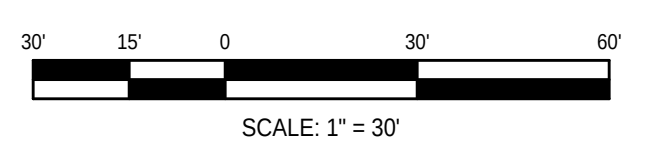
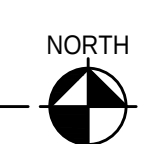
D.G.S. PROJECT No.
DGS C-0251-0098 Phase 001
PennDOT Mercer Welcome Center Upgrade Facility and Connect to Municipal Water & Sewer
SHENANGO TOWNSHIP, MERCER COUNTY, PA

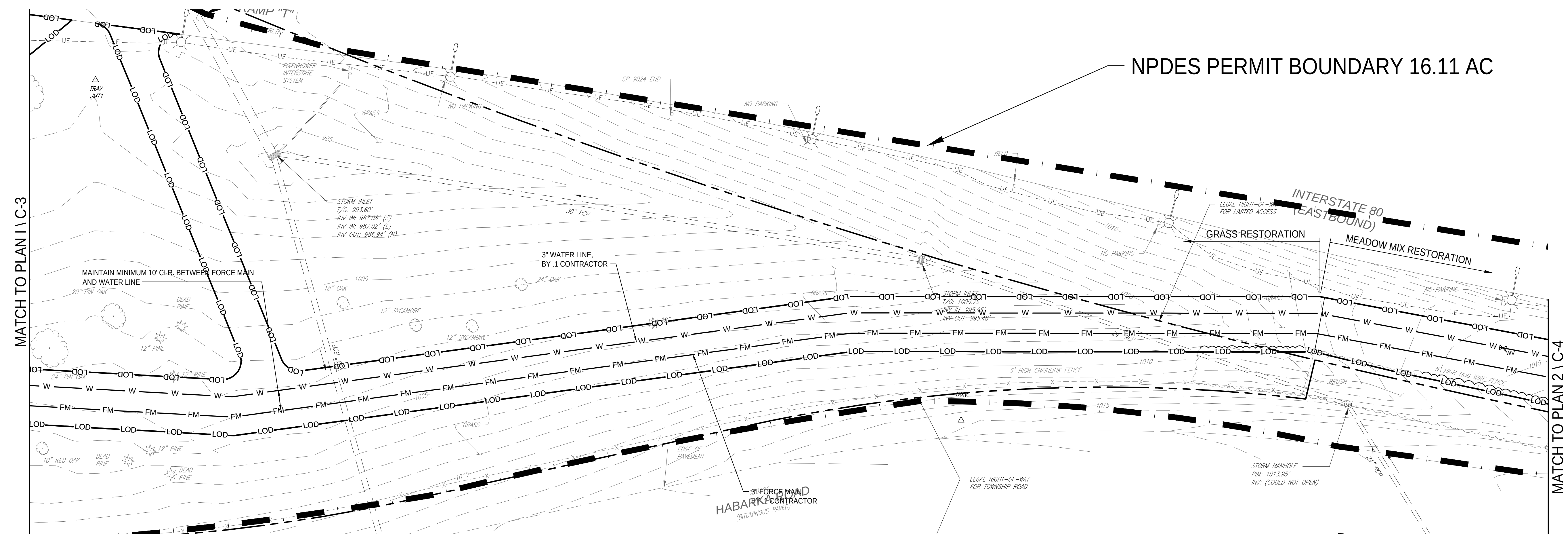
SITE AND UTILITY PLAN - CIVIL

VERIFY SCALE
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0 1
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CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL.

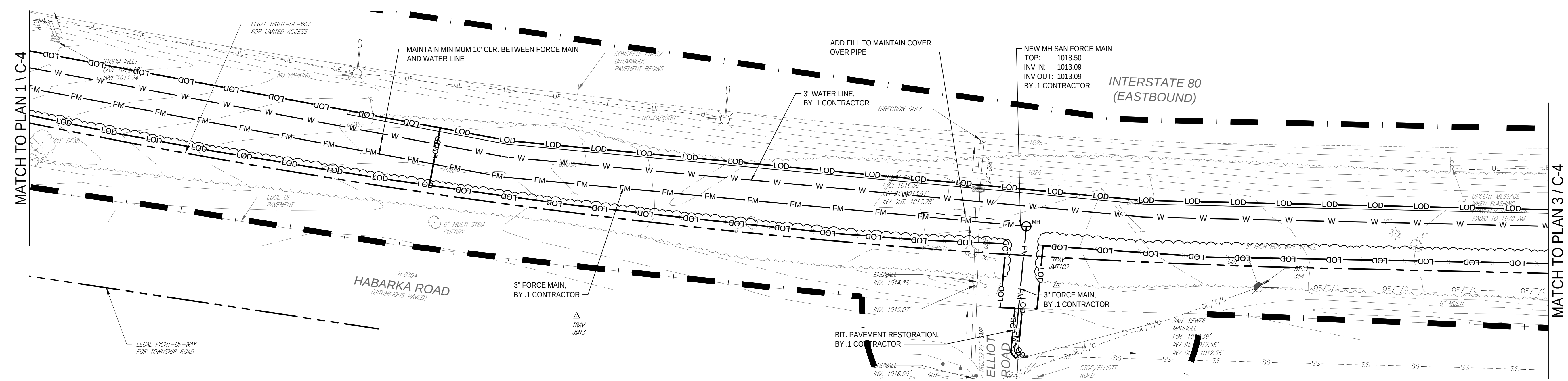
DRAWN BY B. JOHNS	DATE 01/04/23	SHEET No. C-3
CHECKED BY D. DURAY	SCALE 1" = 30'	

1 SITE AND UTILITY PLAN
C-3 1" = 30'

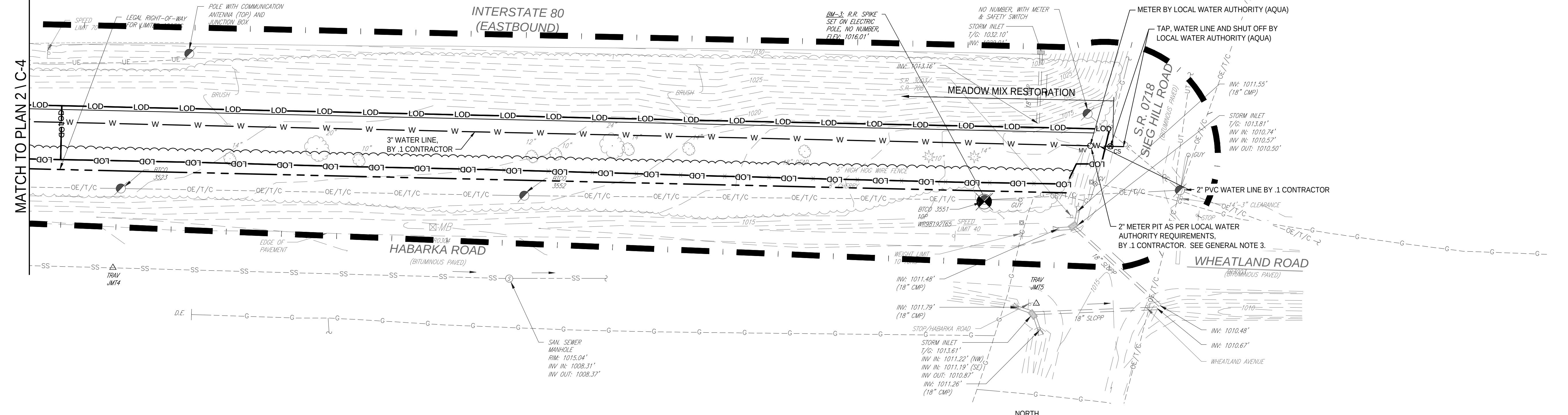




1 SITE AND UTILITY PLAN
C-4 1" = 30'



2 SITE AND UTILITY PLAN
C-4 1" = 30'



3 SITE AND UTILITY PLAN
C-4 1" = 30'

LEGEND

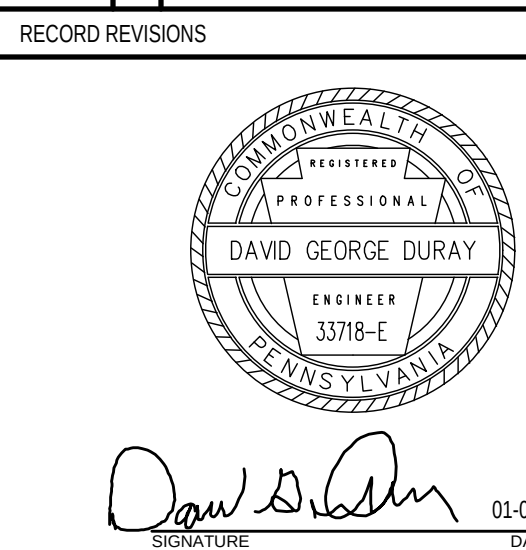
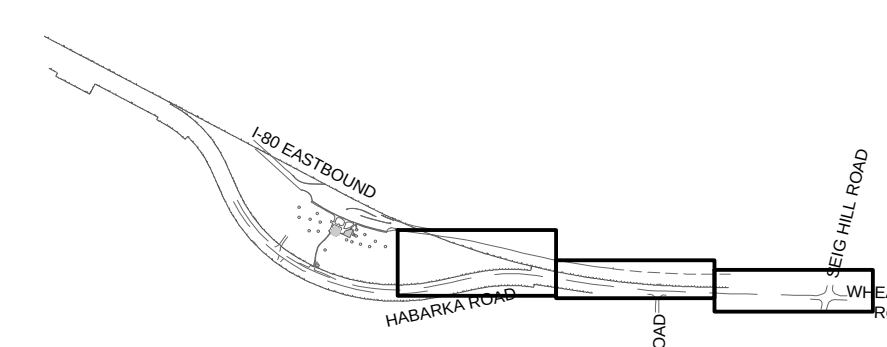
- EXISTING
- ADA PARKING
 - CLEANOUT
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - ELECTRIC (UNDERGROUND)
 - ELECTRIC METER
 - ELECTRIC UTILITY POLE
 - FENCE
 - FIRE HYDRANT
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 - GAS VALVE
 - GUY WIRE
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 - LIGHT STANDARD
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 - WATER VALVE

- NEW
- AIR INFLATION STATION
 - BITUMINOUS PAVEMENT
 - CLEANOUT
 - CONCRETE SIDEWALK / SLAB
 - CONTOUR - 5' INDEX
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 - STORM SEWER
 - TREELINE
 - WATER LINE
 - WATER VALVE
 - YARD HYDRANT
 - NPDES BOUNDARY

GENERAL NOTES

- ALL AREAS DISTURBED AND NOT SHOWN TO BE IMPROVED SHALL BE RESTORED WITH GRASS.
- WATER METER TO BE PROVIDED AND SET BY LOCAL WATER AUTHORITY. CONNECTIONS BY LOCAL WATER AUTHORITY.
- WATER METER VAULT TO BE PLASTIC PITSETTER, MODEL PDBH-788-36HB-48-NL, MANUFACTURED BY THE FORD METER BOX COMPANY, INC.
- AQUA PA SHALL BE NOTIFIED TO INSPECT 2' METER PIT PRIOR TO FINAL BACKFILL.

CAMPUS / KEY PLAN



GL ENGINEERING
232 Homer Street
Johnstown, PA 15902
PH: (814) 536-5551, FAX: (814) 536-5732
C.O. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS C-0251-0098 Phase 001

**PennDOT Mercer Welcome Center
Upgrade Facility and
Connect to Municipal Water & Sewer
SHENANGO TOWNSHIP, MERCER COUNTY, PA**

**SITE AND UTILITY PLAN
CIVIL**

VERIFY SCALE

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ON ORIGINAL DRAWING:

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IF BAR IS NOT ONE (1) INCH LONG
ADJUST SCALE ACCORDINGLY.

CONTRACTOR SHALL FIELD VERIFY
ALL DIMENSIONS.
VARIANCE FROM CONTRACT
DOCUMENTS NOT PERMITTED
WITHOUT PROFESSIONAL & BUREAU
OF CONSTRUCTION APPROVAL.

DRAWN BY
B. JOHNS
DATE
01/04/23
SHEET No.
C-4

30' 15' 0' 30' 60'
SCALE: 1" = 30'

ER WEST

POST-CONSTRUCTION WASTE DISPOSAL PROCEDURES

WHILE PERFORMING POST CONSTRUCTION BMP MAINTENANCE WORK, THE OWNER SHALL ENSURE THE COMPLETE REMOVAL AND PROPER DISPOSAL (OFF-SITE) OF THE FOLLOWING ITEMS:

1. WASTE OF ALL TYPES FROM CATCH BASINS, INLETS AND STORMWATER BASINS.
2. ACCUMULATED SEDIMENT / SOIL MATERIAL.
3. TREE AND SHRUB TRIMMINGS AS WELL AS OTHER VEGETATION INCLUDING PRUNED BRANCHES, LEAVES AND WEEDS.
4. GRASS CLIPPINGS.
5. DAMAGED AND / OR DEAD TREES, SHRUBS AND OTHER PLANTINGS.

STORM STRUCTURE TABULATION

NOTES:
TOP INLET ELEVATIONS ARE GIVEN AT CENTER OF INLET. FINAL ELEVATIONS TO BE SET IN FIELD TO MATCH SLOPE OF FINISHED GRADE.

TBFV - TO BE FIELD VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES AND / OR CONFLICTS DISCOVERED BY THE CONTRACTOR ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.

ST-1
EXISTING INLET
TOP: 982.07
INV IN: 978.81 (ST-2) NEW 15" PIPE
INV IN: 979.47 (PLUGGED)
INV OUT: 978.61

ST-2
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 989.57
INV IN: 983.08 (ST-3) 15" PIPE
INV OUT: 983.00 (ST-1) 15" PIPE

ST-3
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 992.00
INV IN: 989.00 (ST-4) 22" x 44" OPENING
INV OUT: 987.00 (ST-2) 15" PIPE

ST-4
OUTLET STRUCTURE
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 992.00
INV IN: 989.00 (ST-5, ST-6) 12" PIPE
INV IN: 989.00 (ST-9) 18" PIPE
INV OUT: 990.25 (ST-3) 6"x18" OPENING
INV OUT: 989.80 (ST-3) 12" x 12" OPENING
INV OUT: 989.00 (ST-3) 5' x 18" OPENING

ST-5
NEW STORM MANHOLE
TOP: 992.00
INV IN: 989.00 (ST-8) 18" PIPE
INV: 989.00 (ST-4) 12" PIPE

ST-6
NEW STORM MANHOLE
TOP: 992.00
INV IN: 989.00 (ST-10) 18" PIPE
INV: 989.00 (ST-4, ST-7) 12" PIPE

ST-7
NEW STORM MANHOLE
TOP: 992.00
INV IN: 989.00 (ST-11)
INV: 989.00 (ST-6)

ST-8
NEW STORM MANHOLE
TOP: 993.00
INV IN: 989.00 (ST-9) 12" PIPE
INV OUT: 989.00 (ST-5) 18" PIPE

ST-9
NEW STORM MANHOLE
TOP: 993.00
INV IN: 989.80 (ST-14) 12" PIPE
INV IN: 989.00 (ST-8, ST-10) 12" PIPE
INV OUT: 989.00 (ST-4) 18" PIPE

ST-10
NEW STORM MANHOLE
TOP: 993.00
INV IN: 989.00 (ST-9, ST-11) 12" PIPE
INV IN: 989.82 (ST-10) 12" PIPE
INV OUT: 989.00 (ST-4) 18" PIPE

ST-11
NEW STORM MANHOLE
TOP: 993.00
INV IN: 989.00 (ST-12) 15" PIPE
INV IN: 989.00 (ST-10) 12" PIPE
INV OUT: 989.00 (ST-7) 18" PIPE

ST-12
NEW STORM MANHOLE
TOP: 993.00
INV IN: 989.00 (ST-15) 15" PIPE
INV OUT: 989.00 (ST-11) 15" PIPE

ST-13
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 992.50
INV IN: 991.00 4" UNDERDRAIN
INV OUT: 990.00 (ST-10) 12" PIPE

ST-14
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 992.50
INV IN: 991.00 4" UNDERDRAIN
INV OUT: 990.00 (ST-9) 12" PIPE

ST-15
NEW STORM MANHOLE
TOP: 992.62
INV IN: 989.71 (ST-16) 15" PIPE
INV OUT: 989.51 (ST-12) 15" PIPE

ST-16
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 994.00
INV IN: 991.02 (ST-17, ST-18)
12" DIA. ORIFICE
INV OUT: 991.02 (ST-15) 15" PIPE

ST-17
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 994.00
INV OUT: 991.02 (ST-16) 12" DIA. ORIFICE

ST-18
NEW STANDARD INLET BOX
TYPE M CONCRETE TOP
WITH STRUCTURAL STEEL GRATE
TOP: 994.00
INV OUT: 991.02 (ST-16) 12" DIA. ORIFICE

ST-19
NEW FLARED END SECTION
12" PIPE DIAMETER
INV OUT: 1001.17

ST-20
NEW FLARED END SECTION
12" PIPE DIAMETER
INV IN: 1001.91

LEGEND

- EXISTING
- CLEANOUT
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - ELECTRIC (UNDERGROUND)
 - FENCE
 - LIGHT STANDARD
 - SHRUB
 - SIGN
 - SURVEY BENCHMARK
 - TELEPHONE LINE (UNDERGROUND)
 - TREES
 - TREELINE
- NEW
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 - CLEANOUT
 - CONCRETE SIDEWALK / SLAB
 - CONTOUR - 5' INDEX
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 - EU - ELECTRIC (UNDERGROUND)
 - FENCE
 - FLARED END SECTION
 - FM - FORCE MAIN
 - GRAVEL PARKING
 - GRAVEL SURFACE
 - INLET
 - LANDSCAPE AREA
 - MANHOLE
 - RAIN GARDEN
 - SANITARY SEWER
 - STORM SEWER
 - WATER LINE
 - WATER VALVE
 - YARD HYDRANT
 - NPDES BOUNDARY

POST-CONSTRUCTION BMP LONG TERM OPERATION AND MAINTENANCE SCHEDULE

THE PROPOSED STORMWATER MANAGEMENT BMP'S SHALL BE MAINTAINED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND PROCEDURE BY THE OWNER OR THEIR DESIGNATED ASSIGNEE.

THE OWNER WILL MAINTAIN A LOG SHOWING DATES THAT BMP'S WERE INSPECTED, AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE AND METHOD WITH WHICH THEY WERE CORRECTED. THE LOG SHALL BE MADE AVAILABLE TO THE TOWNSHIP OR THE CONSERVATION DISTRICT REPRESENTATIVE AT THEIR REQUEST.

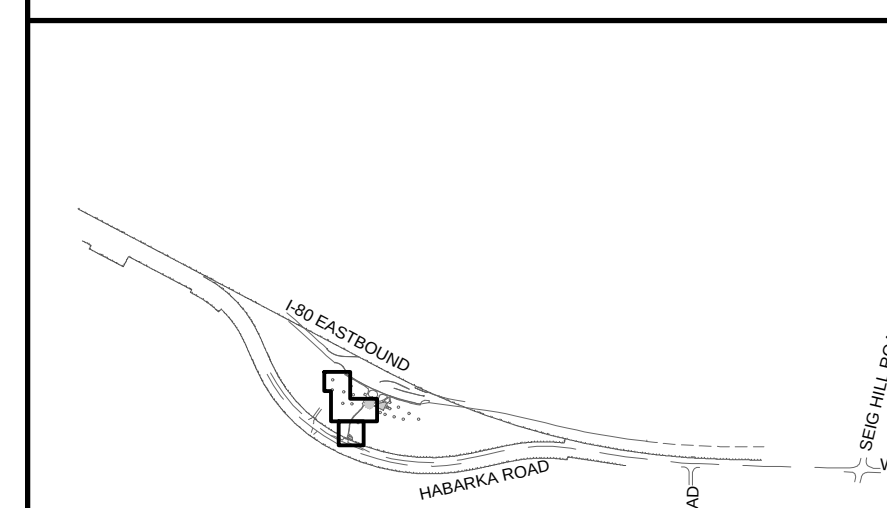
RAIN GARDEN/BIORETENTION AREA

1. PRUNING AND WEEDING MAYBE REQUIRED WHILE VEGETATION IS BEING ESTABLISHED.
2. DETRITUS MAY NEED TO BE REMOVED EVERY YEAR, PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF SEASON.
3. MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND REPLISHED AS NEEDED.
4. RAIN GARDEN SHOULD BE INSPECTED AND CLEANED SEMI-ANNUALLY AND AFTER RUNOFF EVENTS THAT EQUAL OR EXCEED 25 INCH OF RAINFALL.
5. BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES A YEAR FOR SEDIMENT BUILDUP, EROSION, AND VEGETATIVE CONDITIONS.
6. DURING DROUGHTS, BIORETENTION AREAS MAY REQUIRE WATERING.

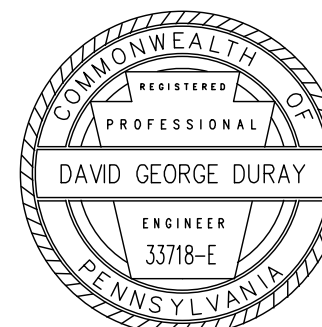
SUBSURFACE DETENTION AREA

1. INLETS (UPGRADIENT OF DETENTION AREA) SHOULD BE INSPECTED AND CLEANED SEMI-ANNUALLY AND AFTER RUNOFF EVENTS THAT EQUAL OR EXCEED 25 INCH OF RAINFALL.
2. THE INLET STRUCTURES SHOULD BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES PER YEAR, AS WELL AS AFTER EVERY STORM GREATER THAN 0.25 INCH. STRUCTURES INCLUDE INLET BOTTOMS, OUTLET STRUCTURES RIPRAP AND INLETS.
3. SEDIMENT REMOVAL SHOULD BE CONDUCTED WHEN THE BASIN IS COMPLETELY DRY. SEDIMENT SHOULD BE DISPOSED OF PROPERLY AND ONCE SEDIMENT IS REMOVED, DISTURBED AREAS NEED TO BE IMMEDIATELY STABILIZED AND RE-VEGETATED.
4. MOWING AND/OR TRIMMING OF VEGETATION SHOULD BE PERFORMED AS NECESSARY TO SUSTAIN THE SYSTEM, BUT ALL DETRITUS SHOULD BE REMOVED FROM THE BASIN.
5. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR EROSION.
6. VEGETATED AREAS SHOULD BE INSPECTED ANNUALLY FOR UNWANTED GROWTH OF EXOTIC/INVASIVE SPECIES.
7. VEGETATIVE COVER SHOULD BE MAINTAINED AT A MINIMUM OF 95 PERCENT. IF VEGETATIVE COVER HAS BEEN REDUCED BY 10%, VEGETATION SHOULD BE REESTABLISHED.

CAMPUS / KEY PLAN



RECORD REVISIONS



David George Duray
01-04-23
DATE

GL ENGINEERING
2322 Harmer Street
Johnstown, PA 15902
PH: (814) 536-1851, FAX: (814) 536-5732
CJL Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS C-0251-0098 Phase 001

**PennDOT Mercer Welcome Center
Upgrade Facility and
Connect to Municipal Water & Sewer**
SHEMANGO TOWNSHIP, MERCER COUNTY, PA

**STORMWATER MANAGEMENT
PLAN - CIVIL**

VERIFY SCALE

BAR IS ONE (1) INCH LONG
ON ORIGINAL DRAWING:
0 1

IF BAR IS NOT ONE (1) INCH LONG
ADJUST SCALE ACCORDINGLY.

CONTRACTOR SHALL FIELD VERIFY
ALL DIMENSIONS.
VARIANCE FROM CONTRACT
DOCUMENTS NOT PERMITTED
WITHOUT PROFESSIONAL & BUREAU
OF CONSTRUCTION APPROVAL.

DRAWN BY
B. JOHNS
DATE
01/04/23
CHECKED BY
D. DURAY
SCALE
1" = 20'

SHEET No.
C-5

STORMWATER MANAGEMENT NOTES

PCSM BMP's
THE FOLLOWING ARE THE POST CONSTRUCTION STORMWATER MANAGEMENT BMP'S:

1. RAIN GARDEN/BIORETENTION AREA
2. SUBSURFACE DETENTION AREA

BMP CRITICAL STAGES OF CONSTRUCTION

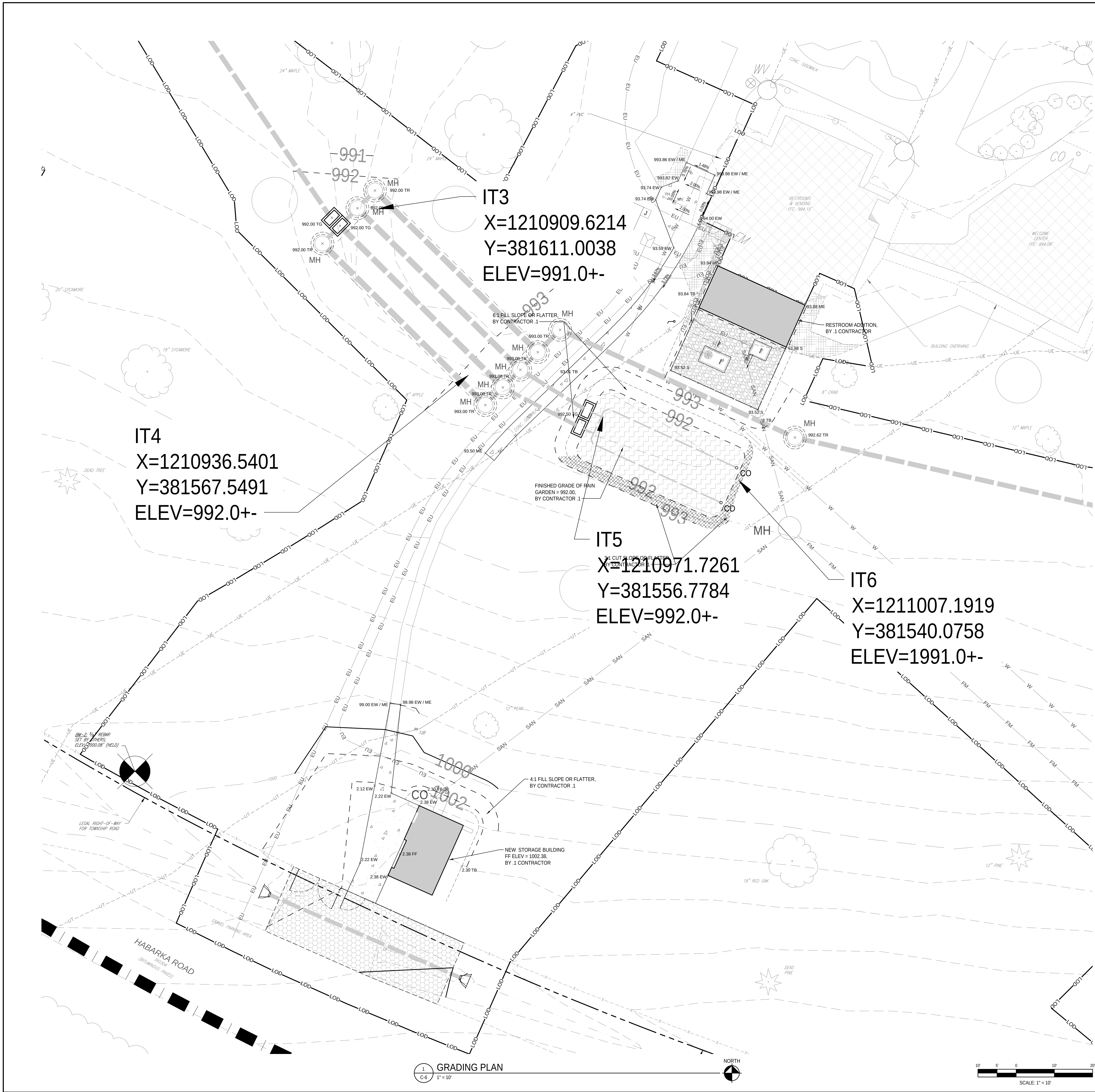
THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE INSTALLATION OF EACH CRITICAL STAGE OF THE PCSM BMP'S INSTALLATION IN ORDER FOR THE ENGINEER TO CONDUCT INSPECTIONS OF THESE STAGES.

1. THE RAIN GARDEN/BIORETENTION AREA CRITICAL STAGES INCLUDE:
 - PRECISION IN THE DESIGN AND THE PLACEMENT OF THE SOILS AND VEGETATION AS WELL AS MAINTENANCE ONCE IT IS CONSTRUCTED.
2. THE SUBSURFACE DETENTION AREA CRITICAL STAGES INCLUDE:
 - PLACEMENT AND COMPACTION OF THE SUBSURFACE DETENTION AREA AND PLACEMENT OF INLET AND OUTLET STRUCTURES.

1
C-5
STORMWATER MANAGEMENT PLAN



20 10 0 20 40
SCALE: 1" = 20'



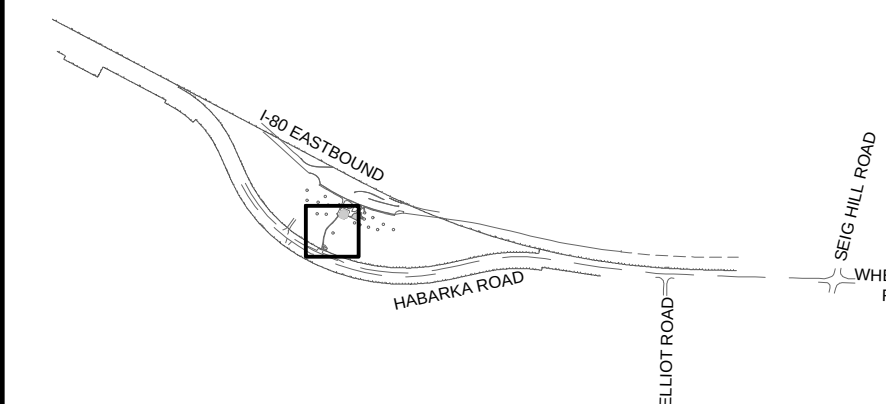
LEGEND

- EXISTING
- 975 - CLEANOUT
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - ELECTRIC (UNDERGROUND)
 - FENCE
 - LIGHT STANDARD
 - SHRUB
 - SIGN
 - SURVEY BENCHMARK
 - TELEPHONE LINE (UNDERGROUND)
 - TREES
 - TREELINE
- NEW
- BITUMINOUS PAVEMENT
 - CLEANOUT
 - CONCRETE SIDEWALK / SLAB
 - CONTOUR - 5' INDEX
 - CONTOUR - 1' INTERMEDIATE
 - ELECTRIC (UNDERGROUND)
 - FENCE
 - FLARED END SECTION
 - FORCE MAIN
 - GRAVEL PARKING
 - GRAVEL SURFACE
 - INLET
 - LANDSCAPE AREA
 - MANHOLE
 - RAIN GARDEN
 - SANITARY SEWER
 - STORM SEWER
 - WATER LINE
 - WATER VALVE
 - YARD HYDRANT
 - SLOPE
 - SPOT ELEVATION
 - EDGE OF WALK
 - FINISHED FLOOR
 - HIGH POINT
 - MATCH EXISTING
 - SURFACE
 - TOP OF BANK
 - TOP OF GRATE
 - TOP RIM

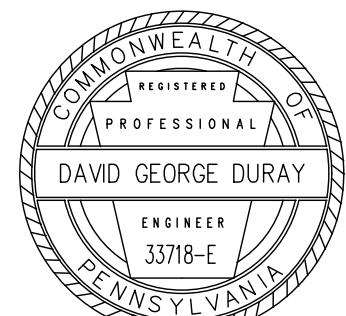
GENERAL NOTES

1. FINISH GRADES SHALL BE UNIFORMLY SLOPED BETWEEN CONTOURS AND/OR SPOT ELEVATIONS.

CAMPUS / KEY PLAN



RECORD REVISIONS



Signature of David George Duray, dated 01-04-23.

GL ENGINEERING
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Johnstown, PA 15902
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C.O. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS C-0251-0098 Phase 001**

**PennDOT Mercer Welcome Center
Upgrade Facility and
Connect to Municipal Water & Sewer**
SHENANGO TOWNSHIP, MERCER COUNTY, PA

GRADING PLAN - CIVIL

VERIFY SCALE

BAR IS ONE (1) INCH LONG
ON ORIGINAL DRAWING:

0 1

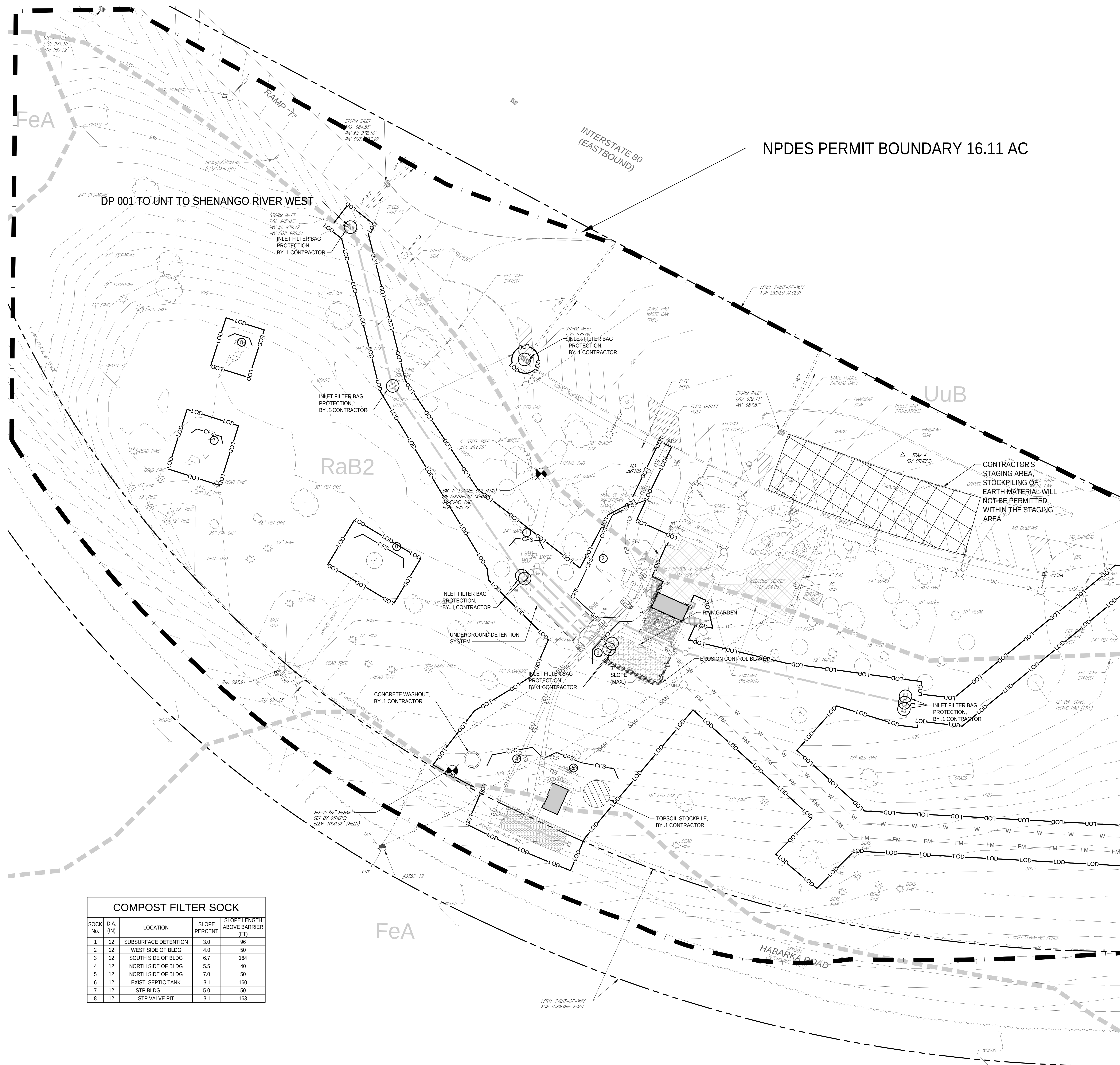
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DRAWN BY
B. JOHNS

DATE
01/04/23

SHEET No.
C-6



COMPOST FILTER SOCK				
SOCK No.	DIA. (IN)	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	12	SUBSURFACE DETENTION	3.0	96
2	12	WEST SIDE OF BLDG	4.0	50
3	12	SOUTH SIDE OF BLDG	6.7	164
4	12	NORTH SIDE OF BLDG	5.5	40
5	12	NORTH SIDE OF BLDG	7.0	50
6	12	EXIST. SEPTIC TANK	3.1	160
7	12	STP BLDG	5.0	50
8	12	STP VALVE PIT	3.1	163

LEGEND

EXISTING

- ADA PARKING
- CLEANOUT
- CONTOUR - 5' INDEX
- CONTOUR - 1' INTERMEDIATE
- ELECTRIC (UNDERGROUND)
- ELECTRIC METER
- ELECTRIC UTILITY POLE
- FENCE
- FIRE HYDRANT
- FLARED END SECTION
- GAS LINE
- GAS VALVE
- GUY WIRE
- INLET
- LIGHT STANDARD
- LIGHT STANDARD WITH OVERHEAD LIGHT
- MISCELLANEOUS UTILITY
- SANITARY MANHOLE
- SANITARY SEWER
- SHRUB
- SIGN
- STORM SEWER
- SURVEY BENCHMARK
- SURVEY CONTROL
- TELEPHONE LINE (UNDERGROUND)
- TREES
- TREELINE
- UTILITY POLE
- WATER LINE
- WATER VALVE

NEW

- AIR INFLATION STATION
- BITUMINOUS PAVEMENT
- CLEANOUT
- COMPOST FILTER SOCK
- CONCRETE SIDEWALK / SLAB
- CONTOUR - 5' INDEX
- CONTOUR - 1' INTERMEDIATE
- CURB STOP
- ELECTRIC (UNDERGROUND)
- FENCE
- FLARED END SECTION
- FORCE MAIN
- GRAVEL PARKING
- GRAVEL SURFACE
- INLET
- INLET FILTER PROTECTION BAG
- LANDSCAPE AREA
- LIMIT OF DISTURBANCE
- MANHOLE
- METER VAULT
- RAIN GARDEN
- SANITARY SEWER
- SOILS BOUNDARY
- STORM SEWER
- TREELINE
- WATER LINE
- WATER VALVE
- YARD HYDRANT
- NPDES BOUNDARY

EROSION AND SEDIMENTATION CONTROL NOTES

LIMIT OF DISTURBANCE IS: 3.17 ACRES

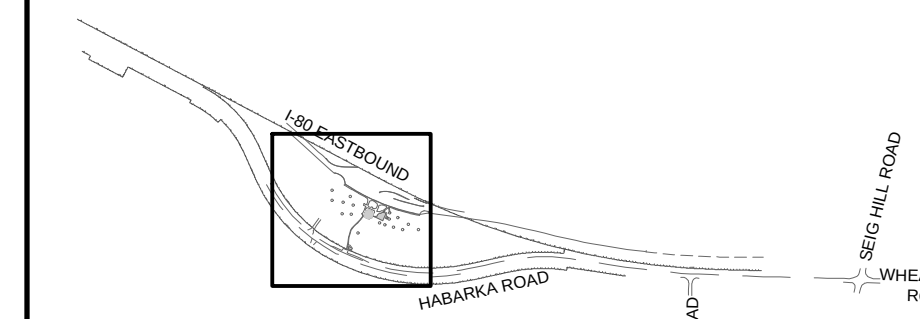
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SITE SOILS

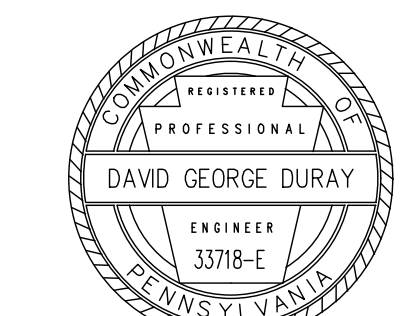
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- FeA - FRENCHTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES
RaB2 - RAVENNA SILT LOAM, 3 TO 8 PERCENT SLOPES
RaC2 - RAVENNA SILT LOAM, 8 TO 15 PERCENT SLOPES
UuB - URBAN LAND - UDORTHERMENTS COMPLEX, 0 TO 8 PERCENT SLOPES

CAMPUS / KEY PLAN



RECORD REVISIONS



DATE: 01-04-23
SIGNATURE: [Signature]

GL ENGINEERING
232 Homer Street
Johnstown, PA 15902
PH: (814) 536-5553, FAX: (814) 536-5732
C.O. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS C-0251-0098 Phase 001**

PennDOT Mercer Welcome Center Upgrade Facility and Connect to Municipal Water & Sewer
SHENANGO TOWNSHIP, MERCER COUNTY, PA

EROSION & SEDIMENTATION CONTROL PLAN - CIVIL

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

0 1

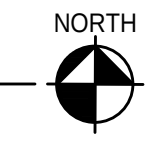
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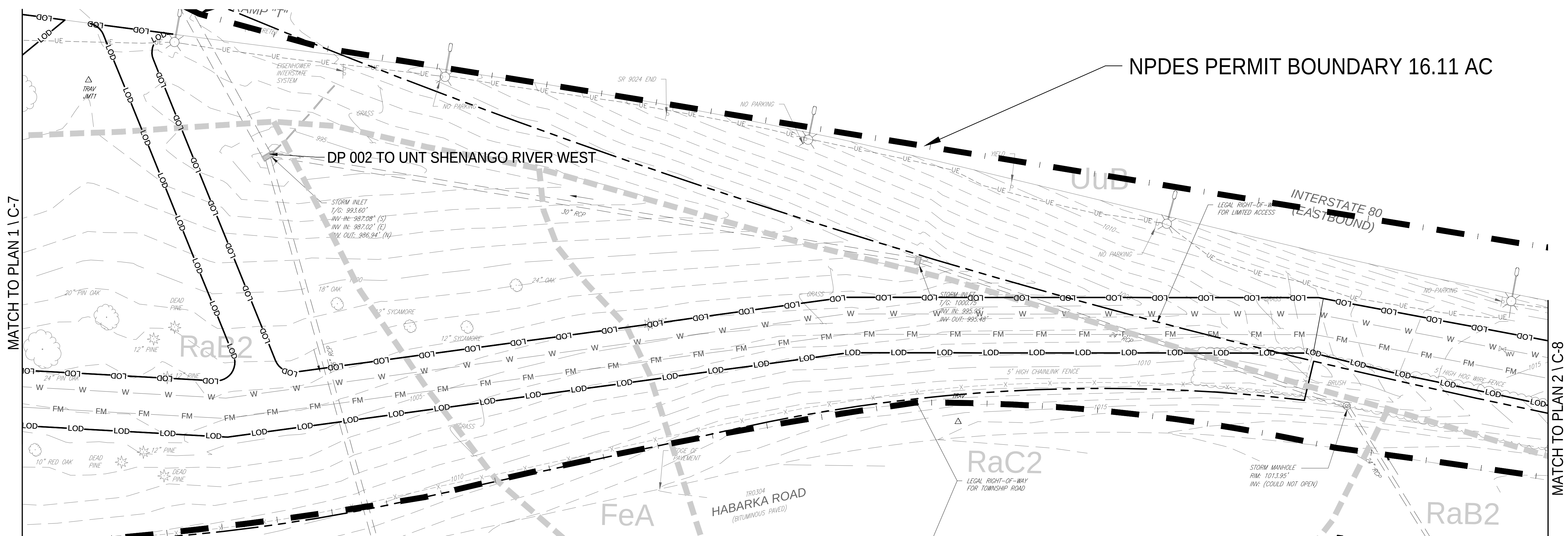
DRAWN BY: B. JOHNS
DATE: 01/04/23
CHECKED BY: D. DURAY
SCALE: 1" = 30'

SHEET No. **C-7**

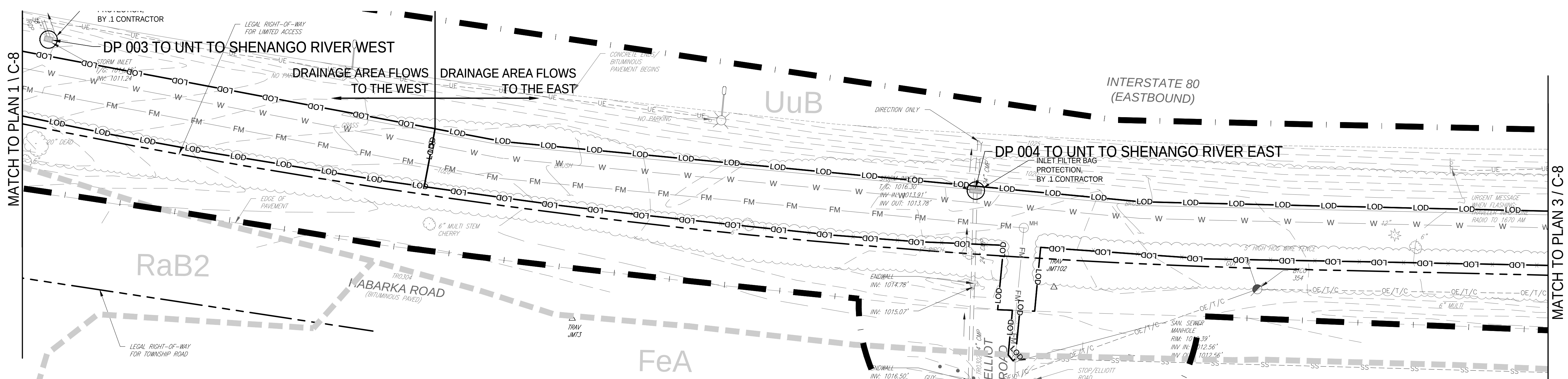
1 EROSION & SEDIMENTATION CONTROL PLAN
C-7 1" = 30'



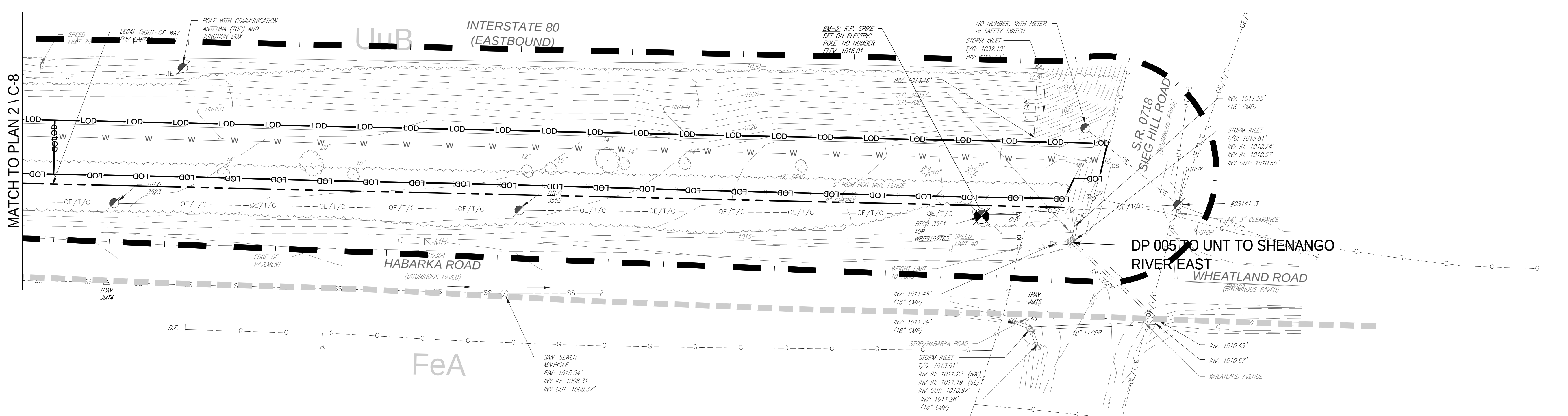
30' 15' 0' 30' 60'
SCALE: 1" = 30'



1 EROSION & SEDIMENTATION CONTROL PLAN
C-8 1" = 30'



2 EROSION & SEDIMENTATION CONTROL PLAN
C-8 1" = 30'



3 EROSION & SEDIMENTATION CONTROL PLAN
C-8 1" = 30'

LEGEND

EXISTING

- ADA PARKING
- CLEANTOUT
- 975 - CONTOUR - 5' INDEX
- CONTOUR - 1' INTERMEDIATE
- UE - ELECTRIC (UNDERGROUND)
- EM - ELECTRIC METER
- ELECTRIC UTILITY POLE
- FENCE
- FH - FIRE HYDRANT
- FLARED END SECTION
- G - GAS LINE
- GV - GAS VALVE
- GUY WIRE
- INLET
- LIGHT STANDARD
- LIGHT STANDARD WITH OVERHEAD LIGHT
- MISCELLANEOUS UTILITY
- SANITARY MANHOLE
- SS - SANITARY SEWER
- SHRUB
- SIGN
- STORM SEWER
- SURVEY BENCHMARK
- SURVEY CONTROL
- UT - TELEPHONE LINE (UNDERGROUND)
- TREES
- TREELINE
- UP - UTILITY POLE
- W - WATER LINE
- WV - WATER VALVE

NEW

- AIS - AIR INFLATION STATION
- BITUMINOUS PAVEMENT
- CLEANTOUT
- COMPOST FILTER SOCK
- CONCRETE SIDEWALK / SLAB
- 1000 - CONTOUR - 5' INDEX
- 1000 - CONTOUR - 1' INTERMEDIATE
- CS - CURB STOP
- EV - ELECTRIC (UNDERGROUND)
- FENCE
- FLARED END SECTION
- FM - FORCE MAIN
- GRAVEL PARKING
- GRAVEL SURFACE
- INLET
- INLET FILTER PROTECTION BAG
- LANDSCAPE AREA
- LOD - LIMIT OF DISTURBANCE
- MH - MANHOLE
- MV - METER VAULT
- RAIN GARDEN
- SAN - SANITARY SEWER
- SOILS BOUNDARY
- STORM SEWER
- TREELINE
- W - WATER LINE
- WV - WATER VALVE
- YH - YARD HYDRANT
- NPDES BOUNDARY

EROSION AND SEDIMENTATION CONTROL NOTES

LIMIT OF DISTURBANCE IS: 3.17 ACRES

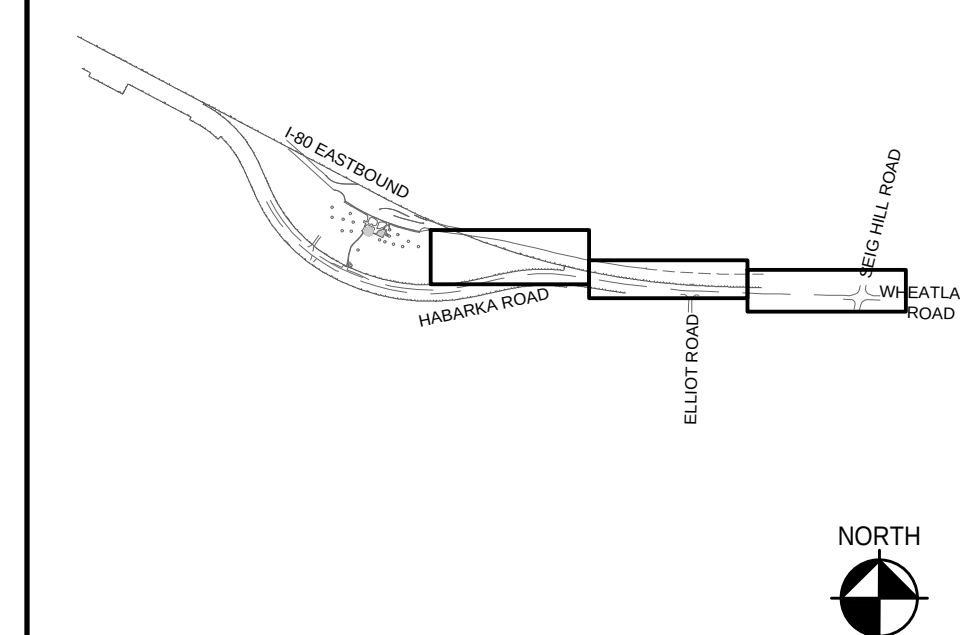
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SITE SOILS

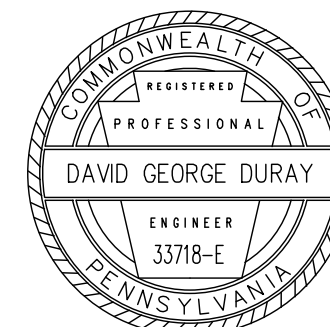
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- RaC2 - RAVENNA SILT LOAM, 8 TO 15 PERCENT SLOPES
- UuB - URBAN LAND - UDORTHERTS COMPLEX, 0 TO 8 PERCENT SLOPES

CAMPUS / KEY PLAN



RECORD REVISIONS



01-04-23
DATE

GL ENGINEERING
232 Homer Street
Johnstown, PA 15902
(412) 536-5353, Fax: (412) 536-5732
C.O. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
DGS C-0251-0098 Phase 001

PennDOT Mercer Welcome Center Upgrade Facility and Connect to Municipal Water & Sewer
SHENANGO TOWNSHIP, MERCER COUNTY, PA

EROSION & SEDIMENTATION CONTROL PLAN - CIVIL

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING:

0 1

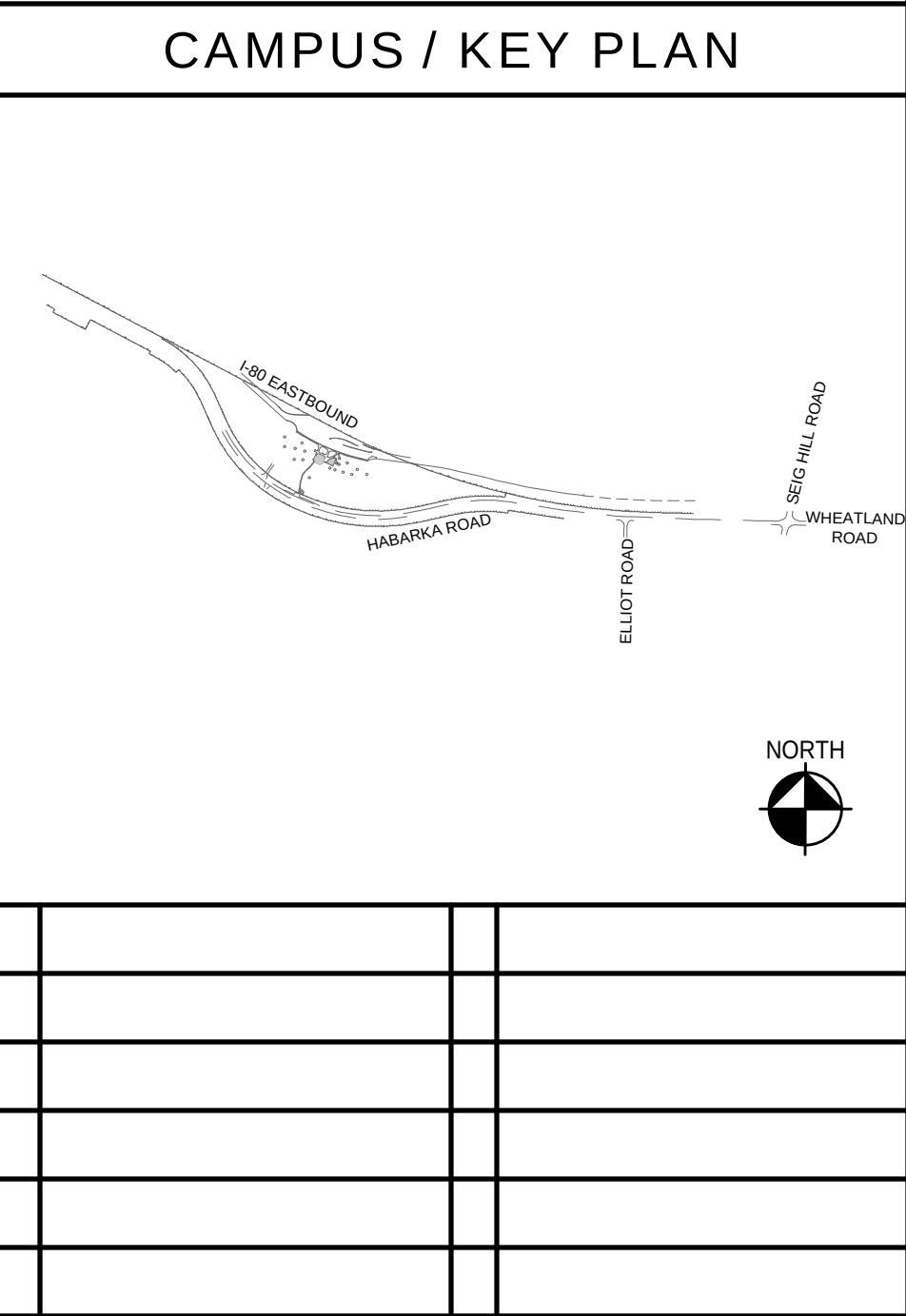
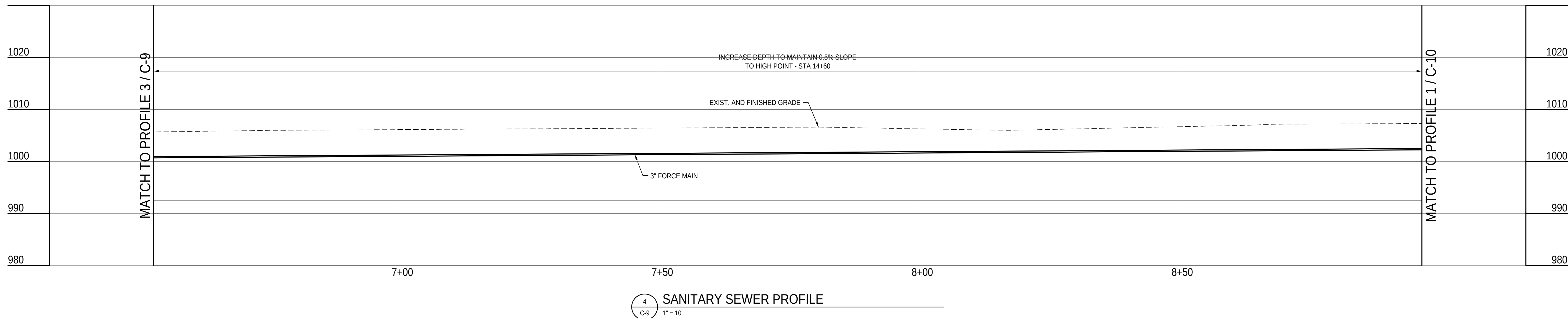
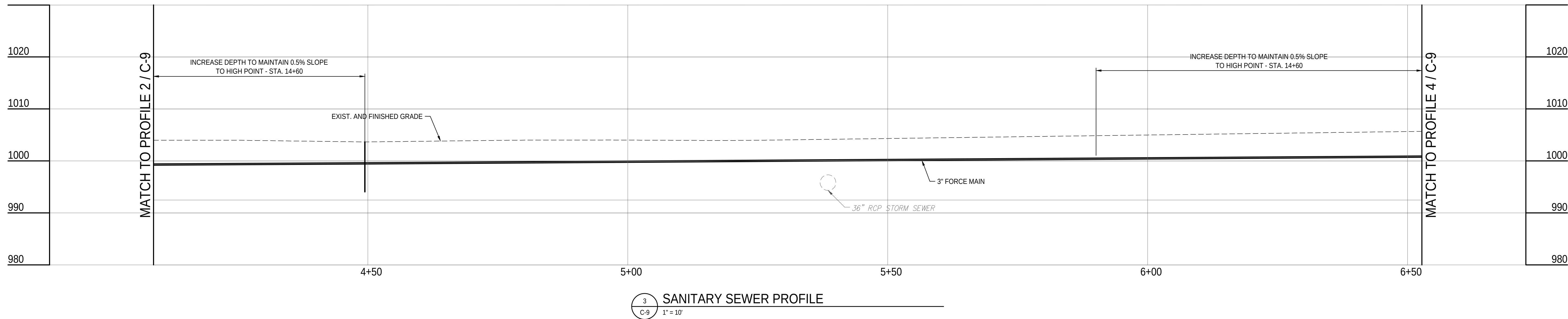
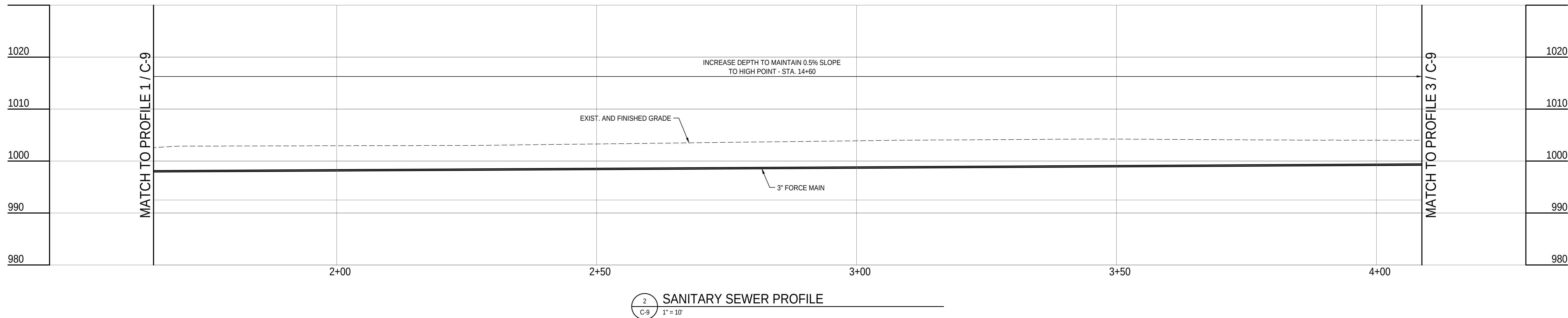
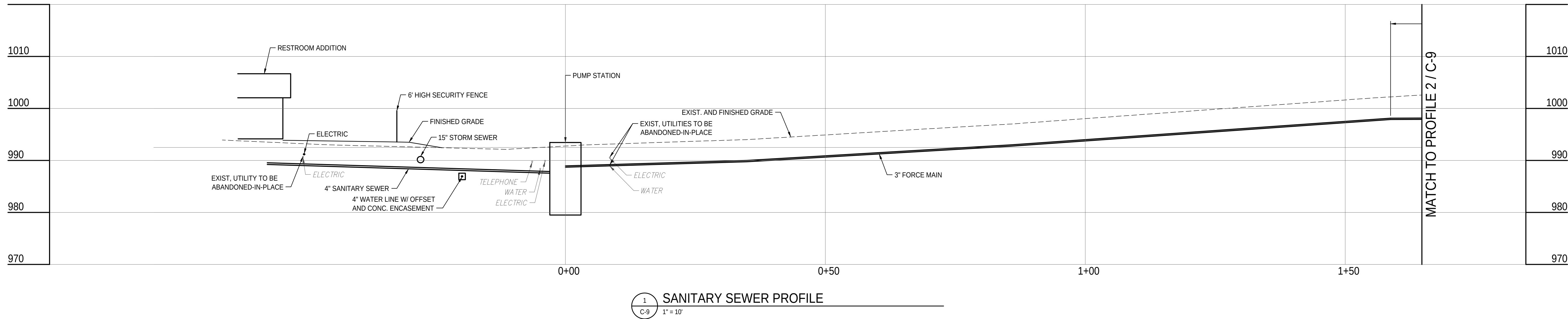
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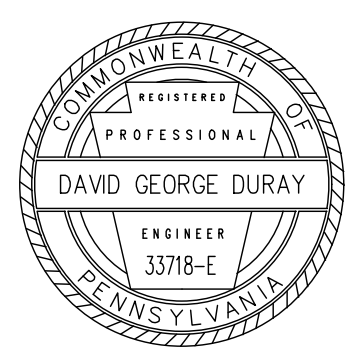
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DRAWN BY: B. JOHNS DATE: 01/04/23 SHEET No.: C-8

CHECKED BY: D. DURAY SCALE: 1" = 30'

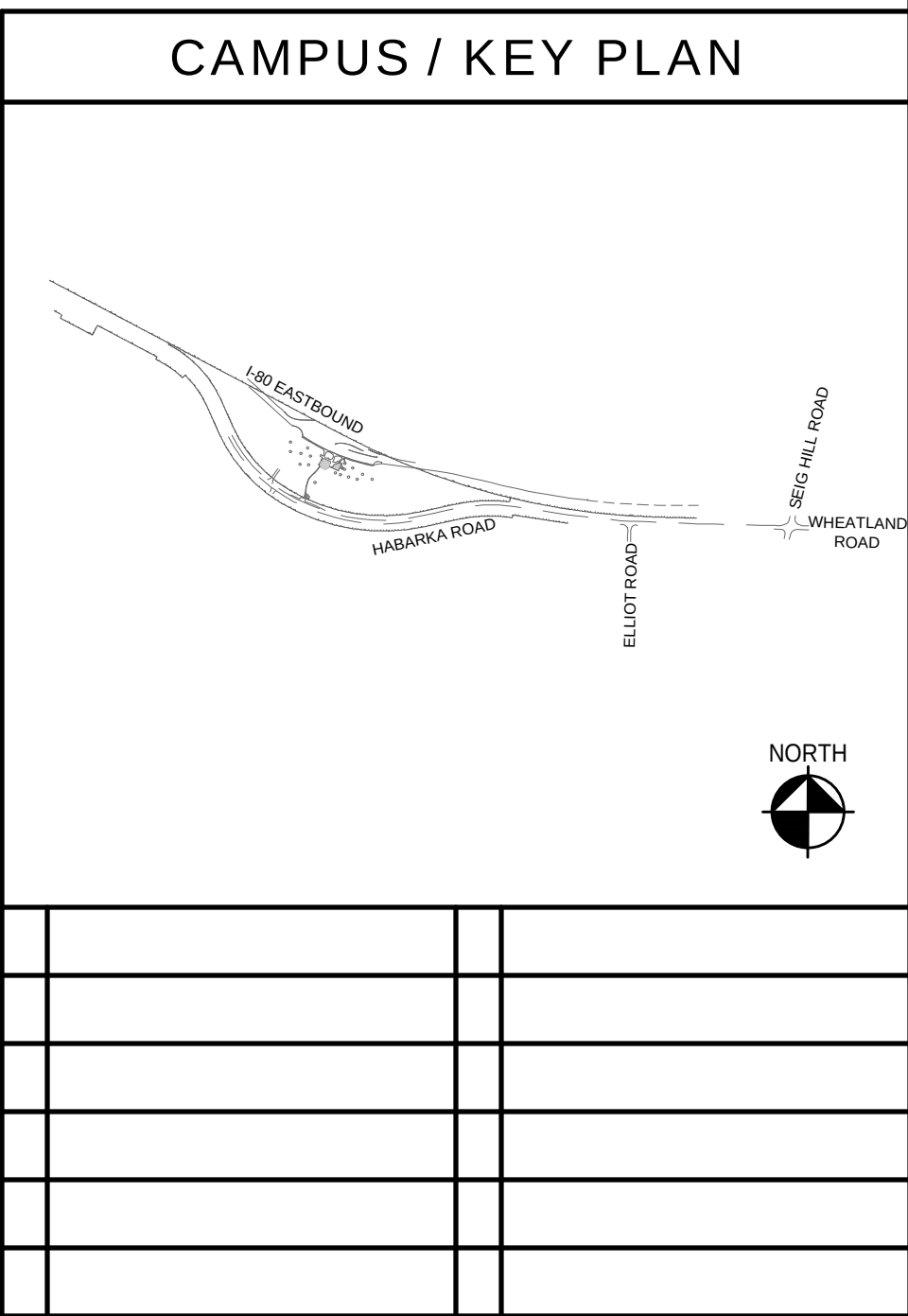
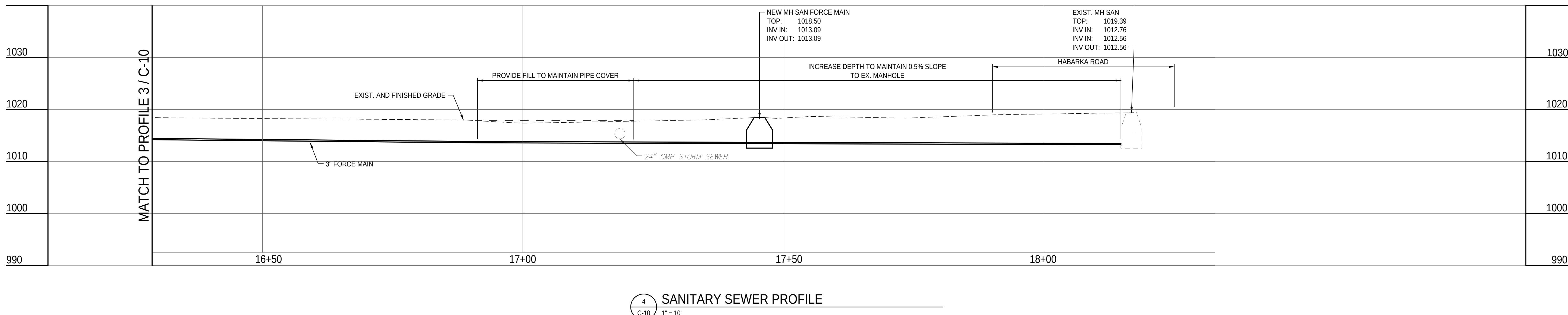
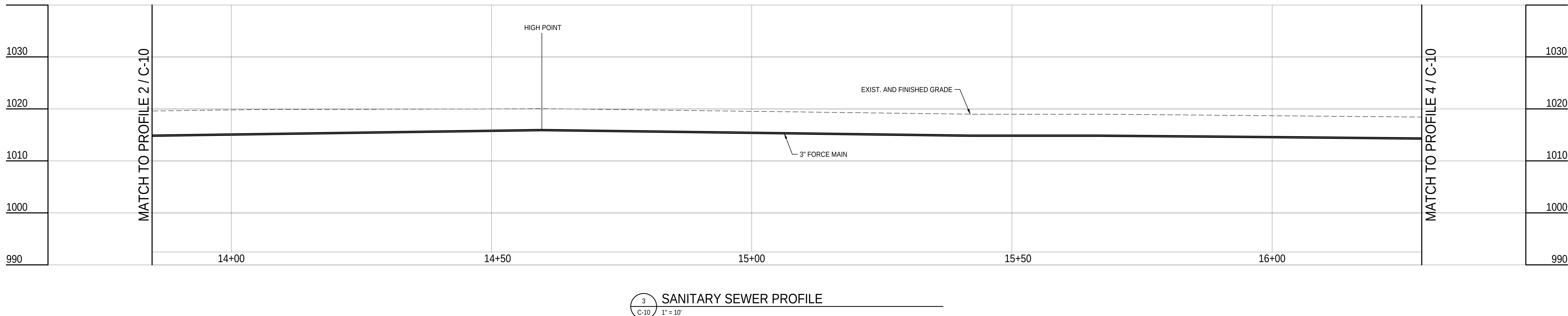
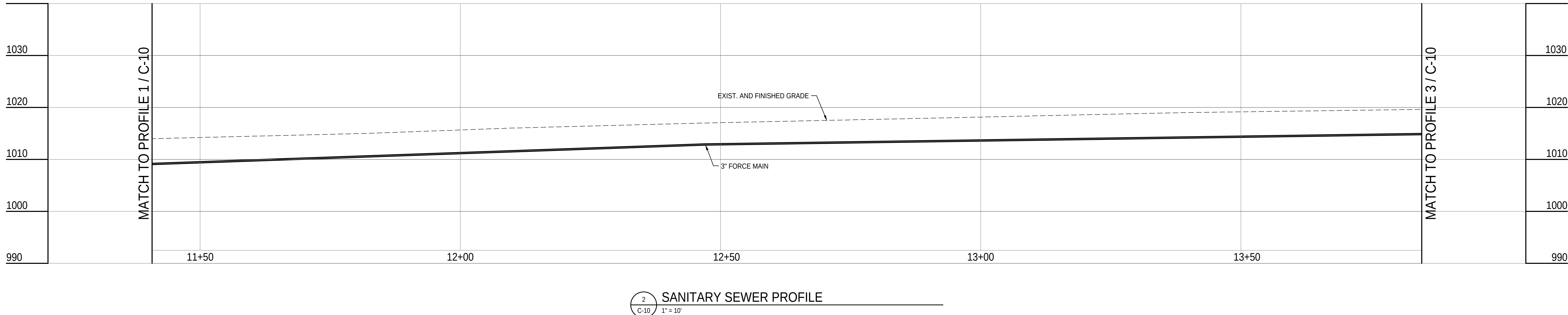
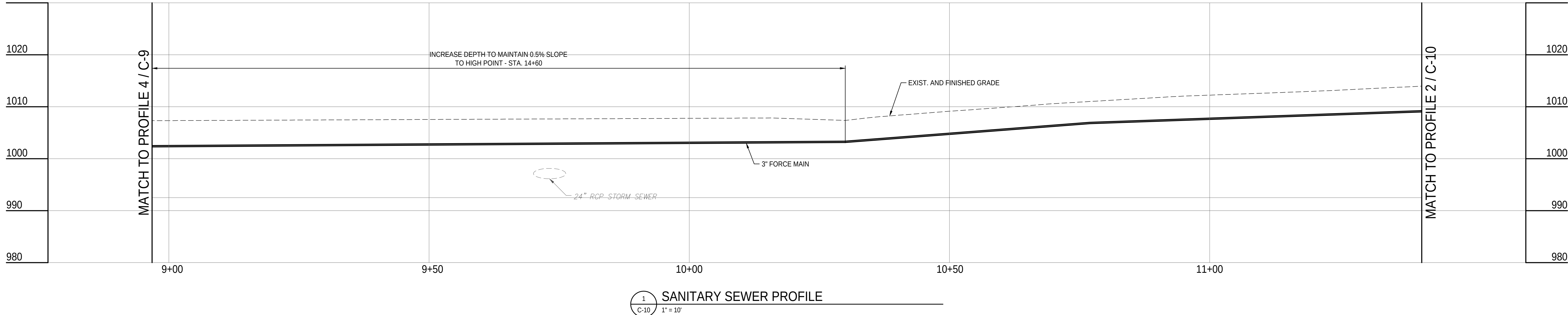




RECORD REVISIONS	
 Signature: <i>David George Duray</i> Date: 01-04-23	

 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA		
D.G.S. PROJECT No. DGS C-0251-0098 Phase 001		
PennDOT Mercer Welcome Center Upgrade Facility and Connect to Municipal Water & Sewer SHENANGO TOWNSHIP, MERCER COUNTY, PA		
SANITARY SEWER PROFILES CIVIL		
DRAWN BY B. JOHNS	DATE 01/04/23	SHEET No. C-9
CHECKED BY D. DURAY	SCALE 1" = 10'	

VERIFY SCALE
BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING: 0 1
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RECORD REVISIONS	

DAVID GEORGE DURAY
01-04-23
DATE

CJL ENGINEERING
232 Horner Street
Johnstown, PA 15902
PH: (814) 536-5551, FAX: (814) 536-5732
C.J. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No.
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**PennDOT Mercer Welcome Center
Upgrade Facility and
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SHENANGO TOWNSHIP, MERCER COUNTY, PA

**SANITARY SEWER PROFILES
CIVIL**

DRAWN BY B. JOHNS	DATE 01/04/23	SHEET No. C-10
CHECKED BY D. DURAY	SCALE 1" = 10'	

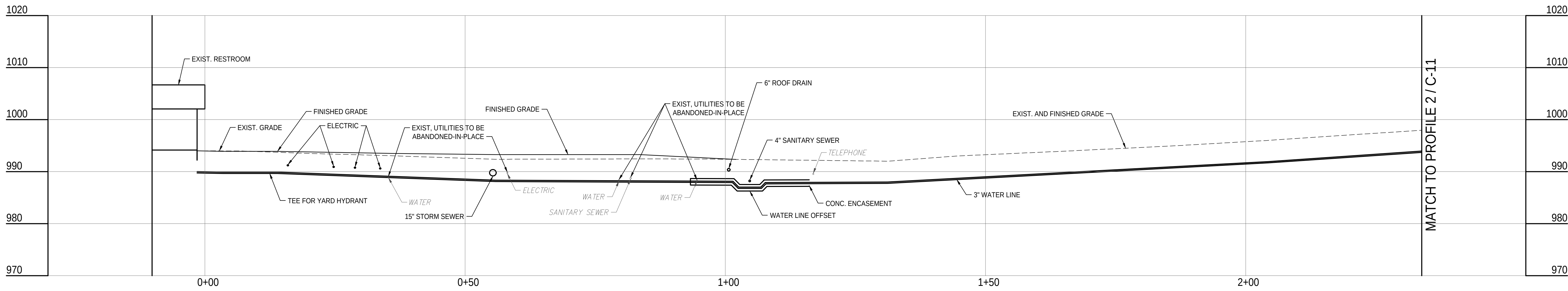
VERIFY SCALE

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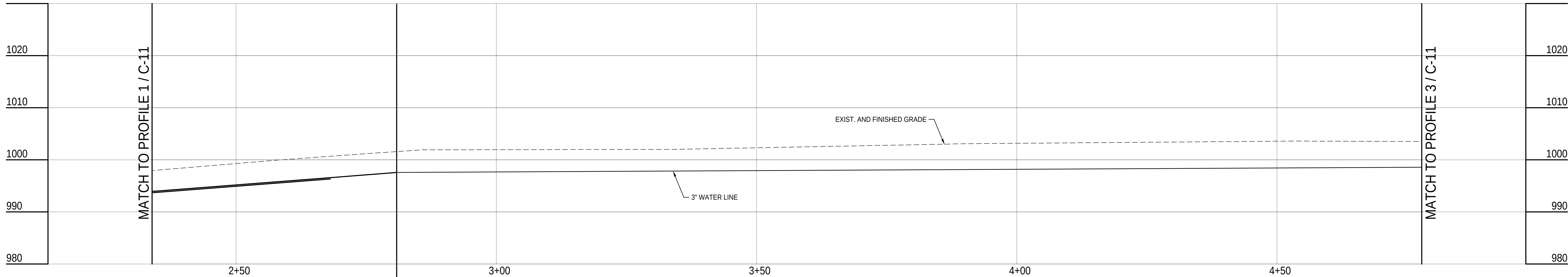
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IF BAR IS NOT ONE (1) INCH LONG
ADJUST SCALE ACCORDINGLY.

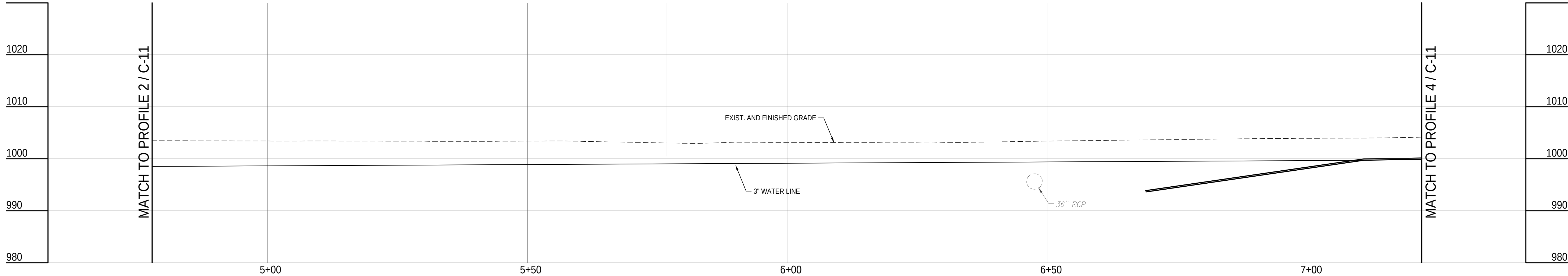
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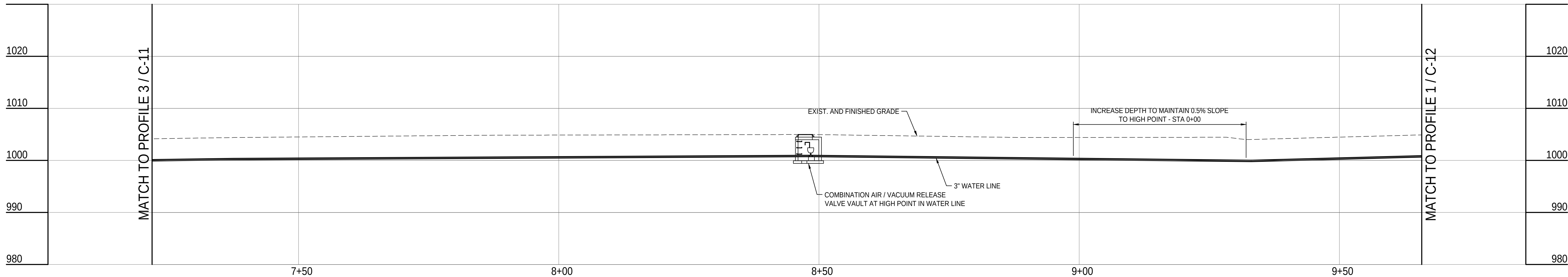
1
C-11
WATER LINE PROFILE
1" = 10'



2
C-11
WATER LINE PROFILE
1" = 10'

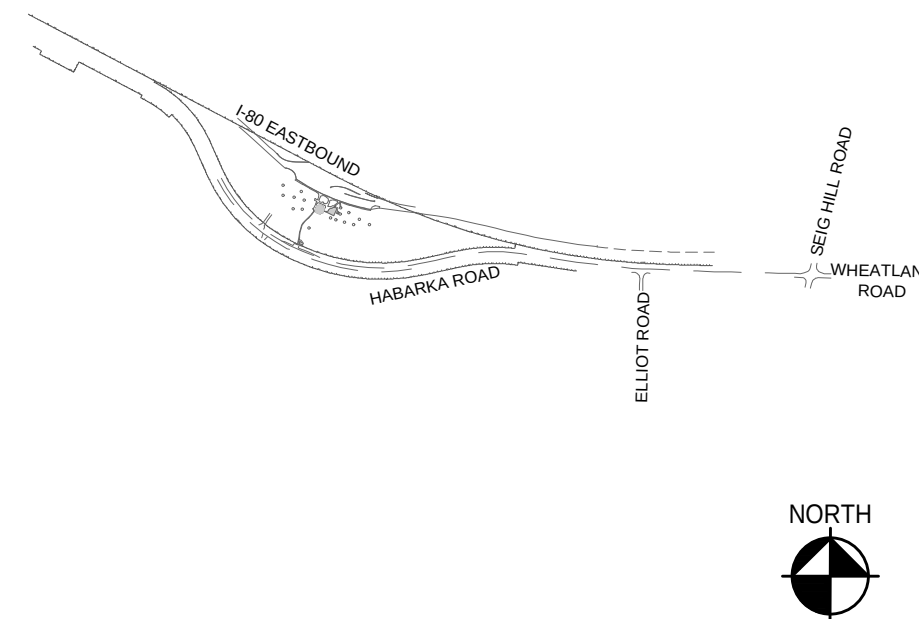


3
C-11
WATER LINE PROFILE
1" = 10'

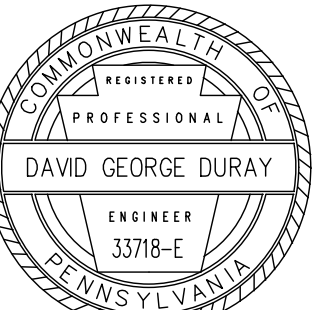


4
C-11
WATER LINE PROFILE
1" = 10'

CAMPUS / KEY PLAN



RECORD REVISIONS



David George Duray
Signature Date

CL ENGINEERING
232 Horner Street
Johnstown, PA 15902
PH: (814) 536-5551 FAX: (814) 536-5732
C.E. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS C-0251-0098 Phase 001**

**PennDOT Mercer Welcome Center
Upgrade Facility and
Connect to Municipal Water & Sewer**
SHENANGO TOWNSHIP, MERCER COUNTY, PA

**WATER LINE PROFILES
CIVIL**

VERIFY SCALE

BAR IS ONE (1) INCH LONG
ON ORIGINAL DRAWING:

0 1

IF BAR IS NOT ONE (1) INCH LONG
ADJUST SCALE ACCORDINGLY.

CONTRACTOR SHALL FIELD VERIFY
ALL DIMENSIONS.
VARIANCE FROM CONTRACT
DOCUMENTS NOT PERMITTED
WITHOUT PROFESSIONAL & BUREAU
OF CONSTRUCTION APPROVAL

DRAWN BY
B. JOHNS

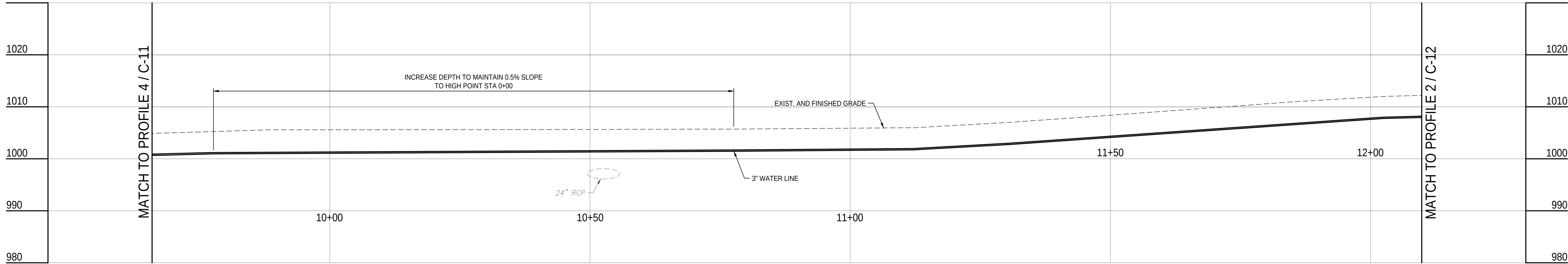
DATE
01/04/23

CHECKED BY
D. DURAY

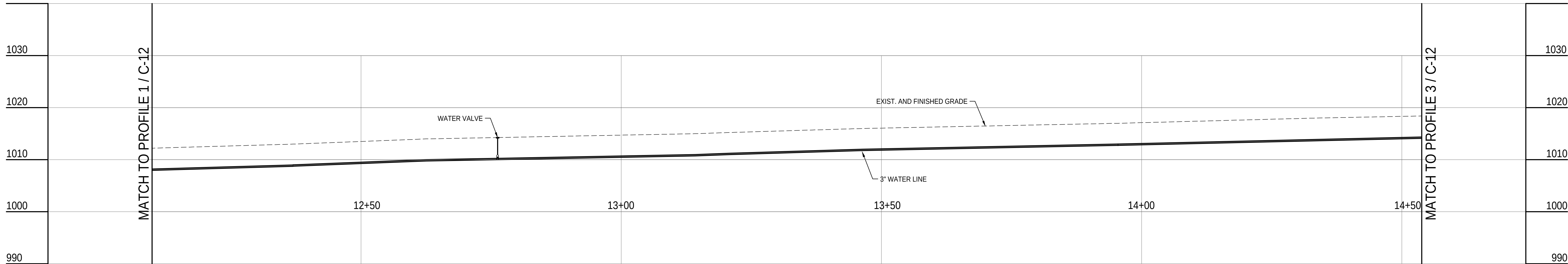
SCALE
1" = 10'

SHEET No.

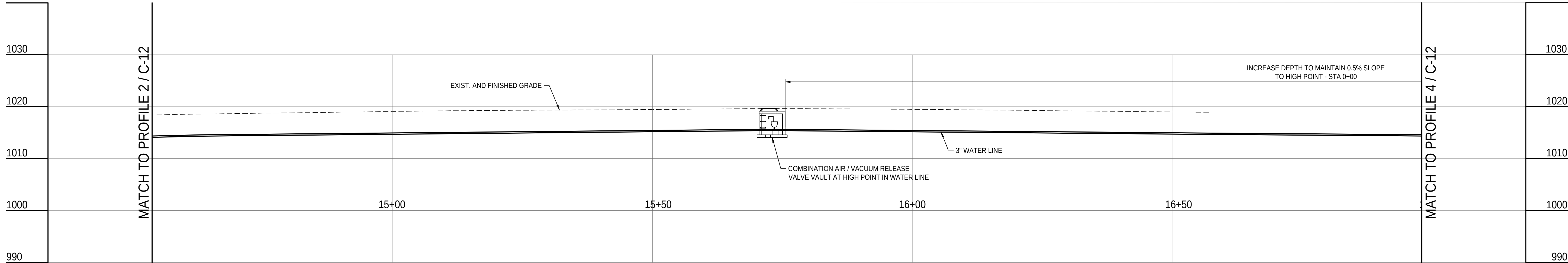
C-11



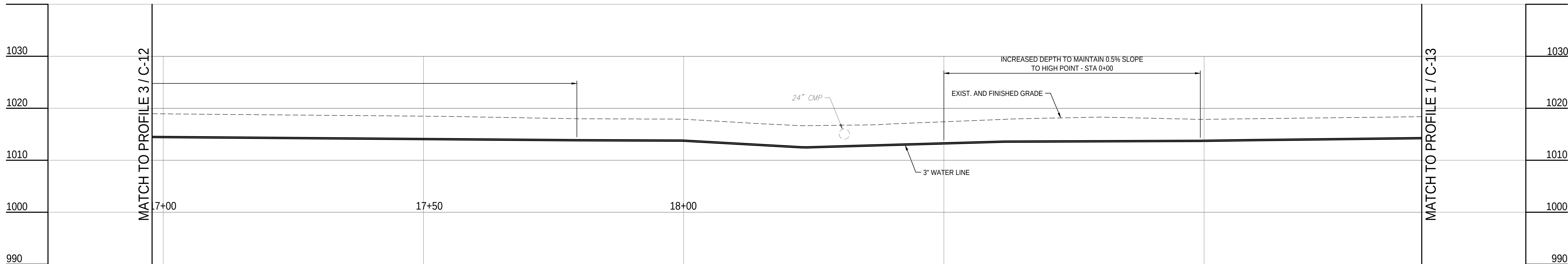
1
C-12
WATER LINE PROFILE
1" = 10'



2
C-12
WATER LINE PROFILE
1" = 10'

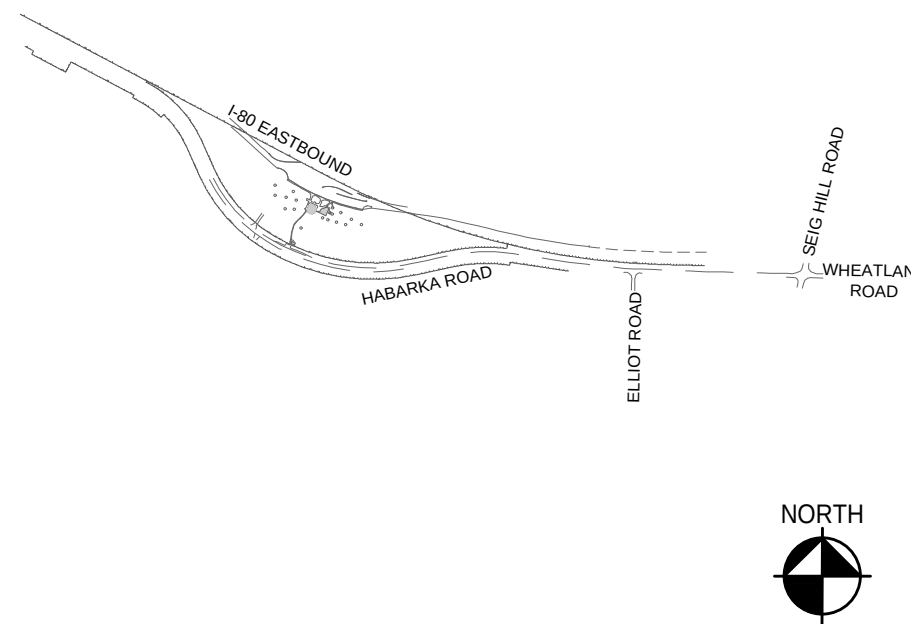


3
C-12
WATER LINE PROFILE
1" = 10'

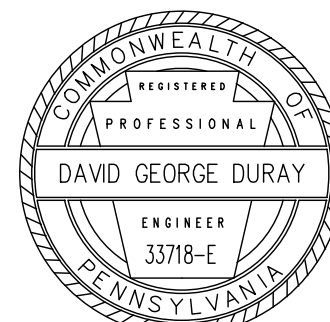


4
C-12
WATER LINE PROFILE
1" = 10'

CAMPUS / KEY PLAN



RECORD REVISIONS



Signature: *David George Duray* Date: 01-04-23

CJL ENGINEERING
232 Horner Street
Johnstown, PA 15902
PH: (814) 536-1851 FAX: (814) 536-5732
C.J. Project #19-0004

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

D.G.S. PROJECT No. **DGS C-0251-0098 Phase 001**

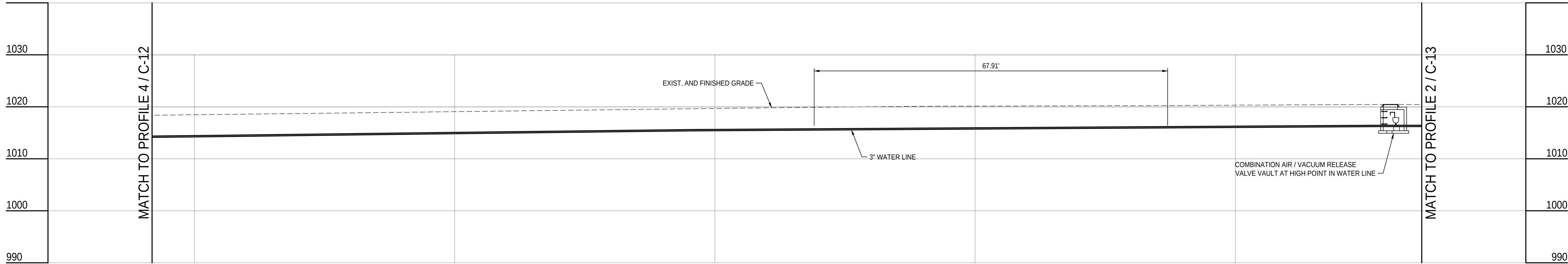
**PennDOT Mercer Welcome Center
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SHENANGO TOWNSHIP, MERCER COUNTY, PA**

**WATER LINE PROFILES
CIVIL**

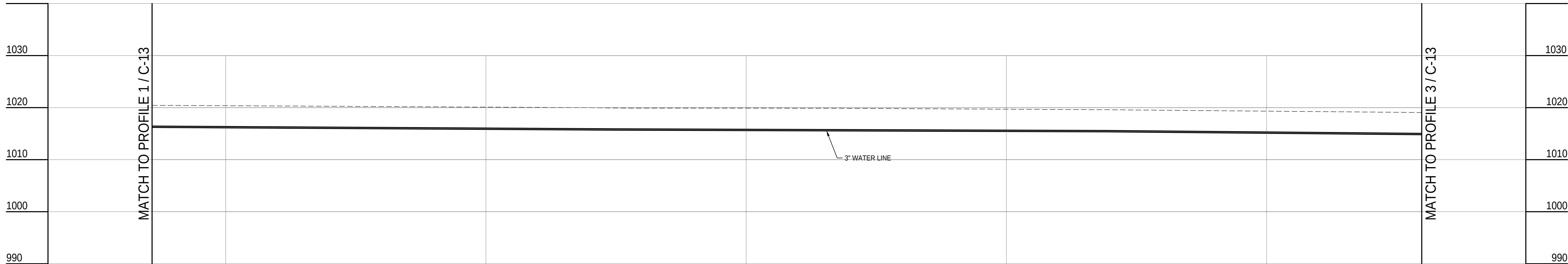
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DRAWN BY B. JOHNS	DATE 01/04/23
CHECKED BY D. DURAY	SCALE 1" = 10'

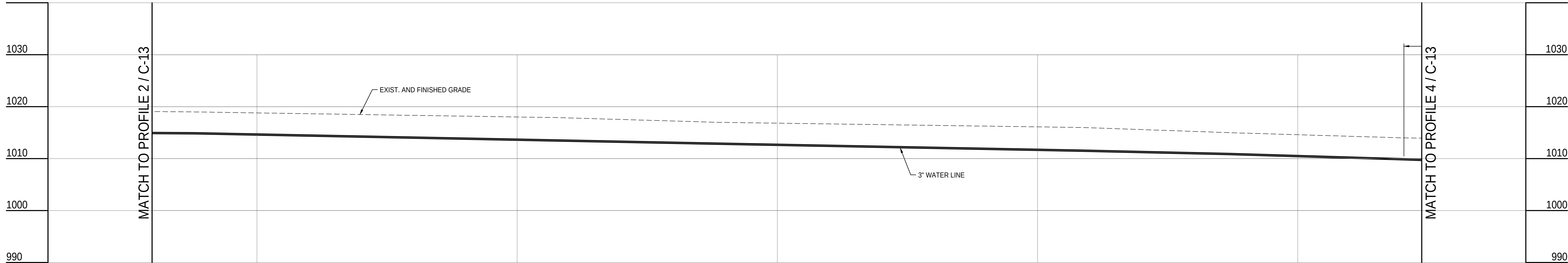
SHEET No. C-12



1
C-13
WATER LINE PROFILE
1" = 10'



2
C-13
WATER LINE PROFILE
1" = 10'



3
C-13
WATER LINE PROFILE
1" = 10'



4
C-13
WATER LINE PROFILE
1" = 10'

CAMPUS / KEY PLAN

Signature: *David George Duray*

DATE: 01-04-23

COMMONWEALTH OF PENNSYLVANIA
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SHENANGO TOWNSHIP, MERCER COUNTY, PA

WATER LINE PROFILES
CIVIL

DRAWN BY B. JOHNS	DATE 01/04/23	SHEET No. C-13
CHECKED BY D. DURAY	SCALE 1" = 10'	

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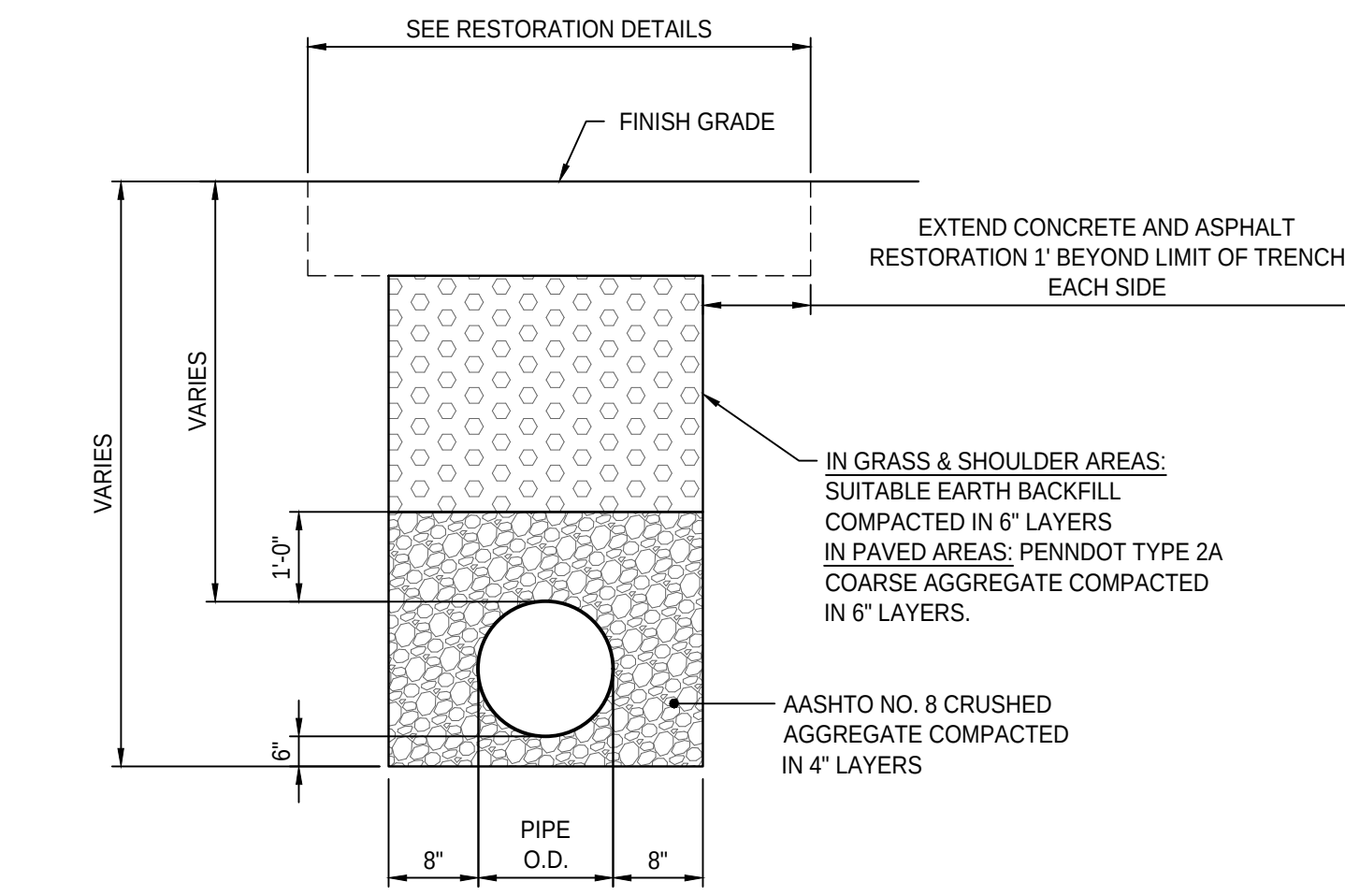
DRAWN BY
B. JOHNS

DATE
01/04/23

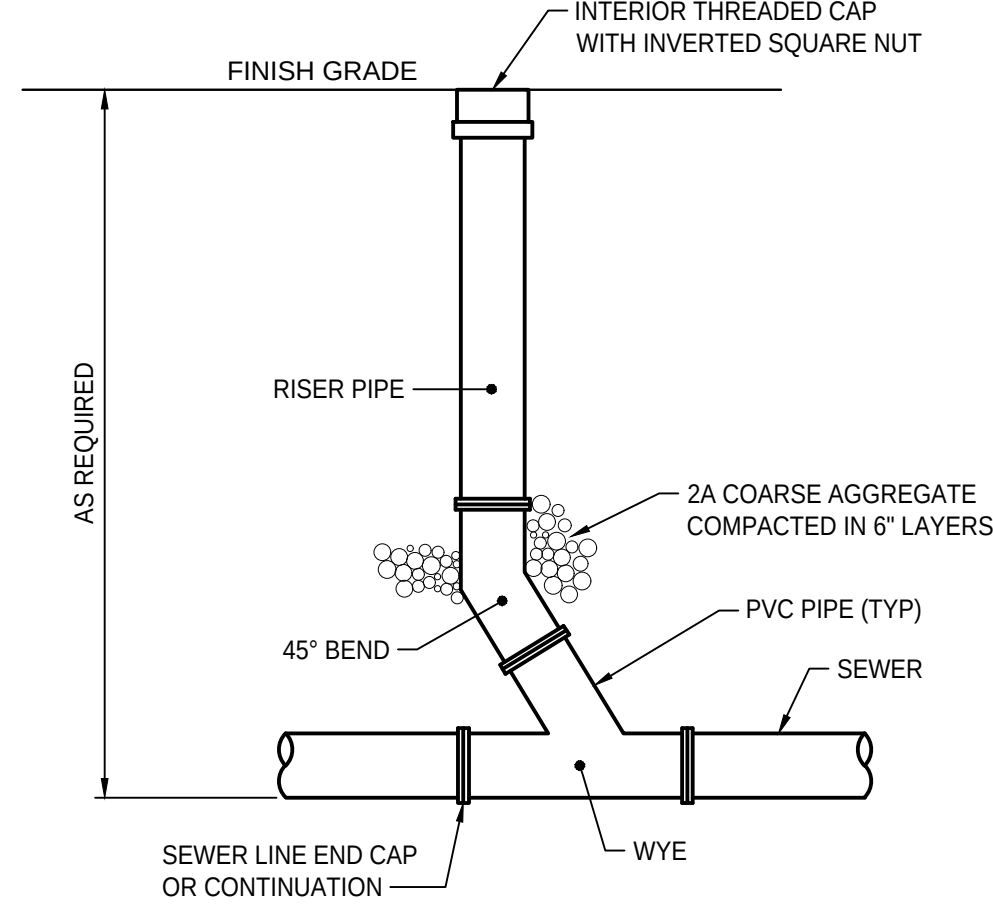
CHECKED BY
D. DURAY

SCALE
1" = 10'

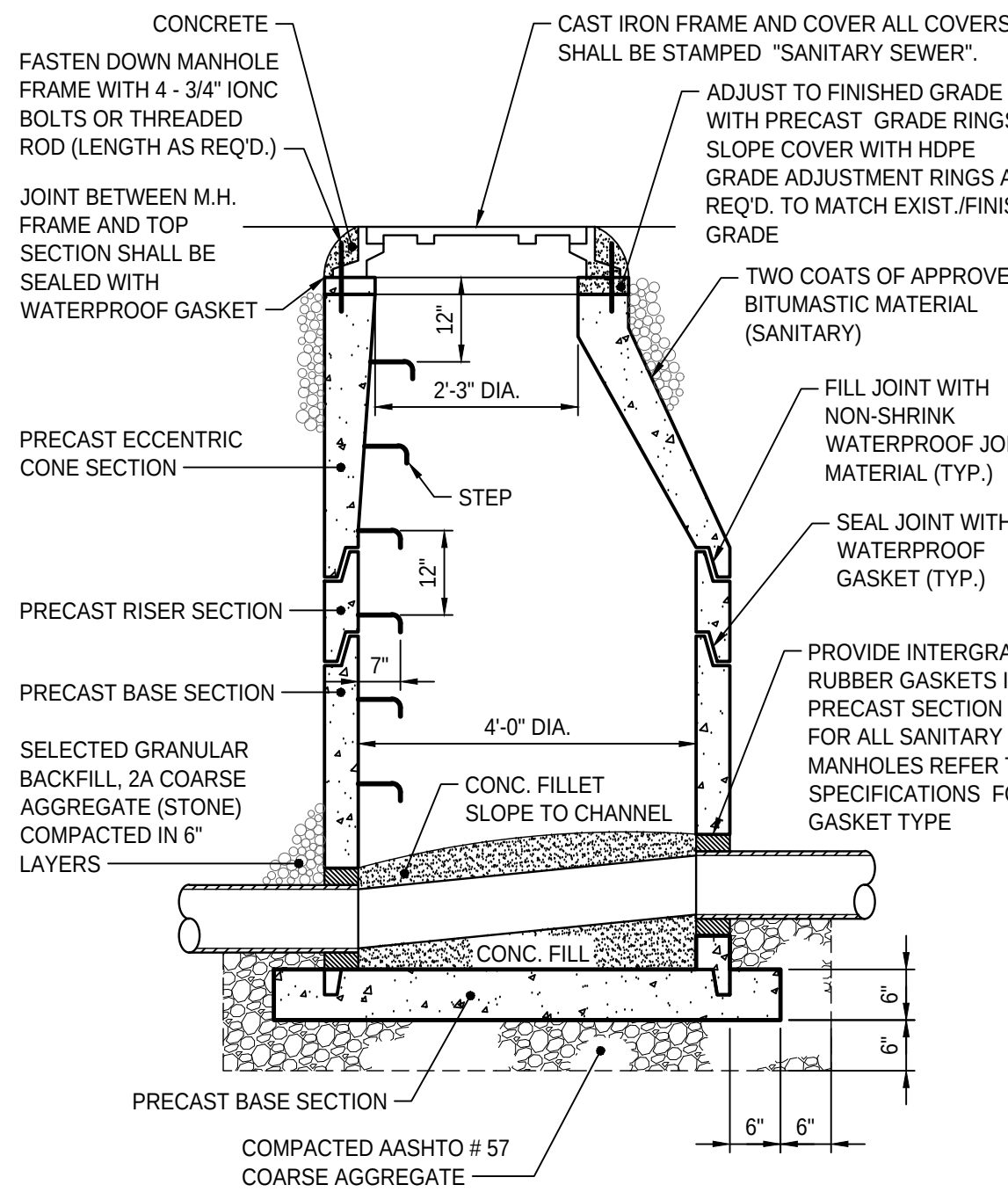
SHEET No.
C-13



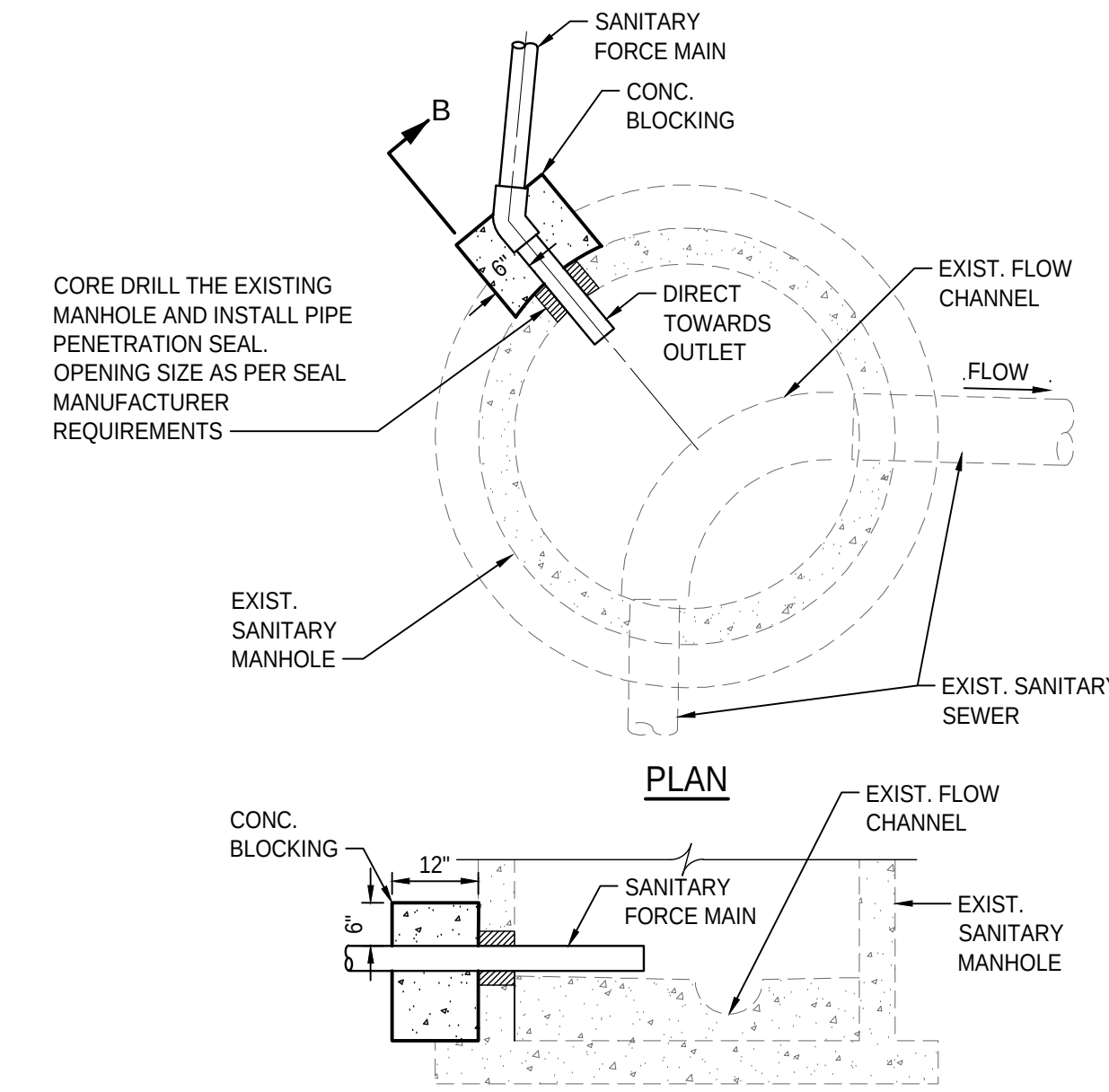
1 SANITARY SEWER TRENCH
C-14 NO SCALE



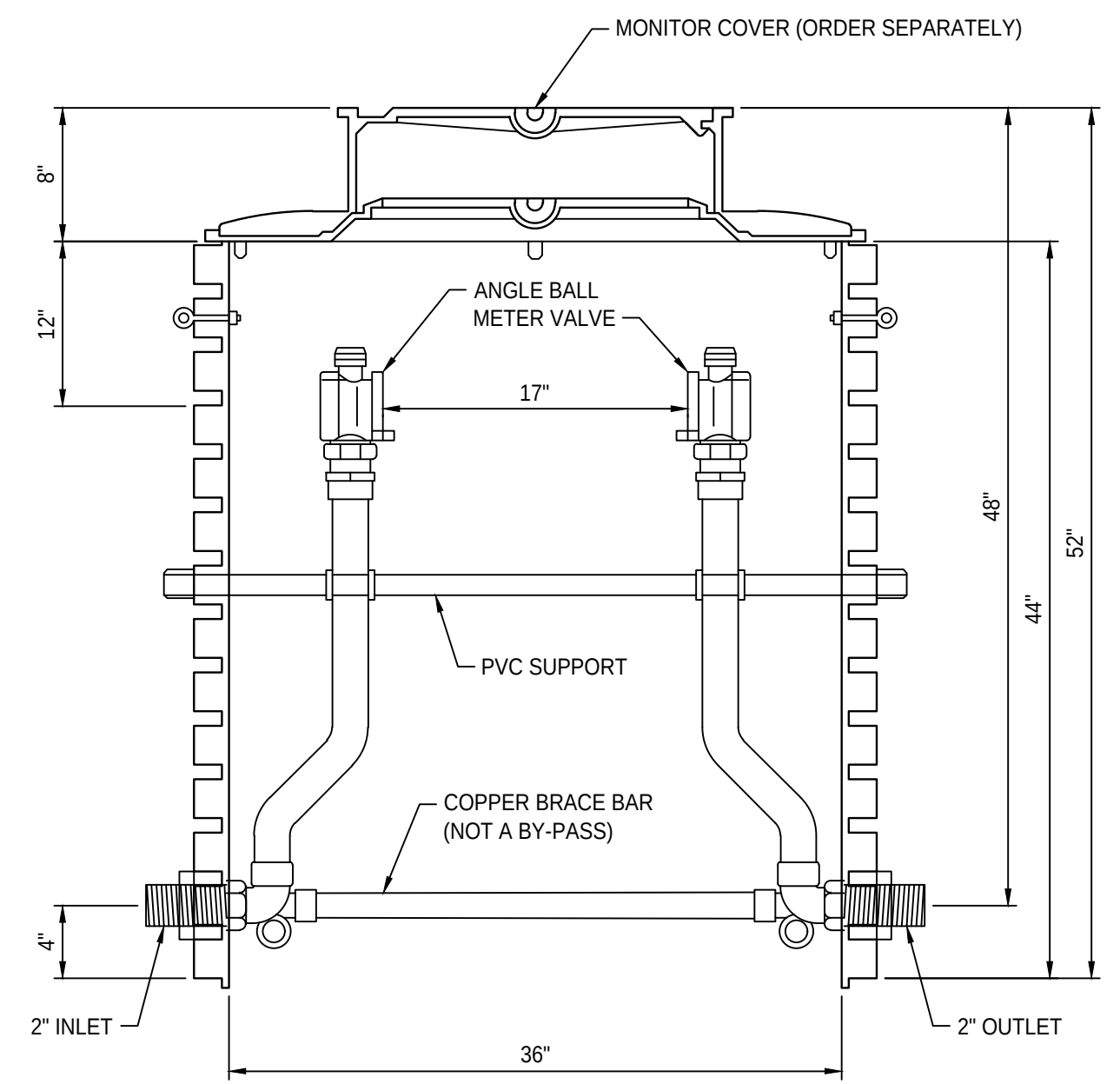
5 CLEANOUT IN GRASS AREA
C-14 NO SCALE



8 SANITARY SEWER MANHOLE
C-14 NO SCALE

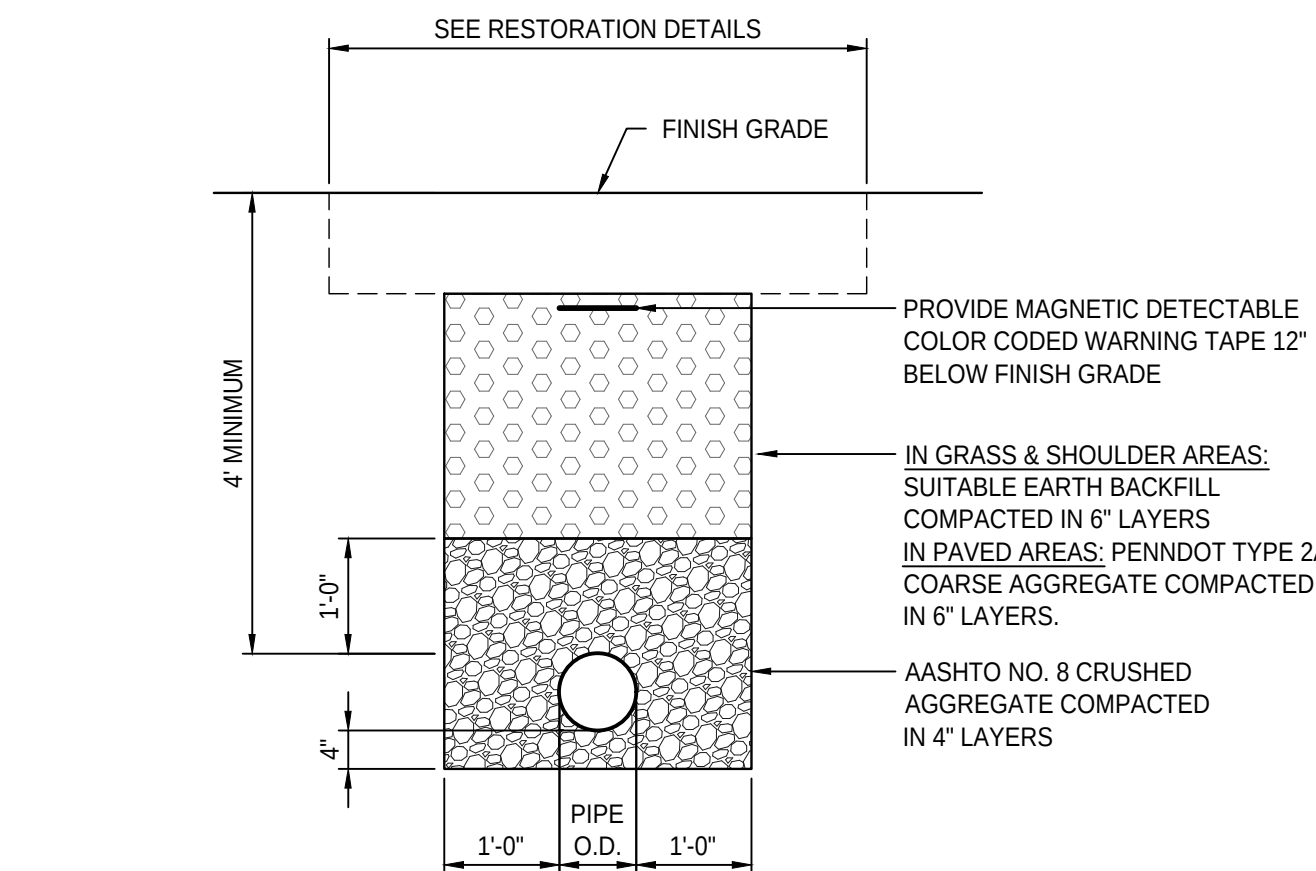


11 FORCE MAIN DISCHARGE
C-14 NO SCALE



WATER METER VAULT NOTES:
1. WATER METER VAULT SHALL BE PLASTIC FITSETTER, MODEL PDBHH-788-36HB-48-NL, MANUFACTURED BY THE FORD METER BOX COMPANY, INC.

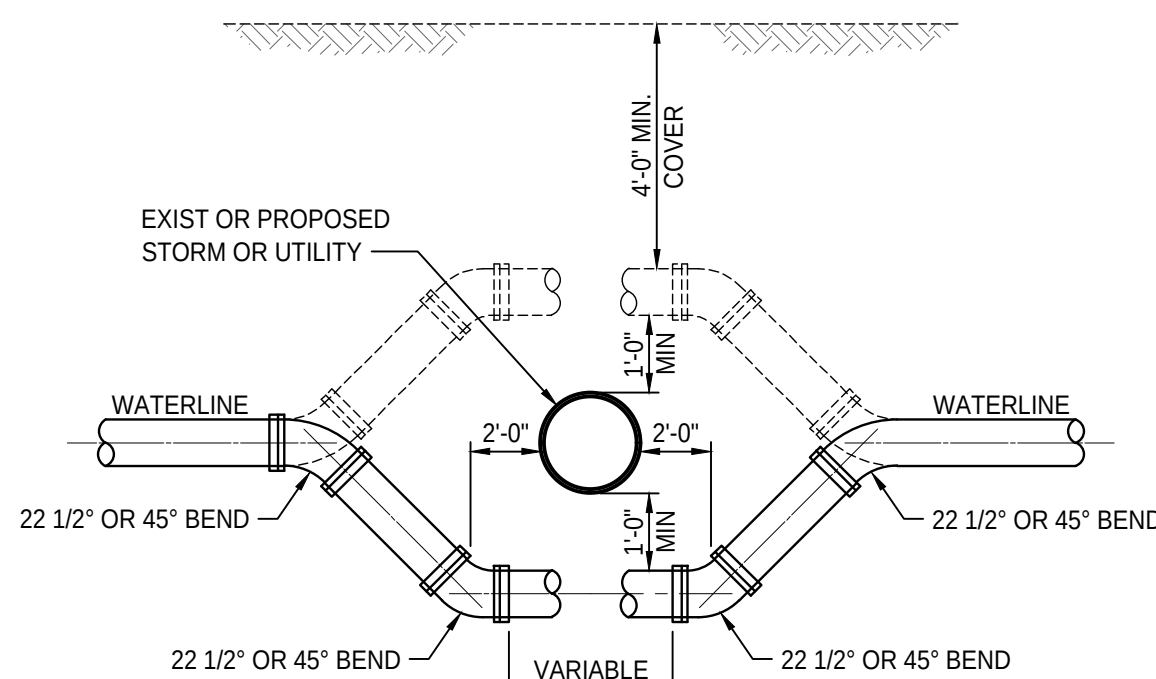
14 WATER METER VAULT
C-14 NO SCALE



WATER LINE TRENCH NOTES:

1. MAINTAIN 10" OF HORIZONTAL DISTANCE BETWEEN THE WATER LINE AND THE SANITARY SEWER. MAINTAIN 1.5' OF VERTICAL SEPARATION BETWEEN THE TOP OF THE SANITARY SEWER AND THE BOTTOM OF THE WATER LINE.

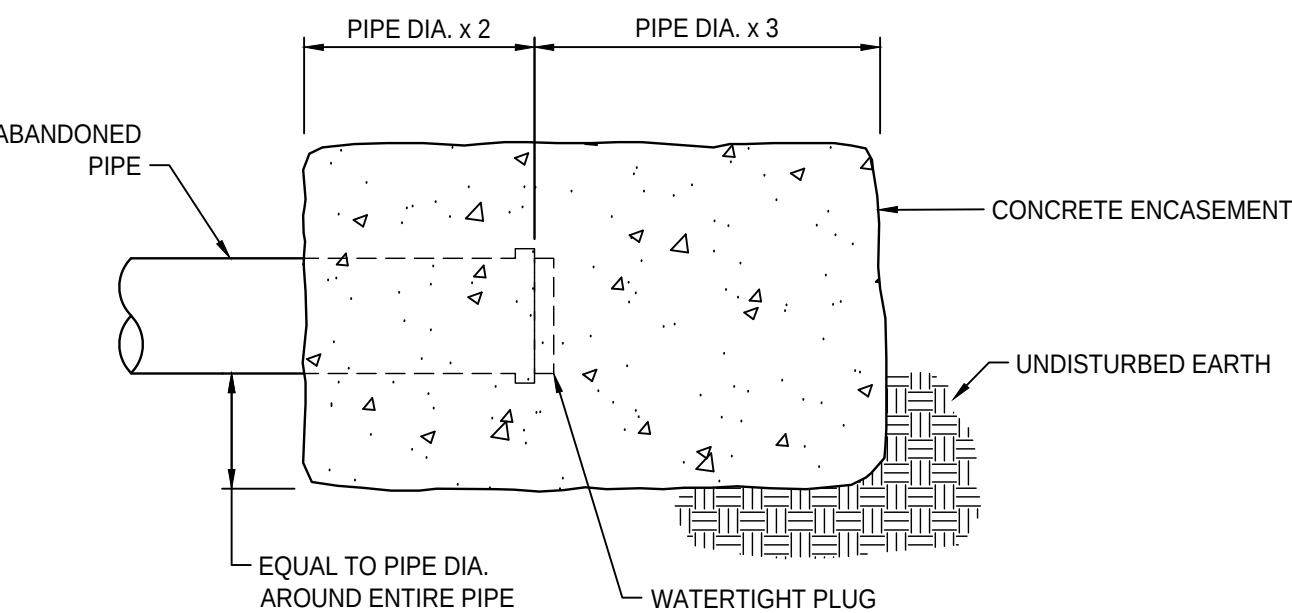
2 WATER LINE TRENCH
C-14 NO SCALE



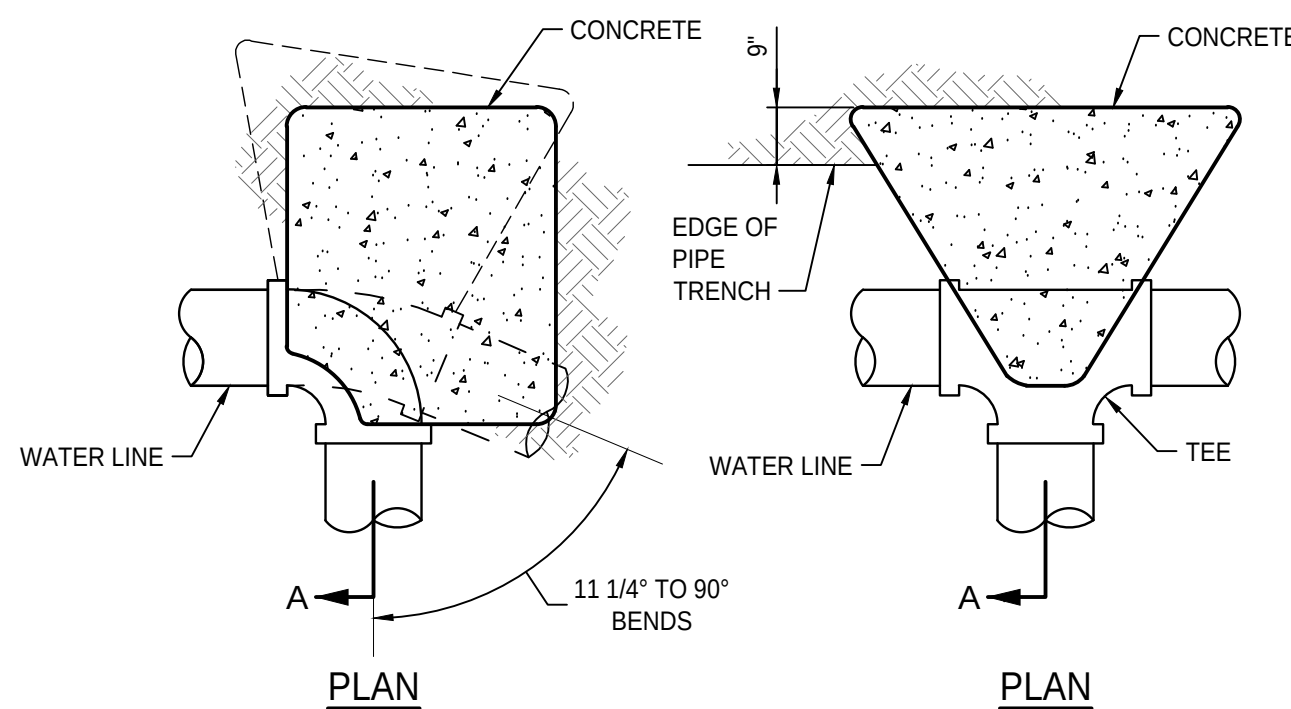
WATER LINE OFFSET NOTES:

1. ALL JOINTS SHALL BE RESTRAINED.
2. ALL FASTENERS SHALL BE STAINLESS STEEL.

6 WATER LINE OFFSET
C-14 NO SCALE

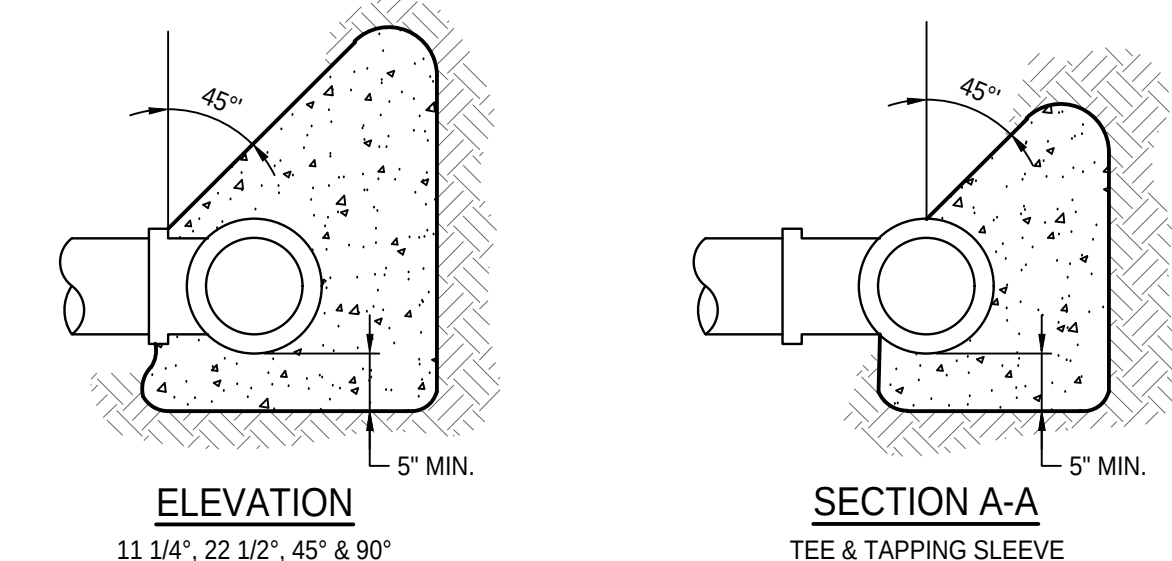


3 SANITARY SEWER PLUG
C-14 NO SCALE



PLAN

PLAN



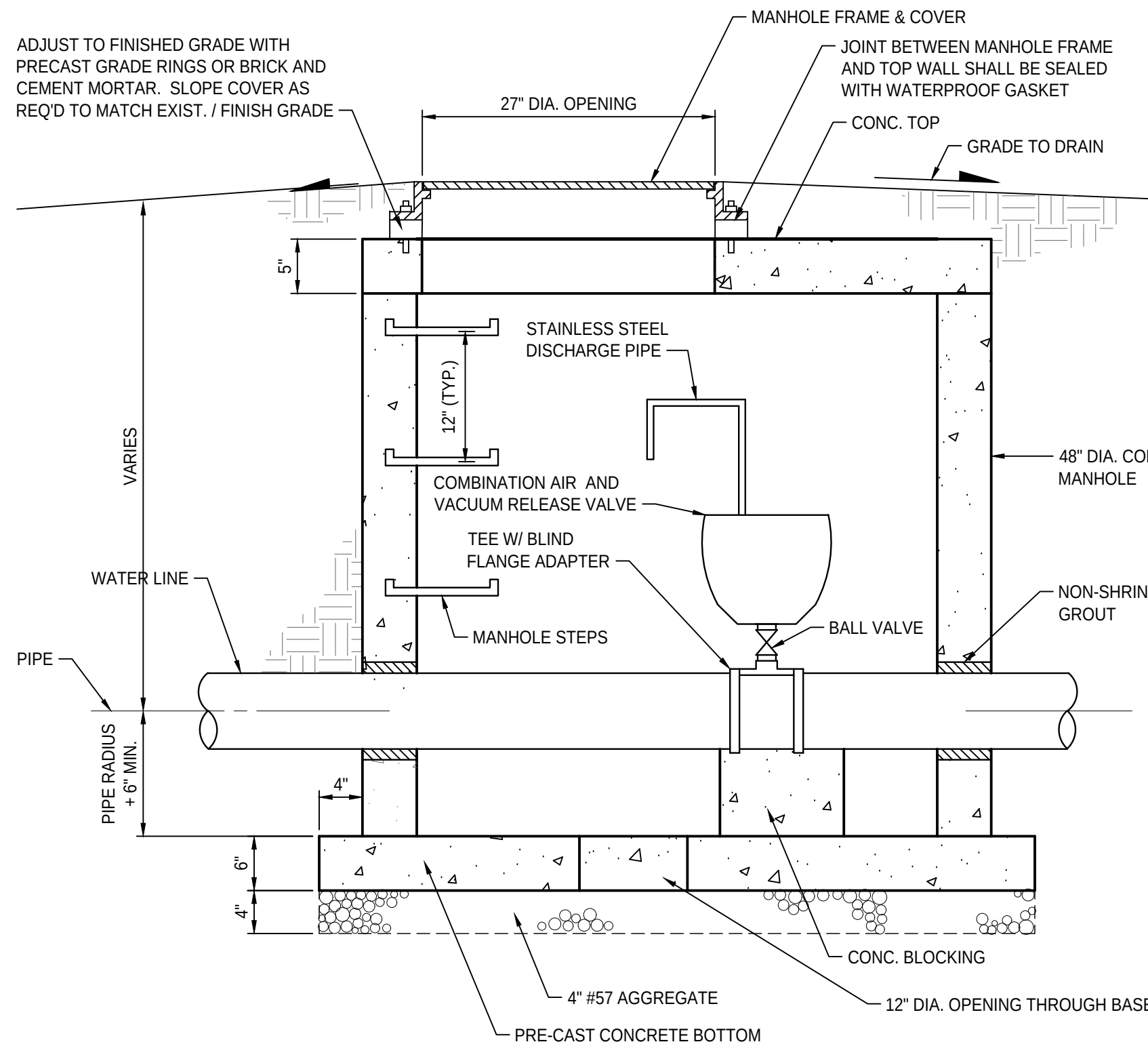
ELEVATION

SECTION A-A

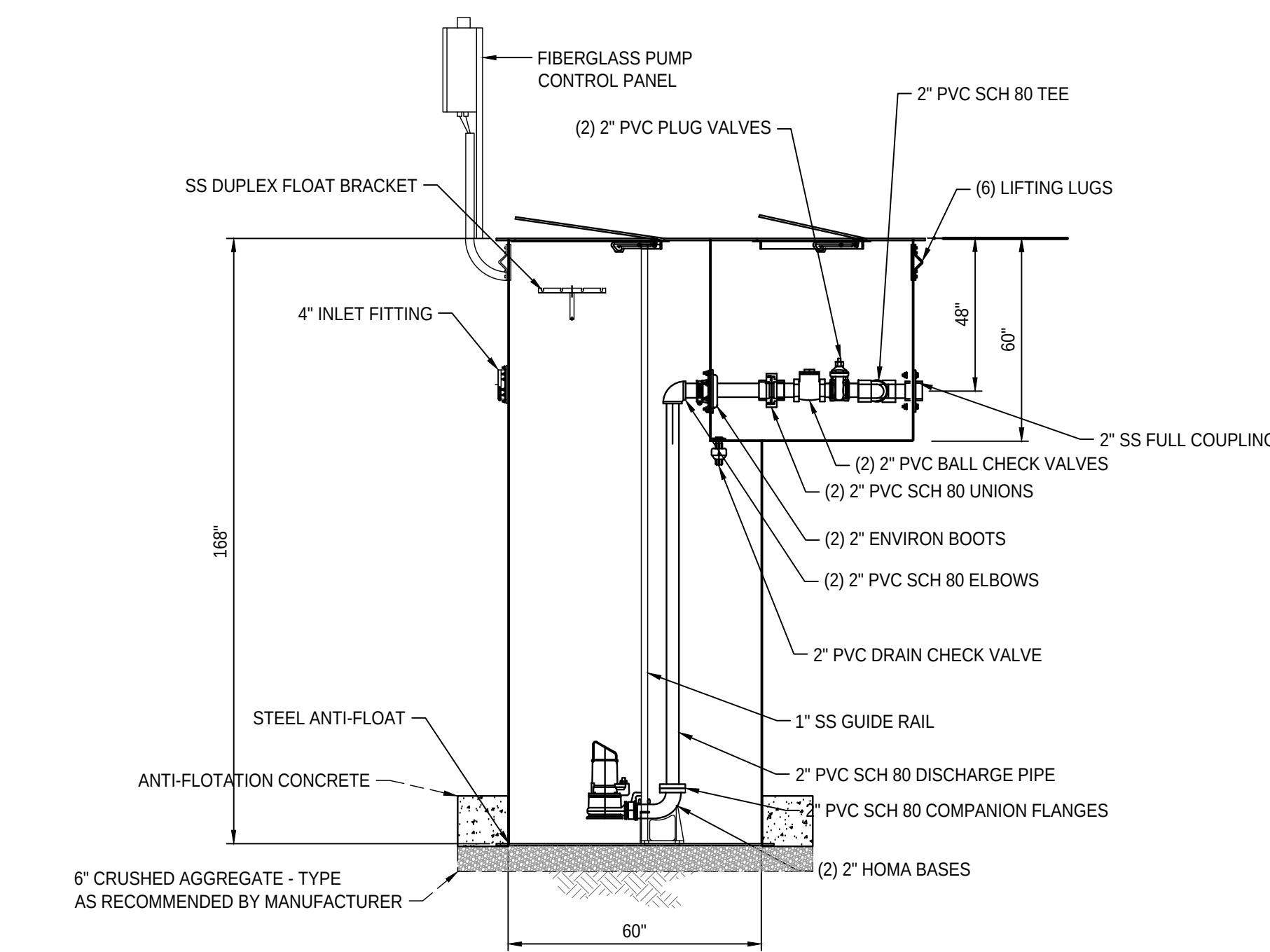
THRUST BLOCKING AT 100 PSI WORKING PRESSURE					
MIN. BEARING SURFACE REQUIRED - S.F.					
PIPE SIZE INCHES	11 1/4" BEND	22 1/2" BEND	45° BEND	90° BEND	TEES/PLUGS
<4	1.0	1.0	1.0	1.0	1.0
6	1.5	1.5	1.5	3.0	2.0
8	2.5	2.5	2.5	4.5	3.5
10	4.0	4.0	4.0	8.0	5.5
12	6.0	6.0	6.0	11.0	8.0

THE ABOVE VALUES ARE BASED ON A SOIL BEARING CAPACITY OF 2000 PSF. FIELD CONDITIONS SUBSTANTIALLY DIFFERENT SHOULD BE REPORTED TO THE ARCHITECT. THRUST BLOCK CONCRETE SHALL NOT ENCASE THE ACTUAL JOINT OR BOLTS.

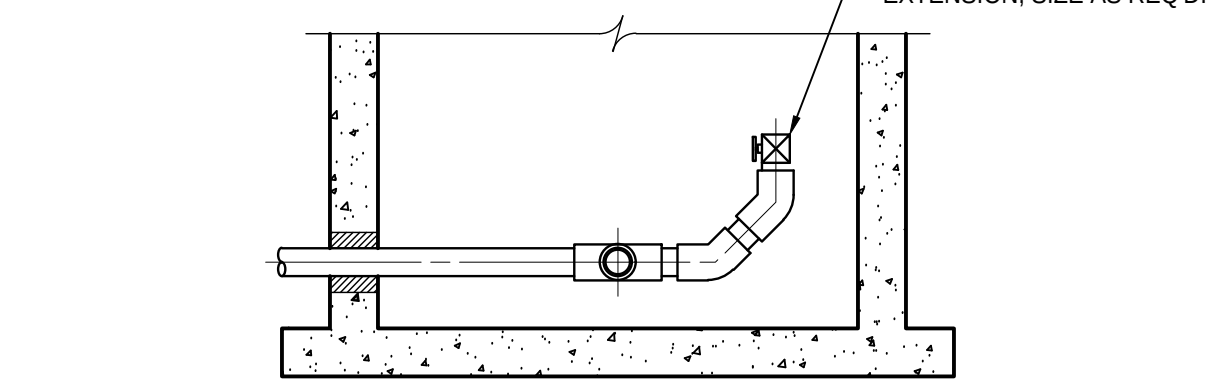
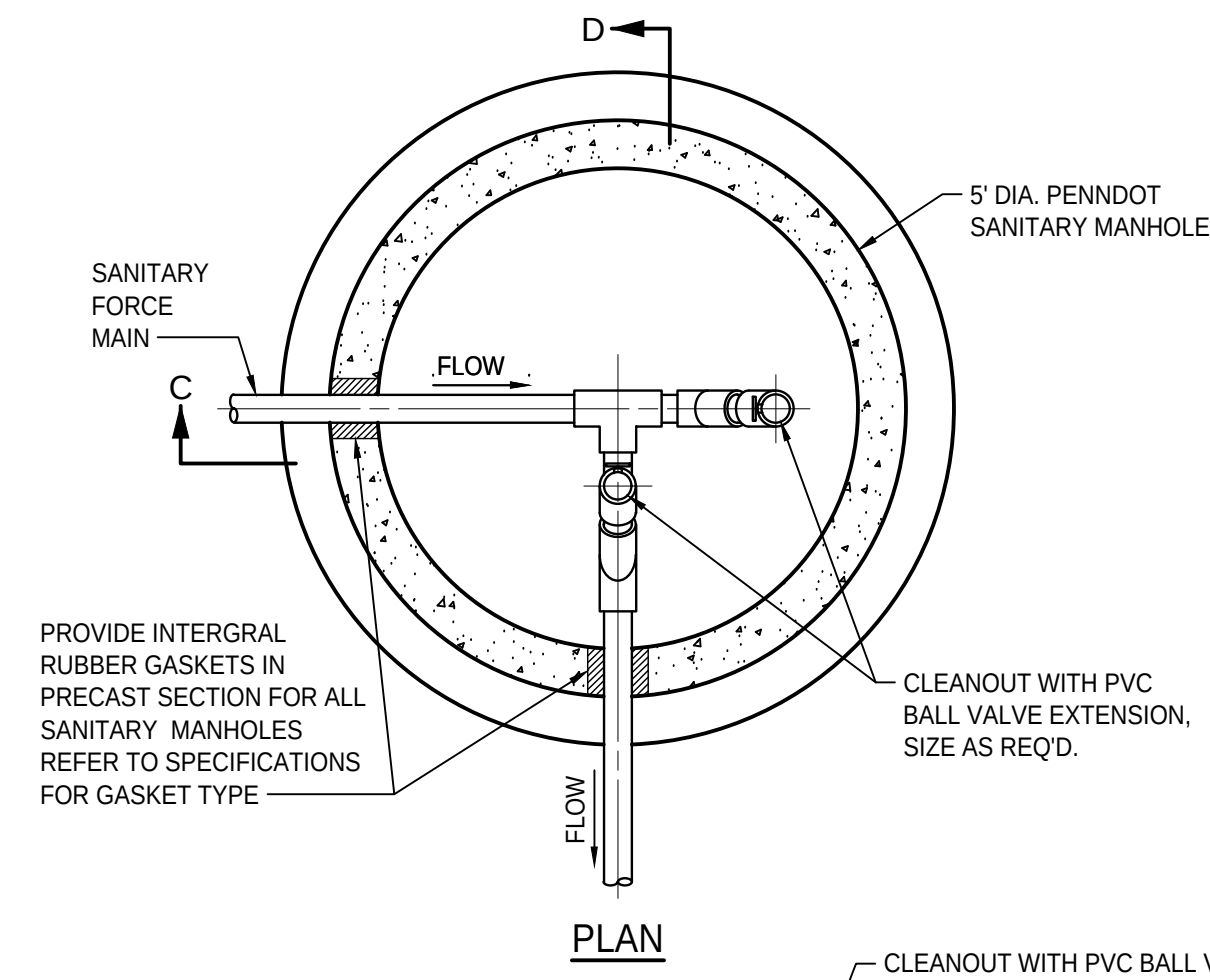
7 THRUST BLOCKING
C-14 NO SCALE



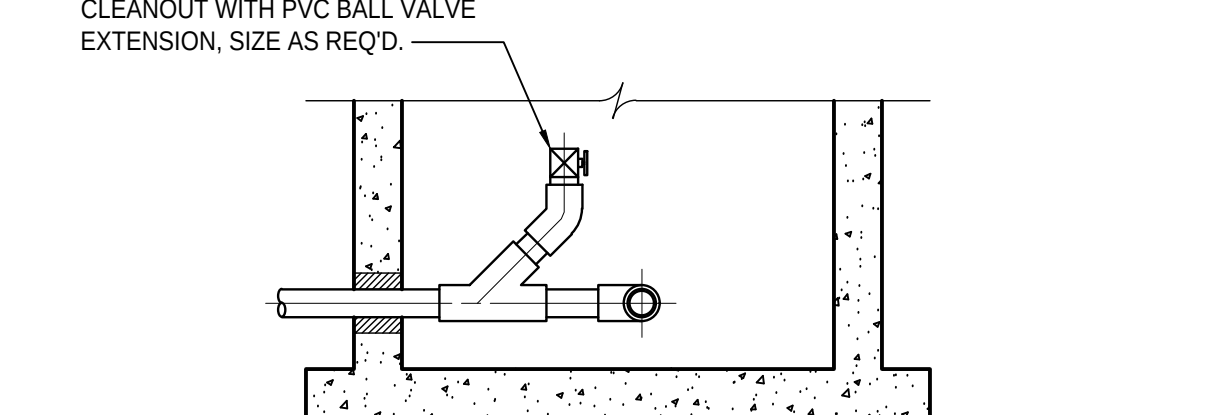
9 COMBINATION AIR / VACUUM RELEASE VALVE VAULT
C-14 NO SCALE



10 PUMP STATION
C-14 NO SCALE



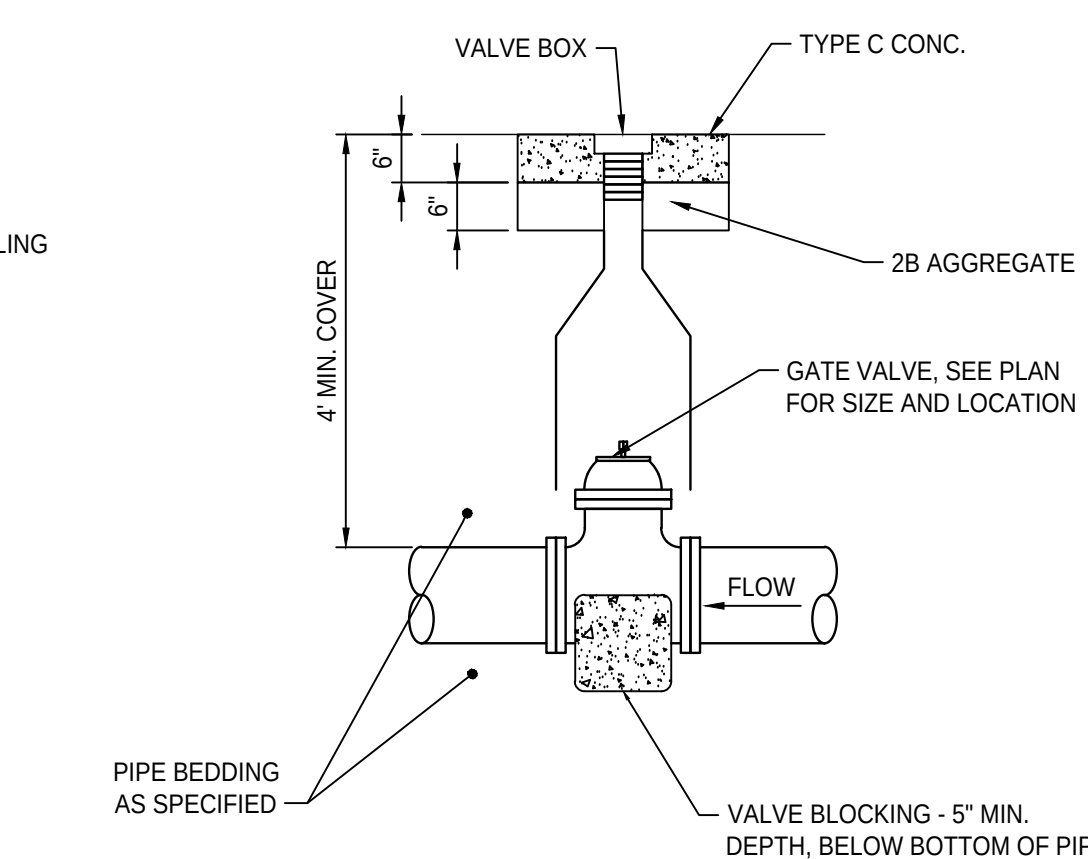
SECTION C-C



SECTION D-D

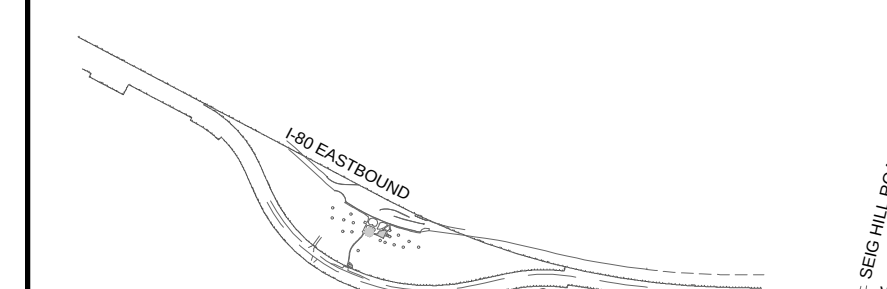
SANITARY FORCE MAIN MANHOLE
1. PROVIDE CONCRETE THRUST BLOCKS OR BENDS IN FORCE MAIN LOCATED WITHIN THE MANHOLES.

12 FORCE MAIN IN SANITARY MANHOLE
C-14 NO SCALE

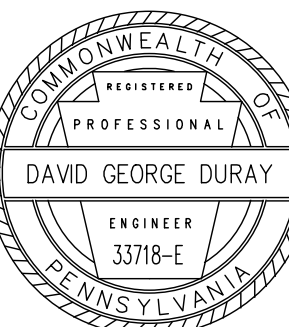


13 GATE VALVE INSTALLATION
C-14 NO SCALE

CAMPUS / KEY PLAN



RECORD REVISIONS



David George Duray
01-04-23
DATE

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CONSTRUCTION DETAILS
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DRAWN BY: B. JOHNS
DATE: 01/04/23
CHECKED BY: D. DURAY
SCALE: AS SHOWN
SHEET No.: **C-14**

