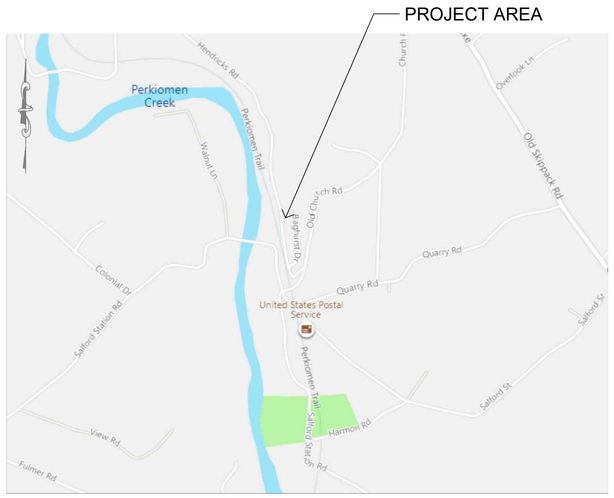
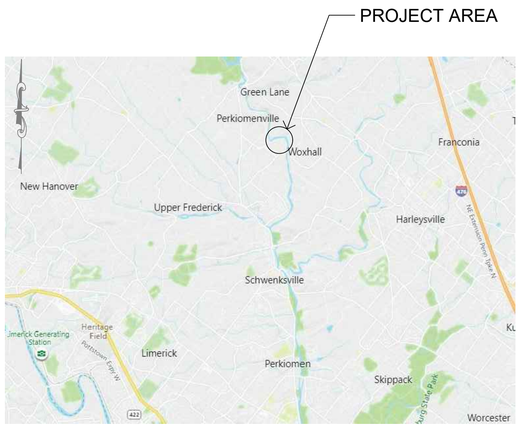
BAGHURST ALLEY SITE
NEW WATER MAIN

UPPER SALFORD TOWNSHIP
MONTGOMERY COUNTY, PA

PHASE 2
PERMITTING SET
JULY 09, 2021



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

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0	7/9/21	PERMIT SUBMISSION	

USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO, PA
BAGHURST ALLEY SITE
NEW WATER MAIN
COVER SHEET

PROJ:	103I903401001
DESN:	EJP
DRWN:	JEC
CHKD:	EJP

C-100

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7/12/2021 12:03:20 PM - S:\03-PROJECTS\FEDERAL\START REGION 3 (VI)\03 - PROJECTS\01 - ACTIVE\01 - REMOVAL-AREA PLANNING\TR01-20-07-001 - BAGHURST DR REMOVAL\FIGURES-GRAPHICS\SHEET FILES\CIVIL\G-1 PHASE 2.DWG - PIAZZA, LIZ

LEGEND

CONCRETE MONUMENT FOUND	
IRON PIN FOUND	IPIPE FD
SITE BENCHMARK	
PROPERTY LINE	
LEGAL RIGHT OF WAY	
EASEMENT LINE	
STREAM	
BUFFERS	
CENTERLINE OF ROAD	
EDGE OF PAVE/DRIVE	
EDGE OF GRAVEL	
FENCE LINE	X X
CONTOURS	202 200
SPOT ELEVATION	200.00
WOOD/BRUSH LINE	
TREES	
SOILS AND TEXT	AbB2
SANITARY SEWER CLEANOUT	
SANITARY SEWER MANHOLE	S
SANITARY SEWER VALVE	SV
STORM SEWER	
M&C TYPE INLETS	
ENDWALL	
STORM SEWER MANHOLE	D
WATER VALVE	WV
WATER SERVICE	
WATER METER	W
WATER MANHOLE	W
WATER WELL	W
MONITORING WELL	BAMW-37
EXISTING WATER SERVICE LINE	W W
EXISTING WATER MAIN	W W

OVERHEAD WIRES	EOH EOH
UNDERGROUND WIRES	
STREET LIGHT	
UTILITY POLE	
UTILITY GUY	
ELECTRIC BOX	T
ELECTRIC METER	E
ELECTRIC MANHOLE	E
TRANSFORMER	T
TV BOX	TV
TELEPHONE BOX	
TELEPHONE MANHOLE	T
FLAG POLE	
BOLLARD	
PERK HOLE	
PIPE CAP	
SIGN1	
SIGN2	
SIGN3	
WETLAND FLAG	
MAILBOX	MB
GUIDERAIL	
PROPOSED EASEMENT LINE	
NEW BOUNDARY CORNER	
NEW WATER MAIN	W W
NEW WATER SERVICE LINE	
NEW LATERAL BALL VALVE AND VALVE BOX	
NEW FIRE HYDRANT	
NEW WATER MAIN GATE VALVE AND VALVE BOX	
BORINGS	B-13

SLANTED TEXT DENOTES EXISTING FEATURE

PURPOSE NOTE:

1. THE PURPOSE OF THIS PLAN SET IT TO PROVIDE THE INFORMATION NEEDED FOR CONSTRUCTION OF A WATERLINE EXTENSION FROM BAVINGTON ROAD TO THE NEW WATER DISTRIBUTION PLANT OFF OF SALFORD STATION ROAD. THIS PLAN INCLUDES PROFILES AND DETAILS FOR THE CONNECTION TO THE EXISTING WATERLINE IN BAVINGTON ROAD, THE INSTALLATION ACROSS THE PERKIOMENT CREEK AND THEN CONNECTION TO THE WATERLINE AT THE DISTRIBUTION PLANT.

GENERAL SURVEY NOTES:

1. BOUNDARY AND TOPOGRAPHY PROVIDED BY BURSICH ASSOCIATES, INC. ON NOVEMBER 15, 2011. THE SOLE PURPOSE OF THESE PLANS IS TO DEPICT THE EXISTING CONDITIONS WITHIN THE BAGHURST ALLEY COMMUNITY. THE BOUNDARY LINES AS SHOWN ARE FROM DEEDS & PLANS OF RECORD AND ARE NOT TO BE CONSTRUCTED AS THE RESULT OF A BOUNDARY SURVEY.

2. VERTICAL DATUM: NAVD88

3. REFERENCE PLANS: "PLAN OF SUBDIVISION MADE FOR J. GORDON BURKE AND DAVID YOUELLS", BY URWILER AND WALTER, DATED AUGUST 14, 1973, LAST REVISED OCTOBER 1, 1973, RECORDED IN PLAN BOOK B-24 PAGE 48.

4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

5. ACT 181 SERIAL No. 20112971852

COMCAST CABLE COMMUNICATIONS INC	CLEAR – NO FACILITIES
NORTH PENN WATER AUTHORITY	CLEAR – NO FACILITIES
PECO ENERGY	CLEAR – NO FACILITIES
VERIZON PENNSYLVANIA	CLEAR – NO FACILITIES

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP-CALL BEFORE YOU DIG!

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Pennsylvania Act 181 (2007) requires notification by excavators, designers, or any person preparing to disturb the earth's surface anywhere in the commonwealth
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GENERAL WATER LINE INSTALLATION NOTES:

1. WATER MAIN INSTALLATION:
   A. WATER MAIN INSTALLED UNDER A CREEK BED, A GAS MAIN OR IN CORROSIVE SOIL WILL REQUIRE EACH SECTION OF WATER MAIN TO BE ENCASED WITH POLYETHYLENE FILM. THE POLYETHYLENE FILM SHOULD BE FITTED WITH MINIMUM SPACE BETWEEN THE FILM AND THE PIPE. OVERLAPS AND ENDS SHOULD BE SECURED WITH ADHESIVE TAPE OR PLASTIC TIE STRAPS.
   B. PIPE STOCKPILED FOR MORE THAN 24 HOURS ON THE JOB SITE WILL HAVE THE BELLS AND SPIGOTS WRAPPED WITH A POLYETHYLENE FILM AND/OR TARP TO PREVENT CONTAMINATION, UNLESS FIELD CONDITIONS DICTATE IMMEDIATE WRAPPING.

2. DUCTILE IRON PIPE AND FITTINGS:
   A. DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI A21.51 (AWWA C151) AMERICAN STANDARD FOR DUCTILE IRON PIPE.
   B. PIPE SHALL BE CLASS 52 THICKNESS IN ACCORDANCE WITH ANSI A21.51 (AWWA C151).
   C. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE CEMENT LINED AND COATED OUTSIDE WITH BITUMINOUS SEAL COAT IN ACCORDANCE WITH ANSI A21.4 (AWWA C104) OR EPOXY COATED.
   D. THE FITTINGS SHALL BE SHORT BODY MECHANICAL JOINT FITTINGS AND SHALL CONFORM TO AWWA 153SSB EXCEPT WHERE DETAILED OTHERWISE ON THE DRAWINGS. ALL MECHANICAL JOINT FITTINGS SHALL BE SECURED WITH MEGA LUGS.
   E. REQUIRED FIELD LOCK USAGE WILL BE DETERMINED BY FIELD INSPECTOR.

3. VALVES AND VALVE BOXES:
   A. ALL GATE VALVES REQUIRED FOR 4" THRU 16" DIAMETER MAIN SHALL BE EITHER OR APPROVED EQUAL:
      – MUELLER #H–615 AND T–2360–16D GATE VALVE MANUFACTURED BY MUELLER CO. DECATUR, ILLINOIS.
      – U.S. PIPE T–9 AND METRO SEAL 250 MANUFACTURED BY U.S. PIPE AND FOUNDRY CO., BIRMINGHAM, AL.
      – KENNEDY KENSEAL III RESILIENT WEDGE VALVE MANUFACTURED BY KENNEDY VALVE, ELMIRA, NY.
      – AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE VALVE MANUFACTURED BY AFC, LATHAM NY.
   B. VALVES SHALL BE MOUNTED VERTICALLY, EXCEPT IF OTHERWISE NOTED ON THE DRAWINGS AND SHALL HAVE MECHANICAL JOINT ENDS.
   C. ALL VALVES SHALL OPEN BY TURNING COUNTERCLOCKWISE AND SHALL HAVE A STANDARD 2" OPERATING NUT.
   D. ALL BURIED VALVES SHALL BE FURNISHED WITH A CAST IRON VALVE BOX. ALL VALVE BOXES SHALL BE EITHER:
      – BUFFALO TYPE–TWO (2) PIECE SCREW TYPE 5–1/4" SHAFT.
      – TYLER SERIES 6850, MANUFACTURED BY TYLER PIPE COMPANY.
   E. VALVE BOXES SHALL BE TWO–PIECE, SCREW TYPE INSTALLED OVER THE BONNET AND OPERATING NUT. VALVE BOXES SHALL BE OF SUFFICIENT LENGTH TO REACH THE SURFACE OF THE GROUND BUT NOT EXTEND ABOVE THE GROUND SURFACE. VALVE NUT EXTENSIONS SHALL BE INSTALLED AS NECESSARY TO INSURE THE VALVE CAN BE TURNED FROM GROUND LEVEL WITH A 6' LONG VALVE NUT KEY WRENCH.
   F. DEVELOPERS AND THEIR CONTRACTORS SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF VALVE BOXES. VALVE BOXES SHALL BE IN A VERTICAL OPERABLE CONDITION. ALL BROKEN, BURIED OR FILLED VALVE BOXES WILL BE DUG OUT AND REPAIRED AT THEIR EXPENSE.

4. FIRE HYDRANTS
   A. ALL FIRE HYDRANTS SHALL BE EITHER
      – MUELLER CENTURION 5¼–INCH AWWA TYPE FIRE HYDRANT MANUFACTURED BY MUELLER CO, DECATUR, ILLINOIS.
      – KENNEDY K–810, 5¼–INCH AWWA TYPE FIRE HYDRANT MANUFACTURED BY KENNEDY VALVE, ELMIRA, NEW YORK.
   B. ALL FIRE HYDRANTS SHALL HAVE:
      – 8–INCH MECHANICAL JOINT INLET CONNECTION
      – ONE (1) 4½–INCH STEAMER NOZZLE
      – TWO (2) 2½–INCH HOSE NOZZLE
      – OPEN LEFT HYDRANT OPERATING & NOZZLE CAP NUTS; FIRE HYDRANT STEAMER AND HOSE THREADS TO BE NATIONAL STANDARD OR NORTH PENN THREADS AS NOTED ON DRAWING.
   C. NON–METERED WATER FROM HYDRANTS MAY NOT BE USED FOR ANY PURPOSE BY THE DEVELOPER OR THE CONTRACTOR. METERS MAY BE OBTAINED BY CONTACTED NPWA'S CUSTOMER SERVICE DEPARTMENT BETWEEN APRIL 1ST AND NOVEMBER 1ST. UNAUTHORIZED USE OF WATER FROM HYDRANTS IS SUBJECT TO CRIMINAL CHARGES.

5. CHLORINE DOSAGES:
   65% TABLETS

DIAMETER OF PIPE IN INCHES	2	3	4	6	8	10	12	16
NO. OF 65% $Ca(OCl)_2$ TABLETS/PIPE	1	1	1	1	2	3	4	6

   A. TABLETS WILL BE ATTACHED WITH A FDA APPROVED FOOD GRADE ADHESIVE (POLY GRIP) IN EACH PIECE OF PIPE INSTALLED
   B. CALCIUM HYPO CHLORITE CONFORMING TO NSI/AWWA B300 IS AVAILABLE IN 5–g TABLETS, AND CONTAINS APPROX. 65 PERCENT CHLORINE BY WEIGHT.

6. TRAFFIC CONTROL:
   A. TRAFFIC CONTROL ON ALL STATE, TOWNSHIP AND BOROUGH ROADWAYS WILL BE IN ACCORDANCE WITH PENNDOT SPECIFICATIONS; PUBLICATION 203, FIG. 10A & 10B.
   B. ROADWAY RIGHT OF WAY RESTORATION WILL BE IN ACCORDANCE WITH TOWNSHIP AND BOROUGH SPECIFICATION ON LOCAL MUNICIPALLY MAINTAINED ROADWAYS.

7. TAPS:
   A. ALL SERVICE TRENCHES ARE REQUIRED TO HAVE 2A MODIFIED STONE BACKFILL.
   B. ALL TAPS ARE INSTALLED BY CONTRACTOR.
   C. SERVICES WILL BE INSTALLED AT THE LOCATION DETERMINED BY DEVELOPER.
   D. SERVICE TAPS WILL BE INSTALLED ONLY WHEN THE FOLLOWING REQUIREMENTS ARE MET:
      A. A PRESSURE TEST WITH A MINIMUM PRESSURE OF 150 PSI FOR FOUR (4) HOURS WITHOUT LEAKS, CONDUCTED BY THE CONTRACTOR AND WITNESSED BY WESTON.
      B. A BACTERIA TEST IS TAKEN AFTER THE LINES ARE FLUSHED WITH RESIDUAL CHLORINE OF 1.0 PPM OR LESS, CONDUCTED BY WESTON.
   E. CURB BOXES WILL BE MAINTAINED IN A VERTICAL OPERABLE CONDITION. IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR, REPLACE AND RESTORE ALL DAMAGED, DESTROYED OR BURIED CURB BOXES.
   F. ALL BRASS CORPORATIONS & CURB STOPS SHALL BE A COMPRESSION TYPE MEETING THE STANDARD MUELLER #B–25008 & MUELLER #B25209 WITH PRESSURE RATING OF 300 PSI.
   G. CURB BOXES WILL BE TELESCOPING TYPE WITH PENTAGON PLUG IN CENTER OF LID. RISER PIPE WILL BE 1" DIAMETER TO ACCOMMODATE THE STAINLESS STEEL CURB ROD.
   H. SERVICE LINES SHALL BE TYPE "K" COPPER.

8. TAPPING VALVES:
   TAPPING VALVES SHALL BE IN ACCORDANCE WITH AWWA C500, LATEST REVISION. AFFIDAVIT FROM MANUFACTURER REQUIRED CERTIFYING THAT THE VALVES FURNISHED COMPLY WITH ALL APPLICABLE PROVISIONS OF AWWA C500. FLANGED VALVE ENDS – INLET FLANGE SHALL BE CLASS 125 AND THE OUTLET FLANGE SHALL BE MECHANICAL JOINT. COMPANION FLANGES SHALL BE MADE FROM A CORROSION–RESISTANT MATERIAL AND ALL MECHANICAL JOINT BOLTS AND NUTS SHALL BE COR–10. STEM SEAL SHALL BE O–RING TYPE. EPOXY–COATED RESILIENT WEDGE GATE VALVES SHALL BE MUELLER TYPE H–667, H–642, H–541 OR APPROVED EQUAL. ALL VALVES SHALL BE OF DOMESTIC MANUFACTURE.

9. TAPPING SLEEVES:

4" - 24" STAINLESS STEEL TAPPING SLEEVES SPECIFICATION

1. ALL TAPPING SLEEVES SHALL BE THE SPLIT SLEEVE, DROP–IN BOLT DESIGN. ONCE INSERTED THE BOLTS SHALL BE 'CAPTURED' TO PREVENT THEM FROM SPINNING DURING TIGHTENING. THE SLEEVE DESIGN SHALL ALLOW THE BOLTS TO BE REVERSED TO EASE INSTALLATION.
2. THE TAPPING SLEEVE SHELL SHALL BE FULL BODIED AND MANUFACTURED OF 304L STAINLESS STEEL TO MINIMIZE THE POTENTIAL FOR CARBIDE PRECIPITATION CORROSION.
3. THE TAPPING SLEEVE OUTLET SHALL BE AT LEAST 12 GAUGE MATERIAL AND 1/2" OVERSIZED TO ALLOW THE USE OF A FULL SIZE SHELL CUTTER. THE OUTLET SHALL BE PROVIDED WITH A 3/4" NPT TEST PLUG WITH A SQUARE HEAD FOR QUICK AND EASY REMOVAL. THE PLUG SHALL BE COMPOSED OF BRASS.
4. THE TAPPING SLEEVE SHALL HAVE A CLASS 125 OUTLET FLANGE WITH DRILLING AND DIMENSIONS THAT FULLY COMPLY WITH ANSI B16.1 THE OUTLET SHALL ALSO HAVE A MACHINED RECESS TO MATCH THE MACHINED PROJECTIONS ON STANDARD TAPPING VALVES TO ASSURE CORRECT ALIGNMENT IN ACCORDANCE WITH MSS–SP 60. THE FLANGE MATERIAL SHALL BE 304 STAINLESS.
5. ALL 10 INCH AND LARGER SLEEVES SHALL HAVE AN ANTI–EXTRUSION RING WELDED TO EACH END OF THE THE SLEEVE BODY IN ORDER TO PREVENT THE GASKET FROM COLD–FLOWING PAST THE SLEEVE BODY ENDS.
6. THE TAPPING SLEEVE SHALL HAVE A RATED WORKING PRESSURE OF 250 PSIG IN THE SIZES 4" – 12" AND 200 PSIG IN SIZES 14" – 24".
7. THE TAPPING SLEEVE SHALL HAVE A COMPLETE CIRCLE GASKET ON THE INTERIOR OF THE SHELL. THE GASKET SHALL BE COMPOSED OF NBR (NITRILE) VIRGIN RUBBER AND BE OF THE WAFFLE DESIGN. THE SHELL GASKET SHALL BE INTEGRAL AND PROVIDE A COMPLETE 360° SEAL. THE OUTLET GASKET SHALL BE PROVIDED WITH A MINIMUM OF TWO CONCENTRIC RAISED SURFACES TO MAXIMIZE SEALING ON THE PIPE SURFACE.
8. THE TAPPING SLEEVE BOLTS, NUTS, AND WASHERS SHALL BE TYPE 304 STAINLESS STEEL. THE NUTS SHALL BE OF THE HEAVY HEX TYPE. THE BOLTS SHALL BE ROLLED THREAD, DROP–IN STYLE, COATED WITH AN ANTI–GALLING COMPOUND.
9. THE TAPPING SLEEVE SHALL HAVE AN INTEGRAL GAP BRIDGING THAT ELIMINATES SEPERATE GAP BRIDGES AND REDUCES DEFORMATION OF THE BRIDGE UNDER HIGH TORQUES ON SLEEVES UP TO 12". TAPPING SLEEVES IN LARGER SIZES SHALL HAVE GAP BRIDGES.
10. THE TAPPING SLEEVE WELDS SHALL BE PASSIVATED, IN ADDITION TO THE ENTIRE SLEEVE, TO MAINTAIN OPTIMUM CORROSION RESISTANCE, IN ACCORDANCE WITH ASTM A380.
11. THE TAPPING SLEEVES SHALL BE MUELLER H304 OR APPROVED EQUAL.

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BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
NOTES AND LEGEND PLAN

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C-101

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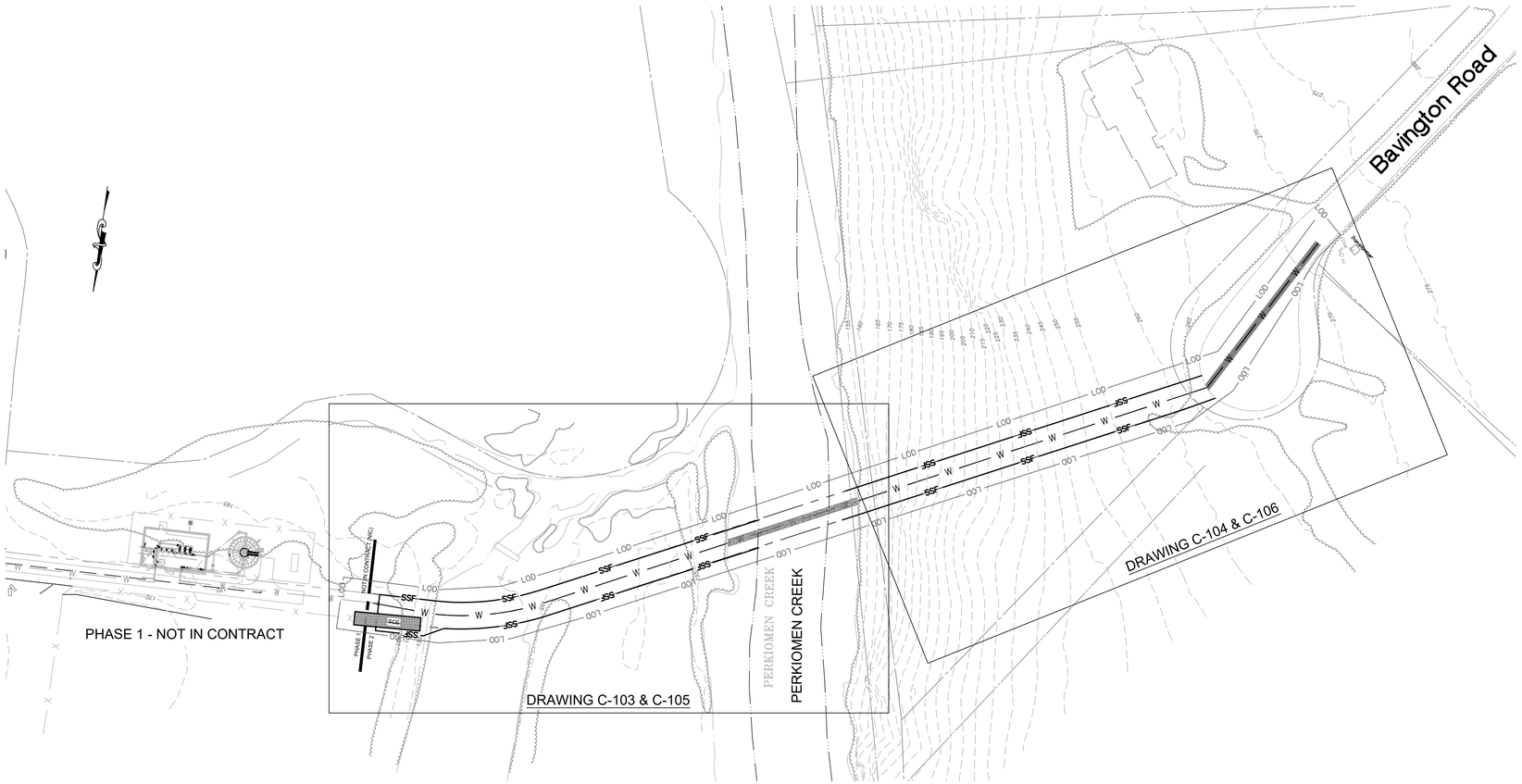
NOTES:
1. FOR LEGEND AND NOTES SEE DRAWING C-101.



100 0 100 200
SCALE: 1"=100'-0"

OVERALL INDEX PLAN
SCALE: 1"=100'-0"

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OVERALL INDEX PLAN

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NOTES:
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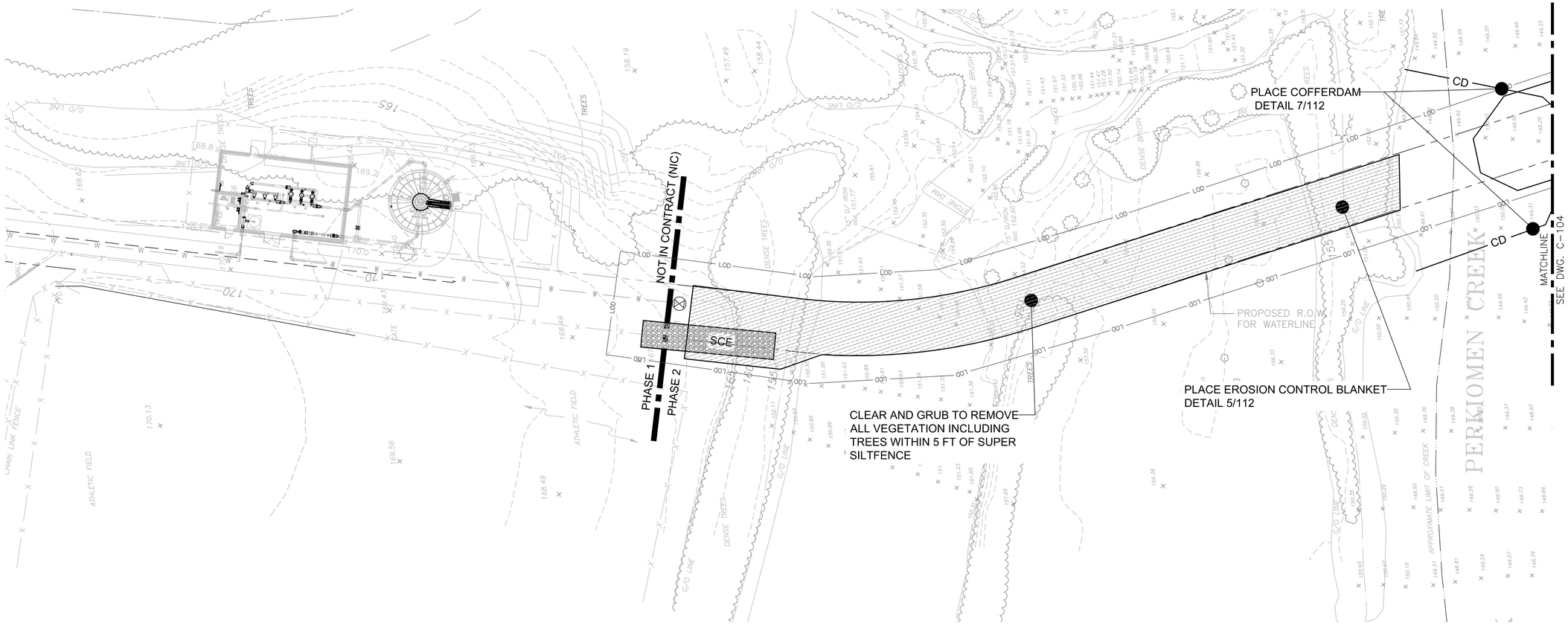
2. FOR WATERLINE ROCK PROFILES SEE DRAWINGS C-107 TO C-109
3. FOR EROSION AND SEDIMENT CONTROL PLANS, NOTES AND DETAILS SEE DRAWINGS C-111 TO C-112



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

PLAN
SCALE: 1"=20'-0"

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EROSION & SEDIMENT CONTROL - DEMOLITION PLAN

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S:\03-Projects\Federal\START Region 3 (VI)\03 - Projects\01 - Active\01 - Removal-Area Planning\T601-20-07-001 - Baghurst DR Removal\Figures-Graphics\SHEET FILES\CIVIL\SitePlan2.dwg, C-103, 7/9/2021 3:10:23 PM

NOTES:
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3. FOR EROSION AND SEDIMENT CONTROL PLANS, NOTES AND DETAILS SEE DRAWINGS C–111 TO C–112

MATCHLINE
SEE DWG: C–103

PERKIOMEN CREEK

BAVINGTON ROAD

PLACE COFFERDAM
DETAIL 7/112

CLEAR AND GRUB TO REMOVE ALL VEGETATION INCLUDING TREES WITHIN 5 FT OF SUPER SILTFENCE

PLACE EROSION CONTROL BLANKET
DETAIL 5/112

PROPOSED INLET PROTECTION
TYPE 2 ON EXISTING CATCH BASIN

Transformer

20 0 20 40
SCALE: 1"=20'–0"

PLAN
SCALE: 1"=20'–0"

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C–104

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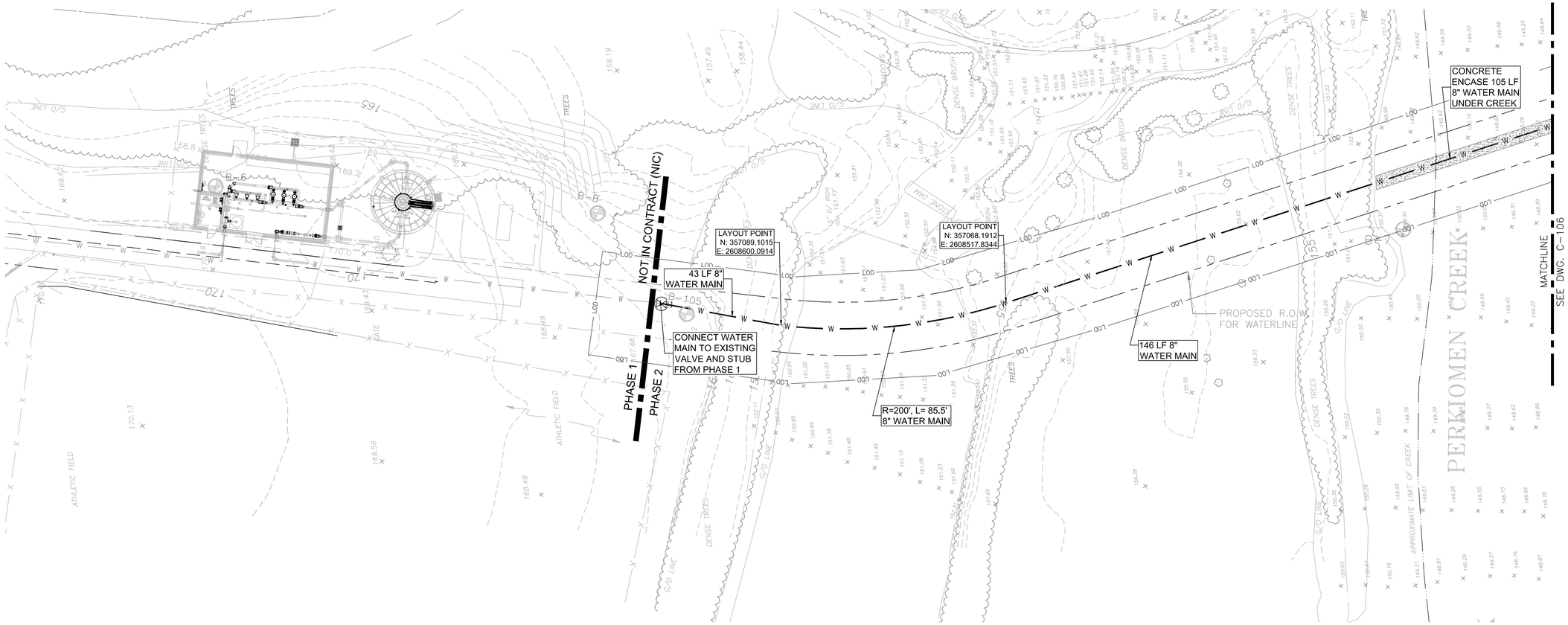

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SCALE: 1"=20'-0"

PLAN
SCALE: 1"=20'-0"

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PHASE 2
WATER LINE PLAN

PROJ:	103I903401001
DESN:	EJP
DRWN:	JEC
CHKD:	EJP

C-105

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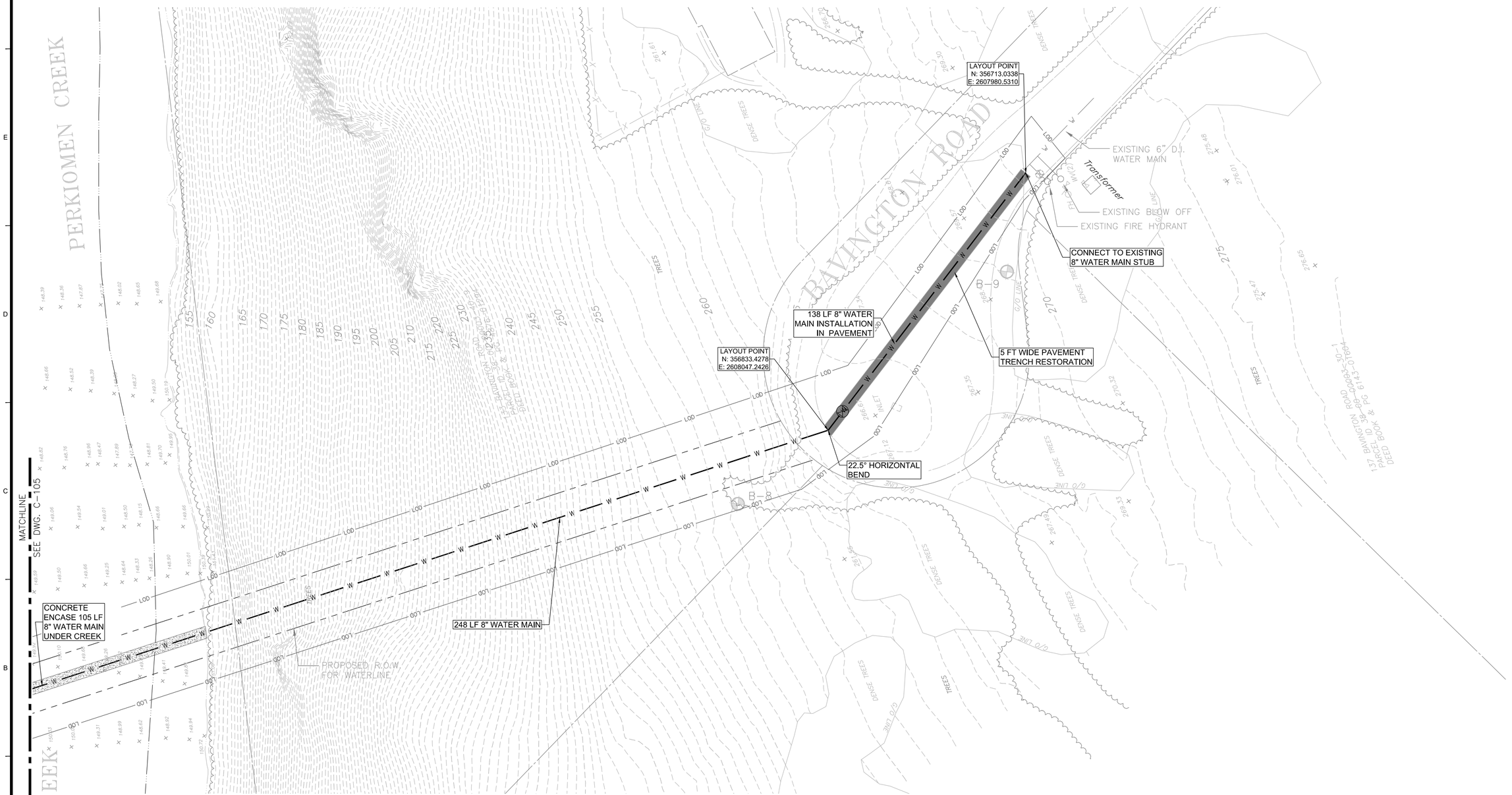
Bar Measures 1 inch, otherwise drawing not to scale

NOTES:
1. FOR LEGEND AND NOTES SEE DRAWING C–101.
2. FOR WATERLINE ROCK PROFILES SEE DRAWINGS C–107 TO C–109
3. FOR EROSION AND SEDIMENT CONTROL PLANS, NOTES AND DETAILS SEE DRAWINGS C–111 TO C–112



PLAN
SCALE: 1"=20'–0"

TETRA TECH
240 CONTINENTAL DRIVE, SUITE 200
NEWARK, DE 19713
PHONE (302) 738-7551 - FAX (302) 454-5988
www.tetratech.com

SUPERFUND TECHNICAL ASSESSMENT & RESPONSE TEAM
TETRA TECH START REGION 3

MARK	DATE	DESCRIPTION	BY
0	4/23/21	90% DESIGN REVIEW SUBMISSION	
0	5/10/21	90% DESIGN REVIEW SUBMISSION	
0	7/9/21	PERMIT SUBMISSION	

USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO, PA
BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
WATER LINE PLAN

PROJ:	103I903401001
DESN:	EJP
DRWN:	JEC
CHKD:	EJP

C–106

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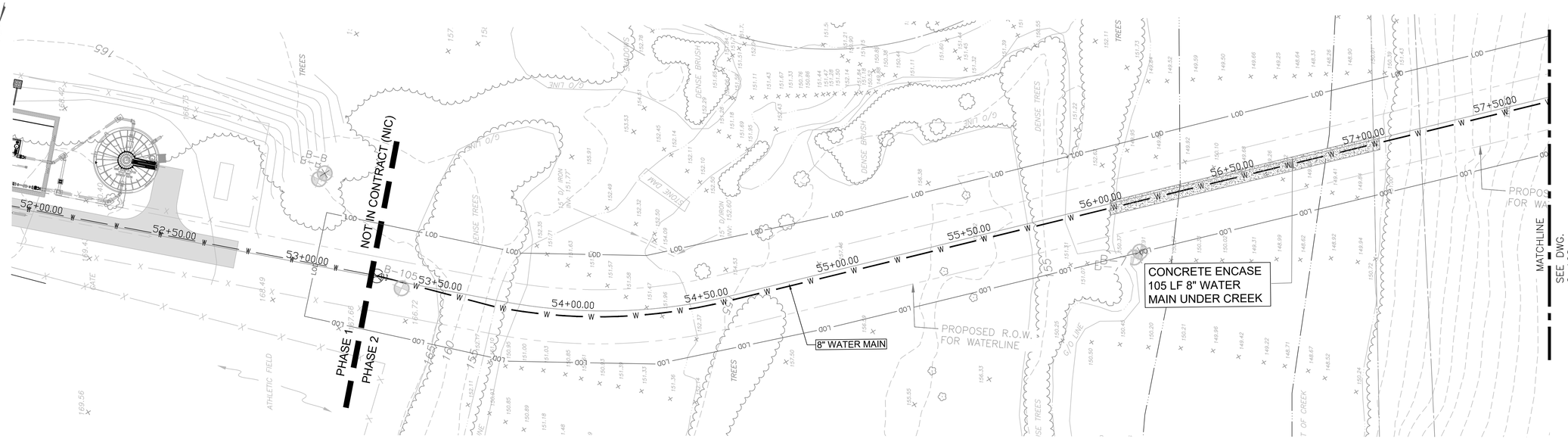
S:\03-Projects\Federal\START Region 3 (V1)\03 - Projects\01 - Active\01 - Removal-Area Planning\T601-20-07-001 - Baghurst DR Removal\Figures-Graphics\SHEET FILES\CIVIL\SitePlan2.dwg, C-106, 7/9/2021 3:15:13 PM



PLAN
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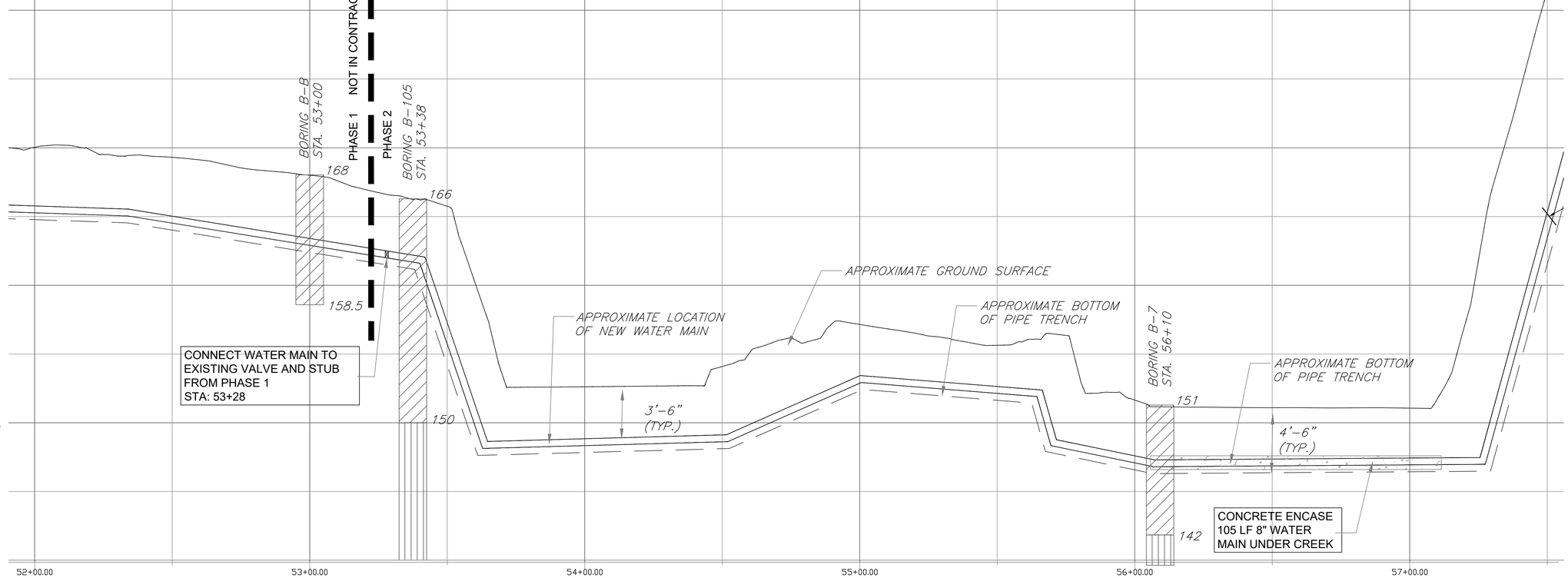
SCALE: 1"=20'-0"



PROFILE: STA. 52+00 TO STA. 57+50
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VERTICAL SCALE: 1"=4'-0"

20 0 20 40
HORIZONTAL SCALE: 1"=20'-0"

4 0 4 8
VERTICAL SCALE: 1"=4'-0"

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TETRA TECH START REGION 3

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USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO., PA
BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
WATER LINE ROCK PROFILE

PROJ:	103I903401001
DESN:	EJP
DRWN:	JEC
CHKD:	EJP

C-107

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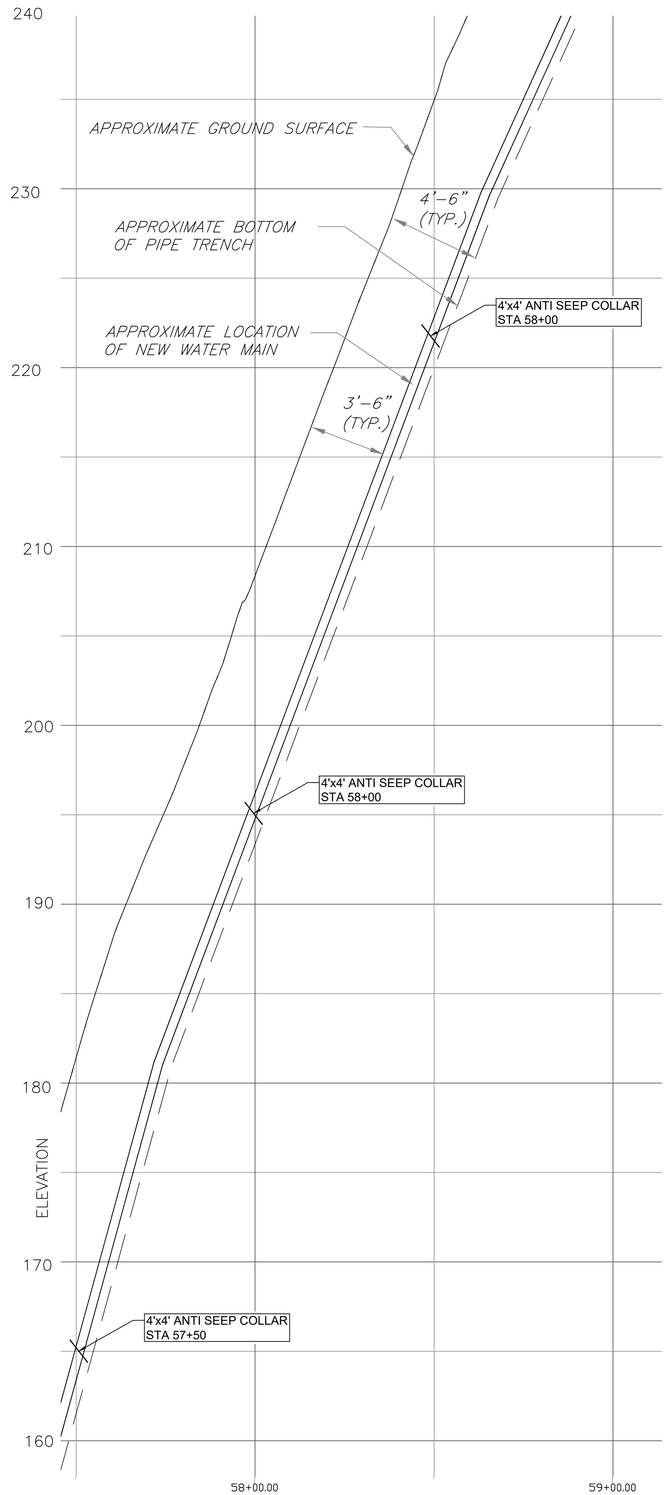
S:\03-Projects\Federal\START Region 3 (VI)\03 - Projects\01 - Active\01 - Removal-Area Planning\T601-20-07-001 - Baghurst DR Removal\Figures-Graphics\SHEET FILES\CIVIL\PROFILE Plan - 2.dwg, C-107, 7/9/2021 2:37:39 PM



PROFILE: STA. 57+50 TO STA. 59+00
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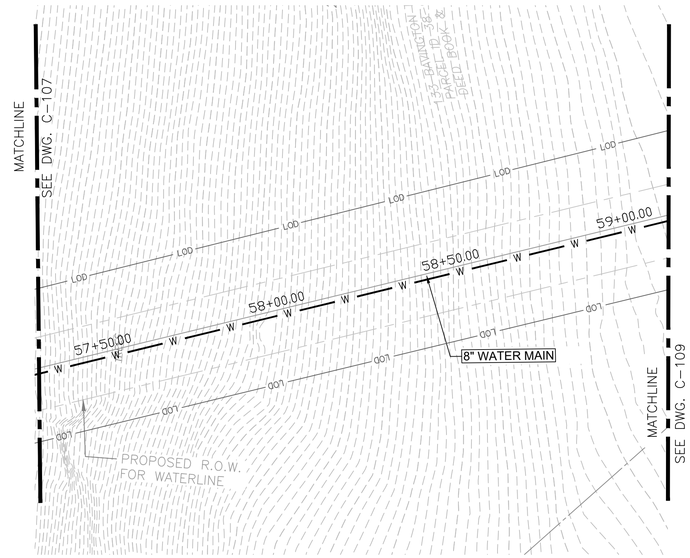
VERTICAL SCALE: 1"=4'–0"



PLAN
SCALE: 1"=20'–0"

20 0 20 40
HORIZONTAL SCALE: 1"=20'–0"

4 0 4 8
VERTICAL SCALE: 1"=4'–0"

20 0 20 40
SCALE: 1"=20'–0"

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0	5/10/21	90% DESIGN REVIEW SUBMISSION
0	7/9/21	PERMIT SUBMISSION

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BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
WATER LINE ROCK PROFILE

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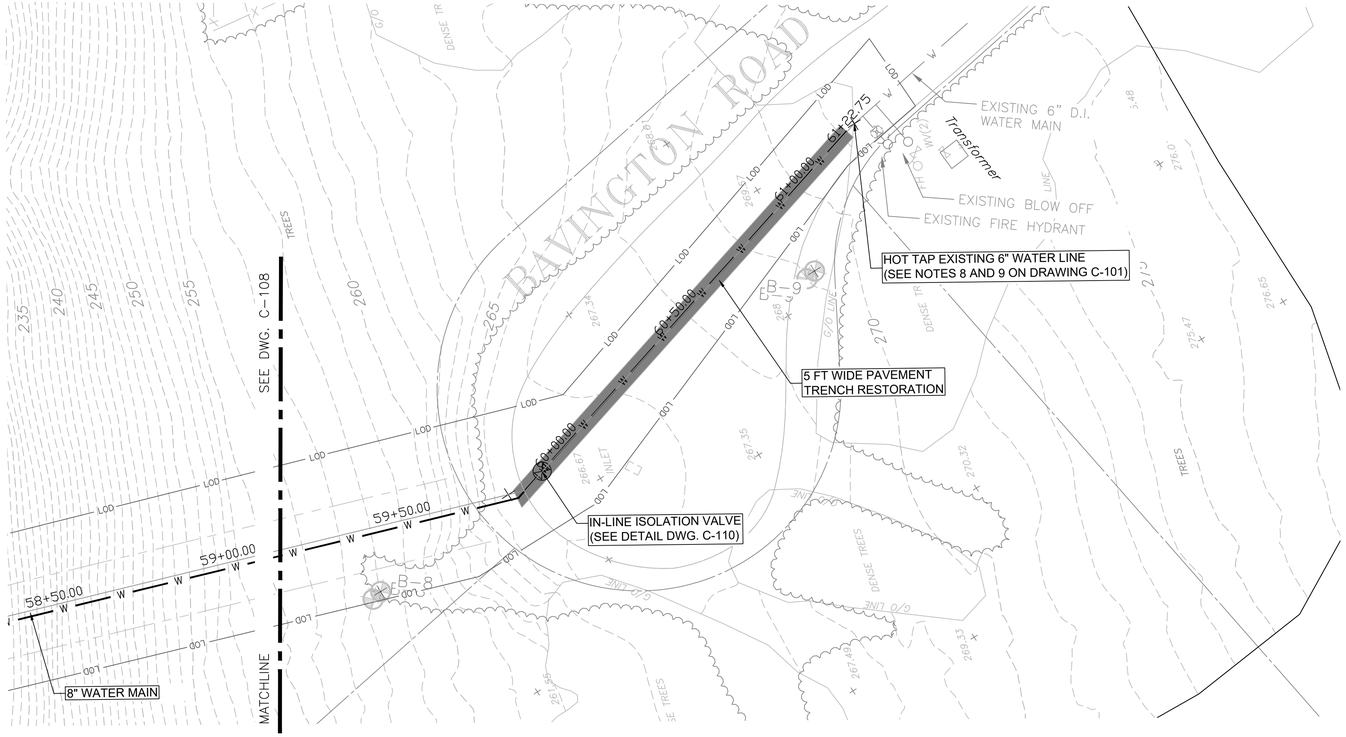

PLAN
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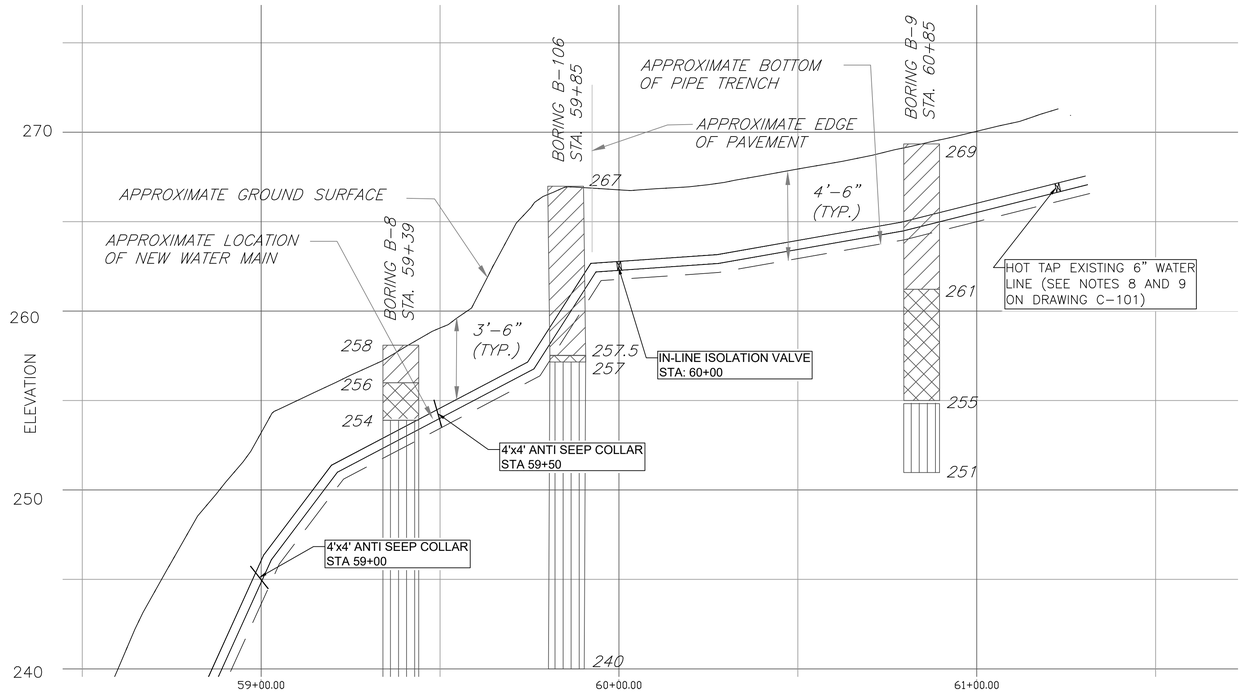
SCALE: 1"=20'-0"



PROFILE: STA. 59+00 TO STA. 61+23
HORIZONTAL SCALE: 1"=20'-0"
VERTICAL SCALE: 1"=4'-0"

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HORIZONTAL SCALE: 1"=20'-0"

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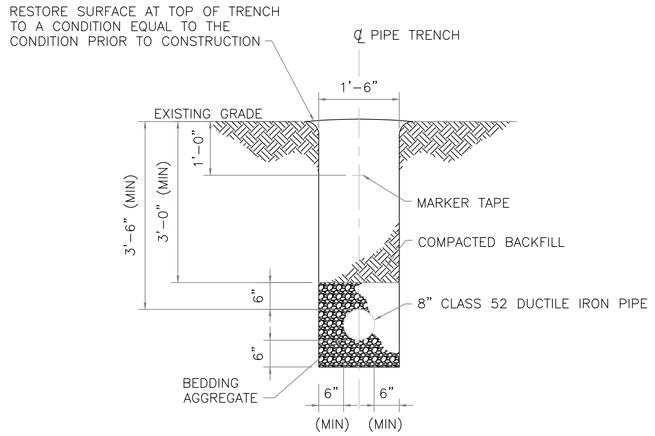
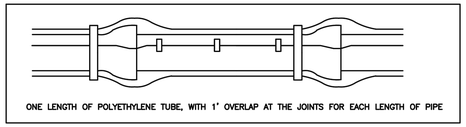


COMPACTED BACKFILL NOTES:

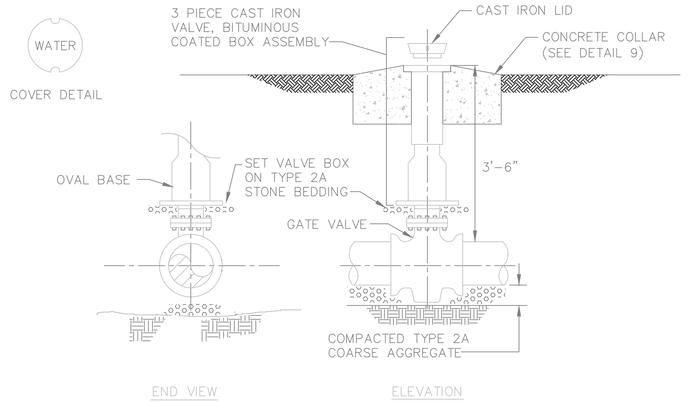
1. BACKFILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 6 INCHES LOOSE.
2. IN ROADWAY AREAS LIFTS SHALL BE COMPACTED TO A MINIMUM OF 95% PROCTOR.
3. IN OTHER AREAS LIFTS SHALL BE COMPACTED TO A MINIMUM OF 90% PROCTOR.
4. IN THE CREEK RESTORATION AREA, EXCAVATED MATERAIL SHALL BE PLACED BACK AND THE FINAL 6 INCHES SHALL BE RIVER ROCK TO PREVENT SCOURING.
5. BACKFILL SHALL MEET THE REQUIREDMENTS LISTED IN SPECIFICATION SECTION 31 20 00 EARTH MOVING.
6. BACKFILL ON THE STEEP SLOPE AREA SHALL CONSIST OF 40-60% CLAY MATERAIL.

TYPICAL WATER MAIN TRENCH SECTION (UNPAVED AREAS) 1/110
3/4"=1'-0"

POLYETHYLENE WRAPPING



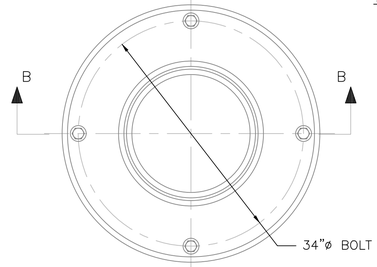
TYPICAL POLYETHYLENE WRAPPING DETAIL 3/110
N.T.S.



IN-LINE VALVE NOTES:

IN-LINE GATE VALVES AND VALVE BOXES SHALL BE PROVIDED EVERY 800 FEET ALONG THE WATER MAIN.

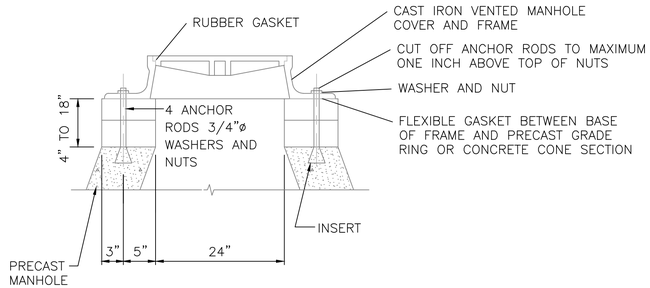
TYPICAL IN-LINE GATE VALVE AND VALVE BOX DETAIL 4/110
N.T.S.



PLAN

FRAME AND COVER NOTES:

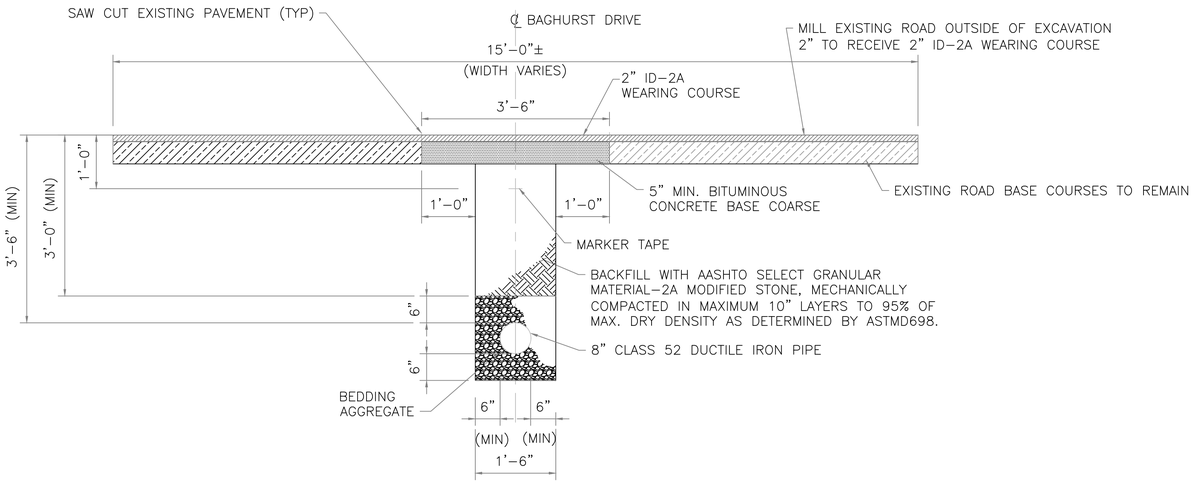
1. ADJUST MANHOLE FRAME AND COVER TO PROPER GRADE, CROSS SLOPE, AND ELEVATION IN SPACE DEDICATED TO PUBLIC USE, TRAVELED WAY, OR WHEN DESIGNATED TO MEET EXISTING GRADE. OTHERWISE PRECAST MANHOLE TO BE BUILT WITHOUT TRANSITION.
2. TO BRING AN INTERIM SETTING TO FINAL GRADE, REMOVE EXISTING ANCHOR RODS, WASHERS, NUTS, FRAME AND COVER, AND FLEXIBLE GASKET. INSTALL NEW ANCHOR RODS, GRADE RINGS AND REINSTALL EXISTING FRAME/COVER, AND NEW WASHERS/NUTS.



SECTION B-B

MANHOLE ADJUSTING DETAIL 5/110
N.T.S.

TYPICAL WATER MAIN TRENCH SECTION (UNPAVED AREAS) 1/110
3/4"=1'-0"

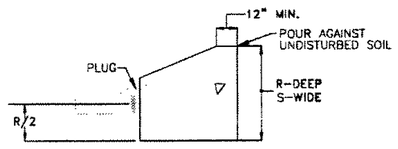


BAGHURST DRIVE
STATION 16+95 THROUGH 26+40

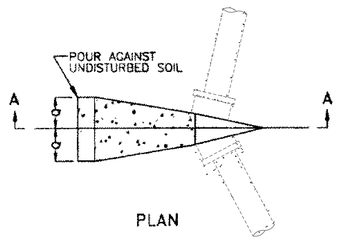
FULL WIDTH BITUMINOUS PAVEMENT RESTORATION SECTION 2/110
3/4"=1'-0"

THRUST BLOCKS FOR TEES, HORZ. & VERTICAL BENDS AND PLUGS						
DISCRIPTION	DIMENSION	6"ø	8"ø	10"ø	12"ø	16"ø
TEES	N	0'-10"	1'-2"	1'-5"	1'-5"	2'-1"
	O	0'-10"	1'-2"	1'-5"	1'-5"	2'-1"
	P	1'-0"	1'-4"	1'-8"	1'-11"	2'-1"
90° BENDS (HORZ. & VERT. UPWARD)	Q	1'-0"	1'-4"	1'-8"	1'-11"	2'-1"
	P	0'-8"	1'-0"	1'-3"	1'-8"	1'-6"
45° BENDS	Q	0'-8"	1'-0"	1'-3"	1'-8"	1'-6"
	P	0'-7"	0'-9"	0'-11"	1'-0"	0'-10"
22 1/2° BENDS	Q	0'-7"	0'-9"	0'-11"	1'-0"	1'-1"
	P	0'-5"	0'-6"	0'-8"	0'-8"	1'-0"
11 1/4° BENDS	Q	0'-5"	0'-5"	0'-8"	0'-8"	1'-0"
	R	1'-8"	2'-4"	2'-10"	3'-4"	4'-1"
PLUGS	S	1'-8"	2'-4"	2'-10"	3'-4"	4'-1"

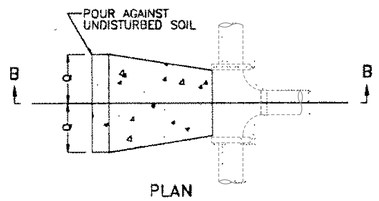
THRUST BLOCKS DESIGNED FOR 200 LBS. PER SQ. IN. TEST PRESSURE AND 2000 LBS. PER SQ. FT. SOIL PRESSURE
WRAP ALL FITTINGS IN PLASTIC BEFORE POURING CONCRETE.



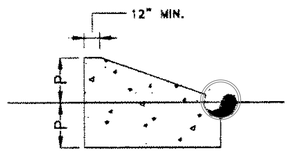
PLUGS

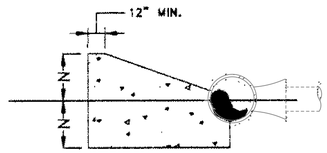


PLAN



PLAN





THRUST BLOCK DETAILS 6/110
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USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO., PA.
BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
WATER LINE SECTIONS AND DETAILS

PROJ:	103I903401001
DESN:	EJP
DRWN:	JEC
CHKD:	EJP

C-110

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GENERAL E&S 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 REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY 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 LOCAL 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 E&S PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT 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 BMP'S 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 LIMITS 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 MAP(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 E&S 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 LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.

10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S 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 LOCAL 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 E&S PLAN, OVER UNDISTURBED VEGETATED AREAS.

14. 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 MATERIALS WILL BE REQUIRED.

15. 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.

16. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS E&S PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN MANNER DESCRIBED ON THE E&S PLAN DRAWINGS.

18. 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.

19. 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, OR AS DIRECTED BY THE ENGINEER.

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

21. 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.

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

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

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

26. 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 DESCRIBED IN THE E&S 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.

27. 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.

28. 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 LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

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

30. 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, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

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

32. 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.

SEQUENCE OF CONSTRUCTION

1. NOTIFY MONTEGOMERY COUNTY CONSERVATION DISTRICT SEDIMENT AND STORMWATER PROGRAM IN WRITING AT LEAST (5) DAYS PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION AND UTILITY INSTALLATION.
4. PLACE STABILIZED CONSTRUCTION ENTRANCE, PERIMETER CONTROLS INCLUDING SUPERS SILT FENCE AND INLET PROTECTION.
5. CLEAR AND GRUB AREA WITHIN THE PERIMETER CONTROLS.
6. ACCESS FOR THE CONSTRUCTION SHALL BE FROM BAVINGTON ROAD OR THROUGH THE TOWNSHIP PROPERTY OFF OF SALFORD STATION ROAD.
7. CREEK CROSSING INSTALLATION SHALL BE DONE IN TWO SECTIONS. COFFER DAMS SHALL BE PLACED AROUND THE AREA OF WATERLINE INSTALLATION ON EAST AND WEST SIDE OF THE PERKIOMEN CREEK FOR THE TWO SECTIONS OF THE CREEK CROSSING.
8. APPROXIMATE LOCATION OF THE COFFER DAM IS SHOWN ON THE PLANS. ACCESS FOR THE CREEK CROSSING MAY BE EASIER FROM SALFORD STATION ROAD OR EAST SIDE OF THE CREEK. IF ACCESS IS FROM THE EASTERN SIDE OF THE CREEK COFFER DAM AND EQUIPMENT MAY NEED TO BE PLACED IN A STEP PROCESS TO ENSURE NO MORE THAN 50% OF THE CREEK BED IS UNDER CONSTRUCTION AT ONE TIME.
9. EXCAVATE AND INSTALL WATER LINE AS PER PLAN, PROFILE AND DETAILS CONTAINED IN THIS SET.
10. WATERLINE ON THE STEEP SLOPE BETWEEN BAVINGTON ROAD AND THE PERKIOMEN CREEK SHALL BE BACKFILLED WITH SOIL HAVING A 40-60% CLAY CONTENT AND THEN STABILIZED WITH EROSION BLANKETS, AND PERMANENT SEED.
11. CONTRACTOR TO PLACE COFFER DAM FOR CREEK CROSSING INSTALLATION.
12. CONTRACTOR TO USE FILTER BAG FOR ANY PUMPED WATER OR DISCHARGE ASSOCIATED WITH COFFER DAM PLACEMENT OR EXCAVATION. FILTER BAG DISCHARGE SHALL BE PLACED DOWNSTREAM AND OR DOWNSLOPE OF THE AREA BEING PUMPED. FOR LARGE VOLUME PUMPING, THE DISCHARGE PIPE SHALL BE PLACED ON A FLAT AREA OF CLEAN WASHED 57 STONE TO DISAPATE FLOW AND AVOID EROSION CAUSED BY THE HIGH VELOCITY DISCHARGE.
13. WATERLINE INSTALLED ACROSS THE PERKIOMEN CREEK SHALL BE CONCRETE ENCASED. THE MATERIAL EXCAVATETD IN THE CREEK CROSSING SHALL BE STOCKPILED WITHIN THE COFFER DAM, AND THEN PLACED AND COMPACTED IN THE TRENCH PER THE DETAIL. RIVER ROCK SHALL BE PLACED ON THE TOP 6 INCHES OF THE CREEK CROSSING TRENCH.
14. REMOVE COFFER DAM ONCE CREEK CROSSING INSTALLATION IS COMPLETE.
15. WATERLINE INSTALLATION ON THE EASTERN SIDE OF THE CREEK SHALL BE BACKFILLED ACCORDING TO THE TRENCH DETAIL AND STABILIZED WITH EROSION BLANKETS AND SEED.
16. STABILIZE ALL DISTRUBED AREAS OUTSIDE OF THE CREEK WITH TOPSOIL, SEED AND EROSION BLANKETS WITHIN 14 CALENDAR DAYS.
17. WATERLINE INSTALLATION IN BAVINGTON ROAD SHALL BE RESTORED WITH PAVEMENT PER THE DETAIL. CONTRACTOR SHOULDL WORK TO MINIMIZE IMPACT TO THE RESIDENTIAL CUSTOMERS AS MUCH AS POSSIBLE.
18. PERIMETER CONTROL MEASURES MAY BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED.

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SUPERFUND TECHNICAL ASSESSMENT & RESPONSE TEAM
TETRA TECH START REGION 3

MARK	DATE	DESCRIPTION	BY
0	4/23/21	90% DESIGN REVIEW SUBMISSION	
0	5/10/21	90% DESIGN REVIEW SUBMISSION	
0	7/9/21	PERMIT SUBMISSION	

USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO, PA
BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
EROSION AND SEDIMENT CONTROL NOTES

PROJ: 103I903401001
DESN: EJP
DRWN: JEC
CHKD: EJP

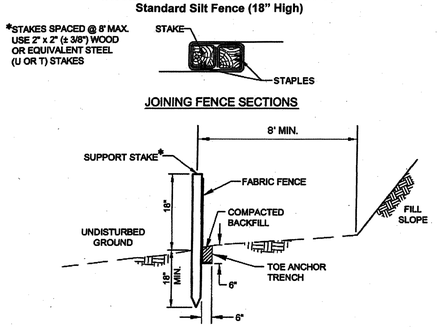
C-111

Copyright: Tetra Tech

Bar Measures 1 inch, otherwise drawing not to scale

7/12/2021 11:52:37 AM - S:\03-PROJECTS\FEDERAL\START REGION 3 (V)\03 - PROJECTS\01 - ACTIVE\01 - REMOVAL-AREA PLANNING\T601-20-07-001 - BAGHURST DR REMOVAL\FIGURES-GRAPHICS\SHEET FILES\CIVIL\DETAILS-2.DWG - PIAZZA, LIZ

STANDARD CONSTRUCTION DETAIL # 4-7
Standard Silt Fence (18" High)



PA DEP

Fabric shall have the minimum properties as shown in E & S Plan

Fabric width shall be 30" minimum. Stakes shall be hardwood or equivalent steel (U or T) stakes.

Silt fence shall be placed at level existing grade. Both ends of the fence shall be extended at least 8 feet up slope at 45 degrees to the main fence alignment (see E & S Plan).

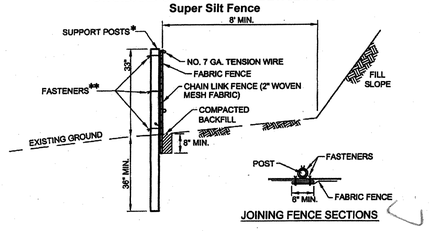
Sediment shall be removed when accumulations reach half the aboveground height of the fence.

Any section of silt fence which has been undermined or topped shall be immediately replaced with a rock filter outlet (Standard Construction Detail # 4-6).

Fence shall be removed and properly disposed of when tributary area is permanently stabilized.

STANDARD SILT FENCE (18" HIGH) 1/112
N.T.S.

STANDARD CONSTRUCTION DETAIL # 4-10
Super Silt Fence



*POSTS SPACED @ 10' MAX. USE 2 1/2" DIA. HEAVY DUTY GALVANIZED OR ALUMINUM POSTS.

**CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 9 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL PRE-FORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 13.5 GA. GALVANIZED STEEL WIRE. FABRIC TO CHAIN FASTENERS SPACED @ 24" MAX C. TO C.

PA DEP

Fabric shall have the minimum properties as shown in Table 4.3.

Filter fabric width shall be 42" minimum.

Posts shall be installed using a posthole drill.

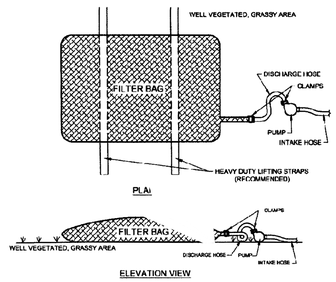
Chain link shall be galvanized No. 11.5 Ga. steel wire with 2 ¼" opening, No. 11 Ga. aluminum coated steel wire in accordance with ASTM-A-491, or galvanized No. 9 Ga. steel wire top and bottom with galvanized No. 11 Ga. steel intermediate wires. No. 7 gage tension wire to be installed horizontally through holes at top and bottom of chain-link fence or attached with hog rings at 5' (max.) centers.

Silt fence shall be placed at existing level grade. Both ends of the fence shall be extended at least 8 feet upslope at 45 degrees to main barrier alignment (Figure 4.1).

Sediment shall be removed when accumulations reach half the aboveground height of the fence.

Fence shall be removed and properly disposed of when tributary area is permanently stabilized.

SUPER SILT FENCE 2/112
N.T.S.



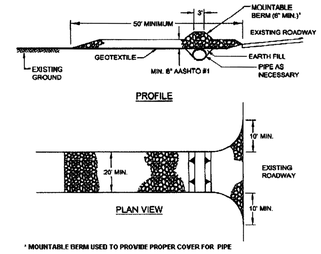
PA DEP

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

FILTER BAG 3/112
N.T.S.

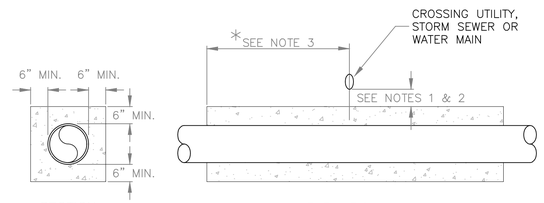
STANDARD CONSTRUCTION DETAIL # 3-1
Rock Construction Entrance



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR 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.

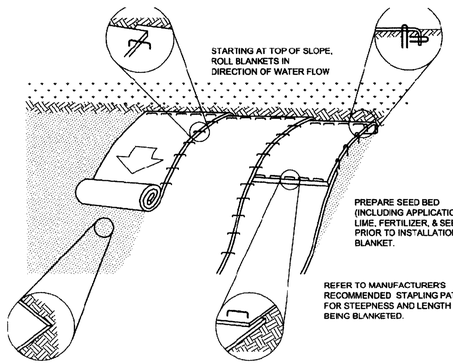
STABILIZED CONSTRUCTION ENTRANCE 4/112
N.T.S.



CONCRETE ENCASEMENT NOTES:

1. IF CROSSING UTILITY IS LESS THAN 12" ABOVE SEWER OR FORCE MAIN, THEN CONCRETE SHALL FILL VOID BETWEEN PIPES AND CRADLE CROSSING UTILITY.
2. IF CROSSING UTILITY IS MORE THAN 12" ABOVE SEWER OR FORCE MAIN, THEN CROSSING UTILITY WILL BE SUPPORTED WITH AASHTO #57 STONE OR EQUIVALENT.
3. CONCRETE ENCASE MIN. 10' EITHER SIDE OF PIPES CROSSING UTILITIES, STORM SEWERS OR WATER MAINS.
4. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN.

CONCRETE ENCASEMENT 9/112
N.T.S.



Source Unknown

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.

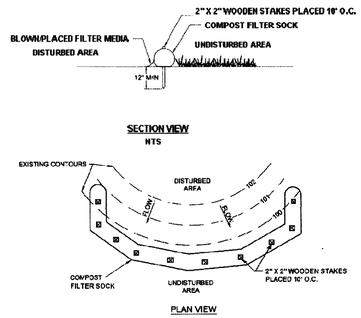
Blanket shall have good continuous contact with underlying soil throughout entire length. Lay blanket loosely and stake or staple to maintain direct contact with soil. Do not stretch blanket.

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.

EROSION CONTROL BLANKET INSTALLATION 5/112
N.T.S.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK



Filtrexx

Sock fabric and compost shall meet the standards of the E & S Plan.

Compost filter sock shall be placed at existing level grade. Both ends of the sock shall be extended at least 8 feet up slope at 45 degrees to the main sock alignment
Maximum slope length above any sock shall not exceed that shown in the E & S Plan. Stakes may **be installed immediately downslope of the sock if so specified by the manufacturer.**

Traffic shall not be permitted to cross filter socks.

Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.

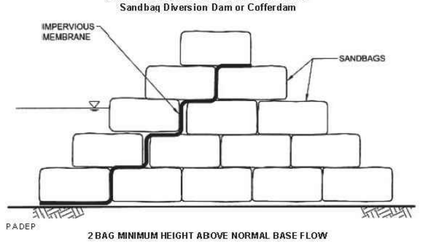
Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.

Biodegradable 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.

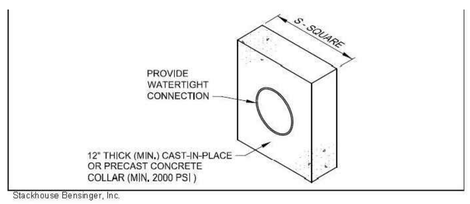
COMPOST FILTER SOCK 6/112
N.T.S.

STANDARD CONSTRUCTION DETAIL #3-15
Sandbag Diversion Dam or Cofferdam



2 BAG MINIMUM HEIGHT ABOVE NORMAL BASE FLOW

COFFERDAM 7/112
N.T.S.



Stackhouse Bensinger, Inc.

All collars shall be installed so as to be watertight.

ANTI-SEEP COLLAR 8/112
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TETRA TECH START REGION 3 — SUPERFUND TECHNICAL ASSESSMENT & RESPONSE TEAM

MARK	DATE	DESCRIPTION
0	4/23/21	90% DESIGN REVIEW SUBMISSION
0	5/10/21	90% DESIGN REVIEW SUBMISSION
0	7/9/21	PERMIT SUBMISSION

BY

USEPA
UPPER SALFORD TOWNSHIP, MONTGOMERY CO. PA
BAGHURST ALLEY SITE
NEW WATER MAIN
PHASE 2
SEDIMENT AND EROSION CONTROL DETAILS

PROJ: 103I903401001
DESN: EJP
DRWN: JEC
CHKD: EJP

C-112

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Bar Measures 1 inch, otherwise drawing not to scale