CIVIL LEGEND

EXISTING	EXISTING TO BE REMOVED	NEW	DESCRIPTION
			BUILDING
			BITUMINOUS PAVING OR WALKWAY
			RIPRAP (STREAMBANK)
			EROSION CONTROL BLANKET (STREAMBANK)
			CONCRETE PAVING
			CONCRETE SIDEWALK, SLAB OR PAD
			GRAVEL PAVING OR WALKWAY
			CONCRETE CURB
			BITUMINOUS CURB
			CONCRETE WALL OR RETAINING WALL
350		350	CONTOUR ELEVATION (MAJOR)
351		351	CONTOUR ELEVATION (MINOR)
350.50		350.50	SPOT ELEVATION
			CREEK CENTERLINE
			REGULATORY BOUNDARY (TOP OF BANK & ORDINARY HIGH WATER MARK)
A49 OR B53			REGULATORY FLAG
B-1		B-1	TEST BORING
OR	OR	OR	SIGN
			PIPE BOLLARD
			CHAIN LINK FENCE
		FR FR	FIBER ROLL (STREAMBANK)
			TREE LINE
			BRUSH LINE
			CLEARING AND GRUBBING AREA
			DECIDUOUS TREE
			EVERGREEN TREE
			RAILROAD
SD OR	SD OR	SD OR P101	STORM DRAIN LINE
			STORM DRAIN MANHOLE
OR		OR	STORM DRAIN INLET
CO	CO	CO	STORM DRAIN CLEAN OUT
DS	DS	DS	DOWNSPOUT
OR	OR	OR	ENDWALL OR HEADWALL
			RIPRAP OUTLET PROTECTION
		SD 01	STORM DRAIN STRUCTURE NUMBER
SAN	SAN	SAN	SANITARY SEWER LINE
			SANITARY SEWER MANHOLE
CO	CO	CO	SANITARY SEWER CLEAN OUT
VENT	VENT	VENT	SANITARY SEWER VENT
		SS 01	SANITARY SEWER STRUCTURE NUMBER
			UTILITY POLE
			GUY ANCHOR
E	E	E	UNDERGROUND ELECTRIC CONDUIT
O/E	O/E	O/E	OVERHEAD ELECTRIC LINE
OR	OR	OR	ELECTRICAL MANHOLE OR VAULT
LP	LP		LIGHT POLE
T	T	T	UNDERGROUND TELEPHONE CONDUIT
OR	OR	OR	TELEPHONE MANHOLE OR VAULT
W	W	W	WATER MAIN
WV	WV	WSO	WATER SHUT-OFF VALVE
PIV	PIV	PIV	POST INDICATOR VALVE
FH	FH	HYD	FIRE HYDRANT
			WELL
G	G	G	GAS MAIN
GV	GV	GAS	GAS VALVE
OR	OR	OR	STEAM MANHOLE OR VAULT
OR	OR		UNKNOWN MANHOLE OR VAULT
			PROPERTY LINE
			RIGHT-OF-WAY LINE
			EASEMENT LINE
MON FND		MON SET	MONUMENT FOUND OR SET
BM			BENCH MARK
			SURVEY STATION

NOTE: NOT ALL SYMBOLS INDICATED MAY APPEAR ON THESE CONTRACT SHEETS

TECHNICAL TERMS

AC	ACRE
AOS	APPARENT OPENING SIZE
ARNG	ARMY NATIONAL GUARD
AT/FP	ANTI-TERRORISM/FORCE PROTECTION
B&B	BALLED AND BURLAPED
BMP	BEST MANAGEMENT PRACTICES
BOC	BOTTOM OF CURB
BOW	BOTTOM OF WALL
BP	BEGINNING POINT
BSBL	BUILDING SETBACK LINE
BUA	BUILT UPON AREA
BVCE	BEGINNING VERTICAL CURVE ELEVATION
BVCS	BEGINNING VERTICAL CURVE STATION
CNJ	CONTRACTION JOINT
CORP	CORPORATION
CPP	CORRUGATED PLASTIC PIPE
DB	DESIGN-BUILD, DIRECT BURIED
DBH	DIAMETER AT BREST HEIGHT
DC	DEPRESSED CURB
DGA	DENSE GRADED AGGREGATE
DOB	DEPARTMENT OF BUILDINGS
DOD	DEPARTMENT OF DEFENSE
E&SPC	EROSION AND SEDIMENT POLLUTION CONTROL
EG	EXISTING GRADE
ELL	ELLIPTICAL
EMB	EMBEDMENT
EOS	EQUIVALENT OPENING SIZE
EP	END POINT
EV	EXCEPTIONAL VALUE
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FG	FINISH GRADE
FOD	FOREIGN OBJECT DEBRIS
FT HD	FEET OF HEAD
GCL	GEOSYNTHETIC CLAY LINER
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HOP	HIGHWAY OCCUPANCY PERMIT
HPT	HIGH POINT
HPTE	HIGH POINT ELEVATION
HPTS	HIGH POINT STATION
HQ	HIGH QUALITY
HSS	HOLLOW STRUCTURAL SECTION
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IJ	ISOLATION JOINT
K	K VALUE
LEED	LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN
LPTE	LOW POINT ELEVATION
LPTS	LOW POINT STATION
LSA	LANDSCAPE AREA
LVC	LENGTH OF VERTICAL CURVE
MCAS	MARINE CORP AIR STATION
MEP	MILITARY EQUIPMENT PARKING
MKT	MOBILE KITCHEN TRAILER
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
NPDES	NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM
NSA	NATIONAL STONE ASSOCIATION
PC	POINT OF CURVATURE
PCSM	POST CONSTRUCTION STORMWATER MANAGEMENT
PI	POINT OF INTERSECTION
PMF	PREMOLDED FILLER
POV	PRIVATELY OWNED VEHICLE
PRC	POINT OF REVERSE CURVE
PSBL	PARKING SETBACK LINE
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVIE	POINT OF VERTICAL INTERSECTION ELEVATION
PVIS	PONT OF VERTICAL INTERSECTION STATION
RB	RAIN BARREL
RG	RAIN GARDEN
SB	SEDIMENT BASIN
SLCPP	SMOOTH LINED CORRUGATED PLASTIC PIPE
SPA	SPACE, SPACES
SSD	STOPPING SIGHT DISTANCE
ST	SEDIMENT TRAP
SW	STORMWATER
SWM	STORMWATER MANAGEMENT
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TB	THRUST BLOCK
TOG	TOP OF GRATE
TOS	TOP OF SLOPE
USACE	US ARMY CORPS OF ENGINEERS
USAR	US ARMY RESERVE
UV	ULTRA VIOLET
VCP	VITRIFIED CLAY PIPE
WT	WATER TIGHT
WQ	WATER QUALITY
WSE	WATER SURFACE ELEVATION
WWR	WELDED WIRE REINFORCEMENT

NOTE: NOT ALL TECHNICAL TERMS INDICATED MAY APPEAR ON THESE CONTRACT SHEETS

GENERAL CIVIL NOTES

1. BOUNDARY, EXISTING TOPOGRAPHY AND OTHER SURFACE INFORMATION TAKEN FROM A FIELD SURVEY PERFORMED BY CEDERVILLE ENGINEERING GROUP, LLC. IN NOVEMBER 2018.
2. GROUND SURVEY CONTROL WAS PERFORMED BY CEDERVILLE ENGINEERING GROUP, LLC; ELEVATIONS SHOWN ARE EXPRESSED IN US SURVEY FEET AND ARE BASED ON NAVD 88 AND HORIZONTAL LOCATIONS ARE BASED ON PENNSYLVANIA NAD83, SOUTH ZONE (US SURVEY FEET).
   a. BENCHMARK: BM#1 (REBAR)
   b. ELEVATION: 358.94
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING NEW HORIZONTAL AND VERTICAL CONTROL BENCH MARK POINTS PRIOR TO ANY SITE DEMOLITION
4. PLAN INFORMATION FROM THE EXISTING DEEDS AND PLANS OF RECORD.
5. WETLAND DETERMINATION CONDUCTED BY A QUALIFIED WETLAND SCIENTIST FROM CEDERVILLE ENGINEER GROUP, LLC; ON OCTOBER 25, 2018. NO WETLANDS WERE OBSERVED.
   a. INVESTIGATION AREA = 663,019 SF ± (15.22 AC ±)
   b. REGULATORY WATERS AREA = 17,981 SF ± (0.41 AC ±)
6. SUBJECT PROPERTY IS NOT LOCATED IN THE 100-YEAR FLOOD PLAIN AS SHOWN ON THE FLOOD INSURANCE RATE MAPS OF MONTGOMERY COUNTY, PENNSYLVANIA, PANELS 379 & 383 OF 451, MAP #'S 42091C0379G & 42091C0383G, EFFECTIVE DATE MARCH 2, 2016.
7. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION, SIZE AND DEPTH OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING ADJACENT TO EXISTING UTILITIES SUCH AS POWER, COMMUNICATIONS, WATER OR GAS LINES TO PREVENT DAMAGE TO THESE LINES. IF TEST PITS ARE REQUIRED TO LOCATE EXISTING UTILITIES THEY SHALL BE PERFORMED BY HAND DIGGING. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE PENNSYLVANIA UNDERGROUND UTILITY PROTECTION LAW (PA ACT 287 OF 1974, AS AMENDED BY ACT 121 OF 2008 73P.S. § 176 ET. SEQ.). THE CONTRACTOR SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 NO LESS THAN THREE (3) NOR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE START OF EXCAVATION OR DEMOLITION WORK.
8. THE CONTRACTOR SHALL COORDINATE ALL PROPOSED UTILITY DEMOLITION / ALTERATIONS WITH THE USDA PRIOR TO THE START OF WORK. ANY PROPOSED INTERRUPTIONS TO UTILITY SERVICES SHALL BE SCHEDULED WITH THE USDA A MINIMUM OF TWO (2) WEEKS PRIOR TO SCHEDULED UTILITY INTERRUPTION AGAIN 48 HRS BEFOREHAND.
9. UNLESS NOTED OTHERWISE, ALL EXISTING UTILITIES SHALL REMAIN ACTIVE AT ALL TIMES. TEMPORARY BYPASS SYSTEMS SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED TO MAINTAIN UTILITIES ACTIVE DURING CONSTRUCTION. ALL NEW UTILITY SYSTEMS SHALL BE OPERATIONAL PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING SYSTEMS.
10. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY STRUCTURES SUCH AS BUT NOT LIMITED TO MANHOLE COVERS, VALVE COVERS, UTILITY POLES, GUY WIRES AND HYDRANTS THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
11. UNLESS NOTED OTHERWISE, THE CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY STRUCTURES AND COVERS, SUCH AS BUT NOT LIMITED TO MANHOLES, CLEANOUTS, AND VALVES THAT ARE TO REMAIN, TO THE FINISH GRADE ELEVATIONS AS REQUIRED.
12. ALL DIMENSIONS AND CONDITIONS MUST BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE STV AND THE CONTRACTING OFFICER FOR A RESOLUTION BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS WITH THE VERTICAL CONTROL BENCH MARK(S).
13. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING TREES NOT SCHEDULED TO BE REMOVED AS INDICATED ON THE SITE DEMOLITION PLANS.
14. THE CONTRACTOR SHALL PRESERVE ALL NATURAL FEATURES. AS LITTLE VEGETATIVE COVER SHALL BE REMOVED AS REQUIRED TO ACHIEVE THE INSTALLATION OF PROPOSED WORK AND ASSOCIATED SITE IMPROVEMENTS
15. ALL TEMPORARY AND FINISH GRADING IS TO BE DONE SO AS TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TOWARD THE APPROPRIATE INLET OR DRAINAGE FACILITY.
16. THE CONTRACTOR SHALL ENSURE THAT ALL STORM DRAIN INLETS, CATCH BASINS, SWALES, ETC. WITHIN AND NEAR THE PROJECT AREA ARE KEPT FREE FROM MATERIALS THAT MAY HAMPER THE PERFORMANCE OF THE DRAINAGE SYSTEM. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT, DEBRIS, EQUIPMENT AND DISPOSE OF ALL UNSUITABLE OR EXCESS MATERIALS FROM THE USDA PROPERTY IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
17. PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL REMAIN A PERMANENT PART OF THE TOPOGRAPHY.
18. SPOT ELEVATIONS INDICATE FINISH SURFACE ELEVATION UNLESS OTHERWISE NOTED ON THE PLAN. ALL GRADES SHALL BE SMOOTH AND CONTINUOUS.
19. ANY DAMAGE TO OFF-SITE RIGHT OF WAY, PUBLIC ROADS OR ADJACENT PROPERTIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING AND NEW WORK FROM DAMAGE. ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
21. THE CONTRACTOR SHALL PROVIDE ADEQUATE BARRIERS, FENCES OR OTHER MEASURES TO KEEP VEHICULAR AND PEDESTRIAN TRAFFIC AWAY FROM THE CONSTRUCTION AREA.
22. THE CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL MEASURES, FOR ALL DISTURBED AREAS, AS WARRANTED, TO MINIMIZE THE TRANSPORT OF SOIL BY WIND AND TRAFFIC. THE CONTRACTOR SHALL MINIMIZE THE AREA DISTURBED / SUBJECT TO WIND EROSION AND THE TIME THAT THE AREA WILL BE EXPOSED TO WIND EROSION.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY AND MAINTENANCE OF THE CONSTRUCTION SITE AT ALL TIMES. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE ON A DAILY BASIS, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. BURNING OF ANY DEBRIS WILL NOT BE PERMITTED.
24. ALL INGRESS AND EGRESS TO THE CONSTRUCTION SITE SHALL BE KEPT ACCESSIBLE AND UNOBSTRUCTED AT ALL TIMES. CONSTRUCTION EQUIPMENT OR VEHICLES WILL NOT BE PERMITTED TO OBSTRUCT ANY ROADWAYS AND / OR PASSAGEWAYS.

STV Incorporated
205 West Welsh Drive
Douglassville, Pennsylvania
tel: 610-385-8200 fax: 610-385-8501
www.stvinc.com

CONSULTANTS

CEG CEDARVILLE
CIVIL ENGINEERING • ENVIRONMENTAL SERVICES
SURVEYING • CONSTRUCTION
159 East High Street, Suite #500 : Pottstown, PA 19464
610.705.4500 (Office) : 610.705.4900 (Fax)

SEALS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
EVELYN S. TYSON
ENGINEER
PE057556
7/31/23

PROJECT IDENTIFICATION

USDA

UNITED STATES
DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH
SERVICE

CREEK BED STABILIZATION

EASTERN REGIONAL
RESEARCH CENTER
600 EAST MERMAID LANE
WYNDMOOR, PENNSYLVANIA

MARK	DATE	DESCRIPTION	BY
D	7/31/23	FINAL DESIGN SUBMITTAL	SK
C	3/16/23	95% DESIGN SUBMITTAL	SK
B	1/30/23	50% DESIGN SUBMITTAL	SK
A	11/18/22	35% DESIGN SUBMITTAL	SK

ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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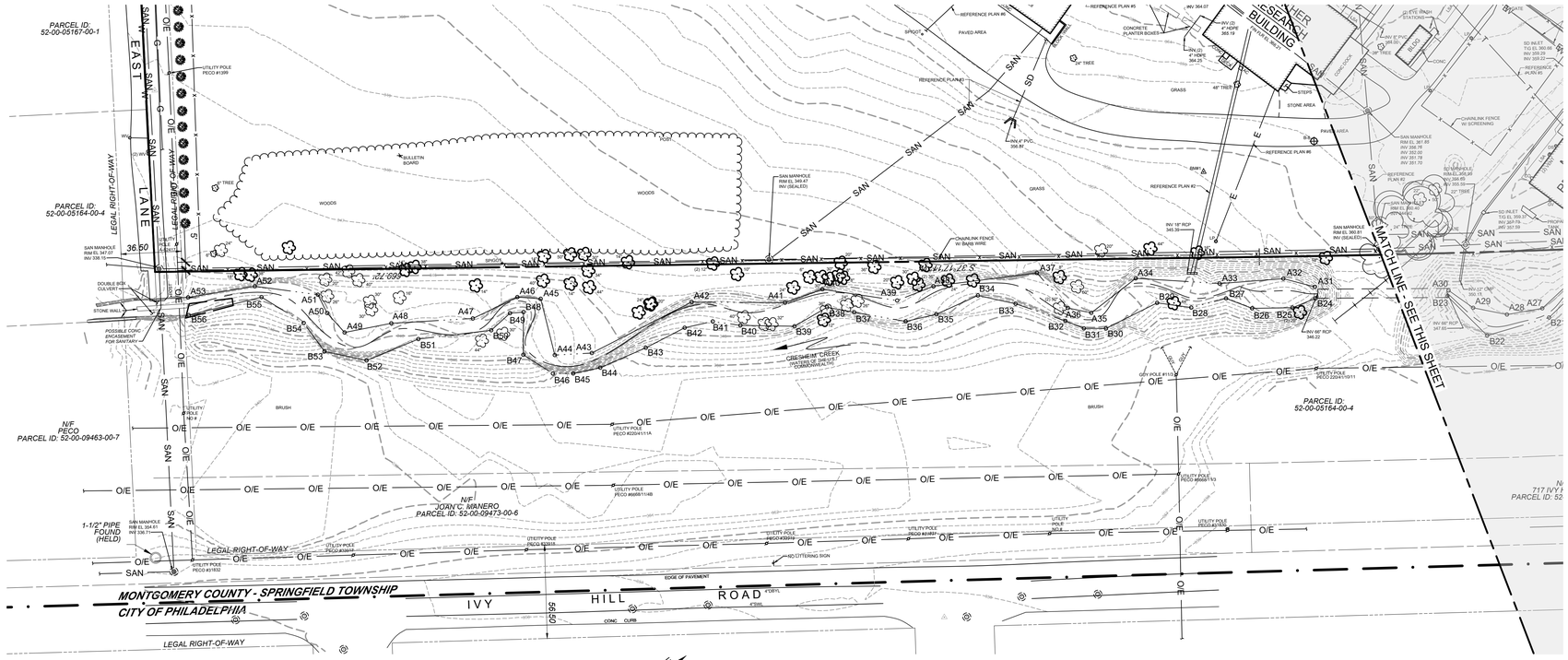
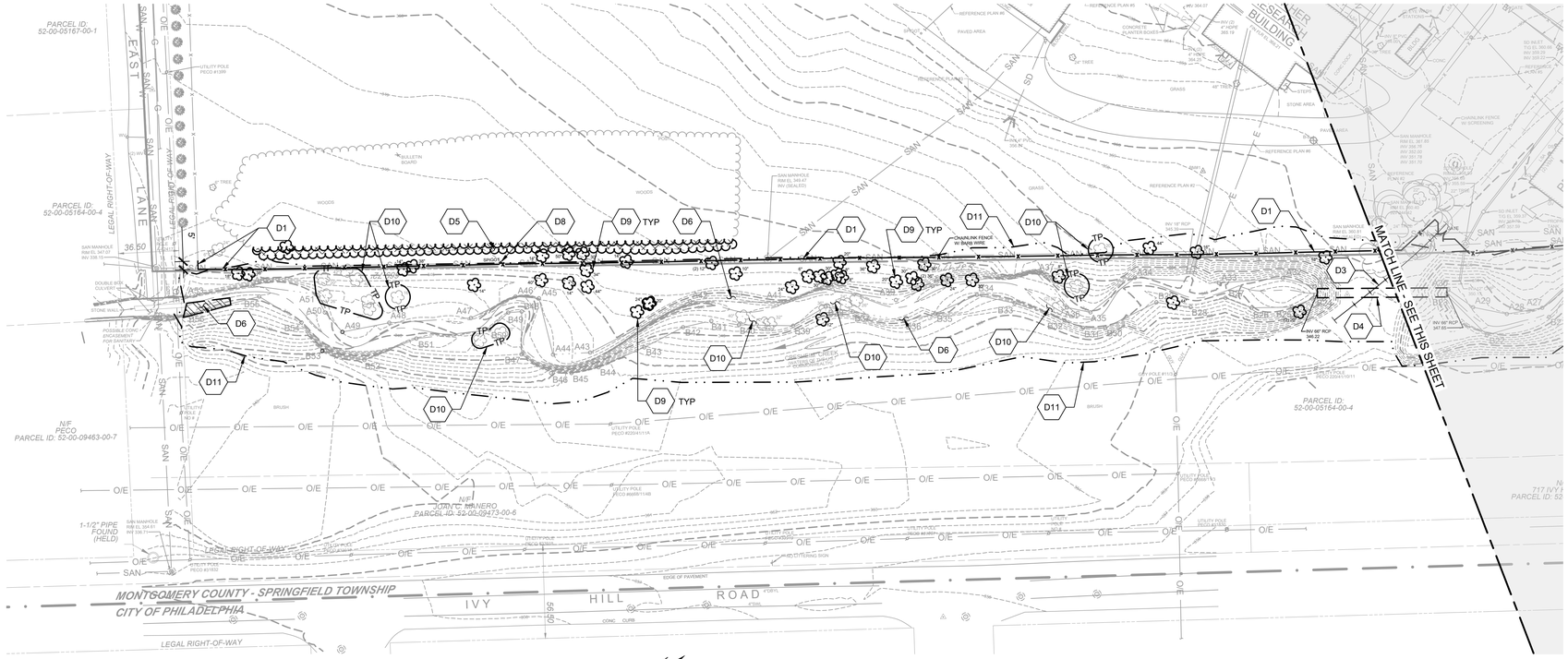
SHEET TITLE

CIVIL LEGEND AND GENERAL NOTES

C-001


PARCEL ID: 52-00-05167-00-1
PARCEL ID: 52-00-05164-00-4
EAST LANE
LEGAL RIGHT-OF-WAY
WOODS
BULLETIN BOARD
SAN MANHOLE RIM EL. 347.02 INV. 338.15
DOUBLE BOX CULVERT
STONE WALL
POSSIBLE CONC. ENCASEMENT FOR SANITARY
N/F PECO PARCEL ID: 52-00-09463-00-7
1-1/2" PIPE FOUND (HELD)
MONTGOMERY COUNTY - SPRINGFIELD TOWNSHIP
CITY OF PHILADELPHIA
IVY HILL ROAD
EDGE OF PAVEMENT
CONC. CURB
N/F JOAN C. BANERO PARCEL ID: 52-00-09473-00-6
CRESHEIM CREEK
MATCH LINE - SEE THIS SHEET
PARCEL ID: 52-00-05164-00-4
717 IVY HILL
PARCEL ID: 52
SEARCH BUILDING
REFERENCE PLAN #1
REFERENCE PLAN #2
REFERENCE PLAN #3
REFERENCE PLAN #4
REFERENCE PLAN #5
CONCRETE PLANTER BOXES
PAVED AREA
GRASS
STONE AREA
CHAINLINK FENCE W/ BARB WIRE
CHAINLINK FENCE W/ SCREENING
SAN MANHOLE RIM EL. 349.47 INV. (SEALED)
SAN MANHOLE RIM EL. 361.85 INV. 352.05 INV. 351.78 INV. 351.70
SAN MANHOLE RIM EL. 360.40 INV. 350.75
SAN MANHOLE RIM EL. 360.81 INV. (SEALED)
INV. 18" RCP 345.38
INV. 60" RCP 346.22
INV. 12" CMP 350.15
INV. 60" RCP 341.60
UTILITY POLE PECO #1399
UTILITY POLE PECO #1832
UTILITY POLE PECO #2204111A
UTILITY POLE PECO #9268111AB
UTILITY POLE PECO #2204111/3
UTILITY POLE PECO 2204147/011
UTILITY POLE PECO #2204144
UTILITY POLE PECO #2204145
UTILITY POLE PECO #2204146
UTILITY POLE PECO #2204147
UTILITY POLE PECO #2204148
UTILITY POLE PECO #2204149
UTILITY POLE PECO #2204150
UTILITY POLE PECO #2204151
UTILITY POLE PECO #2204152
SD LITTERING SIGN
SD INLET TOG EL. 360.80 INV. 359.25 INV. 359.27
SD INLET TOG EL. 359.37 INV. 357.75 INV. 357.55
SD INLET TOG EL. 359.37 INV. 357.75 INV. 357.55
SD INLET TOG EL. 360.40 INV. 350.75
SD INLET TOG EL. 360.80 INV. 350.75
SD INLET TOG EL. 360.80 INV. 350.75
SD INLET TOG EL. 360.80

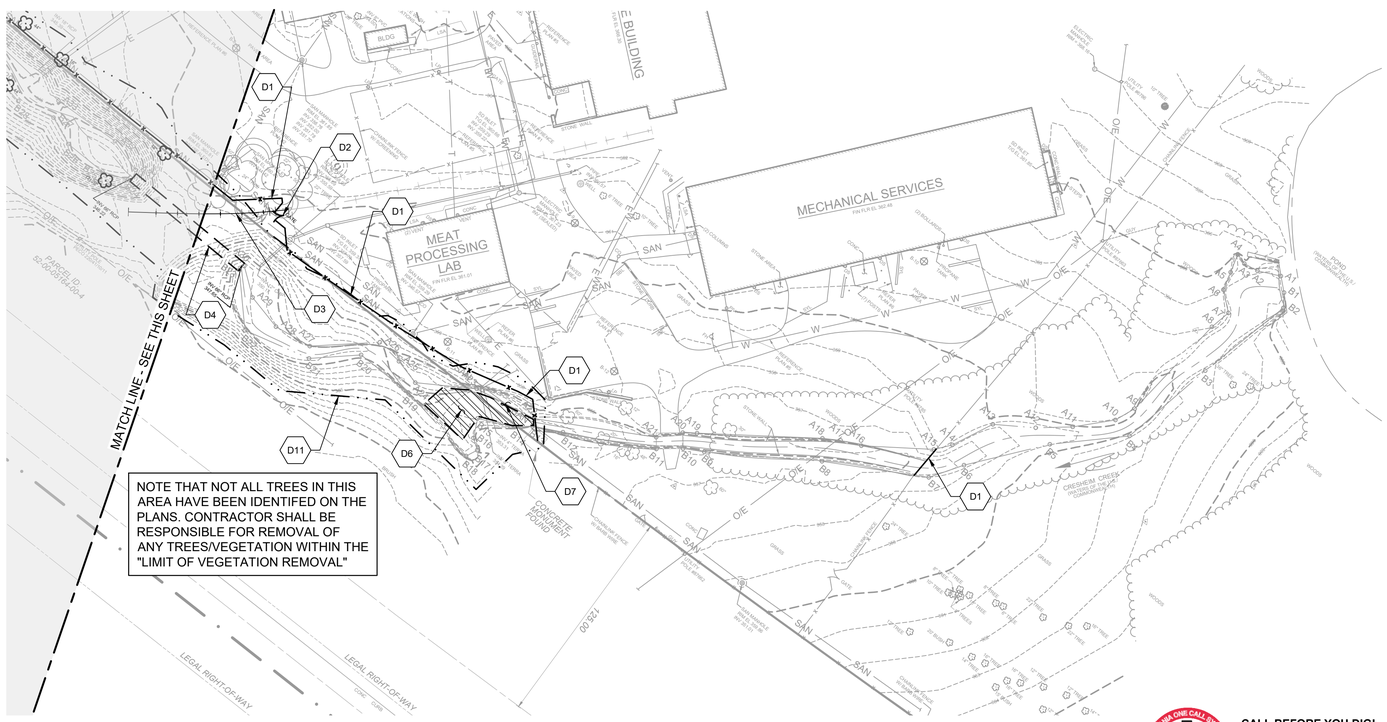


TRUE NORTH

SITE DEMOLITION PLAN

1"=40'

40' 0 40'



TRUE NORTH

SITE DEMOLITION PLAN

1"=40'

40' 0 40'

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PICK ICKNIS NUMBER
20230671236

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.
3. PRIOR TO BEGINNING CLEARING AND GRUBBING OPERATIONS, TREES TO BE PRESERVED OUTSIDE (STREAM SIDE) OF THE EXISTING CHAIN LINK FENCE WILL BE FLAGGED BY USDA. CONTRACTOR SHALL COORDINATE MARKING WITH USDA AND SHALL PROVIDE AT LEAST THREE DAYS NOTICE OF INTENDED TREE REMOVAL OPERATIONS. NOTE THAT INTENT IS TO REMOVE APPROXIMATELY 90% OF THE EXISTING TREES TO FACILITATE GRADING AND BANK STABILIZATION MEASURES OUTSIDE (STREAM SIDE) OF THE EXISTING CHAIN LINK FENCE. EXCEPT WHERE INDICATED, ALL TREES INSIDE (BUILDING SIDE) OF THE EXISTING CHAIN LINK FENCE SHALL BE PROTECTED AND PRESERVED.
4. CONTRACTOR SHALL REMOVE ALL DEBRIS (BRANCHES, REFUSE, LEAVES, DOWNED TREES, ETC) WITHIN CREEK BED.
5. CONTRACTOR SHALL REMOVE ANY INVASIVE SPECIES OF PLANT MATERIAL WITHIN THE LIMIT OF WORK, INCLUDING, BUT NOT LIMITED TO PHYLLOSTACHYS AUREOSULCATA "YELLOW GROOVE BAMBOO" AND FALLOPIA JAPONICA "JAPANESE KNOTWEED".

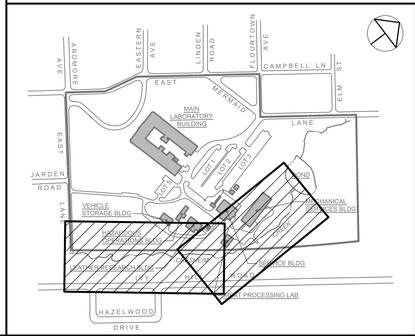
SHEET KEYNOTES

D1. REMOVE EXISTING CHAIN LINK FENCE.
D2. REMOVE EXISTING CHAIN LINK DOUBLE SWING GATE.
D3. REMOVE EXISTING RAILROAD SIDING.
D4. REMOVE EXISTING STORM DRAIN CULVERT.
D5. CLEAR AND GRUB WOODED AREA 10'-0" FROM EXISTING FENCE LINE.
D6. REMOVE STREAM OBSTRUCTION AND DEBRIS IMMEDIATELY UPSTREAM OF OBSTRUCTION (APPROXIMATELY 20'-0").
D7. REMOVE EXISTING GRAVEL PILE.
D8. REMOVE AND RELOCATE EXISTING SPIGOT.
D9. REMOVE EXISTING TREE IN ITS ENTIRETY.
D10. CONTRACTOR TO INSTALL TREE PROTECTION FENCE ON STREAMBANK/UPLAND AREAS AS SHOWN. PROTECT ROOTS AND CANOPY AS MUCH AS POSSIBLE DURING CONSTRUCTION ACTIVITIES FOR TREES THAT MAY BE IN STREAMBED, AS SHOWN, PROTECT TO AS LARGE A DEGREE AS POSSIBLE.
D11. LIMIT OF VEGETATION REMOVAL.

LEGEND

— · · — · · — LIMIT OF VEGETATION REMOVAL

KEY PLAN



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DRAWN BY:	W. HARCHER
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APPROVED BY:	S. KRAUS

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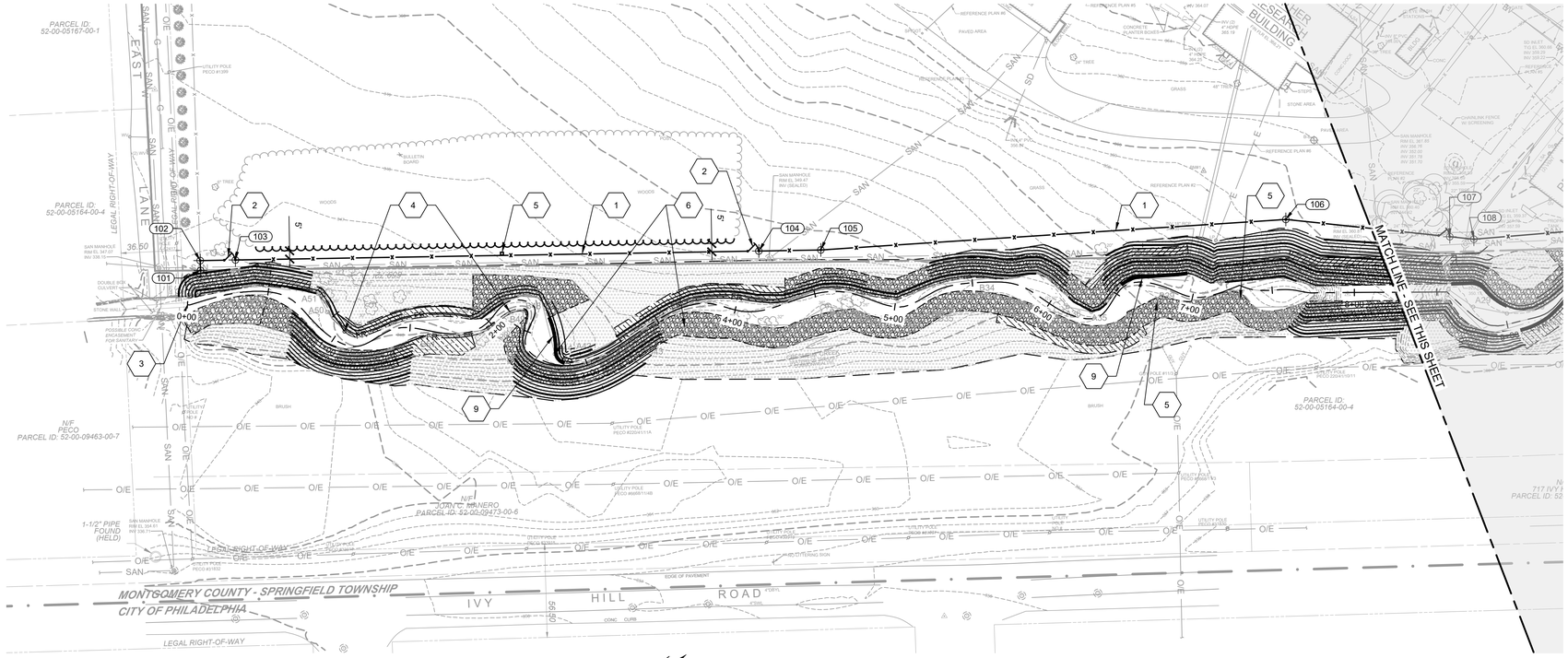
SHEET TITLE

SITE DEMOLITION PLAN

C-102



TRUE NORTH

SITE LAYOUT PLAN

1"=40'

40' 0 40'

TRUE NORTH

SITE LAYOUT PLAN

1"=40'

40' 0 40'

COORDINATE SCHEDULE			
POINT #	NORTHING	EASTING	DESCRIPTION
101	280778.75	2685760.89	END OF FENCE
102	280782.28	2685756.04	FENCE CORNER/TIE-IN TO EXIST FENCE
103	280799.36	2685768.95	GATE POST
104	281052.59	2685960.36	GATE POST
105	281082.57	2685983.02	FENCE CORNER
106	281315.99	2686142.30	FENCE CORNER
107	281387.82	2686211.84	GATE POST
108	281398.37	2686222.06	FENCE CORNER
109	281472.93	2686271.03	FENCE CORNER
110	281501.57	2686280.54	FENCE CORNER
111	281527.46	2686291.50	FENCE CORNER
112	281534.77	2686307.85	FENCE CORNER
113	281534.59	2686328.73	TIE-IN TO EXIST FENCE

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PICK NUMBER FOR PRINT
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GENERAL SHEET NOTES

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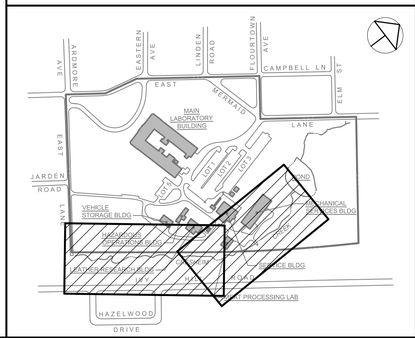
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.

SHEET KEYNOTES

1. CHAIN LINK FENCE. REFER TO DETAIL ON SHEET C-511.
2. CHAIN LINK PERSONNEL GATE. REFER TO DETAIL ON SHEET C-511.
3. INSTALL STONE SILL TO MAINTAIN THALWEG THROUGH WEST CULVERT BARREL.
4. EXCAVATE AND REGRADE POINT BAR FOR FLOOD BENCH.
5. RELOCATED SPIGOT.
6. EXCAVATE AND REGRADE POINT BAR FOR FLOOD BENCH.
7. EXCAVATE AND REGRADE POINT BAR.
8. EXCAVATE POINT BAR, REGRADE TO FLOOD BENCH.
9. ROOT WAD. REFER TO DETAIL ON SHEET C-521.
10. POSITION CHAIN LINK FENCE FOUNDATIONS TO STRADDLE STREAM BED. PLACE EXISTING BOULDERS UPSTREAM OF CHAIN LINK FENCE TO PROTECT FENCE POSTS FROM DEBRIS ACCUMULATION.

KEY PLAN



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205 West Welsh Drive
Douglassville, Pennsylvania
tel: 610-385-8200 fax: 610-385-8501
www.stvinc.com

CONSULTANTS

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159 East High Street, Suite #500 : Pottstown, PA 19464
610.705.4500 (Office) : 610.705.4900 (Fax)

SEALS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
EVELYN S. TYSON
ENGINEER
PE057556
7/31/23

PROJECT IDENTIFICATION

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE

CREEK BED STABILIZATION

EASTERN REGIONAL RESEARCH CENTER
600 EAST MERMAID LANE
WYNDMOOR, PENNSYLVANIA

MARK	DATE	DESCRIPTION	BY
D	7/31/23	FINAL DESIGN SUBMITTAL	SK
C	3/16/23	95% DESIGN SUBMITTAL	SK
B	1/30/23	50% DESIGN SUBMITTAL	SK
A	11/18/22	35% DESIGN SUBMITTAL	SK

ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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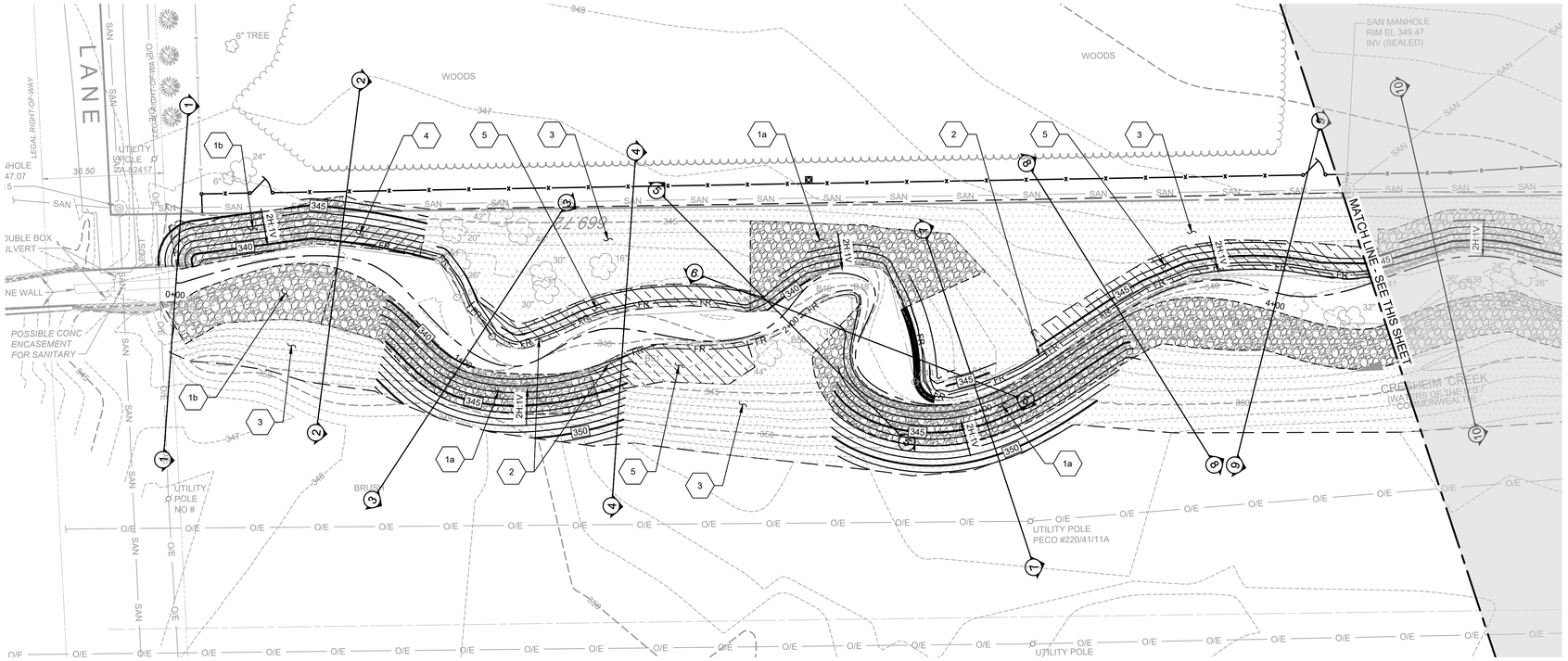
SHEET TITLE

SITE LAYOUT PLAN

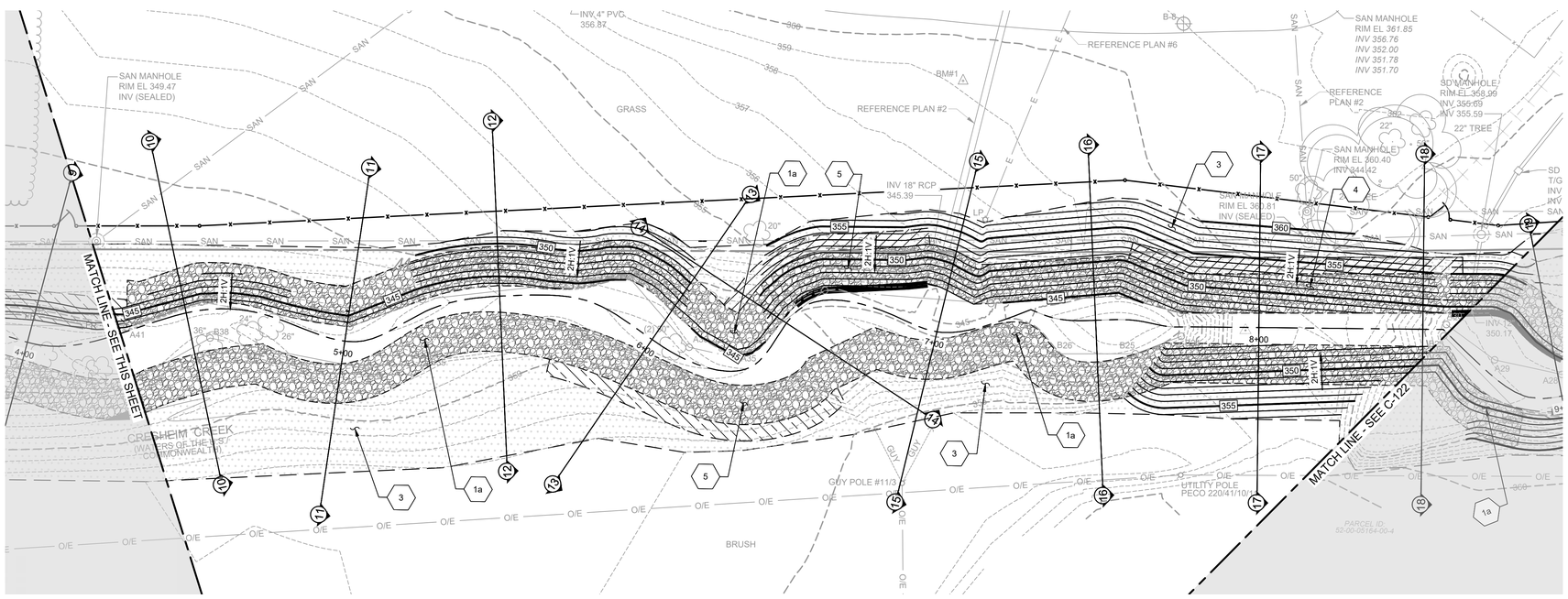
C-111



TRUE NORTH

SITE GRADING PLAN

1"=20'



TRUE NORTH

SITE GRADING PLAN

1"=20'

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PICK NUMBER
20230671236

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.
3. FOR CREEK CROSS-SECTION SEE SHEETS C-321 THRU C-324.
4. SAWCUT EXISTING STORM DISCHARGE PIPING, AS NECESSARY, TO PROVIDE TRANSITION TO NEWLY GRADED SLOPE. A MAXIMUM OF 2 FEET OF THE PIPE END SHALL BE EXPOSED.

SHEET KEYNOTES

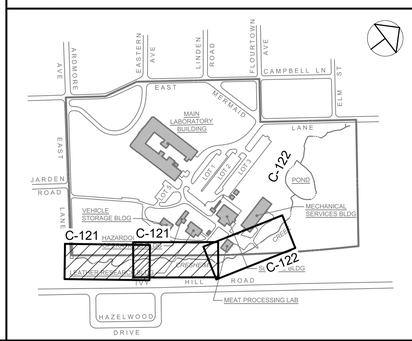
1. RIPRAP LINING. REFER TO TYPICAL RIPRAP TOE PROTECTION DETAIL ON SHEET C-521.
   a. R-4, 18-INCH NOMINAL PLACEMENT THICKNESS, MIN.
   b. R-5, 27-INCH NOMINAL PLACEMENT THICKNESS, MIN.
2. FIBER ROLL. REFER TO FIBER ROLLS DETAIL ON SHEET C-521.
3. EROSION CONTROL BLANKET. REFER TO EROSION CONTROL BLANKET INSTALLATION AND EROSION CONTROL BLANKET SLOPE INSTALLATION DETAILS ON SHEET C-703.
4. LIVE STAKES. REFER TO THE RIRAP STREAMBANK PROTECTION WITH LIVE STAKES DETAIL ON SHEET C-521.
5. BRANCHPACKING. REFER TO DETAIL ON SHEET C-521.
6. SUPPORT AND PROTECT EXISTING SANITARY PIPING DURING RIPRAP PLACEMENT. PROVIDE 12" MIN AASHTO 57 AROUND PIPE.

NOTE: NOT ALL SHEET KEYNOTES ARE APPLICABLE TO THIS SHEET.

STABILIZATION LEGEND

- LIVE STAKES
- BRANCHPACKING
- RIPRAP LINING
- EROSION CONTROL BLANKET
- ROOT WAD

KEY PLAN



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REGISTERED PROFESSIONAL
EVELYN S. TYSON
ENGINEER
PE057556
7/31/23

PROJECT IDENTIFICATION

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WYNDMOOR, PENNSYLVANIA

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ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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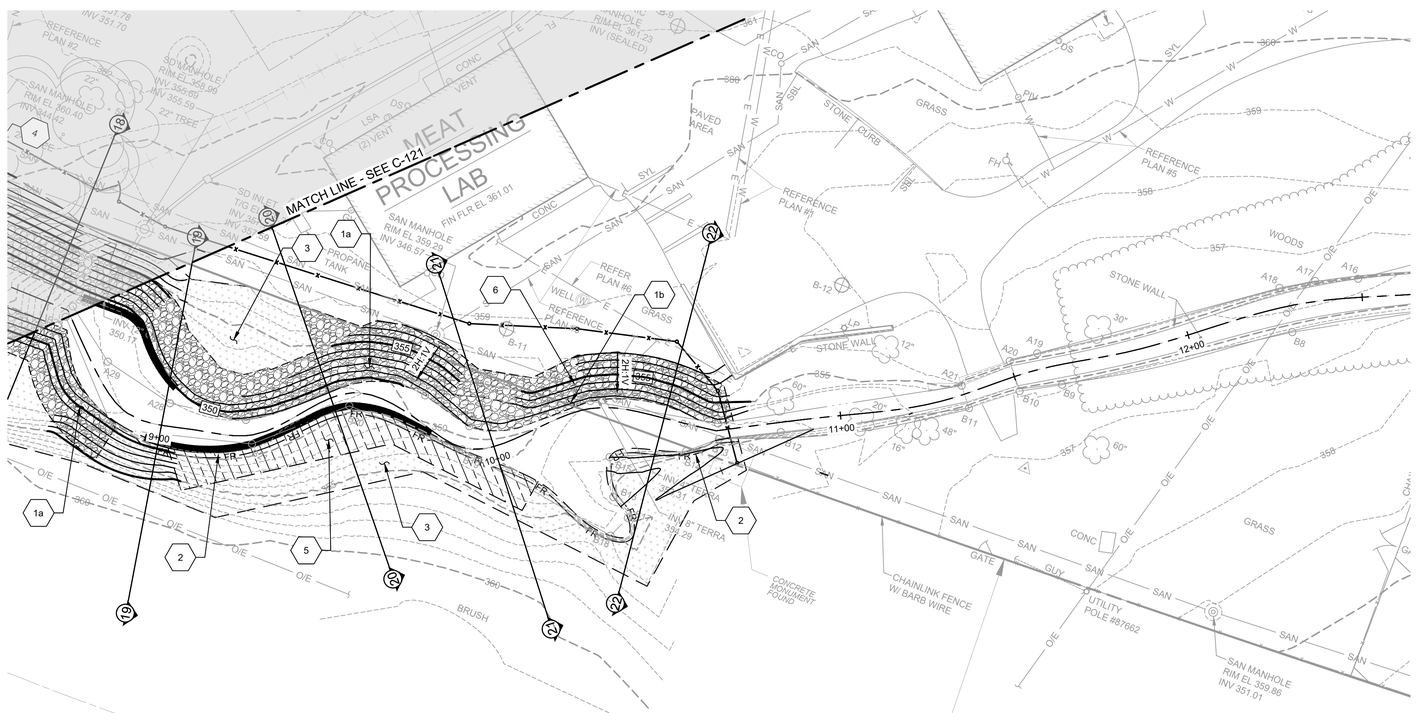
SHEET TITLE

SITE GRADING PLAN

C-121



TRUE NORTH

SITE GRADING PLAN

1"=20'

20' 0 20'

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

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PennOne Serial Number:
20230671236

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.
3. FOR CREEK CROSS-SECTION SEE SHEETS C-321 THRU C-324.
4. SAWCUT EXISTING STORM DISCHARGE PIPING, AS NECESSARY, TO PROVIDE TRANSITION TO NEWLY GRADED SLOPE. A MAXIMUM OF 2 FEET OF THE PIPE END SHALL BE EXPOSED.

SHEET KEYNOTES

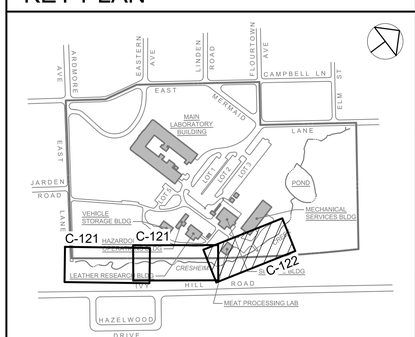
1. RIPRAP LINING. REFER TO TYPICAL RIPRAP TOE PROTECTION DETAIL ON SHEET C-521.
   a. R-4, 18-INCH NOMINAL PLACEMENT THICKNESS, MIN.
   b. R-5, 27-INCH NOMINAL PLACEMENT THICKNESS, MIN.
2. FIBER ROLL. REFER TO FIBER ROLLS DETAIL ON SHEET C-521.
3. EROSION CONTROL BLANKET. REFER TO EROSION CONTROL BLANKET INSTALLATION AND EROSION CONTROL BLANKET SLOPE INSTALLATION DETAILS ON SHEET C-703.
4. LIVE STAKES. REFER TO THE RIRAP STREAMBANK PROTECTION WITH LIVE STAKES DETAIL ON SHEET C-521.
5. BRANCHPACKING. REFER TO DETAIL ON SHEET C-521.
6. SUPPORT AND PROTECT EXISTING SANITARY PIPING DURING RIPRAP PLACEMENT. PROVIDE 12" MIN AASHTO 57 AROUND PIPE.

NOTE: NOT ALL SHEET KEYNOTES ARE APPLICABLE TO THIS SHEET.

STABILIZATION LEGEND

- LIVE STAKES
- BRANCHPACKING
- RIPRAP LINING
- EROSION CONTROL BLANKET
- ROOT WAD

KEY PLAN



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REGISTERED PROFESSIONAL
EVELYN S TYSON
ENGINEER
PE057556
7/31/23

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CREEK BED STABILIZATION

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A	11/18/22	35% DESIGN SUBMITTAL	SK

ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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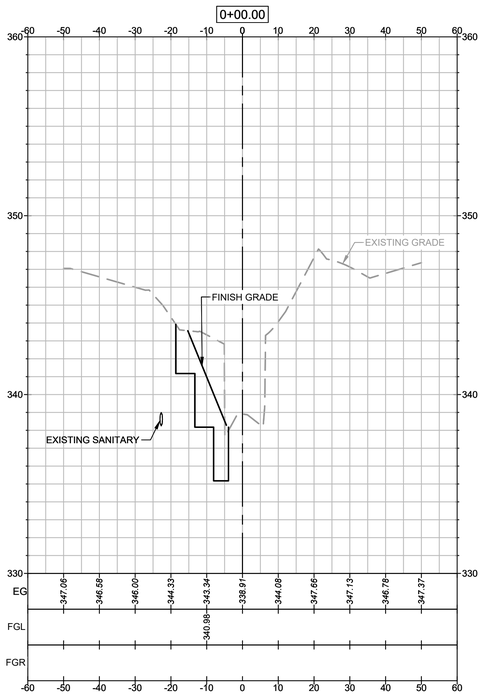
SHEET TITLE

SITE GRADING PLAN

C-122

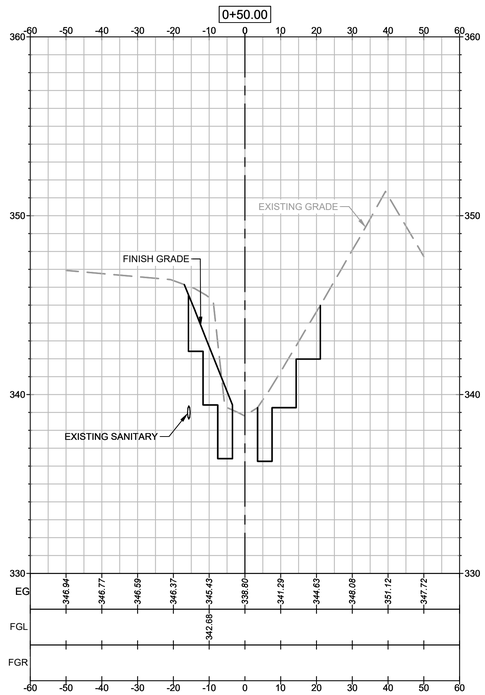
GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.



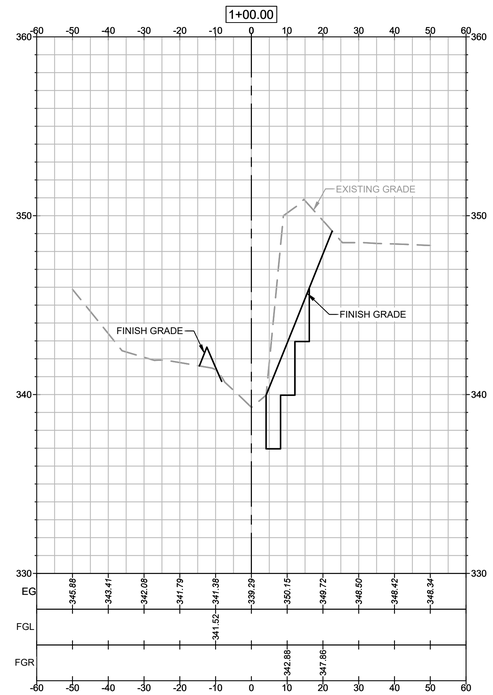
CREEK SECTION 1

1"= 20' HORIZ
4' VERT



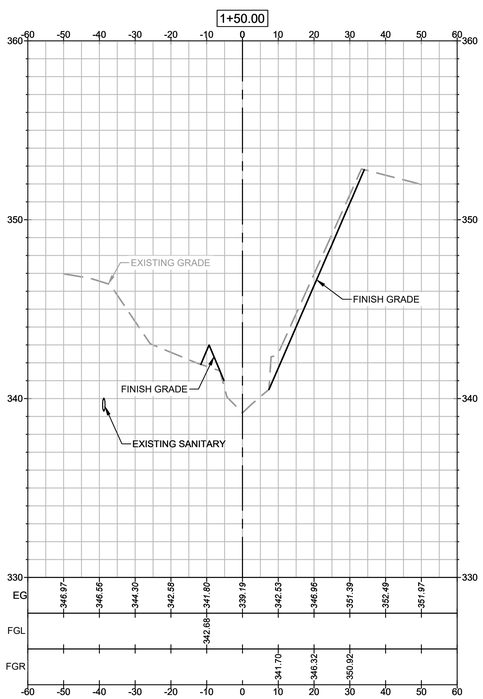
CREEK SECTION 2

1"= 20' HORIZ
4' VERT



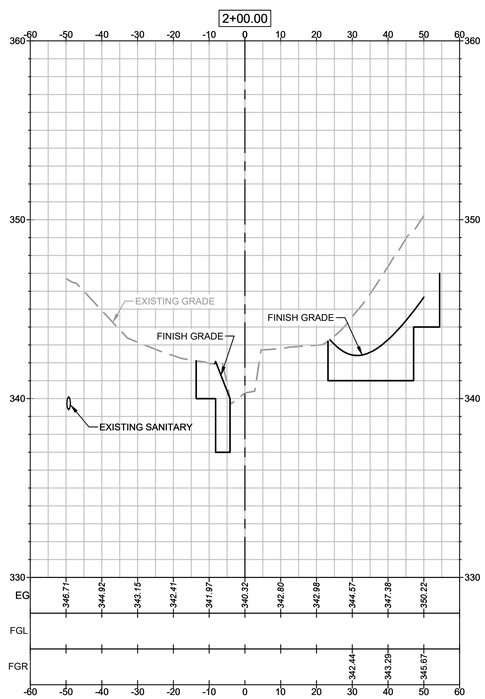
CREEK SECTION 3

1"= 20' HORIZ
4' VERT



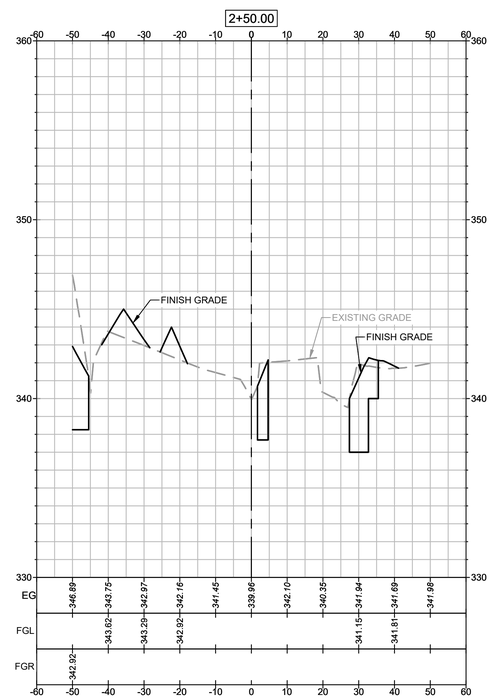
CREEK SECTION 4

1"= 20' HORIZ
4' VERT



CREEK SECTION 5

1"= 20' HORIZ
4' VERT



CREEK SECTION 6

1"= 20' HORIZ
4' VERT

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 BUSINESS DAYS NOTICE PRIOR TO CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
20230671236

STV Incorporated
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
EVELYN S. TYSON
ENGINEER
PE057556
7/31/23

PROJECT IDENTIFICATION

USDA

UNITED STATES
DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH
SERVICE

CREEK BED STABILIZATION

EASTERN REGIONAL
RESEARCH CENTER
600 EAST MERMAID LANE
WYNDMOOR, PENNSYLVANIA

MARK	DATE	DESCRIPTION	BY
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C	3/16/23	95% DESIGN SUBMITTAL	SK
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A	11/18/22	35% DESIGN SUBMITTAL	SK

ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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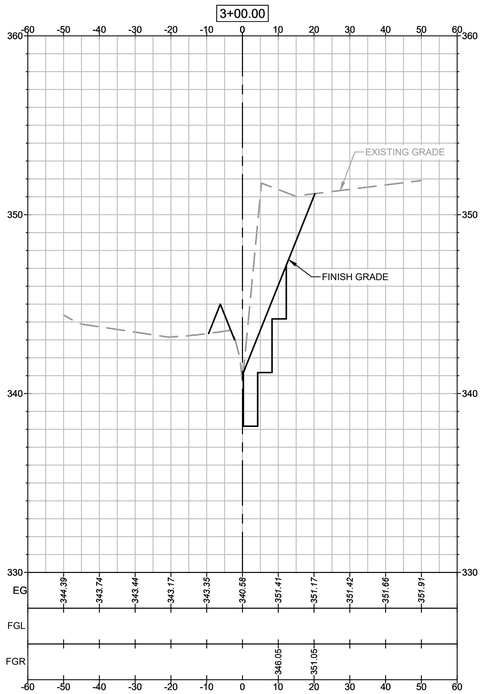
SHEET TITLE

CREEK SECTIONS

C-321

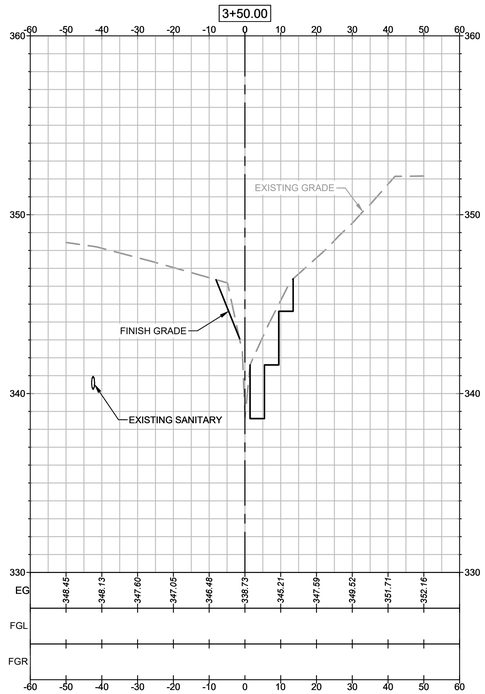
GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.



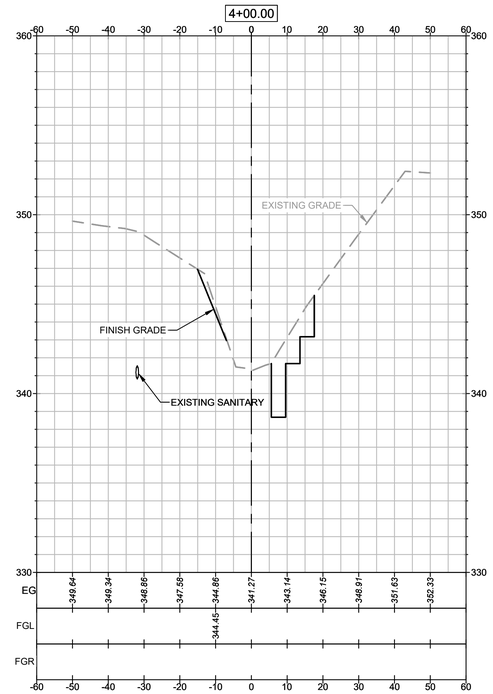
CREEK SECTION 7

1"= 20' HORIZ
4' VERT



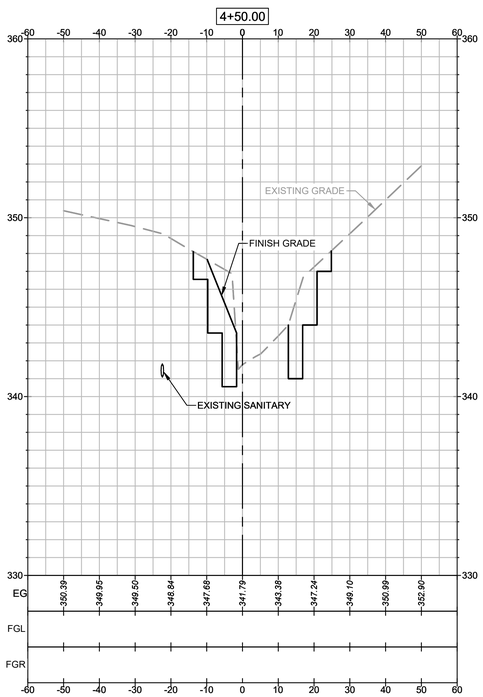
CREEK SECTION 8

1"= 20' HORIZ
4' VERT



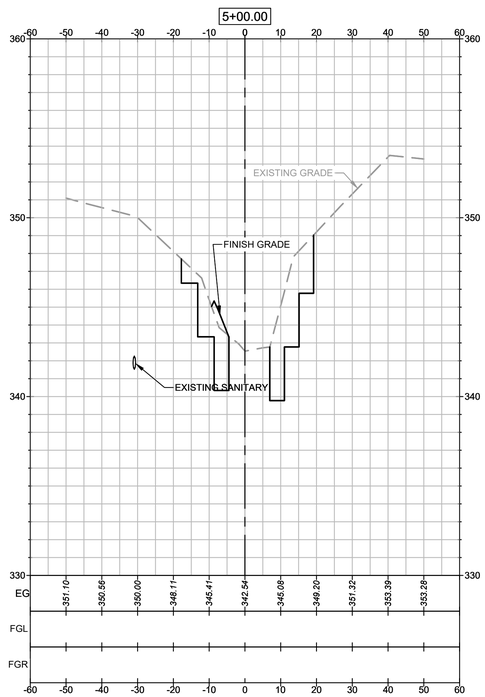
CREEK SECTION 9

1"= 20' HORIZ
4' VERT



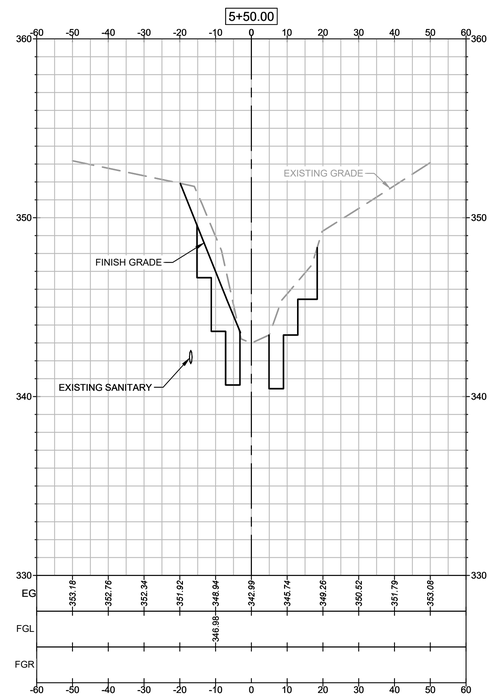
CREEK SECTION 10

1"= 20' HORIZ
4' VERT



CREEK SECTION 11

1"= 20' HORIZ
4' VERT



CREEK SECTION 12

1"= 20' HORIZ
4' VERT

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 BUSINESS DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
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ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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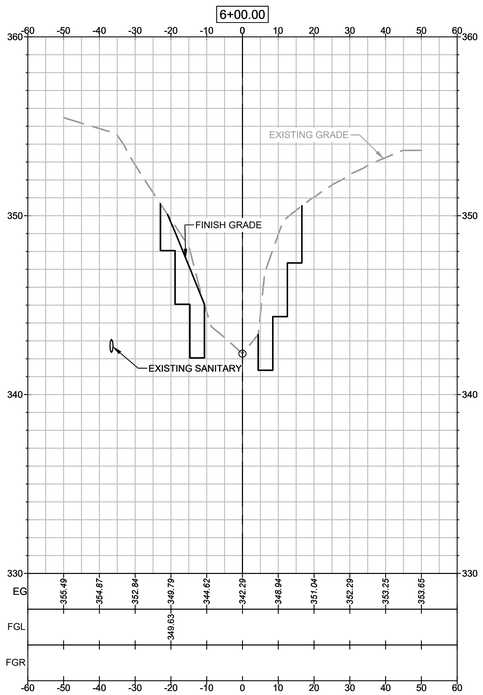
SHEET TITLE

CREEK SECTIONS

C-322

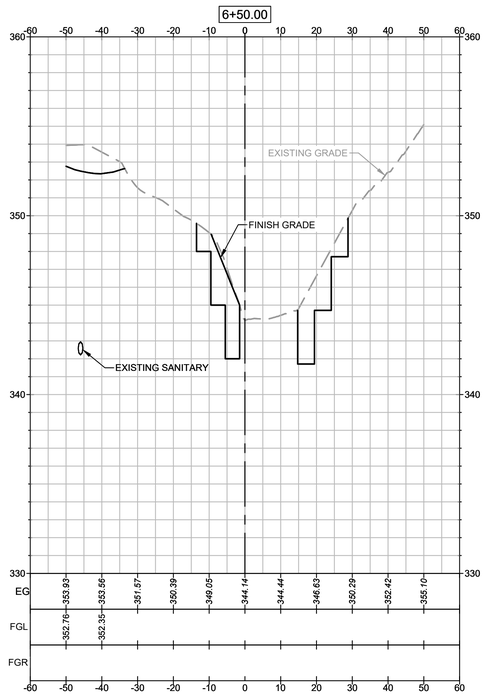
GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.



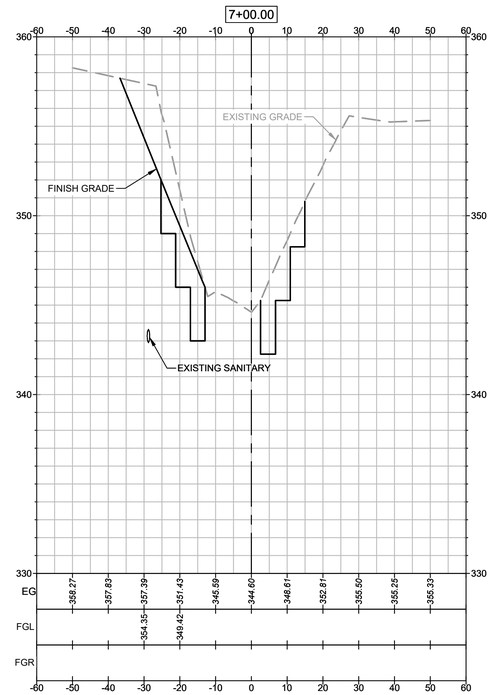
CREEK SECTION 13

1"= 20' HORIZ
4' VERT



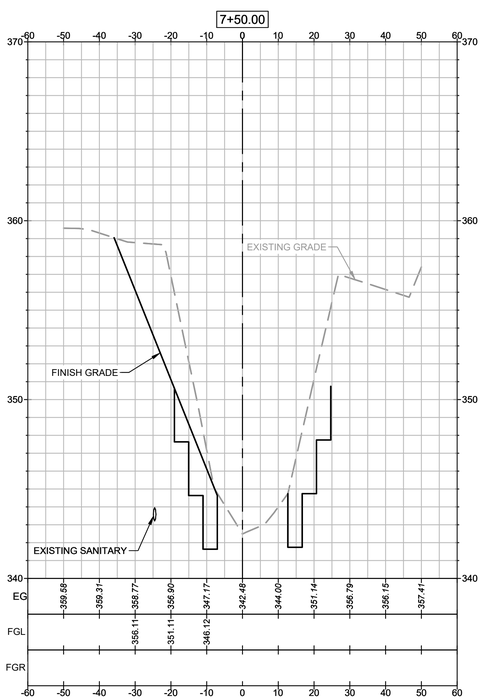
CREEK SECTION 14

1"= 20' HORIZ
4' VERT



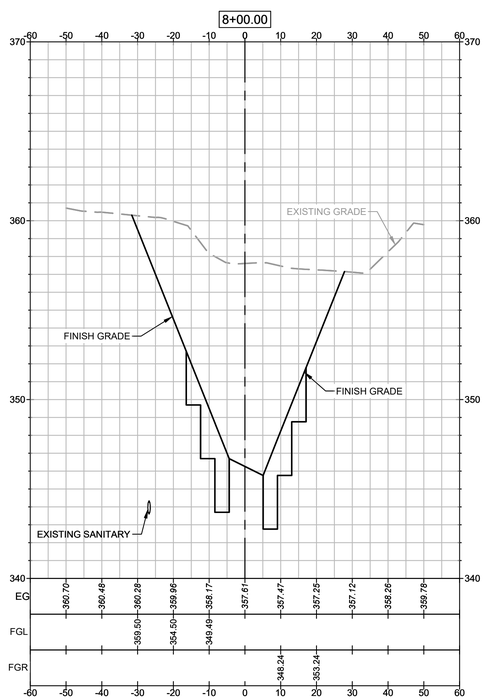
CREEK SECTION 15

1"= 20' HORIZ
4' VERT



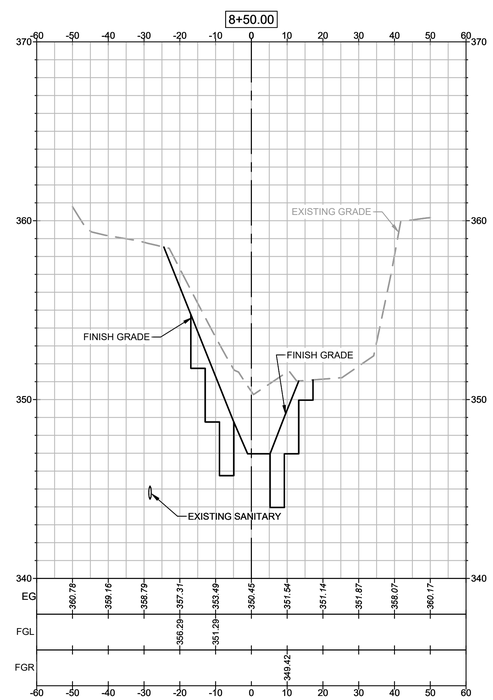
CREEK SECTION 16

1"= 20' HORIZ
4' VERT



CREEK SECTION 17

1"= 20' HORIZ
4' VERT



CREEK SECTION 18

1"= 20' HORIZ
4' VERT

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ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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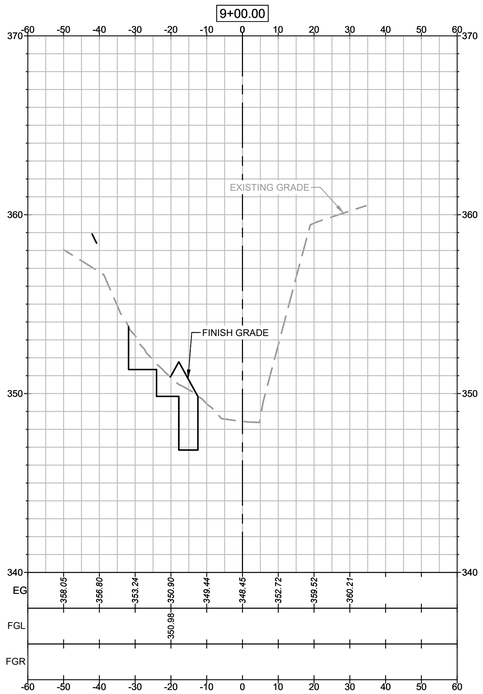
SHEET TITLE

CREEK SECTIONS

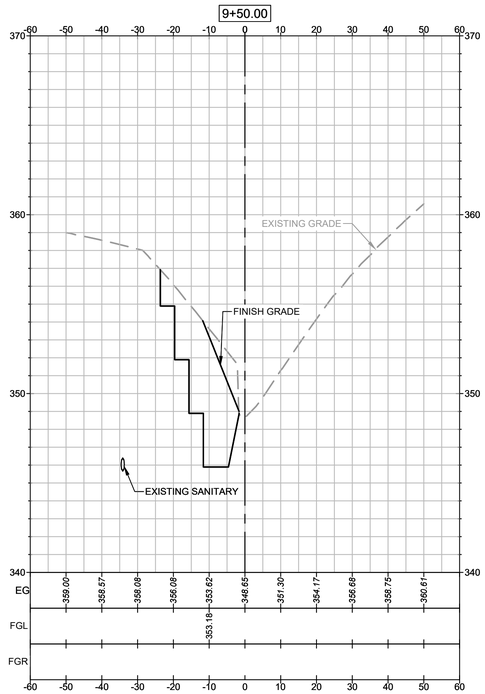
C-323

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 CALL 3 DAYS BEFORE YOU DIG!
CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
20230671236



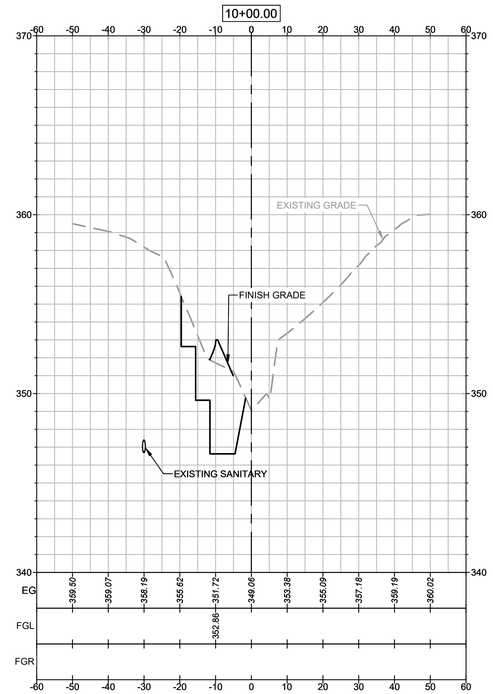
CREEK SECTION 19

1"= 20' HORIZ
4' VERT



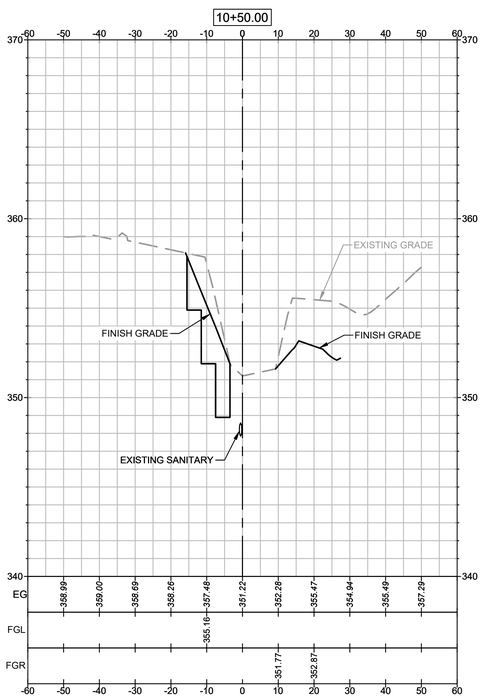
CREEK SECTION 20

1"= 20' HORIZ
4' VERT



CREEK SECTION 21

1"= 20' HORIZ
4' VERT



CREEK SECTION 22

1"= 20' HORIZ
4' VERT

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.

STV Incorporated
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CONSULTANTS

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159 East High Street, Suite #500 : Pottstown, PA 19464
610.705.4500 (Office) : 610.705.4900 (Fax)

SEALS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
EVELYN S TYSON
ENGINEER
PE057556
7/31/23

PROJECT IDENTIFICATION

USDA

UNITED STATES
DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH
SERVICE

CREEK BED STABILIZATION

EASTERN REGIONAL
RESEARCH CENTER
600 EAST MERMAID LANE
WYNDMOOR, PENNSYLVANIA

MARK	DATE	DESCRIPTION	BY
D	7/31/23	FINAL DESIGN SUBMITTAL	SK
C	3/16/23	95% DESIGN SUBMITTAL	SK
B	1/30/23	50% DESIGN SUBMITTAL	SK
A	11/18/22	35% DESIGN SUBMITTAL	SK

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PENNSYLVANIA LAW REQUIRES 3 BUSINESS DAYS NOTICE PRIOR TO CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
20230671236

C-324

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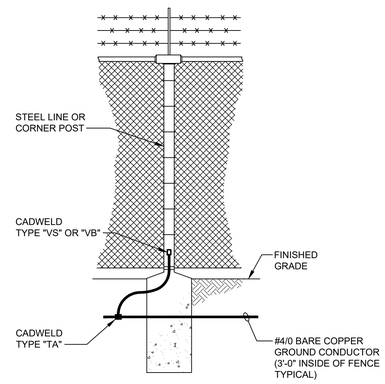
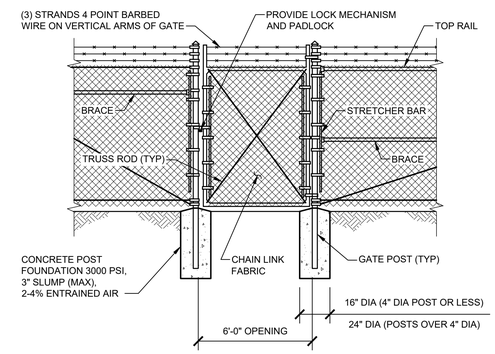


FENCE POST GROUNDING

NOT TO SCALE

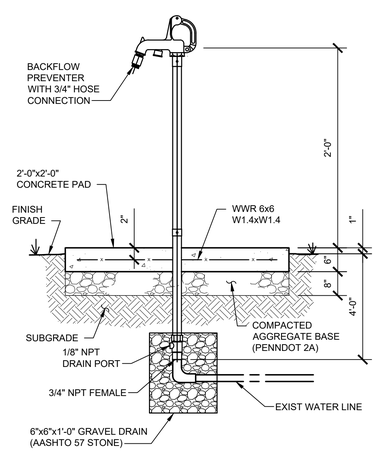
NOTE:
IT IS NOT NECESSARY TO CONNECT TO THE FENCE FABRIC, TOP RAIL (EXCEPT IN CANADA) OR THE BARBED WIRE IF POSTS ARE OF A CONDUCTING MATERIAL (REF: NESC RULE 92E).



CHAIN LINK PERSONNEL GATE

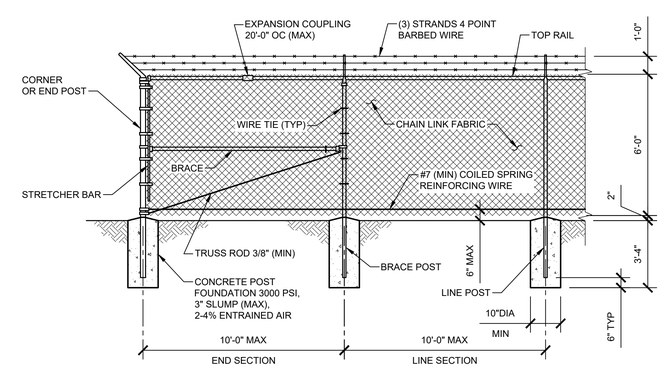
NOT TO SCALE

NOTE
1. SEE CHAIN LINK FENCE DETAIL.



FROST FREE YARD HYDRANT

NOT TO SCALE



CHAIN LINK FENCE

NOT TO SCALE

NOTE
1. BRACES AND TRUSS RODS SHALL BE USED AT ALL CORNERS.

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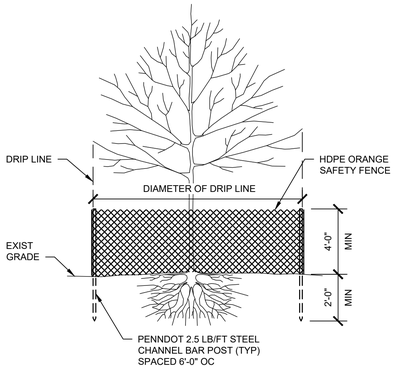
SHEET TITLE

SITE DETAILS

C-511

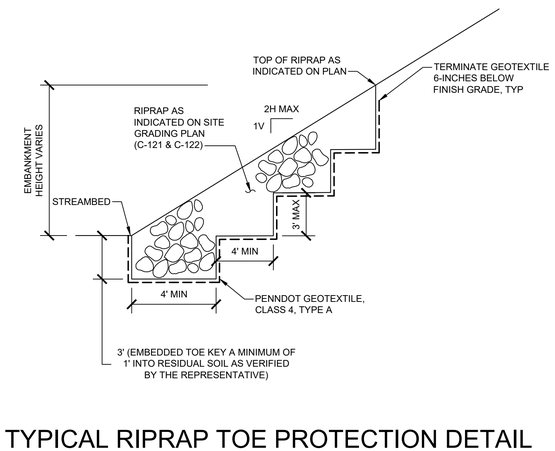


TREE PROTECTION

NOT TO SCALE

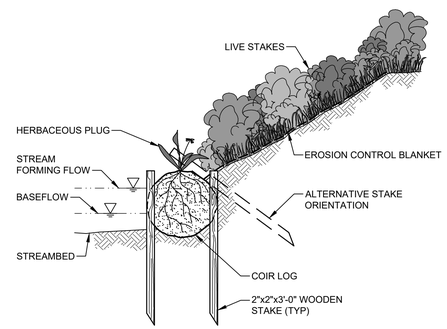
NOTES

1. HDPE ORANGE SAFETY FENCE MESH SIZE 1 1/2"x3" MINIMUM, TENSILE STRENGTH 248 LBS/FT.
2. ALL TREES WITHIN THE LIMIT OF DISTURBANCE THAT ARE TO REMAIN SHALL BE PROTECTED.



TYPICAL RIPRAP TOE PROTECTION DETAIL STA 0+00 TO 9+50, WHERE INDICATED ON PLAN

NOT TO SCALE

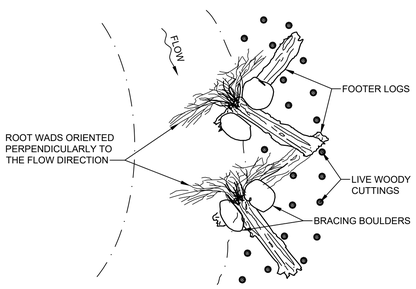


FIBER ROLLS

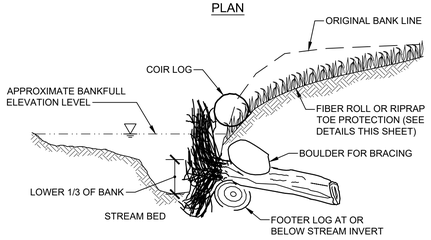
NOT TO SCALE

NOTES

1. FIBER ROLLS/COIR LOGS SHALL BE MANUFACTURED FROM CYLINDRICAL STRUCTURES CONSISTING OF NATURAL MATERIALS, SUCH AS COCONUT HUSK BOUND TOGETHER WITH TWINE. FIBER ROLLS/COIR LOGS SHALL HAVE A MINIMUM 18-INCH DIAMETER.
2. STAKES SHALL BE DRIVEN ON 2 TO 4 FOOT ON CENTERS.
3. REFER TO EROSION CONTROL BLANKET DETAILS ON SHEET C-703.
4. LIVE BRANCH CUTTINGS SHALL BE PLANTED IN A STAGGERED PATTERN ALONG THE STREAMBANK.



PLAN



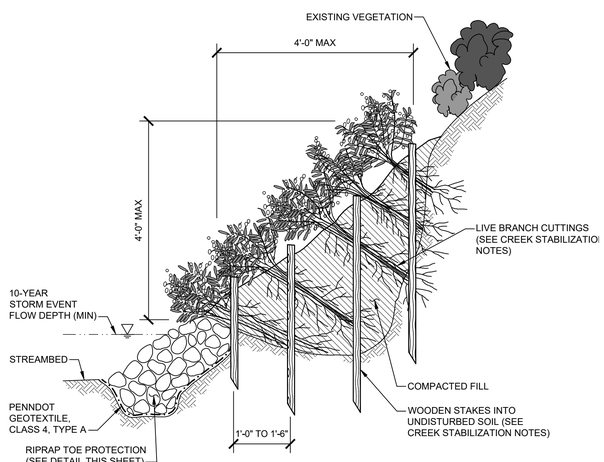
SECTION

ROOT WAD REVETMENT

NOT TO SCALE

NOTE

1. BRACE LOG CAN BE USED FOR ADDITIONAL STABILITY AND SHOULD BE PINNED TO ADJACENT ROOTWADS.

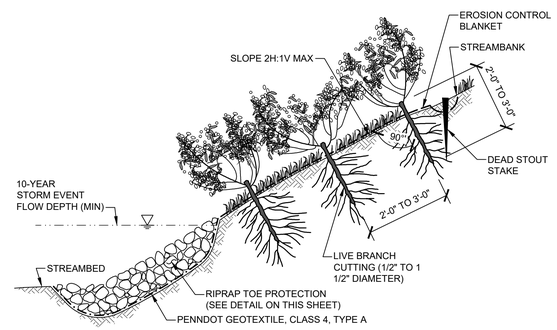


BRANCHPACKING

NOT TO SCALE

NOTE

1. ROOTED / LEAFED CONDITION OF THE LIVING PLANT MATERIAL INDICATED IS NOT REPRESENTATIVE OF THE CONDITIONS AT THE TIME OF INSTALLATION.



RIPRAP STREAMBANK PROTECTION WITH LIVE STAKES

NOT TO SCALE

NOTES

1. ROOTED / LEAFED CONDITION OF THE LIVING PLANT MATERIAL INDICATED IS NOT REPRESENTATIVE OF THE CONDITIONS AT THE TIME OF INSTALLATION.
2. FILTER STONE MAY BE SUBSTITUTED FOR THE GEOTEXTILE WHERE SITE AND SOIL CONDITIONS WARRANT.
3. RIPRAP TOE PROTECTION SHALL EXTEND INTO STREAMBED AS REQUIRED TO PROVIDE TOE SUPPORT.
4. LIVE BRANCH CUTTINGS SHALL BE PLANTED IN A STAGGERED PATTERN ALONG THE STREAMBANK.
5. REFER TO EROSION CONTROL BLANKET DETAILS ON SHEET C-703.

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.

CREEK STABILIZATION NOTES

1. ROOTWAD REVETMENT NOTES:
   a. ROOTWAD DIMENSIONS: THE FAN (ROOT MASS) OF THE ROOTWAD SHOULD BE OF SUFFICIENT DIAMETER TO REACH FROM THE DEPTH OF MAXIMUM SCOUR TO THE ANNUAL HIGH WATER ELEVATION. IF ONE FAN IS NOT SUFFICIENT, ROOTWADS MAY BE STACKED, PROVIDING THIS DOES NOT JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE INSTALLATION. THE LENGTH OF THE ROOTWAD TRUNK SHOULD BE 4 TIMES THE PROJECTED SCOUR BEHIND THE ROOTWAD; THIS LENGTH CAN RANGE FROM 10 FT ON SMALL STREAMS (LESS THAN 15 FT WIDE) TO OVER 20 FT ON LARGER STREAMS. THE TRUNK SHOULD BE FIRMLY ATTACHED TO THE FAN.
   b. FOOTER DIMENSIONS: THE FOOTER SHOULD HAVE A DIAMETER AT LEAST THREE-QUARTERS THAT OF THE ROOTWAD TRUNK TO PROVIDE THE NECESSARY SUPPORT TO THE ROOTWAD.
   c. ORIENTATION: THE ROOTWAD FAN SHOULD BE FACING DIRECTLY INTO ONCOMING FLOW (AT A 90° ANGLE TO INCOMING VELOCITY VECTORS); IF THE ANGLE VARIES FROM THIS, IT MAY BE UP TO 15° TOWARDS THE STREAM. DIRECTING THE ROOTWAD FAN TOWARDS THE ADJACENT BANK WILL LIKELY RESULT IN ACCELERATED EROSION OF THE BANK, AND POTENTIAL REVETMENT FAILURE. THE ROOTWAD SHOULD BE PLACED AT AN ELEVATION SUCH THAT THE FAN REACHES THE MAXIMUM SCOUR DEPTH.
   d. FOOTER ORIENTATION: THE FOOTER LOG SHOULD BE PLACED ROUGHLY PARALLEL TO THE STREAMBANK, AND EXTEND PAST THE ROOTWAD FAN FOR A LENGTH SUFFICIENT TO PROTECT THE BANK AGAINST ANY EDDYING DOWNSTREAM OF THE ROOTWAD. THE FOOTER SHOULD BE PLACED AT AN ELEVATION APPROPRIATE TO SUPPORT THE ROOTWAD AT THE ELEVATION SPECIFIED ABOVE; THIS WILL TYPICALLY BE SLIGHTLY ABOVE THE MAXIMUM SCOUR DEPTH. IN SOME CASES, FOOTER LOGS MAY NOT BE NECESSARY.
   e. SPACING: SPACING BETWEEN THE ROOTWADS SHOULD BE SUCH THAT VELOCITY VECTORS ARE DIRECTED AWAY FROM THE STREAMBANK FOR THE FULL DISTANCE BETWEEN ROOTWADS. THIS WILL TYPICALLY BE BETWEEN 3 AND 4 TIMES THE PROJECTING LENGTH OF THE STRUCTURE.
   f. HABITAT REQUIREMENTS: FOR MAXIMUM HABITAT BENEFITS, THE FAN OF THE ROOTWAD SHOULD BE PLACED WITHIN 3 FT OF THE BANK. PLACING THE FAN THIS DISTANCE FROM THE BANK ALLOWS FOR CONSISTENT WATER CIRCULATION ON ALL SIDES OF THE FAN, HABITAT NICHES THROUGHOUT THE STRUCTURE, AND INCREASES VELOCITY DIVERSITY AND SCOUR AND TEXTURAL DIVERSITY OF THE BED AND BANK.
2. BRUSH LAYERING CONSTRUCTION NOTES:
   a. PREPARE THE SLOPE OR STREAMBANK BY CLEARING AWAY LARGE DEBRIS AND GRADING THE SLOPE SO THE BRANCHES WILL LAY FLAT ON THE BANK. DO NOT COMPACT THE SLOPE OVER 85%, AS IT WILL INHIBIT ROOTING. EXCAVATE A HORIZONTAL TRENCH, 8 TO 12 IN DEEP AT THE TOE OF THE STREAMBANK.
   b. LAY THE CUTTINGS FLAT AGAINST THE GRADED SLOPE, SLIGHTLY CRISSCROSSED, WITH THE BASAL ENDS PLACED AS DEEPLY INTO THE TRENCH AS POSSIBLE, AND JUST BELOW ANY TOE PROTECTION TO BE INSTALLED. CONTINUE TO LAY THE CUTTINGS ALONG THE FACE OF THE BANK OR SLOPE UNTIL 80% GROUNDCOVER IS ACHIEVED (THE MATTRESS WILL BE ABOUT 2 TO 12 IN THICK). IT WILL TAKE 3 TO 15 BRANCHES PER FT OF MATTRESS AND THE MATTRESSES WILL BE NO LARGER THAN 6-FEET WIDE AND EACH WILL BE 3-FEET APART.
   c. POUND A GRID OF STAKES, 24 TO 36 IN LONG, INTO THE MATTRESS AT 3 TO 4 FT CENTERS. DO NOT POUND THE STAKES COMPLETELY IN, AS THIS WILL BE DONE AFTER TYING. LONGER STAKES CAN BE USED IN SANDY SOIL AND SHORTER STAKES IN HEAVY SOILS. SECURE THE BRUSH MATTRESS BY USING CORD, ROPE (A MACHINE-SPUN BRISTLE COIR, .2 TO .25 IN THICK, WITH A BREAKING STRENGTH OF 70 TO 100 LB IS SUITABLE), OR 10 TO 12 GAUGE, GALVANIZED ANNEALED WIRE. AFTER SECURING THE MATTRESS WITH CORD OR WIRE, DRIVE THE STAKES IN FURTHER TO COMPRESS THE MATTRESS TIGHTLY AGAINST THE SLOPE.
   d. BACKFILL AROUND AND IN BETWEEN THE BRANCHES OF THE MATTRESS BY USING MATERIAL EXCAVATED FROM THE TRENCH, AND ADDITIONAL SOIL IF NEEDED, WORKING THE SOIL IN WELL AROUND THE BRANCHES. TAMP SOIL BY WALKING ON IT, AND LIGHTLY WATER THE SOIL WITH BUCKETS OR A HOSE TO WASH IT DOWN INTO THE STEMS, AND ENSURE GOOD STEM TO SOIL CONTACT. IT IS NECESSARY FOR THE THICKER, BASAL ENDS OF THE MATTRESS TO GET GOOD SOIL COVER FOR ROOTING; AT LEAST 1/4 OF THE DEPTH OF THE MATTRESS IS RECOMMENDED. LEAVING SOME BRANCHES EXPOSED ABOVE THE SOIL WILL FACILITATE SPROUTING. BLACK WILLOW (SALIX NIGRA) OR PUSSY WILLOW (SALIX DISCOLOR) ARE RECOMMENDED SPECIES FOR FASTER ROOTING AND ESTABLISHMENT.
3. LIVE STAKING CONSTRUCTION NOTES:
   a. LIVE STAKES BRANCHES VARY FROM ABOUT 20 TO 39 INCHES LONG, AND TYPICALLY 3/4 TO 3 INCHES IN DIAMETER. LIVE STAKES ARE PLANTED WITH THE TERMINAL BUDS OR LEAF NODES POINTING UP AND THE BASAL ENDS DOWN INTO THE SOIL. THE BURIED PORTION OF THE CUTTINGS DEVELOP ROOTS, WHILE THE EXPOSED PORTION PRODUCES BRANCHES AND LEAVES. THE STAKES SHOULD NEVER BE ALLOWED TO DRY OUT. KEEP THE STAKES MOIST AND COVERED AT ALL TIMES. SOAKING THE STAKES WILL INCREASE SUCCESS, IN ADDITION, THE STAKES SHOULD BE DORMANT AT THE TIME OF INSTALLATION.
   b. USE AN IRON STAKE OR BAR TO MAKE A PILOT HOLE IN FIRM SOIL. LIVE STAKES SHOULD BE PLANTED IN A RANDOM PATTERN, IF POSSIBLE. SET THE STAKE AS DEEP AS POSSIBLE INTO THE SOIL, WITH 80% OF ITS LENGTH INTO THE SOIL. DEEP PLANTING WILL INCREASE THE CHANCES OF SURVIVAL. THE STAKE SHOULD NEVER PROTRUDE MORE THAN ONE-QUARTER OF ITS LENGTH ABOVE THE GROUND LEVEL TO PREVENT IT FROM DRYING. THE EXCESS STAKE OR ANY DAMAGE OR SPLIT ENDS CAN BE CUT OFF AFTER INSTALLATION. AT LEAST 2 BUDS AND/OR BUD SCARS SHOULD REMAIN ABOVE THE GROUND AFTER PLANTING. ADD SOIL TO THE PLANTING HOLE IF NECESSARY TO ENSURE SOIL CONTACT WITH THE STEM. IT IS IMPORTANT TO TAMP THE SOIL AROUND THE CUTTING TO ENSURE GOOD SOIL-STEM CONTACT.

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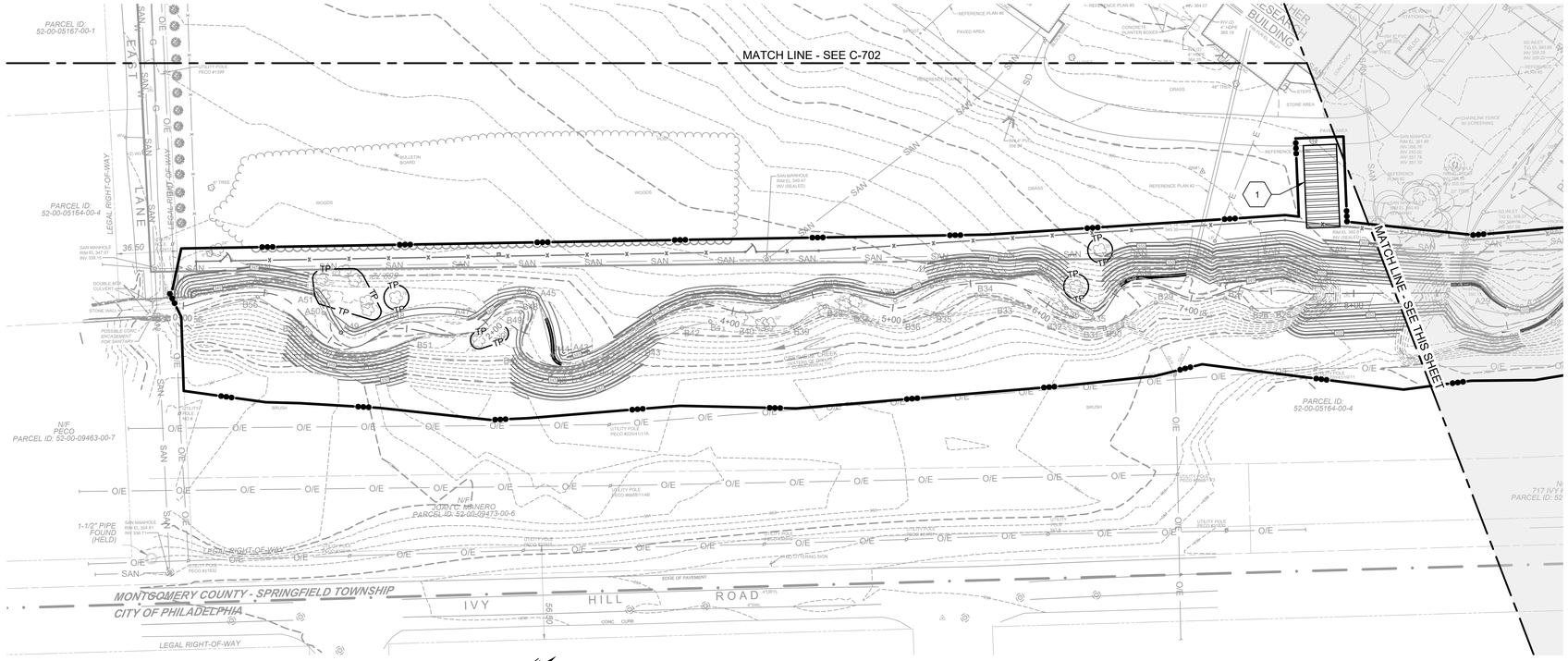
SHEET TITLE

CREEK STABILIZATION DETAILS

C-521



EROSION & SEDIMENT POLLUTION CONTROL PLAN

1"=40'

EROSION & SEDIMENT POLLUTION CONTROL PLAN

1"=40'

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3. FOR EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DETAILS SEE SHEET C-703.
4. FOR EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) NOTES SEE SHEET C-704.

SHEET KEYNOTES

1. 20'x50' RUMBLE PAD CONSTRUCTION ENTRANCE.
2. COMPOST FILTER SOCK. REFER TO DETAIL ON SHEET C-703.
3. CONTRACTOR STAGING / LAYDOWN AREA.

RECEIVING WATERSHED

1. CRESHEIM CREEK, TRIBUTARY OF WISSAHICKON CREEK BASIN, PENNSYLVANIA CODE, TITLE 25, CHAPTER 93 DESIGNATION: TSF, MF.
2. PROPOSED LIMIT OF EARTH DISTURBANCE (EARTHWORK) = 109,438 SF (APPROXIMATELY 2.51 ACRES).

SOIL TYPE LEGEND

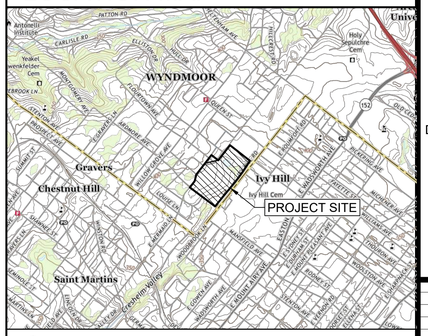
UugB	URBAN LAND-UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES

* SOIL TYPE ENCOMPASSES ENTIRE SITE

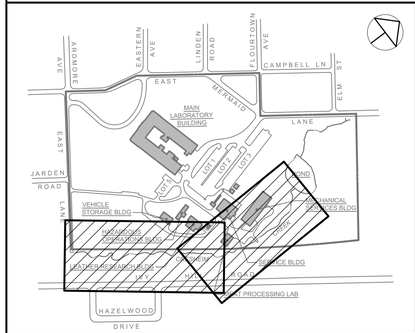
EROSION AND SEDIMENT CONTROL LEGEND

FS12 — FS12	12" COMPOST FILTER SOCK
FS18 — FS18	18" COMPOST FILTER SOCK
●●●	LIMIT OF DISTURBANCE
	CONTRACTOR STAGING AREA
	RUMBLE PAD CONSTRUCTION ENTRANCE

LOCATION MAP



KEY PLAN



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B	1/30/23	50% DESIGN SUBMITTAL	SK
A	11/18/22	35% DESIGN SUBMITTAL	SK

ISSUE BLOCK

PROJECT NO.:	3019705-0002
DESIGNED BY:	K. MOSER
DRAWN BY:	W. HARCHER
CHECKED BY:	E. TYSON
APPROVED BY:	S. KRAUS

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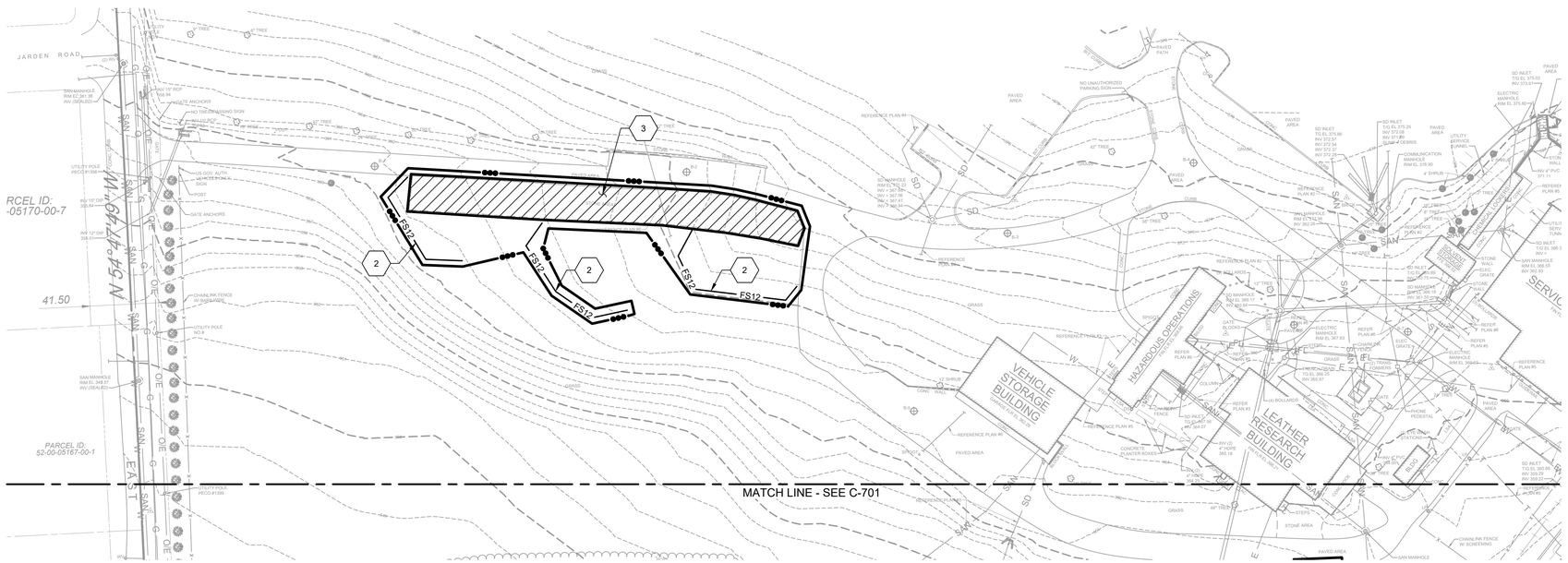
SHEET TITLE

E&SPC PLAN

C-701



TRUE NORTH

EROSION & SEDIMENT POLLUTION CONTROL PLAN

1"=40'

40' 0 40'

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 CALL 3 DAYS BEFORE YOU DIG!

CALL BEFORE YOU DIG!
1-800-242-1776
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PCO SERIAL NUMBER
20182961768

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
2. FOR ABBREVIATIONS, GENERAL SYMBOLS AND MATERIAL SYMBOLS SEE SHEET G-002 AND G-003.
3. FOR EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DETAILS SEE SHEET C-703.
4. FOR EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) NOTES SEE SHEET C-704.

SHEET KEYNOTES

1. 20'x50' RUMBLE PAD CONSTRUCTION ENTRANCE.
2. COMPOST FILTER SOCK. REFER TO DETAIL ON SHEET C-703.
3. CONTRACTOR STAGING / LAYDOWN AREA.

RECEIVING WATERSHED

1. CRESHEIM CREEK, TRIBUTARY OF WISSAHICKON CREEK BASIN, PENNSYLVANIA CODE, TITLE 25, CHAPTER 93 DESIGNATION: TSF, MF.
2. PROPOSED LIMIT OF EARTH DISTURBANCE (EARTHWORK) = 109,438 SF (APPROXIMATELY 2.51 ACRES).

SOIL TYPE LEGEND

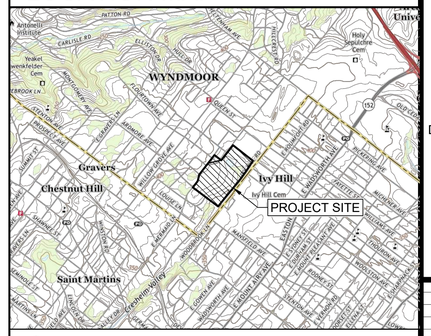
UugB URBAN LAND-UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES

* SOIL TYPE ENCOMPASSES ENTIRE SITE

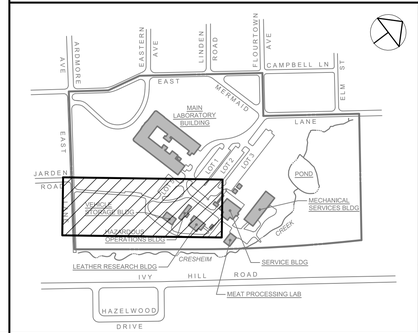
EROSION AND SEDIMENT CONTROL LEGEND

FS12 FS12	12" COMPOST FILTER SOCK
FS18 FS18	18" COMPOST FILTER SOCK
	LIMIT OF DISTURBANCE
	CONTRACTOR STAGING AREA
	RUMBLE PAD CONSTRUCTION ENTRANCE

LOCATION MAP



KEY PLAN



STV Incorporated
205 West Welsh Drive
Douglassville, Pennsylvania
tel: 610-385-8200 fax: 610-385-8501
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CONSULTANTS

CEG CEDARVILLE
CIVIL ENGINEERING • ENVIRONMENTAL SERVICES
SURVEYING • CONSTRUCTION
159 East High Street, Suite #500 - Pottstown, PA 19464
610.705.4500 (Office) - 610.705.4900 (Fax)

SEALS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER EVELYN S. TYSON PE057556 7/31/23

PROJECT IDENTIFICATION

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE

CREEK BED STABILIZATION

EASTERN REGIONAL RESEARCH CENTER
600 EAST MERMAID LANE
WYNDMOOR, PENNSYLVANIA

MARK	DATE	DESCRIPTION	BY
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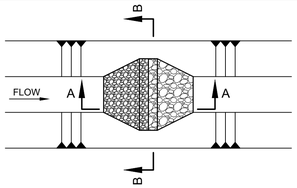
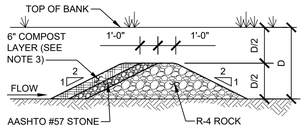
SHEET TITLE

E&SPC PLAN

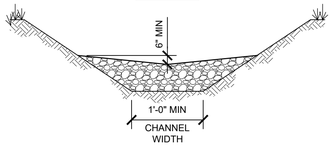
C-702



PLAN



SECTION A-A



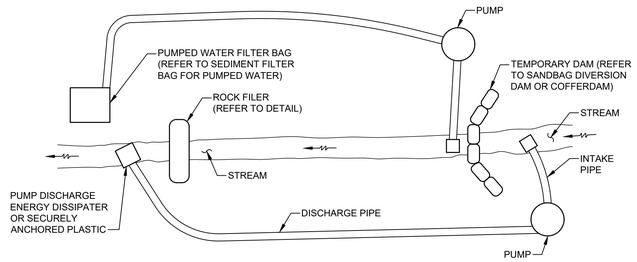
SECTION B-B

ROCK FILTER

NOT TO SCALE

NOTES

1. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE ROCK FILTER.
2. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, ROCK FILTER AND STABILIZE DISTURBED AREAS.
3. ANCHORED COMPOST LAYER SHALL BE USED ON THE UPSLOPE FACE OF THE ROCK FILTER IN HQ AND EV WATERSHEDS.

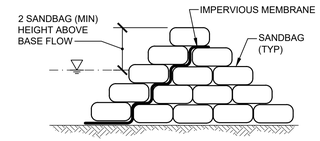


TEMPORARY COFFERDAM & PUMP BYPASS BYPASS AROUND IN-CHANNEL WORK AREAS

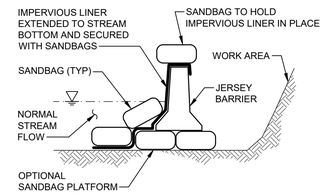
NOT TO SCALE

NOTE

1. PUMP INTAKE SHALL BE MAINTAINED A SUFFICIENT DISTANCE FROM BOTTOM TO PREVENT SEDIMENT FROM ENTERING THE SYSTEM.



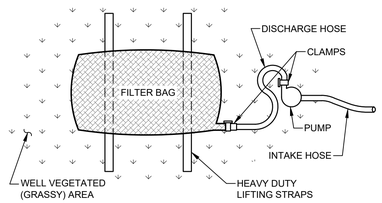
STACKED SANDBAGS OPTION



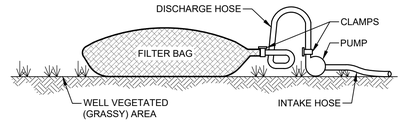
JERSEY BARRIER OPTION

SANDBAG DIVERSION DAM OR COFFERDAM

NOT TO SCALE



PLAN



ELEVATION

SEDIMENT FILTER BAG FOR PUMPED WATER

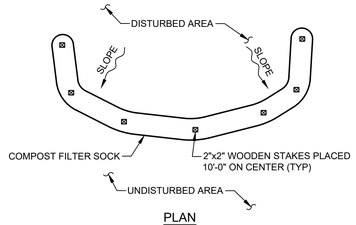
NOT TO SCALE

NOTES

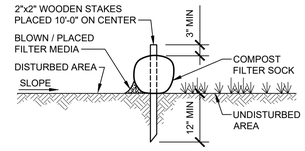
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVERAGE 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 PERCENT RETAINED	ASTM D-4751	80 SIEVE

2. 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 ON SITE 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.
3. 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 AN EROSION RESISTANT 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.
4. A DOWNSLOPE SEDIMENT BARRIER IS NOT REQUIRED FOR MOST INSTALLATIONS. HOWEVER, 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.
5. 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.
6. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 OF THE MAXIMUM RATE SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



PLAN



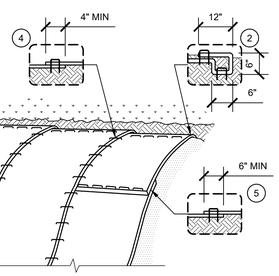
SECTION

COMPOST FILTER SOCK

NOT TO SCALE

NOTES

1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.
2. 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.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
5. 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.
6. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS, PHOTODEGRADABLE SOCKS SHALL BE REPLACED AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE COMPOST FILTER SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IF THE SOCK IS LEFT IN PLACE THEN THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
8. HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND COMPOST FILTER SOCKS FOR STABILIZATION WHEN STAKING IS NOT POSSIBLE (SUCH AS ON PAVED SURFACES).



EROSION CONTROL BLANKET SLOPE INSTALLATION

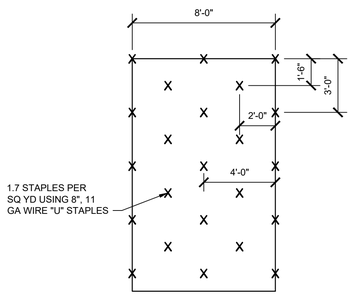
NOT TO SCALE

NOTES

1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.
2. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERMANENT 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.

INSTALLATION INSTRUCTIONS

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY SOIL AMENDMENTS, APPLICATION OF LIME, FERTILIZER AND SEED. THE SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6 INCH DEEP BY 6 INCH WIDE TRENCH WITH APPROXIMATELY 12 INCHES OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12 INCHES APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12 INCH PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12 INCHES APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKET DOWN THE SLOPE. BLANKETS SHOULD UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. THE BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH THE UNDERLAYING SOIL THROUGHOUT ITS ENTIRE LENGTH. THE BLANKET SHALL BE LAID LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH THE BLANKET. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED STAPLE PATTERN GUIDE OR AS INDICATED. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN. FOR STAPLE PATTERN SEE EROSION CONTROL BLANKET INSTALLATION DETAIL.
4. THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH MINIMUM 4 INCH OVERLAP.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH MINIMUM 6 INCH OVERLAP. STAPLE SECURELY THROUGH OVERLAPPED AREA, APPROXIMATELY 12 INCHES APART ACROSS ENTIRE BLANKETS WIDTH.
6. BLANKETS SHALL BE ANCHORED AT THE TOE OF SLOPE IN SIMILAR MANNER AS AT THE TOP OF SLOPE.



STAPLE PATTERN 'C'

EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

NOTES

1. 8 INCH STAPLES OR LONGER SHALL BE USED FOR LOOSE SOILS AND NO 9 GAGE STAPLES OR HEAVIER SHALL BE USED IN HARD OR ROCKY SOILS.
2. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL 3H:1V SLOPES OR AS INDICATED.
3. EROSION CONTROL BLANKET SHALL BE CURLEX II BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.

INSTALLATION INSTRUCTIONS

1. STAPLES - NO 11 GAGE STEEL WIRE STAPLES FOR ANCHORING, BENT U-SHAPED WITH A THROAT WIDTH OF 1 TO 2 INCHES, WITH AN EFFECTIVE DRIVING DEPTH OF NOT LESS THAN 8 INCHES. OTHER ANCHORING DEVICES RECOMMENDED BY THE BLANKET MANUFACTURER MAY BE SUBMITTED FOR REVIEW AND ACCEPTANCE.
2. INSTALL THE UPSLOPE BLANKET END BY BURYING IN A VERTICAL, 6 INCH DEEP SLOT. STAPLE BLANKET ALONG THE BOTTOM OF THE SLOT AT 1 FOOT INTERVALS. BACKFILL THE SLOT AND TAMP AFTER STAPLING.
3. STAPLE UNLAPPED EDGES AT 6 FOOT INTERVALS. WHERE TWO OR MORE WIDTHS ARE PLACED SIDE BY SIDE, OVERLAP EDGES BY NOT LESS THAN 4 INCHES. STAPLE ALONG THE OVERLAP AREA AT 3 FOOT INTERVALS.
4. OVERLAP ROLL ENDS BY 18 INCHES, WITH THE UPSLOPE END ON TOP. STAPLE OVERLAP AREA AT 1 FOOT INTERVALS. STAPLE FABRIC AT 2 FOOT INTERVALS IN A STAGGERED PATTERN THROUGHOUT THE BLANKET.
5. TERMINATE BLANKET INSTALLATION BY TURNING UNDER AT LEAST 6 INCHES OF FABRIC AND STAPLING SECURELY ALONG THE FOLD AT 1 FOOT INTERVALS.

GENERAL SHEET NOTES

1. FOR CIVIL LEGEND, TECHNICAL TERMS AND GENERAL CIVIL NOTES SEE SHEET C-001.
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PE057556
7/31/23

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SHEET TITLE

E&SPC DETAILS

C-703

CLEAN FILL NOTES

1. IF THE SITE WILL NEED TO EXPORT FILL MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE OWNER. IF THE SITE WILL NEED TO IMPORT FILL MATERIALS FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE OPERATOR.
   A. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).
   B. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B REFER TO THE DEPARTMENT'S POLICY TITLED "MANAGEMENT OF FILL", DATED AUGUST 7, 2010.
   C. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE ON A PROPERTY MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.
   D. ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY TITLED "MANAGEMENT OF FILL", DATED AUGUST 7, 2010.
2. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

MEASURES FOR RECYCLING OR DISPOSAL OF MATERIALS

1. THE OPERATOR SHALL REMOVE FROM THE SITE RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ. AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTES ON SITE.
2. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE OPERATOR MUST ASSURE THAT EACH SPOIL OR BORROW AREA REGARDLESS OF LOCATION, HAS AN E&SPC PLAN APPROVED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT, AND WHICH IS BEING IMPLEMENTED AND MAINTAINED ACCORDING TO CHAPTER 102 REGULATIONS.

PERMANENT AND FINAL STABILIZATION NOTES

1. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED PERMANENT STABILIZATION WHEN IT HAS A MINIMUM UNIFORM PERENNIAL, 70% VEGETATIVE OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLUMPING, SLIDING AND OTHER MOVEMENTS.
2. GRADE ALL CUT AND FILL AREAS TO A 3H:1V SLOPE OR FLATTER, UNLESS OTHERWISE NOTED.
3. PERMANENT STABILIZATION SHALL BE ESTABLISHED IMMEDIATELY FOLLOWING FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL IMMEDIATELY HAVE TOPSOIL RESTORED, REPLACED, OR AMENDED, SEEDED, MULCHED OR OTHERWISE PERMANENTLY STABILIZED AND PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.

SEEDING SPECIFICATIONS

LAWN AREAS

SURFACE STABILIZATION CRITERIA: DENUDED AREAS SHALL BE STABILIZED TEMPORARILY OR PERMANENTLY. FERTILIZE, LIME AND MULCH AS BELOW. MINIMUM 90% PURITY AND 85% GERMINATION.

1. TEMPORARY COVER: SEED WITH 50% WINTER RYE / 50% ANNUAL RYE GRASS AT 10 LBS PER 1000 SF. OPTIMUM DATES FOR APPLICATION ARE MARCH TO MAY AND AUGUST TO OCTOBER. NOTE THE ABOVE SPECIES MAY BE PLACED THROUGHOUT THE SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED.
   A. LIME - AGRICULTURAL GRADE LIMESTONE
      ANALYSIS: 90% MINIMUM OF CARBONATES
      QUANTITY: 1 TON PER ACRE
2. PERMANENT COVER: SEED TURF AREAS WITH PENNDOT FORMULA B RESIDENTIAL MIX. FORMULA B SHALL NOT TO BE APPLIED ON STREAM BANKS.
   B. LIME - AGRICULTURAL GRADE LIMESTONE
      ANALYSIS: 90% MINIMUM OF CARBONATES
      QUANTITY: 4 TON PER ACRE
   C. MULCH WITH HAY AT 6000 LBS PER ACRE.
   D. TOPSOIL MATERIAL SHALL BE FERTILE, FRIABLE, NATURAL LOAM, FREE OF SUBSOIL, CLAY, LUMP, BRUSH, ROOTS, STONES, WEEDS AND OTHER FOREIGN MATERIAL LARGER THAN 2 INCHES, IN CONFORMANCE WITH PENNDOT PUBLICATION 408, LATEST EDITION.

ESPECIALLY SUITED FOR SLOPED AREAS

SURFACE STABILIZATION CRITERIA: DENUDED AREAS SHALL BE STABILIZED TEMPORARILY OR PERMANENTLY. WITHIN TWENTY DAYS OF EXPOSURE. FERTILIZE, LIME, AND MULCH AS ABOVE. MINIMUM 90% PURITY AND 85% GERMINATION.

1. TEMPORARY COVER: SEED WITH 50% WINTER RYE / 50% ANNUAL RYE GRASS AT 10 LBS PER 1000 SF.
2. PERMANENT COVER: SEED WITH 50% KENTUCKY BLUE GRASS AT 4 LBS PER 1000 SF AND 50% PERENNIAL RYEGRASS AT 5 LBS PER 1000 SF.
3. PERMANENT STORMWATER MANAGEMENT BASIN AND CHANNEL SEEDING: PENNDOT FORMULA W AND NATIVE PLANTINGS.

GENERAL SEEDING NOTES

1. REDISTRIBUTE 6 INCHES OF TOPSOIL AND PREPARE A GOOD CRUMBLY SEED BED THAT IS TILLED 6 TO 8 INCHES DEEP, WELL FIRMED AND LEVELED AFTER TILLING.
2. APPLY FERTILIZER AND LIME UNIFORMLY AND WORK INTO THE TOP 3 TO 4 INCHES OF SOIL. AFTER ALL MATERIALS HAVE BEEN WORKED IN, FIRM UP THE SOIL BY ROLLING TO ASSURE THAT NO SOFT SPOTS REMAIN THAT WOULD SETTLE LATER ON.
3. WITH A WIDE TOOTHED RAKE OR TINE HARROW, RAKE THE AREA INTO A CRUMBLY STATE WITH ABOUT 1 INCH OF LOOSE SOIL AT THE SURFACE.
4. APPLY SEED DURING GERMINATION PERIODS, AND AS WEATHER PERMITS.
5. APPLY SEED WITH A DROP OR CYCLONE SPREADER. FOR SLOPES OF 4V:1H OR GREATER HYDROSEEDING IS RECOMMENDED, STRAW MULCHING AND ANCHORING IS REQUIRED.
6. AFTER SEEDING, INSTALL EROSION CONTROL BLANKET OR MULCH WITH STRAW AT A RATE OF 3 TONS PER ACRE / 140 LBS PER 1000 SF.
7. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS NOT CHOPPED OR FINELY BROKEN.

NPDES PERMIT NOTES

1. WHEN THE OPERATOR / CONTRACTOR AND OWNER / DEVELOPER ARE NOT THE SAME INDIVIDUAL, CORPORATION, PARTNERSHIP, OR OTHER ENTITY BOTH THE OWNER AND OPERATOR MUST APPLY FOR COVERAGE UNDER A NPDES PERMIT AS CO-PERMITEES. FOR TYPICAL DESIGN-BID-BUILD PROJECTS, WHERE THE OPERATOR / CONTRACTOR WAS NOT SELECTED WHEN THE PERMIT APPLICATION WAS FILED, THE CONTRACTOR (OPERATOR) MUST EITHER BE MADE A CO-PERMITEE OR THE PERMIT MUST BE TRANSFERRED TO THE CONTRACTOR UPON PROJECT AWARD. FAILURE OF THE OPERATOR TO BE ADDED TO THE PERMIT IS A VIOLATION OF FEDERAL LAW, AND PADEP REGULATIONS.
2. PERMITEE'S REQUESTING A RENEWAL OF COVERAGE UNDER GENERAL NPDES PERMIT SHALL SUBMIT TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOTICE OF INTENT (NOI), AT LEAST ONE HUNDRED EIGHTY (180) DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE. NOTE THAT AN EXPIRED PERMIT CAN NOT BE RENEWED.
3. SINCE SIGNED AND SEALED RECORD PLANS, AND A FINAL CERTIFICATION STATEMENT FROM THE LICENSED PROFESSIONAL MUST BE SUBMITTED WITH THE NOTICE OF TERMINATION (NOT) FORM, THE CONTRACTOR / OPERATOR SHALL NOTIFY THE DESIGN PROFESSIONAL NO LESS THAN THREE (3) WORKING DAYS PRIOR TO THE START OF ANY CRITICAL BMP CONSTRUCTION. THE CRITICAL BMP CONSTRUCTION STAGES ARE IDENTIFIED ON THE CONTRACT DOCUMENTS.
4. UPON PERMANENT STABILIZATION OF ALL EARTH DISTURBANCE ACTIVITY AND PROPER INSTALLATION OF ALL BMP IDENTIFIED IN THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN, THE PERMITEE OR CO-PERMITEE OF THE FACILITY SHALL SUBMIT A NOTICE OF TERMINATION (NOT) FORM THAT IS SIGNED IN ACCORDANCE WITH PART B.1.C (SIGNATORY REQUIREMENTS) OF THIS PERMIT TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT.
5. THE NPDES BOUNDARY IS EQUAL TO THE ENTIRE PROPERTY AND / OR ENTIRE AREA OF ACTIVITY, DEVELOPMENT, OR SALE CURRENTLY PLANNED AND PROPOSED FOR THE FUTURE. THIS BOUNDARY MAY INCLUDE AREAS THAT ARE NOT SUBJECT TO AN EARTH DISTURBANCE ACTIVITY.

CONSTRUCTION SEQUENCE

GENERAL SEQUENCE NOTES

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STEP SHALL BE COMPLETED AND STABILIZED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STEP IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL (E&SPC) PLAN PREPARER (DESIGN PROFESSIONAL) AND A REPRESENTATIVE OF THE MONTGOMERY COUNTY CONSERVATION DISTRICT (610-489-4506) TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 FOR THE LOCATION OF EXISTING BURIED UTILITIES.
3. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER E&SPC BMP, AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL NOTIFY THE MONTGOMERY COUNTY CONSERVATION DISTRICT (610-489-4506).
4. BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED E&SPC PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&SPC PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT (610-489-4506).
5. A SITE INSPECTION AND APPROVAL BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT IS REQUIRED PRIOR TO THE REMOVAL OR CONVERSION OF E&SPC BMP.

SEQUENCE

1. ESTABLISH THE CONTRACTOR STAGING AREA AND INSTALL COMPOST FILTER SOCK AND ANY OTHER PERIMETER EROSION AND SEDIMENT CONTROL MEASURES INDICATED ON THE E&SPC PLAN.
2. INSTALL RUMBLE PAD CONSTRUCTION ENTRANCE.
3. REMOVE EXISTING CHAIN-LINK FENCE AND FOUNDATIONS
4. INSTALL TREE PROTECTION AS INDICATED ON THE SITE DEMOLITION PLAN. WHERE TREE CANOPY EXTENDS INTO STREAM BED, INSTALL TREE PROTECTION FENCE ON BANKS ONLY. PROTECT ROOTS AND CANOPY WITHIN CRITICAL ROOT ZONE.
5. CLEAR TREES, AS NECESSARY, TO PERFORM THE WORK.
6. REMOVE AND REPLACE EXISTING SPIGOT WITH FROST FREE HYDRANT. PROVIDE TEMPORARY FENCING AND/OR FLAGGING, AS NECESSARY TO PROTECT HYDRANT DURING THE REMAINDER OF THE WORK.
7. CONSTRUCT TEMPORARY COFFERDAM AND PUMP BYPASS, AS NECESSARY, FOR WORK IN AND/OR IMMEDIATELY ADJACENT TO STREAM BED.
8. BEGINNING AT THE DOWNSTREAM END OF THE STREAM, CLEAR AND GRUB VEGETATION FOR A MAXIMUM OF 50 LINEAR FEET ALONG THE STREAM BANK. EXCAVATE AS REQUIRED TO CONSTRUCT THE DESIGNATED STABILIZATION TECHNIQUE. ENSURE PUMP BYPASS IS USED TO DIVERT WATER AROUND EXCAVATION WHILE WORKING ADJACENT TO AND/OR WITHIN THE STREAM BED. (AT THE END OF EACH WORK DAY OR WHEN PUMPING WILL CEASE, REMOVE COFFERDAM/SANDBAG DIVERSION TO MAINTAIN STREAM FLOW.) INSTALL STREAM BANK STABILIZATION IN ACCORDANCE WITH THE DRAWINGS FOR THE SECTION THAT HAS BEEN CLEARED AND GRUBBED BEFORE MOVING ON TO THE ADJACENT SEGMENT OF 50 LINEAR FEET UPSTREAM OF THE NEWLY STABILIZED AREA. NOTE THAT LIVE STAKES MAY BE INSTALLED AT A LATER DATE TO AVOID PRESERVING LIVE STAKES ONSITE FOR EXTENDED PERIODS OF TIME, BUT SEEDING AND INSTALLATION OF THE EROSION CONTROL BLANKET IN AREAS DESIGNATED TO RECEIVE LIVE STAKES SHALL BE COMPLETED IN A SEGMENTAL FASHION.
9. CONSTRUCT CHAIN-LINK FENCE AND GATES.
10. SEED AND MULCH ALL AREAS DISTURBED AREAS TO RECEIVE TURF GRASS WITH PENNDOT FORMULA B SEED MIX AND RESTORE CONTRACTOR STAGING AREA. APPLY ADDITIONAL AGGREGATE, AS NECESSARY, TO SURFACE OF GRAVEL PAVING.
11. AFTER SITE CLEANUP, AND WITH MONTGOMERY COUNTY CONSERVATION DISTRICT APPROVAL, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND PERMANENTLY STABILIZE ANY AREA REMAINING DISTURBED AS A RESULT OF THIS PROCESS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. THE PERMITEE, CO-PERMITEE, OPERATOR AND / OR RESPONSIBLE PARTY SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
2. COPIES OF SHEET C-701 THRU C-704 OF THIS SET OF PLANS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES IN ACCORDANCE WITH STATE LAW.
3. ONLY LIMITED DISTURBANCE WILL BE PERMITTED TO PROVIDE ACCESS TO CONSTRUCT EROSION AND SEDIMENT CONTROL BMP AND FOR GRADING AND ACQUIRING BORROW TO CONSTRUCT SUCH CONTROLS.
4. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT HIS OPERATION TO MINIMIZE EROSION OF SOILS AND TO PREVENT SILTING AND MUDDYING OF ADJOINING PROPERTY AND WATERWAYS. CONSTRUCTION OF SEWER / DRAINAGE FACILITIES AND THE PERFORMANCE OF THE CONTRACT WORK, WHICH WILL CONTRIBUTE TO THE CONTROL OF EROSION AND SEDIMENT, SHALL BE CARRIED OUT IN CONJUNCTION WITH EARTHWORK OPERATIONS OR AS SOON AS PRACTICAL. THE AREA OF BARE SOIL EXPOSED AT ANY TIME BY CONSTRUCTION OPERATIONS SHALL BE KEPT TO A MINIMUM.
5. EROSION AND SEDIMENT CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE MAY BEGIN WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.
6. IMMEDIATELY UPON DISCOVERING UNFORESEEN EROSIVE CONDITIONS DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND / OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHALL BE READILY AVAILABLE TO IMMEDIATELY CORRECT EMERGENCY EROSION PROBLEMS.
7. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
8. POLLUTANTS SUCH AS FUELS, LUBRICANTS, BITUMINOUS, RAW SEWAGE AND OTHER HARMFUL MATERIAL SHALL NOT BE DISCHARGED TO OR PLACED NEAR STREAMS NOR ANY OTHER WATERWAY IMPOUNDMENT, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
9. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP MUST BE PERMANENTLY STABILIZED, IMMEDIATELY.
10. DUMPING OF EXCESS CONCRETE IS NOT PERMITTED ON SITE. ANY WASHING OF CONCRETE TRUCKS SHALL BE DONE IN A DESIGNATED AREA AWAY FROM ANY STORMWATER CONVEYANCE OR SENSITIVE AREAS SUCH AS WETLANDS OR STREAMS.

TEMPORARY CONTROL MEASURES NOTES

1. THE "CONSTRUCTION SEQUENCE" SHALL BE STRICTLY ADHERED TO.
2. SEDIMENT TRAPS, BASINS AND STOCKPILES SHALL BE STABILIZED IMMEDIATELY.
3. STOCKPILED MATERIAL SHALL BE IMMEDIATELY STABILIZED FROM EROSION BY SEEDING AND MULCHING WITH TEMPORARY SEED MIX AT A RATE OF 10 LBS PER 1000 SF. IF SEASONAL CONDITIONS WILL NOT PERMIT SEEDING THEN STOCKPILES SHALL BE STABILIZED WITH MULCH.
4. STOCKPILES OF MULCHES SUCH AS WOOD CHIPS, CRUSHED STONE, STRAW AND AND OTHER MATERIALS SHALL BE KEPT AT THE SITE AND BE READILY AVAILABLE TO DEAL WITH EROSIVE CONDITIONS AS THEY ARISE.
5. ALL CUT AREAS WHOSE SURFACES ARE SUBJECT TO EROSIVE ACTION SHALL BE PROTECTED WITH ONE OF THE ABOVE MULCHES.
6. ALL SLOPES OF 3H:1V OR GREATER SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.
7. TO ALL AREAS WHICH WILL REMAIN OPEN (UNVEGETATED) AND WILL BE SUBJECT TO THE ACTION OF CONSTRUCTION EQUIPMENT, APPLY A WOOD CHIP MULCH AT A RATE OF 2 TONS PER ACRE. ALL OTHER DISTURBED AREAS SHALL BE TEMPORARILY SEEDED AND MULCHED WITH ANNUAL RYE GRASS AT A RATE OF 4 LBS PER 1000 SF.
8. LIMIT THE LENGTH OF UTILITY TRENCH EXCAVATION TO THE LENGTH OF PIPE THAT CAN BE INSTALLED AND BACKFILLED THE SAME DAY. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPSLOPE SIDE OF THE TRENCH.
9. WATER THAT ACCUMULATES IN OPEN TRENCHES AND OTHER EXCAVATIONS SHALL BE REMOVED BY PUMPING.
10. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH SEDIMENT FILTER BAG FILTRATION DEVICE, OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER NON-DISTURBED VEGETATED AREAS. DISCHARGE POINTS SHOULD BE ESTABLISHED TO PROVIDE FOR MAXIMUM DISTANCE TO ACTIVE WATERWAYS.
11. UPON COMPLETE OR TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY, OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL STABILIZE IMMEDIATELY THE DISTURBED AREAS TO PROTECT FROM ACCELERATED EROSION. DURING NON-GERMINATING PERIODS, MULCH SHALL BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS, WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN ONE (1) YEAR, MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.

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PROJECT IDENTIFICATION

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE

CREEK BED STABILIZATION

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MARK	DATE	DESCRIPTION	BY
D	7/31/23	FINAL DESIGN SUBMITTAL	SK
C	3/16/23	95% DESIGN SUBMITTAL	SK
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SHEET TITLE

E&SPC NOTES

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