



2016 AYRSLEY TOWN BLVD.  
SUITE 2-A  
CHARLOTTE, NC 28273  
(704) 523-4726  
ENGINEERING FIRM  
LICENSE NUMBER: F-0176

**RIVER BEND AGGREGATES, LLC**

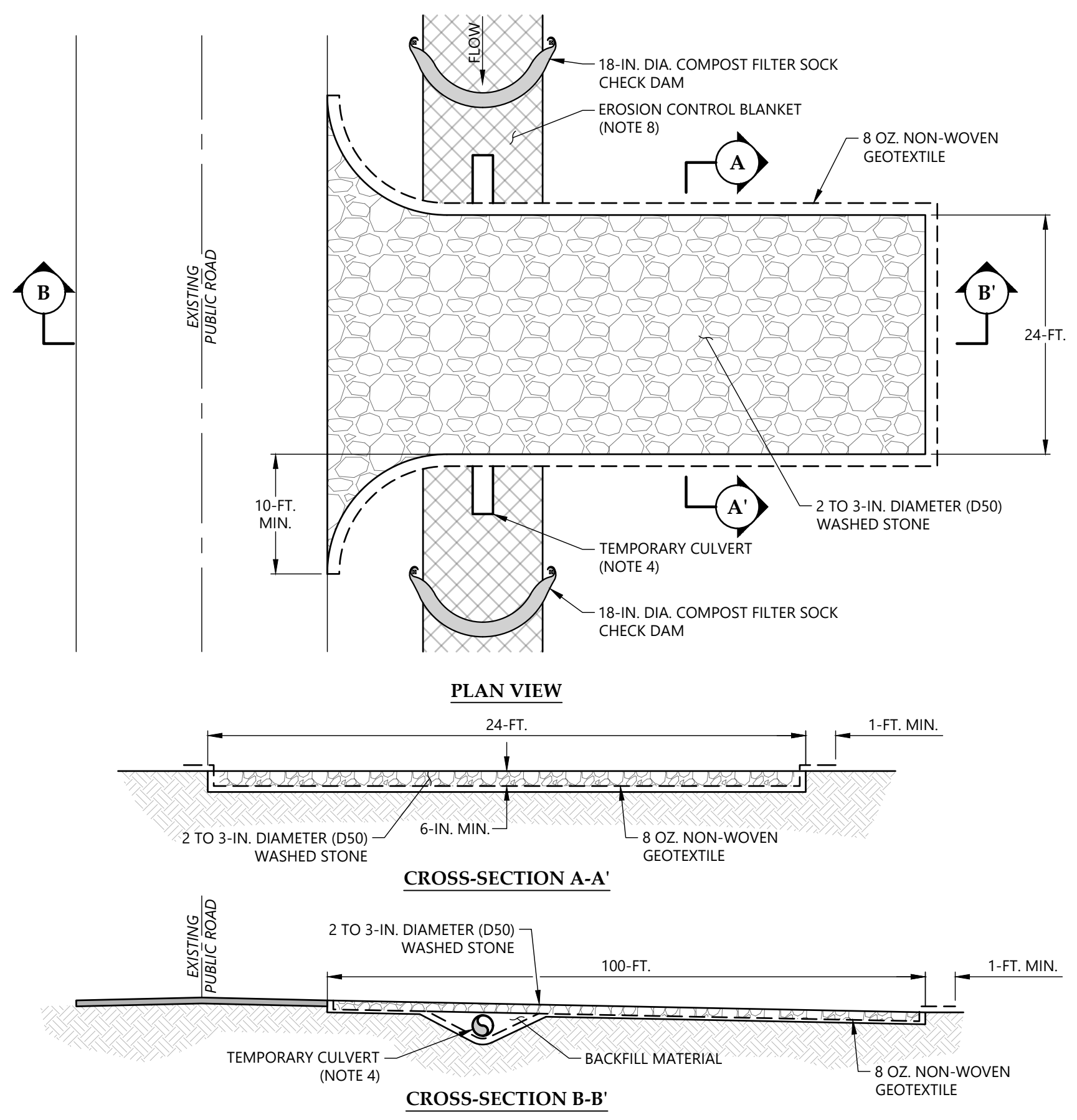


NO.	DATE	ISSUED FOR CLIENT REVIEW	DESCRIPTION
10/16/2023			

PROJECT NUMBER  
**22610504B**  
DRAWING NUMBER

PROJECT NUMBER  
**22610504B**  
DRAWING NUMBER

**5** **9**



- GENERAL NOTES**
1. DUE TO SITE CONSTRAINTS THE WIDTH AND LENGTH MAY BE ADJUSTED BASED ON CONDITIONS IN THE FIELD.
  2. APPROPRIATE SIGNAGE WILL BE POSTED ALONG THE ROAD TO INFORM THE GENERAL PUBLIC OF POTENTIAL CONSTRUCTION TRAFFIC PER REQUIREMENTS.
  3. STOCKPILE TOPSOIL FROM CONSTRUCTION ENTRANCE INSTALLATION. USE TOPSOIL FOR BACKFILL AFTER REMOVAL OF CONSTRUCTION ENTRANCE DURING FINAL CLEANUP.
  4. THE NEAREST UPSTREAM AND DOWNSTREAM CULVERT DIAMETER(S) WILL BE OBSERVED AT EACH LOCATION A CONSTRUCTION ENTRANCE IS TO BE INSTALLED WITHIN A ROADSIDE SWALE/DITCH. DIAMETER OF TEMPORARY CULVERT SHALL BE THE LARGER OF EITHER THE CULVERT, BUT NO LESS THAN 18-IN. IN DIAMETER. CONTRACTOR SHALL FIELD VERIFY AND DETERMINE APPROPRIATE CULVERT TO BE USED.
  5. INSTALL 18-IN. DIA. COMPOST FILTER SOCK CHECK DAMS IN ROADSIDE SWALE/DITCH AT UPSTREAM AND DOWNSTREAM LOCATIONS OF LIMITS OF DISTURBANCE.
  6. THE CONSTRUCTION ENTRANCE AND CULVERT (IF PRESENT), WILL BE REMOVED WHEN CONSTRUCTION ACTIVITIES CEASE ON THE PROJECT. THE REMOVED STONE AND SEDIMENT FROM THE ENTRANCE WILL BE HAULLED OFF-SITE AND DISPOSED OF PROPERLY. UPON REMOVAL OF THE CONSTRUCTION ENTRANCE, THE CONTRACTOR SHALL BRING THE AREA TO ORIGINAL GRADE AND STABILIZE IT. IF A TEMPORARY CULVERT WAS UTILIZED IN CONJUNCTION WITH THE CONSTRUCTION ENTRANCE, THE CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKET AND 18-IN. DIA. COMPOST FILTER SOCK CHECK DAMS WITHIN ROADSIDE SWALE/DITCH.
  7. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN BIONET SC150BN OR ENGINEER APPROVED EQUIVALENT.
  8. INSTALL THREE 18-IN. DIA. COMPOST FILTER SOCK CHECK DAMS IN EACH IMPACTED SWALE/DITCH; UPSTREAM, DOWNSTREAM, AND MIDDLE OF SWALE/DITCH.

- MAINTENANCE NOTES**
1. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
  2. THE ENTRANCE WILL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROADWAYS. SEDIMENT TRACKED, SPILLED, DROPPED OR OTHERWISE DEPOSITED ONTO ROADWAYS WILL BE SWEEPED UP AS SOON AS PRACTICAL AND PLACED BACK WITHIN THE APPROVED DISTURBED AREA.
  3. IF EXCESS SEDIMENT HAS CLOGGED THE STONE, THE ENTRANCE WILL BE TOPDRESSED WITH NEW STONE AS NEEDED. REPLACEMENT OF THE STONE MAY BECOME NECESSARY WHEN THE STONE BECOMES ENTIRELY FILLED WITH SEDIMENT AND MUD.

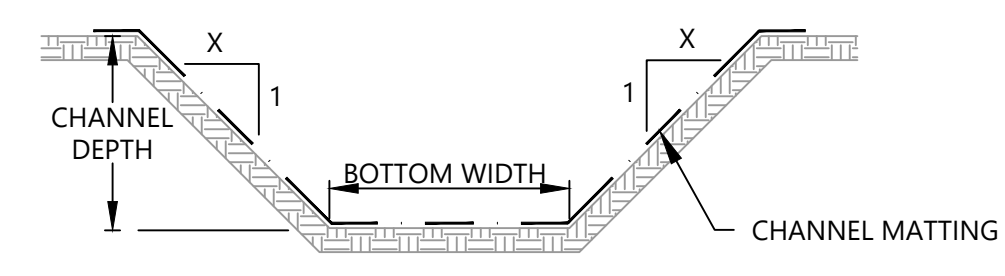
REFERENCE: DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2005 (PORTIONS REVISED MAY 2014).

**1 CONSTRUCTION ENTRANCE**  
SCALE: N.T.S.

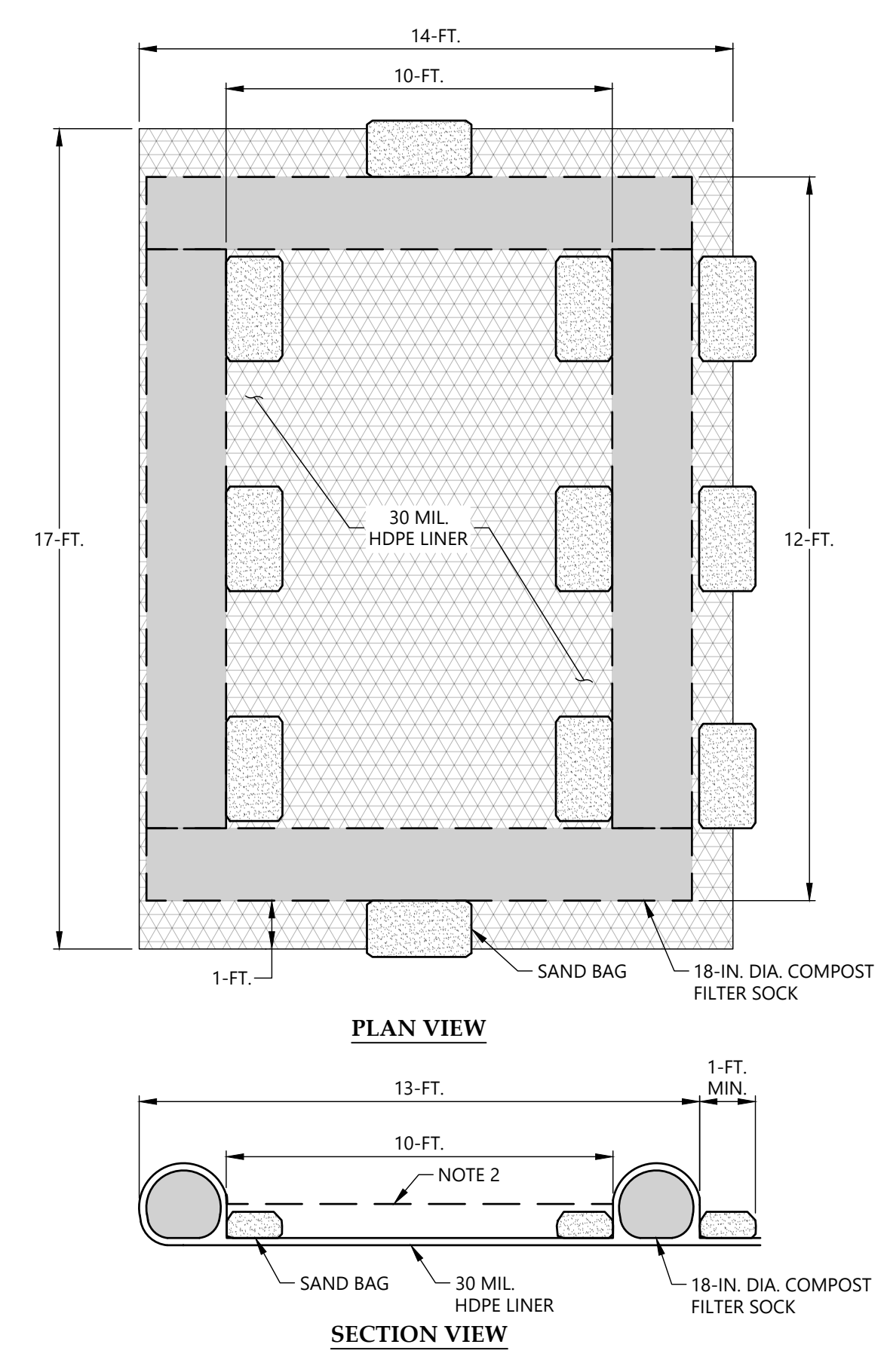
- GENERAL NOTES**
1. SEE PLAN SHEETS FOR CHANNEL LOCATION.
  2. DIMENSIONING AND STABILIZATION MATTING (TYPE SPECIFIED IN TABLE OR ENGINEER APPROVED EQUIVALENT)
  3. SEE DRAWINGS FOR CHECK DAM/SEDIMENT TUBE LOCATION AND SPACING WITHIN CHANNELS.

CHANNEL SUMMARY TABLE						
CHANNEL ID	AVERAGE LONGITUDINAL SLOPE (FT./FT.)	BOTTOM WIDTH (FT.)	LEFT SIDE SLOPE (H:1V)	RIGHT SIDE SLOPE (H:1V)	CHANNEL DEPTH (FT.)	CHANNEL MATTING

THE CHANNEL SUMMARY TABLE WILL BE POPULATED FOLLOWING THE DETAILED DESIGN.



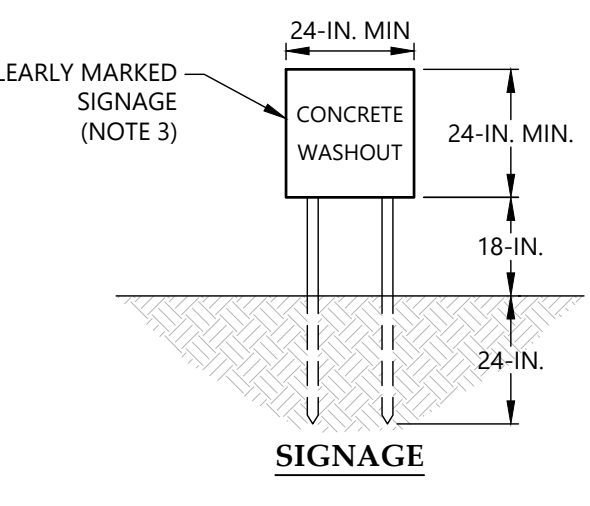
**2 CHANNEL MATTING**  
SCALE: N.T.S.



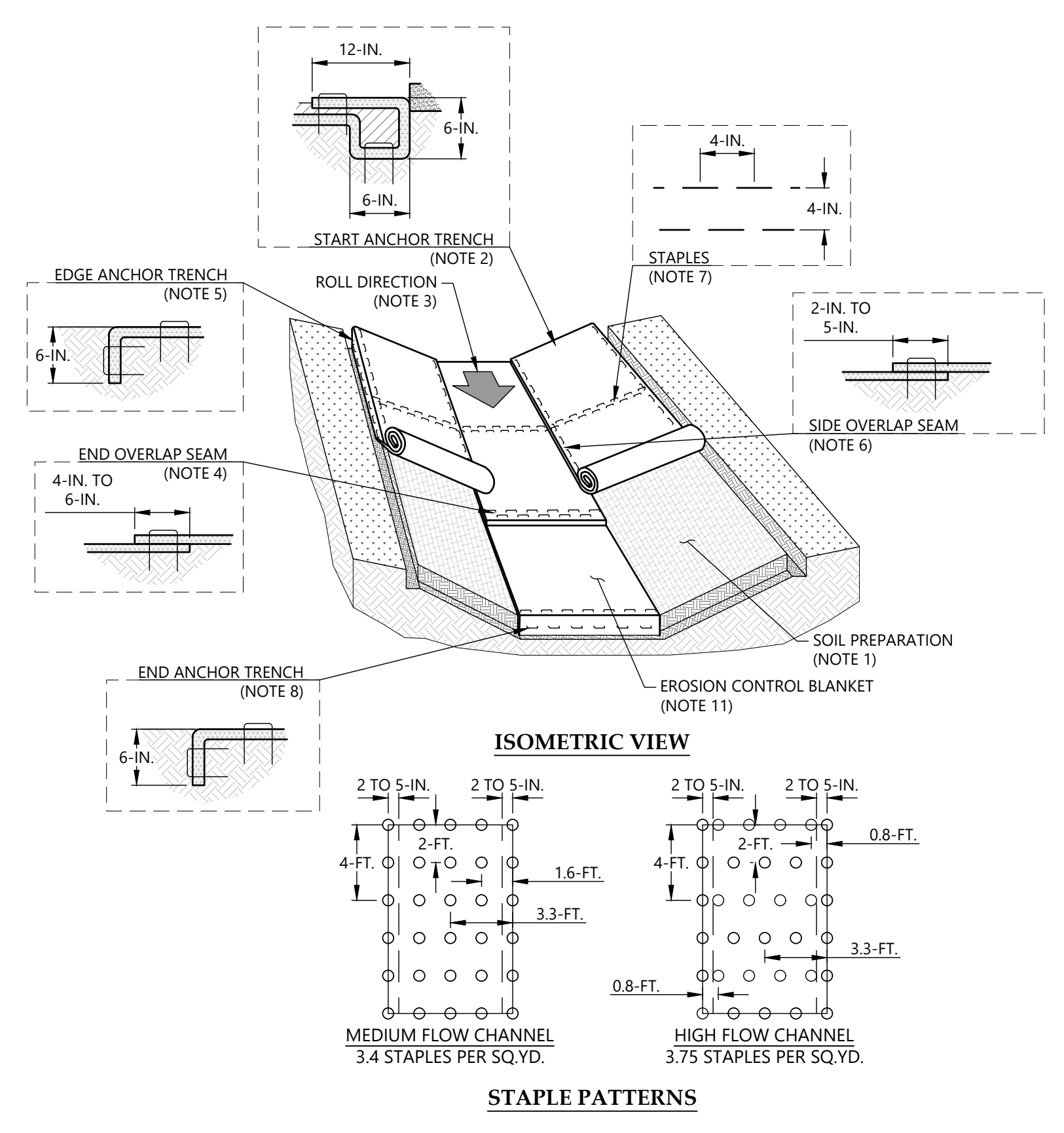
- GENERAL NOTES**
1. ACTUAL LOCATION DETERMINED IN FIELD.
  2. CONCRETE WASHOUT STRUCTURES REQUIRING ADDITIONAL CAPACITY SHALL INCLUDE EXCAVATED PIT BENEATH HDPE LINER OF WASHOUT RETENTION AREA. DEPTH OF PIT VARIES DEPENDING ON REQUIRED CAPACITY.
  3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE WITH LETTERS A MINIMUM OF 5-IN. IN HEIGHT AND WITHIN 30-FT. OF STRUCTURE.
  4. DO NOT DISCHARGE CONCRETE OR CEMENT SLURRY FROM THE SITE.
  5. INSTALL TEMPORARY CONCRETE WASHOUTS PER LOCAL REQUIREMENTS, WHERE APPLICABLE. IF AN ALTERNATE METHOD OR PRODUCT IS TO BE USED, CONTACT YOUR APPROVAL AUTHORITY FOR REVIEW AND APPROVAL. IF LOCAL STANDARD DETAILS ARE NOT AVAILABLE, USE THIS DETAIL. IF THIS DETAIL IS USED, OWNER'S DESIGNATED ENVIRONMENTAL REPRESENTATIVE MAY APPROVE ALTERNATIVE MATERIALS PRIOR TO INSTALLATION.
  6. DO NOT USE CONCRETE WASHOUTS FOR DEWATERING OR STORING DEFECTIVE CURB OR SIDEWALK SECTIONS. STORMWATER ACCUMULATED WITHIN THE WASHOUT MAY NOT BE PUMPED INTO OR DISCHARGED TO THE STORM DRAIN SYSTEM OR RECEIVING SURFACE WATERS. LIQUID WASTE MUST BE PUMPED OUT AND REMOVED FROM PROJECT.
  7. LOCATE WASHOUTS AT LEAST 50-FT. FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. AT A MINIMUM, INSTALL PROTECTION OF STORM DRAIN INLET(S) CLOSEST TO THE WASHOUT WHICH COULD RECEIVE SPILLS OR OVERFLOW.
  8. LOCATE WASHOUTS IN AN EASILY ACCESSIBLE AREA, ON LEVEL GROUND AND INSTALL A STONE ENTRANCE PAD IN FRONT OF THE WASHOUT. ADDITIONAL CONTROLS MAY BE REQUIRED BY THE APPROVING AUTHORITY.
  9. INSTALL AT LEAST ONE SIGN DIRECTING CONCRETE TRUCKS TO THE WASHOUT WITHIN THE PROJECT LIMITS. POST SIGNAGE ON THE WASHOUT ITSELF TO IDENTIFY THIS LOCATION.

- MAINTENANCE NOTES**
1. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 1/2 OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 6-IN. OF FREEBOARD.
  2. DISPOSE OF, OR RECYCLE SETTLED, HARDENED CONCRETE RESIDUE IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS AND AT AN APPROVED FACILITY.
  3. MANAGE WASHOUT FROM MORTAR MIXERS IN ACCORDANCE WITH THE ABOVE ITEM AND IN ADDITION PLACE THE MIXER AND ASSOCIATED MATERIALS ON IMPERVIOUS BARRIER AND WITHIN LOT PERIMETER SILT FENCE.
  4. REMOVE LEAVINGS FROM THE WASHOUT WHEN AT APPROXIMATELY 1/2 CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE HDPE LINER, SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE OR PROPRIETARY PRODUCTS, FOLLOW MANUFACTURER'S INSTRUCTIONS.
  5. AT THE COMPLETION OF THE CONCRETE WORK, REMOVE REMAINING LEAVINGS AND DISPOSE IN AN APPROVED DISPOSAL FACILITY. STABILIZE ANY DISTURBANCE CAUSED BY REMOVAL OF WASHOUT.

REFERENCE: DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2005, REVISED MARCH 2014, AND NCDCEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, CHAPTERS 6 AND 8 REVISED, MAY 2013.



**3 CONCRETE WASHOUT**  
SCALE: N.T.S.



- GENERAL NOTES**
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
  2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECPs IN A 6-INCH DEEP BY 6-IN. WIDE TRENCH WITH APPROXIMATELY 12-IN. OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12-IN. APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12-IN. PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12-IN. APART ACROSS THE WIDTH OF THE RECPs.
  3. ROLL CENTER RECPs IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
  4. PLACE CONSECUTIVE RECPs END-OVER-END (SHINGLE STYLE) WITH A 4 TO 6-IN. OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4-IN. APART AND 4-INCH ON CENTER TO SECURE RECPs.
  5. FULL LENGTH EDGE OF RECPs AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12-IN. APART IN A 6-IN. DEEP X 6-IN. WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  6. ADJACENT RECPs MUST BE OVERLAPPED APPROXIMATELY 2-IN. TO 5-IN. (DEPENDENT ON RECPs TYPE) AND STAPLED.
  7. IN HIGH FLOW CHANNEL APPLICATIONS A STAPLE CHECK SLOT IS RECOMMENDED AT 30-FT. TO 40-FT. INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4-IN. APART AND 4-IN. ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
  8. THE TERMINAL END OF THE RECPs MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12-IN. APART IN A 6-IN. DEEP BY 6-IN. WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  9. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
  10. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6-IN. MAY BE NECESSARY TO PROPERLY SECURE THE RECPs.
  11. EROSION CONTROL BLANKETS SHALL BE NORTH AMERICAN GREEN OR ENGINEER APPROVED ALTERNATE. REFER TO PLAN VIEW DRAWINGS FOR NORTH AMERICAN GREEN'S PRODUCT NAME FOR SPECIFIC GRADE OF EROSION CONTROL BLANKET FOR EACH ROADSIDE SWALE/DITCH.
  12. FOLLOW MANUFACTURERS SPECIFICATIONS IF THERE IS A DISCREPANCY IN NOTES OR IF ENGINEER APPROVED ALTERNATIVE IS USED.

- MAINTENANCE NOTES**
1. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
  2. GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT OCCUR BENEATH THE RECPs.
  3. ANY AREAS OF THE RECP THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
  4. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED.
  5. MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED.

REFERENCE: DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2015 (PORTIONS REVISED MAY 2014) AND NORTH AMERICAN GREEN INSTALLATION GUIDE.

**4 CHANNEL MATTING**  
SCALE: N.T.S.

DRAWING PATH: T:\Chandler\1350\Projects\2023\22610504B\_Synergy\_Materials\_Pacquet\_SC\Civil\Geo-Env\CAD\DWG\Main\BMP\DETAILS 1 (OF 5).dwg

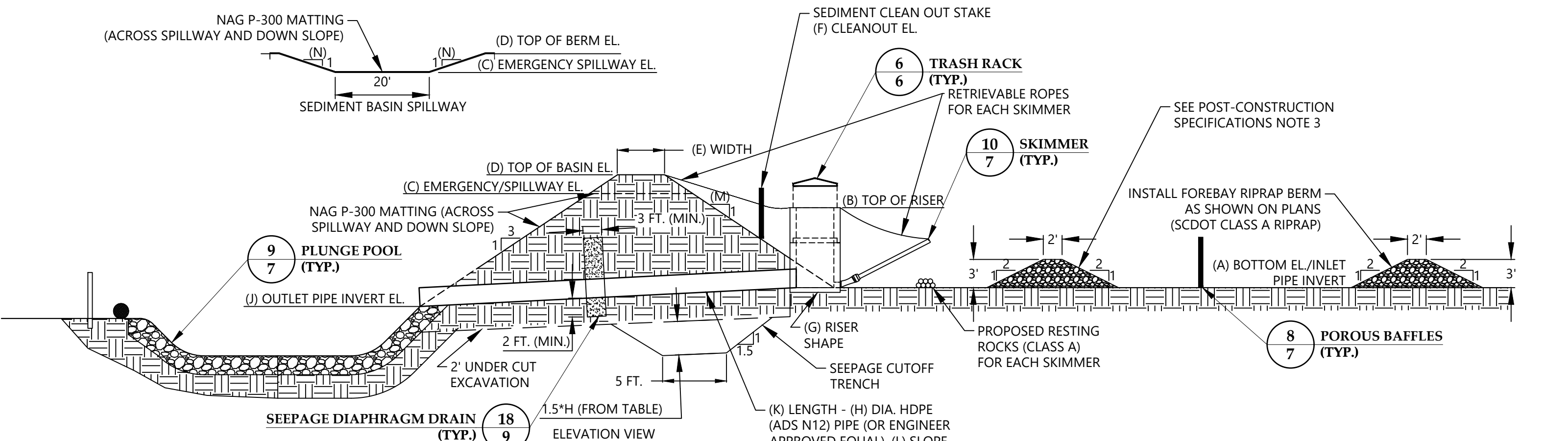


**SEDIMENTATION BASIN CONSTRUCTION SPECIFICATIONS:**

- 1. BASIN PREPARATIONS:** PLACE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PER THE PLANS. CLEAR, GRUB AND STRIP TOPSOIL FROM THE EMBANKMENT TO REMOVE VEGETATION, STUMPS, ROOTS, ORGANIC MATERIAL, TRASH, ROCK MATERIAL AND OTHER OBJECTIONABLE MATERIAL. REMOVE SEDIMENT, PERVIOUS MATERIAL, ORGANIC MATERIAL TO THE DESIGN ELEVATION AND DIMENSIONS OF THE BASIN. KEEP BASIN DRY DURING CONSTRUCTION ACTIVITIES. THE FLOOR OF THE BASIN SHALL BE GRADED TO THE FINAL ELEVATION SHOWN ON THE DRAWINGS AND THE GRADED BASIN SHALL BE COMPACTED WITH A MINIMUM 10-TON SMOOTH DRUM (NON-VIBRATORY) COMPACTOR AND THEN PROOF-ROLLED. PROOF-ROLL THE ENTIRE SEDIMENTATION BASIN FLOOR. THE PROOF ROLLING SHALL BE OBSERVED AND EVALUATED BY THE ENGINEER OR HIS REPRESENTATIVE.
- 2. PRINCIPAL SPILLWAY, BARREL, AND SKIMMER:** CONSTRUCT THE BARREL ACCORDING TO THE BELOW TEMPORARY SEDIMENT BASIN DETAIL. SECURE ALL CONNECTIONS BETWEEN BARREL AND RISER SECTIONS BY APPROVED WATERTIGHT ASSEMBLIES. ATTACH BASIN SKIMMER TO RISER BY APPROVED WATERTIGHT ASSEMBLIES (SEE SKIMMER DETAIL). DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, SILT, OR CRUSHED STONE AS BACKFILL MATERIAL AROUND THE PIPE. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-IN. LOOSE LAYERS AND COMPACT IT AROUND THE PIPE TO 95 PERCENT OR GREATER AS THE REST OF THE EMBANKMENT FILL. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. PLACE A MINIMUM DEPTH OF TWO FEET OF HAND COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING THE PIPE WITH COMPACTION EQUIPMENT OR CONSTRUCTION EQUIPMENT.
- 3. EMBANKMENT CONSTRUCTION:** USE CLEAN FILL MATERIAL BROUGHT TO SITE OR EXCAVATED FROM APPROVED AREAS ON SITE. IT SHALL BE CLEAN MINERAL SOIL, FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER OBJECTIONABLE MATERIAL. SCARIFY AREAS AND EACH COMPACTED LIFT ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL. THE FILL OPTIMUM MOISTURE CONTENT SHALL BE MAINTAINED BETWEEN OPTIMUM AND THREE PERCENT ABOVE OPTIMUM. FILL SHALL BE COMPACTED NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD A. THE CONTRACTOR SHALL DEMONSTRATE SOIL DENSITY BY SOIL COMPACTION PER THE PLANS AND SPECIFICATIONS WITH A MINIMUM OF TWO DENSITY TESTS PER LIFT WITH TESTS SPACED EVENLY AND REPRESENTATIVE OF THE EMBANKMENT FILL. ONE FAILED TEST REQUIRES THAT THE LIFT BE RE-COMPACTED AND RE-TESTED AT TWO LOCATIONS UNTIL REQUIRED COMPACTION IS ACHIEVED. NO VEGETATIVE COVER MATERIAL SHALL BE PLACED ON COMPACTED FILL LAYERS BEFORE THE ENGINEER REVIEWS AND APPROVES THE DENSITY DATA FROM THE TESTING PERFORMED. THE ENGINEER MAY EVALUATE COMPACTION AND REPORT THE RESULTS TO THE CONTRACTOR. FAILED SOIL DENSITY TESTS PERFORMED BY THE ENGINEER WILL REQUIRE THAT THE COMPACTED MATERIAL BE REMOVED AND RE-INSTALLED PER THE PLANS AND SPECIFICATIONS.
- 4. OUTLET DISCHARGE:** EFFLUENT FROM THE PRINCIPAL SPILLWAY BARREL FROM THE SEDIMENT BASIN SHALL HAVE AN SEEPAGE DIAPHRAGM DRAIN AND SHALL DISCHARGE TO A PLUNGE POOL (SEE DETAIL).
- 5. EMERGENCY SPILLWAY:** INSTALL THE EMERGENCY SPILLWAY IN THE UNDISTURBED SOIL. TOLERANCE TO DESIGN ELEVATIONS IS +/- 0.2 FEET; TOLERANCE TO DESIGN GRADES IS +/- 1.0 PERCENT; AND TOLERANCE FOR WIDTHS AND LENGTHS IS +/- 1.0-FT. NO DEVIATION FROM THE SPECIFIED TOLERANCES SHALL BE ALLOWED. LINE THE SPILLWAY WITH LAMINATED PLASTIC OR IMPERMEABLE GEOTEXTILE FABRIC. THE FABRIC SHALL HAVE DIMENSIONS LARGE ENOUGH TO COVER THE BOTTOM AND SIDES AND EXTEND ONTO THE TOP OF THE DAM FOR ANCHORING IN A TRENCH. THE EDGES SHALL BE SECURED WITH 8-IN. STAPLES OR PINS. THE FABRIC MUST BE LONG ENOUGH TO EXTEND DOWN THE SLOPE AND EXIT ONTO STABLE GROUND. THE WIDTH OF THE FABRIC SHALL BE ONE PIECE, TO PREVENT WATER FROM ACCESS BENEATH THE FABRIC; JOINING OR SPLICING OF SECTIONS ACROSS THE WIDTH SHALL NOT BE ALLOWED. THE LENGTH OF THE FABRIC MAY BE COMPOSED OF SECTIONS SPANNING THE ENTIRE SPILLWAY WIDTH. UPPER SECTIONS SHALL OVERLAP LOWER SECTIONS SO THAT WATER CANNOT FLOW UNDER THE FABRIC. SECURE THE UPPER EDGE AND SIDES OF THE FABRIC IN A TRENCH WITH STAPLES OR PINS (ADAPTED FROM "A MANUAL FOR DESIGNING INSTALLING AND MAINTAINING SKIMMER SEDIMENT BASINS" FEBRUARY, 1999 J.W. FAIRCLOTH & SON). A 6-IN. VEGETATIVE COVER SHALL BE PLACED ON TOP OF THE GEOTEXTILE FABRIC. EROSION CONTROL MATTING SHALL BE PLACED ON TOP OF THE VEGETATIVE LAYER.
- 6. INLETS:** INSTALL INLETS TO DISCHARGE WATER INTO THE FOREBAYS IN A MANNER TO PREVENT EROSION.
- 7. EROSION CONTROL:** CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED. DIVERT SURFACE WATER AWAY FROM THE BARE AREAS. COMPLETE THE EMBANKMENT BEFORE ADDITIONAL UPSTREAM AREA IS CLEARED. STABILIZE THE EMERGENCY SPILLWAY EMBANKMENT AND ALL OTHER DISTURBED AREAS ABOVE THE CREST OF THE PRINCIPAL SPILLWAY IMMEDIATELY AFTER CONSTRUCTION (REFERENCES: SURFACE STABILIZATION).

**MAINTENANCE:**

- 1. CHECK SEDIMENT BASIN AFTER PERIODS OF SIGNIFICANT RUNOFF.** REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH AS MARKED BY THE SEDIMENT CLEANOUT STAKE.
- 2. CHECK THE EMBANKMENT, SPILLWAYS AND OUTLET FOR EROSION DAMAGE AND EVALUATE THE EMBANKMENT FOR PIPING AND SETTLEMENT.** MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND DEBRIS FROM THE RISER AND POOL AREA.
- 3. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD.** INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE BASIN DEPTH. FIRST PULL THE SKIMMER TO ONE SIDE TO ACCESS SEDIMENT BELOW FOR REMOVAL. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT LIMITED TO THE SKIMMER LOCATION OR WITHIN THE FIRST BASIN CELL. CUT OR REMOVE VEGETATION FROM THE BOTTOM OF THE BASIN THAT LIMITS OPERATION OF THE SKIMMER OR RESTRICTS ITS ABILITY TO FLOAT.
- 4. REPAIR DAMAGED BAFFLES.** RE-ANCHOR BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
- 5. REMOVE CLOGS FROM SKIMMER BY JERKING ON THE ROPE TO BOB THE SKIMMER, OR PULL THE SKIMMER TO ONE SIDE OF THE BASIN AND REMOVE THE DEBRIS.** CHECK THE ORIFICE INSIDE THE SKIMMER FOR DEBRIS. IF PRESENT, REMOVE THE DEBRIS. IF THE SKIMMER ARM OR BARREL IS CLOGGED, REMOVE THE ORIFICE AND FLUSH WITH WATER TO RESTORE FLOW, OR USE A PLUMBERS SNAKE TO REMOVE THE CLOG. REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.
- 6. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY.** CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER, RISER, AND POOL AREAS.
- 7. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN.** PREVENT ICE FROM CLOGGING THE SKIMMER.

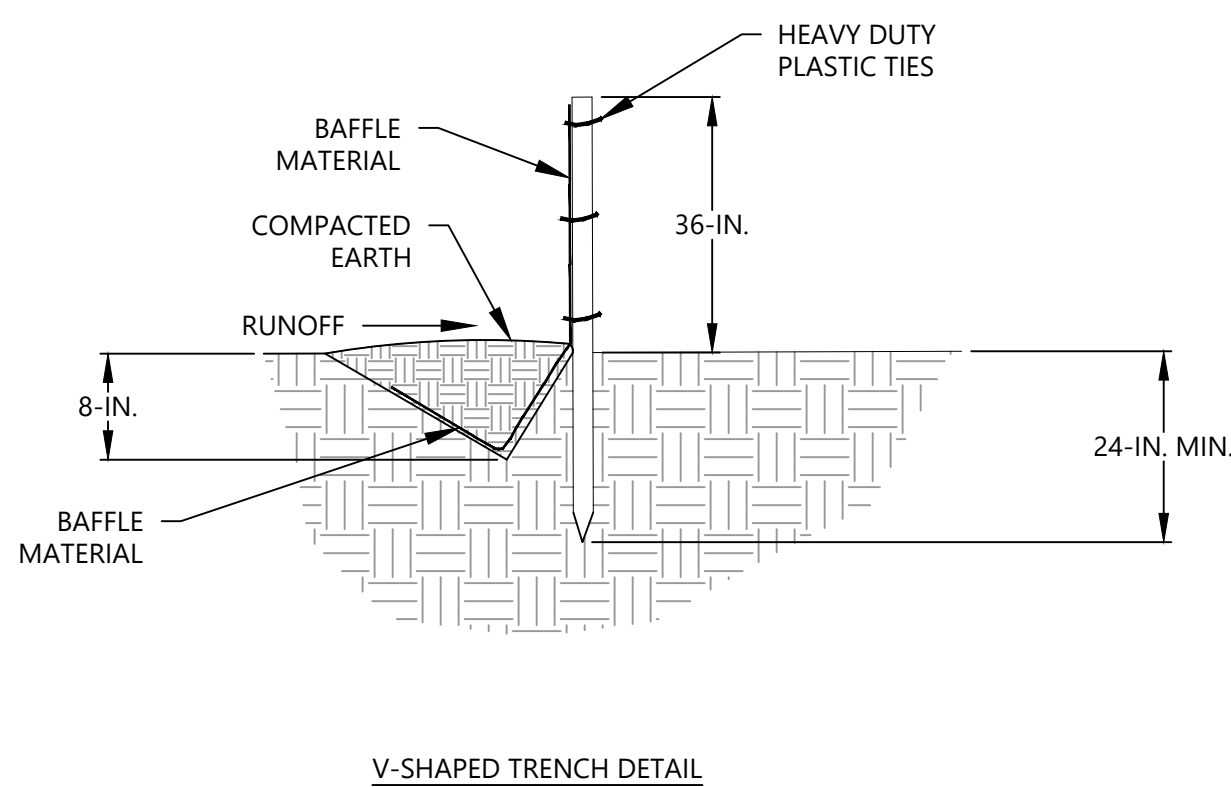
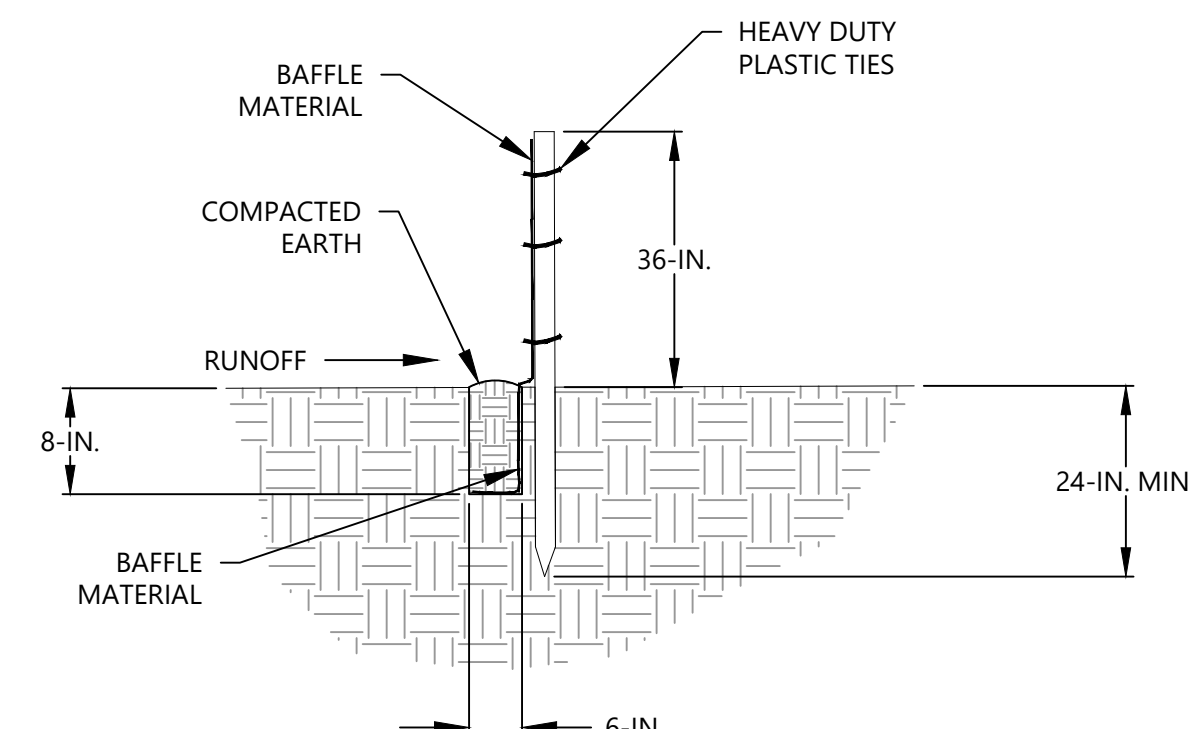
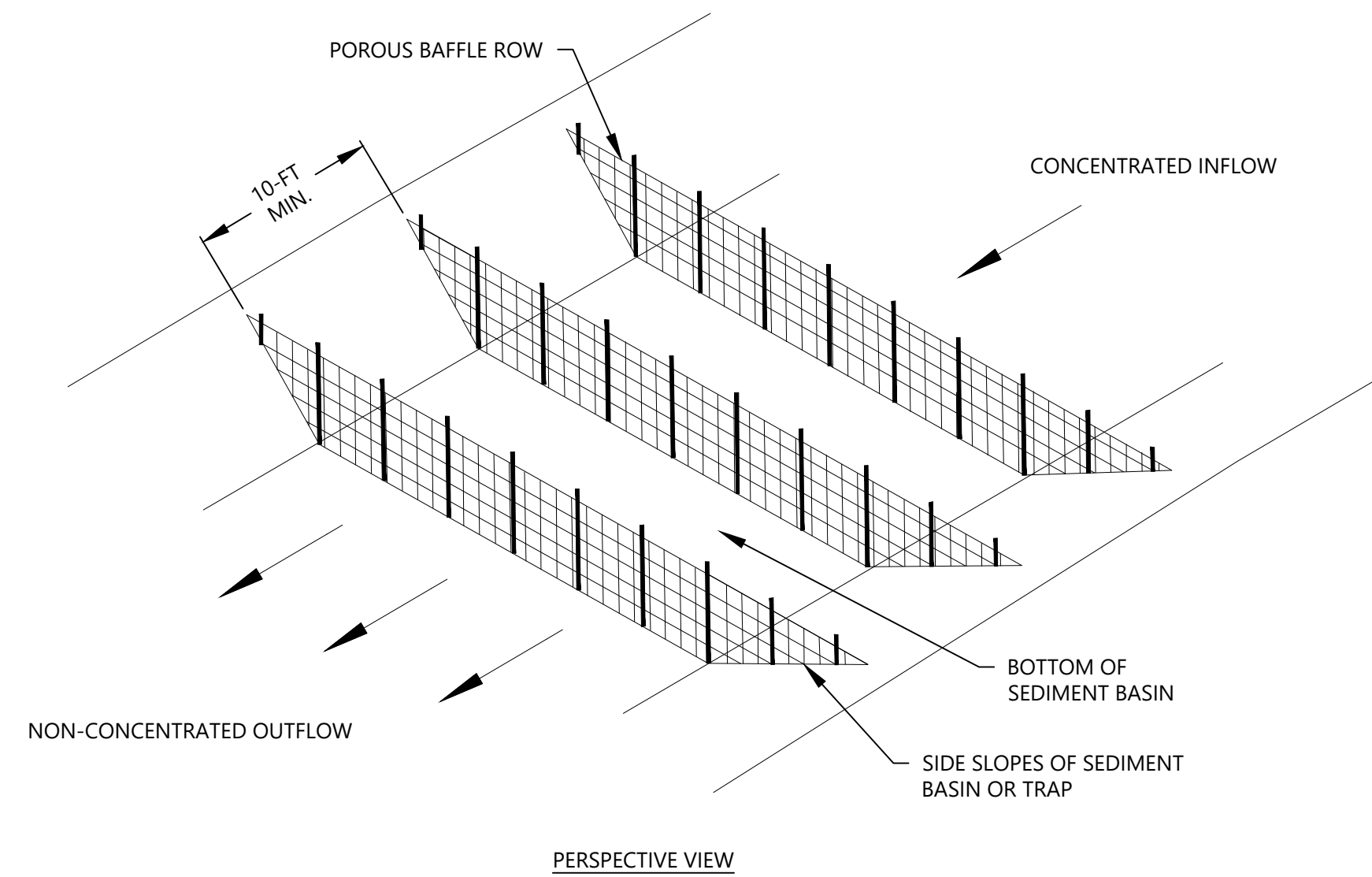
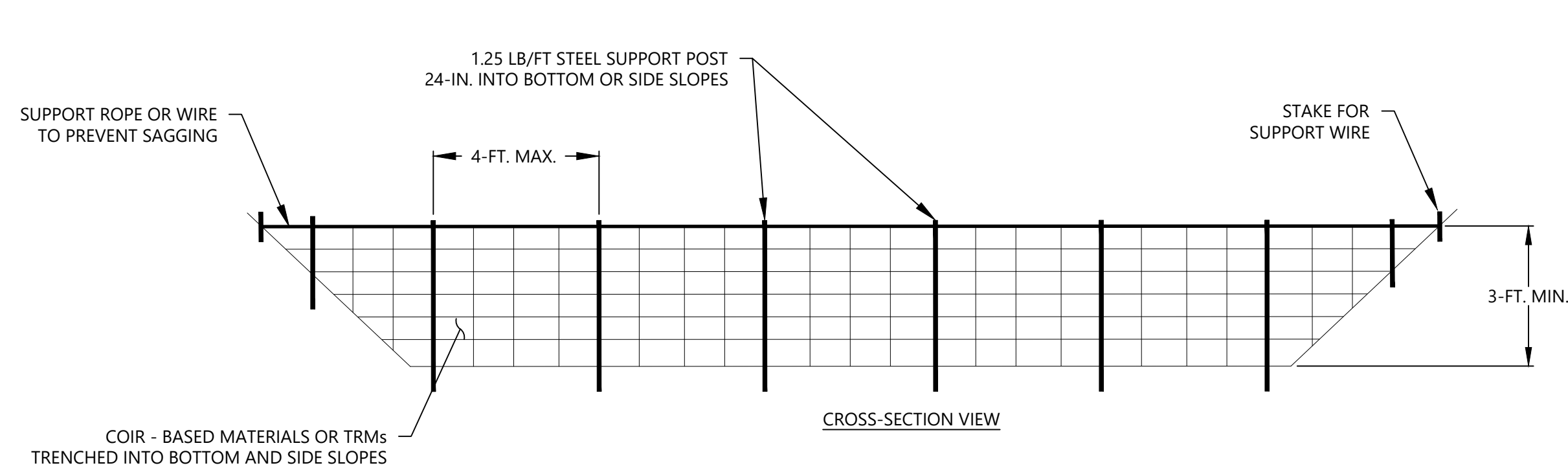


**SEDIMENTATION BASIN CONSTRUCTION SPECIFICATIONS:**

- 1. ASSEMBLE THE SKIMMER AS DESIGNED (PER THE SKIMMER DETAIL).**
  - 2. LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN.** SECURE THE CONNECTIONS BETWEEN THE INLET BASIN SKIMMER FLEXIBLE JOINT TO THE RISER ORIFICE BY APPROVED WATERTIGHT ASSEMBLIES. POSITION THE SKIMMER OVER THE SUPPORT PAD. ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN FOR ACCESS TO THE SKIMMER FOR FUTURE MAINTENANCE.
- POST-CONSTRUCTION SPECIFICATIONS:**  
WHEN THE AREAS CONTRIBUTING SEDIMENT TO THE SYSTEM HAVE BEEN STABILIZED, PROCEDURES CAN BE TAKEN TO RESTORE THE SYSTEM TO ITS PERMANENT USE. THE FOLLOWING REMOVAL AND RESTORATION PROCEDURE IS RECOMMENDED. DURING THIS PROCESS CAREFUL CONSIDERATION SHOULD BE TAKEN TO PROTECT RECEIVING WATERS FROM SEDIMENT POLLUTION AND EROSION DAMAGE.
- 1. REMOVE EROSION AND SEDIMENT CONTROL DEVICES (SKIMMER, BAFFLES, 30 MIL LINER, AND STAINLESS STEEL STRAP).**
  - 2. EXCAVATE THE BASIN TO THE ORIGINAL PROPOSED BOTTOM OF BASIN ELEVATION PER THE PLANS TO REMOVE ANY ACCUMULATED SEDIMENT.** MAINTAIN THE DESIGNED SIDE SLOPES AND APPLY SLOPE MATTING PER THE DETAIL.
  - 3. INSTALL RIPRAP BERM (SCDOT CLASS A RIPRAP), AT MINIMUM 5-FT AWAY FROM RISER.** RIPRAP BERM IS TO BE USED TO HELP PREVENT THE RISER ORIFICE FROM CLOGGING. SEE DETAIL FOR SIZE AND GEOMETRY OF BERM.
  - 4. STABILIZE THE BASIN AND ANY AREAS DISTURBED DURING EROSION AND SEDIMENT CONTROL DEVICE AND SEDIMENT REMOVAL.**

SEDIMENT BASIN ID	A	B	C	D	E	F	G	H	I	J	K	L	M	N
SEDIMENT BASIN														

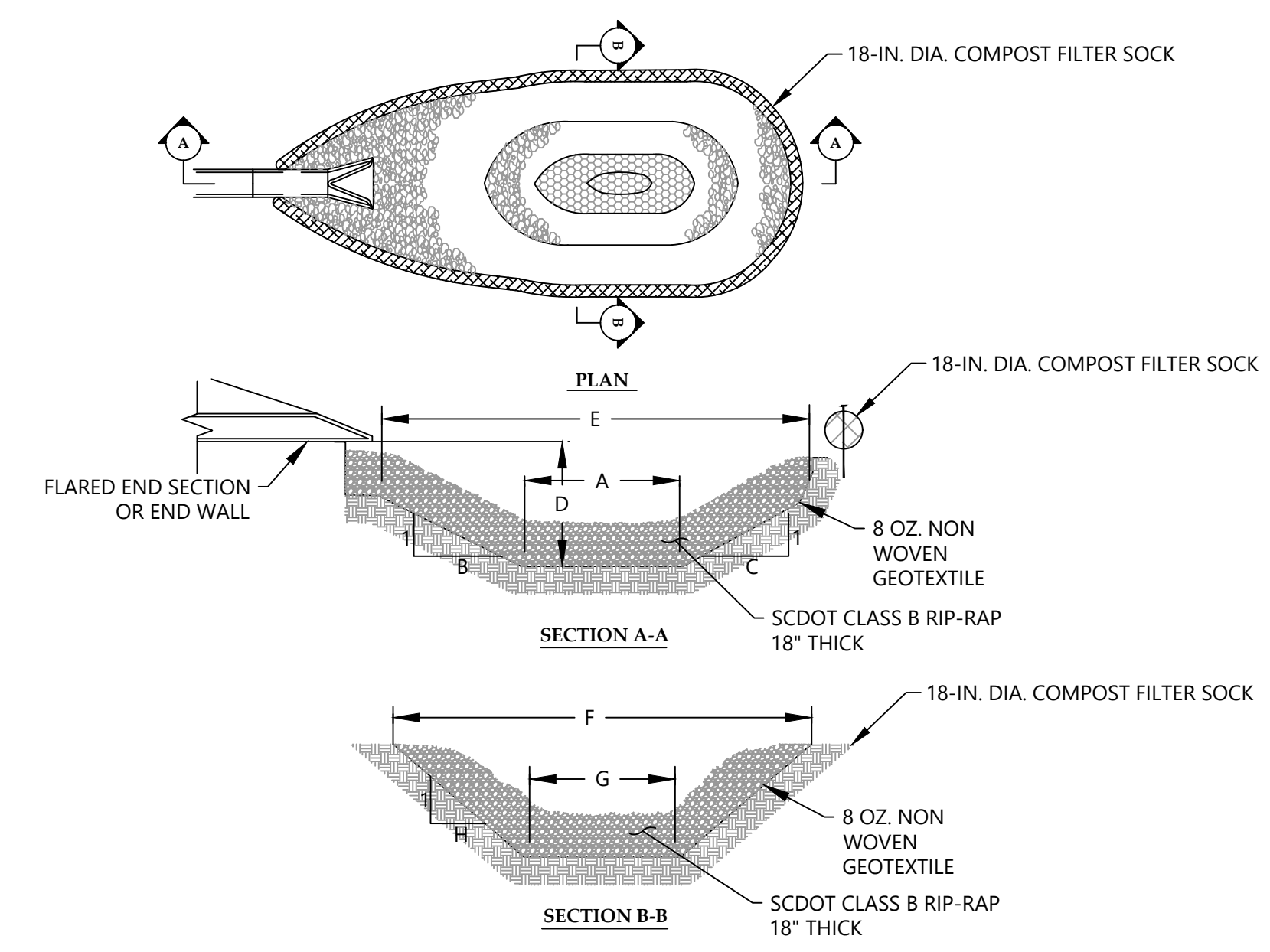




- BAFFLES - POST REQUIREMENTS:**
- POROUS BAFFLE POSTS MUST BE 60-IN. TO 96-IN. LONG STEEL POSTS THAT MEET, AT A MINIMUM, THE FOLLOWING PHYSICAL CHARACTERISTICS:
    - COMPOSED OF A HIGH STRENGTH STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.
    - INCLUDE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-IN. AND A NOMINAL "T" LENGTH OF 1.48-IN.
    - WEIGH 1.25 POUNDS PER FOOT (± 8%).
  - POSTS SHALL BE EQUIPPED WITH PROJECTIONS TO AID IN FASTENING OF BAFFLE MATERIAL.
  - INSTALL POSTS TO A MINIMUM OF 24-IN. A MINIMUM HEIGHT OF 1-IN. TO 2-IN. ABOVE THE FABRIC SHALL BE MAINTAINED, AND A MAXIMUM HEIGHT OF 3-FT. SHALL BE MAINTAINED ABOVE THE GROUND.
  - POST SPACING SHALL BE AT A MAXIMUM OF 4-FT. ON CENTER.
- BAFFLES - MATERIAL REQUIREMENTS:**
- BAFFLE MATERIAL MUST BE COMPOSED OF COIR-BASED MATERIALS OR TURF REINFORCEMENT MATTING (TRM) THAT CONSISTS OF THE FOLLOWING REQUIREMENTS:
    - HAVE A LIGHT PENETRATION (% OPENINGS) BETWEEN 10-35%;
    - FREE OF LOOSE STRAW MATERIAL;
    - HAVE A MINIMUM TENSILE STRENGTH OF 145 LB/FT; AND,
    - HAVE A MINIMUM WIDTH OF 48-IN.
  - 12-IN. OF THE FABRIC SHOULD BE PLACED WITHIN THE EXCAVATED TRENCH AND TOED IN WHEN THE TRENCH IS BACKFILLED OR BAFFLE MATERIAL MAY BE STAPLED INTO GROUND BY USING 12-IN. STAPLES WITH A MAXIMUM SPACING OF 12-IN.
  - BAFFLE MATERIAL SHALL BE PURCHASED IN CONTINUOUS ROLLS AND CUT TO THE WIDTH OF THE SEDIMENT BASIN OR TRAP TO AVOID JOINTS.
- BAFFLES - GENERAL NOTES:**
- ATTACH BAFFLE TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED ALONG THE ABOVE GROUND PORTION OF EACH POST.
  - INSTALL THE BAFFLE ROWS PERPENDICULAR TO THE DIRECTION OF THE STORMWATER FLOW AND PLACE EACH BAFFLE THE PROPER DISTANCE FROM INLET AND OUTLETS TO ALLOW ACCESS FOR MAINTENANCE AND CLEAN-OUT AS PER THE PLANS.
  - EXTEND BAFFLE TO A MINIMUM OF 3 FEET IN HEIGHT.

- BAFFLES - INSPECTION & MAINTENANCE:**
- THE KEY TO FUNCTIONAL POROUS BAFFLES IS WEEKLY INSPECTION, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
  - ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
  - ATTENTION TO SEDIMENT ACCUMULATIONS ALONG EACH ROW OF BAFFLES IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
  - REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE BAFFLE ROW OR WHEN IT REACHES THE CLEAN-OUT HEIGHT OF THE SEDIMENT BASIN OR TRAP, WHICHEVER IS REACHED FIRST.
  - REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
  - CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH EACH ROW OF BAFFLES, OR WHERE THE BAFFLE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE BAFFLE.
  - CHECK FOR TEARS/RIPS WITHIN THE BAFFLES, AREAS WHERE THE BAFFLE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE BAFFLE INEFFECTIVE. REMOVED DAMAGED BAFFLES AND REINSTALL NEW BAFFLES IMMEDIATELY.
  - POROUS BAFFLES SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.
  - REMOVE ANY ACCUMULATED SEDIMENT UPON BAFFLE REMOVAL. DISPOSE OF SEDIMENT OFF-SITE ACCORDING TO STATE AND LOCAL REGULATIONS.

**8** POROUS BAFFLES  
SCALE: N.T.S.

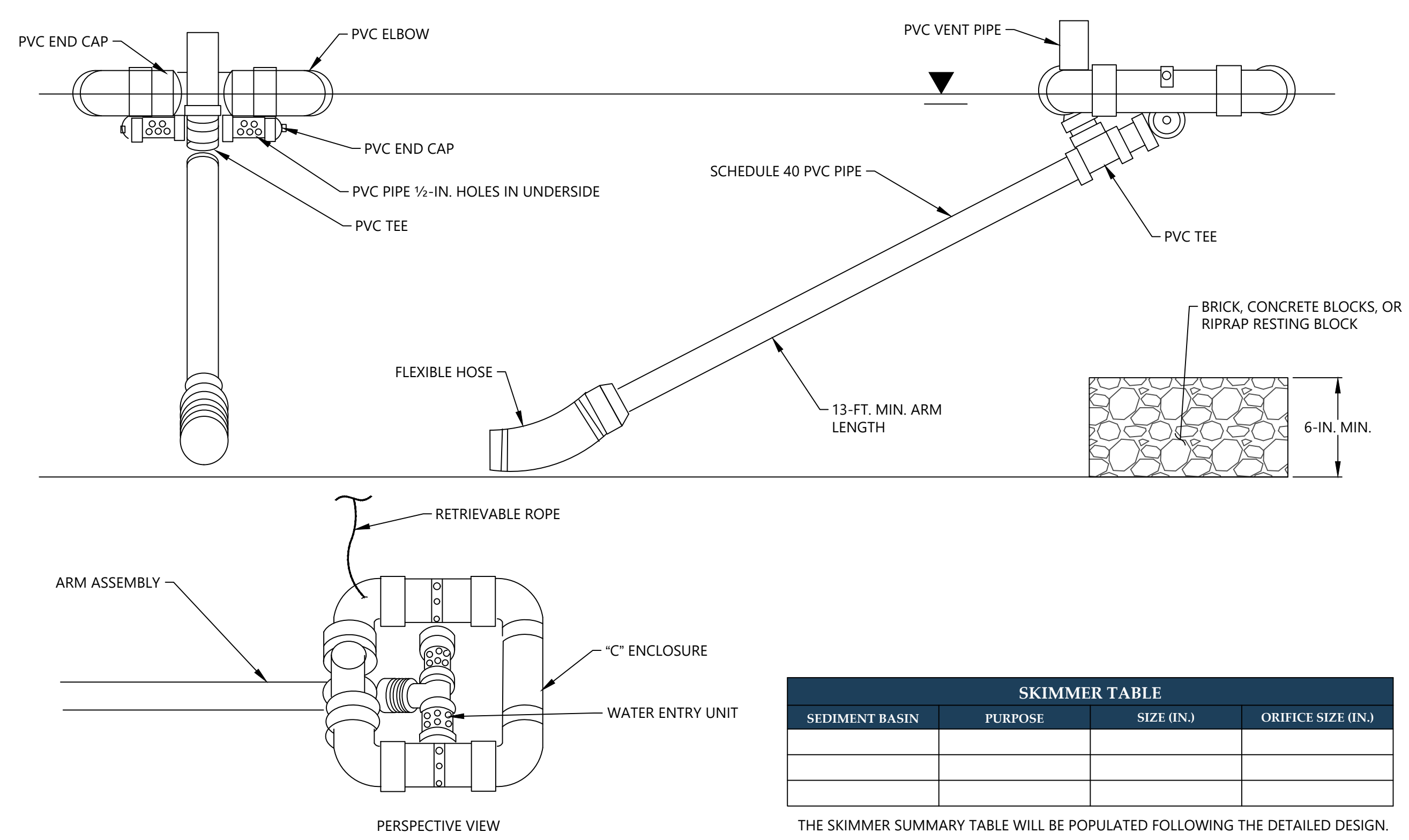


**MAINTENANCE:**  
ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE. REMOVE SEDIMENT AND RESTORE TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE POOL. CHECK EMBANKMENT, LINING, AND OUTLET AREA FOR ANY DAMAGE AND REPAIR AS NECESSARY, AS SOON AS PRACTICAL.

ID	A	B	C	D	E	F	G	H

THE PLUNGE POOL SUMMARY TABLE WILL BE POPULATED FOLLOWING THE DETAILED DESIGN.

**9** PLUNGE POOL  
SCALE: N.T.S.



SEDIMENT BASIN	PURPOSE	SIZE (IN.)	ORIFICE SIZE (IN.)

THE SKIMMER SUMMARY TABLE WILL BE POPULATED FOLLOWING THE DETAILED DESIGN.

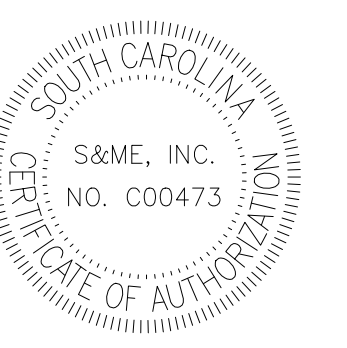
- MAINTENANCE NOTES:**
- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

**10** SKIMMER  
SCALE: N.T.S.



2016 AYRSLEY TOWN BLVD.  
SUITE 2-A  
CHARLOTTE, NC 28273  
(704) 523-4726  
ENGINEERING FIRM  
LICENSE NUMBER: F-0176

**RIVER BEND AGGREGATES, LLC**



NO.	DATE	ISSUED FOR CLIENT REVIEW	BY	CHK	C/S	APV

DETAILS (3 OF 5)

RIVER BEND QUARRY SITE - CONCEPTUAL PLAN  
RIVER BEND AGGREGATES, LLC  
SPARTANBURG COUNTY, SOUTH CAROLINA

PROJECT NUMBER  
**22610504B**  
DRAWING NUMBER

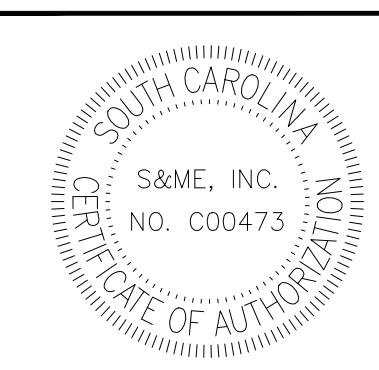
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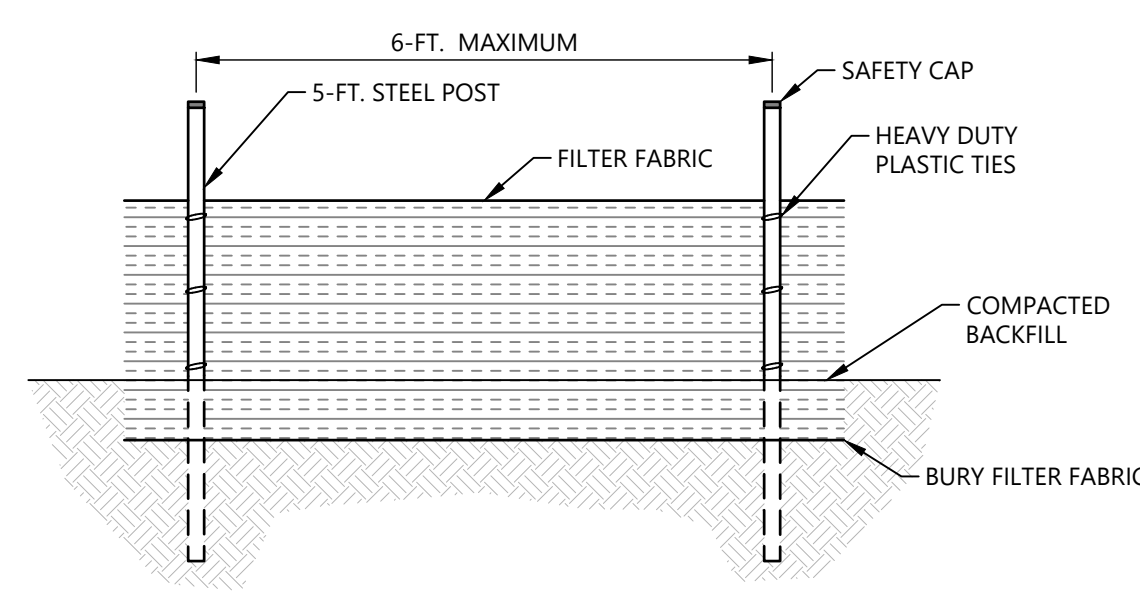
2016 AYRSLEY TOWN BLVD.  
SUITE 2-A  
CHARLOTTE, NC 28273  
(704) 523-4726  
ENGINEERING FIRM  
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**RIVER  
BEND  
AGGREGATES,  
LLC**

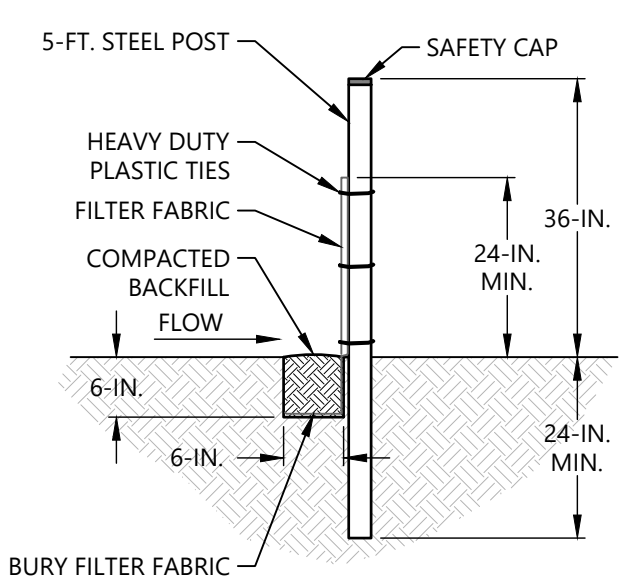


NO.	DATE	ISSUED FOR CLIENT REVIEW	BY	CHK	C/S	APV
	10/16/2023		AEW	CHK	C/S	APV

<b>DETAILS (4 OF 5)</b>	
RIVER BEND QUARRY SITE - CONCEPTUAL PLAN RIVER BEND AGGREGATES, LLC SPARTANBURG COUNTY, SOUTH CAROLINA	
PROJECT NUMBER	22610504B
DRAWING NUMBER	
8	9



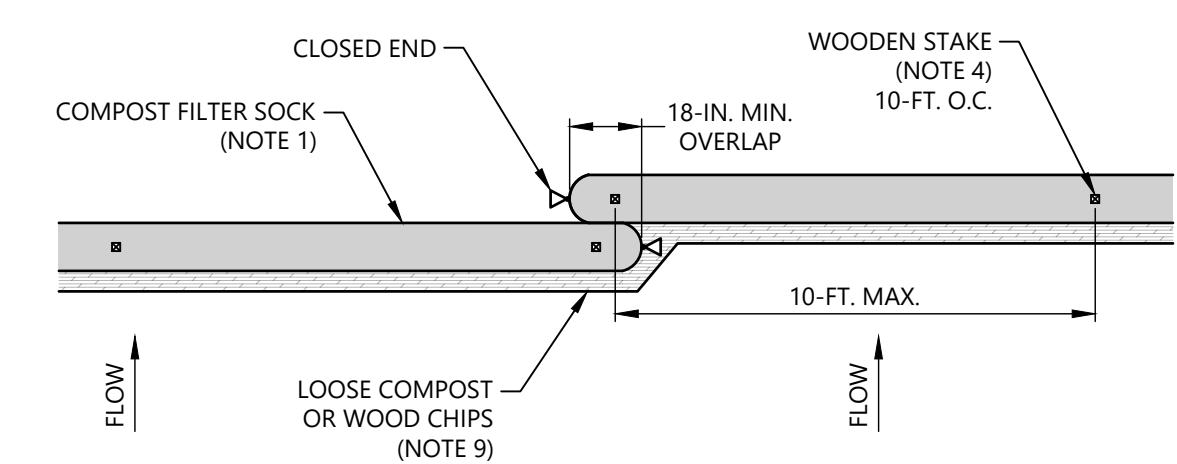
**PROFILE VIEW**



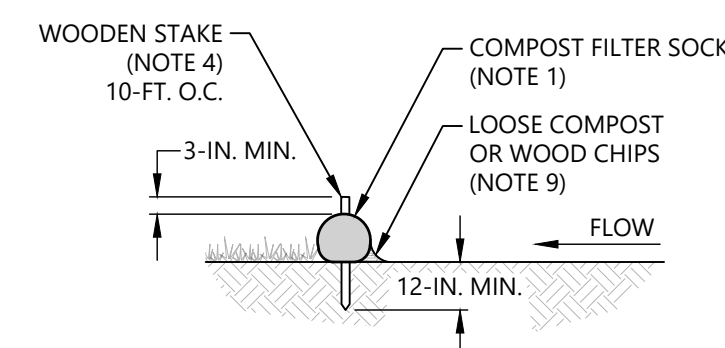
**SECTION VIEW**

- GENERAL NOTES**
- DO NOT PLACE SILT FENCE ACROSS CHANNELS OR IN OTHER AREAS SUBJECT TO CONCENTRATED FLOWS. SILT FENCE SHOULD NOT BE USED AS A VELOCITY CONTROL BMP. CONCENTRATED FLOWS ARE ANY FLOWS GREATER THAN 0.5 CFS.
  - MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE SILT FENCE SHALL BE 100-FT.
  - MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO THE FENCE LINE) SHALL BE 2:1.
  - SILT FENCE JOINTS, WHEN NECESSARY, SHALL BE COMPLETED BY ONE OF THE FOLLOWING OPTIONS:
    - WRAP EACH FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 1-FOOT MINIMUM OVERLAP.
    - OVERLAP SILT FENCE BY INSTALLING 3-FT. PAST THE SUPPORT POST TO WHICH THE NEW SILT FENCE ROLL IS ATTACHED. ATTACH OLD ROLL TO NEW ROLL WITH HEAVY-DUTY PLASTIC TIES, OR
    - OVERLAP ENTIRE WIDTH OF EACH SILT FENCE ROLL FROM ONE SUPPORT POST TO THE NEXT SUPPORT POST.
  - ATTACH FILTER FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED WITHIN THE TOP 8-IN. OF THE FABRIC.
  - INSTALL THE SILT FENCE PERPENDICULAR TO THE DIRECTION OF THE STORMWATER FLOW AND PLACE THE SILT FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.
  - INSTALL SILT FENCE CHECKS (TIE-BACKS) EVERY 50-100 -FT., DEPENDENT ON SLOPE, ALONG SILT FENCE THAT IS INSTALLED WITH SLOPE AND WHERE CONCENTRATED FLOWS ARE EXPECTED OR ARE DOCUMENTED ALONG THE PROPOSED/INSTALLED SILT FENCE.
- POST REQUIREMENTS**
- SILT FENCE POSTS MUST BE 5-FT. LONG STEEL POSTS THAT MEET, AT A MINIMUM, THE FOLLOWING PHYSICAL CHARACTERISTICS:
    - COMPOSED OF A HIGH STRENGTH STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.
    - INCLUDE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-IN. AND A NOMINAL "I" LENGTH OF 1.48-IN.
    - WEIGH 1.25 POUNDS PER FOOT (± 8%)
  - POSTS SHALL BE EQUIPPED WITH PROJECTIONS TO AID IN FASTENING OF FILTER FABRIC.
  - EACH POST TO BE EQUIPPED WITH SAFETY CAP.
  - STEEL POSTS MAY NEED TO HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM WHEN INSTALLED ALONG STEEP SLOPES OR INSTALLED IN LOOSE SOILS. THE PLATE SHOULD HAVE A MINIMUM CROSS SECTION OF 17-SQUARE -IN. AND BE COMPOSED OF 15 GAUGE STEEL, AT A MINIMUM. THE METAL SOIL STABILIZATION PLATE SHOULD BE COMPLETELY BURIED.
  - INSTALL POSTS TO A MINIMUM DEPTH OF 24-IN. A MINIMUM HEIGHT OF 1-IN. TO 2-IN. ABOVE THE FABRIC SHALL BE MAINTAINED, AND A MAXIMUM HEIGHT OF 3-FT. SHALL BE MAINTAINED ABOVE THE GROUND.
  - POST SPACING SHALL BE AT A MAXIMUM OF 6-FT. ON CENTER.
  - WOODEN POSTS ARE ALLOWED WHEN CROSSING UTILITIES. OWNER'S DESIGNATED ENVIRONMENTAL REPRESENTATIVE SHALL APPROVE LOCATIONS WHERE WOODEN POST ARE TO BE USED PRIOR TO INSTALLATION.

**11 SILT FENCE**  
SCALE: N.T.S.



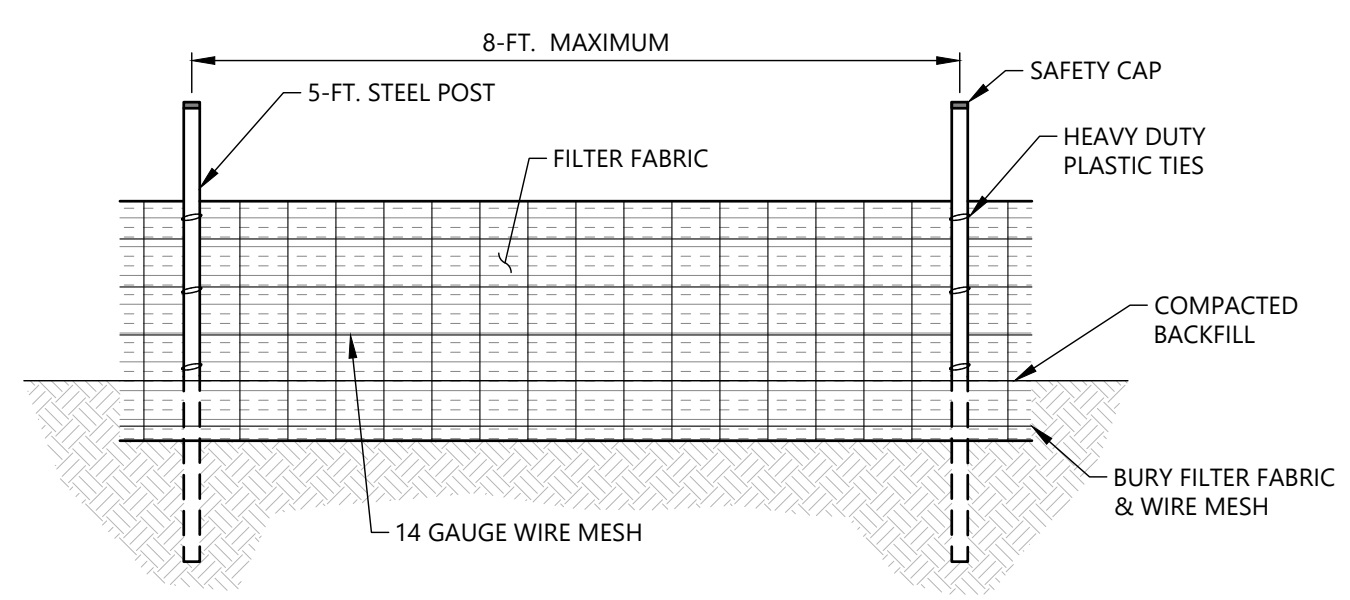
**SINGLE SOCK PLAN VIEW**



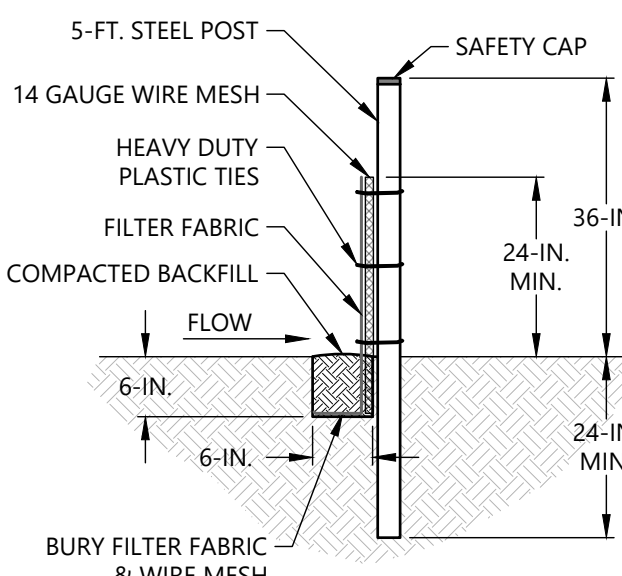
**SINGLE SOCK SECTION VIEW**

- GENERAL NOTES**
- USE FILTREXX® SILT-SOXX™ ORIGINAL OR ENGINEER APPROVED ALTERNATIVE. COMPOST FILTER SOCK DIAMETER VARIES, REFER TO PLAN VIEW DRAWINGS FOR DIAMETER.
  - COMPOST FILTER SOCKS SHOULD BE LOCATED AS SHOWN ON PLANS AND AS DIRECTED BY THE OWNER'S DESIGNATED ENVIRONMENTAL REPRESENTATIVE.
  - PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN 1-IN. THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST FILTER SOCK.
  - OAK OR OTHER DURABLE HARDWOOD STAKES 2-IN. BY 2-IN. IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY PLUMB, THROUGH THE CENTER OF THE COMPOST FILTER SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 10-FT. O.C. STAKES SHOULD BE DRIVEN TO A MINIMUM DEPTH OF 12-IN. WITH A MINIMUM OF 3-IN. PROTRUDING ABOVE THE COMPOST FILTER SOCK.
  - WHERE APPLICABLE PLASTIC OR WIRE TIES SHALL HAVE MINIMUM 50-LB. TENSILE STRENGTH.
  - IN THE EVENT STAKING IS NOT POSSIBLE (HIGHLY COMPACTED SOILS OR IMPERVIOUS SURFACES) SAND BAGS OR HEAVY CONCRETE BLOCKS MAY BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
  - STRAIGHTEN OR POSITION THE COMPOST FILTER SOCK AS NEEDED ON THE GROUND, ENSURING THERE IS GOOD GROUND CONTACT AND NO VOID SPACES UNDER THE COMPOST FILTER SOCK.
  - DO NOT DRAG COMPOST FILTER SOCK ACROSS ROUGH SURFACES. IF DRAGGING ACROSS A ROUGH SURFACE IS NECESSARY, PLACE A BARRIER SUCH AS PLASTIC OR A TARP UNDER COMPOST FILTER SOCK TO PREVENT TEARING.
  - BACKFILL LOOSE COMPOST OR FINE WOOD CHIPS TO 1/2 THE HEIGHT OF THE COMPOST FILTER SOCK ALONG THE UPSLOPE SIDE, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE COMPOST FILTER SOCK.
  - IF THE COMPOST FILTER SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED WITH THE PERMANENT SEED MIX AT TIME OF INSTALLATION.
  - FOLLOW MANUFACTURER'S SPECIFICATIONS IF THERE IS A DISCREPANCY IN NOTES OR IF ENGINEER APPROVED ALTERNATIVE IS USED.
- MAINTENANCE NOTES**
- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
  - MAKE ANY NECESSARY REPAIRS IMMEDIATELY.
  - THE MAXIMUM ALLOWABLE ACCUMULATED SEDIMENT IS 1/3 THE HEIGHT OF THE COMPOST FILTER SOCK. HOWEVER, ACCUMULATED SEDIMENT SHOULD BE REMOVED MORE FREQUENTLY. ALTERNATIVELY, A NEW COMPOST FILTER SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE CREATING MORE SEDIMENT STORAGE CAPACITY WITHOUT SOIL DISTURBANCE.
  - REMOVE ACCUMULATED SEDIMENT TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. TAKE CARE TO AVOID UNDERMINING THE COMPOST FILTER SOCK DURING CLEANOUT.
  - THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
  - IF PONDING BECOMES EXCESSIVE, THE COMPOST FILTER SOCK MAY NEED TO BE REPLACED WITH ONE OF A LARGER DIAMETER OR A DIFFERENT MEASURE.
  - THE COMPOST FILTER SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
  - THE COMPOST FILTER SOCK SHALL BE MAINTAINED UNTIL DISTURBED AREA ABOVE THE DEVICE HAS BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED.

**12 COMPOST FILTER SOCK - SINGLE**  
SCALE: N.T.S.



**PROFILE VIEW**



**SECTION VIEW**

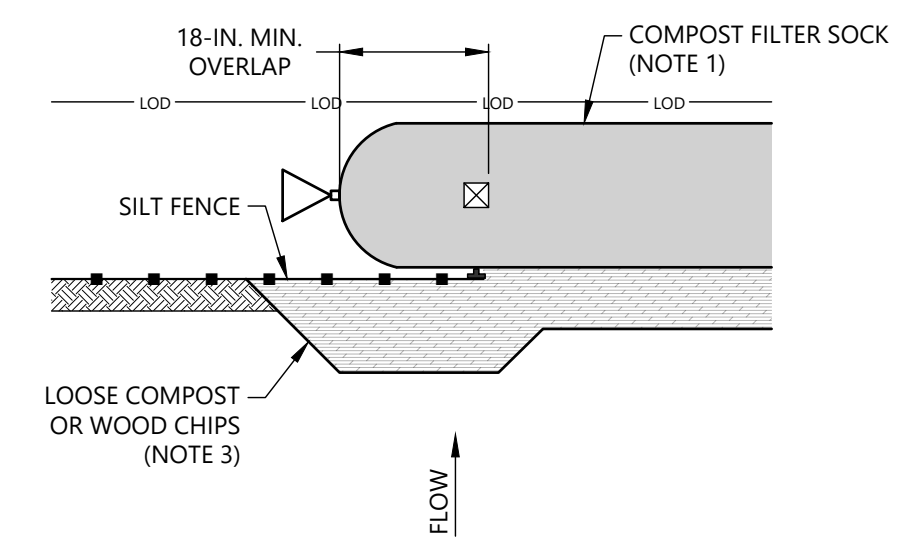
- GENERAL NOTES**
- DO NOT PLACE SILT FENCE ACROSS CHANNELS OR IN OTHER AREAS SUBJECT TO CONCENTRATED FLOWS. SILT FENCE SHOULD NOT BE USED AS A VELOCITY CONTROL BMP. CONCENTRATED FLOWS ARE ANY FLOWS GREATER THAN 0.5 CFS.
  - MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE SILT FENCE SHALL BE 100-FT.
  - MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO THE FENCE LINE) SHALL BE 2:1.
  - SILT FENCE JOINTS, WHEN NECESSARY, SHALL BE COMPLETED BY ONE OF THE FOLLOWING OPTIONS:
    - WRAP EACH FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 1-FOOT MINIMUM OVERLAP.
    - OVERLAP SILT FENCE BY INSTALLING 3-FT. PAST THE SUPPORT POST TO WHICH THE NEW SILT FENCE ROLL IS ATTACHED. ATTACH OLD ROLL TO NEW ROLL WITH HEAVY-DUTY PLASTIC TIES, OR
    - OVERLAP ENTIRE WIDTH OF EACH SILT FENCE ROLL FROM ONE SUPPORT POST TO THE NEXT SUPPORT POST.
  - ATTACH FILTER FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED WITHIN THE TOP 8-INCHES OF THE FABRIC.
  - INSTALL THE SILT FENCE PERPENDICULAR TO THE DIRECTION OF THE STORMWATER FLOW AND PLACE THE SILT FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.
  - INSTALL SILT FENCE CHECKS (TIE-BACKS) EVERY 50-FT. TO 100-FT., DEPENDENT ON SLOPE, ALONG SILT FENCE THAT IS INSTALLED WITH SLOPE AND WHERE CONCENTRATED FLOWS ARE EXPECTED OR ARE DOCUMENTED ALONG THE PROPOSED/INSTALLED SILT FENCE.
- POST REQUIREMENTS**
- SILT FENCE POSTS MUST BE 5-FT. LONG STEEL POSTS THAT MEET, AT A MINIMUM, THE FOLLOWING PHYSICAL CHARACTERISTICS:
    - COMPOSED OF A HIGH STRENGTH STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.
    - INCLUDE A STANDARD "T" SECTION WITH A NOMINAL FACE WIDTH OF 1.38-IN. AND A NOMINAL "I" LENGTH OF 1.48-IN.
    - WEIGH 1.25 POUNDS PER FOOT (± 8%)
  - POSTS SHALL BE EQUIPPED WITH PROJECTIONS TO AID IN FASTENING OF FILTER FABRIC.
  - EACH POST TO BE EQUIPPED WITH SAFETY CAP.
  - STEEL POSTS MAY NEED TO HAVE A METAL SOIL STABILIZATION PLATE WELDED NEAR THE BOTTOM WHEN INSTALLED ALONG STEEP SLOPES OR INSTALLED IN LOOSE SOILS. THE PLATE SHOULD HAVE A MINIMUM CROSS SECTION OF 17-SQUARE INCHES AND BE COMPOSED OF 15 GAUGE STEEL, AT A MINIMUM. THE METAL SOIL STABILIZATION PLATE SHOULD BE COMPLETELY BURIED.
  - INSTALL POSTS TO A MINIMUM DEPTH OF 24-IN. A MINIMUM HEIGHT OF 1-IN. TO 2-IN. ABOVE THE FABRIC SHALL BE MAINTAINED, AND A MAXIMUM HEIGHT OF 3-FT. SHALL BE MAINTAINED ABOVE THE GROUND.
  - POST SPACING SHALL BE AT A MAXIMUM OF 8-FT. ON CENTER.
  - WOODEN POSTS ARE ALLOWED WHEN CROSSING UTILITIES. OWNER'S DESIGNATED ENVIRONMENTAL REPRESENTATIVE SHALL APPROVE LOCATIONS WHERE WOODEN POST ARE TO BE USED PRIOR TO INSTALLATION.

**13 REINFORCED SILT FENCE**  
SCALE: N.T.S.

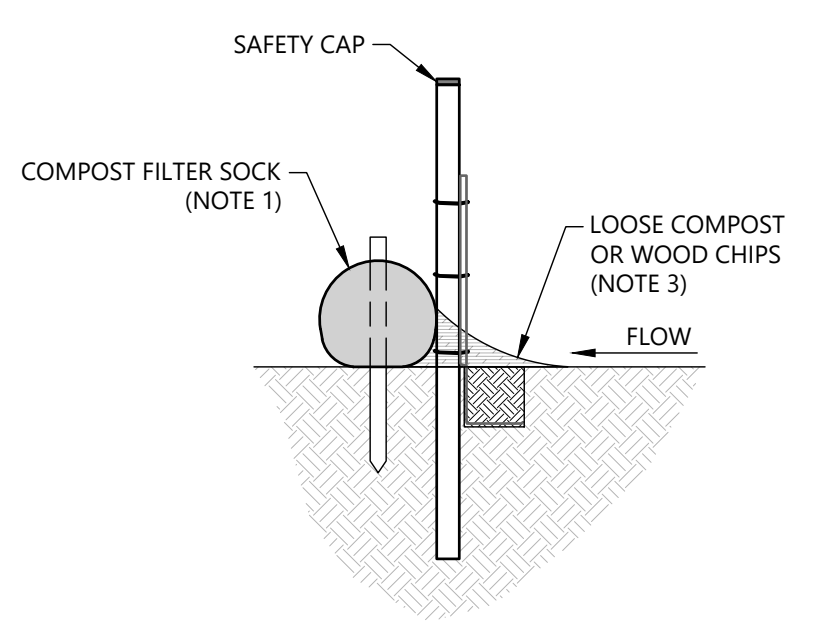
**INSPECTION & MAINTENANCE**

- THE KEY TO FUNCTIONAL SILT FENCE IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- ATTENTION TO SEDIMENT ACCUMULATIONS ALONG THE SILT FENCE IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
- REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE SILT FENCE.
- REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
- CHECK FOR AREAS WHERE STORMWATER RUNOFF HAS ERODED A CHANNEL BENEATH THE SILT FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED DUE TO RUNOFF OVERTOPPING THE SILT FENCE. INSTALL CHECKS/TIE-BACKS AND/OR REINSTALL SILT FENCE, AS NECESSARY.
- CHECK FOR TEARS WITHIN THE SILT FENCE, AREAS WHERE SILT FENCE HAS BEGUN TO DECOMPOSE, AND FOR ANY OTHER CIRCUMSTANCE THAT MAY RENDER THE SILT FENCE INEFFECTIVE. REMOVE DAMAGED SILT FENCE AND REINSTALL NEW SILT FENCE IMMEDIATELY.
- SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND ONCE IT IS REMOVED, THE RESULTING DISTURBED AREA SHALL BE PERMANENTLY STABILIZED.

REFERENCE:  
DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2005, REVISED MARCH 2014 AND NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL CHAPTERS 6 AND 8 REVISED, MAY 2013.



**SINGLE SOCK / SILT FENCE OVERLAP - PLAN VIEW**



**SINGLE SOCK / SILT FENCE OVERLAP - SECTION VIEW**

**14 PERIMETER CONTROL OVERLAP**  
SCALE: N.T.S.

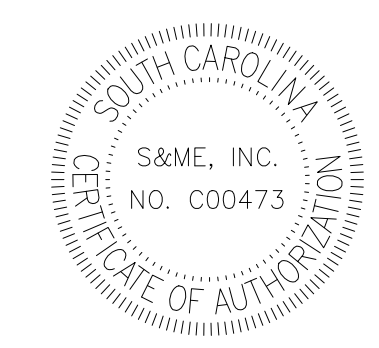
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2016 AYRSLEY TOWN BLVD.  
SUITE 2-A  
CHARLOTTE, NC 28273  
(704) 523-4726  
ENGINEERING FIRM  
LICENSE NUMBER: E-0176

**RIVER  
BEND  
AGGREGATES,  
LLC**



NO.	DATE	ISSUED FOR CLIENT REVIEW	DESCRIPTION
10/16/2023			

**DETAILS (5 OF 5)**  
RIVER BEND QUARRY SITE - CONCEPTUAL PLAN  
RIVER BEND AGGREGATES, LLC  
SPARTANBURG COUNTY, SOUTH CAROLINA

PROJECT NUMBER  
**22610504B**  
DRAWING NUMBER

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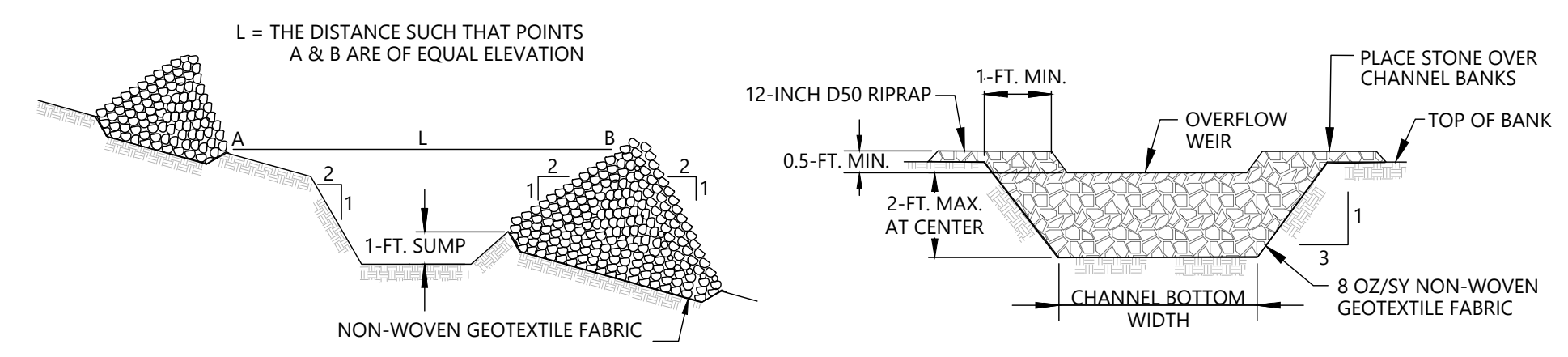
**GENERAL NOTES**

- ROCK CHECK DAMS SHOULD NOT BE PLACED IN WATERS OF THE STATE OR USGS BLUE-LINE STREAMS (UNLESS APPROVED BY FEDERAL AUTHORITIES).
- ROCK CHECK DAMS SHOULD BE INSTALLED IN STEEPLY SLOPED CHANNELS WHERE ADEQUATE VEGETATION CANNOT BE ESTABLISHED. THIS BMP MEASURE SHOULD ONLY BE USED IN SMALL OPEN CHANNELS.
- A 8 OZ/SY NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE ROCK CHECK DAMS IS TO BE PLACED.
- THE BODY OF THE ROCK CHECK DAM SHALL BE COMPOSED OF 12-INCH D50 WASHED STONE.
- ROCK CHECK DAMS SHOULD NOT EXCEED A HEIGHT OF 2-FEET AT THE CENTERLINE OF THE CHANNEL.
- ROCK CHECK DAMS SHOULD HAVE A MINIMUM TOP FLOW LENGTH OF 2- FEET.
- RIPRAP SHOULD BE PLACED OVER CHANNEL BANKS TO PREVENT WATER FROM CUTTING AROUND THE ROCK CHECK DAM.
- THE RIPRAP SHOULD BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM DAM) TO ACHIEVE COMPLETE COVERAGE OF THE CHANNEL. DOING SO WILL ALSO ENSURE THAT THE CENTER OF THE CHECK IS LOWER THAN THE EDGES.
- THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM CHECK.

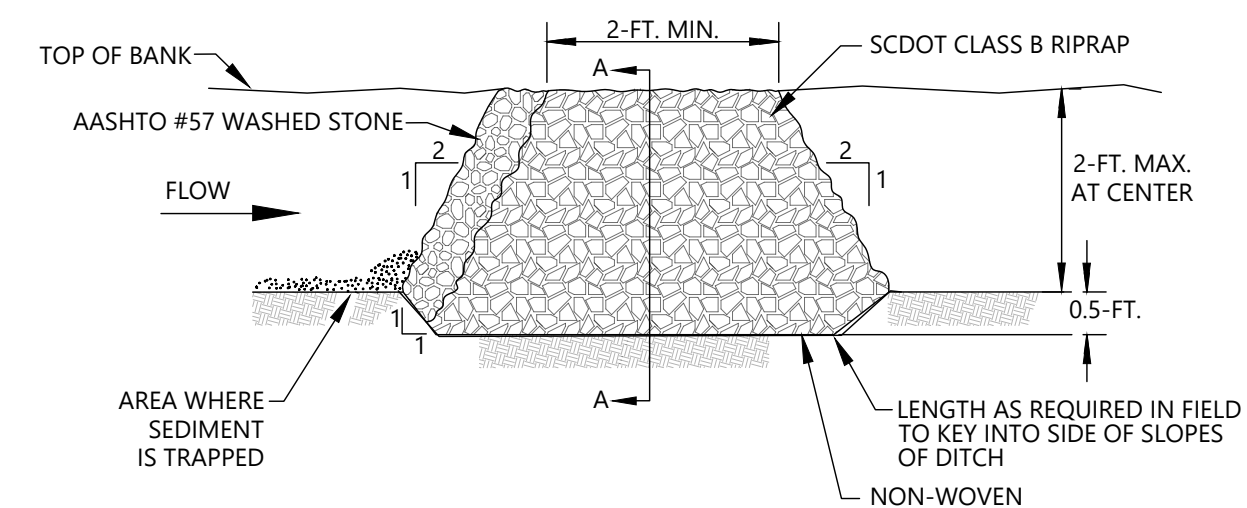
**MAINTENANCE NOTES**

- THE KEY TO FUNCTIONAL ROCK CHECK DAMS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- ATTENTION TO SEDIMENT ACCUMULATIONS IN FRONT OF THE ROCK CHECK DAM IS EXTREMELY IMPORTANT. ACCUMULATED SEDIMENT SHOULD BE CONTINUALLY MONITORED AND REMOVED WHEN NECESSARY.
- REMOVED ACCUMULATED SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE ROCK CHECK DAM.
- REMOVED SEDIMENT SHALL BE PLACED IN STOCKPILE STORAGE AREAS OR SPREAD THINLY ACROSS DISTURBED AREA. STABILIZE THE REMOVED SEDIMENT AFTER IT IS RELOCATED.
- INSPECT ROCK CHECK DAMS' EDGES FOR EROSION AND EVIDENCE OF RUNOFF BYPASSING THE INSTALLED CHECK. IF EVIDENT REPAIR PROMPTLY AS NECESSARY TO PREVENT EROSION AND BYPASSING.
- IN THE CASE OF GRASS-LINED DITCHES, CHANNELS, AND SWALES, ROCK CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE UNLESS THE SLOPE OF THE SWALE IS GREATER THAN 4%.
- AFTER CONSTRUCTION IS COMPLETED AND FINAL STABILIZATION IS REACHED, THE ENTIRETY OF THE ROCK CHECK DAM SHOULD BE REMOVED IF VEGETATION WILL BE USED FOR PERMANENT EROSION CONTROL MEASURES. THE AREA BENEATH THE REMOVED ROCK CHECK DAMS MUST BE ADDRESSED WITH PERMANENT STABILIZATION MEASURES.

REFERENCE: DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2005, REVISED MARCH 2014.



**SPACING BETWEEN ROCK CHECK DAMS**



**TYPICAL ROCK CHECK DAM SECTION**

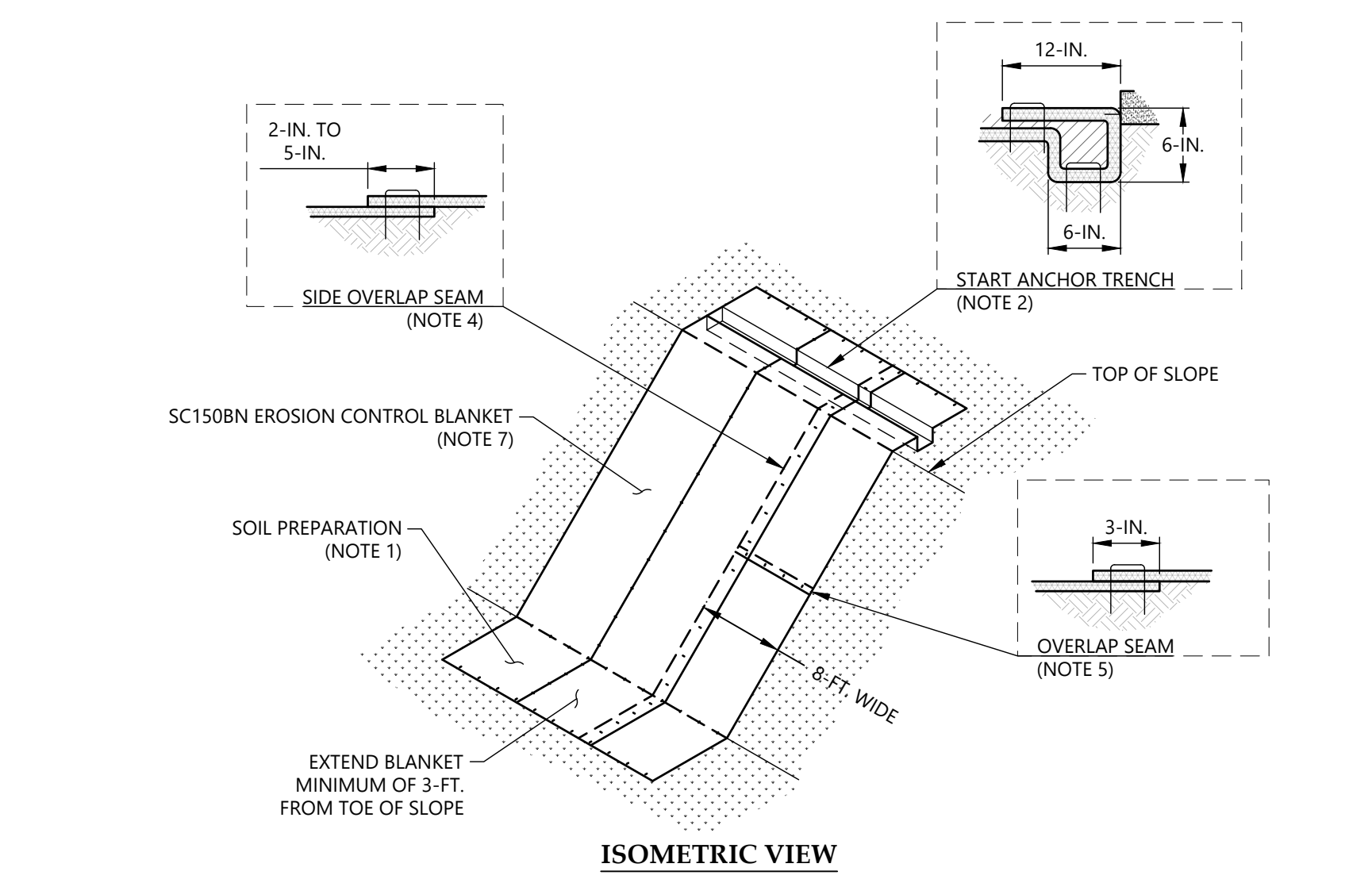
**CROSS SECTION A-A THRU ROCK CHECK DAM**

**GENERAL NOTES**

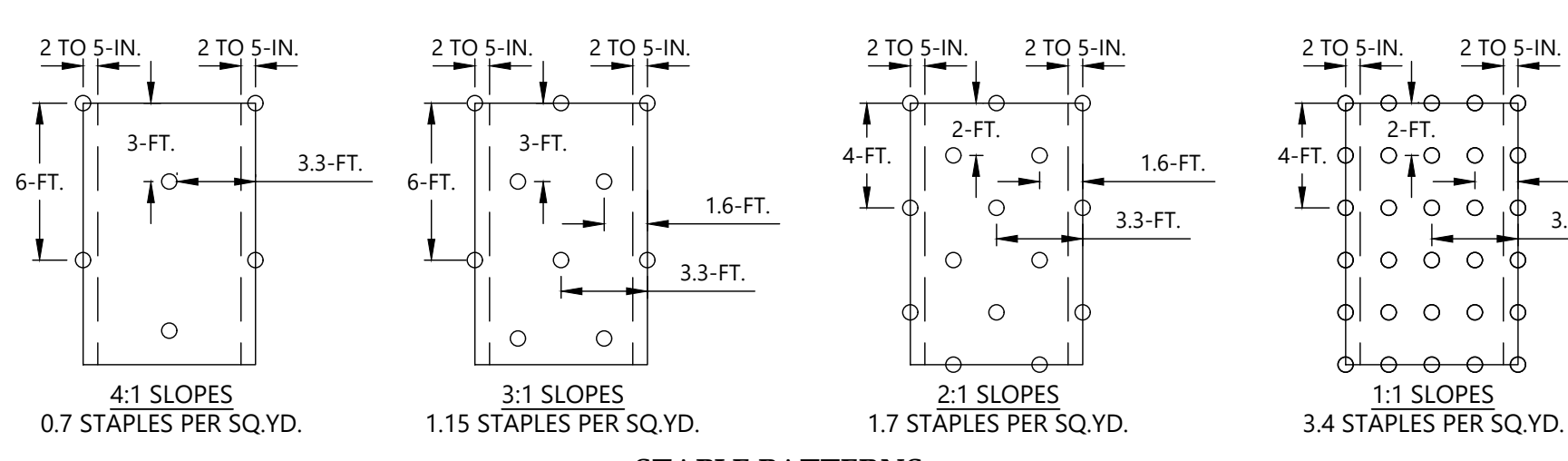
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6-IN. DEEP X 6-IN. WIDE TRENCH WITH APPROXIMATELY 12-IN. OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12-IN. APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12-IN. PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12-IN. APART ACROSS THE WIDTH OF THE RECPs. ROLL THE RECPs DOWN OR HORIZONTALLY ACROSS THE SLOPE BASED ON ENVIRONMENT INSPECTOR. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
- THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2 TO 5-IN. OVERLAP DEPENDING ON THE RECPs TYPE.
- CONSECUTIVE RECPs SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3-IN. OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12-IN. APART ACROSS ENTIRE RECPs WIDTH.
- IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6-IN. MAY BE NECESSARY TO PROPERLY SECURE THE RECPs. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN BIONET SC150BN OR ENGINEER APPROVED EQUIVALENT.
- FOLLOW MANUFACTURERS SPECIFICATIONS IF THERE IS A DISCREPANCY IN NOTES OR IF ENGINEER APPROVED ALTERNATIVE IS USED.

**MAINTENANCE NOTES**

- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
  - MAKE ANY NECESSARY REPAIRS IMMEDIATELY.
  - GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT OCCUR BENEATH THE RECP.
  - ANY AREAS OF THE RECP THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
  - IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED.
  - MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED.
- REFERENCE: DETAIL BASED ON SCDHEC STORM WATER MANAGEMENT BMP HANDBOOK DATED JULY 31, 2015 (PORTIONS REVISED MAY 2014), NORTH AMERICAN GREEN INSTALLATION GUIDE, AND AMERICAN EXCELSIOR CURLEX SLOPE DETAIL ISOMETRIC VIEW.



**ISOMETRIC VIEW**



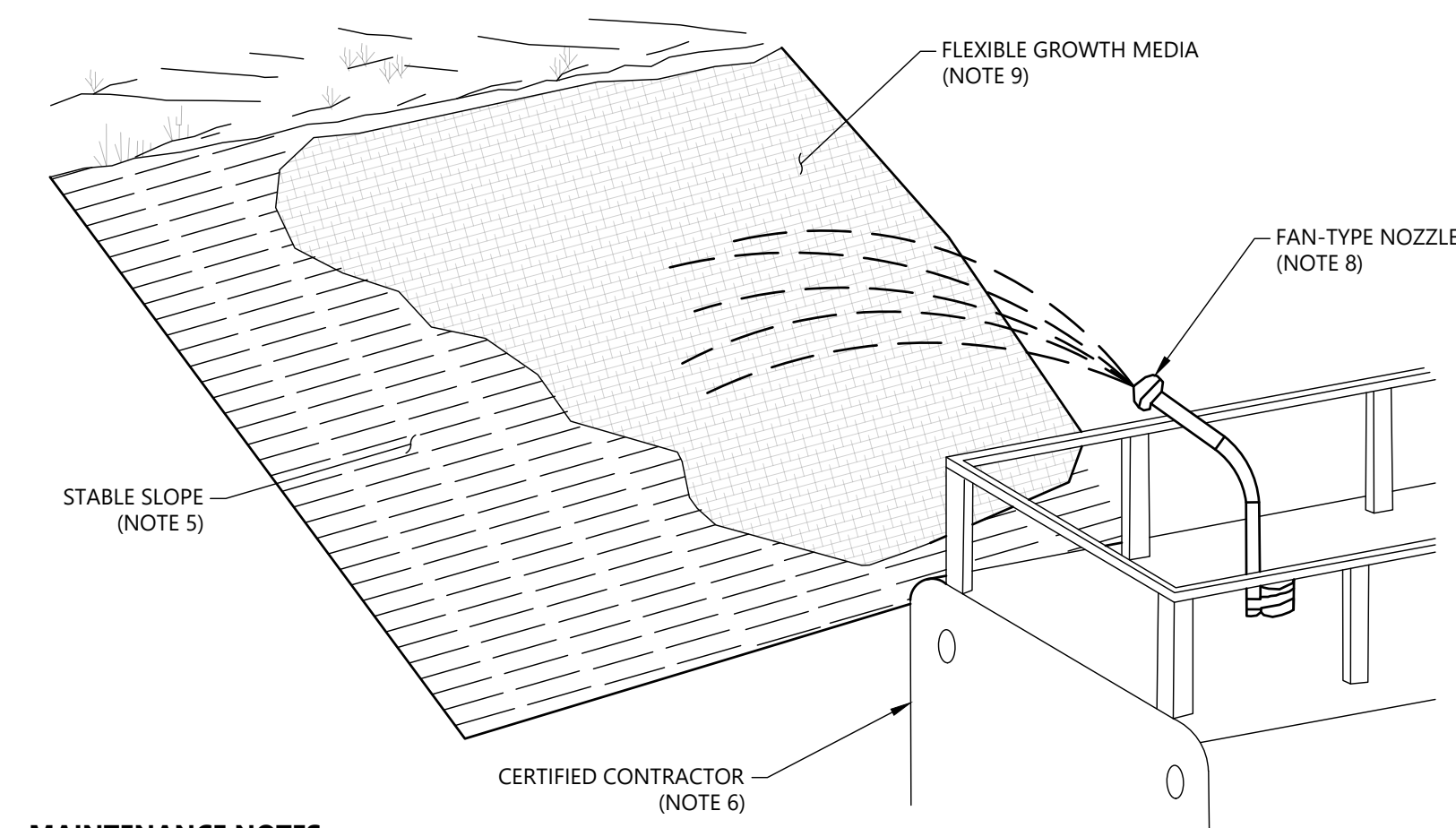
**STAPLE PATTERNS**

**15 EROSION CONTROL BLANKET - SLOPE**  
SCALE: N.T.S.

**16 ROCK CHECK DAM**  
SCALE: N.T.S.

**GENERAL NOTES**

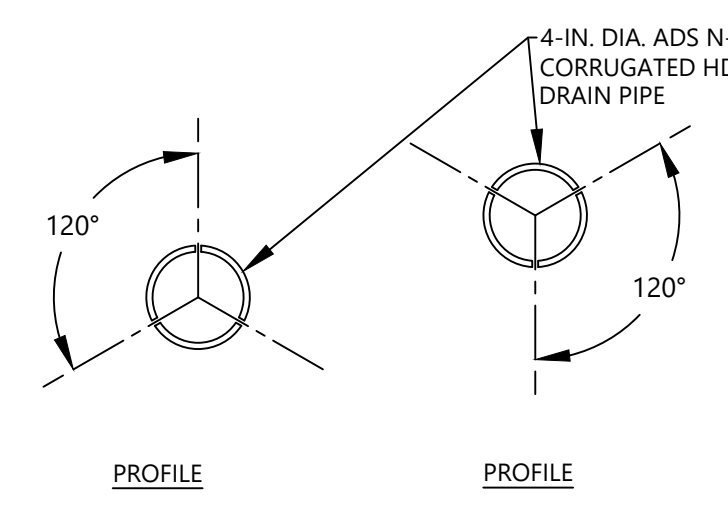
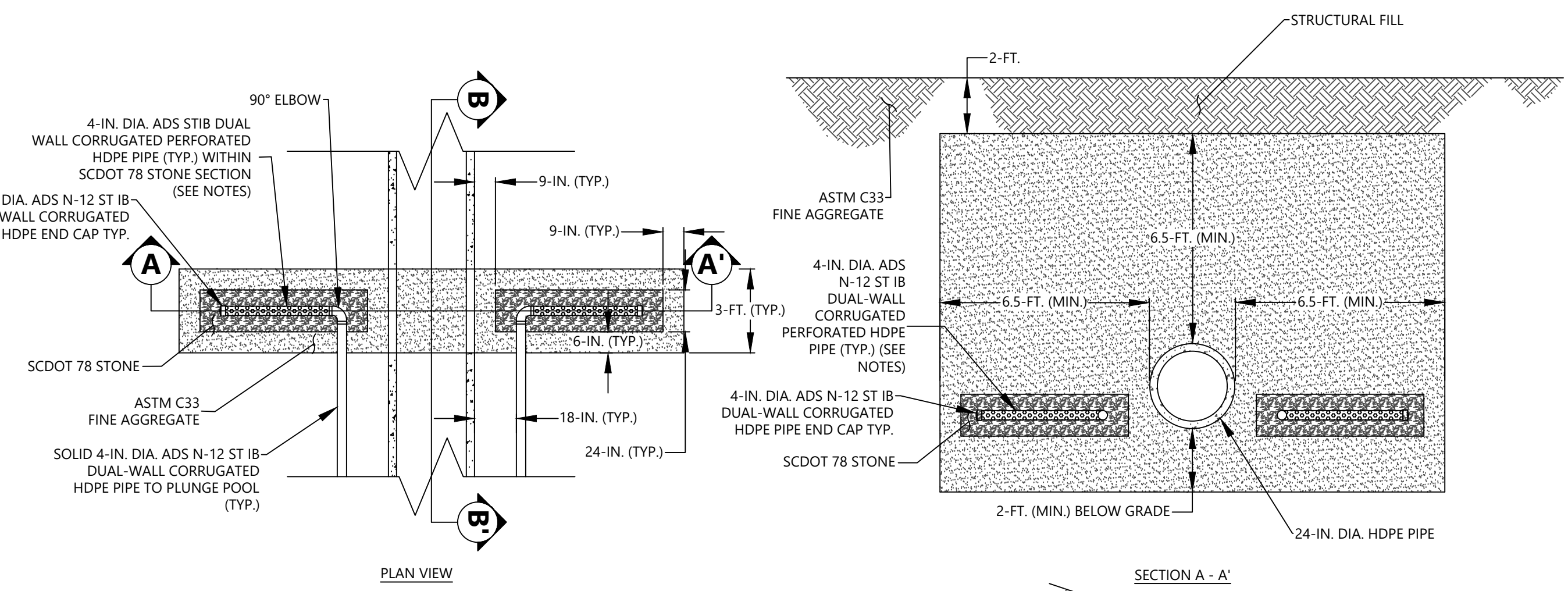
- A FLEXIBLE GROWTH MATRIX (FGM) COMBINES BOTH CHEMICAL AND MECHANICAL BONDING TECHNIQUES TO LOCK THE MATRIX IN PLACE. FGM IS COMPOSED OF CRIMPED, MANMADE FIBERS, ORGANIC FIBERS, AND PERFORMANCE ENHANCING ADDITIVES THAT FORM A LOFTY, INTERLOCKING MATRIX. FGM HAS AIR SPACES AND WATER-ABSORBING CAVITIES THAT IMPROVE SEED GERMINATION, REDUCE THE IMPACT OF RAINDROP ENERGY, AND MINIMIZE SOIL LOSS. WATER INSOLUBLE TACKIFIERS AND FLOCCULANTS CHEMICALLY BOND THE MATRIX TO THE SOIL SURFACE.
- FGM IS APPLICABLE FOR THE FOLLOWING SITUATIONS:
  - AS A TYPE A TEMPORARY EROSION CONTROL BLANKET;
  - SLOPES UP TO 2H:1V;
  - AS AN INFILL FOR TURF REINFORCEMENT MATS (TRMS) ON SLOPES GREATER THAN 2H:1V;
  - ENVIRONMENTALLY SENSITIVE AREAS NOT COMPATIBLE FOR NETTING;
  - WHEN THE REQUIRED LONGEVITY OF SOIL PROTECTION IS UP TO 1 YEAR;
  - WHEN THE SITE REQUIRES IMMEDIATE EROSION PROTECTION AND THERE IS A RISK OF IMPENDING WEATHER;
  - WHEN FAST VEGETATION ESTABLISHMENT IS REQUIRED; AND
  - WHEN A HIGH FACTOR OF DESIGN SAFETY IS REQUIRED.
- FGM IS NOT APPLICABLE AS A CHANNEL LINER OR FOR AREAS RECEIVING CONCENTRATED FLOW. APPLICABLE FGM MAY BE SELECTED FROM THE SCODOT APPROVED PRODUCTS LIST.
- FLEXIBLE GROWTH MEDIA (FGM) COMPONENTS ARE PRE-PACKAGED BY THE MANUFACTURER TO ASSURE MATERIAL PERFORMANCE. UNDER NO CIRCUMSTANCES IS FIELD MIXING OF MATERIALS, ADDITIVES OR COMPONENTS ACCEPTED. EXAMINE SUBSTRATES AND CONDITIONS WHERE MATERIALS WILL BE APPLIED.
- APPLY FGM TO GEOTECHNICALLY STABLE SLOPES THAT HAVE BEEN DESIGNED AND CONSTRUCTED TO DIVERT RUNOFF AWAY FROM THE FACE OF THE SLOPE. DO NOT PROCEED WITH INSTALLATION UNTIL SATISFACTORY CONDITIONS ARE ESTABLISHED.
- INSTALL FGM WITH A CONTRACTOR WHO IS CERTIFIED AND TRAINED BY THE MANUFACTURER IN THE PROPER PROCEDURES FOR MIXING AND APPLYING THE FGM.
- STRICTLY COMPLY WITH THE MANUFACTURER'S MIXING RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
- USE APPROVED HYDRAULIC SEEDING/MULCHING MACHINES WITH FAN-TYPE NOZZLE (50-DEGREE TIP) FOR FGM APPLICATIONS.
- APPLY FGM FROM OPPOSING DIRECTIONS TO THE SOIL SURFACE IN SUCCESSIVE LAYERS, REDUCING THE "SHADOW EFFECT" TO ACHIEVE MAXIMUM COVERAGE OF ALL EXPOSED SOIL.
- FGM DOES NOT REQUIRE A CURE TIME AND IS EFFECTIVE IMMEDIATELY SUCH THAT FGM MAY BE APPLIED IMMEDIATELY BEFORE, DURING OR AFTER A RAINFALL EVENT.
- INSTALL FGM MATERIALS ACCORDING TO THE MANUFACTURER'S APPLICATION RATES.



**MAINTENANCE NOTES**

- ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. INSPECTIONS MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- REAPPLY FGM TO DISTURBED AREAS THAT REQUIRE CONTINUED EROSION CONTROL.
- MAINTAIN EQUIPMENT TO PROVIDE UNIFORM APPLICATION RATES. RINSE ALL MIXING AND APPLICATION EQUIPMENT THOROUGHLY WITH WATER TO AVOID FORMATION OF RESIDUES AND DISCHARGE RINSE WATER APPROPRIATELY.
- DEGRADATION OF FGM IS EXPECTED TO OCCUR AS A RESULT OF MECHANICAL DEGRADATION, CHEMICAL AND BIOLOGICAL HYDROLYSIS, SUNLIGHT, SALT AND TEMPERATURE. REAPPLY FGM IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. REAPPLICATION IS NOT REQUIRED UNLESS FGM TREATED SOILS ARE DISTURBED OR TURBIDITY OR WATER QUALITY SHOWS THE NEED FOR AN ADDITIONAL APPLICATION.

**17 FLEXIBLE GROWTH MEDIA**  
SCALE: N.T.S.



- NOTES:**
- PIPE SHALL CONSIST OF ADS N-12 STIB INNER BARREL DUAL WALL CORRUGATED HDPE PIPE OR ENGINEER APPROVED EQUIVALENT.
  - PERFORATIONS SHALL CONSIST OF MAXIMUM 0.875-INCH (22-MM) LENGTH BY 0.125-INCH (3-MM) SLOTS IN WIDTH.
  - PERFORATION PATTERN SHALL BE AASHTO CLASS II.
  - THE PERFORATION PATTERN SHALL BE ROTATED 30° AT EVERY VALLEY.
  - THE DRAIN SHOULD EXTEND A MINIMUM OF 3 TIMES THE OUTLET PIPE DIAMETER IN THREE DIRECTIONS, HORIZONTALLY AND ABOVE THE PIPE.
  - LOCATE THE DIAPHRAGM DRAIN SO THAT IT HAS A MINIMUM OF 2-FT. OF SOIL COVER OVER IT.

**18 SEEPAGE DIAPHRAGM DRAIN**  
SCALE: N.T.S.

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