

EROSION AND SEDIMENT CONTROL NOTES

3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THROUGHOUT THE DURATION OF THE CONTRACT IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL WATER COURSES FROM WATER BORNE SEDIMENT POLLUTANTS ORIGINATING FROM ANY WORK DONE ON, OR IN SUPPORT OF THIS PROJECT.
2. THE SEDIMENT CONTROL NOTES AND DETAILS SHOWN ON THIS DRAWING ARE NOT INTENDED TO BE ALL INCLUSIVE BUT TO SERVE AS A GUIDELINE FOR THE DEVELOPMENT OF THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL SCHEDULE REQUIRED.
3. THE CONTRACTOR WILL SUPPLY THE OWNER WITH AN INVENTORY OF ON-SITE EROSION AND CONTROL ITEMS PRIOR TO COMMENCEMENT OF ANY INTRUSIVE SITE WORK. THE INVENTORY WILL BE UPDATED ON A WEEKLY BASIS.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE COMMENCING WORK WITHIN AN AREA. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL CONFORM TO THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".
5. THE CONTRACTOR SHALL IDENTIFY STAGING, STOCKPILE AND SPOIL DISPOSAL AREAS FOR OWNER REVIEW AND APPROVAL PRIOR TO THE START OF CONSTRUCTION.
6. THE CONTRACTOR SHALL OBSERVE ALL RULES AND REGULATIONS OF THE STATE OF NEW YORK AND AGENCIES OF THE FEDERAL GOVERNMENT THAT APPLY TO THIS PROJECT
7. THE CONTRACTOR WILL HAVE ON-SITE DURING ALL SOIL DISTURBANCE ACTIVITIES. A TRAINED CONTRACTOR THAT MEETS THE TRAINING REQUIREMENTS OF THE NYSDEC GP-0-15-002 PERMIT. THE TRAINED CONTRACTOR WILL BE RESPONSIBLE FOR THE DAILY MAINTENANCE OF THE SWPPP AND WILL INSPECT EROSION AND SEDIMENT CONTROLS ON A DAILY BASIS. REPAIRS SHALL BE MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE STORAGE VOLUME OF AN EROSION CONTROL MEASURE IS APPROACHING ONE HALF OF ITS INTENDED CAPACITY OR A.O.B.E. THE CONTRACTOR OR ENGINEER WILL COMPLETE A SITE LOGBOOK DOCUMENTING ALL INSPECTIONS AND MAINTENANCE ACTIVITIES. AN INSPECTION SHALL BE SCHEDULED PRIOR TO COMMENCEMENT OF CONSTRUCTION AND A CERTIFICATION SHALL BE PROVIDED STATING THAT THE SITE IS READY FOR CONSTRUCTION TO START.
8. SILT FENCE WILL BE PLACED AROUND SOIL AND STONE STOCKPILES THAT WILL REMAIN IN PLACE FOR MORE THAN 7 DAYS. SOIL STOCKPILES THAT WILL REMAIN IN PLACE FOR MORE THAN SEVEN DAYS WILL BE MULCHED AND SEEDED IF THEY ARE INACTIVE.
9. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN FOURTEEN (14) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED
10. ALL STOCKPILE AND EQUIPMENT STORAGE AREAS WILL BE DECOMPACTED PURSUANT TO THE NYSDEC DOCUMENT "DEEP-RIPPING AND DECOMPACTION", 2008, THE SOIL RESTORED PER THE NYSDEC "SOIL RESTORATION" SPECIFICATION FOLLOWED BY SEEDING AND MULCHING.
11. ALL UTILITY LINE TRENCHES IN UNDISTURBED AREAS WILL BE BACKFILLED AT THE END OF EACH WORKDAY AND WILL BE MULCHED AND SEEDED.
12. IN PAVEMENT AREAS ALL UTILITY LINE TRENCHES WILL BE BACKFILLED AT THE END OF EACH WORKDAY. ALSO, THE TRENCH AREA WILL BE TEMPORARILY COVERED WITH THE REQUIRED AMOUNT OF ROAD SUBBASE PLUS THE ADDITIONAL AMOUNT NEEDED TO MEET THE EXISTING ROAD GRADE TO MINIMIZE EROSION. THE CONTRACTOR WILL BE REQUIRED TO INSTALL A MINIMUM OF 2" COLD PATCH OVER THE REQUIRED SUBBASE IN ALL DISTURBED AREAS ON A DAILY BASIS ONCE THE ASPHALT PLANTS HAVE SHUT DOWN FOR THE WINTER. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE SURFACE IN GOOD CONDITION TO THE SATISFACTION OF THE OWNER AND THE ENGINEER. THE COLD PATCH SHALL BE REMOVED AND REPLACED WITH THE SPECIFIED AMOUNT OF TYPE 3 BINDER ASPHALT AS SOON AS THE ASPHALT PLANTS REOPEN IN THE SPRING.
13. IN NON-PAVED AREAS OUTSIDE OF ROADWAYS WITH ON SMOOTH SLOPE GREATER THAN 15% OR AS NOTED BY THE ENGINEER, SEED AND APPLY NORTH AMERICAN GREEN C1251BN EROSION CONTROL BLANKET (OR EQUIVALENT) TO THE PREPARED SEEDED. ON ROUGH SLOPES GREATER THAN 33.1 PERCENT SEED AND MULCH AND ANCHOR MULCH WITH EITHER MULCH NETTING, WOOD CELLULOSE FIBER OR A TACKLER PER MANUFACTURERS INSTRUCTIONS. DECOMPACT ALL DISTURBED PERVIOUS AREAS PURSUANT TO THE NYSDEC DOCUMENT "DEEP-RIPPING AND DECOMPACTION", 2008 AND THE SOIL RESTORED PER THE NYSDEC "SOIL RESTORATION" SPECIFICATION. SEED AND MULCH FOLLOWING SOIL DECOMPACTION.
14. DECOMPACT ALL DISTURBED PERVIOUS AREAS PURSUANT TO THE NYSDEC DOCUMENT "DEEP-RIPPING AND DECOMPACTION", 2008 AND THE SOIL RESTORED PER THE NYSDEC "SOIL RESTORATION" SPECIFICATION. SEED AND MULCH FOLLOWING SOIL DECOMPACTION.
15. THE FOLLOWING SEED MIXTURE (OR EQUIVALENT) WILL BE USED FOR ALL DISTURBED AREAS EXCEPT THE DETENTION BASINS AND INFILTRATION BASIN:

SEED MIXTURE	RATE LBS./1,000 SF	RATE LBS./ACRE
65% CREEPING RED FESCUE	2.0-2.6	85-114
20% PERENNIAL RYEGRASS	0.6-0.8	26-35
15% FINE FESCUE	0.4-0.6	19-26
TOTAL	3.0-4.0	130-175

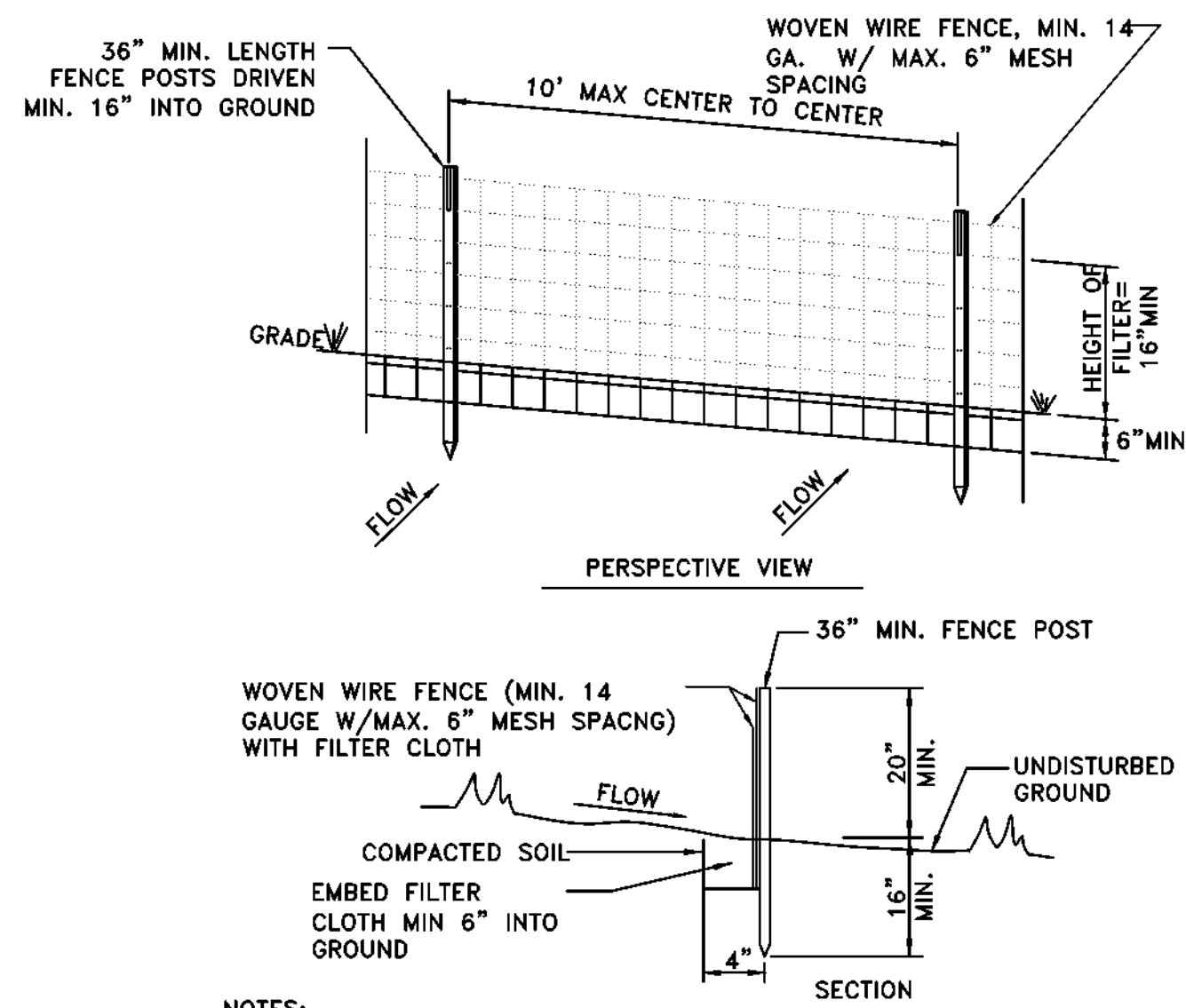
(GENERAL RECREATION AND LAWNS: MEDIUM TO HIGH MAINTENANCE MIX TABLE 4.5 VEGETATIVE MEASURES FOR EROSION AND SEDIMENT CONTROL SPECIFICATION.)

EXCEPT ON SLOPES GREATER THAN 15%, ALL PERMANENT SEEDING OF DISTURBED AREAS SHALL BE IN ACCORDANCE WITH THE NYSSESC SPECIFICATION FOR PERMANENT CONSTRUCTION AREA PLANTING (GENERAL SEED MIXTURE) AND THE PROJECT SPECIFICATIONS. FOLLOWING SEEDING MULCH WITH STRAW (CEREAL GRAIN) OR HAY MULCH APPLIED AT 2 TON/ACRE (90 LBS./1000SQ.FT.) AND ANCHORED WITH WOOD FIBER MULCH (HYDRO MULCH) AT 500 - 750 LBS./ACRE (11 - 17LBS./1000 SQ. FT.). THE WOOD FIBER MULCH MUST BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY FOLLOWING MULCHING. IF IT IS NOT POSSIBLE TO HYDROSEED, ANCHOR MULCH FOLLOWING ALTERNATIVE ANCHORING METHODS DETAILED IN THE NYSSESC MULCH SPECIFICATION.

16. IF CONDITIONS PRECLUDE PERMANENT SEEDING THEN ALL EXPOSED AREAS WILL BE TEMPORARILY SEEDED AND MULCHED FOLLOWING THE GUIDELINES IN NYSSDEC AND THE PROJECT SPECIFICATIONS: THE AREA MUST BE ROUGH GRADED AND SLOPES PHYSICALLY STABLE. LARGE DEBRIS AND ROCKS MUST BE REMOVED. SEEDED MUST BE SEEDED WITHIN 24 HOURS OF DISTURBANCE OR SCARIFICATION OF THE SOIL SURFACE WILL BE NECESSARY PRIOR TO SEEDING. IF: SPRING OR SUMMER OR EARLY FALL, THEN SEED THE AREA WITH REYGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (APPROXIMATELY 0.7 LB./1000 SQ. FT. OR 1 LB./1000 SQ. FT.). IF: LATE FALL OR EARLY WINTER, THEN SEED CERTIFIED "ARODSTOCK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS./1000 SQ. FT.). ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN RELATIVELY GOOD SOIL TO SEED CONTACT. MULCH THE AREA WITH OLD HAY OR STRAW AT 2 TONS/ACRE (APPROX. 90 LBS./1000 SQ. FT. OR 2 BALES). QUALITY OF HAY OR STRAW MULCH ALLOWABLE WILL BE DETERMINED BASED ON LONG-TERM USE AND VISUAL CONCERNS. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN. WOOD FIBER HYDRO MULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL (NYLON WEB OR MESH) MAY BE USED IF APPLIED ACCORDING TO MANUFACTURERS' SPECIFICATION. CAUTION IS ADVISED WHEN USING NYLON OR OTHER SYNTHETIC PRODUCTS. THEY ARE LIKELY TO CREATE DIFFICULT SCENARIOS FOR REMOVAL PRIOR TO SEEDED PREPARATION FOR THE PERMANENT SEEDING.
17. CHECK DAMS WILL BE USED WITHIN DRAINAGE DITCHES TO CONTROL SEDIMENTATION IN AREAS WHERE THERE IS A POTENTIAL FOR SOIL TO BE TRANSPORTED TO THE DITCH. CHECK DAMS WILL BE USED TO CONTAIN SEDIMENT AT LOCATIONS ABOVE, WHERE EXISTING DRAINAGE PATTERNS DIRECT ROAD RUNOFF TO A WATER BODY.
18. ANY TURBID DISCHARGES FROM Dewatering AREAS WILL BE DIRECTED TO EITHER A SETTLING TANK OR A STABLE, LEVEL, GRASSED AREA, AT LEAST 100 FEET FROM WATERCOURSES AND WETLANDS. IF NECESSARY THE TURBID WATER WILL BE TRUCKED TO A SUITABLE AREA. IF THE DISCHARGE IS DIRECTED TO A STABLE, LEVEL VEGETATED AREA, THE DISCHARGE AND ANY RELATED DEWATERING FILTER AREA WILL BE SURROUNDED BY A SILT CURTAIN SEDIMENT BARRIER. SETTLING TANKS AND DEWATERING FILTER DEVICES (SUCH AS GEOTEXTILE FILTER BAGS) SHALL BE OF SUFFICIENT CAPACITY TO HANDLE THE DISCHARGE OF THE PUMPS SUCH THAT THE WATER RETURNED TO A STREAM IS CLEAR. NO DISCHARGES SHALL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR WILL IDENTIFY DISCHARGE LOCATIONS AND METHODS FOR TRENCH DEWATERING OPERATIONS TO ENSURE TURBIDITY FREE DISCHARGE TO ANY RECEIVING WATER BODY.
19. THE SEDIMENT AND EROSION CONTROLS WILL BE MAINTAINED DURING ALL CONSTRUCTION ACTIVITIES AND UNTIL AREAS WITH THE POTENTIAL FOR EROSION HAVE BEEN STABILIZED. DISTURBED AREAS ARE CONSIDERED PERMANENTLY STABILIZED WHEN 80 PERCENT OF THE AREA HAS ATTAINED PERENNIAL VEGETATIVE COVER.
20. IMMEDIATELY UPON COMPLETION OF EXCAVATION OR EMBANKMENT, THE CONTRACTOR SHALL INSTALL THE APPROPRIATE FINAL DITCH LINING AS SHOWN IN THE CONTRACT DOCUMENTS AND/OR PLACE TEMPORARY DITCH CHECK DAMS IN ALL ROADWAY AND

OUTLET DITCHES AS ORDERED BY THE ENGINEER.

21. WHERE THE CONTRACTOR PROVIDED TEMPORARY CHANNELS TO KEEP WORK SITES FREE FROM WATER DURING CONSTRUCTION, A TEMPORARY LINING MATERIAL MAY BE REQUIRED, A.O.B.E. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK; THE COST IS TO BE INCLUDED IN THE OTHER ITEMS OF THIS CONTRACT.
22. THE CONTRACTOR SHALL INSTALL OR CONSTRUCT AS SHOWN IN THE CONTRACT DOCUMENTS OR AS ORDERED BY THE ENGINEER, ALL EROSION AND SEDIMENT CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO SILT FENCE, CULVERT INLET TRAPS, STORMDRAIN INLET PROTECTION, SEDIMENT BASINS OR POOLS, CHECK DAMS AND EROSION CONTROL BLANKETS. THESE APPURTENANCES SHALL BE PROVIDED AS AN INTEGRAL PART OF CONSTRUCTING A CULVERT AND SHALL BE MAINTAINED AND REPLACED AS REQUIRED.
23. THE CONTRACTOR SHALL GRADE AND TRIM ALL SLOPES AS THE EXCAVATION PROGRESSES AND SEED ALL SLOPES, A.O.B.E.
24. THE CONTRACTOR SHALL HAVE A HYDROSEEDER AND/OR A MULCHING MACHINE AVAILABLE ON THE PROJECT UNTIL THE PERMANENT SEEDING IS COMPLETED.
25. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT ANY DAMAGE TO THE STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR THE STREAM. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO THE STREAM ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM THE STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM REQUIRED TO PROTECT AND MAINTAIN WATER QUALITY.
26. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATERS OF THE UNITED STATES, NOR SHALL ANY WASHING FROM REDIMIX TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLANDS OR WATERS
27. THE SCHEME PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK FOR EROSION AND SEDIMENT CONTROL SHALL BE SUBJECT TO APPROVAL OF THE OWNER.
28. INSTALLING, CLEANING, AND REMOVING SOIL EROSION AND WATER SEDIMENT CONTROL DEVICES SHALL BE PAID UNDER EROSION AND SEDIMENTATION CONTROL BID ITEMS.
29. STRAW BALES AND/OR HAY BALES CAN ONLY BE USED AS SUPPORT FOR SILT FENCING OR OTHER EROSION CONTROL MEASURE.
30. AT LOCATIONS WHERE THERE IS SIGNIFICANT FLOW IN ROADSIDE DRAINAGE DITCHES/SWALES, IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONTAIN WATER AS NEAR AS POSSIBLE TO THE SOURCE, AND PUMP WATER AWAY FROM EXCAVATION AREAS TO PREVENT SOILS FROM BECOMING ENTRAINED IN THE WATER.
31. AS NECESSARY, THE CONTRACTOR WILL INSTALL STORM DRAIN INLET PROTECTION TO PREVENT TURBID WATER FROM ENTERING THE STORMWATER COLLECTION SYSTEM. STORM DRAIN INLET PROTECTION WILL BE INSTALLED PER THE NYSSESC OR AN ALTERNATE METHOD APPROVED IN ADVANCE BY THE OWNER. THE STORMDRAIN INLET PROTECTION AROUND A STORMDRAIN WILL BE REMOVED ONCE CONSTRUCTION IS NO LONGER OCCURRING IN UPGRADIENT OF THE STORMDRAIN AND ANY DISTURBED AREA UPGRADIENT OF THE STORMDRAIN HAS BEEN STABILIZED.
32. REFER TO THE SWPPP FOR ADDITIONAL EROSION, SEDIMENT AND POLLUTION CONTROL NOTES AND REQUIREMENTS.



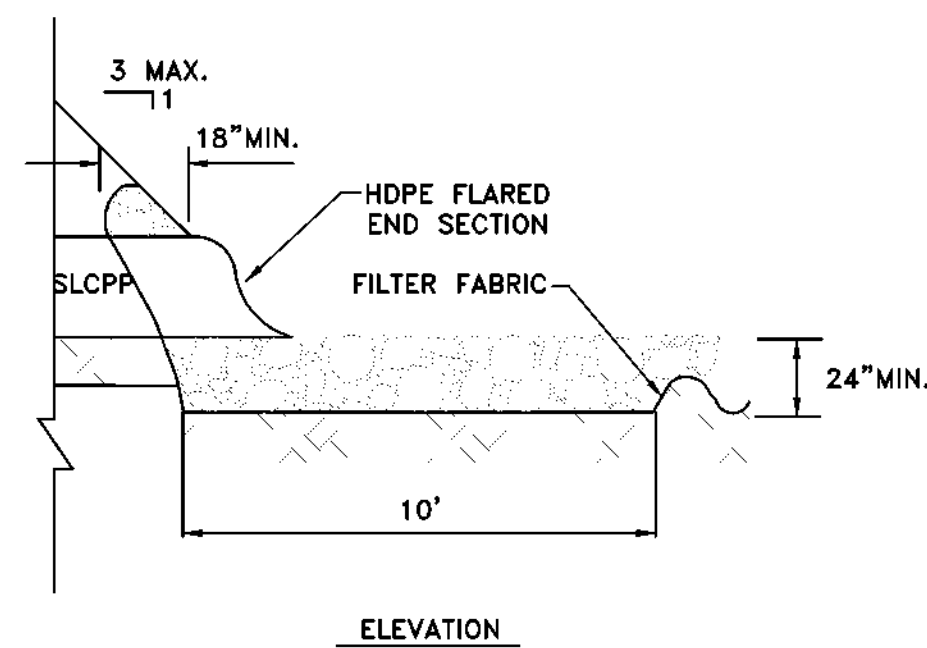
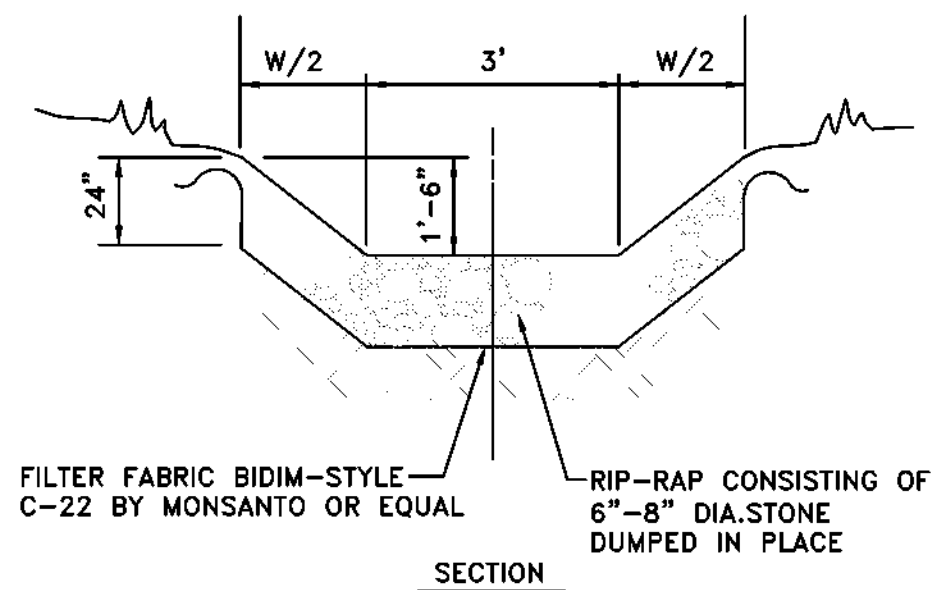
- NOTES:**

 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
 2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
 4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

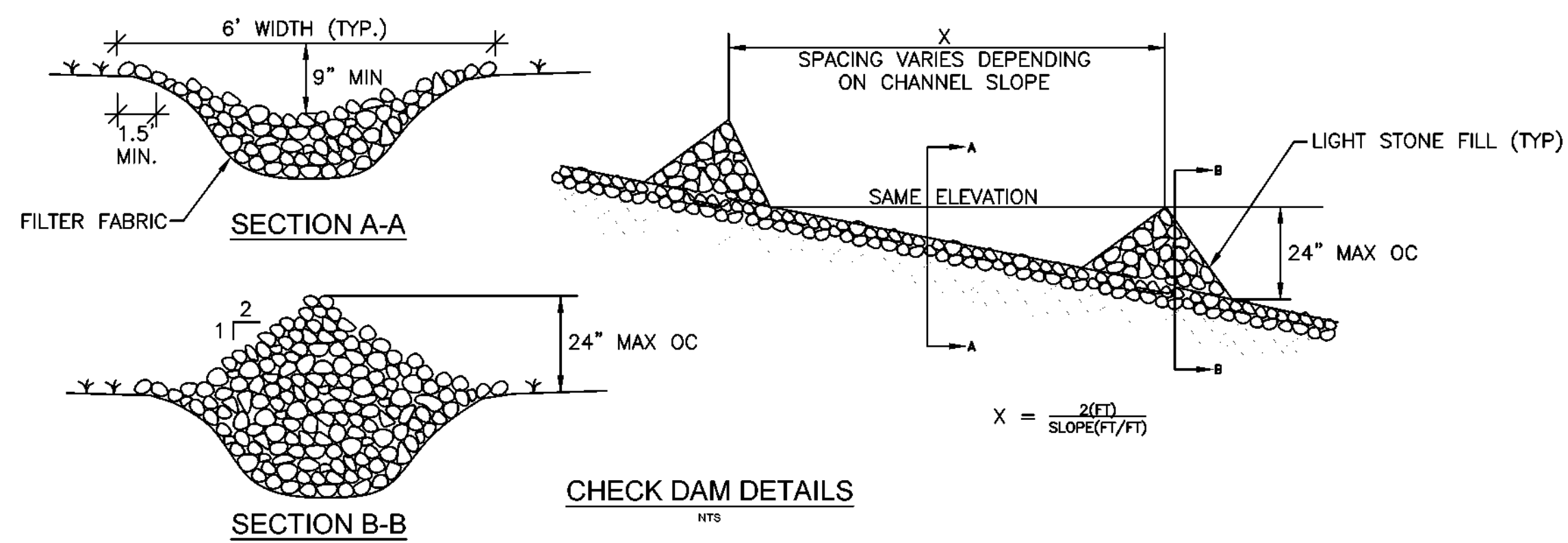
1
C-504

SILT FENCE DETAIL

SCALE: NOT TO SCALE



2 END SECTION WITH RIPRAP APRON
C-504 SCALE: NOT TO SCALE



CHECK DAM DETAILS

CONSTRUCTION SPECIFICATIONS

1. LIGHT STONE FILL PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO BLOCKAGE FROM DISPLACED STONES.

MAXIMUM DRAINAGE AREA 2 ACRES

3 STONE CHECK DAM
C-504 SCALE: NOT TO SCALE

