

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO REPLACE AGED WATERLINE IN THE ROANOKE CITY SERVICE AREA. THE TOTAL ESTIMATED PROJECT DISTURBANCE IS 27,285 SF (0.626 ACRES) BASED ON INSTALLING 2,616 LF OF WATERLINE WITH AN APPROX. 10' WIDE DISTURBANCE AND ADDING 25 SF OF DISTURBANCE FOR EACH NEW WATER MAIN. FIRE HYDRANT INSTALLED OUTSIDE OF THE ROADSURFACES. THE TOTAL ESTIMATED PROJECT DISTURBANCE CONFINED TO AN EXISTING HARD SURFACE IS 25,660 SF (0.589 ACRES). THE TOTAL ESTIMATED PROJECT DISTURBANCE OUTSIDE AN EXISTING SURFACE IS 1,625 SF (0.037 ACRES).

EXISTING SITE CONDITIONS: THE PROPERTY CONSISTS OF URBAN RESIDENTIAL HOUSING. THE PROPERTY DRAINS TO THE NORTH (OVERLAND & IN CLOSED STORM WATER SYSTEM) TO CARVIN CREEK. THE MAJORITY OF THE WORK IS ALONG ROANOKE CITY ROAD RIGHT OF WAY.

ADJACENT PROPERTY: THE PROJECT IS BOUNDED BY URBAN RESIDENTIAL PROPERTIES IN ALL DIRECTIONS. NO OFF-SITE AREAS WILL BE UTILIZED FOR THE STABILIZATION OF THIS SITE.

SOILS: A SUBSURFACE INVESTIGATION HAS NOT BEEN PROVIDED. SOIL INFORMATION IS AVAILABLE ON THE RESIDUAL SOILS THAT IS SUGGESTED IN THE "SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM, VIRGINIA" AS PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE. THIS SURVEY SITE SOIL TYPE IS FREDERICK-URBAN LAND COMPLEX, 2 TO 15 PERCENT SLOPES.

CRITICAL EROSION AREAS: STEEP SLOPES SHALL BE STABILIZED IMMEDIATELY. THE CONTRACTOR SHALL INSTALL ALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES TO CONTROL SEDIMENT LAUNCH RUNOFF FROM ENTERING ADJACENT PROPERTIES AND/OR STREAMS AND SWALES. THE CONTRACTOR SHALL KEEP EROSION CONTROL SITE TO REMOVE AND CUT OR MUD FROM THE PAVED AREAS. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE AS SHOWN ON THE PLANS TO CAPTURE SEDIMENT LAUNCH RUNOFF AND FILTER RUNOFF PRIOR TO ENTERING DOWNSTREAM AREAS AND ADJACENT PROPERTIES. ALL ESC MEASURES SHALL BE INSTALLED AND MAINTAINED TO THE MINIMUM REQUIRED STANDARDS.

OFF SITE AREAS: ANY MATERIAL THAT UNSUITABLE MATERIALS WILL BE HAULED OFF THE PROJECT SITE AND DISPOSED OF AT AN OFF SITE LOCATION. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION THAT THE DISPOSAL SITE IS CURRENTLY PERMITTED WITH A VALID LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL PROVIDE THE LOCATION OF THE DISPOSAL SITE AND EVIDENCE OF A VALID LAND DISTURBANCE PERMIT PRIOR TO THE EXCAVATION OF OR REMOVAL OF MATERIALS FROM THE SITE.

TRUCKS: BACKFILL MATERIAL (EITHER CRUSHED STONE AND/OR SELECT EARTH) AND TOPSOIL MAY BE IMPORTED TO THIS SITE. EARTHEN MATERIALS SHALL BE OBTAINED FROM A PERMITTED BORROW AREA.

EROSION AND SEDIMENT CONTROL MEASURES:
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION" (VESH). THE MINIMUM STANDARDS OF THE VESH SHALL BE ADHERED TO UNLESS OTHERWISE DIRECTED BY THE LOCAL PROGRAM ADMINISTRATOR.

SILT FENCE—STD. 3.05: A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS, FILTER FABRIC AND IN SOME CASES WIRE SUPPORT FENCE TO INTERCEPT AND DETAIN SEDIMENT.

CULVERT INLET PROTECTION- SHALL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN IN CONFORMANCE WITH STD. & SPEC. 3.08 OR WWA AS&S. CULVERT INLET PROTECTIONS ARE PROVIDED IN ORDER TO FILTER RUNOFF BEFORE IT ENTERS A STORM DRAINAGE SYSTEM.

VEGETATIVE -

PERMANENT SEEDING--STD. 3.32: ESTABLISHMENT OF PERMANENT VEGETATIVE COVER BY PLANTING SEED OR ROUGH GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE.

MANAGEMENT STRATEGIES:

- A) CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- B) SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
- C) THE LOCAL PROGRAM ADMINISTRATOR RESERVES THE RIGHT TO ADD TO, DELETE OR OTHERWISE CHANGE THE EROSION CONTROL MEASURES AS DEEMED NECESSARY DUE TO ACTUAL FIELD CONDITIONS BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

E) ONLY AFTER INSPECTION AND APPROVAL FROM THE LOCAL PROGRAM ADMINISTRATOR MAY ITEMS BE REMOVED FOLLOWING THE STABILIZATION OF THE CONTRIBUTING AREAS.

INSPECTIONS: THE WYMA SHALL INSPECT DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE PROPOSED FOR PRELIMINARY STRUCTURAL CONTROL MEASURES. THE AREA OF A DISTURBED OR STORAGE VEHICLE OCCUPY AT LEAST EVERY FOURTEEN (14) CALENDAR DAYS, AND WITHIN 24 HOURS OF THE END OF A STORM EVENT PRODUCING 1/2" OR GREATER OF PRECIPITATION, WHERE AREAS HAVE BEEN FINALLY OR TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (SITE IS COVERED WITH SNOW, ICE, OR FROZEN GROUND EXISTS) SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.

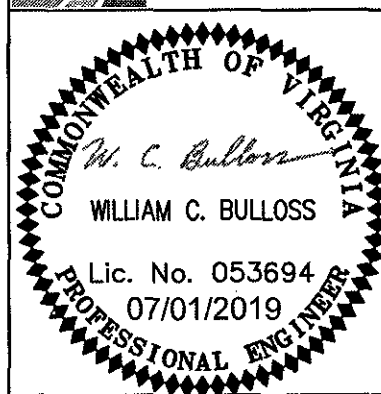
a) INSPECT DISTURBED AREAS & AREAS OF MATERIALS STORAGE THAT ARE EXPOSED TO PRECIPITATION FOR EVIDENCE OF, OR THE POTENTIAL FOR SEDIMENT ENTERING THE STORM DRAIN SYSTEM. INSPECT E&S CONTROLS IN ACCORDANCE WITH REQUIREMENTS STATED HEREIN, AND INSPECT POINTS OF STORM DRAIN DISCHARGE FOR EXCESSIVE SEDIMENTATION. CORRECT SITE CONTROLS AS REQUIRED TO REDUCE SEDIMENTATION OF STORM DRAINS, CULVERTS, AND RECEIVING WATERSHEDS.

b) IF CONTROLS OR SEDIMENT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE WWSA SHALL BE RESPONSIBLE FOR THE REPAIR OR MODIFICATION. THE WWSA SHALL BE RESPONSIBLE FOR ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES SHALL BE RECORDED AS FIELD REVISIONS TO THESE PLANS. IN THE EVENT THAT ADDITIONAL CONTROLS ARE FOUND TO BE REQUIRED, THE WWSA SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE CONTROLS. THE WWSA SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICAL. THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.

(SF) SILT FENCE VA ESCH STD. & SPEC. 3.05
 (CIP) CULVERT INLET PROTECTION VA ESCH STD. & SPEC. 3.08
 (PS) PERMANENT SEEDING VA ESCH STD & SPEC 3.32

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 10,000 S.F. IN AREA OF DISTURBANCE. THESE STANDARDS ARE CONSIDERED A MINIMUM AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL APPROVING AUTHORITY OR THE CONSULTING ENGINEER.

SHOULD SEEPS OCCUR IN ANY EXISTING OR NEW CUT OR FILL SLOPE, THE CONTRACTOR SHALL FIRST INSURE THAT THERE ARE NOT AREAS OF PONDED WATER AT THE TOPS OF THE SLOPES, AND THEN SHALL CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER FOR ON-SITE EVALUATION OF THE AREAS OF SEEPAGE.

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E&SC PLAN



ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS SVAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, TWO WEEKS PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES AND ONE WEEK PRIOR TO THE START OF CONSTRUCTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO CONSTRUCTION OF LAND DISTURBING ACTIVITIES OR OFF-SITE DISCHARGE OF RUNOFF INDICATED ON THE PLAN, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE APPROVED EROSION CONTROL PLAN.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: DURING DEWATERING, EXCESS WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. THE SUPERVISOR SHALL INSPECT AND MAINTENANCE MEASURES TO EROSION CONTROL SYSTEMS. THESE RECORDS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL EROSION CONTROL MEASURES ON SITE. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER EACH RUN-OFF PRODUCING RAINFALL. THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:

1. SILT FENCE, AFTER EVERY STORM EVENT TO ENSURE EFFECTIVE OPERATION AND REMOVE SEDIMENT WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
2. PROVIDE PERIODIC TOP DRESSING OF CONSTRUCTION ENTRANCES WITH ADDITIONAL STONE AND REPAIR OR CLEAN OUT ANY OF THE STRIPES LEADING TO ITS SEDIMENT TRAP.
3. CHECK GRAVEL INLET PROTECTION FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, REMOVE AND CLEAN, OR REPLACE.
4. CHECK THE SEEDED AREAS TO ENSURE THAT A STAND OF GRASS IS MAINTAINED. FERTILIZE AND RESEED AS NEEDED.

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