PERMITTING AUTHORITY.

- 1. CLIENT: WESTERN VIRGINIA WATER AUTHORITY
- 2. CONTACT INFORMATION: EARTH ENVIRONMENTAL AND CIVIL, INC
- 3. PARCEL INFORMATION: MULTIPLE PARCELS IDENTIFIED IN PLANS
- 4. THE CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS/PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRIAL/ASSOCIATION STANDARDS.
- 5. SEE SPECIFICATIONS FOR SPECIFIC DETAILS RELATED TO WATERLINE AND APPURTENANCES.
- THE PROPERTY OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING EROSION AND SEDIMENT CONTROL PERMIT AND PERMISSION FOR ANY OFFSITE GRADING, EROSION & SEDIMENT CONTROL MEASURES. AND CONSTRUCTION.
- NO GRADING IS PERMITTED PRIOR TO INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES AND ISSUANCE OF A LAND DISTURBANCE PERMIT BY THE APPROPRIATE REVIEWING AUTHORITY.
- CONTRACTOR SHALL INSTALL & MAINTAIN ADDITIONAL EROSION & SEDIMENT CONTROL DEVICES, PER THE LATEST EDITION OF THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK AS NEEDED TO CONTROL EROSION ON SITE FOR THE DURATION OF THE PROJECT.
- CONTRACTOR SHALL ENSURE THAT ANY OFF SITE WORK SUCH AS LAND FILLING OPERATIONS SHALL BE PRE APPROVED BY THE OFF SITE PROPERTY OWNER ACCEPTING THE MATERIAL AND THE APPROPRIATE
- 10. UTILITIES SHOWN HEREON ARE BASED ON AVAILABLE ABOVE GROUND STRUCTURES (VALVES, POLES, MANHOLES, ETC.)
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET COMPLIANCE REQUIREMENTS WITH SECTION 59.1-406, ET SEQ. OF THE CODE OF VIRGINIA (OVERHEAD HIGH VOLTAGE LINES SAFETY ACT).
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES AS A RESULT OF CONSTRUCTION ACTIVITIES.
- 13. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL ALIGNMENT OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT MISS UTILITY AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
- 14. CONTRACTOR SHALL USE TRAFFIC CONTROL FLAGGERS ON PUBLIC ROADS. CONTRACTOR IS RESPONSIBLE FOR MEETING THE REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
- 15. DISTANCES & RADII REFERRED TO ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED
- 16. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, IDENTIFICATION, AND REPAIR OF ALL STORMWATER
- 17. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL O.S.H.A. REGULATIONS AND OTHER LOCAL AND STATE RULES AND REGULATIONS.
- 18. ENGINEERED FILL SHOULD CONSIST OF CLEAN SOIL FILL, COMPACTED 6" TO 8" LIFTS TO A MINIMU COMPACTIVE EFFORT OF 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY ( ASTM D-698). MOISTURE CONTENT SHOULD BE MAINTAINED WITHIN 2 TO 3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT TO GENERAL SOIL AND EROSION NOTES FACILITATE COMPACTION. EACH LIFT OF FILL SHOULD BE TESTED IN ORDER TO CONFIRM THAT THE RECOMMENDED DEGREE OF COMPACTION IS ACHIEVED. FILL MATERIAL: ASTM D 2487, CLASSIFICATION GW, GP, GM, GC, SW, SP, SM, SC WITH A MAXIMUM ASTM D 4318 LIQUID LIMIT OF 35. MAXIMUM ASTM D 4318 PLASTICITY INDEX OF 12, AND A MAXIMUM OF 25 PERCENT BY WEIGHT PASSING ASTM D 1140, NO. 200 SIEVE. SELECT MATERIAL: ASTM D 2487, CLASSIFICATION GW, GP, SW, SP WITH A MAXIMUM OF 10 PERCENT BY WEIGHT PASSING ASTM D 1140, NO. 200 SIEVE.
- ORDINÁNCES GOVERNÉD BY STATE AND LOCAL JURISDICTION.
- 20. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS.

19. OWNER. CONTRACTOR, AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL APPLICABLE CODES AND

- 21. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BIDDING.
- 22. ALL MATERIALS INDICATED ARE NEW, SHALL BE PROVIDED BY CONTRACTOR UNLESS OTHERWISE NOTED.
- 23 DURING THE COURSE OF CONSTRUCTION. IF THE CONTRACTOR UNCOVERS ANY CODE VIOLATION KNOWN TO HIM OR ANY DISCREPANCY WITH THE DESIGN, CONTRACTOR SHALL NOTIFY THE ENGINEER OF SUCH IMMEDIATELY.
- 24. ANY CONSTRUCTION WITHIN THE VDOT RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE 2008 VDOT ROAD AND BRIDGE STANDARDS, THE 2007 ROAD AND BRIDGE SPECIFICATIONS, AND THE VIRGINIA WORK AREA PROTECTION MANUAL ARRANGED WITH THE APPROPRIATE RESIDENCY OFFICE (SALEM AND/OR ROCKY
- 25. GUARDRAIL REPAIR, REPLACEMENT, AND UPGRADE OF EXISTING GUARDRAIL AS PER LOCATION AND DESIGN DIVISION INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM NUMBER IIM-LD-220.2 DATED NOV. 21, 2003. NEW INSTALLATIONS SHOULD BE IN ACCORDANCE WITH THE VDOT ROAD AND BRIDGE STANDARDS.
- A. WHEN LOCATED WITHIN THE PROJECT LIMITS OF A CONSTRUCTION PROJECT. WHEN THE LINE OF RAIL EXTENDS OUTSIDE THE PROJECT LIMITS, IF MORE THAN 60% OF THE EXISTING SUBSTANDARD LINE OF RAIL LIES WITHIN THE PROJECT LIMITS, THEN THE ENTIRE RUN SHALL BE REPLACED/UPGRADED AS A
- B. WHEN GUARDRAIL NEEDS TO BE REPAIRED/REPLACED UNDER A MAINTENANCE PROJECT AND/OR CONTRACT (E.G. GUARDRAIL, PAVEMENT, ETC.). DURING ROUTINE MAINTENANCE PROJECTS AND/OR CONTRACTS OF ANY ROADWAY, ALL GUARDRAIL SHALL BE REVIEWED, DEFICIENCIES IDENTIFIED, COSTS BUDGETED, AND MINIMUM STANDARDS FOR CONTROLLING EROSION AND SEDIMENT SCHEDULES SET FOR REPLACEMENT OR UPGRADING TO ENSURE THAT ALL EXISTING GUARDRAIL MEETS CURRENT VDOT STANDARDS. DURING THESE REVIEWS IF THE GUARDRAIL IS FOUND TO BE MORE THAN 75 MM (THREE INCHES) LOWER OR 75MM (THREE INCHES) HIGHER THAN CURRENT STANDARD REQUIREMENTS, THEN REPLACEMENT OR RESETTING SHALL BE SCHEDULED AS SOON AS POSSIBLE. FOR STRONG POST GUARDRAIL (STANDARD GR-2) NO METAL BLOCKOUTS ARE TO BE REPLACED IN-KIND OR INSTALLED NEW, AND NO WASHERS WILL BE USED OTHER THAN THOSE FOR THE LAST 15.2 METERS (50 FEET) OF A TRATI ING END ANCHORAGE
- C. WHEN LOCATED WITHIN THE PROJECT LIMITS OF TRANSPORTATION IMPROVEMENTS ASSOCIATED WITH
- PERMITTED LAND DEVELOPMENT PROJECTS. D. WHEN ANY ROAD IS TAKEN INTO THE STATE ROADWAY SYSTEMS, ALL GUARDRAIL MUST COMPLY WITH
- CURRENT STANDARDS, AND MUST INCLUDE NCHRP 350 APPROVED TERMINALS AND RAIL SYSTEMS.
- 26. TOPOGRAPHIC AERIAL SURVEY PROVIDED BY VIRGINIA RESOURCE MAPPING. FIELD VERIFICATION PROVIDED BY COMPASS POINT LAND SURVEYING AND CORNERSTONE LAND SURVEYING.
- 27. RIM ELEVATIONS OF VAULTS AND/OR MANHOLES IN THE VDOT RIGHT OF WAY SHALL BE COUNTERSUNK ONE TO TWO (2) INCHES BELOW FINAL GRADE ELEVATION.
- 28. WATERLINE TRENCH WALLS SHALL BE A MINIMUM OF ONE (1) FOOT FROM THE EXISTING EDGE OF PAVEMENT AND THREE (3) FEET FROM THE EXISTING GUARDRAIL. IF THE INTEGRITY OF THE EXISTING STRUCTURES OR PAVEMENT IS COMPROMISED, THEY SHALL BE REPLACED AS DIRECTED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
- 29. THE CONTRACTOR SHALL ARRANGE FOR AN APPROVED TESTING LABORATORY TO CONDUCT THE NECESSARY COMPACTION TESTS AT HIS OWN EXPENSE. TEST RESULTS SHALL BE SUBMITTED DIRECTLY FROM THE LAB BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. TO THE ENGINEER.
- 30. THE LOCATION OF ALL OFF-SITE FILL OR BORROW AREAS WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO FRANKLIN COUNTY DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA.
- 31. THE MINIMUM COVER OVER TOP OF THE WATERLINE AND WATERLINE ENCASEMENT PIPES SHALL BE THREE
- 32. DITCH EXCAVATION, BACKFILL, AND PAVEMENT REPLACEMENT SHALL BE IN ACCORDANCE WITH THE VDOT LAND USE PERMIT SPECIAL PRÓVISION (LUP-SP) AND OPEN CUT PROVISIONS (LUP-OC). ALL APPLICABLE B. SPECIAL PROVISIONS WITHIN THE VDOT LUB-SP AND LUP-OC MUST BE ADHERED TO AT ALL TIMES.

Revisions:

# ROUTE 220 SOUTH WATERLINE EXTENSION

# BOONE MAGISTERIAL DISTRICT FRANKLIN COUNTY, VIRGINIA

AUGUST 11, 2011 PROJECT # 11-0061

#### SOIL AND EROSION CONSTRUCTION SEQUENCE

- 1. CONTRACTOR RESPONSIBLE FOR FOLLOWING WESTERN VIRGINIA WATER AUTHORITY EROSION AND SEDIMENT CONTROL STANDARDS AS APPROVED FOR UTILITY LINE CONSTRUCTION
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO OR AS THE FIRST STEP IN CLEARING/GRADING.
- 3. TO THE EXTENT POSSIBLE. GRADING IS TO BE PERFORMED IN SEQUENCE TO MINIMIZE TOTAL DISTURBED AREA AND CHANNEL RUNOFF TO STORMWATER CONVEYANCE DITCHES.
- 4. TEMPORARY OR PERMANENT SEEDING IS TO BE INSTALLED ON ALL DENUDED AREAS LEFT UNDISTURBED MORE THAN SEVEN DAYS.
- 5. CONTRACTOR IS TO BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SOIL STABILIZATION MEASURES ONCE STABILIZATION HAS BEEN ACHIEVED.
- 6. MISS UTILITY LOCATOR SERVICE (1-800-552-7001) TO BE CONTACTED AT LEAST SEVENTY-TWO HOURS
- 7. ALL TEMPORARY DITCHES AND SILT FENCES ARE TO BE REMOVED ONCE STABILIZATION HAS BEEN

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 VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE ENGINEER MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL

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 EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE MS-14 APPLICABLE REGULATIONS PLANS (INCLUDING, 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 SOIL AND EROSION MEASURES REQUIRED BY THE PLAN APPROVING AUTHORITY.

ES-7: SITE GRADING IS TO DRAIN TO THE STORMWATER CONVEYANCE DITCHES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: 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.

# MS-1 STABILIZATION OF DENUDED AREAS

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

#### MS-2 STABILIZATION OF SOIL STOCKPILES DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR

PROTECTED WITH SEDIMENT TRAPPING MÉASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

# MS-3 PERMANENT VEGETATION

A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4 TIMING AND STABILIZATION OF SEDIMENT TRAPPING MEASURES

SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL

MS-5 STABILIZATION OF EARTHEN STRUCTURES

STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION

# MS-6 SEDIMENT BASINS

Date:

SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE

THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS

MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

# MS-7 CUT AND FILL SLOPES

CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8 CONCENTRATED RUNOFF FLOW DOWN CUT OR FILL SLOPES CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9 WATER SEEPS FROM A SLOPE FACE WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10 STORM SEWER INLET PROTECTION ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT

SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR

MS-11 STABILIZATION OF OUTLETS

BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL

#### MS-12 WORK IN LIVE WATERCOURSES

OTHERWISE TREATED TO REMOVE SEDIMENT.

WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURÍNG CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

#### MS-13 CROSSING A LIVE WATERCOURSE

WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL

#### ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15 STABILIZATION OF BED AND BANKS

# THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE

WATERCOURSE IS COMPLETED.

# MS-16 UNDERGROUND UTILITY CONSTRUCTION

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

#### A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

- C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

# MS-17 CONSTRUCTION ACCESS ROUTES

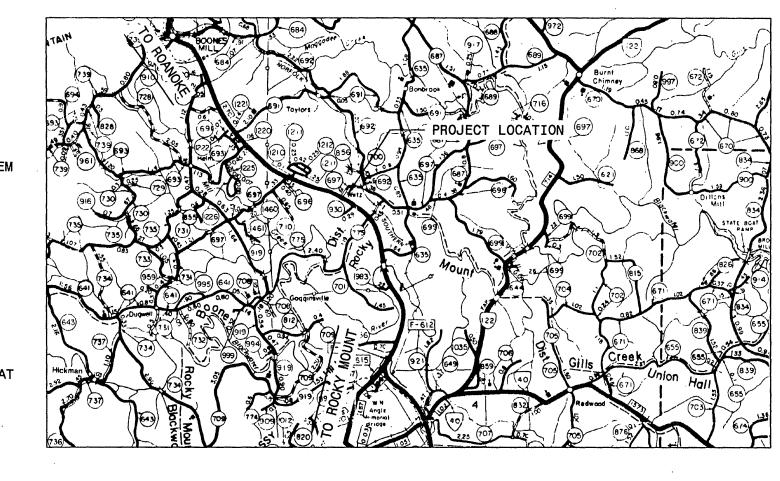
WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

# MS-18 TEMPORARY EROSION & SEDIMENT CONTROL MEASURE REMOVAL

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

# MS-19 PROTECTION OF DOWNSTREAM PROPERTIES AND WATERWAYS

PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND ADHERE TO SAME. THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE USED IN ADDITION TO THE APPROVED NARRATIVE AND PLAN.



#### **LEGEND**

EXISTING PROPERTY LINE NEW 12" WATERLINE EXISTING 10' CONTOUR EXISTING STORM DRAIN EXISTING 10' CONTOUR (OBSCURED) FIRE HYDRANT ASSEMBLY EXISTING 2' CONTOUR (OBSCURED) 12" GATE VALVE TAX PARCEL BOUNDARY LINE BLOW OFF VALVE ASSEMBLY GUARD RAIL

UNDERGROUND UTILITY LINES 3.05 | SILT FENCE OBSCURED AREA LAMP POST TRAFFIC SIGNAL | 3.08 UTILITY POLE

EXISTING EDGE OF PAVEMENT

DENOTES NORTH BOUND LANE

DENOTES SOUTH BOUND LANE

EXISTING 2' CONTOUR AIR RELEASE VALVE ASSEMBLY TREELINE SURVEY BENCHMARK

FENCE

(SF) x---x--(CIP)

0%

REQ'D REQUIRED ARV AIR RELEASE VALVE EX EXISTING RIGHT FH FIRE HYDRANT BACK OF CURE R/W RIGHT OF WAY HB HORIZONTAL BEND BENCH MARK HC HANDICAP SANITARY SEWER C/C CENTER TO CENTER INV INVERT ST STORM C G CURB AND GUTTER IPS IRON PIN SET STA STATION CIP CAST IRON PIPE IPF IRON PIN FOUND STD STANDARD CENTER LINE LF LINEAR FEET CMP CORRUGATED METAL PIPE SIDEWALK TO BE ABANDONED MH MANHOLE TO BE REMOVED CONC CONCRETE CPP CORRUGATED PLASTIC PIPE NTS NOT TO SCALE TOP OF CURB CUBIC YARDS O.C. ON CENTER TOP OF BANK DIA DIAMETER PE POLYETHYLENE TYP TYPICAL PROP PROPOSED UG UNDERGROUND DIP DUCTILE IRON PIPE RCP REINFORCED CONCRETE PIPEWL WATERLINE ELEVATION

# ELEC ELECTRIC

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11-0061

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1. THE SIZE OF THE SYMBOLS MAY VARY FROM THOSE SHOWN. 2. ALL ABBREVIATIONS AND SYMBOLS SHOWN MAY NOT BE USED.

11-0061.dwg

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| C2         | 3 OF 5       | PLAN AND PROFI |
| D1         | 4 OF 5       | EROSION & SEDI |
| D2         | 5 OF 5       | DETAILS SHEET  |
|            |              | •              |
|            |              |                |

RESTR RESTRAINED

FILE STA 10+00 to 21+00

DESCRIPTION

WOVEN WIRE

YARDS

YDS.

NO SCALE

FILE STA 21+00 to 27+02 IMENT CONTROL NARRATIVE

DESIGN BY: PROJECT: 8/11/2011 ROUTE 220 WATERLINE EXTENSION DRAWN BY RAWING NUMBER: TITLE: G1 US 220 WATERLINE EXTENSION REVIEWED BY: COVER SHEET WITH GENERAL NOTES SHEET NUMBER: PROJECT NUMBER: DRAWING NAME 1 of 5



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