

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, DATED 2002, TO INCLUDE ANY SPECIAL PROVISIONS AND COPIED NOTES; VDOT ROAD AND BRIDGE STANDARDS, DATED JANUARY 1, 2001; VDOT WORK AREA PROTECTION MANUAL, DATED JANUARY 2005, AS AMENDED BY THE CONTRACT PROVISIONS; VIRGINIA DEPARTMENT OF CONSERVATION VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION, 1992, AND THE COMPLETE PLAN ASSEMBLY.
2. THE PLAN APPROVING AUTHORITY, THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) AND THE DEPARTMENT OF COMMUNITY DEVELOPMENT OF ROANOKE COUNTY, SHALL BE NOTIFIED ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSTING A LAND DISTURBING PERMIT AND APPROPRIATE BOND.
3. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SECURE A WRITTEN AGREEMENT WITH THE PROPERTY OWNER AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO BOTH VDOT AND THE DEPARTMENT OF COMMUNITY DEVELOPMENT OF ROANOKE COUNTY FOR REVIEW AND APPROVAL.
4. THE GRADE LINE DENOTES TOP OF FINISHED PAVEMENT UNLESS SHOWN OTHERWISE ON TYPICAL SECTIONS OR PLANS.
5. EARTHWORK QUANTITIES ON THIS PROJECT ARE BASED ON ANTICIPATED SETTLEMENT AND MAY REQUIRE ADJUSTING DURING CONSTRUCTION. PAYMENT WILL BE MADE ONLY FOR QUANTITIES ACTUALLY MOVED.
6. THE COST OF REMOVAL OF ALL EXISTING CONCRETE ITEMS LOCATED IN THE AREA TO BE GRADED, DIVIDING, BUT NOT LIMITED TO THE FOLLOWING, SHALL BE INCLUDED IN THE PRICE BID FOR REGULAR EXCAVATION: SIDEWALK, CURB, CURBS AND GUTTER, PAVED DITCH, SMALL FOOTINGS, LIGHTING & FOUNDATIONS, IRRIGATION LINES, EXISTING MANHOLES, EXISTING DROP INLETS, SMALL BLOCK OR BRICK ITEMS, ETC.
7. THE HORIZONTAL LOCATION OF ALL DRAINAGE STRUCTURES SHOWN ON THESE PLANS IS APPROXIMATE ONLY, WITH THE EXCEPTION OF STRUCTURES SHOWING SPECIFIC STATIONS, SPECIAL DESIGN BRIDGES AND STORM SEWER SYSTEMS.
8. THE HORIZONTAL LOCATION AND INVERT ELEVATIONS SHOWN FOR PROPOSED CULVERTS AND STORM SEWER OUTFALL PIPES ARE BASED ON EXISTING SURVEY DATA AND REQUIRED DESIGN CRITERIA. IF, DURING CONSTRUCTION, IT IS FOUND THAT THE HORIZONTAL LOCATION OR INVERT ELEVATIONS SHOWN ON THE PLANS DIFFER SIGNIFICANTLY FROM THE HORIZONTAL LOCATION OR ELEVATIONS OF THE STREAM OR SWALE IN WHICH THE CULVERT OR STORM SEWER OUTFALL PIPE IS TO BE PLACED, THE ENGINEER SHALL CONFER WITH, AND GET APPROVAL FROM, THE APPLICABLE DISTRICT DRAINAGE ENGINEER BEFORE INSTALLING THE CULVERT OR STORM SEWER OUTFALL PIPE.
9. THE "H" DIMENSIONS SHOWN ON THE PLANS FOR DROP INLETS AND JUNCTION BOXES AND THE "L.F." (M) DIMENSIONS SHOWN FOR MANHOLES ARE FOR ESTIMATING PURPOSES AND ARE BASED ON THE PROPOSED INVERT ELEVATIONS SHOWN FOR THE STRUCTURE AND THE ANTICIPATED TOP (RIM) ELEVATION BASED ON EXISTING OR PROPOSED FINISHED GRADE. THE ACTUAL "H" OR "L.F." (M) DIMENSIONS ARE TO BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
10. ALL PERMANENT PIPE ON THIS PROJECT SHALL BE CONCRETE, FOR STRENGTH, SHEET THICKNESS, OR CLASS DESIGNATION, AVAILABLE SIZES, HEIGHT OF COVER LIMITATIONS AND OTHER RESTRICTIONS FOR A PARTICULAR PIPE TYPE OR HEIGHT OF COVER, SEE THE APPLICABLE SECTIONS OF THE VDOT ROAD AND BRIDGE STANDARDS PC-1. TEMPORARY PIPE CAN UTILIZE ALL PIPE TYPES AS PER PC-1.
11. WHERE OPEN JOINT PIPE IS TO BE USED, NO JOINT SHALL BE OPENED A DISTANCE EXCEEDING 25% OF THE SPIGOT LENGTH. SEALING OF THE PIPE JOINT SHALL BE IN ACCORDANCE WITH SECTION 302 OF THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS.
12. EXISTING DRAINAGE FACILITIES BEING UTILIZED AS A PART OF THE DRAINAGE SYSTEM, AND DESIGNATED ON THE PLANS "TO BE CLEANED OUT", SHALL BE CLEANED AS DIRECTED BY THE ENGINEER. THE COST INCIDENTAL TO THIS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR OTHER ITEMS.
13. WHEN STANDARD CG-6 OR CG-7 IS SPECIFIED ON A RADIUS (SUCH AS AT A STREET INTERSECTION), THE ENGINEER MAY APPROVE A DECREASE IN THE CROSS SLOPE OF THE GUTTER TO FACILITATE PROPER DRAINAGE.
14. THE PAVEMENT MATERIALS ON THIS PROJECT WILL BE PAID FOR ON A TONNAGE BASIS. THE WEIGHT WILL VARY IN ACCORDANCE WITH THE SPECIFIC GRAVITY OF THE AGGREGATES AND THE ASPHALTIC CONTENT OF THE MIX ACTUALLY USED TO SECURE THE DESIGN DEPTH. THE WEIGHT OF THE ASPHALT CONCRETE IS BASED ON 95% OF THEORETICAL MAXIMUM DENSITY. (SEE IIM-LD-158)
15. CONTRACTOR MAY REQUEST THE USE OF GROUP 1 CHANNELIZING DEVICES INSTEAD OF GROUP 2 CHANNELIZING DEVICES IN THE WORK ZONE. THIS USE SHALL BE PERMITTED ONLY UPON APPROVAL BY THE SALEM DISTRICT TRAFFIC ENGINEER OR HIS REPRESENTATIVE.
16. THE EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL "MISS UTILITY" AT 1-800-552-7001 TO DETERMINE THE EXACT LOCATIONS PRIOR TO PERFORMING ANY WORK.
17. CONSTRUCTION SIGNS AND POSTS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE INSTALLATION AND POST COST SHALL BE INCLUDED WITH THE PRICE BID FOR MAINTENANCE OF TRAFFIC (MOT).
18. EXISTING SIGNS SHALL BE RELOCATED AS NECESSARY FOR PROPOSED CONSTRUCTION. THE COST FOR THIS ADJUSTMENT SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.
19. CLEARING AND GRUBBING SHALL BE CONFINED TO THOSE AREAS NEEDED FOR CONSTRUCTION. NO TREES OR SHRUBS IN UNGRADED AREAS SHALL BE CUT WITHOUT THE PERMISSION OF THE ENGINEER.
20. STD. RM-2 RIGHT OF WAY MONUMENTS SHALL BE SET BY THE CONTRACTOR.
21. ALL PAVEMENT MARKINGS AND TRAFFIC FLOW ARROWS SHOWN ON THE ROADWAY CONSTRUCTION PLANS ARE SCHEMATIC ONLY. THE ACTUAL LOCATION AND APPLICATION OF PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH SECTION 704 OF THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS. MUTCD, SEQUENCE OF CONSTRUCTION/TRAFFIC CONTROL PLANS, PAVEMENT MARKING PLAN SHEET CT106 AND AS DIRECTED BY THE ENGINEER.
22. THE TEMPORARY EROSION AND SILTATION CONTROL ITEMS SHOWN ON THE EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR THIS PROJECT ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SEDIMENT WITHIN THE PROJECT LIMITS. THE ESC PLAN IS BASED ON THE LOCATION AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION FOR THE PROJECT. THE CONTRACTOR, IN CONJUNCTION WITH THE PROJECT ENGINEER AND/OR ENVIRONMENTAL MONITOR, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SEDIMENT CONTROL ITEMS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE ACTUAL SCHEDULING AND SEQUENCING OF THE CONSTRUCTION ACTIVITIES. SIGNIFICANT CHANGES TO THE PROPOSED ESC PLAN (E.G., THOSE THAT REQUIRE AN EMERGENCY ANALYSIS) SHALL BE SUBMITTED TO THE APPLICABLE DISTRICT HYDRAULICS ENGINEER FOR REVIEW AND APPROVAL. ANY CHANGES TO THE PROPOSED ESC PLAN MUST BE NOTED ON A DESIGNATED PLAN SET (RECORD SET) WHICH SHALL BE RETAINED ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST.

- MS-16: REGARDING UTILITY INSTALLATIONS, NO MORE THAN 500 LF OF TRENCH MAY BE OPEN AT A GIVEN TIME. EXCAVATED MATERIAL SHALL BE PLACED ON UPHILL SIDE OF TRENCH. EFFLUENT OF ANY Dewatering SYSTEM USED MUST BE FILTERED. TRENCHES SHALL BE PROPER BACKFILLED AND COMPACTED PER DETAIL AND SPECS. COMPLETED INSTALLATION SHALL BE RE-STABILIZED IMMEDIATELY.

MS-17: THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND / OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE STREETS ARE IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.

MS-18: SEE MAINTENANCE UNDER ESC NARRATIVE FOR CE, IP, SF, AND TS/PS AT A MINIMUM.

MS-19: INCREASES IN STORMWATER VOLUME, VELOCITY, AND PEAK RUNOFF HAVE BEEN ADDRESSED IN THE PLAN PER CALCULATIONS SUBMITTED FOR REVIEW. RESPONSIBLE LAND DEVELOPER SHALL PAY PARTICULAR ATTENTION TO OFF-SITE AREAS CONTRIBUTING RUNOFF TO THE SITE. OFF-SITE LOCATIONS RECEIVING RUNOFF FROM THIS PROJECT, AND PROPER OPERATION OF STORMWATER MANAGEMENT PRACTICES ON-SITE, ALL DITCHES, SWALES, AND NATURAL WATERCOURSES DOWNSTREAM OF THIS PROJECT SHALL BE FIELD INSPECTED DURING AND AFTER CONSTRUCTION BY THE RLD TO ENSURE COMPLIANCE WITH DCR'S MS-19. IF EROSION OR SCOUR IS OCCURRING THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL CORRECTIVE MEASURES.

GENERAL EROSION AND SEDIMENT CONTROL NOTES,
ROANOKE COUNTY, VIRGINIA

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 PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE ONSITE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

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 AND NARRATIVE, AS WELL AS A COPY OF THE LAND DISTURBING PERMIT, SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. THE EROSION AND SEDIMENT CONTROL ADMINISTRATOR WILL DELIVER THESE MATERIALS AT THE ONSITE PRECONSTRUCTION CONFERENCE.

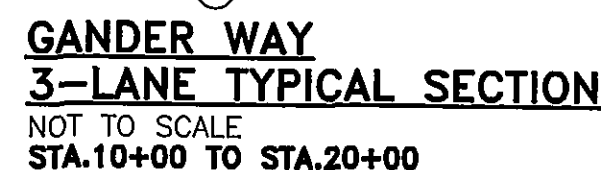
ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

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

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

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

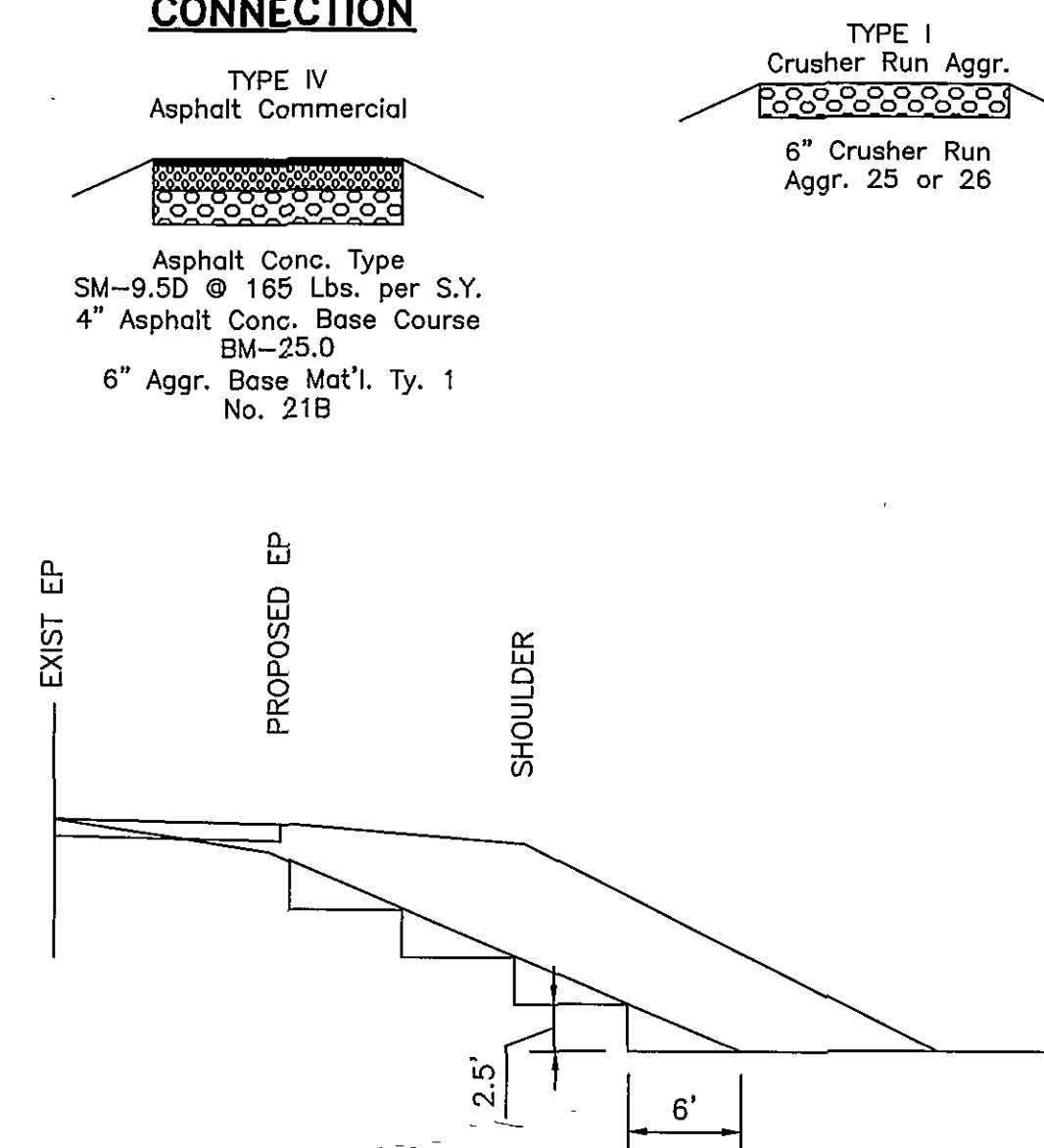
ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT, ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. AN INSPECTION REPORT MUST BE FILED WITH THE BOTETOURT COUNTY EROSION AND SEDIMENT CONTROL ADMINISTRATOR ONCE EVERY TWO WEEKS, BEGINNING WITH COMMENCEMENT OF THE LAND DISTURBING ACTIVITY, AND WITHIN 48 HOURS OF ANY RUNOFF-PRODUCING RAINFALL EVENT. FAILURE TO SUBMIT A REPORT WILL BE CAUSE FOR IMMEDIATE REVOCATION OF THE EROSION AND SEDIMENT DISTURBING PERMIT. REPORTS MUST BE POSTMARKED WITHIN 24 HOURS OF THE DEADLINE. NON-RESPONSE TO INSPECTION REPORT FORM WILL BE SUPPLIED, WHICH SHOULD BE COPIED AS NECESSARY. THIS PROVISION IN NO WAY WAIVES THE RIGHT OF BOTETOURT COUNTY PERSONNEL TO CONDUCT SITE INSPECTIONS, NOR DOES IT DENY THE RIGHT OF THE PERMITTEE (S) TO ACCOMPANY THE INSPECTOR (S).



- ① 1.5" ASPALT CONCRETE TYPE SM 9.5D @ 165 LBS/SY
- ② 5" ASPHALT CONCRETE BASE COURSE BM 25.0 @ 570
- ③ 8" AGGREGATE BASE MATERIAL TYPE I NO. 21B

* A TACK COAT (CRS-2) SHALL BE APPLIED AT A RATE OF 0.1 GALLONS PER SQUARE YARD. TACK COAT WILL NOT BE A PAY ITEM THEREFORE SHALL BE INCLUDED IN THE PRICE FOR OTHER APPROPRIATE PAY ITEMS.

SWM BASIN ENTRANCE



**BENCHING DETAIL FOR RIGHT TURN LANE
AND TAPER AT FRIENDSHIP LANE**
NO. SCALE

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