

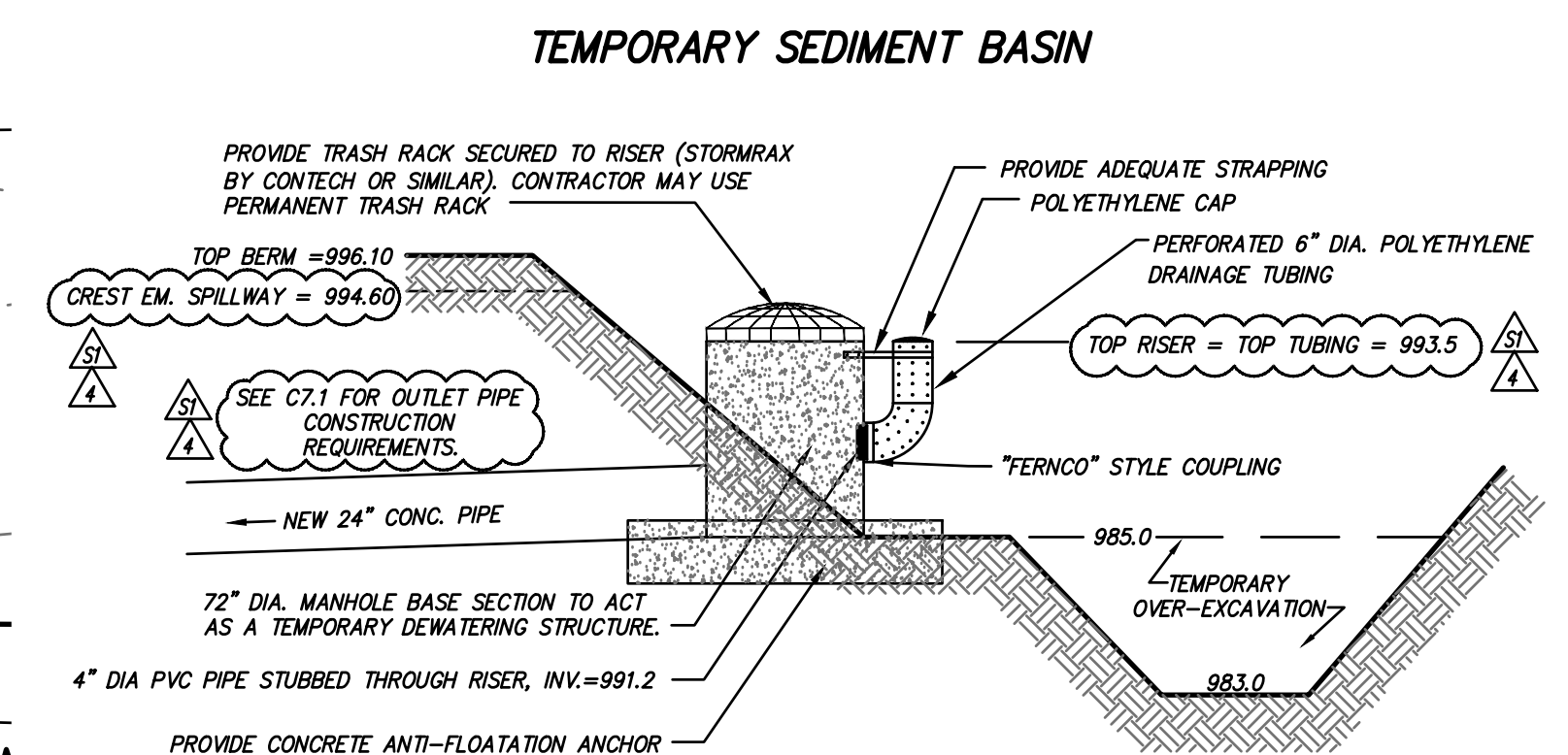
SOIL EROSION CONTROL MEASURES

- (SM) SOIL STABILIZATION BLANKETS & MATTING**
TREATMENT 1" SOIL STABILIZATION BLANKET (AS DEFINED BY THE VESCH) MEETING THE REQUIREMENTS OF VDOT STANDARD EC-2 SHALL BE PLACED ON ALL SLOPES STEEPER THAN 3H:1V. INSTALLATION, INCLUDING ANCHORING AND FIELD STAPLING SHALL BE IN ACCORDANCE WITH VESCH STANDARD AND SPECIFICATION 3.36.
- (CE) TEMPORARY CONSTRUCTION ENTRANCE**
A TEMPORARY STONE CONSTRUCTION ENTRANCE SHALL BE PROVIDED OFF OF EXISTING PAVED SURFACE, AS SHOWN HEREIN. ENTRANCE(S) SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THESE PLANS AND THE VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK, LATEST EDITION.
- (CRS) TEMPORARY CONSTRUCTION ROAD STABILIZATION**
PROVIDE TEMPORARY CONSTRUCTION ROAD STABILIZATION OF THE ENTRANCE DRIVE AND ALL AREAS OF CONSTRUCTION PARKING, PLACES AND CORRIDORS MINIMUM 6 INCHES OF CRUSHED STONE. TEMPORARY CRS STONE IS IN ADDITION TO THE PAVEMENT BASE COURSE(S) REQUIRED, AND SHALL EITHER BE REMOVED PRIOR TO PAVING, OR SHALL BE PLACED BELOW ELEVATIONS OF PERMANENT STONE.
- (DD) TEMPORARY DIVERSION DIKE**
TEMPORARY DIVERSION DIKES SHALL BE INSTALLED AS INDICATED HEREIN TO PROTECT DISTURBED AREAS FROM POTENTIAL DAMAGE DUE TO RUNOFF FROM UNDISTURBED UPGRADE AREAS. UPON INSTALLATION OF TEMPORARY DIVERSION DIKES, THE CONTRACTOR SHALL TEMPORARILY SEED DIKES IN ACCORDANCE WITH THESE PLANS.
- (IP) TEMPORARY INLET PROTECTION**
EXISTING AND PROPOSED POINTS OF STORM DRAIN COLLECTION SHALL BE PROTECTED FROM SEDIMENTATION UNTIL SUCH TIME THAT ALL UPGRADE DISTURBED AREAS HAVE BEEN ADEQUATELY STABILIZED AND AUTHORIZATION HAS BEEN GRANTED BY THE CITY OF ROANOKE. TEMPORARY GRADING MODIFICATIONS SHALL BE PERFORMED AT CURB INLETS AS NECESSARY TO ENSURE RUNOFF COLLECTION PRIOR TO PLACEMENT OF PERMANENT PAVEMENT SECTION. IT IS OF UTMOST IMPORTANCE THAT THIS FIRST POINT OF PROTECTION IS GIVEN THE HIGHEST PRIORITY, AS IT WILL REDUCE THE OVERALL MAINTENANCE BURDEN OF RECEIVING STORM DRAIN SYSTEMS AND CHANNELS. PRIOR TO PROJECT CLOSOUT THE CONTRACTOR WILL BE REQUIRED TO ENSURE ALL SEDIMENT HAS BEEN REMOVED FROM ALL PARTS OF STORM DRAIN SYSTEMS.
- (MU) MULCHING**
A WHICH HAVE BEEN PERMANENTLY SEEDING SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING APPLICATION. MULCH SHALL BE HIGH QUALITY OAT OR WHEAT STRAW, FREE FROM WEED SEED OR OTHER UNDESIRABLE NUISANCE SPECIES.
- (PS) PERMANENT SEEDING**
ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDING WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN ONE YEAR. IN THE EVENT THAT CERTAIN DISTURBED AREAS ARE TO BE LANDSCAPE MULCHED IN LIEU OF PERMANENT SEEDING, THE AREAS MUST BE MULCHED WITH SHREDED HARDWOOD OR OTHER PROTECTIVE COVERINGS IN ACCORDANCE WITH THE TIMELINES FOR TEMPORARY AND PERMANENT SEEDING, SHOWN HEREIN.
- (RR) PERMANENT RIP-RAP**
PERMANENT 100T CLASS 1 RIP-RAP AND FABRIC UNDERLAYMENT SHALL BE PLACED AT THE ENERGY DISSIPATOR OUTFALL AS SHOWN. RIP-RAP SHALL BE INSTALLED SUCH THAT TOP OF STONE IS FLUSH WITH SURROUNDING GRADE.
- (SF) TEMPORARY SILT FENCE BARRIER**
SILT FENCE BARRIER SHALL BE PROVIDED DOWN-GRADIENT OF DISTURBED AREAS, AS SHOWN HEREIN. THE BARRIER SHALL BE MAINTAINED, CLEANED, AND / OR REPLACED AS NECESSARY UNTIL SUCH TIMES THAT ALL UP-GRADIENT DISTURBED AREAS ARE STABILIZED AGAINST EROSION AND SEDIMENTATION, AND ONLY UPON WRITTEN NOTIFICATION FROM THE CITY OF ROANOKE.
- (TSB) TEMPORARY SEDIMENT BASIN**
A TEMPORARY SEDIMENT BASIN IS REQUIRED TO BE CONSTRUCTED AS THE FIRST STEP IN LAND DISTURBANCE FOR THIS SITE. SEE THIS SHEET AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION FOR CONSTRUCTION DETAILS OF THE NEW BASIN. IT IS REQUIRED TO PERFORM A CERTAIN AMOUNT OF OVER-EXCAVATION IN ORDER TO MEET THE "NET STORAGE" REQUIREMENTS. THIS OVER-EXCAVATION IS SHOWN HEREON AS DASHED CONTOURS, WITH BOTTOM OF OVER-EXCAVATION AT ELEVATION 983.0 IT IS ALSO REQUIRED TO INSTALL A TEMPORARY DETERIORATING SYSTEM FOR THE BASIN (SHOWN HEREON) AND A SEPARATE PERMANENT RISER FOR THE PERMANENT STORMWATER MANAGEMENT SYSTEM (SHOWN ON C4.1). UPON AUTHORIZATION FROM THE CITY INSPECTOR, THE TEMPORARY BASIN SHALL BE CONVERTED TO PERMANENT BY INFILLING THE OVER-EXCAVATION AND STABILIZING, REMOVE THE TEMPORARY DETERIORATING ASSEMBLY, SEAL WITH MASONRY THE DETERIORATING DEVICE, AND REMOVE TEMPORARY MASONRY FROM PERMANENT SIM ORIFICES.
- (TS) TEMPORARY SEEDING**
ALL DISTURBED AREAS NOT BEING DISTURBED FOR MORE THAN 14 DAYS SHALL RECEIVE TEMPORARY SEEDING.
- (TD) TOPSOILING AND STOCKPILE**
THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL IN SUFFICIENT QUANTITIES TO REPLACE A MINIMUM OF 6" ON ALL DISTURBED AREAS PRIOR TO PLACEMENT OF PERMANENT SEEDING MEASURES. STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING REQUIREMENTS, IF NECESSARY. FOLLOWING ROUGH GRADING OPERATIONS, SCARRY THE SUBGRADE TO A DEPTH OF 2" TO ALLOW BONDING WITH TOPSOIL. PLACE TOPSOIL IN LOOSE LIFTS AND COMPACT IN ACCORDANCE WITH THE PROJECT MANUAL, SLOPES GREATER THAN 3H:1V SHALL BE TRACKED IN ACCORDANCE WITH SURFACE ROUGHENING REQUIREMENTS OF VESCH STD. AND SPEC. 3.23.
- (TP) TREE PROTECTION**
THERE IS ONLY ONE SPECIMEN TREE THAT SHALL REMAIN, SEE PLAN. ALL OTHER AREAS OF PROTECTION ARE MOVED BRUSH AND TREES, WITH NO REAL SPECIMENS IN PARTICULAR. THESE AREAS ARE TO REMAIN IN ORDER TO SERVE AS A NATURAL VISUAL BARRIER BETWEEN THE SITE AND THE ADJOINING PROPERTIES. THE CONTRACTOR SHALL HONOR THE LIMITS OF DISTURBANCE SHOWN HEREON, AND ALL TREES & BRUSH OUTSIDE THESE LIMITS SHALL REMAIN UNDISTURBED, ALONG THE NORTHERN AND MOST OF THE SOUTHERN BOUNDARY OF THE WORK AREA. THE SILT FENCE BARRIER WILL SUFFICE TO DELINEATE THE LIMITS OF WORK, ALONG THE EASTERN AND SOUTHWESTERN LIMITS OF WORK. THE CONTRACTOR SHALL MAINTAIN EITHER 36" WOODEN SURVEYOR STAKES WITH RIBBON CLEARLY DELINEATING "LIMITS OF WORK" AT MAXIMUM 25' INTERVALS, OR SHALL PROVIDE AND MAINTAIN ORANGE POLYETHYLENE SAFETY FENCE.

SOIL EROSION CONTROL MEASURES - PUBLIC SIDEWALK CONSTRUCTION

THESE PLANS ASSUME THE CONTRACTOR WILL INSTALL THE COMPACTED STONE BASE THE SAME DAY AS GRADING FOR THE NEW SIDEWALKS, AND AS SUCH DOES NOT REQUIRE INSTALLATION OF SILT FENCE BARRIER. SHOULD THIS NOT BE THE CASE, THE CITY OF ROANOKE INSPECTOR MAY REQUIRE THE INSTALLATION OF SILT FENCE BARRIER ALONG THE DOWN-GRADIENT EDGE OF THE SIDEWALK EXCAVATION, WHICH SHALL BE PROVIDED BY THE CONTRACTOR.

PERMANENT SEEDING AND STRAW-MULCHING OF ALL MINOR AREAS ASSOCIATED WITH THE SIDEWALK CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR. ALTHOUGH THESE MINOR AREAS ARE INCIDENTAL TO THE WORK, STABILIZATION OF THESE AREAS SHALL BE IN ACCORDANCE WITH TEMPORARY AND PERMANENT SEEDING REQUIREMENTS OF THESE PLANS.



THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY SEDIMENT BASIN AS A FIRST STEP IN THE DEVELOPMENT OF THIS PROJECT. THE CONTRACTOR SHALL INSTALL THE TEMPORARY DE-WATERING STRUCTURE, AS SHOWN, SUCH THAT STORMWATER WILL POND TO ELEVATION 991.2 BEFORE LEAVING THE SITE, THEREBY ALLOWING THE WATER-BORNE SEDIMENT TIME TO SETTLE.

THE TEMPORARY SEDIMENT BASIN SHALL BE PERIODICALLY MONITORED FOR SEDIMENT ACCUMULATION. EXCESS SEDIMENT SHALL BE REMOVED FROM THE BASIN ONCE THE SEDIMENT DEPTH REACHES ELEVATION 988.8.

THE PERMANENT CONCRETE PILOT CHANNEL IS TO BE CONSTRUCTED ONLY AFTER THE BASIN IS CONVERTED TO A PERMANENT SIM POND. SEE SHEET C4.1 FOR DETAILS.

TEMPORARY SEDIMENT BASIN
NO SCALE

ANTI-FLOATATION ANCHORING

THE TEMPORARY OUTLET STRUCTURE SHALL BE ANCHORED TO PREVENT FLOATATION. THE STRUCTURE SHALL BE ANCHORED TO A CAST-IN-PLACE CONCRETE PAD WITH THICKNESS = 18" MIN. AND DIAMETER = TWICE THE OUTER DIAMETER OF THE STRUCTURE = 14.0' FOR 100T 6-1. SEE PLATE 114-14 OF STD. 314 OF THE VESCH. USE MIN. 3,500 PSI CONCRETE.

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Roanoke, Virginia



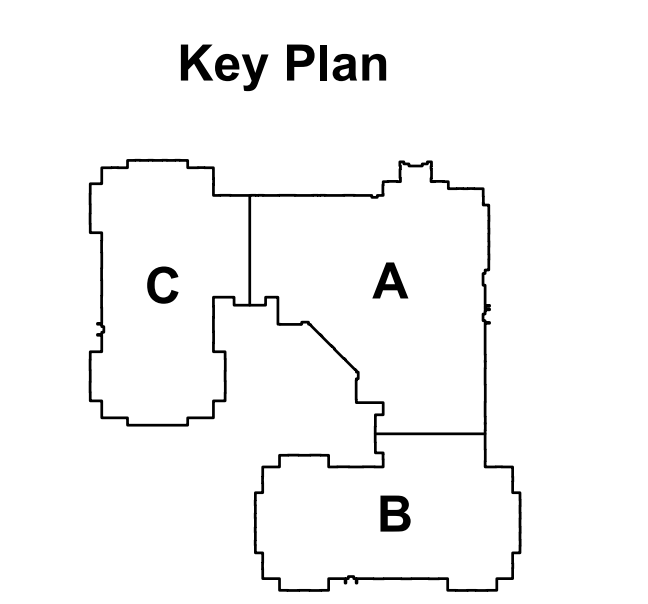
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W.G. 19-0034

Designed: C.L. White
Drawn: C.L. White



SOIL EROSION & SEDIMENTATION CONTROL PLAN

Issues and Revisions:

04/19/2019	DESIGN DEVELOPMENT ISSUE
06/06/2019	PERMIT SET
07/17/2019	PER 1ST CITY SITE REVIEW
07/31/2019	ADDENDUM 4 / 100% CD SET (see revisions same as Delta S1 dated 07/17/2019)
08/13/2019	PER 2ND CITY SITE REVIEW
07/07/2020	PR #4
12/18/2020	ADD MED GAS & GUARDRAIL

Commission No: 63132-18180

Drawn by: _____

Checked by: _____

SHEET



C3.1

30' 0' 30' 60'

1" = 30' GRAPHIC SCALE