

SECTION A-A
CREEK CROSSING DETAIL

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION & SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED.
- IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
- FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF 1,365 L.F. OF 10" SANITARY SEWER IN THE COUNTY OF ROANOKE, VIRGINIA.

EXISTING SITE CONDITIONS: THE MAJORITY OF THE ALIGNMENT IS OPEN, IN WELL ESTABLISHED GRASS, WITH VERY FEW TREES OR OTHER TYPES OF COVER. THE PROJECT DOES CROSS CRYSTAL CREEK DRIVE AND SEVERAL GRAVEL DRIVES. THE PROJECT ROUGHLY PARALLELS BACK CREEK AND CROSSES AN UNNAMED TRIBUTARY NEAR STA. 10+00.

ADJACENT PROPERTY: THE SANITARY SEWER ALIGNMENT IS LARGELY ON ROANOKE COUNTY PROPERTY. THE LAST MANHOLE IS LOCATED ON THE PROPERTY OF FRED E. TAYLOR JR. AND A PORTION OF THE SEWER IS LOCATED ADJACENT TO THE PRESCRIPTIVE RIGHT-OF-WAY OF CRYSTAL CREEK DRIVE AND IS ON THE PROPERTY OF DAVID E. AND VIRGINIA I. KIDD.

- CRITICAL AREAS:
- THE SILT FENCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND CLEANED OR REPLACED AS REQUIRED.
 - INLET PROTECTION SPECIFIED FOR THE EXISTING 15" CMP CULVERTS SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD SUCH THAT SILTATION OF THE PIPES SHALL BE MINIMIZED.
 - PERMANENT SEEDING AND STABILIZATION BLANKETS SHALL BE APPLIED TO INDICATED AREAS AS SOON AS POSSIBLE.
 - PAVED AREAS NOT BEING DISTURBED SHALL REMAIN IN A DUST AND MUD-FREE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION. SHOULD OFF-SITE SEDIMENTATION OCCUR IT IS THE CONTRACTOR'S RESPONSIBILITY TO RETURN ALL AFFECTED AREAS TO A CONDITION EQUAL TO THE ORIGINAL CONDITION.
 - DISTURBED AREAS THAT ARE NOT TO BE PERMANENTLY STABILIZED WITHIN THIRTY (30) DAYS SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION."

EROSION AND SEDIMENT CONTROL MEASURES:

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION.

- THE CONSTRUCTION ENTRANCES SHALL BE CONTINUALLY MAINTAINED AND MONITORED FOR RUTTING, PUMPING, OR OTHER DELETERIOUS EFFECTS, AND SHALL BE REPAIRED, REPLACED, OR MODIFIED AS DIRECTED BY THE COUNTY INSPECTOR, TO INSURE THAT OFF-SITE SEDIMENTATION IS AVOIDED.
- REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS. THIS WORK SHALL BE COORDINATED IN ORDER OF THE WORK WHICH IS TO FOLLOW: CONTROL AT CENTERS OF FLOW, AND OTHER POINTS OF CONCENTRATION SHOWN SHALL BE CONSTRUCTED IN PLACE FIRST.
- UNDER NO CIRCUMSTANCES SHALL SOIL EROSION CONTROL MEASURES BE REMOVED FROM THEIR INTENDED AREA, UNLESS AUTHORIZED BY THE COUNTY. THE CONTRACTOR SHALL INSURE THAT ALL MEASURES ARE FUNCTIONAL AT ALL TIMES, AND SHALL NOTIFY THE ENGINEER OF ANY PROBLEM AREAS THAT WILL REQUIRE ADDITIONAL MEASURES. AREAS SHOWN WITHIN THESE PLANS TO RECEIVE PERMANENT SEEDING SHALL BE SEEDED, FERTILIZED, MULCHED, AND WATERED AS DETAILED ON THIS SHEET. ALTERNATE SEEDING SPECIFICATIONS FOR SLOPES AND GENERAL AREAS MAY BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL MEASURES SHOWN HEREON SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. BY ACCEPTING THIS SITE, THE CONTRACTOR IS ACKNOWLEDGING HIS UNDERSTANDING OF THESE REQUIREMENTS, AND AGREES TO UPHOLD THESE STANDARDS AND SPECIFICATIONS.
- IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL, IN PARTICULAR:
 - THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR FLOW OF MUD ONTO PAVED AREAS.
 - ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
 - ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEDED AS NEEDED.
- THE SOIL EROSION CONTROL MEASURES INSTALLED FOR THIS CONTRACT SHALL REMAIN IN PLACE FOLLOWING CLOSE-OUT OF THE PHASE I CONSTRUCTION. THE GRADING CONTRACTOR WILL BE RESPONSIBLE FOR THE SOIL EROSION CONTROL ON THIS SITE UNTIL THE BUILDING CONTRACTOR HAS FORMALLY ACCEPTED THE SITE.

GENERAL COMMENTS:

- THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- THE COUNTY OF ROANOKE RESERVES THE RIGHT TO ADD TO, DELETE, OR OTHERWISE CHANGE EROSION CONTROL DEVICES AS MAY BE DEEMED NECESSARY BY WRITTEN NOTIFICATION TO THE CONTRACTOR.
- NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE COUNTY OF ROANOKE.
- THE ENGINEER, CALDWELL WHITE ASSOCIATES, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

PS PERMANENT SEEDING MIXTURE

DISTURBED AREAS SHALL BE PERMANENTLY SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN ONE YEAR.

TYPE A

03/15 TO 05/15 OR 08/16 TO 10/31:
ANNUAL RYEGRASS @ 20 LB / ACRE
RED TOP @ 2 LB / ACRE
KY 31 FESCUE @ 150 LB / ACRE

05/16 TO 08/15:
FOXTAIL MILLET @ 20 LB / ACRE
RED TOP @ 20 LB / ACRE
KY 31 FESCUE @ 150 LB / ACRE

11/01 TO 02/28:
WINTER RYE @ 20 LB / ACRE
RED TOP @ 20 LB / ACRE
KY 31 FESCUE @ 150 LB / ACRE

LIME: 4,000 LB / ACRE PULVERIZED AGRICULTURAL LIMESTONE
FERTILIZER: 10-20-10 @ 1,000 LB / ACRE

MULCH: SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN STRICT ACCORDANCE WITH STANDARD AND SPECIFICATION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL CONDITIONING:

INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE CITY ENGINEER.

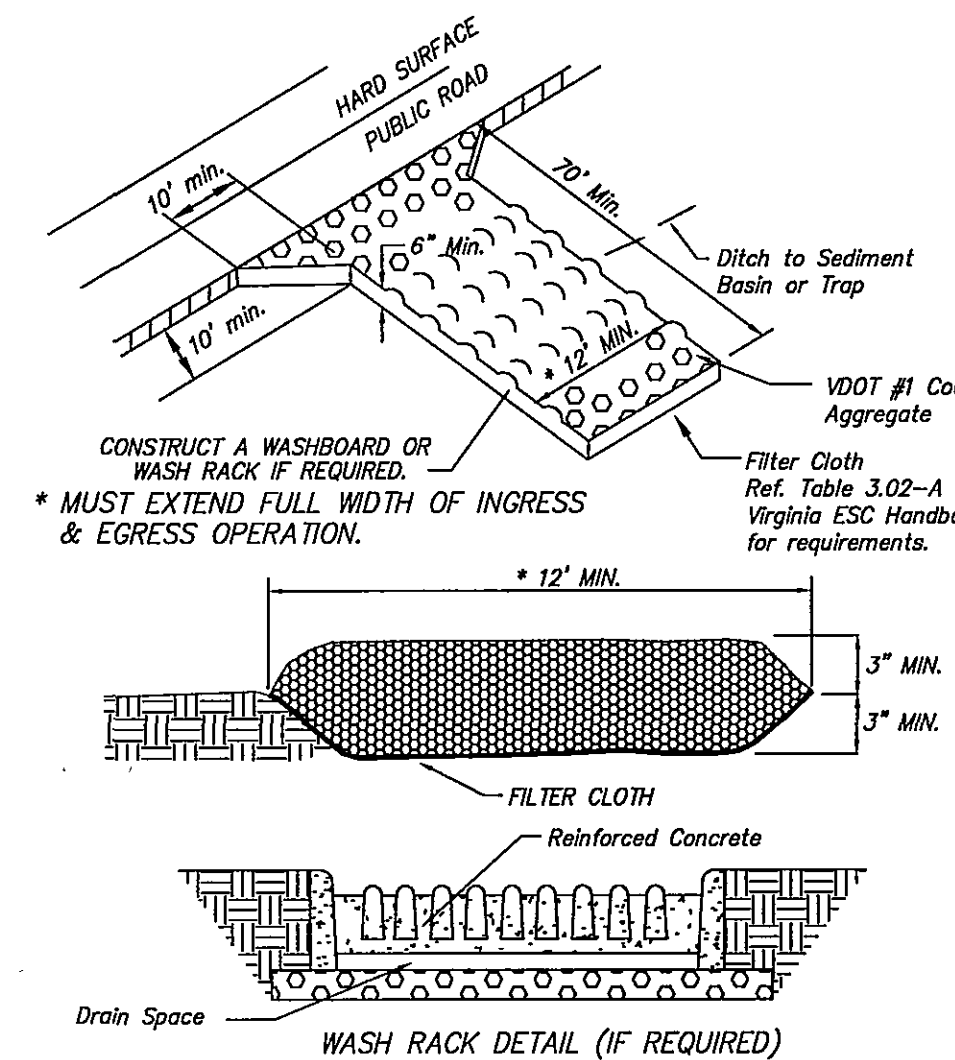
SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE, SEEDBED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.

TYPE B (SLOPES 3:1 OR STEEPER)

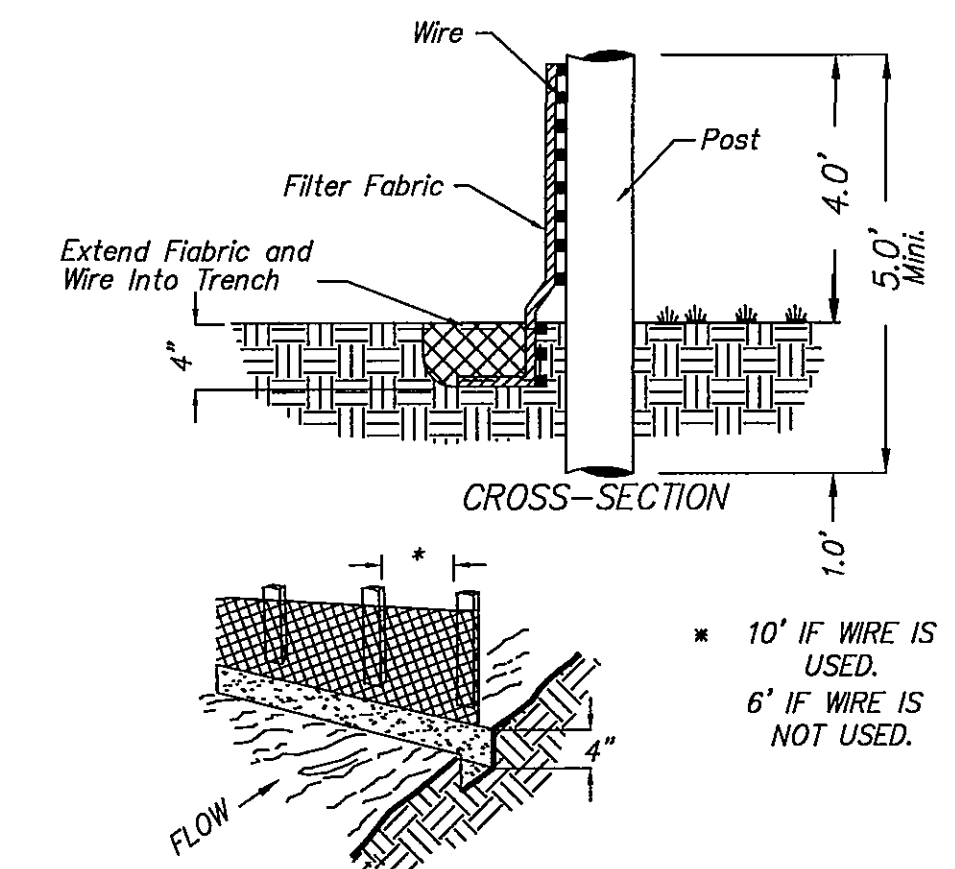
03/15 TO 05/15 OR 08/16 TO 10/31:
CROWN VETCH @ 20 LB / ACRE
ANNUAL RYEGRASS @ 20 LB / ACRE
RED TOP @ 20 LB / ACRE
KY 31 FESCUE @ 108 LB / ACRE

05/16 TO 08/15:
CROWN VETCH @ 20 LB / ACRE
FOXTAIL MILLET @ 20 LB / ACRE
RED TOP @ 20 LB / ACRE
KY 31 FESCUE @ 108 LB / ACRE

11/01 TO 02/28:
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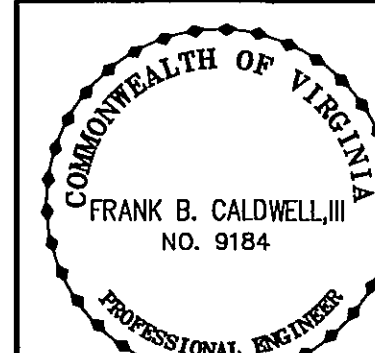


CE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



SF CONSTRUCTION OF A SILT FENCE

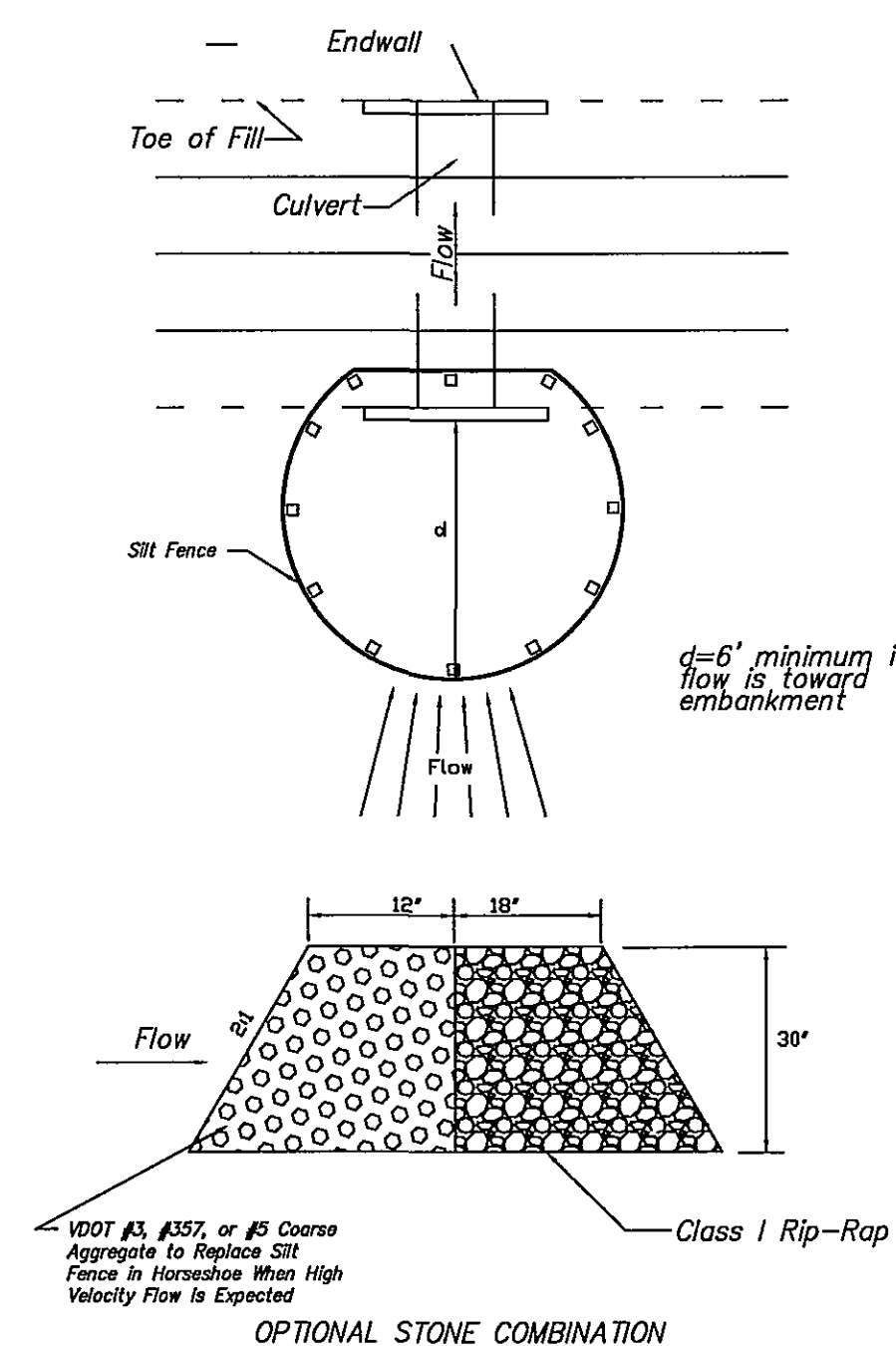
AS-BUILT CONDITIONS
JUNE 6, 2005



Designed: JWK
Drawn: JWK
Checked: FBC
Date: October 19, 2004
Rev: January 12, 2005
Scale: As Shown
Tax Parcel: 08705-01-25, 26
W.O. No.: 04-0101

CRYSTAL CREEK SS EXTENSION
CONSTRUCTION AND EROSION
CONTROL DETAILS
FOR
**THE WESTERN VIRGINIA WATER
AUTHORITY**
COUNTY OF ROANOKE, VA.

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IP CULVERT INLET PROTECTION