

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A SANITARY SEWER MAIN FROM ARROWHEAD TRAIL TOWARD CHEROKEE HILLS DRIVE AND INSTALL PRIVATE SANITARY SEWER LATERALS. THE SANITARY SEWER MAIN WILL DISTURB NO MORE THAN A 20' WIDE STRIP TO INSTALL THE SEWER LINE. THE AMOUNT OF LAND DISTURBANCE IS ESTIMATED AS FOLLOWS: 545 LF X 20' AVERAGE WIDTH = 10,900 SF PLUS 5 LATERALS AT 15' X 15' (5X15X15 = 1,125 SF), TOTALING 12,025 SF OR 0.3 ACRES. NO IMPERVIOUS IMPROVEMENTS ARE PROPOSED AT THIS TIME.

THE SITE WILL UTILIZE AN EXISTING CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL INSTALL SILT FENCE FOR CULVERT INLET PROTECTIONS, AND PERMANENT SEEDING.

EXISTING SITE CONDITIONS: THE PROPERTY CURRENTLY DRAINS IN A SOUTHERLY DIRECTION TOWARD AN ELLIPTICAL PIPE CROSSING SUNDANCE ROAD AND ENTERING AN ACTIVE CONSTRUCTION SITE DEVELOPING "CHEROKEE HILLS SECTION 4". RUNOFF THEN DRAINS TO THE SOUTH EAST TOWARD AN EXISTING SEDIMENT BASIN. RUNOFF ULTIMATELY DRAINS BY PIPE UNDER I-81 AND TOWARD "LITTLE BEAR ROCK BRANCH".

THE PROJECT BEGINS WITHIN THE PUBLIC RIGHT OF WAY OF ARROWHEAD TRAIL, UNDEVELOPED, AND CROSSES SEVERAL PIECES OF PROPERTY. EASEMENTS HAVE BEEN PREPARED.

SOILS: AS IDENTIFIED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, GENERAL SOIL MAP, THE BASIC SOIL MATERIAL IS TUMBLING-WEIKERT-BERKS.

CRITICAL AREAS: THE SILT FENCE CULVERT INLET PROTECTIONS SHALL BE INSTALLED AS SHOWN ON THE PLANS ALONG SUNDANCE ROAD. CULVERT INLET PROTECTIONS SHALL BE PLACED TO KEEP SEDIMENT OUT OF EXISTING CULVERTS. ALL SILT FENCE SHALL BE INSTALLED AND CHECKED REGULARLY. THE CONSTRUCTION ENTRANCE OFF SUNDANCE ROAD IS ALREADY IN PLACE. THE CONTRACTOR SHALL PROVIDE PERMANENT SEEDING WITHIN SEVEN (7) DAYS OF OBTAINING FINAL GRADES. THE CONTRACTOR SHALL HAVE EQUIPMENT ON-SITE TO KEEP SEDIMENT OFF OF EXISTING PAVED AREAS.

ADJACENT PROPERTY: SEE MAP

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", THIRD EDITION.

- 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.
- AFTER THE INSTALLED CONTROL DEVICES ARE FOUND TO BE FUNCTIONAL, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH DEMOLITION, CLEARING, AND PRELIMINARY GRADING OPERATIONS. ALL EXPOSED DENUDED AREAS SHALL BE SEEDDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.
- IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL IN PARTICULAR:

- MEASURES SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
- ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
- ALL SEEDDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDDED AS NEEDED.

4. FOLLOWING THE COMPLETION OF DEVELOPMENT AND STABILIZATION OF ALL AREAS AND AFTER IT HAS BEEN DETERMINED THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE SITE OR AT ITS BOUNDARIES AND THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, ORGANIZED MANNER.

GENERAL COMMENTS: 1. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

2. 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.

3. NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE COUNTY OF ROANOKE.

4. THE ENGINEER, T.P.PARKER & SON, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

GENERAL EROSION & SEDIMENT CONTROL NOTES

- ALL SOIL EROSION & SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN 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, AS FAR AS PRACTICAL.
- 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.
- REFERENCE IS DIRECTED TO "PLAN & PROFILE" FOR SITE DEPICTING EROSION AND SEDIMENT CONTROL MEASURES.

RESPONSIBLE LAND DISTURBER CERTIFICATION

THE CONTRACTOR FOR THIS PROJECT SHALL NAME ONE PERSON RESPONSIBLE FOR ALL LAND DISTURBANCE ACTIVITIES AND EROSION CONTROL MEASURES. THE PERSON NAMED SHALL HOLD A "RESPONSIBLE LAND DISTURBER CERTIFICATE" UNDER THE GENERAL ASSEMBLY REVISIONS TO THE VIRGINIA EROSION & SEDIMENT CONTROL LAW AS REVISED JULY 1, 2001. THE PERSON NAMED WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT ALL EROSION CONTROL MEASURES. THE PERSON NAMED SHALL AFFIX SIGNED AND PRINTED NAME TO ONE COPY OF THIS EROSION CONTROL SHEET AND SUBMIT TO THE COUNTY OF ROANOKE. NO LAND DISTURBANCE ACTIVITY CAN BEGIN UNTIL THIS NAME HAS BEEN PROVIDED TO THE GOVERNING AGENCY.

NAME & CERTIFICATE #

PRINTED NAME

EROSION AND SEDIMENT CONTROL MEASURES:

- (CE) USE EXISTING STONE CONSTRUCTION ENTRANCE MEETING VESCH STD. & SPEC. 3.02
- (CIP) PROVIDE SILT FENCE CULVERT INLET PROTECTION MEETING VESCH STD. & SPEC. 3.08
- (PS) PROVIDE PERMANENT SEEDING MEETING VESCH STD. & SPEC. 3.32

TYPE A (SLOPES FLATTER THAN 3:1)

15 OCTOBER TO 1 FEBRUARY
K-31 FESCUE @ 5 LB / 1000 SF
BORZY WINTER RYE @ 1/2 LB / 1000 SF

1 FEBRUARY TO 1 JUNE
K-31 FESCUE @ 5 LB / 1000 SF
ANNUAL RYE @ 1/2 LB / 1000 SF

1 JUNE TO 1 SEPTEMBER
K-31 FESCUE @ 5 LB / 1000 SF
GERMAN MILLET @ 1/2 LB / 1000 SF

1 SEPTEMBER TO 15 OCTOBER
K-31 FESCUE @ 5 LB / 1000 SF
ANNUAL RYE @ 1/2 LB / 1000 SF

TYPE B (SLOPES 3:1 OR STEEPER)

15 MARCH TO 1 MAY
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

15 AUGUST TO 1 OCTOBER
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

LIME: 140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE

FERTILIZER: 5-20-10 @ 25 LB / 1000 SF
38-0-0 @ 7 LB / 1000 SF

MULCH: SHALL BE USED OVER ALL SEEDDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3rd ED.

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

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

(PS) PERMANENT SEEDING MIXTURE

BOND COST ESTIMATE

ITEM - E & S	UNITS	UNIT COST	QUANTITY	TOTAL
CONSTRUCTION ENTRANCE - USE EXISTING	EA	\$ 0.00	1	\$ 0
SILT FENCE CULVERT INLET PROTECTION	EA	\$ 500.00	4	\$ 2,000
PERMANENT SEEDING	ACRE	\$ 2,000.00	0.3	\$ 600
SUBTOTAL				\$ 2,600
10% CONTINGENCY				\$ 206
TOTAL				\$ 2,806

MINIMUM STANDARDS CHECKLIST

Yes No NA

- ☒ ☐ ☐ MS-1 Have temporary and permanent stabilization been addressed in the narrative?
Are practices shown on the plan?
Temporary and permanent seed specifications?
Lime and fertilizer?
Mulching?
Pavement/Stone?
- ☐ ☐ ☒ MS-2 Has stabilization of soil stockpiles, borrow areas, and disposal areas been addressed in the narrative?
Are sediment trapping measures provided?
- ☒ ☐ ☐ MS-3 Has the establishment and maintenance of permanent vegetative stabilization been addressed?
- ☒ ☐ ☐ MS-4 Does the Plan specifically state that sediment trapping facilities shall be constructed as a first step in land-disturbing activities?
- ☐ ☐ ☒ MS-5 Does the Plan specifically state that stabilization of earthen structures is required immediately after installation?
- ☐ ☐ ☒ MS-6 Are sediment traps and sediment basins specified where needed?
- ☐ ☐ ☒ MS-7 Have temporary and permanent stabilization of cut and fill slopes been adequately addressed?
- ☐ ☐ ☒ MS-8 Are paved flumes, channels, or slope drains required on cut and fill slopes where necessary?
- ☐ ☐ ☒ MS-9 Has water seeping from a slope face been addressed (e.g., Surface Roughening, subsurface drains)?
- ☒ ☐ ☐ MS-10 Is adequate inlet protection required on all operational storm sewer inlets?
- ☐ ☐ ☒ MS-11 Are outlet protection and/or channel lining required on stormwater conveyance and receiving channels?
- ☐ ☐ ☒ MS-12 Are in-stream protection measures required so that channel impacts are minimized?
- ☐ ☐ ☒ MS-13 Are temporary stream crossings of non-erodible material required where applicable?
- ☐ ☐ ☒ MS-14 (NOTE: This regulation requires that all applicable federal, state and local regulations pertaining to working in or crossing live watercourses be followed.)
- ☐ ☐ ☒ MS-15 Has immediate restabilization of areas subject to in-stream construction been adequately addressed?
- ☒ ☐ ☐ MS-16 Have stabilization of utility trenches and dewatering operations been addressed?
- ☒ ☐ ☐ MS-17 Is the transport of soil and mud onto public roadways properly controlled? (i.e., Construction Entrances, wash racks, daily cleaning of roadways, transport of sediment to a trapping facility)
- ☒ ☐ ☐ MS-18 Has the removal of temporary practices been addressed?
Has the removal of accumulated sediment and the final stabilization of the resulting disturbed areas been addressed?
- ☒ ☐ ☐ MS-19 Are properties and waterways downstream from development adequately protected from erosion and sediment deposition due to increases in peak stormwater runoff?

SPECIFIC ISSUES TO MS-16:

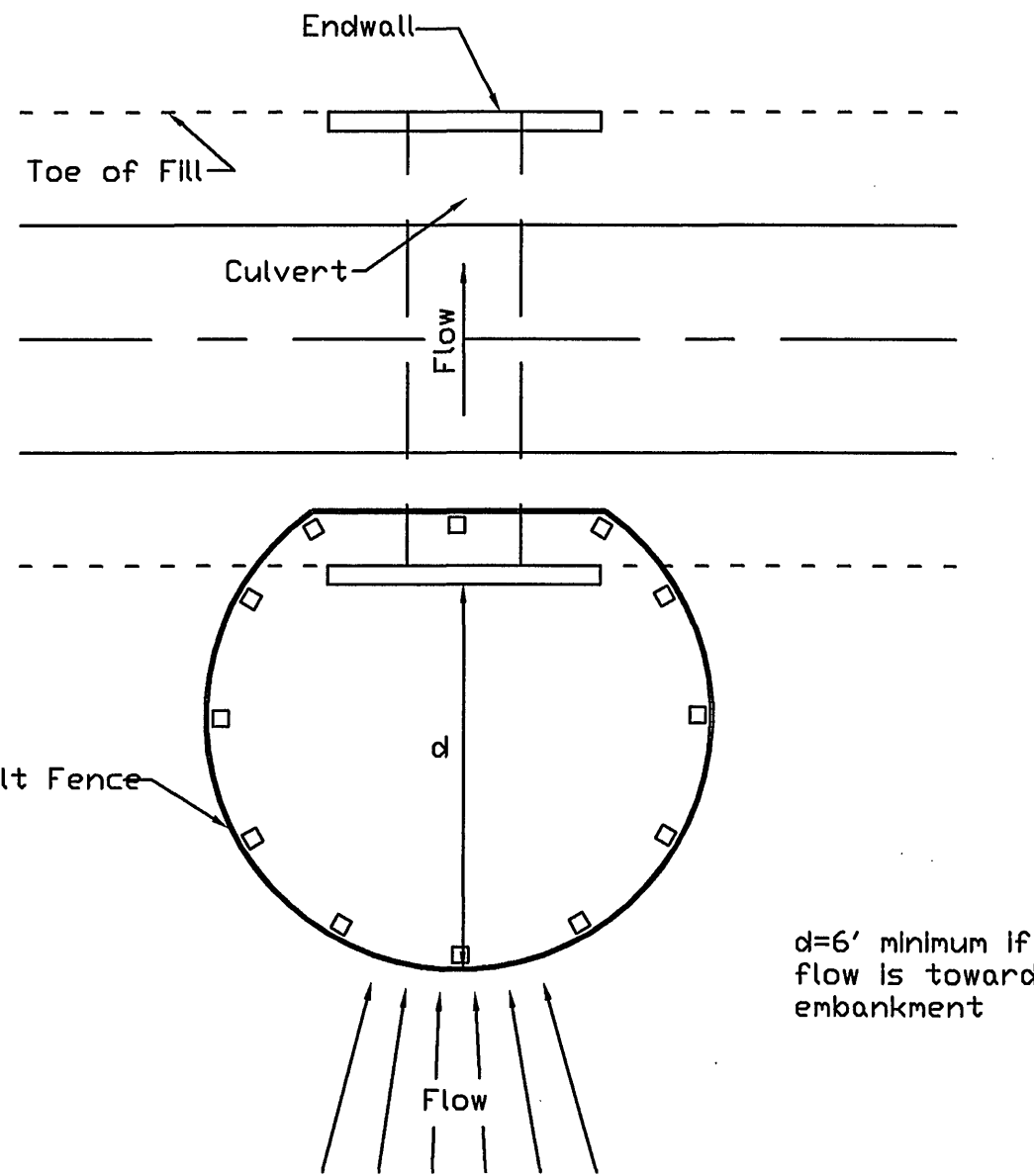
NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME. THE ENTIRE PROJECT IS 545 LF OF TRENCH. THE CONTRACTOR SHALL PROVIDE OSHA MINIMUM REQUIREMENTS PERTAINING TO OPEN TRENCHES ADJACENT TO ACTIVE AREAS AT THE END OF EACH DAY.

EXCAVATED MATERIALS SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES WHEN POSSIBLE.

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.

MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION & PROMOTE STABILIZATION.

APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.



(CIP) CULVERT INLET PROTECTION

AS-BUILT SURVEY FOR

EROSION CONTROL NARRATIVE & DETAILS

OF
PUBLIC SANITARY SEWER EXTENSION
FROM ARROWHEAD TRAIL TOWARD
CHEROKEE HILLS DRIVE
CATAWBA MAGISTERIAL DISTRICT
ROANOKE COUNTY, VIRGINIA

DATE: 09 NOVEMBER 2005 SCALE: 1" = 30'



DESIGNED BY: PJ BROWN
DRAWN BY: PJB
CHECKED BY: PJB
W.O. #: 05-0519
N.B.: CH-1
TAX NO.: VARIOUS



T. P. PARKER & SON

ENGINEERS
SURVEYORS
PLANNERS

616 Boulevard
Post Office Box 89
Salem, Virginia 24153
Telephone: 540-387-1153
FAX: 540-388-6767

04-0071 TOWNSIDE/ 05-0519-WWW-CVR.DWG

WWW.ID# 6LER8T