

EROSION & SEDIMENT CONTROL NARRATIVE (APPLIES TO BOTH PHASES)

PROJECT DESCRIPTION

THIS PROJECT IS LOCATED OFF COVE ROAD IN THE CITY OF ROANOKE. APPROXIMATELY 16.1 ACRES OF LAND WILL BE DISTURBED WITH THIS PROJECT. THIS PROJECT CONSISTS OF THE GRADING, ROADWAY CONSTRUCTION, WATER SYSTEM, SANITARY SEWER SYSTEM AND STORM DRAIN SYSTEM FOR A 44 LOT SINGLE FAMILY SUBDIVISION.

EXISTING SITE CONDITIONS

THE SITE IS RELATIVELY OPEN WITH HIGH GRASSES AND MINIMAL TREE COVERAGE. A PORTION OF THE SITE DRAINS TOWARD A STORM DRAIN SYSTEM IN COVE ROAD. THE REMAINDER OF THE SITE DRAINS TO A SWALE WHICH RUNS EAST TO THE INTERSECTION OF OLEVA STREET AND PORTLAND AVENUE.

ADJACENT AREAS

COVE ROAD BORDERS THE SITE TO THE SOUTH. THE AREAS TO THE NORTH AND EAST OF THE SITE ARE RESIDENTIAL COVE ROAD SUBDIVISIONS. THE PROPERTIES TO THE WEST OF THE SITE ARE LARGE RESIDENTIAL AND COMMERCIAL TRACTS.

OFF-SITE AREAS

NO OFFSITE BORROW OR FILL SITES ARE COVERED BY THESE PLANS. A SEPARATE EROSION AND SEDIMENT CONTROL PLAN IS REQUIRED FOR ANY OFFSITE BORROW OR FILL SITES, IF USED.

SOILS

SYMBOL	SOIL TYPE	DISTURBED AREA
18C	FREDERICK, SILT LOAM, 7-15% SLOPES	11.9
48B	TIMBERVILLE, SILT LOAM, 2-7% SLOPES	6.9
THE FOLLOWING PROPERTIES CORRESPOND WITH SOIL TYPES		
SYMBOL	EROSION POTENTIAL	PERMEABILITY
18C	MEDIUM	MODERATE
48B	MEDIUM	MODERATE

TYPICAL SEQUENCE, DEPTH AND COMPOSITION LAYERS IN THE SOILS ARE AS FOLLOWS:

FREDERICK SILT LOAM

THE TYPICAL SEQUENCE, DEPTH AND COMPOSITION OF THE LAYERS IN THIS SOIL ARE:

SURFACE LAYER:
0 TO 12 INCHES, YELLOWISH BROWN SILT LOAM
SUBSOIL:
12 TO 32 INCHES, YELLOWISH RED CLAY
32 TO 72 INCHES, YELLOWISH RED CLAY THAT HAS REDDISH YELLOW MOTTLES

TIMBERVILLE SILT LOAM

THE TYPICAL SEQUENCE, DEPTH AND COMPOSITION OF THE LAYERS IN THIS SOIL ARE:

SURFACE LAYER:
0 TO 11 INCHES, DARK YELLOWISH BROWN SILT LOAM
SOIL:
11 TO 21 INCHES, DARK YELLOWISH BROWN SILTY CLAY LOAM
21 TO 27 INCHES, DARK YELLOWISH BROWN SILTY CLAY LOAM
27 TO 42 INCHES, YELLOWISH BROWN SILTY CLAY THAT HAS STRONG BROWN AND YELLOWISH RED MOTTLES
42 TO 48 INCHES, BROWNISH YELLOW CLAY THAT HAS BROWN AND YELLOWISH RED MOTTLES
48 TO 62 INCHES, MOTTLED BROWNISH YELLOW, YELLOWISH RED, AND BROWN GRAVELLY SILTY CLAY LOAM

CRITICAL AREAS

IT IS CRITICAL THAT THE EROSION AND SEDIMENT CONTROL (ESC) MEASURES BE MAINTAINED TO PREVENT ANY SEDIMENT FROM COLLECTING IN COVE ROAD AND IN THE SWALE RUNNING EAST TOWARD THE INTERSECTION OF OLEVA STREET AND PORTLAND AVENUE.

GENERAL STANDARDS

UNLESS OTHERWISE INDICATED, ALL EROSION AND SEDIMENT CONTROL PRACTICES AND PROCEDURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

MINIMUM STANDARDS

SEE DEC'S MINIMUM STANDARDS LISTED ON THE ESC DETAIL SHEET.

EROSION AND SEDIMENT CONTROL MEASURES

CONSTRUCTION ENTRANCE (CE) - STD. & SPEC. 3.02
A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE CONSTRUCTION ACCESS ROAD LEAVES EXISTING PAVEMENT. DURING WET WEATHER CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE STREET. WHEN CONSTRUCTION VEHICLES MUST ENTER DISTURBED AREAS, THE TIRES OF THE VEHICLE SHALL BE MANUALLY CLEANED PRIOR TO LEAVING THE SITE, IF NECESSARY.

CONSTRUCTION ROAD STABILIZATION (CRS) - STD. & SPEC. 3.03
CONSTRUCTION ROAD STABILIZATION SHALL BE INSTALLED AS SHOWN ON THE PLAN AS SOON AS THE AREA HAS BEEN BROUGHT TO SUBGRADE. PROVIDE INITIALLY ON ACCESS TO CONSTRUCTION TRAILER AND PARKING FOR SAME. IN PHASE 2, CRS OR PAVEMENT BASE SHALL BE INSTALLED AS SOON AS UTILITIES HAVE BEEN COMPLETED WITHIN RIGHT-OF-WAY. INSTALL FROM ONE AS CONTINUOUS ROADED IN WHATEVER INCREMENT IS AVAILABLE (MINIMUM 100 L.F.). CONSTRUCTION TRAFFIC SHALL BE LIMITED TO CRS ACCESS ROADS AND AREAS TO BE GRADED. TRAFFIC IS PROHIBITED FROM ENTERING DRAINAGE SWALES OR STREAMS UNLESS ABSOLUTELY NECESSARY.

SILT FENCE (SF) - STD. & SPEC. 3.05

SILT FENCE SHALL BE INSTALLED AT THE LOWER EDGE OF DISTURBED AREAS AS SHOWN ON THE PLAN. TWO TYPES OF SILT FENCE ARE SHOWN ON THE PLANS IN ACCORDANCE WITH VDOT STANDARDS. THE TALLER FENCE IS SPECIFIED AS SILT FENCE, "SF". A SHORTER FENCE IS SPECIFIED AS FILTER BARRIER, "FB".

INLET PROTECTION (IP) - STD. & SPEC. 3.07

INLET PROTECTION SHALL BE INSTALLED AT STORM DRAIN DROP OR CURB INLETS AS SHOWN ON THE PLAN.

TEMPORARY DIVERSION DIKE (DD) - STD. & SPEC. 3.09

A DIVERSION DIKE IS A TEMPORARY DIKE OF COMPACTED SOIL CONSTRUCTED AT THE TOP OR BASE OF A SLOPING DISTURBED AREA TO EITHER DIVERT RUNOFF FROM UPSLOPE AREA AWAY FROM UNPROTECTED DISTURBED AREA TO A STABILIZED OUTLET, OR TO DIVERT SEDIMENT-LADEN RUNOFF FROM A DISTURBED AREA TO A SEDIMENT TRAP OR BASIN.

TEMPORARY FILL DIVERSION (FD) - STD. & SPEC. 3.10

A TEMPORARY FILL DIVERSION IS A CHANNEL WITH A SUPPORTING RIDGE OF SOIL ON THE LOWER SIDE, CONSTRUCTED ALONG THE TOP OF AN ACTIVE EARTH FILL TO DIVERT RUNOFF FROM UPSLOPE AREA AWAY FROM UNPROTECTED SLOPE TO A STABILIZED OUTLET OR SEDIMENT TRAP/BASIN.

TEMPORARY RIGHT-OF-WAY DIVERSION (RWD) - STD. & SPEC. 3.11

A RIDGE OF COMPACTED SOIL OR LOOSE ROCK OR GRAVEL CONSTRUCTED ACROSS DISTURBED RIGHTS-OF-WAY AND SIMILAR SLOPING AREAS TO INTERCEPT AND DIVERT RUNOFF TO STABILIZED OUTLETS AT NON-EROSIVE VELOCITIES.

DIVERSION (DV) - STD. & SPEC. 3.12

A DIVERSION IS A CHANNEL CONSTRUCTED ACROSS A SLOPE WITH A SUPPORTING RIDGE OF SOIL ON THE LOWER SIDE TO INTERCEPT AND DIVERT RUNOFF TO STABILIZED OUTLETS AT NON-EROSIVE VELOCITIES.

TOPSOILING (TS) - STD. & SPEC. 3.30

TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR FUTURE USE. TOPSOIL STOCKPILES SHALL BE PROTECTED BY SILT FENCE INSTALLED ALONG THE DOWNHILL SIDES AROUND THE STOCKPILE.

TEMPORARY SEEDING (TS) - STD. & SPEC. 3.31

THE TEMPORARY DIVERSION DIKES, TOPSOIL STOCKPILES AND ALL AREAS TO BE ROUGH GRADED, BUT NOT FINISH GRADED DURING THE INITIAL PHASE OF CONSTRUCTION, SHALL BE SEED WITH FAST GERMINATING, TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING, OR INSTALLATION IF A TEMPORARY MEASURE. SEE ALSO MINIMUM STANDARDS.

PERMANENT SEEDING (PS) - STD. & SPEC. 3.32

PERMANENT SEEDING SHALL BE INSTALLED ON ALL DISTURBED AREAS OF THE SITE NOT OTHERWISE STABILIZED.

MULCHING (MU) - STD. & SPEC. 3.35

ALL DISTURBED AREAS SHALL BE MULCHED AFTER SEEDING. STRAW MULCH SHALL BE APPLIED AT A RATE OF TWO TONS PER ACRE AND ANCHORED WITH 750 LBS PER ACRE OF FIBER MULCH OVER THE SEEDED AREA.

SOIL STABILIZATION BLANKETS AND MATTING (B/M) - STD. & SPEC. 3.36

SOIL STABILIZATION BLANKETS AND MATTING SHALL BE INSTALLED ON ALL SLOPES OF 3:1 OR GREATER.

MAINTENANCE

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF PRODUCING RAINFALL. A LOG OF DATES AND INSPECTIONS SHALL BE KEPT. ANY DEFICIENCIES THAT ARE FOUND SHALL BE CORRECTED IMMEDIATELY. ACCUMULATED SEDIMENT AT TRAPPING MEASURES SHALL BE ROUTINELY REMOVED.

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 DEC'S MS-19. IF EROSION OR SCOUR IS OCCURRING THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL CORRECTIVE MEASURES.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED AND THEN TEMPORARY MEASURES PROPERLY REMOVED.

STORM WATER MANAGEMENT CONSIDERATION

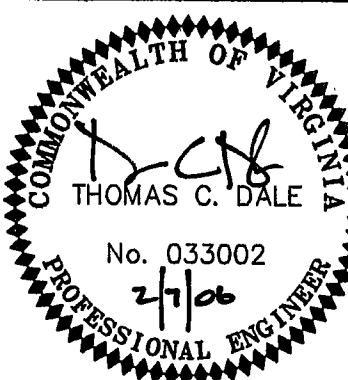
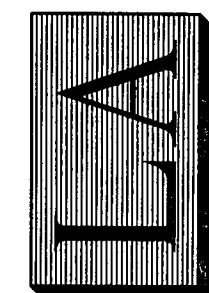
SEE MINIMUM STANDARDS MS-19 COMMENT.

CONSTRUCTION SEQUENCE

- CONTRACTOR'S CERTIFIED RESPONSIBLE LAND DISTURBER SHALL BE NAMED AND PROVIDE A COPY OF HIS RLD CERTIFICATE TO CITY OF ROANOKE DEPARTMENT OF COMMUNITY DEVELOPMENT AT LEAST TWO DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. RLD SHALL ALSO ATTEND PRE-CON MEETING.
- CONTRACTOR SHALL APPLY FOR DOR LAND DISTURBANCE PERMIT AT LEAST TWO (2) DAYS PRIOR TO LAND DISTURBANCE AND PROVIDE CITY OF ROANOKE DEPARTMENT OF COMMUNITY DEVELOPMENT COPY OF SAID PERMIT WITHIN FIVE (5) DAYS OF ISSUANCE.
- INSTALL CONSTRUCTION ENTRANCE AS THE FIRST STEP IN THE CONSTRUCTION PROCESS.
- AREAS TO BE CUT AND FILLED ARE TO BE CLEARED AND GRADED IN PHASES. THIS PHASING WILL BE DONE TO MINIMIZE THE LENGTH OF TIME AREAS ARE SUBJECT TO EROSION. ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS IN THE AFFECTED AREAS.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- THE PHASE I EROSION CONTROL PLAN IS BASED ON SURFACE DRAINAGE AND INTENDED TO PROTECT ADJACENT PROPERTIES FROM THE START OF CONSTRUCTION UNTIL STORM DRAIN CAN BE MADE FUNCTIONAL. PHASE I TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED OR AMENDED (PER PHASE 2 PLAN) AFTER THOSE AFFECTED AREAS HAVE BEEN BROUGHT TO GRADE AND CONDITION INDICATED IN PHASE 2 PLAN AND PHASE 2 TEMPORARY MEASURES INSTALLED (I.E. A SEDIMENT TRAP SHALL REMAIN IN PLACE UNTIL GRADING CAUSES FLOW TO IT TO BE SUFFICIENTLY RE-ROUTED TO STORM INLETS THAT SILT FENCE MAY BE INSTALLED TO ADEQUATELY HANDLE THE REMAINING DRAINAGE AREA AND THE TRAP REMOVED). CONTRACTOR SHALL ASSURE THAT SEDIMENT LOADED FLOW DOES NOT BYPASS MEASURES.
- INSTALL INLET PROTECTION AND OUTLET PROTECTION ALONG WITH STORM DRAIN CONSTRUCTION.
- SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES AS NEEDED. THIS INCLUDES SOIL TRANSPORTED FROM THE SITE.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER THOSE AFFECTED AREAS HAVE BEEN BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED WITH IMPROVEMENTS OR ESTABLISHED VEGETATION.

THIS PLAN IS FOR EROSION & SEDIMENT CONTROL PURPOSED ONLY

LUMSDEN ASSOCIATES, P.C.
ENGINEERS-SURVEYORS-PLANNERS
ROANOKE, VIRGINIA



**EROSION AND
SEDIMENT
CONTROL PLAN
PHASE 1**

**SECTION No. 1
"WILLOW WALK"
PREPARED FOR
BLACKSTOCK, INC.
SITUATED ALONG COVE ROAD, N.W.
THE CITY OF ROANOKE, VIRGINIA**

REVISIONS		DESCRIPTION
NO.	DATE	
1		
2		
3		
4		
5		

DATE: FEBRUARY 7, 2006

SCALE: 1" = 60'

COMMISSION NO: 2004-367

SHEET 10 OF 16

4666 BRAMBLETON AVENUE
ROANOKE, VIRGINIA 24018
PHONE: (840) 774-4411
FAX: (840) 772-9945
E-MAIL: MAIL@LUMSDENPC.COM