

General Erosion and Sediment Control Notes,
City of Roanoke, 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 VS 525-22-02 EROSION AND SEDIMENT CONTROL REGULATIONS, LATEST EDITION. THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS ARE FROM THE VIRGINIA UNIFORM CODING SYSTEM FOR ESC PRACTICES.

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 IN ADVANCE OF THE WORK THEY ARE INTENDED TO PROTECT. THIS INCLUDES CLEARING. IN NO CASE DURING CONSTRUCTION SHALL 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.

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 FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-6: THE APPROVING AUTHORITY MAY ADD TO, DELETE, CHANGE, OR OTHERWISE MODIFY CERTAIN ESC MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS. 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 DENATURING 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.

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT IS LOCATED OFF BRANDON AVE. SW IN THE CITY OF ROANOKE. APPROXIMATELY 3.1 ACRES OF LAND WILL BE DISTURBED WITH THIS PROJECT. GRADING OPERATIONS FOR THIS PROJECT ARE TO PROVIDE ROUGH GRADE, IMPROVED ACCESS, DRAINAGE AND UTILITIES FOR INDEPENDENT LIVING AND ASSISTED LIVING FACILITY ADDITIONS TO THIS RETIREMENT FACILITY.

EXISTING SITE CONDITIONS

THE SITE IS VERY OPEN WITH SOME ORNAMENTAL TREES LOCATED THROUGHOUT. THE ENTIRE SITE DRAINS THROUGH AN EXISTING ON-SITE DETENTION BASIN THEN INTO THE PUBLIC STORM SEWER SYSTEM.

ADJACENT AREAS

BRANDON AVENUE BORDERS THE SITE ON THE NORTH. A CHURCH EXISTS TO THE NW AND MODERATE LOT SIZE SINGLE FAMILY RESIDENTIAL FROM BEHIND THE CHURCH AROUND THE SOUTHERN END. THE WESTERN SIDE IS BORDERED BY ONE LARGE TRACT OF RESIDENTIAL USE.

OFF-SITE AREAS

NO OFFSITE BORROW OR FILL SITES ARE EXPECTED TO BE ASSOCIATED WITH THIS PROJECT.

SOILS

A SOILS MAP IS ATTACHED WHICH SHOWS THE LOCATION OF VARIOUS SOILS WITHIN THE CONSTRUCTION AREA. THE FOLLOWING SYMBOLS CORRESPOND WITH SOIL TYPES ON THE MAP.

SYMBOL	SOIL TYPE	DISTURBED AREA
41C	SHOTTOWER-URBAN LAND COMPLEX	2.97 AC

THE PREDOMINANT SOIL WHICH WILL BE DISTURBED IS THE SHOTTOWER-URBAN LAND COMPLEX, 4-15% SLOPES. THIS GENTLY SLOPING TO STRONGLY SLOPING SOIL IS VERY DEEP AND WELL DRAINED. IT IS HIGH ON STREAM TERRACES THROUGHOUT THE SURVEY AREA. INDIVIDUAL AREAS RANGE FROM ABOUT 10 TO 100 ACRES. SOILS WITHIN THESE AREAS ARE SO INTERMINGLED THAT IT IS NOT PRACTICAL TO MAP SEPARATELY. THIS MAP UNIT IS ABOUT 40% SHOTTOWER SOIL, 38% URBAN LAND, AND 22% OTHER SOILS. A TYPICAL PROFILE OF A SHOTTOWER SOIL HAS A DARK BROWN LOAM SURFACE 10 INCHES THICK. BENEATH IS A YELLOWISH BROWN LOAM TO 18 INCHES, A YELLOWISH RED CLAY LOAM TO 24 INCHES, A DARK RED CLAY LOAM WITH YELLOW MOTTLES TO 34 INCHES, AND A RED CLAY WITH LIGHT YELLOWISH-BROWN MOTTLES TO 62 INCHES.

THE AREAS OF URBAN LAND CONSIST OF ASPHALT, CONCRETE, BUILDINGS, OR OTHER IMPERVIOUS SURFACES. THE ORIGINAL SOIL HAS BEEN SO ALTERED OR OBSCURED THAT CLASSIFICATION OF THE SOIL IS NOT FEASIBLE.

NOTE: THE DISTURBED AREA OF THIS SITE HAS ALL BEEN PREVIOUSLY DISTURBED AND CONSTRUCTED UPON.

SHOTTOWER SOILS HAVE A MODERATE PERMEABILITY WITH A LOW TO MODERATE AVAILABLE WATER CAPACITY. SOIL REACTION IS STRONGLY TO EXTREMELY ACIDIC. EROSION HAZARD IS SLIGHT TO MODERATE WITH SHRINK-SWELL POTENTIAL LOW AT THE SURFACE AND MODERATE IN THE SUBSOIL.

INCLUDED WITH THIS SOIL IN MAPPING ARE THE VERY DEEP, WELL DRAINED ALLEGHENY AND GROSECLOSE SOILS; THE MODERATELY DEEP, WELL DRAINED LITZ SOILS; AND THE SHALLOW, WELL DRAINED CHISWELL SOILS. ALLEGHENY SOILS ARE ON TERRACES IN LOWER POSITIONS ON THE LANDSCAPE THAN THE SHOTTOWER SOIL. GROSECLOSE, LITZ, AND CHISWELL SOILS ARE ON THE ADJACENT UPLAND SIDE SLOPES. INCLUDED SOILS MAKE UP ABOUT 20 PERCENT OF THIS MAP UNIT.

SOIL PROPERTIES-

PERMEABILITY: MODERATE
AVAILABLE WATER CAPACITY: MODERATE
DEPTH TO BEDROCK: MORE THAN 60 INCHES
ROOT ZONE: RESTRICTED BY THE WATER TABLE
SHRINK-SWELL POTENTIAL: LOW IN THE SURFACE LAYER, MODERATE IN THE SUBSOIL
ORGANIC MATTER CONTENT: LOW
SURFACE RUNOFF: RAPID
EROSION POTENTIAL: HIGH
DEPTH TO THE SEASONAL HIGH WATER TABLE: MORE THAN 72 INCHES

THE SLOPE AND SHRINK-SWELL POTENTIAL LIMIT THE USE OF THIS SOIL AS A SITE FOR DWELLINGS.

THE SLOPE AND PERMEABILITY ARE LIMITATIONS ON SITES FOR SEPTIC TANK ABSORPTION FIELDS.

THE CAPABILITY SUBCLASS IS NOT ASSIGNED.

CRITICAL AREAS

NO CRITICAL ESC AREAS EXIST ON THIS SITE.

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 DEO'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.

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

SILT FENCE SHALL BE INSTALLED AT THE LOWER EDGE OF DISTURBED AREAS AS SHOWN ON THE PLAN.

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 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-LOADED RUNOFF FROM A DISTURBED AREA TO A SEDIMENT TRAP OR BASIN.

OUTLET PROTECTION (OP) - STD. & SPEC. 3.18

OUTLET PROTECTION SHALL BE INSTALLED AS SHOWN ON THE PLAN.

TOPSOILING - 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.

TOPSOIL SHALL BE UNIFORMLY SPREAD OVER DISTURBED AREAS PRIOR TO PERMANENT SEEDING.

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.

TREE PRESERVATION AND PROTECTION (TP) - STD. & SPEC. 3.38

ENSURES PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITIES.

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

- INLET PROTECTION SHALL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT. REMOVE SEDIMENT PRIOR TO IT REACHING $\frac{1}{2}$ THE DESIGN DEPTH OF THE TRAP.
- SILT FENCES SHALL BE CHECKED REGULARLY FOR STRUCTURAL/FUNCTIONAL INTEGRITY. REMOVE ANY SEDIMENT DEPOSITS - DO NOT ALLOW BUILDUP.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDING AS NEEDED.
- DIVERSION DIKES / DITCHES SHALL BE CHECKED REGULARLY FOR UNDERMINING OR DETEIORATION.
- MAINTAIN CONDITION OF CONSTRUCTION ENTRANCE TO PREVENT TRACKING OR MUD FLOW ONTO PUBLIC STREETS. PERIODICALLY TOP DRESS OR WASH AND REWORK EXISTING STONE.

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 ROANOKE CITY 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 DCR LAND DISTURBANCE PERMIT AT LEAST TWO (2) DAYS PRIOR TO LAND DISTURBANCE AND PROVIDE ROANOKE CITY 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.
- 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 REPLACEMENT BY OTHER MEASURES, OR AFTER THOSE AFFECTED AREAS HAVE BEEN BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED WITH IMPROVEMENTS OR ESTABLISHED VEGETATION.

NO. DATE REVISION

PACKAGE #6: 12/20/05
PERMIT AND CONSTRUCTION SET

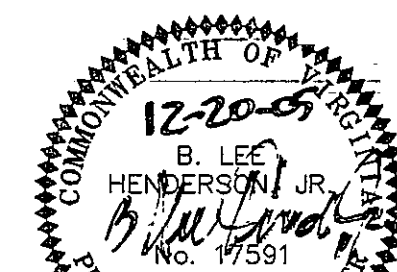
PACKAGE #5: 12/5/05
FOUNDATION PERMIT SET

PACKAGE #4: 11/15/05
SITE DEVELOPMENT SUBMISSION

PACKAGE #3: 11/18/05
85% CONSTRUCTION DOC. SET

PACKAGE #2: 19/16/05
DESIGN DEVELOPMENT SET

PACKAGE #1: 6/30/05
SCHEMATIC DESIGN SET



PERKINS EASTMAN ARCHITECTS P

1100 LIBERTY AVE
PITTSBURGH
15222-42
412.456.05
FAX 412.456.05

Owner:
VIRGINIA LUTHERAN HOMES, INC.
1117 SHERATON DRIVE
SALEM, VA 24153 TEL. 540-562-5443

Civil / Site:
LUWISSE ASSOCIATES
4684 BRAMBLETON AVENUE
ROANOKE, VA 24018 TEL. 540-774-4411

Structural:
DAY & KINDER CONSULTING ENGINEERS
3239 ELECTRIC ROAD, BUILDING C
ROANOKE, VA 24018 TEL. 540-774-5705

MEP:
LAWRENCE PERRY & ASSOCIATES
304 W CHURCH STREET
ROANOKE, VA 24025 TEL. 540-342-1816

Landscape:
DAN CHITWOOD DESIGN
PO BOX 20912
ROANOKE, VA 24018 TEL. 540-989-9040

GENERAL CONTRACTOR:
LIONBERGER CONSTRUCTION
5903 STARKEY ROAD
PO BOX 20208
ROANOKE, VA 24018 TEL. 540-989-5301

PROJECT TITLE:

BRANDON OAKS
PHASE ONE-
ADDITION &
RENOVATIONS

3804 BRANDON AVE.
ROANOKE, VA 24018

PROJECT NO.: 19412

DRAWING TITLE:

EROSION
CONTROL
PLAN

SCALE: 1"=30'

C-106

PACKAGE #6
PERMIT AND CONSTRUCTION SET
12/20/2005

TAX # 5190101
PROPERTY OF
POPLAR HILL LIMITED PARTNERSHIP LLC
INSTRUMENT # 030224385

MERIDIAN OF
M.B. 1, PG. 2728

BRANDON AVENUE S.W.
U.S. ROUTE # 11
(R/V VARIOUS)

EXISTING
BUILDING
(TO REMAIN)

TAX # 5180302
PROPERTY OF
CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
D.B. 1322, PG. 170

LEGEND

ITEM	EXISTING	PROPOSED
PAVEMENT	---	---
CONCRETE CURB	---	---
STORM DRAIN LINE	---	---
SANITARY SEWER MANHOLE	---	---
SANITARY SEWER LINE	---	---
WATERLINE (DOMESTIC)	---	---
LIGHT POLE	---	---
OVERHEAD ELECTRIC LINE	---	---
OVERHEAD TELEPHONE LINE	---	---
INDEX CONTOURS	---	---
INTERMEDIATE CONTOURS	---	---
UNDERGROUND GAS	---	---
UNDERGROUND COMMUNICATIONS	---	---
WATERLINE (FIRE)	---	---
SPOT ELEVATION	---	---

I AM CERTIFIED BY THE STATE OF VIRGINIA AS A "RESPONSIBLE LAND DISTURBER". I SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN AS SHOWN.

SIGNATURE:

PRINTED NAME:

CERTIFICATE No.:

EXPIRATION DATE:

TELEPHONE No.:

ADDRESS:

THIS PLAN IS FOR EROSION
AND SEDIMENT CONTROL PURPOSES ONLY.