

# NOTES:

- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PER THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- ALL PROPOSED DROP INLETS AND CURB INLETS ARE TO HAVE BLOCK AND GRAVEL INLET PROTECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT. ALL EROSION CONTROL DEVICES SHALL BE CHECKED DAILY TO ENSURE THAT ALL ARE PROPERLY IN PLACE AND FUNCTIONING AS PLANNED. ALL EROSION CONTROL DEVICES WILL BE REPAIRED (CLEANED) AS NECESSARY, AND AFTER EACH RAINFALL PRODUCING RUNOFF.
- STORM SEWER SYSTEM WILL BE INSPECTED UPON COMPLETION OF THE PROJECT. CONTRACTOR SHALL REMOVE ANY SEDIMENT OR DEBRIS FOUND IN STORM SYSTEM AT CONTRACTOR'S EXPENSE.
- ALL DISTURBED AREAS TO RECEIVE TEMPORARY SEEDING AND MULCH. PERMANENT SEEDING TO BE SOD BY DEVELOPER.
- ALL RIPRAP TO BE EC-1 CLASS 1.
- ALL TEMPORARY SEDIMENT BASINS & SEDIMENT TRAPS SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED AND A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED AND BASE STONE HAS BEEN LAID IN AREAS TO BE PAVED.
- ALL FILL TO BE COMPACTED TO 98% STANDARD PROCTOR, PLACED IN 6" LOOSE LIFTS IN BUILDING AREAS. ALL OTHER FILL TO BE COMPACTED TO 95% STANDARD PROCTOR.
- PROVIDE TEMPORARY SEEDING AND MULCH ON ALL DIVERSIONS, BASINS AND TRAPS IMMEDIATELY FOLLOWING CONSTRUCTION (SAME DAY).
- NO EXCESS MATERIAL IS EXPECTED OTHER THAN THE TOPSOIL THAT MUST BE HAULED OFFSITE. CONTRACTOR TO PROVIDE ROANOKE COUNTY WITH AN APPROVED E&S PLAN FOR ALL OFFSITE WASTE AREAS.
- SEE DETAIL SHEET 29 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
- NO LAND DISTURBING ACTIVITY SHALL OCCUR PRIOR TO THE CONTRACTOR OBTAINING THE LAND DISTURBANCE PERMIT FROM THE COUNTY. CONTRACTOR RESPONSIBLE FOR BOND.
- CONTRACTOR RESPONSIBLE FOR ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE COUNTY INSPECTORS.
- CONTRACTOR TO CHECK AND MAINTAIN SEDIMENT BASINS AND SEDIMENT TRAPS ONCE A WEEK AND AFTER EVERY STORM EVENT THAT PROVIDES RUNOFF AT A MINIMUM WITHIN 24 HOURS OF RAIN EVENT. CONTRACTOR TO CHECK SLOPES, SEEDING, SEDIMENT BUILDUP IN BOTTOM OF SEDIMENT BASIN, SEDIMENT TRAP AND SPILLWAY INTEGRITY. CONTRACTOR TO DE-WATER SEDIMENT BASIN AND SEDIMENT TRAP WITH A "DIRT BAG" OR APPROVED EQUAL MEASURE, AND SILT TO BE DISPOSED OF LEGALLY.
- ALL EROSION CONTROL/STORMWATER MANAGEMENT MEASURES MUST BE DE-WATERED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY AND ALL TEMPORARY EROSION CONTROL MEASURES MUST BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION OF THE SITE. SITE CONTRACTOR RESPONSIBLE FOR DEWATERING AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.
- PERIMETER SILT FENCE MUST BE IN PLACE AS A 1ST STEP MEASURE AND REMAIN UNTIL AFTER FINAL STABILIZATION.
- USE VDOT IS-1 INVERT SHAPING IN ALL STORM MANHOLES.
- CONTRACTOR TO BE RESPONSIBLE FOR REROUTING ALL TEMPORARY DIVERSION DIKES AS NECESSARY DURING CONSTRUCTION TO MAINTAIN PROPER DRAINAGE OF DISTURBED AREAS.
- CONTRACTOR TO UTILIZE DUST CONTROL OVER ENTIRE SITE AS NECESSARY TO PREVENT DUST FROM EXITING PROPERTY ONTO ADJACENT LOTS.
- THE LOCATION OF ALL OFF-SITE FILL AREAS OR BORROW AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY ENGINEERING AND INSPECTIONS. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA.
- ALL BUILDING AREAS TO BE SODDED TO STABILIZE ALL AREAS AS THEY REACH FINAL GRADE.
- EC-3 MATTING SHALL BE USED ON ALL SLOPES 2.5:1 OR STEEPER. ALL DITCHES AND SWALES SHALL BE SODDED.

# PHASING:

- PHASE 1 E&S WILL CONSIST OF THE MEASURES SHOWN FOR THE EXISTING GRADE OF THE SITE FOR CLEARING.
- PHASE 2 E&S WILL COMMENCE DURING AND AFTER PHASE 1 E&S HAS BEEN INSTALLED AND GRADING HAS TAKEN PLACE. A COMBINATION OF THE PHASE I AND PHASE II PLAN MAY BE NECESSARY TO ADEQUATELY PROTECT THE SITE AND OFFSITE AREAS AND TO CONVEY THE RUNOFF TO THE SEDIMENT BASINS AS THE GRADES ARE CHANGED.
- SALES TRAILER AND CONSTRUCTION TRAILER TO HAVE TEMPORARY WATER SERVICE FROM W.V.W.S.A. SANITARY SEWER FOR SALES AND CONSTRUCTION TRAILER TO BE BY TEMPORARY SEPTIC STORAGE TANK.



## PLAN REVIEW MINIMUM STANDARD CHECKLIST

<b>YES</b> MS-1	Have temporary and permanent stabilization been address in the narrative? Are practices shown on the plan? <b>YES</b> Seed specifications? <b>YES</b> Mulching? <b>YES</b> Gravel? <b>N/A</b>
<b>YES</b> MS-2	Has stabilization of soil stockpiles been addressed in the narrative? <b>YES</b> Is sediment trapping measures provided? <b>YES-SEDIMENT BASIN</b>
<b>YES</b> MS-3	Has maintenance of permanent stabilization been addressed?
<b>YES</b> MS-4	Are sediment trapping facilities to be constructed as a first step in LDA?
<b>YES</b> MS-5	Has stabilization if earthen structures been addressed?
<b>YES</b> MS-6	Are sediment basins required where needed?
<b>YES</b> MS-7	Has stabilization of cut and fill slopes been adequately addressed?
<b>YES</b> MS-9	(i.e. Surface Roughening, Outlet Protection)
<b>YES</b> MS-8	Are paved flumes, channels, or slope drains required where necessary?
<b>N/A</b> MS-10	Is adequate inlet protection required on all operational storm sewer inlets?
<b>YES</b> MS-11	Has maintenance of permanent stabilization been addressed?
<b>N/A</b> MS-12	Are in stream construction measures required so that channel damaged is minimized?
<b>N/A</b> MS-13	Are temporary stream crossings of non-erodible material required where applicable?
<b>N/A</b> MS-14	(NOTE: This regulation requires that all applicable federal, state, and local regulations pertaining to working in or crossing live watercourses be followed.)
<b>N/A</b> MS-15	Has restoration of areas subject to in-stream construction been adequately addressed?
<b>N/A</b> MS-16	Is stabilization of utility trenches addressed?
<b>YES</b> MS-17	Is the transport of soil and mud onto public roadways properly controlled? (i.e. Construction Entrances, Wash Racks, daily cleaning of road ways, transport of sediment to a trapping facility)
<b>YES</b> MS-18	Has the removal of temporary practices been addressed?
<b>YES</b> MS-19	Has maintenance of practices been addressed? (i.e. repair of structures and removal of accumulated sediment)
<b>YES</b> MS-19	Are properties and waterways downstream from development adequately protected from erosion and sediment deposition due to increases in peak stormwater runoff?

## VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES \* CHART TAKEN FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (JULY 1992)

(CE)	TEMP. STONE CONSTRUCTION ENTRANCE
(SF)	SILT FENCE
(CIP)	CULVERT INLET PROTECTION
(DV)	DIVERSION
(SB)	TEMPORARY SEDIMENT BASIN
(OP)	OUTLET PROTECTION
(SR)	SURFACE ROUGHENING
(TS)	TEMPORARY SEEDING
(PS)	PERMANENT SEEDING (SOD BY DEVELOPER)
(MU)	MULCHING
(DC)	DUST CONTROL
(CRS)	CONSTRUCTION ROAD STABILIZATION
(RWD)	TEMPORARY R/W DIVERSION
(ST)	TEMPORARY SEDIMENT TRAP
(3/4)	SOIL STABILIZATION BLANKETS & MATTING

## Phase III E&S

By grading as many of the roads as possible and by installing the curb & gutter and the storm system, the disturbed areas of the site will be broken up into small manageable areas instead of one large disturbed site. Once the curb & gutter and storm system has been installed and the building pads have been covered in stone or grass, sediment basin #1 and sediment basin #2 may be removed.

With the disturbed areas broken up by the grading, the curb & gutter, the loop road, and the storm system, no drainage will enter the two basins any longer. The basins will no longer be effective and can be removed. Sediment trap #3 may also be removed at this point if all of the drainage areas to it have been covered.

Sediment trap #1 and #2 shall remain in place until the roadside ditch has been relocated and the VDOT storm system has been installed. Also the front of the site should be seeded and have silt fence along the slope before the sediment traps can be removed. Or the front of the site can be sodded before the traps can be removed. This will alleviate any chance of sediment laden runoff entering Crumpacker Drive or the VDOT storm system or ditch.

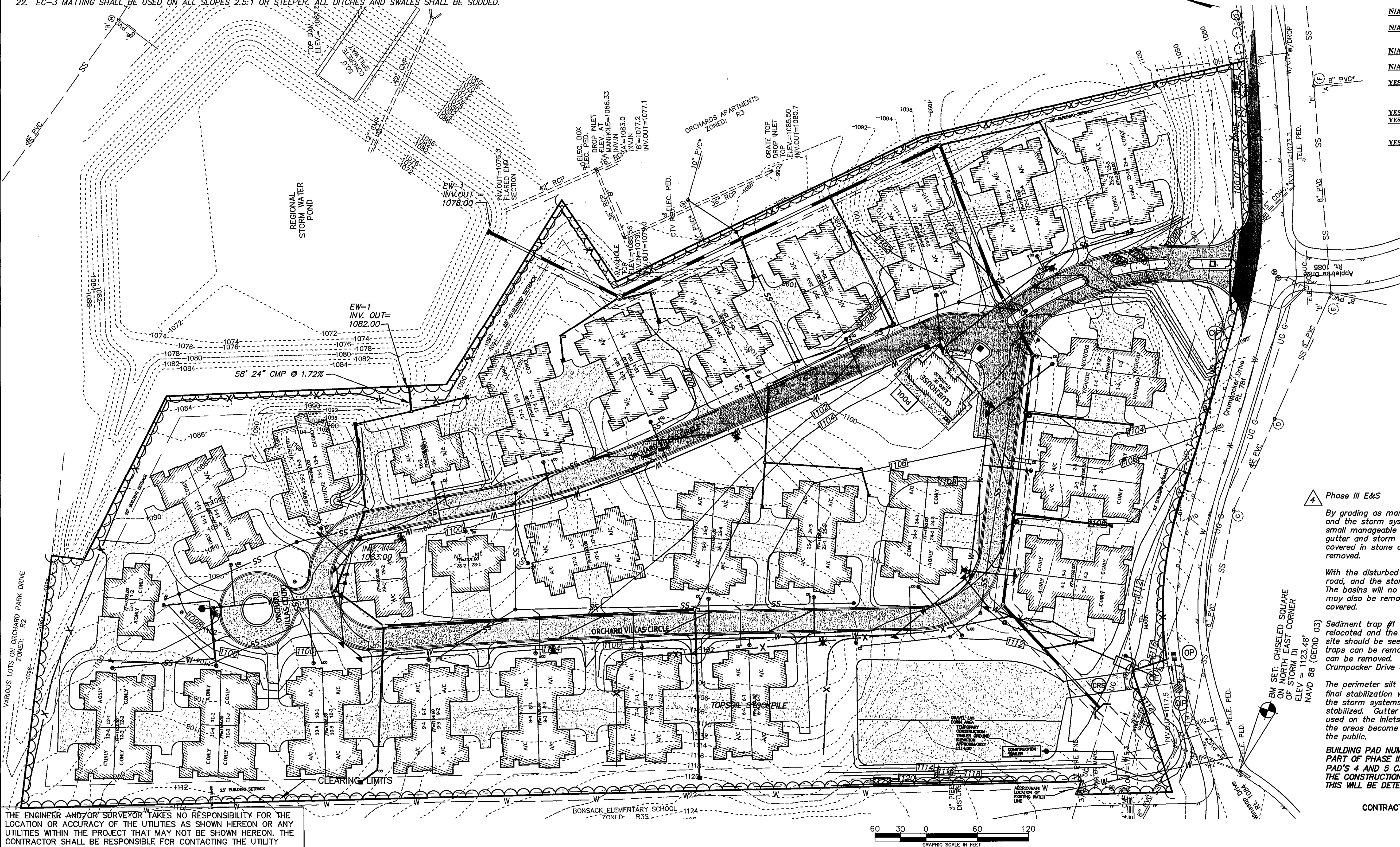
The perimeter silt fence shall remain in place until the entire site has reached final stabilization with either seed and/or sod. Inlet protection shall remain on the storm systems until the respective drainage area to each inlet has been stabilized. Gutter Buddy and other reusable inlet protection measures can be used on the inlets that are less intrusive, and do not pond as much runoff as the areas become more stabilized to eliminate ponding and safety hazards to the public.

BUILDING PAD NUMBERS 6-8, 14,16, 19-21 MAY BE GRADED TO SUBGRADE AS PART OF PHASE II.  
PAD'S 4 AND 5 CAN NOT BE GRADED UNTIL THE JOB IS NEAR COMPLETION AND THE CONSTRUCTION TRAILER AND LAYDOWN AREA CAN BE REMOVED.  
THIS WILL BE DETERMINED BY THE DEVELOPER.

CONTRACTOR TO REFER TO SHEETS 9-11 FOR FINAL GRADES

1	09/06/05	PER COUNTY COMMENTS
2	09/06/05	PER CLIENT COMMENTS
3	11/04/05	PER COUNTY COMMENTS
4	12/06/05	PER COUNTY COMMENTS
6	01/23/06	PER COUNTY AND VDOT COMMENTS

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THE ENGINEER AND/OR SURVEYOR TAKES NO RESPONSIBILITY FOR THE LOCATION OR ACCURACY OF THE UTILITIES AS SHOWN HEREON OR ANY UTILITIES WITHIN THE PROJECT THAT MAY NOT BE SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES TO SEE IF ANY UTILITIES EXIST WITHIN THE AREA OF THE PROJECT BEFORE ANY CONSTRUCTION BEGINS. ANY COST INCURRED BY DAMAGING ANY UTILITY WITHIN THE PROJECT SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

48 WORKING HOURS PRIOR TO STARTING THE WORK, THE CONTRACTOR SHALL CALL MISS UTILITY AT 1-800-552-7001 AND ADVISE THE NATURE AND LOCATION OF THE WORK.

\*ENGINEERING >>> SURVEYING >>> PLANNING

**HURT & PROFFITT**  
INCORPORATED

2524 LANGHORNE ROAD  
LYNCHBURG VA 24501  
800.242.4906 TOLL FREE  
434.847.7796 MAIN  
434.847.0047 FAX

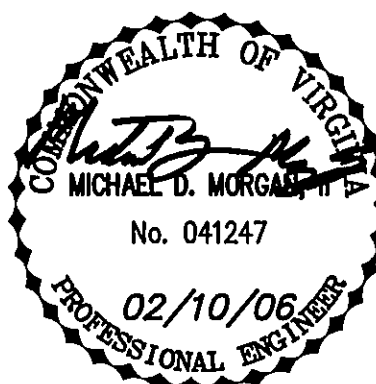
## PHASE III E & S CONTROL PLAN

FOR

## ORCHARD VILLAS

ROANOKE COUNTY, VIRGINIA

PROJECT NO. 20040345  
G.L. NO. 260-04-C4.7  
FILE NO. LS-11039  
DATE: 09/06/05  
DRAWN BY: DLC  
CHECKED BY: MDM



**HURT & PROFFITT**

SHEET NO.  
8 OF 33