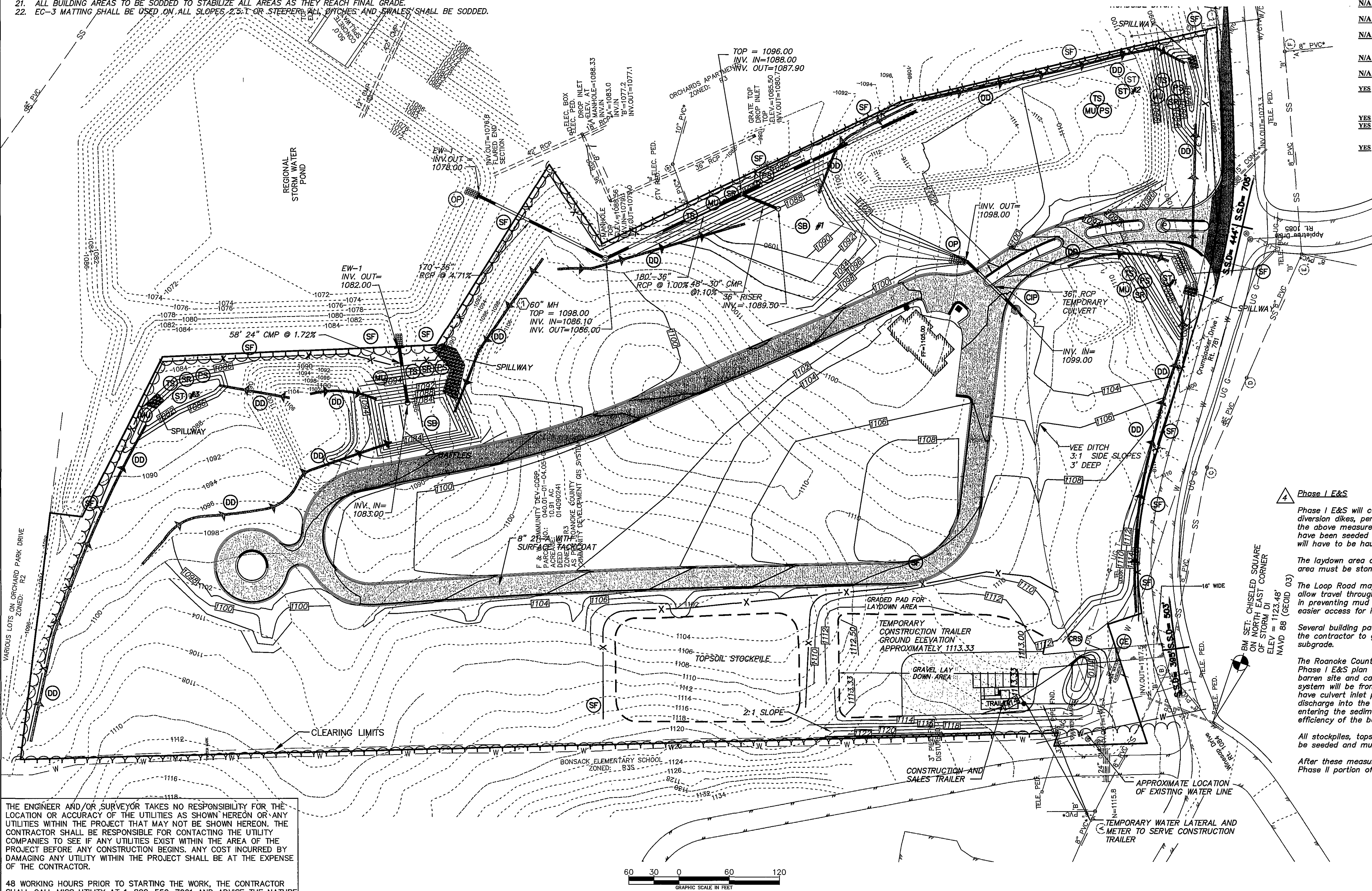


- NOTES:
1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PER THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
 2. ALL PROPOSED DROP INLETS AND CURB INLETS ARE TO HAVE BLOCK AND GRAVEL INLET PROTECTION.
 3. THE CONTRACTOR SHALL BE 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.
 4. 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.
 5. ALL DISTURBED AREAS TO RECEIVE TEMPORARY SEEDING AND MULCH. PERMANENT SEEDING TO BE SOD BY DEVELOPER.
 6. ALL RIPRAP TO BE EC-1 CLASS I.
 7. 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.
 8. 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.
 9. PROVIDE TEMPORARY SEEDING AND MULCH ON ALL DIVERSIONS, BASINS AND TRAPS IMMEDIATELY FOLLOWING CONSTRUCTION (SAME DAY).
 10. 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.
 11. SEE DETAIL SHEET 29 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
 12. NO LAND DISTURBING ACTIVITY SHALL OCCUR PRIOR TO THE CONTRACTOR OBTAINING THE LAND DISTURBANCE PERMIT FROM THE COUNTY. CONTRACTOR RESPONSIBLE FOR BOND.
 13. CONTRACTOR RESPONSIBLE FOR ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE COUNTY INSPECTORS.
 14. 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.
 15. 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.
 16. PERIMETER SILT FENCE MUST BE IN PLACE AS A 1ST STEP MEASURE AND REMAIN UNTIL AFTER FINAL STABILIZATION.
 17. USE VDOT IS-1 INVERT SHAPING IN ALL STORM MANHOLES.
 18. CONTRACTOR TO BE RESPONSIBLE FOR REROUTING ALL TEMPORARY DIVERSION DIKES AS NECESSARY DURING CONSTRUCTION TO MAINTAIN PROPER DRAINAGE OF DISTURBED AREAS.
 19. CONTRACTOR TO UTILIZE DUST CONTROL OVER ENTIRE SITE AS NECESSARY TO PREVENT DUST FROM EXITING PROPERTY ONTO ADJACENT LOTS.
 20. 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.
 21. ALL BUILDING AREAS TO BE SODDED TO STABILIZE ALL AREAS AS THEY REACH FINAL GRADE.
 22. EC-3 MATTING SHALL BE USED ON ALL SLOPES 2:1 OR STEEPER. ALL DITCHES AND SWALES SHALL BE SODDED.

PHASING:

1. PHASE 1 E&S WILL CONSIST OF THE MEASURES SHOWN FOR THE EXISTING GRADE OF THE SITE FOR CLEARING.
2. 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 1 AND PHASE 2 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.
3. 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.

- 8" 21A STONE AND ASPHALT TACK COAT
GRAVEL LAY DOWN AREA AND CONSTRUCTION ACCESS ROAD (4" OF #21-A)



PLAN REVIEW MINIMUM STANDARD CHECKLIST

- YES MS-1 Have temporary and permanent stabilization been addressed in the narrative? Are practices shown on the plan? YES Seed specifications? YES Mulching? YES Gravel? N/A
- YES MS-2 Has stabilization of soil stockpiles been addressed in the narrative? YES Is sediment trapping measures provided? YES-SEDIMENT BASIN
- YES MS-3 Has maintenance of permanent stabilization been addressed?
- YES MS-4 Are sediment trapping facilities to be constructed as a first step in LDA?
- YES MS-5 Has stabilization if earthen structures been addressed?
- YES MS-6 Are sediment basins required where needed?
- YES MS-7 Has stabilization of cut and fill slopes been adequately addressed? (i.e. Surface Roughening, Outlet Protection)
- YES MS-8 Are paved flumes, channels, or slope drains required where necessary?
- N/A MS-10 Is adequate inlet protection required on all operational storm sewer inlets?
- YES MS-11 Has maintenance of permanent stabilization been addressed?
- N/A MS-12 Are in stream construction measures required so that channel damaged is minimized?
- N/A MS-13 Are temporary stream crossings of non-erodible material required where applicable?
- N/A MS-14 (NOTE: This regulation requires that all applicable federal, state, and local regulations pertaining to working in or crossing live watercourses be followed.)
- N/A MS-15 Has rehabilitation of areas subject to in-stream construction been adequately addressed?
- N/A MS-16 Is stabilization of utility trenches addressed?
- YES 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)
- YES MS-18 Has the removal of temporary practices been addressed? YES Has maintenance of practices been addressed? (i.e. repair of structures and removal of accumulated sediment)
- YES 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
S/ SOIL STABILIZATION BLANKETS & MATTING

Phase I E&S

Phase I E&S will consist of installing all sediment basins, sediment traps, diversion dikes, perimeter silt fence and the construction entrance. Once all of the above measures have been installed and the basins, traps, and diversions have been seeded the site can be cleared and stripped of topsoil. The topsoil will have to be hauled offsite as it cannot be used onsite.

The laydown area and construction trailer may be placed and the entire parking area must be stoned to prevent tracking of mud onto Crumpler Drive.

The Loop Road may be constructed to subgrade and a stone base be applied to allow travel through the site without vehicles becoming mired in mud also aiding in preventing mud from tracking onto Crumpler Drive. This will also allow easier access for inspecting and maintaining the E&S measures across the site.

Several building pads may be bulk graded as shown on the Phase I plan to allow the contractor to get the needed fill material to construct the roadway to subgrade.

The Roanoke County stormwater system may be constructed as part of the Phase I E&S plan to prevent the large amount of runoff from running across the barren site and causing score and erosion. Since the runoff entering the storm system will be from undisturbed areas and since the invert in of the culvert will have culvert inlet protection, the runoff will not be sediment laden and should discharge into the regional detention basin to alleviate much of the runoff from entering the sediment basin and thereby increasing the sediment removal efficiency of the basin.

All stockpiles, topsoil and excess fill material from the grading operation should be seeded and mulched with silt fence around the perimeter.

After these measures have been installed, the contractor may move to the Phase II portion of the plan.

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

ENGINEERING & SURVEYING >> PLANNING

HURT & PROFFITT
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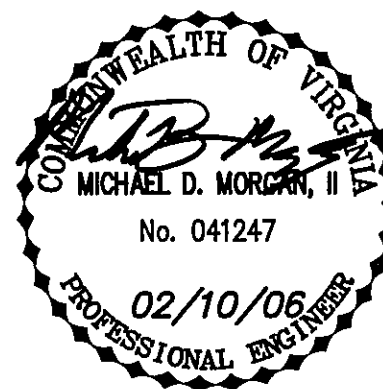
PHASE I E & S CONTROL PLAN

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



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SHEET NO.
6 OF 33