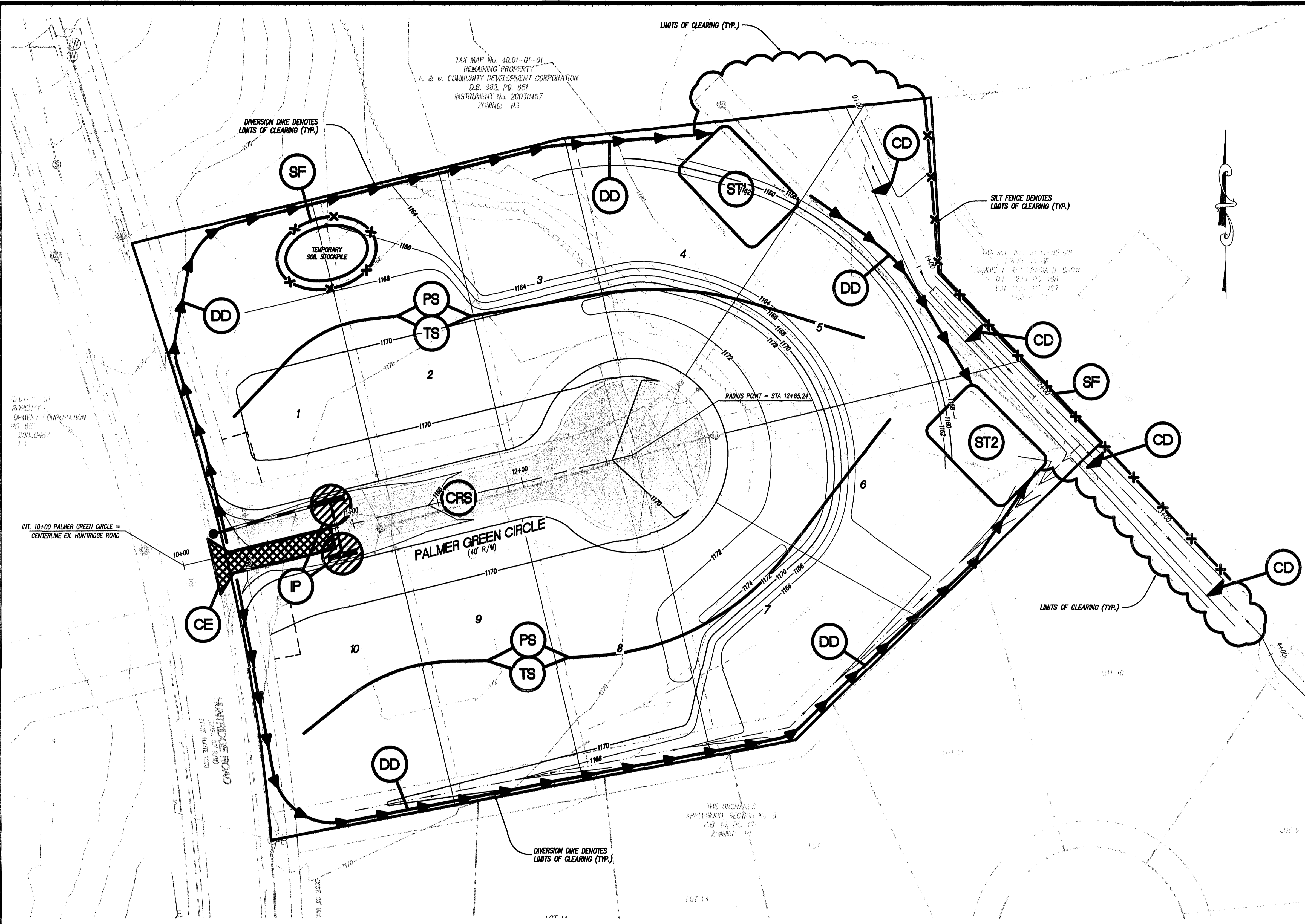


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### EROSION AND SEDIMENT CONTROL NARRATIVE

**PROJECT DESCRIPTION**  
THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 10 SINGLE FAMILY ZERO LOT LINE RESIDENCES WITH ASSOCIATED ROAD, WATER, SANITARY SEWER, AND STORM DRAIN SYSTEMS. TOTAL DISTURBED AREA IS 3.4 ACRES.

**EXISTING SITE CONDITIONS**  
THIS SITE IS RELATIVELY FLAT TO MODERATELY SLOPING AND DRAINS TO AN EXISTING NATURAL WATERCOURSE LOCATED NEAR THE EASTERN BORDER OF THE PROPERTY. PORTIONS OF THE PROJECT SITE ARE OPEN WITH GRASS COVERAGE WHILE THE NORTHEASTERN PORTION OF THE PROPERTY IS WOODED AND BRUSHY.

**ADJACENT AREAS**  
THIS DEVELOPMENT IS BORDERED ON NORTH AND EAST BY FUTURE AREAS OF DEVELOPMENT, TO THE SOUTH BY EXISTING "THE ORCHARDS, APPLEWOOD, SECTION No. 8", TO THE WEST BY HUNTRIDGE ROAD, AND TO THE EAST BY A LARGE RESIDENTIAL TRACT.

**OFFSITE AREAS**  
THE LOCATION OF ALL OFFSITE FILL OR BORROW AREAS ASSOCIATED WITH THIS CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY COMMUNITY DEVELOPMENT. AN EROSION AND SEDIMENT CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THESE AREAS. NO OFFSITE BORROW OR FILL AREAS ARE ANTICIPATED WITH THIS DEVELOPMENT.

**SOILS**  
SOILS INFORMATION IS BASED ON AN INSPECTION OF SHEET No. 7 OF THE SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM, VIRGINIA, ISSUED IN 1987 AND HAS NOT BEEN FIELD VERIFIED. THE MAJORITY OF THE ONSITE SOILS FALL INTO THE TUMBLING LOAM, 7 TO 15 PERCENT SLOPES CATEGORY. THE TYPICAL SOIL LAYERS ARE AS FOLLOWS: THE SURFACE LAYER IS 0 TO 2 INCHES - VERY DARK GRAYISH BROWN LOAM, THE SUBSURFACE LAYER IS 2 TO 11 INCHES - BROWNISH YELLOW LOAM, AND THE SUBSOIL LAYERS ARE 11 TO 15 INCHES - STRONG BROWN GRAVELLY CLAY LOAM WITH BROWNISH YELLOW MOTTLES, 15 TO 28 INCHES - YELLOWISH RED GRAVELLY CLAY LOAM WITH RED MOTTLES, 28 TO 49 INCHES - YELLOWISH RED VERY GRAVELLY CLAY LOAM THAT HAS RED MOTTLES, AND 49 TO 62 INCHES - MOTTLED STRONG BROWN, RED, DARK RED, AND WHITE CLAY LOAM. THIS TUMBLING LOAM HAS MODERATE PERMEABILITY, HIGH EROSION POTENTIAL, AND LOW SHRINK-SWELL POTENTIAL. THE SMALLER PORTION OF THE ONSITE SOILS FALL INTO THE TUMBLING LOAM, 15 TO 26 PERCENT SLOPES CATEGORY. THE TYPICAL SOIL LAYERS ARE AS FOLLOWS: THE SURFACE LAYER IS 0 TO 2 INCHES - VERY DARK GRAYISH BROWN LOAM, THE SUBSURFACE LAYER IS 2 TO 11 INCHES - BROWNISH YELLOW LOAM, AND THE SUBSOIL LAYERS ARE 11 TO 15 INCHES - STRONG BROWN COBBLY CLAY LOAM WITH BROWNISH YELLOW MOTTLES, 15 TO 28 INCHES - YELLOWISH RED COBBLY CLAY LOAM WITH RED MOTTLES, 28 TO 49 INCHES - YELLOWISH RED VERY COBBLY CLAY THAT HAS RED MOTTLES, AND 49 TO 62 INCHES - MOTTLED STRONG BROWN, RED, DARK RED, AND WHITE CLAY. THIS TUMBLING LOAM HAS MODERATE PERMEABILITY, HIGH EROSION POTENTIAL, AND LOW SHRINK-SWELL POTENTIAL.

**CRITICAL AREAS**  
THERE ARE NO SPECIFIC CRITICAL AREAS FOR CONCERN WITH THIS PROJECT. HOWEVER, THE CONTRACTOR SHALL TAKE SPECIAL CARE TO ESTABLISH PERMANENT STABILIZATION ON ALL STEEP SLOPES.

**EROSION AND SEDIMENT CONTROL MEASURES**  
**CONSTRUCTION ENTRANCE (3.02)** - A STONE CONSTRUCTION ENTRANCE WILL BE INSTALLED TO MINIMIZE THE AMOUNT OF MUD TRANSPORTED INTO EXISTING ROADS.  
**CONSTRUCTION ROAD STABILIZATION (3.03)** - CONSTRUCTION ROAD STABILIZATION WILL BE TO MINIMIZE EROSION WITHIN THE TEMPORARY CONSTRUCTION ROAD.  
**SILT FENCE (3.08)** - SILT FENCE WILL BE INSTALLED AT THE LOWER ENDS OF THE PROJECT SITE TO INTERCEPT SEDIMENT LADEN RUN-OFF PRIOR TO EXITING THE SITE.  
**INLET PROTECTION (3.07)** - INLET PROTECTION WILL BE INSTALLED AT EACH STORM DRAIN INLET TO MINIMIZE THE AMOUNT OF SEDIMENT LADEN RUNOFF FROM ENTERING THE STORM DRAIN SYSTEM.  
**DIVERSION DIKE (3.09)** - DIVERSION DIKES WILL BE INSTALLED TO DIVERT OFFSITE RUNOFF AROUND THE CONSTRUCTION AREA AND ALSO TO DIVERT SEDIMENT LADEN RUNOFF INTO THE SEDIMENT TRAPS.  
**TEMPORARY SEDIMENT TRAPS (3.13)** - SEDIMENT TRAPS WILL BE UTILIZED TO ALLOW SEDIMENT TO SETTLE OUT OF RUNOFF PRIOR TO EXITING THE SITE.  
**ROCK CHECK DAMS (3.20)** - ROCK CHECK DAMS SHALL BE INSTALLED AS SHOWN ON THE PLAN TO REDUCE THE VELOCITY OF CONCENTRATED RUNOFF SO THAT EROSION IS MINIMIZED IN THE DITCH.  
**SURFACE ROUGHENING (3.29)** - SURFACE ROUGHENING SHALL BE PERFORMED ON ALL SLOPES 3:1 OR STEEPER AS SHOWN ON THE PLANS.  
**TOPSOILING (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 (3.31)** - TEMPORARY SEEDING SHALL BE APPLIED TO TEMPORARY DIVERSION DIKES, TOPSOIL STOCKPILES, AND ALL AREAS TO BE ROUGH GRADED, BUT NOT FINISHED GRADED DURING THE INITIAL PHASE OF CONSTRUCTION. TEMPORARY SEEDING SHALL BE FAST GERMINATING, TEMPORARY VEGETATION AND INSTALLED IMMEDIATELY FOLLOWING GRADING, OR INSTALLATION IF A TEMPORARY MEASURE. SEE ALSO MINIMUM STANDARDS.  
**PERMANENT SEEDING (3.32)** - PERMANENT SEEDING SHALL BE INSTALLED ON ALL DISTURBED AREAS OF THE SITE NOT OTHERWISE STABILIZED.  
**MULCHING (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.

**STORMWATER MANAGEMENT**  
THIS DEVELOPMENT DOES PRODUCE AN INCREASE IN STORMWATER RUNOFF. HOWEVER, THIS AREA AND INCREASE WAS ACCOUNTED FOR IN THE DESIGN AND CONSTRUCTION OF THE EXISTING STORMWATER MANAGEMENT FACILITY WITH THE PLANS FOR THE ORCHARDS, APPLEWOOD, SECTION No. 9 AND ADJACENT AREAS. THEREFORE NO ADDITIONAL STORMWATER MANAGEMENT FACILITIES ARE REQUIRED FOR THIS DEVELOPMENT.

**MAINTENANCE**  
ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. A LOG OF DAILY INSPECTIONS SHALL BE KEPT. ANY DEFICIENCIES THAT ARE FOUND SHALL BE CORRECTED IMMEDIATELY. IN PARTICULAR:  
1. THE SEDIMENT TRAP WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP. CLEAN OUT AS NECESSARY TO MAINTAIN DESIGN VOLUMES.  
2. INLET PROTECTION WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF STONE IS CLOGGED BY SEDIMENT, IT WILL BE REMOVED AND CLEANED OR REPLACED.  
3. ROCK CHECK DAMS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF STONE IS CLOGGED BY SEDIMENT, IT WILL BE REMOVED AND CLEANED OR REPLACED.  
4. THE SILT FENCE WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETRIORATION OF THE FABRIC. THE SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT BUILDUP REACHES THE MIDWAY POINT OF THE SILT FENCE.  
5. THE CONSTRUCTION ENTRANCE WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP. IF STONE IS CLOGGED BY SEDIMENT, IT WILL BE REMOVED AND CLEANED, OR REPLACED.  
6. DIVERSION DIKES WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP, BREACHES, AND DIKE INTEGRITY. IF DEFICIENCIES IN THE DIVERSION DIKE ARE FOUND, THE DIKE SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.  
7. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS REQUIRED TO ACHIEVE A GOOD STAND OF GRASS.

- ### CONSTRUCTION SEQUENCE
1. THE CONTRACTOR'S CERTIFIED RESPONSIBLE LAND DISTURBER (RLD) SHALL BE NAMED AND A COPY OF HIS RLD CERTIFICATE SHALL BE PROVIDED TO THE ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT AT LEAST TWO DAYS PRIOR TO THE PRECONSTRUCTION MEETING. RLD SHALL ALSO ATTEND THE PRECONSTRUCTION MEETING.
  2. CONTRACTOR SHALL APPLY FOR DCR LAND DISTURBANCE PERMIT AT LEAST TWO (2) DAYS PRIOR TO LAND DISTURBANCE AND PROVIDE ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT A COPY OF SAID PERMIT WITHIN FIVE (5) DAYS OF ISSUANCE.
  3. INSTALL CONSTRUCTION ENTRANCE AND SILT FENCE AS THE FIRST STEP IN THE CONSTRUCTION PROCESS.
  4. INSTALL TYPE "A" DITCH AND ASSOCIATED ROCK CHECK DAMS. STABILIZE DITCH AS SOON AS THAT AREA IS BROUGHT TO FINAL GRADE.
  5. INSTALL SEDIMENT TRAPS AND THEIR RESPECTIVE DIVERSION DIKES AS SOON AS GRADING OPERATIONS BEGIN IN THE AFFECTED AREAS. THE CONSTRUCTION PROCESS SHOULD BE SEQUENCED AS MUCH AS POSSIBLE SO THAT EACH AREA IS SEEDING AND STABILIZED PRIOR TO BEGINNING GRADING OPERATIONS IN ANOTHER AREA.
  6. INSTALL INLET PROTECTION ALONG WITH STORM DRAIN CONSTRUCTION.
  7. INSTALL CONSTRUCTION ROAD STABILIZATION AS SOON AS THE ROAD IS AT SUBGRADE.
  8. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES TO BE REMOVED AFTER THOSE AFFECTED AREAS HAVE BEEN BROUGHT TO FINAL GRADE AND AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
  9. THE LOCATION OF ALL OFFSITE FILL OR BORROW AREAS ASSOCIATED WITH THIS CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY COMMUNITY DEVELOPMENT. AN EROSION AND SEDIMENT CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THESE AREAS. NO OFFSITE BORROW OR FILL AREAS ARE ANTICIPATED WITH THIS DEVELOPMENT.

THIS PLAN IS FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY

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

**COMMONWEALTH OF VIRGINIA**  
THOMAS C. DALE  
No. 033002  
12/29/05  
PROFESSIONAL ENGINEER

**"THE ORCHARDS"**  
PREPARED FOR  
F. & W. COMMUNITY  
DEVELOPMENT CORPORATION  
HOLLINS MAGISTERIAL DISTRICT  
ROANOKE COUNTY, VIRGINIA

APPLEWOOD, SECTION No. 14

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		

DATE: December 29, 2005

SCALE: 1" = 30'

COMMISSION NO: 2004-315

SHEET 8 OF 11

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