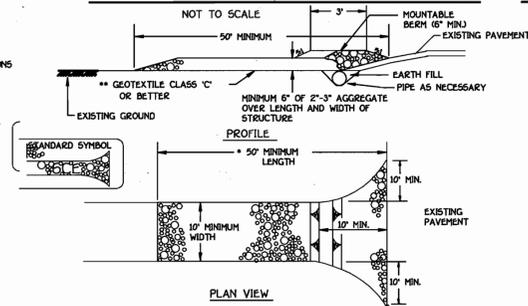


SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (S.D.P.).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.
- BEFORE INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 37 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES.
- PERMETER STRUCTURES SHALL BE COMPLETED WITHIN 37 CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPINGS SIGNS MUST BE ERECTED AND MAINTAINED. SIGNS POSTED AROUND THEIR PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE, DISTURBED AREAS SHALL BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF. PERMANENT SEEDING (SEC. 20, 500 (ISC. 54), TEMPORARY SEEDING (SEC. 50, AND MULCHING (SEC. 52), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR CONTROL INSPECTION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 - TOTAL AREA OF SITE: 0.9328 ACRES
 - AREA DISTURBED: 0.1798 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED: 0.1952 ACRES
 - TOTAL CUT: 325 CUBIC YARDS
 - TOTAL FILL: 325 CUBIC YARDS
- OFFSITE WASTE/BORROW AREA LOCATION: CUYDYS
- ANY SEDIMENT CONTROL PRACTICES WHICH REQUIRE PERMITS OR ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2,000 SQ. FT., APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OF THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications
- Length - minimum of 50' (x30' for single residence lot).
 - Width - 10' minimum, should be fitted at the existing road to provide a turning radius.
 - Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The approval authority may not require single family residences to use geotextile.
 - Stone - crushed aggregate 1/2" to 3/4" or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
 - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from forces that cause erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream waterways.

CONDITIONS WHERE PRACTICE APPLIES

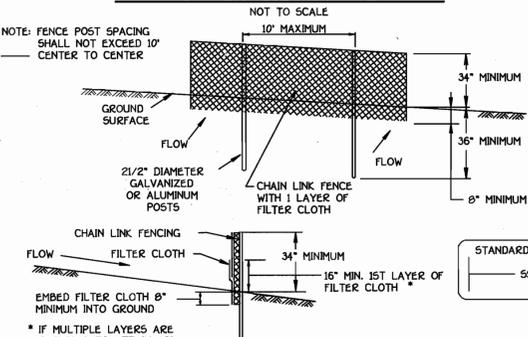
This practice shall be used on denuded areas as specified in the plan and may also be used on highly erodible or critically eroding areas. This specification is divided into temporary seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles during grading, seedbed preparation, and earth fills, etc. and for Permanent Seeding are lawns, dms, cut and fill slopes and other areas at final grade, former stockpiles and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation and groundwater recharge. Vegetation over time will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must be installed during grading, seedbed preparation, and seeding, and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

- SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS**
- Site Preparation**
 - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary stabilization.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
 - Soil Amendment (Fertilizer and Lime Specifications)
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Fertilizer may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall be delivered to the site fully baled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides calcium oxide plus magnesium oxide. Limestone shall be ground to such fineness that at least 50% will pass through a 200 mesh sieve and 90-100% will pass through a 20 mesh sieve.
 - Soil amendments and fertilizer into the top 3-5" of soil by disk or other suitable means.
 - Seed Preparation**
 - Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plan.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disk or other suitable means.
 - Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soil salinity shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay, but enough fine grained material (30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if low levels of silt plus clay would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 (Soil) and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be reworked in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply fertilizers as per soil test or as included on the plan.
 - Mix soil amendments into the top 3-5" of topsoil by disk or other suitable means. Lawn areas should be rolled to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application, where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (greater than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 3-5" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.
 - Seed Specifications**
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to testing by a recognized laboratory. All seed used within the 6 months immediately preceding the date of sowing such material on this job.
 - Note: Seed that shall be made available to the inspector to verify the type and rate of seed used.
 - Inoculant - The inoculant for tracking legume seed in the seed mixture shall be a pure culture of the appropriate bacteria. Inoculant shall be applied to the seed in a ratio of 1:1 (inoculant to seed) as directed on the product label. Add fresh inoculant as directed on package. Use four times the amount of inoculant as directed on package. Use four times the amount of inoculant as directed on package. Use four times the amount of inoculant as directed on package. Use four times the amount of inoculant as directed on package.
 - Methods of Seeding**
 - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cutspreader.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: Nitrogen maximum of 100 lbs per acre total of soluble nitrogen; Phosphorus maximum of 200 lbs per acre total of soluble phosphorus; Potassium maximum of 200 lbs per acre total of soluble potassium.
 - Lime - use only ground agricultural limestone, up to 3 tons per acre may be applied by incorporating. Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - Dry Seeding - This includes use of conventional drop or broadcast spreaders.
 - Seed spreader shall be incorporated into the seedbed at the rate prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26.
 - Where practical, seed should be applied in two directions perpendicular to the each other. Where that is not practical, the seed should be applied in one direction.
 - Drill or Cutspreader Seeding - Mechanized seeders that apply and cover seed with soil.
 - Cultivating seeders are required to bury the seed in such a fashion as to provide at least 1/4" of soil covering. Seeded must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - Mulch Specifications (in order of preference)
 - Straw shall consist of thoroughly threshed wheat, rice or oat straw, reasonable bright in color, and shall not be moist, mold, caked, decayed or excessively dusty and shall be free of noxious weed seeds.
 - Wood Cellulose Fiber Mulch (WCFF)
 - WCFF shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFF shall be green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread mulch.
 - WCFF material shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water until application and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a batter-like ground cover, on application, having moisture absorption and retention properties and shall cover and hold the seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFF material shall contain no elements that are toxic to plants.
 - Note: Only sterile straw mulch should be used in areas where one species of grass is desired.
 - Mulching - Mulch shall be applied to all seeded areas immediately after seeding. If grading is completed outside of the seeding season, mulch shall be applied as prescribed in this section. The mulch shall be applied in a uniform manner and shall be applied in accordance with these specifications.
 - When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate shall be increased to 2.5 tons/acre.
 - Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1500 lbs. per acre. The wood cellulose fiber shall be applied in a uniform manner and shall contain a minimum of 90 lbs. of wood cellulose fiber per 100 gallons of water.
 - Securing Straw Mulch (Mulch Anchoring) - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods listed by preference, depending upon size of break and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas but is limited to larger areas. Mulch anchoring equipment can operate safely on sloping land, this practice should be used on the contour if possible.
 - Wood cellulose fiber shall be applied to the site of the break. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a minimum of 90 pounds of wood cellulose fiber per 100 gallons of water.
 - Application of liquid binders should be heavier at the edges where wind catches much such as in valleys and crest of banks. The remainder of area should be applied uniform after binder application. Binders - such as Acrylic Urethane (Urethane), Urethane Polymer (Terra Tex II, Terra Tex AR or other approved equal) may be used at rates recommended by the manufacturer.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3000 feet long.

SUPER SILT FENCE



- Construction Specifications
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
 - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - Filter cloth shall be embedded a minimum of 8" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
 - Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
 - Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

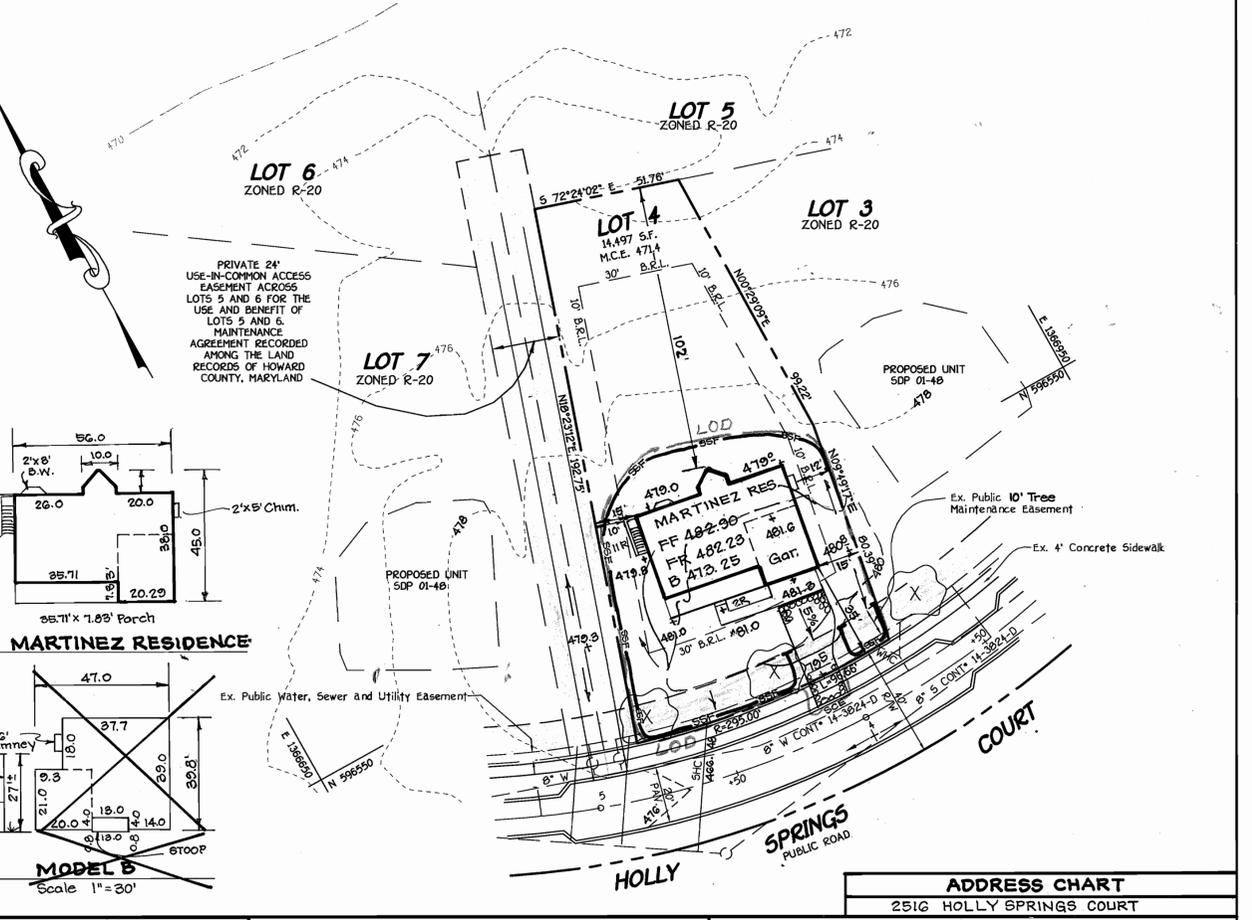
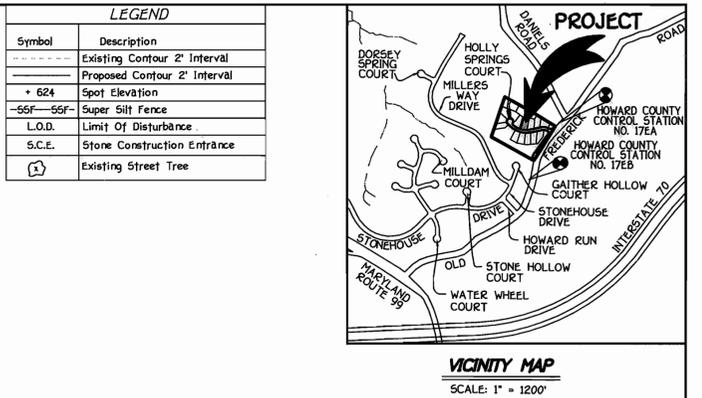
Tensile Strength	50 lbs/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 509
Flow Rate	0.3 gal/ft (min/air) (max)	Test: MSMT 322
Filtering Efficiency	75% (min)	Test: MSMT 322

CONSTRUCTION SEQUENCE

- Obtain Grading Permit: 7 Days
- Install Sediment and Erosion devices and stabilize: 14 Days
- Excavate for foundation, rough grade and temporarily stabilize: 30 Days
- Construct Structure, sidewalk and driveway: 60 Days
- Final grade and stabilize in accordance with std and specs: 14 Days
- Upon approval of the Sed. and Control Inspector, remove Sed. and Eros. Control devices and stabilize: 7 Days

- GENERAL NOTES:**
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
 - THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: F 00-48, P 99-11, S 98-08, W 45 cont # 14-3824-D
 - BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY: FISHER COLLINS AND CARTER, INC. ON OR ABOUT AUGUST, 1996
 - HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON HOWARD COUNTY GEODETIC CONTROL STATIONS:
 - HOWARD COUNTY MONUMENT 17EA N 10160.5724 (METERS)
 - N 41372.7247 (METERS)
 - HOWARD COUNTY MONUMENT 17EB N 100994.8440 (METERS)
 - E 413227.9979 (METERS)
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - THIS PLAN IS FOR HOUSE SITING AND LOT GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAYS OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. FOR CONSTRUCTION SEE APPROVED ROAD CONSTRUCTION PLANS F-00-48 AND/OR APPROVED WATER AND SEWER PLANS CONTRACT NO. 14-3024-D
 - CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
 - STORMWATER MANAGEMENT OBLIGATIONS ARE FULFILLED UNDER F 00-48
 - THE FOREST CONSERVATION OBLIGATION HAS BEEN ADDRESSED UNDER F-00-48.

- 11. SITE ANALYSIS DATA:**
- TOTAL PROJECT AREA: 0.9328 AC.
 - AREA OF PLAN SUBMISSION: 0.9328 AC.
 - LIMIT OF DISTURBED AREA: 0.1798 AC.
 - PRESENT ZONING: R-20
 - PROPOSED USE FOR SITE AND STRUCTURES: SINGLE FAMILY DETACHED D.U.
 - TOTAL NUMBER OF UNITS ALLOWED: 1
 - TOTAL NUMBER OF UNITS PROPOSED: 1
 - NUMBER OF PARKING SPACES REQUIRED: 2 (2 SPACES PER DWELLING UNIT)
 - NUMBER OF PARKING SPACES PROVIDED: 2
 - OPEN SPACE REQUIREMENTS ARE PROVIDED SEE F 00-48
12. This subject property is zoned R-20 per the 10/18/93 Comprehensive Zoning Plan.
13. CONTRACTOR TO USE HOWARD COUNTY STANDARD DETAIL R6.01 FOR ALL RESIDENTIAL DRIVEWAY ENTRANCES WITH SIDEWALKS. USE DETAIL R6.05 FOR THOSE DRIVEWAYS WITHOUT SIDEWALK.
14. In accordance with Section 128 of the Ho. Co. Zoning Reg., Bay Windows chimney or exterior stairways not more than 16 feet in width may project not more than 4 feet into any setbacks. Porches or decks open or enclosed may project not more than 10 feet into the front or rear yard setback.
15. The sewer house connection elevation shown at the property line.



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 10000 SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 410-461-2899



ENGINEER'S CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Engineer: Earl D. Collins
 Date: 7-17-01

DEVELOPER'S CERTIFICATE

I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Signature of Developer: Steve Forney
 Date: 7-17-01

Reviewed for HOWARD SCD and meets Technical Requirements.

Signature: Jan Major
 Date: 8/29/01

Signature: Wally
 Date: 8/29/01

Signature: Joe K. Roberts
 Date: 8/29/01

OWNER/DEVELOPER

HAMILTON REED
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: Cindy Hamilton
 Date: 9/6/01

Signature: [Signature]
 Date: 9/4/01

Signature: [Signature]
 Date: 9/7/01

PROJECT	SECTION/AREA	LOT NO.			
REINHARDT PROPERTY	N/A	4			
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
14783	7	R-20	1B	SECOND	6021
WATER CODE	SEWER CODE				
H02	1454800				

SITE DEVELOPMENT AND SEDIMENT EROSION CONTROL PLAN

SINGLE FAMILY DETACHED

REINHARDT PROPERTY

LOT 4

TAX MAP No: 1B PARCEL: 9 GRID NO. 7
 SECOND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30'
 DATE: JULY, 2001
 SHEET 1 OF 1

SDP 02-13