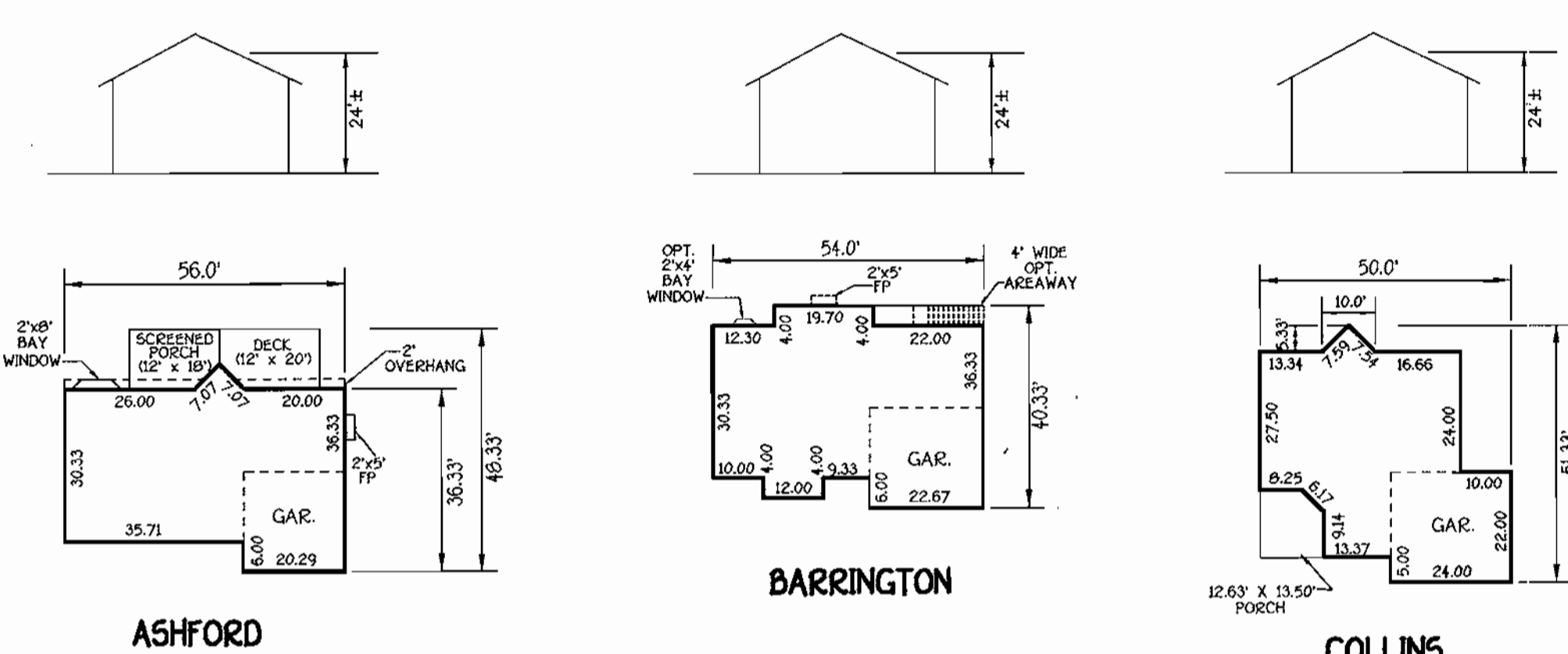
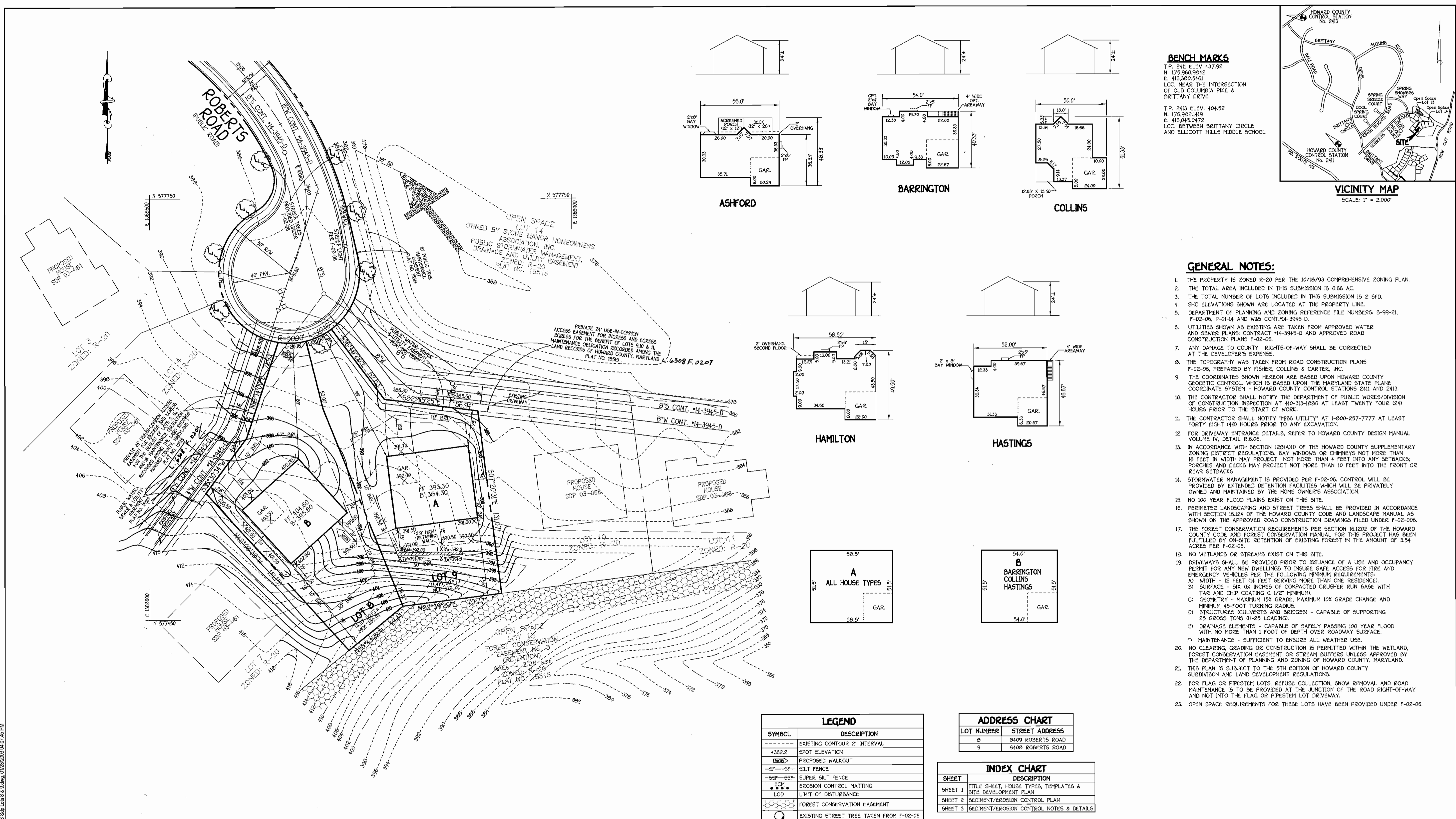
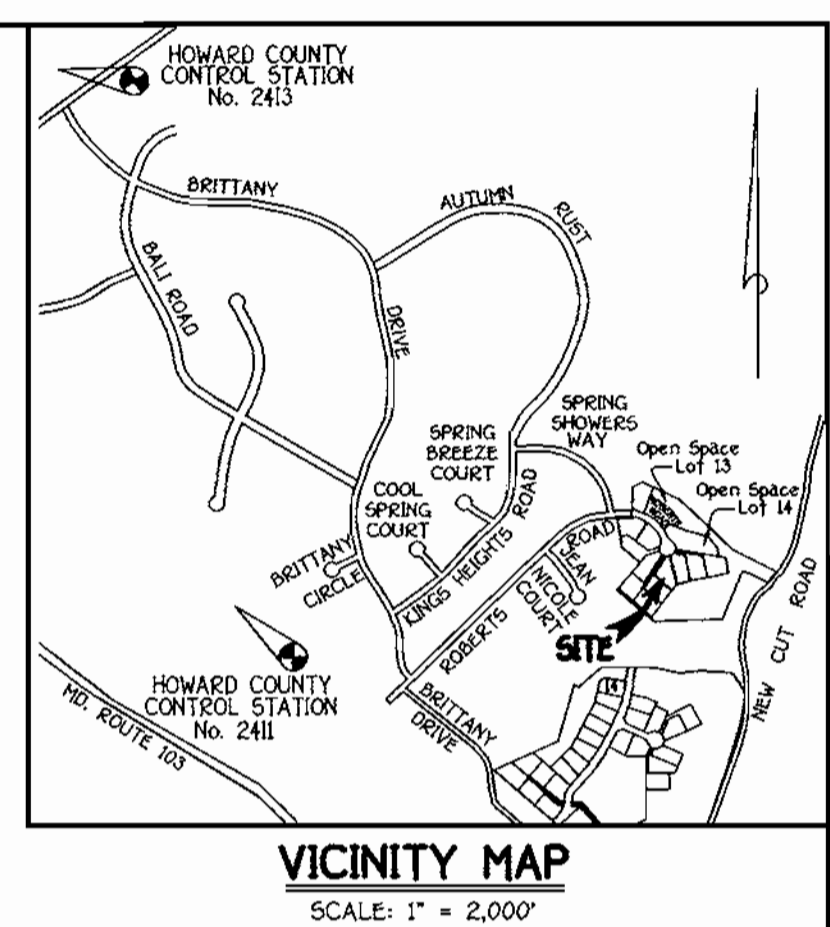


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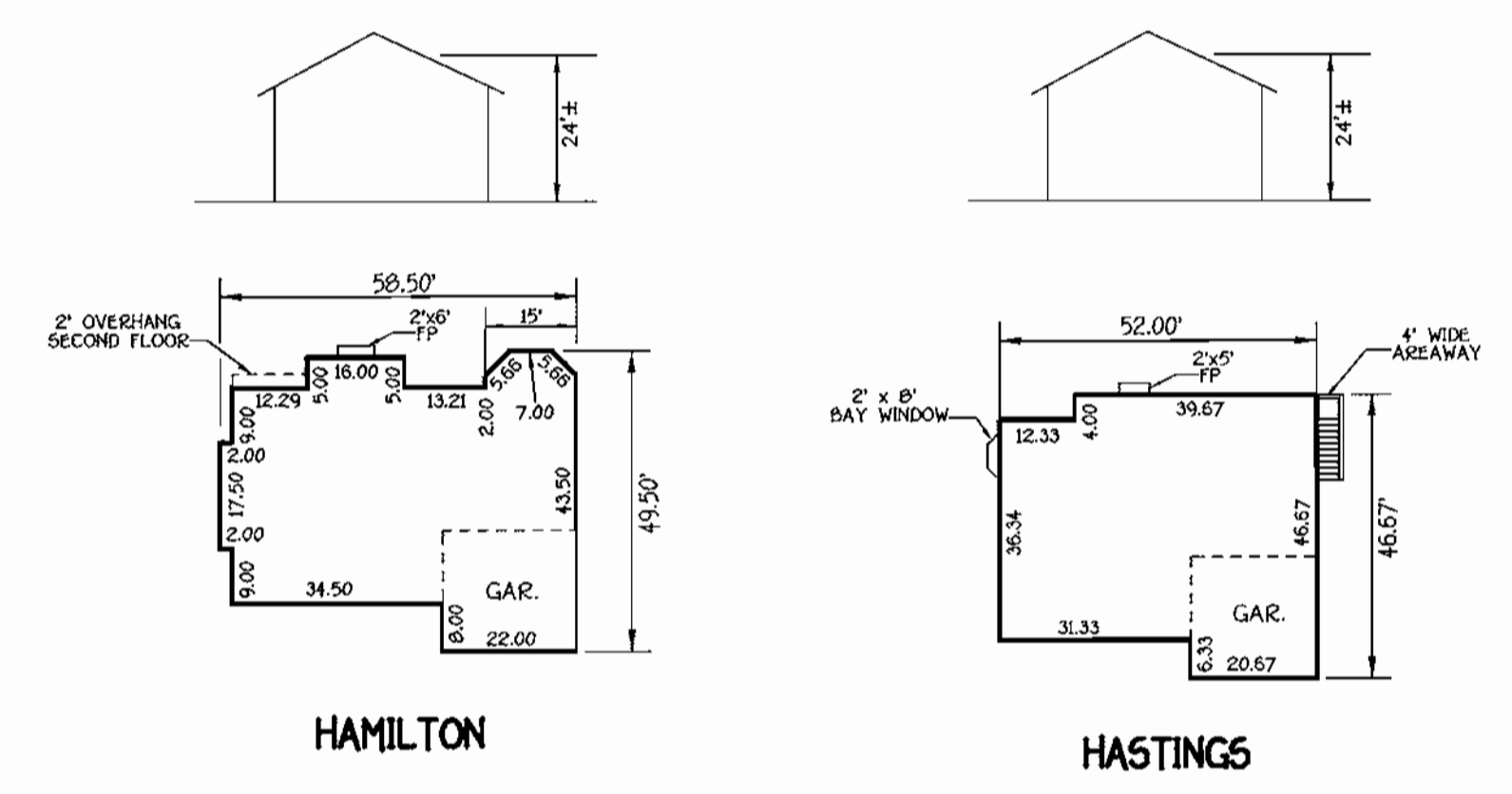


BENCH MARKS
 T.P. 2411 ELEV. 437.92
 N. 175.960.9842
 E. 416.380.5461
 LOC. NEAR THE INTERSECTION
 OF OLD COLUMBIA PIKE &
 BRITTANY DRIVE

 T.P. 2413 ELEV. 404.52
 N. 175.982.1419
 E. 416.045.0472
 LOC. BETWEEN BRITTANY CIRCLE
 AND ELLICOTT HILLS MIDDLE SCHOOL



- GENERAL NOTES:**
- THE PROPERTY IS ZONED R-20 PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
 - THE TOTAL AREA INCLUDED IN THIS SUBMISSION IS 0.66 AC.
 - THE TOTAL NUMBER OF LOTS INCLUDED IN THIS SUBMISSION IS 2 SFD.
 - SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
 - DEPARTMENT OF PLANNING AND ZONING REFERENCE FILE NUMBERS: 5-99-21, F-02-06, P-01-14 AND W&S CONT. 14-3945-D.
 - UTILITIES SHOWN AS EXISTING ARE TAKEN FROM APPROVED WATER AND SEWER PLANS CONTRACT "14-3945-D AND APPROVED ROAD CONSTRUCTION PLANS F-02-06.
 - ANY DAMAGE TO COUNTY RIGHTS-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - THE TOPOGRAPHY WAS TAKEN FROM ROAD CONSTRUCTION PLANS F-02-06, PREPARED BY FISHER, COLLINS & CARTER, INC.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM - HOWARD COUNTY CONTROL STATIONS 2411 AND 2413.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/DIVISION OF CONSTRUCTION INSPECTION AT 410-313-1890 AT LEAST TWENTY FOUR (24) HOURS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "M&S UTILITY" AT 1-800-257-7777 AT LEAST FORTY EIGHT (48) HOURS PRIOR TO ANY EXCAVATION.
 - FOR DRIVEWAY ENTRANCE DETAILS, REFER TO HOWARD COUNTY DESIGN MANUAL VOLUME IV, DETAIL R.6.06.
 - IN ACCORDANCE WITH SECTION 1281A(K) OF THE HOWARD COUNTY SUPPLEMENTARY ZONING DISTRICT REGULATIONS, BAY WINDOWS OR CHIMNEYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES AND DECKS MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR SETBACKS.
 - STORMWATER MANAGEMENT IS PROVIDED PER F-02-06. CONTROL WILL BE PROVIDED BY EXTENDED DETENTION FACILITIES WHICH WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
 - NO 100 YEAR FLOOD PLANS EXIST ON THIS SITE.
 - PERIMETER LANDSCAPING AND STREET TREES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL AS SHOWN ON THE APPROVED ROAD CONSTRUCTION DRAWINGS FILED UNDER F-02-006.
 - THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS PROJECT HAS BEEN FULFILLED BY ON-SITE RETENTION OF EXISTING FOREST IN THE AMOUNT OF 3.54 ACRES PER F-02-06.
 - NO WETLANDS OR STREAMS EXIST ON THIS SITE.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 A) WIDTH - 12 FEET (4 FEET SERVING MORE THAN ONE RESIDENCE).
 B) SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1/2" MINIMUM).
 C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45-FOOT TURNING RADIUS.
 D) STRUCTURES (CULVERTS AND BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (4-25 LOADING).
 E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT OF DEPTH OVER ROADWAY SURFACE.
 F) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
 - NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLAND, FOREST CONSERVATION EASEMENT OR STREAM BUFFERS UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY, MARYLAND.
 - THIS PLAN IS SUBJECT TO THE 5TH EDITION OF HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
 - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE ROAD RIGHT-OF-WAY AND NOT INTO THE FLAG OR PIPESTEM LOT DRIVEWAY.
 - OPEN SPACE REQUIREMENTS FOR THESE LOTS HAVE BEEN PROVIDED UNDER F-02-06.



LEGEND

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
+362.2	SPOT ELEVATION
[---]	PROPOSED WALKOUT
-SF - SF	SILT FENCE
-SF - SF	SUPER SILT FENCE
ECH	EROSION CONTROL MATTING
LOD	LIMIT OF DISTURBANCE
[---]	FOREST CONSERVATION EASEMENT
[---]	EXISTING STREET TREE TAKEN FROM F-02-06

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
8	8409 ROBERTS ROAD
9	8408 ROBERTS ROAD

INDEX CHART

SHEET	DESCRIPTION
SHEET 1	TITLE SHEET, HOUSE TYPES, TEMPLATES & SITE DEVELOPMENT PLAN
SHEET 2	SEDIMENT/EROSION CONTROL PLAN
SHEET 3	SEDIMENT/EROSION CONTROL NOTES & DETAILS

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FREE
 ELLICOTT CITY, MARYLAND 21042
 410-480-9395

NO. _____ REVISION _____ DATE _____

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: 1-28-03
 Signature of Developer: *Stephen F. Fenney* Date: 1-28-03

DEVELOPER'S CERTIFICATE
 "I/we certify that all development and construction will be done according to this plan for sediment and erosion control 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: *Stephen F. Fenney* Date: 1-28-03

Reviewed for HOWARD SCD and meets Technical Requirements.
 Signature: *Jim Meyer* Date: 2/13/03
 U.S.A. Natural Resources Conservation Service
 Signature: *John W. Robertson* Date: 2/13/03
 HOWARD SCD

OWNER
 STONECREST MANOR, L.L.C.
 C/O LAND DESIGN & DEVELOPMENT, LLC
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043
 410-480-9305

BUILDER/DEVELOPER
 HAMILTON REED
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043
 410-480-9305

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief Development Engineer: *Chris Hamilton* Date: 2/25/03
 Director - Department of Planning and Zoning: *Mark J. Leight* Date: 2/24/03

PROJECT	SECTION	LOTS NO.
STONE MANOR	2	8 & 9

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
15513	19	R-20	25	2	6028.00

WATER CODE: G-10 SEWER CODE: 1253100

TITLE SHEET, HOUSE TYPES, TEMPLATES & SITE DEVELOPMENT PLAN

SINGLE FAMILY DETACHED
STONE MANOR
 SECTION 2
 LOTS 8 & 9

TAX MAP No: 25 PARCEL No: 70 GRID No: 19
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: NOVEMBER, 2002
 SHEET 1 OF 3

SDP 03-072

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION

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 areas, and protecting wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on disturbed areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is intended to provide a minimum standard for short duration (up to one year) and permanent seeding for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary construction areas, bare soil, and areas for Permanent Seeding are bare areas, dune cut and fill slopes and other areas at final grade where stable and permanent vegetation is desired.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volume and rates of runoff. Infiltration evaporation, transpiration 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 remain in place during grading, seeded preparation, seeding, mulching 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 seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas.
- Soil Amendments (Fertilizer and Lime Specifications)**
 - Soil tests must be made 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 shall be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and verbiage of the producer.
 - Lime materials shall be ground limestone, hydrated or burnt lime but shall be substituted which contains at least 50% from calcium plus magnesium. The minimum amount of lime shall be 200 lbs/1000 sq ft. (100 lbs/500 sq ft) with a minimum of 100 mesh sieve and 90-100 mesh will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3-5" of soil by diking or other suitable means.
- Seeded Preparation**
 - Temporary Seeding**
 - 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 harrow, chisel plow or ripper mounted on construction equipment. After the soil is loosened it should not be tilled or disrupted. Mulch shall be applied to the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as specified on the plans.
 - In composite lime and fertilizer into the top 3-5" of soil by diking or other suitable means.
 - Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be 6.0 to 7.0.
 - Soil shall contain less than 500 parts per million phosphorus.
 - The soil shall contain less than 400 cation, but enough nitrogen and potassium to provide adequate capacity to hold a moderate amount of moisture. An exception is if boron or zinc is deficient, then a sandy soil (300 cation plus cation) 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 soil on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade. There shall be no erosion or other conditions that would prevent bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil test or as included on the plans.
 - Soil amendments into the top 3-5" of topsoil by diking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stumps and branches, and raked the surface for seed 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. Step slopes (steeper 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 germination by a certified seed analyst. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.
 - Notes: Seed shall be tested to the industry standard for purity and rate of seed used.
 - Incorporate the inoculant for treating legume seed in the seed materials to be a pure culture of rhizobium bacteria. The inoculant shall be applied to the seed material and not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the amount of inoculant for legume seed. The inoculant shall be applied to the seed material and not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the amount of inoculant for legume seed. The inoculant shall be applied to the seed material and not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the amount of inoculant for legume seed.
- Methods of Seeding**
 - Apply seed uniformly with wet weather (heavy includes seed and fertilizer, broadcast or drop seeded, or a backpack seeder.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lb per acre total of soluble nitrogen at 200 lbs/1000 sq ft (100 lbs/500 sq ft) broadcast; 200 lbs/1000 sq ft broadcast.
 - Lime - use only ground agricultural limestone, up to 3 tons per acre may be applied by hydroseeding, not more than 2 tons per acre 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.
 - Use of conventional drop or broadcast spreaders.
 - Seed spread rate shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summary or Tables 200 or 201. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- Drill or Outdragger Seeding**
 - Mechanized seeders that apply and cover seed with soil.
 - Outdragger seeders are required to place the seed in such a fashion as to provide at least 1/4 inch 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**
 - Straw shall consist of thoroughly threshed wheat, rice or oat straw, reasonable bright in color, and shall not be musty, moldy, discolored, or excessively dusty and shall be free of noxious weed seeds as specified on the drawings.
 - Wood Cellulose Fiber Mulch (WCFM)
 - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM shall be dried green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread straw.
 - WCFM, including dye, shall contain no generation or growth inhibiting factors.
 - WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry.
 - WCFM materials shall form a better-like ground cover on application, having moisture absorption and permeation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM shall conform to the following physical requirements: fiber length to be approximately 10 mm., diameter approximately 1 mm., pH range of 6.0 to 6.5, ash content of 1.5% maximum and water absorbency of 50% minimum.
 - Only strike straw mulch should be used in areas where one species of grass is desired.

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND FEES, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (3-13-1993).
- ALL VEGETATIVE AND SEDIMENT CONTROL AND EROSION CONTROL STRUCTURES INSTALLED TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT HOWARD COUNTY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND EROSION CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR 2% DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 1. 14 DAYS FOR SLOPES STEEPER THAN 3:1.
 - 31 DAYS FOR SLOPES FLATTER THAN 3:1.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 HOWARD COUNTY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND EROSION CONTROL (SEC. 50), TEMPORARY SEEDING (SEC. 51), SOIL EROSION (SEC. 52), AND MULCHING (SEC. 53). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WITH 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 PRESSURE FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SOIL ANALYSIS**
 - TOTAL AREA OF SITE: 0.66 ACRES
 - AREA TO BE DISTURBED OR PAVED: 0.12 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED: 0.54 ACRES
 - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PERMITTED, LOOSEN.
 - APPLY 500 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
 - APPLY 100 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
 - FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 17 BUREAU PER ACRE OF ANNUAL RYE (12 LBS/A) OR WINTER RYE (10 LBS/A) AT 100 LBS/1000 SQ FT. FOR THE PERIOD NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 500.
 - MULCHING: APPLY 1 TO 2 TONS PER ACRE (70 TO 140 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER SEEDING BY APPLYING 200 GALLONS PER ACRE OF 50% EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES OF 6 FEET OR MORE. USE 300 GALLONS PER ACRE (60 GALLON/SQ FT) FOR HILLSIDES.
 - REFER TO THE 1994 HOWARD COUNTY STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

- Placement of topsoil over a prepared subgrade for establishment of permanent vegetation.
- Definition**
- Purpose**
- Conditions Where Practice Applies**
 - This practice is limited to areas having 2:1 or flatter slopes where:
 - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - c. The original soil to be vegetated contains material toxic to plant growth.
 - d. The soil is so acidic that treatment with limestone is not feasible.
 - For the purpose of these standards and specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.
- Construction and Material Specifications**
 - Topsoil obtained from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be obtained for a given site type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
 - Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoils, topsoil shall not be a mixture of competing textured subsoils and shall contain less than 5% by volume of sand, silt, stone, clay, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as burdock grass, quackgrass, Johnsongrass, weeds, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (2000-4000 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over disturbed areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
 - For sites having disturbed areas over 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

PERMANENT SEEDING NOTES

- ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:
 - SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PERMITTED, LOOSEN.
 - SOIL AMENDMENTS: APPLY 500 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
 - SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 17 BUREAU PER ACRE OF ANNUAL RYE (12 LBS/A) OR WINTER RYE (10 LBS/A) AT 100 LBS/1000 SQ FT. FOR THE PERIOD NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 500.
 - MULCHING: APPLY 1 TO 2 TONS PER ACRE (70 TO 140 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER SEEDING BY APPLYING 200 GALLONS PER ACRE OF 50% EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES OF 6 FEET OR MORE. USE 300 GALLONS PER ACRE (60 GALLON/SQ FT) FOR HILLSIDES.
 - REFER TO THE 1994 HOWARD COUNTY STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.
- SEEDING PREPARATION**
 - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding. If not permitted, loosen.
 - Apply 500 lbs per acre 10-10-20 fertilizer (14 N/50 P/20 K) to soil.
 - Apply 100 lbs per acre 10-10-20 fertilizer (14 N/50 P/20 K) to soil.
 - For the periods March 1 through April 30, and August 1 through November 15, seed with 17 Bureau per acre of annual rye (12 lbs/acre) or winter rye (10 lbs/acre) at 100 lbs/1000 sq ft. For the period November 15 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring or use 500.
 - Mulching: Apply 1 to 2 tons per acre (70 to 140 lbs/1000 sq ft) of unrotted small grass straw immediately after seeding. Anchor mulch immediately after seeding by applying 200 gallons per acre of 50% emulsified asphalt on flat areas on slopes of 6 feet or more. Use 300 gallons per acre (60 gallons/sq ft) for hillsides.
 - Refer to the 1994 Maryland Standards and Specification for Soil Erosion and Sediment Control for rate and methods not covered.
- SEEDING**
 - For the periods March 1 through April 30, and August 1 through November 15, seed with 17 Bureau per acre of annual rye (12 lbs/acre) or winter rye (10 lbs/acre) at 100 lbs/1000 sq ft. For the period November 15 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring or use 500.
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 - Refer to the 1994 Maryland Standards and Specification for Soil Erosion and Sediment Control for rate and methods not covered.
- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RECONSTRUCTED WHERE A BRACKEN-TYPE VEGETATIVE COVER IS REQUIRED**
 - SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PERMITTED, LOOSEN.
 - SOIL AMENDMENTS: APPLY 500 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
 - SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 17 BUREAU PER ACRE OF ANNUAL RYE (12 LBS/A) OR WINTER RYE (10 LBS/A) AT 100 LBS/1000 SQ FT. FOR THE PERIOD NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 500.
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 - REFER TO THE 1994 HOWARD COUNTY STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.
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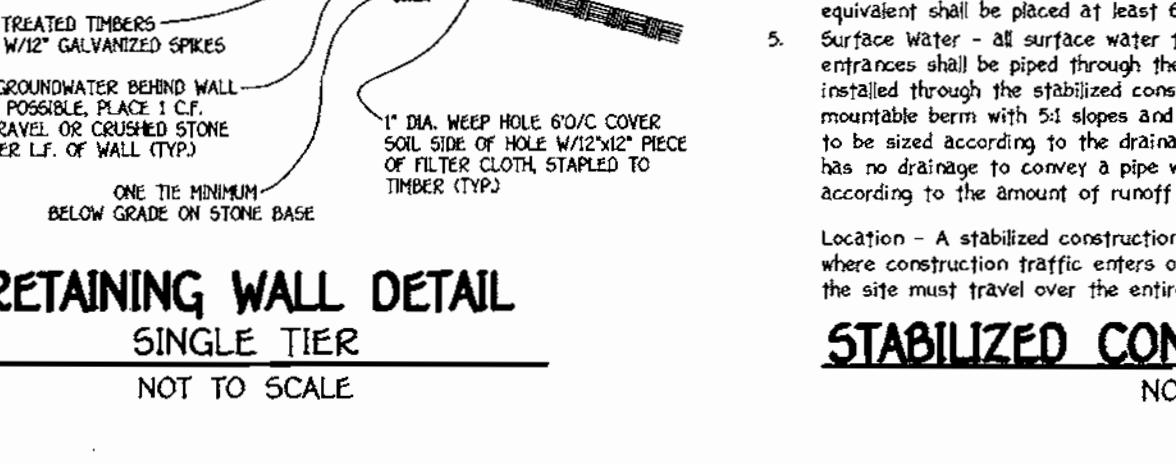
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT	7 DAYS
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN	7 DAYS
3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE	4 DAYS
4. INSTALL TEMPORARY SEEDING	2 DAYS
5. CONSTRUCT BUILDINGS	60 DAYS
6. FINE GRADE SITE AND INSTALL PERMANENT SEEDING AND LANDSCAPE	14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED AND PERMISSIBLY IS GRANTED BY E/S CONTROL INSPECTOR.	7 DAYS

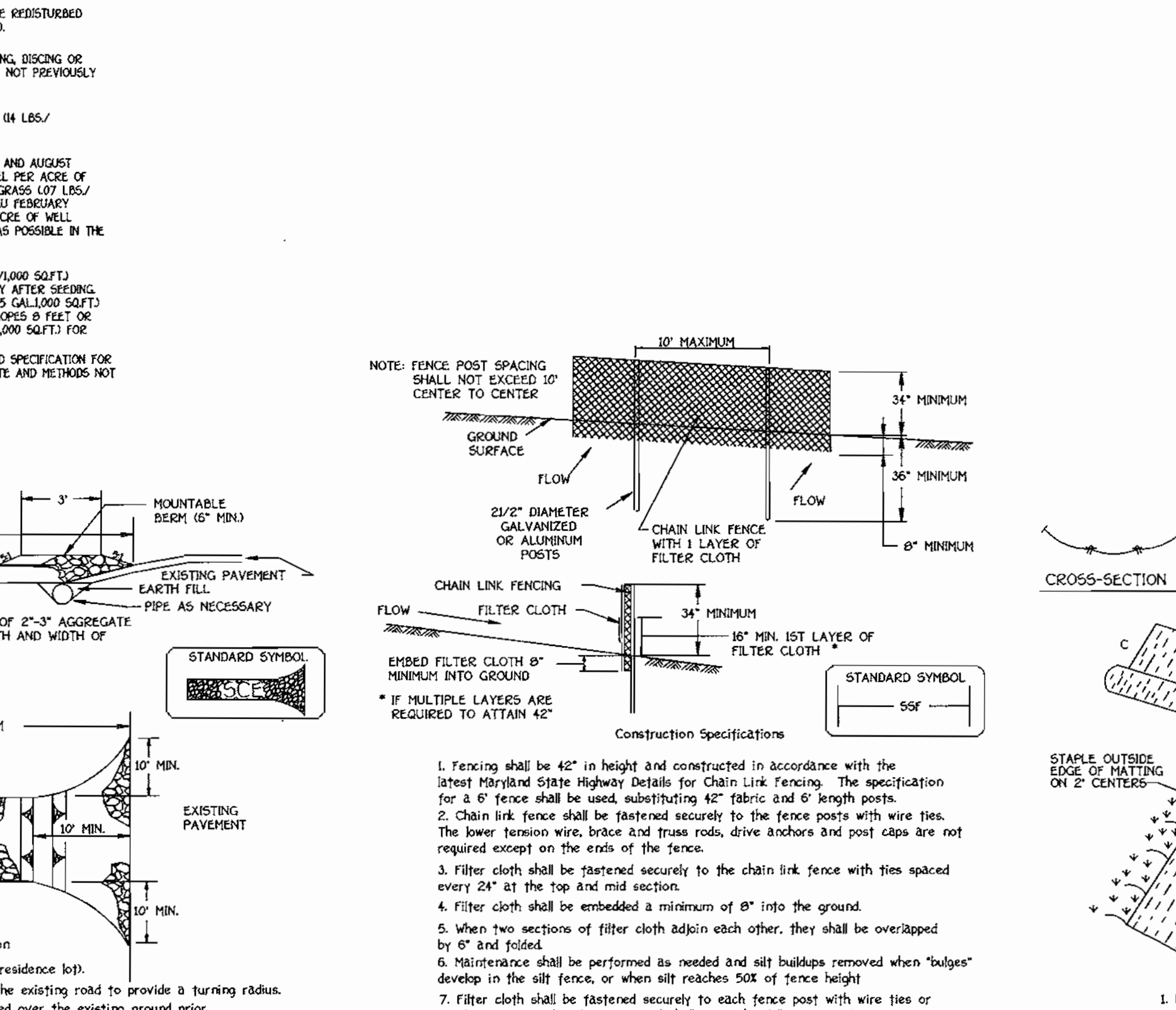
TEMPORARY SEEDING NOTES

- ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:
 - SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PERMITTED, LOOSEN.
 - SOIL AMENDMENTS: APPLY 500 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
 - SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 17 BUREAU PER ACRE OF ANNUAL RYE (12 LBS/A) OR WINTER RYE (10 LBS/A) AT 100 LBS/1000 SQ FT. FOR THE PERIOD NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE 500.
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 - REFER TO THE 1994 HOWARD COUNTY STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.
- SEEDING PREPARATION**
 - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding. If not permitted, loosen.
 - Apply 500 lbs per acre 10-10-20 fertilizer (14 N/50 P/20 K) to soil.
 - Apply 100 lbs per acre 10-10-20 fertilizer (14 N/50 P/20 K) to soil.
 - For the periods March 1 through April 30, and August 1 through November 15, seed with 17 Bureau per acre of annual rye (12 lbs/acre) or winter rye (10 lbs/acre) at 100 lbs/1000 sq ft. For the period November 15 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring or use 500.
 - Mulching: Apply 1 to 2 tons per acre (70 to 140 lbs/1000 sq ft) of unrotted small grass straw immediately after seeding. Anchor mulch immediately after seeding by applying 200 gallons per acre of 50% emulsified asphalt on flat areas on slopes of 6 feet or more. Use 300 gallons per acre (60 gallons/sq ft) for hillsides.
 - Refer to the 1994 Maryland Standards and Specification for Soil Erosion and Sediment Control for rate and methods not covered.
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 - Refer to the 1994 Maryland Standards and Specification for Soil Erosion and Sediment Control for rate and methods not covered.
- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RECONSTRUCTED WHERE A BRACKEN-TYPE VEGETATIVE COVER IS REQUIRED**
 - SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PERMITTED, LOOSEN.
 - SOIL AMENDMENTS: APPLY 500 LBS PER ACRE 10-10-20 FERTILIZER (14 N/50 P/20 K) TO SOIL.
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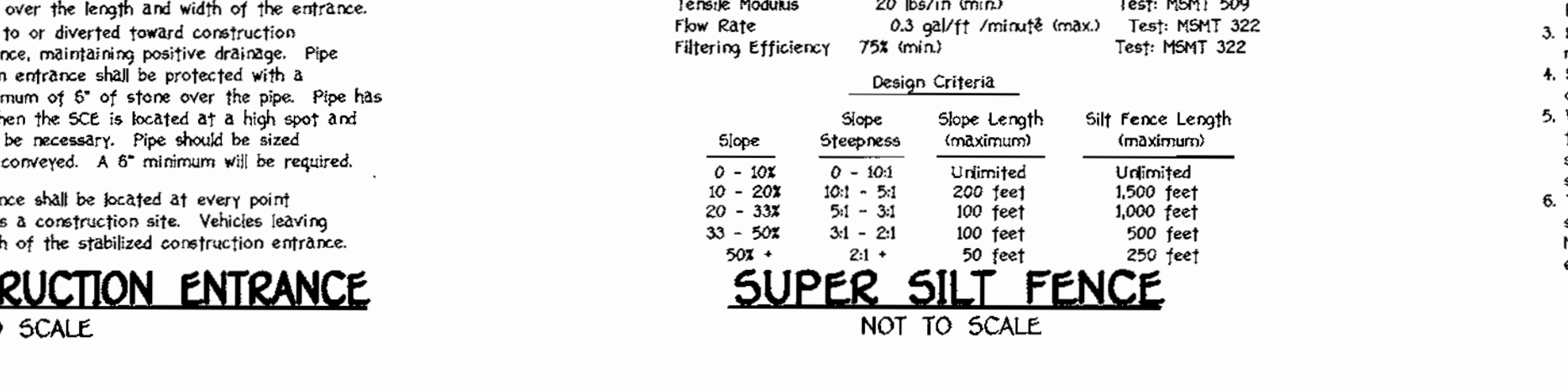
RETAINING WALL DETAIL



STABILIZED CONSTRUCTION ENTRANCE



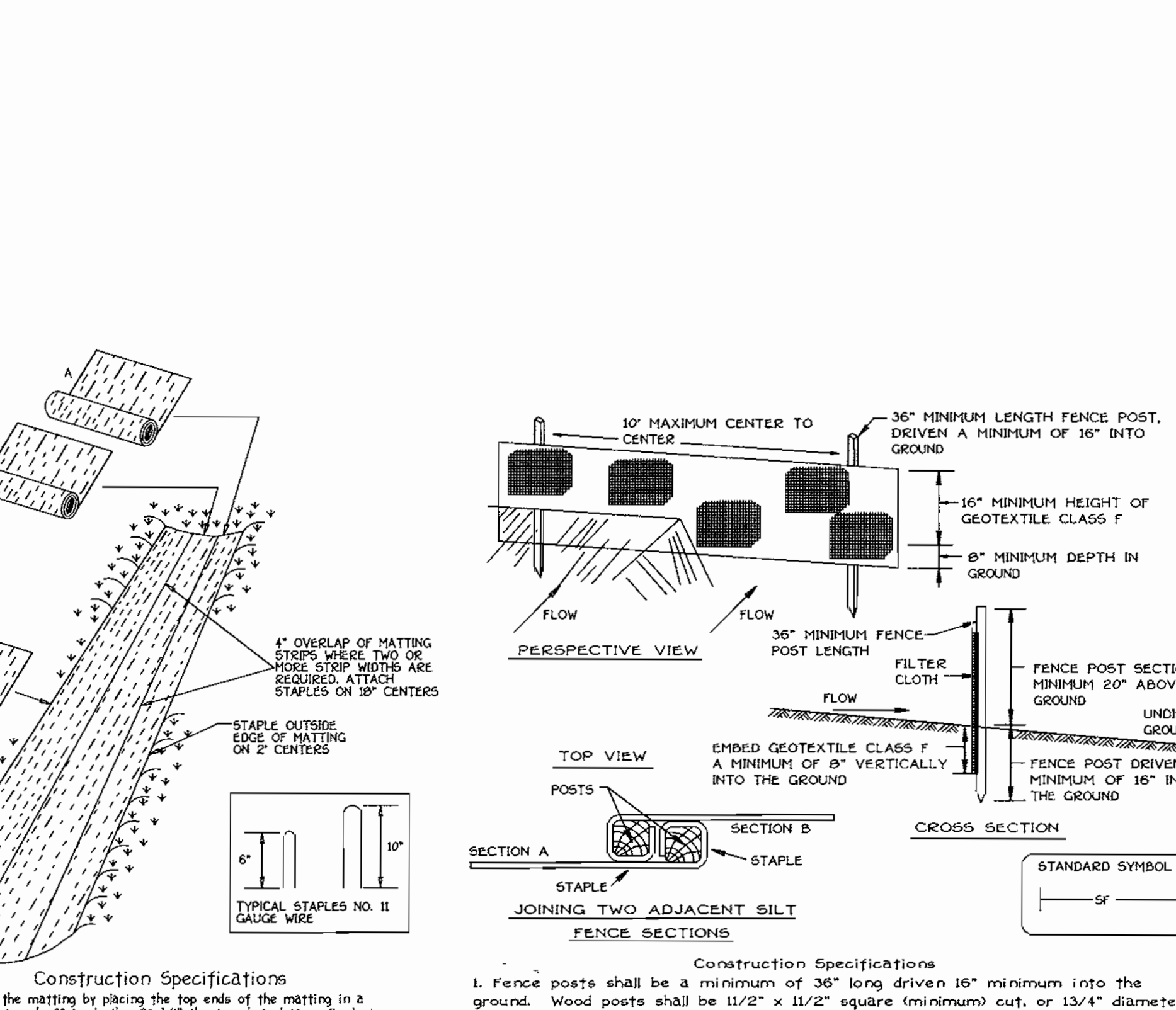
SUPER SILT FENCE



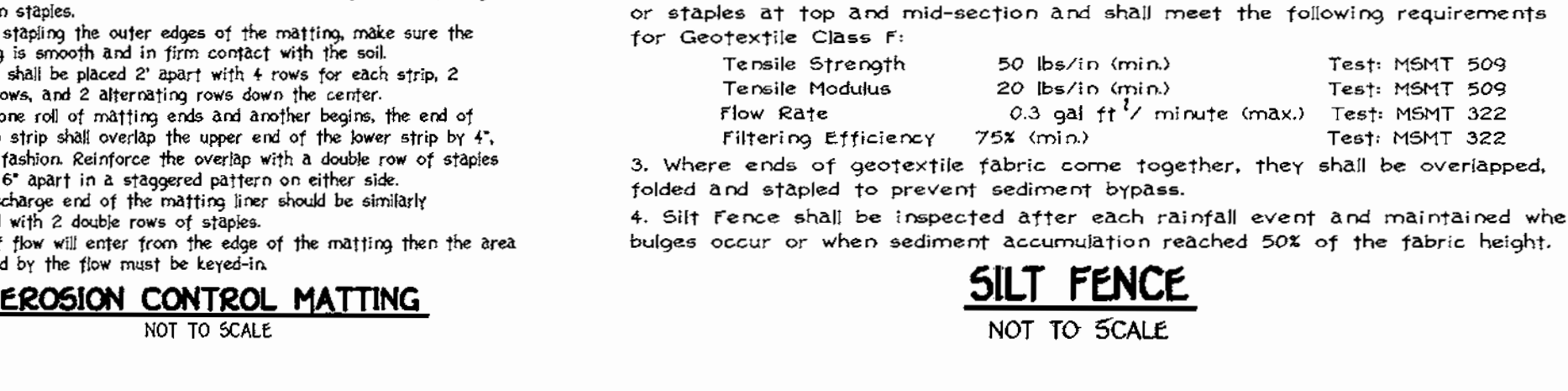
EROSION CONTROL MATTING

- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test digesting fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.0 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having suitable silt content greater than 500 parts per million shall not be used.
 - No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of phytotoxic materials.
 - Note: Topsoil substitute or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- Topsoil**
 - When topsoil, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope 5:1 Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, silted 4" - 6" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tilling. Any irregularities in the surface resulting from topsoil or other operations shall be corrected in order to prevent the formation of depressions or water ponds.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper germination and seedling operation.
- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted silt and amendments may be applied as specified below:**
 - Composted silt (Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall conform to the following requirements:
 - Composted silt shall be supplied by or originate from a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted silt shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and 1/3 the amount of lime. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted silt shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted silt shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet.
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EARTH DIKE



SILT FENCE



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 MALTBORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21114
 410-484-9105

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: 1-28-03

DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan for sediment and erosion control and that any responsible personnel involved in the construction project will have a Certificate of Attendance at 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 Fornoy*
 Date: 1-28-03

Reviewed for HOWARD SCD and meets Technical Requirements.
 Signature: *Jim Maguire*
 Date: 2/13/03

Signature: *John P. Roberts*
 Date: 2/13/03

OWNER
 STONECREST MANOR, L.L.C.
 C/O LAND DESIGN & DEVELOPMENT, LLC
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21143
 410-480-9105

BUILDER/DEVELOPER
 HAMILTON REED
 8000 MAIN STREET
 ELLICOTT CITY, MARYLAND 21143
 410-480-9105

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Signature: *Candy Hamill*
 Date: 2/25/03

Signature: *John P. Roberts*
 Date: 2/13/03

SEDIMENT/EROSION CONTROL NOTES & DETAILS

SINGLE FAMILY DETACHED
STONE MANOR
 SECTION 2
 LOTS 8 & 9

TAX MAP No: 25 PARCEL No: 70 GRID No: 19
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: NOVEMBER, 2002

SHEET 3 OF 3

