

NO.	REVISIONS	DATE
1	Rev. Hse & Grd lot 1	1-31-00

SEDIMENT AND EROSION 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 (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1
 - 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G). 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 their removal has been obtained from the Howard County Sediment Control Inspector.

7. SITE ANALYSIS:

Total Area of Site: 0.22 Ac.
 Area Disturbed: 0.13 Ac.
 Area to be roofed or paved: 0.06 Ac.
 Area to be vegetatively stabilized: 0.03 Ac.
 Total Cut: 230 C.Y.
 Total Fill: 15 C.Y.
 Off-site Water/Borrow Area Location: F

CONSTRUCTION SEQUENCE:

NO.	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade and temporary stabilization.	30
5. Construct structures, sidewalks and driveways.	60
6. Final grade and stabilize in accordance with Specs. and Specs.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

PERMANENT SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** In lieu of soil test recommendations, use one of the following schedules:
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq.ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs per acre 30-0-0 ureamorph fertilizer (71 lbs/1000 sq.ft.).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq.ft.) and apply 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
- SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.5 lbs/1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 200 gallons per acre (8 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.
- MAINTENANCE:** Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq.ft.).
- SEEDING:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushels per acre of annual rye (3.2 lbs/1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (0.7 lbs/1000 sq.ft.). For the period November 1 thru 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 sod.
- MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 200 gallons per acre (8 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

APPROVED: DEPARTMENT OF PLANNING & ZONING

12/23/99

12/28/99

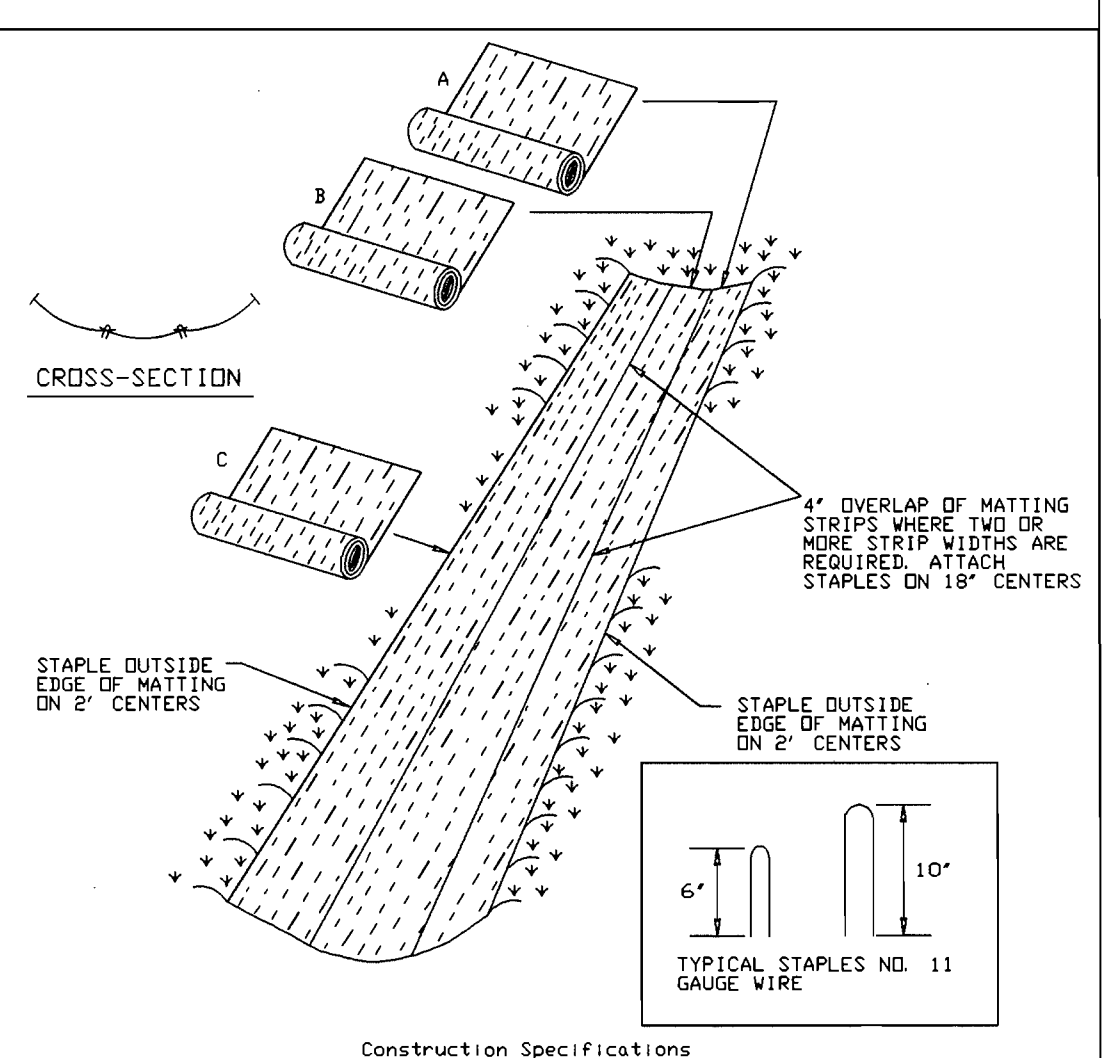
12/29/99

12/22/99

10-27-99

10-28-99

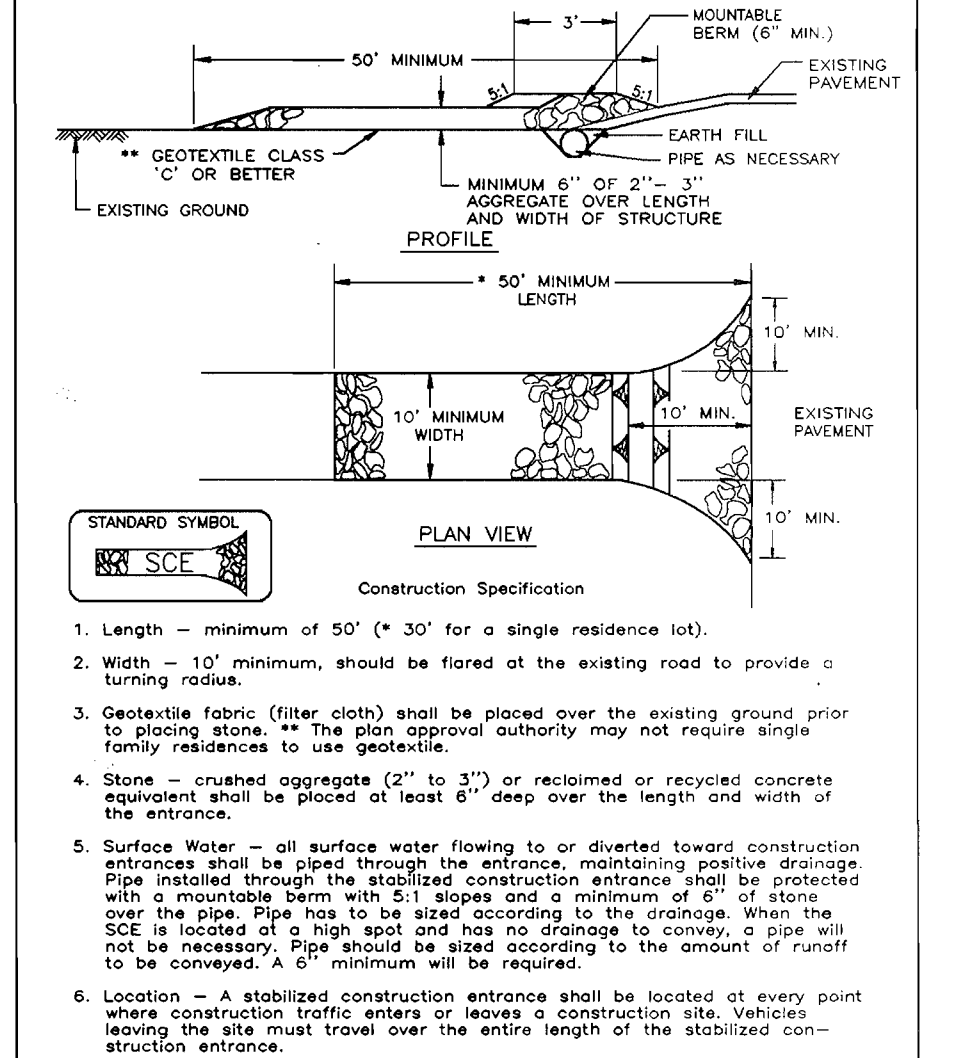
DETAIL 30 - EROSION CONTROL MATTING



- Construction Specifications**
- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
 - Staple the 4" overlap in the channel center using an 18" spacing between staples.
 - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
 - Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
 - Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4', slip-lap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
 - The discharge end of the matting liner should be similarly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 29 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
-------------------------------------------------------------	--------------------	-----------------------------------------------------------------------

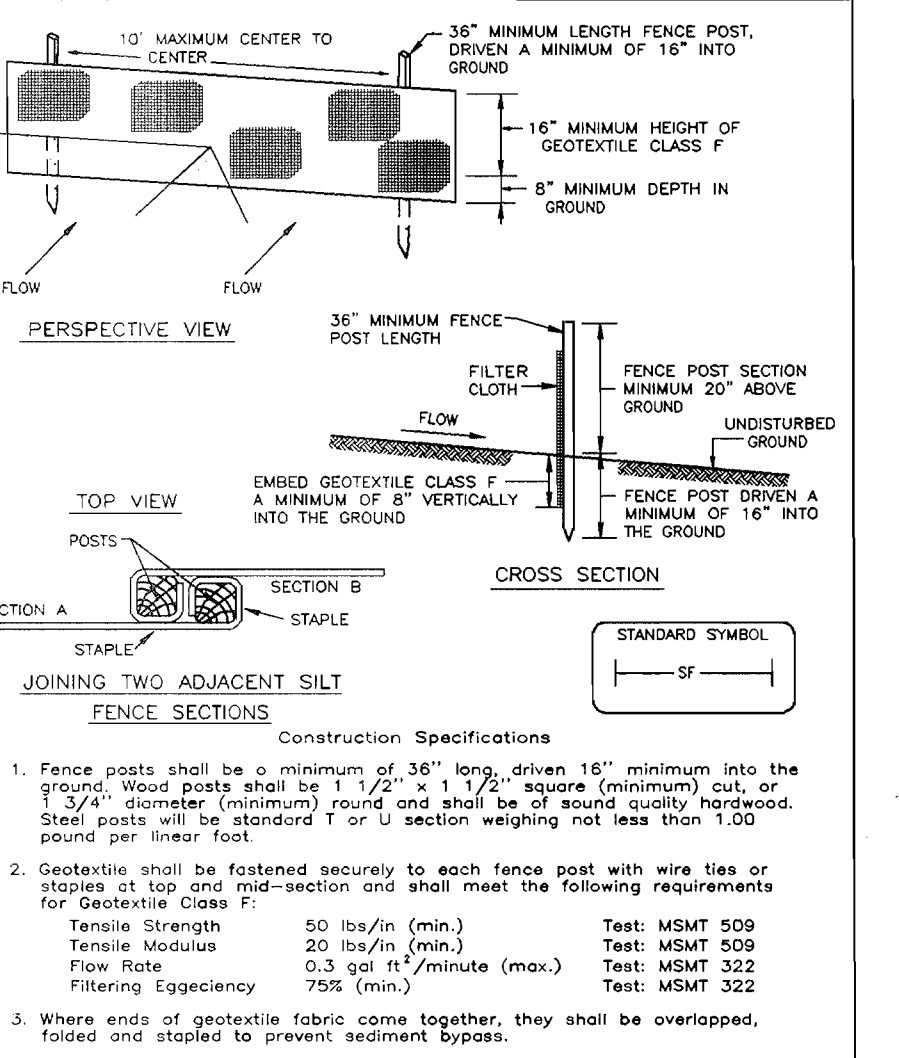
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications**
- Length - minimum of 50' (x 30' for a single residence lot).
 - Width - 10' minimum, should be flared 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 plan approval authority may not require single family residences to use geotextile.
 - Stone - crushed aggregate (2" to 3") 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 placed 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 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the S.C.E. 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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 11 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
-------------------------------------------------------------	--------------------	-----------------------------------------------------------------------

DETAIL 22 - SILT FENCE

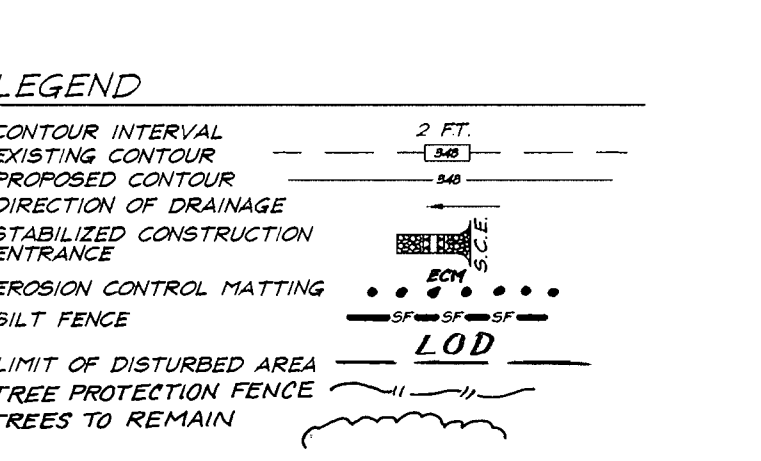


- Construction Specifications**
- Fence posts shall be a minimum of 36" long, driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 4" in diameter (minimum) cut, or steel posts will be standard 1" or U section weighing not less than 100 pounds linear feet.
 - Geotextile shall be fastened securely 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: 0.25 ft³/minute (max.) Test: MSMT 322
 Filtering Efficiency: 75% (min.) Test: MSMT 322
 - Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 - Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
-------------------------------------------------------------	--------------------	-----------------------------------------------------------------------

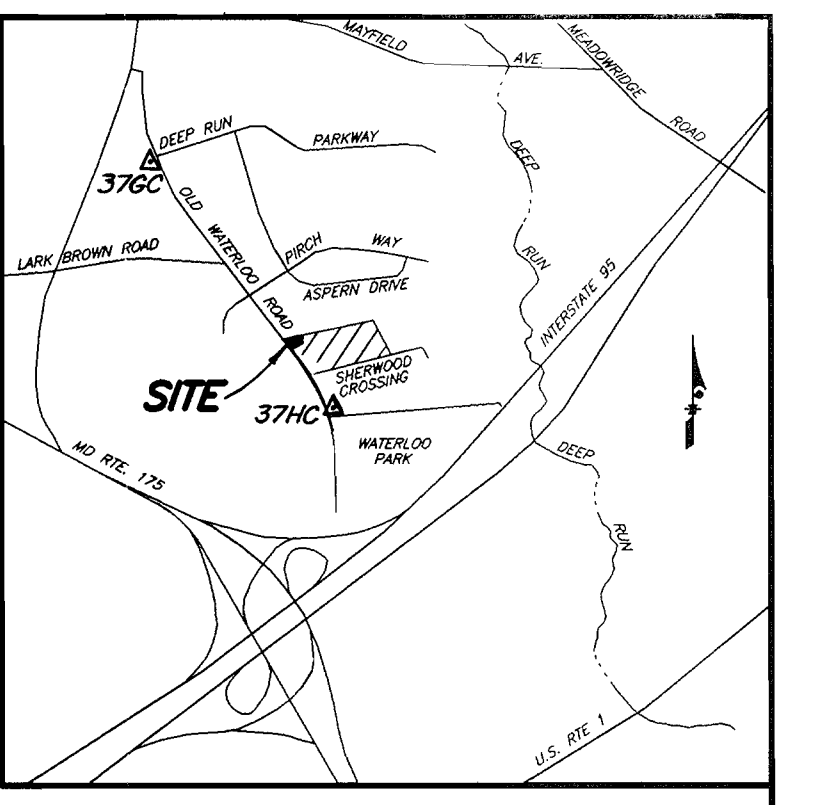
HOWARD COUNTY CONTROL STATIONS

376C N.555.261.9207 E.1,370,949.1480 ELEV. 333.90
 374C N.552.655.3376 E.1,372,642.2680 ELEV. 291.77



ADDRESS CHART

LOT NUMBER	STREET ADDRESS
1	6691 OLD WATERLOO ROAD



GENERAL NOTES:

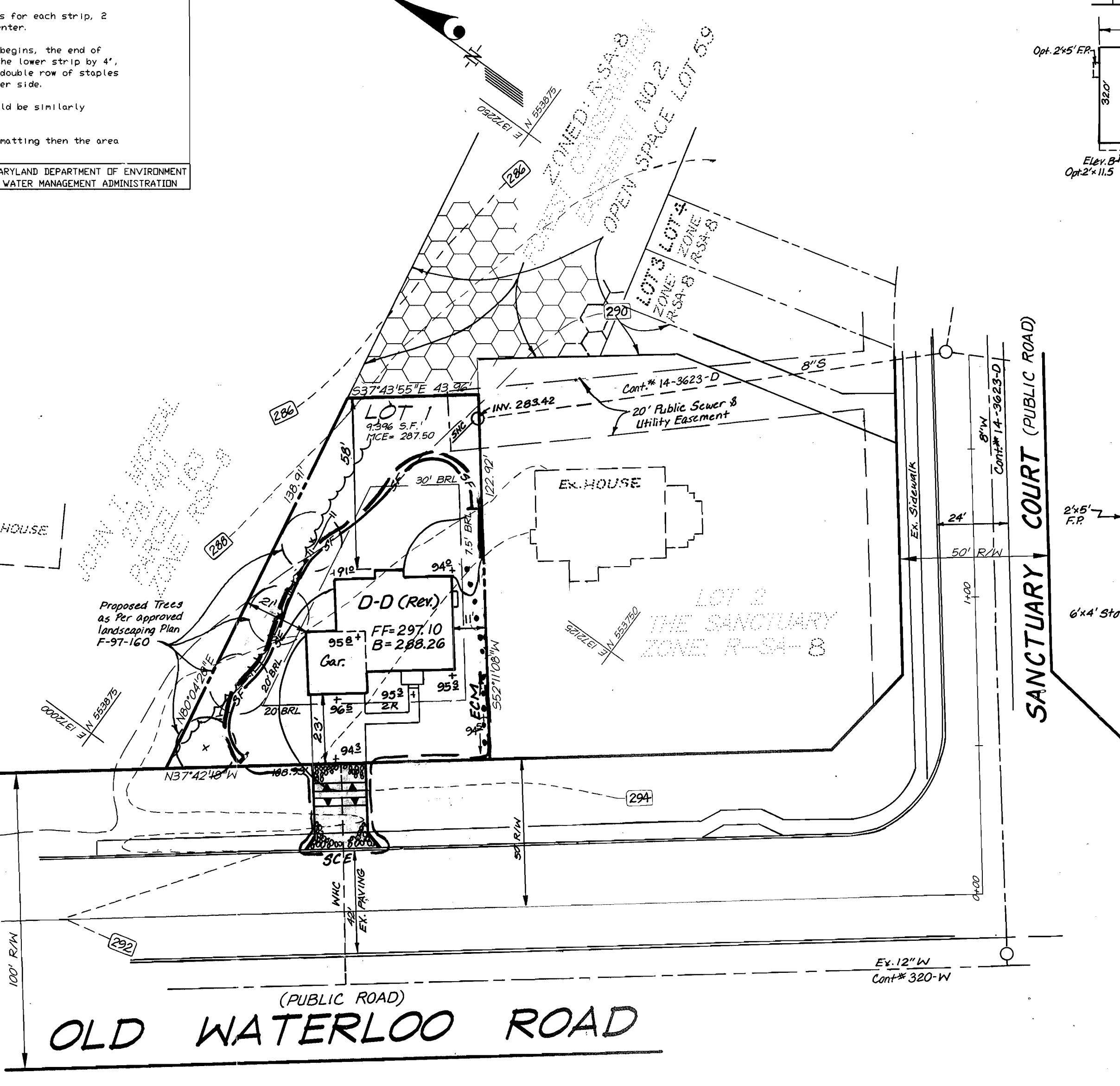
- Subject property is zoned: R-SA-8 per 10-18-93 Comprehensive Zoning Plan.
- The total area included in this submission is: 9396 SF or .2157 AC.
- The total number of lots included in this submission is: 1
- Improvement to property: Single Family Detached
- Department of Planning and Zoning reference file numbers are: F-97-160, P-97-07, S-94-25
- Utilities shown as existing are taken from approved Water and Sewer plans Contract # 14-3623-D & 320-W, approved Road Construction plans F-97-160
- Any damage to county owned rights-of-way shall be corrected at the developer's expense.
- SHC elevations shown are located at the cleanup.
- The existing topography was taken from Road Construction plans F-97-160 prepared by American Land Development and Engineering.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Control stations: 376C and 374C
- The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least twenty-four (24) hours 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.
- For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details, R-6-02
- In accordance with the Ho. Co. Zoning Regulations section "128.A.1.b and 128.A.1.c" the following building features, if not more than 16 feet in width, may not project more than four feet into any required setback area or required distance between buildings, bay windows and wells; oriel; vestibules; balconies; chimneys; heating or air-conditioning units; and exterior stairways or ramps whether above or below ground level.
- Open or enclosed porches and decks may project no more than 10 feet into any required front or rear setback area or into a required setback from a project boundary or different zoning district. Exterior stairways or ramps, above or below ground level, may extend not more than 10 feet into a front setback area or a setback from a project boundary or different zoning district and not more than 16 feet into a rear setback.
- Stormwater Management is provided per: Wet pond per F-97-160
- The Forest Conservation Easement has been established to fulfill the requirements of section 16.1200 of the Howard County Code, Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation Easement; however, forest management practices as defined in the Deed of Forest Conservation Easements are allowed. The Forest Conservation requirements are addressed under F-97-160

OWNER-DEVELOPER

BUNRATTY INVESTMENT LTD
 P.O. BOX 999
 COLUMBIA, MD 21044

SPECIAL NOTES:

This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Water and Sewer Plans Contract #14-3623-D & 320-W



DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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 or their authorized agents, as are deemed necessary."

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED: J.M.E. SITE DEVELOPMENT PLAN
 DRAWN: K.B. SEDIMENT AND EROSION CONTROL PLAN
 CHECKED: J.M.E. LOT 1
 DATE: 10-27-99
 DATE: 10-28-99

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
THE SANCTUARY		LOT 1 / PARCEL 700
PLAT NO. 12939	BLOCK NO. 21	ZONE R-SA-8
TAX MAP NO. 37	ELECTION DIST. 1st	CENSUS TRACT 6011.02
WATER CODE E08	SEWER CODE 2500000	