

# GAITHER HUNT II

## LOTS 1 THRU 9

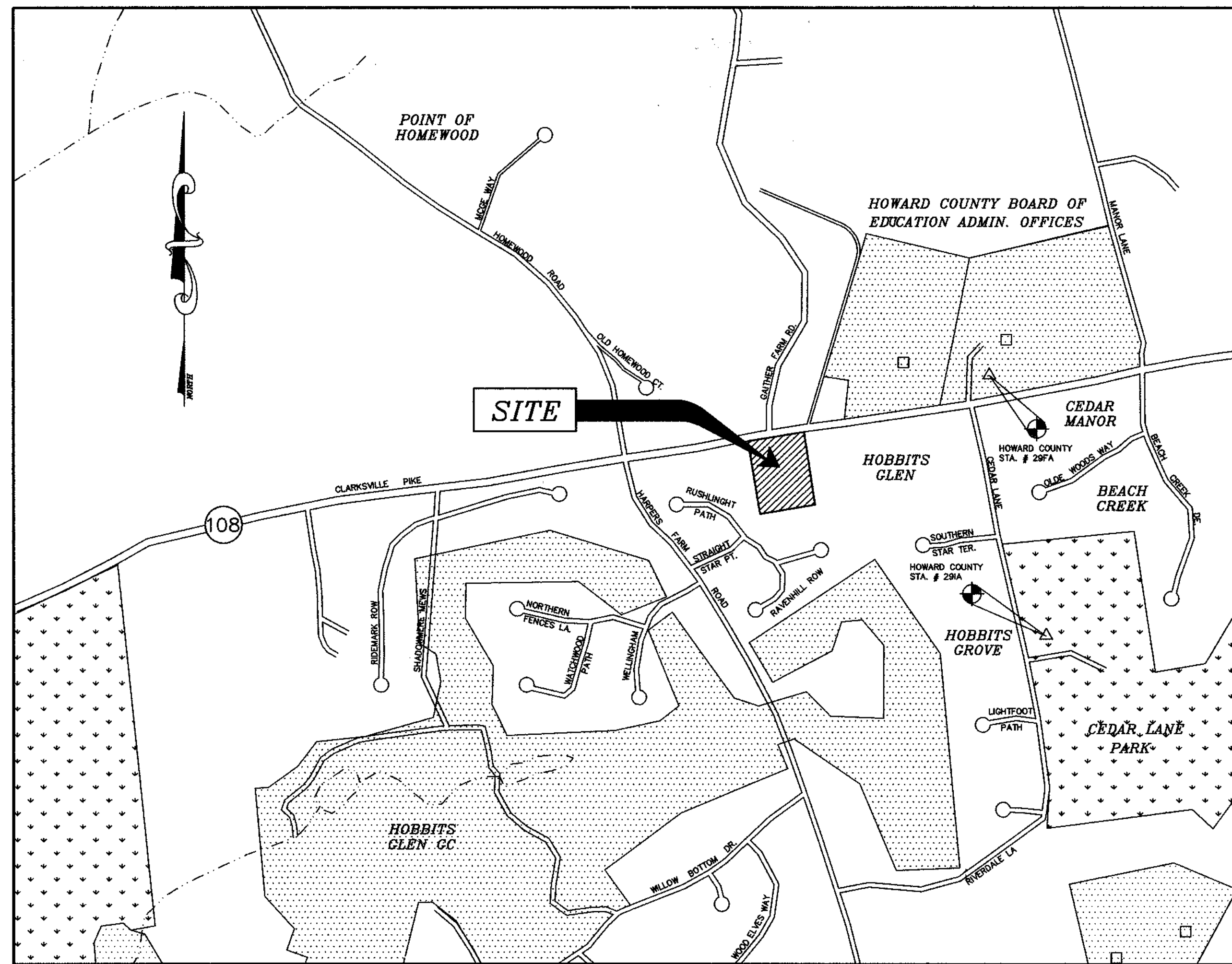
### ROAD CONSTRUCTION PLAN

#### HOWARD COUNTY, MARYLAND

#### DEPARTMENT OF PUBLIC WORKS

**GENERAL NOTES:**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY AND THE MSHA.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. PROJECT BACKGROUND:
  - A. TAX MAP 29, PARCEL 62, LIBER 2483, FOLIO 728
  - B. EXISTING ZONING - R-20
  - C. TOTAL AREA OF SUBDIVISION = 3.96 AC. ±
  - D. NUMBER OF LOTS PROPOSED = 7 BUILDABLE + 2 OPEN SPACE = 9
  - E. TOTAL AREA OF BUILDABLE LOTS = 2.41 AC. ±
  - F. TOTAL AREA OF OPEN SPACE = 1.22 AC. ±
  - G. TOTAL AREA OF R/W DEDICATION = 0.33 AC. ±
  - H. THIS SUBDIVISION IS SUBJECT TO WP-96-21 WHICH WAIVED THE REQUIREMENT OF SECTION 16.120(g)(1) TO PERMIT RESIDENTIAL LOTS TO DERIVE DIRECT DRIVEWAY ACCESS FROM A MINOR ARTERIAL ROAD, 16.120(g)(i) TO PERMIT THE MAXIMUM NUMBER OF ADJACENT LOT DRIVEWAYS USING A SHARED DRIVEWAY TO BE INCREASED FROM 4 TO 7, 16.119(g)(8) TO NOT REQUIRE THE PROPOSED PUBLIC ROAD RIGHT-OF-WAY TO BE EXTENDED TO ADJACENT DEVELOPABLE PARCEL 73 AND 16.132(g)(1)(i) TO NOT REQUIRE CONSTRUCTION OF THE PROPOSED PUBLIC ROAD TO ADJACENT DEVELOPABLE PARCEL 63, SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS:
    - 1) ALL OF THE LOTS SHALL USE ONE USE-IN-COMMON DRIVEWAY WITHIN A RECORDED SHARED ACCESS EASEMENT WITH A RECORDED MAINTENANCE AGREEMENT, FOR VEHICULAR ACCESS TO MD RT. 108. THE SHARED DRIVEWAY EASEMENT AND MAINTENANCE AGREEMENT SHALL CONTAIN PROVISIONS FOR INCLUSION OF ANY FUTURE LOTS CREATED BY SUBDIVISION ON ADJACENT PARCEL 63.
    - 2) THE AREA OF PROPOSED ACCESS EASEMENT FOR ADJACENT PARCEL 63 SHALL NOT BE USED WHEN COMPUTING THE ACREAGE OF THE REQUIRED OPEN SPACE PROVIDED FOR THIS SUBDIVISION.
    - 3) VEHICULAR INGRESS AND EGRESS RESTRICTION NOTATIONS SHALL BE INDICATED ALONG MD ROUTE 108 EXCEPT AT THE ONE APPROVED ACCESS POINT FOR THE SHARED DRIVEWAY.
  - I. SKETCH PLAN WAS APPROVED ON JANUARY 8, 1996 UNDER S-96-05
  - J. PRELIMINARY PLAN WAS APPROVED ON JULY 13, 1996 UNDER P-96-25.
5. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST ADDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE (MUTCD). ALL STREETS AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
6. BOUNDARY INFORMATION BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED BY JOHN MELLEMA, INC. ON OR ABOUT APRIL, 1996.
7. TOPOGRAPHY SHOWN IS FROM FIELD RUN SURVEYS BY FISHER, COLLINS AND CARTER ON OR ABOUT JANUARY 1997.
8. HORIZONTAL AND VERTICAL DATUM ARE BASED ON MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY CONTROL STA. (NAD 83) 29FA AND 29 IA.
9. LIGHT POLES AND FIXTURES SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III.
10. PROVIDE 150 WATT HPS VAPOR PENDANT (CUTOFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM AT STA. 8+22 ALONG MD RT.108 WITH A RIGHT OFFSET OF 38' (POLE ARM ANGLED 45 DEGREE TO CENTER OF INTERSECTION). POLE SHOULD BE 4' BEHIND FACE OF CURB.
11. PUBLIC WATER AND PUBLIC SEWER WILL BE USED. THE DRAINAGE AREA IS LITTLE PATUXENT. CONTRACT NO. 34-35772-D
12. STORMWATER MANAGEMENT IS PROVIDED BY METHOD OF BIORETENTION.
13. THERE ARE NO WETLANDS, FLOODPLAIN OR STEEP SLOPES ON SITE.
14. EXISTING UTILITIES ARE BASED ON HOWARD COUNTY AS BUILT PLANS AND THE TOPOGRAPHIC SURVEY BY JOHN MELLEMA, INC.
15. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENT OF SECTION 16.120D OF HOWARD COUNTY CODE FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD DRAININGS OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
16. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (16,117 SQ. FT. OF AFFORESTATION) HAVE BEEN MET BY PAYMENT OF \$4,835.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND.
17. STORMWATER QUALITY MANAGEMENT FOR LOTS 3 AND 4 MUST BE PROVIDED AT SITE PLAN.
18. THE NOISE WALL AND BERM WILL BE PRIVATELY MAINTAINED.



**VICINITY MAP**  
SCALE: 1"=600'

**OWNER**  
VERNON HUGH CARROLL WRIGHT  
MBNA AMERICA  
400 CHRISTIANA ROAD  
NEWARK, DE 19713

**DEVELOPER**  
J. THOMAS SCRIVENER  
5026 DORSEY HALL DR. SUITE 204  
ELLCOTT CITY, MD 21044

**SHEET INDEX**

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9	LANDSCAPE PLAN
10	FOREST CONSERVATION PLAN

**DEVELOPERS CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT

SIGNATURE OF DEVELOPER  
 DATE: 9/29/97  
 PRINTED NAME OF DEVELOPER: J. Thomas Scrivener

**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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER  
 DATE: 9/10/97  
 JOHN B. MILDENBERG  
 PROFESSIONAL ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

CHIEF, BUREAU OF HIGHWAYS  
 DATE: 10/6/97

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

CHIEF, DIVISION OF PLANNING AND ZONING  
 DATE: 10/6/97

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS  
 DATE: 10-24-97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 10/31/97

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 10/31/97

project	97038
date	JUNE 97
illustration	MMP
scale	MMP
NTS	

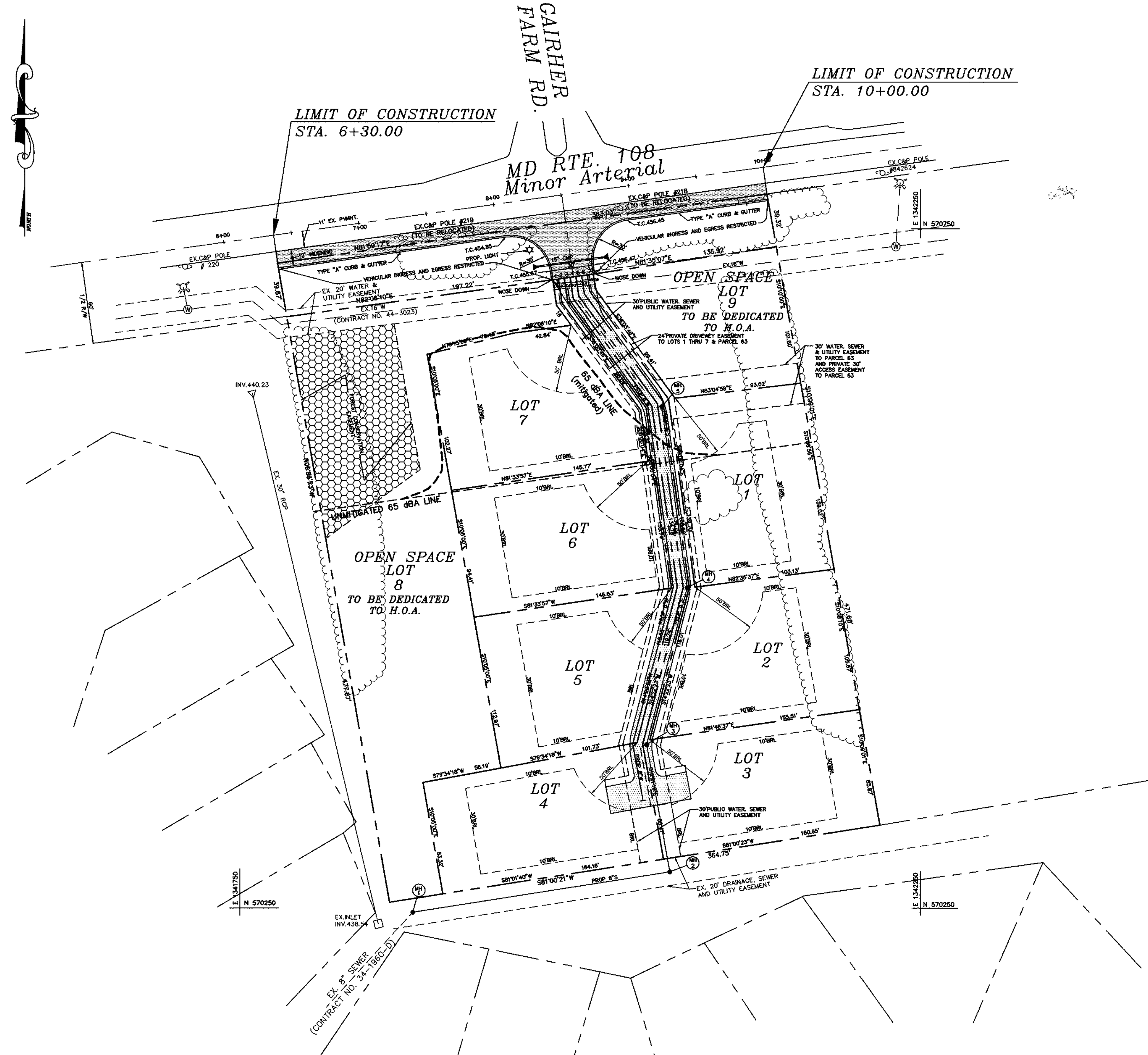
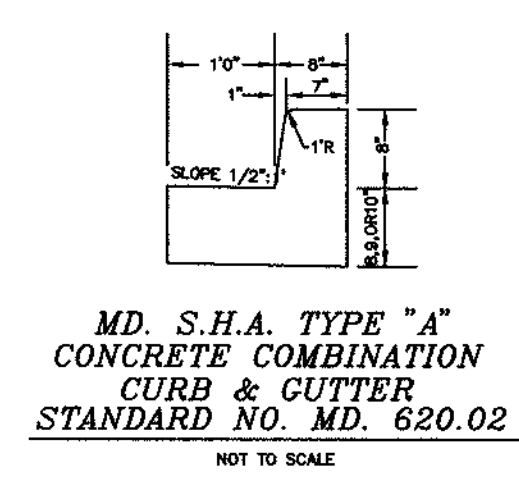
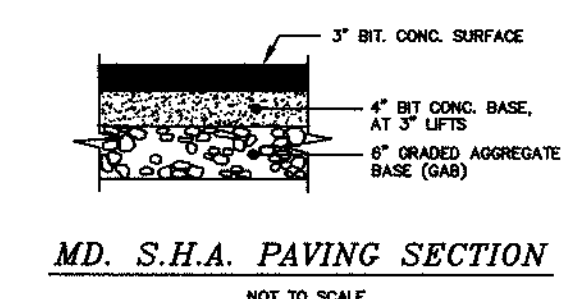
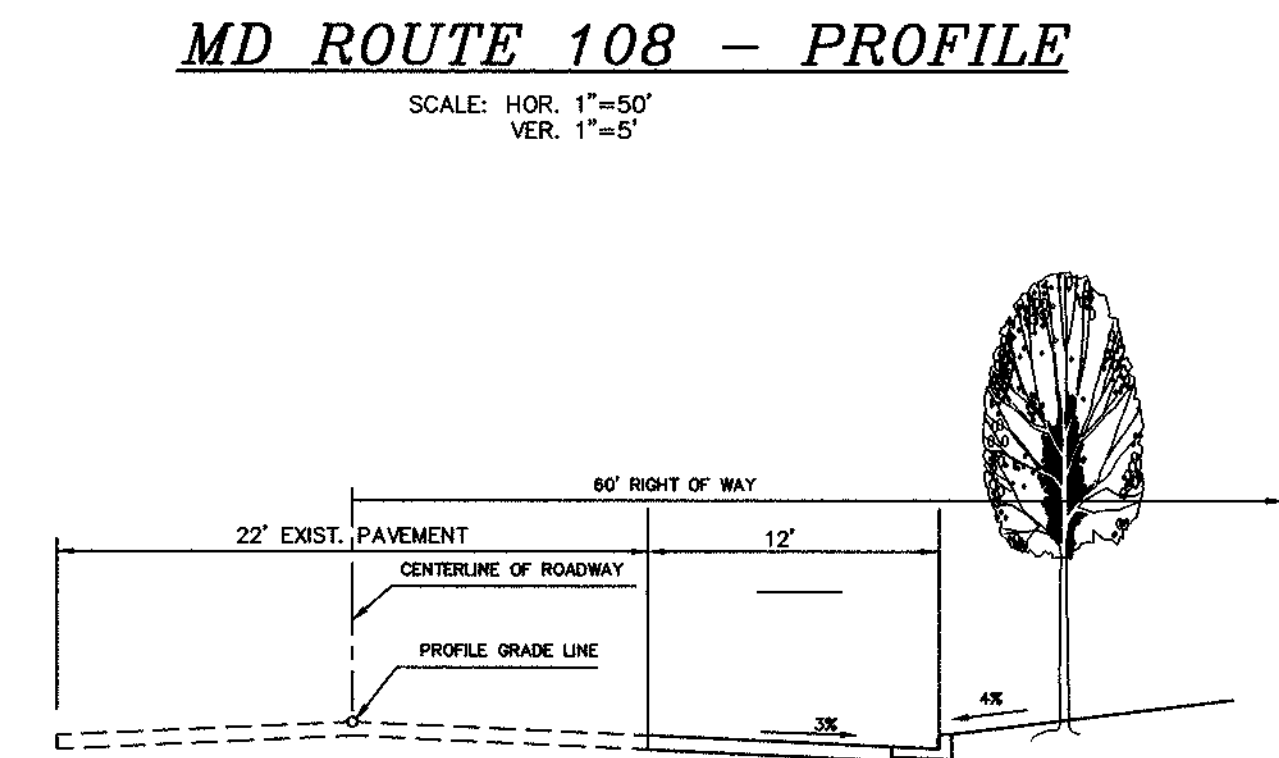
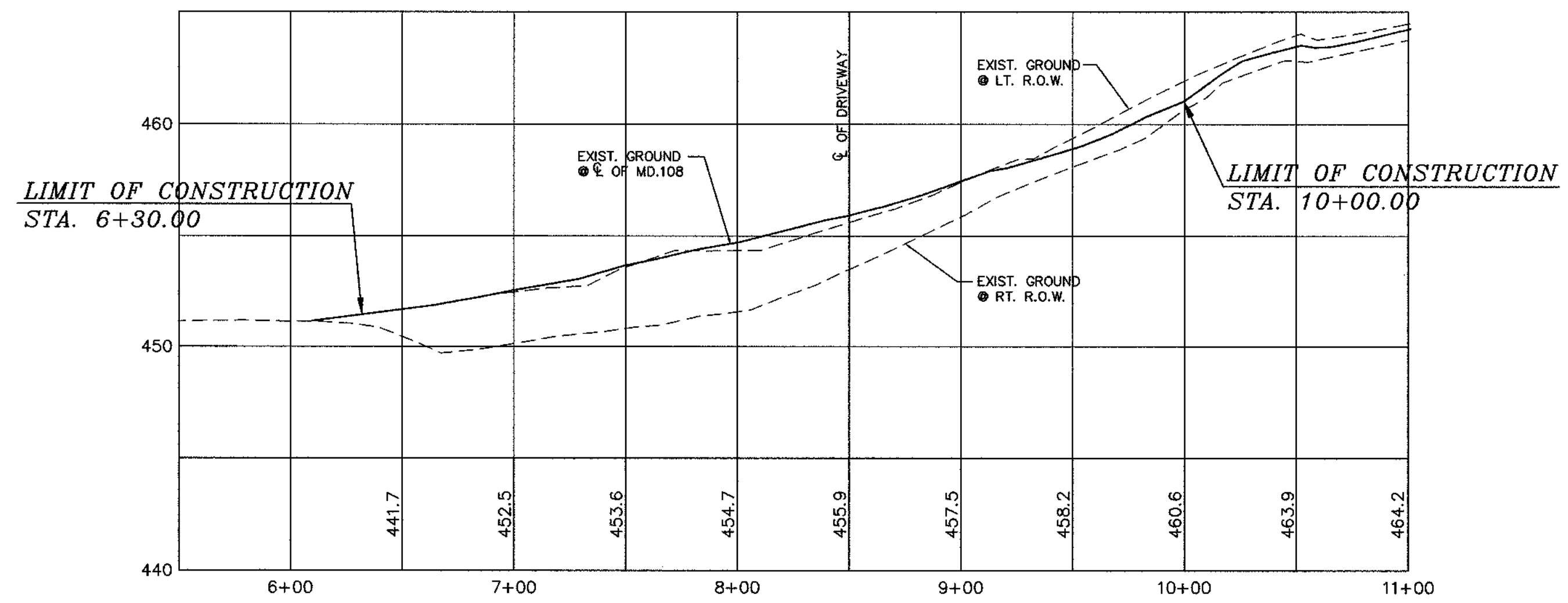
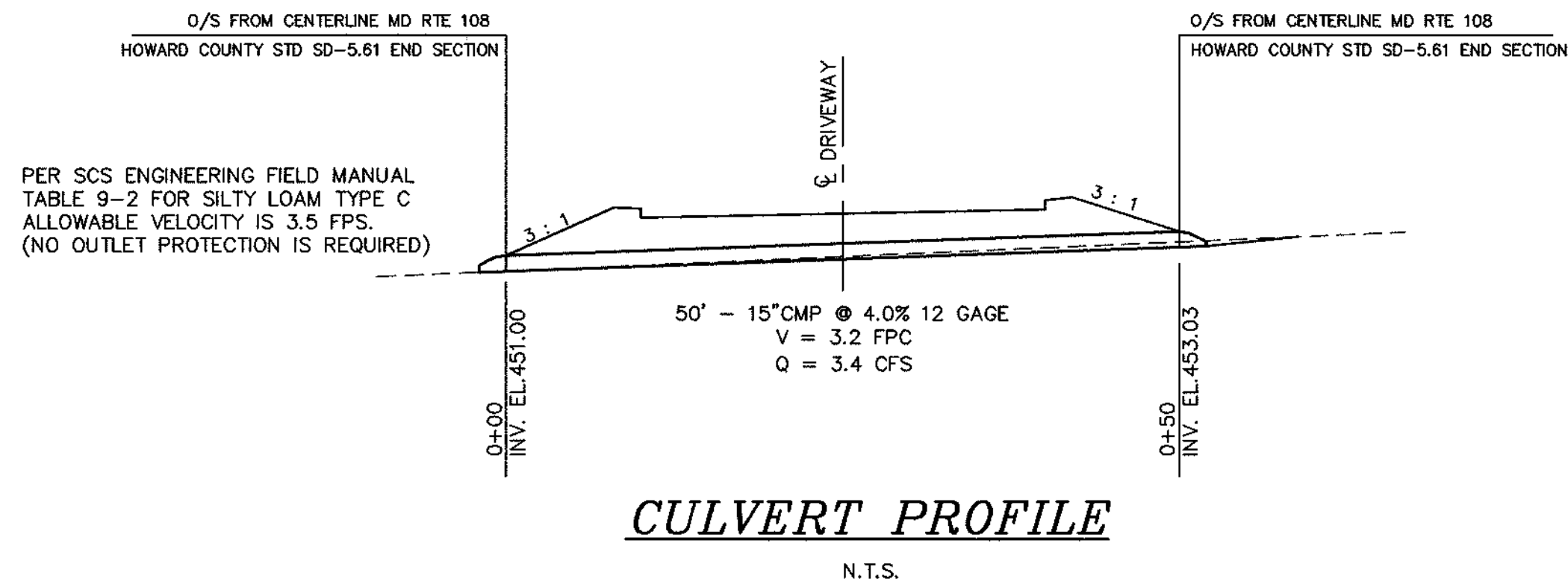
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revisions	
date	01/28/98

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
COVER SHEET

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0286 Bldg. (301) 621-5521 Wash. (410) 997-0288 Fax

97038(DWG)38-COVER

LINE	DIRECTION	DISTANCE
1	N81°59'56"E	4.29'
2	N81°59'56"E	4.29'
3	N81°59'56"E	4.29'
4	S81°59'56"W	4.29'
5	S81°59'56"W	4.29'
6	S81°59'56"W	4.29'
7	N81°59'56"E	4.29'
8	S08°00'04"E	11.26'
9	S08°00'04"E	12.34'
10	N08°00'04"W	13.41'
11	N08°00'04"W	14.48'
12	N08°00'04"W	15.55'
13	N08°00'04"W	16.62'
14	N08°00'04"W	17.69'
15	N08°00'04"W	18.76'
16	S36°03'46"E	18.44'



**OWNER**  
 VERNON HUGH CARROLL WRIGHT  
 MBNA AMERICA  
 400 CHRISTIANA ROAD  
 NEWARK, DE 19713

**DEVELOPER**  
 J. THOMAS SCRIVENER  
 5026 DORSEY HALL DR. SUITE 204  
 ELLICOTT CITY, MD 21044

**DEVELOPERS CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Developer: *J. Thomas Scrivener* DATE: 9/29/97  
 PRINTED NAME OF DEVELOPER: J. THOMAS SCRIVENER

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**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A SOUND AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE CONDITIONS. THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: *John R. Platon* DATE: 9/29/97  
 JOHN R. PLATON, PROFESSIONAL ENGINEER

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THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Signature: *Caryl Simmons* DATE: 10/6/97  
 CARYL SIMMONS, USDA-NATURAL RESOURCE CONSERVATION SERVICE

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THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John R. Platon* DATE: 10/6/97  
 JOHN R. PLATON, PROFESSIONAL ENGINEER

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APPROVED: DEPARTMENT OF PUBLIC WORKS

Signature: *Richard M. Davelle* DATE: 10-29-97  
 RICHARD M. DAVALLE, CHIEF, BUREAU OF HIGHWAYS

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *Candy Hamilton* DATE: 10/21/97  
 CANDY HAMILTON, CHIEF, DIVISION OF LAND DEVELOPMENT

---

Signature: *John R. Platon* DATE: 10/21/97  
 JOHN R. PLATON, CHIEF, DEVELOPMENT ENGINEERING DIVISION

date: JUNE 97  
 project: 97038  
 illustration: MMP  
 scale: 1"=50'

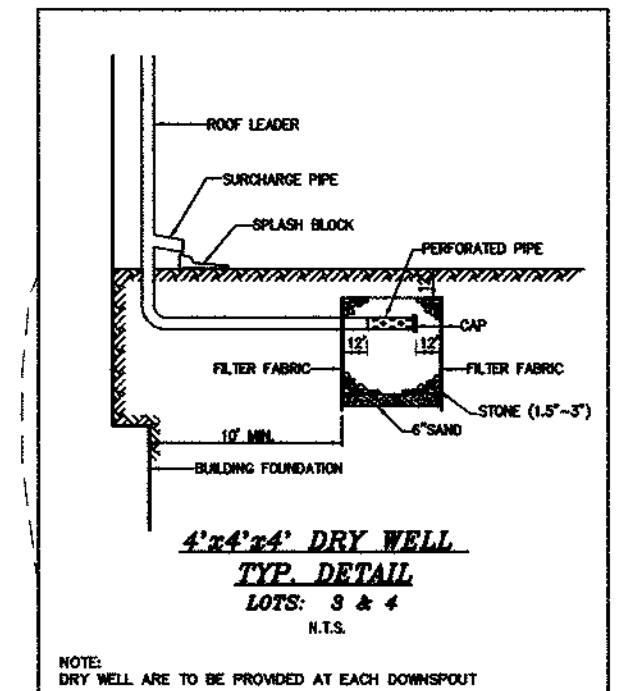
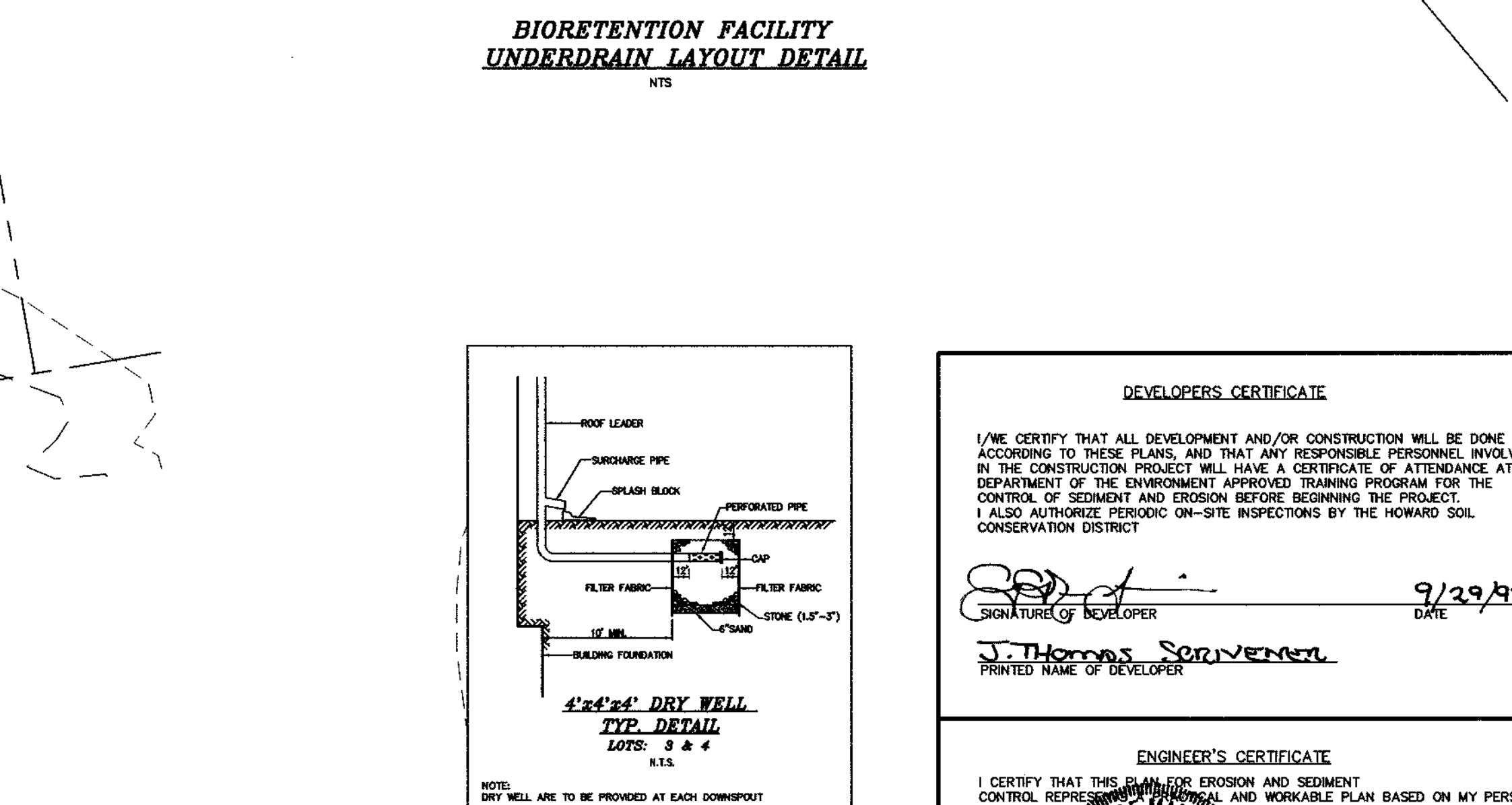
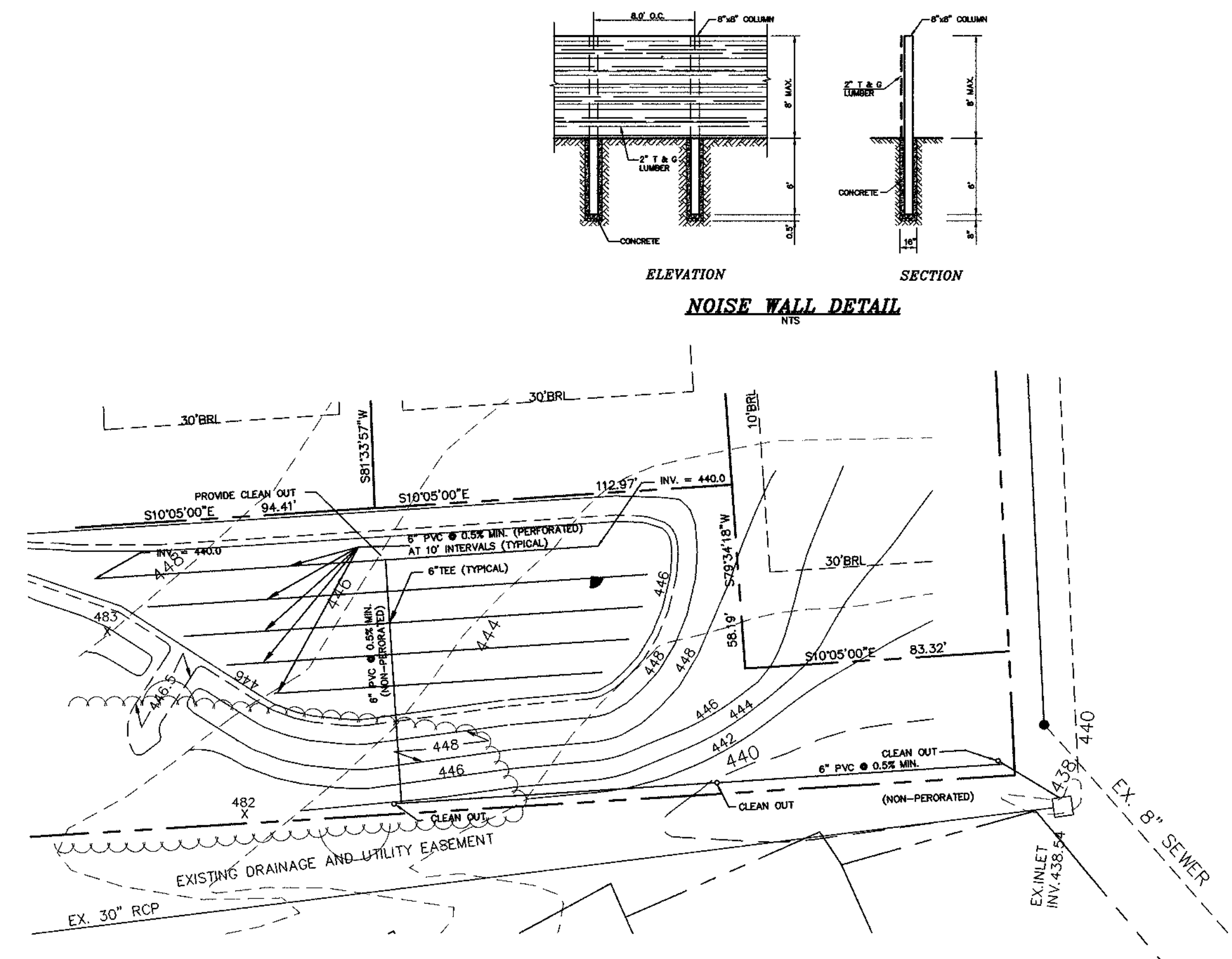
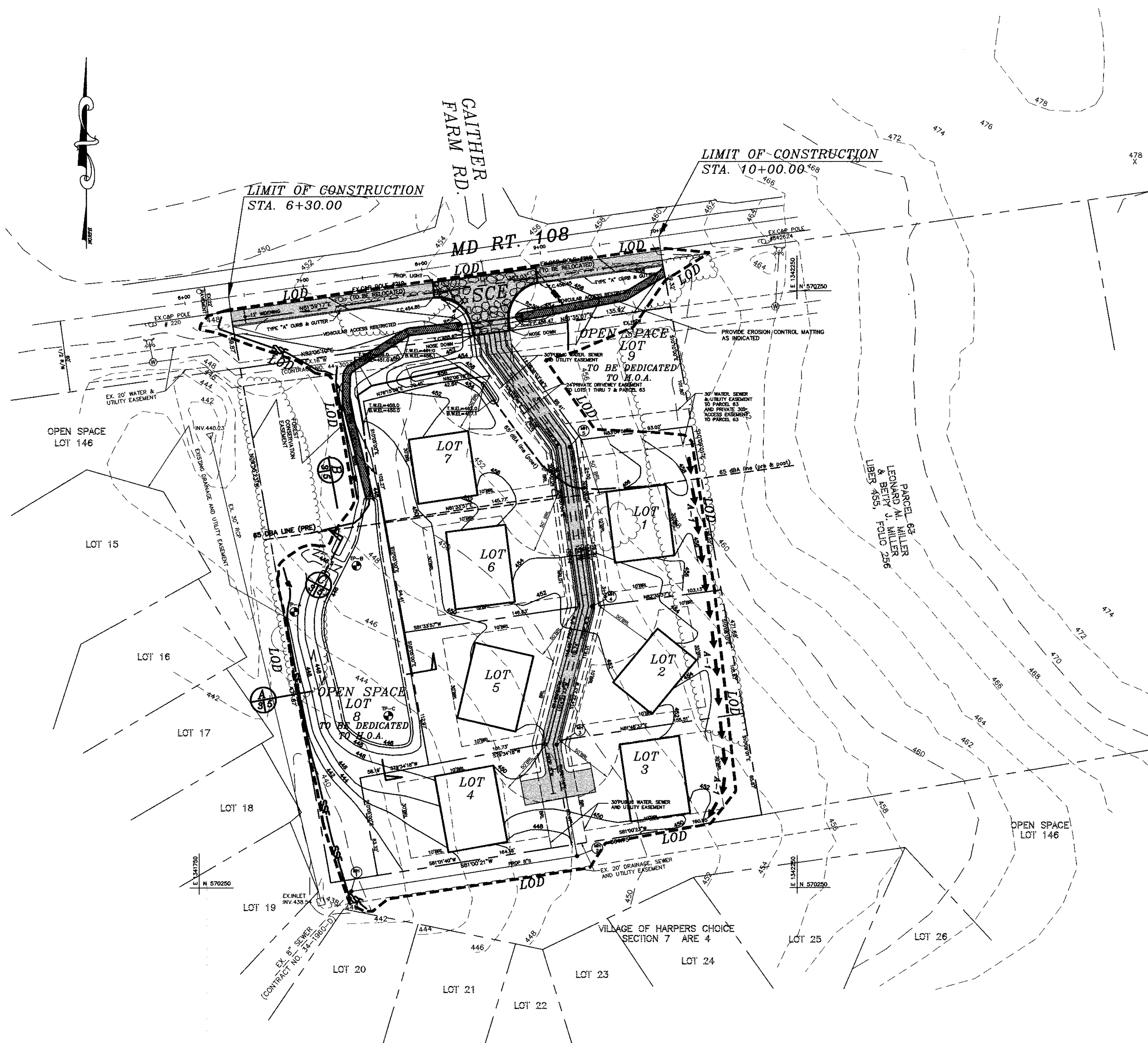
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 no.: 01288  
 date: 10/28/97

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
 HOWARD COUNTY, MARYLAND  
 5TH ELECTION DISTRICT  
 PLAN & PROFILE - MD RTE 108 IMPROVEMENTS

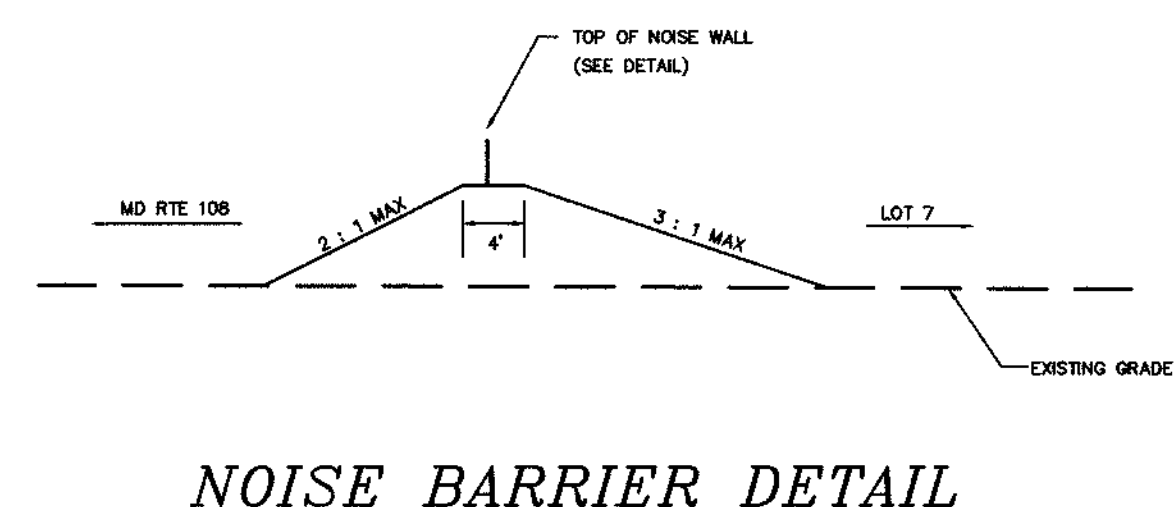
**MILDENBERG, BOENDER & ASSOC., INC.**  
 Surveyors  
 Engineers Planners  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0286 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax.

2 OF 10  
 F-97-96





- LEGEND:**
- STABILIZED CONSTRUCTION ENTRANCE
  - LIMIT OF DISTURBANCE
  - SILT FENCE
  - SUPER SILT FENCE
  - EROSION CONTROL MATTING
  - EARTH DIKE



**OWNER**  
 VERNON HUGH CARROLL WRIGHT  
 MBNA AMERICA  
 400 CHRISTIANA ROAD  
 NEWARK, DE 19713

**DEVELOPER**  
 J. THOMAS SCRIVENER  
 5026 DORSEY HALL DR. SUITE 204  
 ELLICOTT CITY, MD 21044

**DEVELOPERS CERTIFICATE**

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Signature: *J. Thomas Scrivener* DATE: 9/29/97  
 PRINTED NAME OF DEVELOPER: J. THOMAS SCRIVENER

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**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE PROJECT AND THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John B. Mildenberg* DATE: 9/29/97  
 PROFESSIONAL ENGINEER

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THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Signature: *Karyl Simmons* DATE: 10/6/97  
 USDA-NATURAL RESOURCE CONSERVATION SERVICE

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THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: *John R. Roberts* DATE: 10/6/97  
 HOWARD SOIL CONSERVATION DISTRICT

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APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Signature: *Richard M. Daniels* DATE: 10-29-97  
 CHIEF, BUREAU OF HIGHWAYS

---

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Signature: *Candy Hammett* DATE: 10/21/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT

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Signature: *John B. Mildenberg* DATE: 10/21/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

project	97038	date	JUNE 97
illustration	MMP	engineering	MMP
scale	1" = 50'	approval	MMP

description	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS I	date	07/28/98
revisions	1	date	

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
 HOWARD COUNTY, MARYLAND  
 5TH ELECTION DISTRICT  
 GRADING AND SEDIMENT CONTROL PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0236 Balt. (301) 621-5521 Wash. (410) 997-0238 Fax.



# HOWARD SOIL CONSERVATION DISTRICT

## 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, DISKING 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 ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK 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 1-4 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 (.05 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 OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. 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 218 GALLONS PER ACRE (5 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

## TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR 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 OCTOBER 15, SEED WITH 2-1/2 BUSHEL 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 (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 15 THRU NOVEMBER 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 WEEF SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

## STANDARD 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, (313-1855).
- 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 THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 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 PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC. 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 THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

TOTAL AREA OF SITE:	3.96	ACRES
AREA DISTURBED:	3.50	ACRES
AREA TO BE ROOFED OR PAVED:	0.54	ACRES
AREA TO BE VEGETATIVELY STABILIZED:	2.86	ACRES
TOTAL CUT:	4,000	CU. YDS.
TOTAL FILL:	4,000	CU. YDS.

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITIES MEASUREMENTS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER 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 OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

# STANDARD AND SPECIFICATIONS FOR TOPSOIL

## DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

## PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

## CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - 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.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - 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 SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL 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. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CON-TRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, 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 BERMUDA GRASS, QUACKGRASS, JOHNSON-SON GRASS, MUSTERSEED, POISON HAY, 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 (200-400 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
  - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
    - PH FOR TOPSOILS 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 6.5 OR HIGHER.
    - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
    - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
    - NO SOD 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 PHYTO-TOXIC MATERIALS.
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- TOPSOIL APPLICATION
  - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" 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 TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
  - 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 GRADING AND SEEDBED PREPARATION.
- ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
  - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
    - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
    - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOROUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
    - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
  - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

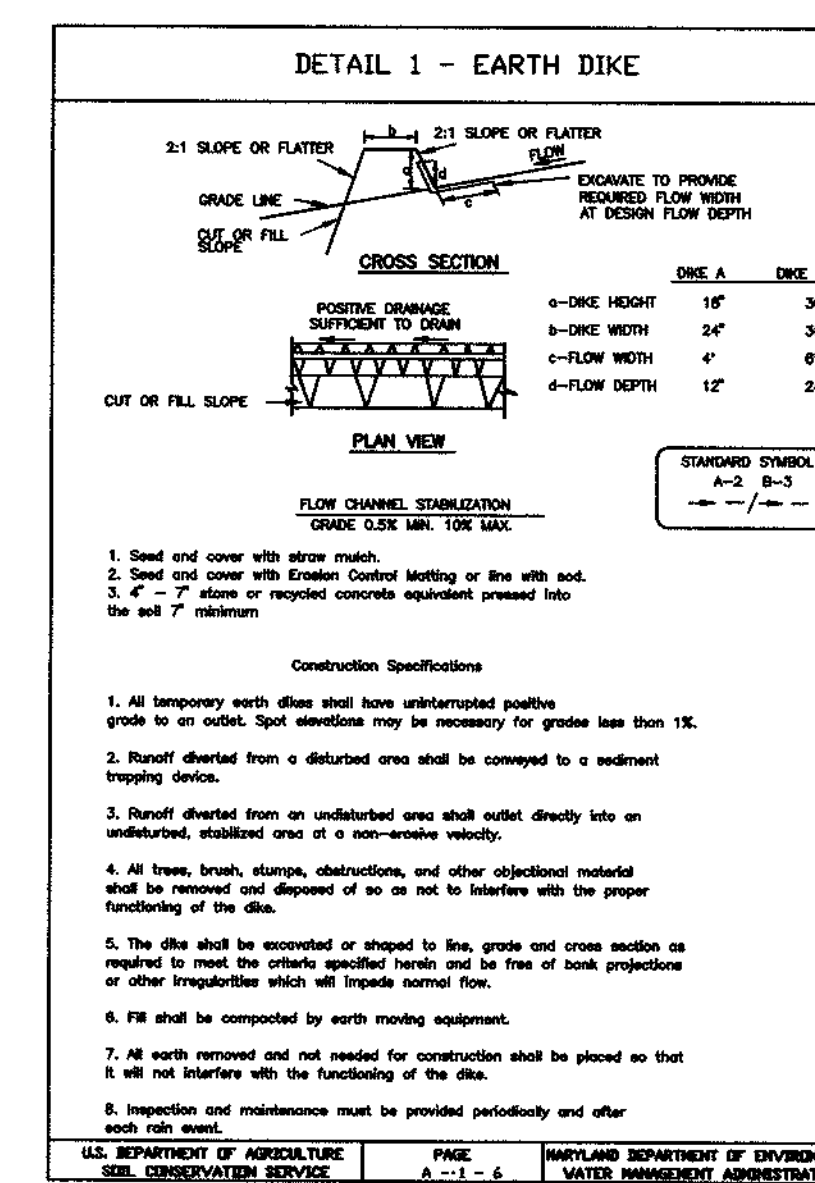
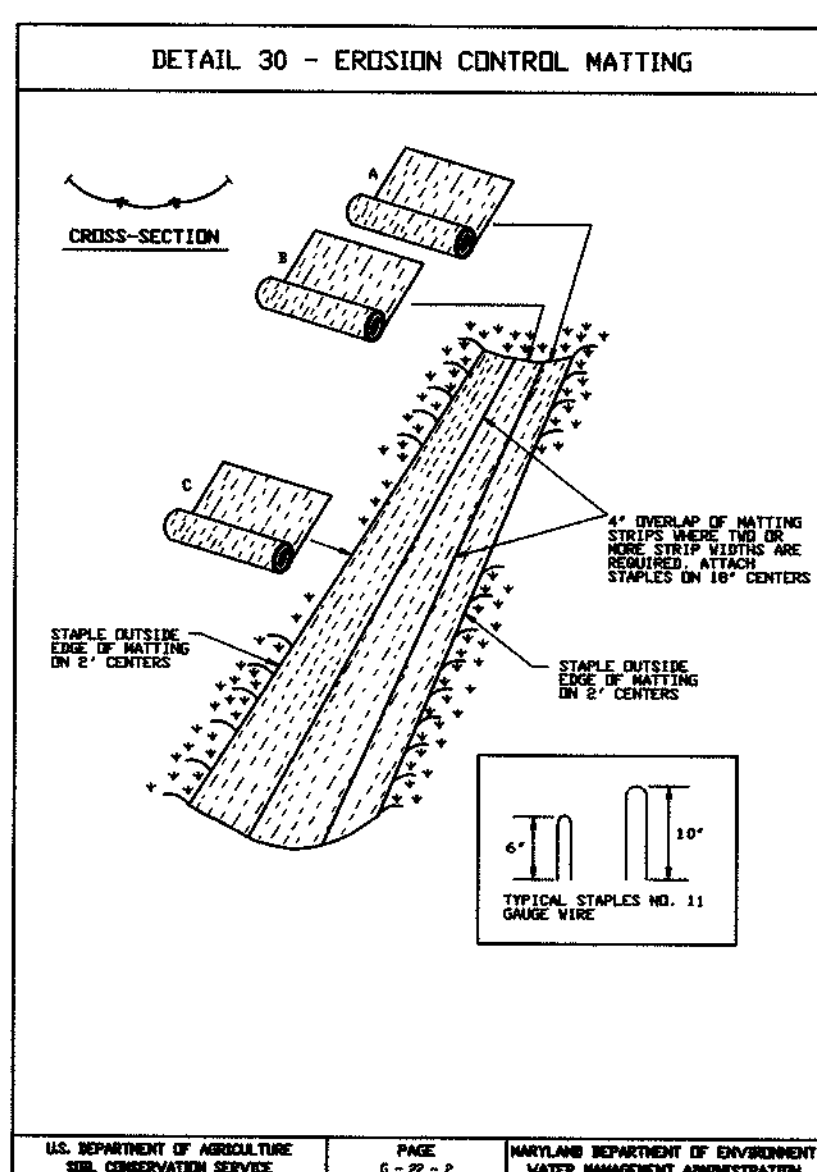
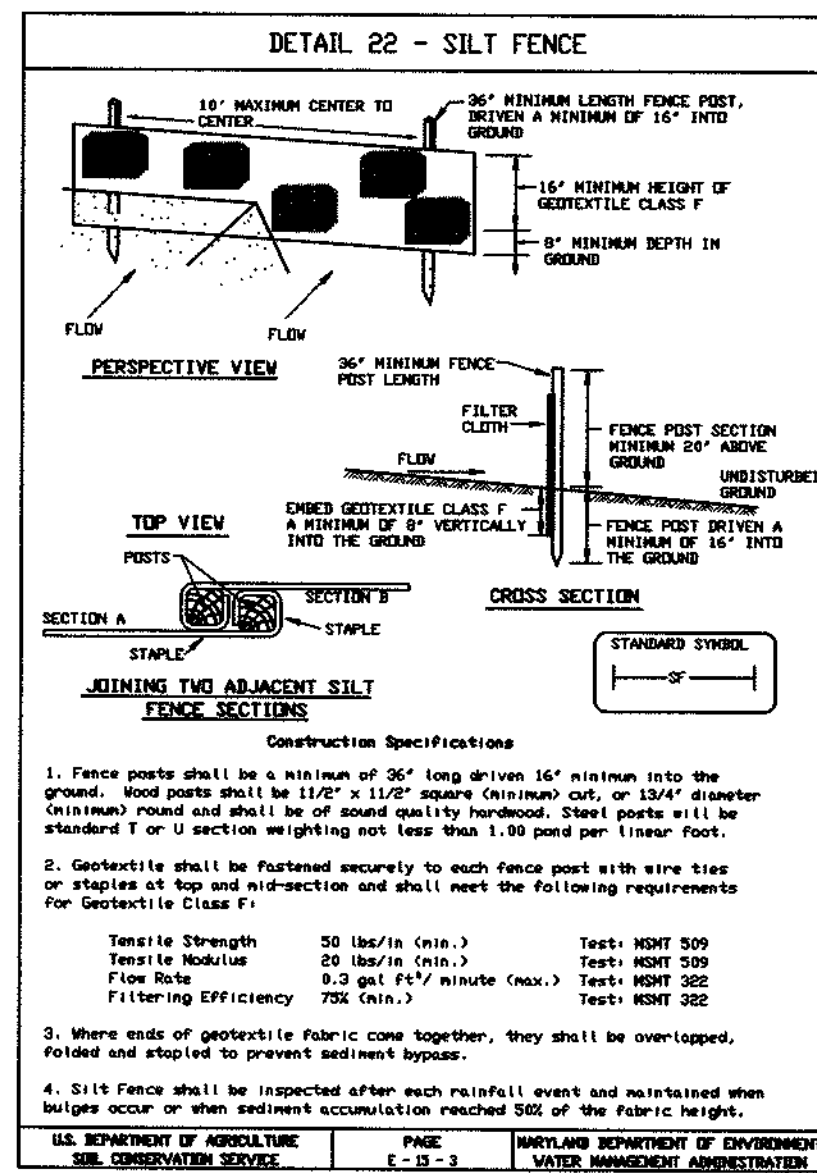
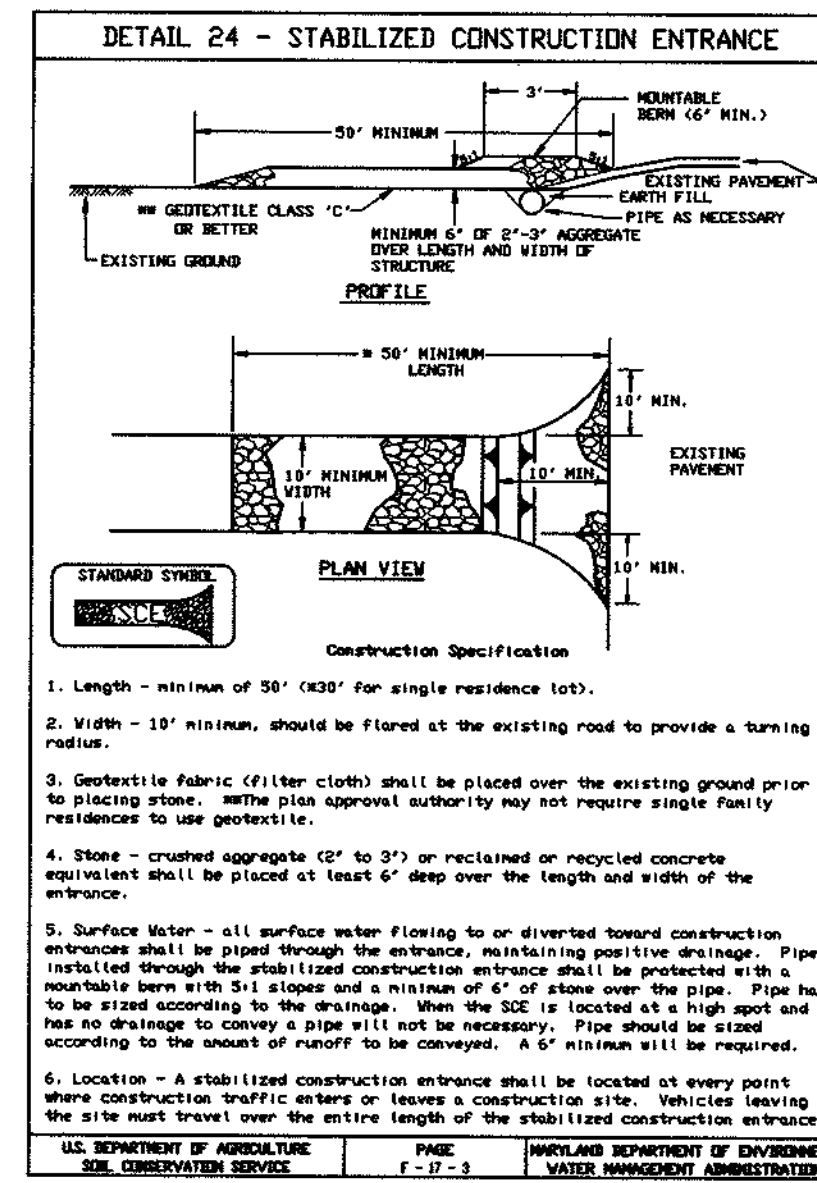
NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

- PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

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  - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
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REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VIA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.



## SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE, WITH MOUNTABLE BERM, AT LOCATION SHOWN. (1 DAY)
- CONSTRUCT EARTH DIKE. (2 DAYS)
- CONSTRUCT SILT FENCE AND SUPER SILT FENCE AT PERIMETER OF SITE. (3 DAYS)
- COMPLETE SITE GRADING FOR WIDENING OF RTE. 108 AND ADJACENT SWALE. (3 DAYS)
- CONSTRUCT EROSION CONTROL MATTING ALONG SWALE AS SHOWN (2 DAYS)
- CONSTRUCT SUPER SILT FENCE ACROSS SWALE AT MD. RTE. 108 WIDENING. (1 WEEK)
- COMPLETE FINE GRADING FOR SITE (1 WEEK)
- SEED AND MULCH DISTURBED AREAS. (3 DAYS)
- INSTALL VEGETATION FOR BIORETENTION FACILITY (1 WEEK)
- SEED AND MULCH ALL REMAINING DISTURBED AREAS. (3 DAYS)
- UPON STABILIZATION OF THE SITE AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ACCUMULATED SEDIMENTS AND STABILIZE REMAINING DISTURBED AREAS. (5 DAYS)

## OWNER

VERNON HUGH CARROLL WRIGHT  
MBNA AMERICA  
400 CHRISTIANA ROAD  
NEWARK, DE 19113

## DEVELOPER

J. THOMAS SCRIVENER  
5026 DORSEY HALL DR. SUITE 204  
ELLCOTT CITY, MD 21044

## DEVELOPERS CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Developer: J. Thomas Scrivener  
DATE: 9/29/97  
PRINTED NAME OF DEVELOPER: J. Thomas Scrivener

## 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 CIRCUMSTANCES. THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: John R. Boender  
DATE: 9/16/97  
PRINTED NAME OF ENGINEER: JOHN R. BOENDER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Signature of Reviewer: Cheryl Simmons  
DATE: 10/8/97  
LUSDA-NATURAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Reviewer: John R. Boender  
DATE: 10/6/97  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
Signature: Andrew M. Daveler  
DATE: 10-24-97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: Cindy Hanutta  
DATE: 10/21/97  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF ENVIRONMENT  
Signature: [Signature]  
DATE: 10/21/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

date	JUNE 97
project	97038
illustration	MMP
scale	MMP
approval	N.T.S.

no.	1
description	CHANGE SUBMISSION NAME FROM CEDAR VILLAS II
revisions	
date	01/29/98

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
HOWARD COUNTY, MARYLAND  
5TH ELECTION DISTRICT  
SEDIMENT CONTROL NOTES AND DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 987-0296 Fax: (301) 821-5521 Wash. (410) 987-0298 Fax







# POND SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

## SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.

AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED TO THE PLANS. TREES, BRUSH AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORMWATER MANAGEMENT PONDS, A MINIMUM OF A 50 FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

## EARTH FILL

MATERIAL- THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6" FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNITED SOIL CLASSIFICATION (U.S.C.) OR C.L. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

PLACEMENT- AREAS ON WHICH FILL IS TO BE SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 6 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE WIDTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

COMPACTION- THE MOVEMENT OF AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSE BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER Tired OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT.

WHERE A MINIMUM REQUIRED DENSITY IS SPECIFIED, IT SHALL NOT BE LESS 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN + 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD T-99.

CUT OFF TRENCH- THE CUT OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE EQUIVALENT TO THE WIDTH OF THE EMBANKMENT WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

## STRUCTURE BACKFILL

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

## PIPE CONDUITS

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE- ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:  
1. MATERIALS- (STEEL PIPE)- THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A WITH WATER TIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. STEEL PIPES WITH POLYMERIC COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10 MIL) ON BOTH SIDES OF THE PIPE. THE FOLLOWING EQUIPMENT MAY BE USED: NEOPRENE, PLASTIC, PLASTIC-COTE, BLAC-KLAD, AND BETH-CU-LOY. COATED CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-245 AND M-246.

MATERIALS- (ALUMINUM COATED STEEL PIPE)- THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.

MATERIALS- (ALUMINUM PIPE)- THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-106 OR M-211 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

2. COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC., MUST BE COMPOSED OF THE SAME MATERIAL AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE RUBBER OR PLASTIC INSULATING MATERIALS AT LEAST 24 MILS IN THICKNESS.

3. CONNECTIONS- ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT. DIMPLE BANDS ARE NOT CONSIDERED TO BE WATERTIGHT.

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE ROLLED AND ADEQUATE NUMBER OF CORRUGATIONS TO ACCOMMODATE THE BAND WIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPE LESS THAN 24" IN DIAMETER. FLANGES ON BOTH ENDS OF PIPE STANDARD LAG PIPE BAND WITH 1/2" WIDE BY 3/8" THICK CLOSED CELL CIRCULAR NEOPRENE GASKET; AND A 12" WIDE HUGGER TYPE BAND WITH O-RING GASKETS HAVING MINIMUM DIAMETER OF 1/2" GREATER THAN THE CORRUGATION DEPTH. PIPES 24" IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24" LONG ANULAR CORRUGATED USING RODS AND LUGS. A 12" WIDE BY 3/8" THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED ON THE END OF EACH PIPE FOR A TOTAL OF 24"

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

4. BEDDING- THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

6. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE- ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

1. MATERIALS-REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM DESIGNATION C-361.

2. BEDDING- ALL REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING FOR THEIR ENTIRE LENGTH. THIS BEDDING SHALL CONSIST OF HIGH SLUMP CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 10% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 3 INCHES, OR AS SHOWN ON THE DRAWINGS.

3. LAYING PIPE- BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN 2 FEET FROM THE RISER.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

POLYVINYL CHLORIDE (PVC) PIPE- ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR POLYVINYL CHLORIDE (PVC) PIPE:

1. MATERIALS-PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D-1785 OR ASTM D-2241.

2. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATERTIGHT.

3. BEDDING- THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

## CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 905.

THE RIPRAP SHALL BE PLACED TO THE REQUIRED THICKNESS IN ONE OPERATION. THE ROCK SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL INSURE THE RIPRAP IN PLACE SHALL BE REASONABLY HOMOGENEOUS WITH THE LARGER ROCKS UNIFORMLY DISTRIBUTED AND FIRMLY IN CONTACT ONE TO ANOTHER WITH THE SMALLER ROCKS FILLING THE VOIDS BETWEEN THE LARGER ROCKS. FILTER CLOTH SHALL BE REPLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 919.12.7

## CARE OF WATER DURING CONSTRUCTION

ALL WORK ON THE PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM THE VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM OF THE REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL AND CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTION OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO PUMPS FROM WHICH THE WATER SHALL BE PUMPED.

## STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES, SPILLWAY SPILLAGE BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE MARYLAND SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.

## EROSION AND SEDIMENT CONTROL

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS.

## SWM POND MAINTENANCE REQUIREMENTS

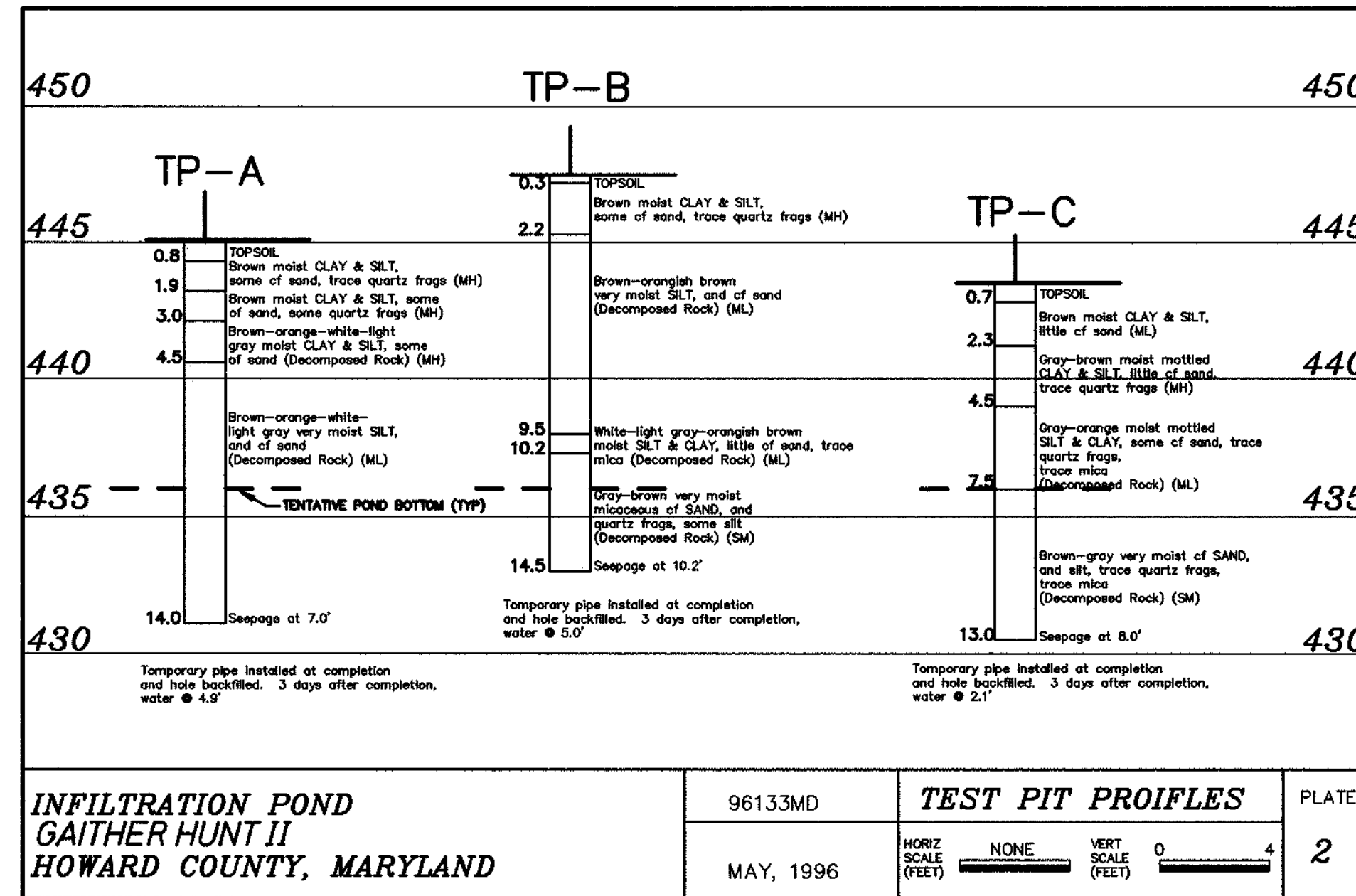
- SILT SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS SIX (6) INCHES IN BASINS WITHOUT FOREBAYS. IN BASIN WITH FOREBAYS, SILT SHALL BE REMOVED WHEN THE ACCUMULATION EXCEEDS FOUR (4) INCHES IN THE FOREBAY.
- ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
- VEGETATION GROWING ON THE EMBANKMENT TOP AND FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
- ANNUAL INSPECTION AND REPAIR, IF REQUIRED, OF THE STRUCTURE SHALL BE PERFORMED.

## OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND HIS/HERS SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

## GEOTECHNICAL RECOMMENDATIONS

- WITHIN THE EMBANKMENT AREA, STRIP THE TOPSOIL AND ANY SOFT OR OTHERWISE UNSUITABLE MATERIALS TO EXPOSE STABLE, UNDISTURBED NATIVE SOILS.
- PROOF ROLL THE STRIPPED SURFACE TO A UNIFORM CONDITION FURTHER CUTTING ANY SOFT OR OTHERWISE UNSUITABLE SPOTS AND REPLACING WITH CONTROLLED FILL.
- EXCAVATE THE CUT OFF TRENCH, BACKFILL THE RESULTING EXCAVATION WITH ACCEPTABLE FINE-GRAINED MATERIALS AND CONSTRUCT THE PROPOSED RISER AND OUTFALL PIPE. THE CUT OFF TRENCH, RISER AND OUTFALL PIPE CONSTRUCTION FOR THE SWM POND SHOULD BE COMPLETED IN ACCORDANCE WITH APPROPRIATE COUNTY SPECIFICATIONS. THE SOIL TYPES USED IN THE CUT OFF TRENCH CONSTRUCTION SHOULD BE APPROVED FOR THE INTENDED USAGE.
- FILL THE DESIGNATED EMBANKMENT AREA WITH CONTROLLED FILL TO ACHIEVE PLAN GRADE. IT IS RECOMMENDED THAT THE EMBANKMENT BE PROVIDED WITH AN IMPERVIOUS CORE EXTENDING UPWARDS TO THE 100-YEAR RETENTION LEVEL SO THAT THE MORE GRANULAR MATERIALS AVAILABLE ON SITE MAY BE USED IN THE OUTER REGIONS OF THE EMBANKMENT WITH THE MOST POROUS MATERIALS PLACED IN THE DOWNSTREAM CONSTRUCTION. ALL FILL PLACEMENT AND COMPACTION SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS.
- WITHIN THE POND BASIN AREA, CUT THE POND TO PLAN GRADE. IT IS NOTED THAT VERY DENSE DISINTEGRATED ROCK WAS ENCOUNTERED ABOVE THE UPPER AND LOWER LIMITS OF THE PLAN POND BOTTOM AT B-8 WITH HARD ROCK ENCOUNTERED NEAR THE LOWER PLAN BOTTOM AT B-9. ACCORDINGLY, IN ORDER TO ACHIEVE THE POND BOTTOM GRADE, PRE-RIPPING COMBINED WITH JACKHAMMERING WILL MOST LIKELY BE REQUIRED IN VARIOUS AREAS TO EXCAVATE THE VERY DENSE DISINTEGRATED TO HARD ROCK MATERIALS. BLASTING WITHIN THE POND AREA IS NOT RECOMMENDED, SINCE STRESS FRACTURES WITHIN THE UNDERLYING ROCK MAY DEVELOP, THEREBY, POSSIBLY DAMAGING THE INTEGRITY OF THE SWM POND.



INfiltration Pond GAITHER HUNT II HOWARD COUNTY, MARYLAND	96133MD	TEST PIT PROFILES	PLATE
	MAY, 1996	HORIZ SCALE (FEET) NONE VERT SCALE (FEET) 0 4	2

MAINTENANCE SCHEDULE FOR BIORETENTION AREA			
Note: All maintenance will be responsibility of the H.O.A.			
DESCRIPTION	METHOD	FREQUENCY	TIME OF YEAR
<b>SOIL</b>			
INSPECT AND REPAIR EROSION	VISUAL	MONTHLY	MONTHLY
<b>ORGANIC LAYER</b>			
REMULCH ANY VOID AREAS	BY HAND	WHENEVER NEEDED	WHENEVER NEEDED
REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER (OPTIONAL)	BY HAND	ONCE EVERYTWO TO THREE YEARS	SPRING
ANY ADDITIONAL MULCH ADDED (OPTIONAL)	BY HAND	ONCE A YEAR	SPRING
<b>PLANTS</b>			
REMOVAL AND REPLACEMENT OF ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECIFICATIONS	TWICE A YEAR	3/15 TO 4/30 AND 10/1 TO 11/30
TREAT ALL DISEASED TREES AND SHRUBS	MECHANICAL OR BY HAND	N/A	VARIES, DEPENDS ON INSECT OR DISEASE INFESTATION
WATERING OF PLANT MATERIAL SHALL TAKE PLACE AT THE END OF EACH DAY FOR FOURTEEN CONSECUTIVE DAYS AFTER PLANTING HAS BEEN COMPLETED	BY HAND	IMMEDIATELY AFTER COMPLETION OF PROJECT	N/A
REPLACE STAKES AFTER ONE YEAR	BY HAND	ONCE A YEAR	ONLY REMOVE STAKES IN THE SPRING
REPLACE ANY DEFICIENT STAKES OR WIRES.	BY HAND	N/A	WHENEVER NEEDED

DEVELOPERS CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 9/29/97 DATE  
SIGNATURE OF DEVELOPER

*[Signature]* PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A FEASIBLE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THE PLANS. THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 9/29/97 DATE  
SIGNATURE OF ENGINEER

JOHN W. MILDENBERG PROFESSIONAL ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*[Signature]* 10/6/97 DATE  
USDA-NATIONAL RESOURCE CONSERVATION SERVICE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 10/6/97 DATE  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* 10-24-97 DATE  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 10/31/97 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 10/31/97 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

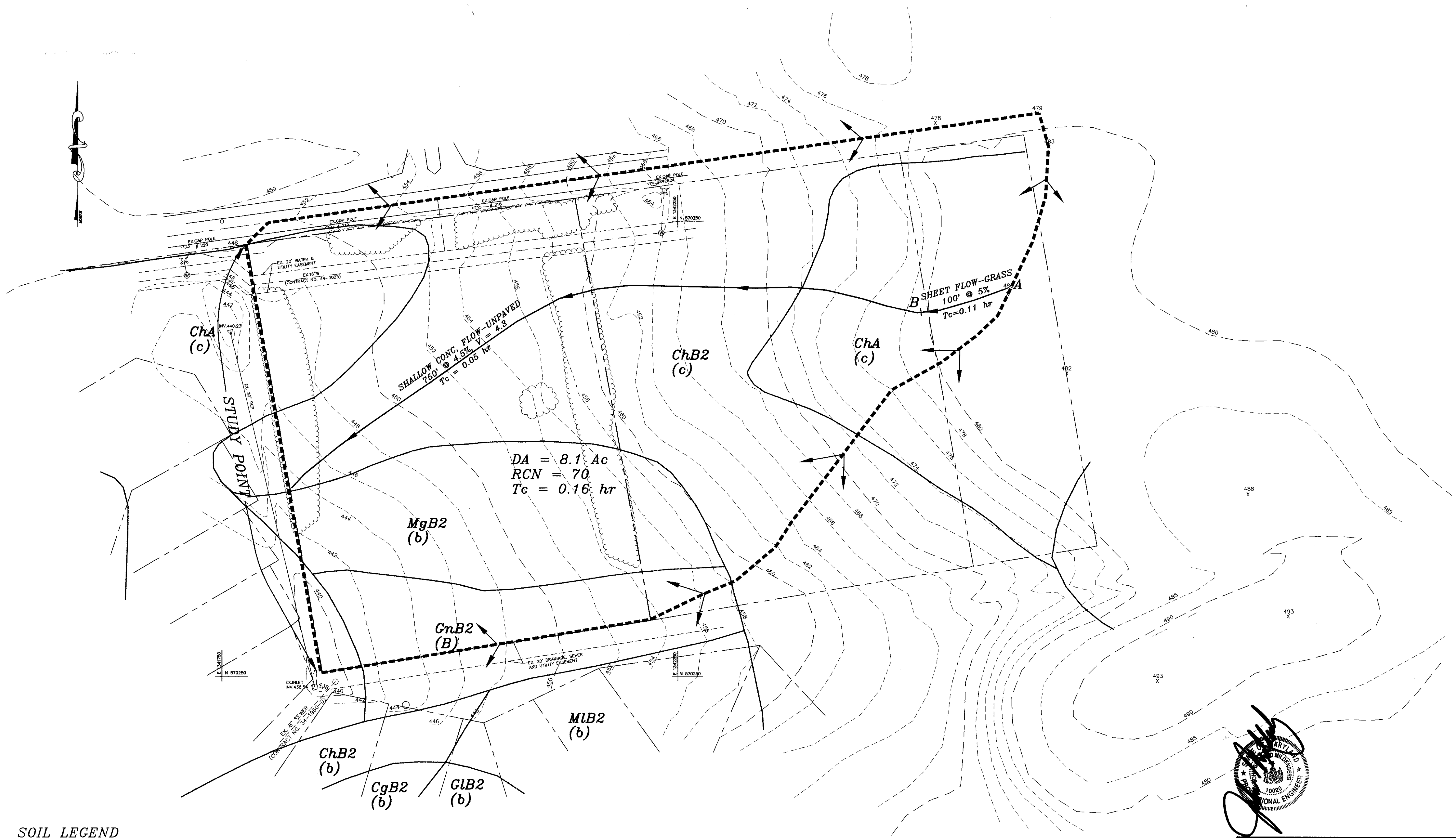
date	JUNE 97
project	97038
illustration	MAP
scope	JBM
approval	AS SHOWN

date	01/98
description	CHANGE SUBMISSION NAME FROM CEDAR VILLAS II
revisions	1

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
HOWARD COUNTY, MARYLAND  
5TH ELECTION DISTRICT  
STORMWATER MANAGEMENT SPECIFICATIONS

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042  
(410) 997-0286 Fax (410) 997-0288 Fax

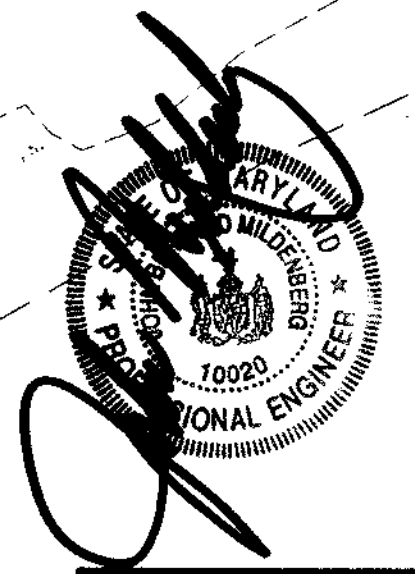




DA = 8.1 Ac  
 RCN = 70  
 Tc = 0.16 hr

**SOIL LEGEND**

- ChA —CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES.
- ChB2 —CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- CgB2 —CHESTER GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- GIB2 —GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- Gnb2 —GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- MgB2 —MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- MIB2 —MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Jacobs* 10-29-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamilton* 10/31/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William* 10/31/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

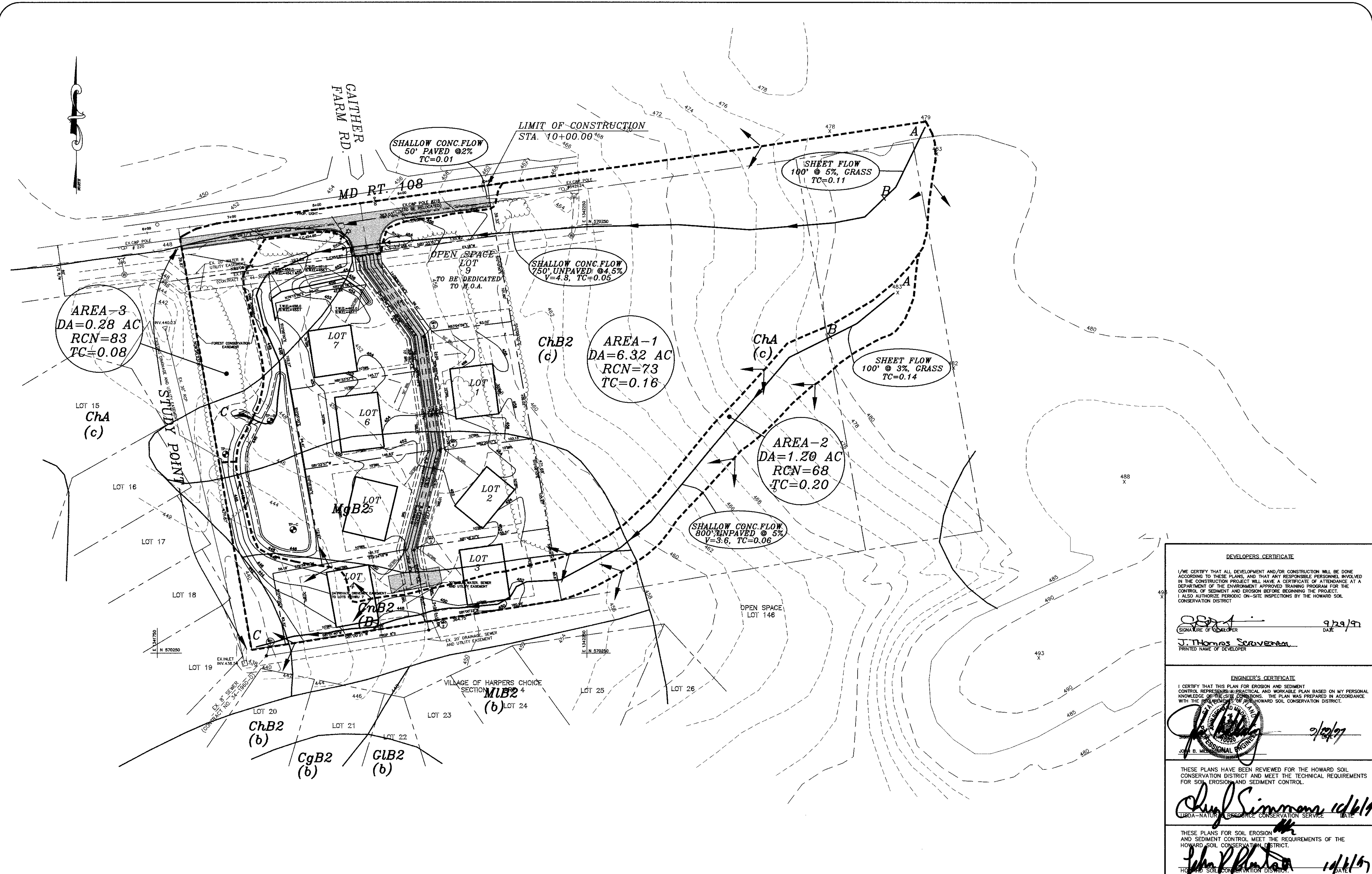
97038 DMC/EX-DAM

project	97038
date	JUNE 97
illustration	MMP
scale	1" = 60'
approval	MMP

no.	1
description	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II
date	07/28

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
 HOWARD COUNTY, MARYLAND  
 5TH ELECTION DISTRICT  
 EXISTING DRAINAGE AREA MAP

**MILDENBERG, & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0256 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.


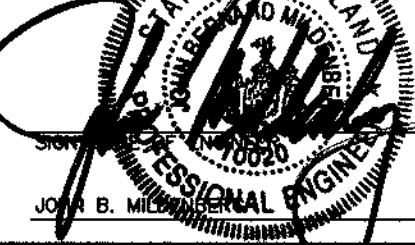



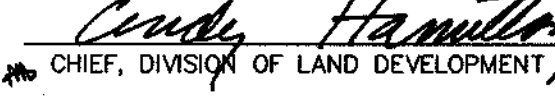



**SOIL LEGEND**

- ChA - CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES.
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- GnB2 - GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- MgB2 - MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
- MIB2 - MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.

**OWNER**  
 VERNON HUGH CARROLL WRIGHT  
 MBNA AMERICA  
 400 CHRISTIANA ROAD  
 NEWARK, DE 19713

**DEVELOPER**  
 J. THOMAS SCRIVENER  
 5072 DORSEY HALL DR. SUITE 204  
 ELLICOTT CITY, MD 21044

<p align="center"><b>DEVELOPER'S CERTIFICATE</b></p> <p>I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p align="right">  9/29/97        SIGNATURE OF DEVELOPER DATE        J. Thomas Scrivener        PRINTED NAME OF DEVELOPER     </p>	
<p align="center"><b>ENGINEER'S CERTIFICATE</b></p> <p>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. THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p align="right">  9/29/97        SIGNATURE OF ENGINEER DATE        J. B. Mendenhall        PROFESSIONAL ENGINEER     </p>	
<p>THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.</p> <p align="right">  10/1/97        SIGNATURE OF REVIEWER DATE        Doug Simmons        URBAN-NATURAL RESOURCE CONSERVATION SERVICE     </p>	
<p>THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.</p> <p align="right">  10/1/97        SIGNATURE OF REVIEWER DATE        John P. Hamilton        HOWARD SOIL CONSERVATION DISTRICT     </p>	
<p>APPROVED: DEPARTMENT OF PUBLIC WORKS</p> <p align="right">  10-24-97        SIGNATURE OF REVIEWER DATE        Andrew M. Daniels        CHIEF, BUREAU OF HIGHWAYS     </p>	
<p>APPROVED: DEPARTMENT OF PLANNING AND ZONING</p> <p align="right">  10/21/97        SIGNATURE OF REVIEWER DATE        Candy Hamilton        CHIEF, DIVISION OF LAND DEVELOPMENT     </p>	
<p align="right">  10/21/97        SIGNATURE OF REVIEWER DATE        J. Thomas Scrivener        CHIEF, DEVELOPMENT ENGINEERING DIVISION     </p>	

Project	97038	date	JUNE 97
Illustration	MMP	engineering	MMP
Scale	1"=60'	approval	MMP

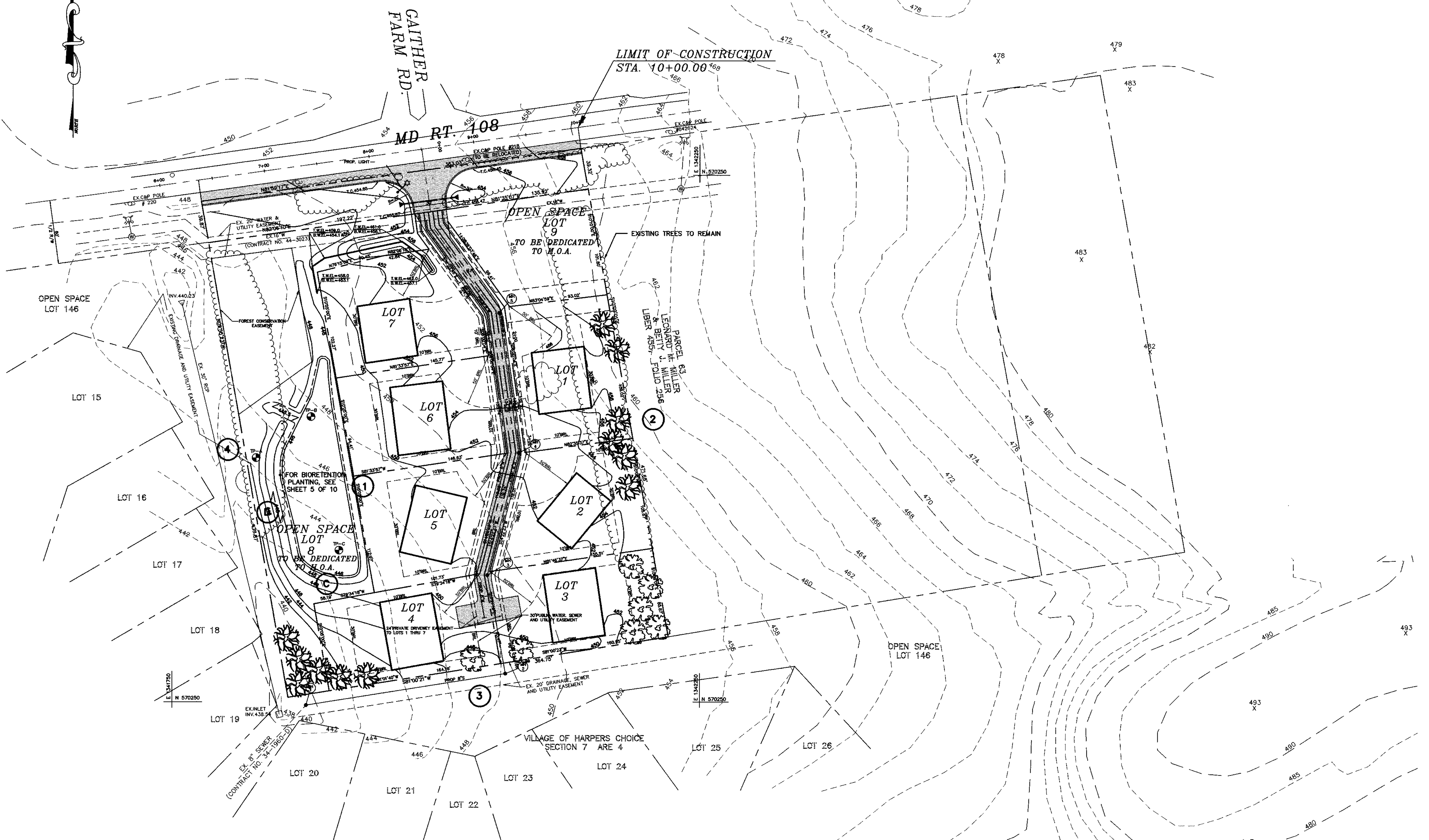
Project	97038	date	01/28/98
Illustration	MMP	description	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II
Scale	1"=60'	revision	1

TAX MAP 29, PARCEL 62  
**GATHER HUNT II**  
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DEVELOPED DRAINAGE AREA MAP

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 987-0266 Bldg. (301) 621-5521 Wash. (410) 987-0268 Fax



**NOTES:**  
 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.  
 2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 1,500.00



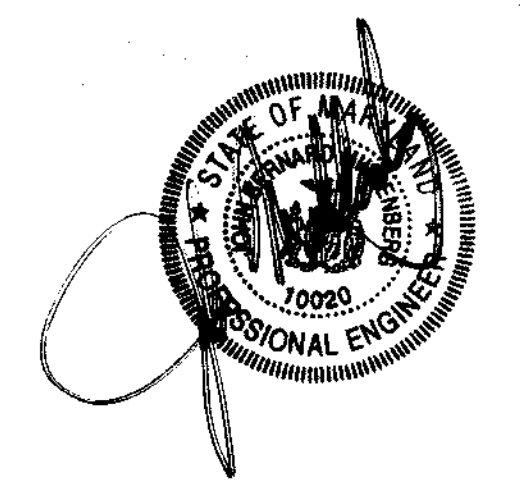
PERIMETER	EDGE TYPE
PERIMETER 1 OPEN SPACE TO ROAD - 333.03 LF	N/A
PERIMETER 2 SFD TO SFD - 70 LF EXISTING TREES TO REMAIN	A
SFD TO SFD - 401.88 LF 1 SHADE TREE / 60 LF	A
PERIMETER 3 SFD TO OPEN SPACE - 364.75 LF 1 SHADE TREE / 60 LF	A
PERIMETER 4 OPEN SPACE TO OPEN SPACE - 140 LF EXISTING TREES TO REMAIN	A
OPEN SPACE TO OPEN SPACE - 190 LF CREDIT FOR BIORETENTION PLANTING	A
OPEN SPACE TO OPEN SPACE - 147.87 LF 1 SHADE TREE / 60 LF	A
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	15
EVERGREEN TREES	0
SHRUBS	0

SWM PERIMETER	EDGE TYPE
SWM PERIMETER A - 80 LF CREDIT FOR BIORETENTION PLANTING	B
SWM PERIMETER B - 180 LF CREDIT FOR BIORETENTION PLANTING	B
SWM PERIMETER C - 60 LF CREDIT FOR BIORETENTION PLANTING	B
SWM PERIMETER D - 170 LF CREDIT FOR BIORETENTION PLANTING	B
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	0
EVERGREEN TREES	0
SHRUBS	0

date	JUNE 97
project	97038
illustration	MMP
scale	1"=50'
approval	MMP/SJD

no.	1
description	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II
revisions	
date	01/29/98

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
 5TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 LANDSCAPE PLAN



**OWNER**  
 VERNON HUGH CARROLL WRIGHT  
 MBNA AMERICA  
 400 CHRISTIANA ROAD  
 NEWARK, DE 19713

**DEVELOPER**  
 J. THOMAS SCRIVENER  
 5026 DORSEY HALL DR. SUITE 204  
 ELLICOTT CITY, MD 21044

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJ. TO PERIMETER PROPERTIES
LANDSCAPE TYPE	N/A	A
LINEAR FEET OF PERIMETER	333.03 LF	1314.30 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 210 LF OF EXISTING TREES TO REMAIN
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	YES, 190 LF OF BIORETENTION PLANTING
NUMBER OF PLANTS REQUIRED		
SHADE TREES	0	15
EVERGREEN TREES	0	0
SHRUBS	0	0
NUMBER OF PLANTS PROVIDED		
SHADE TREES	0	15
EVERGREEN TREES	0	0
OTHER TREES (2:1 SUBSTITUTION)	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0

**SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	490 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 490 LF OF BIORETENTION PLANTING
NUMBER OF TREES REQUIRED	
SHADE TREES	0
EVERGREEN TREES	0
NUMBER OF TREES PROVIDED	
SHADE TREES	0
EVERGREEN TREES	0
OTHER TREES (2:1 SUBSTITUTION)	0

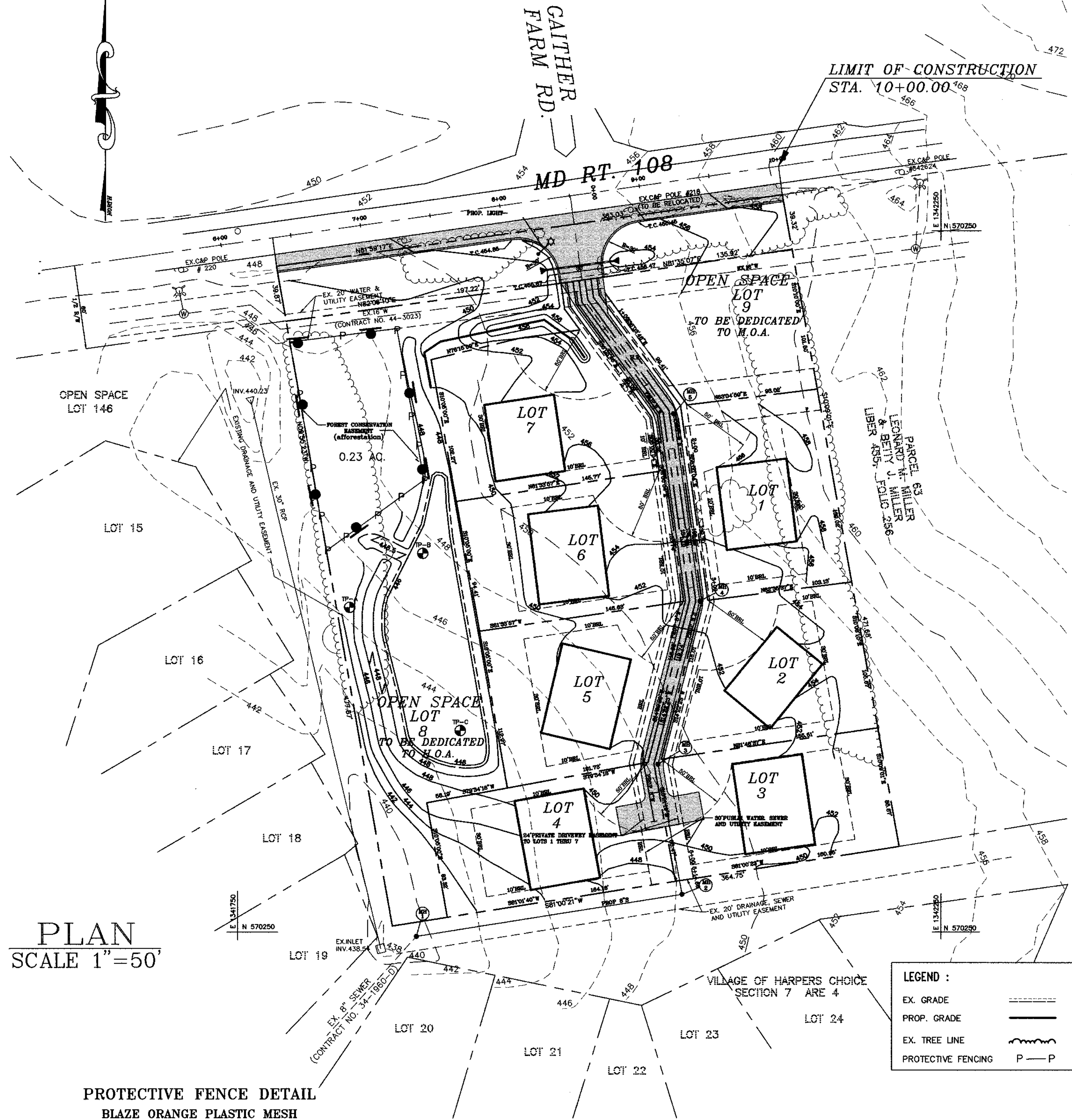
**LANDSCAPE REQUIREMENT PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
7		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
12		QUERCUS RUBRA	RED OAK	2 1/2" - 3" CAL.
<b>TOTAL</b>				<b>19 SHADE TREES</b>

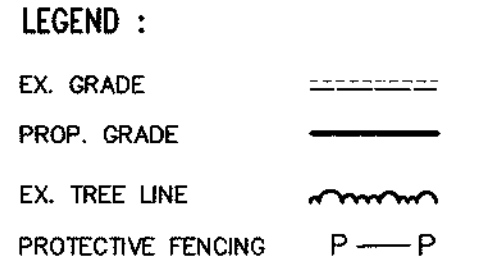
APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Richard M. Daniel* 10/29/97  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Candy Harvath* 10/29/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Chad DeWitt* 10/29/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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PLAN  
SCALE 1"=50'



PLANTING SPECIFICATIONS AND NOTES  
SITE PREPARATION AND SOILS

1. PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS. SEE PLAN FOR LOCATIONS.
2. DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 5 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE.
4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

PLANT INSTALLATION

1. THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
3. CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
5. FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
6. FOR TREES PLANTED IN THE AFFORESTATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE, RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
7. AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
8. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
9. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (16,117 SQ. FT. OF AFFORESTATION) HAVE BEEN MET BY PAYMENT OF \$ 4,835.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND.

FERTILIZING

1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
2. NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
2. ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
3. VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY AFFECTING THE PLANTED STOCK.
4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION

1. ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

AFFORESTATION PLANT LISTS

QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN. L.O.C. SPACING	SIZE & REMARKS
10	Prunus serotina Wild Black Cherry	I	M	FACU	12"	CONT/B & B 1" CAL.
10	Robinia pseudoacacia Black Locust	VI	D-M	FACU-	12"	CONT/B & B 1" CAL.
10	Quercus alba White Oak	MT	D-M	FACU-	12"	CONT/B & B 1" CAL.
10	Quercus rubra Red Oak	MT	D-M	UPL	12"	CONT/B & B 1" CAL.
10	Fraxinus americana White Ash	MT	D-M	FACU	12"	CONT/B & B 1" CAL.
10	Nyssa sylvatica Black Gum	T	M-W	FAC	12"	CONT/B & B 1" CAL.
10	Juglans nigra Black Walnut	VT	M	FACU	12"	CONT/B & B 1" CAL.
10	Cornus florida Flowering Dogwood	VT	D-M	FACU-	12"	CONT/B & B 1" CAL.
10	Acer rubrum Red Maple	VT	D-W	FAC	12"	CONT/B & B 1" CAL.

FOREST CONSERVATION DATA

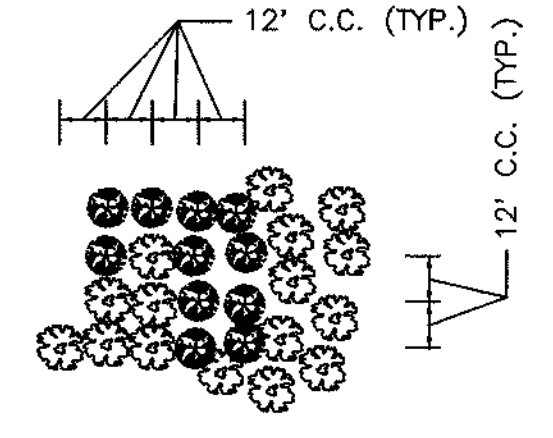
I. BASIC SITE DATA	ACRES
GROSS SITE AREA	4.00
AREA WITHIN 100 YEAR FLOODPLAIN	0
AREA WITHIN AGRICULTURE OR PRESERVATION PARCEL	0
NET TRACT AREA	4.00

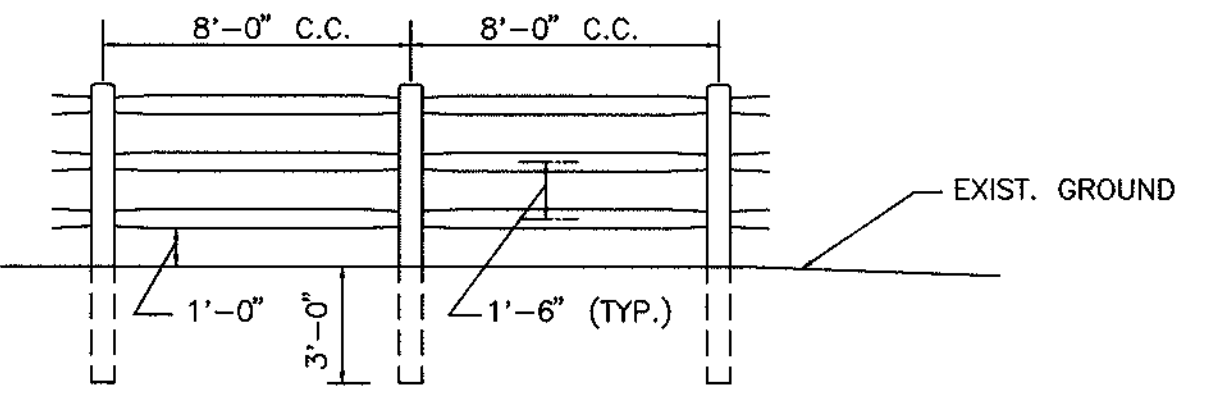
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY	
FOREST CONSERVATION THRESHOLD (FCT) (20% x A)	0.80
AFFORESTATION THRESHOLD (25% x A)	0.60
EXISTING FOREST ON NET TRACT AREA	0
TOTAL AFFORESTATION REQUIRED	0.60
TOTAL AFFORESTATION PROVIDED	0.23
REMAINING AFFORESTATION REQUIRED (FEE IN LIEU REQUESTED)	0.37

SYMBOL	NAME	TYPE
CgB2	Chester gravelly silt loam	B
ChB2	Chester silt loam	B
G1B2	Glenelg loam	B
GnA	Glenville silt loam	C
GnB2	Glenville silt loam	C
MgB2	Manor gravelly loam	B
M1B2	Manor loam	B

SOILS MAP NO. 19

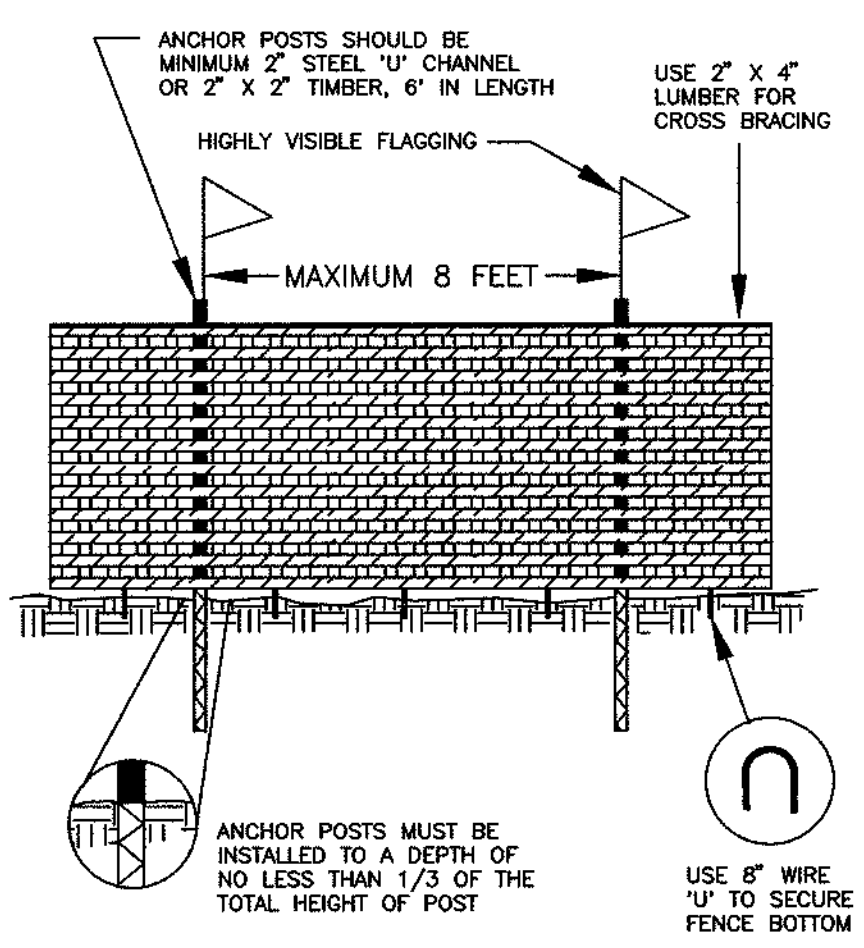


SCHEMATIC PLANTING PLAN

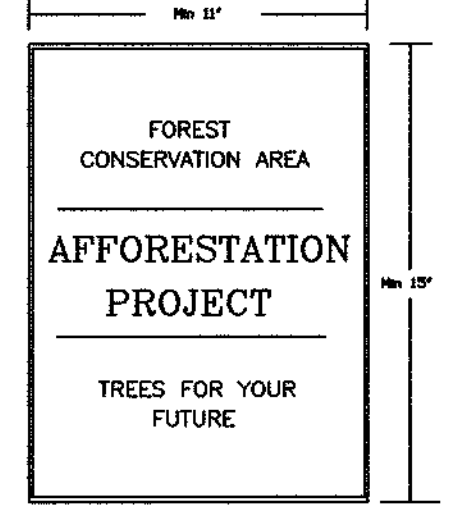


DETAIL - POST AND RAIL FENCE

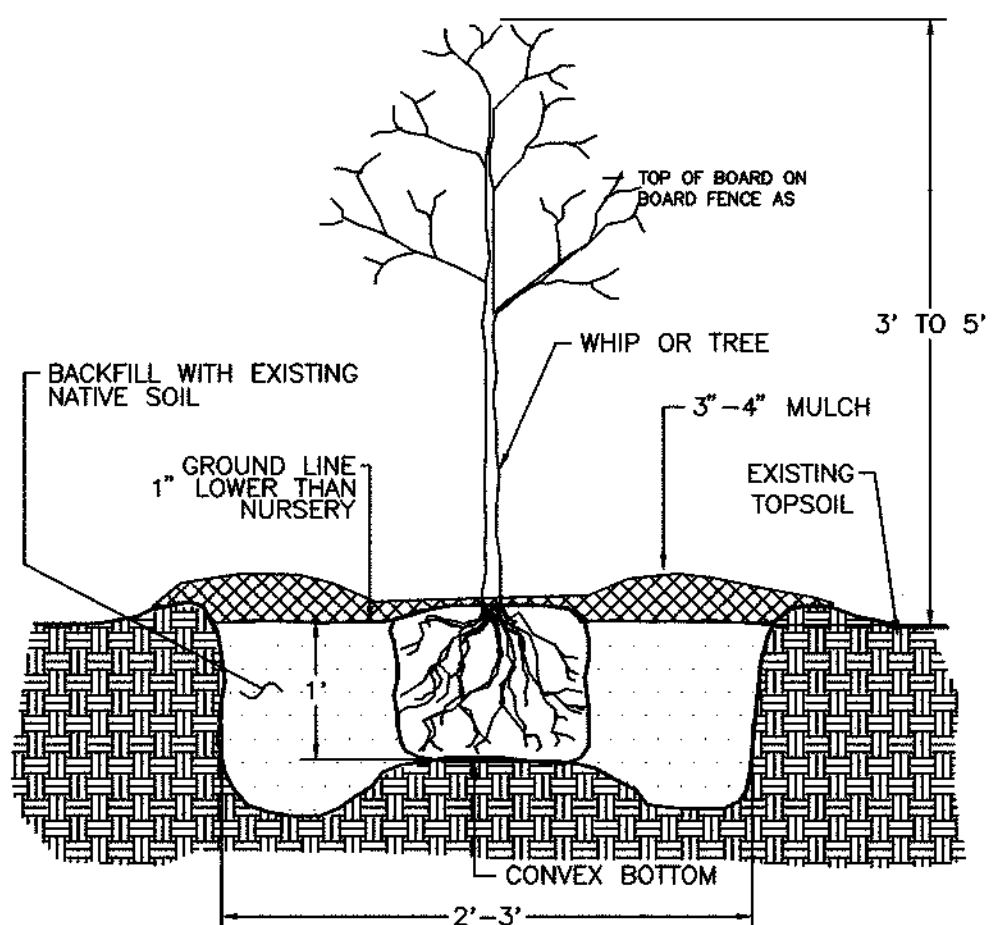
PROTECTIVE FENCE DETAIL  
BLAZE ORANGE PLASTIC MESH



- NOTES:
1. FOREST PROTECTION DEVICE ONLY.
  2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  3. BOUNDARIES OF RETENTION AREA SHOULD BE SIGNED AND FLAGGED PRIOR TO INSTALLING DEVICE.
  4. ROOT DAMAGE SHOULD BE AVOIDED.
  5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
  6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.



SIGNAGE DETAIL  
NOT TO SCALE

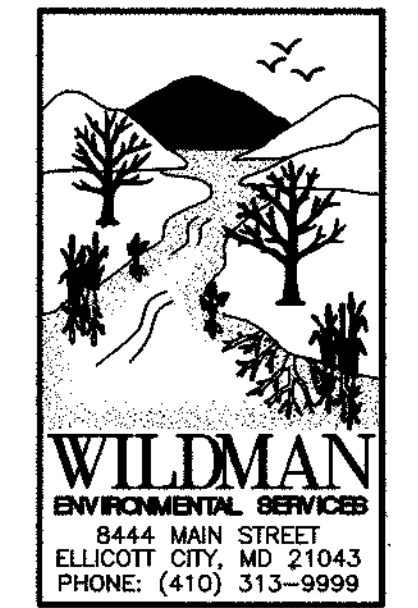


TREE PLANTING DETAIL  
CONTAINER GROWN

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daneker* 10-24-97  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVAL: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Haniffa* 10/31/97  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Phil Damico* 10/31/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



*Ronald B. Wildman* 8/2/97  
RONALD B. WILDMAN  
QUALIFIED PROFESSIONAL

date	JUNE 97
project	970388
illustration	MMP
scale	1"=60'
approval	MMP

no.	1	description	CHANGE SUBDIVISION NAME FROM CEDAR VILLAS II	date	01/29/98
revisions					

TAX MAP 29, PARCEL 62  
**GAITHER HUNT II**  
HOWARD COUNTY, MARYLAND  
5TH ELECTION DISTRICT  
FOREST CONSERVATION / AFFORESTATION PLAN

**MILDENBERG, BOENDER & ASSOC., INC.**  
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