

# ROAD CONSTRUCTION PLANS

## AMBER MEADOW

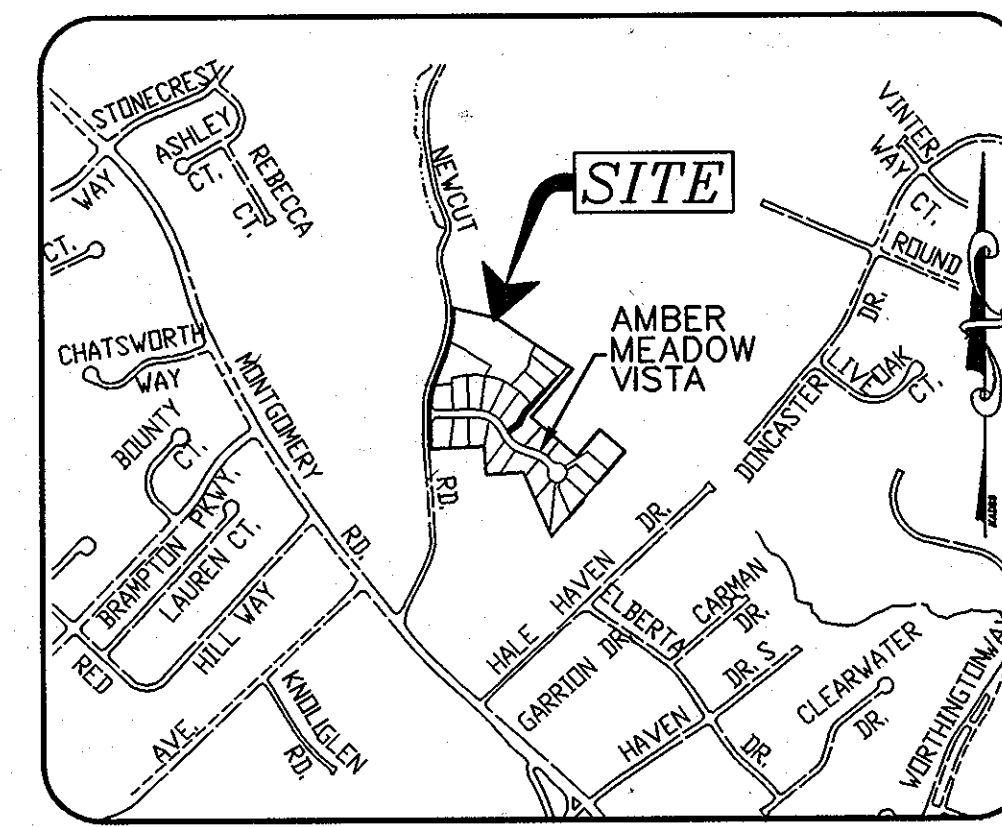
### LOTS 1-23 & OPEN SPACE LOTS 24-27

### SECOND ELECTION DISTRICT

### HOWARD COUNTY, MARYLAND

#### GENERAL NOTES:

- THIS PLAN IS SUBJECT TO COUNTY COUNCIL BILL 45-2003, THE AMENDED 5th EDITION SUBDIVISION REGULATIONS, EFFECTIVE OCTOBER 2, 2003, AND TO THE 2006 COMPREHENSIVE ZONING PLAN DATED JULY 28, 2006. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- SITE DATA:
  - ZONING: R-20
  - TAX MAP 31 PARCEL 11 BLOCK 8
  - DEED REFERENCE: 7301/563
  - GROSS AREA: 12.76 ACRES±
  - MINIMUM LOT SIZE: 14,000 SQFT
  - NUMBER OF PROPOSED BUILDABLE LOTS: 23
  - NUMBER OF OPEN SPACE LOTS: 4
  - OPEN SPACE REQUIRED (30% X 12.76ac): =3.83 ACRES±
  - OPEN SPACE PROVIDED: =3.86 ACRES±
  - CREDITED OPEN SPACE: =3.84 ACRES±
  - NON-CREDITED OPEN SPACE: =0.02 ACRES±
  - AREA OF BUILDABLE LOTS: =7.61 ACRES±
  - AREA OF PUBLIC ROAD DEDICATION: =1.29 ACRES±
- TOPOGRAPHIC INFORMATION IS BASED ON FIELD RUN TOPOGRAPHY PERFORMED BY MILDBERG BOENDER & ASSOCIATES, INC. ON OR ABOUT FEBRUARY 2004.
- BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY PERFORMED BY MILDBERG BOENDER & ASSOCIATES, INC. ON OR ABOUT JULY 2003.
- COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 31A8 & 31DA.
  - STA. No. 31A8 N 573,984.47 E 1,369,949.47 ELEV. 499.938
  - STA. No. 31DA N 571,982.65 E 1,372,145.08 ELEV. 481.646
- BASED ON AVAILABLE COUNTY DATA, NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON SITE.
- SOILS DATA BASED ON HOWARD COUNTY SOIL SURVEY DATED 1968, SHEET 20.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER CONTRACT NUMBER #14-4327-D.
- WETLAND STUDY PREPARED BY ECO-SCIENCE PROFESSIONAL, INC., IN AUGUST 2003.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENT).
  - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN).
  - C) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FT RADIUS.
  - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADING).
  - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOODS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
  - G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- ALL STRUCTURES TO BE REMOVED UNLESS OTHERWISE NOTED.
- NO STEEP SLOPES EXIST ON SITE.
- STORM WATER MANAGEMENT IS PRIVATELY OWNED AND MAINTAINED BY THE H.O.A. AND WILL BE PROVIDED VIA: MICRO-POOL EXTENDED DETENTION POND, STONE STORAGE TRENCH, RAIN GARDENS, SHEET FLOW TO BUFFER AND NATURAL CONSERVATION AREA. THE POND PROVIDES MANAGEMENT FOR THE NOV. 1, 2, 10, 25 AND 100 YEAR EVENTS. THE STONE TRENCH PROVIDES ROW FOR THE ENTIRE PROJECT. RAIN GARDENS ARE PROVIDED FOR THE REAR OF LOTS 9-14. SHEET FLOW TO BUFFER IS PROVIDED FOR LOTS 15-17.
- NO FLOODPLAINS EXIST ON SITE AS CERTIFIED BY MILDBERG BOENDER & ASSOC., INC. IN AUGUST 2003.
- ADEQUATE FACILITIES ROAD TEST EVALUATION WAS PERFORMED BY MARS GROUP IN JULY 2003. APPROVED UNDER S-04-04.
- PERMETER AND STORMWATER MANAGEMENT LANDSCAPING SHALL BE PROVIDED AS SHOWN ON THE LANDSCAPE PLAN SHEET OF THE ROAD CONSTRUCTION DRAWINGS FOR THIS SITE. FINANCIAL SURETY FOR 73 SHADE TREES, 26 EVERGREENS AND 40 SHRUBS IN THE AMOUNT OF \$27,000.00 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN, F-07-083.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY PROVIDING 2.10 ACRES OF RETENTION, 0.79 ACRES OF ON-SITE REFORESTATION AND PAYMENT OF FEE-IN-LIEU FOR 1.28 ACRES OF REQUIRED-REFORESTATION TO THE FOREST CONSERVATION FUND IN THE AMOUNT OF \$41,817.60 (\$5,756.8 x .75). FINANCIAL SURETY FOR THE RETENTION OF 2.10 AC. (91,478 S.F. x .02) IN THE AMOUNT OF \$18,295.20 AND 0.79 ACRES OF REFORESTATION (34,412.40 S.F. x .50) IN THE AMOUNT OF \$17,206.20 FOR A TOTAL OF \$35,501.40 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN, F-07-083.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (OCTOBER 2006)." THE OCTOBER 2006 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE STREET LIGHT LOCATIONS AND TYPES OF LIGHTS SHOWN ON SHEETS 2 & 3 ARE AS FOLLOWS:
  - 150-WATT HPS VAPOR PREMIER POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE STATION 0+20, 36' RIGHT (CORNER OF AMBER MEADOW VISTA AND NEW CUT ROAD).
  - 100-WATT HPS VAPOR "PREMIER" POST TOP FIXTURE ON A 14' BLACK FIBERGLASS POLE AT ROAD A, STATION 3+30, 15' LEFT, STATION 5+54, 15' RIGHT, LP STATION 0+70, 3' BACK.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ASPHALT.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED SQUARE TUBE POST (1 1/2" DIA) 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED IN TOP OF EACH POST.
- WHERE NEEDED SMOOTH OUT OLD DRIVEWAY, PLANT TREES AND COVER WITH ECM/SEED.



VICINITY MAP  
SCALE: 1"=1000'  
ADC MAP 16, F-1

#### LEGEND

- DENOTES WETLANDS
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION EASEMENT (REFORESTATION)
- DENOTES 4' CONCRETE SIDEWALK
- DENOTES LIMITS OF DISTURBANCE
- DENOTES LEVEL SPREADER
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- INLET PROTECTION DEVICE
- EARTH DIKE
- EXISTING TREELINE
- PROPOSED TREELINE
- REMOVABLE PUMP STATION
- RAINGARDEN

BY THE DEVELOPER:  
"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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."  
Signature of Developer: *Russell Dickens* DATE: 11/5/07  
RUSSELL DICKENS  
PRINTED NAME OF DEVELOPER



BY THE ENGINEER:  
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."  
Signature of Engineer: *Russell Dickens* DATE: 11/5/07  
R. JACOB HIKMAT  
PRINTED NAME OF ENGINEER

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: *11/5/07*

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

HOWARD SOIL CONSERVATION DISTRICT DATE: *11/5/07*

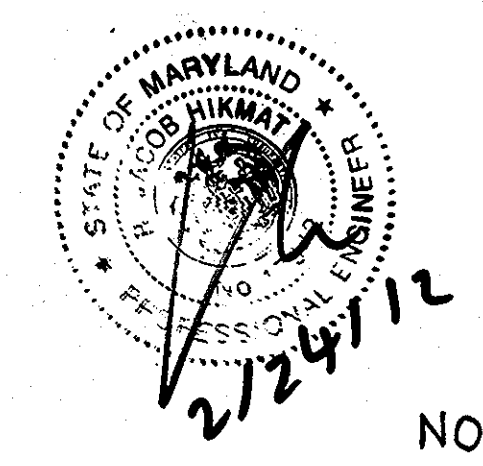
APPROVED: DEPARTMENT OF PUBLIC WORKS  
Signature: *William J. ...* DATE: 11-20-07  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Signature: *...* DATE: 11/24/07  
CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *...* DATE: 11/27/07  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**OWNER & DEVELOPER**  
SUN MEADOW, L.C.  
5094 DORSEY HALL DRIVE, SUITE 104  
ELLCOTT CITY, MD 21042  
410-720-3021  
(CONTACT: RUSSELL DICKENS)

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NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

date	NOV 2007
project	03-050
illustration	MMM
scale	NTS
approval	MMM
	JBM

date	
description	
revisions	

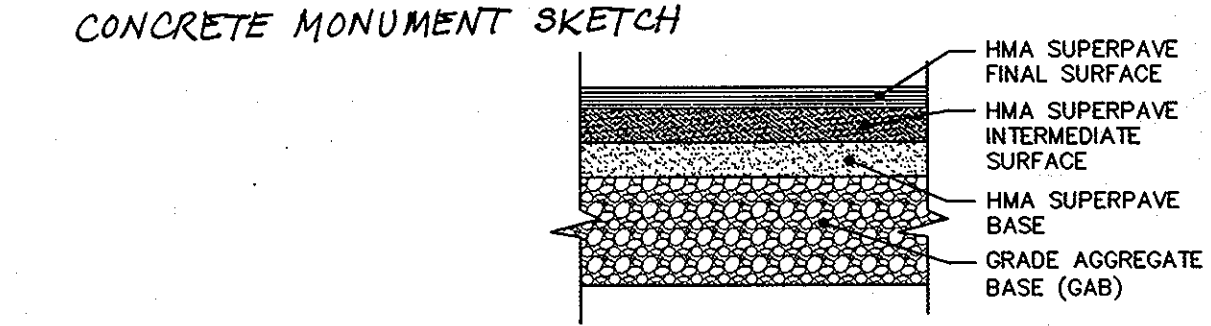
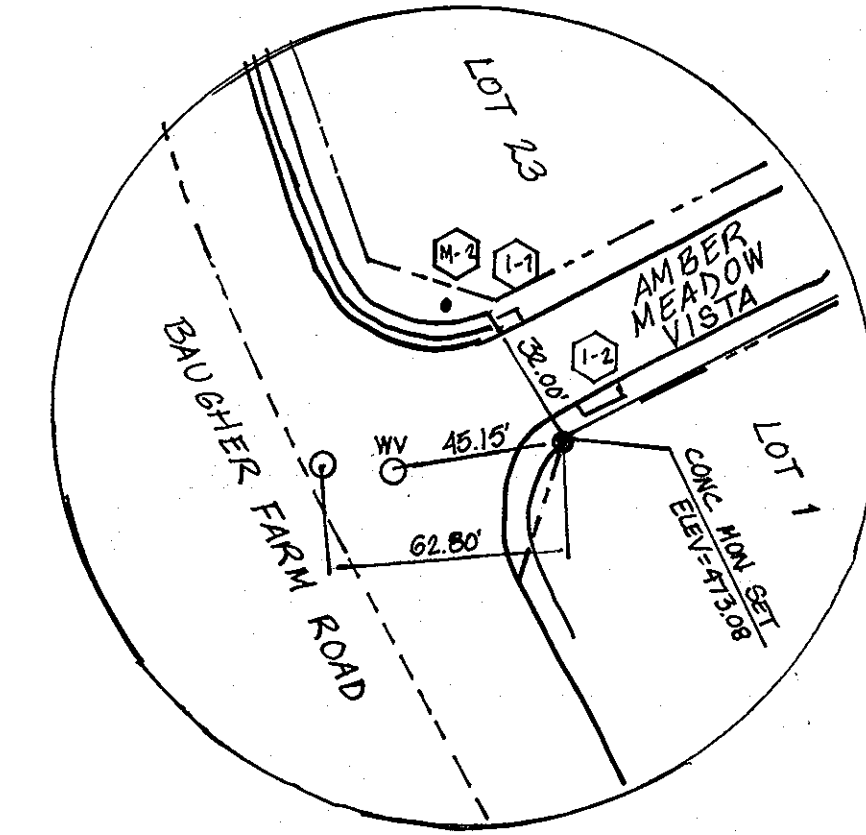
AS-BUILT  
**AMBER MEADOW**  
 LOTS 1-23 AND OPEN SPACE LOTS 24-27  
 TAX MAP 31 - GRID 8 - PARCEL 11  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 COVER SHEET

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



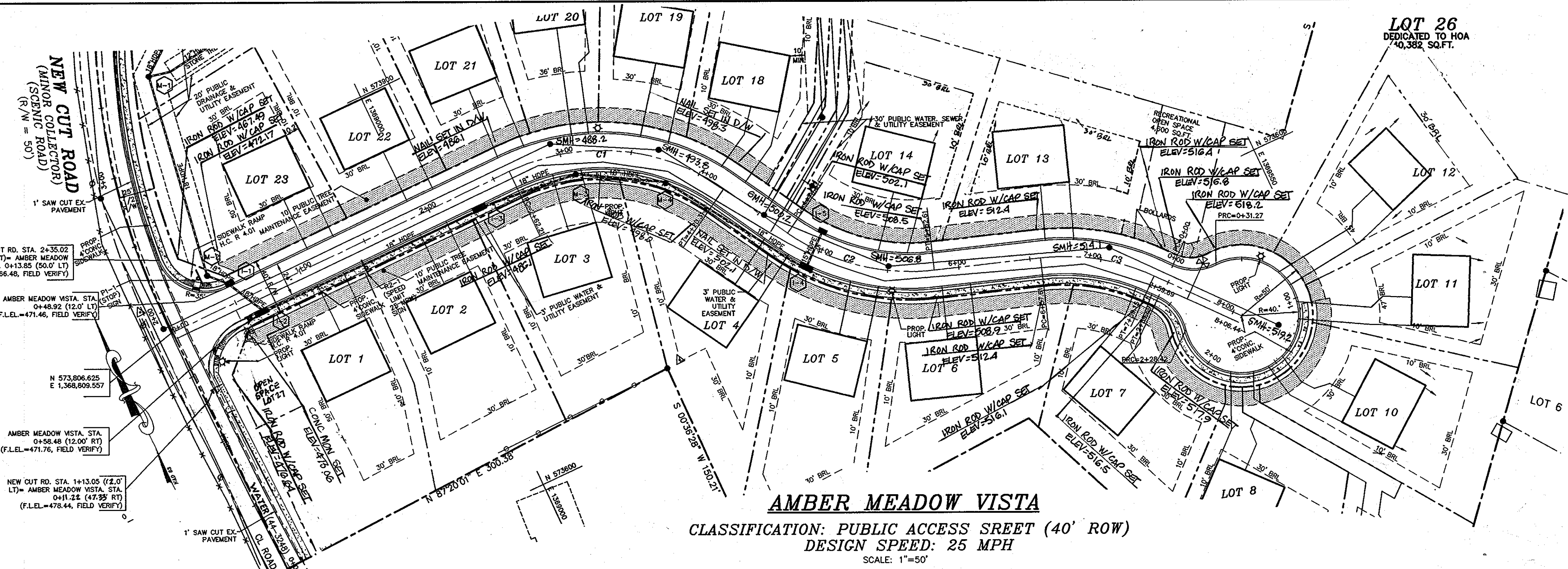
CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING & DISTANCE
C1	158.09	150.00	87.28	60°23'13"	N60°12'25"W 150.88
C2	108.10	150.00	56.52	41°17'28"	S50°39'33"E 105.78
C3	81.54	150.00	41.80	31°08'44"	N53°43'55"W 80.54

NOTE:  
FOR STREET LIGHT SCHEDULE SEE GENERAL NOTES ON THE COVER SHEET, P. 21.

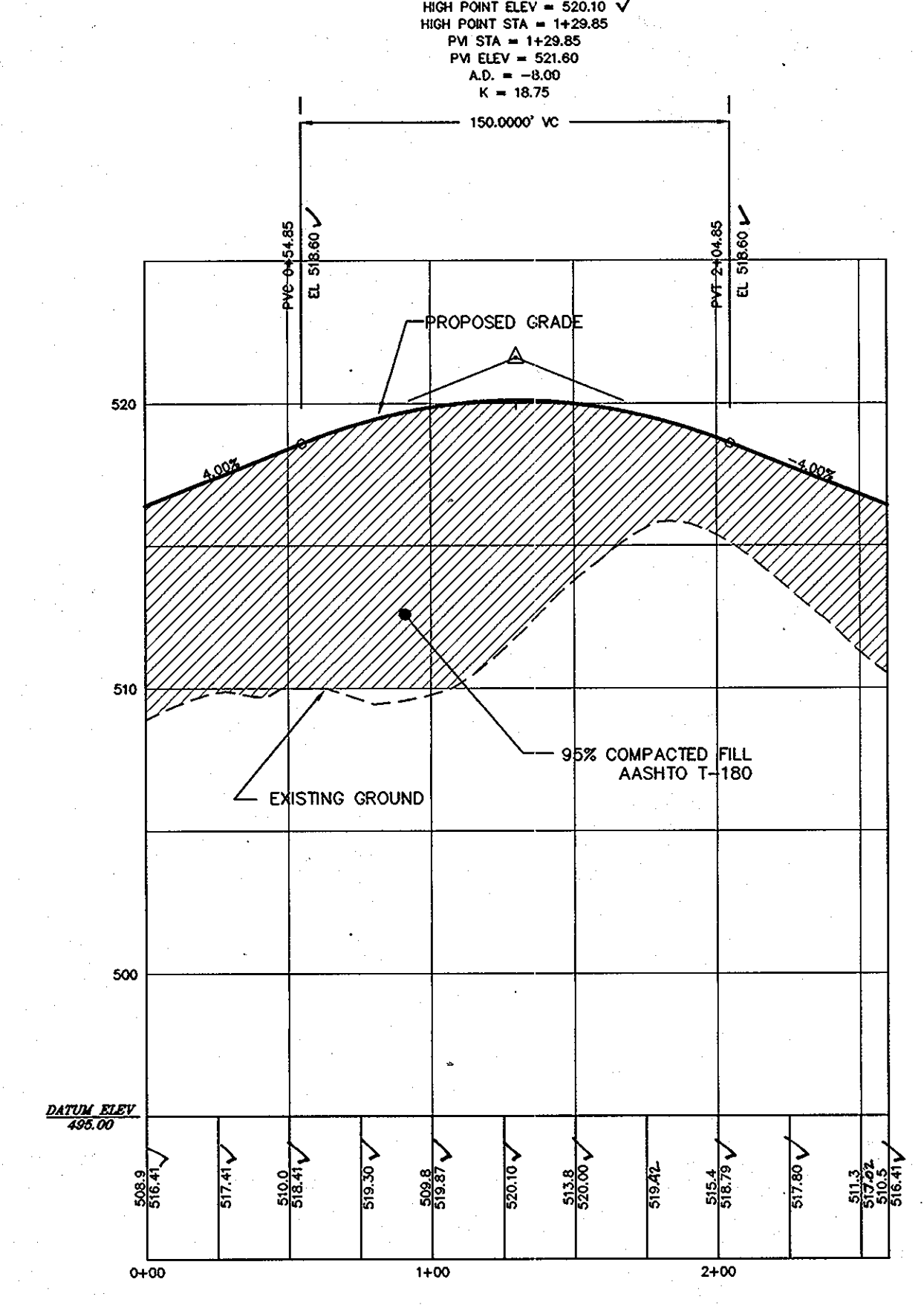
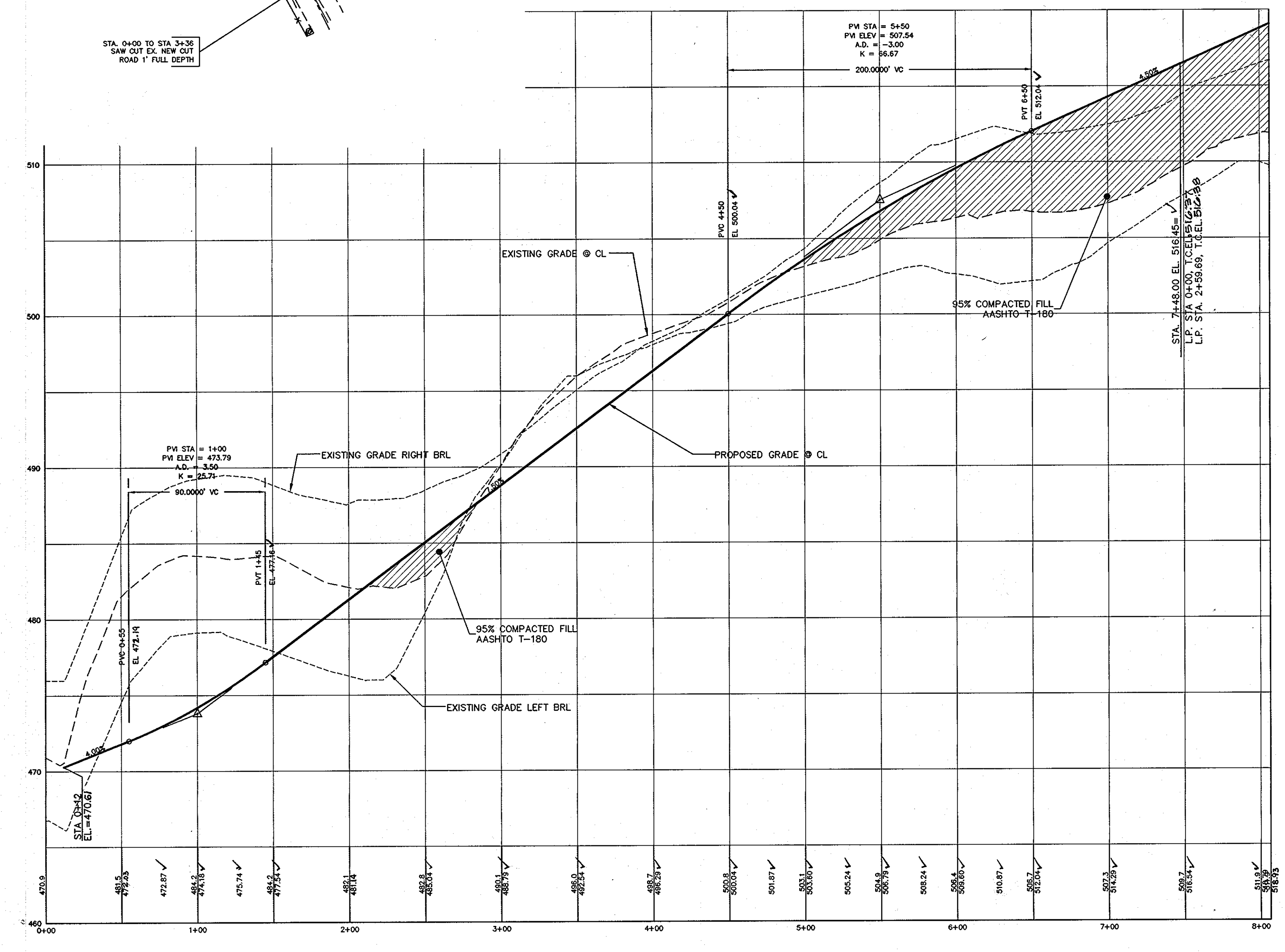


NOTE: FOR PAVEMENT MATERIAL WIDTH REFERENCE HOWARD COUNTY R-2.01

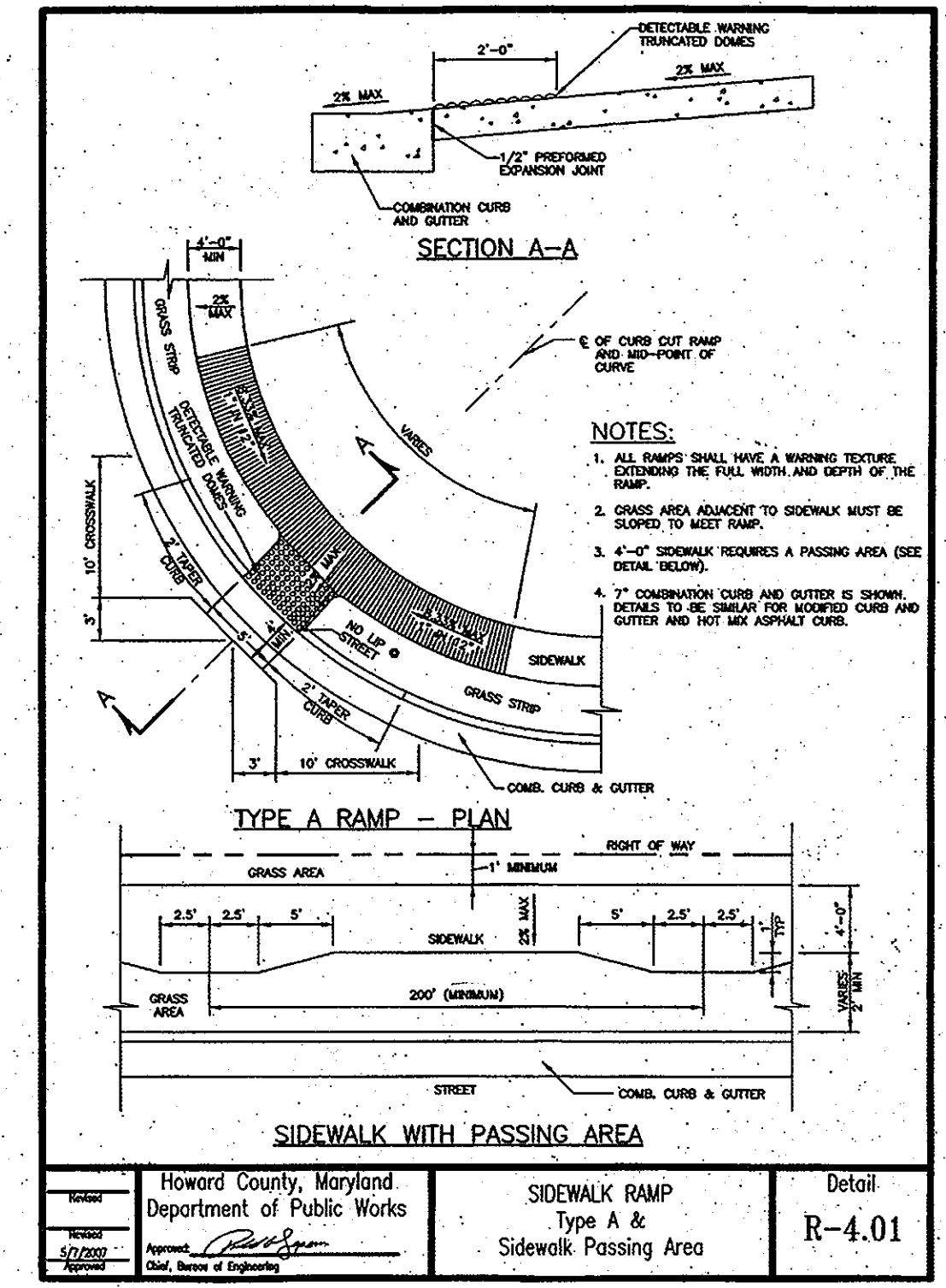
**PAVING SECTION - P2**  
SECTION N.T.S.



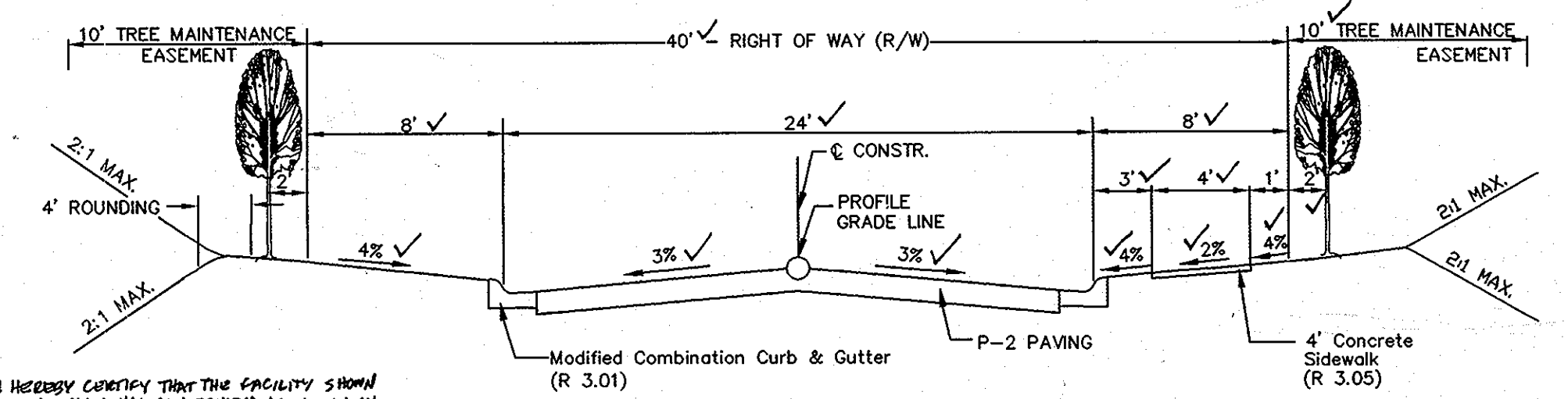
**AMBER MEADOW VISTA**  
CLASSIFICATION: PUBLIC ACCESS STREET (40' ROW)  
DESIGN SPEED: 25 MPH  
SCALE: 1"=50'



**AMBER MEADOW VISTA LINEAR PROFILE**  
SCALE: HOR: 1"=50'  
VER: 1"=5'



**SIDEWALK RAMP DETAIL**  
SCALE: N.T.S.



**AMBER MEADOW VISTA**  
**TYPICAL ROADWAY SECTION**  
CLASSIFICATION: PUBLIC ACCESS STREET (40' ROW)  
DESIGN SPEED: 25 MPH  
SECTION NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Walter J. McCall* 11-20-07  
CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Hanna* 11/29/07  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Mark Rasmussen* 11/27/07  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**OWNER & DEVELOPER**  
SUN MEADOW, L.C.  
5094 DORSEY HALL DRIVE, SUITE 104  
ELLCOTT CITY, MD 21042  
410-720-3021  
(CONTACT: RUSSELL DICKENS)

**AMBER MEADOW VISTA PROFILE**  
SCALE: HOR: 1"=50'  
VER: 1"=5'

**CLASSIFICATION: PUBLIC ACCESS STREET (40' ROW)**  
DESIGN SPEED: 25 MPH

11/5/07

2/24/12

STATE OF MARYLAND  
ENGINEERING PROFESSIONAL ENGINEER  
No. 17345

STATE OF MARYLAND  
ENGINEERING PROFESSIONAL ENGINEER  
No. 17942

project date NOV 2007  
illustration engineering  
scale MAM  
revision 1  
date 11-20-07  
description  
revisions

RENAME NEW CUT RD. W/MEADOW REVISION SHEET TITLE  
AND CORN 1, 11, 13, 14.  
I. n.c.

**A5-BUILT**  
**AMBER MEADOW**  
LOTS 1-23 & OPEN SPACE LOTS 24-27  
TAX MAP 31 - GRID 8 - PARCEL 11  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
ROAD PLANS, PROFILES AND TYPICAL SECTIONS

**MILDENBERG, BOENDER & ASSOC., INC.**  
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(410) 997-0286 Fax (301) 621-5521 Wash. (410) 997-0298 Fax



**STORMWATER MANAGEMENT**

WQV REQ'D = 0.29 AC. FT.  
 WQV PROVD = 0.29 AC. FT. (WITH CREDITS)  
 REV REQ'D = 0.06 AC. FT.  
 REV PROVD = 0.06 AC. FT. (WITH CREDITS)  
 CPV PEAK Q = 0.09 CFS  
 CPV WSEL = 454.55  
 QP 10 = 9.3 CFS (FROM SWMF)  
 QP 100 = 31.2 CFS (FROM SWMF)  
 10 YR. WSEL = 456.33  
 100 YR. WSEL = 457.15  
 THIS FACILITY IS A CLASS A SWMF  
 P-1 MICRO POOL EXTENDED DETENTION  
 PRIVATELY OWNED AND MAINTAINED  
 REV IS PROVIDED BY AN OFF-LINE  
 RECHARGE TRENCH

**LEGEND**

- DENOTES WETLANDS
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION EASEMENT (REFORESTATION)
- DENOTES 4' CONCRETE SIDEWALK
- DENOTES LIMITS OF DISTURBANCE
- DENOTES LEVEL SPREADER
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING
- INLET PROTECTION DEVICE
- EARTH DIKE
- EXISTING TREELINE
- PROPOSED TREELINE
- REMOVABLE PUMP STATION
- RAINGARDEN

NOTE: FOR DIMENSION OF OUTLET PROTECTION SEE SHEET 6 OF 11.

BY THE DEVELOPER:  
 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature of Developer: *Russell Dickens* DATE: 11/5/07  
 PRINTED NAME OF DEVELOPER: RUSSELL DICKENS

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
 Signature of Engineer: *R. Jacob Himat* DATE: 11/5/07  
 PRINTED NAME OF ENGINEER: R. JACOB HIMAT

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

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: \_\_\_\_\_

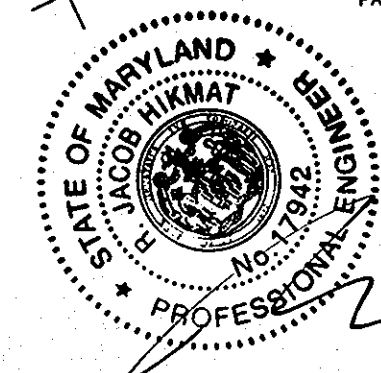
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *[Signature]* DATE: 4/15/07  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Signature: *[Signature]* DATE: 11-20-07  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Signature: *[Signature]* DATE: 11/29/07  
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* DATE: 4/27/07  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**OWNER & DEVELOPER**  
 SUN MEADOW, L.C.  
 5094 DORSEY HALL DRIVE, SUITE 104  
 ELLICOTT CITY, MD 21042  
 410-720-3021  
 (CONTACT: RUSSELL DICKENS)



NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET



**OUTLET CHANNEL**  
 SCALE: 1"=30'  
 NOTE: FOR PROFILE AND SECTION SEE SHEET 7 OF 11

Project	date	NOV 2007
OS-50	illustration	MMM
MMM	scale	50
MMM	approval	JBM

Project	date	11/5/07
OS-50	illustration	MMM
MMM	scale	50
MMM	approval	JBM

**AMBER MEADOW**  
 LOTS 1-23 AND OPEN SPACE LOTS 24-27  
 TAX MAP 31 - GRID 8 - PARCEL 11  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**GRADING AND SEDIMENT CONTROL PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
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 (410) 997-0286 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax



HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE AND OTHER ACCEPTABLE LONG-LEAVED VEGETATIVE COVER IS NEEDED PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

SEEDING 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: 1) FERTILIZER - APPLY 2 TONS PER ACRE DOMOLIC LIMESTONE (92 LBS./1000 SQ.FT.)...

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 140 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING...

TEMPORARY SEEDING NOTES

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

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING 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.)

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 140 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING...

STANDARD SEDIMENT CONTROL NOTES

1) 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...

2) 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'...

3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMITS SEDIMENT CONTROL STRUCTURES...

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FINISHED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 11, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL...

5) 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...

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL INSPECTOR FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS: TOTAL AREA OF SITE: 12.76 ACRES; AREA DISTURBED: 3.14 ACRES; AREA TO BE ROOFED OR PAVED: 3.14 ACRES; AREA TO BE VEGETATIVELY STABILIZED: 15.00 ACRES...

8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMANENT EROSION AND SEDIMENT CONTROL MEASURES...

11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR SHORTER 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 SUBGRADE PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

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: a. THE TEXTURE OF THE EXPOSED SUBGRADE/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH...

CONSTRUCTION AND MATERIAL SPECIFICATIONS: 1. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THIS SPECIFICATION...

2. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING: a. 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...

3. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES: a. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

4. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES: a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING: i. pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5...

5. 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: a. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO DETERMINE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS...

6. COMPOSTED SLUDGE SHALL BE TESTED TO DETERMINE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: a. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 7.0 TO 8.0...

7. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB./1,000 SQUARE FEET, LIME APPLICATION RATE: REFERENCED: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING, MD-PA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

8. TEMPORARY DUST CONTROL MEASURES: 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY, MULCH SHOULD BE PRESENT THROUGHOUT CONSTRUCTION...

9. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW...

10. OBTAIN GRADING PERMIT (1 DAY)

11. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1 DAY)

12. INSTALL CLEAN WATER DIVERSION DIKE (2 DAYS)

13. INSTALL SILT FENCE AND SUPER SILT FENCES (2 DAYS)

14. CONSTRUCT SEDIMENT BASIN WITH ALL BASIN CONSTRUCTION MATERIALS TO BE ON SITE BEFORE START OF DIRT MOVEMENT (10 DAYS)

15. CONSTRUCT RETAINING WALLS INDICATED, ATTACH PLATE WITH 4" ORifices AT HEADWALL OF LOW FLOW PIPE. (15 DAYS)

16. WITH PERMISSION FROM SEDIMENT CONTROL INSPECTOR, BRING SITE TO GRADE AND CONSTRUCT ROADS TO BASE FLOWLINE (10 DAYS)

17. PROVIDE DUST CONTROL AS DIRECTED BY SEDIMENT CONTROL INSPECTOR (45 DAYS)

18. CONSTRUCT ROAD IMPROVING AND CURB & GUTTER ALONG NEW CUT ROAD. INSTALL SUPER SILT FENCE AROUND LIMITS OF ROAD IMPROVING STRIP (10 DAYS)

19. LIMIT ROAD WIDENING L.O.D. TO THAT WHICH MUST BE FULLY STABILIZED WITH STONE BASE, CONCRETE, FORMED BY THE END OF EACH DAY

20. CONSTRUCT SUPER SILT FENCE BEHIND NEW CURB ALONG NEW CUT ROAD (1 DAY)

21. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT BASIN HAVE BEEN STABILIZED AND WITH APPROVAL OF SEDIMENT INSPECTOR CONVERT SEDIMENT BASIN TO PERMANENT STORMWATER MANAGEMENT POND (45 DAYS)

22. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CONSTRUCT LEVEL SPREADERS (5 DAYS)

23. STABILIZE ALL REMAINING DISTURBED AREAS (3 DAYS)

24. WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL OLD AND NEW JUNK, TRASH AND DEBRIS FROM THE FLOODPLAINS, STREAMS, WETLANDS AND THEIR BUFFERS, AND FROM FOREST CONSERVATION AREAS.

25. AFTER SITE HAS BEEN CONSTRUCTED, SUBMIT AS-BUILT PLANS TO THE COUNTY FOR APPROVAL.

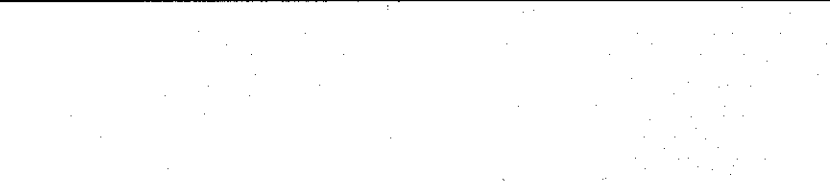
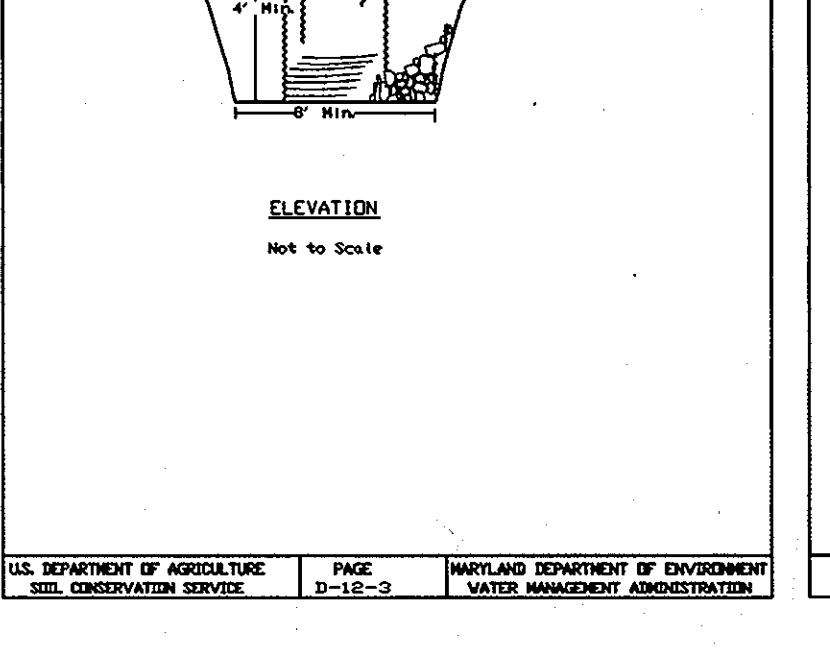
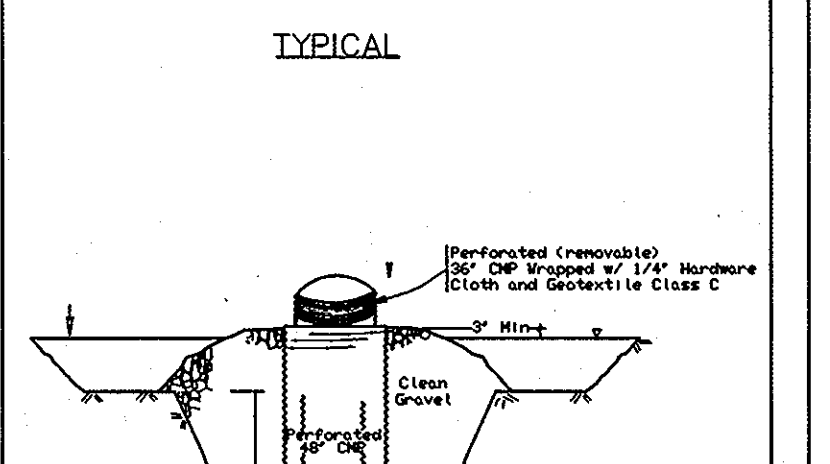
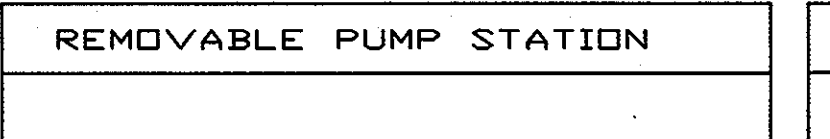
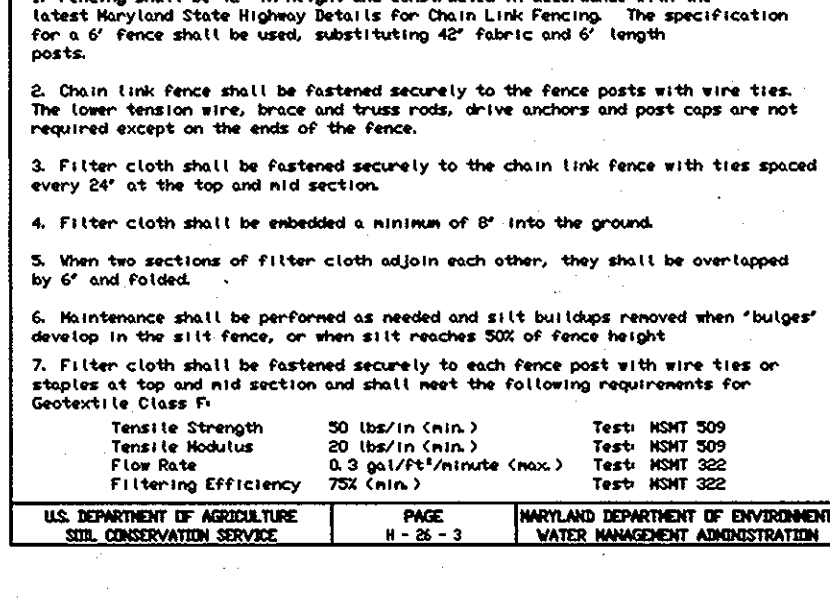
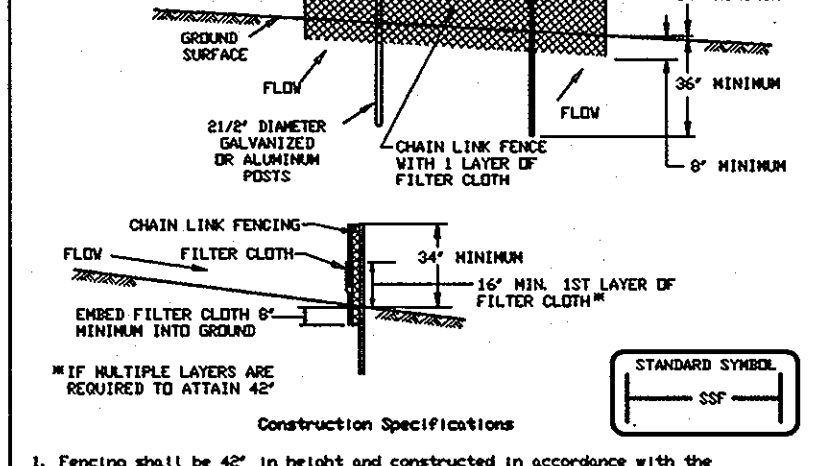
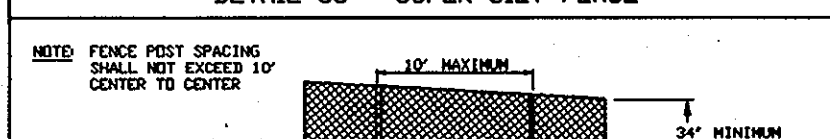
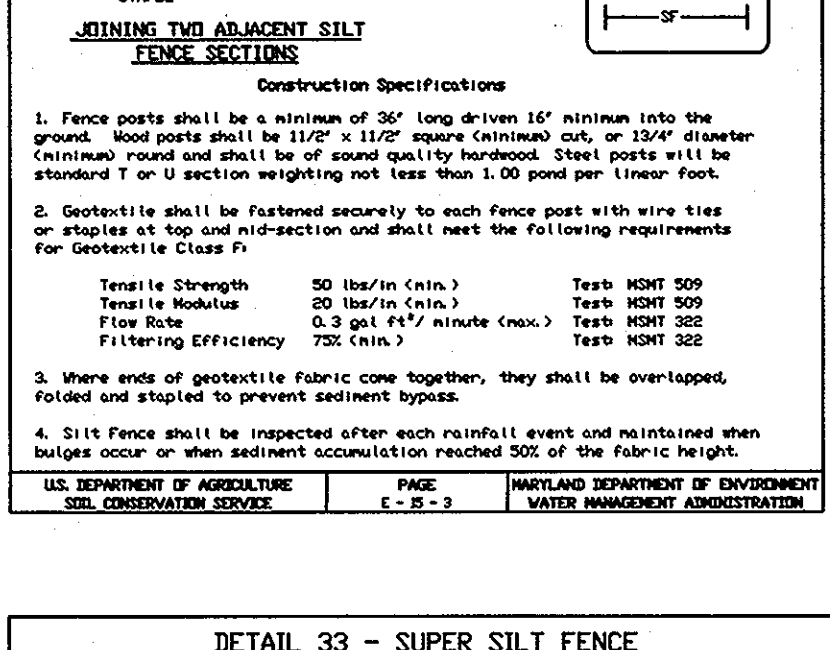
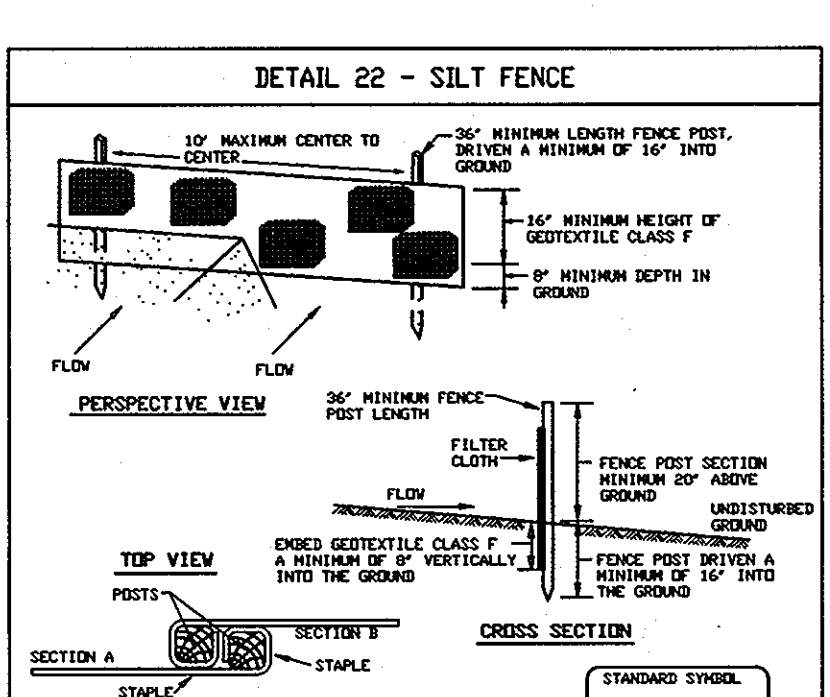
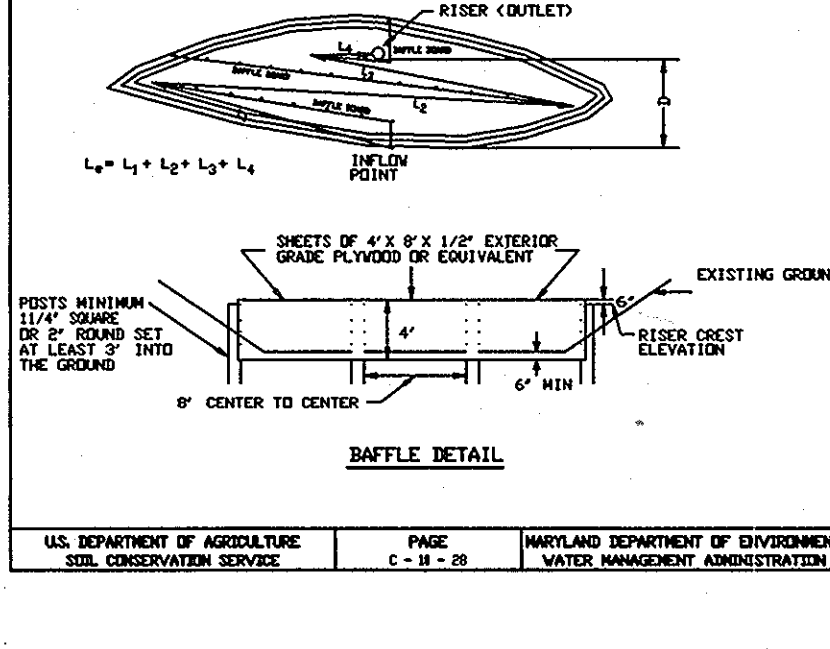
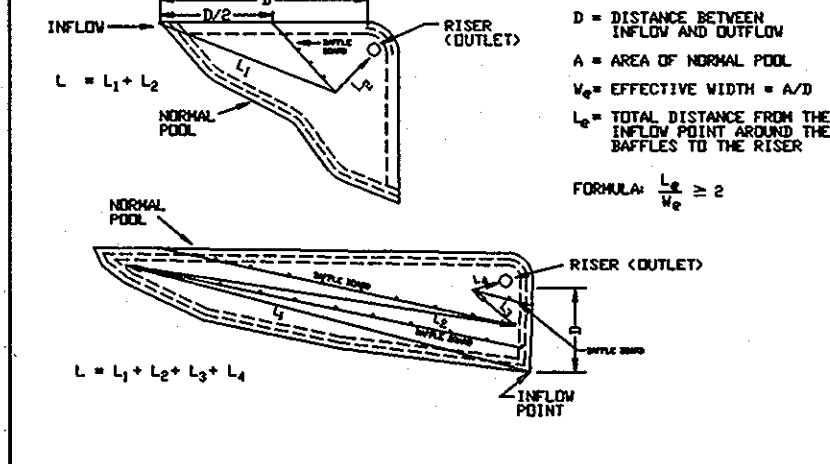
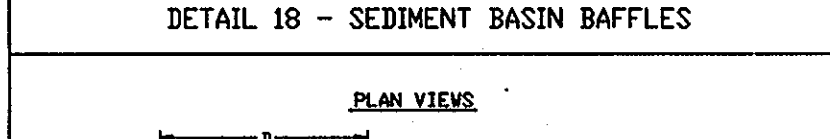
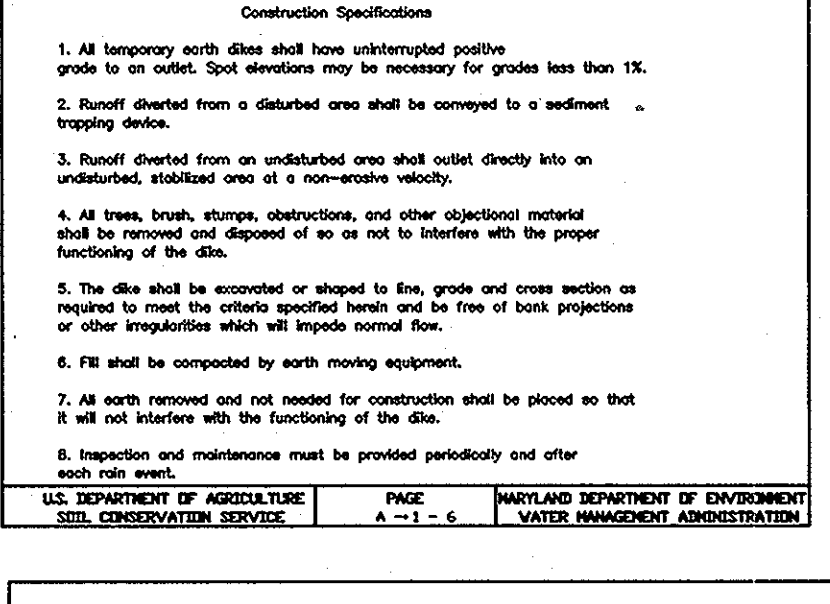
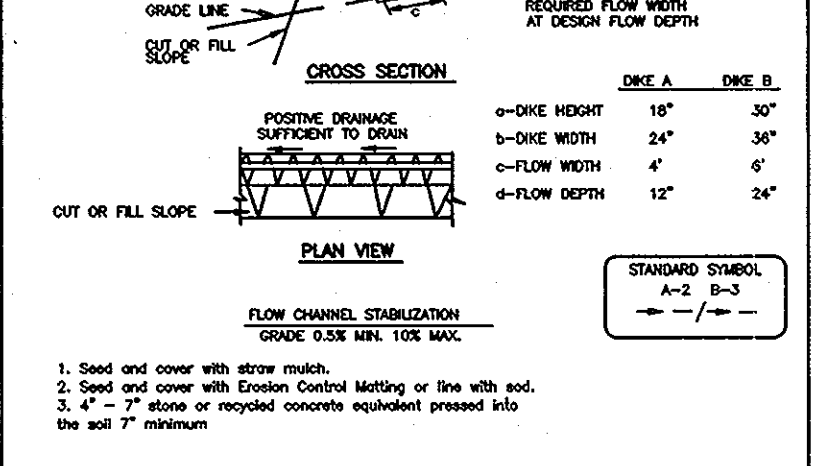
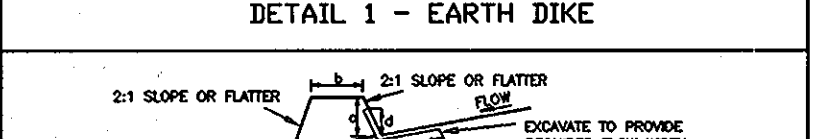
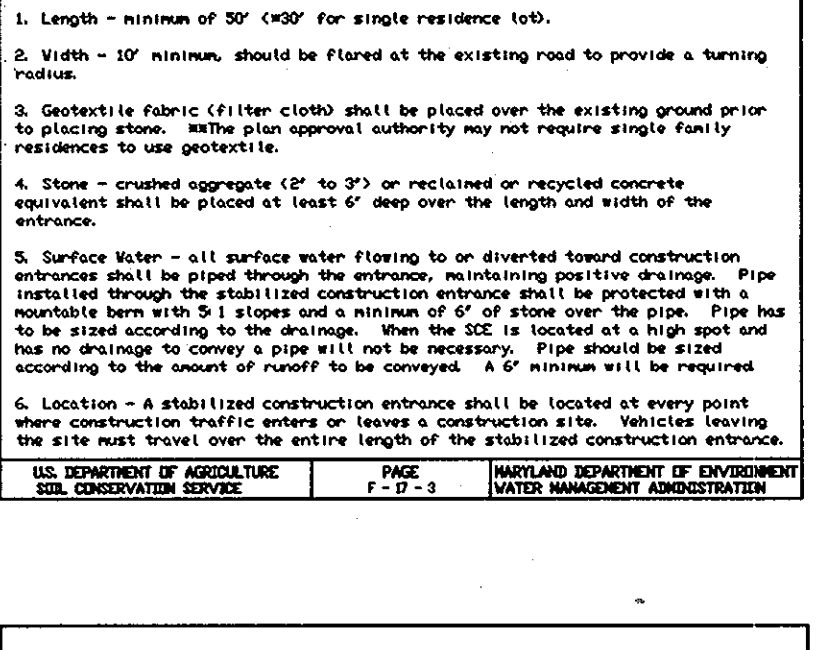
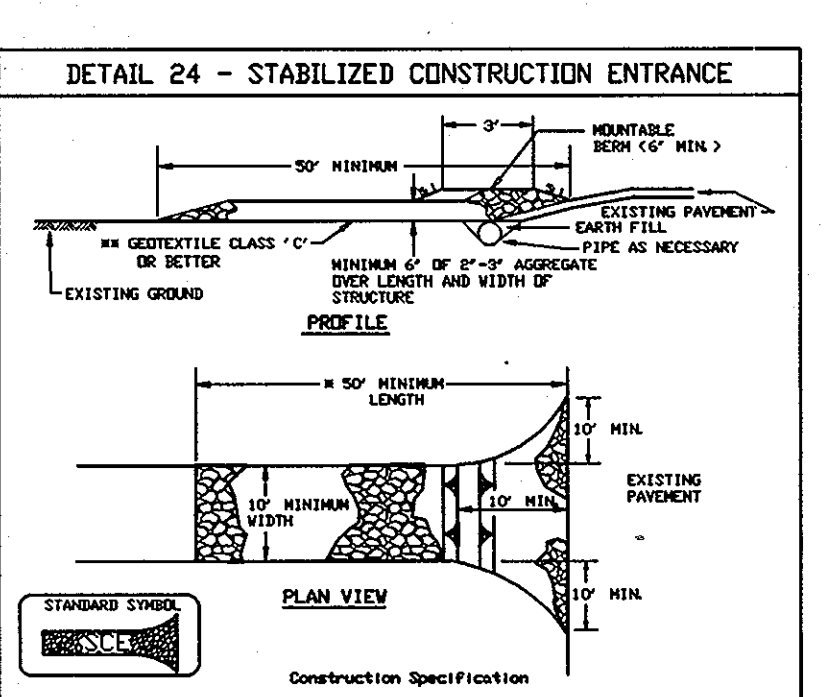
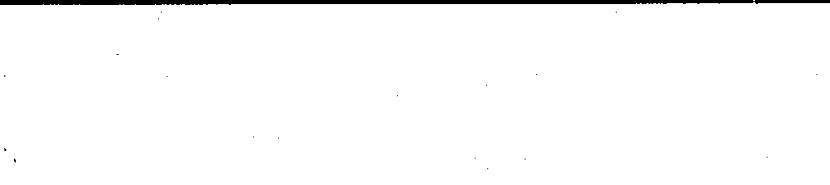
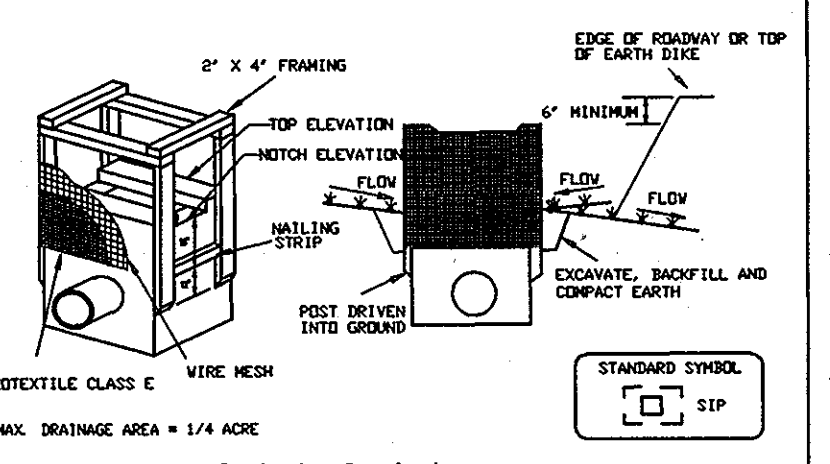
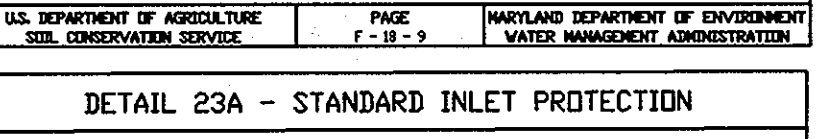
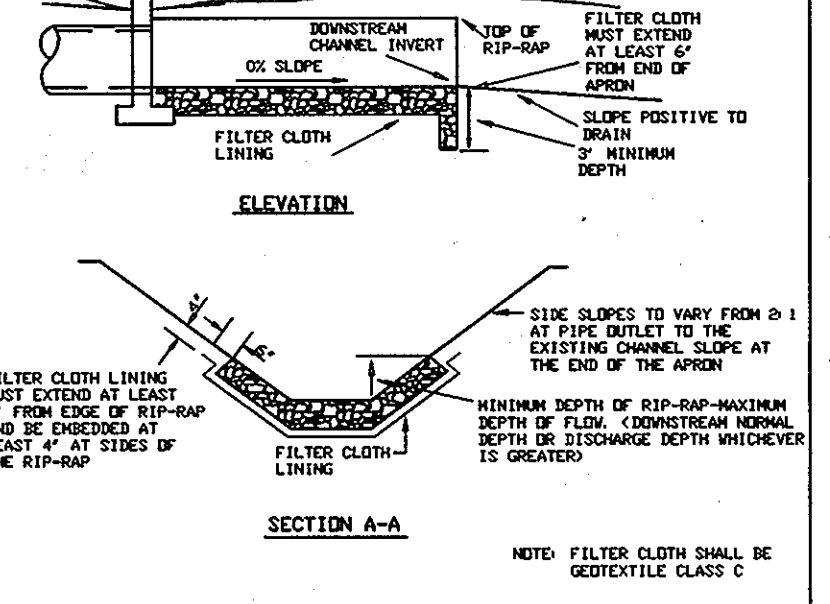
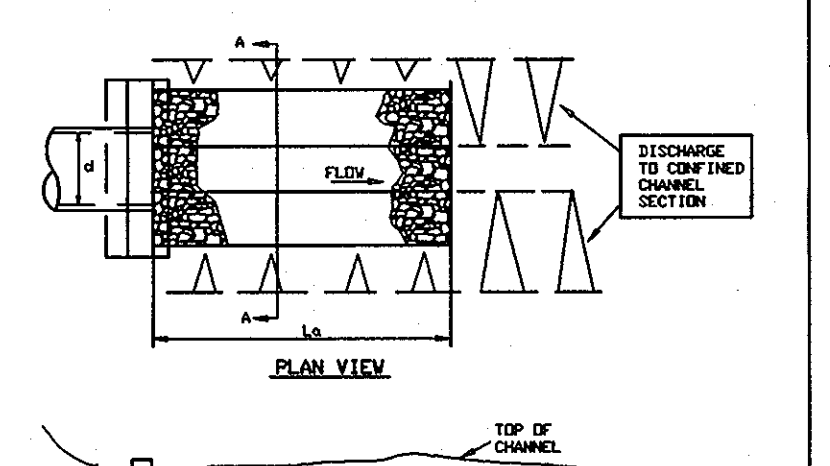
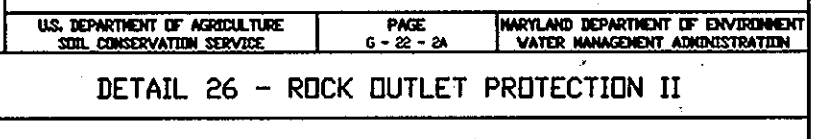
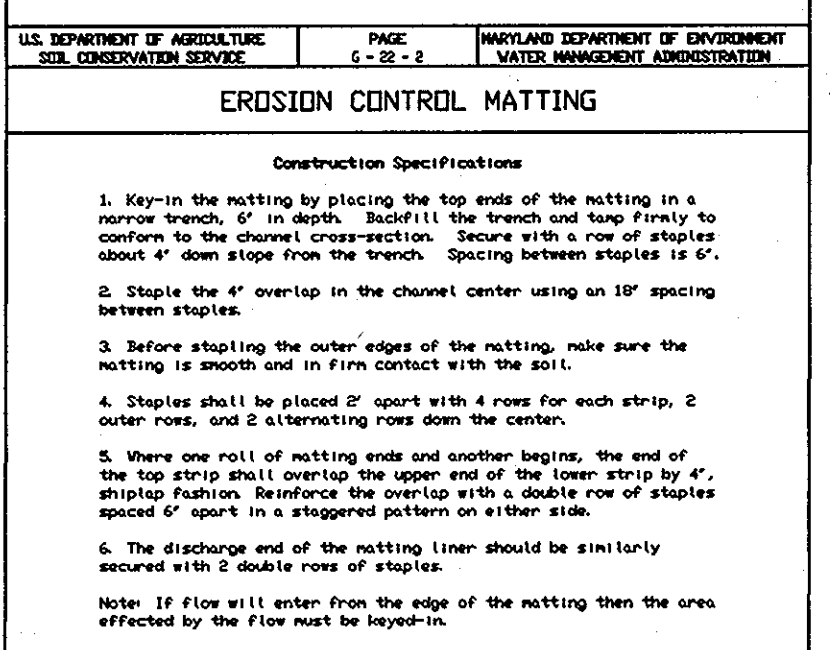
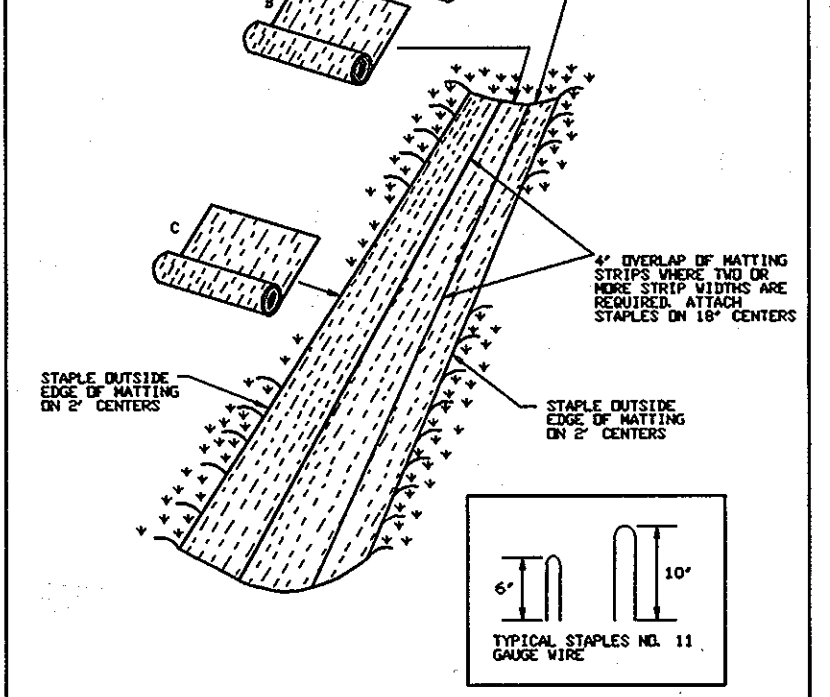
ROCK OUTLET PROTECTION: 1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.

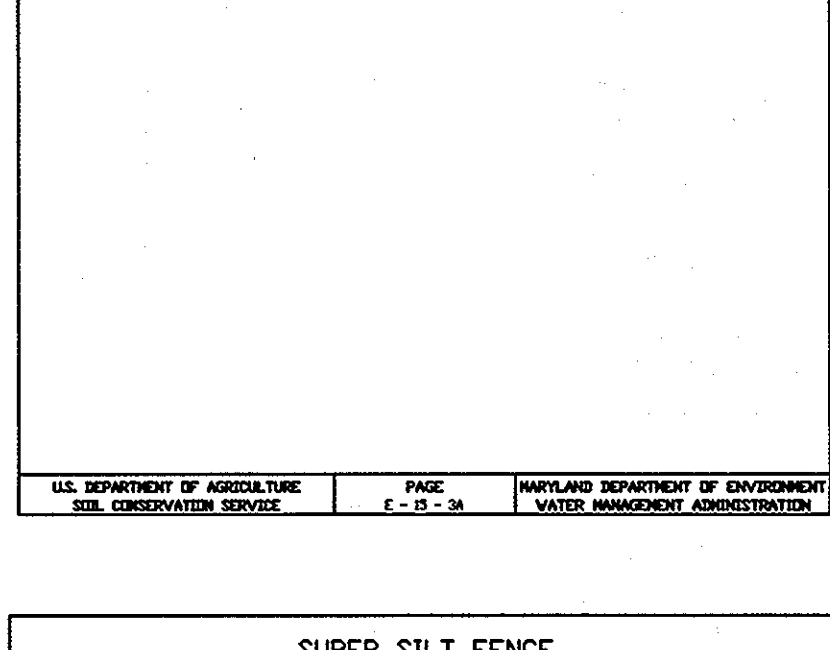
3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps where repairs for joining two pieces of geotextile shall be a minimum of one foot.

4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course of thickness to one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalling during the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Head placement will be required to the extent necessary to prevent damage to the permanent works.

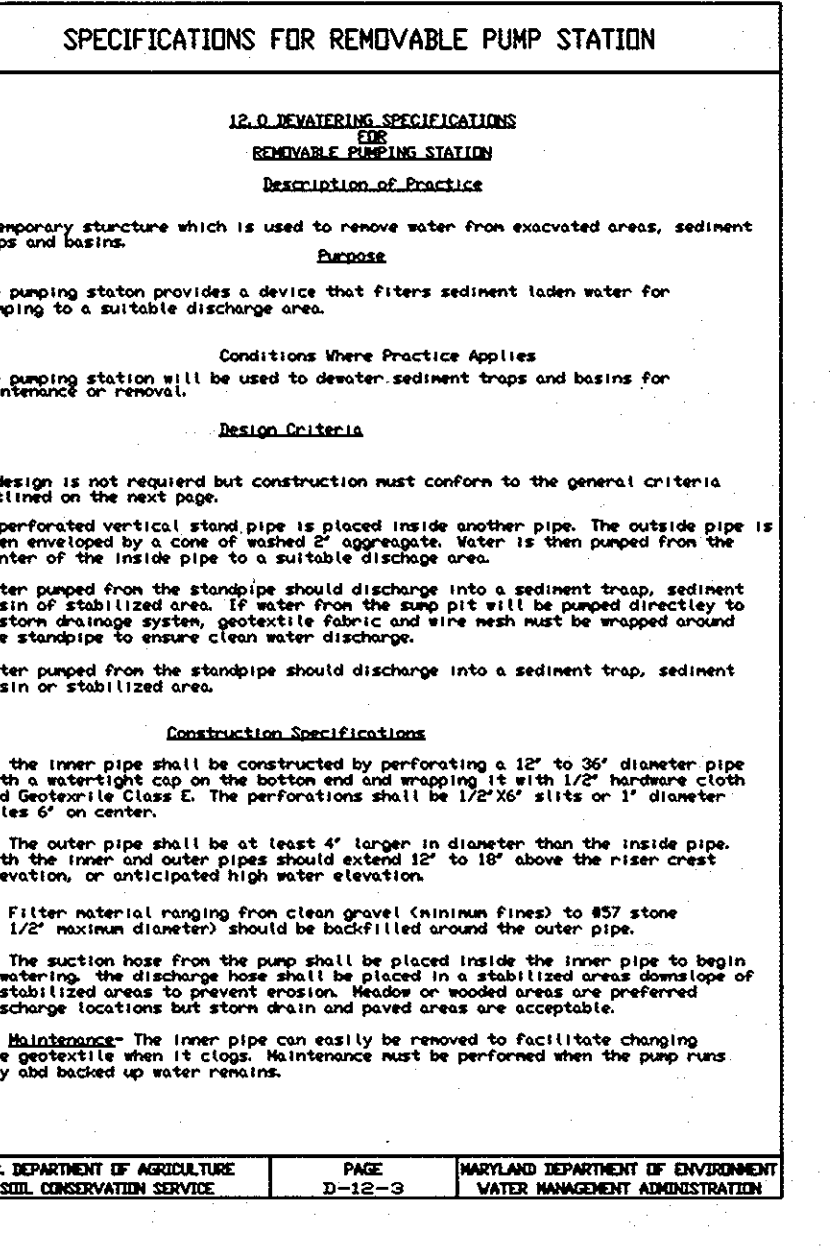
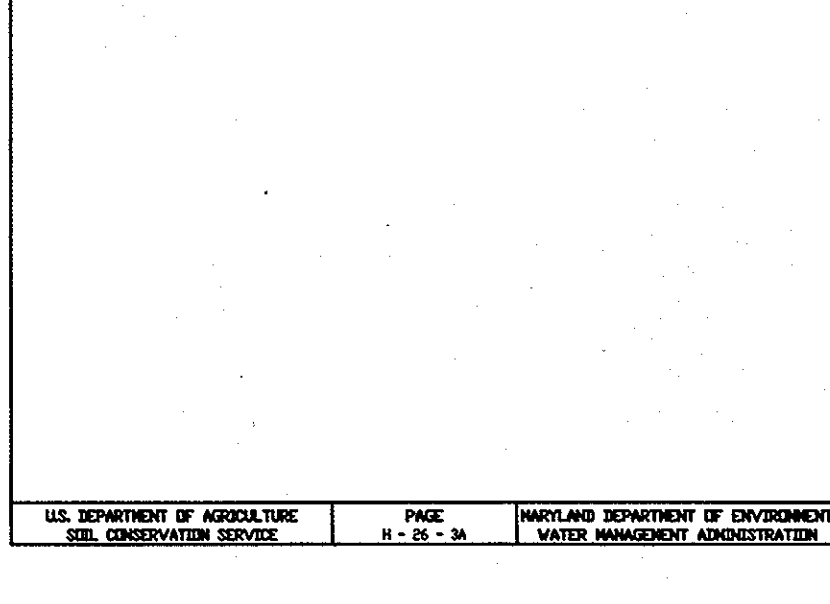
5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.



SILT FENCE Design Criteria table with columns for Slope Steepness, Slope Length, and Silt Fence Length. Includes a note: 'In areas of less than 2% slope and sandy soils (USDA general classification group, soil class 0) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.'

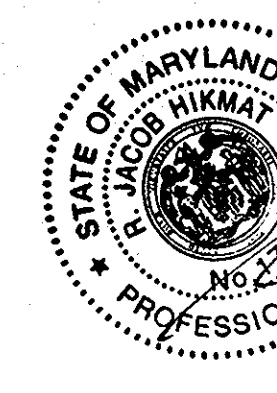


SUPER SILT FENCE Design Criteria table with columns for Slope Steepness, Slope Length, and Silt Fence Length. Includes a note: 'In areas of less than 2% slope and sandy soils (USDA general classification group, soil class 0) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.'



BY THE DEVELOPER: I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBILITY INCURRED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT AND NATURAL RESOURCES DISTRICT. I HAVE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERMITS ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER: I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.



OWNER & DEVELOPER: SUN MEADOW, L.C. 5094 DORSEY HALL DRIVE, SUITE 104 ELLICOTT CITY, MD 21042 410-720-3021 (CONTACT: RUSSELL DICKENS)

APPROVED: DEPARTMENT OF PUBLIC WORKS, DATE 11-20-07

APPROVED: DEPARTMENT OF PLANNING AND ZONING, DATE 11/20/07

APPROVED: DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DATE 11/20/07

APPROVED: DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES, DATE 11/20/07

APPROVED: DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DATE 11/20/07

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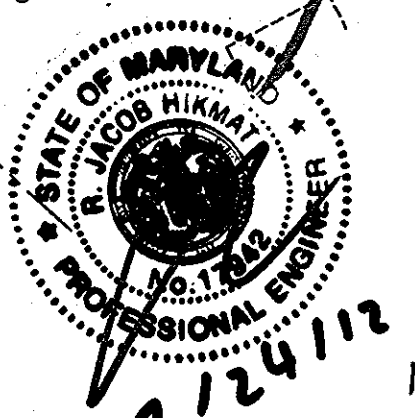
Project Information Table: Project 03-50, Date NOV 2007, Engineering illustration, MAM, MAM, Scale 50, Approval JBM.

Revision Table: 1. REVISED TITLE SHEET, 2. CHANGE REQUIREMENTS OF CONSTRUCTION DESCRIPTION, 3. CHANGE REQUIREMENTS OF CONSTRUCTION DESCRIPTION.

AMBER MEADOW AS-BUILT LOTS 1-23 AND OPEN SPACE LOTS 24-27 TAX MAP 31 - GRID B - PARCEL 11 SECOND ELECTION DISTRICT SEDIMENT CONTROL NOTES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 6072 Dorey Hill Drive, Suite 202, Ellicott City, Maryland, 21042 (410) 997-0286 Fax: (410) 997-0286





APPROVED: DEPARTMENT OF PUBLIC WORKS  
 WILLIAM J. MULLER, 11-20-07  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CINDY HANCOCK, 11/29/07  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF ENGINEERING  
 RUSSELL DICKENS, 11/27/07  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

**OWNER & DEVELOPER**  
 SUN MEADOW, L.C.  
 5094 DORSEY HALL DRIVE, SUITE 104  
 ELLICOTT CITY, MD 21042  
 410-720-3021  
 (CONTACT: RUSSELL DICKENS)

**SOILS DESCRIPTION**

SYMBOL	DESCRIPTION
CnB2	CHILLUM-FAIRFAX LOAMS, 1% TO 5% SLOPES, MODERATELY ERODED (TYPE B)
CnD3	CHILLUM-FAIRFAX LOAMS, 5% TO 15% SLOPES, SEVERELY ERODED (TYPE B)
IuB	IUKA LOAM, LOCAL ALLUVIUM, 1% TO 5% SLOPES (TYPE C)
LeB2	LEGORE SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED (TYPE B)
MpB2	MONTALTO SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED (TYPE C)
MrE	MONTALTO & RELAY SOILS, 15% TO 45% SLOPES (TYPE C)
SfB2	SASSAFRAS GRAVELLY SANDY LOAM, 1% TO 5% SLOPES, MODERATELY ERODED (TYPE B)
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED (TYPE B)
SfD2	SASSAFRAS GRAVELLY SANDY LOAM, 10% TO 15% SLOPES, MODERATELY ERODED (TYPE B)
WgA	WATCHUNG SILT LOAM, 0% TO 3% SLOPES (TYPE D)

NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

date	NOV 2007
project	03-50
illustration	MMM
scale	50
approval	MMM
date	JEM

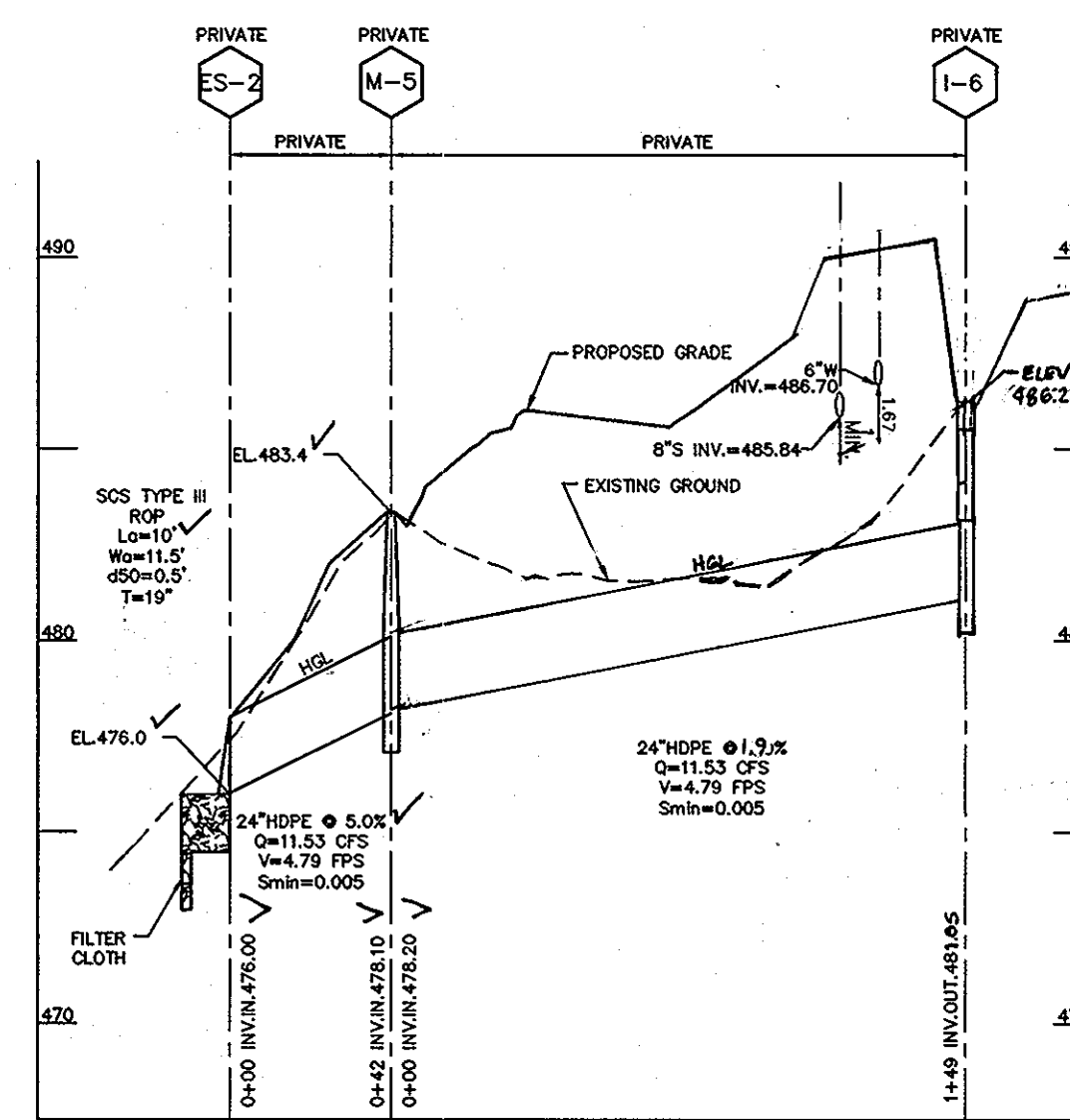
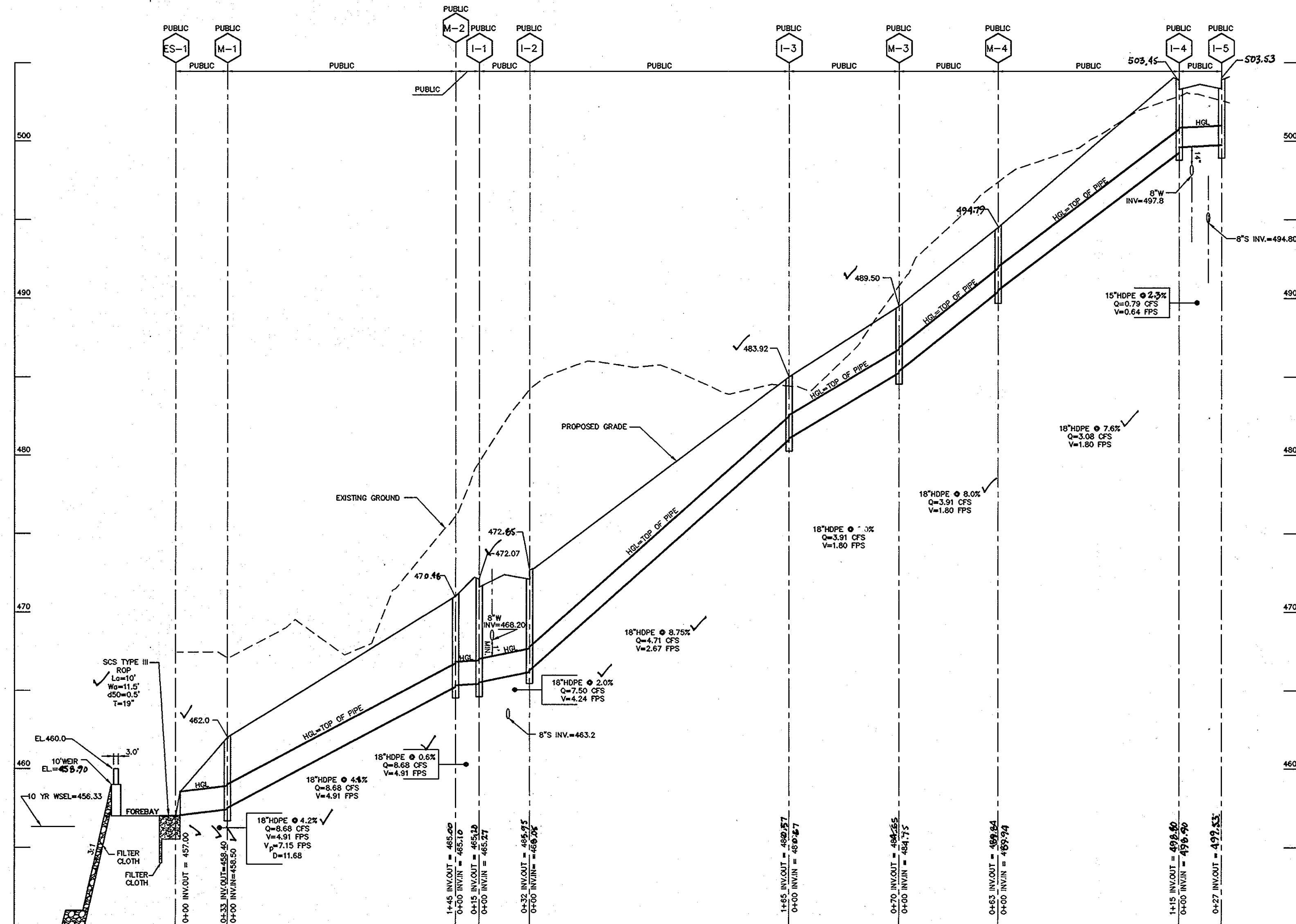
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no.		revisions			

AS-BUILT

**AMBER MEADOW**  
 LOTS 1-23 AND OPEN SPACE LOTS 24-27  
 TAX MAP 31 - GRID 8 - PARCEL 11  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 INLET DRAINAGE AREA MAP

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0286 Fax (301) 821-5521 Trunk (410) 997-0288 Fax





**STORMDRAIN PROFILE**  
ES-2 TO I-6

SCALE: HOR. 1"=50'  
VER. 1"=5'

**STORMDRAIN PROFILE**  
ES-1 TO I-5

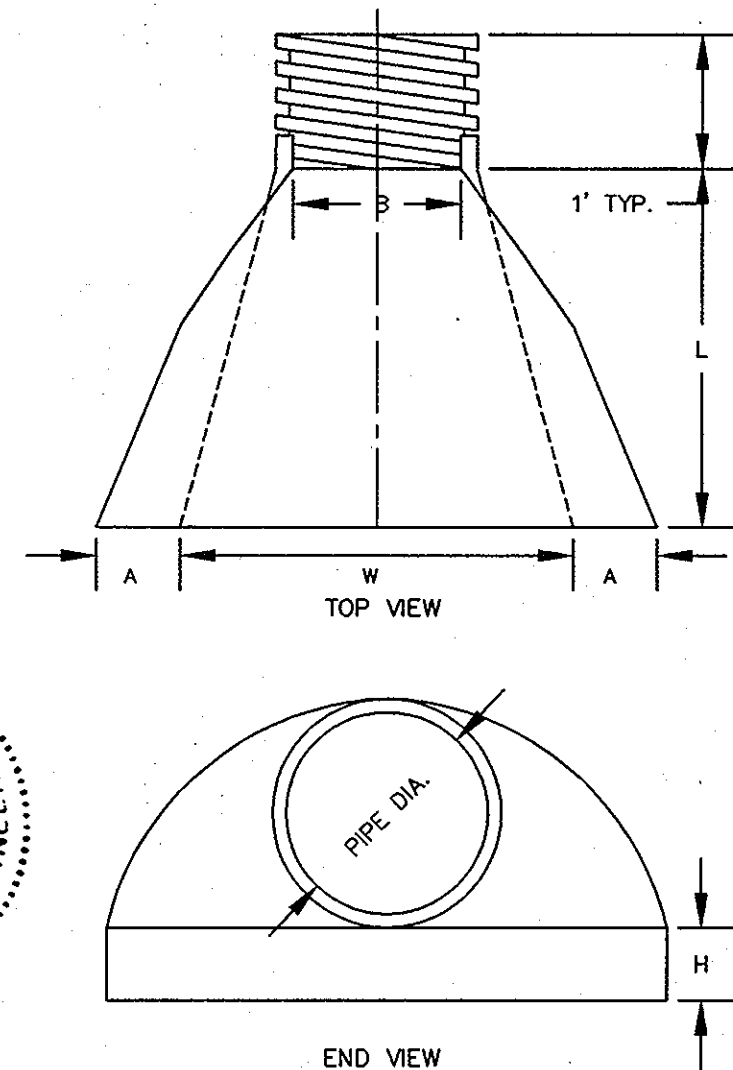
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VER. 1"=5'

**PUBLIC PIPE SCHEDULE**

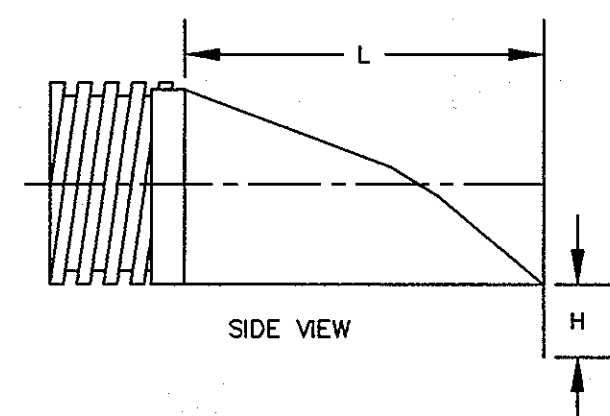
QUANTITY	PIPE SIZE
65'	12" HDPE
28'	15" HDPE
645'	18" HDPE

**PRIVATE PIPE SCHEDULE**

QUANTITY	PIPE SIZE
191'	21" HDPE
67'	36" RCP



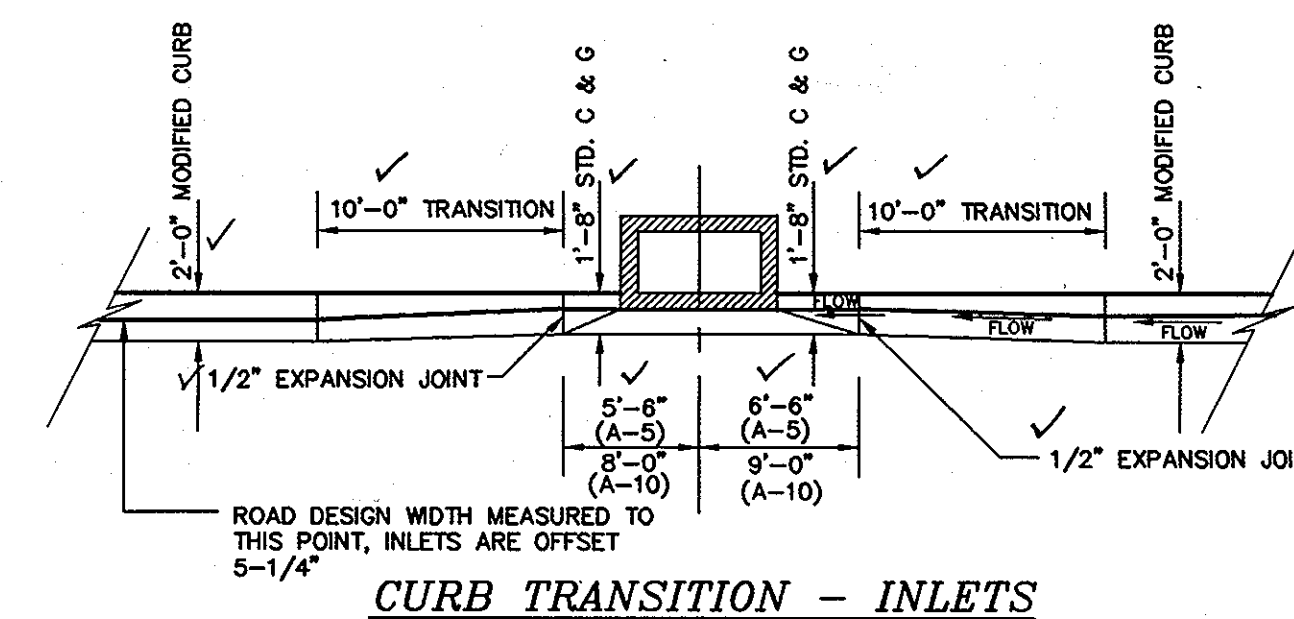
**HDPE END SECTION**  
(PART NO. 2410 NP)  
NOT TO SCALE



PIPE DIAMETER	PART NO.	A, ±1	B MAX	H, ±1	L, ±1/2	W, ±2
15" HDPE	1210 NP	6.5"	10"	6.5"	25"	29"
18" HDPE	1810 NP	7.5"	15"	6.5"	32"	35"
24" HDPE	2410 NP	7.5"	18"	6.5"	36"	45"
36" HDPE	3610 NP	10.5"	NA	7.0"	53"	68"

**INSTALLATION INSTRUCTIONS**

- SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
- INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
- PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.



**STRUCTURE SCHEDULE**

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS	WIDTH	OWNERSHIP
ES-1	N 573,994.35 E 1,368,895.31	---	457.00 ✓	---	END SECTION		PUBLIC
ES-2	N 573,986.92 E 1,369,292.94	---	476.00 ✓	---	END SECTION		PRIVATE
HW-1	N 574,166.23 E 1,368,940.96	---	---	451.1	HEAD WALL		PRIVATE
I-1	AMBER MEADOW VISTA STA. 0+52.27 OFFSET 12.52' LT.	472.07 ✓	466.21	465.20	INLET TYPE A-5 (HO. CO. STD SD-4.40) - SUMP	2'-6" (I.D.)	PUBLIC
I-2	AMBER MEADOW VISTA STA. 0+64.38 OFFSET 12.52' RT.	472.85	466.45	465.70	INLET TYPE A-10 (HO. CO. STD SD 4.02)	2'-6" (I.D.)	PUBLIC
I-3	AMBER MEADOW VISTA STA. 0+96.46 OFFSET 12.52' RT.	483.92 ✓	480.67	480.87	INLET TYPE A-10 (HO. CO. STD SD 4.02)	2'-6" (I.D.)	PUBLIC
I-4	AMBER MEADOW VISTA STA. 0+96.46 OFFSET 12.52' RT.	503.45	498.90	498.80	INLET TYPE A-10 (HO. CO. STD SD 4.02)	2'-6" (I.D.)	PUBLIC
I-5	AMBER MEADOW VISTA STA. 4+96.46 OFFSET 12.52' LT.	503.53	---	499.53	INLET TYPE A-5 (HO. CO. STD SD 4.01)	2'-6" (I.D.)	PUBLIC
I-6	N. 573,868.4 E 1,369,386.4	466.25	---	481.05	INLET TYPE "D" (HO. CO. STD SD 4.39)	STANDARD	PRIVATE
M-1	N 573,976.1 E 1,368,871.9	462.00 ✓	458.50 ✓	458.40 ✓	MH (HO. CO. STD G 5.01)		PUBLIC
M-2	AMBER MEADOW VISTA STA. 0+40.19 OFFSET 25.5' LT.	470.46	465.10	465.00	MH (HO. CO. STD G 5.01)		PUBLIC
M-3	AMBER MEADOW VISTA STA. 3+08.81 OFFSET 15.39' RT.	489.50 ✓	484.75	484.55	MH (HO. CO. STD G 5.01)		PUBLIC
M-4	AMBER MEADOW VISTA STA. 3+79.91 OFFSET 15.18' RT.	494.79	489.94	489.84	MH (HO. CO. STD G 5.01)		PUBLIC
M-5	N 573,955.4 E 1,369,264.7	483.60	478.20 ✓	478.10 ✓	MH (HO. CO. STD G 5.01)		PRIVATE

- \* STATIONS GIVEN TO CENTERLINE FACE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR YARD INLETS TO CL OF INLET. LOCATION OF MANHOLES IS TO CL OF MANHOLE COVER. END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO THE END SECTION.
- \*\* ELEVATIONS MEASURED TO CENTER OF ALL INLETS.



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William A. White* 11-20-07  
 CHIEF BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Harris* 11/29/07  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Russell Dickens* 11/27/07  
 CHIEF DEVELOPMENT ENGINEERING DIVISION

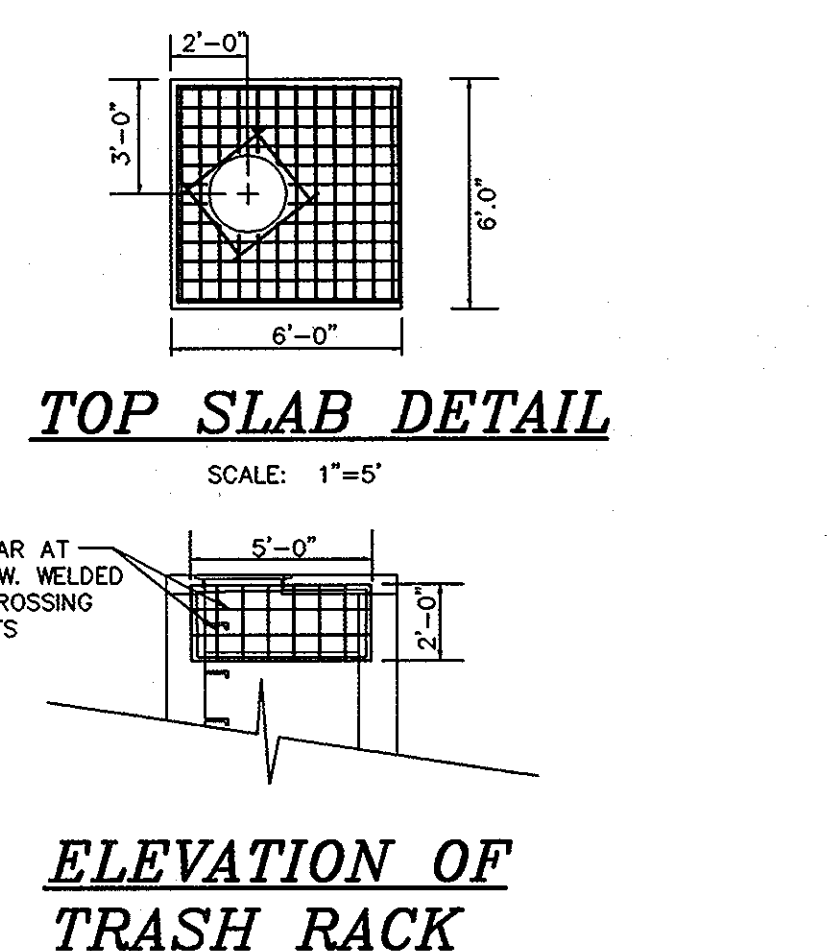
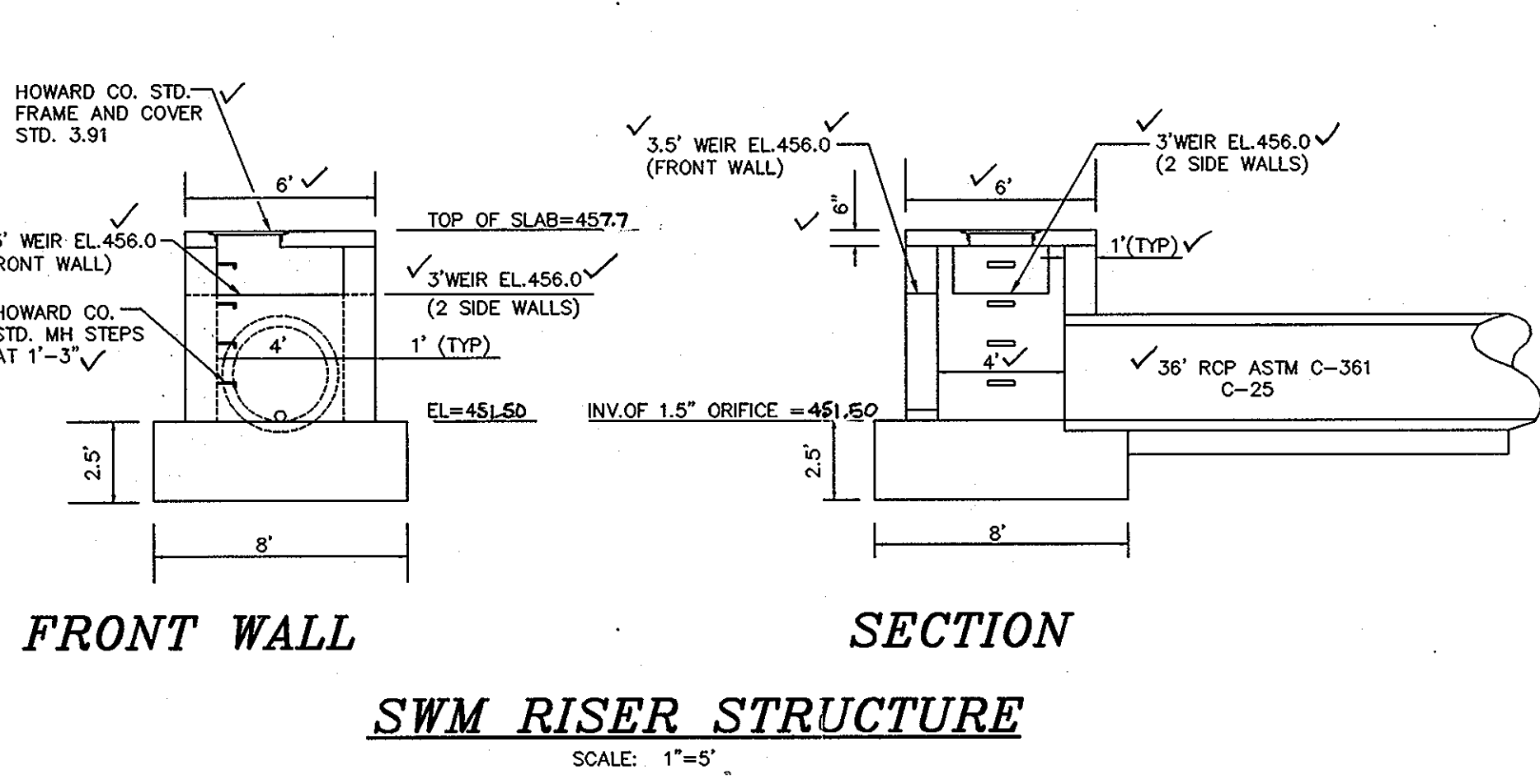
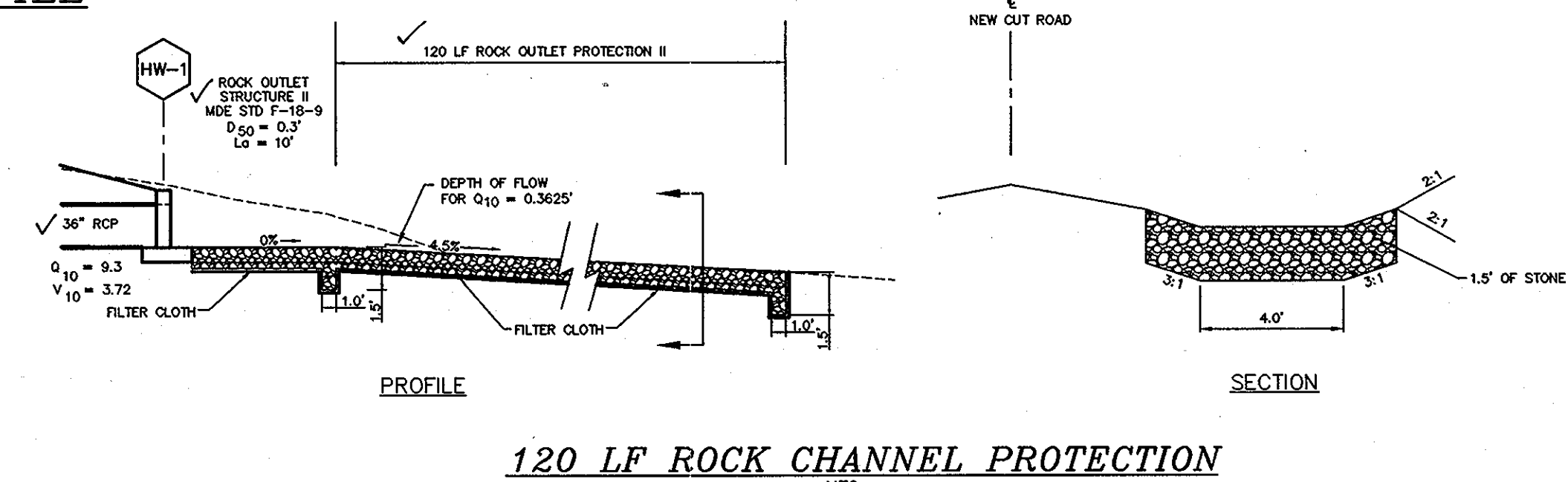
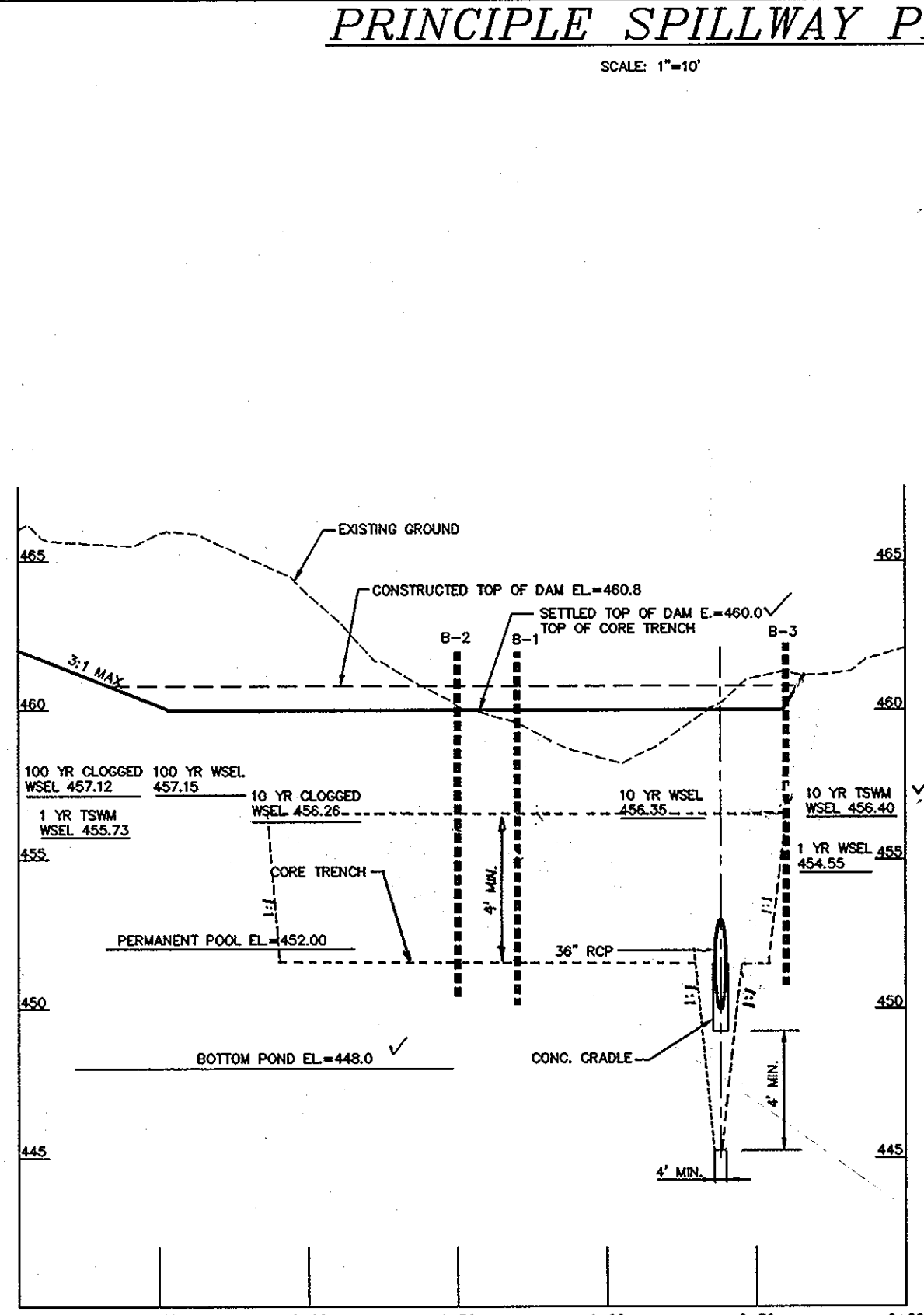
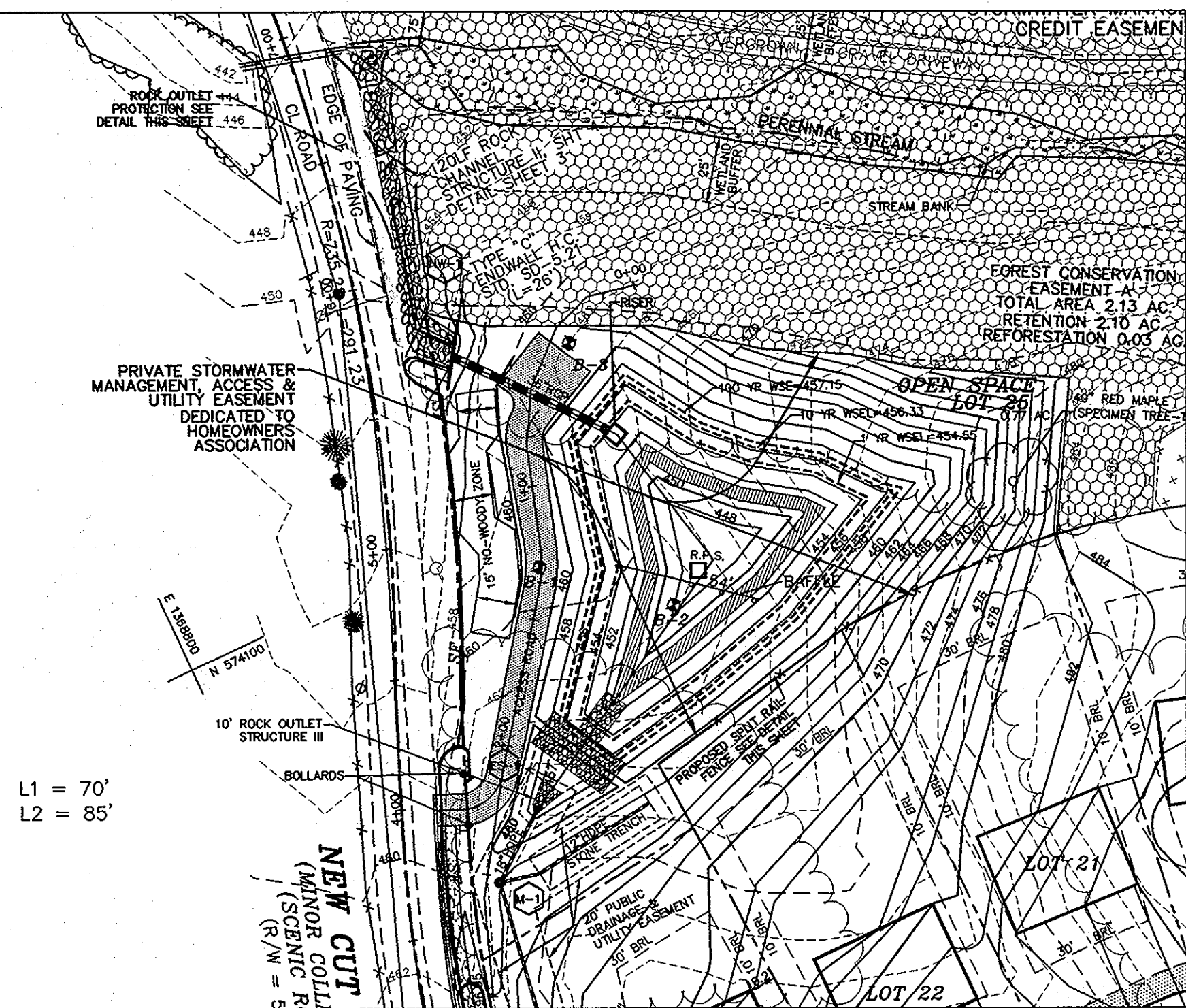
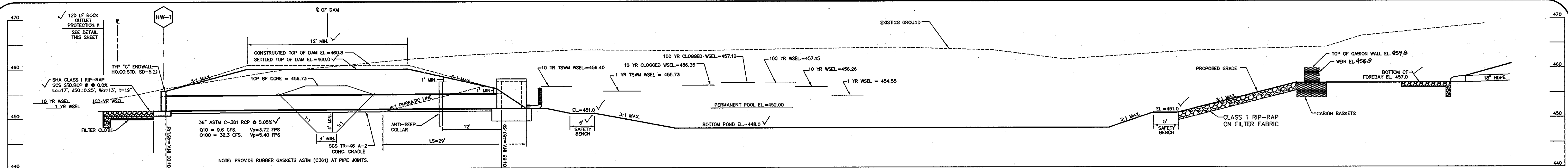
**OWNER & DEVELOPER**  
 SUN MEADOW, L.C.  
 5094 DORSEY HALL DRIVE, SUITE 104  
 ELLICOTT CITY, MD 21042  
 410-720-3021  
 (CONTACT: RUSSELL DICKENS)

project	date
03-050	NOV 2007
illustration	engineering
MMM	MMM
scale	approval
50	JRM

no.	description	revisors	date
1.	REVISE 1-G PROFILES, STRUCTURE SCHEDULE SHEET	MMM	OCT 2008
	TITLE: ELEVATIONS		

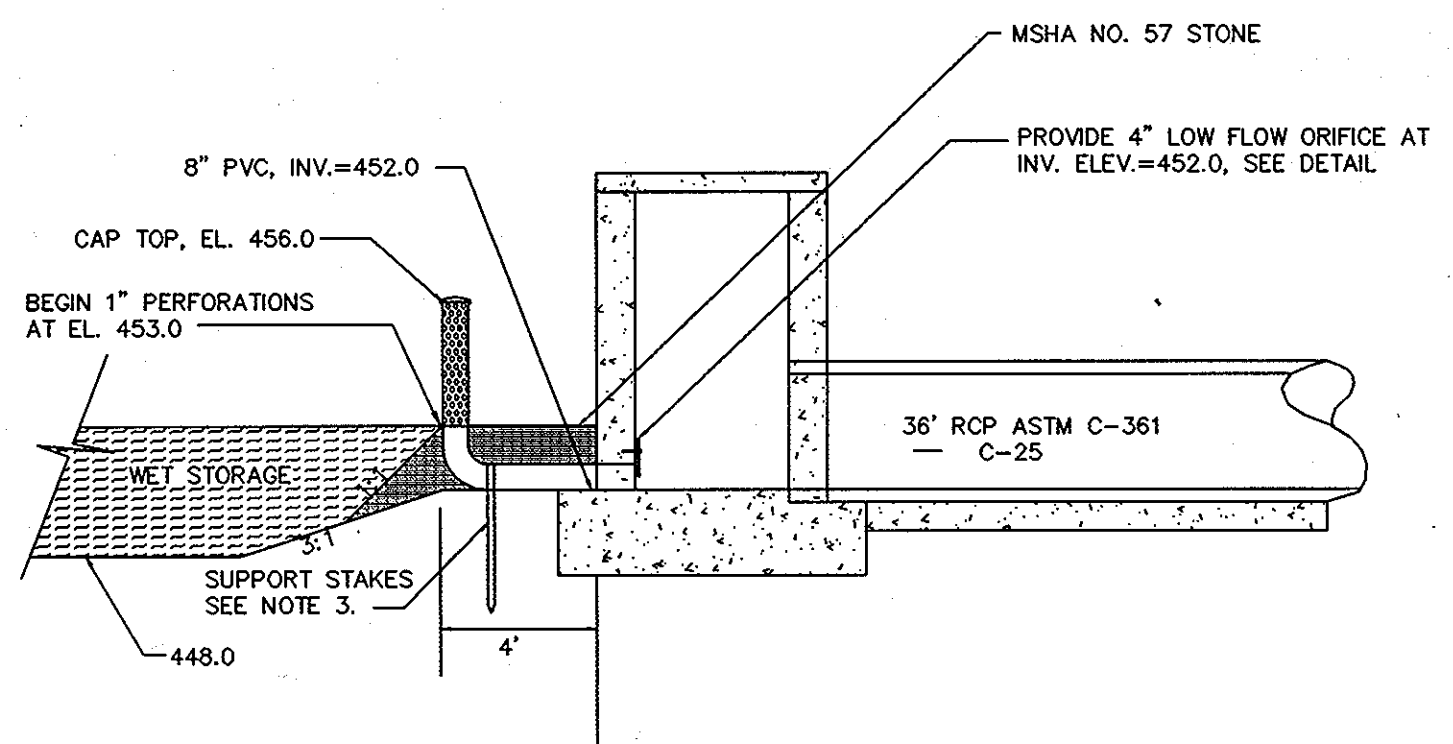
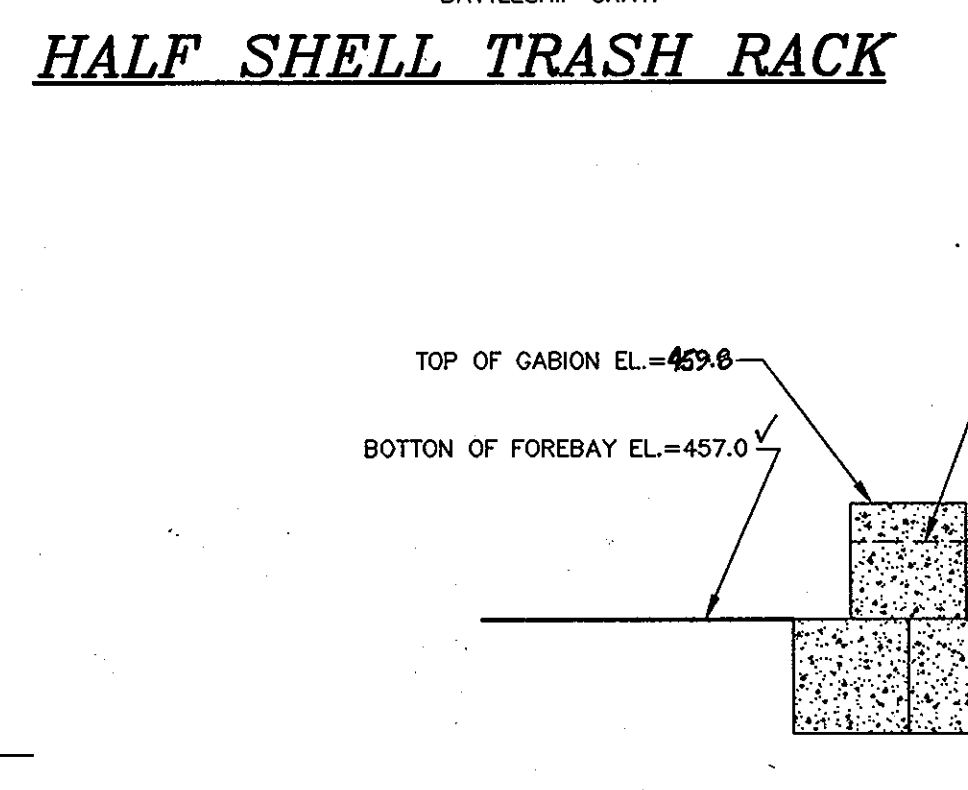
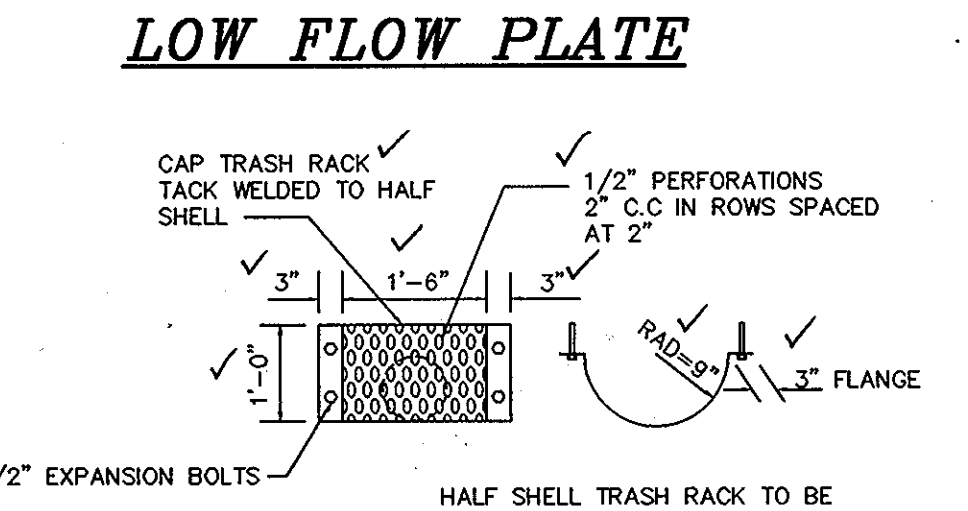
**AS-BUILT**  
**AMBER MEADOW**  
 LOTS 1-23 AND OPEN SPACE LOTS 24-27  
 TAX MAP 81 - GRID 8 - PARCEL 11  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**STORM DRAIN PROFILES**

**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.

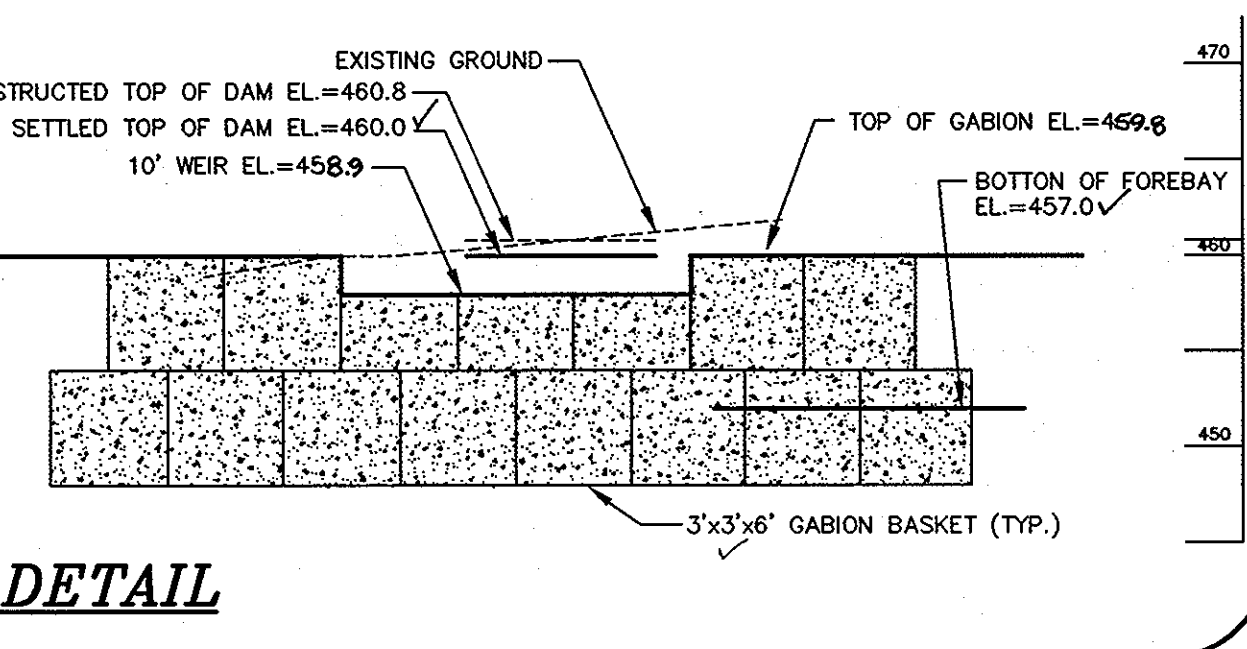
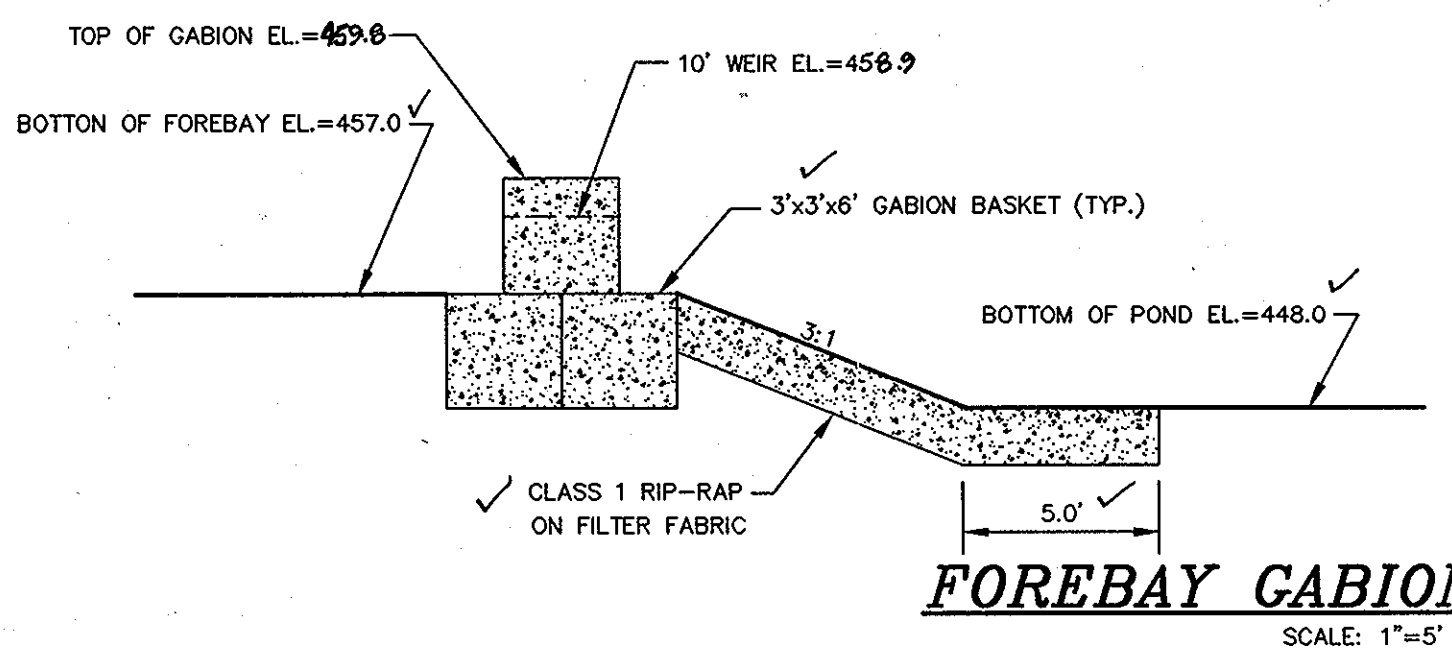


**SEDIMENT BASIN:**

DRAINAGE AREA = 5.95 AC.  
STORAGE REQUIRED = 21,420 CU. FT.  
STORAGE PROVIDED = 35,797 @ EL. 456.0  
WET STORAGE = 13,978 CU. FT. AT 453.0  
DRY STORAGE = 13,978 CU. FT. AT 456.0  
TOTAL STORAGE = 35,797 CU. FT. AT 456.0  
CLEANOUT ELEV. = 451.18  
PERM. POOL ELEV. = 453.0  
OUTLET ELEV. = 451.66  
Q<sub>100</sub> = 1.3 CFS (FOR TSWM)  
Q<sub>10</sub> = 0.8 CFS (FOR TSWM)

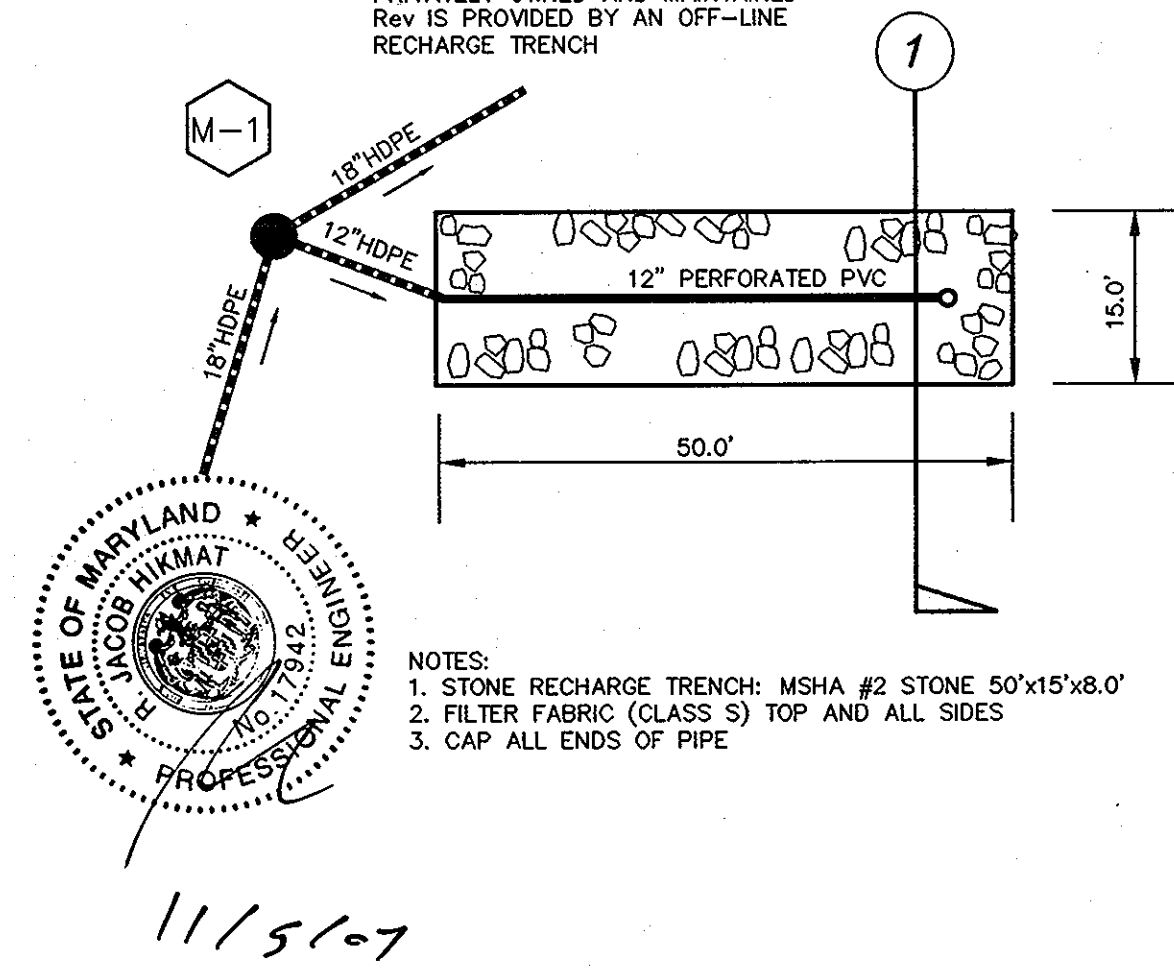


- PERFORATIONS IN THE DRAW DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE
- THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 4 TIMES THE AREA OF THE ORIFICE.
- PROVIDE SUPPORT OF DRAW DOWN DEVICE TO PREVENT SAGGING AND FLOATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW DOWN DEVICE WITH 1" STEEL ANGLE OR 1"x4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' INTO THE GROUND, THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE WIRE.
- THE PERFORATED PORTION OF THE DRAW DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.



**STORMWATER MANAGEMENT**

WVQ REQ'D = 0.29 AC. FT. (WITH CREDITS)  
WVQ PROV'D = 0.29 AC. FT. (WITH CREDITS)  
REV REQ'D = 0.06 AC. FT. (WITH CREDITS)  
REV PROV'D = 0.06 AC. FT. (WITH CREDITS)  
CPV WSEL = 454.55  
QP 10 = 9.3 CFS (FROM SWMF)  
QP 100 = 31.2 CFS (FROM SWMF)  
10 YR. WSEL = 458.33  
100 YR. WSEL = 457.15  
THIS FACILITY IS A CLASS A SWMF  
P-1 MICRO POOL EXTENDED DETENTION  
PRIVATELY OWNED AND MAINTAINED  
REV IS PROVIDED BY AN OFF-LINE  
RECHARGE TRENCH



**OWNER & DEVELOPER**  
SUN MEADOW, L.C.  
5094 DORSEY HALL DRIVE, SUITE 104  
ELLCOTT CITY, MD 21042  
410-720-3021  
(CONTACT: RUSSELL DICKENS)

BY THE DEVELOPER:  
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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
APPROVED: DEPARTMENT OF PLANNING AND ZONING

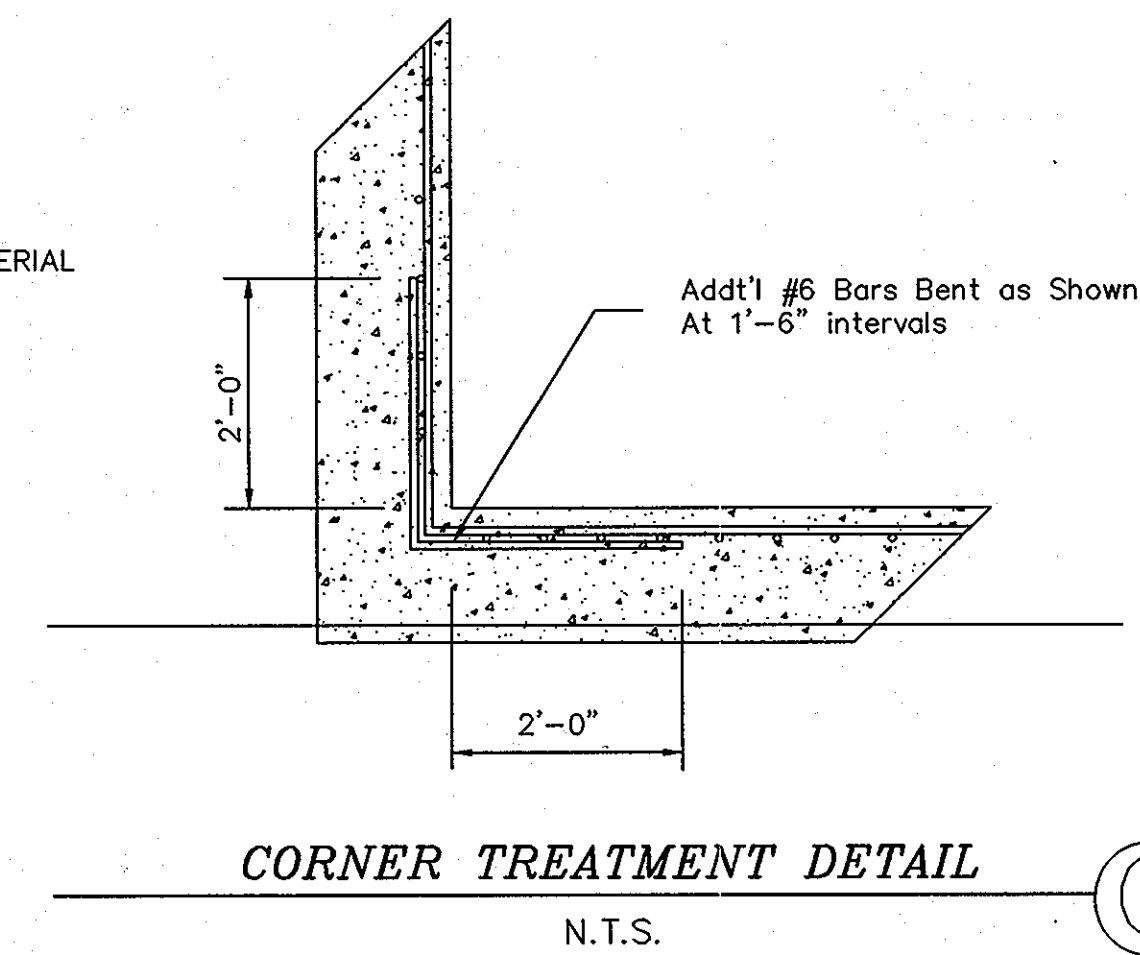
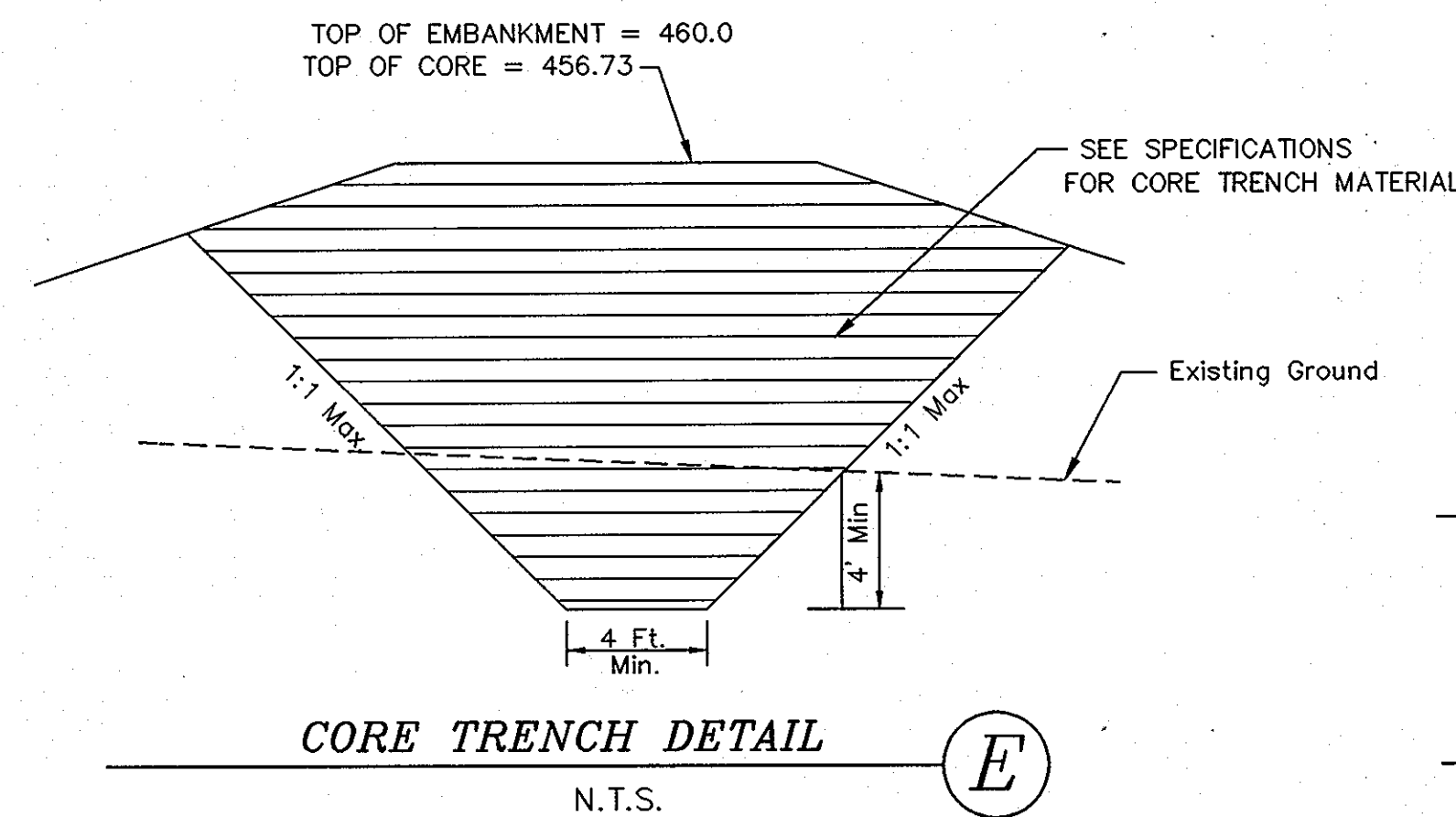
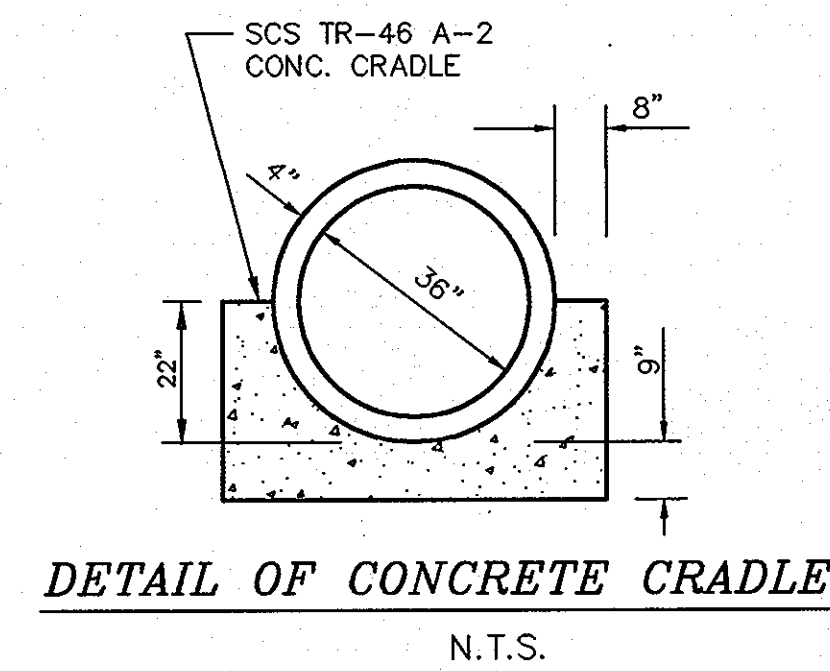
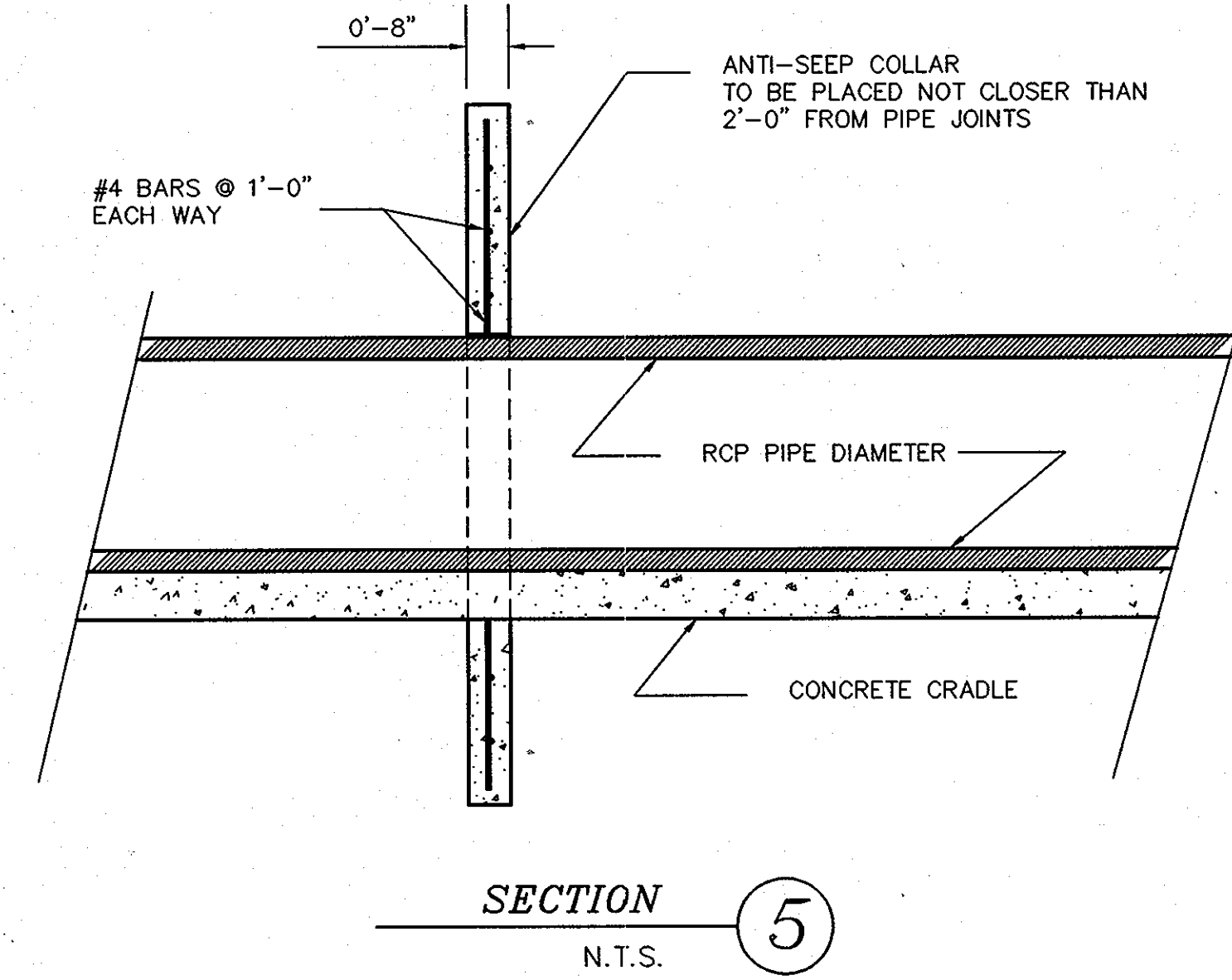
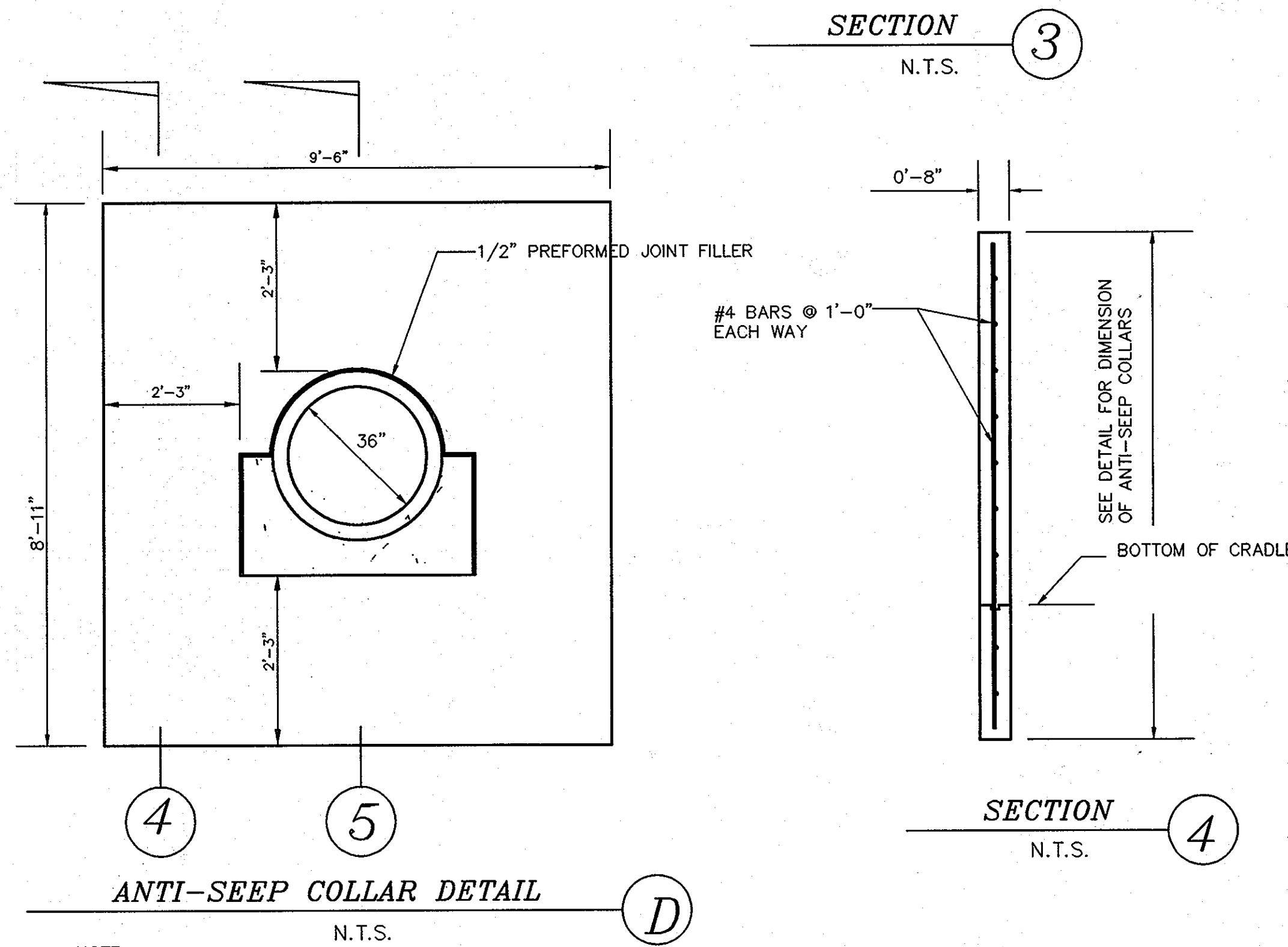
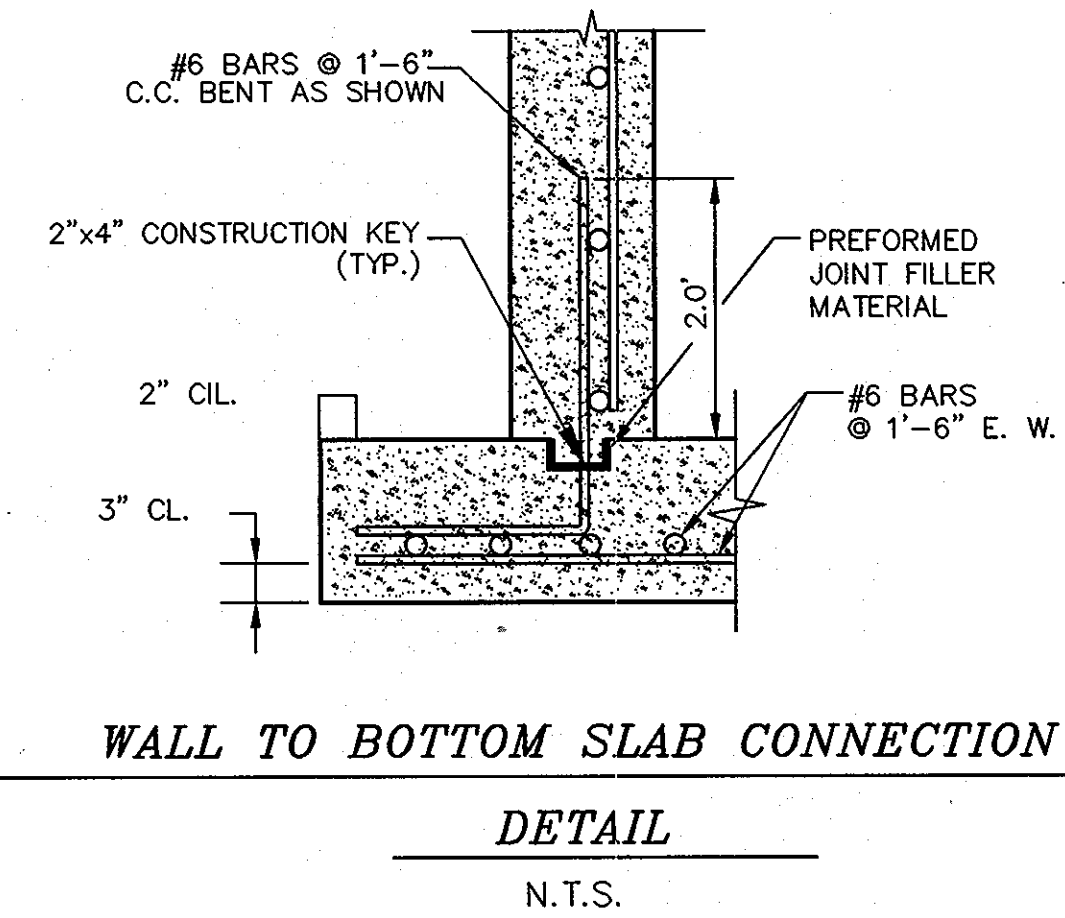
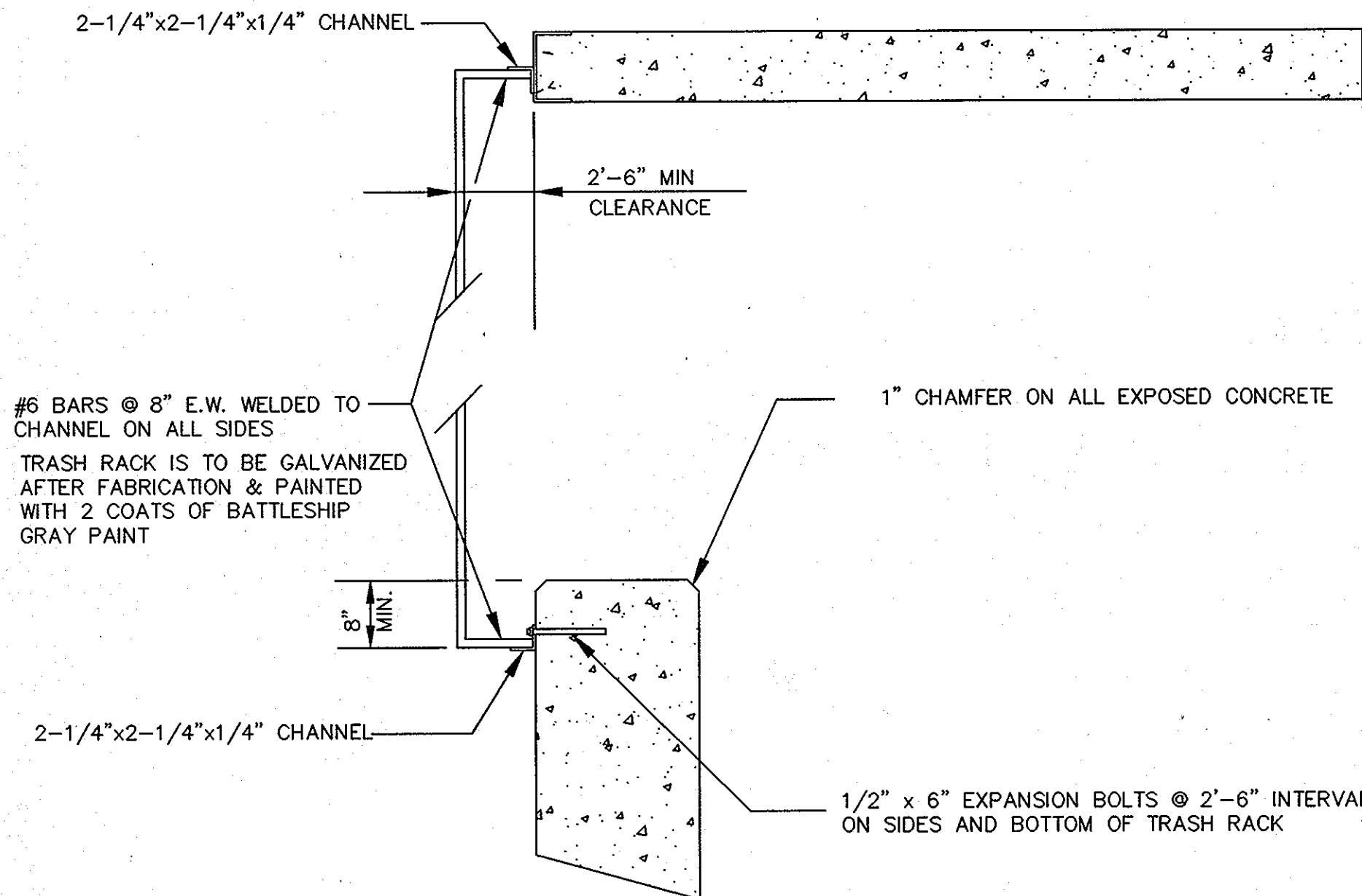
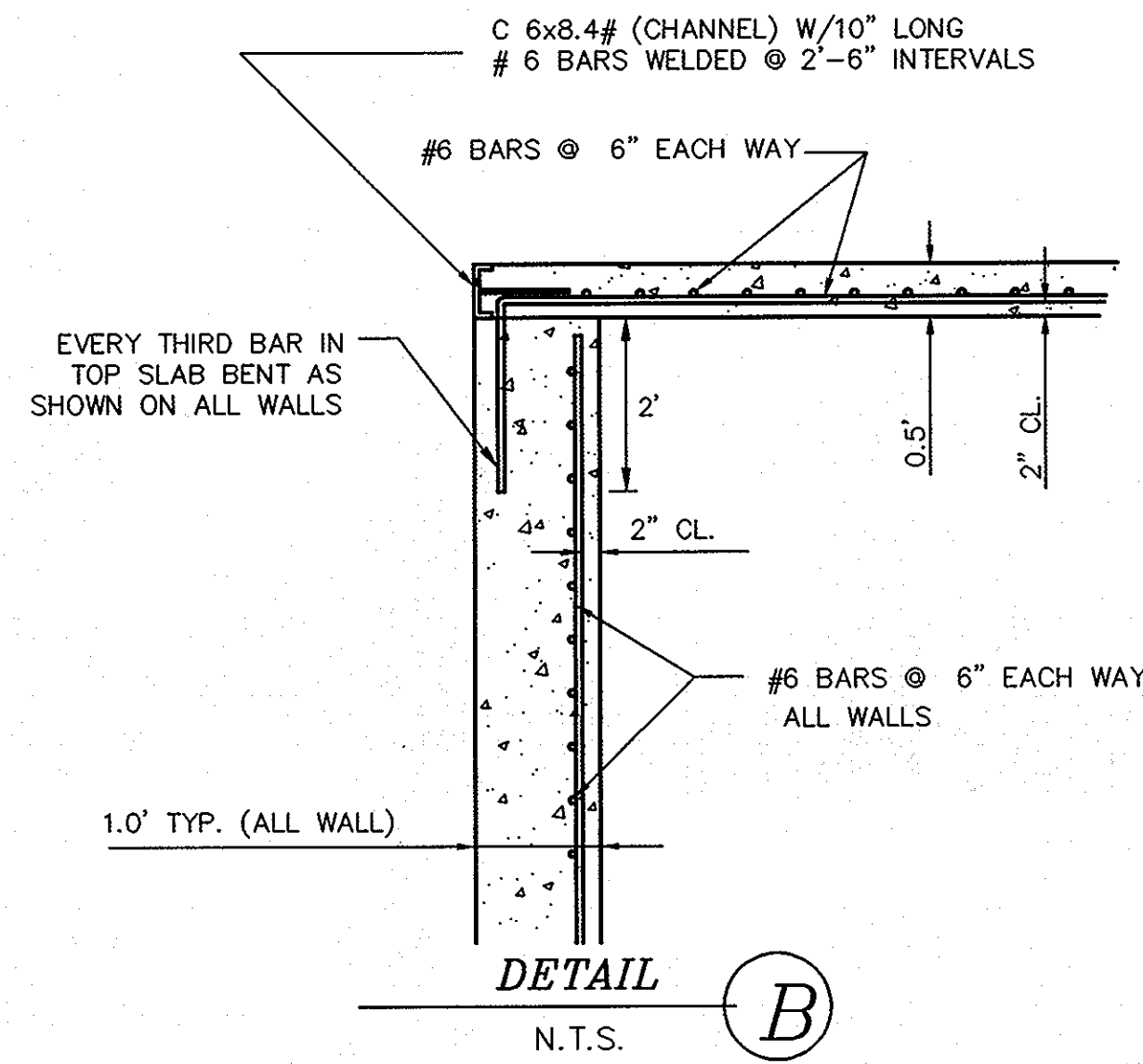
Project	03-050	NOV 2007
Illustration	MMM	MMM
Scale	AS SHOWN	JBM
Approval		

DATE	11/5/07
DESCRIPTION	STORMWATER MANAGEMENT DETAILS
REVISIONS	

**AS-BUILT**  
**AMBER MEADOW**  
LOTS 1-23 AND OPEN SPACE LOTS 24-27  
TAX MAP 31 PARCEL 11  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
**STORMWATER MANAGEMENT DETAILS**

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
6092 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
(410) 987-0286 Fax (410) 987-0286





BY THE DEVELOPER:  
 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 SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC IN-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

11/5/07  
 SIGNATURE OF DEVELOPER  
 RUSSELL DICKENS  
 PRINTED NAME OF DEVELOPER

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

11/5/07  
 SIGNATURE OF ENGINEER  
 R. JACOB HIKMAT  
 PRINTED NAME OF ENGINEER

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

USDA - NATURAL RESOURCES CONSERVATION SERVICE  
 DATE: 11/15/07

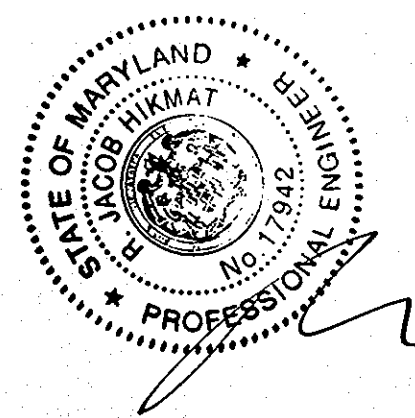
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT  
 DATE: 11-20-07

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 11-20-07

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 DATE: 11/29/07

CHIEF DEVELOPMENT ENGINEERS DIVISION



OWNER & DEVELOPER  
 SUN MEADOW, L.C.  
 5094 DORSEY HALL DRIVE, SUITE 104  
 ELLICOTT CITY, MD 21042  
 410-720-3021  
 (CONTACT: RUSSELL DICKENS)



NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

Project	03-050	date	NOV 2007
Illustration	MMM	engineering	MMM
scale	AS SHOWN	approval	JBM

no.	1.	description	revisions
date			

AS-BUILT  
**AMBER MEADOW**  
 LOTS 1-23 AND OPEN SPACE LOTS 24-27  
 TAX MAP 31 PARCEL 11  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
**STORM WATER MANAGEMENT DETAILS**

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



CONSTRUCTION SPECIFICATIONS
THESE SPECIFICATIONS ARE APPLICABLE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378...

SITE PREPARATION
AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL...

EARTH FILL
MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBER, STONES GREATER THAN 6"...

CONNECTIONS - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATER-TIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL...

REINFORCED CONCRETE PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS...

STRUCTURAL BACKFILL
BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADDING FILL MATERIAL...

CONCRETE
CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

ROCK RIPRAP
ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

ONE OF WATER DURING CONSTRUCTION
ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DICES, LEVES, COFFERDAMS...

STABILIZATION
ALL BORROW AREAS SHALL BE GRADDED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLOTTED CONDITION ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SOIL AND BORROW AREAS...

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...

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 USCS 378-2 AND 378-3...

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE STORMWATER FILTRATION SYSTEM
1. THE STORMWATER WEIAND FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS...

GEOTECHNICAL RECOMMENDATIONS
A. MATERIAL REQUIREMENTS
GTA UNDERSTANDS THAT MARYLAND SPECIFICATIONS 378 (MD 378) GOVERNS DESIGN AND CONSTRUCTION OF THE POND FACILITIES...

GEOTECHNICAL RECOMMENDATIONS (CONTINUED)
MD 378 SPECIFIES THAT ALL FO THE REFERENCED SOIL CLASSIFICATIONS SUITABLE FOR CUTOFF TRENCH CONSTRUCTION ARE ALSO SUITABLE FOR EMBANKMENT CONSTRUCTION...

NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

LOG OF BORING NO. B-01
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-02
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-03
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-04
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-05
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-06
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-07
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-08
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-09
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-10
PROJECT: Sun Meadow SWM
PROJECT NO: 000688
PROJECT LOCATION: Howard County, Maryland

LOG OF BORING NO. B-01
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-02
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-03
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-04
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-05
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-06
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-07
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-08
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-09
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-10
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-11
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-12
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-13
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-14
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-15
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-01
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-02
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-03
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-04
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-05
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-06
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-07
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-08
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-09
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-10
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-11
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-12
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-13
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-14
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-15
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-01
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-02
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-03
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-04
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-05
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-06
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-07
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-08
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-09
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-10
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-11
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-12
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-13
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LOG OF BORING NO. B-15
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-01
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-02
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-03
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-04
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

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DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

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DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
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REMARKS: Topsoil 0.5 ft.

LOG OF BORING NO. B-01
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
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LOG OF BORING NO. B-02
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LOG OF BORING NO. B-10
DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.

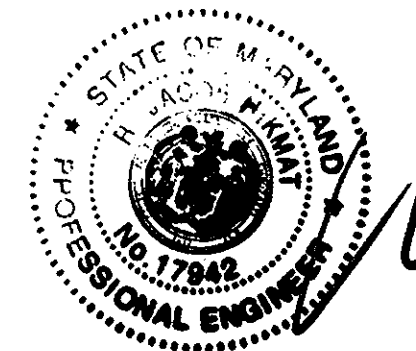
LOG OF BORING NO. B-11
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REMARKS: Topsoil 0.5 ft.

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DESCRIPTION: 0.0 to 0.5 ft: Brown, silty, medium sand, silty sand with some gravel and organic matter.
REMARKS: Topsoil 0.5 ft.



2/24/12

NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

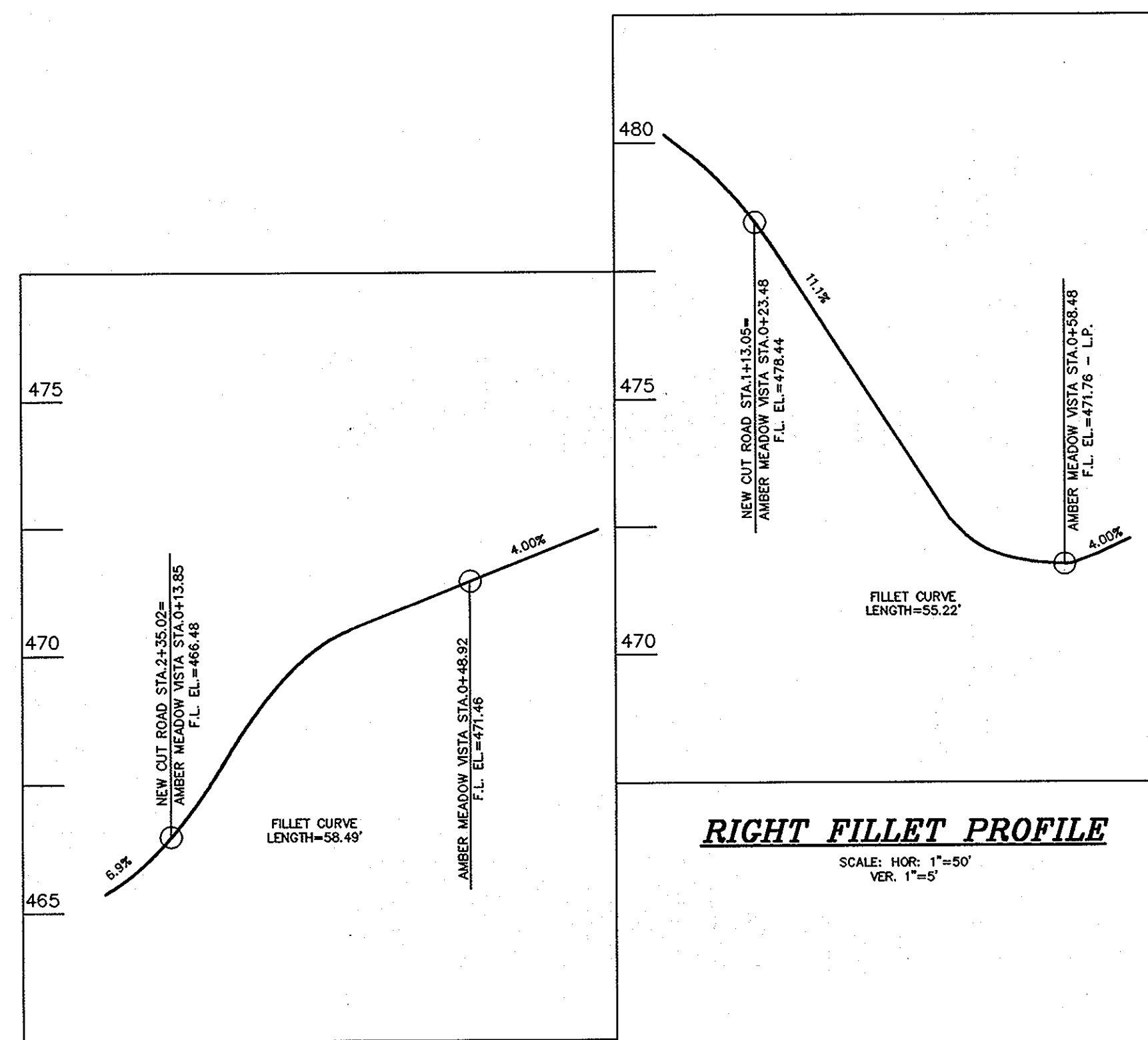
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Table with columns: no., description, date. Values: 1, revise sheet, 1/24/12.

AS-BUILT AMBER MEADOW LOTS 1-23 AND OPEN SPACE LOTS 24-27 TAX MAP 31 PARCEL 11 HOWARD COUNTY, MARYLAND SECOND ELECTION DISTRICT SWM SPECIFICATIONS AND SOIL BORINGS

MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Fax: (410) 997-0298



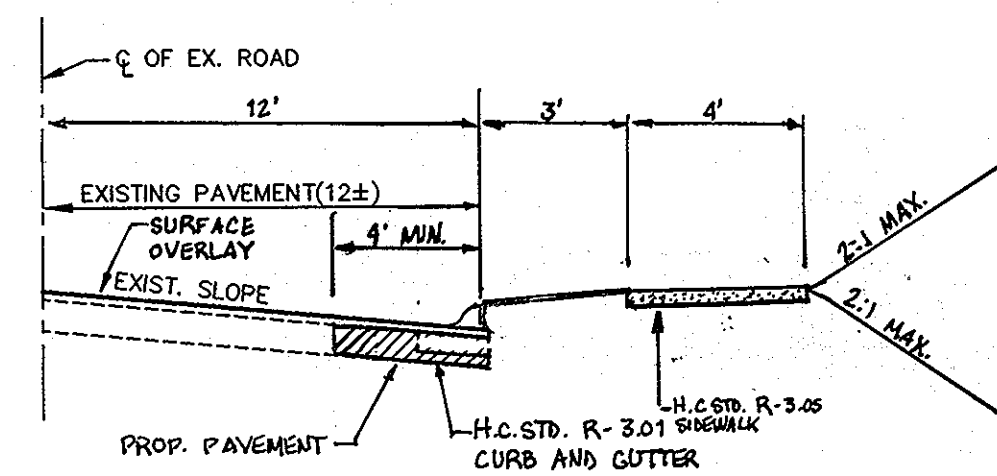


**RIGHT FILLET PROFILE**

SCALE: HOR: 1"=50'  
VER: 1"=5'

**LEFT FILLET PROFILE**

SCALE: HOR: 1"=50'  
VER: 1"=5'

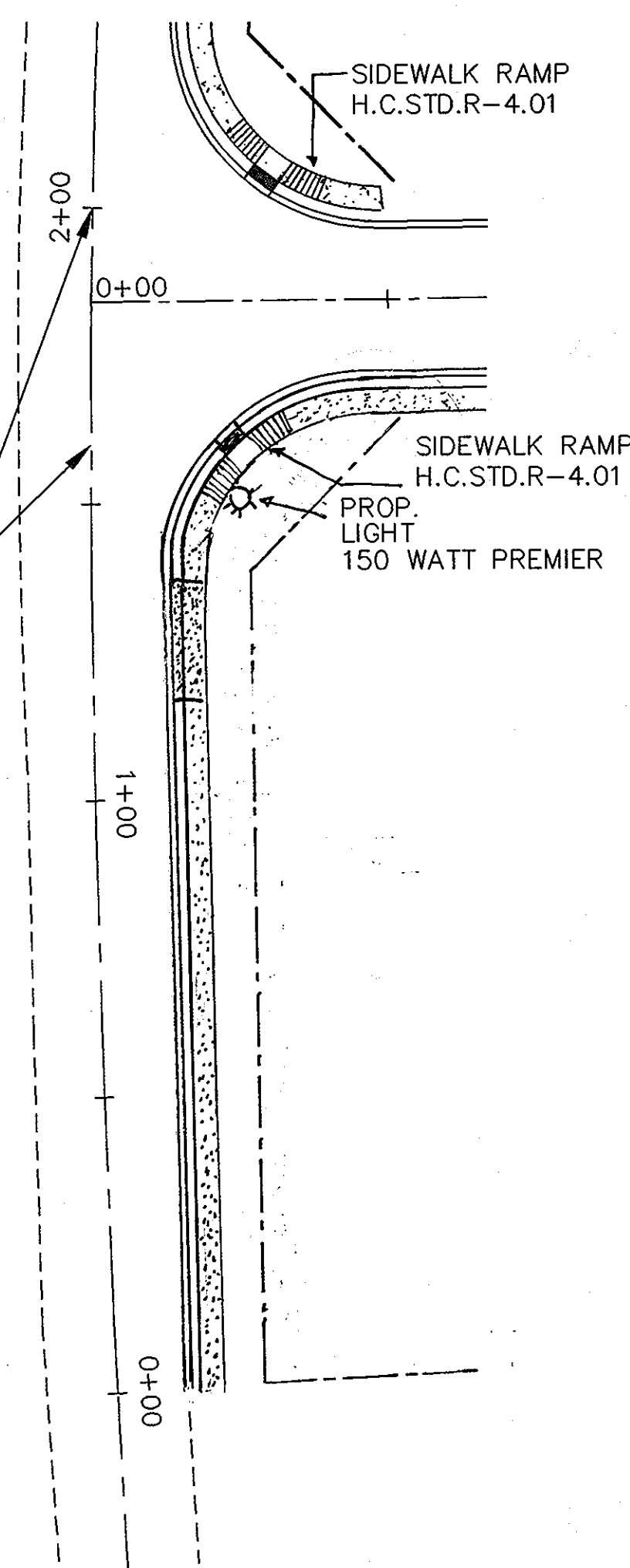


NOTES:  
1. PROVIDE 1' FULL DEPTH SAWCUT ONTO EXISTING ROAD.

**TYP. ROAD IMPROVEMENT SECTION**

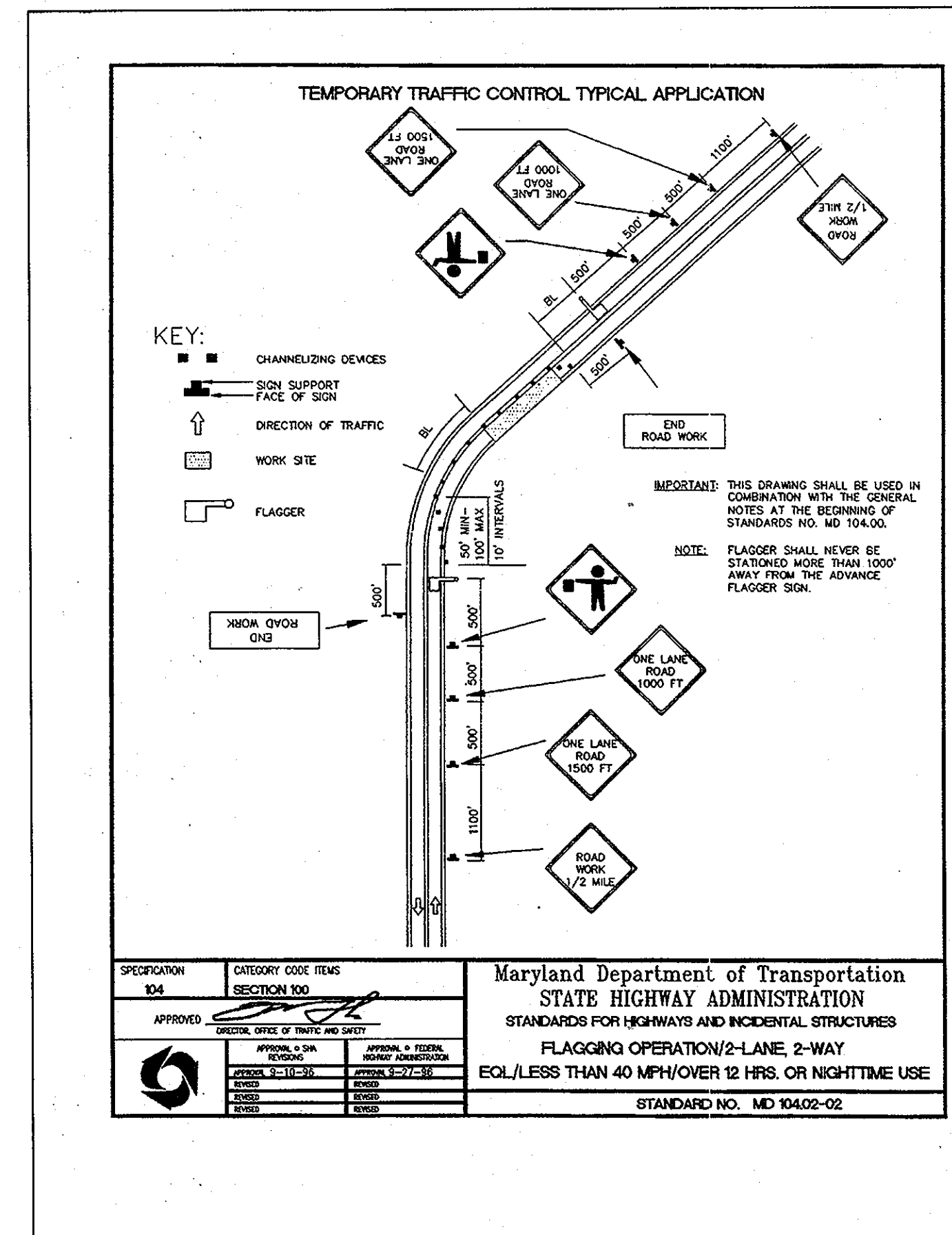
NEW CUT ROAD  
SECTION NOT TO SCALE

REMOVE EX. CENTERLINE STRIP BY GRINDING - STA 1+60 TO STA 2+00

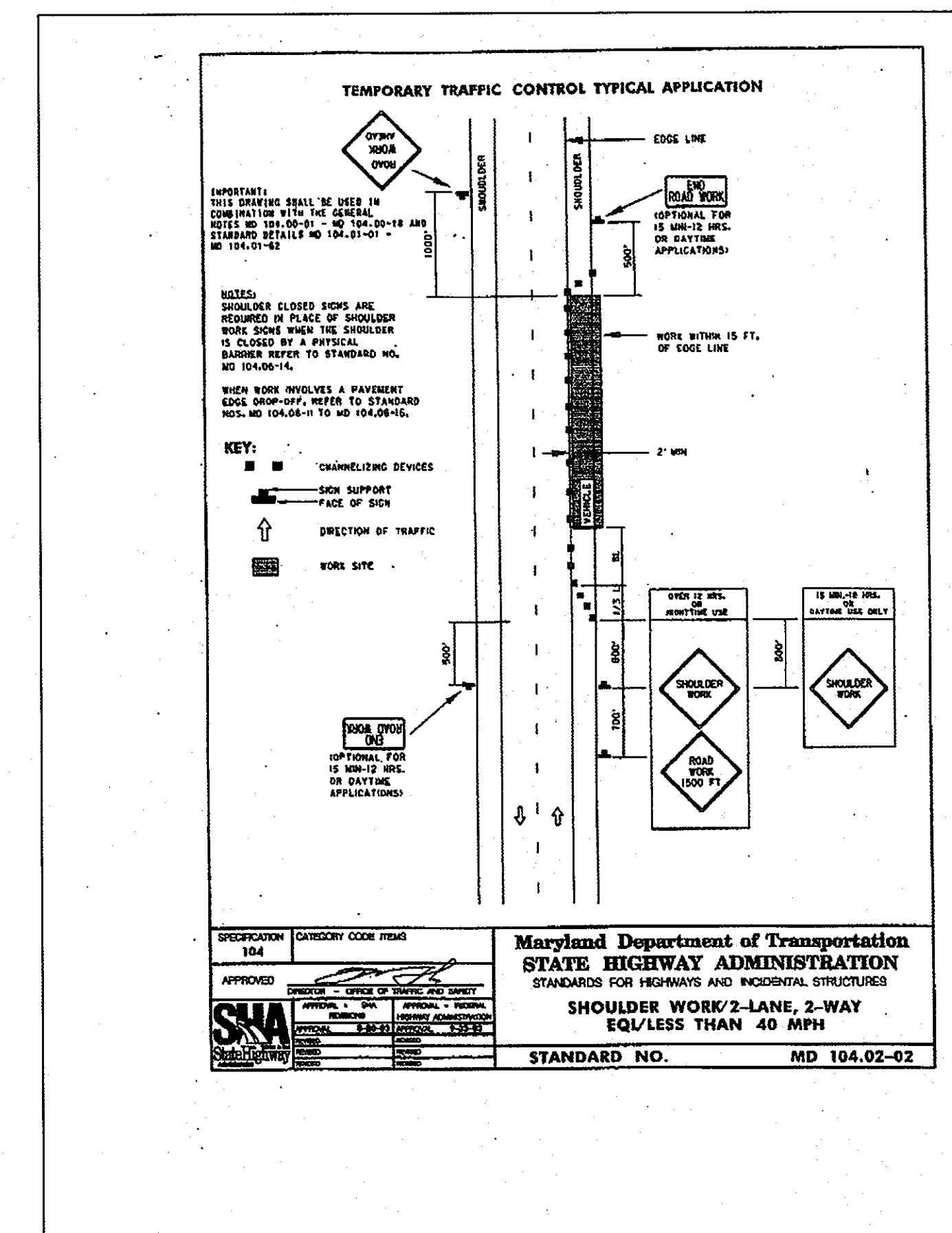


**PAVEMENT MARKING PLAN**

N.T.S.

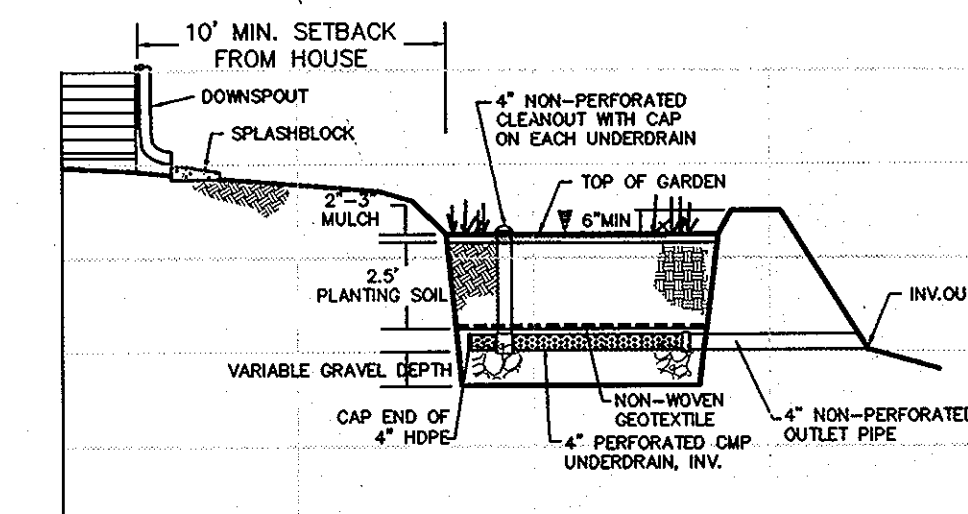


Maryland Department of Transportation  
STATE HIGHWAY ADMINISTRATION  
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
FLAGGING OPERATION/2-LANE, 2-WAY  
EQL/LESS THAN 40 MPH/OVER 12 HRS. OR NIGHTTIME USE  
STANDARD NO. MD 104.02-02



Maryland Department of Transportation  
STATE HIGHWAY ADMINISTRATION  
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
SHOULDER WORK/2-LANE, 2-WAY  
EQL/LESS THAN 40 MPH  
STANDARD NO. MD 104.02-02

NOTE: FINAL DESIGN, SECTIONS AND DETAILS FOR THE RAIN GARDENS SHALL BE PART OF THE SITE DEVELOPMENT PLAN FOR EACH LOT.

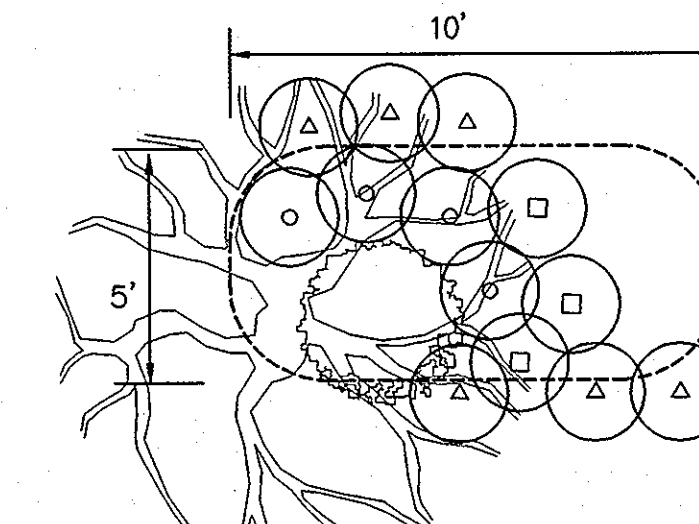


**TYPICAL 5' x 10' RAIN GARDEN PROFILE**

**PLANT LIST**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1	⊙	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1	⊙	ILEX GLABRA	INK BERRY	2' - 3' HT.
6	⊙	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
4	⊙	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
3	⊙	ASTER MOYAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)



**TYP. RAIN GARDEN DETAIL**

SCALE: N.T.S.

NO AS-BUILT INFORMATION REQUIRED ON THIS SHEET

**OWNER & DEVELOPER**  
SUN MEADOW, L.C.  
5094 DORSEY HALL DRIVE, SUITE 104  
ELLCOTT CITY, MD 21042  
410-720-3021  
(CONTACT: RUSSELL DICKENS)

APPROVED: DEPARTMENT OF PUBLIC WORKS

*William J. ...* 11-20-07  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Conrad ...* 11/29/07  
CHIEF, DIVISION OF LAND DEVELOPMENT

*John ...* 11/27/07  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



project	03-50	date	NOV 2007
illustration	MMM	engineering	MMM
scale	50	approval	JEM

revision	1	description	REVISE AMBERMEAD RAIN GARDEN DETAIL	date	02/28/08
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AS-BUILT  
**AMBER MEADOW**  
LOTS 1-23 & OPEN SPACE LOTS 24-27  
TAX MAP 31 - GRID 8 - PARCEL 11  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
MISCELLANEOUS DETAILS

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



**NOTES:**  
 1. FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY PROVIDING 2.10 ACRES OF RETENTION AND 0.79 ACRES OF ON-SITE REFORESTATION, AND PAYMENT OF FEE-IN-LIEU FOR 1.28 ACRES OF REQUIRED REFORESTATION TO THE FOREST CONSERVATION FUND IN THE AMOUNT OF \$41,917.60. FINANCIAL SURETY FOR THE RETENTION OF 2.10 AC. OF FOREST (91.476 SFx0.2) IN THE AMOUNT OF \$18,295.20, AND FOR 0.79 ACRES OF REFORESTATION (34,412.40 SFx0.5) IN THE AMOUNT OF \$17,206.20 FOR A TOTAL OF \$35,501.40 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT.  
 2. PERIMETER LANDSCAPING HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.1204 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (73 SHADE TREES, 26 EVERGREENS AND 40 SHRUBS) HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$27,000.00, FOR THIS FINAL PLAN, P-07-83.

**REFORESTATION PLANT LIST**  
 FCE 'A'  
 QTY. SPECIES SHADE MOST. WET. MIN.O.C. SIZE & SPACING REMARKS  
 1 Acer rubrum Red Maple D-W FAC 15' CONT/B & B 1' CALIPER  
 2 Cornus florida Flowering Dogwood V-T D-M FACU- 15' CONT/B & B 1' CALIPER  
 1 Prunus serotina Wild Black Cherry I M FACU 15' CONT/B & B 1' CALIPER  
 2 Liriodendron tulipifera Tulip Poplar M-W FAC 15' CONT/B & B 1' CALIPER  
 1 Quercus alba White Oak I M-W FAC+ 15' CONT/B & B 1' CALIPER  
 TOTAL 8 TREES (7 TREES REQUIRED)

**FOREST CONSERVATION WORKSHEET**  
 NET TRACT AREA:  
 A. Total tract area = 12.78  
 B. Area within 100 year floodplain = 0.00  
 C. Area to remain in agricultural production or utility ROW = 0.00  
 D. Net tract area = 12.78  
 LAND USE CATEGORY:  
 (from table 3.2.1, page 40, Manual)  
 Input the number "1" under the appropriate land use zoning, and limit to only one entry.  
 ARA MDR IDA HDR MPD CIA  
 0 0 0 1 0 0  
 E. Afforestation Threshold: 15% x D = 1.92  
 F. Conservation Threshold: 20% x D = 2.56  
 EXISTING FOREST COVER:  
 G. Existing forest cover (excluding floodplain) = 7.18  
 H. Area of forest above afforestation threshold = 5.26  
 I. Area of forest above conservation threshold = 4.62  
 BREAK EVEN POINT:  
 J. Forest retention above threshold with no mitigation = 3.48  
 K. Clearing permitted without mitigation = 3.70  
 PROPOSED FOREST CLEARING:  
 L. Total area of forest to be cleared = 5.08  
 M. Total area of forest to be retained = 2.10  
 PLANTING REQUIREMENTS:  
 N. Reforestation for clearing above conservation threshold = 1.16  
 O. Credit for retention above conservation threshold = 0.81  
 P. Credit for retention above conservation threshold = 0.00  
 R. Total reforestation required = 2.07  
 S. Total afforestation required = 0.00  
 T. Total reforestation and afforestation required = 2.07  
 U. Total reforestation provided on-site = 0.79  
 V. Total Afforestation Provided on-site = 0.00

**REFORESTATION PLANT LIST**  
 FCE 'B'  
 QTY. SPECIES SHADE MOST. WET. MIN.O.C. SIZE & SPACING REMARKS  
 80 Acer rubrum Red Maple D-W FAC 15' CONT/B & B 1' CALIPER  
 20 Cornus florida Flowering Dogwood V-T D-M FACU- 15' CONT/B & B 1' CALIPER  
 15 Prunus serotina Wild Black Cherry I M FACU 15' CONT/B & B 1' CALIPER  
 15 Liriodendron tulipifera Tulip Poplar M-W FAC 15' CONT/B & B 1' CALIPER  
 15 Nyssa sylvatica Black Sycamore T M-W FAC 15' CONT/B & B 1' CALIPER  
 10 Prunus serotina Wild Black Cherry I M FACU 15' CONT/B & B 1' CALIPER  
 10 Quercus alba White Oak I M-W FAC+ 15' CONT/B & B 1' CALIPER  
 8 Quercus rubra Red Oak M-T D-M UPL 15' CONT/B & B 1' CALIPER  
 TOTAL 163 TREES (166 TREES REQUIRED)

**GENERAL NOTES**  
**FOREST RESTORATION**  
 1. ALL FOREST RESTORATION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC FENCING AND SHALL BE MAINTAINED AS SUCH UNTIL THE FOREST RESTORATION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT BURST, TRUNK WOUNDS, AND OTHER DAMAGE, HAVE BEEN CORRECTED.  
 2. ANY DAMAGE THAT MAY OCCUR SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS OWN EXPENSE.  
 3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. INCLUDING SOIL FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE AREA.  
 4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.  
 5. THE GENERAL CONTRACTOR SHALL HAVE THE ULTIMATE CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SAPPING, FLOODING, EXCESSIVE WEIRING FROM OVER-WATERING OPERATIONS, OFF-SITE RUN OFF, SPRAYING AND DRIPPING OF MATERIALS THAT MAY BE HARMFUL TO TREES.  
 6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORAGE OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN PROTECTED AREAS.  
 7. REMOVAL OF TOPSOIL OR ROOT MAT FROM THE TREE PRESERVATION AREA SHALL BE PROHIBITED.  
 8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE COST OF REPLACING AND MAINTAINING ALL PLANT STOCK KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.  
**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 STOCK, PLANTING SHOULD OCCUR WITHIN 30 DAYS AFTER DELIVERY TO THE SITE.  
 3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERY SPECIFICATIONS FOR SIZE, FORM, VIGOR, SPECIES AND PROTECTION DEVICES, SHALL BE REPLACED.  
 4. UNTIL PLANTING, 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). MINE SHOULD BE SHOWN AND BACKFILL FOR PLANTING. AFTER PLANT INSTALLATION, THE PLANTING FIELD SHOULD BE COVERED WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL.  
 2. PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING. EXISTING FOREST STOCK SHOULD BE IDENTIFIED AND MARKED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERY SPECIFICATIONS FOR SIZE, FORM, VIGOR, SPECIES AND PROTECTION DEVICES, SHALL BE REPLACED.  
 3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERY SPECIFICATIONS FOR SIZE, FORM, VIGOR, SPECIES AND PROTECTION DEVICES, SHALL BE REPLACED.  
 4. UNTIL PLANTING, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.  
**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. MAINTENANCE SCHEDULE OF MOWING, LOCAL AND INDIVIDUAL WEEDING IS TO BE EXPEDITED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS DETERMINED THAT IT IS NECESSARY TO MAINTAIN THE PLANTING.  
 4. REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) WEEDS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WEEDY NURSERY STOCK.  
 5. REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN EXISTING PLANTING AREAS. DO NOT REMOVE DOWN AND DEAD MATERIAL, NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS DETERMINED THAT IT IS NECESSARY TO MAINTAIN THE PLANTING.  
 6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MAINTENANCE PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.  
**SUPERVISION**  
 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 COMA 05.01.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.  
**STANDARD NON-DISTURBANCE NOTE:**  
 THESE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION OR FOREST BUFFER EASEMENTS EXCEPT AS MONITORED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT.  
**STANDARD SPECIMEN TREE NON-DISTURBANCE NOTE:**  
 THESE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION OR EQUIPMENT INTRODUCTION OF TOAD CHANGERS OR OTHER DISTURBANCES DETERMINED TO THE LIFE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS MONITORED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT.

**CONSTRUCTION MONITORING**  
 THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR MONITORING DAMAGE TO PROTECTED FOREST AREAS AND FOR REPAIRING DAMAGE TO PROTECTED FOREST AREAS. THE MONITORING SHALL BE CONDUCTED AT THE FOLLOWING INTERVALS:  
 1. DURING CONSTRUCTION, MONITORING SHALL BE CONDUCTED AT THE FOLLOWING INTERVALS:  
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