

SITE DATA

LOCATION: TAX MAP 31; BLOCK 1 & 8; PARCEL 10, LOTS 1-5
 5TH ELECTION DISTRICT
 EXISTING ZONING: R-20
 SUBDIVISION: GLEN MAR METHODIST CHURCH
 DPT. REFERENCE: BA-02-36C; WP-04-122; SDP-04-042
 GROSS AREA OF PROJECT: 21.0966 AC (918,968 SF)
 AREA OF STEEP SLOPES: 1.04 AC (45,229 SF)
 NET AREA OF PROJECT: 21.0966 AC
 APPROXIMATE LIMIT OF DISTURBANCE: 3.08 AC (134,133 SF)

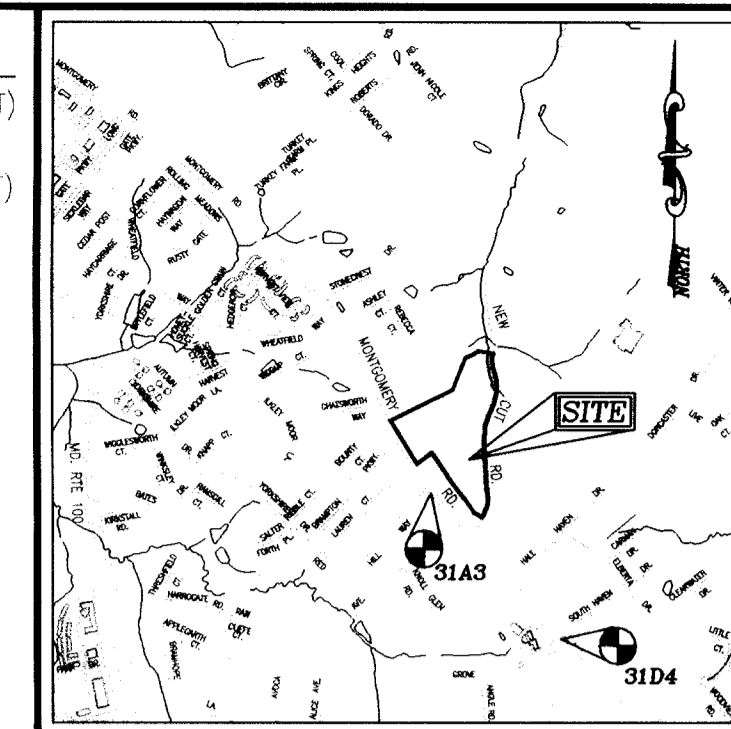
GENERAL NOTES

- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- D.F.D. REFERENCES: 5044/333
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PERFORMED BY FREDERICK WARD ASSOCIATES, INC. DATED
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY PROVIDED BY FREDERICK WARD ASSOCIATES, INC. DATED MAY 22, 2001.
- COORDINATE DATUM IS BASED ON THE MARYLAND COORDINATE SYSTEM (NAD '83) AS PROJECTED BY THE FOLLOWING H.O.CO. GEODETIC CONTROL STATIONS: 3104 & 31A3
- WATER AND SEWER FOR THIS PROJECT TO TIE TO A PUBLIC SYSTEM
 EXISTING WATER: 12" W
 EXISTING SEWER: 20" 3339
- STORMWATER MANAGEMENT SERVING THE PROPOSED PUBLIC ROAD WILL BE INCLUDED IN THIS SUBMISSION. CIVIL IS NOT REQUIRED FOR THIS PROJECT (0 < 2.0 c.f.s.). WQV AND REV PROVIDED BY PROPOSED BIORETENTION FACILITY. THE PROPOSED STORMWATER MANAGEMENT FACILITY TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH. STORMWATER MANAGEMENT FOR THE BALANCE OF THE DEVELOPMENT TO BE ADDRESSED AT THE SITE DEVELOPMENT PLAN STAGE. STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL.
- STORMWATER MANAGEMENT SOIL BORINGS FOR THIS SITE ARE BASED ON A GEOTECHNICAL ANALYSIS PROVIDED BY ENGINEERING CONSULTING SERVICES, INC. DATED MAY 15, 2003.
- WETLANDS DELINEATED BY FREDERICK WARD ASSOCIATES, INC. DATED AUGUST 2003.
- AREA OF SLOPES 2% OR GREATER CONTIGUOUS OF 20,000 SF OR MORE: 42,644.72 SF (0.99 AC). THERE ARE NO FLOODPLAINS ON THIS SITE.
- FOREST STAND DELIBERATION PLAN PREPARED BY FREDERICK WARD ASSOCIATES, INC. DATED SEPTEMBER 2003.
- TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, DATED JULY 25, 2003.
- A HOIST STUDY IS NOT REQUIRED FOR THIS SITE SINCE IT IS NON-RESIDENTIAL.
- THE FOREST CONSERVATION OBLIGATIONS FOR THE DEVELOPMENT OF THESE LOTS WILL BE MET AND PROVIDED WITH THE SITE DEVELOPMENT PLAN FOR GLEN MAR UNITED METHODIST CHURCH, LOTS 1-5, SDP-04-042, OR ANY SUBSEQUENT SITE DEVELOPMENT PLAN FOR THESE LOTS IF SDP-04-042 DOES NOT OBTAIN APPROVAL.
- SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
- THE PROPOSED STORMWATER MANAGEMENT FACILITY IS TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH.
- REFERENCE WP 04 122, APPROVED MAY 14, 2004; TO WAIVE SECTIONS 16.144(a) & (f) TO NOT REQUIRE THE SUBMISSION AND APPROVAL OF SKETCH AND PRELIMINARY PLANS FOR A MAJOR SUBDIVISION OF PARCEL 10 THAT WILL INVOLVE PUBLIC ROAD IMPROVEMENTS, SUBJECT TO THE FOLLOWING CONDITIONS: DEVELOPER WILL BE REQUIRED TO OBTAIN AND MEET ALL TERMS AND CONDITIONS OF A REQUIRED ACCESS PERMIT PRIOR TO ANY CONSTRUCTION IN THE SHA RIGHT-OF-WAY.
- REFERENCE SDP-04-42 FOR STORMWATER FOR GLEN MAR UNITED METHODIST CHURCH.
- ONLY THE REQUIRED PUBLIC ROAD STREET TREES AND THE REQUIRED PLANTING OF THE BIORETENTION SWM ARE PROVIDED ON THE CERTIFIED PLANTING PLAN INCLUDED IN THIS ROAD CONSTRUCTION PLAN SET. ALL OTHER LANDSCAPE/PLANTING OBLIGATIONS FOR THE DEVELOPMENT OF THESE LOTS WILL BE MET AND PROVIDED WITH THE SITE DEVELOPMENT PLAN FOR GLEN MAR UNITED METHODIST CHURCH, LOTS 1-5, SDP-04-042, OR ANY SUBSEQUENT SITE DEVELOPMENT PLANS FOR THESE LOTS IF SDP-04-042 DOES NOT OBTAIN APPROVAL.
- THIS PLAN IS SUBJECT TO BA-02-36C, APPROVED NOVEMBER 18, 2002, FOR CONDITIONAL USES FOR A STRUCTURE USED PRIMARILY FOR RELIGIOUS ACTIVITIES AND FOR A CHILD DAY CARE AND NURSERY SCHOOL IN AN R-20 ZONING DISTRICT. FILED PURSUANT TO SECTIONS 131.N.38 AND SECTION 131.N.13 OF THE HOWARD COUNTY ZONING REGULATION; PROVIDED, HOWEVER, THAT THE CONDITIONAL USES WILL APPLY ONLY TO THE USES AND STRUCTURES AS DESCRIBED IN THE PETITION AND CONDITIONAL USE PLAN SUBMITTED, AS AMENDED HERETO, AND NOT TO ANY OTHER ACTIVITIES, USES, STRUCTURES, OR ADDITIONS ON THE PROPERTY.
- SPECIFIC CRITERIA FOR RELIGIOUS ACTIVITIES, STRUCTURES USED PRIMARILY FOR (SECTION 131.N.38)**
 - THE PROPOSED BUILDING WILL COVER APPROXIMATELY 45,635 SF., WHICH IS NO MORE THAN 5% OF THE LOT SIZE. THE LOT COVERAGE WILL THEREFORE NOT EXCEED THE MAXIMUM OF 25% AS REQUIRED BY SECTION 131.N.38(A).
 - THE PROPOSED STRUCTURE WILL BE 43 FEET IN HEIGHT, WHICH IS ABOVE THE MAXIMUM HEIGHT LIMITATION OF 14 FEET IN THE R-20 ZONING DISTRICT. THE HEIGHT IS PERMITTED UNDER SECTION 131.N.38 OF THE MINIMUM SETBACKS ARE INCREASED BY 9 FEET. THE STRUCTURE IS SET BACK 126 FEET FROM NEW CUT ROAD TO THE EAST AND 49 FEET FROM NEW CUT ROAD TO THE WEST. THESE SETBACKS WILL EXCEED THE MINIMUM OF 59 FEET AND 49 FEET, RESPECTIVELY. THE STRUCTURE WILL THEREFORE COMPLY WITH SECTION 131.N.38(B).
- SPECIFIC CRITERIA FOR CHILD DAY CARE CENTERS AND NURSERY SCHOOLS, DAY TREATMENT AND CARE FACILITIES (SECTION 131.N.13)**
 - THE INTERIOR DRIVEWAY LEADS TO TWO DROP-OFF AREAS ADJACENT TO SIDEWALKS LOCATED NEAR THE MAIN ENTRANCE AND NEAR THE EDUCATIONAL WING, PROVIDING SAFE CIRCULATION IN ACCORDANCE WITH SECTION 131.N.13.A.
 - THE PROPOSED FACILITY IS NOT LOCATED IN A INDUSTRIAL DISTRICT; THEREFORE, SECTION 131.N.13.B. DOES NOT APPLY.
 - AT 500 GROSS FEET AREA OF LOT PER CHILD, A LOT OF 3.95 ACRES WOULD BE REQUIRED TO ACCOMMODATE THE 544 CHILDREN (184 DAYCARE CHILDREN PLUS 160 NURSERY SCHOOL CHILDREN) WHO WILL USE THE SITE. THE 22.36 ACRE SITE IS MORE THAN ADEQUATE TO MEET THE STANDARD OF SECTION 131.N.13.C.
 - THE TWO PROPOSED PLAYGROUNDS WILL BE FENCED AND LOCATED TO THE SIDES OF THE PRINCIPAL STRUCTURES. EACH WILL BE LOCATED MORE THAN 250 FEET FROM THE NEAREST DWELLING AND SCREENED BY PERIMETER LANDSCAPING. THE PLAYGROUNDS THEREFORE MEET THE REQUIREMENTS OF SECTION 131.N.13.D.
 - THE PARKING AREAS WILL BE LOCATED TOWARD THE CENTER OF THE SITE AND WILL BE WELL SET BACK FROM ADJACENT RESIDENTIAL PROPERTIES. THEY ARE ALSO ADEQUATELY BUFFERED BY THE LANDSCAPING, IN ACCORDANCE WITH SECTION 131.N.13.E.
 - THE DESIGN AND MASSING OF THE BUILDING, GIVEN THE SIZE OF THE SITE AND THE EXTENSIVE SETBACKS AND LANDSCAPING TO BE PROVIDED, WILL BE GENERALLY COMPATIBLE WITH THE RESIDENTIAL PROPERTIES IN THE VICINITY, IN ACCORDANCE WITH SECTION 131.N.13.F.
 - THE PROPOSED FACILITY WILL BE IN A RESIDENTIAL DISTRICT AND HAVE A CAPACITY OF MORE THAN 30 CHILDREN.
 - THE PROPERTY FRONTS ON MONTGOMERY ROAD, A MINOR ARTERIAL, AND WILL FRONT ON THE NEW NEW CUT ROAD, A MAJOR COLLECTOR. THIS SITE WILL HAVE DIRECT ACCESS TO NEW CUT ROAD. THE SITE THEREFORE COMPLIES WITH SECTION 131.N.13.G(1).
 - THE PROPOSED BUILDING AND PLAY AREAS ARE LOCATED MORE THAN 50 FEET FROM ADJACING PROPERTIES, IN COMPLIANCE WITH THE SETBACK REQUIREMENT OF SECTION 131.N.13.G(2). THE PARKING AREA IN THE SOUTHWEST PORTION OF THE LOT, HOWEVER, IS 29 FEET FROM THE ADJACENT PROPERTIES. I MAY REDUCE THIS SETBACK TO NO LESS THAN 20 FEET IF THE PROPERTY IS PROPERLY BUFFERED IN ACCORDANCE WITH SECTION 131.N.13.G(2)(b). I FIND THAT THE PYL C LANDSCAPING BUFFER PROPOSED FOR THE SOUTH END OF THE LOT, COMBINED WITH THE PROPOSED SETBACK OF 29 FEET, WILL PROVIDE AN EFFECTIVE AND ATTRACTIVE BUFFER FOR NEIGHBORING RESIDENTIAL PROPERTIES IN ACCORDANCE WITH THIS SECTION.
 - APPROXIMATELY 5.6 ACRES OF THE 11.51 ACRE BUILDING ENVELOPE, OR 48%, WILL BE GREEN SPACE. THIS EXCEEDS THE MINIMUM OF 20% GREEN SPACE REQUIRED BY SECTION 131.N.13.G(3).
- THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- PLANNING AND ZONING FILE NUMBERS: S-02-03; F-99-25; F-86-13; P-03-02; BA-02-036C; SDP-04-042; WP-04-122.
- NON-BUILDABLE OPEN SPACE LOT 5 HAS BEEN SUBDIVIDED TO BE CONVEYED TO HOWARD COUNTY FOR THE PURPOSE OF A PUBLIC ROAD.
- LOT 2 IS NOT BUILDABLE SINCE IT DOES NOT MEET BULK REGULATIONS ON ITS OWN. NON-BUILDABLE OPEN SPACE LOT 2 IS INTENDED TO BE CONVEYED TO THE ADJACENT PROPERTY OWNER.
- WETLANDS DELINEATED BY FREDERICK WARD ASSOCIATES, INC. DATED AUGUST 2003.
- THE FOREST CONSERVATION OBLIGATION OF 3.21 ACRES OF AFFORESTATION FOR SDP-04-042 AND THIS SUBDIVISION SHALL BE SATISFIED BY PROVIDING 2.99 ACRES OF ON-SITE AFFORESTATION AND PAYMENT OF \$4,791.60 TO THE HO. CO. FOREST CONSERVATION FUND FOR THE REMAINING 0.22 ACRES OF AFFORESTATION.
- ANY ADDITIONAL PARKING AREAS THAT ARE ADDED IN FUTURE PHASES WILL REQUIRE A REVISED SWM PLAN. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE BUFFER ZONE OR THICK BUFFER ZONE AREAS OF STEEP SLOPES GREATER THAN OR EQUAL TO 20,000 SF, AND FOREST CONSERVATION EASEMENT AREAS.

FINAL ROAD CONSTRUCTION PLAN RELOCATED NEW CUT ROAD GLEN MAR UNITED METHODIST CHURCH PARCEL 10, LOTS 1-5

BENCHMARKS

HOWARD COUNTY BENCHMARK 3104 (CONCRETE MONUMENT)
 N 571700.65900 E 1369606.28100 ELEV. 495.179
 HOWARD COUNTY BENCHMARK 31A3 (CONCRETE MONUMENT)
 N 573217.87700 E 1368237.66200 ELEV. 487.641



VICINITY MAP
 SCALE: 1"=2000'

LEGEND

- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Light Poles
- Concrete

No.	Northing	Easting
1	573989.2467	1367839.3278
2	574299.6737	1368472.2371
3	574555.6409	1368567.8163
4	574638.4166	1368602.8905
5	574667.5077	1368673.5480
6	574708.0745	1368736.7100
7	574681.1118	1368806.6566
8	574641.9987	1368869.9575
9	574509.0639	1368893.4806
10	574512.7597	1368907.1083
11	574381.6301	1368934.0565
12	574184.5326	1368915.1736
13	573953.4289	1368826.5885
14	573722.3941	1368813.6031
15	573080.5153	1368853.1961
16	572813.8354	1368707.8640
17	572816.2476	1368703.1139
18	572815.9507	1368699.6815
19	572974.8311	1368781.1946
20	573007.1193	1368691.0636
21	573170.1133	1368590.7525
22	573056.3921	1368439.3066
23	573064.3164	1368433.2104
24	573178.1210	1368584.7627
25	573354.2885	1368452.9864
26	573563.0165	1368314.4106
27	573638.4729	1368263.9314
28	573524.3392	1368111.3634

OWNER/DEVELOPER
 GLENMAR UNITED METHODIST CHURCH
 8430 GLENMAR RD
 ELLICOTT CITY, MD 21043
 AL HAMMER
 (410) 465-4995

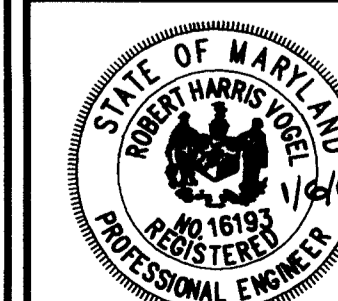
NO.	REVISION	DATE

ROAD CONSTRUCTION PLANS

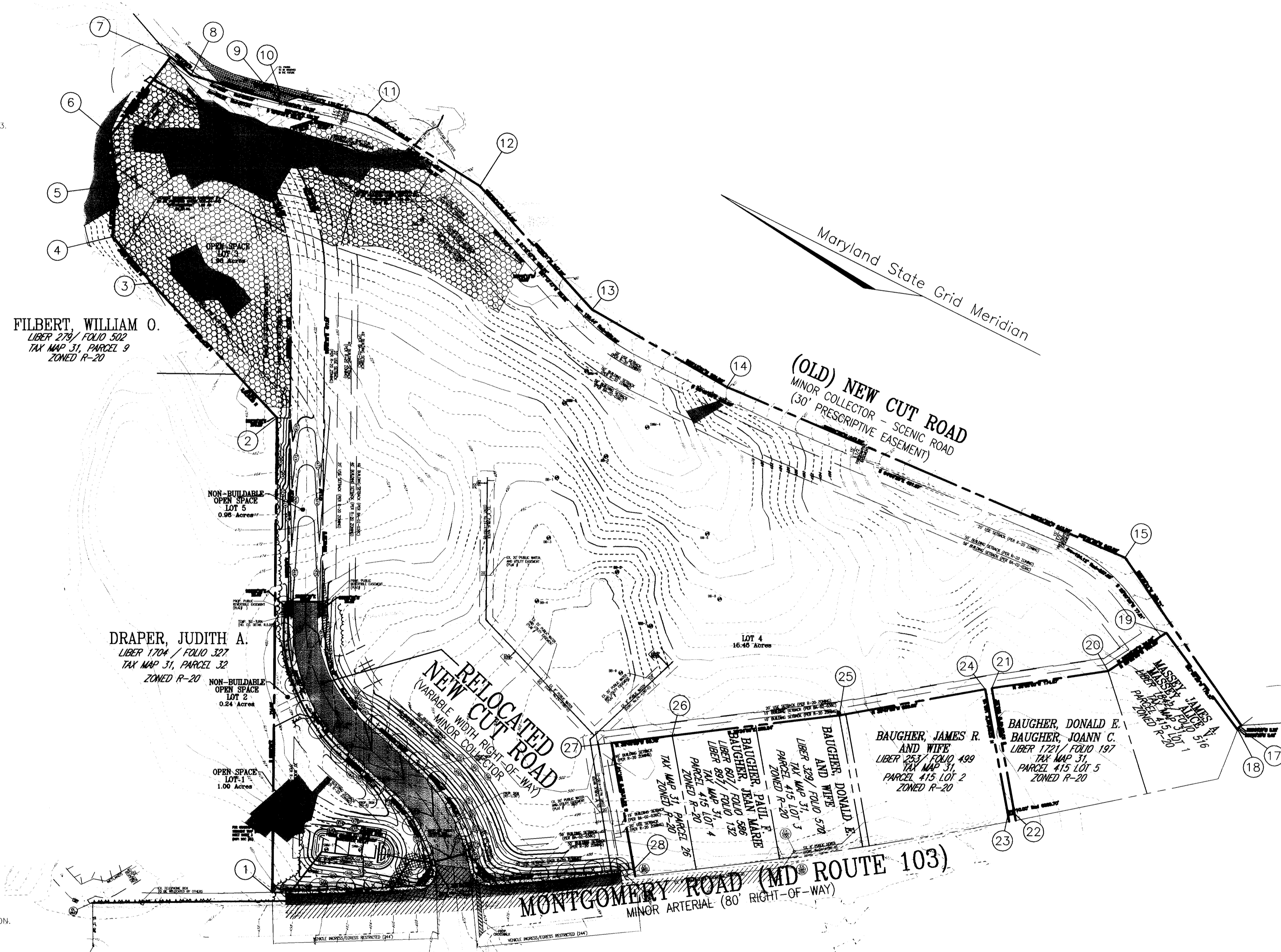
COVER SHEET

**RELOCATED NEW CUT ROAD
 GLEN MAR UNITED METHODIST CHURCH**
 TAX MAP 31, BLOCK 1 & 8 PARCEL 10, LOTS 1-5
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
 ENGINEERING, INC.**
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



DESIGN BY: RHY
 DRAWN BY: DZ
 CHECKED BY: RHY
 DATE: DECEMBER 2004
 SCALE: AS SHOWN
 W.D. NO.: 04-64



LOCATION MAP
 SCALE: 1"=100'

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 of 8
ROAD PLANS, PROFILE AND SECTIONS	2 of 8
SITE LAYOUT, GRADING, SEDIMENT AND EROSION CONTROL PLAN	3 of 8
SITE LAYOUT, GRADING, SEDIMENT AND EROSION CONTROL PLAN	4 of 8
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	5 of 8
STORM DRAIN PROFILE AND SWM DETAILS	6 of 8
STORM DRAIN DRAINAGE AREA MAP AND BIORETENTION PLAN	7 of 8
PLANTING PLAN	8 of 8

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

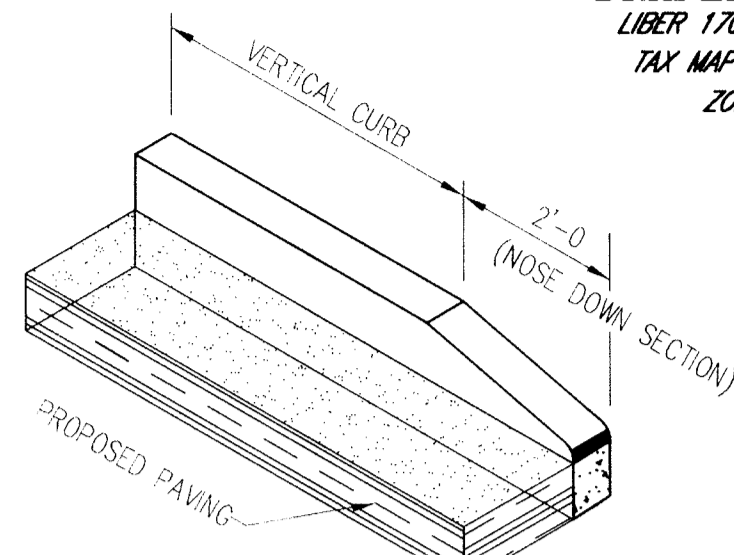
William R. Mahala 1-26-05
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/21/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 2/10/05
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DIRECTOR DATE

DRAPER, JUDITH A.
LIBER 1704 / FOLIO 327
TAX MAP 31, PARCEL 32
ZONED R-20



NOTE: REFER TO DETAIL 7 ON THIS SHEET FOR VERTICAL CURB DETAIL.

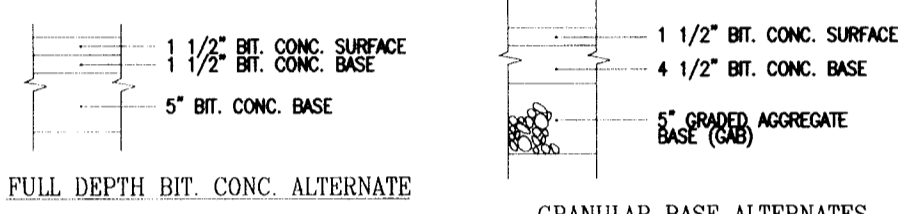
CONCRETE CURB - NOSE DOWN NOT TO SCALE

THE SWMF TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH.

NON-BUILDABLE OPEN SPACE LOT 2 0.24 Acres

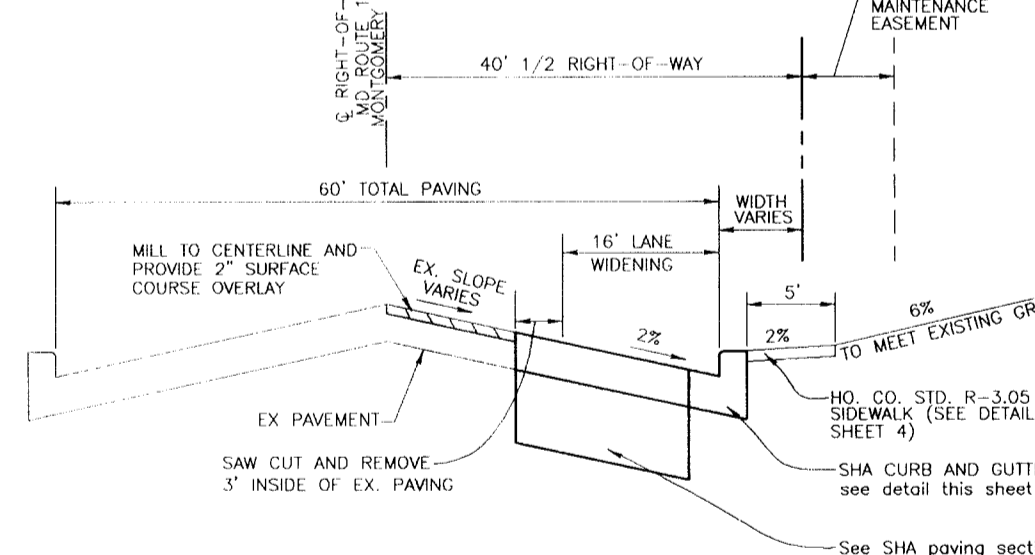
OPEN SPACE LOT 1 1.00 Acres

P-3 HEAVY DUTY PAVING SECTION N.T.S.



FOR GRADING OF TEMP. SEEDMENT TYP. #2. SEE SHEET 3 (REF. SEC. #2).

ROAD PLAN
SCALE: 1"=50'



WIDENING DETAIL
MD RTE 103
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

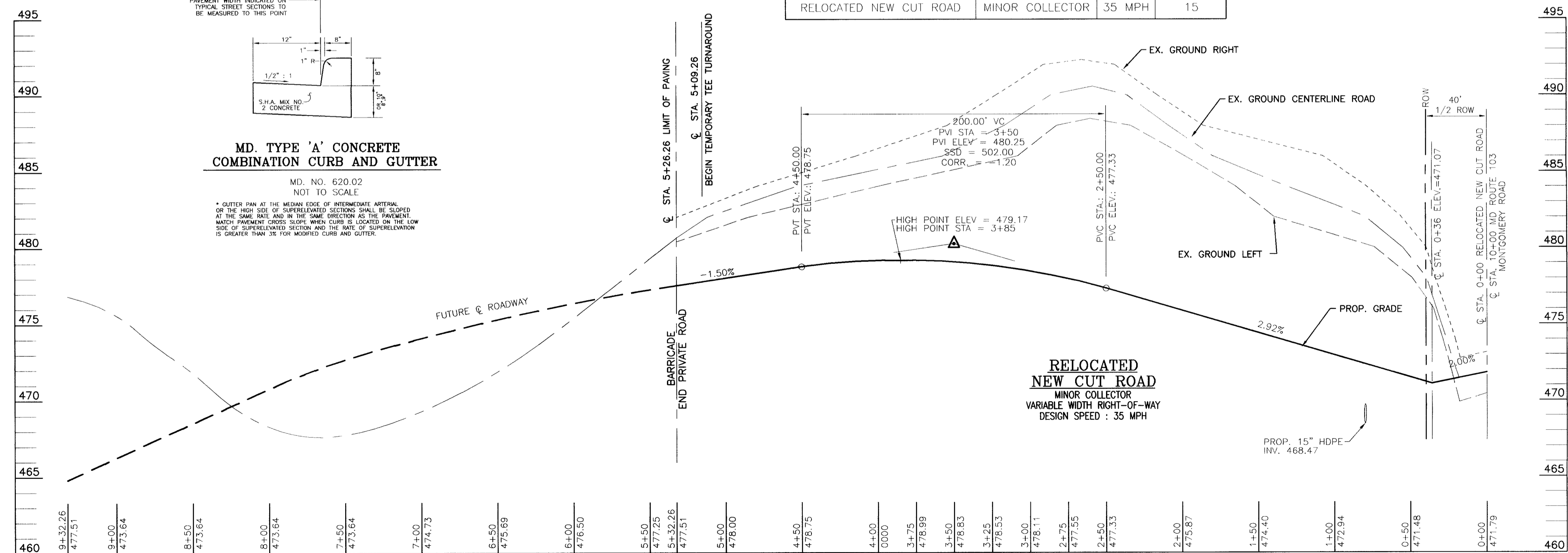
William J. Mahala 1-26-05
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Robert H. Vogel 1/21/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

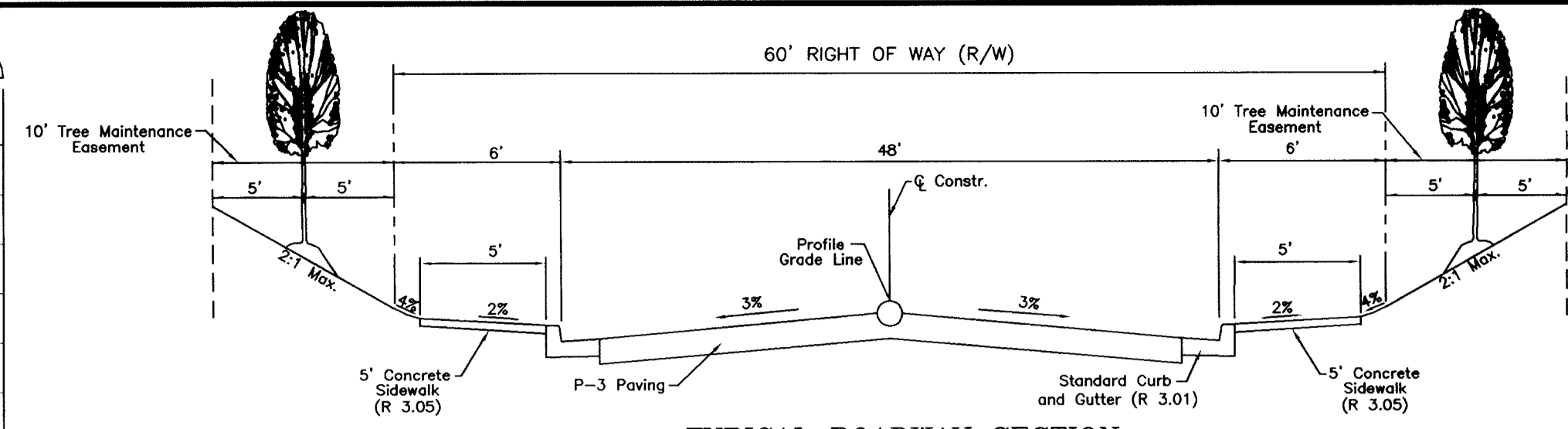
Robert H. Vogel 1/21/05
CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR N/A



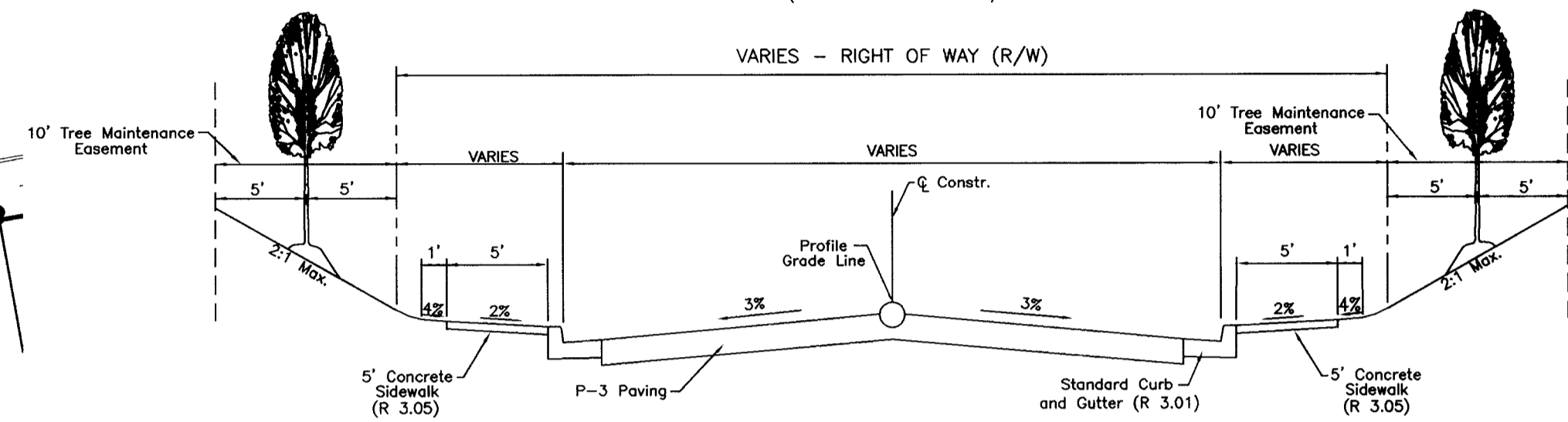
ROAD PROFILE
SCALE: HOR. 1"=50'
VERT. 1"=5'

CURVE	RADIUS	LENGTH	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	240.00	174.81	41°43'59"	91.49	N36°22'04"E	170.97
C2	216.00	121.44	32°12'49"	62.37	N31°36'21"E	119.85
C3	264.00	149.32	32°24'23"	76.72	N31°42'17"E	147.34
C4	240.00	202.62	48°22'18"	107.79	S39°41'14"W	196.65
C5	252.00	115.72	26°18'41"	58.90	S50°43'02"W	114.71
C5	700.00	168.85	48°22'18"	89.82	S39°41'14"W	163.88



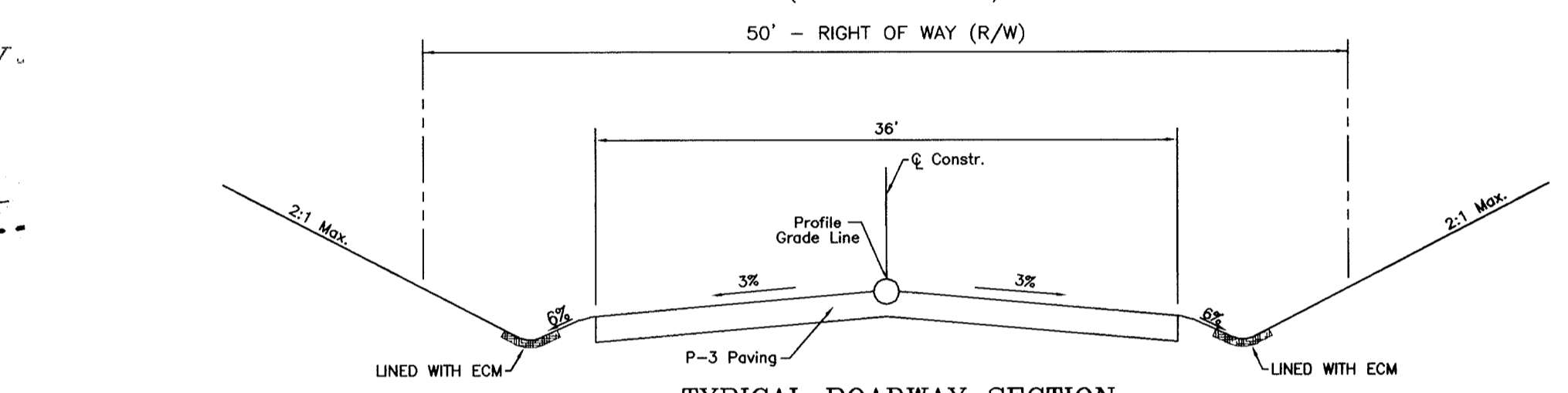
TYPICAL ROADWAY SECTION

(RELOCATED) NEW CUT ROAD
MINOR COLLECTOR
DESIGN SPEED: 35 MPH
LIMITS OF CONSTRUCTION:
STA. 0+74.06 TO STA. 3+05.53
(SECTION NOT TO SCALE)



TYPICAL ROADWAY SECTION

(RELOCATED) NEW CUT ROAD
MINOR COLLECTOR
DESIGN SPEED: 35 MPH
LIMITS OF CONSTRUCTION:
STA. 3+05.53 TO STA. 5+07.23
(SECTION NOT TO SCALE)



TYPICAL ROADWAY SECTION

(RELOCATED) NEW CUT ROAD
MINOR COLLECTOR
DESIGN SPEED: 35 MPH
LIMITS OF CONSTRUCTION:
STA. 5+07.23 TO STA. 5+32.26
(SECTION NOT TO SCALE)

STREET NAME	LINEAR FEET	REQUIRED	PROVIDED
RELOCATED NEW CUT ROAD	784	20	20
MONTGOMERY ROAD	454	11	11

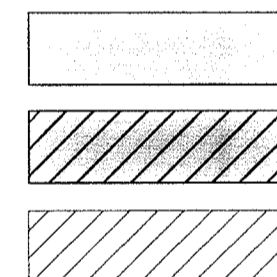
STREET NAME	CLASSIFICATION	DESIGN SPEED	LIMITS
RELOCATED NEW CUT ROAD	MINOR COLLECTOR	35 MPH	15

PAVING LEGEND

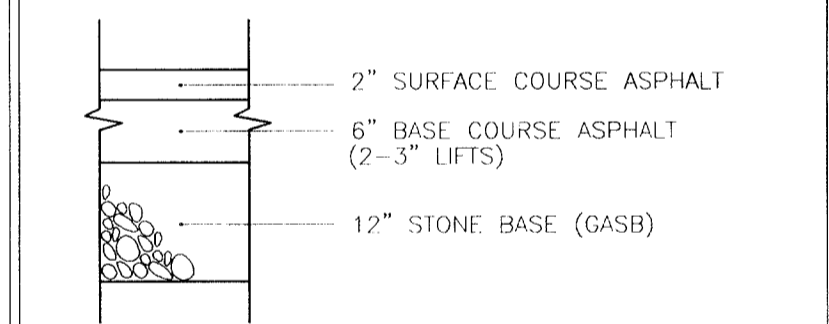
LIMITS OF TYPE P-3 PAVING (SEE DETAIL THIS SHEET)

LIMITS OF SHA STANDARD PAVING (SEE DETAIL THIS SHEET)

MILL TO CENTERLINE AND PROVIDE 2" SURFACE COURSE OVERLAY (SEE DETAIL THIS SHEET)



MD RTE. 103 (SHA) PAVING SECTION N.T.S.



OWNER/DEVELOPER

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8430 GLENMAR RD
ELLCOTT CITY, MD 21043
AL HAMMER
(410) 465-4995

NO.	REVISION	DATE

ROAD CONSTRUCTION PLANS

ROAD PLAN AND PROFILE

RELOCATED NEW CUT ROAD

GLEN MAR UNITED METHODIST CHURCH

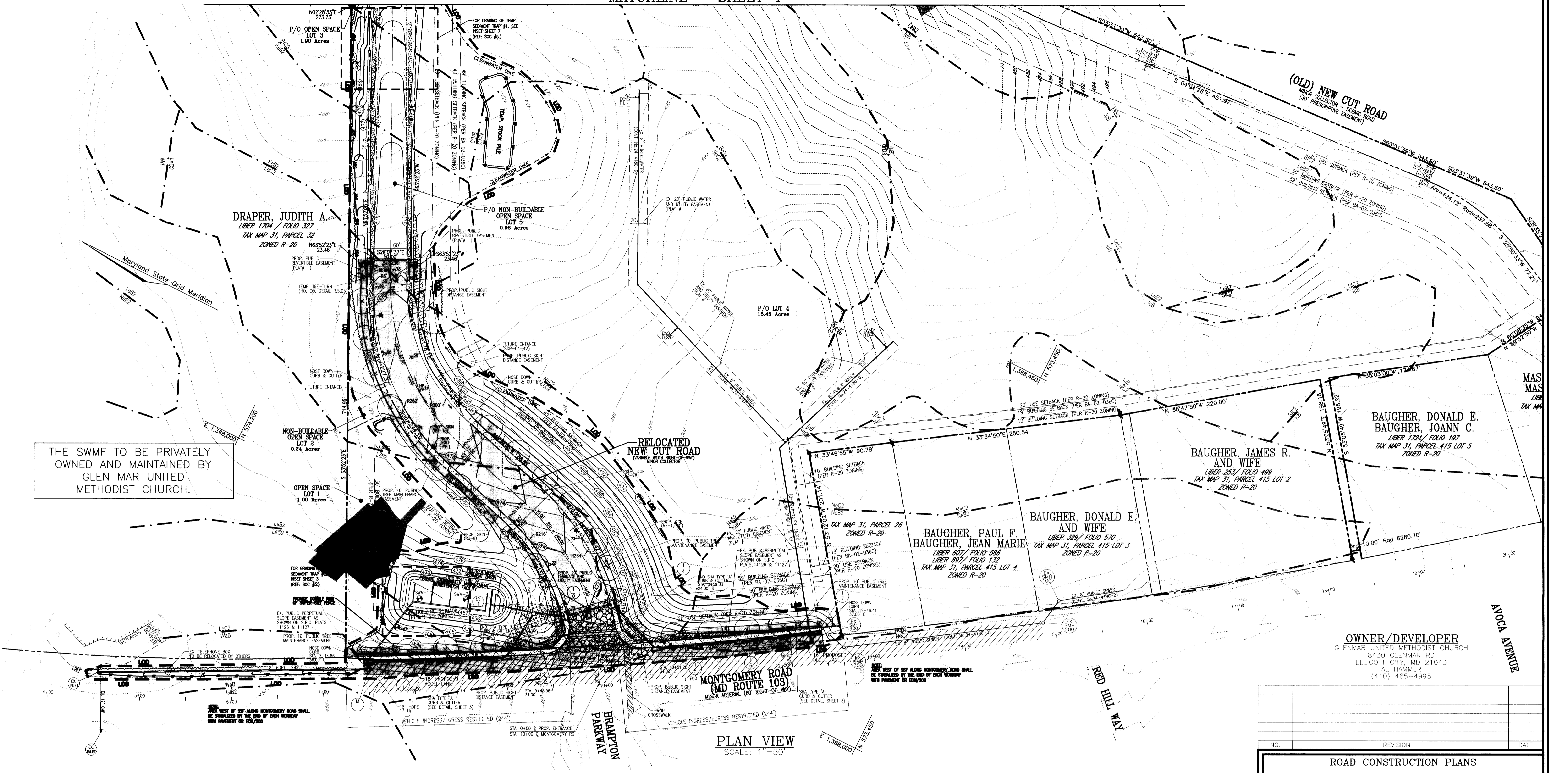
TAX MAP 31 BLOCK 1 & 8 PARCEL '10', LOTS 1-5
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DESIGN BY: RHV
DRAWN BY: DZ
CHECKED BY: RHV
DATE: DECEMBER 2004
SCALE: 1"=50'
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2 OF 8

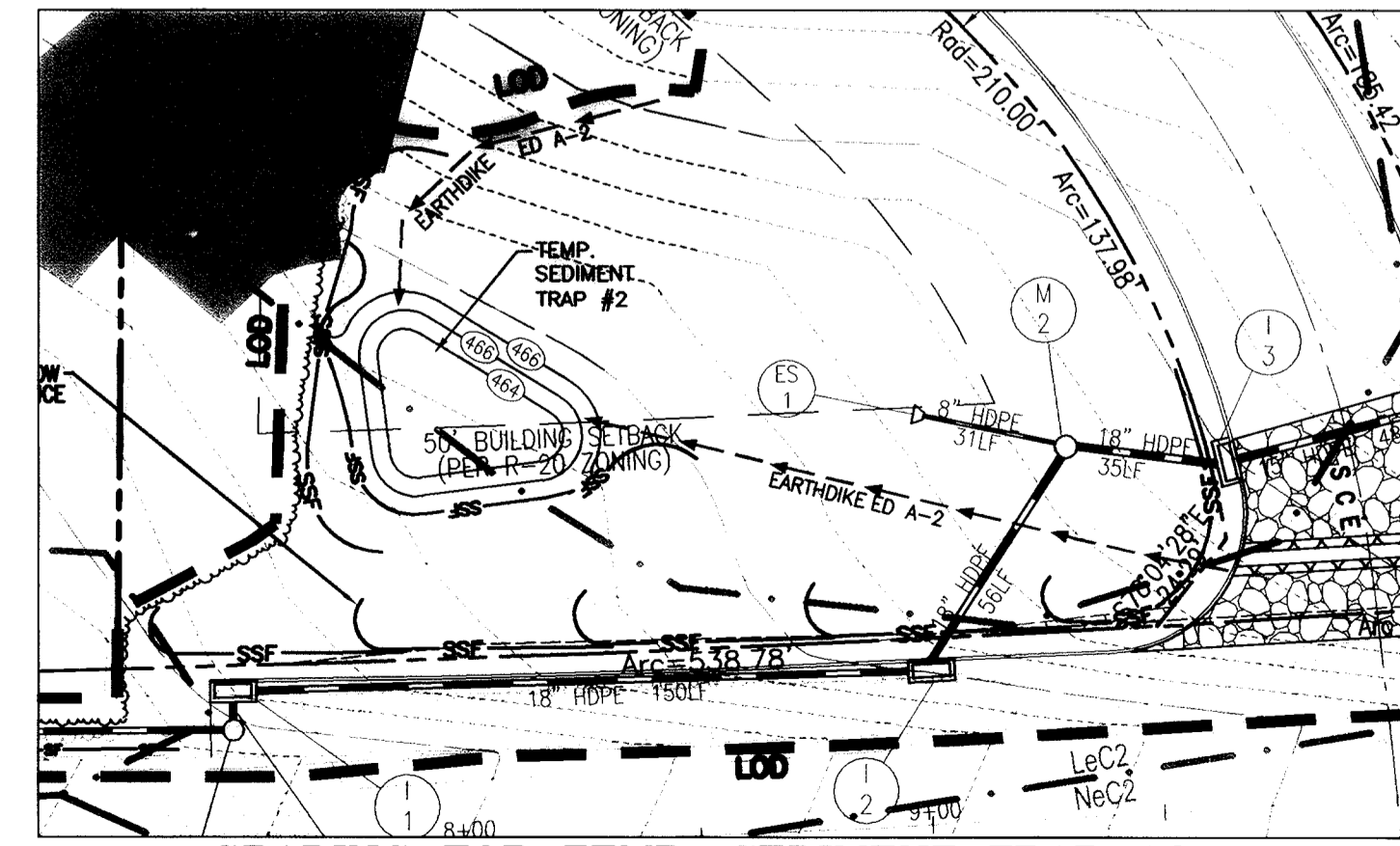


THE SWMF TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH.

PLAN VIEW
SCALE: 1"=50'

TEMP. SEDIMENT TRAP #2

TYPE:	SUPER SILT FENCE TRAP
DEVELOPED DRAINAGE AREA:	0.9 AC.
TOTAL STORAGE REQUIRED:	3240 CF
WET STORAGE (EXCAVATED):	1820 CF
DRY STORAGE (TOP OF SSF):	1620 CF
BOTTOM ELEVATION:	464.00
WET STORAGE ELEVATION:	466.00
DRY STORAGE ELEVATION:	468.80
WET STORAGE PROVIDED:	2200 CF
DRY STORAGE PROVIDED:	2500 CF



GRADING FOR TEMP. SEDIMENT TRAP #2
SCALE: 1"=40' (REF: SOC #5)

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William J. ... 1-26-05
CHIEF, BUREAU OF HIGHWAYS AS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

... 1/31/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION MAJ DATE

... 2/10/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... DATE

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.

Jim ... 1/18/05
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

... 4/8/05
HOWARD S.C.D. DATE

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Al Hammer Administrator 1/7/05
SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

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

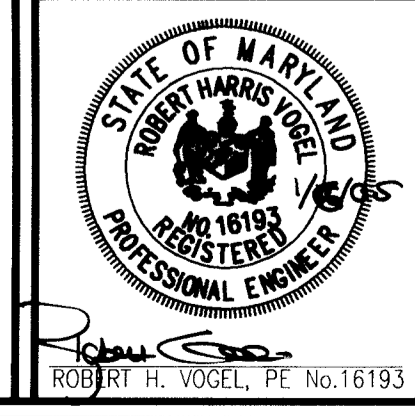
... 1/7/05
SIGNATURE OF ENGINEER ROBERT H. VOGEL, P.E. DATE

OWNER/DEVELOPER
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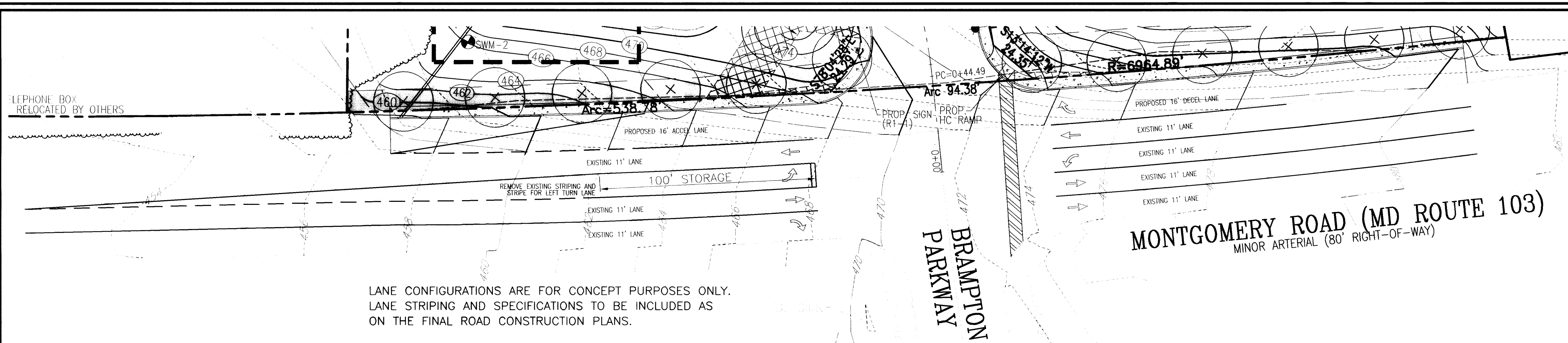
NO.	REVISION	DATE

ROAD CONSTRUCTION PLANS
SITE LAYOUT, GRADING, AND SEDIMENT AND EROSION CONTROL PLAN
RELOCATED NEW CUT ROAD
GLEN MAR UNITED METHODIST CHURCH
TAX MAP 31 BLOCK 1 & 8 PARCEL 10, LOTS 1-5
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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W.O. NO.: 04-64
3 SHEET OF 8



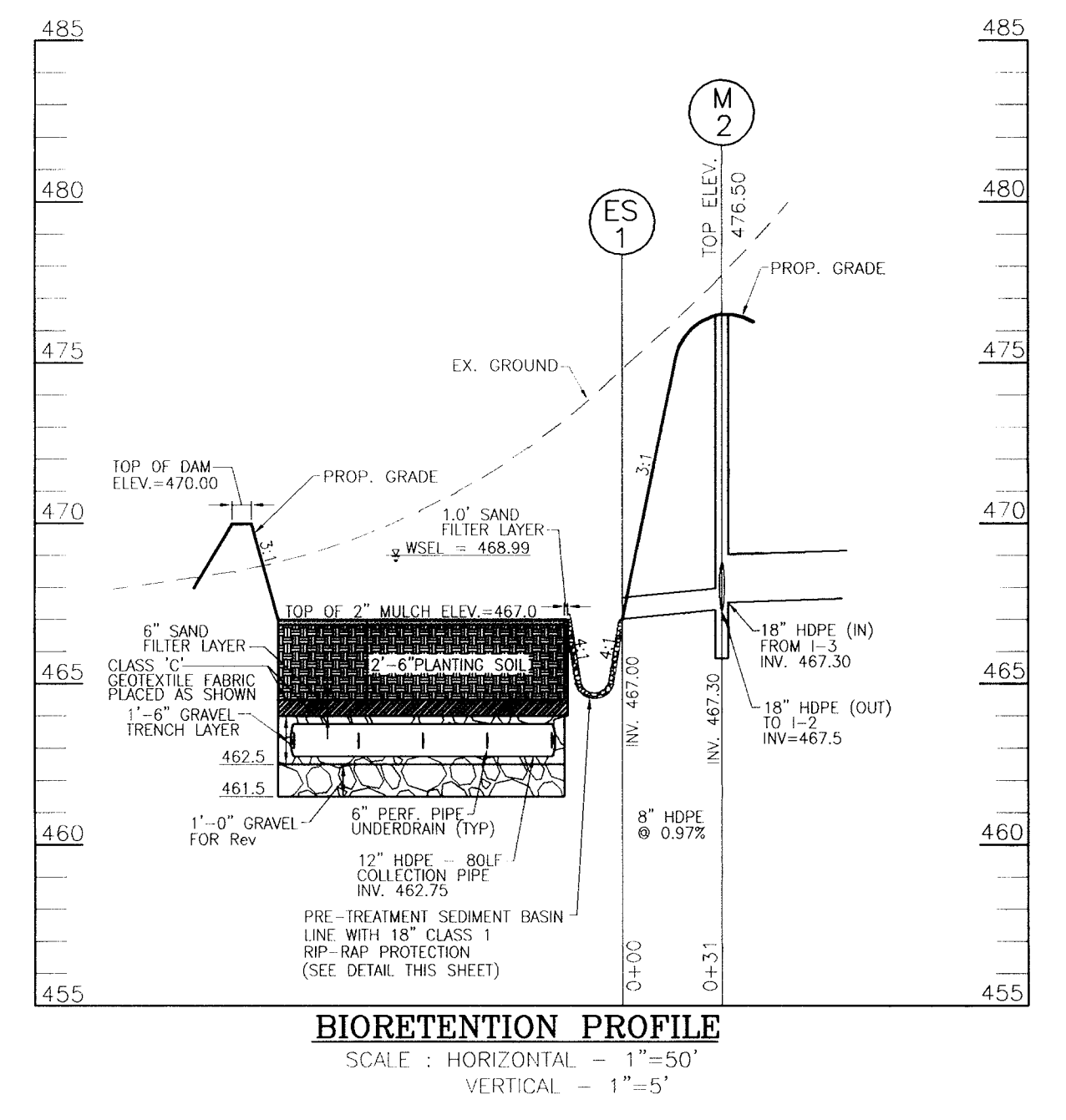
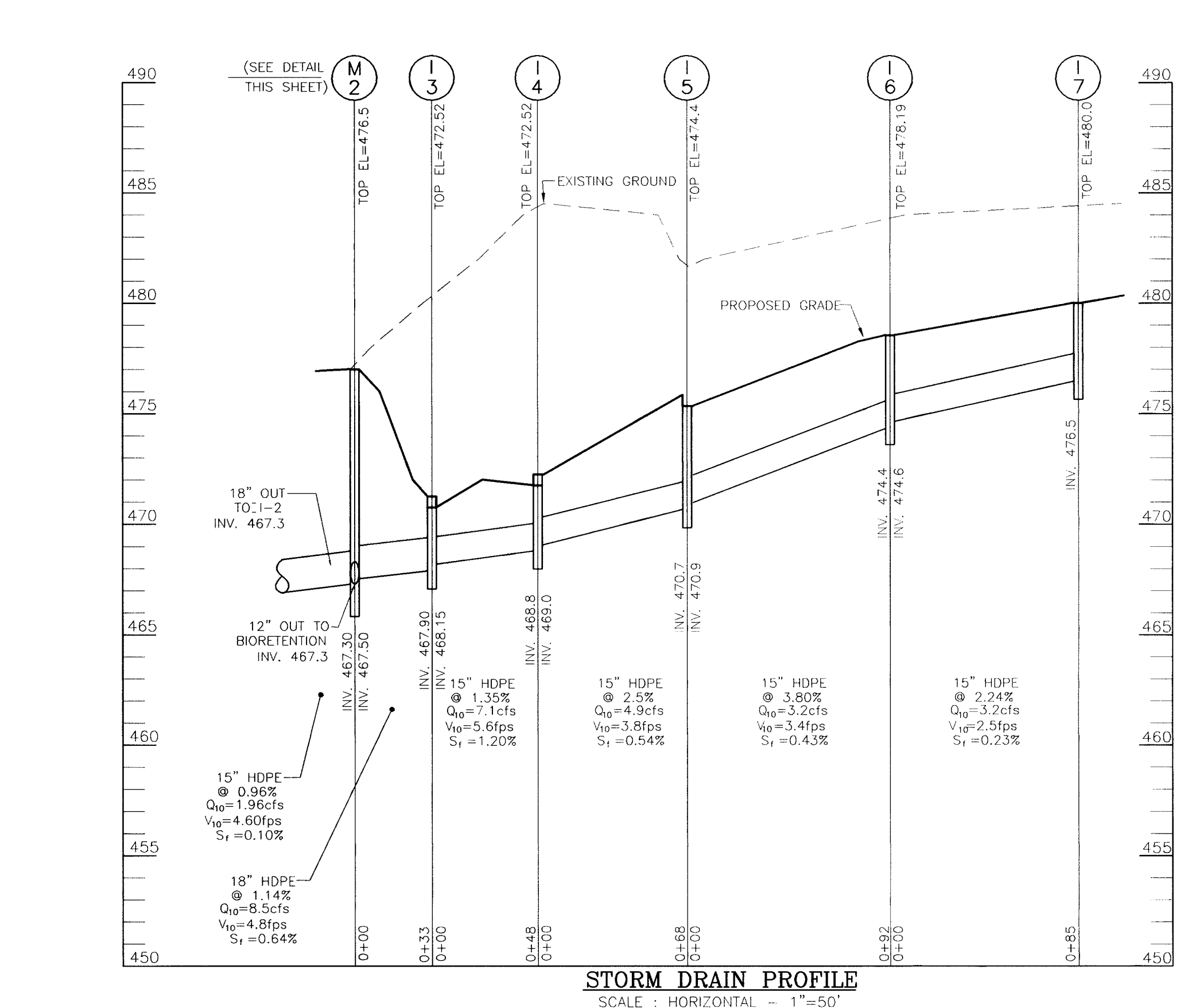
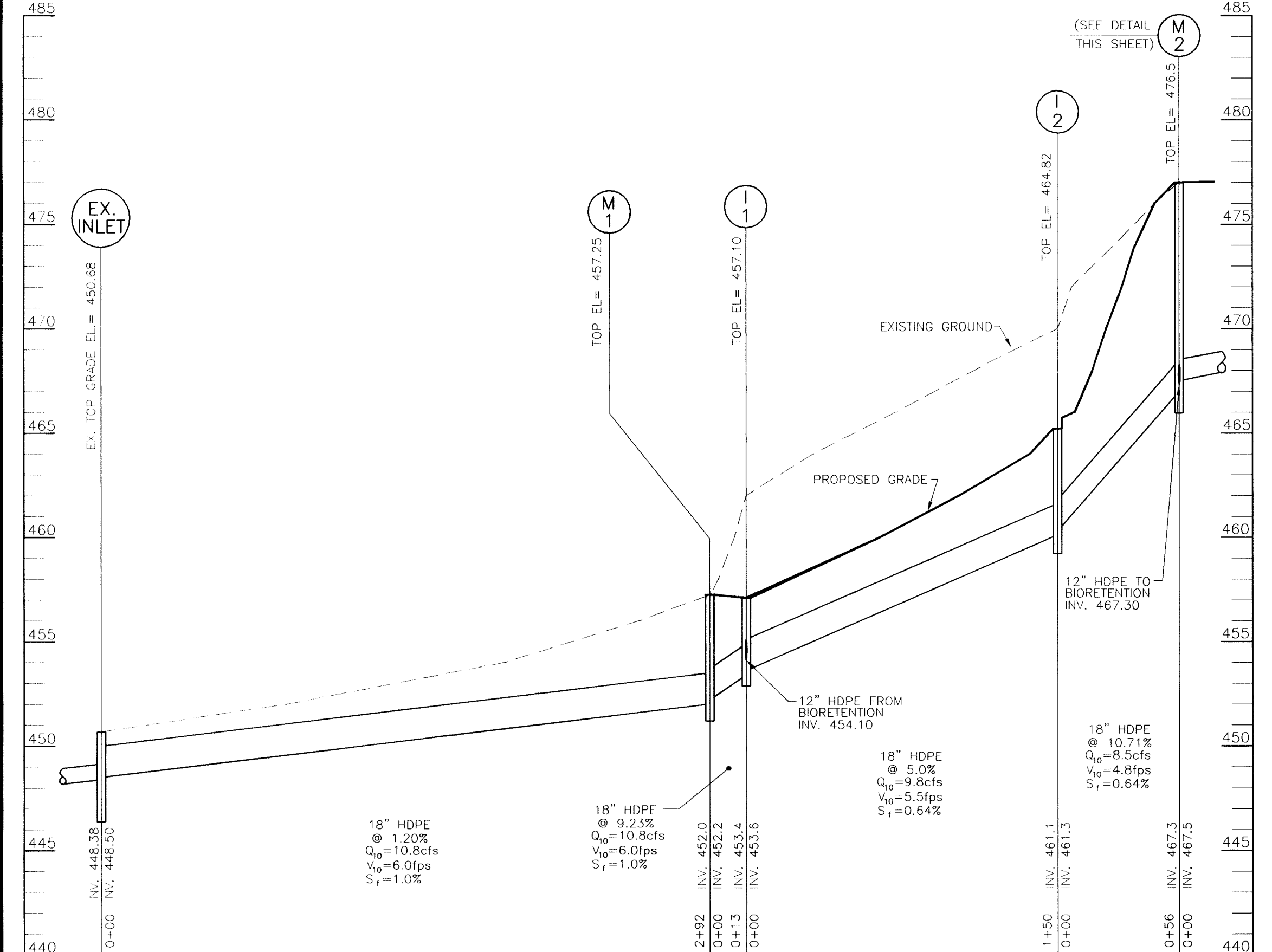
STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	COMMENT
MH-1	4' STANDARD PRECAST MANHOLE	N 573956.94 E 1367831.02	457.25	452.0	457.30	HO. CO. STD. DETAIL, G 5.12
MH-2	48" SQUARE SHALLOW MANHOLE	N 573826.43 E 1367975.07	476.5	467.5	476.5	SHA STD. DETAIL, NO. MD-383.00
I-1	STANDARD WR INLET	7+50	34' LT	457.10	453.4	SHA STD. DETAIL, NO. MD-374.04
I-2	STANDARD WR INLET	9+00	34' LT	464.82	461.1	SHA STD. DETAIL, NO. MD-374.04
I-3	STANDARD A-10 INLET	0+80.5	24' LT	472.52	468.15	HO. CO. DETAIL, NO. SD4.02
I-4	STANDARD A-10 INLET	0+80.5	24' RT	472.52	469.0	HO. CO. DETAIL, NO. SD4.02
I-5	STANDARD WR INLET	10+64	34' LT	474.4	470.7	SHA STD. DETAIL, NO. MD-374.04
I-6	STANDARD WR INLET	11+56	34' LT	478.19	474.4	SHA STD. DETAIL, NO. MD-374.04
I-7	STANDARD WR INLET	12+41	34' LT	480.00	476.5	SHA STD. DETAIL, NO. MD-374.04
ES-1	CONCRETE END SECTION	N 573858.62 E 1367966.08	468.00		467.00	HO. CO. STD. DETAIL, SD-5.52

NOTE: 1. Top elevations are to the center of the structure at top of curb for Double Type "S" Comb. Inlets, center top of grate for Double Type "S" Inlet end top of Manhole cover for Precast Manholes.
 2. For top slab slopes see grading plan.
 3. See Architectural plans for roof drain details.

PIPE SCHEDULE			
SIZE	HDPE	TYPE	LENGTH
12"	HDPE		31 LF
15"	HDPE		297 LF
18"	HDPE		531 LF

LANE CONFIGURATIONS ARE FOR CONCEPT PURPOSES ONLY. LANE STRIPING AND SPECIFICATIONS TO BE INCLUDED AS ON THE FINAL ROAD CONSTRUCTION PLANS.

LANE CONFIGURATION PLAN - MONTGOMERY ROAD
 SCALE: 1"=30'



SUMMARY TABLE			
C _{pv} = N/A (Q ₁ < 2.0 CFS)			
N ₁₀ = 3171 CF			
Rev = 823 CF			
EXISTING CONDITIONS			
Q ₁	Q ₁₀	Q ₁₀₀	
0.22 CFS	4.89 CFS	10.82 CFS	
PROPOSED CONDITIONS			
Q ₁	Q ₁₀	Q ₁₀₀	
1.70 CFS	8.54 CFS	15.61 CFS	

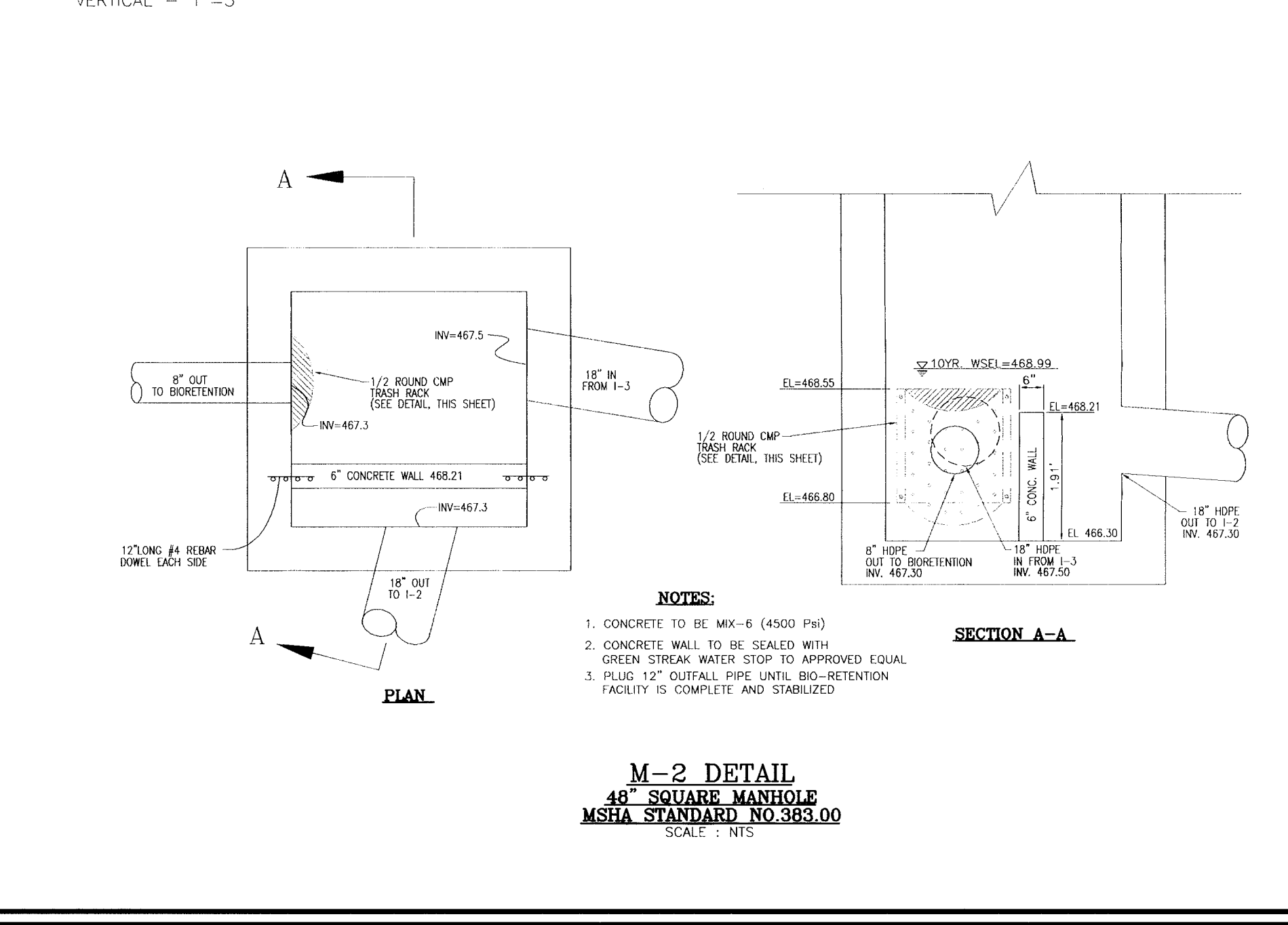
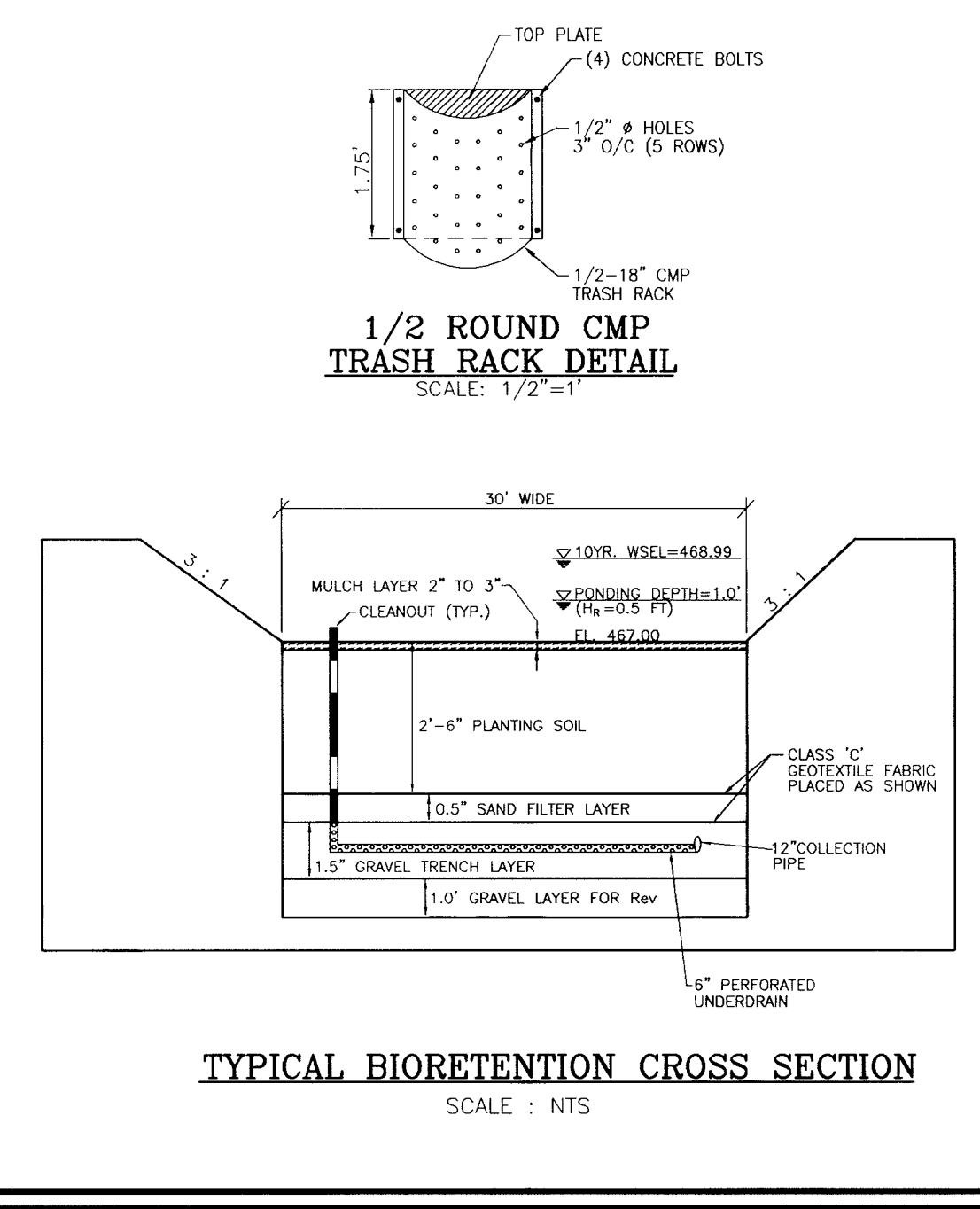
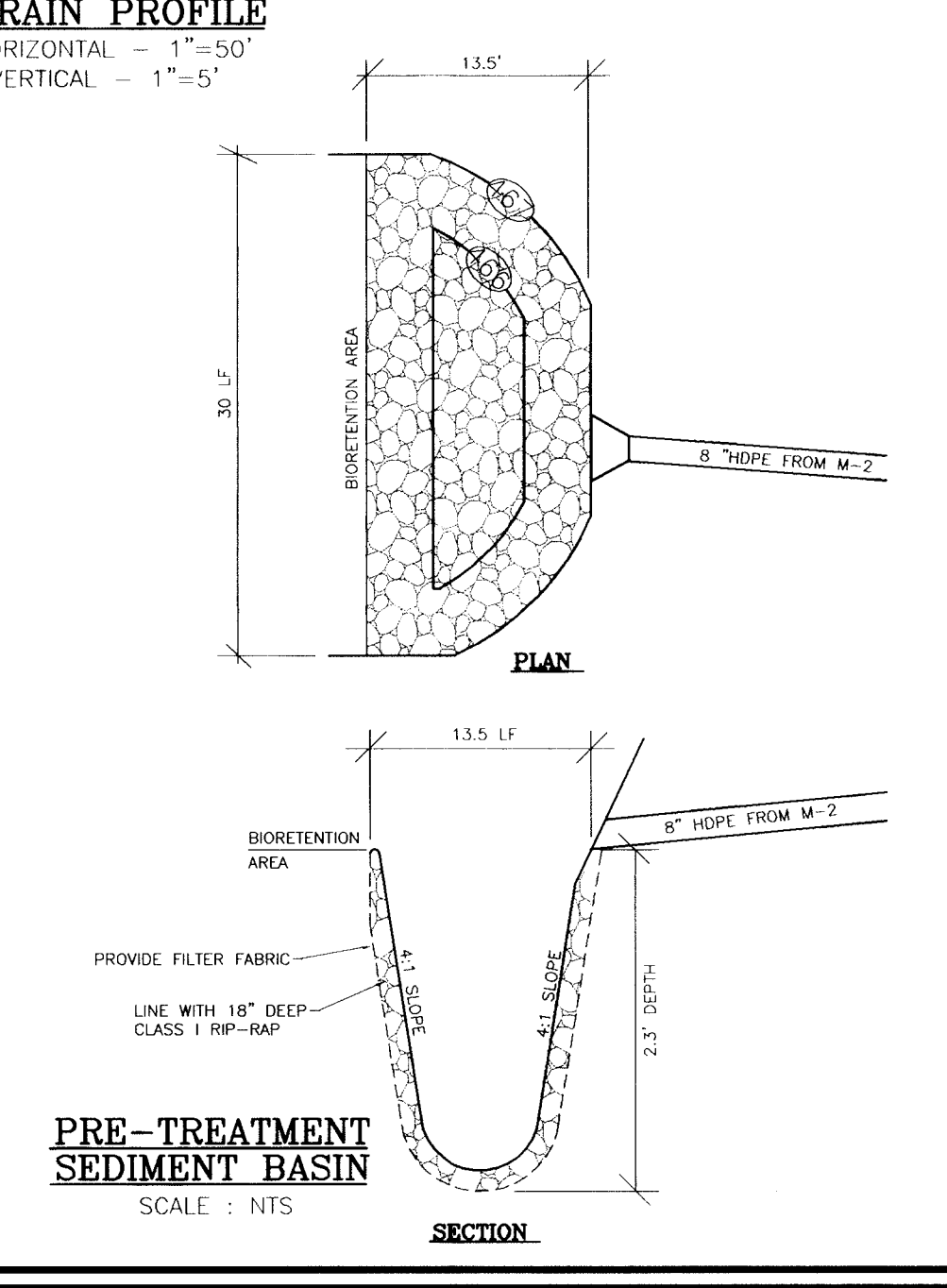
OWNER/DEVELOPER
 GLENMAR UNITED METHODIST CHURCH
 8430 GLENMAR RD
 ELLICOTT CITY, MD 21043
 AL HAMMER
 (410) 465-4995

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 1-26-05
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 1/21/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 2/10/05
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature]

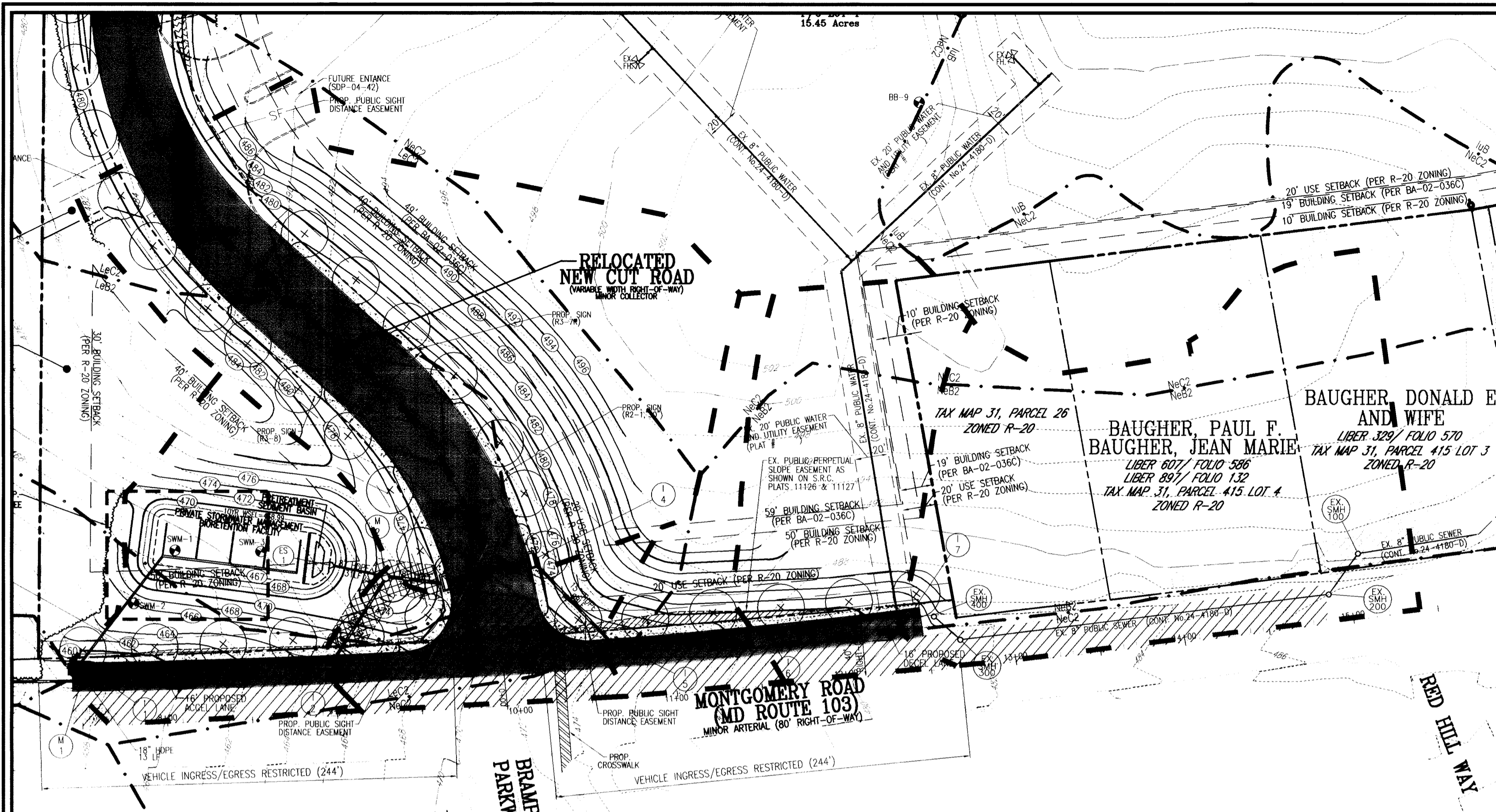


ROAD CONSTRUCTION PLANS
STORMDRAIN PROFILES AND SWM DETAILS
 RELOCATED NEW CUT ROAD
 GLEN MAR UNITED METHODIST CHURCH
 TAX MAP 31 BLOCK 1 & 8 PARCEL 10, LOTS 1-5
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

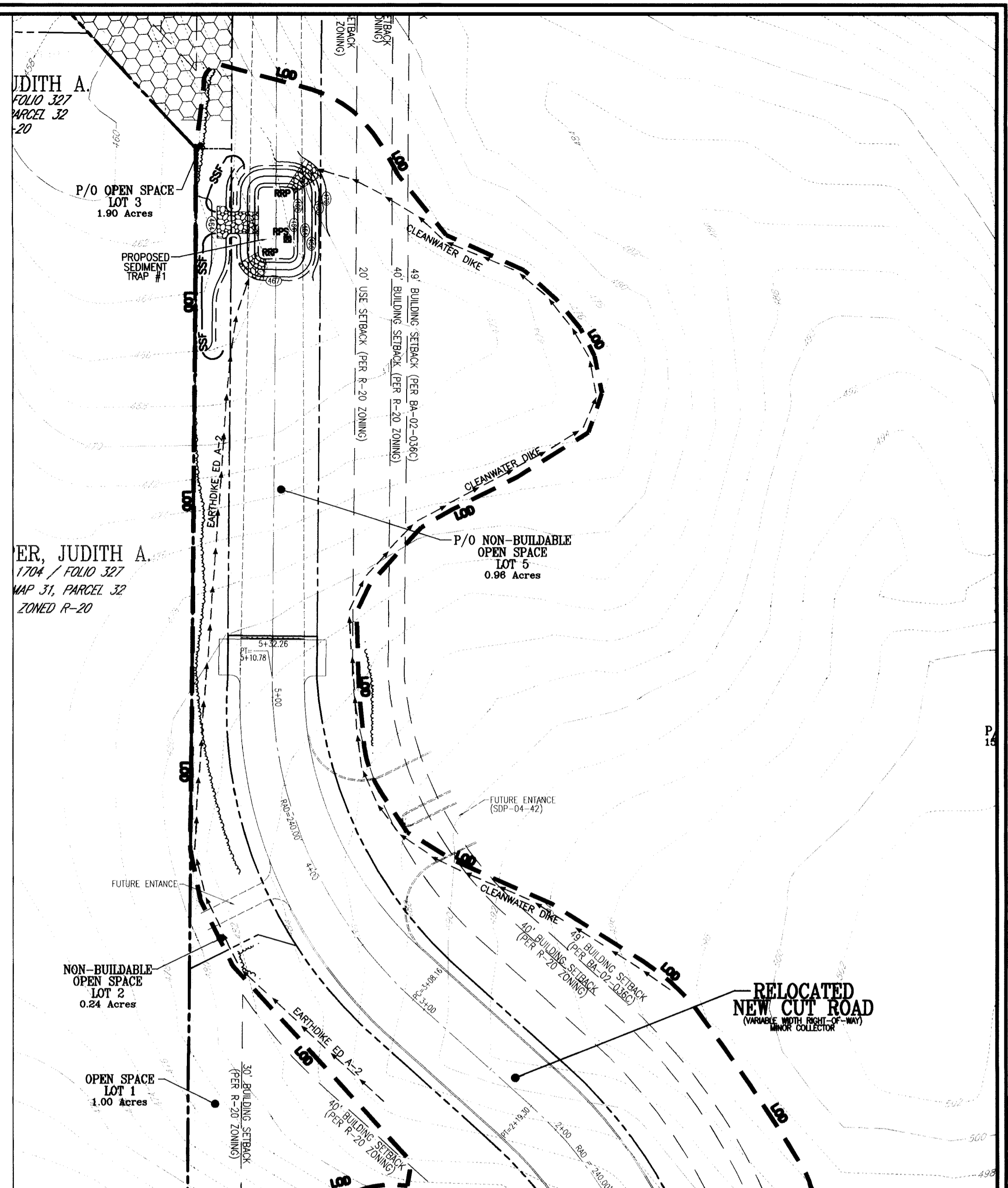
DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: DECEMBER 2004
 SCALE: 1"=30'
 W.O. NO.: 04-64

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STORM DRAIN DRAINAGE AREA
SCALE 1" = 50'

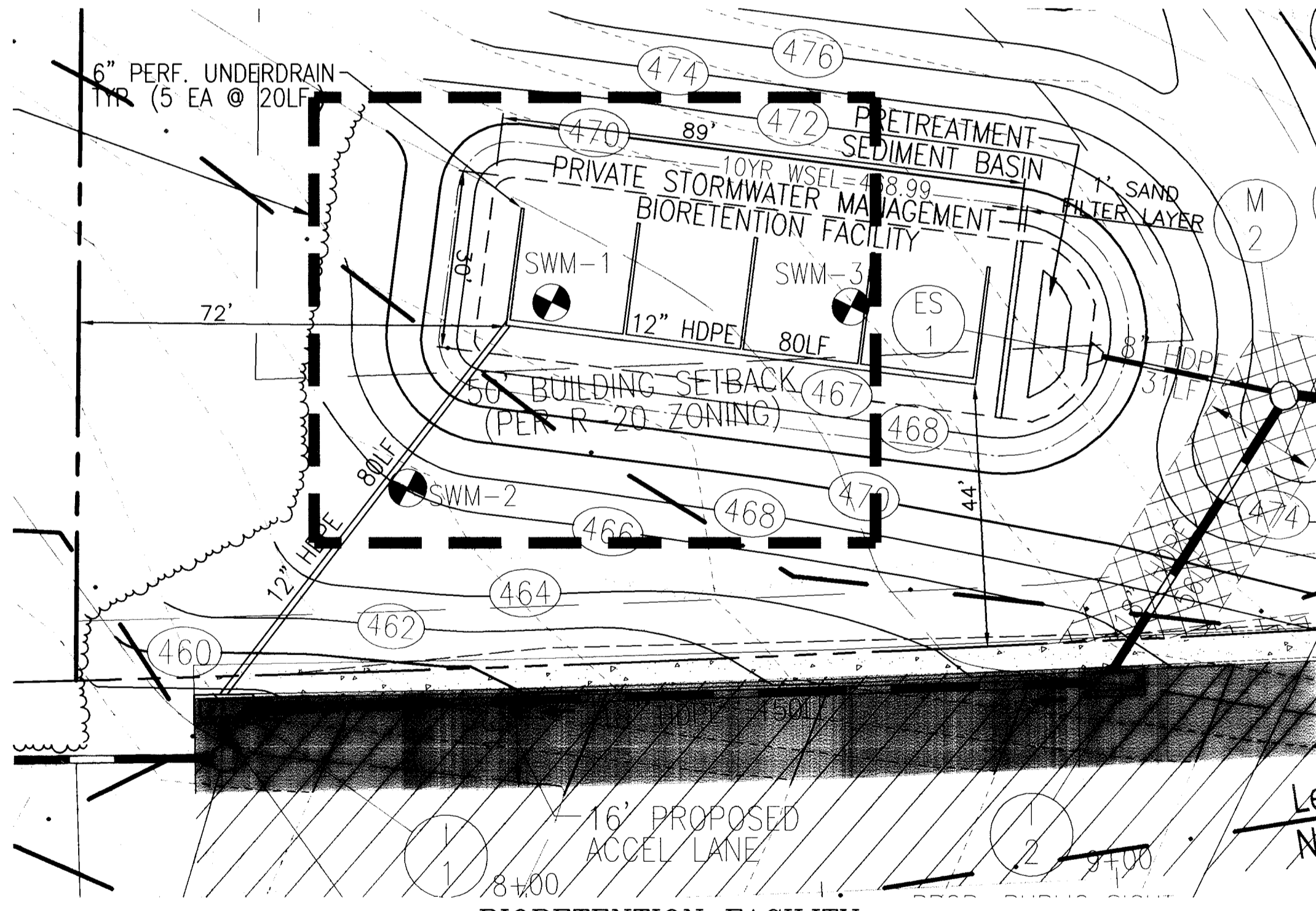
TEMP. SEDIMENT TRAP #1
 TYPE: SOST - ST II
 DEVELOPED DRAINAGE AREA: 1.5 AC.
 TOTAL STORAGE REQUIRED: 5400 CF
 BOTTOM ELEVATION: 461.00
 CREST ELEVATION: 465.00
 WET STORAGE ELEVATION: 461.50 - 463.50 (2.5')
 DRY STORAGE ELEVATION: 463.50 - 466.00 (2.5')
 TOTAL STORAGE DEPTH: 3'
 TOP OF EMBANKMENT: 467.00
 CLEANOUT ELEVATION: 462.20
 SIDE SLOPES: 2:1



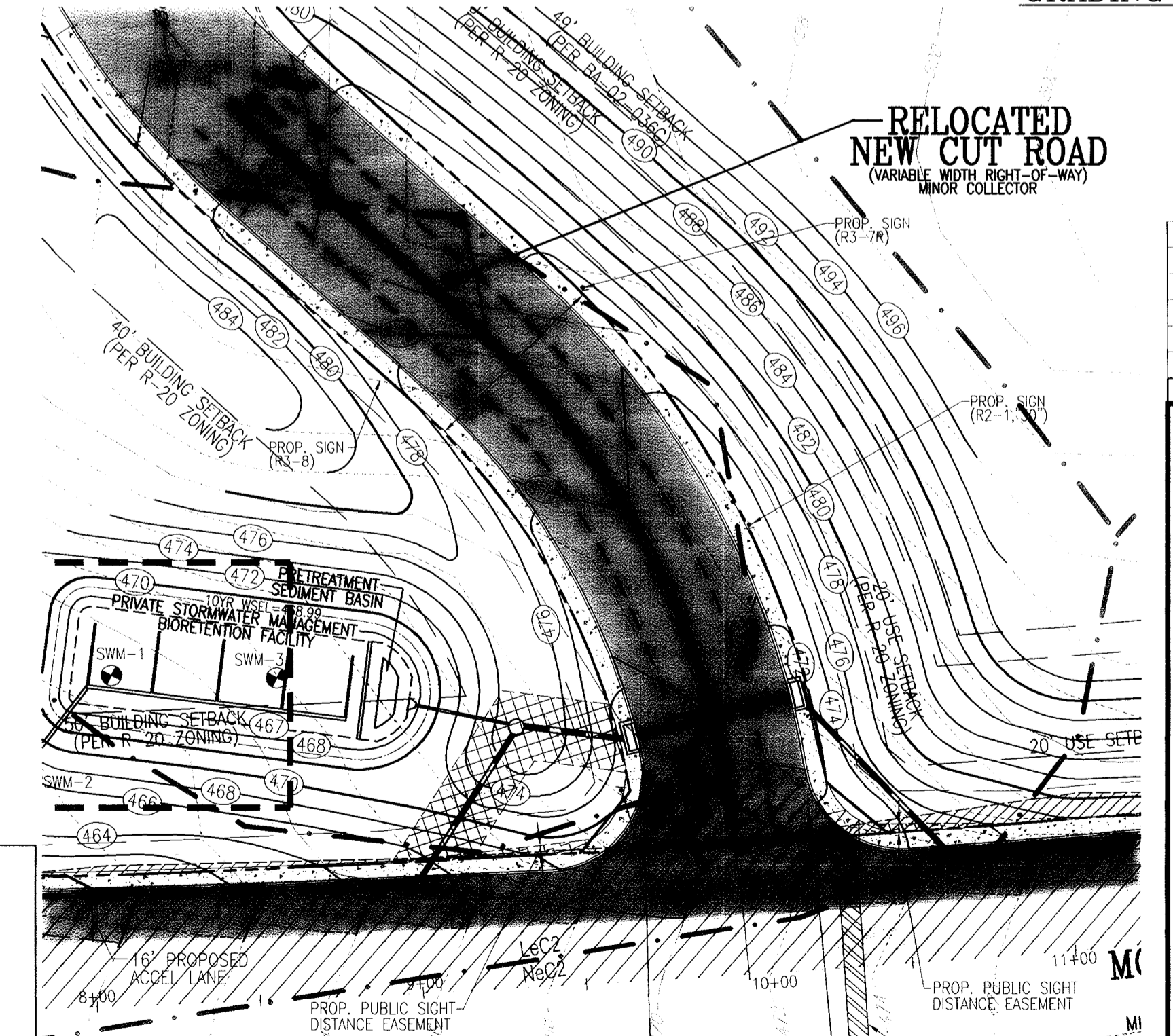
GRADING FOR TEMP. SEDIMENT TRAP #1
SCALE: 1" = 50' (REF: SOC #5)

THE SWMF TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH.

STORM DRAIN DRAINAGE AREA MAP					
NO.	AREA	'C'	% IMP	SOIL TYPE	ZONE
1-1	0.49 AC	0.41	28%	B	R-20
1-2	0.29 AC	0.69	65%	B	R-20
1-3	0.40 AC	0.59	52%	B	R-20
1-4	1.03 AC	0.37	23%	B	R-20
1-5	0.23 AC	0.48	36%	B	R-20
1-6	0.58 AC	0.31	15%	B	R-20
1-7	1.29 AC	0.38	24%	B	R-20



BIORETENTION FACILITY
SCALE 1" = 20'



FUTURE RELOCATED NEW CUT ROAD PAVEMENT MARKING PLAN
SCALE 1" = 40'

OWNER/DEVELOPER
 GLENMAR UNITED METHODIST CHURCH
 8430 GLENMAR RD
 ELLICOTT CITY, MD 21043
 AL HAMMER
 (410) 465-4995

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 1-26-05
 CHIEF, BUREAU OF HIGHWAYS HS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 1/21/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MAJ DATE
 [Signature] 2/10/05
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 [Signature] DATE

REVIEWED FOR HOWARD S.C.D. & MEETS TECHNICAL REQUIREMENTS.
 [Signature] 1/18/05
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature] 1/18/05
 HOWARD S.C.D. DATE

BY THE DEVELOPER:
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
 [Signature] 1/17/05
 ADMINISTRATOR DATE

BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 [Signature] 1/17/05
 SIGNATURE OF ENGINEER ROBERT H. VOGEL, P.E. DATE

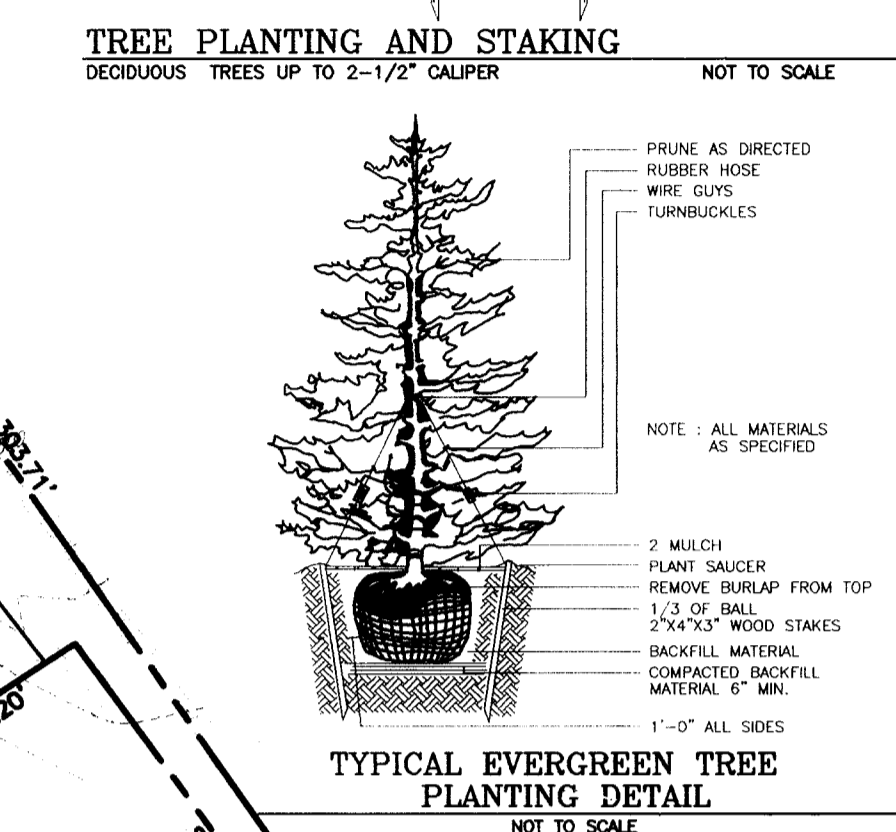
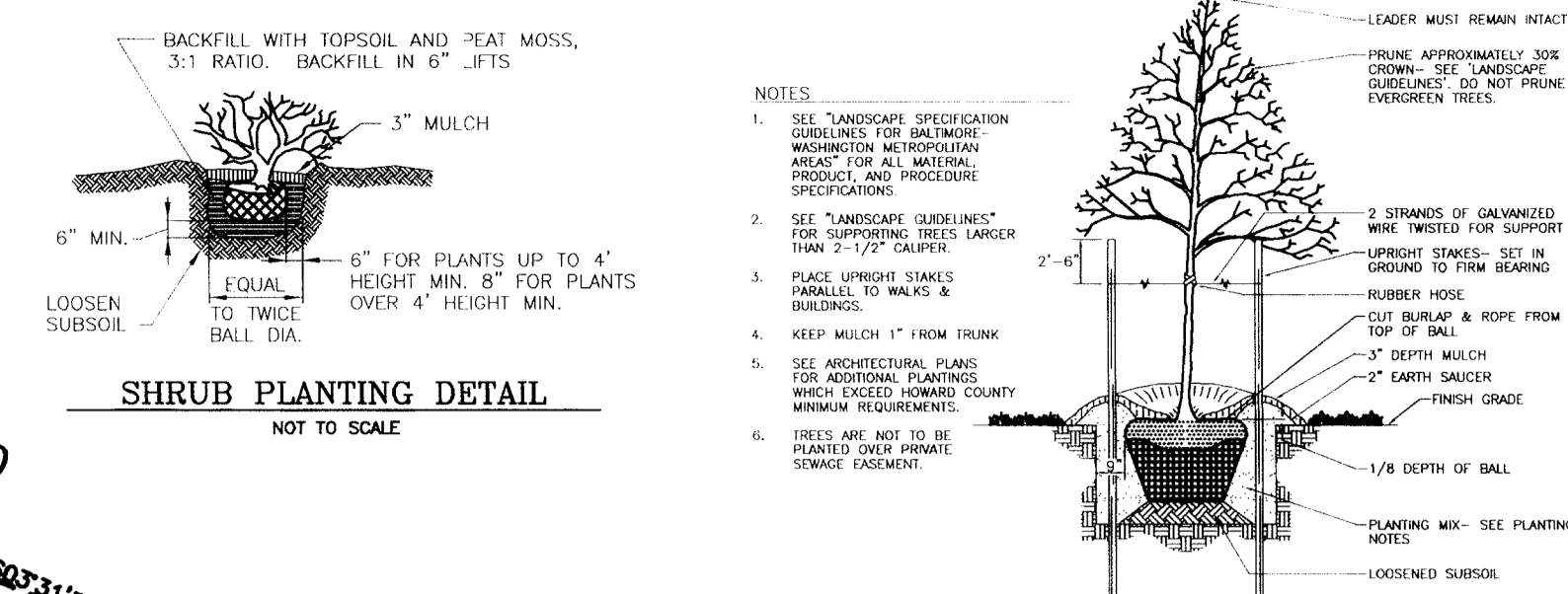
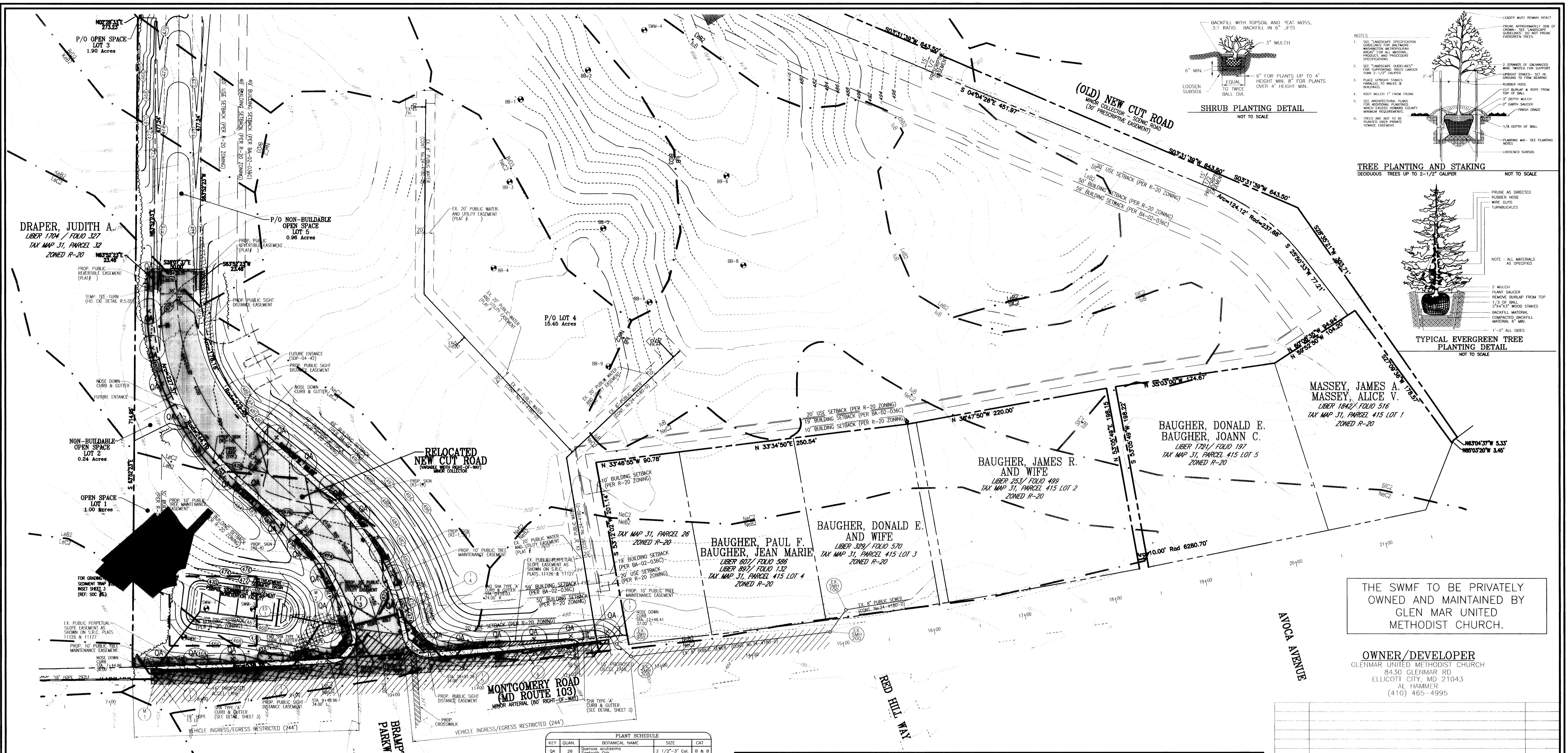
NO.	REVISION	DATE

ROAD CONSTRUCTION PLANS
STORM DRAIN DRAINAGE AREA MAP AND BIORETENTION PLAN
 RELOCATED NEW CUT ROAD
 GLEN MAR UNITED METHODIST CHURCH
 TAX MAP 31 BLOCK 1 & 8 PARCEL 10', LOTS 1-5
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
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 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: DECEMBER 2004
 SCALE: AS SHOWN
 W.O. NO.: 04-64

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GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- REQUIREMENT FOR PERIMETER LANDSCAPING TO BE PROVIDED WITH SUBSEQUENT SITE DEVELOPMENT ON A FUTURE SITE DEVELOPMENT PLAN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Walter Z. ... 1-26-05
CHIEF, BUREAU OF HIGHWAYS HS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

... 1/21/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION MAJ DATE

... 2/10/05
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DIRECTOR NIP DATE

PLANTING SCHEDULE NOTE:

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT LAMM SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LAMM PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLANT DIFFERS FROM PLANT SCHEDULE, THE PLAN SHALL GOVERN.
- FINANCIAL SURETY FOR THE REQUIRED PUBLIC ROAD STREET TREES AND BIO-RETENTION SWMF PLANTING SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT, IN THE AMOUNT OF \$7,800 FOR 26 SHADE TREES.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Al Hammer, Administrator 1/21/05
SIGNATURE OF DEVELOPER DATE

PLANT SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
QA	26	QUARQUOR GLOSSYING SOMERSON-DOE	2 1/2"-3" Cal. B & B	

BIORETENTION PLANTING REQUIREMENTS

NBR	AREA	STEMS REQUIRED	STEMS PROVIDED
1	5316 SF	122	124

BIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (6029 STEMS PER SQUARE FOOT).

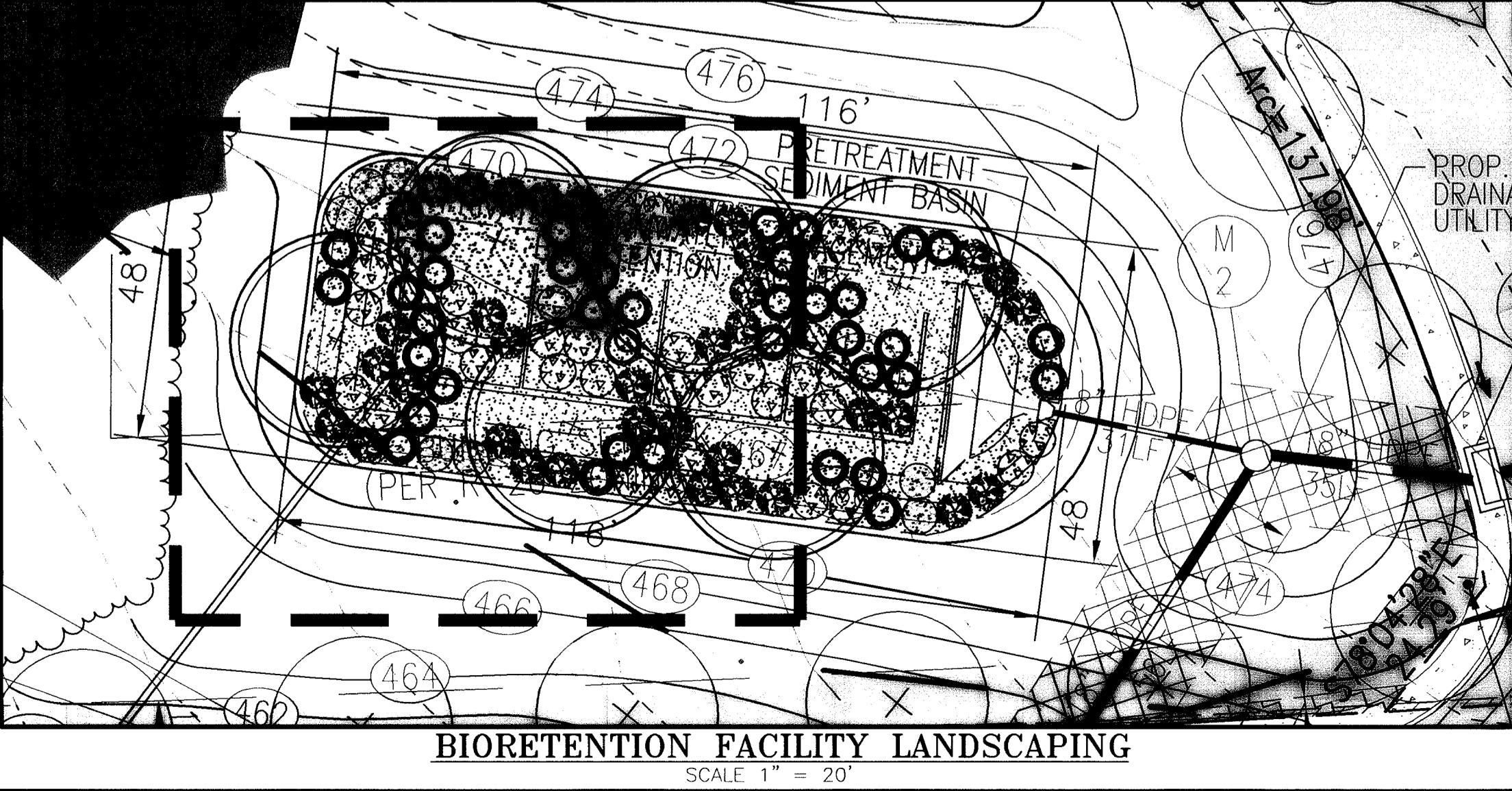
SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	300 LF
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 100%
NUMBER OF TREES REQUIRED	(8' BUFFER) 0 SHADE TREES 0 EVERGREEN TREES
NUMBER OF TREES PROVIDED	SEE BIORETENTION PLANT LIST*
SHADE TREES	
EVERGREEN TREES	

*SURETY FOR BIORETENTION PROVIDED IN THE DEED COST STATEMENT

BIORETENTION PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
8	8	GLADIOLUS LUTEA "SWEETSPICE"	1 1/2"-2" GAL	B & B
7	7	SEE QUANTA CONTRACTA DWARF HYDRANGEA	3 GALLON	CONT
37	37	VERONICA THURLOAN ANDROMEDA HYDRANGEA	5 GALLON	CONT
37	37	KALAM LATIFOLIA ROBINIA LABELS	5 GALLON	CONT
37	37	PRODRAGONUM HY. "GLACIER" OR WHITE ROSEBUD GLACIER OR WHITE ROSEBUD HYBRID AXILIA	3 GALLON	CONT
1417	1417	LAUREL "MAGNOLIA" "MAGNOLIA LILY STAR"	2" POT	1" D.C.



THE SWMF TO BE PRIVATELY OWNED AND MAINTAINED BY GLEN MAR UNITED METHODIST CHURCH.

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8430 GLENMAR RD
ELLCOTT CITY, MD 21043
AL HAMMER
(410) 465-4995

NO.	REVISION	DATE

ROAD CONSTRUCTION PLANS

PLANTING PLAN

RELOCATED NEW CUT ROAD
GLEN MAR UNITED METHODIST CHURCH
TAX MAP 31, BLOCK 1 & 8 PARCEL 10', LOTS 1-5
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
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