

GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- PROJECT BACKGROUND:
LOCATION: GORMAN ROAD @ STEPHENS ROAD
TAX MAP: 36-18, 37-13
ZONING: R-ED
ELECTION DISTRICT: 6
GROSS AREA OF TRACT: 32.13 ACRES
- SEE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS:
S 00-13, WP 00-88, WP 00-126, WP 01-60, PB 345, WP 01-94, F 01-117, P 01-15, F 01-185 & WP 02-50.
- THE TOPOGRAPHY SHOWN HAS A 2' CONTOUR INTERVAL AND WAS DETERMINED BY: AIERL PHOTOGRAPHY BY DAFT, McCUNE & WALKER, SUMMER 1998.
- PUBLIC WATER AND SEWER TO BE UTILIZED.
SITE IS IN METROPOLITAN DISTRICT.
- HORIZONTAL AND VERTICAL CONTROL BASED ON HOWARD COUNTY CONTROL STATIONS 47 EA & E4.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL CROSSINGS WELL IN ADVANCE OF CONSTRUCTION. ANY DISCREPANCIES MUST BE COMMUNICATED TO THE ENGINEER AT ONCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS /DIVISION OF CONSTRUCTION INSPECTION AT 1 (410) 313 - 1880 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE PLANS.
MISS UTILITY 1-800-257-7777
VERIZON 1-800-446-5286
HOWARD COUNTY BUREAU OF UTILITIES 410-313-4900
AT&T CABLE LOCATION DIVISION 393-3553
BALTIMORE GAS & ELECTRIC CO. 410-850-4620 & 410-787-9068
- TYPES OF STORM DRAINS REFER TO THE STANDARD DETAILS OF HOWARD COUNTY AND MSHA.
- TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADS AND STREET RIGHT-OF-WAYS LIMITS SHALL BE IN ACCORDANCE WITH "HOWARD COUNTY DESIGN MANUAL", VOL. IV, STANDARD G-2.01.
- SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH "1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOILS EROSION AND SEDIMENT CONTROL".
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- STREET TREES SHALL BE PLANTED A MINIMUM OF FIVE (5) FEET FROM STORM DRAIN, WATERLINE OR SEWER PIPE MANHOLES; ALSO A MINIMUM OF TWENTY (20) FEET FROM STREET LIGHTS.
- COMPACTION IN FILL AREAS SHALL BE IN ACCORDANCE WITH AASHTO T-180 OR AS APPROVED IN THE DESIGN MANUAL VOLUME IV.
- WETLAND, STREAM, STEEP SLOPE, AND FOREST COVER DELINEATION BY DAFT, McCUNE AND WALKER.
- TRAFFIC STUDY WAS APPROVED AS PART OF THE SKETCH PLAN ON OCTOBER 10, 2000.
- ALL ROADS IN THIS DEVELOPMENT ARE PRIVATE.
- STREET TREE LOCATIONS SHOWN ARE TENTATIVE AND ARE TO BE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS AND BUILDERS LANDSCAPE PROGRAM.
- LANDSCAPING FOR THIS PROJECT HAS BEEN PREPARED ACCORDING TO THE ALTERNATIVE COMPLIANCE PORTION OF THE LANDSCAPE MANUAL (CHAPTER V).
- THE 100-YEAR FLOOD PLAIN INFORMATION WAS TAKEN FROM AVAILABLE RECORDS AT DEVELOPMENT ENGINEERING DIVISION OF THE DEPARTMENT OF PLANNING AND ZONING.
- DEVELOPMENT OF STONE LAKE UNDER THE CURRENT FOREST CONSERVATION ACT REQUIRES APPROXIMATELY 11.57 ACRES OF FOREST CLEARING AND APPROXIMATELY 9.94 ACRES OF REFORESTATION. APPROXIMATELY 3.54 ACRES OF FOREST RETENTION CREDIT HAVE BEEN DERIVED FROM DEVELOPMENT OF EMERSON SECTION 1, AND WILL BE USED TO PARTIALLY DEFRAY THE STONE LAKE REFORESTATION OBLIGATION. AS SUCH, A TOTAL OF 5.62 ACRES OF REFORESTATION ARE REQUIRED UNDER THIS PLAN. THE F-01-177 PHASE OF THE PROJECT ENTAILS APPROXIMATELY 0.99 ACRES OF FOREST CLEARING, 12.96 ACRES OF FOREST RETENTION, AND APPROXIMATELY 4.81 ACRES OF REFORESTATION. THE F-01-204 PORTIONS OF THE PROJECT ENTAIL APPROXIMATELY 0.25 ACRES OF FOREST CLEARING, 5.62 ACRES OF FOREST RETENTION, AND 0.60 ACRES OF REFORESTATION. THE ENTIRE 5.52 ACRES OF REFORESTATION REQUIREMENT WILL BE SATISFIED ON SITE AT THE LOCATIONS SHOWN ON THE FOREST CONSERVATION PLAN.
- NOISE STUDY WAS APPROVED AS PART OF THE SKETCH PLAN OCTOBER 10, 2000.
- A DETAILED GEOTECHNICAL STUDY HAS BEEN PERFORMED BY THE ROBERT B. BALTER COMPANY FOR DEVELOPMENT OF THIS SITE. THIS REPORT ESTABLISHES THE STRUCTURE SETBACK LINE (SSL) AS INDICATED ON THESE PLANS. COPIES OF THE REPORT ENTITLED "GEOTECHNICAL EVALUATION-SLOPE STABILITY AND STEEPAGE ANALYSIS, STONE LAKE SUBDIVISION, HOWARD COUNTY, MARYLAND," DATED NOVEMBER 29, 2000 AND ADDENDUM DATED JANUARY 17, 2002 AREA AVAILABLE UPON REQUEST FROM THE ROBERT B. BALTER COMPANY.
- ON AUGUST 11, 2000, WP 00-88, WAIVER SECTION 16.116 b(1) AND (2) WAS GRANTED WHICH PROHIBITS GRADING OR CLEARING ON STEEP SLOPES OVER 25% IF THE CONTIGUOUS AREA IS MORE THAN 20,000 SQUARE FEET; AND SECTION 16.116(c), WAS GRANTED, WHICH PROHIBITS GRADING OR CLEARING IN WETLANDS, WETLAND BUFFERS, STREAMS, STREAM BUFFERS AND FLOODPLAINS, SUBJECT TO FIVE CONDITIONS IN THE APPROVAL LETTER.
- ON AUGUST 11, 2000, WP 00-126, WAIVER OF SECTION 16.144 (C)(2) AND 16.114(c)(3) WAS GRANTED WHICH REQUIRES THAT A DEVELOPER SUBMIT ADDITIONAL INFORMATION TO THE SRC WITHIN 45 DAYS OF RECEIVING NOTICES TO DO SO OR THE PLAN WILL BE DENIED, SUBJECT TO ONE CONDITION IN THE APPROVAL LETTER.
- ON JANUARY 16, 2001, WP 01-60, WAIVER OF SECTION 16.120 c (2) WAS GRANTED WHICH REQUIRES ALL LOTS TO HAVE FRONTAGE ON A PUBLIC ROAD; AND SECTION 16.120 c (4) WHICH LIMITS THE LENGTH OF A PRIVATE ROAD FOR SFA UNITS TO 200, SUBJECT TO ONE CONDITION IN THE APPROVAL LETTER.
- ON APRIL 3, 2001, WP 01-94, WAIVER OF SECTIONS 16.116 b (1) AND (2) WAS GRANTED WHICH CLEARING ON STEEP SLOPES OVER 25% AND GREATER THAN 20,000 SQUARE FEET IN CONTIGUOUS AREA, SUBJECT TO THREE CONDITIONS.
- ON FEBRUARY 1, 2002 WP 02-50, WAIVER OF SECTION 16.116.b. (1) WAS GRANTED WHICH PROHIBITS GRADING AND CLEARING ON STEEP SLOPES GREATER THAN 25% FOR CONSTRUCTION OF A STORM DRAIN LINE AND OUTFALL BEHIND PROPOSED LOTS 56-58, SUBJECT TO ONE CONDITION IN THE APPROVAL LETTER.
- DISTURBANCES TO THE EXISTING STEEP SLOPES AT THE RIM OF STORMWATER MANAGEMENT FACILITY NUMBER 2 IS A "NECESSARY DISTURBANCE" BEING A REQUIREMENT OF THE HOWARD SOIL CONSERVATION SERVICE. THIS DISTURBANCE FOR CLEARING GRADING OPERATIONS AS INDICATED ON THESE PLANS IS TO STABILIZE THE EXISTING SLOPES.

NO PROPOSED PUBLIC FACILITIES MAINTAINED BY HIGHWAYS.

STORMWATER MANAGEMENT FOR STONE LAKE IS PROVIDED IN THREE FACILITIES:

- FACILITY NUMBER 1 IS A DETENTION/RETENTION FACILITY (WET POND) THAT HAS BEEN REVIEWED AND APPROVED UNDER F 01-177. FACILITY NUMBER 1 IS TO BE OWNED BY THE HOMEOWNER'S ASSOCIATION AND MAINTAINED JOINTLY BY THE COUNTY AND THE HOMEOWNERS ASSOCIATION.
- FACILITY NUMBER 3 IS A SHALLOW MARSH WATER QUALITY FACILITY (WET POND) THAT HAS BEEN REVIEWED AND APPROVED UNDER F 01-177. FACILITY NUMBER 3 IS TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- FACILITY NUMBER 2 IS A DETENTION/RETENTION FACILITY (WET POND) THAT IS DETAILED IN THIS SET OF PLANS. FACILITY NUMBER 2 IS TO BE OWNED AND MAINTAINED BY HOMEOWNER'S ASSOCIATION.

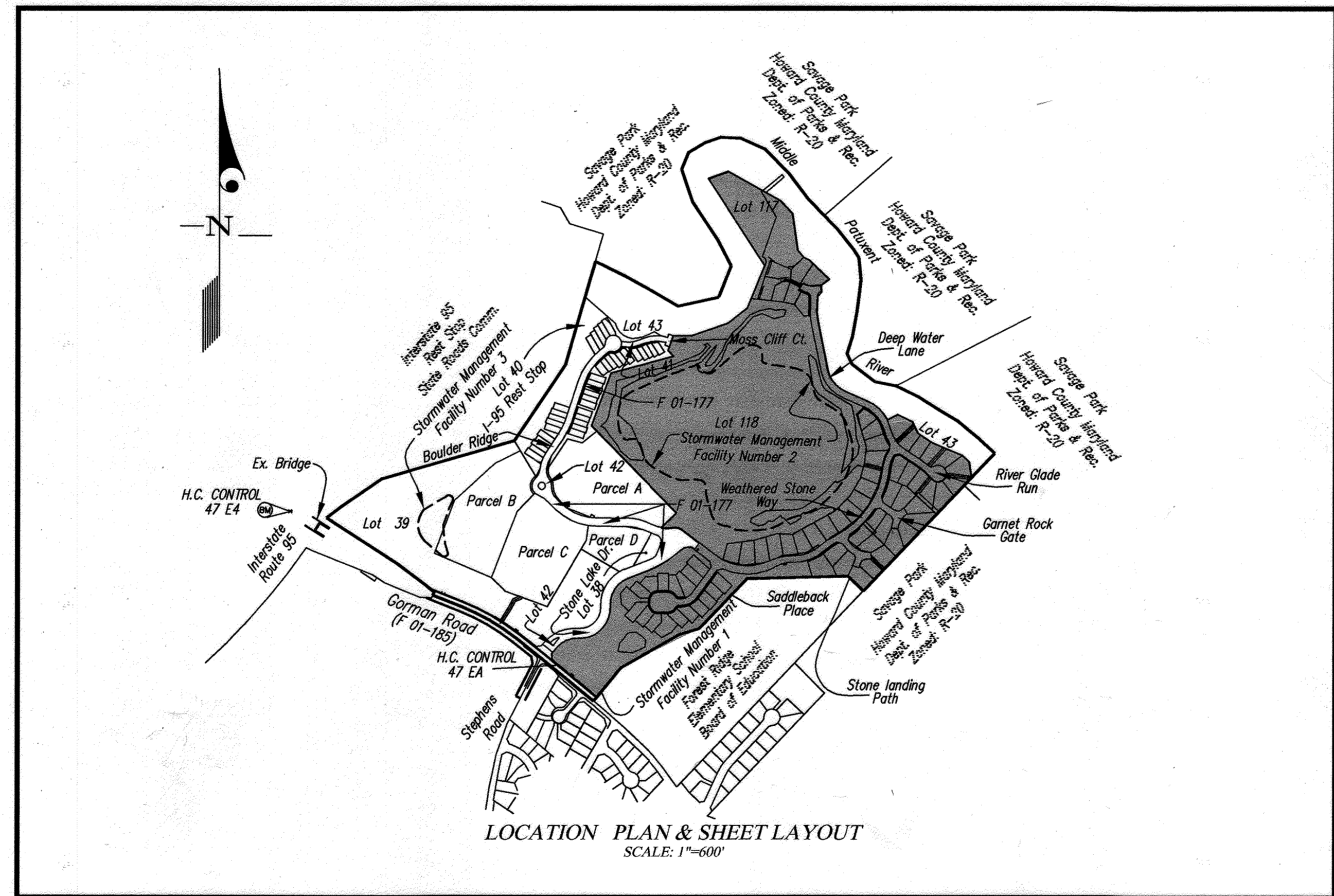
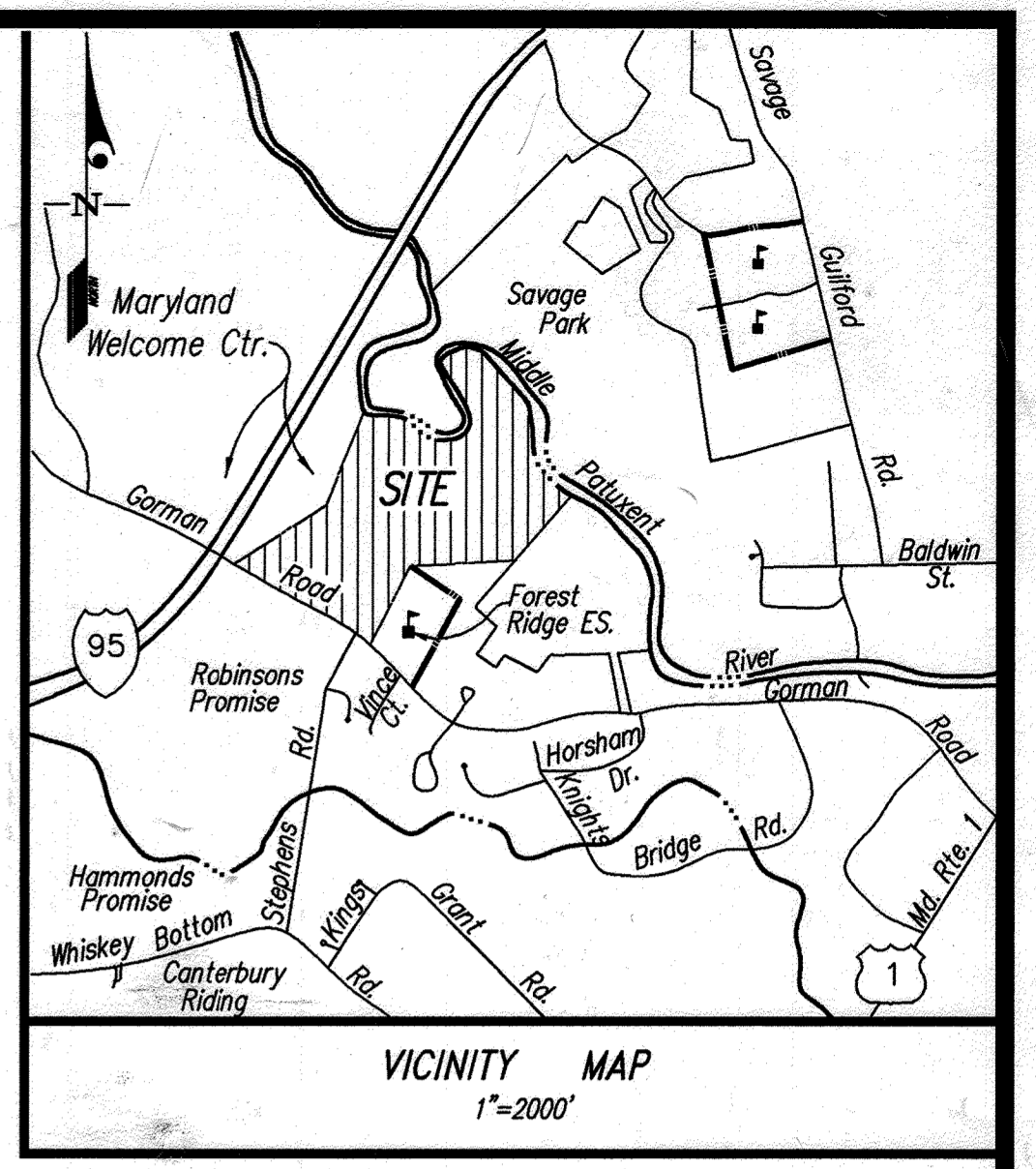


NOTE: THE APPROVED REQUEST FOR DESIGN MANUAL WAIVER WAS GRANTED ON 06/05/2023 TO ALLOW THE ROCK BOLTS AND SOIL NAILS TO BE WITHIN 10 FEET OF THE UTILITY EASEMENT. NO ROCK BOLTS OR SOIL NAILS ARE ALLOWED IN THE UTILITY EASEMENT.

NOTE: DEVELOPMENT OF THE F-01-204 PORTIONS OF STONE LAKE ENTAILS RETENTION OF 5.94 ACRES OF FOREST AND REFORESTATION OF 0.60 ACRES. A SURETY IN THE AMOUNT OF \$ 60,777.46 IS REQUIRED TO BOND THE RETENTION AND REFORESTATION AREAS.

CONSTRUCTION PLAN FOR STONE LAKE LOTS 45 THRU 118 WEATHERED STONE WAY, STONE LANDING PATH GARNET ROCK GATE, RIVER GLADE RUN, DEEP WATER LANE AND SADDLEBACK PLACE

- LEGEND
- EXISTING STREET LIGHT
 - PROPOSED STREET LIGHT
 - PROP. TOP OF CURB ELEVATION
 - EXISTING WATER MAIN
 - EXISTING STORM DRAIN
 - EXIST. CURB/CURB & GUTTER
 - PROP. CURB & GUTTER
 - EXISTING PAVING
 - PROPOSED PAVING
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING STREET TREES
 - PROPOSED STREET TREES
 - LIMIT OF SUBMISSION
 - SSL - STRUCTURE SETBACK LINE



CONTROL STATION	NORTHING	EASTING	ELEVATION
47 E4	535846.138	1355431.196	338.91
47 EA	535063.631	1357283.989	315.28

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Private Roads, Drains And SWM
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cindy Hanks 5/3/02
Chief, Division of Land Development

Will Warrum 5/3/02
Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
BURTONVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

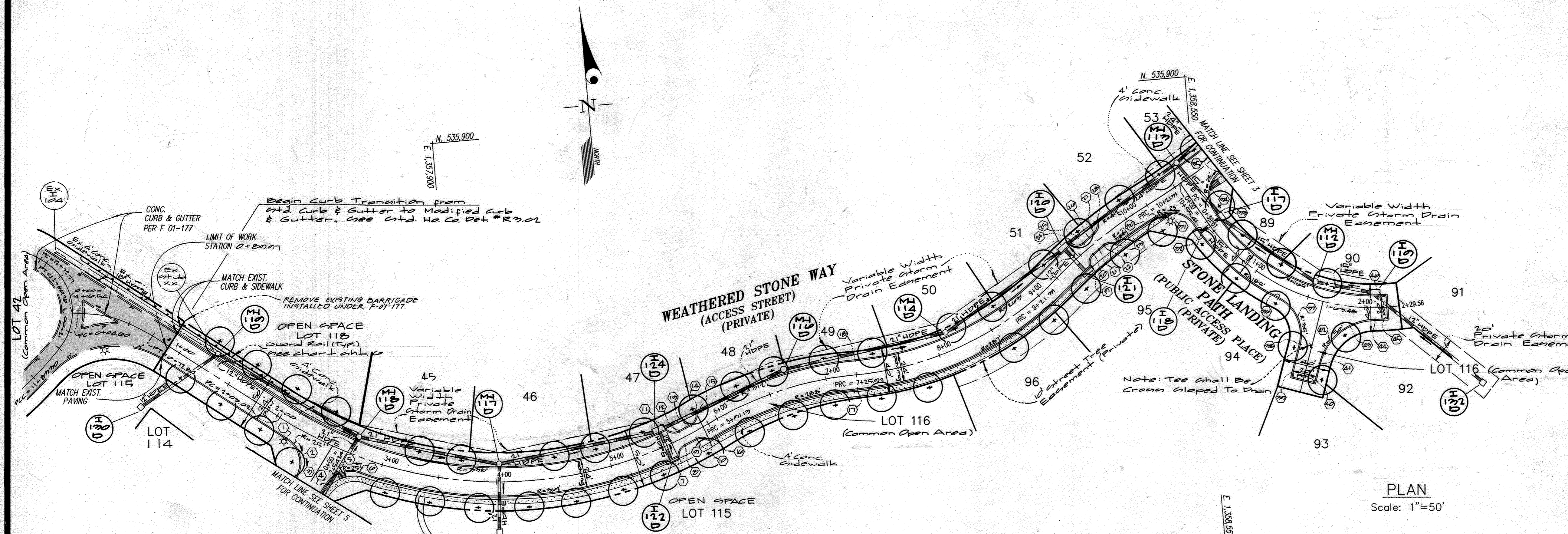
DATE	REVISION	BY	APP'R.
9/22/2023	ROCK HIGHWALL STABILIZATION AND PEDESTRIAN TRAIL REALIGNMENT	HJ	DPS

OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUENT PARKWAY
COLUMBIA, MD 21044
PH: 410-992-6089
ATTN: MR. BOB JENKINS

COVER SHEET
STONE LAKE
LOTS 45 THRU 118
PLAN

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC., 2001	47 - 9/10	1 OF 43

HOWARD COUNTY, MARYLAND



CURB ELEVATION TABLE				CURB ELEVATION TABLE			
PT. No.	STATION	OFFSET	ELEVATION	PT. No.	STATION	OFFSET	ELEVATION
1	2+10.20	12' Right	222.84	25	2+08.88	6' Left	222.05
2	2+25.44	12' Right	222.84	26	2+08.00	6' Left	222.71
3	2+27.81	12' Right	222.83	27	2+07.22	6' Left	222.48
4	2+21.56	12' Left	222.74	28	2+07.22	12' Left	222.05
5	2+01.00	12' Right	221.05	29	2+12.75	12' Right	222.20
6	2+21.00	12' Right	221.10	30	2+09.13	12' Right	222.70
7	2+25.57	12' Right	222.14	31	2+08.00	12' Right	222.85
8	2+24.37	12' Right	222.00	32	2+08.00	12' Right	222.85
9	2+25.78	12' Right	222.30	33	2+08.00	12' Left	222.80
10	2+25.57	12' Right	222.77	34	2+11.05	12' Right	222.00
11	2+25.54	12' Left	222.14	35	2+08.22	12' Right	222.50
12	2+05.10	12' Left	222.00	36	2+08.44	12' Right	222.00
13	2+27.23	12' Left	222.25	37	2+07.22	12' Right	222.54
14	2+24.70	12' Left	222.08	38	2+08.00	12' Right	222.10
15	2+01.13	12' Left	222.52	39	2+08.00	12' Right	222.00
16	2+01.13	12' Right	222.52	40	2+08.00	12' Right	222.00
17	2+25.01	12' Right	222.10	41	2+08.00	12' Right	222.50
18	2+25.01	12' Left	222.10	42	2+08.00	12' Right	222.00
19	2+27.07	12' Right	222.10	43	2+08.00	12' Right	222.00
20	2+25.57	12' Right	222.05	44	2+08.00	12' Right	222.74
21	2+24.00	12' Right	222.71	45	2+08.00	12' Right	222.00
22	2+20.07	12' Right	222.47	46	2+08.00	12' Left	222.00
23	2+22.18	12' Right	222.01				
24	2+20.03	12' Left	222.58				

STREET LIGHT SCHEDULE			
LOCATION	LAMP TYPE	MOUNTING	POLE TYPE
2+10 ~ 17' Right	100-W-Metal Halide	MODERN POST TOP FIXTURE	12' BRONZE ALUMINUM
10+20 ~ 20' Right	100-W-Metal Halide	MODERN POST TOP FIXTURE	12' BRONZE ALUMINUM

STREET TREE SCHEDULE				
SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	QUANTITY	REMARKS
(+)	Acer Saccharum / Green Mountain Sugar Maple	2"-2 1/2" cal.	54	B & B Full Heads

CURVE DATA									
STREET NAME	P.O.C. STA.	P.R.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
STONE LANDING PATH	0+39.61		2+29.56	175.00'	189.95'	105.54'	180.76'	S. 61°17'58" W.	62°11'21"

CURVE DATA									
STREET NAME	P.C. STA.	P.R.C. STA.	P.R.C. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
WEATHERED STONE WAY	2+22.22	5+21.13	7+25.22	350.00'	453.51'	264.89'	422.44'	S. 78°15'31" E.	74°14'23"
WEATHERED STONE WAY		5+21.13	7+25.22	300.00'	134.78'	68.53'	133.65'	N. 76°51'45" E.	19°05'55"
WEATHERED STONE WAY		7+25.22	9+21.21	275.00'	195.39'	102.02'	191.31'	N. 69°22'43" E.	40°42'34"
WEATHERED STONE WAY		9+21.21	10+21.21	400.00'	100.00'	50.26'	99.74'	N. 34°34'10" E.	14°19'28"
WEATHERED STONE WAY		10+21.21	15+67.41	550.00'	546.10'	297.94'	523.94'	N. 34°34'10" E.	56°53'23"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date 5/2/02

Chief, Development Engineering Division
 Date 5/2/02



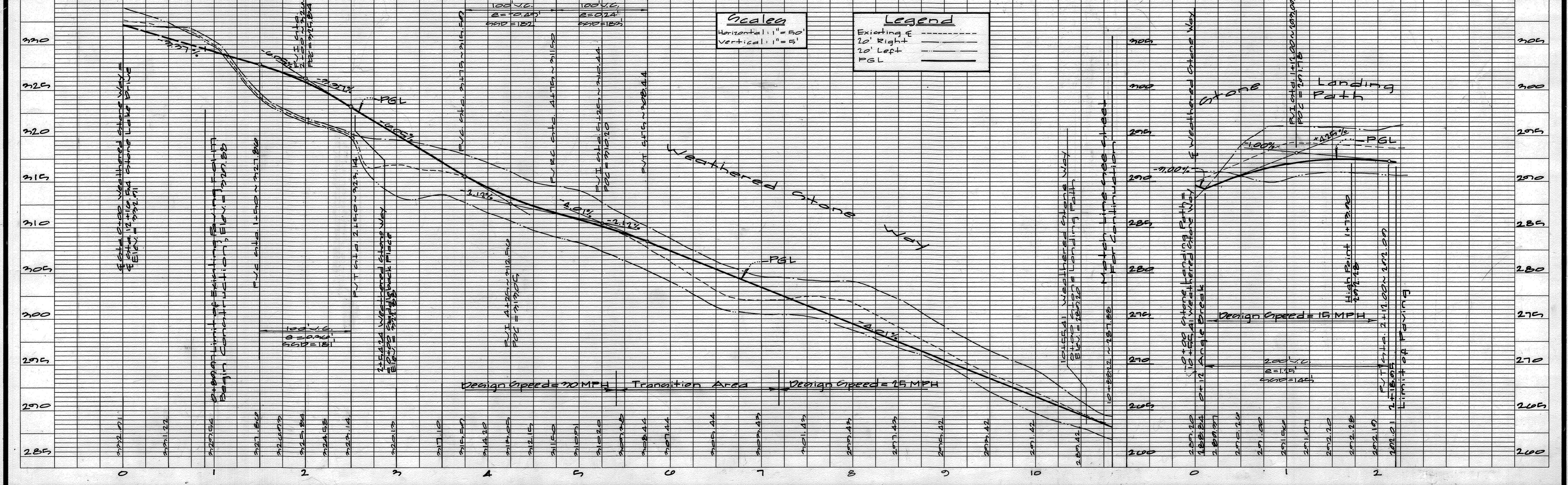
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ROAD CONSTRUCTION PLANS
STONE LAKE
WEATHERED STONE WAY
 STATION 2+00.00 TO STATION 10+29.56
AND STONE LANDING PATH
 STATION 0+00 TO STATION 2+29.56

ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: MR. BOB JENKINS
 PH: (410) 992-6089

SCALE: 1"=50'
 DRAWING: 2 OF 43
 ZONING: R-ED
 JOB No.: 99140



PT. No.	STATION	OFFSET	ELEVATION
1	0+15.76	12' Right	278.72
2	0+20.10	12' Right	278.02
3	0+24.79	12' Right	277.87
4	0+29.79	12' Left	278.87
5	0+34.80	12' Left	278.08
6	0+39.75	12' Right	278.00
7	1+04.82	12' Right	277.18
8	1+09.82	12' Right	278.02
9	1+14.82	12' Right	278.02
10	1+19.82	12' Right	278.02
11	1+24.82	12' Right	278.13
12	1+29.82	12' Right	278.04
13	1+34.82	12' Left	278.00
14	1+39.82	12' Left	278.77
15	1+44.82	12' Left	278.71
16	1+49.82	12' Left	278.45
17	1+54.82	12' Left	278.18
18	1+59.82	12' Right	266.78
19	1+64.82	12' Right	266.42
20	1+69.82	12' Right	266.05
21	1+74.82	12' Left	266.47
22	1+79.82	12' Left	266.40
23	1+84.82	12' Left	266.70
24	1+89.82	12' Right	269.17
25	1+94.82	12' Right	269.98
26	1+99.82	12' Left	269.77
27	2+04.82	12' Left	264.19
28	2+09.82	12' Right	264.19
29	2+14.82	12' Left	265.88

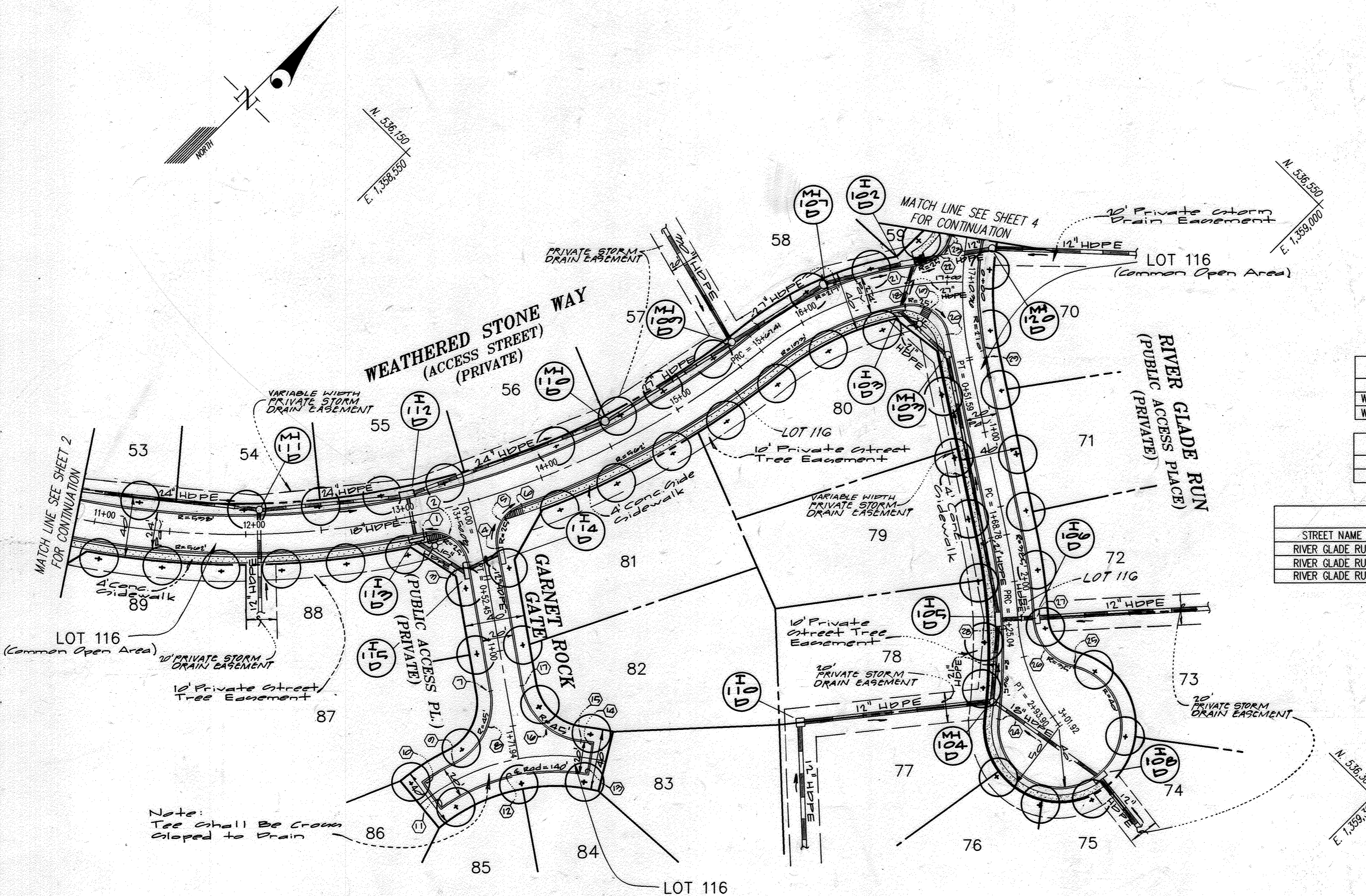
STREET LIGHT SCHEDULE			
LOCATION	LAMP TYPE	MOUNTING	POLE TYPE
10+20.00 - 27.50' Right	100-W METAL HALIDE	Modern Post Top Fixture	12' BRONZE ALUMINUM
13+21.92 - 22.17' Right	100-W METAL HALIDE	Modern Post Top Fixture	12' BRONZE ALUMINUM

STREET TREE SCHEDULE				
SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	QUANTITY	REMARKS
(Symbol)	Acer Saccharum / Green Mountain Sugar Maple	2" - 2 1/2" c.d.	54	Full Heads

CURVE DATA									
STREET NAME	P.R.C. STA.	P.R.C. STA.	P.O.C. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
WEATHERED STONE WAY	10+21.91	15+67.41		550.00'	546.10'	297.94'	523.94'	S. 34°54'10" E.	10°25'03"
WEATHERED STONE WAY	15+67.41		17+10.30	205.00'	142.95'	74.52'	140.07'	S. 28°26'04" W.	27°56'57"

CURVE DATA									
STREET NAME	P.O.C. STA.	P.R.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
GARNET ROCK GATE	0+00		0+52.45	500.00'	52.45'	26.25'	52.42'	S. 57°53'47" E.	11°27'33"

CURVE DATA										
STREET NAME	P.O.C. STA.	P.R.C. STA.	P.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
RIVER GLADE RUN	0+00			0+51.59	220.00'	51.59'	25.91'	51.47'	S. 50°10'32" E.	26°02'37"
RIVER GLADE RUN		2+25.04	1+68.78		375.00'	56.26'	28.18'	56.21'	S. 52°35'44" E.	08°35'46"
RIVER GLADE RUN		2+25.04		2+93.90	120.00'	68.86'	35.41'	67.92'	S. 64°44'09" E.	32°52'36"



Note: Tree shall be cross sloped to drain



PLAN
Scale: 1"=50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cecilia Hernandez, Chief, Division of Land Development, Date: 5/3/02
Mike Williamson, Chief, Development Engineering Division, Date: 5/3/02

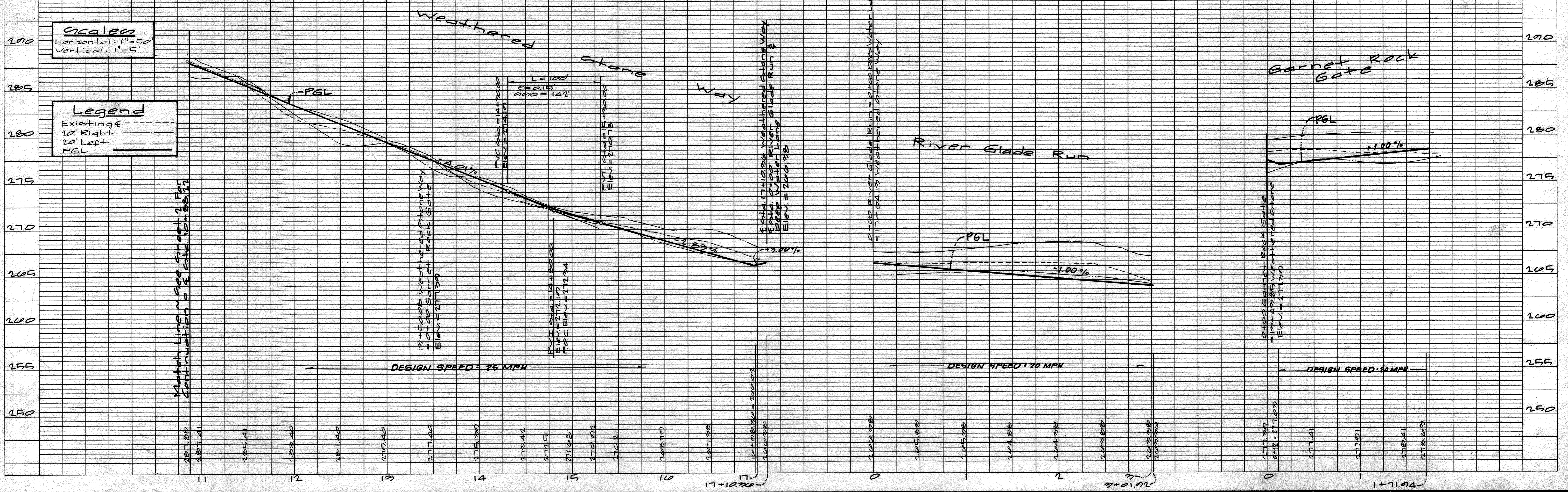
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ROAD CONSTRUCTION PLANS
STONE LAKE
WEATHERED STONE WAY
STATION 10+20.22 TO STATION 17+10.30
GARNET ROCK GATE RIVER GLADE RUN
(STATION 0+00 TO STATION 1+71.94) (STATION 0+00 TO 3+01.92)

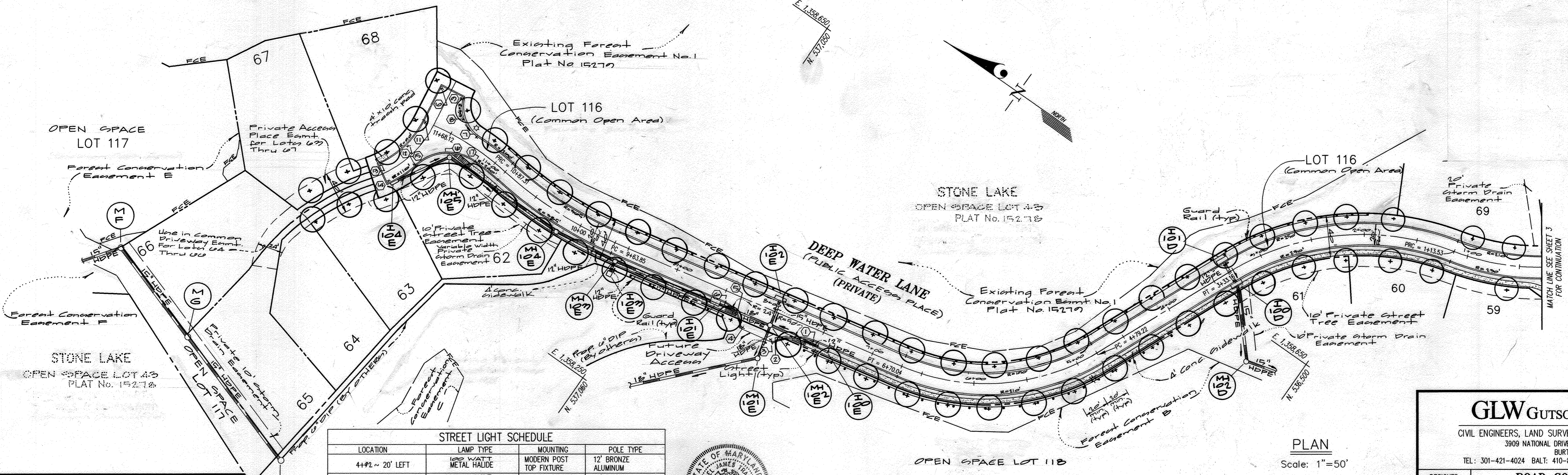
DESIGNED: [Signature]
DRAWN: WSJ/KLP
CHECKED: [Signature]
DATE: Dec. 2001

ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND
PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: MR. BOB JENKINS
PH: (410) 992-0089

SCALE: 1"=50'
DRAWING: 3 OF 43
ZONING: R-ED
JOB No.: 99140



PT. NO.	STATION	OFFSET	ELEVATION
1	7+55.14	10.0' Left	250.21
2	7+75.15	10.0' Left	250.20
3	7+71.45	17.7' Left	252.20
4	8+23.44	17.7' Left	252.20
5	8+21.07	18.0' Left	252.20
6	8+44.15	18.0' Left	252.20
7	11+77.40	18.0' Right	272.97
8	11+42.15	17.88' Right	272.71
9	11+55.35	16.82' Right	272.05
10	11+78.12	16.82' Right	272.42
11	11+78.12	20.0' Right	273.10
12	11+87.24	18.00' Left	273.03
13	11+77.05	18.00' Left	272.00
14	11+88.07	18.00' Left	272.74
15	11+88.05	16.00' Left	272.18
16	11+40.78	18.00' Left	272.08
17	11+101.1	10.0' Left	272.17



PLAN
Scale: 1"=50'

LOCATION	LAMP TYPE	MOUNTING	POLE TYPE
4+92 ~ 20' LEFT	100 WATT METAL HALIDE	MODERN POST TOP FIXTURE	12' BRONZE ALUMINUM
7+50 ~ 20' LEFT	100 WATT METAL HALIDE	MODERN POST TOP FIXTURE	12' BRONZE ALUMINUM
11+32 ~ 16.5' RIGHT	100 WATT METAL HALIDE	MODERN POST TOP FIXTURE	12' BRONZE ALUMINUM

SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	QUANTITY	REMARKS
(+)	Acer Saccharum / Green Mountain Sugar Maple	2"-2 1/2" cal.	02	B & B Full Heads

STREET NAME	P.O.C. STA.	P.C. STA.	P.R.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
DEEP WATER LANE	0+00		1+13.53		220.00'	113.53'	58.06'	112.28'	N. 28°40'25" W.	29°34'05"
DEEP WATER LANE			1+13.53	3+33.16	240.00'	219.63'	118.18'	212.05'	N. 40°06'22" W.	52°25'59"
DEEP WATER LANE		4+79.22		6+70.04	200.00'	190.82'	103.97'	183.66'	N. 38°59'23" W.	54°39'56"
DEEP WATER LANE		9+63.85	10+87.31		375.00'	123.46'	62.29'	122.90'	N. 02°13'32" E.	185°1'46"
DEEP WATER LANE			10+87.31	11+68.12	250.00'	80.81'	40.76'	80.46'	S. 02°03'17" E.	183°1'16"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cindy Harms
Chief, Division of Land Development
Date: 5/2/02

APPROVED: _____
Chief, Development Engineering Division
Date: 5/2/02

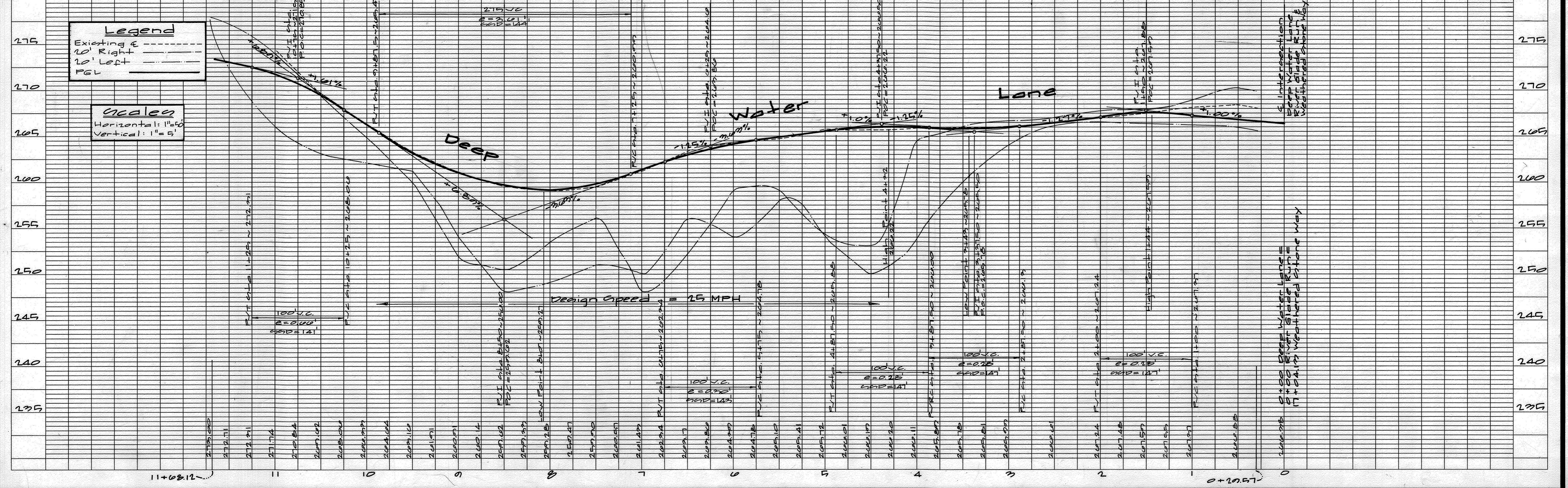
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
BURTONVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

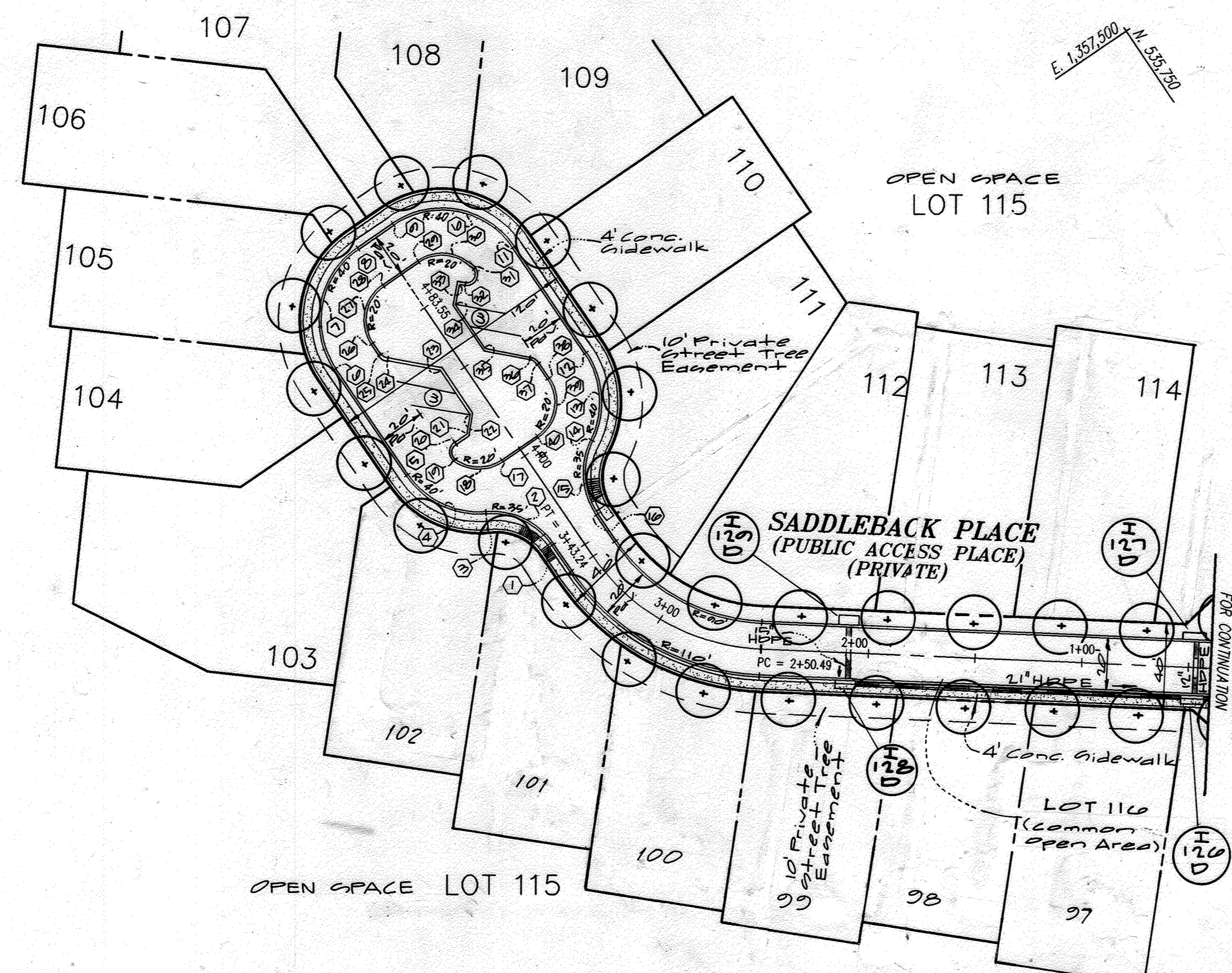
ROAD CONSTRUCTION PLANS
STONE LAKE
DEEP WATER LANE
STATION 0+29.57 TO 11+68.12

DESIGNED: not.
DRAWN: WSJ/CAD KLP
CHECKED: not.
DATE: Dec., 2001

SCALE AS SHOWN
DRAWING 4 OF 43
ZONING R-ED
JOB No. 99140

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: MR. BOB JENKINS
PH: (410) 992-6089





PT. No	STATION	OFFSET	ELEVATION
1	4+85.00	10' Right	322.12
2	4+70.00	10' Right	322.10
3	4+55.00	10' Right	322.00
4	4+40.00	10' Right	321.90
5	4+25.00	10' Right	321.80
6	4+10.00	10' Right	321.70
7	4+00.00	10' Right	321.60
8	4+00.00	10' Right	321.50
9	4+00.00	10' Right	321.40
10	4+00.00	10' Right	321.30
11	4+00.00	10' Right	321.20
12	4+00.00	10' Right	321.10
13	4+00.00	10' Right	321.00
14	4+00.00	10' Right	320.90
15	4+00.00	10' Right	320.80
16	4+00.00	10' Right	320.70
17	4+00.00	10' Right	320.60
18	4+00.00	10' Right	320.50
19	4+00.00	10' Right	320.40
20	4+00.00	10' Right	320.30
21	4+00.00	10' Right	320.20
22	4+00.00	10' Right	320.10
23	4+00.00	10' Right	320.00
24	4+00.00	10' Right	319.90
25	4+00.00	10' Right	319.80
26	4+00.00	10' Right	319.70
27	4+00.00	10' Right	319.60
28	4+00.00	10' Right	319.50
29	4+00.00	10' Right	319.40
30	4+00.00	10' Right	319.30
31	4+00.00	10' Right	319.20
32	4+00.00	10' Right	319.10

PT. No	STATION	OFFSET	ELEVATION
1	4+85.00	10' Left	322.10
2	4+75.00	15' Left	322.25
3	4+65.00	18' Left	322.41
4	4+55.00	21' Left	322.57
5	4+45.00	24' Left	322.73
6	4+35.00	27' Left	322.89
7	4+25.00	30' Left	323.05
8	4+15.00	33' Left	323.21
9	4+05.00	36' Left	323.37
10	4+00.00	36' Left	323.43
11	4+00.00	36' Left	323.49
12	4+00.00	36' Left	323.55
13	4+00.00	36' Left	323.61
14	4+00.00	36' Left	323.67
15	4+00.00	36' Left	323.73
16	4+00.00	36' Left	323.79
17	4+00.00	36' Left	323.85
18	4+00.00	36' Left	323.91
19	4+00.00	36' Left	323.97
20	4+00.00	36' Left	324.03
21	4+00.00	36' Left	324.09
22	4+00.00	36' Left	324.15
23	4+00.00	36' Left	324.21
24	4+00.00	36' Left	324.27
25	4+00.00	36' Left	324.33
26	4+00.00	36' Left	324.39
27	4+00.00	36' Left	324.45
28	4+00.00	36' Left	324.51
29	4+00.00	36' Left	324.57
30	4+00.00	36' Left	324.63
31	4+00.00	36' Left	324.69
32	4+00.00	36' Left	324.75

STREET TREE SCHEDULE				
SYMBOL	NAME (BOTANICAL/COMMON)	SIZE	QUANTITY	REMARKS
①	Acer Saccharum / Green Mountain Sugar Maple	2"-2 1/2" col.	27	B & B Full Hoop

STREET LIGHT SCHEDULE			
LOCATION	LAMP TYPE	MOUNTING	POLE TYPE
No. Locations This Sheet	100-W METAL HALIDE	MODERN POST TOP FIXTURE	12" BRONZE ALUMINUM

CURVE DATA							
STREET NAME	P.O.C. STA.	P.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD
SADDLEBACK PLACE		2+50.49	3+43.24	100.00'	100.00'	50.01'	89.46'
							BEARING S. 63°04'02" W. DELTA 53°08'20"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date

Chief, Development Engineering Division
 Date

PLAN
 Scale: 1"=50'

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

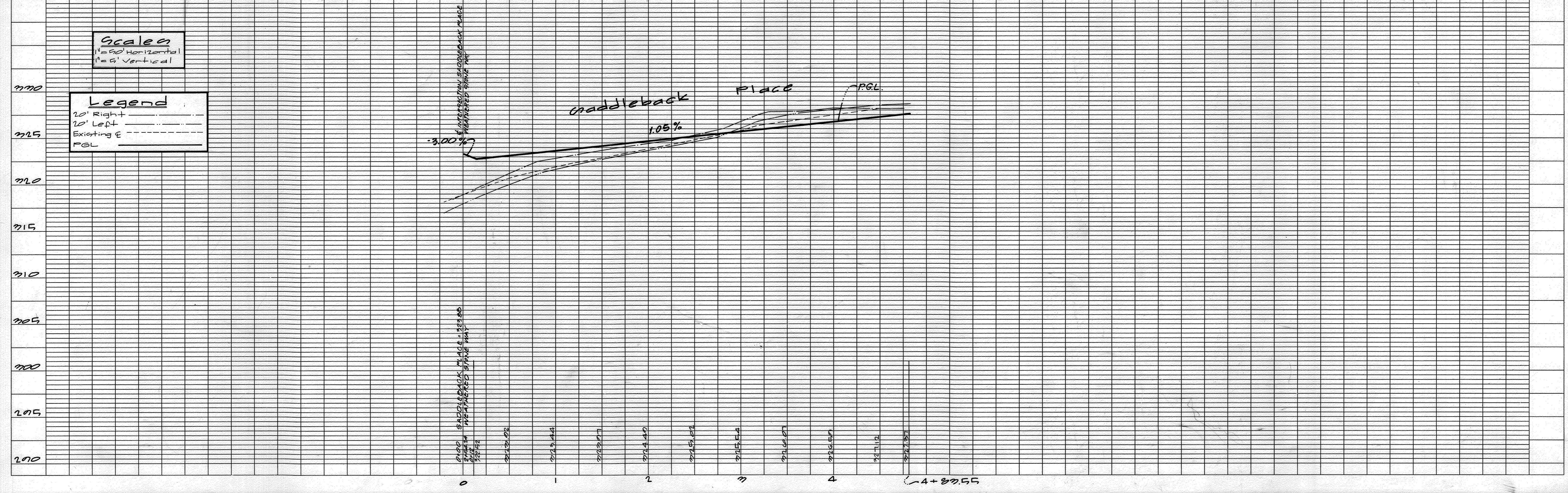
ROAD CONSTRUCTION PLANS
STONE LAKE
SADDLEBACK PLACE
 STATION 4+80.00 TO 4+83.55

ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: MR. BOB JENKINS
 PH: (410) 992-6089

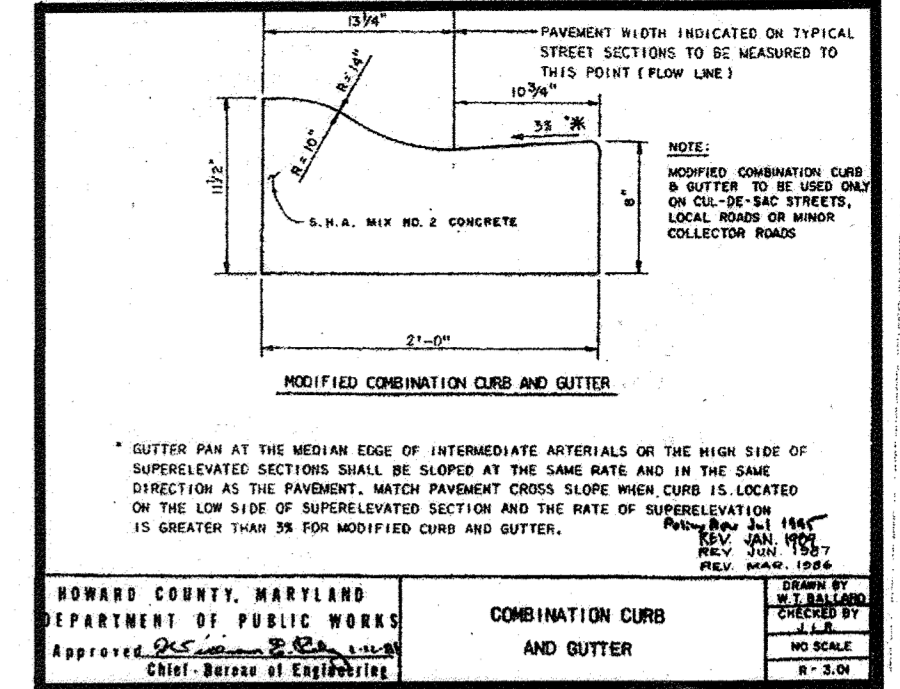
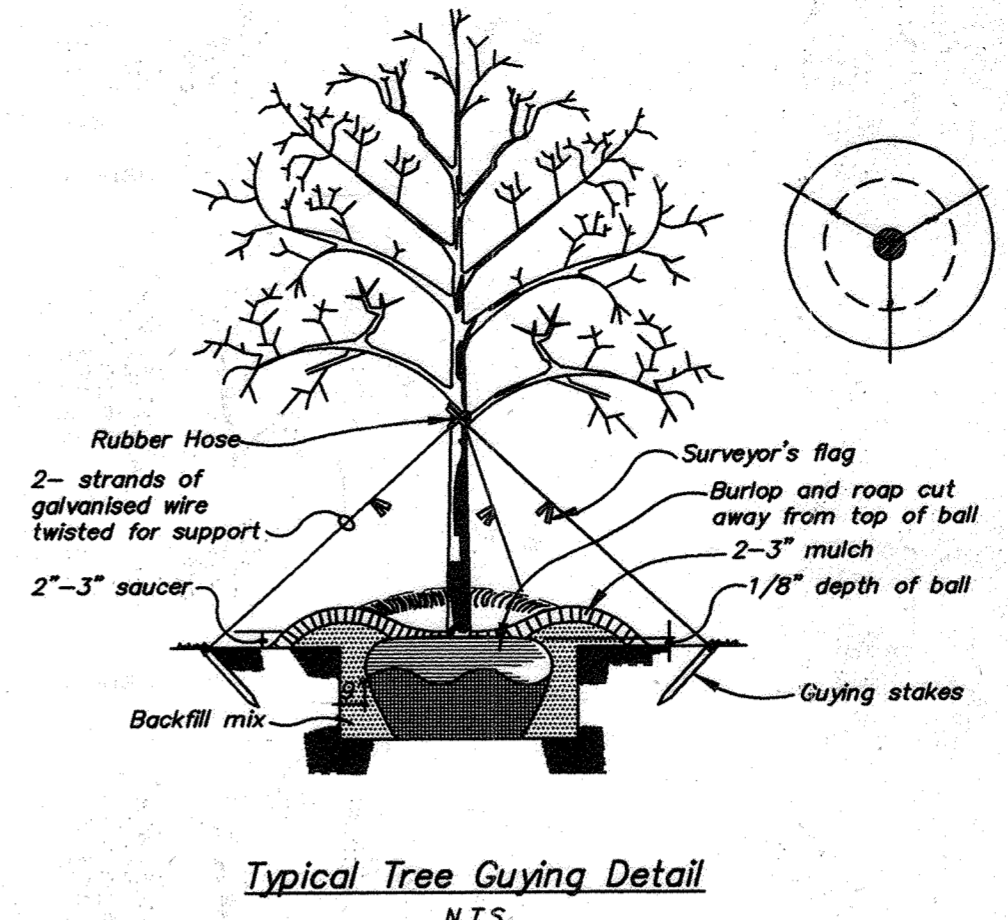
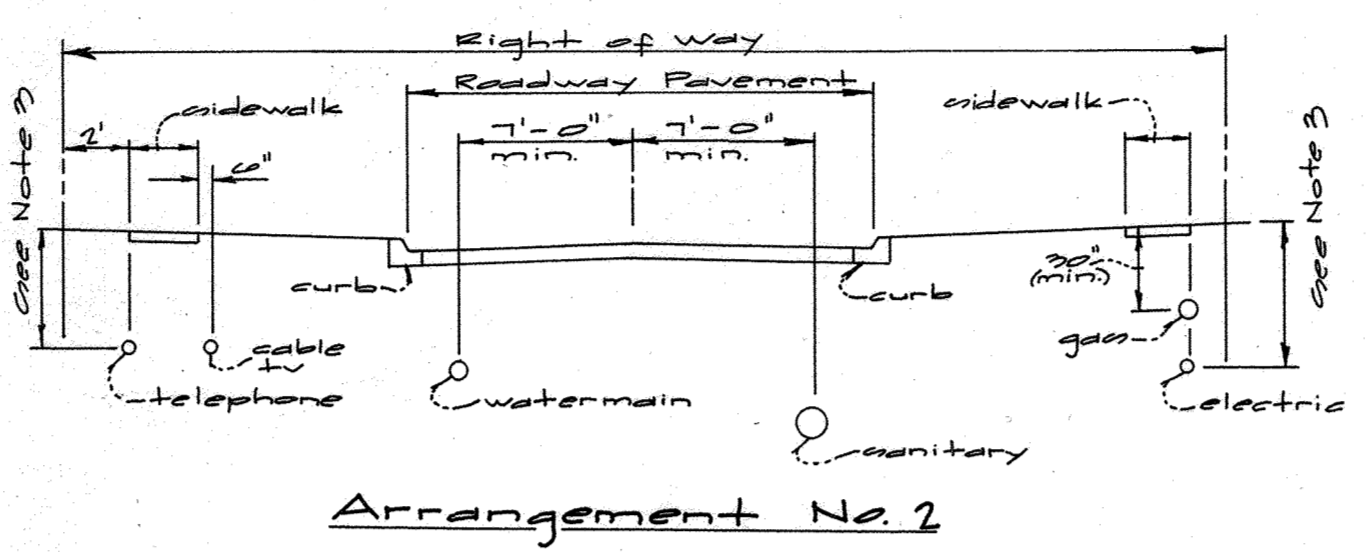
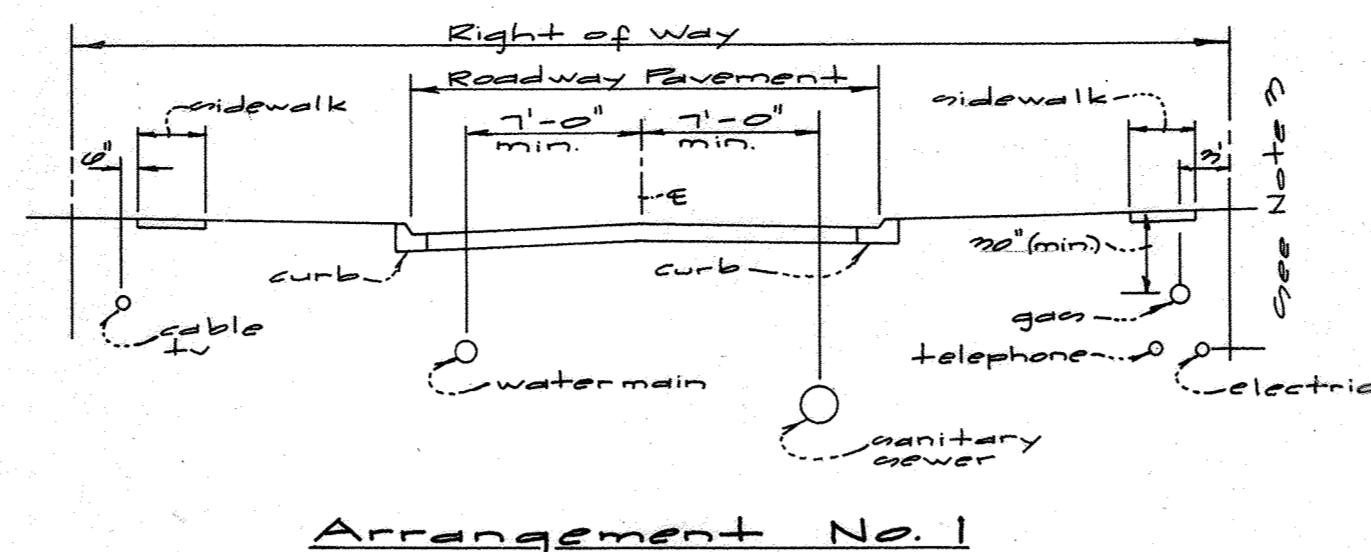
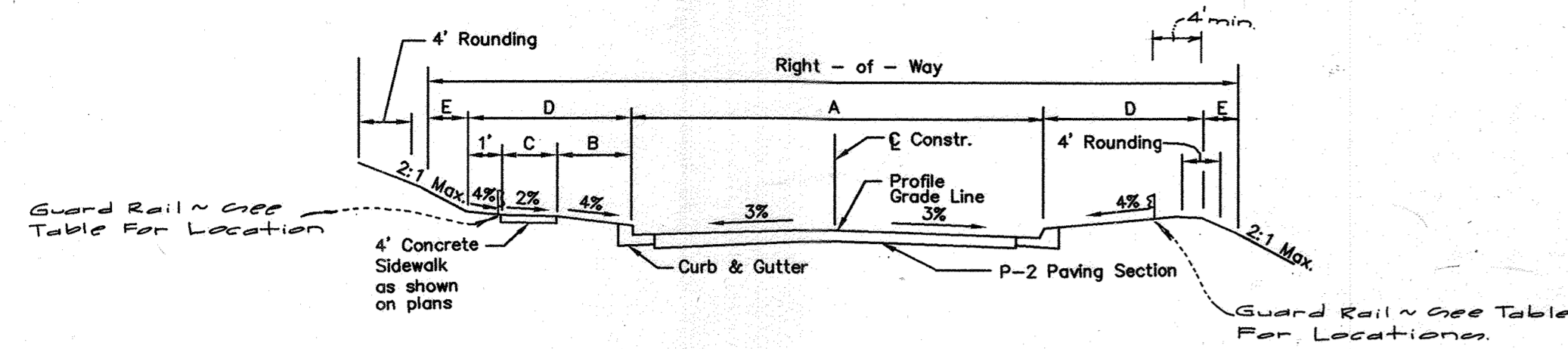
DESIGNED: [Signature]
 DRAWN: WSJ/CAD
 CHECKED: [Signature]
 DATE: Dec 1, 2001

SCALE: 1"=50'
 DRAWING: 5 OF 43
 ZONING: R-ED
 JOB No.: 99140



Scales
 1"=50' Horizontal
 1"=5' Vertical

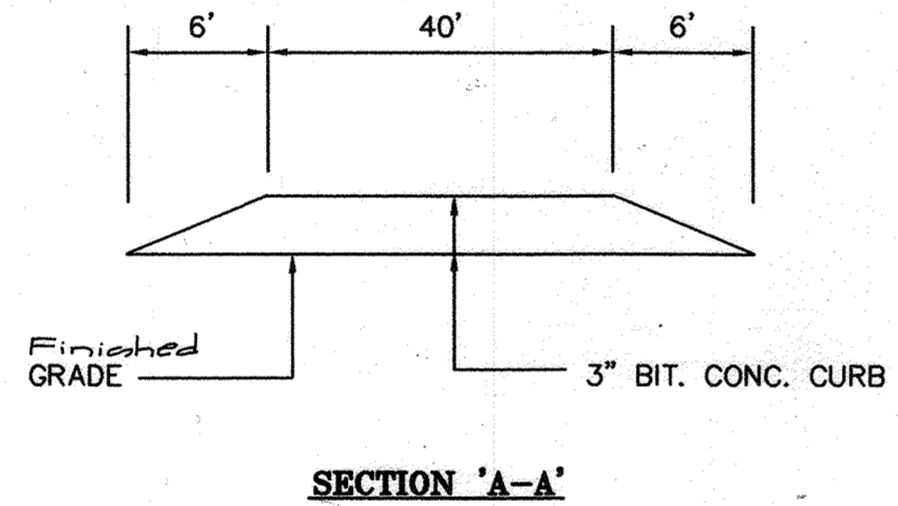
Legend
 20' Right
 20' Left
 Existing E
 FSL



ROAD NAME	STATION	ROAD CLASSIFICATION*	DESIGN SPEED	A	B	C	D	E	R/W*	PAVING SECTION
WEATHERED STONE WAY	STA. 0+00 to STA. 5+91.13	ACCESS STREET-PUBLIC	30 MPH	24'	8'	4'	13'	0'	50'	P-2
WEATHERED STONE WAY	STA. 7+25.92 to STA. 17+04.13	ACCESS STREET-PUBLIC	25 MPH	24'	3'	4'	8'	0'	40'	P-2
SADDLEBACK PLACE	STA. 0+00 to STA. 3+57.22	PUBLIC ACCESS PLACE	20 MPH	20'	5'	4'	10'	0'	40'	P-2
STONE LANDING PATH	STA. 0+00 to STA. 2+18.95	PUBLIC ACCESS PLACE	15 MPH	20'	5'	4'	10'	0'	40'	P-2
RIVER GLADE RUN	STA. 0+00 to STA. 3+01.92	PUBLIC ACCESS PLACE	20 MPH	20'	5'	4'	10'	0'	40'	P-2
GARNET ROCK GATE	STA. 0+00 to STA. 1+71.94	PUBLIC ACCESS PLACE	20 MPH	20'	5'	4'	10'	0'	40'	P-2
DEEP WATER LANE	STA. 0+00 to STA. 11+68.12	PUBLIC ACCESS PLACE	20 MPH	20'	5'	4'	10'	0'	40'	P-2

NOTES:
 *ALL ROADS IN THIS SUBDIVISION WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
 ALL PROPOSED CURBS ARE TO BE MODIFIED CURB AND GUTTER, HOWARD COUNTY STANDARD R-3.01.
 ALL PROPOSED PAVING IS TO BE P-2 PAVING SECTION.

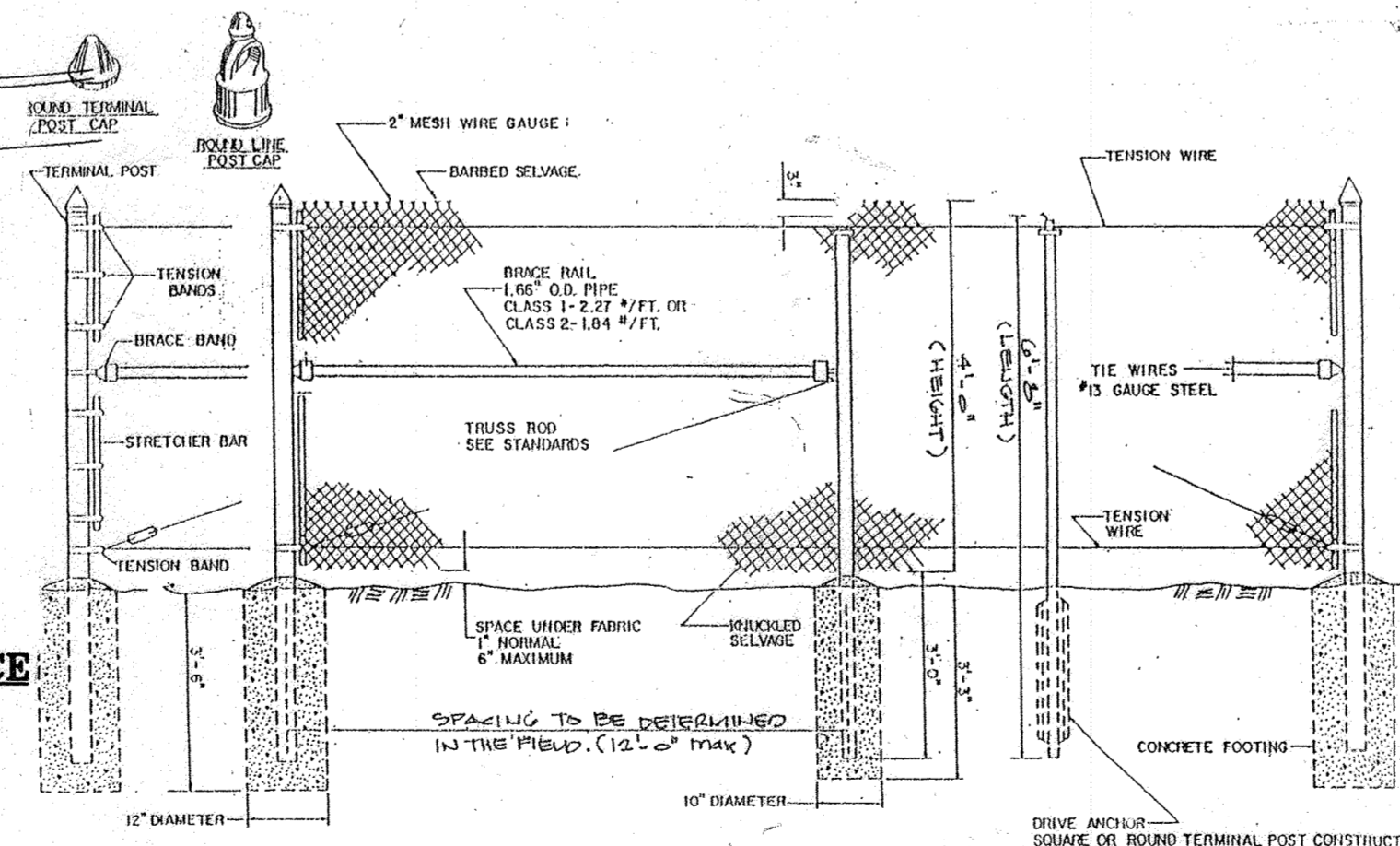
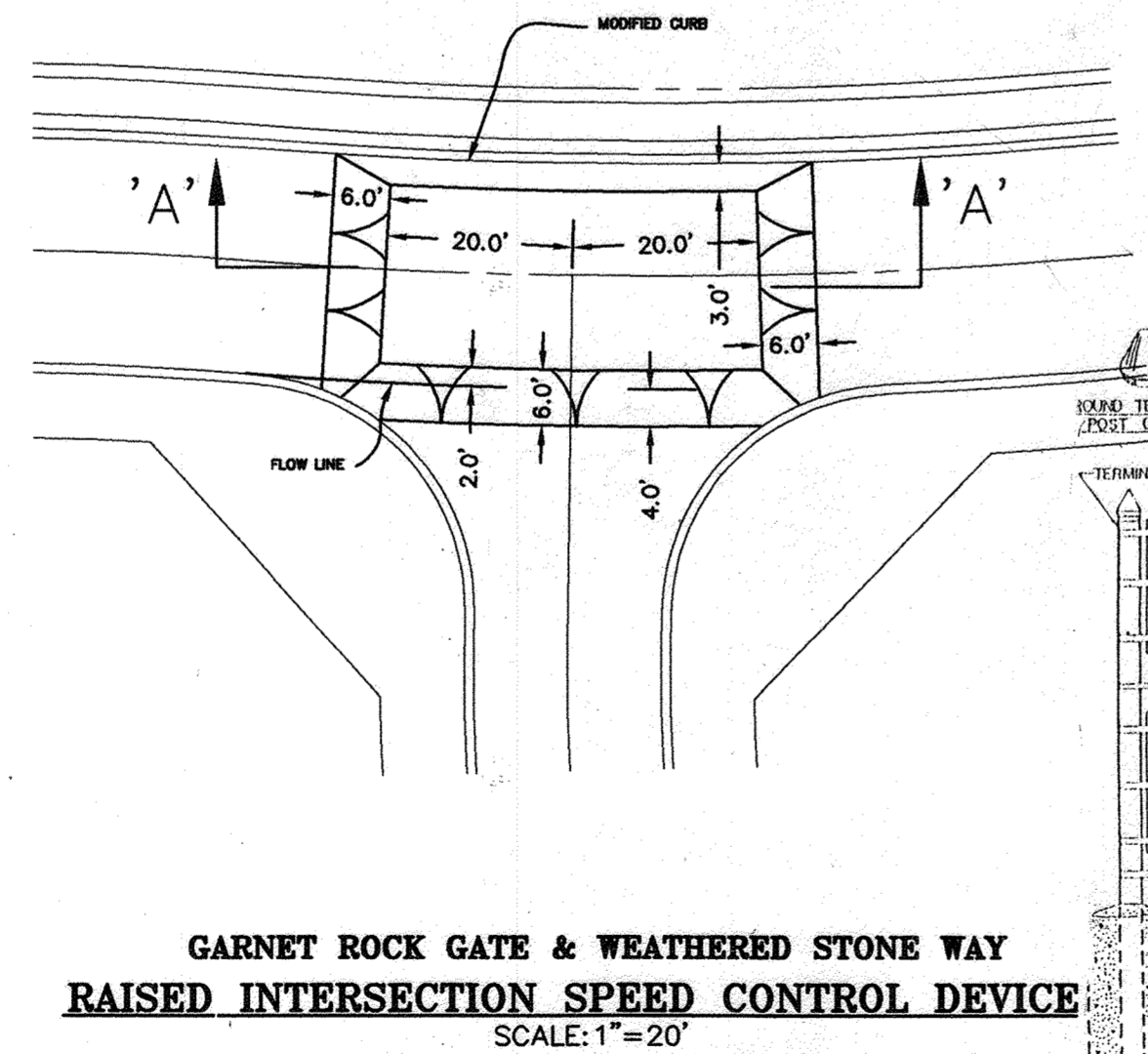
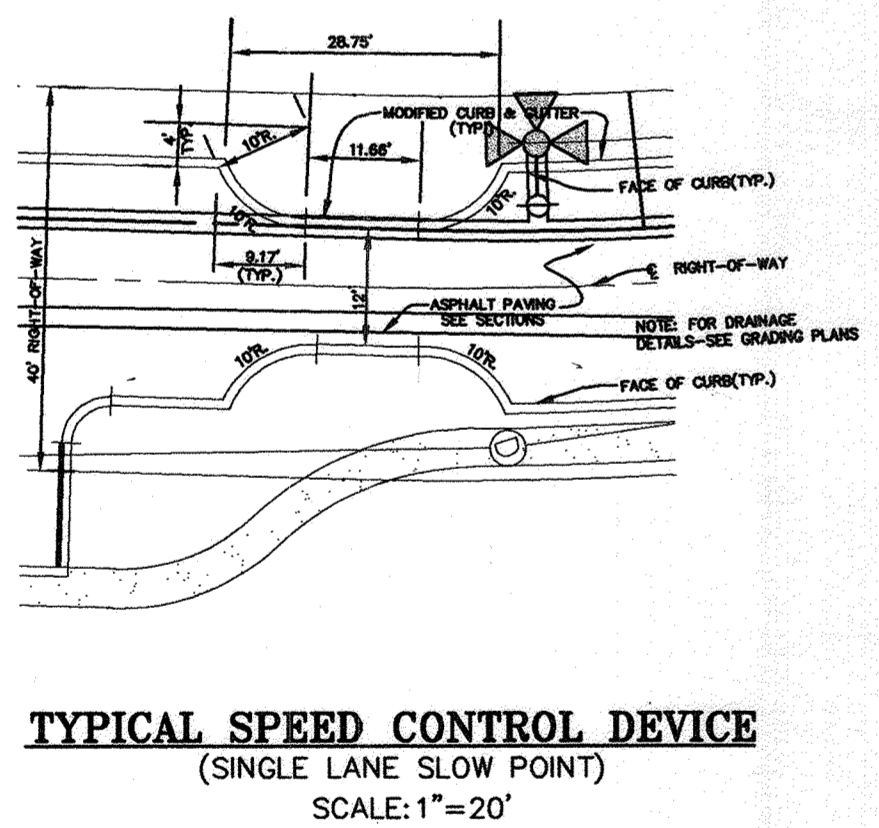
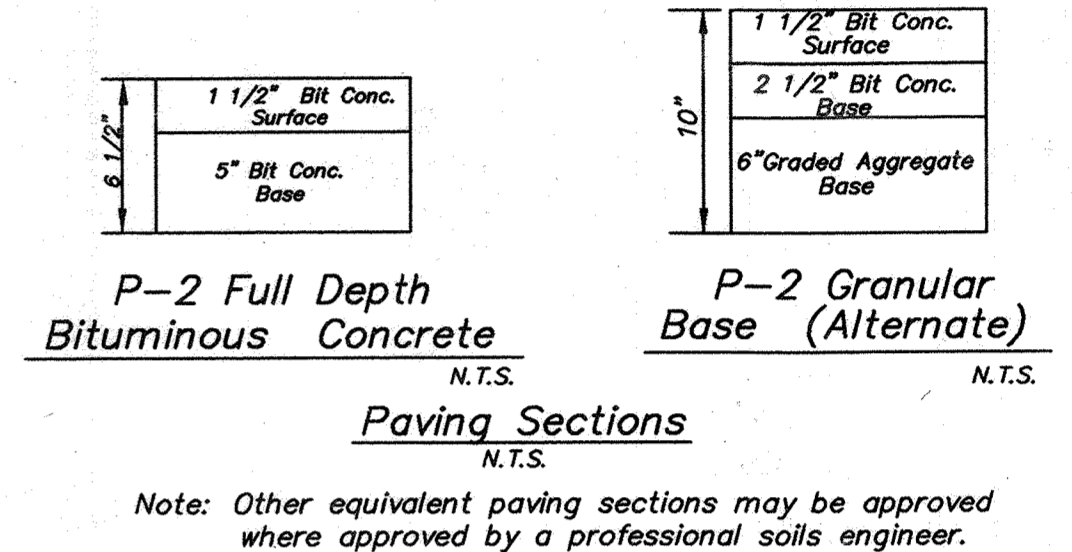
Guard Rail Location	Station
Deep Water Lane	2+75 right to 11+00 right
Deep Water Lane	4+10 left to 7+40 left
Deep Water Lane	8+40 left to 11+68 left



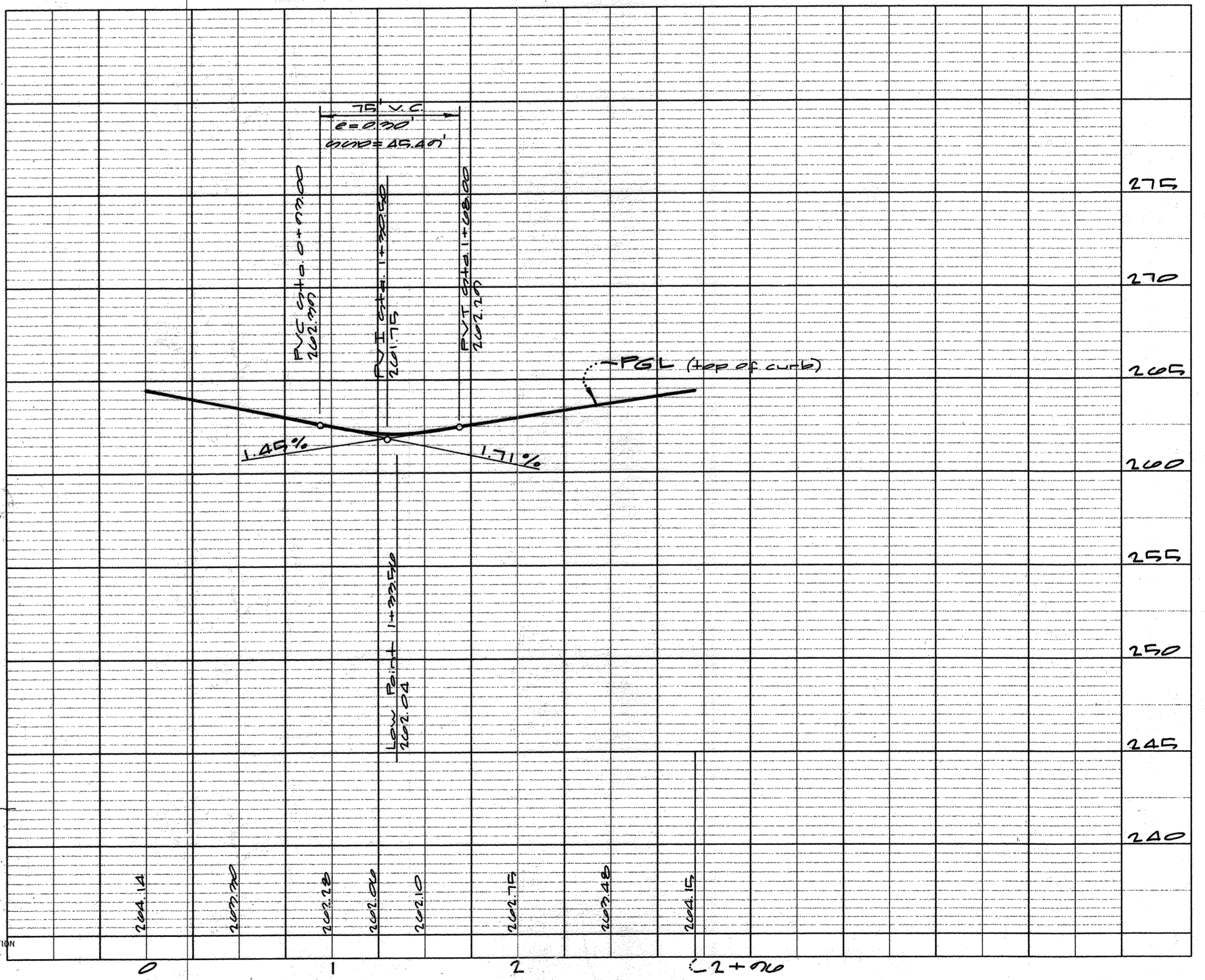
Guard Rail Location	Station
Stone Lake Drive	12+50 right (Stone Lake Dr.)
Weathered Stone Way	12+10 left (Stone Lake Dr.)

- Provide guard rail w/beam type 2 w/end flair (Ho. Co. std. R7.1) from station 2+00 to 1+25.
- Provide guard rail w/beam type 2 w/end flair (Ho. Co. std. R7.1) from station 12+00 to 12+25.
- Provide guard rail w/beam trail end anchorage (Ho. Co. std. R7.02) at stations 11+00 right, 4+20 left, 7+40 left and 8+40 left.

- Notes**
- The Department of Public Works shall be consulted concerning the utility location arrangement for a given street project.
 - Gas, electric and telephone lines may be placed in the same trench at the option of the Baltimore, Gas & Electric Co. and Bell Atlantic.
 - Electric: 0-400V 24" cover, over 400V 30" cover.
 Telephone: Main service 24" cover, residential connection 11" cover.
 Cable tv: 11" cover.



Safety Barrier Detail
 not to scale



RIVER GLADE RUN LINEAR CURB PROFILE - TOP OF CURB
 SCALE: HORIZ. 1"=50'
 VERT. 1"=5''

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 5/3/02

Chief, Development Engineering Division _____ Date 5/3/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

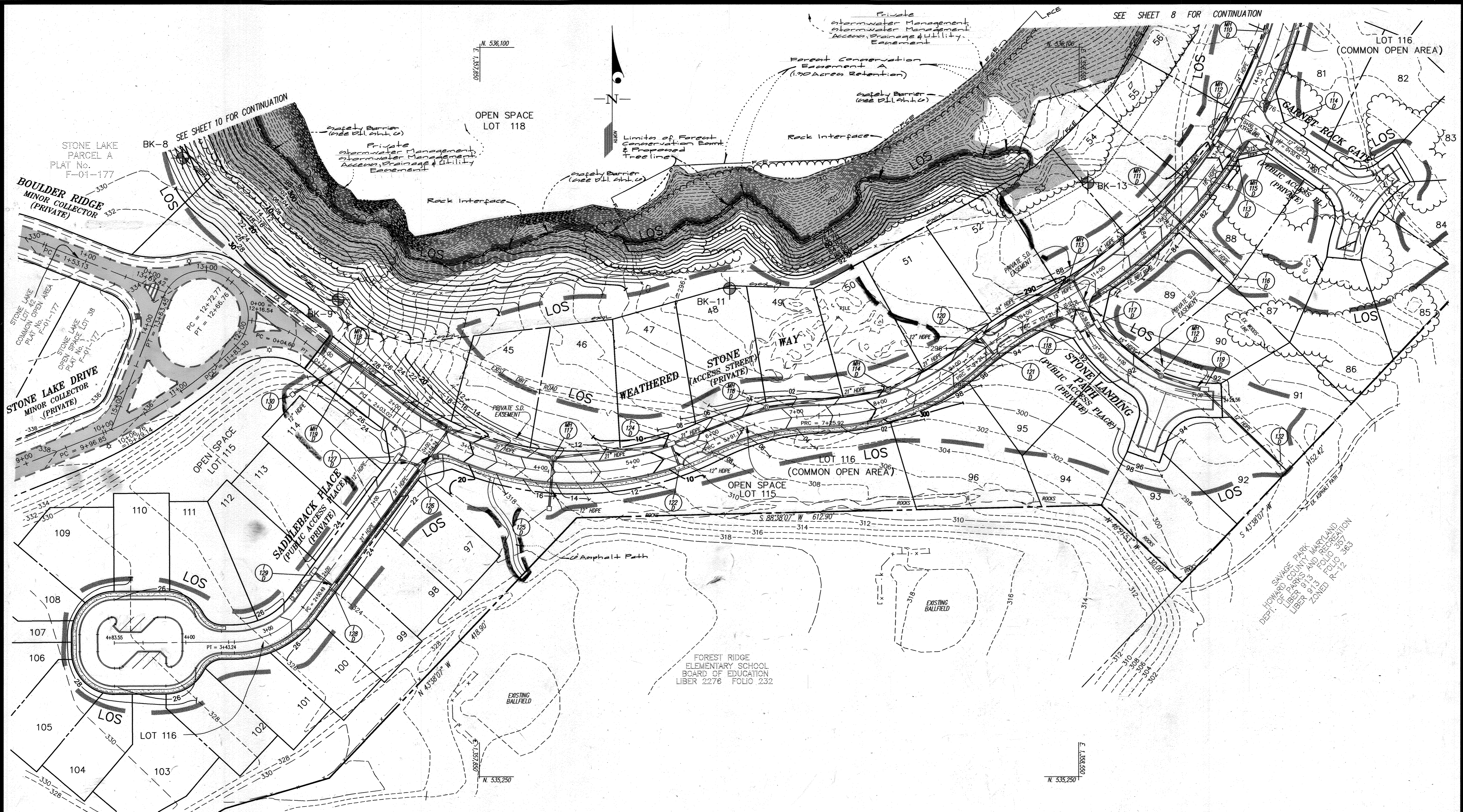
PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

ELECTION DISTRICT No. 6

TYPICAL DETAIL SHEET
STONE LAKE
 LOTS 45 THRU 117
 PLAT No.

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec., 2001	47-9/10	6 OF 43

HOWARD COUNTY, MARYLAND



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 5/3/02
 Chief, Development Engineering Division _____ Date 5/3/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-999-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

GRADING PLAN - SOUTH
STONE LAKE
 LOTS 45 THRU 118
 PLAT No. _____

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE 1"=50'	ZONING R-ED	G. L. W. FILE No. 99140
DATE DEC., 2001	TAX MAP - GRID 47-9/10	SHEET 7 OF 43

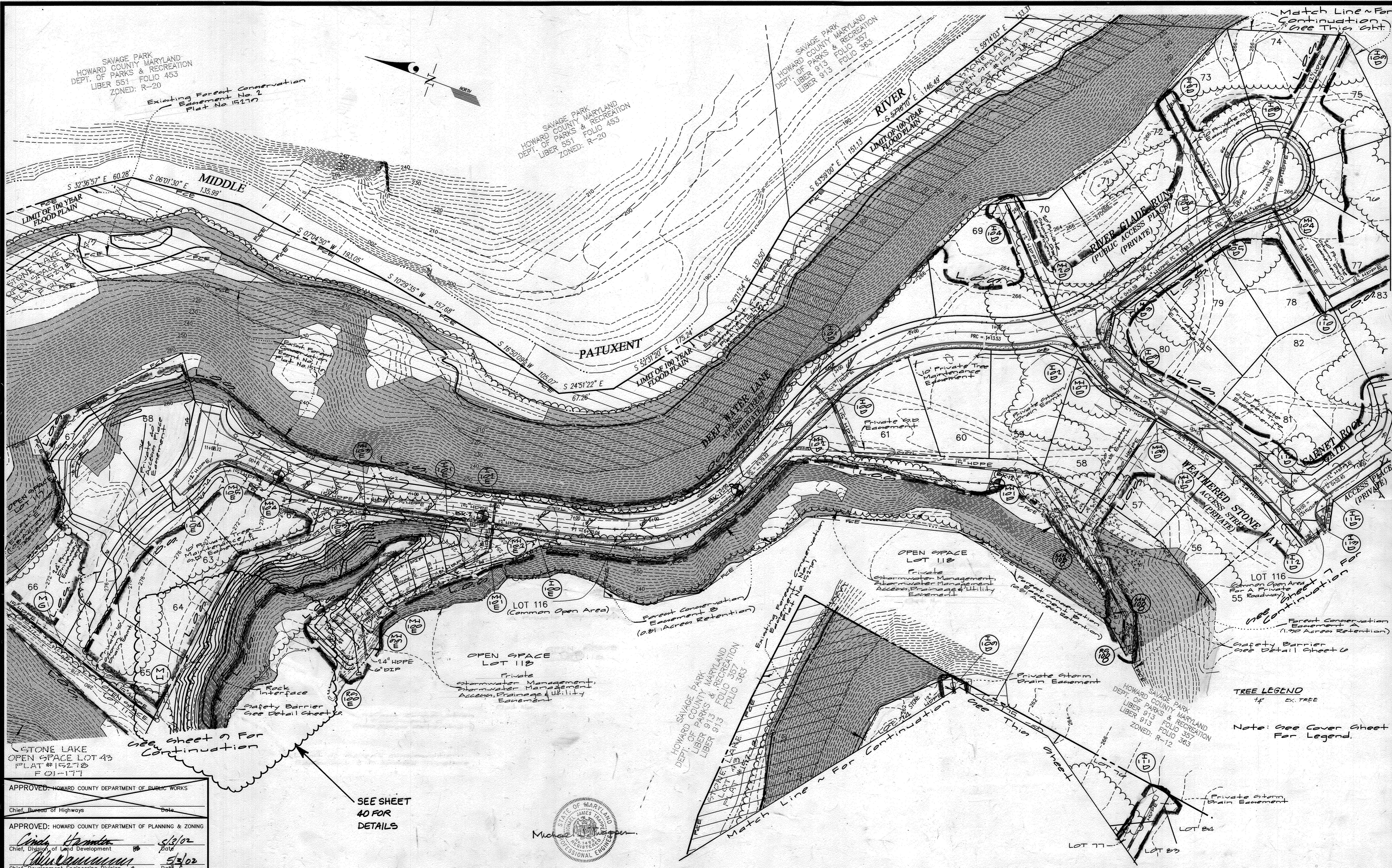
SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

Existing Forest Conservation
Easement No. 2
Plat No. 15270

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 357
LIBER 913 FOLIO 357

Match Line For
Continuation
See This Sheet



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development

Chief, Development Engineering Division

SEE SHEET
40 FOR
DETAILS



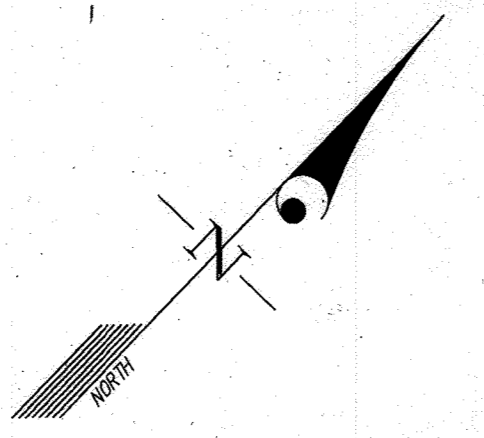
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
5909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

GRADING PLAN - EAST
STONE LAKE
LOTS 45 THRU 118
PLAT No.
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec, 2001	47-9/10	8 OF 43



SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 363
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 363
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

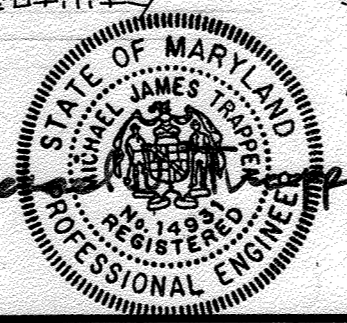
See sheet 10 for continuation.

See sheet 8 for continuation

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development

Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

REVISION	DATE	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
PH: 410-992-6089
ATTN: MR. BOB JENKINS

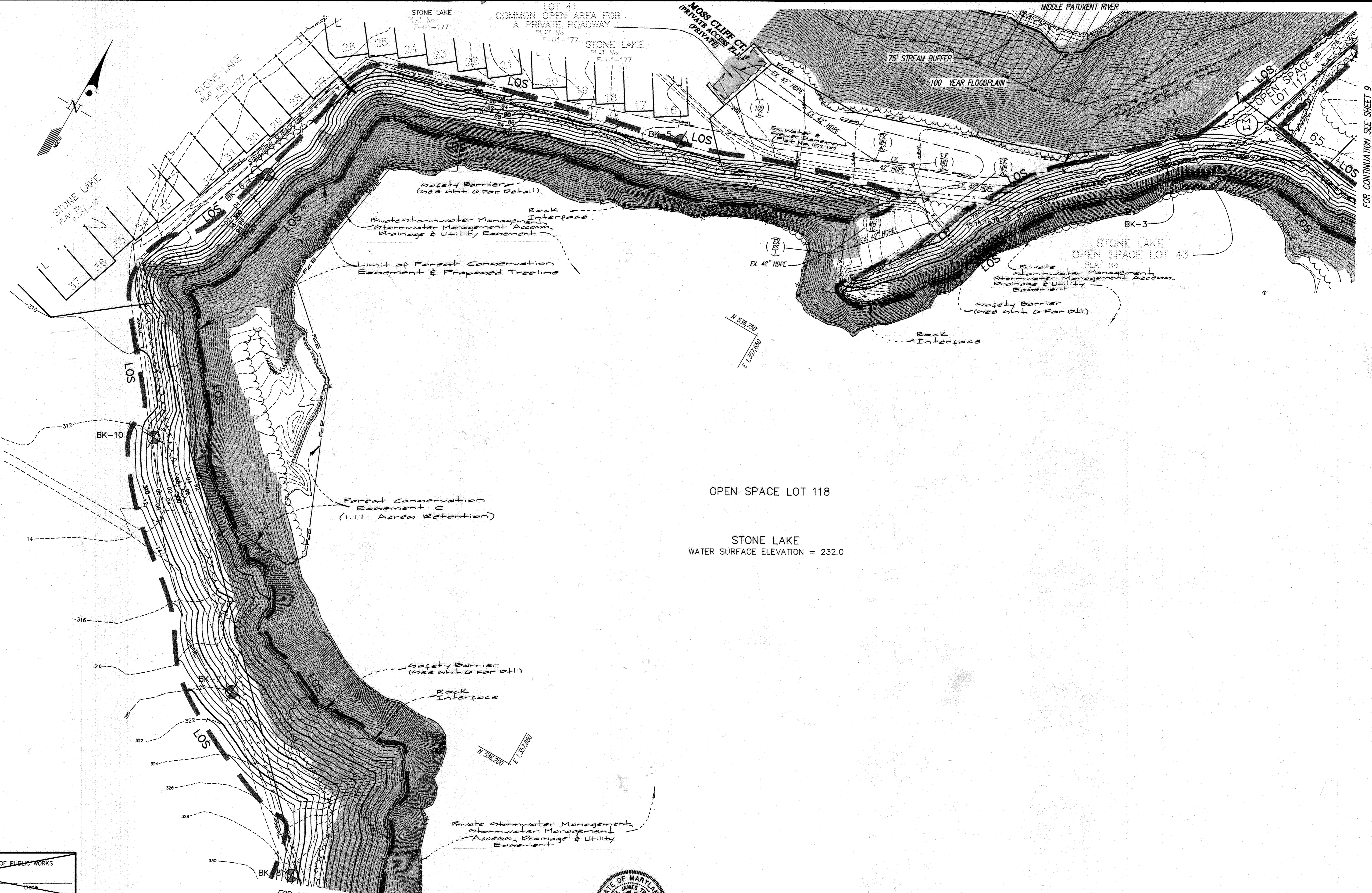
Grading Plan/Outfall Area
STONE LAKE
Lots 46 thru 118
Plot No.

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec., 2001	47- 9/10	7 OF 43

HOWARD COUNTY, MARYLAND

F-01-204



STONE LAKE
PARCEL 'A'
PLAT No.
F-01-177

OPEN SPACE LOT 118

STONE LAKE
WATER SURFACE ELEVATION = 232.0

FOR CONTINUATION SEE SHEET 7

FOR CONTINUATION SEE SHEET 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
5/2/02
Chief, Development Engineering Division
5/3/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DESIGN	DRN.	WSJ	CHK	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

GRADING PLAN ~ WEST

STONE LAKE
LOTS 45 THRU 118
PLAT No.

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC, 2001	47-9/10	10 OF 43



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 5/3/02

Chief, Development Engineering Division _____ Date 5/3/02

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-980-1820 DC/VA 301-989-2524 FAX: 301-421-4186

DESIGN	DRN	CHK	DATE	REVISION	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 PH: 410-992-6089
 ATTN: MR. BOB JENKINS

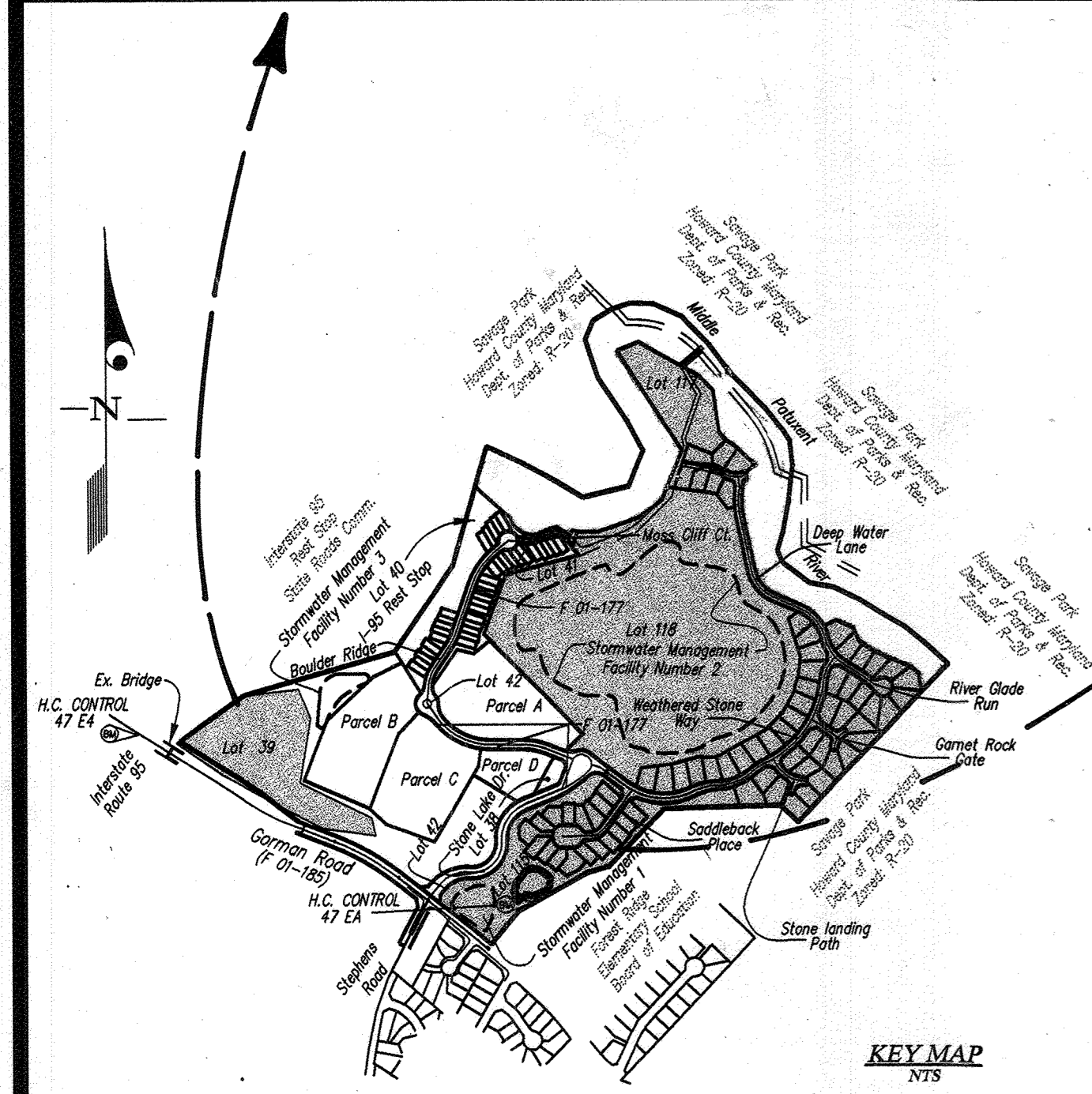
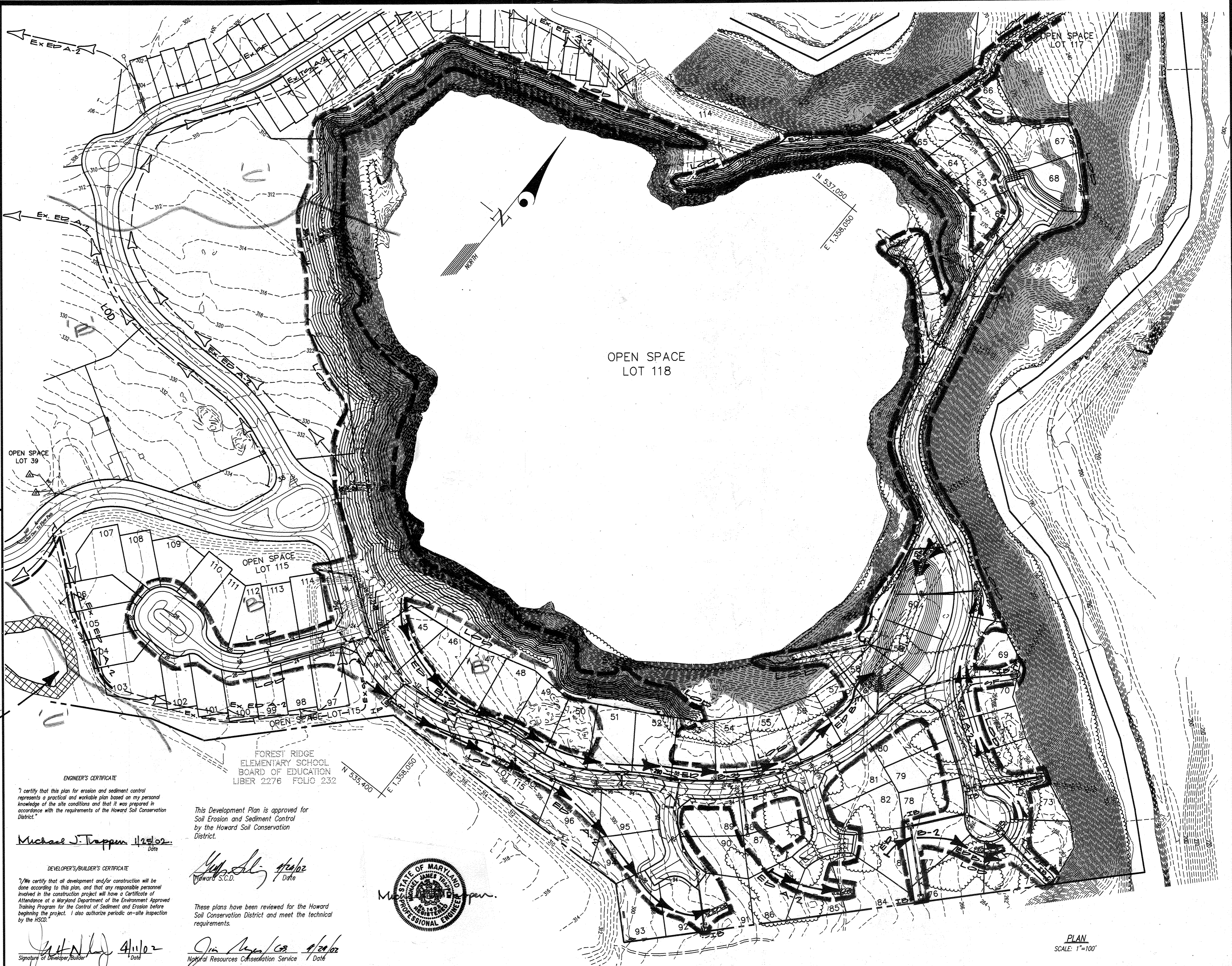
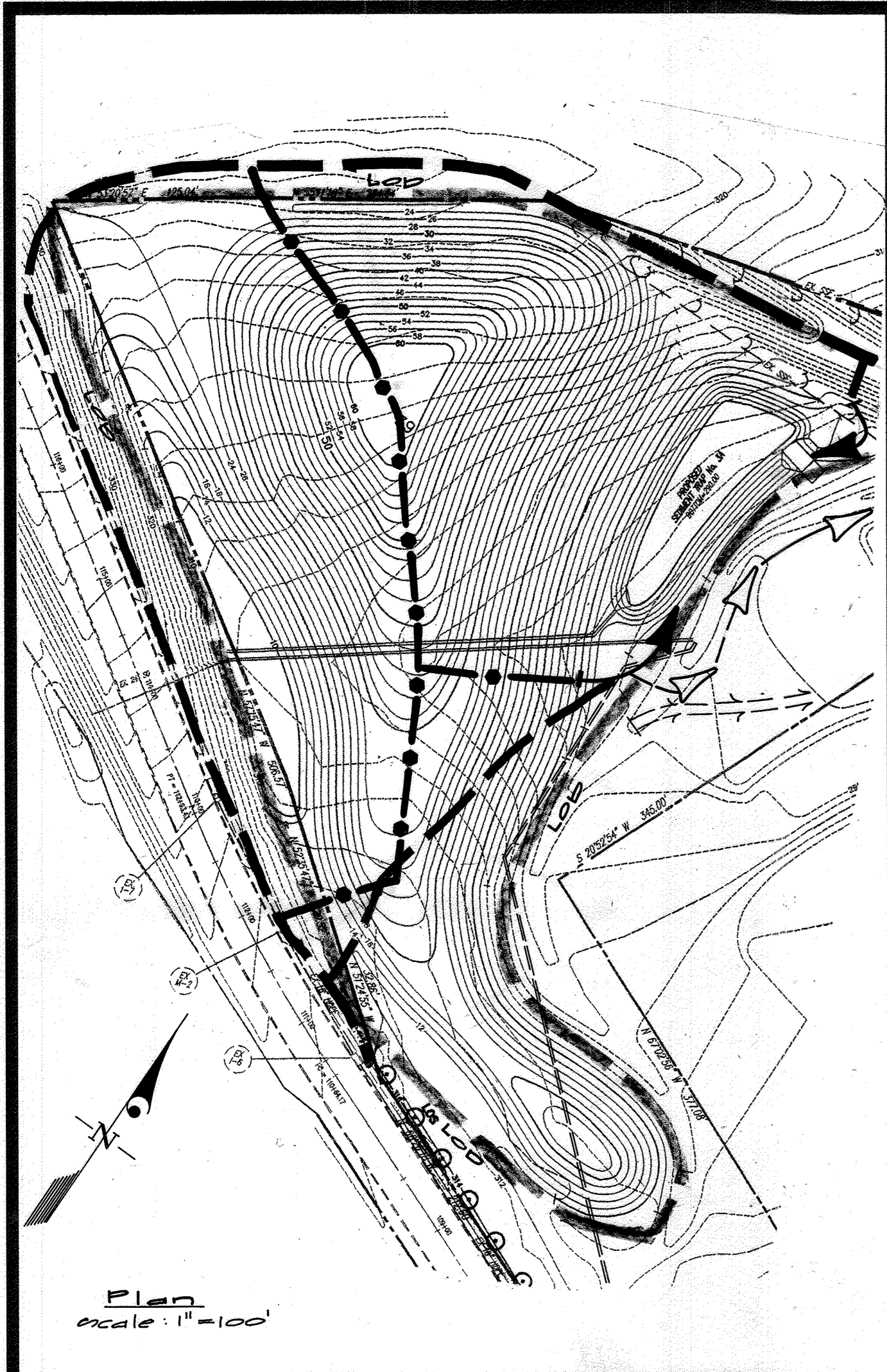
GRADING PLAN ~ BERM

STONE LAKE
 LOTS 45 THRU 118
 PLAT No.

ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE 1"=50'	ZONING R-ED	G. L. W. FILE No. 99140
DATE DEC., 2001	TAX MAP - GRID 47 - 9/10	SHEET 11 OF 43





ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Michael J. Trappan 11/23/02
 Date

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD.

[Signature] 4/11/02
 Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

[Signature] 4/21/02
 Date

Natural Resources Conservation Service / Date



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cindy Hansen 5/3/02
 Chief, Division of Land Development
Mark [Signature] 5/3/02
 Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DESIGN	CHK.	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 PHONE: 410-992-6089
 ATTN: MR. BOB JENKINS

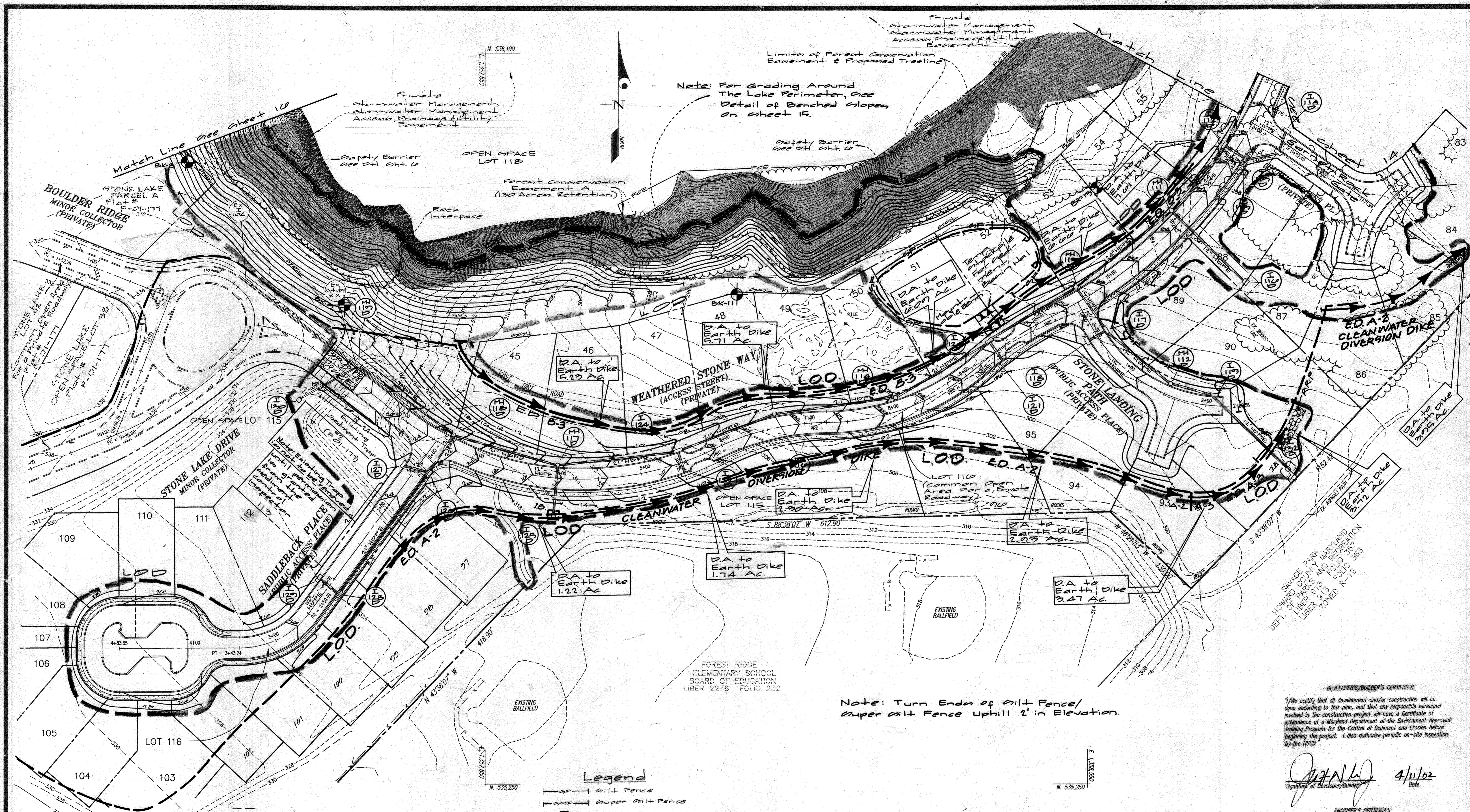
SEDIMENT CONTROL OVERVIEW PLAN

STONE LAKE
 LOTS 45 THRU 118
 PLAT No.

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC, 2001	47 - 9/10	12 OF 43



Note: For Grading Around The Lake Perimeter, See Detail of Benched Slopes, on sheet 15.

Private stormwater Management Access, Drainage & Utility Easement

Private stormwater Management Access, Drainage & Utility Easement

BOULDER RIDGE MINOR COLLECTOR (PRIVATE)

STONE LAKE DRIVE MINOR COLLECTOR (PRIVATE)

WEATHERED STONE WAY (ACCESS STREET) (PRIVATE)

ED A-2 CLEAN WATER DIVERSION DIKE

EA to Earth Dike 1.22 AC

EA to Earth Dike 1.74 AC

EA to Earth Dike 2.47 AC

Note: Turn Ends of Silt Fence/ Super Silt Fence Uphill 2' in Elevation.

- Legend**
- Silt Fence
 - Super Silt Fence
 - ⊠ RPS Removable Pumping Station
 - ED A-2 Earth Dike
 - ⊠ Stabilized Construction Entrance
 - Temporary Swale
 - Proposed Drainage Area Divide
 - Existing Drainage Area Divide
 - LOD Limit of Disturbance
 - XXXXX Erosion Control Matting

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date

Chief, Development Engineering Division
 Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 Signature: [Signature]
 Date: 4/24/02

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.
 Signature: [Signature]
 Date: 4/24/02
 Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD.

Signature of Developer/Builder: [Signature]
 Date: 4/11/02

ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature: Michael J. Trappan
 Date: 6/19/01



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

SEDIMENT CONTROL PLAN - Growth

STONE LAKE
 LOTS 45 THRU 112
 PLAT No.

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC, 2001	47-9/10	17 of 43

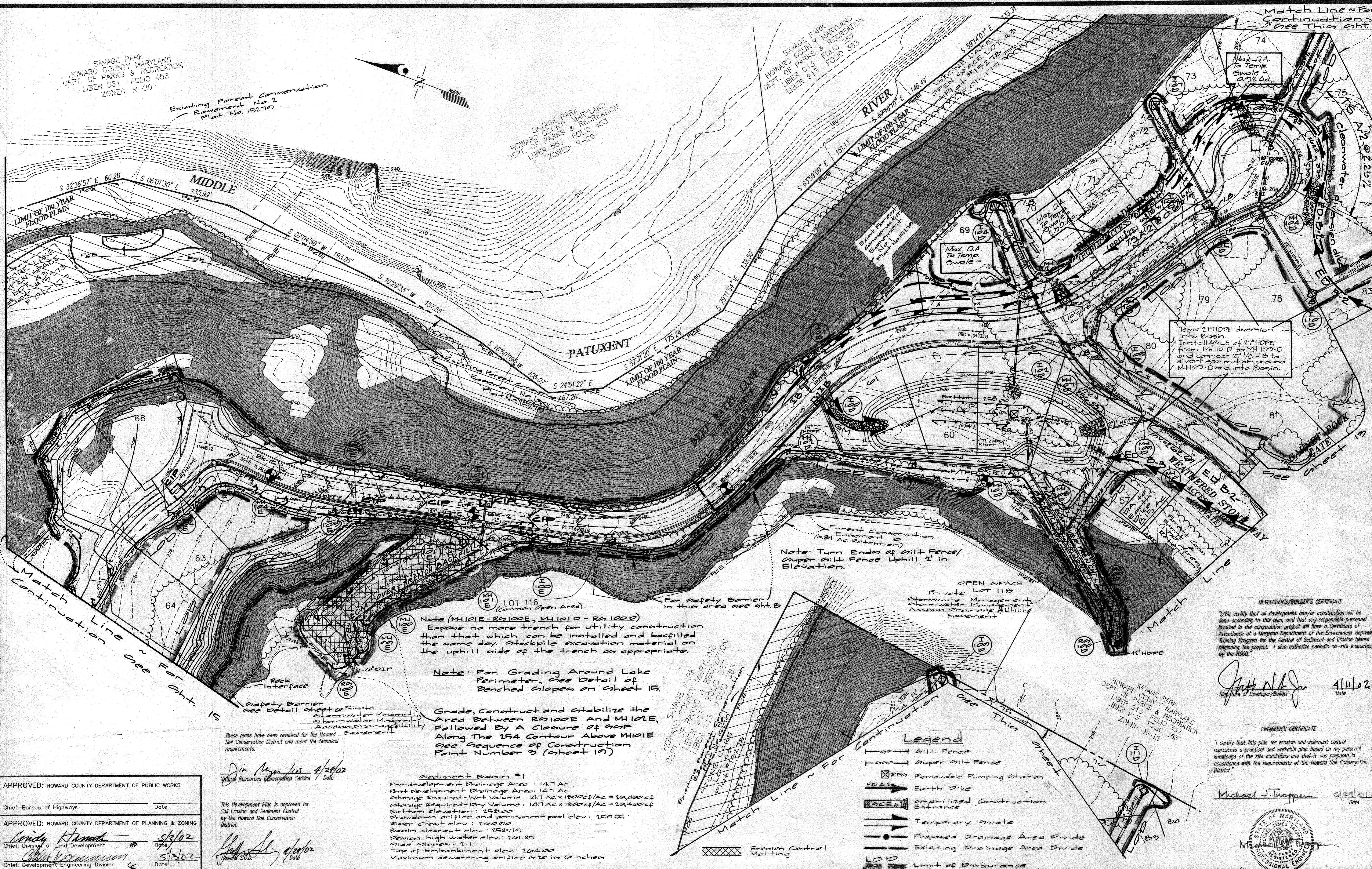
SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

Existing Forest Conservation
Easement No. 2
Plot No. 15270

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 357
LIBER 913 FOLIO 363

Match Line ~ For Continuation
See This Sheet



Note: Turn Ends of Gilt Fence/
Super Gilt Fence Uphill 2' in
Elevation.

Note (M101E-R0100E, M101D-R0100E)
Expose no more trench for utility construction
than that which can be installed and backfilled
the same day. Stockpile excavation material on
the uphill side of the trench as appropriate.

Note: For Grading Around Lake
Perimeter, See Detail of
Benching Slopes on Sheet 15.

Grade, Construct and Stabilize the
Area Between R0100E and M101E,
Followed By A Closure of 90CF
Along The 254 Contour Above M101E.
See Sequence of Construction
Point Number 3 (Sheet 15)

Sediment Basin #1
Pre-development Drainage Area: 14.7 Ac.
Post-development Drainage Area: 14.7 Ac.
Storage Required - Wet Volume: 14.7 Ac x 18000 cf/Ac = 264,000 cf
Storage Required - Dry Volume: 14.7 Ac x 18000 cf/Ac = 264,000 cf
Bottom elevation: 258.00
Drawdown orifice and permanent pool elev.: 250.55
Water Crest elev.: 260.92
Basin cleanout elev.: 258.70
Design high water elev.: 261.87
Side slopes: 2:1
Top of Embankment elev.: 264.00
Maximum dewatering orifice size in inches:

Legend

- Gilt Fence
- Super Gilt Fence
- Removable Pumping Station
- Earth Dike
- Stabilized Construction Entrance
- Temporary Swale
- Proposed Drainage Area Divide
- Existing Drainage Area Divide
- Limit of Disturbance
- Erosion Control Matting

DEVELOPER'S/BUILDER'S CERTIFICATE
I/We certify that all development and/or construction will be
done according to this plan, and that any responsible personnel
involved in the construction project will have a Certificate of
Attendance at a Maryland 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 HSCD.

Jeff N. [Signature] 4/11/02
Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment control
represents a practical and workable plan based on my personal
knowledge of the site conditions and that it was prepared in
accordance with the requirements of the Howard Soil Conservation
District.

Michael J. [Signature] 6/29/01
Date



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways Date
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development Date
Chief, Development Engineering Division Date

Dia Meyer [Signature] 4/24/02
Natural Resources Conservation Service Date

This Development Plan is approved for
Soil Erosion and Sediment Control
by the Howard Soil Conservation
District.
[Signature] 4/24/02
Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-980-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

SEDIMENT CONTROL PLAN ~ Edict
STONE LAKE
LOTS 45 THRU 119
PLAT No.

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC, 2001	47-9/10	14 OF 43

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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] 4/11/02
 Signature of Developer/Builder Date

ENGINEER'S CERTIFICATE
 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.

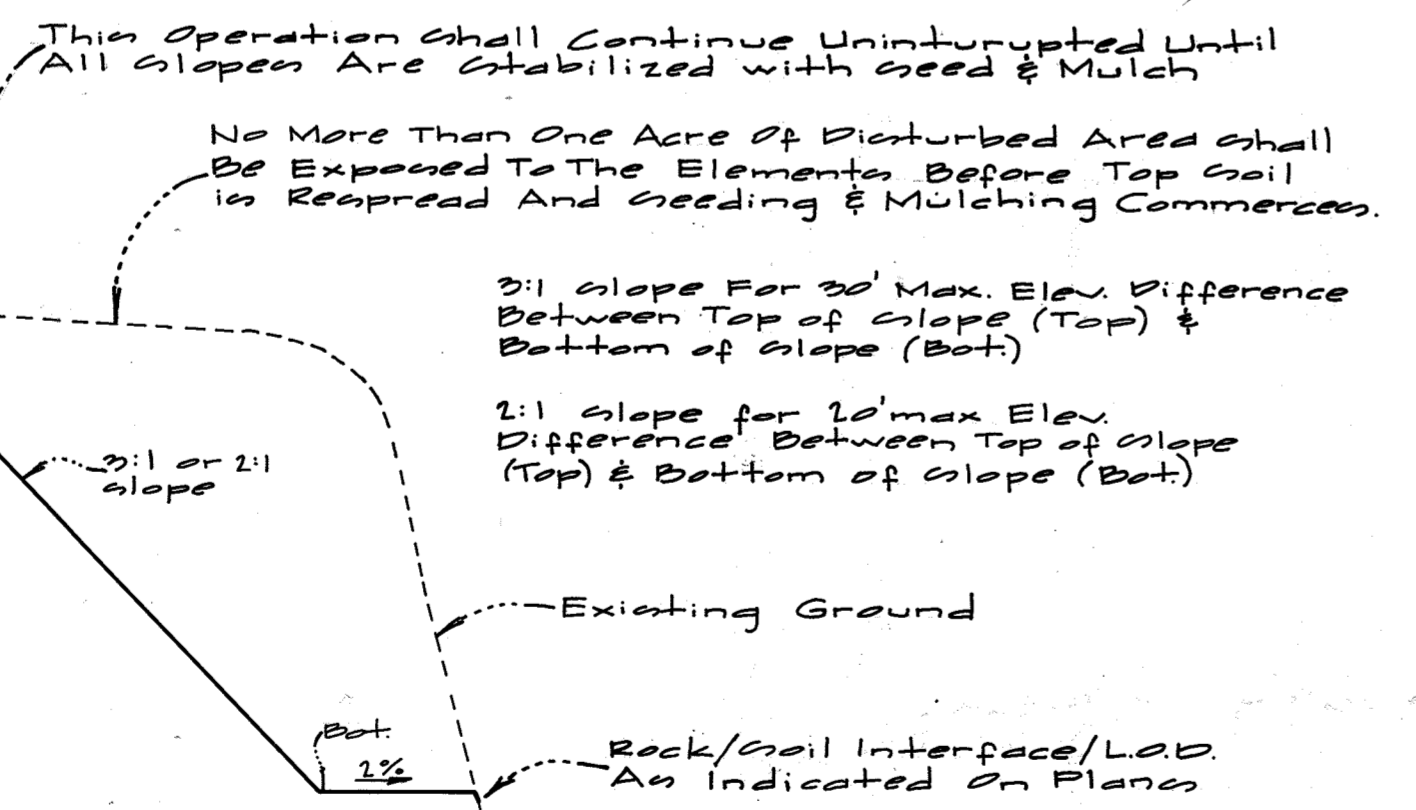
[Signature] 12/17/01
 Engineer's Signature Date

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

[Signature] 4/24/02
 Howard Soil Conservation District Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

[Signature] 4/24/02
 Natural Resources Conservation Service Date

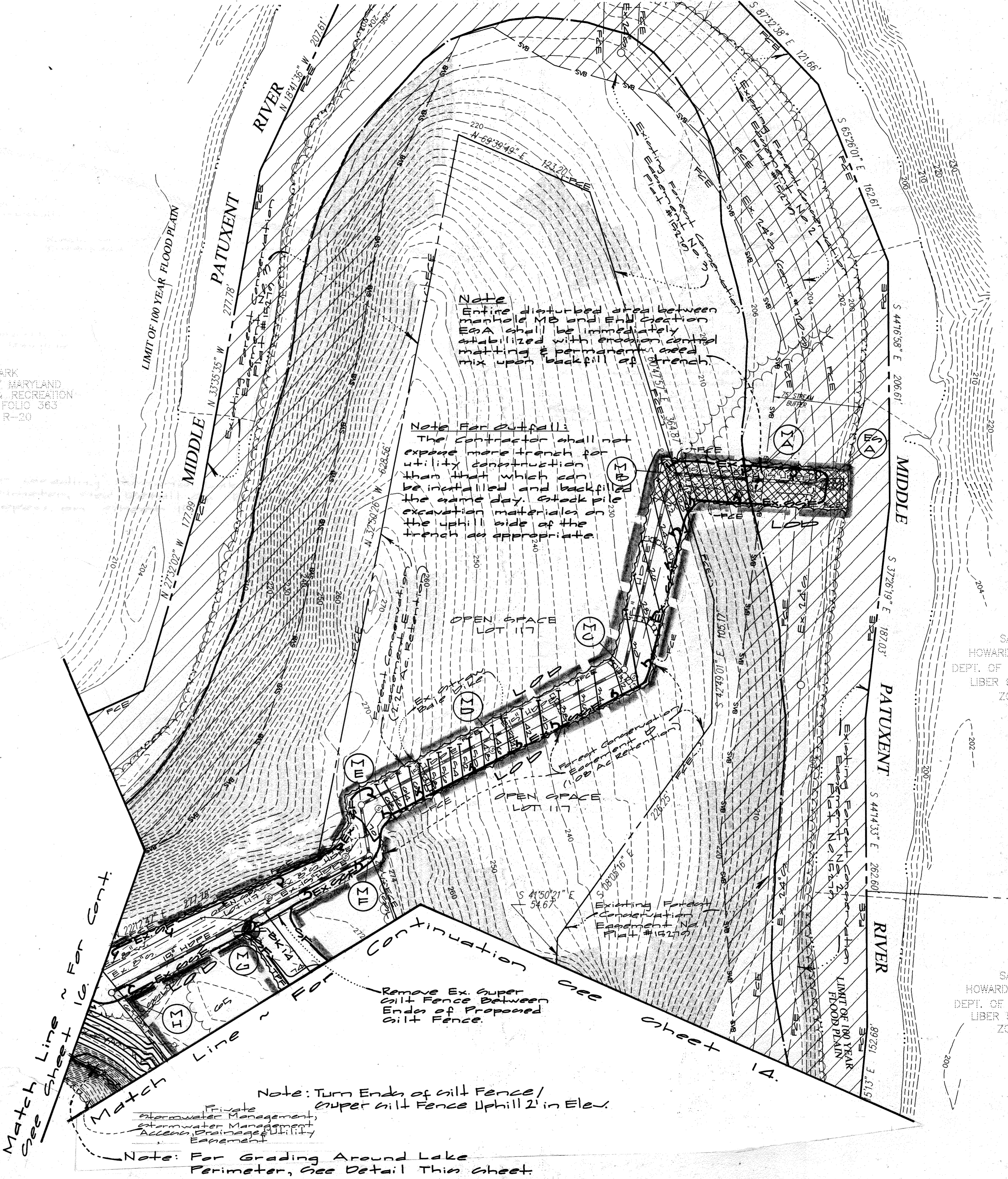


Benching Slopes Detail
 N.T.S.

SAVAGE PARK
 HOWARD COUNTY MARYLAND
 DEPT. OF PARKS & RECREATION
 LIBER 813 FOLIO 363
 ZONED: R-20

SAVAGE PARK
 HOWARD COUNTY MARYLAND
 DEPT. OF PARKS & RECREATION
 LIBER 551 FOLIO 453
 ZONED: R-20

SAVAGE PARK
 HOWARD COUNTY MARYLAND
 DEPT. OF PARKS & RECREATION
 LIBER 551 FOLIO 453
 ZONED: R-20



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 5/3/02
 Chief, Division of Land Development
[Signature] 5/3/02
 Chief, Development Engineering Division

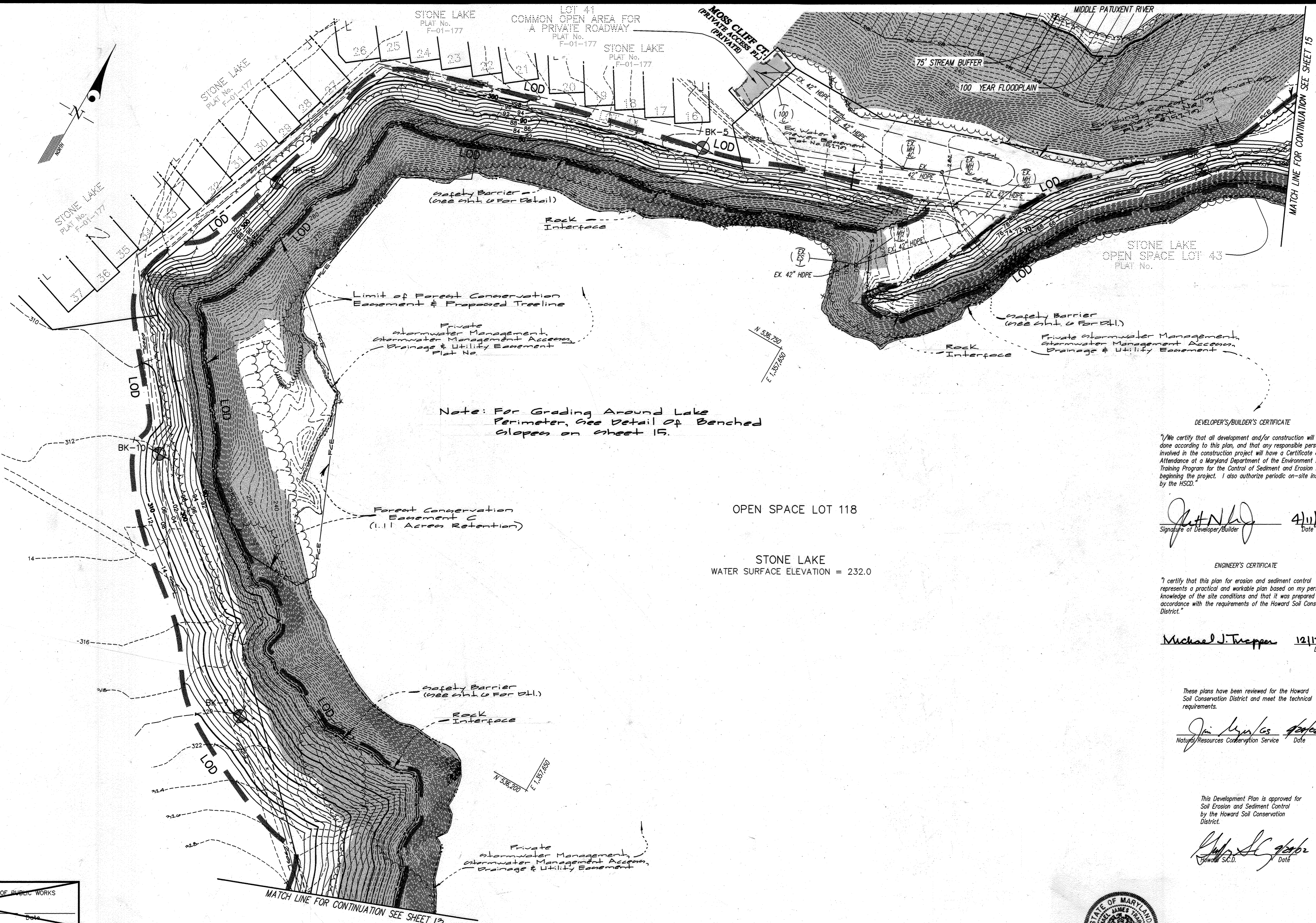
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONGVILLE OFFICE PARK
 BURTONGVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-999-2524 FAX: 301-421-4186

DATE	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 PH: 410-992-6089
 ATTN: MR. BOB JENKINS

Sediment Control Plan (outfall Area)
STONE LAKE
 Lots 45 thru 118
 Plat No.
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec., 2001	47-9/10	15 OF 43



STONE LAKE
PARCEL 'A'
PLAT No.
F-01-177

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Cindy Hamada 5/3/02
Chief, Development Engineering Division
5/3/02

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

SEDIMENT CONTROL PLAN - WEST

STONE LAKE
LOTS 45 THRU 118
PLAT No.

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC., 2001	47-9/10	10 OF 43

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD."

John N. ...
Signature of Developer/Builder
Date: 4/11/02

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Michael J. Treppen
Date: 12/17/01

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Jim ...
Natural Resources Conservation Service
Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Bob Jenkins
Howard S.C.D.
Date: 9/26/02



Existing Forest Conservation
Easement #4
Plat #15274

INTERSTATE ROUTE 95
REST STOP
STATE ROADS COMMISSION

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Michael J. Tieppen 12/17/01
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD."

Signature of Developer/Builder 4/11/02
Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Signature of Howard S.C.D. 4/26/02
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Signature of Natural Resources Conservation Service 4/26/02
Date

STONE LAKE LOT 42
(COMMON OPEN AREA)

STONE LAKE PARCEL A
PLAT No. (F-01-177)

STONE LAKE PARCEL B
PLAT No. (F-01-177)

STONE LAKE PARCEL C
PLAT No. (F-01-177)

STONE LAKE PARCEL B
PLAT No. (F-01-177)

STONE LAKE PARCEL B
PLAT No. (F-01-177)

THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
L 2545 F 2514 & GEMERSON, SECTION D3

Sediment Trap Number 3-A
Proposed D.A. = 5.70 acres
Existing D.A. = 6.00 acres
Worst Case D.A. = 6.00 acres
Wet Storage Required: 6.00 Ac. x 1800c.f./Ac = 10800 c.f. = 0.25 acre-ft.
Dry Storage Required: 6.00 Ac. x 1800c.f./Ac = 10800 c.f. = 0.25 acre-ft.
Wet Storage Provided: 0.25 acre-ft.
Dry Storage Provided: 0.25 acre-ft.
2-Yr Storage Required: 0.41 acre-ft.
2-Yr Storage Provided: 0.83 acre-ft.
Bottom Elevation: 290 ft.
Top of Embankment Elevation: 296 ft.
Weir Throat Elevation: 292 ft.
Weir Length: 14 ft.
Side Slopes: 2:1

Legend

- Prop. Drainage Divide
- Exist. Drainage Divide
- Prop. Earth Dike
- Exist. Earth Dike
- Exist. Temporary Swale
- Limit of Disturbance

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development

Chief, Development Engineering Division

DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-992-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
PH: 410-992-6089
ATTN: MR. BOB JENKINS

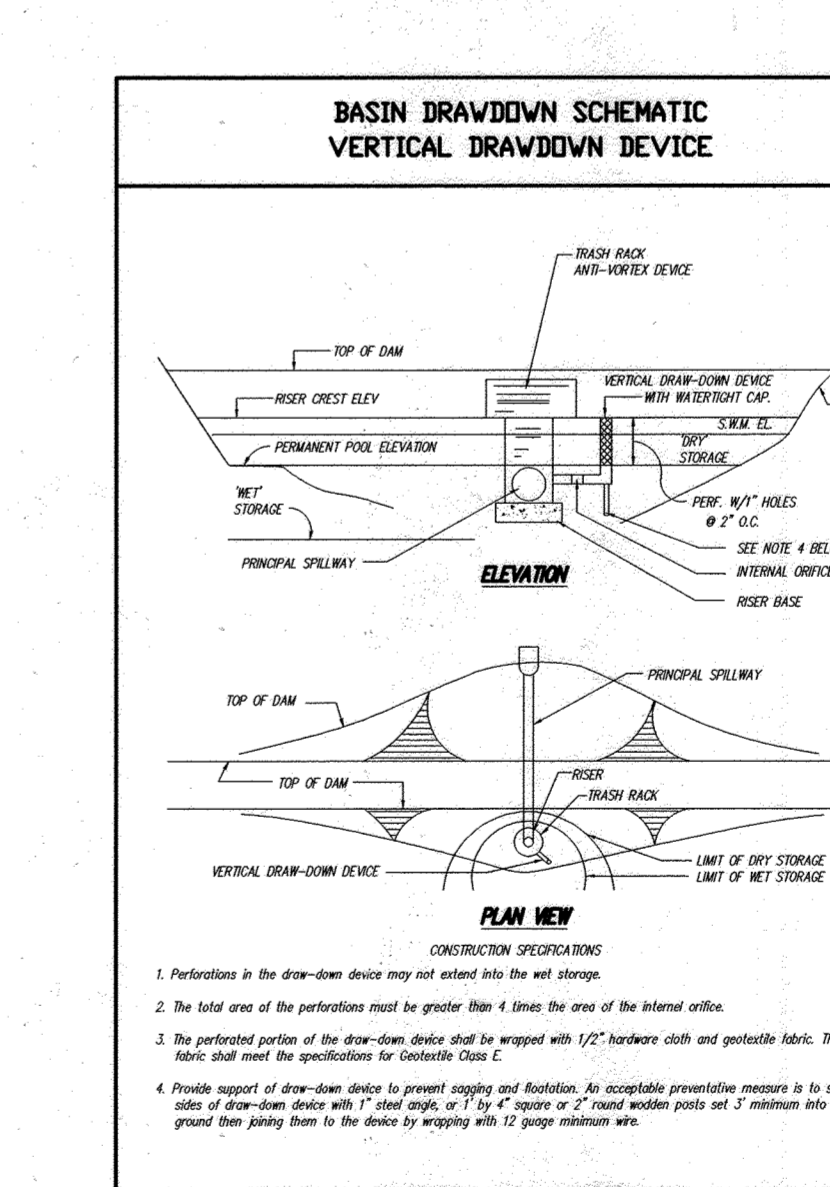
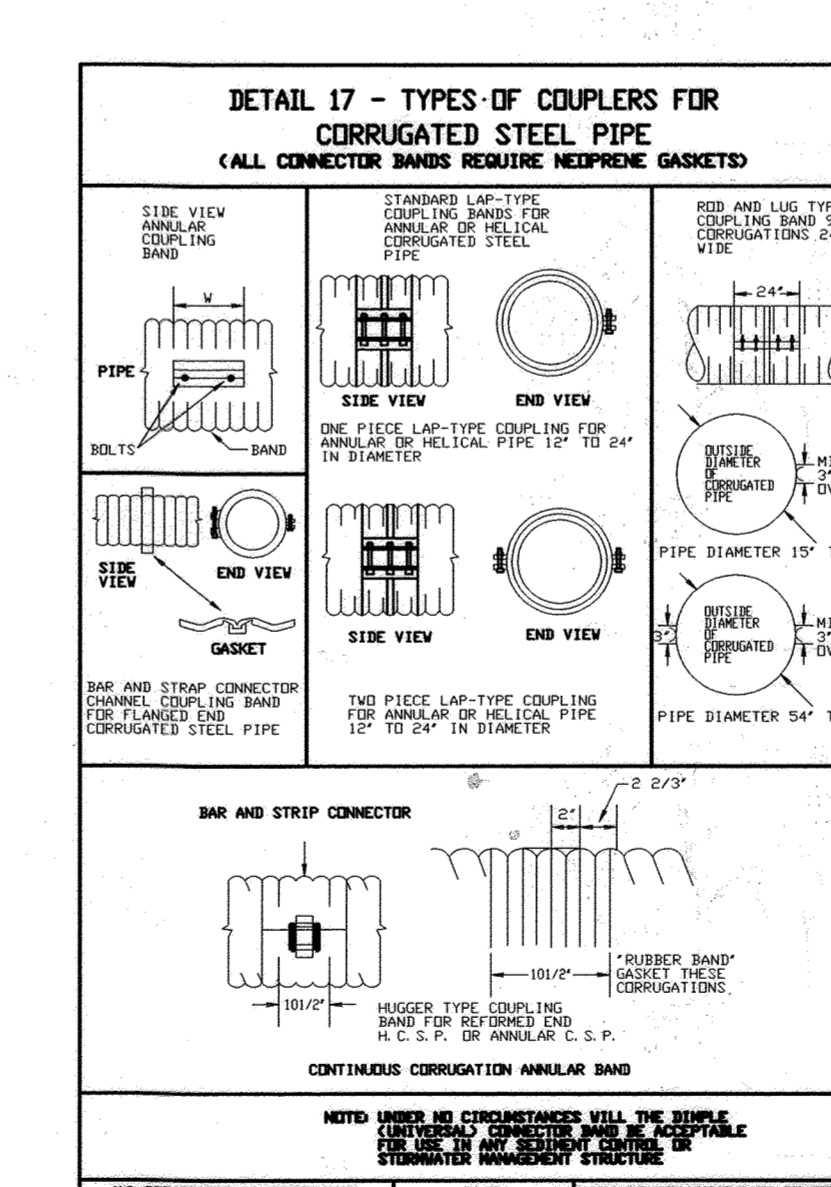
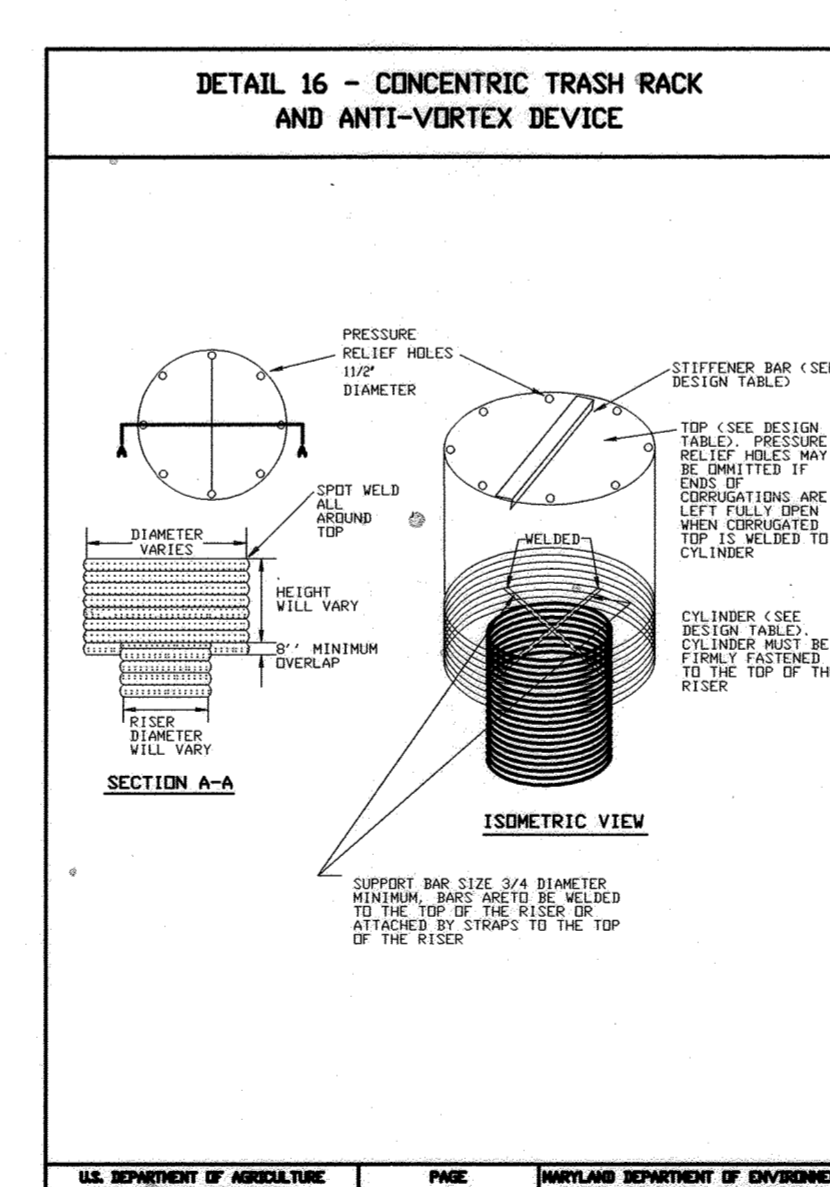
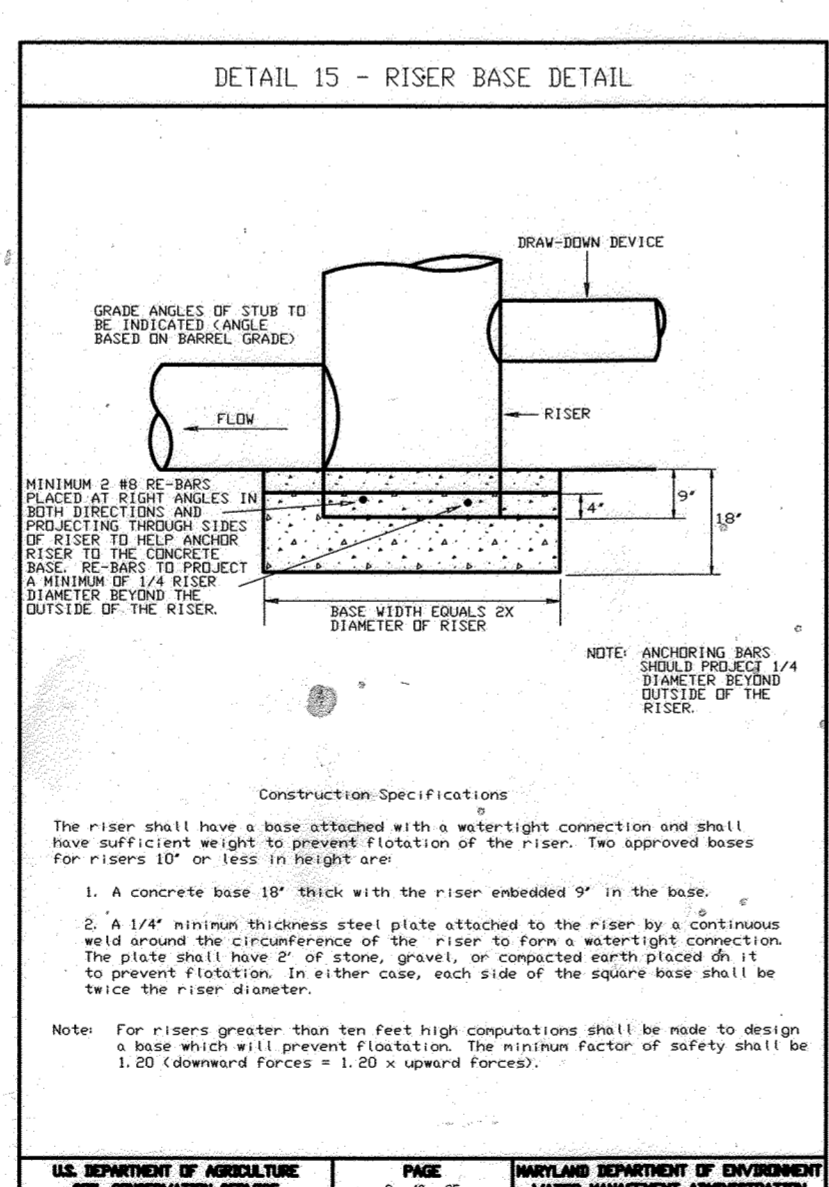
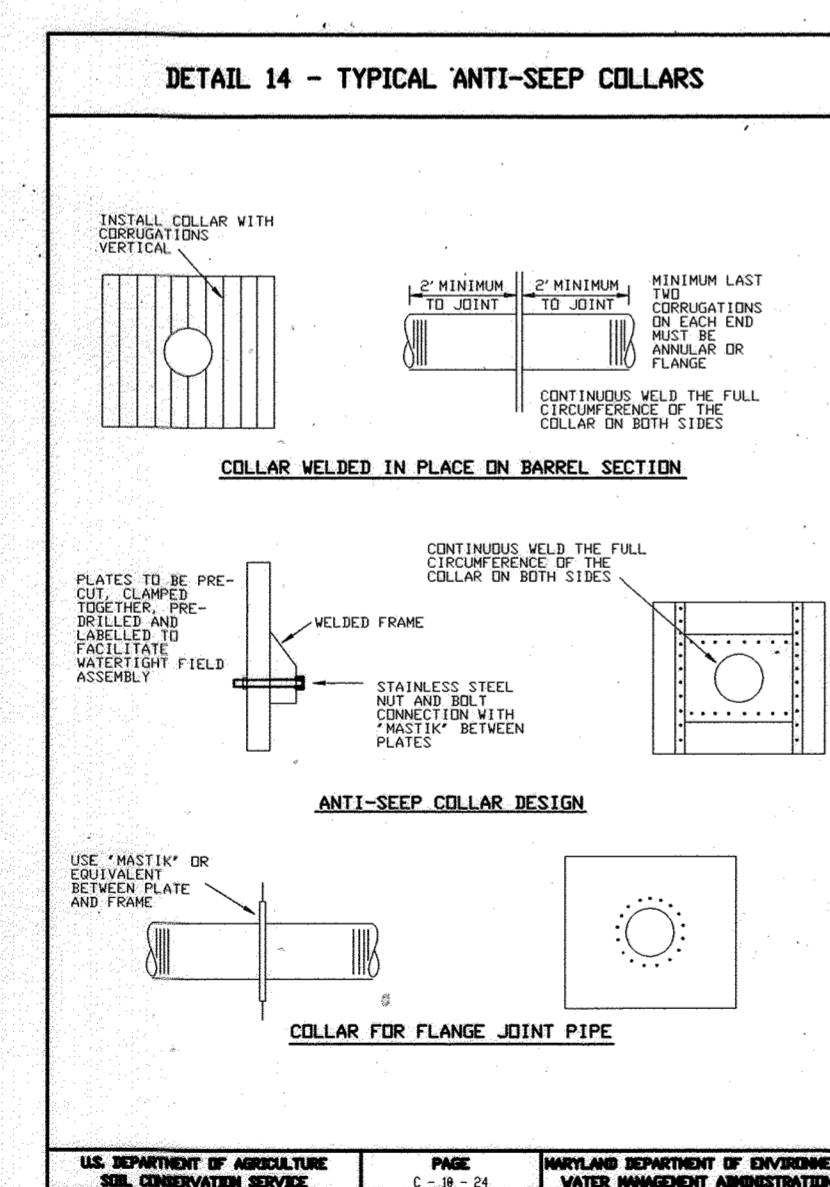
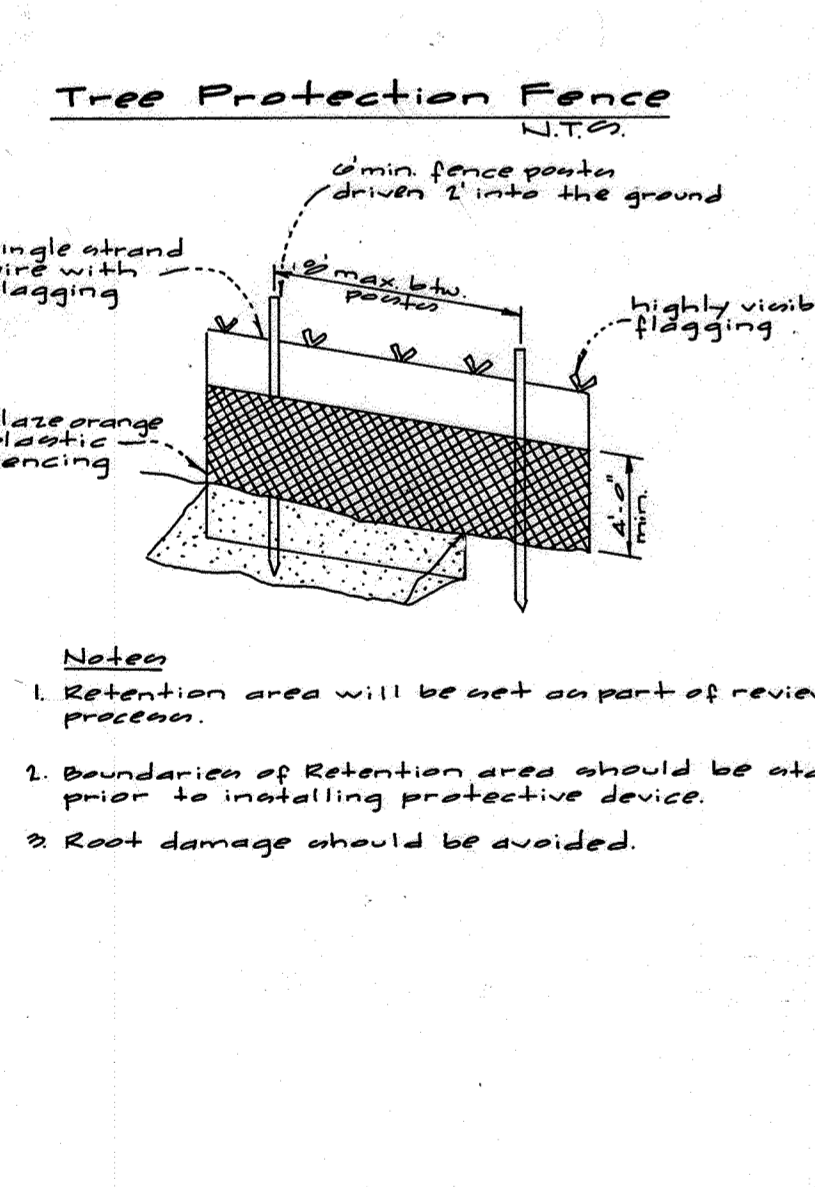
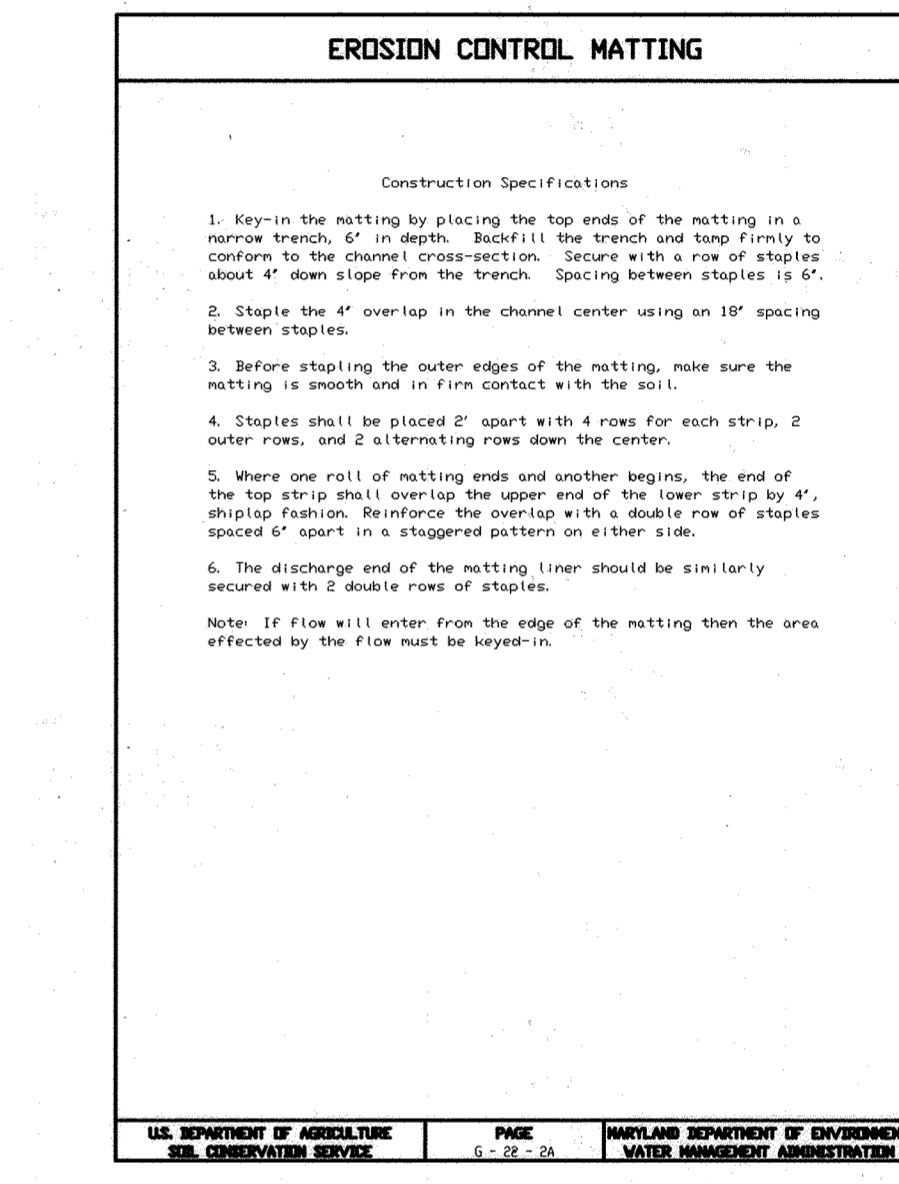
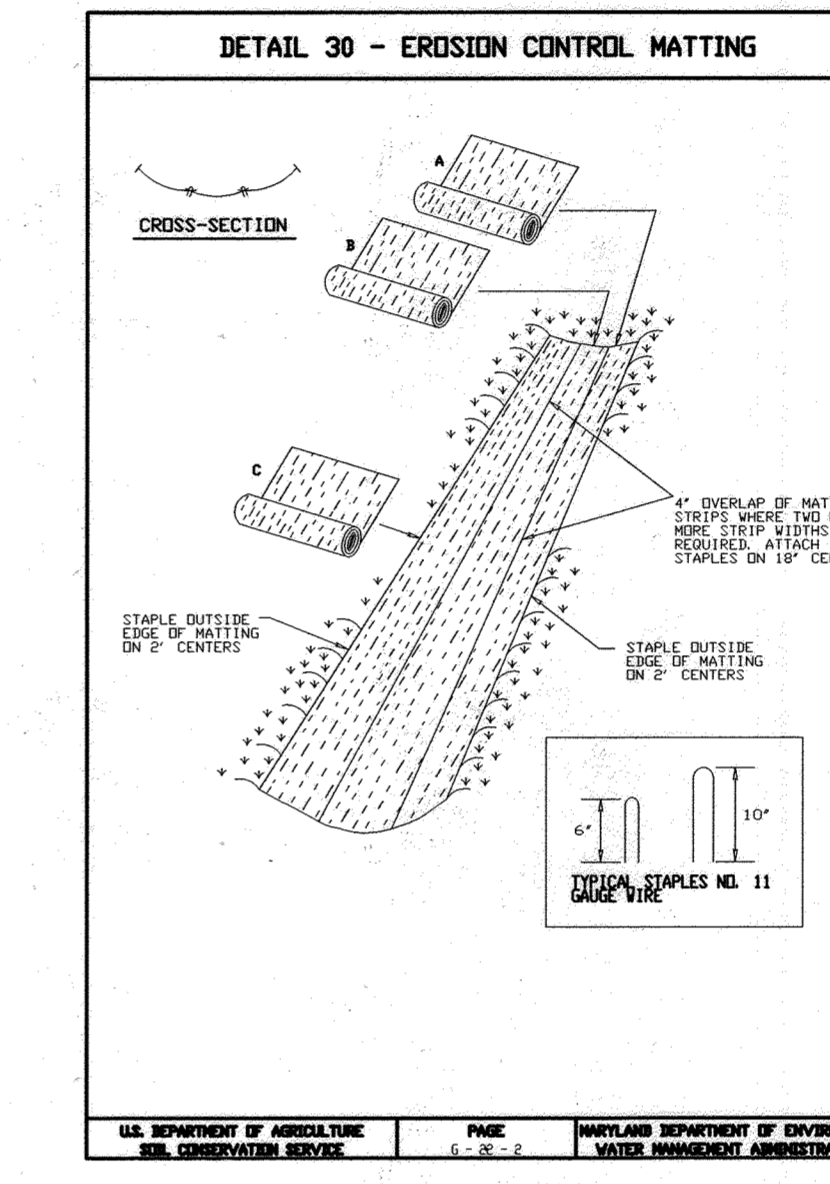
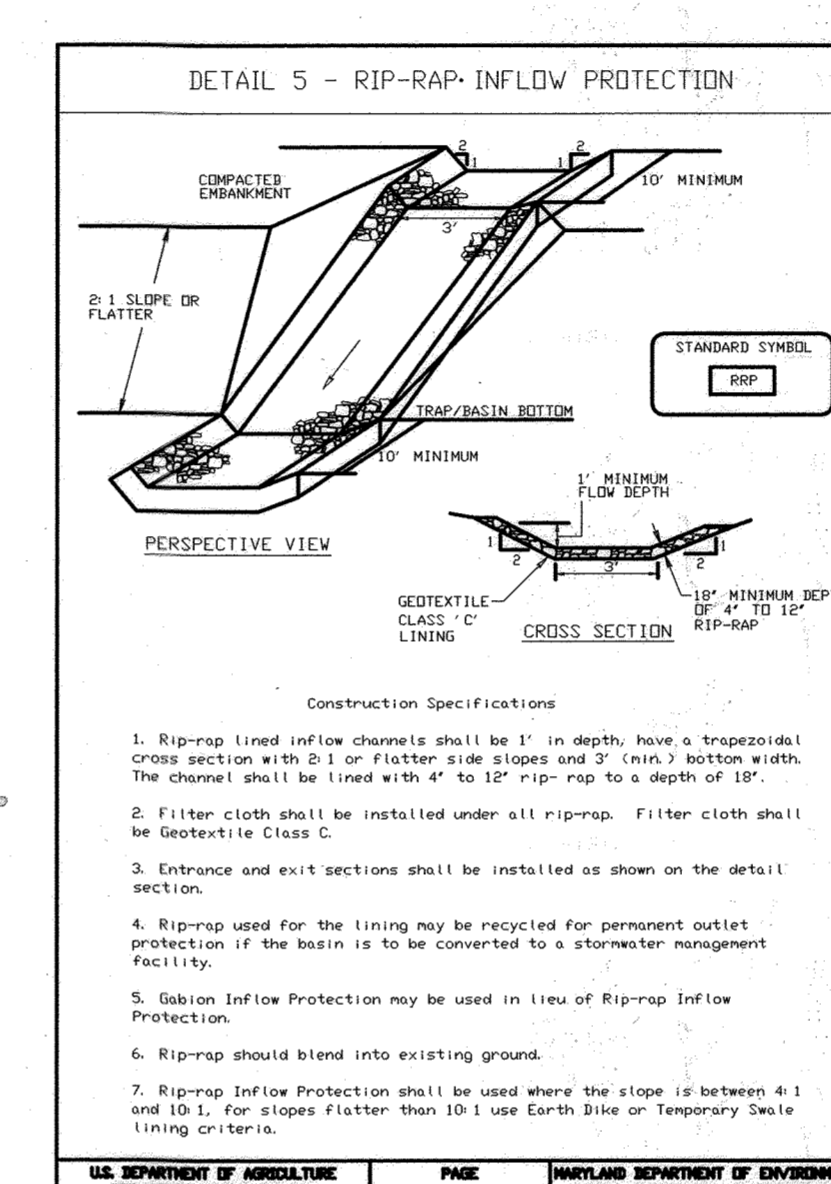
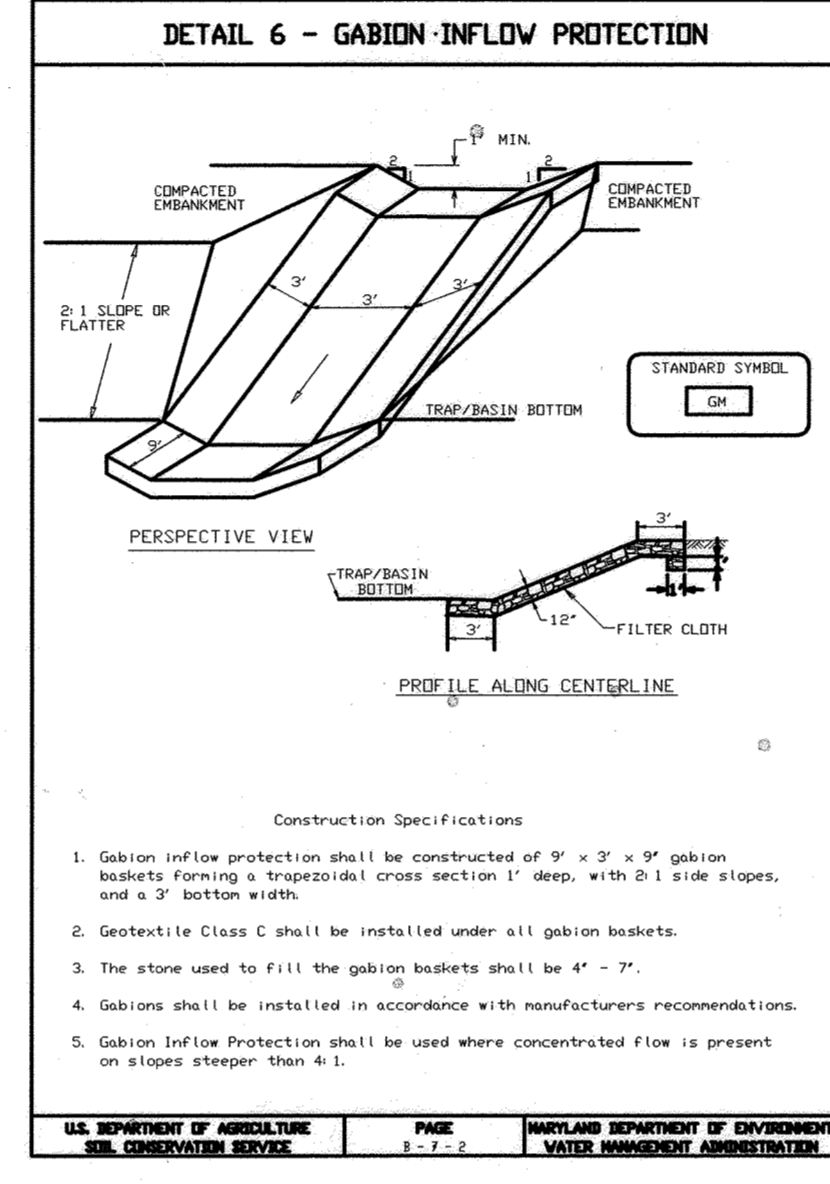
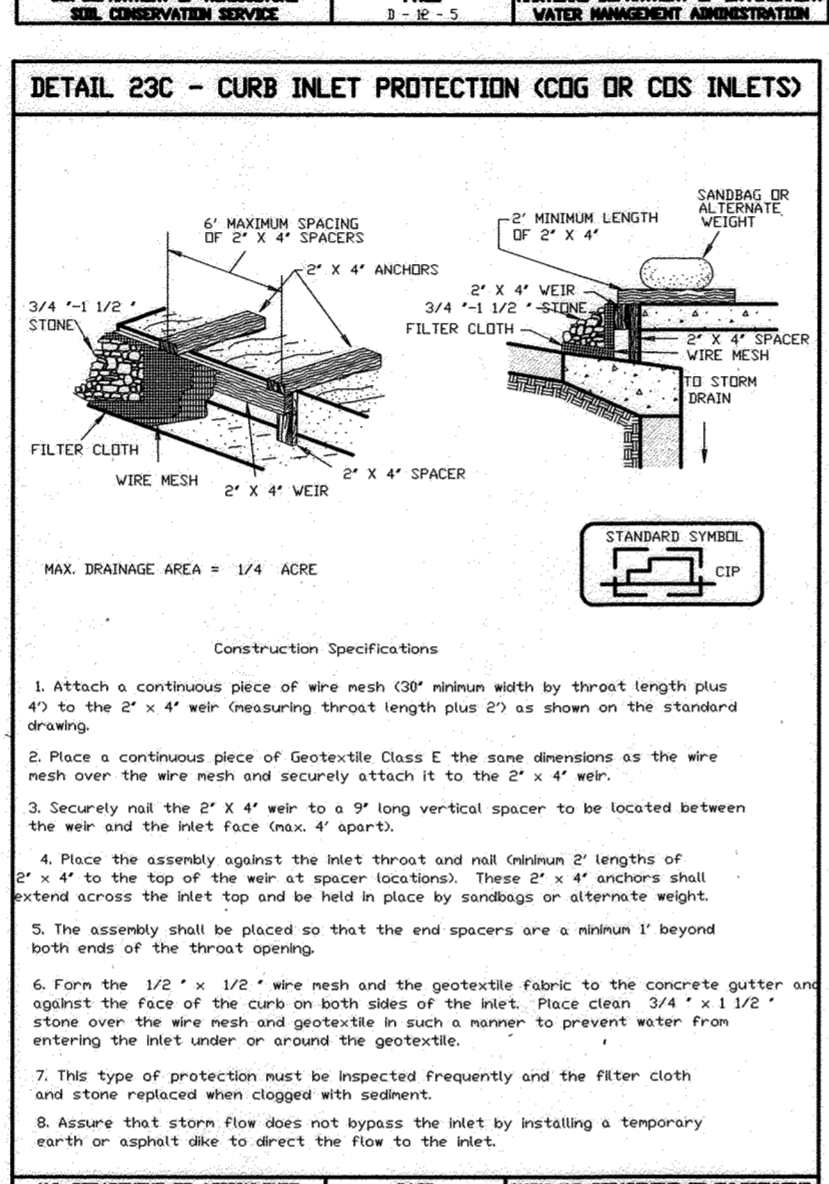
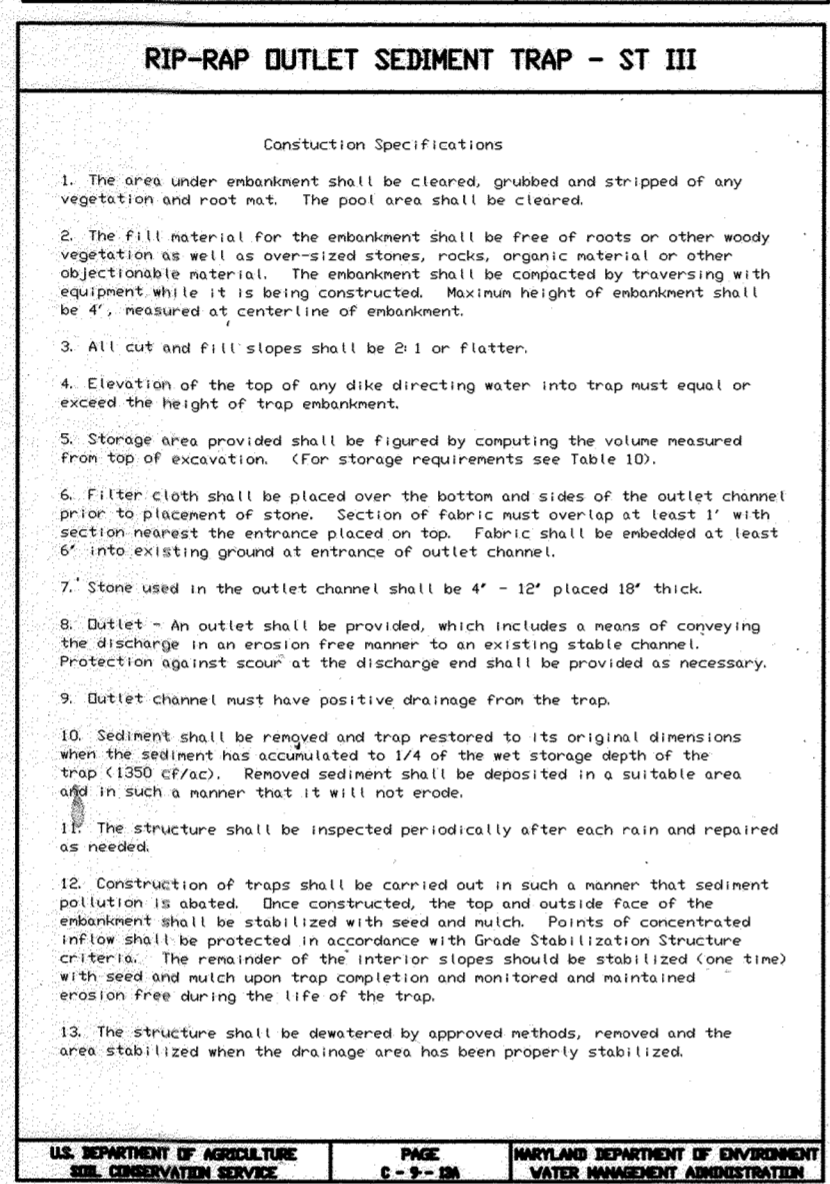
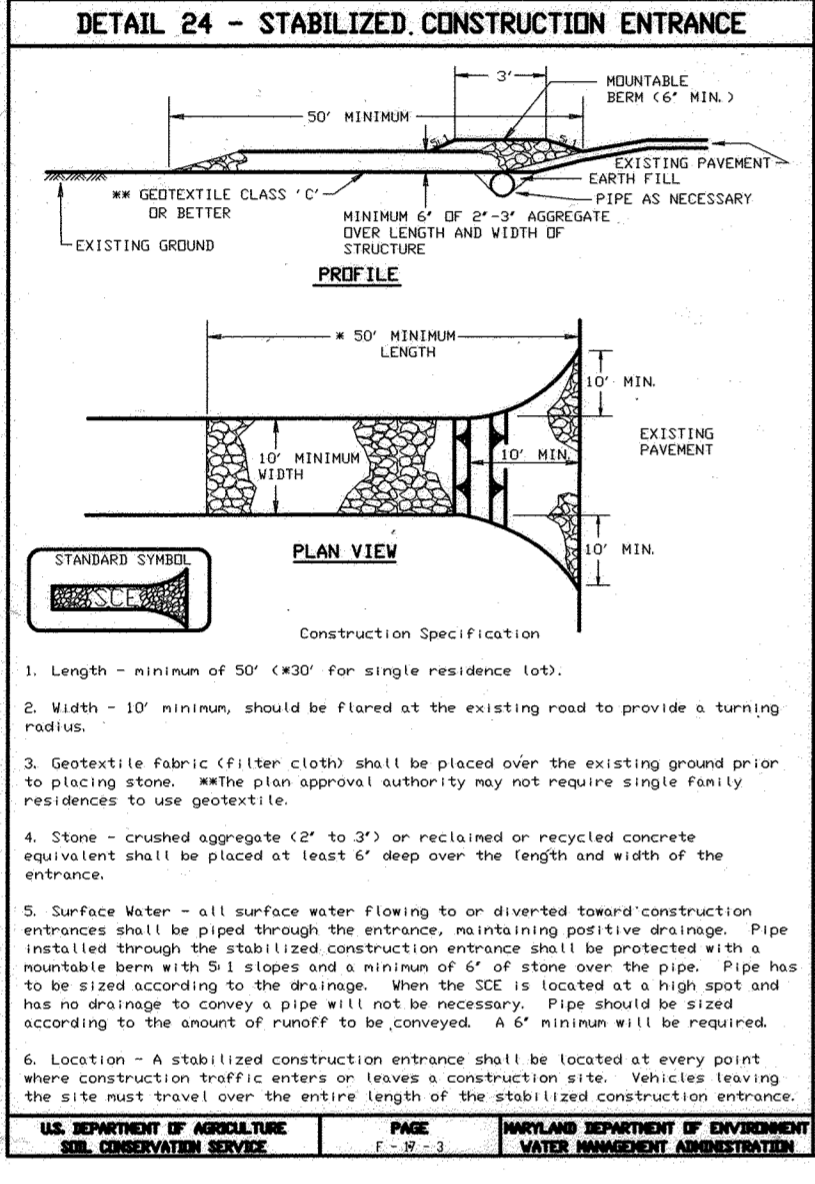
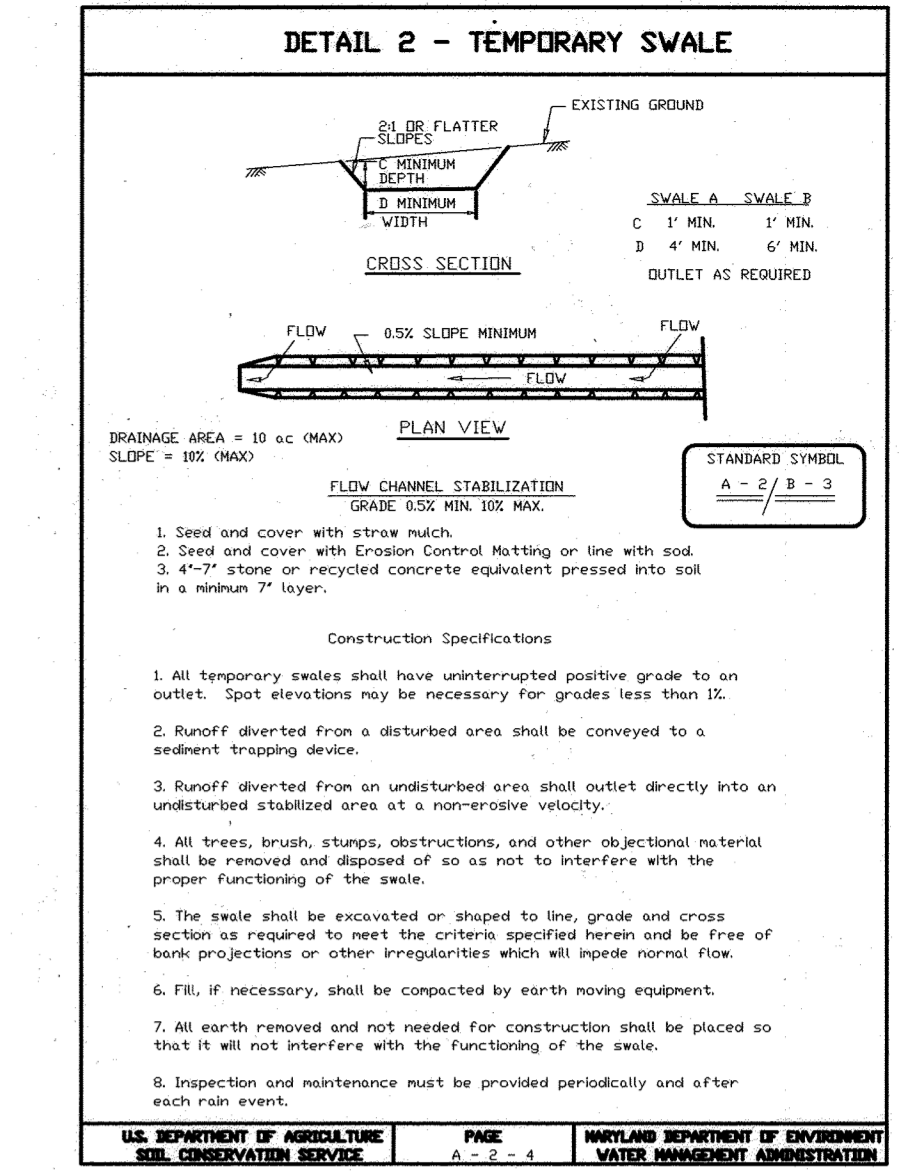
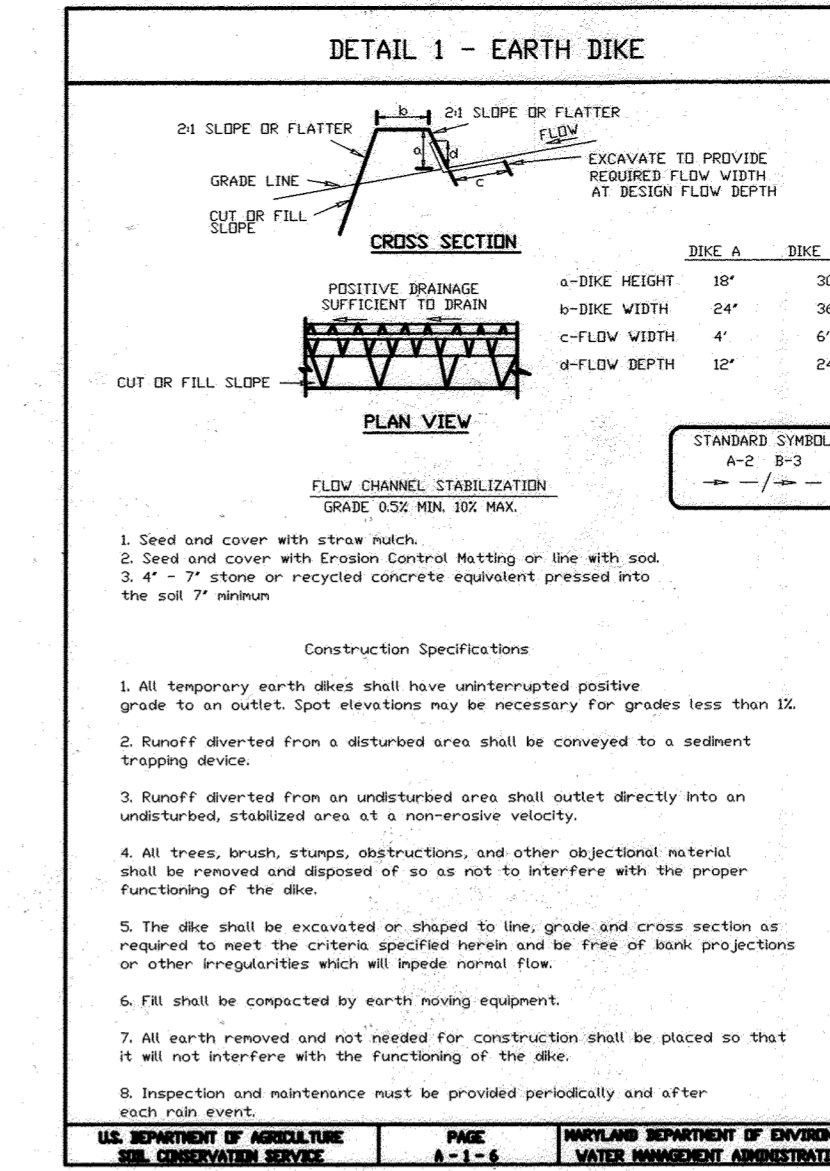
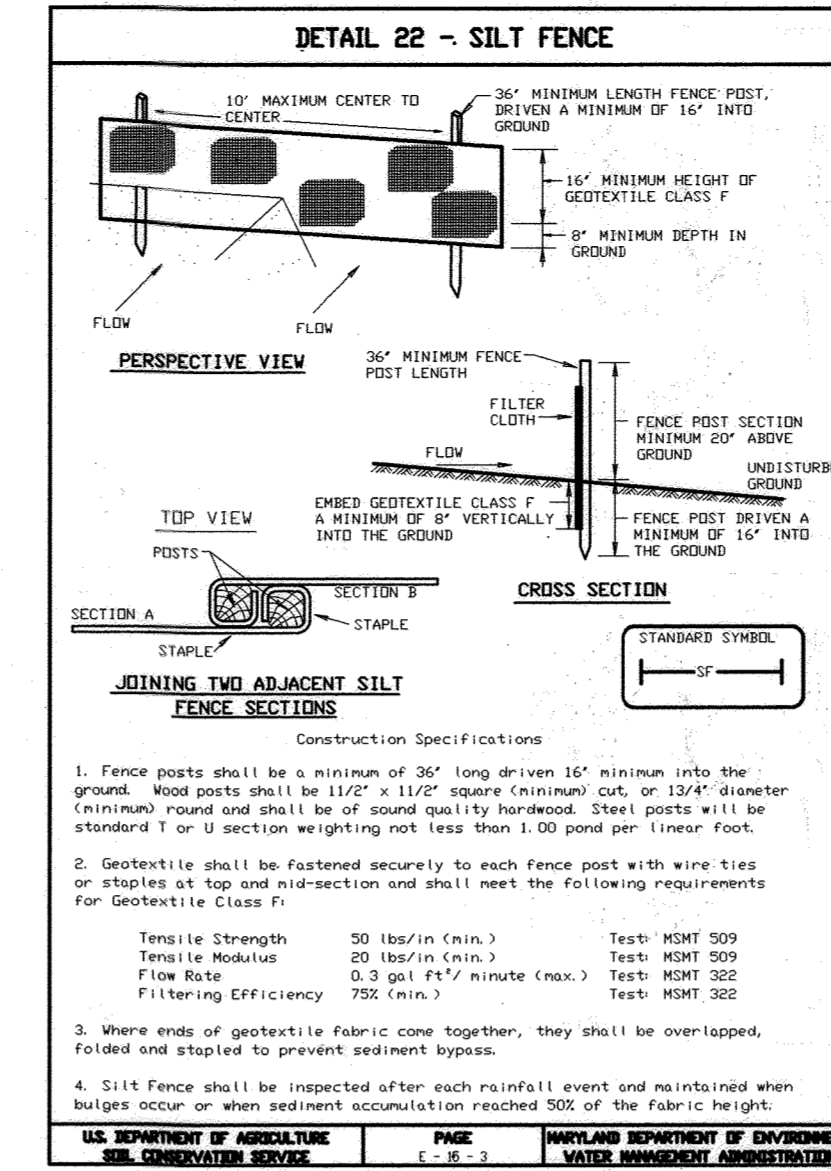
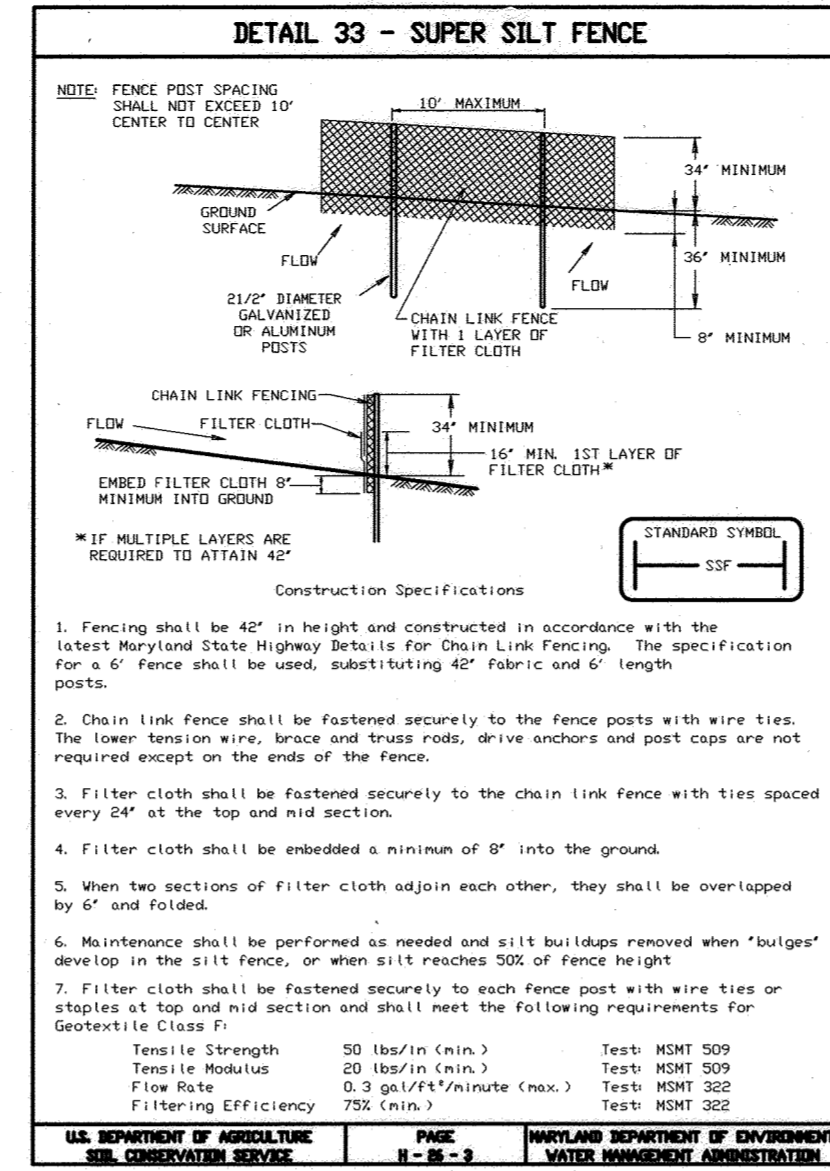
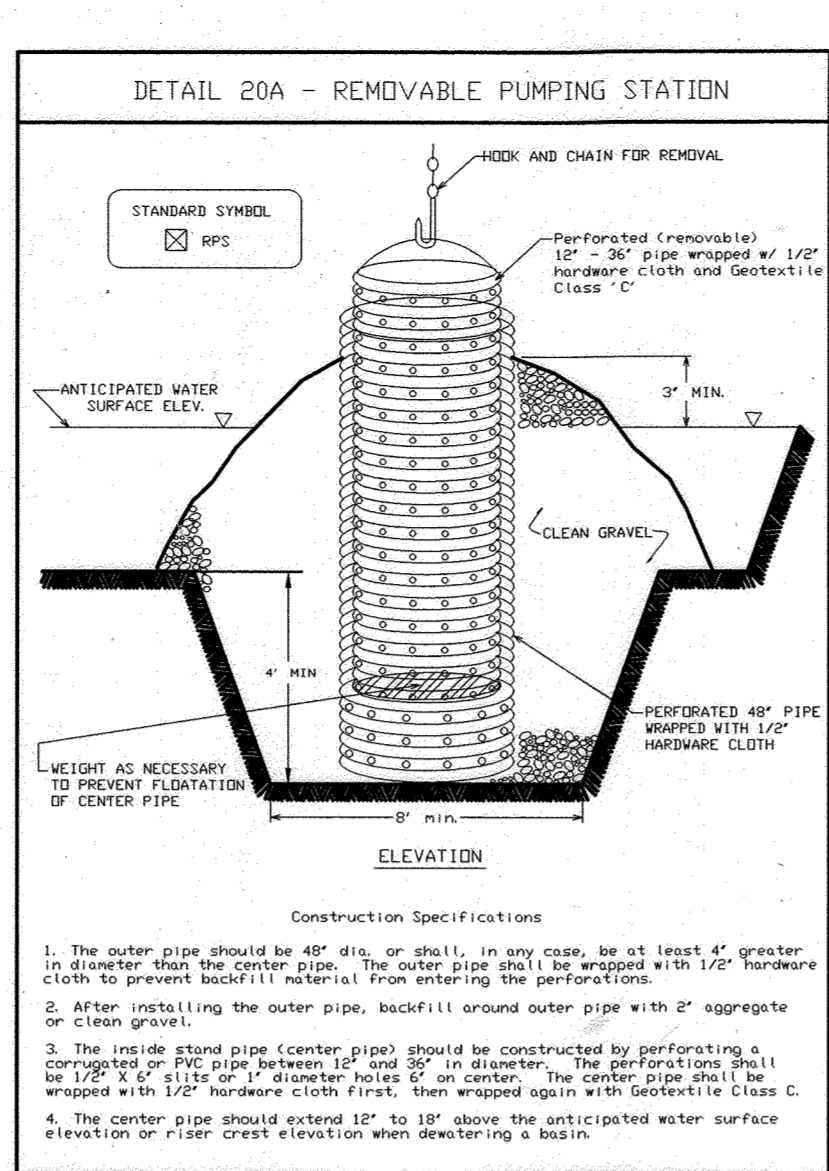
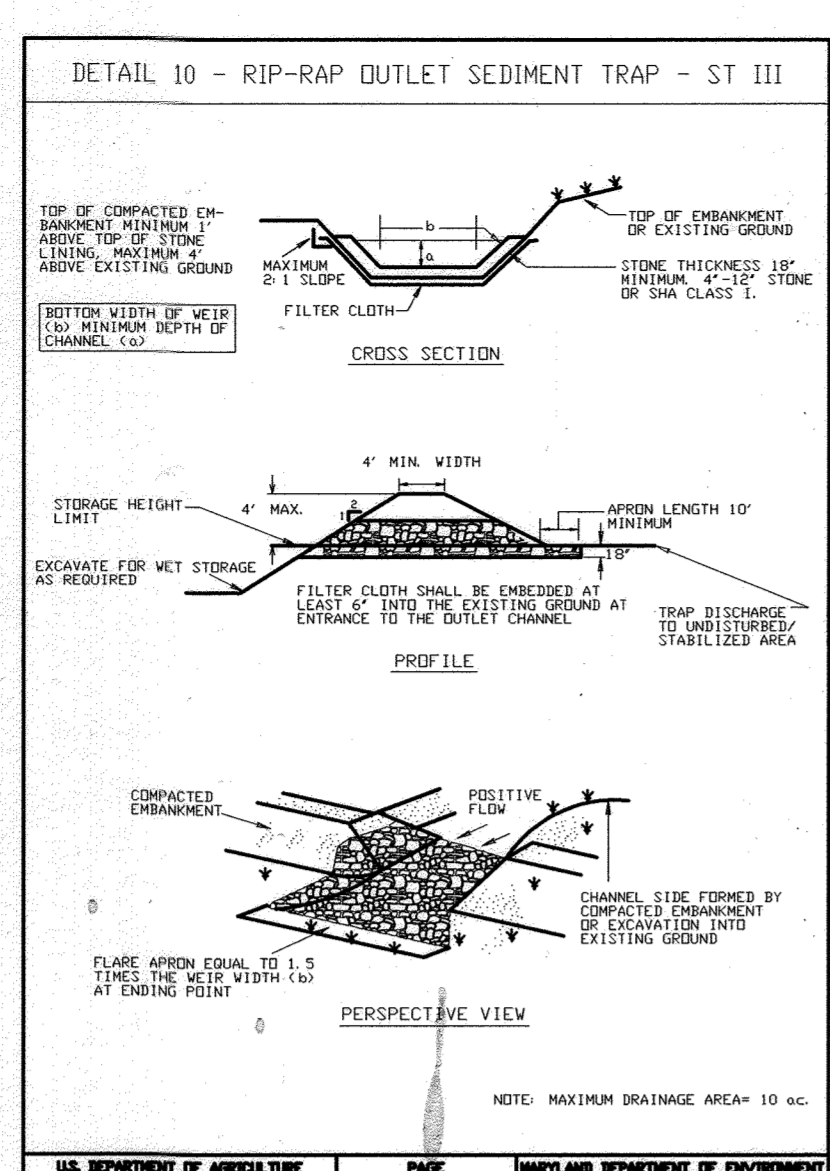
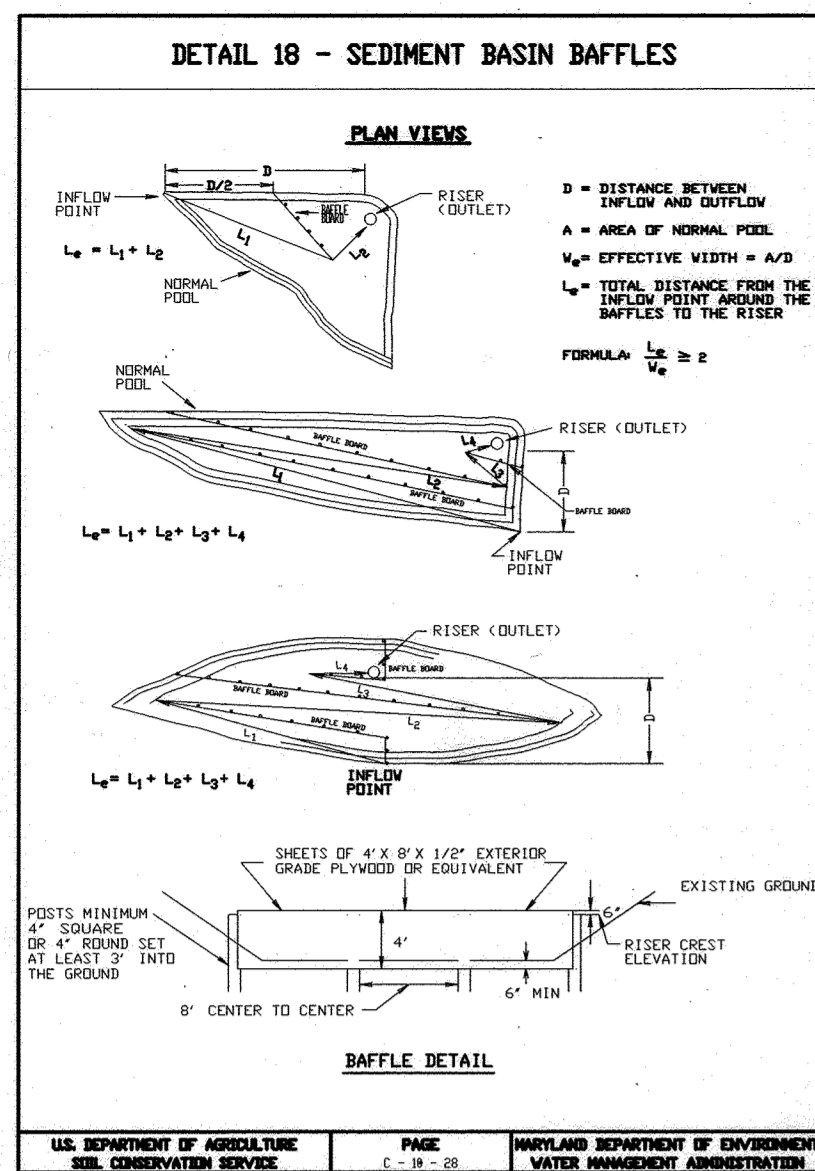
SEDIMENT CONTROL - BERM

STONE LAKE
LOTS 45 THRU 118
PLAT No.

SCALE 1"=50'	ZONING R-ED	G. L. W. FILE No. 99140
DATE DEC. 2001	TAX MAP - GRID 47 - 9/10	SHEET 17 OF 43

HOWARD COUNTY, MARYLAND

F-01-204



ENGINEER'S CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Michael J. Trapper 12/17/02 Date

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSDC.

Signature of Developer/Builder 4/11/02 Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Signature of District Engineer 4/20/02 Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development 5/3/02 Date

Chief, Development Engineering Division 5/3/02 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 LAND DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK

BURTONSVILLE, MARYLAND 20866

TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

NO.	REVISION	DATE	BY	APP'R.

PREPARED FOR:

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION

10275 LITTLE PATENT PARKWAY

COLUMBIA, MD 21044

PH: 410-992-5089

ATTN: MR. BOB JENKINS

SEDIMENT CONTROL DETAILS

STONE LAKE

LOTS 45THRU 118

PLAT No.

ELECTION DISTRICT No. 6

SCALE AS SHOWN

ZONING R-ED

G. L. W. FILE No. 99140

DATE DEC, 2001

TAX MAP - GRID 47 - 9/10

SHEET 18 OF 43

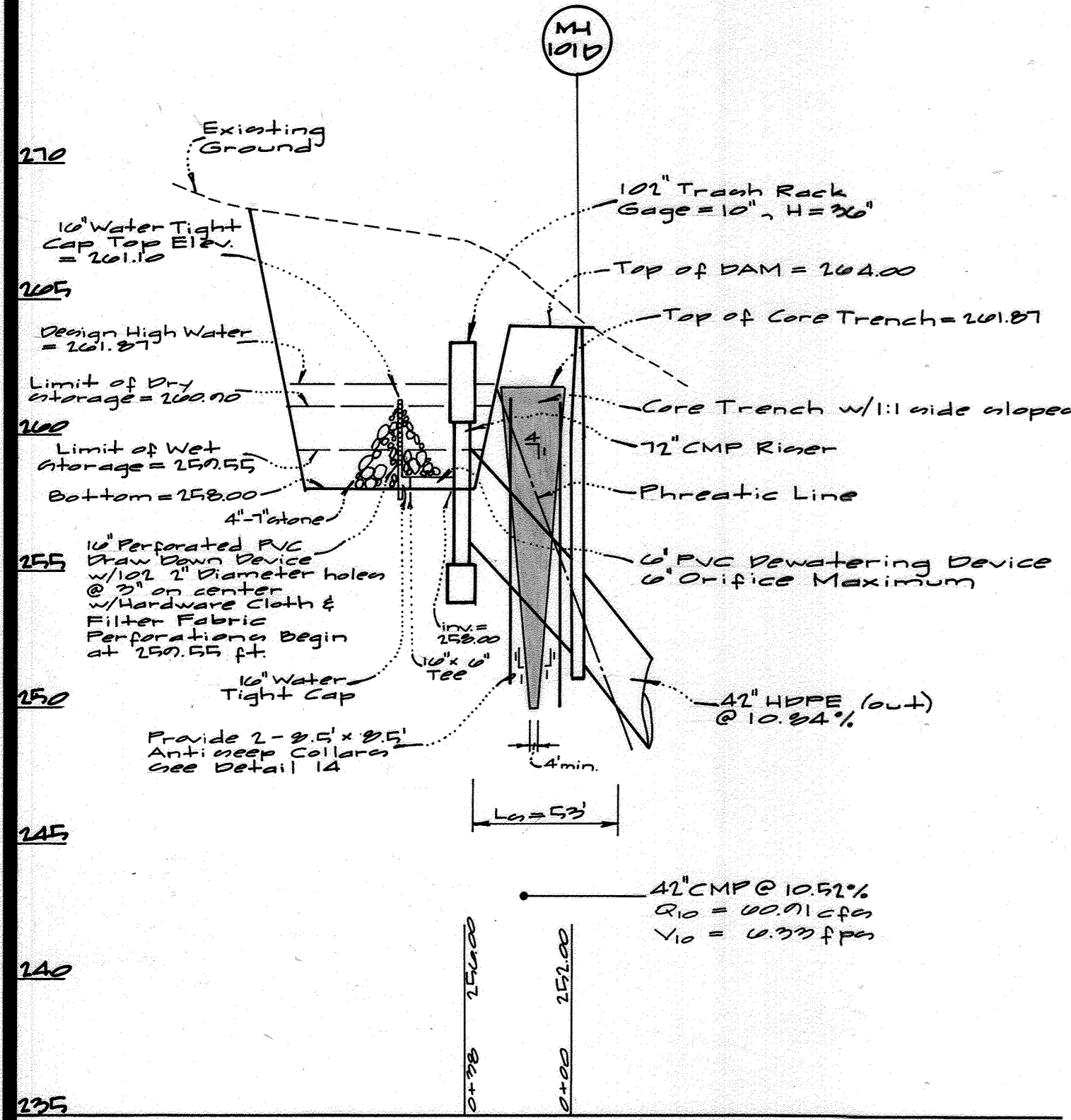
99140 DESIGN 99140S001.DWG

DESIGNER DRN

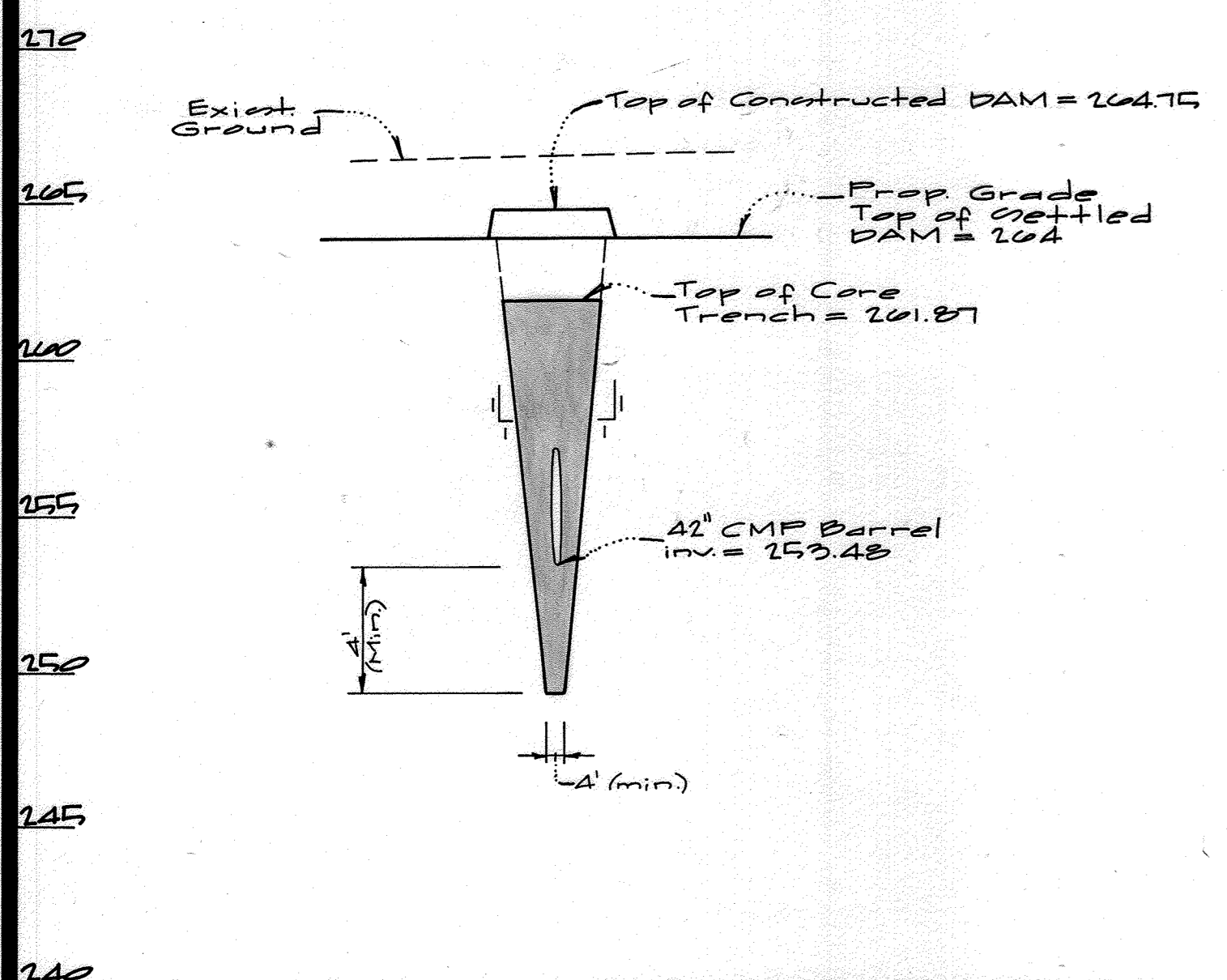
CHK

DATE

F-01-204



Sediment Basin #1
 Section Thru Principal Spillway
 scales: 1" = 5' Horiz.
 1" = 5' Vert.



Sediment Basin #1
 Profile Along Dam
 scales: 1" = 5' Horiz.
 1" = 5' Vert.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 5/3/02

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 5/3/02

Chief, Development Engineering Division

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 Michael J. Truppen
 ENGINEER'S CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Michael J. Truppen
 Date: 4/11/02

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD.

Signature of Developer/Builder: [Signature]
 Date: 4/11/02

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Signature: [Signature]
 Date: 4/11/02

Natural Resources Conservation Service
 Date: 4/11/02

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 PH: 410-992-6089
 ATTN: MR. BOB JENKINS

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DESIGN: DRN, WCE, CHK, ROT. DATE: REVISION: BY: APPR.

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients to be scavenged for by the vegetation.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil Survey published by USDA - SCS in cooperation with Maryland Agricultural Experiment Station.
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by a agronomist or soil scientist and approved by the appropriate authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clivers, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results detailing fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 331-1880
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 52), temporary seedings (Sec. 53) and mulching (Sec. 54). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	69.8 Acres
Area Disturbed	27.1 Acres
Area to be roofed or paved	2.5 Acres
Area to be vegetatively stabilized	24.8 Acres
Total Cut	280,000 Cu. Yds.
Total Fill	280,000 Cu. Yds.

 Off-site waste/borrow area location:
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Tranches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day whenever is shorter.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
- Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: Apply 800 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs./1000 sq ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs./1000 sq ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 216 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rates and methods not covered.

PERMANENT SEEDING NOTES

- Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).
- Soil Amendments: In lieu of soil test recommendations, use one of the following schedules
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 33-0-0 urea-form fertilizer (9 lbs/1000 sq ft).
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
- Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 216 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

Sequence of Construction

- Obtain grading permit and arrange on-site pre-construction meeting with the Sediment Control Inspector (1 day)
- Install stabilized construction entrance, and install water diversion ditch adjacent to Forest Ridge Elementary School along the Southern boundary
- Begin construction of Sediment Basin 1 and sediment Trap 3A. Install outlet storm drain structures to MH-101 D. Grade, construct, and stabilize the area between RS-100E and MH-102E, followed by a closure of the super silt fence along the 254 contour above MH-101E. Expose no more trench for utility construction than which can be installed, backfilled and permanently stabilized in one day. Stock pile excavated material on the up hill side of the trench as appropriate (1 week).
- Complete construction of the sediment basin and trap and install necessary earth dikes and temporary swales as indicated on the plans. Install temporary 18-inch HDPE (temporary) at station 2+40 in Deep Water Lane.
 Install the two 24-inch HDPE diversion pipes permanent) for construction of the berm adjacent to Gorman Road. Connect the end of the existing 24-inch CMP to the end of the south 24-inch HDPE with a temporary water tight connection (clean water diversion). Install silt fence and super silt fence (1 week).
- After permission is granted by the inspector, clear and grade the site (1 month).
 For the areas around the perimeter of the lake: The grading of the slopes shall be accomplished in such a manner as to minimize the run-off of sediment laden material into the lake. The operation shall proceed around the perimeter of the lake in a progressive manner such that no more than one acre of disturbed area is exposed to the elements before top soil is re-spread and seeding and mulching commences. This operation shall continue uninterrupted until all slopes are stabilized with seed and mulch.
- Install remaining storm drain (1 month).
- Install curb and gutter and base pave (2 months).
- Stabilize site with grass seed and mulch (1 week).
- When areas draining to sediment controls have been stabilized and permission is granted by the Sediment Control Inspector, remove and backfill the sediment basin and trap and remove all remaining sediment controls. Disconnect the existing 24-inch CMP and the 24-inch HDPE and remove back to the low point. Remove temporary diversion into the basin and complete the storm drain construction. (2 weeks)
- Install landscaping and surface course pave the roadway (1 week).

SEDIMENT BASIN

Construction Specifications

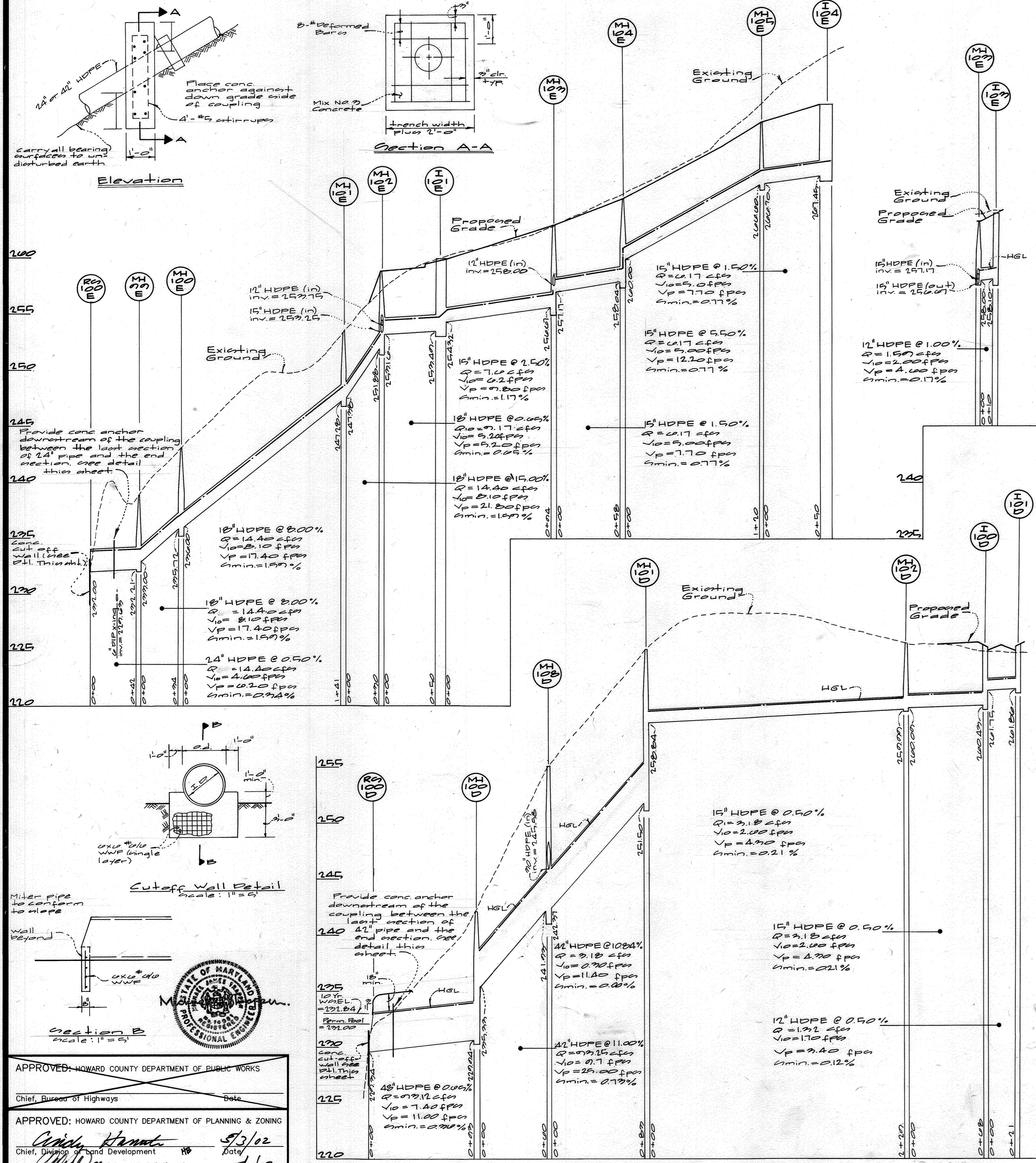
- Site Preparation:** Perimeter sediment control devices must be installed prior to clearing and grubbing. Areas where the embankment is to be placed shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. The pool area shall not be cleared until completion of the dam embankment unless the pool area is to be used for borrow. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) shall be cleared of all brush, trees, and other objectionable materials.
- Cut-off Trench:** A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be four feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be two feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for the embankment. The trench shall be dewatered during the backfilling-compaction operations. For dewatering see Section D.
- Embankment:** The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) or organic materials (Unified Soil Classes OL and OH) shall not be placed in the embankment. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed in six-inch to eight-inch thick continuous lifts over the entire length of the fill. Compaction shall be obtained by routing and hauling the construction equipment over the fill so that the entire surface of each layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.
- Principal Spillway:** Steel risers shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. Concrete risers shall be poured with the principal spillway in place or precast with voids around the principal spillway filled with concrete or shrink proof grout for watertight connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. The barrel and riser shall be placed on a firm, smooth foundation of impervious soil as the embankment is constructed. Breaching the embankment to install the barrel is unacceptable. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the pipe spillway shall be placed in four inch lifts and hand compacted under and around the pipe to at least the same density as the adjacent embankment. A depth of 1.5 times the pipe diameter (min.) shall be backfilled over the principal spillway and hand compacted before crossing it with construction equipment.
- Emergency Spillway:** The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of ± 0.2 feet.
- Vegetative Treatment:** Stabilize the embankment in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon basin completion and monitored and maintained erosion free during the life of the basin.
- Safety:** Local requirements concerning fencing and signs shall be met, warning the public of hazards of soft sediment and floodwater.
- Maintenance:** Repair all damage caused by soil erosion and construction equipment at or before the end of each working day. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser as shown on the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain. Disposal areas must be stabilized.
- Final Disposal:** When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed and safely disposed of and the basin shall be backfilled with a structural fill. When the basin area is to remain open space, the pool may be pumped dry (using methods in Section D - Dewatering), graded, and back filled.
- Conversion to Stormwater Management Structure:** After permanent stabilization of all disturbed contributory drainage areas, temporary sediment basins, if initially built and certified to meet permanent standards, may be converted to permanent stormwater management structures. To convert the basin from temporary to permanent use, the outlet structure must be modified in accordance with approved stormwater management design plans. Additional grading may also be necessary to provide the required storage volume in the basin. Conversion can only take place after all disturbed areas have been permanently stabilized to the satisfaction of the inspection authority and storm drains have been flushed.

SEDIMENT CONTROL DETAILS & NOTES

STONE LAKE
 LOTS 45 THRU 118
 PLAT No.

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
DATE	TAX MAP - GRID	SHEET
DEC., 2001	47-9/10	19 OF 43

HOWARD COUNTY, MARYLAND



PIPE SUMMARY

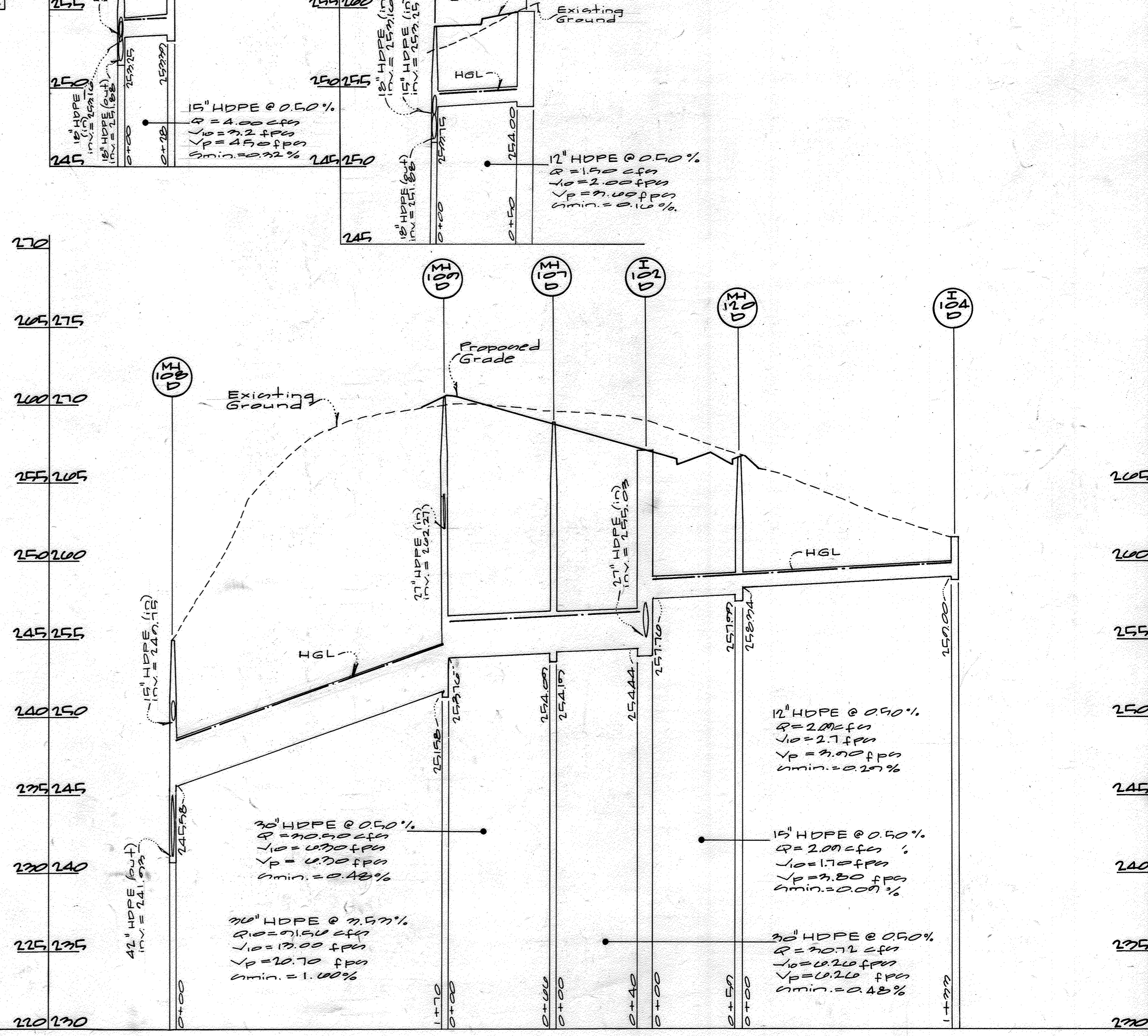
SIZE	TYPE	LENGTH (ft)
12"	HDPE	218
15"	"	733
18"	"	255
24"	"	42
30"	"	170
36"	"	100
42"	"	143
48"	"	93

STRUCTURE SCHEDULE

NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
R100E	24" HDPE End Sect	2'-0"	234.00		232.00	232.00		See Plan	Service Rd
M100E	4" Std Precast	4'-0"	242.50		239.00	239.21	G. 5.12		
M101E	"	"	247.00		242.00	236.72	G. 5.12		
M102E	"	"	252.50		247.00	247.28	G. 5.12		
M103E	"	"	258.00		252.00	251.88	G. 5.12	± 8+51 Left 15.0'	Deep Water La
I101E	A-10 Inlet	10'-0"	240.00	239.00	234.92	234.90	SD 4.41	± 8+51	10.0'
M103E	4" Std Precast	4'-0"	249.00		245.00	245.67	G. 5.12	± 9+57	11.0'
M104E	"	"	247.50		242.00	242.04	G. 5.12	± 10+10	17.0'
M105E	"	"	247.81		242.00	242.70	G. 5.12	± 11+27	13.0'
I104E	A-10 Inlet	10'-0"	247.00	239.00	247.45	247.45	SD 4.41	SEE PLAN	
I105E	Type 'B' Inlet	2'-7"	244.00		242.10	242.10	SD 4.39	± 9+57	Left 28.0'
I107E	A-10 Inlet	10'-0"	250.48	249.00	249.00	249.00	SD 4.41	± 8+57	Right 10.0'
I100E	A-10 Inlet	10'-0"	240.35	240.11	234.00	234.00	SD 4.41	± 7+45	Left 10.0'
R1000	48" HDPE End Sect	2'-0"			232.00	232.00		SEE PLAN	Weathered Stone Way
M1000	4" Std Precast	4'-0"	242.50		239.00	239.00	MSSHA 284.05		
M1000	"	"	245.00		241.75	241.75	MSSHA 284.05		
M1010	4" Std Precast	4'-0"	245.00		242.24	242.74	G. 5.12		
M1020	"	"	248.00		244.00	244.00	G. 5.12		Deep Water La
I1000	A-10 Inlet	10'-0"	245.00	244.75	240.75	240.75	SD 4.41	± 9+42	Left 10.0'
I1010	A-10 Inlet	10'-0"	245.00	244.75	240.75	240.75	SD 4.41	± 9+42	Right 10.0'
M1070	"	5'-0"	246.21		244.00	244.10	G. 5.12	± 10+17	17.0'
I1020	A-10 Inlet	10'-0"	247.00	247.70	244.44	244.44	SD 4.41	± 10+50	12.0'
M1000	4" Std Precast	4'-0"	246.71		242.24	242.70	G. 5.12	± 8+25	Right 17.0'
I1040	Type 'B' Inlet	2'-7"	241.50		240.00	240.00	SD 4.39	SEE PLAN	

Note: All HDPE pipe shall meet AASHTO M174 type 5 specifications of the latest edition.

Note: All stations are to centerline of structure. Offsets are to the face of the curb inlets and to the centerline for all other structures.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.
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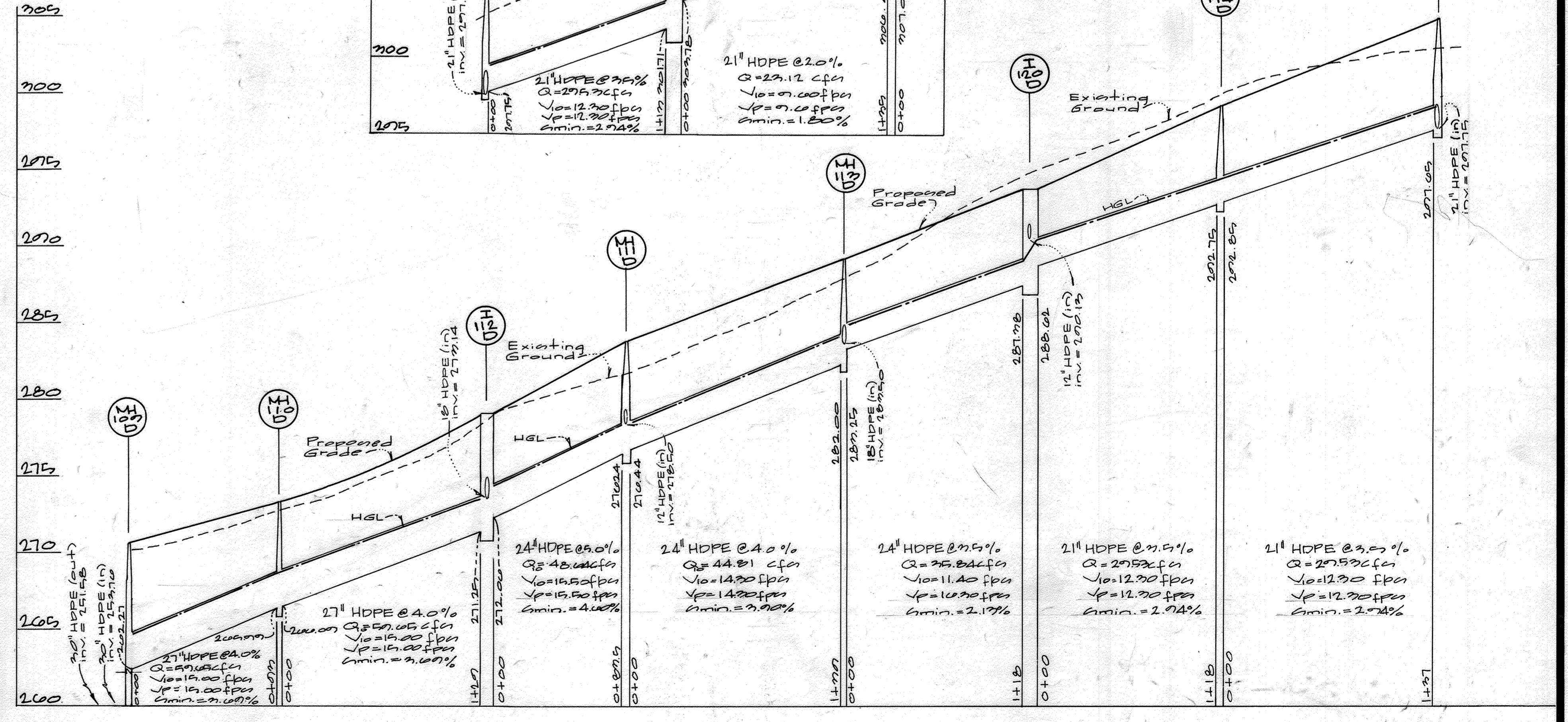
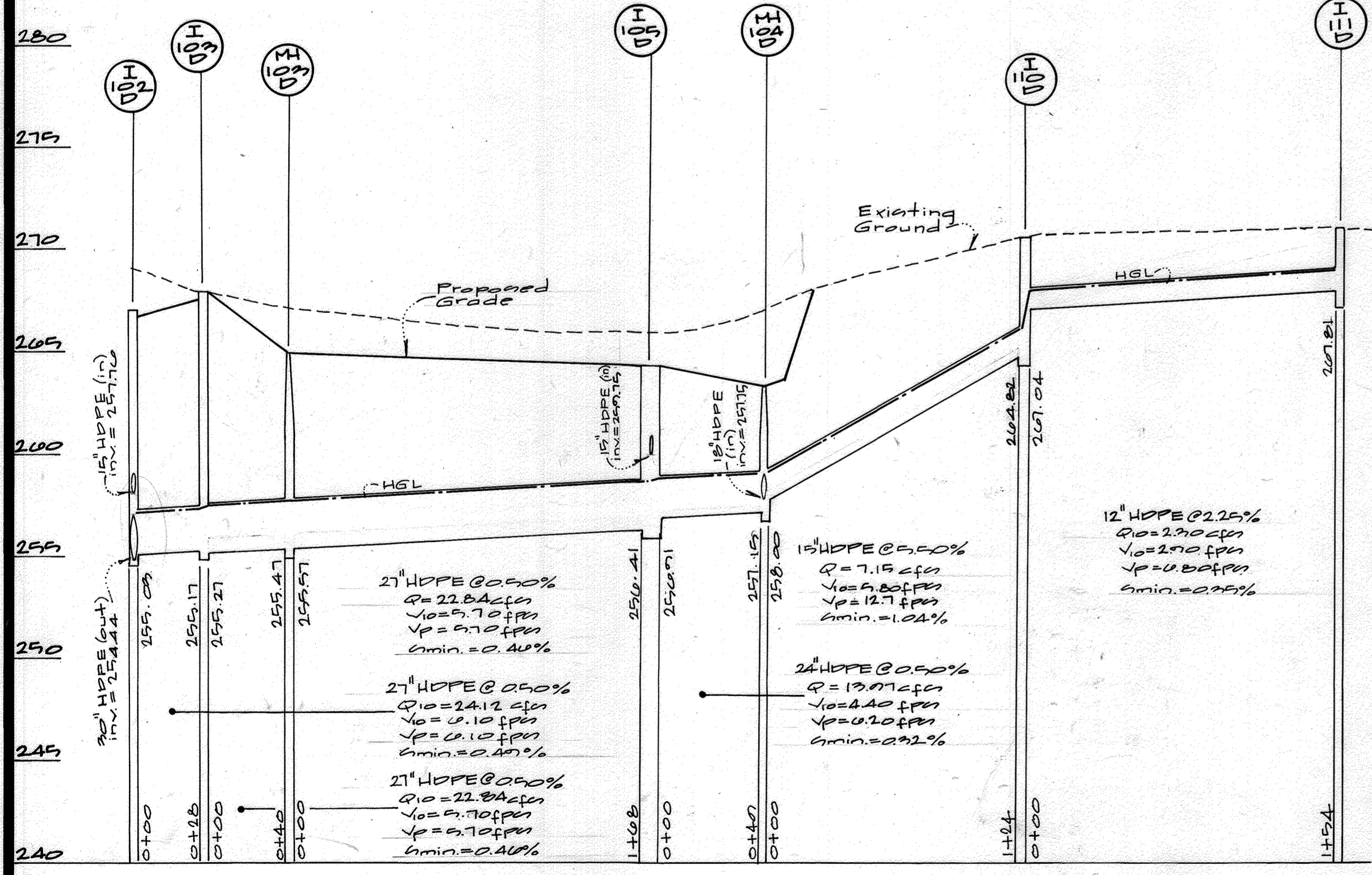
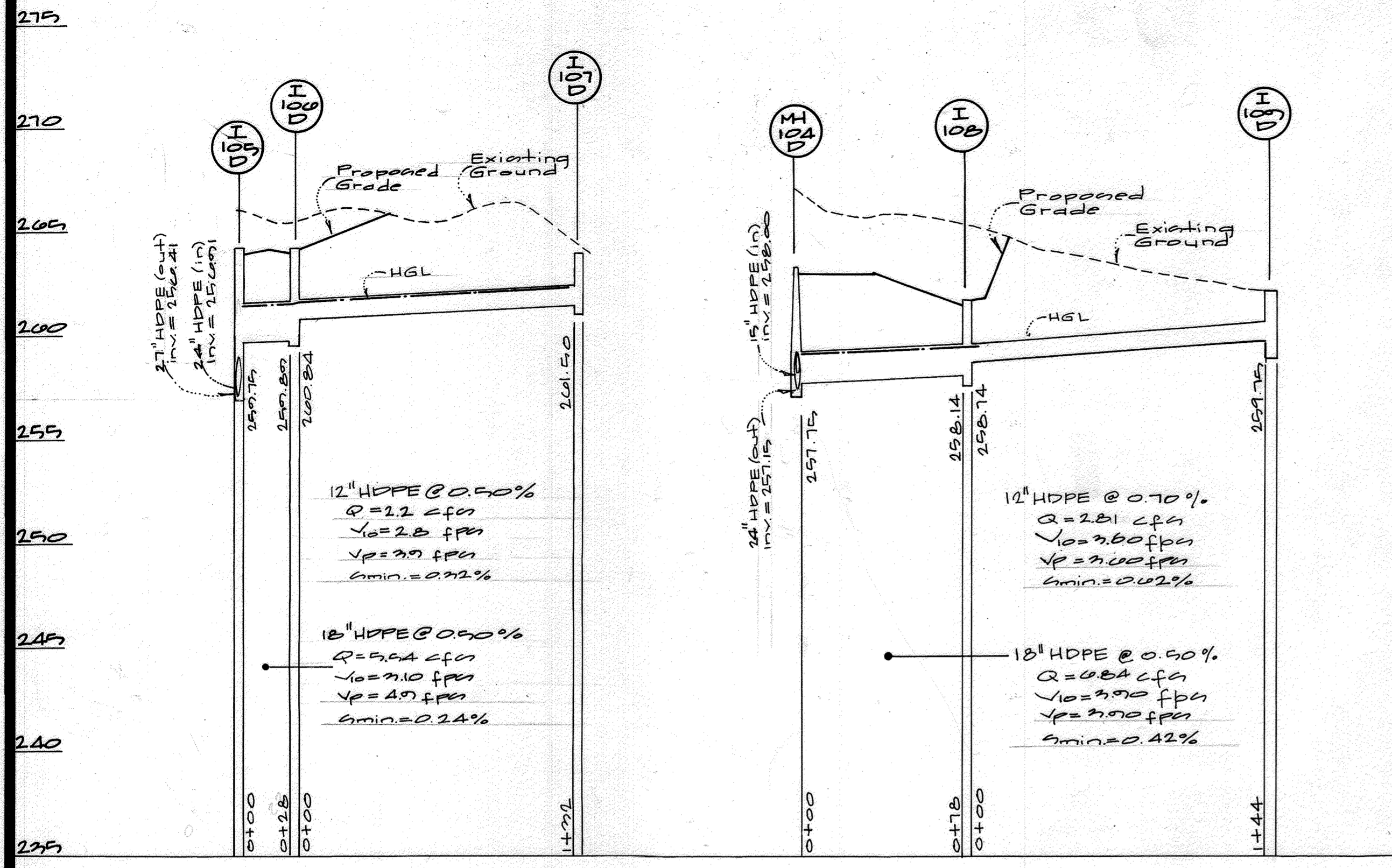
STORM DRAIN PROFILES & SCHEDULES

STONE LAKE
 LOTS 45 THRU 110
 PLAT No.

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
Date	Tax Map Grid	Sheet
Dec., 2001	47-9/10	20 OF 43



PIPE SUMMARY		
SIZE	TYPE	LENGTH (ft)
12"	HDPE	511
15"	HDPE	208
18"	HDPE	100
21"	HDPE	674
24"	HDPE	300
27"	HDPE	450

STRUCTURE SCHEDULE										
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS		REMARKS
			UPPER	LOWER	UPPER	LOWER				
I105D	A-10 Inlet	10'-0"	264.44	264.74	259.75	259.41	SD 4.41	E 2+25.00	Right 10.0'	River Glade Run
I106D	A-10 Inlet	10'-0"	264.44	264.74	259.75	259.41	"	E 2+25.00	Left 10.0'	"
I107D	Type 'D' Inlet	2'-7"	264.00	264.00	261.50	261.50	SD 4.200	See Plan		River Glade Run
M104D	4' Std. Precast	4'-0"	260.00	260.00	257.15	257.15	S 5.12	E 1+00.00	Right 28.0'	"
I110D	Type 'D' Inlet	2'-7"	270.00	270.00	267.00	267.00	SD 4.200	See Plan		"
I111D	Type 'D' Inlet	2'-7"	270.00	270.00	267.00	267.00	"	"	"	"
I108D	A-10 Inlet	10'-0"	261.20	261.20	258.74	258.74	SD 4.41	1+39.50		Linear Curb Profile
I109D	Type 'D' Inlet	2'-7"	261.00	261.00	259.75	259.75	SD 4.200	See Plan		"
M109D	4' Std. Precast	4'-0"	260.11	260.11	255.47	255.47	S 5.12	E 0+45.00	Right 19.0'	River Glade Run
I103D	A-10 Inlet	10'-0"	261.00	261.00	255.17	255.17	SD 4.41	E 10+50.00	Right 12.0'	Weathered Shale Key
M109D	5' Std. Precast	5'-0"	272.00	272.00	265.50	265.50	S 5.12	E 15+48.00	" 17.0'	"
M110D	5' Std. Precast	5'-0"	272.10	272.10	265.60	265.60	"	E 14+48.00	" 17.0'	"
I112D	A-10 Inlet	10'-0"	270.00	270.00	271.25	271.25	SD 4.41	E 13+10.00	" 12.0'	"
M111D	4' Std. Precast	4'-0"	269.00	269.00	270.24	270.24	S 5.12	E 12+04.00	" 17.0'	"
M112D	4' Std. Precast	4'-0"	269.00	269.00	270.24	270.24	"	E 10+41.00	" 17.0'	"
I113D	A-10 Inlet	10'-0"	269.18	269.18	267.72	267.72	SD 4.41	E 8+01.21	" 12.0'	"
M114D	4' Std. Precast	4'-0"	269.00	269.00	267.75	267.75	S 5.12	E 8+07.00	" 17.0'	"
M115D	4' Std. Precast	4'-0"	269.00	269.00	267.75	267.75	"	E 6+01.00	" 17.0'	"
I114D	A-10 Inlet	10'-0"	268.00	268.00	267.17	267.17	SD 4.41	E 5+41.31	" 12.0'	"
M117D	4' Std. Precast	4'-0"	274.42	274.42	268.50	268.50	S 5.12	E 7+07.00	" 17.0'	"
M118D	4' Std. Precast	4'-0"	272.18	272.18	268.45	268.45	"	E 7+00.00	" 17.0'	"
M119D	4' Std. Precast	4'-0"	272.10	272.10	268.00	268.00	"	E 1+00.00	" 17.0'	"
I120D	Type 'D' Inlet	2'-0"	270.50	270.50	267.74	267.74	SD 4.200	See Plan		"

Note:
All elevations are to centerline of structure. Offsets are to the face of the curb inlets and to the centerline for all other structures.

Note:
All HDPE pipe shall meet AASHTO M 274 type S specifications of the latest edition.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cindy Hamlett
Chief, Division of Land Development
Date: 5/3/04

Chief, Development Engineering Division
Date: 5/3/04



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

STORM DRAIN PROFILES & SCHEDULES
STONE LAKE
LOTS 45 THRU 118
PLAT No.

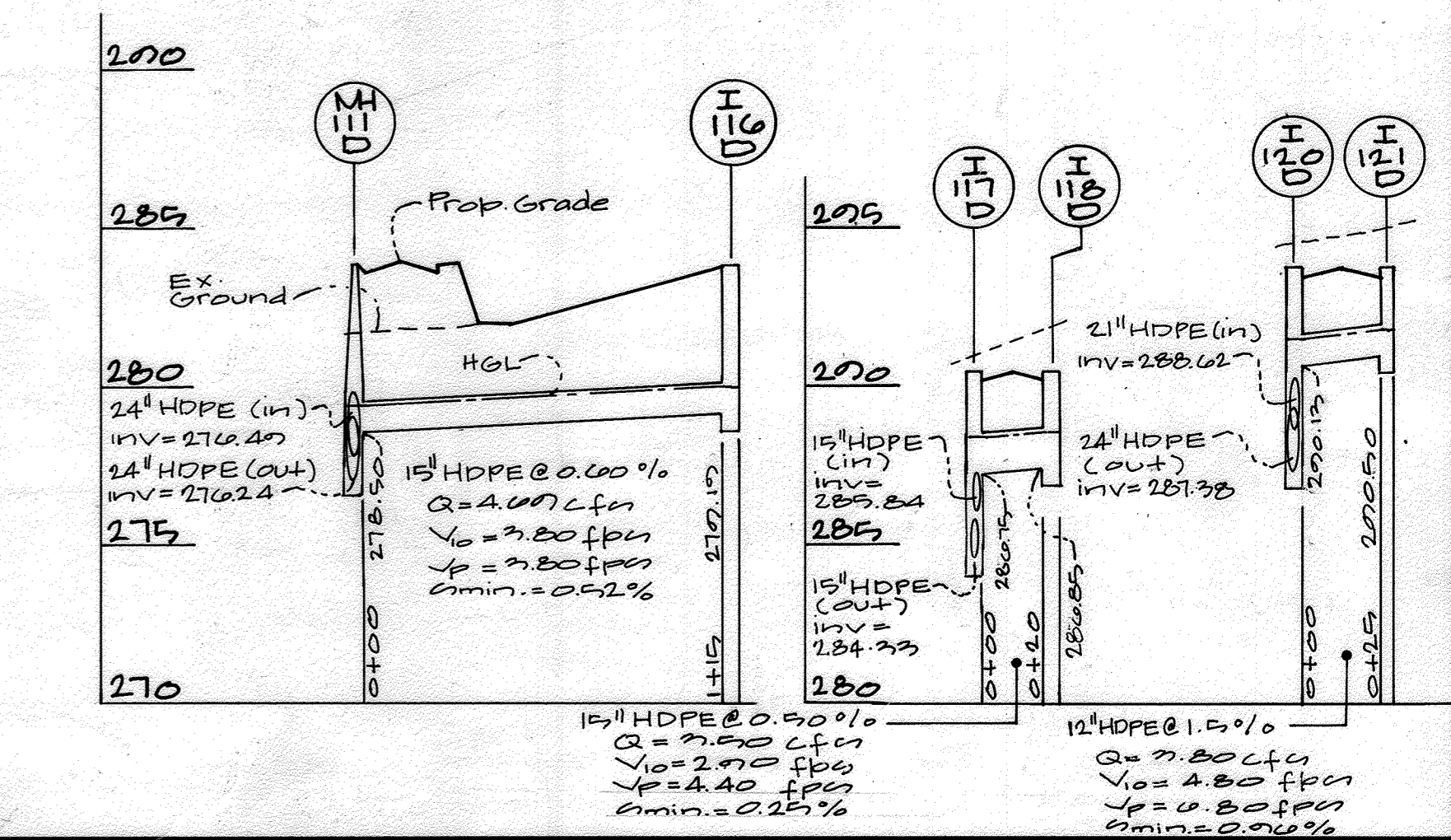
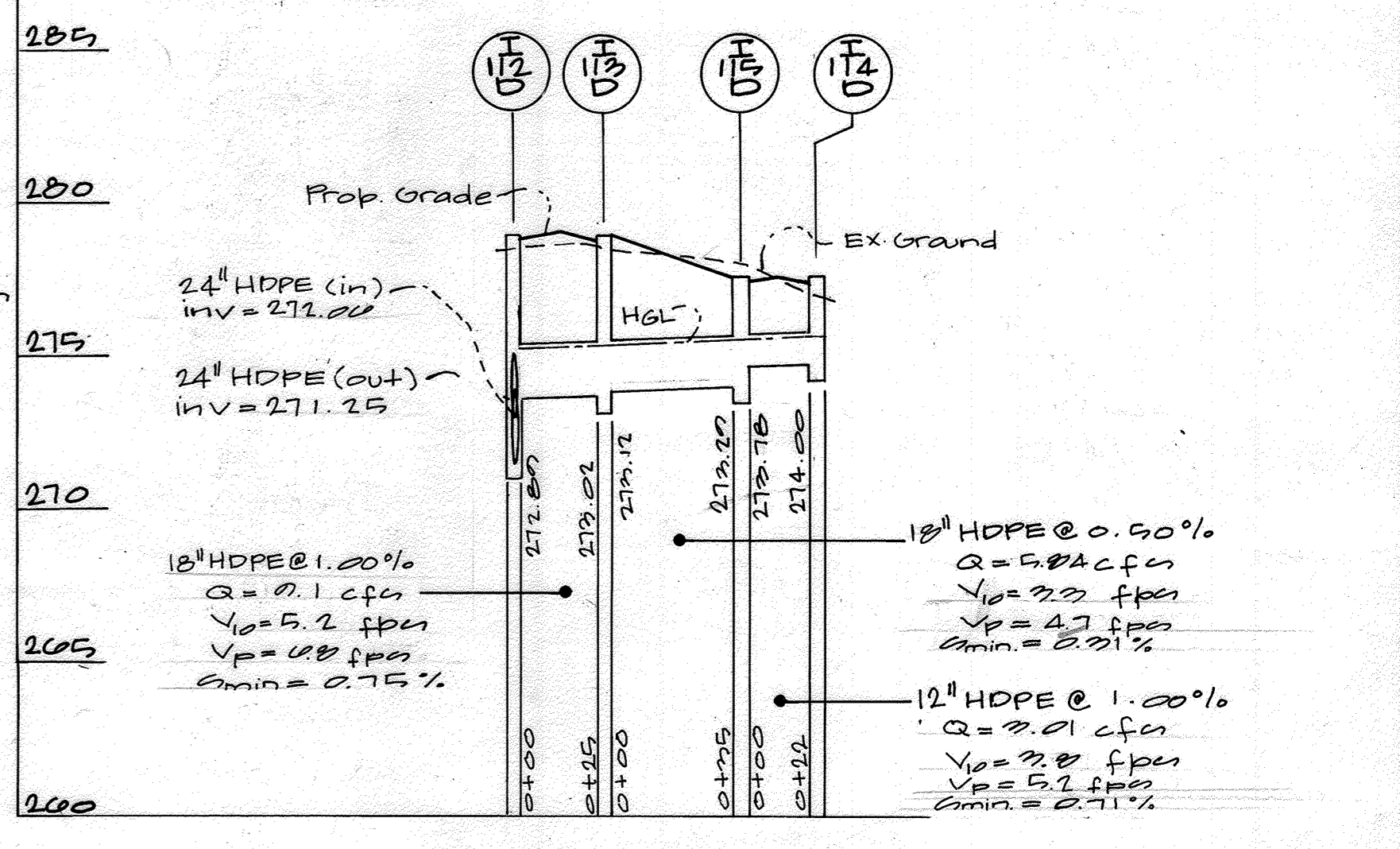
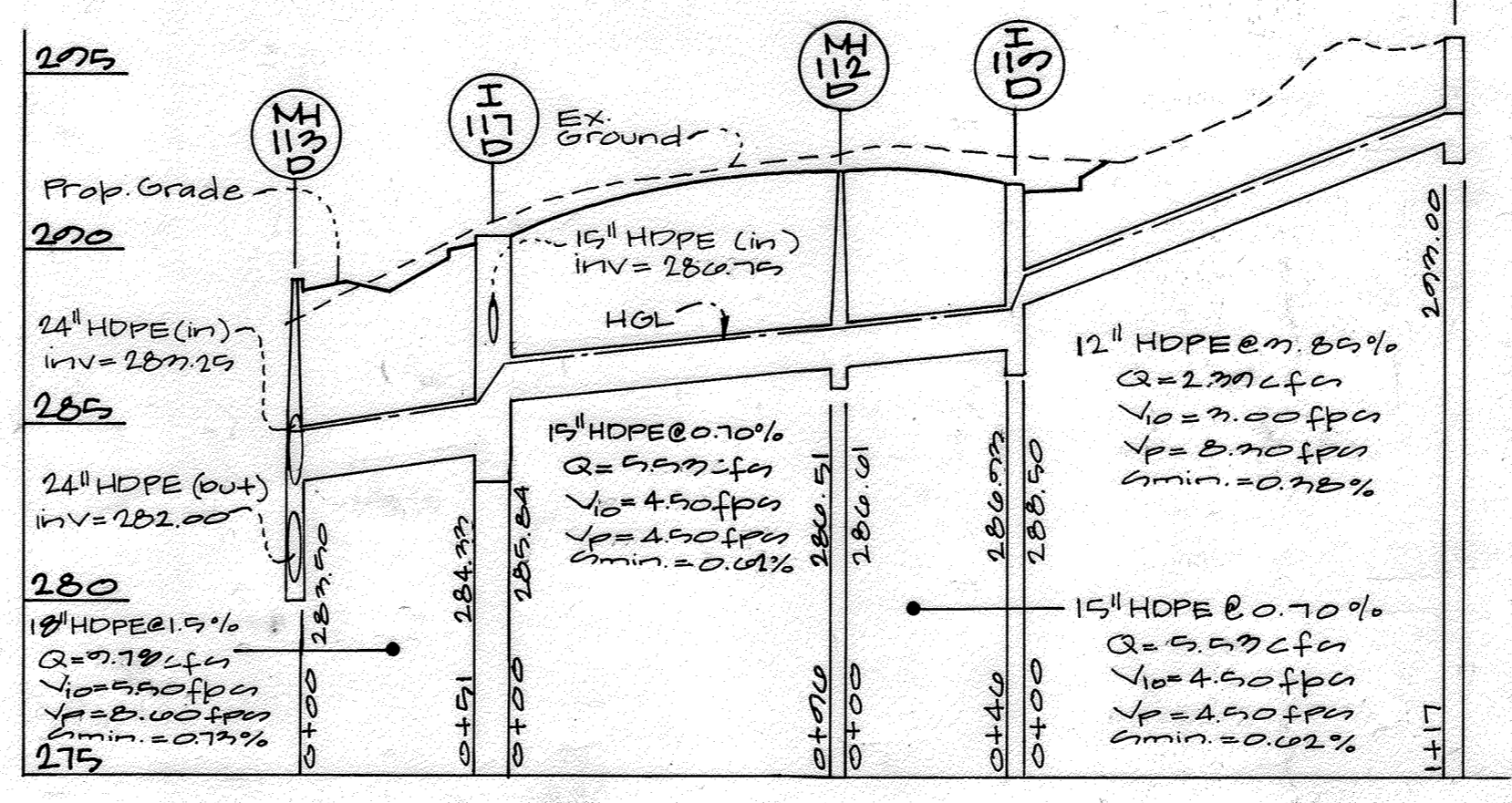
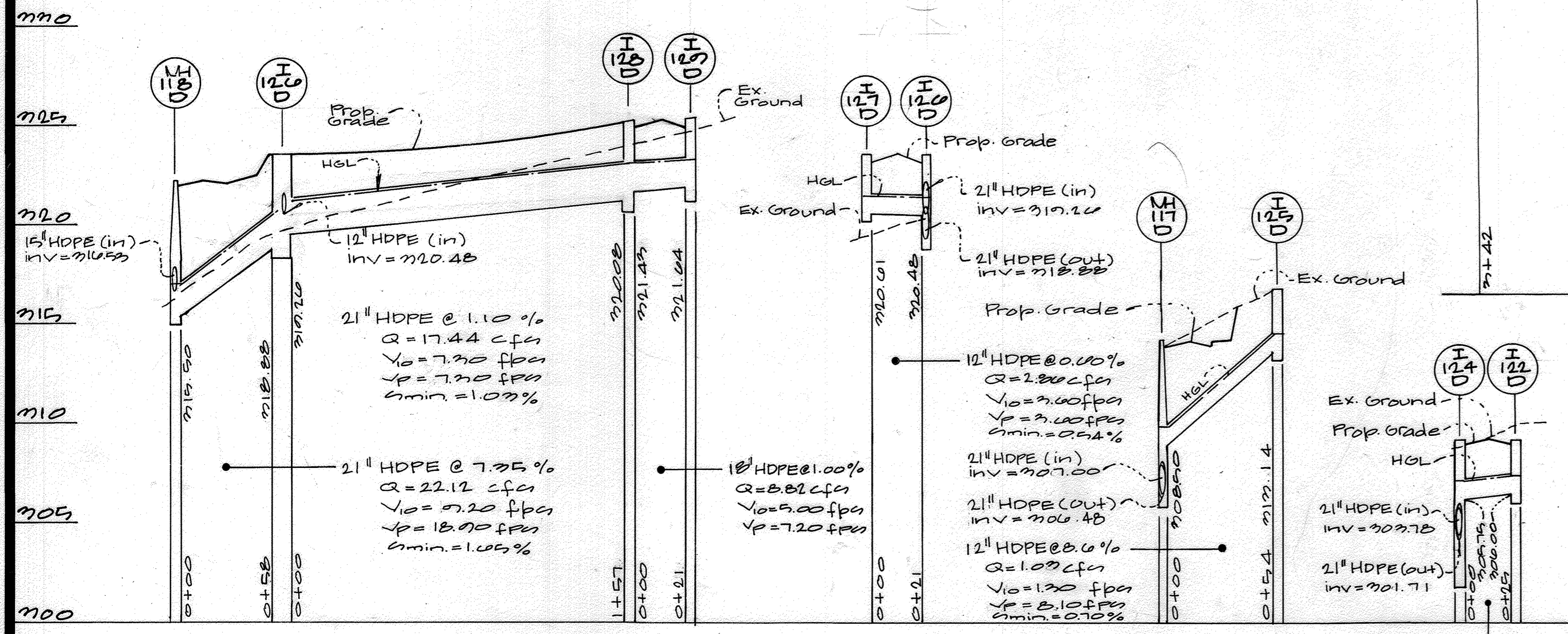
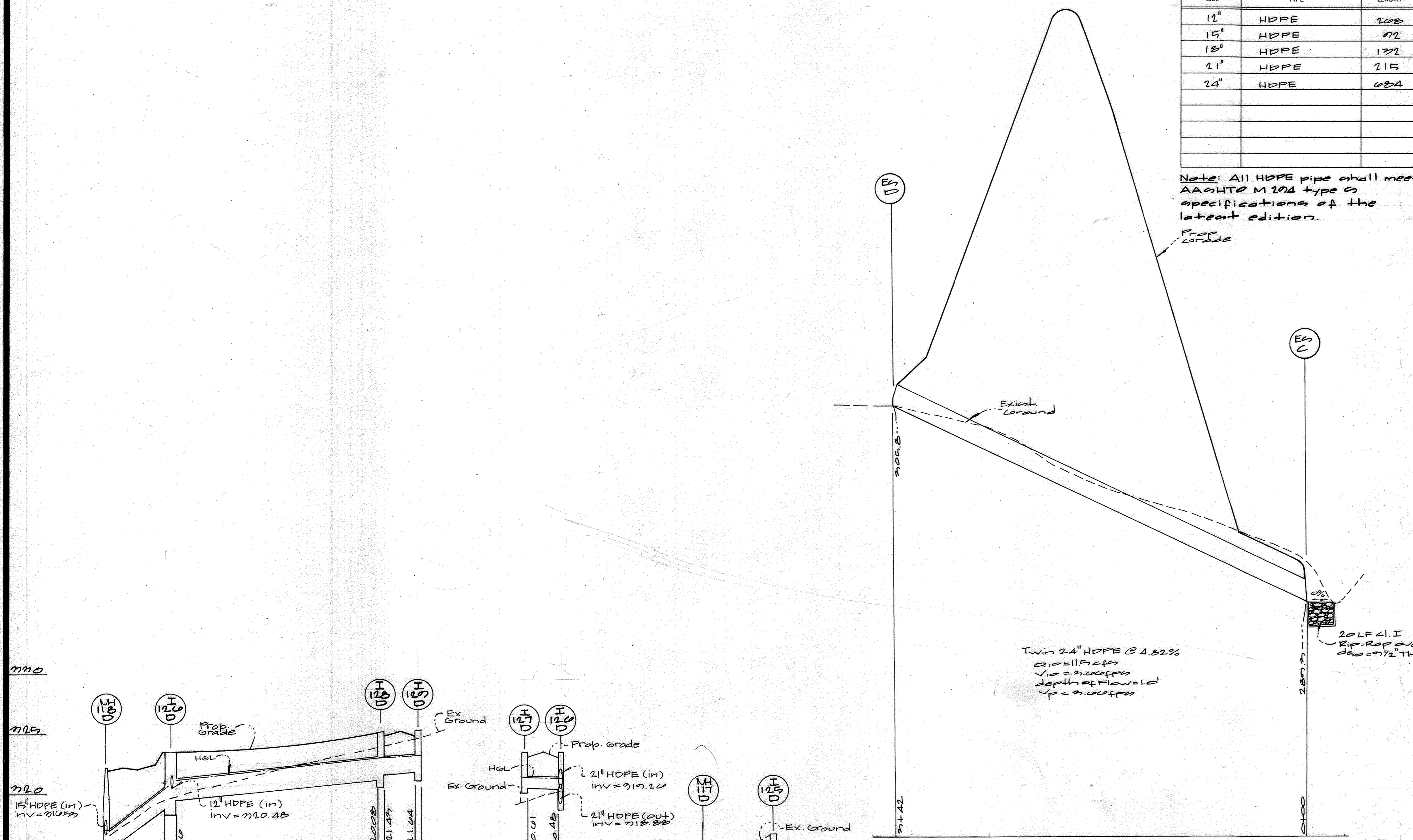
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
Date: Dec, 2001	Tax Map Grid: 47-9/10	Sheet: 21 OF 43

PIPE SUMMARY		
SIZE	TYPE	LENGTH
12"	HDPE	108
15"	HDPE	72
18"	HDPE	132
21"	HDPE	215
24"	HDPE	684

STRUCTURE SCHEDULE									
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
I 126 D	A-10 Inlet	10'-0"	212.40	212.20	212.20	212.20	SD 4.41	E 0+485.0 L. 100'	Weathered Stone Wall
I 128 D	"	10'-0"	215.18	215.08	214.97	214.97	SD 4.41	E 2+12.43 L. 100'	
I 129 D	"	10'-0"	215.18	215.08	terminal	211.64	SD 4.41	E 2+12.43 L. 100'	
I 127 D	"	10'-0"	213.40	213.20	terminal	212.01	SD 4.41	E 0+485.0 R. 100'	
I 125 D	Type 'D' Inlet	2'-7"	216.80	yard	terminal	212.14	SD 4.370	3+00 R. 420'	Weathered Stone Wall
I 122 D	A-10 Inlet	10'-0"	216.00	215.72	terminal	212.00	SD 4.41	E 5+413.4 R. 12.0'	
I 117 D	A-10 Inlet	10'-0"	220.0	219.75	219.75	219.75	SD 4.41	E 0+430.0 L. 100'	Stone Landing Bath
I 118 D	"	10'-0"	220.0	219.75	terminal	218.85	SD 4.41	E 0+430.0 R. 100'	
I 119 D	"	10'-0"	220.0	219.75	terminal	218.85	SD 4.41	E 2+10 L. 100'	
M 112 D	4' Std. Precast	4'-0"	222.41	—	220.01	216.51	S. 5.12	E 1+51 L. 150'	
I 122 D	Type 'D' Inlet	2'-7"	225.50	yard	terminal	219.00	SD 4.370	See Plan	
I 116 D	Type 'D' Inlet	2'-7"	223.00	yard	terminal	219.10	SD 4.370	See Plan	
I 112 D	A-10 Inlet	10'-0"	219.70	219.42	219.12	219.01	SD 4.41	E 13+07.75 R. 12.0'	Weathered Stone Wall
I 115 D	"	10'-0"	217.42	217.21	217.18	217.20	SD 4.41	E 0+400.1 R. 100'	Storm Rack Gate
I 114 D	"	10'-0"	217.27	217.1	terminal	214.00	SD 4.41	E 0+417.0 L. 100'	Weathered Stone Wall
I 121 D	"	10'-0"	220.1	219.78	terminal	212.50	SD 4.41	E 8+01.33 R. 12.0'	

Note: All HDPE pipe shall meet AASHTO M 294 type C specifications of the latest edition.

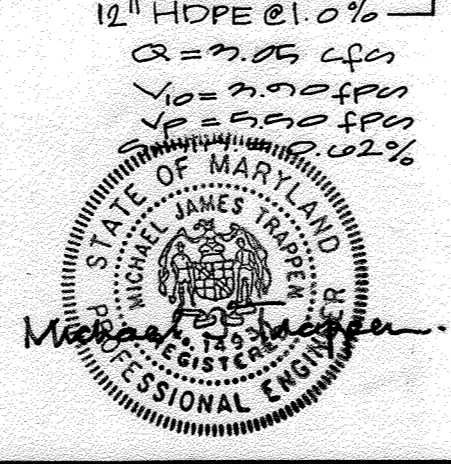
Note: All stations are to centerline of structure. Offsets are to the face of the curb inlets and to the centerline for all other structures.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 5/3/02

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 5/3/02

Chief, Development Engineering Division



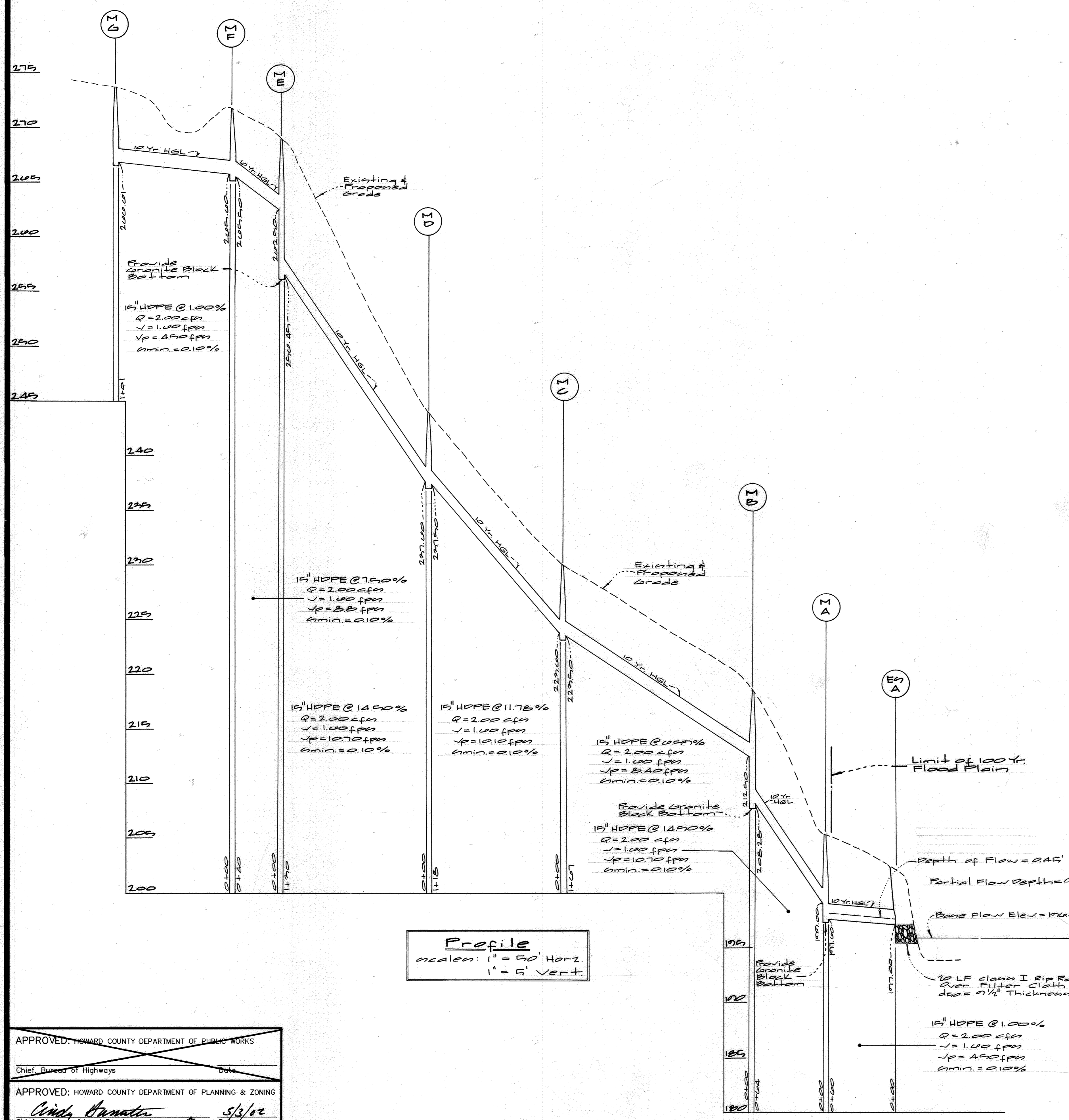
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

STORM DRAIN PROFILES & SCHEDULES
STONE LAKE
 LOTS 45 THRU 110
 PLAT No. 99140
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

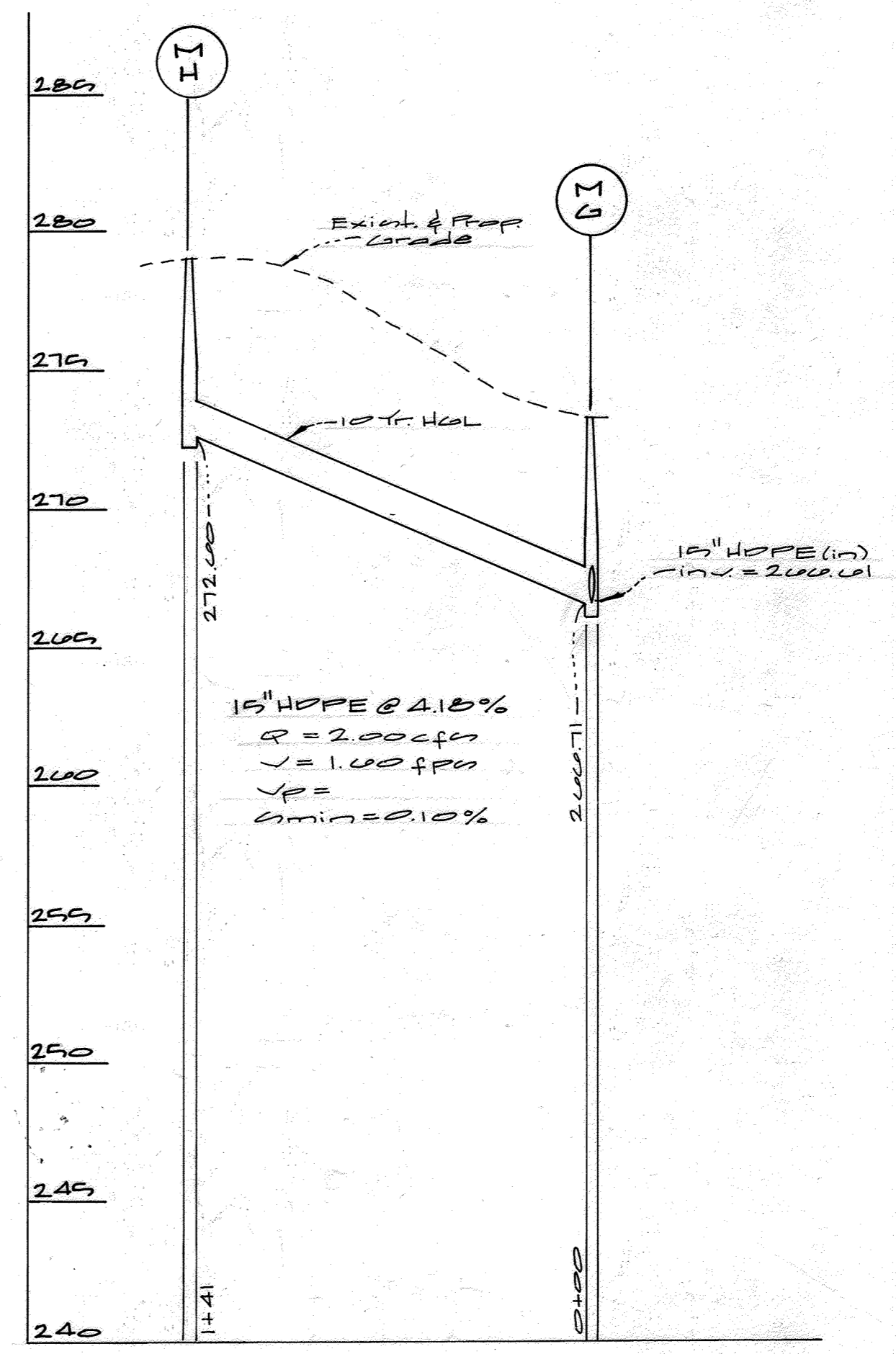
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
Date: Dec., 2001	Tax Map Grid: 47-9/10	sheet: 22 OF 43



PIPE SUMMARY		
SIZE	TYPE	LENGTH
15"	HDPE	82.1'

STRUCTURE SCHEDULE									
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STD. DETAIL	LOCATIONS	REMARKS
			UPPER	LOWER	UPPER	LOWER			
M-A	Manhole	4'	209.00	199.00	199.00	197.00	Co. S. 12	see Plan	
M-B			217.00	212.50	208.20				
M-C			231.00	229.00	229.50				
M-D			249.00	247.00	247.50				
M-E			268.00	265.50	266.45				
M-F			269.00	265.00	265.50				
M-G	Manhole	4'	279.10	269.11	269.01	267.12	Co. S. 12		
M-H	Manhole	4'	279.00		272.00	267.12	Co. S. 12		
EA-A	End section					197.00	Co. S. 12	see Plan	

Note: All HDPE pipe shall meet AASHTO M 204 type C specification of the latest edition.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development

Chief, Development Engineering Division

5/3/02
 5/3/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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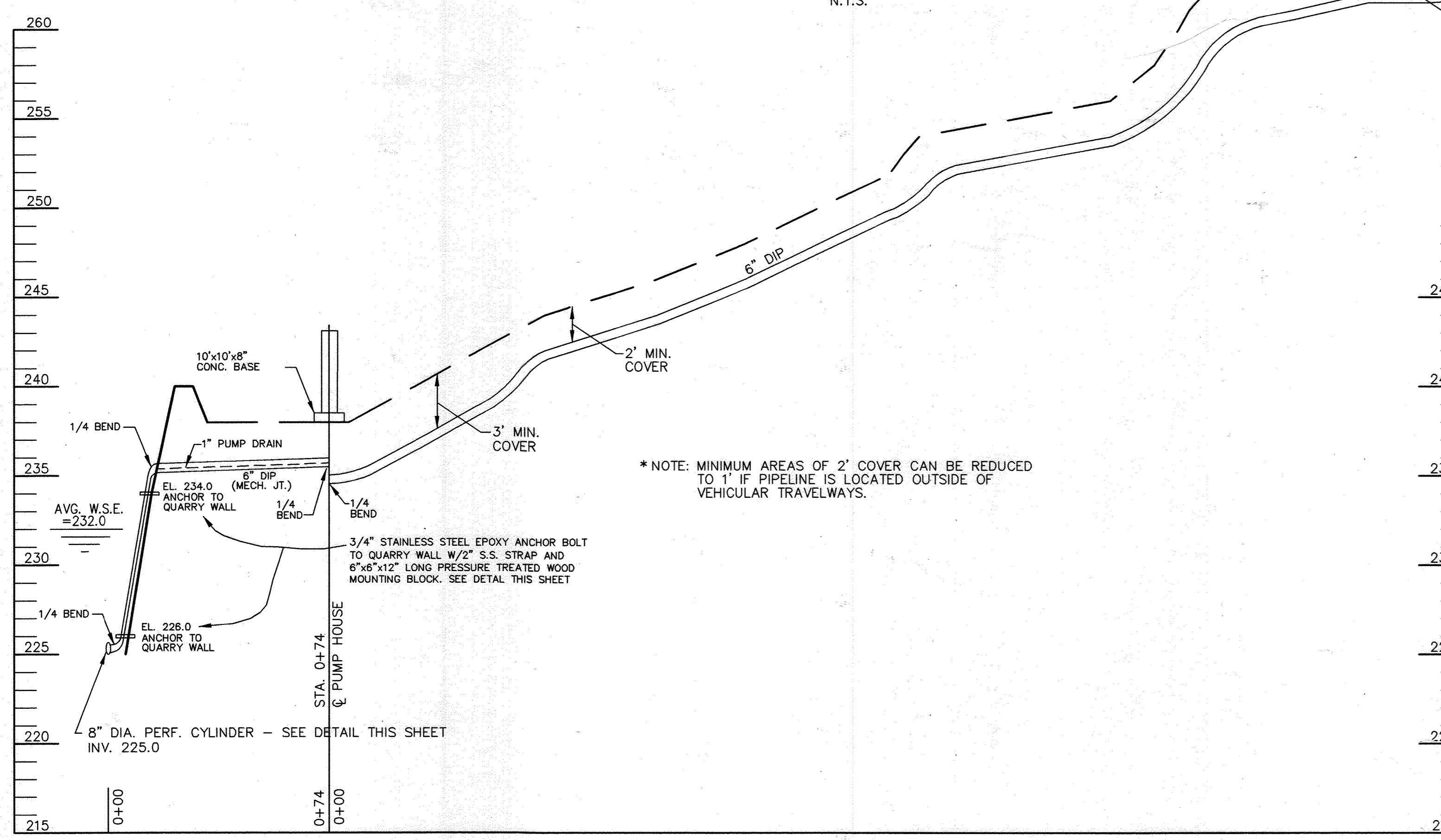
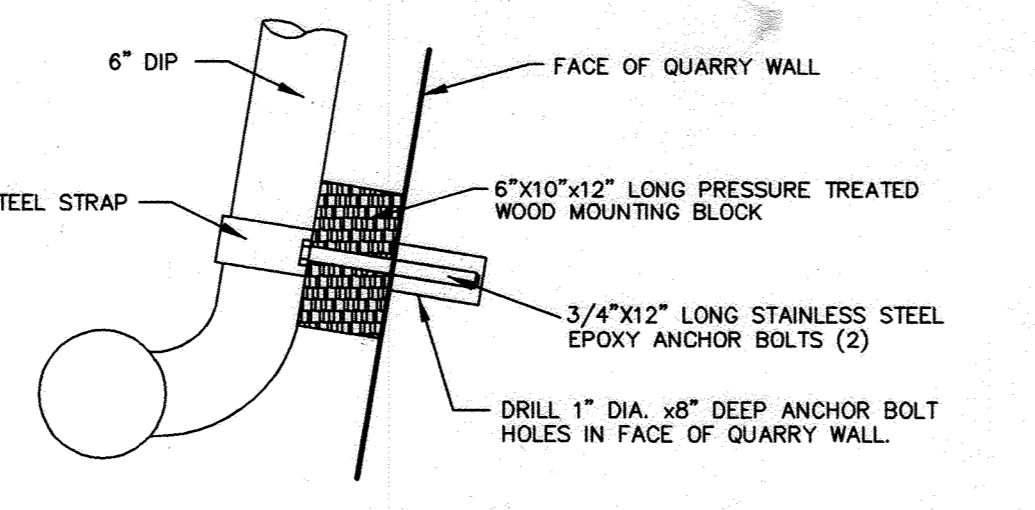
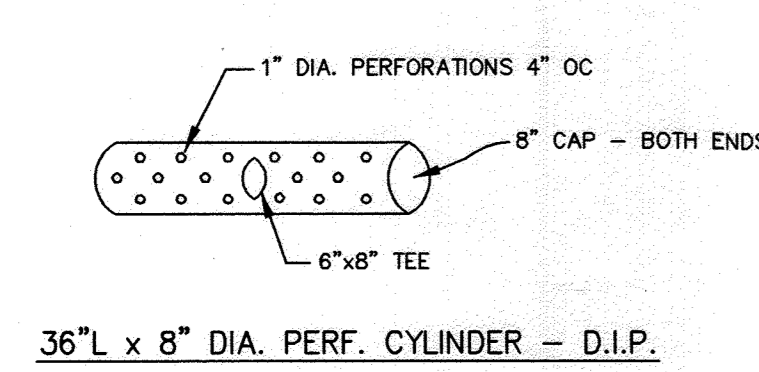
NO.	DATE	REVISION	BY	APP'R.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

STORM DRAIN PROFILES & SCHEDULES
STONE LAKE
 Lots 45 thru 118
 Plat No.

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
Dec., 2001	47-9/10	23 OF 43



PIPELINE PROFILE
SCALE: HORIZ. 1"=30' VERT. 1"=5'

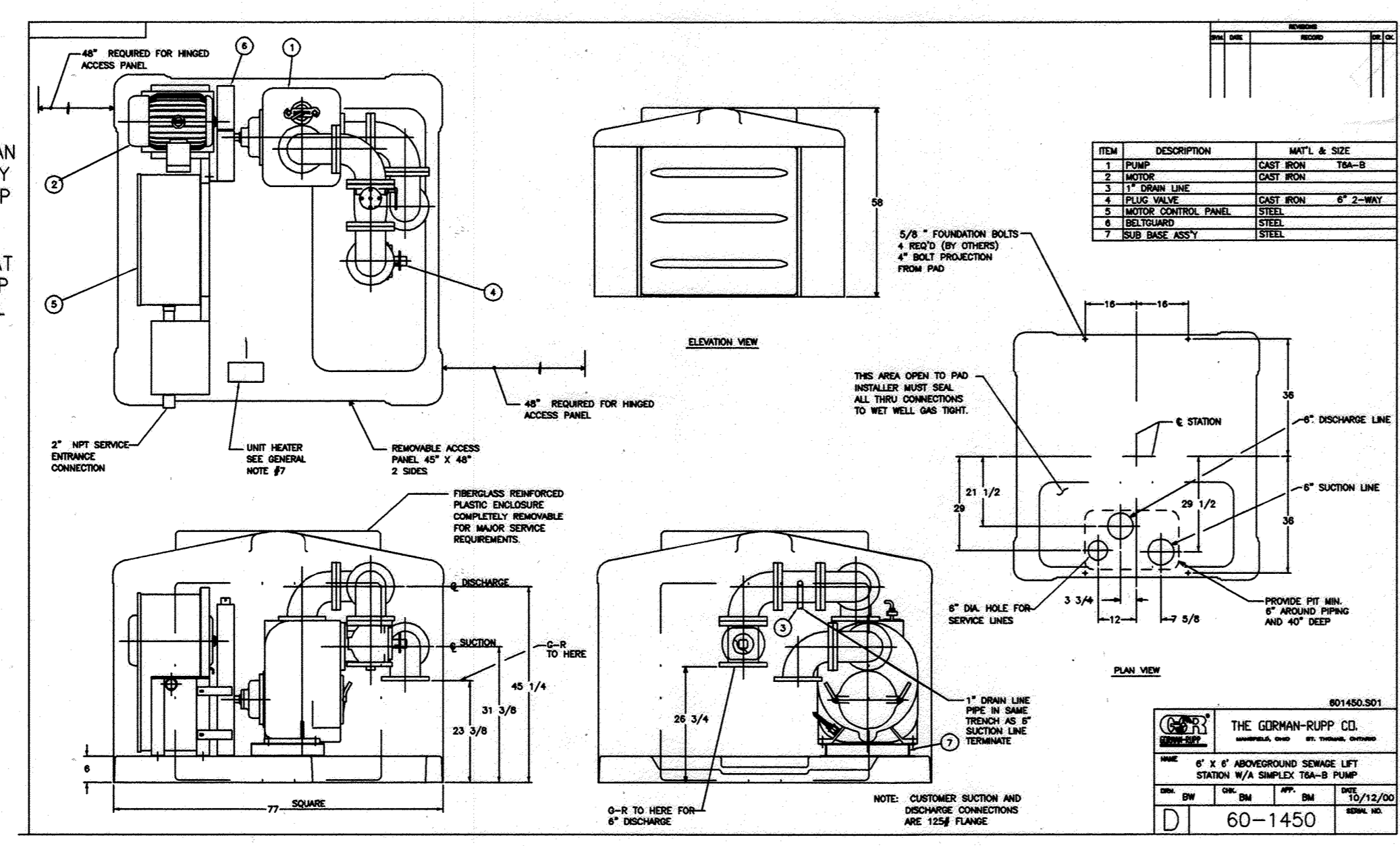
NOTE:
PRE-FABRICATED AND PRE-ASSEMBLED PUMP STATION TO BE AS MANUFACTURED BY THE GORMAN-RUPP COMPANY OF MANSFIELD, OHIO OR EQUAL. PUMP STATION ENCLOSURE TO BE 6 FEET WIDE BY 6 FEET DEEP BY 4 FEET HIGH, CONSTRUCTED OF FIBERGLASS PANELS WHICH ARE INDIVIDUALLY REMOVABLE FOR PROPER MAINTENANCE OF THE INTERNAL EQUIPMENT. PUMP STATION STRUCTURE TO BE GREEN IN COLOR. PUMP STATION TO BE COMPLETE WITH A SINGLE GORMAN RUPP MODEL 16A60-B SELF-PRIMING CENTRIFUGAL SOLIDS HANDLING PUMP, FULLY PRE-PIPED AND PRE-WIRED ON SKID WITH INTEGRAL PUMP CONTROL PANEL. PUMP TO BE BELT DRIVEN BY 30HP, 460 VOLT, 3 PHASE ELECTRIC MOTOR, SERVICE FACTOR 1.15, WITH THE ASSEMBLY TO BE RATED FOR 500 GALLONS PER MINUTE FLOW AT A TOTAL HEAD OF 75 FEET. PUMP TO BE CAPABLE OF SELF PRIMING AT A SUCTION LIFT OF 10 VERTICAL FEET AND NPSHA OF 19 FEET OR MORE AT PUMP START CONDITION. PUMP STATION TO BE SUITABLE FOR SINGLE POINT ELECTRICAL POWER CONNECTION. PROVIDE STANDARD SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION.

SEQUENCE OF OPERATION:
AN AUTOMATIC TIMER AND A TRANSDUCER LEVEL SENSING SYSTEM DICTATE PUMP OPERATION. THE TIMER WILL RUN THE PUMP FOR ONE HOUR EACH WEEK, FIELD ADJUSTABLE. THE TRANSDUCER SYSTEM WILL ENERGIZE THE PUMP WHEN THE WATER REACHES AN ELEVATION OF 232.5 FEET. THE PUMP WILL SHUT OFF WHEN THE WATER LEVEL REACHES A LEVEL OF 232.0 FEET. THE CONTROLS SHALL INCORPORATE A HIGH LEVEL ALARM AT 233.5 FEET. THE CONTROLS SHALL BE FIELD ADJUSTABLE.

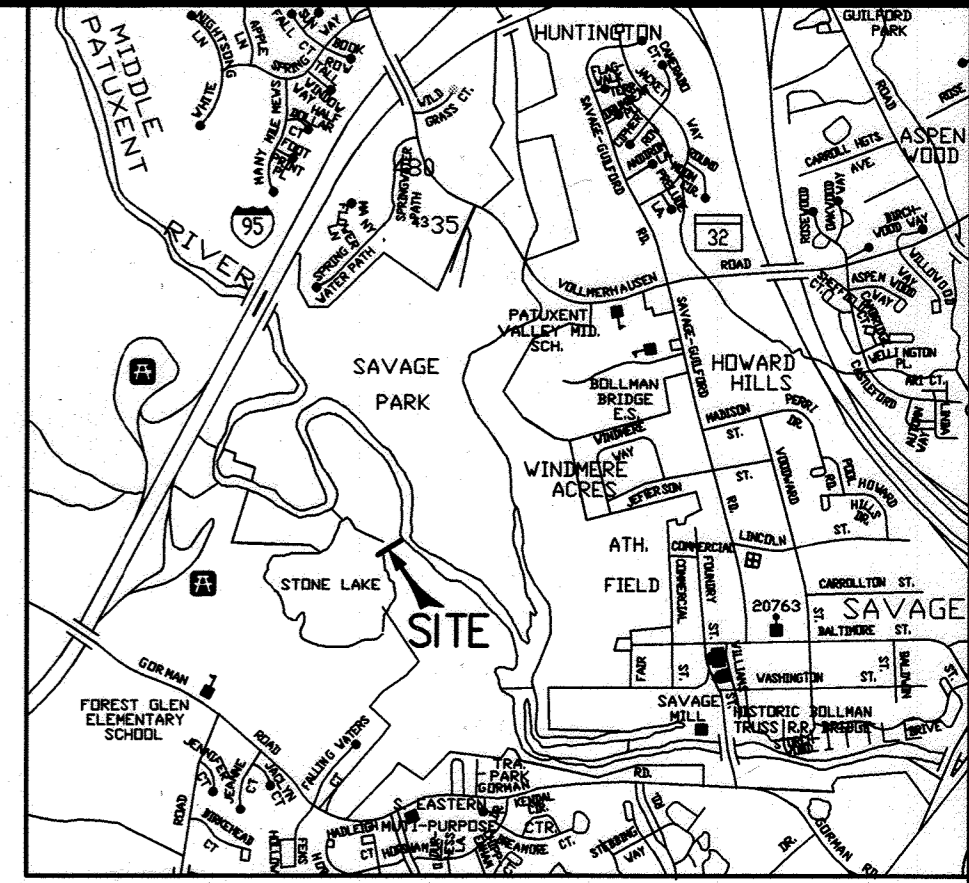
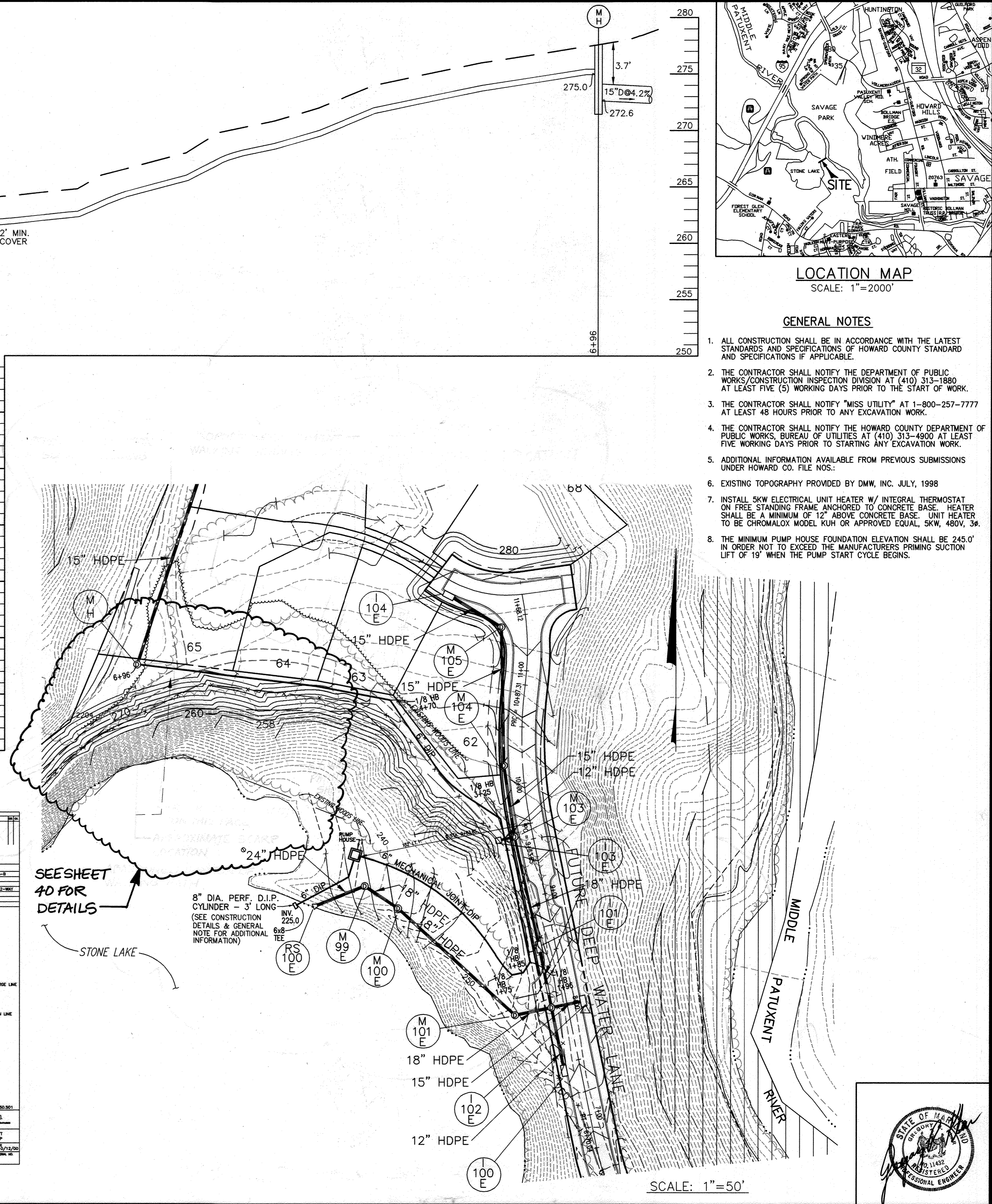
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Division of Land Development
Date: 5/3/02

Chief, Development Engineering Division
Date: 5/2/02



PUMP HOUSE DETAILS



LOCATION MAP
SCALE: 1"=2000'

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARD AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1890 AT LEAST FIVE (5) 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.
 - THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
 - ADDITIONAL INFORMATION AVAILABLE FROM PREVIOUS SUBMISSIONS UNDER HOWARD CO. FILE NOS.:
 - EXISTING TOPOGRAPHY PROVIDED BY DMW, INC. JULY, 1998
 - INSTALL 5KW ELECTRICAL UNIT HEATER W/ INTEGRAL THERMOSTAT ON FREE STANDING FRAME ANCHORED TO CONCRETE BASE. HEATER SHALL BE A MINIMUM OF 12" ABOVE CONCRETE BASE. UNIT HEATER TO BE CHROMALOX MODEL KUH OR APPROVED EQUAL, 5KW, 480V, 3P.
 - THE MINIMUM PUMP HOUSE FOUNDATION ELEVATION SHALL BE 245.0' IN ORDER NOT TO EXCEED THE MANUFACTURERS PRIMING SUCTION LIFT OF 19' WHEN THE PUMP START CYCLE BEGINS.

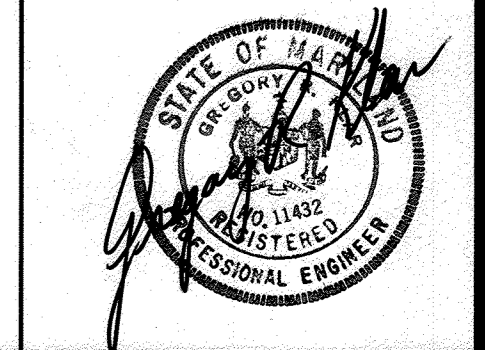
CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS, PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21284
PH 410-823-8070 FAX 410-823-2864

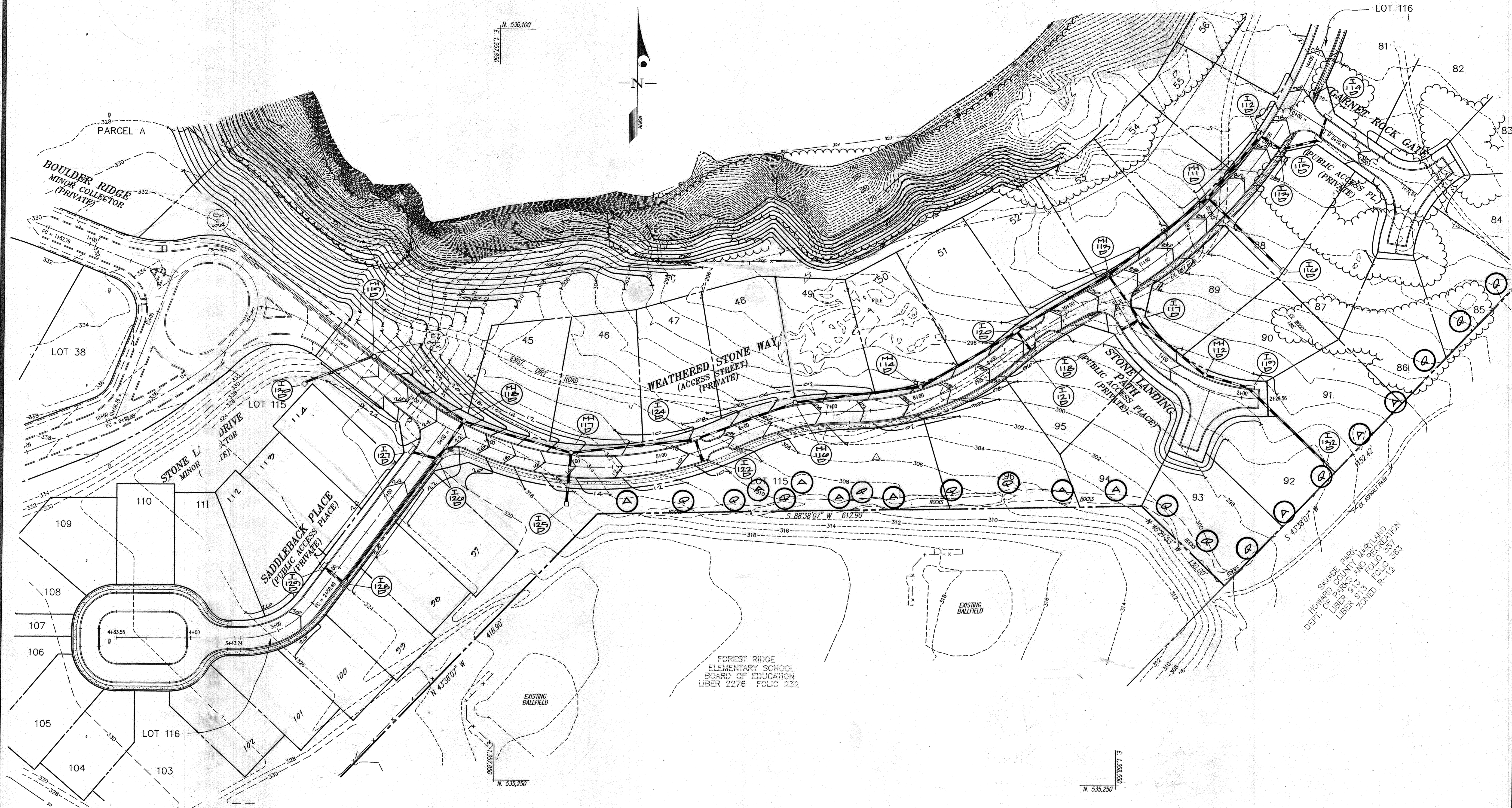
DATE	REVISION	BY	APP'R.
2/20/02	ANCHOR DETAIL, SEQUENCE OF OPERATION, REVISED STORM DRAIN PIPE SIZE	MCA	

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

PIPE PIPING PLAN, PROFILE AND DETAILS
STONE LAKE
SWM FACILITY #2 PLAN AND PROFILE
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

SCALE	ZONING	C. E. I. FILE NO.
AS SHOWN	R-ED	20152.00
FEB, 2002	47-9/10	24 OF 43





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date 5/6/02

Chief, Development Engineering Division
 Date 5/13/02



NOTE: FOR LANDSCAPE PURPOSES ONLY.

GLW GUTSCHICK LITTLE & WEBER, P.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4024

DATE	REVISION	BY	APP'R

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

Landscape Plan - South
STONE LAKE
 LOTS 45 THRU 115
 PLAT No.
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

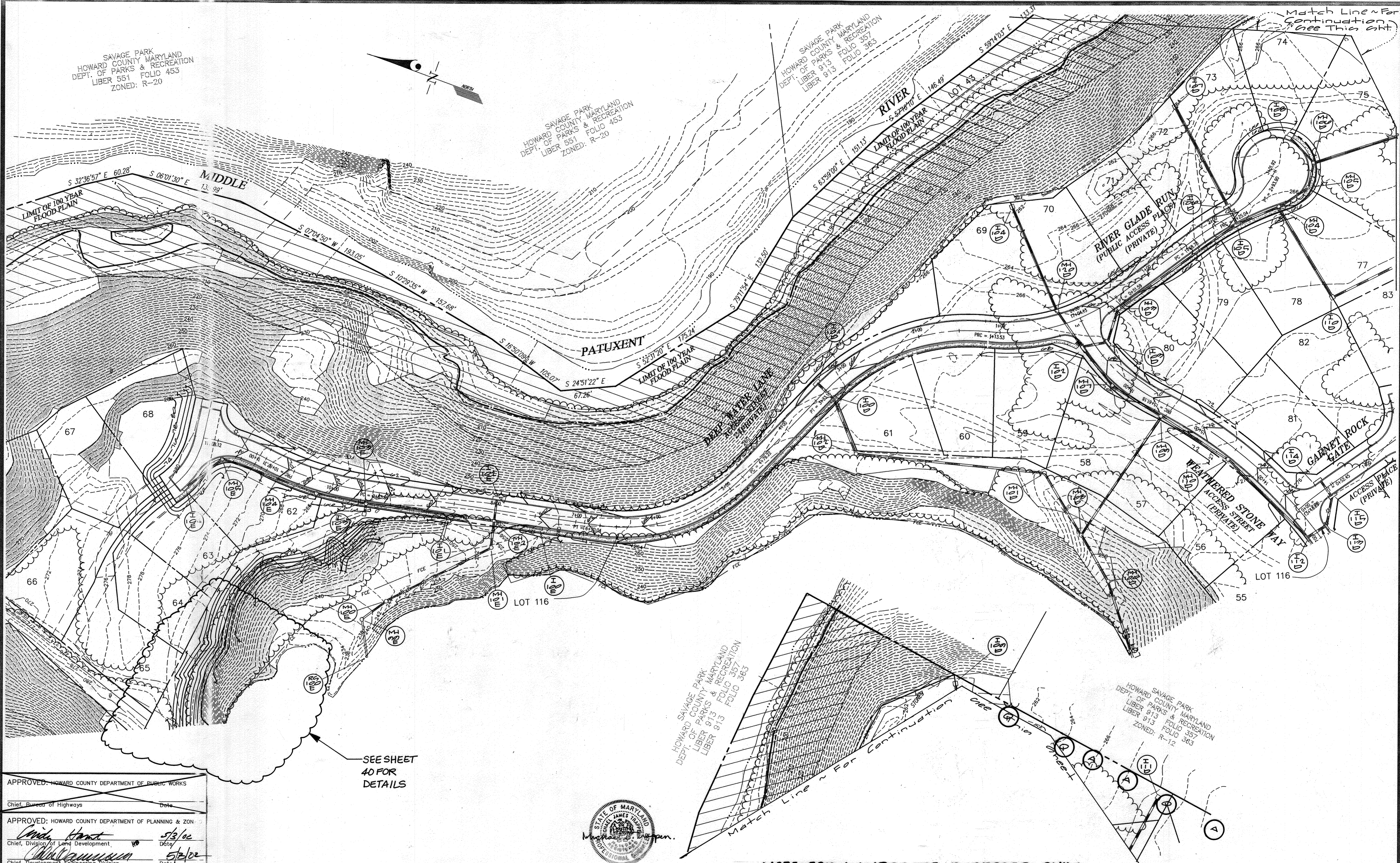
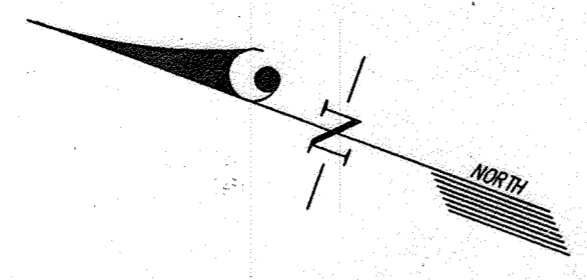
SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
December, 2001	47-9/10	25 OF 43

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

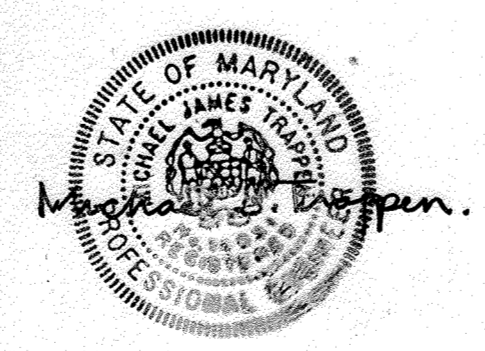
SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 367
LIBER 913 FOLIO 363

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 367
LIBER 913 FOLIO 363
ZONED: R-12



SEE SHEET
40 FOR
DETAILS



NOTE: FOR LANDSCAPE PURPOSES ONLY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: _____
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Date: 5/3/02
Chief, Development Engineering Division
Date: 5/21/02

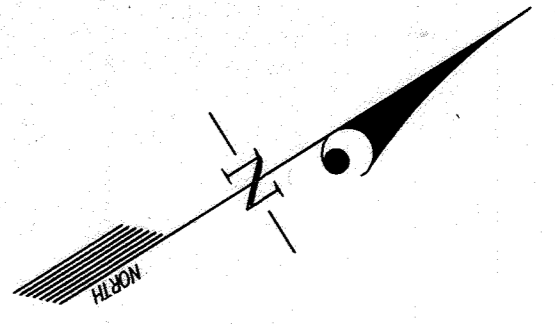
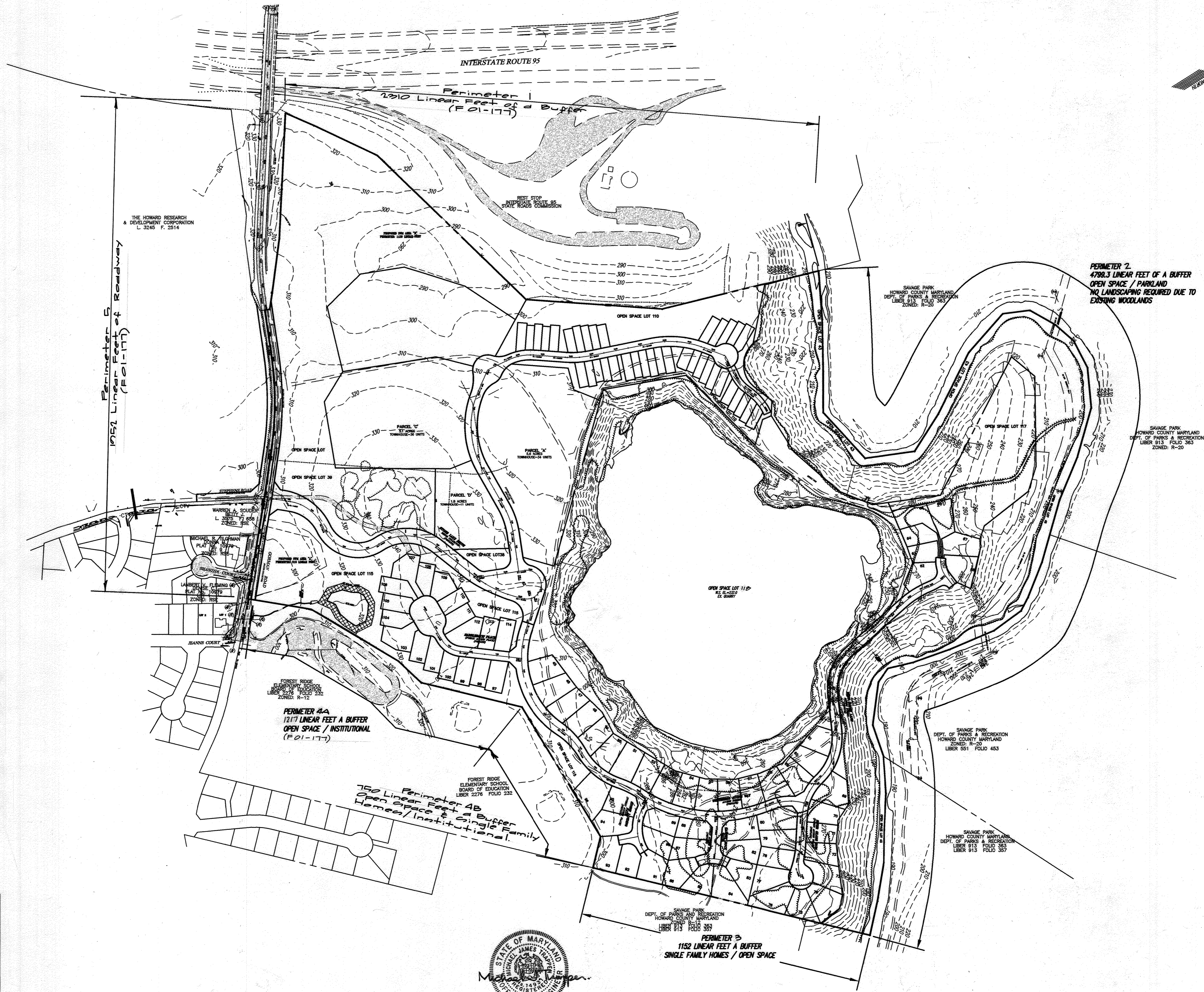
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-389-1820 DC/VA: 301-989-2524 FAX: 301-421-4165

DESIGN	DRN.	CHK	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

Landscaping Plan ~ East
STONE LAKE
LOTS 45 THRU 116
PLAT No. _____
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

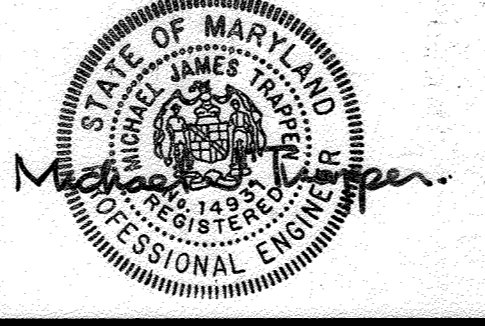
SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
2001	47-9/10	20 OF 43



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 5/3/02

Chief, Development Engineering Division _____ Date 5/2/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DES./MM	DRN./MM	CHK./ROT	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 PH: 410-392-5084
 ATTN: MR. BOB JENKINS

LANDSCAPE BUFFER OVERVIEW
STONE LAKE
 LOTS 45 THRU 118
 PLAT No. _____
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=200'	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec, 2001	47 - 9/10	27 of 43

SCHEDULE A PERIMETER LANDSCAPE EDGE Category	Sec. 16.124 (2) i		
	Adj. to Perimeter Property		
Perimeter	2	3	4B
Landscape Buffer Type	A	A	A
Linear Feet of Roadway/ Perimeter Frontage	4799	1152	150
Credit for Ex. Vegetation (Yes, No, Linear Feet) (describe below if needed)	YES 4799	YES 200	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (describe below if needed)	NO	NO	NO
Number of Plants Required			
Shade Trees	0	16	13
Evergreen Trees	0	0	0
Shrubs	0	0	0
Number of Plants Provided			
Shade Trees	0	16	13
Evergreen Trees			
Other Trees (2:1 subst.)			
Shrubs (10:1 subst.)			
(describe plant substitution credits below if needed)	-- Alternative Compliance...exceeds county req.--		

Schedule "A" Number of Shade trees for bonding: 29 x \$300.00 = \$8,700.00

Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$8,700.00

Internal landscaping for SPD lots is deferred until Site Plan.

PLANT LIST

SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT	COMMENTS
SHADE TREES					
A	13	Acer rubrum 'October Sunset' October Sunset Maple	2 1/2"-3" Cal.	B&B	
Q	16	Quercus palustris Pin Oak	2 1/2"-3" Cal.	B&B	

LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI (Alternative Compliance) of the Howard County Landscape Manual.
- Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
- Field verify underground utility locations and existing conditions before starting planting work. Contact engineer / landscape architect if any relocations are required.
- Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
- All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
- No substitution shall be made without written consent of the owner or his representative.
- All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the project specifications.
- The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
- All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
- "Schedule A - Perimeter Landscape Edge" is provided for landscape surety calculation purposes only. Financial surety for the required landscaping shall be posted with the grading permit in the amount of \$8,700.00.
- Planting provided:
Shade Trees (proposed): 13
Ornamental Trees: 0
Evergreen Trees (proposed): 0

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" (latest edition), as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3 1/2" caliper, 14'-16" in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3-3 1/2" caliper, 10'-12" in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3.5"	14'-16'	6'-8'	32" diameter
3.5" - 4"	14'-16'	8'-10'	36" diameter
4" - 4.5"	16'-18'	8'-10'	40" diameter
4.5" - 5"	16'-17'	10'-12'	44" diameter
5" - 5.5"	16'-20'	10'-12'	48" diameter
5.5" - 6"	18'-20'	12'-14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B&B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball; diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	PIT DEPTH
3" - 3.5" cal.	32"	64"	28"
3.5" - 4" cal.	36"	72"	32"
4" - 4.5" cal.	40"	80"	36"
4.5" - 5" cal.	44"	88"	40"
5" - 5.5" cal.	48"	96"	44"
5.5" - 6" cal.	52"	104"	48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough saw oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 galvanized or bethanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

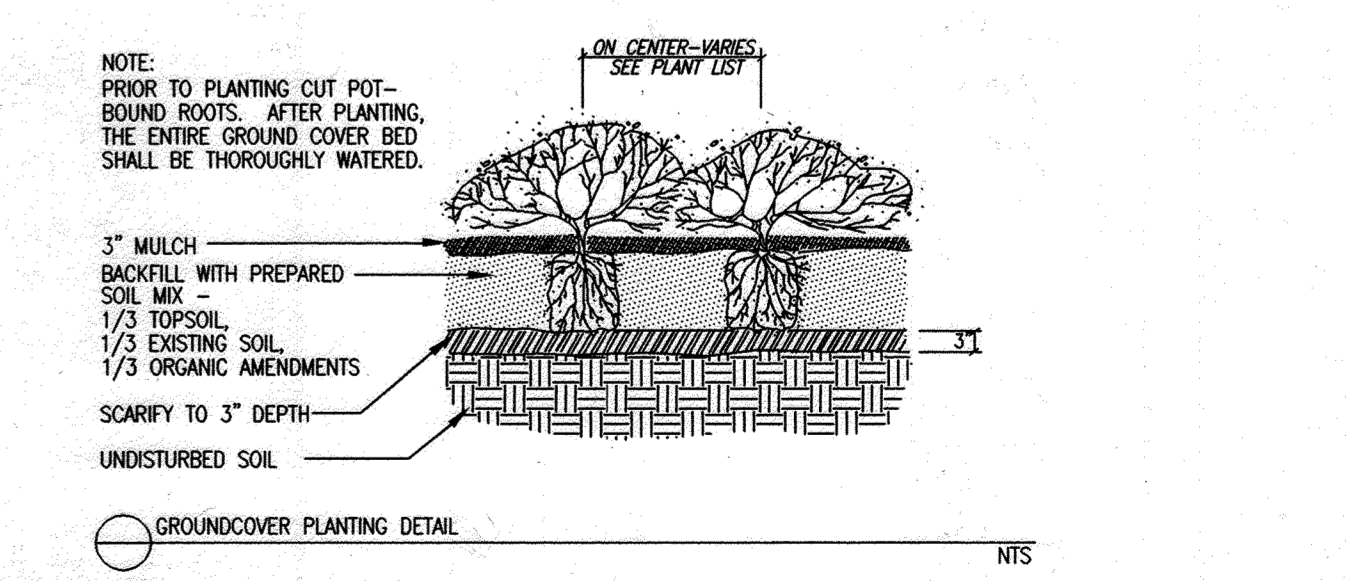
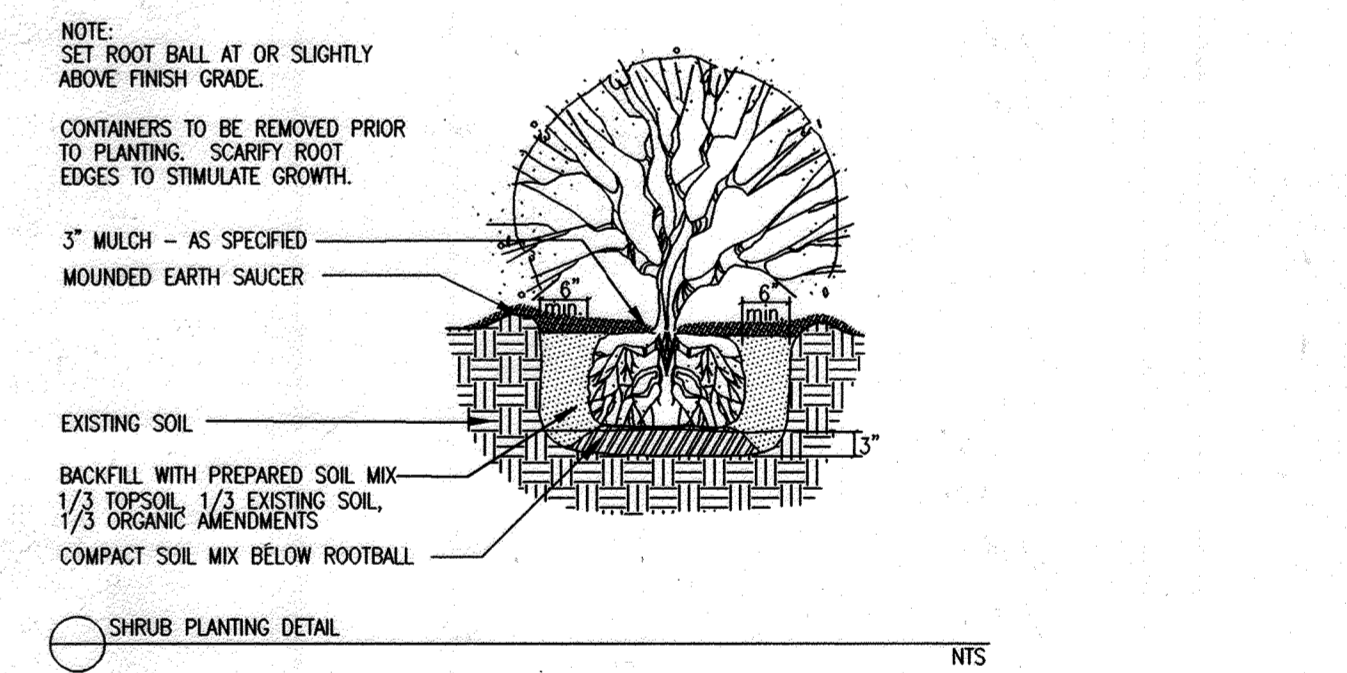
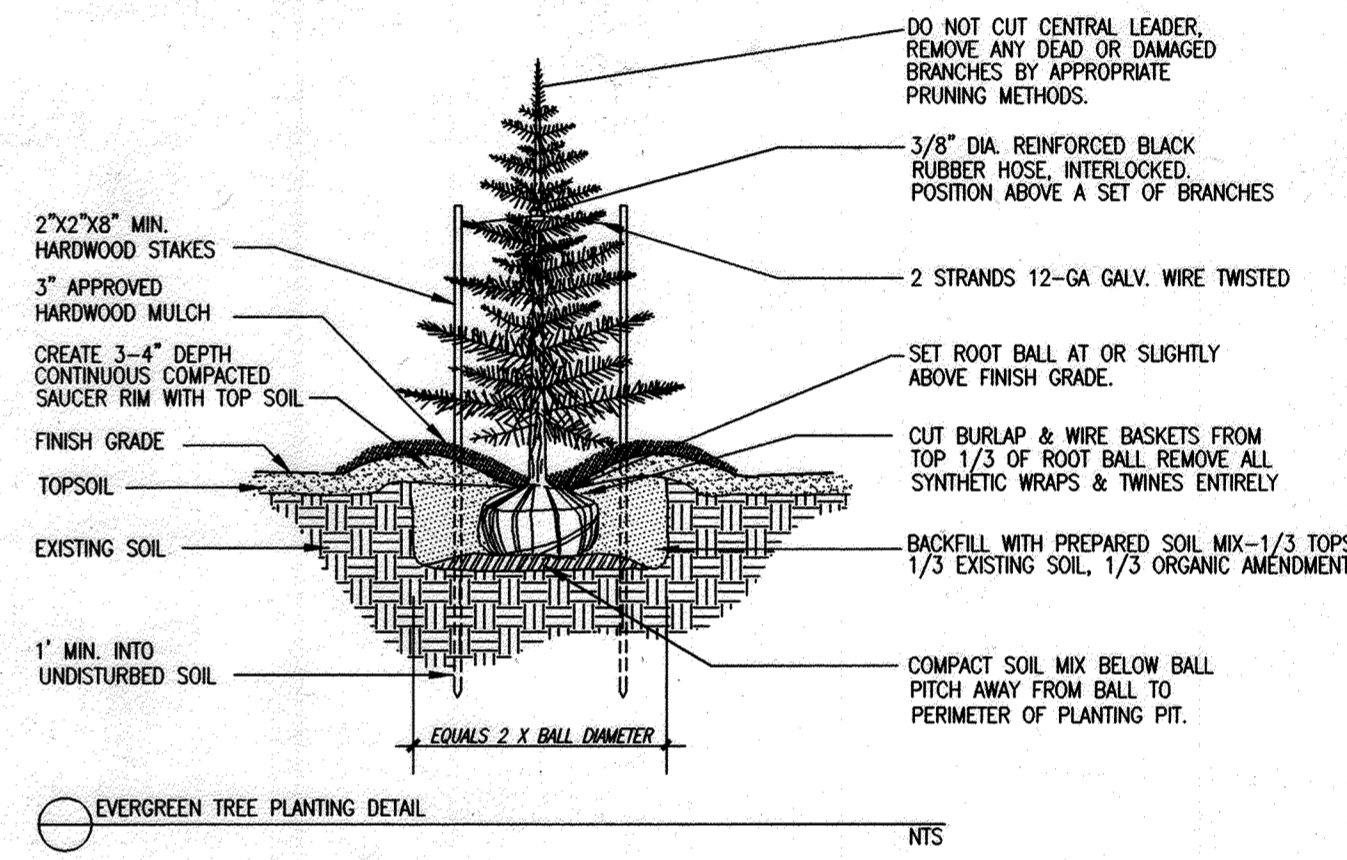
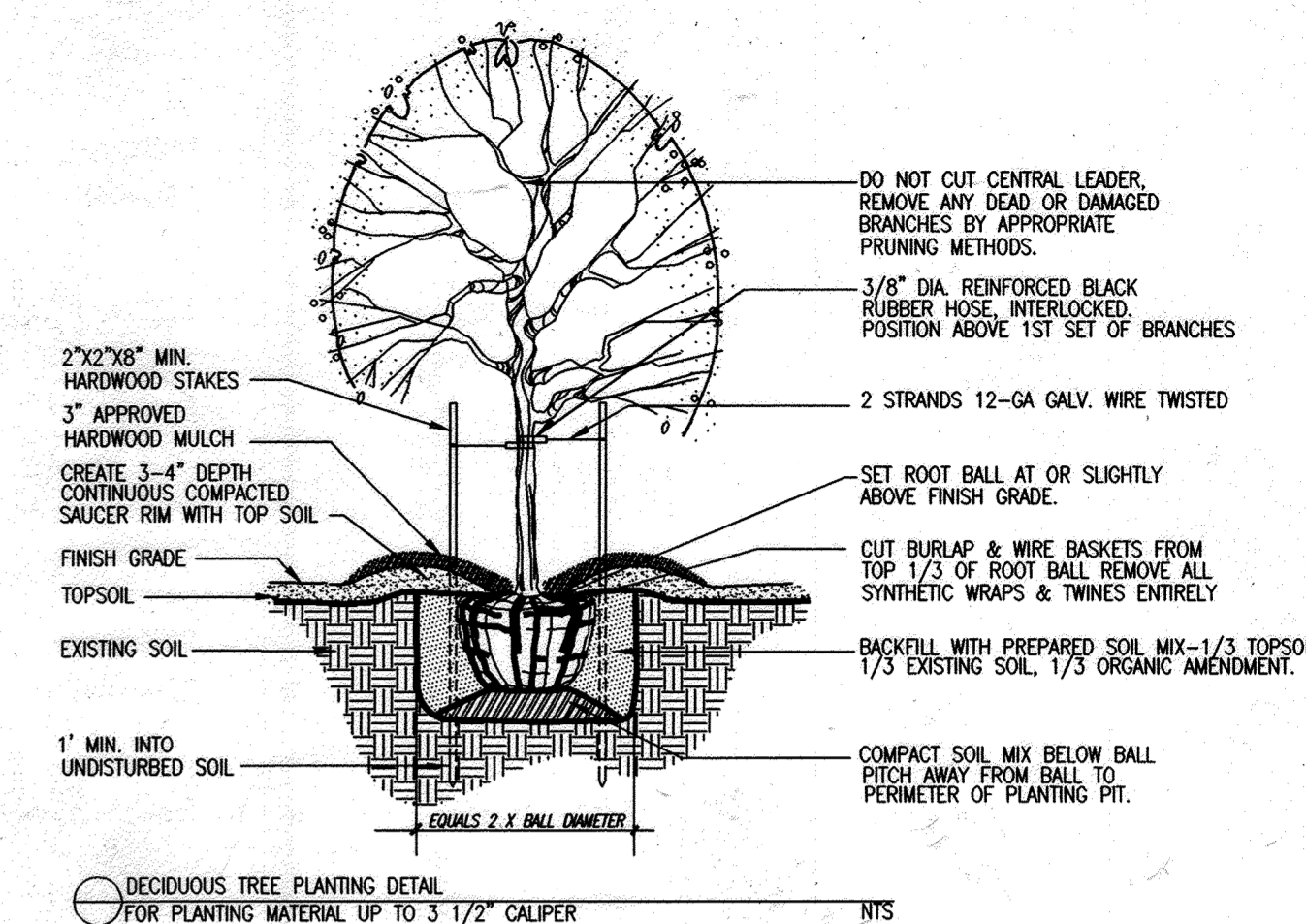
a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Victa, or Escort.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Date: 5/3/02

Chief, Development Engineering Division
Date: 5/3/02



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DES.	LMM	DRN	LMM	CHK.	ROT	DATE	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
PH: 410-992-6089
ATTN: MR. BOB JENKINS

LANDSCAPE NOTES & DETAILS
STONE LAKE
LOTS 45 THRU 117
PLAT No.

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	99140
DATE	TAX MAP - GRID	SHEET
Dec., 2001	47 - 9/10	28 OF 43

6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



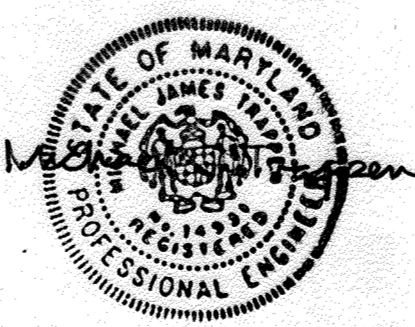
Match Line ~ For Cont. See This Sheet

Match Line ~ For Continuation See This Sheet

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 5/6/12

Chief, Development Engineering Division _____ Date 5/16/12



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-1010

DESIGN DRN.	DATE	REVISION	BY	APP'R.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY.
 COLUMBIA, MD 21044
 ATTN: BOB JENKINS
 (410) 992-6089

Storm Drain Drainage Area Map ~ South

STONE LAKE
 LOTS 45 THRU 116
 PLAT No. _____

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

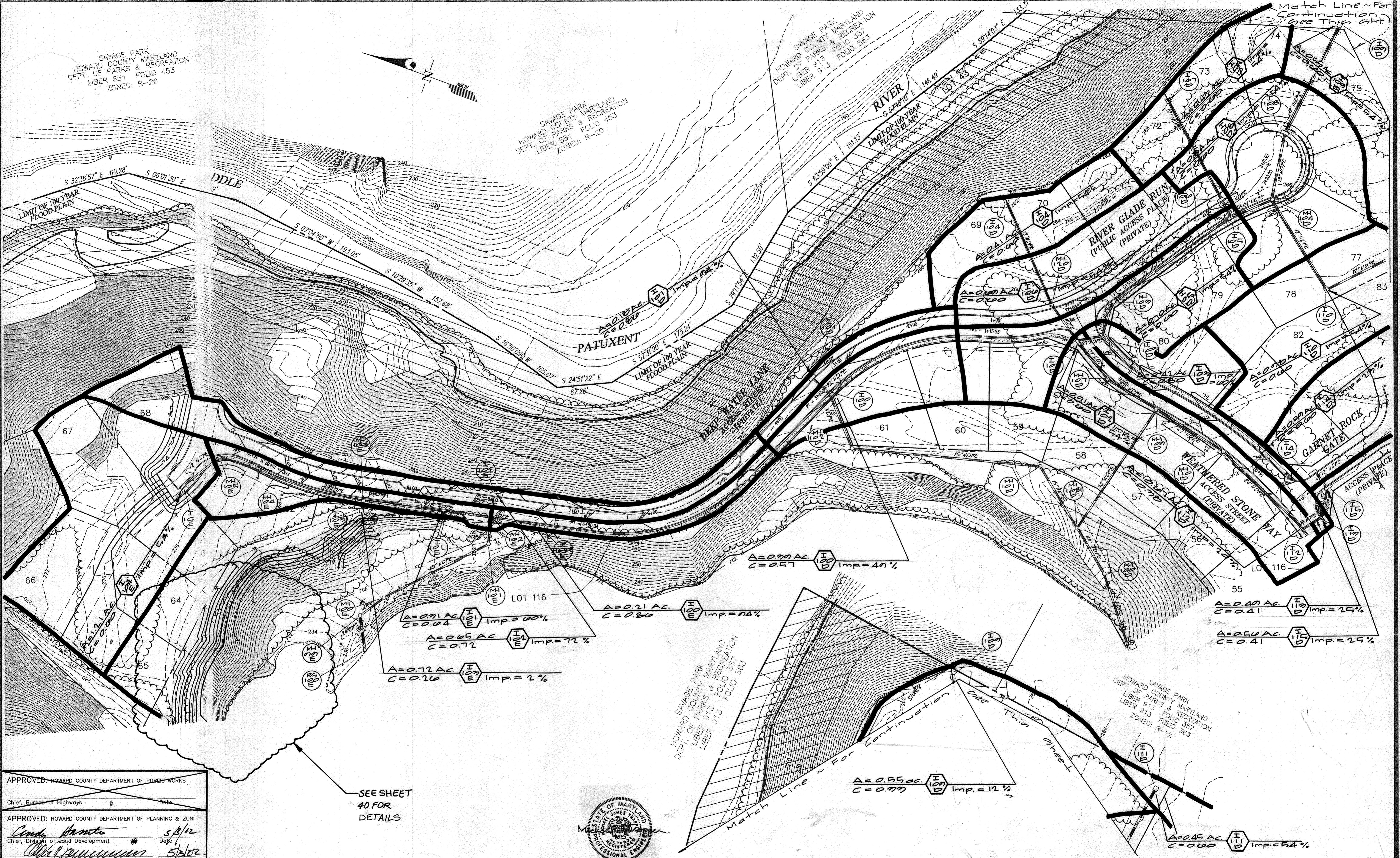
SCALE 1"=50'	ZONING R-ED	G. L. W. FILE No. 99140
DATE Dec. 2011	TAX MAP - GRID 47-9/10	SHEET 29 OF 43

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 551 FOLIO 453
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 357
LIBER 913 FOLIO 363

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 913 FOLIO 357
LIBER 913 FOLIO 363
ZONED: R-12



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Cinda Hamts, Chief, Division of Land Development
Chief, Development Engineering Division

SEE SHEET
40 FOR
DETAILS



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHIT.
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20885
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4111

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD 21044
ATTN: BOB JENKINS
(410) 992-6089

Interim Drain Drainage Area Map ~ East
STONE LAKE
LOTS 45 THRU 116
PLAT No.
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

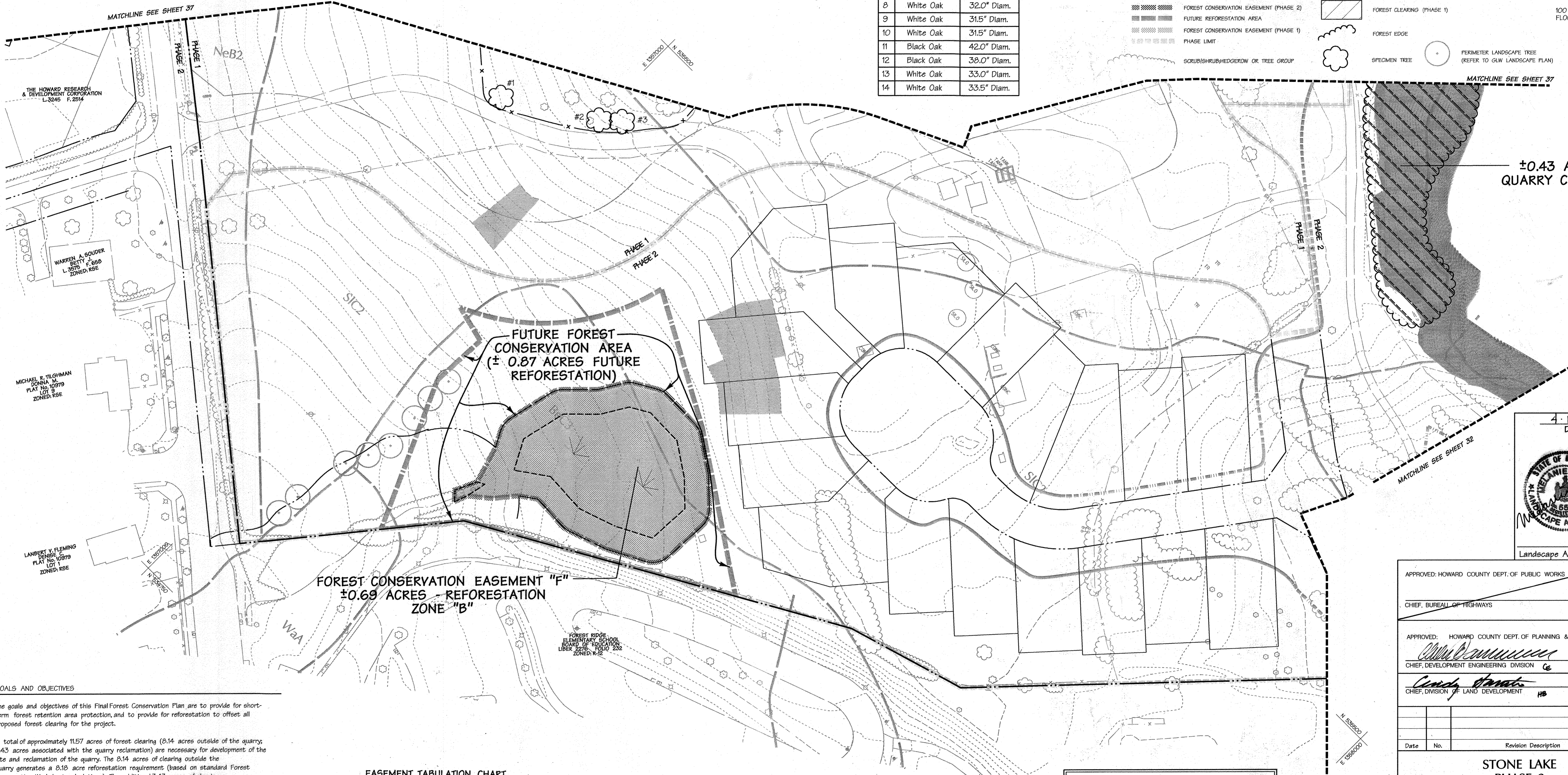
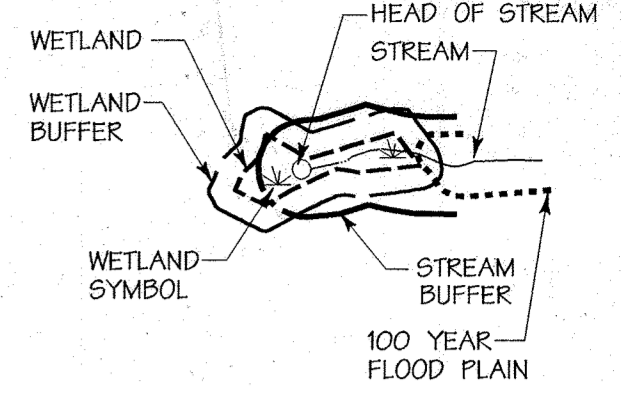
SCALE 1"=50'	ZONING R-ED	G. L. W. FILE No. 99140
DATE Dec., 2001	TAX MAP - GRID 47-9/10	SHEET 20 OF 43

SPECIMEN TREES

1	White Oak	38.0" Diam.
2	White Oak	36.5" Diam.
3	White Oak	36.0" Diam.
4	White Oak	36.0" Diam.
5	White Oak	34.0" Diam.
6	White Oak	39.0" Diam.
7	White Oak	33.5" Diam.
8	White Oak	32.0" Diam.
9	White Oak	31.5" Diam.
10	White Oak	31.5" Diam.
11	Black Oak	42.0" Diam.
12	Black Oak	38.0" Diam.
13	White Oak	33.0" Diam.
14	White Oak	33.5" Diam.

Legend

	FOREST PROTECTION SIGN		REFORESTATION AREAS
	FOREST PROTECTION FENCE		FOREST CLEARING (PHASE 2)
	SLOPES >25%		QUARRY CLEARING
	SLOPES 15%-25%		FOREST CLEARING (PHASE 1)
	LIMIT OF DISTURBANCE		FOREST EDGE
	FOREST CONSERVATION EASEMENT (PHASE 2)		SPECIMEN TREE
	FUTURE REFORESTATION AREA		PERIMETER LANDSCAPE TREE (REFER TO GLW LANDSCAPE PLAN)
	FOREST CONSERVATION EASEMENT (PHASE 1)		
	PHASE LIMIT		
	SCRUB/SHRUB/HEDGE/ROW OR TREE GROUP		



±0.43 ACRES
QUARRY CLEARING

FUTURE FOREST
CONSERVATION AREA
± 0.87 ACRES FUTURE
REFORESTATION

FOREST CONSERVATION EASEMENT "F"
±0.69 ACRES - REFORESTATION
ZONE "B"

4-13-02
Date

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 5/2/02

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 5/6/02

OWNER/DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Daft - McCune - Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax 296 4705

SUBDIVISION NAME: STONE LAKE SECTION AREA: LOT/PARCEL #
PLAT # OF 14: BLOCK # ZONE: TAXZONE MAP: EASEMENT: CROSSING

WATER CODE: SEWER CODE:

TITLE: **FINAL FOREST CONSERVATION PLAN**

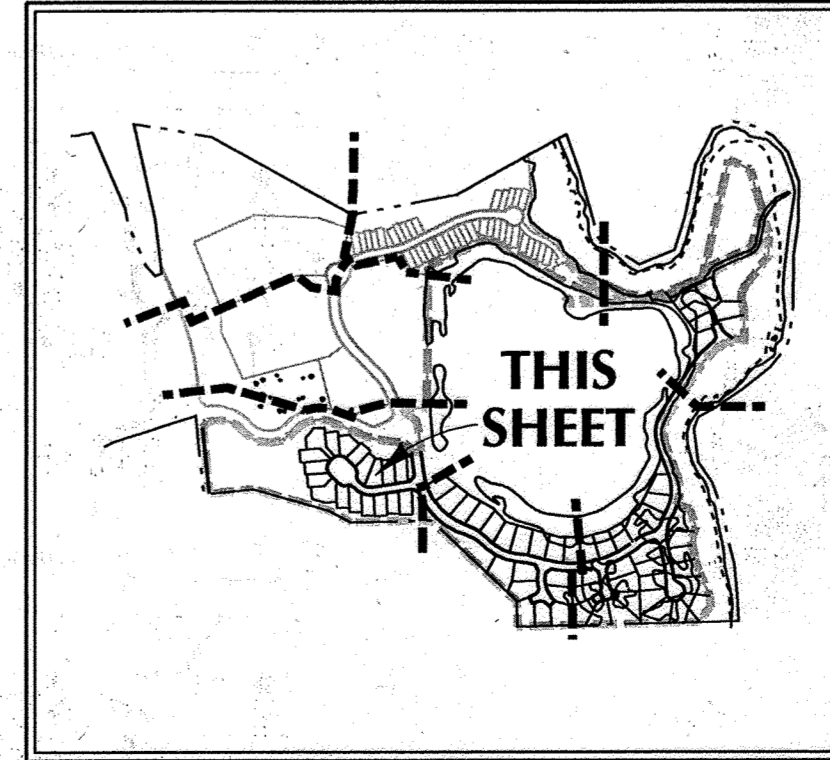
Drn By: BKC Scale: 1"=50' Proj. No. 95054.E2
Des By: HRD Date: 4-17-02
Chk By: Approved: 31 of 43

EASEMENT TABULATION CHART

Forest Conservation Easement	Type	Gross Area	Floodplain	Non-Forested	Net Retention/ Reforestation Area
A	Retention	1.30 AC.	0.0 AC.	0.16 AC.	1.14 AC.
B	Retention	0.81 AC.	0.0 AC.	0.11 AC.	0.70 AC.
C	Retention	1.11 AC.	0.0 AC.	0.34 AC.	0.77 AC.
D	Retention	1.08 AC.	0.0 AC.	0.00 AC.	1.08 AC.
E	Retention	2.25 AC.	0.0 AC.	0.00 AC.	2.25 AC.
F	Reforestation	.69 AC.	0.0 AC.	0.00 AC.	0.69 AC.
TOTAL		7.24 AC.	0.0 AC.	0.61 AC.	6.63 AC.

SURETY NOTE:
Development of the F-01-204 portions of Stone Lake entails retention of 5.94 acres of forest and reforestation of 0.69 acres. A surety in the amount of \$66,777.48 is required to bond the retention and reforestation areas.

NOTE: SOME PORTIONS OF THE FOREST CONSERVATION EASEMENTS WERE ACCEPTED AS MEETING THE MIN. 35' WIDTH, AS MEASURED ALONG THE SLOPE OF THE HILL.



INDEX MAP
NOT TO SCALE

GOALS AND OBJECTIVES

The goals and objectives of this Final Forest Conservation Plan are to provide for short-term forest retention area protection, and to provide for reforestation to offset all proposed forest clearing for the project.

A total of approximately 11.57 acres of forest clearing (8.14 acres outside of the quarry; 3.43 acres associated with the quarry reclamation) are necessary for development of the site and reclamation of the quarry. The 0.14 acres of clearing outside the quarry generates a 8.16 acre reforestation requirement (based on standard Forest Conservation Worksheet calculations). The additional 3.43 acres of clearing within the quarry generates a 0.86 acre reforestation requirement (based on the negotiated 0.25:1 replacement ratio approved by MD DNR). In total, approximately 9.04 acres of reforestation are required.

Approximately 3.54 acres of additional forest retention credit have been derived from development of Emerson Section I (F-01-140) and will be used to partially defray the reforestation requirement for Stone Lake (7.08 acres excess retention x 0.5 = 3.54 acres of credit). The remaining 5.50 acre reforestation requirement for Stone Lake will be satisfied on-site at the locations shown herein.

Short-term forest retention area protection will be accomplished by identifying those areas and indicating the locations of forest protection fencing and signage. Establishing these short-term protection measures prior to any earth-moving activities will help ensure that these areas will not be disturbed during construction activities.

Areas shown herein as "Future Forest Conservation Area" may be reforested at a later date to satisfy potential reforestation requirements for other projects. Protective easements will be established at that time. Minimum width requirements for forest conservation easements within the quarry reclamation area are satisfied by measuring 35' widths along the ground surface, as opposed to measuring areally.

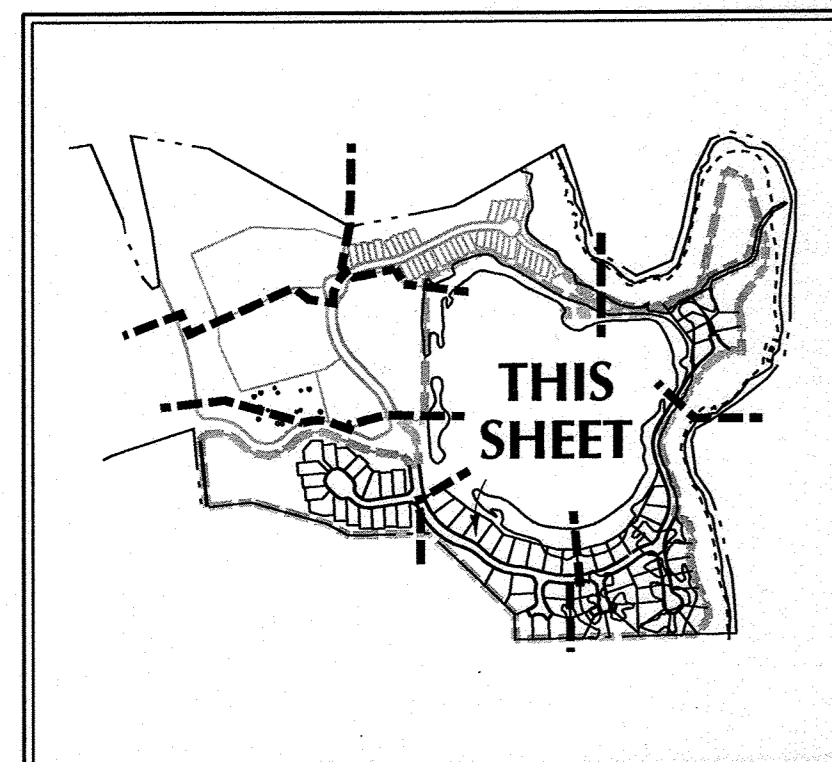
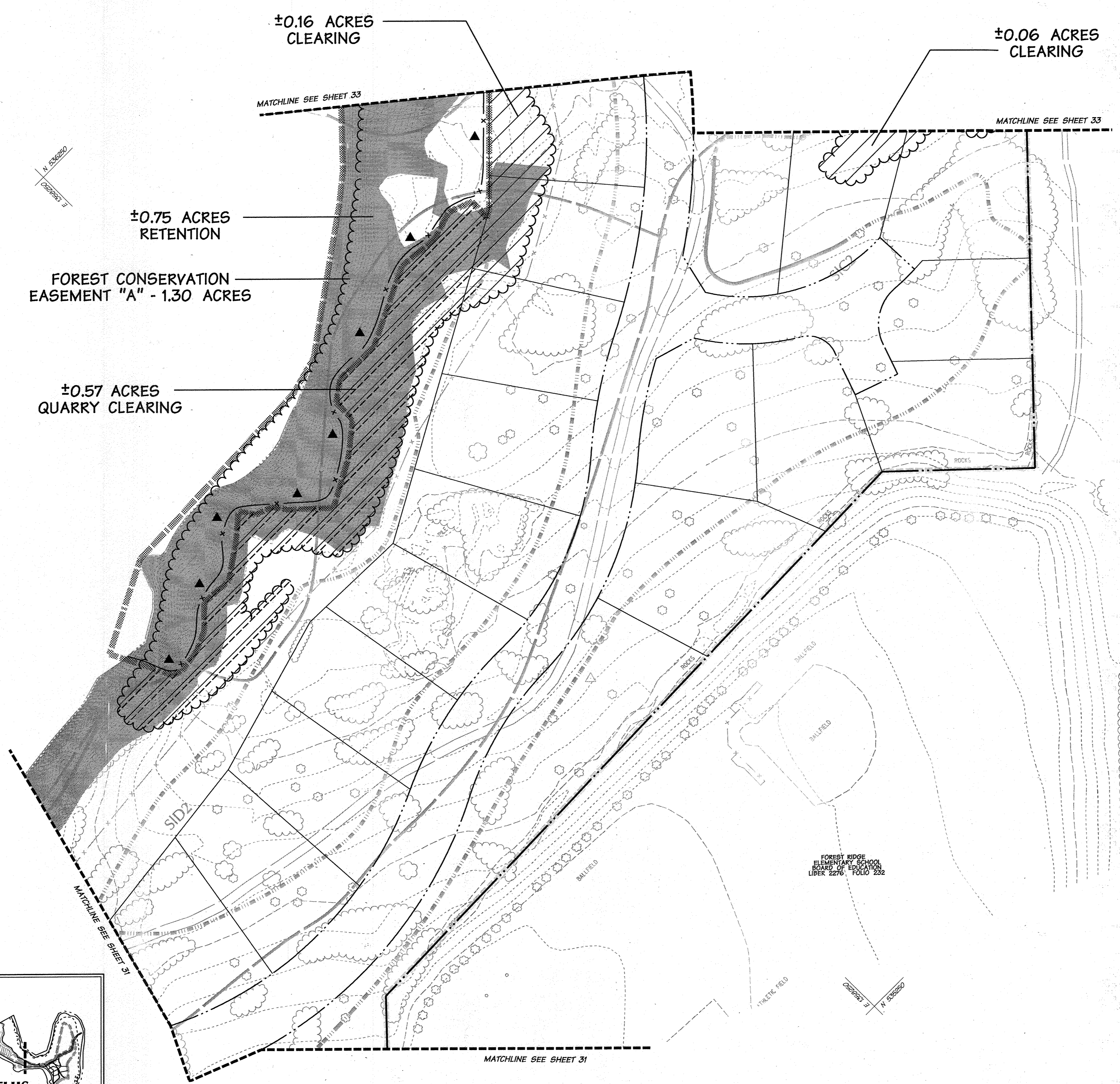
Legend

▲ FOREST PROTECTION SIGN
 -x- FOREST PROTECTION FENCE
 [Hatched] SLOPES >25%
 [Hatched] SLOPES 15%-25%
 [Dashed] LIMIT OF DISTURBANCE
 [Dotted] FOREST CONSERVATION EASEMENT (PHASE 2)
 [Dotted] FUTURE REFORESTATION AREA
 [Dotted] FOREST CONSERVATION EASEMENT (PHASE 1)
 [Dotted] PHASE LIMIT
 [Hatched] REFORESTATION AREAS
 [Hatched] FOREST CLEARING (PHASE 2)
 [Hatched] QUARRY CLEARING
 [Hatched] FOREST CLEARING (PHASE 1)
 [Cloud] FOREST EDGE
 [Cloud] SCRUBSHRUB/HEDGEROW OR TREE GROUP
 [Cloud] SPECIMEN TREE
 WETLAND, WETLAND BUFFER, HEAD OF STREAM, STREAM, WETLAND SYMBOL, STREAM BUFFER, 100 YEAR FLOOD PLAIN

FOREST CONSERVATION CALCULATIONS

BASIC SITE DATA	ACRES (N/A)
GROSS SITE AREA	136.7
AREA WITHIN 100 YEAR FLOODPLAIN	7.16
AREA WITHIN EXISTING SANITARY SEWER EASEMENT	0.33
NET TRACT AREA	129.21
LAND USE CATEGORY	RED
INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	129.21
B. REFORESTATION THRESHOLD (20% x A)	25.84
C. AFFORESTATION MINIMUM (15% x A)	19.38
D. EXISTING FOREST ON NET TRACT AREA	30.47
E. FOREST AREAS TO BE CLEARED	8.14
F. FOREST AREAS TO BE RETAINED	22.33
REFORESTATION CALCULATIONS	
A. NET TRACT AREA	129.21
B. REFORESTATION THRESHOLD (20% x A)	25.84
C. EXISTING FOREST ON NET TRACT AREA	30.47
D. FOREST AREAS TO BE CLEARED	8.14
E. FOREST AREAS TO BE RETAINED	22.33
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	4.63
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	3.51
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.0
CLEARING ABOVE THE THRESHOLD ONLY	
IF FOREST AREAS TO BE RETAINED ARE GREATER THAN THE REFORESTATION THRESHOLD (IF E IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY:	
REFORESTATION FOR CLEARING ABOVE THRESHOLD (F-H)	1.16
REFORESTATION FOR CLEARING BELOW THRESHOLD (G)	7.02
TOTAL REFORESTATION REQUIRED (F+G)	8.18
CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD (E)	0.0
REFORESTATION REQUIRED (8.18-0.0)	8.18 ACRES
REFORESTATION PROVIDED (D)	5.50 ACRES
POTENTIAL FUTURE REFORESTATION (D-E)	0.87 ACRES
TOTAL	6.37 ACRES

* 3.43[±] ACRES OF ADDITIONAL FOREST CLEARING ARE ASSOCIATED WITH THE QUARRY RECLAMATION FOR A TOTAL OF FOREST AREAS TO BE CLEARED OF 11.57 ACRES IS PROPOSED. (8.14+3.43=11.57)
 ** A TOTAL OF FOREST AREAS TO BE RETAINED OF 18.90 ACRES IS PROPOSED (30.47-11.57+18.90). 12.96[±] ACRES WERE RETAINED UNDER F-01-07. THIS PLAN PROPOSES RETENTION OF AN ADDITIONAL 5.94[±] ACRES OF FOREST.
 *** 3.43[±] ACRES OF ADDITIONAL FOREST CLEARING ASSOCIATED WITH THE QUARRY RECLAMATION GENERATES AN ADDITIONAL 0.86 ACRES OF REFORESTATION REQUIREMENT FOR A TOTAL OF 9.04 ACRES OF REFORESTATION (8.18+0.86+9.04). THIS REFORESTATION REQUIREMENT IS REDUCED BY 3.54 ACRES BY THE FOREST RETENTION CREDIT FROM EMERSON I (F-01-14C) FOR A TOTAL OF REFORESTATION REQUIRED OF 5.50 ACRES (9.04-3.54=5.50).



INDEX MAP
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 5/3/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION G DATE

[Signature] 5/3/02
CHIEF, DIVISION OF LAND DEVELOPMENT #8 DATE

Date	No.	Revision Description

STONE LAKE PHASE 2

OWNER/ DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Daft McCune Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax: 296 4705

SUBDIVISION NAME	SECTION AREA	LOT/PARCEL #
STONE LAKE	P/O P. 837, P. 3, P. 462	

PLAT OR LOT	BLOCK #	ZONE	TAXING MAP	ELECT. DISTRICT	CENSUS TRACT
		RED	47	6 TH	

WATER CODE _____ SEWER CODE _____

TITLE: **FINAL FOREST CONSERVATION PLAN**

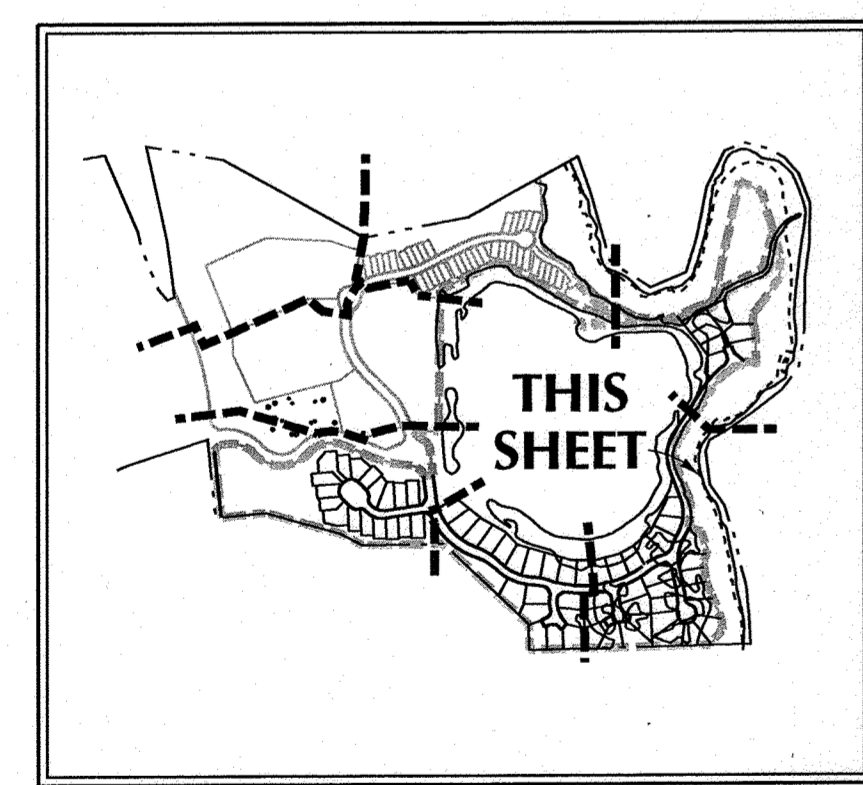
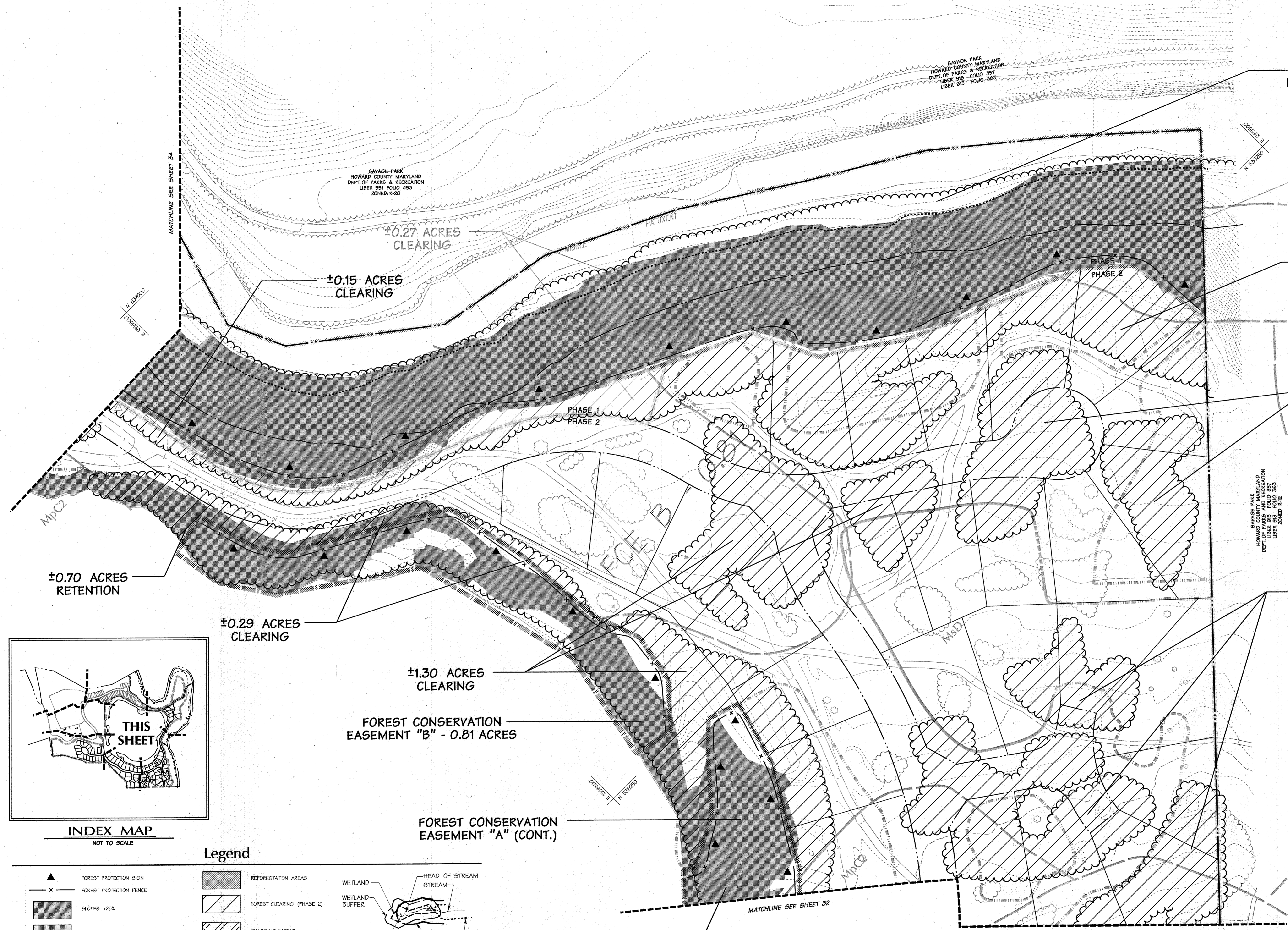
Drn By:	Scale:	Proj. No.
BKC	1"=50'	95054.E2

Des By:	Date:
HRD	4-17-02

Chk By: _____ Approved: _____

Landscape Architect

32 of 43



INDEX MAP
NOT TO SCALE

Legend

- ▲ FOREST PROTECTION SIGN
- x - FOREST PROTECTION FENCE
- ▒ SLOPES >25%
- ▒ SLOPES 15%-25%
- ||||| LIMIT OF DISTURBANCE
- ▒▒▒▒ FOREST CONSERVATION EASEMENT (PHASE 2)
- ▒▒▒▒ FUTURE REFORESTATION AREA
- ▒▒▒▒ FOREST CONSERVATION EASEMENT (PHASE 1)
- ▒▒▒▒ PHASE LIMIT
- ~ SCRUBSHRUBHEDGEROW OR TREE GROUP
- ▒ REFORESTATION AREAS
- ▒ FOREST CLEARING (PHASE 2)
- ▒ QUARRY CLEARING
- ▒ FOREST CLEARING (PHASE 1)
- SPECIMEN TREE
- ~ FOREST EDGE
- WETLAND
- WETLAND BUFFER
- WETLAND SYMBOL
- ▲ HEAD OF STREAM
- ▲ STREAM
- ▲ STREAM BUFFER
- ▲ 100 YEAR FLOOD PLAIN

±1.37 ACRES
EXISTING FLOODPLAIN

FOREST CONSERVATION
EASEMENT #1 (PHASE 1)

±2.83 ACRES
RETENTION

±1.08 ACRES
CLEARING

±0.76 ACRES
CLEARING

±1.23 ACRES
CLEARING

±0.15 ACRES
CLEARING

±0.27 ACRES
CLEARING

±0.70 ACRES
RETENTION

±0.29 ACRES
CLEARING

±1.30 ACRES
CLEARING

FOREST CONSERVATION
EASEMENT "B" - 0.81 ACRES

FOREST CONSERVATION
EASEMENT "A" (CONT.)

±0.39 ACRES
RETENTION

4.18.02
Date

Landscape Architect

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 5/3/02 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 5/4/02 DATE

Date	No.	Revision Description

STONE LAKE
PHASE 2

OWNER/DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Datt - McCune - Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

200 East Pennsylvania Avenue
Towson, Maryland 21286
410 286 3333
Fax 286 4705

SUBDIVISION NAME	SECTION AREA	LOT/FACILITY
STONE LAKE		P.O. P. 837, P. 3, P. 462
PLAT # OR L.A. BLOCK #	ZONE	TAXATION MAP
	RED 47	ELECT. DISTRICT
		6 TH
WATER CODE	SEWER CODE	

TITLE

FINAL FOREST CONSERVATION PLAN

Des By:	BKC	Scale:	1"=50'	Proj. No.:	95054.E2
Des By:	HRD	Date:	4-17-02		
Chk By:		Approved:			33 of 43

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 915 FOLIO 363
ZONED: R-20

SAVAGE PARK
HOWARD COUNTY MARYLAND
DEPT. OF PARKS & RECREATION
LIBER 961 FOLIO 465
ZONED: R-20

±1.02 ACRES
EX. SAN. SEW. EASEMENT
±0.33 ACRES OUTSIDE FLOODPLAIN
±0.69 ACRES INSIDE FLOODPLAIN

FOREST CONSERVATION
EASEMENT #2 (PHASE 1)

±4.93 ACRES
EXISTING FLOODPLAIN

FOREST CONSERVATION
EASEMENT #1
(CONT.)
±3.15 ACRES
RETENTION

FOREST CONSERVATION
EASEMENT "E" - 2.25 ACRES
±2.25 ACRES
RETENTION

FOREST CONSERVATION
EASEMENT "D" - 1.08 ACRES
±1.08 ACRES
RETENTION

±0.16 ACRES
CLEARING

±1.76 ACRES
CLEARING

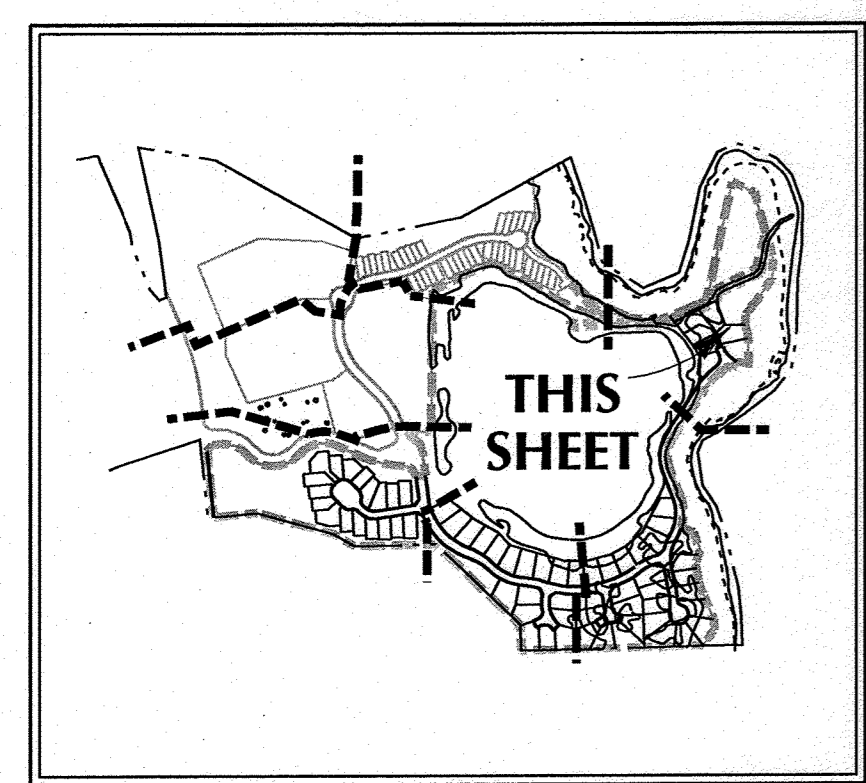
±0.25 ACRES
CLEARING

FOREST CONSERVATION
EASEMENT #3 (PHASE 1)
±3.98 ACRES
RETENTION

±0.11 ACRES
CLEARING

±0.62 ACRES
QUARRY CLEARING

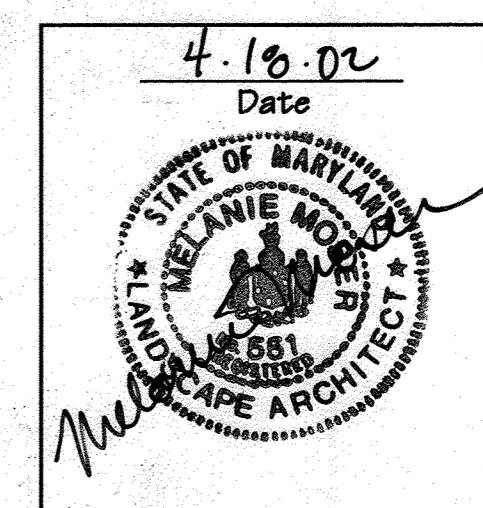
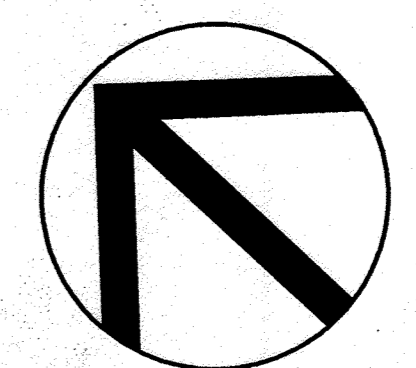
±0.33 ACRES
CLEARING



INDEX MAP
NOT TO SCALE

Legend

- ▲ FOREST PROTECTION SIGN
- x — FOREST PROTECTION FENCE
- ||||| LIMIT OF DISTURBANCE
- ▨ FOREST CONSERVATION EASEMENT (PHASE 2)
- ▨ FUTURE REFORESTATION AREA
- ▨ FOREST CONSERVATION EASEMENT (PHASE 1)
- ▨ PHASE LIMIT
- ☁ FOREST EDGE
- ☁ SCRUBSHRUBBEDGERON OR TREE GROUP
- ☁ SPECIMEN TREE
- ▨ SLOPES >25%
- ▨ SLOPES 15%-25%
- ▨ FOREST CLEARING (PHASE 2)
- ▨ QUARRY CLEARING
- ▨ FOREST CLEARING (PHASE 1)
- ▨ REFORESTATION AREAS
- WETLAND
- WETLAND BUFFER
- WETLAND SYMBOL
- HEAD OF STREAM
- STREAM
- STREAM BUFFER
- 100 YEAR FLOOD PLAIN



APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION *5/15/02*
5/15/02 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *5/15/02*
5/15/02 DATE

Date	No.	Revision Description

STONE LAKE PHASE 2

OWNER/DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Dart - McCune - Walker, Inc.
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

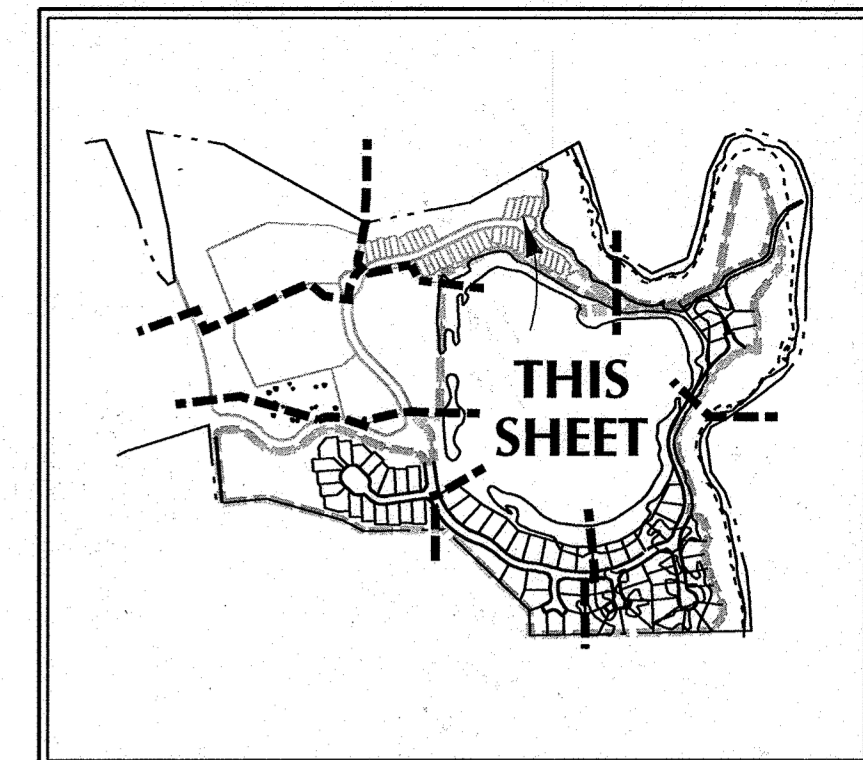
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax 296 4705

LOT/FACILITY: P.O. 237, P. 3, P. 462
SECTION AREA: STONE LAKE
PLAT/BLK: 47
ZONE: RED
WATER CODE: 6 TH
SEWER CODE: _____

TITLE: **FINAL FOREST CONSERVATION PLAN**

Dwn By: BKC Scale: 1"=50' Proj. No. 95054.E2
Des By: HRD Date: 4-17-02
Chk By: _____ Approved: _____

Landscape Architect



INDEX MAP
NOT TO SCALE

FOREST CONSERVATION
EASEMENT #3 (CONT.)
±3.00 ACRES RETENTION

4.16.02
Date

Melanie Moore
Landscape Architect

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION *MD* 5/3/02
CHIEF, DIVISION OF LAND DEVELOPMENT *MB* 5/3/02

Date	No.	Revision Description

STONE LAKE
PHASE 2

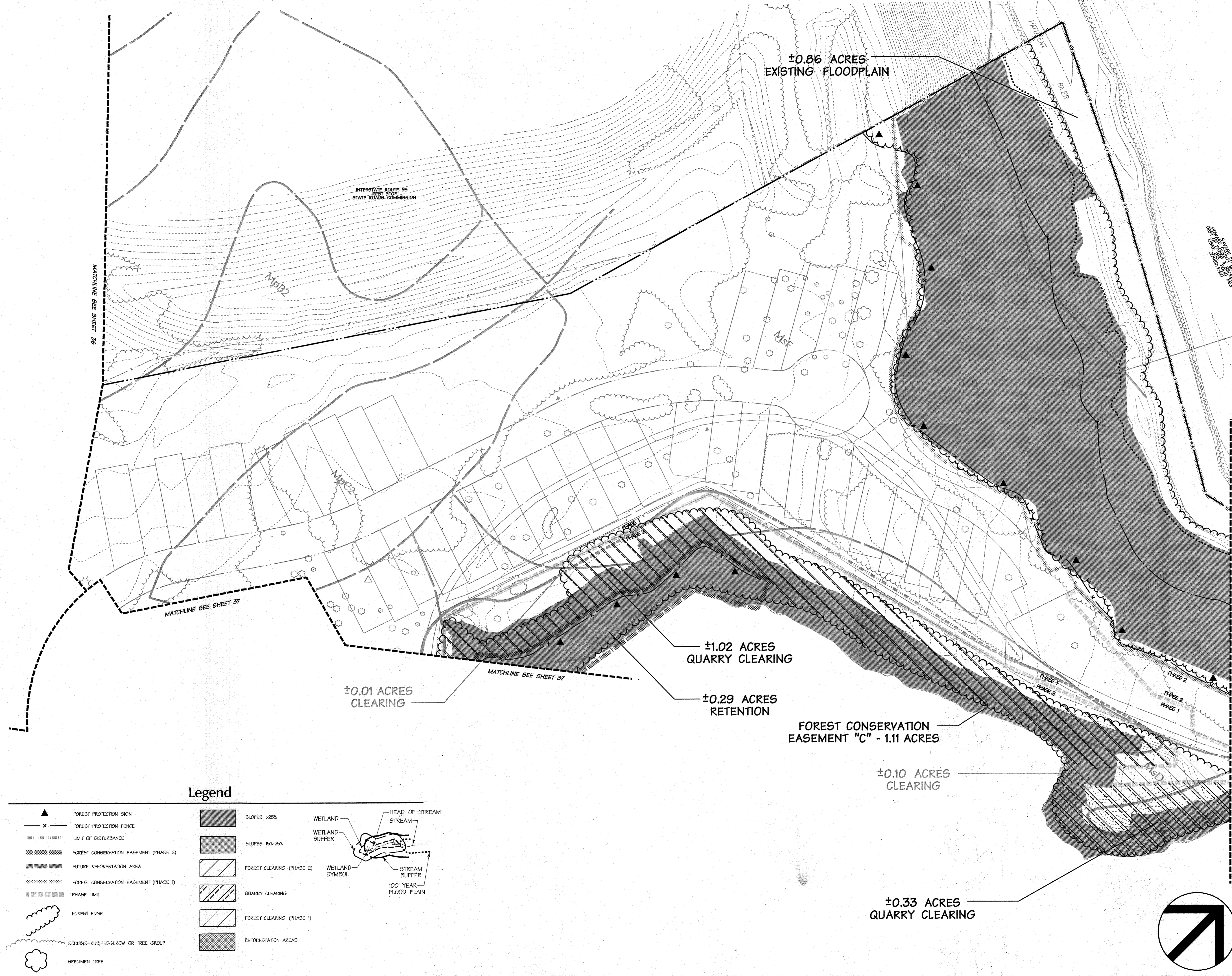
OWNER/ DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DMW
Daft McCune Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax: 296 4705

SUBDIVISION NAME: STONE LAKE	SECTION AREA: PLO P. 237, P. 3, P. 4-62	LOT/PARCEL #
PLAT OR LOT: BLOCK #	ZONE: RED	TAXZONE MAP: 47
WATER CODE:	REVENUE CODE:	ELECTRIFIED: 6 TH
		GENERAL TRACT:

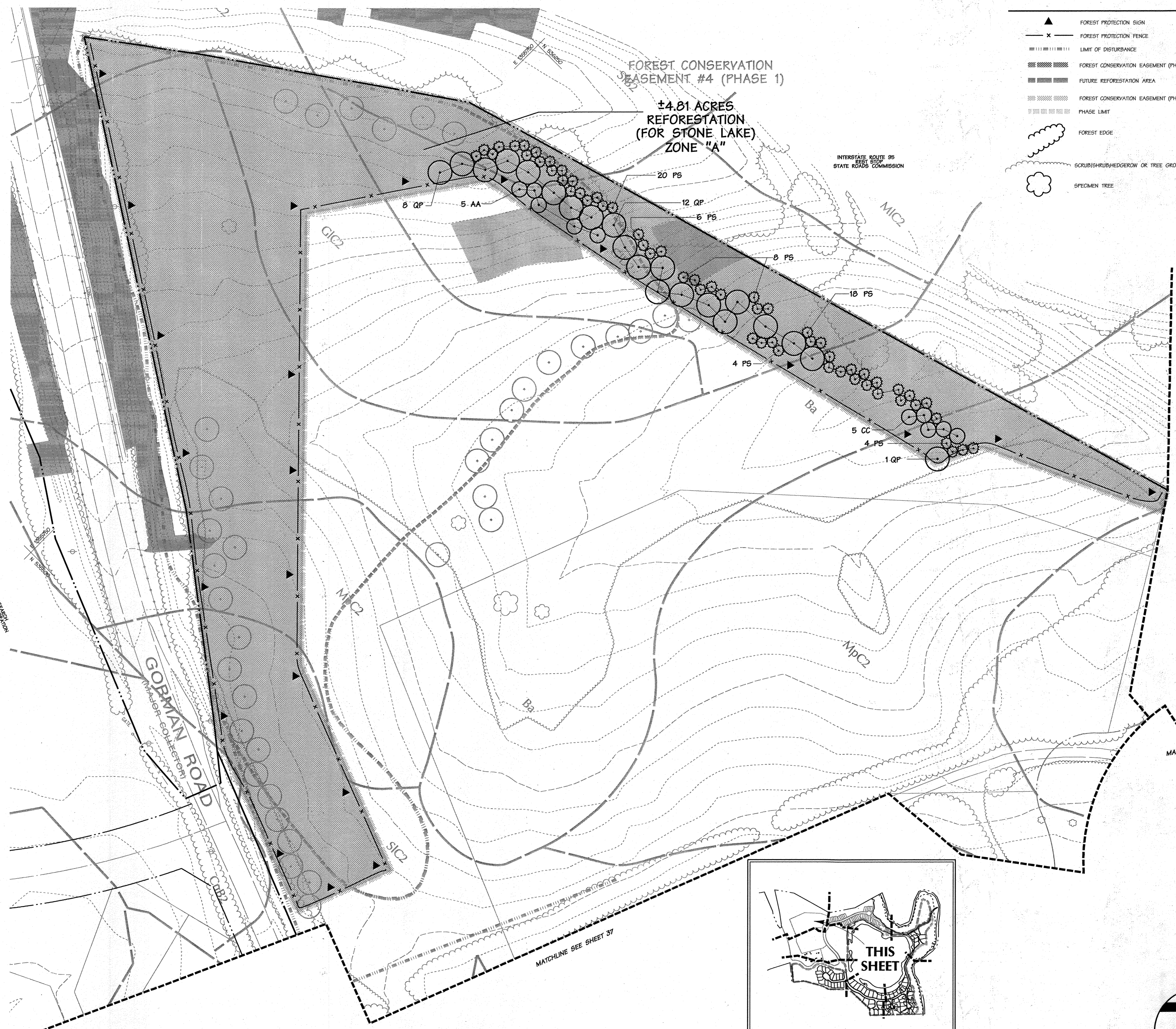
TITLE
FINAL FOREST CONSERVATION PLAN

Drn By: BKC	Scale: 1"=50'	Proj. No. 95054.E2
Des By: HRD	Date: 4-17-02	
Chk By:	Approved:	35 of 43



Legend

- | | | | |
|--|---------------------------------------|-----------------------|----------------------|
| ▲ FOREST PROTECTION SIGN | ■ SLOPES >25% | WETLAND | HEAD OF STREAM |
| — X — FOREST PROTECTION FENCE | ■ SLOPES 15%-25% | WETLAND BUFFER | STREAM |
| LIMIT OF DISTURBANCE | ▨ FOREST CLEARING (PHASE 2) | WETLAND SYMBOL | STREAM BUFFER |
| ▨ FOREST CONSERVATION EASEMENT (PHASE 2) | ▨ QUARRY CLEARING | — STREAM BUFFER | 100 YEAR FLOOD PLAIN |
| ▨ FUTURE REFORESTATION AREA | ▨ FOREST CLEARING (PHASE 1) | ▨ REFORESTATION AREAS | |
| ▨ FOREST CONSERVATION EASEMENT (PHASE 1) | ▨ PHASE LIMIT | | |
| ▨ FOREST EDGE | ☁ SCRUBSHRUBS/HERDGRASS OR TREE GROUP | | |
| ☁ SPECIMEN TREE | | | |



FOREST CONSERVATION EASEMENT #4 (PHASE 1)

±4.81 ACRES REFORESTATION (FOR STONE LAKE) ZONE "A"

Legend

- ▲ FOREST PROTECTION SIGN
- x- FOREST PROTECTION FENCE
- ||||| LIMIT OF DISTURBANCE
- ▨▨▨▨▨▨ FOREST CONSERVATION EASEMENT (PHASE 2)
- ▨▨▨▨▨▨ FUTURE REFORESTATION AREA
- ▨▨▨▨▨▨ FOREST CONSERVATION EASEMENT (PHASE 1)
- ▨▨▨▨▨▨ PHASE LIMIT
- ☁ FOREST EDGE
- ☁ SCRUB/SHRUB/HEDGEROW OR TREE GROUP
- ☁ SPECIMEN TREE
- ▨ SLOPES >25%
- ▨ SLOPES 15%-25%
- ▨ FOREST CLEARING (PHASE 2)
- ▨ QUARRY CLEARING
- ▨ FOREST CLEARING (PHASE 1)
- ▨ REFORESTATION AREAS
- PERIMETER LANDSCAPE TREE (REFER TO GLW LANDSCAPE PLAN) (20% CREDIT TOWARDS REFORESTATION)
- ACOUSTICAL MOUND PLANTING (100% CREDIT TOWARDS REFORESTATION)
- WETLAND
- WETLAND BUFFER
- WETLAND SYMBOL
- HEAD OF STREAM
- STREAM
- STREAM BUFFER
- 100 YEAR FLOOD PLAIN

ZONE "A" LARGE CALIPER PLANT LIST*

QTY	SYM	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
LARGE TREES				
21	QP	QUERCUS PALUSTRIS PIN OAK	2 1/2" - 3" CAL. 10-12' HT.	B & B**
UNDERSTORY TREES				
5	AA	AMELANCHIER ARBOREA SHADBUSH	8'-10" HT.	B & B**
5	CC	CERCIS CANADENSIS EASTERN REDBUD	8'-10" HT.	B & B**
EVERGREEN TREES				
60	PS	PINUS STROBUS EASTERN WHITE PINE	6'-8" HT.	B & B** NATURAL

* REFER TO SHEET 46 OF 46 FOR 1" CALIPER PLANT LIST
 ** REFER TO LANDSCAPE PLANTING PLAN BY GUTSCHICK, LITTLE & WEBER FOR LARGE CALIPER TREE PLANTING SPECIFICATIONS AND DETAILS

4-19-02
Date

Melanie Rose
Landscape Architect

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *[Signature]* 5/3/02
 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* 5/1/02
 DATE

Date	No.	Revision Description

STONE LAKE PHASE 2

OWNER/DEVELOPER:
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 10275 Little Patuxent Parkway
 Columbia, Maryland 21044

DMW
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200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 286 3333
 Fax 286 4705

SUBDIVISION NAME STONE LAKE	SECTION AREA PLOT # RED 47	LOT/PARCEL # P/O P. 837, P. 3, P. 462
WATER CODE	SEWER CODE	BASE ELEVATION 6 TH

TITLE
FINAL FOREST CONSERVATION PLAN

Des By: BKC	Scale: 1"=50'	Proj. No. 95054.E2
Des By: HRD	Date: 4-17-02	36 of 43
Chk By:	Approved:	

